

# **Fire Prevention Plan**

Prepared on Behalf of:

**One Waste Clearance Ltd**

Site Name:

**Unit 2, 1-11**

**Willow Lane**

**Mitcham**

**CR4 4NA**

**Environmental Permit Reference:**

**WE1046AA/A001**

## DOCUMENT CONTROL SHEET

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## **1 Introduction**

- 1.1.1 This Fire Prevention Plan explains how operational procedures laid out in this Fire Prevention Plan ensures that the risk of fire is minimised, and any outbreaks are effectively controlled.
- 1.1.2 This document is separate to any documentation intended to meet the Health & Safety obligations associated with the Regulatory Reform (Fire Safety) Order 2005.

## **1.2 Interpretation**

- 1.2.1 'Responsible Person' refers to any person trained and responsible for monitoring and reporting as detailed in this Plan i.e., Senior Management (Director, Technically Competent Manager, the Site Manager, and any Supervisors).
- 1.2.2 'Fire Warden', relates to any person appointed & sufficiently trained with specific responsibilities in the event of a fire.
- 1.2.3 'Operative', relates general yard staff.

## **2 Fire Prevention Plan**

- 2.1.1 This Plan has been prepared with reference to the following documents:
- Fire Prevention Plans: Environmental Permits Published January 2021 Environment Agency Guidance.

## **3 Fire Risk Scoping Exercise**

- 3.1.1 The controls and measures are aimed at reducing:
- 1) Minimising the likelihood of a fire happening;
  - 2) Aiming for a fire to be extinguished within 4 hours;
  - 3) Minimise the spread of a fire within the site and to neighbouring sites.
- 3.1.2 The Risk Assessment presented in Section 4 Table 1 underpins the measures adopted.

## 4 Fire Risk Assessment

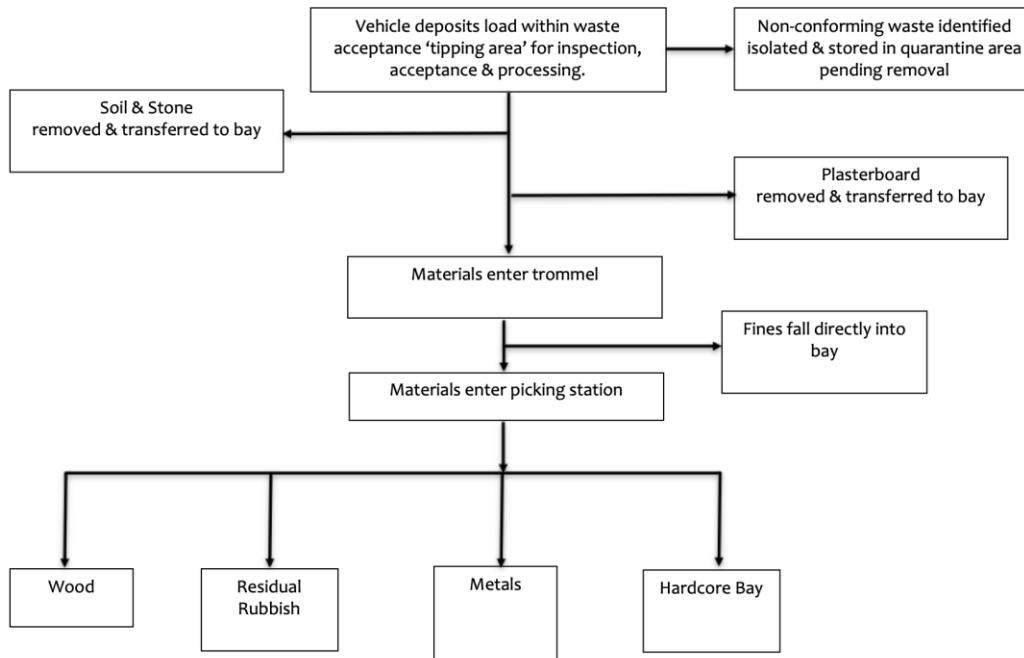
Table 1: Possible Causes of Fires as identified within the Fire Prevention Plan Guidance 2018

Potential Source of Ignition	Prevention/Management
Arson;	Enclosed site perimeter Security cameras (24-hour operation) & automated detection system (main building)
Self combustion	The site does not intend to accept fine materials such as tyre crumb or wood chip, which can both be prone to spontaneous combustion.
Plant or equipment failure	Daily inspection of all equipment/machinery by operatives, conducted at the beginning of the working day. Full annual inspection of all equipment/service contracts (LOLER/PUWER). End of Day Procedures
Plant or equipment operation	Inspection procedures as detailed above. Reliance will be placed on Fire Fighting Equipment and the planned preventative maintenance schedule as detailed.
Electrical faults or damaged/ exposed electrical cables	Preventative maintenance via weekly inspections of all electrical equipment to ensure that any obvious signs of damage or deterioration do not go undetected. A qualified electrician will install all electrical supplies & PAT testing is completed annually.
Naked (hot) light fixtures	No naked sources of ignition are within 6 metres of combustible or flammable materials.
Discarded smoking materials	No smoking in permitted area.
Hot works e.g., welding, cutting	Hot works are conducted with a permit to work system in place. Only trained operatives are authorised to conduct operations involving hot cutting equipment. Activities will not take place with 6 metres of any risk materials. End of Day Procedures.
Industrial heaters	No industrial heaters onsite.
Hot exhausts	Equipment is parked at a safe distance of at least 1 metre from accumulation of risk materials. End of Day Procedures.
Open burning onsite	No open burning takes place onsite.
Incompatible materials	All materials are stored within designated areas. Detailed waste acceptance procedures are followed by all Operatives
Neighbouring site activities	Adjacent sites are commercial and industrial in nature and are not deemed sensitive.
Hot loads deposited at the site	Hot loads are not accepted. Monitoring for hot loads takes place as loads arrive at site with procedures to manage materials. Separation, isolation & storage of combustible materials within identified storage bays or containers.
Weather, e.g., lightning strikes	Naturally occurring and uncontrollable.

## 4.1 Operational Flow Diagram (Combustible Materials).

4.1.1 The operation is summarised in the Operational Flow Diagram below:

Figure 1: Operational Flow Diagram



## 5 Preventing Fires

- 5.1.1 One Waste Clearance Ltd operates a household, commercial and industrial waste transfer station (SR2015 No6) at their site on Willow Lane. The site receives around 50-150 skips per week. Wastes delivered onto site are primarily skips hired out to businesses, construction sites and households. When a skip is reported as full, it is normally collected within 48 hours. All drivers are instructed to inspect loads prior to collection to ensure any potential sources of ignition are not present and will adhere to strict waste acceptance procedures that form part of the site Environmental Management System (as detailed in [Appendix FPP7](#)).
- 5.1.2 Materials will be unloaded in designated 'tipping areas' and inspected for the presence of any fire risks (e.g., glowing embers or explosive materials or signs of flammable liquids), which will be moved to the quarantine area and extinguished.
- 5.1.3 Extinguished material will be monitored prior to isolation in a designated skip/container, which will be brought forward as necessary & removed within seven working days.
- 5.1.4 Acceptable materials are stored in areas/containers/skips/bays around the facility dependant on type & composition, as shown on the Site Layout Plan within [Appendix FPP2](#). Combustible materials will be removed from site within one month of acceptance.
- 5.1.5 Materials stored in the tipping area (Reference 14/18 on the Site Layout Plan as in [Appendix FPP2](#)) pending inspection will be constantly monitored & worked (as necessary) to prevent the build up of heat.
- 5.1.6 A Fire Quarantine Area of at least 49m<sup>2</sup> (7m x 7m) plus a 6m buffer zone is available at all times. The area will accommodate over 50% of the single largest accumulation of combustible waste, equating to 196m<sup>3</sup> of waste (stacked to a height of 4 metres). The fire quarantine area is located on an impermeable concrete surface as shown on the Site Layout Plan in [Appendix FPP2](#).
- 5.1.7 The Responsible Person will ensure that a suitable fire quarantine area is available at all times and will conduct a visual check at the commencement of daily operations and throughout the day (fire watch). All staff members will be made aware that an area is to be kept clear for this purpose & its importance.
- 5.1.8 Potentially explosive & flammable fuels/oils (non-waste materials fuels & lubricating oils/grease) are stored over 6 metres away from stockpiles of combustible waste.
- 5.1.9 Gas bottles (pressurised canisters) if identified within incoming loads or emptied following use will be isolated and stored within a designated lockable cage in accordance with relevant guidance (location as shown on the Site Layout Plan [Appendix FPP2](#)).
- 5.1.10 Smoking is not permitted within the permitted area.

