Appendix G

FIRE PREVENTION PLAN

R Collard Ltd

124 CARDIFF ROAD, READING

Fire Prevention Plan

MARCH 2024

PUBLIC

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PROJECT NO. 70063683

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QUALITY CONTROL

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Prepared by	M Derbyshire	M Derbyshire	M Derbyshire
Signature			
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1. INTRODUCTION

1.1 OVERVIEW AND PROJECT BACKGROUND

1.1.1 This fire prevention plan has been prepared by WSP on behalf of R Collard Ltd ["the applicant"] and accompanies and application for a substantial variation to environmental permit EPR/EB3500KB seeking to recognise the *'the demolition of no.124 and construction of a building for use as an extension to the existing waste recycling centre building at no. 128 with associated landscaping and off-street parking spaces'* on land at 124 Cardiff Road, Reading, RG1 8PQ.

1.1.2 This application is submitted to the Environment Agency as the determining regulator under the Environmental Permitting (England and Wales) Regulations 2016 (as amended).

1.1.3 A full description of the proposed changes and development are set out in the main supporting document and non-technical summary.

1.2 OVERVIEW

1.2.1 This fire prevention plan has been prepared as part of on-site operational documentation in support of substantial variation of the bespoke environmental permit (as varied), permit reference EPR/EB3500KB for R Collard Limited's facility at 128 Cardiff Road, Reading (the 'facility').

1.2.2 The facility currently holds a bespoke environmental permit – with a capacity to accept and process 150,000 tonnes per annum of household, commercial and industrial waste.

1.2.3 This fire prevention plan comprises a stand-alone operational document which is implemented on-site. This document has been reviewed and authorised as fit for use during the previous environmental permit determination, back in 2018.

1.2.4 The operator of the facility is R Collard Limited, hereby referred to as 'the operator'.

1.2.5 Environment Agency Guidance Note: fire prevention plans: environmental permits, January 2021, describes the waste activities for which fire risk is a key issue and for which a fire prevention plan is required, and applies to facilities which store combustible materials. as the activities to be included at the facility will include storage of such materials the operator is required to write, maintain and implement a fire prevention plan to cover the site activities.

1.2.6 This fire prevention plan forms part of the facility's environmental management system (EMS) following formal approval by the Environment Agency.

1.2.7 The fire prevention plan will be updated and reviewed in accordance with the requirements of the site management systems and be subjected to a prescribed timetable for regular review.

1.2.8 This fire prevention plan is intended to be used as a stand-alone working document for operational staff on a day-to-day basis. it outlines the main potential fire sources associated with the activities and waste operations; the mitigation measures to be used to reduce the risk of fire; and the monitoring and reporting methods to be used during operational periods.

1.3 AIMS AND OBJECTIVES OF THE FIRE PREVENTION PLAN

1.3.1 This fire prevention plan has been developed based on the requirements of environment agency's guidance *fire prevention plans: environmental permits, January 2021*. This guidance document outlines the standards which must be followed when storing combustible materials at permitted sites.

1.3.2 The environment agency's fire prevention plan guidance lists 3 objectives which must be met:

- Minimise the likelihood of a fire happening.
- Aim for a fire to be extinguished within 4 hours; and
- Minimize the spread of fire within the site and to neighboring sites.

1.3.3 The aims of this fire prevention plan are to identify sources of combustible materials, possible causes of fires, minimise the risk of fire occurring at the facility and in the event of a fire occurring ensuring that it is identified as early as possible.

1.4 RELEVANT LEGISLATION AND GUIDANCE

1.4.1 This fire prevention plan has been prepared with reference to the following key guidance:

- Environment Agency's Fire Prevention Plans: Environmental Permits, January 2021
- Environment Agency's Fire Prevention Plan: template and guidance, July 2016
- Environment Agency's Environment Management Guidance 'Control and monitor emissions for your environmental permit' 2018
- Environment Agency's Environment Management Guidance 'Develop a management system: environmental permits' 2018 and;
- CIRIA 736: 'Containment Systems for the Prevention of Pollution'.