- 5.1.11 Only Competent Persons that have completed training will be authorised to perform 'hot work' activities, which are approved by Responsible Persons onsite. A Permit to work system is in place for all hot work activities. If necessary two operatives will complete 'hot work' activities, which will allow one person to complete necessary works & the other to supervise and tackle any sparks generated (this may include a member of the site office watching via CCTV). Fire extinguishers will be kept at hand all times 'hot works' are undertaken. All hot work activities will be undertaken at least 6 metres from any accumulation of combustible materials.
- 5.1.12 Materials will be stored in their largest form & pile sizes will be minimised wherever possible, according to operational need.
- 5.1.13 Fire Watch Procedure (During Working Day) Conducted by Operatives every hour:
1. That all mobile plant is parked at a distance from any combustible material (minimum 1 metres) and that there is no trapped debris located within the vicinity of exhausts.
  2. That no material is trapped within static plant.
  3. That no debris has settled onto hot exhausts and engine parts.
  4. That a suitable fire quarantine area is available at all times.
- 5.1.14 A fire watch will be conducted at the end of the working day as part of the site End of Day Procedures, as detailed at [Section 10](#). In the event of hot work activities being conducted an inspection of the area/material will be conducted every 15 minutes for at least 1-2 hours.
- 5.1.15 Plant & equipment is subject to manufacturers maintenance. Driver inspection/defect sheets are completed prior to use. Defects are reported to fleet & logged for our contractors to address & repair, once completed the jobs are signed off by Fleet on completion. Records for each plant item contained with Fleet.
- 5.1.16 Maintenance requirements are recorded in the Site Diary. All records will be kept within the Site Office and any necessary maintenance recorded on the appropriate documentation & logged. All faulty equipment will be isolated pending repair.
- 5.1.17 Operatives inspect all machinery/equipment on a daily basis to ensure the equipment is in an efficient state. In the event of a leakage or spillage site staff will be alert to any such leakages or trails that might develop during the day and in the event that such is detected the site leakages/spillage response procedures presented in [Appendix FPP1](#) will be actioned.
- 5.1.18 In the event of a fault with equipment that may pose a risk of fire being discovered the following procedure will be followed: -
1. Switch off the equipment immediately if safe to do so
  2. Isolate the equipment; and

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3. Report the fault to a Responsible Person. A Responsible Person will inspect the equipment, records the fault in the Defect Sheets & will contact the internal engineers to complete necessary repairs. A replacement may be ordered, if necessary, to cover interim downtime. A sign will be clearly displayed stating that the equipment is not in use.
- 5.1.19 Fire extinguishers are strategically located throughout the site. All static plant, mobile plant & vehicles will have fire extinguishers installed. A Responsible Person inspects all extinguishers on a weekly basis, and they are serviced annually & discharged as required. Spent extinguishers are replaced as soon as identified.
- 5.1.20 Electrical equipment is inspected by a Responsible Person on a weekly basis and detailed in the Site Diary if any defects (loose cables, deterioration, or wear) are identified. Only a qualified electrician will be instructed to assess & complete necessary repairs.
- 5.1.21 All Portable Electrical Equipment is inspected annually (PAT Testing).
- 5.1.22 Responsible Persons (Directors) will be alerted via a telephone alarm alert, which would be triggered by visible flames that will activate the alarm and suppression system (deluge system and misting system). Furthermore, Responsible Persons are able to monitor the site via the CCTV cameras remotely at anytime to conduct random checks or to see the extent of any incident.
- 5.1.23 Operatives conduct routine housekeeping activities (i.e., cleaning & tidying) as necessary and as a minimum on a weekly basis (including all treatment equipment/electrical areas i.e., the electrical cupboard or power supply areas if the Responsible Person deems it necessary during the course of weekly inspections). Cleaning/tidying will include but not limited to pressuring washing/sweeping.

## 5.2 Self-Combustion

- 5.2.1 Certain materials can self-combust under certain conditions as a result of: -
1. A physical reaction such as fine materials with large surface areas prone to friction; and/or
  2. A biological reaction through degradation processes; and/or
  3. A chemical reaction if coming into contact with corrosive substance such as strong acids and bases.
- 5.2.2 Self-combustion is most possible during hot conditions or where waste is left to stagnate for extended periods or items exist within the waste that cause combustion over a period of time. The likelihood of self-combustion occurring has been assessed as low, as the waste is rotated on a first in first out basis precipitated by frequent emptying of the storage areas/containers/bays. During extreme hot weather water hoses will be deployed to dampen down accumulations of materials to reduce the likelihood of hot spots forming as deemed necessary by a Responsible Person.
- 5.2.3 Material Management & Mitigation Measure Procedures: -
1. Operatives throughout the working day will monitor each bay/ container holding combustible materials. If the monitoring indicates any evidence of a 'hot spot' forming (such as visible steam, discolouring or odour i.e., indicating degradation) a Responsible Person will be notified, and Condition 1 of Table 2 will be implemented immediately.

## 6 Detecting & Suppressing Fires

- 6.1.1 All staff members undergo fire training as part of their induction with refreshers as required (every three years for Fire Warden's for example). Staff members will be trained on the contents of this Fire Prevention Plan, which is accessible at all times for them to refer to if needed.
- 6.1.2 Staff awareness is maintained by regular 'Toolbox Talks' that form part of a programme of appropriate regular refresher training.
- 6.1.3 All fire-fighting equipment is checked/inspected monthly and recorded in the Fire Safety Logbook.
- 6.1.4 All fire drills are recorded on the sites Fire Safety Logbook in accordance with the applicable legislation.
- 6.1.5 Fire Drill Procedure:
1. A fire drill is carried out annually to confirm that the facilities, procedures and this FPP are effective and that everyone understands what they should do in the event of a fire, and how to evacuate the site.
  2. Records must be kept regarding each drill. Special attention should be given if the drill was slow or incomplete
  3. All fire points should be checked once a year
- 6.1.6 All training records are kept in the Offices.
- 6.1.7 Reliance will be placed on the automated detection system, which will activate in the event that a flame is detected (generating an alarm and activating the suppression equipment), with support of the CCTV monitoring system. Operatives can draw attention to the situation via walkie-talkies and vehicle/plant horns. Furthermore, the misting suppression system can be activated via remote control that will be held on the site Manager/Supervisor during the working day for rapid activation in the event of a fire.
- 6.1.8 Reliance will be placed on the below provisions as detailed in [Paragraph 6.1.9](#) to combat and extinguish a fire.
- 6.1.9 Equipment available to tackle a fire:
1. Portable AFFF fire extinguishers located as shown on the Site Layout Plan in [Appendix FPP2](#).
  2. Misting Suppression System supplied by mains water and connected to the water storage tank, located as shown on the Site Layout Plan in [Appendix FPP2](#).
  3. Fire Suppression System supplied by mains water and connected to the water storage tank, located as shown on the Site Layout Plan in [Appendix FPP3](#).
  4. Swing Reel Hoses supplied by mains water and connected to the water storage tank, located as shown on the Site Layout Plan in [Appendix FPP2](#).
  5. Fire hydrant located as shown on the Hydrant Map in [Appendix FPP5](#).

## **6.2 Detection Out of Hours**

- 6.2.1 The site benefits from an automated detection system that will be automatically activated via the detection of a flame, which will sound an alarm and activate the suppression equipment. On activation the Fire & Rescue Service will be alerted immediately to attend the site as well as Key Holders who will be alerted via a telephone alarm alert on activation of the alarms.
- 6.2.2 Furthermore, Responsible Persons are able to monitor the site via the CCTV cameras remotely at anytime to conduct random checks or to see the extent of any incident.
- 6.2.3 Location of the CCTV Cameras is shown on the Site Layout Plan (Appendix FPP2).

## 6.3 Fire Conditions

Table 2: Fire Fighting Conditions

Alert Condition	Characteristics	Action	Preparation
Condition 1	Materials Smoking	Operatives will turn the material stockpiles utilising mechanical equipment to enable any trapped heat to be released.	Fire extinguishers ready for deployment. Be prepared to initiate fire procedures (Section 13).  Responsible Person to be notified if not already present.
Condition 2	Visible Flame	Raise the site fire alarm immediately & initiate Fire Procedures detailed at <a href="#">Sections 13</a>  If safe to do so tackle the blaze utilising onsite fire-fighting provisions including: - <ul style="list-style-type: none"> <li>• Fire Extinguishers Deploy on small scale fires</li> <li>• Swing Reel Hoses (x2) capable of covering an area of 30 metres each. Ensuring coverage of the high-risk areas.</li> <li>• Misting Suppression System</li> <li>• Fire Suppression System</li> <li>• Fire Hydrant</li> <li>• Alert FRS</li> </ul>	Prepare the fire quarantine area and water provisions for deployment.
Condition 3	Full Fire Established	Remove materials ablaze to the quarantine area or drag containers and deposit them in the fire quarantine area if safe to do so, so extinguishing/suppressing/tackling can take place, location shown on the Site Layout Plan in <a href="#">Appendix FPP2</a> .  On arrival of the FRS the appointed Fire Warden will transfer control of the incident over to the Incident Commander who will direct site operatives accordingly.	Prepare for the arrival of the FRS and follow all instructions.

6.3.1 These provisions aim as far as reasonability possible to ensure that if a fire were to break out it would be extinguished within 4 hours.