2 INTRODUCTION: SITE AND SURROUNDINGS

2.1 SITE LOCATION:

2.1.1 The site location and address are as detailed below:

R. Collard Ltd,
128 Cardiff Road,
Reading,
Berkshire,
RG1 8PQ

2.1.2 The permit boundary is shown on the site layout plan in Appendix B.

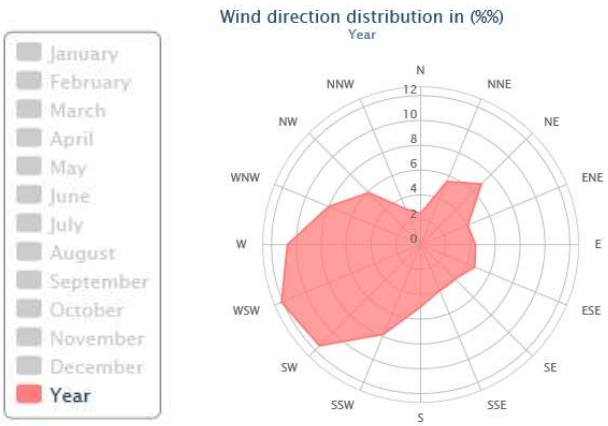
2.1.3 The national grid reference for the site is SU 70500 74174. The site is bounded by other businesses to the south and east, and by road infrastructure to the north and west. The site is located in an industrialised area surrounded by other businesses.

2.1.4 The prevailing winds at the site are from the west-south-west and south-west, based on regular observations recorded at the 'reading' monitoring station between February 2012 and January 2018 (www.windfinder.com). Outputs from the weather station are provided in figures 2.1.4a and 2.1.4b below.

Figure 2.1.4A: Reading Weather Station Data

Month of year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
	01	02	03	04	05	06	07	08	09	10	11	12	1-12
Dominant wind direction	➤	➤	➤	➤	➤	➤	➤	➤	➤	➤	➤	➤	➤
Wind probability >= 4 Beaufort (%)	1	1	1	1	1	1	0	0	0	1	1	1	1
Average Wind speed (kts)	2	3	3	3	2	2	2	2	2	2	2	2	2
Average air temp. (°C)	6	7	9	12	15	18	21	20	17	14	9	8	13

Figure 2.1.4B: Reading Weather Station Wind Rose



2.1.5 A facility plan is included in Appendix B showing the general layout, storage areas, access, water supplies, electricity supplies, fire alarm call point and emergency exits.

2.1.6 A facility drainage plan, showing the location of fire hydrants and forecourt interceptors is shown in Appendix C.

2.1.7 Appendix E shows the location of key sensitive receptors within 1km of the facility.

2.1.8 Regulated activities are listed in table 2.1.8 below.

Table 2.1.8A Waste Management Activities

Name of Permitted Site	Description of the Waste operation	Annex I (D Codes) and Annex II (R Codes) and Descriptions
R Collard Ltd	Household, Commercial and Industrial Waste Transfer Station	**Annex I Codes and descriptions**
		D9: Physico-chemical treatment not specified elsewhere in Annex IIA which results in final compounds or mixtures which are discarded by means of any of the operations numbered D1 to D8 and D10 to D12
		D14: repackaging prior to submission to any of the operations numbered D1 to 13
		D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced).
		R5: Recycling/reclamation of other inorganic materials
		R13: Storage of wastes pending the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced
		Annex II Codes and Descriptions
		R3: Recycling/reclamation of organic substances which are not used as solvents (including composting and other biological transformation processes).
		R4: Recycling/reclamation of metals and metal compounds.

2.1.9 The location of the site is shown in figure 2-1 below within a red line boundary.

Figure 2.1 - Site Location

3 FACILITY OPERATIONS & ACTIVITIES

3.1.1 The operator currently holds a bespoke environmental permit to a bespoke permit to allow the storage and treatment of wood, plasterboard, soil and rubble, pvc window frames, aggregate and hard plastics outside of the site's waste reception building, under the EPR.

3.1.2 Waste types will be restricted to the waste codes stipulated in the Permit. The waste will be treated in accordance with the permit, and sorted into different fractions for recycling, recovery and disposal.

3.1.3 Waste materials are delivered to the site during the following operational hours:

3.1.4 Monday – Saturday 07:00 – 19:00

Sunday / Bank Holidays 09:00 – 18:00

3.1.5 Except for the following HGV vehicle movements:

Six 2-way daily movements:

Monday – Saturday 19:00 – 07:00

Seven 2-way daily movements:

Sunday/ Bank Holidays 18:00 – 09:00

3.1.6 The proposed waste transfer facility will comprise of the following primary elements:

- 3d combi-screen, air separators, eddy current separators and over-band magnets.
- A waste processing building which stores general mixed waste, plastic (including plastic film), paper and card) and hazardous wastes.
- External storage bay for the storage of wood.
- External storage bay for the storage of hard plastics.
- External storage bay for the storage of UPVC windows.
- Storage cage for the storage of waste gas bottles.
- Covered storage area for baled plastics, cardboard, cans and bottles.
- Container for the storage of waste textiles.
- Container for the storage of mixed metal; and
- Quarantine areas.

3.1.7 The environment agency's guidance document 'fire prevention plans' contains a list of combustible materials. The waste transfer facility does accept some of these potentially combustible wastes.

Input material/ Potential fire sources

3.1.8 Wastes accepted into the site will be limited to those within the permit. This will include hazardous and non- hazardous household, commercial and industrial waste. The amount of waste accepted into the facility will be limited to 150,000 tonnes per annum. A list of potentially combustible materials can be found in table 4.5.1a below.

3.1.9 Waste will be brought to site and unloaded at the waste processing building / reception area in preparation for loading onto the picking station. The waste processing building is located on an impermeable surface, with a sealed drainage system. The contents of all drainage sumps will be removed by an authorised contractor for disposal at a suitably permitted facility.

3.1.10 Given the nature of the wastes to be stored in the bays outside the building, the generation of potentially polluting leachate is highly unlikely, however there will be a bund/lip/raised kerb on the front of the storage bays where there is a risk of contamination to capture any potentially polluting leachate or substance. Any small amounts of leachate or substance produced will be cleared up using absorbent materials and disposed of off-site. Should significant quantities of liquid waste or leachate be produced it will be pumped out of the bays and disposed of at a suitably permitted facility. Details of the capacities of these bays can be found in table 4.5.1a below.

4 MANAGEMENT OF THE RISK OF FIRE

4.1 OVERVIEW

4.1.1 Provisions for storage of combustible materials takes into account the guidance provided in the EA guidance document *'fire prevention plans: environmental permits'*, January 2021.

4.1.2 In the unlikely event of a fire, the site personnel, the railway line and depot and adjacent businesses on the industrial estate are most at risk. The nearest residence, on Cardiff Road, is approximately 190m to the east of the site and downwind of the prevailing wind direction.

Resulting combustion products may have a local and temporary impact, depending on meteorological conditions at the time of any incident.

A location plan is included in Appendix D which includes nearest receptors.

4.2 INCIDENT MANAGEMENT

4.2.1 The operator has in place an environmental management system which covers how potential emergency situations are to be managed, inclusive of fire procedures. The management system will be reviewed and updated to reflect all current activities carried out on site and procedures for in the event of a fire.

4.2.2 Emergency contacts and other useful contact information are included in Appendix A.

4.3 FIRE PREVENTION TECHNIQUES

4.3.1 Fire risk management techniques are detailed below which demonstrate and describe how the requirements of EA guidance document; fire prevention plans, is applied on-site.