6.3.2 The internal site layout is such that FRS can access all areas of the site at all times and HGVs are able to enter and turn around without obstruction. It is therefore, considered that there is suitable access for fire tenders to manoeuvre freely around the site should a fire break out.

## 7 Fire Prevention Equipment Inventory and Procedure

Table 3: Fire Equipment Inventory

Material	Procedure	Trained User	Location
Personal Protection Equipment	Full range of PPE readily available for use.	All staff are issued with PPE.	Provisions are contained within the Site Office.
Fire Extinguishers	Fire Extinguishers are used in the event of fires.	All staff are trained on how, when & what types of Fire Extinguishers should be used in the event of a fire depending on the composition of the material ablaze.	At locations throughout the site- as shown on the Site Layout Plan ( <a href="#">Appendix FPP2</a> ).
Misting Suppression System	Misting Suppression System used in the event of a fire.	Staff are trained on how and when to activate the misting suppression system.	At locations throughout the site- as shown on the Site Layout Plan ( <a href="#">Appendix FPP2</a> ).
Fire Suppression System	Fire Suppression System used in the event of a fire.	Staff are trained on how and when to activate the fire suppression system.	At locations as shown on the Fire Suppression System ( <a href="#">Appendix FPP3</a> ).
Fire Water Hoses	Hoses used in the event of a fire.	Staff are trained on how and when to use the hoses.	At locations throughout the site- as shown on the Site Layout Plan ( <a href="#">Appendix FPP2</a> ).
Fire Hydrant	Hydrant used in the event of a fire.	Fire & Rescue Service.	Location as shown on the Hydrant Map ( <a href="#">Appendix FPP3</a> ).

## 8 Material Storage & Management

- 8.1.1 Combustible materials benefit from a concrete retaining wall positioned around sections of the WTS building (5 metres high and 0.1 metres thick), as detailed Site Layout Plan in Appendix FPP2. Concrete can provide up to 4 hours (240 minutes) fire resistance (radiation & spreading), which meet the A1 class fire resistance standard (DIN EN 13501-1).
- 8.1.2 Concrete is a non-combustible material and has a slow rate of heat transfer that provides shielding from heat and enables natural cooling. It is accepted in the industry that concrete “can be described as virtually fireproof”<sup>1</sup>. The concrete retaining walls will prevent any sparks escaping.
- 8.1.3 Wastes delivered to the site are deposited within the Waste Acceptance Area for inspection/sorting/processing. A minimum separation distance as detailed in Section 9 Table 4 & as shown on the Site Layout Plan in Appendix FPP2 (Reference 6) will be maintained at all times. Separation distances proposed will enable a fire to be tackled without obstruction.
- 8.1.4 Waste associated within the picking station operation include Trommel Fines, Wood, Metals, Plastic, Light Rubbish and Hardcore, which are stored in bays as detailed in Section 9 Table 4 & as shown on the Site Layout Plan in Appendix FPP2 (Reference 7/12/13/14/15/16/17). Each storage bay benefits from a concrete dividing walls 0.1 metres wide, 4.5 metres deep and 5 metres high.
- 8.1.5 Wood, Metals, Trommel Fines and Residual Rubbish are stored in bays as detailed in Section 9 Table 4 & as shown on the Site Layout Plan in Appendix FPP2 (Reference 1/2/3/4/5). Each storage bay benefits from concrete dividing walls 0.1 metres wide, 5.2 metres deep and 5 metres high.
- 8.1.6 The Waste Industry Safety & Health Forum (WISH) guidance Waste 28 Reducing Fire Risk At Waste Management Sites (Issue 2 April 2017), confirms the suitability of steel as a material for use in fire breaks (See page 47). The Chief Fire Officers Association amongst other bodies has endorsed this guidance. A report by the British Constructional Steelwork Association identified 550 Celsius as the limiting temperature for a steel structure with four sides such as a skip container to maintain its stability<sup>2</sup>. The risk associated with steel is melting, which happens at around 1365 Celsius.
- 8.1.7 Container Isolation Procedure
- A. Operatives on identification of a fire within a container will enact procedures as detailed at Table 2.
  - B. Each container will, if safe to do so be moved utilising the excavators (by connecting the grab head to the lip of the container) & dragged to the fire

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<sup>1</sup> [http://www.concretecentre.com/Performance-Sustainability-\(1\)/Fire-Resistance.aspx](http://www.concretecentre.com/Performance-Sustainability-(1)/Fire-Resistance.aspx)

<sup>2</sup> [http://www.tatasteelconstruction.com/file\\_source/StaticFiles/Construction/supplements/Fire\\_Protection\\_Supplement.pdf](http://www.tatasteelconstruction.com/file_source/StaticFiles/Construction/supplements/Fire_Protection_Supplement.pdf)

quarantine area, after which extinguishing (smothering/burying or deployment of water) will be attempted pending FRS arrival.

- 8.1.8 Containment in identified areas or containers (as shown on the Site Layout Plan in [Appendix FPP2](#)) ensures materials are isolated from potential sources of ignition and from environmental elements such as wind (fanning). The storage bays or containers will ensure that materials are well ventilated and able to cool naturally, whilst providing a thermal barrier.
- 8.1.9 During extreme hot weather the misting system or fire hoses will be deployed to dampen down accumulations of combustible wastes to reduce the likelihood of self-combustion, if deemed necessary by a responsible person (i.e., extreme heat wave).
- 8.1.10 At least once every quarter, the storage areas will be inspected for damage and repaired as needed as part of the preventative maintenance regime.
- 8.1.11 The site will turn over materials as quickly as practicably possible, operating a 'first in first out' policy, as detailed in the procedure in [Section 8.1.12](#). Materials will be kept onsite until sufficient quantities have accumulated to constitute an economic onward load, or the maximum storage limits detailed at [Table 4](#) have been reached, i.e., no material will be left within the containers/skips as these will be loaded directly onto HGVs and transported to an authorised receiving site.
- 8.1.12 First In First Out Procedure:
1. Operatives will deposit all 'new' incoming wastes at the front of any accumulation within the waste acceptance area.
  2. Operatives must load all collection vehicles with the oldest materials first (accumulations at rear of bay), therefore materials at the back of the bay will be loaded in the first instance (i.e., a first in first out policy);
  3. Containers once full are removed from site, with no residual materials remaining once they have been removed, which will ensure no older materials are left onsite for a prolonged period of time.
- 8.1.13 A 0.5 metre separation distance will be maintained between different materials stored within containers if deployed. Responsible Persons will ensure the stated freeboard and distance is maintained at all times. The distance between the top of a combustible material stored within the WTS Shed (at 3.9 metres) and the roof of the WTS Shed (12 metres at apex) will be at least 8.1 metres therefore flame bridging into any adjacent storage containers/areas should not occur.



## 9 Combustible Material Storage Arrangements

Table 4: Combustible Materials Storage Arrangements

Reference Point Site Layout Plan Appendix FPP2.	Combustible Material	Storage Arrangements	Width Maximum (metres)	Depth Maximum (metres)	Height Maximum (metres)	Volume Maximum (metres cubed)	Minimum Separation Distance From Other Combustible Waste (metres)	Storage Time Onsite (Working Hours/Days)
1	Residual Rubbish	Stored loose in bay	10	5	4	200	0.1	1 Month
2	Residual Rubbish	Stored loose in bay	10	5	4	200	0.1	1 Month
3	Wood	Stored loose in bay	10	5	4	200	0.1	1 Month
4	Wood	Stored loose in bay	10	5	4	200	0.1	1 Month
5	Trommel Fines	Stored loose in bay	10	5	4	200	0.1	1 Month
6	Waste Acceptance Area	Stored loose in area	10	5	4	200	0.1	1 Month
7	Trommel Fines	Stored loose in bay	6	4	3.9	93.6	6	1 Month
8	Plastics	Stored loose in bay	3	4	3.9	46.8	0.8	1 Month
9	Green Waste	Stored loose in bay	3	4	3.9	46.8	0.8	1 Month
10	Residual Rubbish	Stored loose in bay	10	4	3.9	156	0.8	1 Month
11	Residual Rubbish	Stored loose in bay	10	4	3.9	156	0.8	1 Month
12	Light Rubbish	Stored loose in bay	3	4.5	4	54	0.1	1 Month
13	Wood	Stored loose in bay	3	4.5	4	54	0.1	1 Month
14	Cardboard	Stored loose in bay	3	4.5	4	54	0.1	1 Month

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15	Light Rubbish	Stored loose in bay	3	4.5	4	54	0.1	1 Month
16	Metal	Stored loose in bay	3	4.5	4	54	0.1	1 Month
17	Hardcore	Stored loose in bay	3	4.5	4	54	0.1	1 Month
18	Metals	Stored loose in bay	6	7	3.9	163.8	0.8	1 Month
19	Hardcore	Stored loose in bay	6	7	3.9	163.8	0.8	1 Month
20	Wood	Stored loose in bay	6	7	3.9	163.8	0.8	1 Month
21	Soil & Stone	Stored loose in bay	10	5	4	200	0.1	1 Month
22	Plasterboard	Stored loose in bay	10	5	4	200	0.1	1 Month
23	Hardcore	Stored loose in bay	10	5	4	200	0.1	1 Month
24	Hardcore	Stored loose in bay	10	5	4	200	0.1	1 Month
25	Metals	Stored loose in bay	10	5	4	200	0.8	1 Month
Grand Total:						3,514.6m <sup>3</sup>		

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## 10 End of Day Operations

10.1.1 All operatives conduct an end of day inspection on all mobile equipment once parked to ensure that no trapped debris is located in the vicinity of the exhausts.