4.3.2 Where possible this fire prevention plan will be reviewed in conjunction with the local fire rescue service

4.4 GENERAL MEASURES TO MANAGE FIRE RISK

4.4.1 Table 4.4.1a below details the measures required by the EA and how the operator proposes to prevent risk of fire.

4.5 SITE FIRE DETECTION SYSTEM AND FIRE SUPPRESSION SYSTEM

4.5.1 Collards have ensured the systems implemented on site work correctly, efficiently and above all safely, by adopting the following measures:

- Design and Installation completed by fully certified and competent UKAS accredited and BAFE SP203 qualified contractor.
- Ensuring the system is independently audited annually by Alcumus to a UKAS accreditation
- Ensuring the processes and procedures detailed in the FPP is fully trained out with all personnel which may operate from the site, and records kept of such training
- All site staff will be trained in the Fire Emergency Response Procedure
- Emergency Response Plan and in the use of firefighting equipment. Training records will be maintained in accordance with the Facilities' Management System.
- The Fire Emergency Response Procedure is incorporated within the site's Environmental Management System.

- In the event of a fire in the waste storage bays, plant and equipment on site will be used to remove the waste and place it in the quarantine area. Where unsafe to do so waste bays will be doused with water until returned to ambient temperature.
- Water or inert material will be applied to fire and unburned material for cooling if the level of risk permits these actions as detailed in the FPP.
- The Site Manager will oversee any decision to apply on-site fire-fighting equipment and has the authority to cease on-site measures should the risk to personnel prove too high.
- In the very unlikely event of a serious fire, which resulted in the site not being able to accept waste, materials would be diverted to R Collard's Permitted site in Eversley, permit reference EPR/QP3790EA/V002. The facility used would depend on the type of waste to be diverted, where the waste originated and the capacity available at the receiving facility.
- All waste acceptance and processing operations will cease as a result of a serious fire.
- Firewater contained on the site will be tankered off the site using a local waste contractor, in line the details set out in the FPP

4.6 OPERATING AND MONITORING OUT OF HOURS

The operating hours for the site are set out in the planning permission for the site, they are:

- Monday - Saturday 07:00 – 19:00
- Sunday/ Bank Holidays 09:00 – 18:00

Except for the following HGV vehicle movements:

- Six 2-way daily movements: Monday – Saturday 19:00 – 07:00
- Seven 2-way daily movements: Sunday/ Bank Holidays 18:00 – 09:00

4.6.1 Fire Suppression System details

Monitoring of the suppression system and waste materials throughout operating hours is completed using the following techniques:

- Daily inspections of the site, including specific checks on the firefighting manual system
- Daily heat gun temperature readings taken from all combustible waste materials when periods of sustained high temperatures are reached (ambient temperatures are above 20^{o}c).
- Visual monitoring completed by the site supervisor and site manager constantly throughout the day.
- Remote monitoring via CCTV from within the site offices (during operational hours), and remotely from the central security control based in Eversley, Hampshire (outside operational hours).

The site is monitored outside of operational hours, from 19:00pm Saturday through to 07:00am on a Monday morning over the weekend period, and each weekday between 19:00pm and 07:00am the following morning. This is completed using: -

- Remote monitoring via CCTV surveillance from Collard central security control, based in Eversley, Hampshire.
- Remote monitoring of the early warning video detection system 24 hrs via the Collard central security control based in Eversley.
- Remote monitoring of the early warning video detection system by nominated persons.

- If the heat detection system is triggered, the security guard based in the central security control based in Eversley, Hampshire will contact the emergency services and the designated key holder for the site.
- The designated key holder can get to site within 30 minutes and is fully trained in firefighting techniques as set out in the Fire Prevention Plan.
- The Site Manager and/or Site Supervisor will be contacted to attend site.
- In the event of any triggered heat detection the responsible person will immediately deploy the water to the affected area using the hydrant supply from the North and the West of the site.
- In the event of a fire, the onsite firefighting equipment will be used as per site procedures and systems specification.

The water available from the hydrants is considered suitable to deliver water at a rate of 2000l/minute. The largest stockpile of materials on site at any one time will be 750m^3, requiring 900,000l of water to extinguish a fire in 3 hours based on the Environment Agency's Fire Prevention Plan Guidance.