10.1.2 A Responsible Person conducts a final end of day inspection prior to closure to ensure: -

1. All mobile plant is parked in the designated parking area over 1 metre away from accumulations of combustible wastes.
2. Whenever possible no material will be left uninspected in any 'tipping area'.
3. No debris has settled onto hot exhausts and engine parts (Fire-watch).
4. Everything is switched off.
5. No visible signs of flames or embers are present
6. The security system is activated.
7. No one remain within the yard after closure

## 11 Fire Water & Containment

11.1.1 As required by the Fire Prevention Plan Guidance, a minimum water supply of at least 2,000 litres/min for a minimum of 3 hours is required for a 300 cubic metres pile of combustible material. This equates to 6.6 l/min (2000/300) per cubic metre of combustible material. At least 237,600 litres of water (6.6 l/min x 200 = 1,320 l/min x 180 minutes) would be required were the complete contents of the single latest accumulation ablaze. Reliance will be placed on the fire fighting provisions as detailed at Table 5 below.

Table 5: Fire Fighting Provisions

Fire Suppression Provisions & Water Delivery Systems	Specification	Cumulative Supply l/mins	Total Volume m3 Available (for up to 180 mins)
<b>Primary Suppression Equipment (Non-water Provisions)</b>			
Fire Extinguishers (Powder AFFF/Co2)	An array of Portable Fire Extinguishers suitable for tackling a range of fires.	-	-
<b>Secondary Suppression Equipment (Water Provisions)</b>			
Misting Suppression System Lines	6.6 l/min (each outlet) connected directly to the water storage tank and mains water supply.	6.6	1,188
Fire Suppression System Nozzles	25 l/min (each outlet) connected directly to the water storage tank and mains water supply.	31.6	5,688
Fire Hose	66 l/min connected directly to the mains water supply.	97.6	17,568
Fire Hose	66 l/min connected directly to the mains water supply.	163.6	29,448
Hydrant	75l/sec delivering 4,500 l/min (approximate).	4,663.6	839,448
<b>Grand Total</b>		4,663.6	839,448
<b>Tertiary Suppression Equipment (Water Provisions)</b>			
Fire Tender	45mm standard jet capable of delivering 220 l/min (approximately 6,000 litres)	220	6,000
<b>Grand Total</b>		220	6,000

## 11.2 Fire Fighting Water

11.2.1 In the event of water being required the following provisions are available:

- Water Storage Tank & Delivery Pump

The site benefits from a dedicated water storage tank containing 25,000 litres of water, which is connected directly to the mains water supply, location as shown on the on the Site Layout Plan within [Appendix FPP2](#). The 90mm Medium Density Polyethylene Pipe (MDPE) will run along the building and up to the riser locations to 3x poly tee piece lever isolations valves. The tank benefits from a pump that will ensure that sufficient water is present and delivered at the required l/min as stated above. In the event of deployment, the fire procedures detailed at [Table 2](#) and in [Section 13](#) will be implemented.

- Fire Suppression Equipment

The site benefits from fire suppression equipment in the form of three deployment areas that cover a radius of 10 metres each via nozzles installed and supported at roof level within the building by attaching to the existing metal joist structures, which are at locations as shown within [Appendix FPP3](#). The fire procedures detailed at [Table 2](#) and in [Section 13](#) will be implemented.

- Misting System

The site benefits from a dust suppression misting system, which are located at roof level at locations as shown within [Appendix FPP2](#). The fire procedures detailed at [Table 2](#) and in [Section 13](#) will be implemented.

- Fire Hoses:

Four fixed pressurised hoses, which are connected directly to the water storage tank and powered via a pumping system. Each hose is capable of delivering 66 l/min, locations as shown on the on the Site Layout Plan within [Appendix FPP2](#). In the event of deployment, the fire procedures detailed at [Table 2](#) and in [Section 13](#) will be implemented. This system should control the spread of a fire in the early stages of development.

- Hydrant:

A hydrant capable of delivering 4,500 l/min is situated to the site as shown on the Hydrant Map within [Appendix FPP3](#).

11.2.2 Once the FRS have arrived onsite & connected to the hydrant the use of onsite water-based fire-fighting provisions will only be deployed on FRS instruction.

11.2.3 Furthermore, a Fire Tender is capable of delivering up to 6,000 litres of water at 220 l/min in a single load (through a 45mm standard jet). While the supply of water on the tender may not be available for the whole 180 minutes, on arrival onsite it will make an important contribution in the early stages of fire fighting prior to hydrant connection.

11.2.4 The provisions detailed at Table 5 are capable of delivering the required 1,320 l/min as per the EA Fire Prevention Plan Guidance.

### 11.3 Firewater Containment

- 11.3.1 Resultant firewater will be contained within the main Waste Transfer Station Building benefiting from concrete retaining walls on three sides and the deployment of sandbags (approximately 0.4m high across the building entrance 10 metres long) will ensure that all firewater run off is contained within the identified section of the permitted area, locations as shown on the Site Layout Plan ([Appendix FPP2](#)).
- 11.3.2 On average a 15kg sandbag is 0.33m wide x 0.77m length x 0.1m high, so 52 sandbags in all would be deployed to build a sandbag wall, (13 sandbags end to end, stacked four high). It is anticipated that it would take 15 minutes to construct the sandbag wall. A supply of at least 52 full and 52 empty sandbags will be kept onsite at all times. Sandbags are stored in an IBC's adjacent to the deployment areas for rapid deployment. The location of sandbags and the deployment line is details on the [Site Layout Plan Appendix FPP2](#).
- 11.3.3 Given the floor area of the site is over 830m<sup>2</sup> and the height of 0.4m, up to 332,000 litres (830 x 0.4 = 332m<sup>3</sup>) of firewater would be retained within the site if required. This does not account for evaporation, which will occur to some degree (25% allowance). Overall, the onsite provisions for firewater containment are more than sufficient to the anticipated 326,165.4 litres of water stated in [Paragraph 11.1.1](#).
- 11.3.4 Sandbags will be available and deployed to contain any firewater run off in the event that firewater is deployed within the subject to this application, which benefits from an impermeable concrete surface and a sealed drainage system.
- 11.3.5 Operatives will be instructed by a Responsible Person (Company Director in the first instance) on when to construct a sandbag wall, which will depend on real time events onsite.

#### Sandbag Monitoring & Replacement Procedures

1. Sandbags will be stacked, covered with a lid, and stored undercover, and a Responsible Person will monitor these bags. If necessary, sandbags will be rotated (i.e., those sandbags at the bottom of the stack will be placed at the top of the stack during the course of the inspection)
2. Sandbags will be replaced as necessary as determined by the ongoing inspections.

## 12 Contingency Planning

Table 6: Contingency Plans

Eventuality	Procedures/Measures
Contingency Planning in the event of a fire	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. The site will cease all operations and will not accept any further waste material (contact appropriate customers/contractors if necessary) until FRS arrives.</li> <li>2. Employees will be advised of the situation.</li> <li>3. Enact fire procedures as detailed within <u>Sections 13</u> of this FPP.</li> <li>4. The site will only reopen once FRS has advised it is safe to do so.</li> <li>5. Fire damaged waste will be processed as appropriate. If this is not possible then it will be stored in the isolation facility and then removed from site.</li> </ol>
Accident	<p><u>Measures may include:-</u></p> <ol style="list-style-type: none"> <li>1. The affected area will be isolated and an appointed 'first aider' will be contacted to attend to any injured party.</li> <li>2. If necessary, the emergency services will be contacted.</li> <li>3. A Responsible Person will decide on a case-by-case basis if cessation of operations around the affected area and reception of waste is necessary until the appropriate emergency services have arrived.</li> <li>4. A Responsible Person will complete an Accident Investigation Report.</li> </ol>
Seasonality (Including Transportation Shortages)	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Confirm current storage times for materials accumulated onsite.</li> <li>2. Contact outlets for the specified stream and arrange transportation.</li> <li>3. Transport all waste accumulated within a designated container, even if it may be economically undesirable to do so, i.e., the container for transportation is not full.</li> <li>4. In the event of no outlet being viable a last resort would be to transport the specified material to a landfill site via a third party haulier to ensure that the storage limit maxima are not exceeded.</li> </ol>
Supply Chain Failure (Including Transportation Shortages)	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Confirm current storage times for materials accumulated onsite.</li> <li>2. Increase monitoring of material stockpiles onsite.</li> <li>3. Contact outlets for the specified stream and arrange transportation.</li> <li>4. If the outlet is not receiving the specified waste stream, contact other outlets.</li> <li>5. Conduct investigations into potential alternative outlets if potential outlets are not accepting specified streams.</li> <li>6. Require cessation of deliveries until further notice and potential transportation to alternative sites.</li> <li>7. Seek advice from EA.</li> </ol>
Breakdowns (Mechanical Equipment)	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Immediate isolation of the affected machinery.</li> <li>2. External contractors notified to complete repairs</li> <li>3. Hire in relief equipment in interim if needed.</li> <li>4. Reschedule material despatch to align with scheduled repairs and or relief machinery availability.</li> </ol>
Site Closure	<p><u>Measures could include:-</u></p> <ol style="list-style-type: none"> <li>1. Appropriate signage will be erected notifying any visitors that operations have been suspended.</li> <li>2. Advise customers of the situation.</li> <li>3. No more wastes will be accepted on to site.</li> <li>4. Contact all potential outlets to ensure that all waste material is managed in accordance with the waste hierarchy where possible.</li> <li>5. Notify EA that customers &amp; receiving outlets have been contacted and provide scheduled dates for material removal.</li> <li>6. Notify EA once stockpiles have been reduced to acceptable level</li> </ol>



## 13 Fire Alert Procedures

### Procedure in Event of Fire on the site

- i. There must be no hesitation in raising the alarm. Any person discovering a fire must immediately operate the fire alarm, or (where an alarm is not provided) shout 'FIRE' to warn others in the vicinity. Fire alarms must not be used for any purpose other than as a signal for fire action or pre-arranged fire drills.
- ii. Everyone must immediately leave the site and proceed directly to the designated assembly area upon hearing the alarm. The mobile plant/machine operators are, if possible, to remove their machines from the fire vicinity at that time; park and turn off their machines at a safe distance from the fire without blocking any Emergency access routes. No one is to return to the affected part of the site until it is confirmed safe to do so by the Responsible Person in charge of the premises.
- iii. The Responsible Person in control of the site must check that FRS has been called and that a delegated member of staff knows where to direct FRS. In addition, the Responsible Person in control must check that occupants of adjacent units have been notified.
- iv. The Responsible Person in control of the site must ensure that the site has been evacuated and in particular: -
  1. Supervise the orderly evacuation of visitors and staff.
  2. Supervise roll calls and collect and collate information, e.g., persons not at the assembly point. Collect information about the fire location and source.
  3. Ensure first aid is given if required.
- v. On arrival FRS will take charge and the Responsible Person must co-operate with the FRS Officers. See Fire Service Act 2004 Sect. 45 for Fire Service Powers of entry.
- vi. Contact neighbouring identified receptors within proximity to the site on identification of a fire & those that are contactable within a 1km radius of the facility as detailed in [Appendix FPP6](#) if instructed to do so by FRS (Major Incident).

## 14 Post-Incident Procedures

1. Clean up contractors will pump out & remove all accumulations of firewater run off from wherever required onsite following samples being taken and the waste correctly characterised.
2. Inspection of all equipment to be conducted prior to reinstating.
3. All burnt material to be removed to an appropriately licenced disposal site.
4. Post incident reports and enquiries.
5. Notify the Environment Agency, Environmental Health, and FRS that the site has been reinstated.
6. Review and update this Fire Prevention Plan in light of incident & provide a copy to any key stakeholders (EA/FRS).

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## **15 Periodic Review**

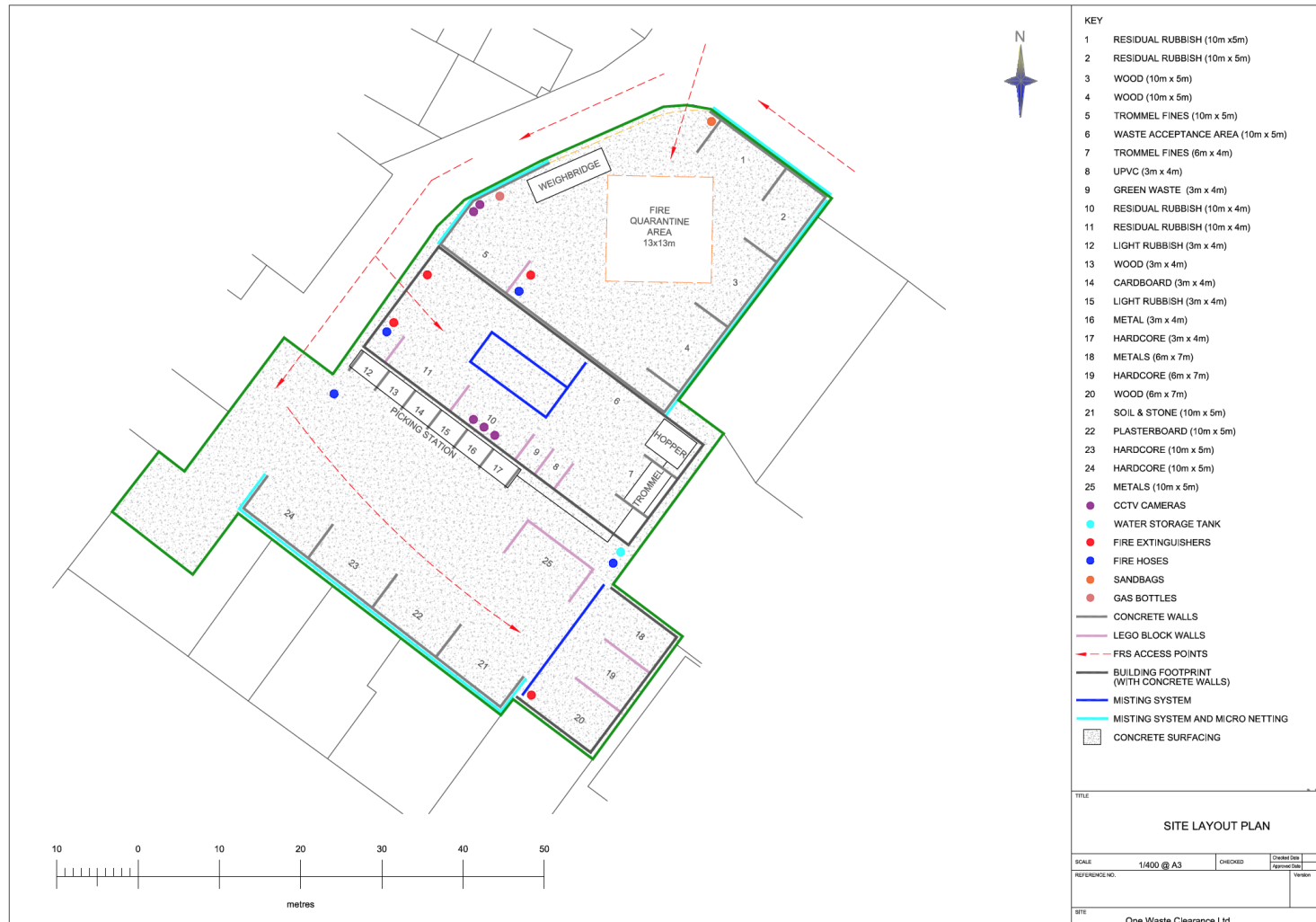
- 15.1.1 The adequacy of this Fire Prevention Plan will be reviewed as necessary or on an annual basis as a minimum.

## **Appendix FPP1: Leakage/Spillage Response Procedure**

On identification of a Leak or Spillage the following procedure is to be followed to:

1. Prevent unauthorised access to the affected area
2. Prevent uncontrolled escape of potentially contaminating liquids using supply of absorbent materials to control the flow of liquids.
3. If safe to do so, isolate source of leak/spillage to prevent further losses, which may involve switching off a particular piece of machinery & deploying a containment vessel (i.e., drip trays) underneath the affected area.
4. If necessary, initiate controlled evacuation of the site.
5. If the leak/spillage is battery acid, apply a neutralising agent hydrated lime or similar. (Please note that water in a large quantity will only dilute the acidity & will not neutralise it) on the affected areas (Operatives must use appropriate PPE; gloves, face masks & goggles, whilst handling hydrated limes).
6. All contaminated absorbents must be placed in a leak proof container, which is labelled & stored pending removal.
7. Seek specialist advice on decontamination of the site surfaces if necessary
8. Complete an Environmental Incident Record Form (See Appendix EMS1)
9. Any actions taken will be recorded in the Site Diary.
10. Written confirmation of any actual or potential pollution incidents must be submitted to the Environment Agency via the sites Permitting Office within 24 hours. (Information at front of document)
11. Confirm site clean up with the Environment Agency. (Information at front of document)
12. Replenish supplies of absorbent materials.