4.7 INSPECTION AND TESTING

An inspection & testing plan has been developed and incorporated into the site's management system. This provides detail of how the suppression system is inspected and maintained throughout its working life, to ensure the firefighting equipment is always fully operational if ever called upon in the event of a fire.

Table 4.4.1A: Prevention of Fire

FPP Required Standards	Mitigation Measures Employed	Meets FPP Guidance?
Control sources of ignition such as heating pipes, naked flames, light bulbs, space heaters, furnaces and incinerators	• Industrial heater will only be used within the workshop building, and not within 3 feet of combustible material. They will also be subject to routine inspections and annual PAT testing. • Electrically operated equipment, which may present an ignition source, will be sited at least 6m from combustible waste sources. • Ignition sources during non-routine activities e.g., for maintenance activities, will be conducted at least 6m from combustible materials. • Mobile plant, when not in use, will be parked 6m away from combustible waste. • Smoking will not be permitted on site.	Yes
Reinforce fire prevention messages using signs	Visitors will be informed of the correct safety and fire prevention procedures; information will be provided at the office and signing in point and by appropriate signage on-site.	Yes
Ensure staff and contractors follow safe working practices when undertaking hot working, such as welding and cutting	No hot work will be conducted on-site routinely. Should maintenance require hot works to be conducted, procedures will be in place to minimise fire risk via use of operational hot works permits/permits to work. No hot work will be conducted within 6m from combustible waste sources. See Appendix J for hot works procedure	Yes
Ensure all visitors follow the correct safety and fire prevention procedures	Visitors will be informed of the correct safety and fire prevention procedures; information will be provided at the gatehouse at the signing in point and by appropriate signage on-site.	Yes
Apply a no smoking policy or ensure designated smoking areas are situated away from combustible materials	Smoking is not permitted on site. All employees and visitors are made aware of this requirement.	Yes
Introduce a regular maintenance and inspection programme for all site areas (including site machinery) and minimise fibre and paper in buildings and around the site	An inspection programme is incorporated into the Integrated Environmental Management System as part of the waste acceptance procedures. There is minimal plant and equipment on-site aside from the compactors and vehicles such as bucket loaders, which will be maintained in accordance with the manufacturer's requirements and in accordance with the Maintenance Inspection Checklist included in Appendix I.	Yes