# Appendix FPP2: Site Layout Plan



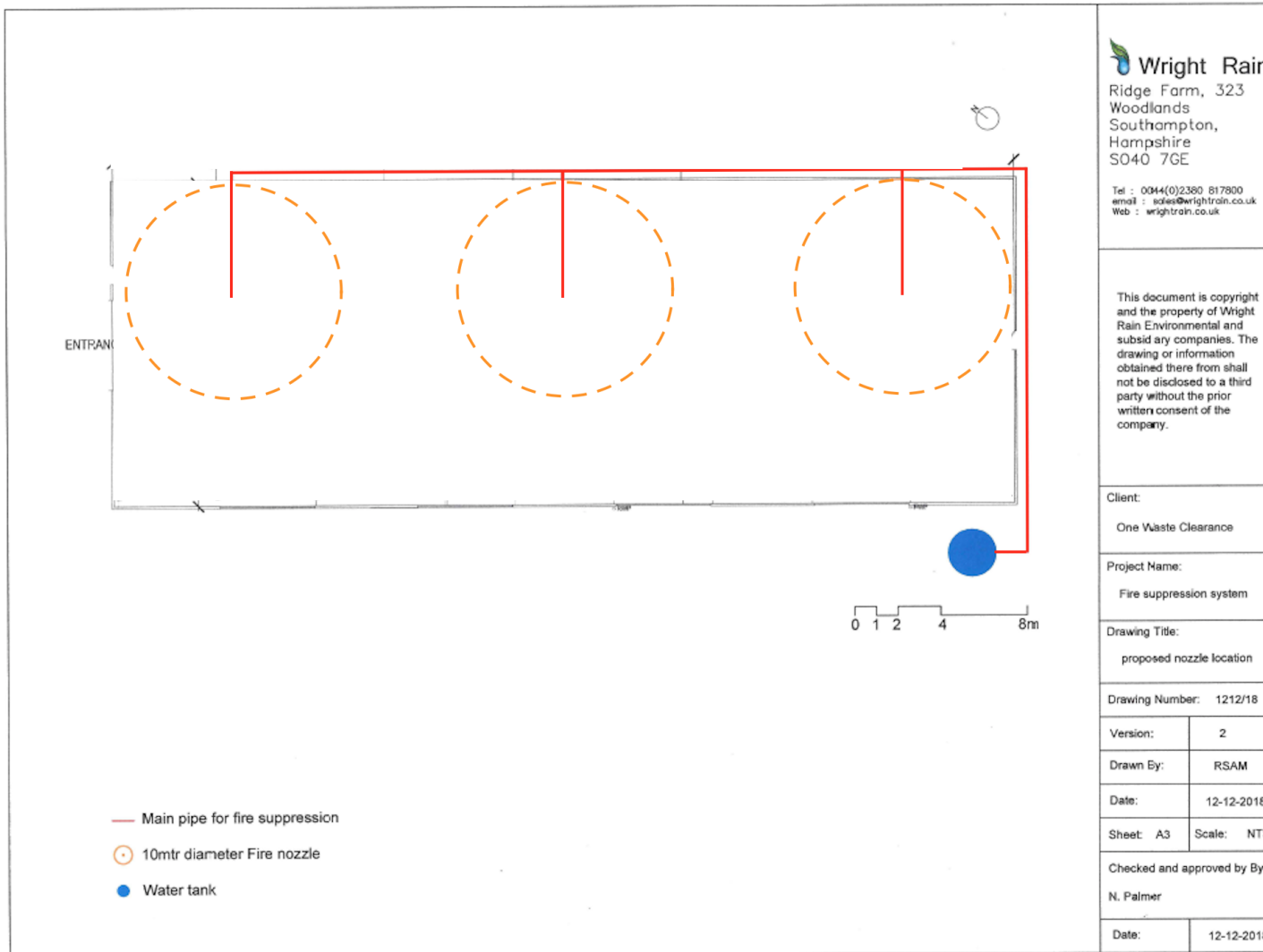
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## Appendix FPP3: Fire Suppression System



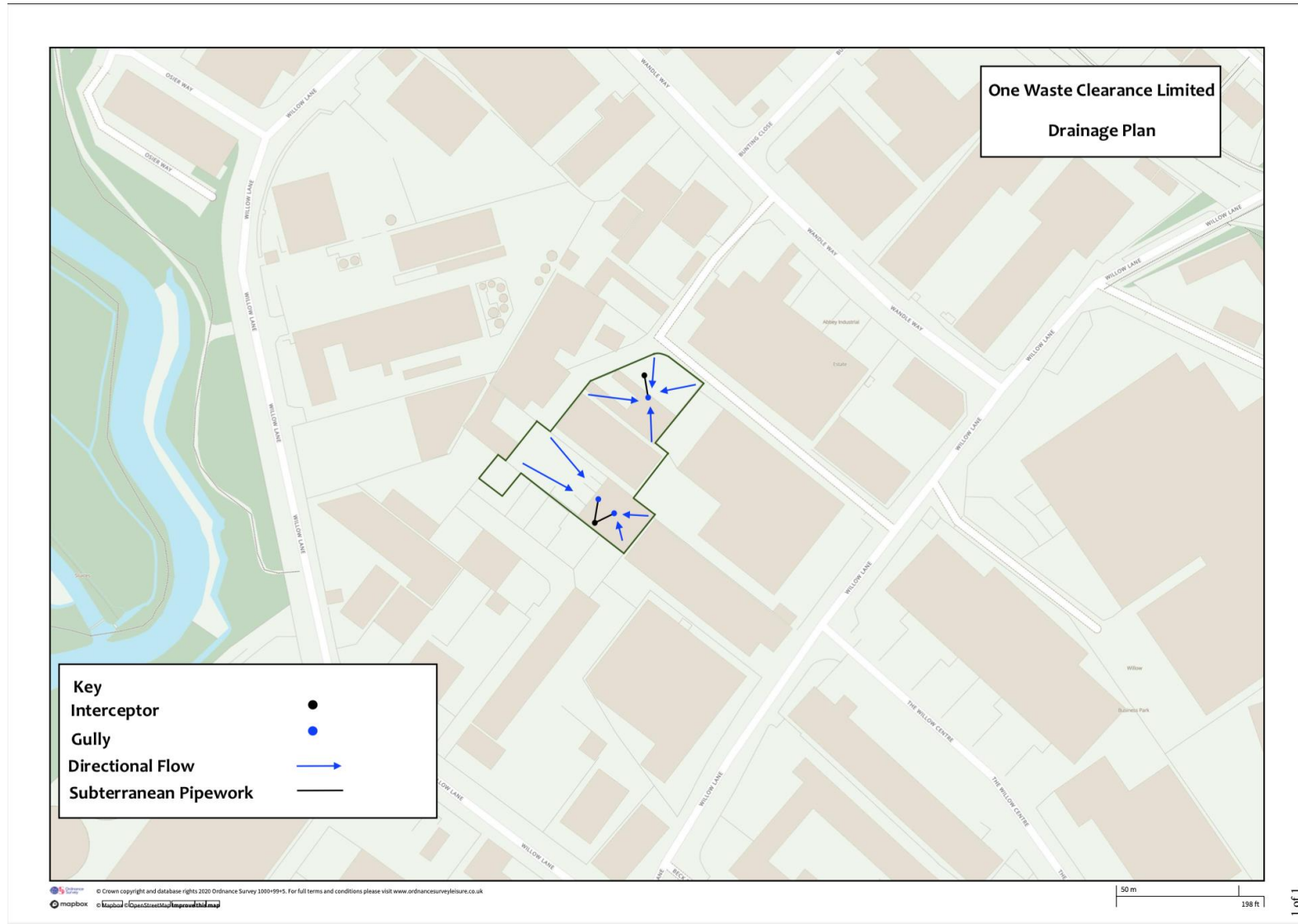
Location: Willow Lane

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## Appendix FPP4: Drainage Plan

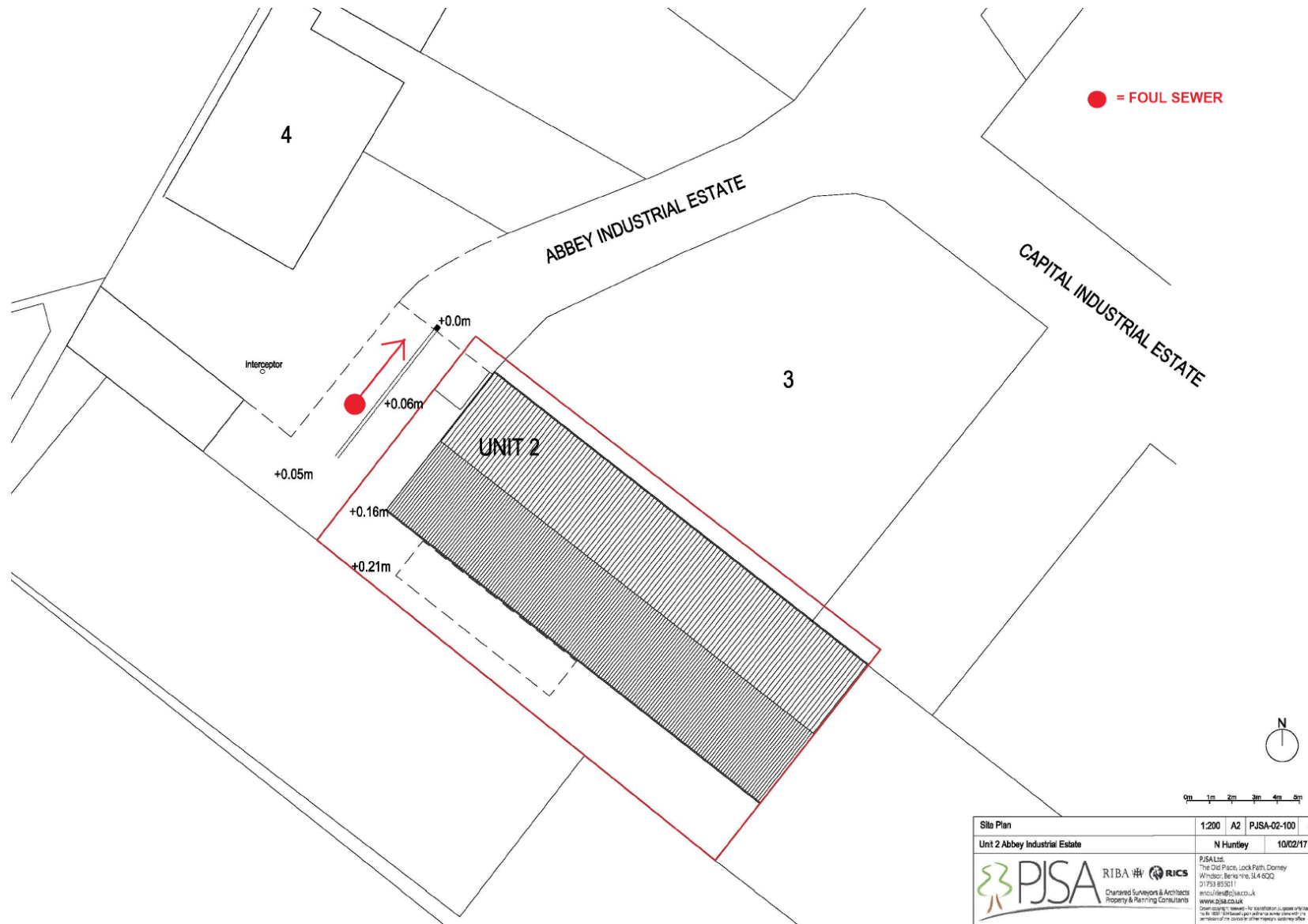


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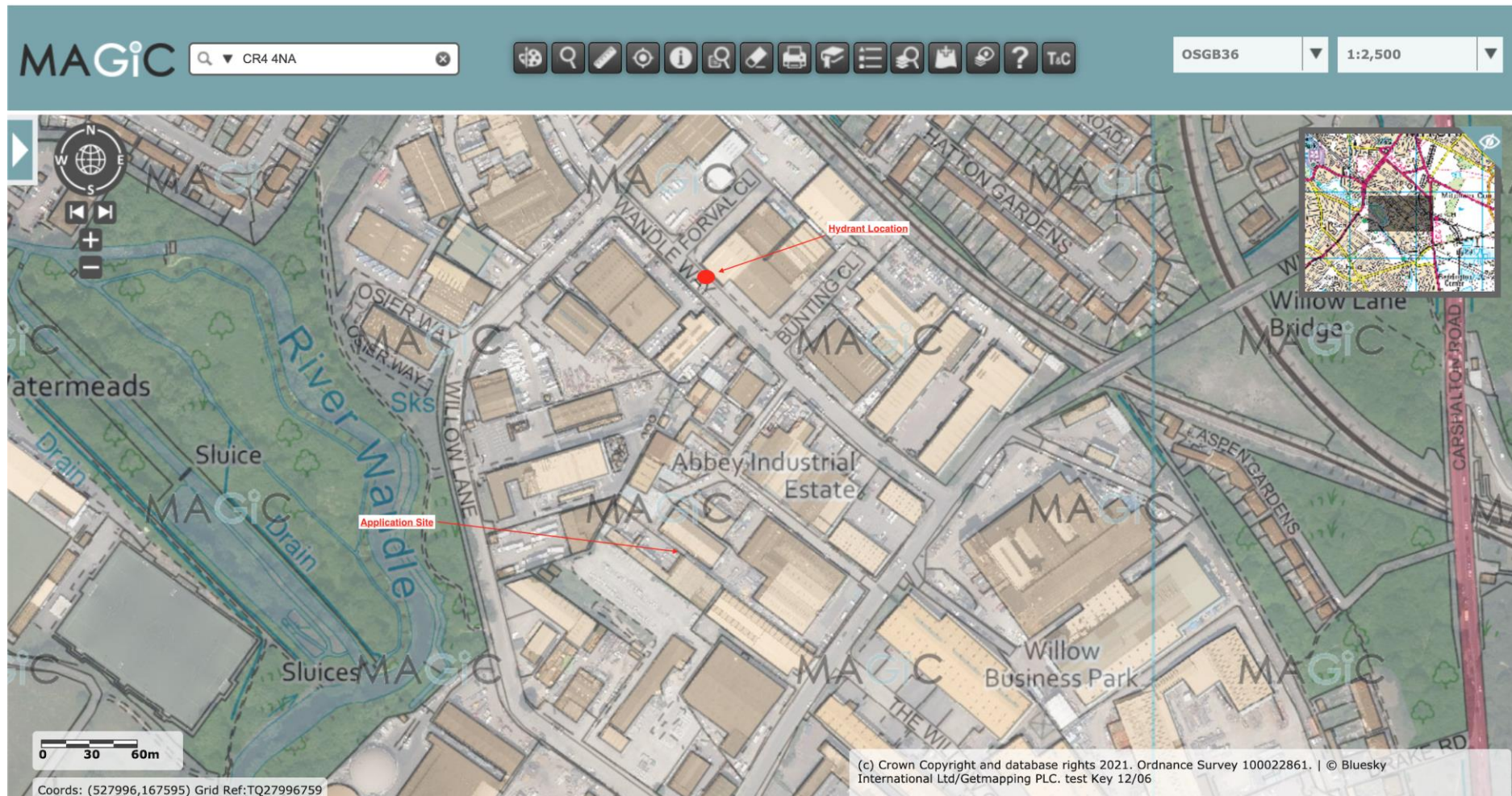
Site Plan	1:200	A2	PJSA-02-100
Unit 2 Abbey Industrial Estate		N Huntley	10/02/17
PJSA Ltd The Old Pacts, Lock Path, Dorney Windsor, Berkshire, SL4 6DQ 01753 853011 info@pjsa.co.uk www.pjsa.co.uk		Chartered Surveyors & Architects Property & Planning Consultants	
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## Appendix FPP5: Hydrant Map