FPP Required Standards	Mitigation Measures Employed	Meets FPP Guidance?
Put site security measures in place (e.g., security fencing, intruder alarms and CCTV) to prevent arson (your arrangements should include outside normal working hours)	Site security measures are in place to prevent unauthorized access and include total fencing of the site, CCTV and security gates. Security gates are kept locked and secured outside normal working hours.	Yes
All site vehicles to be fitted with fire extinguishers.	All site vehicles will be fitted with fire extinguishers.	Yes
Implement a fire-watch at regular intervals and at the end of each shift (when dust from processing operations can settle onto hot exhausts and engine parts)	A fire-watch will be achieved through inspection of waste processing areas at regular intervals. Heat monitoring completed daily throughout periods of sustained high temperatures (ambient temperatures are above 20c), using a UKAS certified heat gun. Any build up dust and fluff will be swept up immediately by site operatives.	Yes
Make sure separation distances are observed between plant and material when the site is not staffed	Separation distances will be always maintained between waste piles and machinery. Before the site is vacated at the end of the day a check will be conducted to ensure separation distances are correct.	Yes
Documented waste acceptance procedure to identify incompatible wastes/ hot loads	Waste acceptance and pre-acceptance procedures which meet EA Guidance Note S5.06 *'Guidance for the Recovery and Disposal of Hazardous and Non-hazardous Waste'* are employed to ensure that only the permitted waste codes are accepted. • Rejected wastes will be stored in a quarantine area as detailed above. • If a hot load enters the facility, the 'Hot Load Procedure' which is incorporated into the waste acceptance procedures will be followed. Waste acceptance procedures are included in Appendix G.	Yes
Mitigate and reduce risk from hot exhausts	Staff are trained to watch out for signs of smoldering or smoke at all times and the area around and vehicle exhausts will be checked as part of the fire-watch which occurs at the end of each working day.	Yes
Routinely turn waste piles	Due to the short length of time which waste will be stored on-site it is considered highly unlikely that heat will build up within the piles. This will negate the need for turning.	Yes
Provide a dedicated emergency or quarantine area big enough to cope with a major incident, with a clear area of at least 6m around the perimeter (this must be available at all times and identified on your site plan)	Hot loads will be directed to site's dedicated fire quarantine area. Two separate quarantine areas are marked on the site plan. Both are sized to accommodate 50% of the largest pile of externally stored waste, so 375m³. A 6m buffer zone will be maintained around each of the quarantine areas. Visual inspections of incoming loads of waste will take place to identify potential hot loads. Hot loads are defined as waste which is either actively on fire or showing visible signs of smoke/heat. If there is any smoke, heat, odour or other evidence of fire, the temperature of the waste will be taken using Infra-Red thermometer. If temperature is >10°C above ambient, the load will be quarantined. Potentially combustible material will typically arrive on site in a skip. If a hot lot load is detected on arrival the skip will be deposited, with the load in- situ in the quarantine area. The contents will be turned and left to cool to ambient temperature before storage. The temperature of the skip and contents will be checked using a handheld infra-red thermometer before being moved from the quarantine area. If the temperature of the skip contents is higher than the ambient temperature the skip will be left and rechecked daily until the temperature returns to ambient.	Yes
Building electrics fully certified by a qualified electrician and documented maintenance schedule in place	Testing will be carried out on electrical equipment by fully and appropriately qualified electricians when required and inspection of electrical cabling at the Facility will be included in the maintenance and inspection programme found in Appendix I. The picking station and waste reception building electrics will be subject to the full statutory safety inspection every 5 years. Where plant and machinery are electrically powered, safety checks will be incorporated into the machine specific inspection and maintenance programme referred to above.	Yes

FPP Required Standards	Mitigation Measures Employed	Meets FPP Guidance?
Gas containers/flammable items in an isolated location	There is a fuel tank located within the permit boundary. It is situated more than 6m from any combustible waste storage areas. Waste gas bottles and high-risk flammable items will be stored in a dedicated and locked cage in the external yard, isolated from other waste storage areas.	Yes
Prevention of fire within building outside operational hours	See Table 4.7.1A: Summary of Firefighting. This includes techniques for combustible wastes stored on-site, with full details on fire prevention and suppression for wastes stored within the site buildings.	Yes

4.7.1 Table 4.4.1b below details the measures required by the EA guidance document *fire prevention plans: environmental permits*, Jan 2021 and how the operator proposes to detect a fire.

Table 4.4.1B: Detection of Fire

Standard Required	Mitigation Measures Employed	Meets FPP Guidance?
You must carry out regular inspections, including at the start and end of every working day	The site, including all combustible waste storage piles, will be inspected at the start and end of every day. This will be logged in the site diary. The operator conducting the inspection will be looking to ensure there is no sign of the stockpiles heating up such as steam arising. If there are any indications that cause concern, the stockpile will be turned mechanically to check and to allow any heat build up to dissipate.	Yes
Consider fitting automatic detection systems such as smoke and heat detectors including temperature probes	A Fire Detection System (FDS) and Fire Suppression System (FSS) has been installed in the waste reception buildings were designed, installed, and maintained by an appropriate UKAS accredited third party certification scheme; this was undertaken by Harrold Jones Services. Heat monitoring will also be carried out during hot weather using an infrared heat sensor. The FSS is located both inside and outside of the main waste building located on the site. The system is proportionate in nature and scale when considering the risk associated with the operation as identified in Collard this Fire Prevention Plan (FPP), along with the mitigating measure employed to reduce the risks to acceptable levels to allow operations to commence. The system is a multiple approach system that will allow any potential fire to be detected, and if necessary extinguished within 4 hours. The system has been designed to have full and successful integration with FRS.	Yes
Monitor and control sub-surface temperature and moisture content with a thermal probe or other device and ensure that this is capable of reaching all parts of a pile (if materials are stored in plastic wrapping you must demonstrate a sampling and testing protocol to ensure a representative number of bales (minimum 10%) are assessed during monitoring)	Daily heat monitoring will be carried out during hot weather (ambient temperature >20°C) using an infrared heat sensor for all combustible waste storage piles. Temperature monitoring will be conducted in accordance with guidance. Testing protocol for baled wastes will be implemented through the site's operational procedures.	Yes
Detect and control hotspots within piles	Daily heat monitoring will be carried out during hot weather (ambient temperature >20°C) using an infrared heat sensor for all combustible waste storage piles. A Fire Detection System (FDS) and Fire Suppression System (FSS) are installed in the waste reception buildings and were designed, installed, and maintained by an appropriate UKAS	Yes

Standard Required	Mitigation Measures Employed	Meets FPP Guidance?
	accredited third party certification scheme; this was undertaken by Harrold Jones Services.	

4.8 STORAGE OF WASTE TO MINIMISE FIRE RISK

4.8.1 Table 4.5.1a below lists the combustible wastes which are accepted by the facility and how they are stored.

Table 4.5.1A: Storage of Combustible Wastes

Waste types	Size fraction	Containment	Separation distances	Max. pile size (m^3)	Storage time
Baled Commodities	Baled	Bailed under a canopy	6m (from other wastes)	750	7 days
Wood	>150mm	In a bay, on an impermeable pavement.	N/A- Fire resistant wall	750	3 days
Hard Plastics	>150mm	In a bay, on an impermeable pavement.	N/A- Fire resistant wall	750	7 days
UPVC Windows	>150mm	In a bay, on an impermeable pavement.	N/A- Fire resistant wall	750	7 days
Plasterboard	>150mm	In a bay on an impermeable pavement	N/A- Fire resistant wall	400	7 days
Mixed Metal	>150mm	In an open skip within the yard	N/A- Fire resistant container	60	7 days
Textiles (old clothes etc)	>150mm	In a container (clothes bank) set on impermeable pavement in the yard	N/A- Fire resistant container	5	7 days
Gas bottles	>150mm	Within a secure cage in the yard	6m	2	7 days
General Mixed Waste	30-150mm	Within the Waste Reception Building in a bay	N/A- Fire resistant wall	300	7 days
Plastic	30-150mm	Within the Waste Processing Building in a bay	N/A- Fire resistant wall	450	7 days
Paper and Card	30-150mm	Within the Waste Processing Building in a bay	N/A- Fire resistant wall	384	7 days
Plastic (Film)	30-150mm	Within the Waste Processing Building in a bay	N/A- Fire resistant wall	384	7 days
WEEE / Electrical / Batteries	n/a	Within waste buildings, secure container within designated bay	N/A- Fire resistant wall Appropriate containment	-	7 days
Acids / Alkalines / Photochemicals	n/a	Within waste buildings, secure containers (including IBCs within bund).	N/A- Fire resistant wall Appropriate containment	-	7 days

Waste types	Size fraction	Containment	Separation distances	Max. pile size (m^3)	Storage time
Oils / Fats	n/a	Within waste buildings, secure containers (including IBCs within bund).	Appropriate containment	-	7 days
Paints / Inks / Dyes	n/a	Within waste buildings, secure containers (including IBCs within bund).	N/A- Fire resistant wall Appropriate containment	-	7 days
Animal and healthcare wastes	n/a	Within waste buildings and appropriate containers.	N/A- Fire resistant wall Appropriate containment	-	7 days
Pesticides	n/a	Within waste buildings and secure containers.	Appropriate containment	-	7 days

4.8.2 Aggregates, soil and hardcore will also be stored in the external yard in bays. However, these are considered non-combustible wastes.