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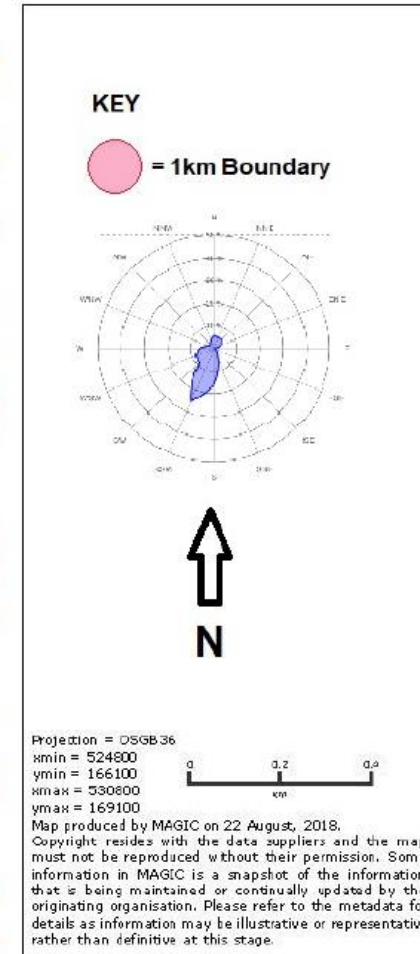
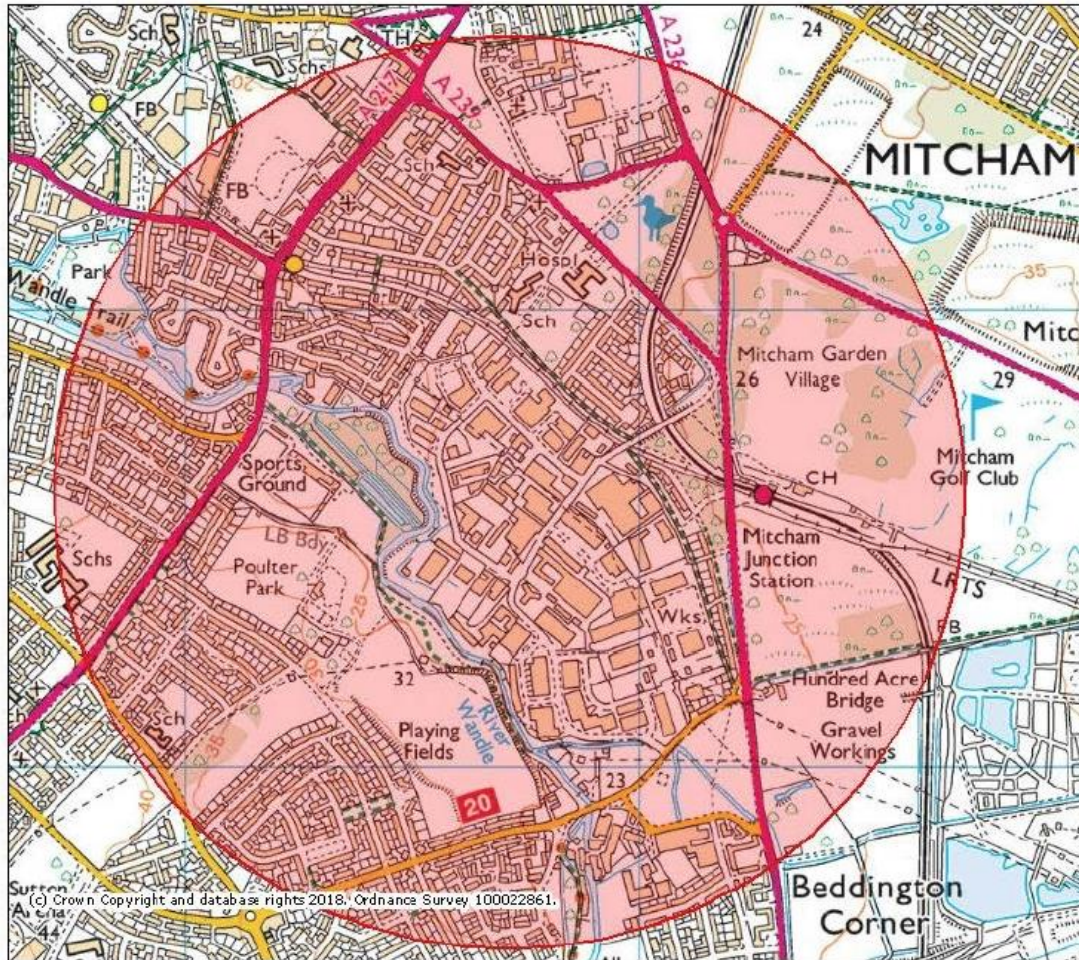
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# Appendix FPP6: Receptor Location Plan (Smoke & Fire Spreading)

**MAGiC** One Waste Clearance Ltd Scale 1:12000

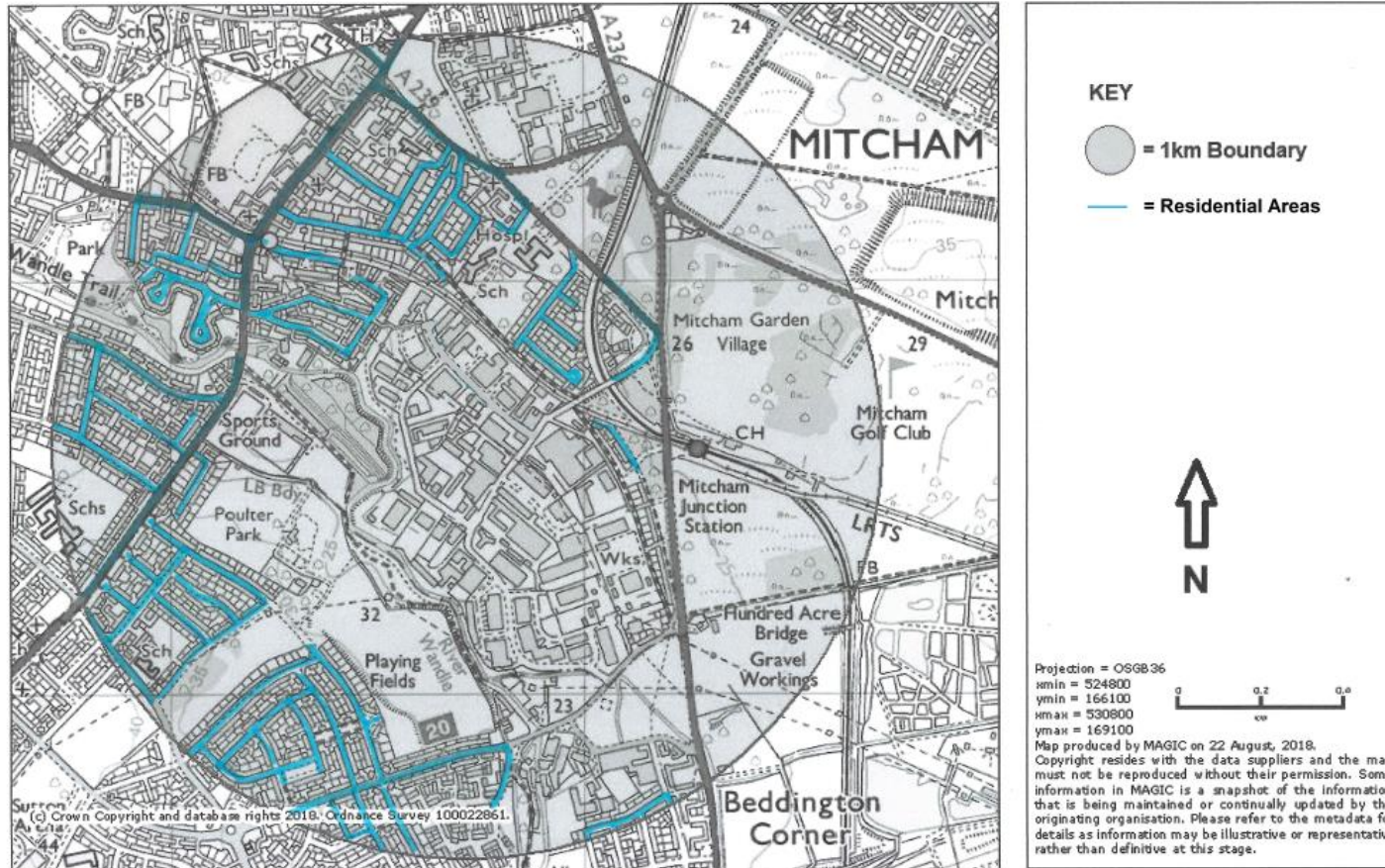


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**Risk-Assessment:** -The prevailing wind direction is from the South Westerly Direction so any smoke generated would be blown in a North Easterly Direction.

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## **Appendix FPP7: Waste Acceptance Procedures (Extracted from EMS)**

15.1.2 Compliance with the permitted waste types is assured by the following measures:

1. When a skip/container is hired prohibited material is clearly stated and reflected in terms & conditions of hire;
2. When collecting the full skip/container the driver will inspect and check to see if any prohibited material is present. If it is, the customer will be notified and advised of the following course of action available:
  - a) Removed and left at the customers premises
  - b) Accepted and disposed of directly to a site permitted to accept the waste
3. On delivery to site the driver will hand all paper copies of any Duty of Care Documentation to the Site Office, whilst all electronic paperwork will be transferred to the Site Office during transportation; and
4. Once all Duty of Care Documentation has been approved the wastes will be deposited in the Waste Acceptance Area for inspection, acceptance & processing (machine operatives will spread out the loads to aid the visual inspection process).

15.1.3 If any prohibited materials are present the following course of action will be taken:

- a) Require the individual to load the non-permitted materials back onto the delivery vehicle; or
- b) Accept, isolate & arrange for removal to an authorised waste management facility.
- c) Under no circumstances will non-permitted wastes be retained onsite and dealt with as if it is permitted.
- d) The Agency will be notified if a delivery is rejected.

15.1.4 If the prohibited material becomes apparent only after the above waste acceptance checks have been completed the following action will be taken:

- a) The load will be isolated within the isolation facility (appropriate PPE will be worn if necessary) and removed from site to a suitably permitted facility at the earliest opportunity.
- b) In each case, the incident will be recorded in the Site Diary (taking note of the vehicle registration, date & time of the incident). If identifiable the individual will be notified of the event and reminded of the terms on which waste is accepted onto site. (It will be at the discretion of the Management Team if they wish to ban an individual/company following an incident).
- c) Under no circumstances will prohibited waste be retained onsite and dealt with as if it is permitted.
- d) The Agency will be notified if a delivery is rejected.

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## 15.2 Rejection Procedure

15.2.1 Any wastes identified as being unsuitable for disposal at the site will be rejected & recorded in the Site Diary.

15.2.2 A record will be kept of the following pieces of information:

- a) Date & time
- b) Person rejecting the waste(s)
- c) Haulier/customer name and address including carrier's number
- d) Vehicle registration number
- e) Procedure name and address
- f) EWC number
- g) Transfer Note Number
- h) Waste Description