4.8.3 The height, width and length of all waste piles will not be permitted to exceed 4m, 20m and 20m respectively.

4.8.4 A minimum of 1m freeboard allowance will be left from the top of waste piles to the top of each bay.

4.8.5 Containers will always be accessible from at least one side to allow access in the case of a fire. Containers will be moved, where safe to do so, using plant on site and placed in the quarantine area. All new operational staff are trained in these procedures, which are rehearsed during the annual fire prevention plan training.

4.8.6 Table 4.5.1b below details the measures required by the EA guidance document *fire prevention plans: environmental permits*, January 2021 and how the operator proposes to store materials to minimize risk of fire.

Table 4.5.1B: Storage of Materials to Minimise Fire Risk

Factor	Mitigation Measures Employed	Meets FPP Guidance?
Documented and recorded stock rotation e.g., bay or pile plan with dates in and out and clear methodology for showing duration of storage for any wastes within a pile	A strict rotation system will be employed to ensure that no waste will be stored for longer than 7 days. Records of stock rotation and turning will be kept. Bays containing potentially combustible materials will be emptied and removed from the site when full. The time taken for this to occur will depend on the quantity of incoming waste streams but will be no longer than 7 days. Details of storage durations are provided in Table 4.5.1A for all wastes. The site will ensure bays are emptied within 7 days and a first in first out basis established, Powerbi software will also be used to track incoming and outgoing waste.	Yes
Storage duration - if the operator is proposing mixed durations during processing, then take the LONGEST duration	The longest duration of any waste pile is 7 days - See Table 4.5.1A for detail of all storage times for each waste type.	Yes
Minimise pile sizes and maintain sizes and separation distances.	Pile sizes and separation distances are calculated according to the FPP guidance and are provided in Table 4.5.1A. Material will not be permitted to be escape the boundary of its storage bay.	Yes
Store material in largest form prior to processing	Input wastes may be received in a variety of forms therefore will be reliant upon pre acceptance and acceptance procedures, to limit non-conformities. The measures detailed within this FPP demonstrate how fire risk is minimised.	Yes

Factor	Mitigation Measures Employed	Meets FPP Guidance?
Provide shading from direct sunlight	Baled plastic, cardboard, cans and bottles are stored under a canopy. Storage times for wastes are such that build up and combustion due to sunlight is considered highly unlikely. However, for those waste piles stored in uncovered bays should the air temperature exceed 20°C, the operator shall undertake heat monitoring of the piles using an infrared heat sensor. Should piles gain 10°C above ambient temperature, they will be turned. An internal and external FDS and FSS has been installed on site.	Yes, with additional controls
Mark any hazardous or combustible materials on the site plan	Detailed on the Site Layout Plan provided in Appendix B.	Yes
Allow heat generated during processing to dissipate before piling waste	Shredding of material has potential to generate heat, if shredding of any waste is required, the waste will be shredded into a separate pile, allowed to cool before it is moved to the main stockpile. Heat monitoring will be carried out on shredded waste piles during periods of sustained high temperatures (ambient temperature >20°C) using a heat gun.	Yes

4.9 ACTIONS IN THE EVENT OF A FIRE

4.9.1 Table 4.6.1a below details the measures required by the EA guidance document *fire prevention plans: environmental permits*, January 2021 and how the operator proposes to store materials to minimize risk of fire.

Table 4.6.1A: Actions in the Event of a Fire

Factor	Mitigation Measures Employed	Meets FPP Guidance?
A firefighting strategy must be included within the fire prevention plan	The Fire Emergency Response Procedure in Appendix F details the actions in the event of a fire.	Yes
Provision of portable fire extinguishers	Portable fire extinguishers will be provided, and equipment is tested and inspected according to manufacturer's advice.	Yes
Materials stored in a building will require a fire suppression system. Materials must be kept a minimum of 3m below the level of the spray or sprinklers.	There is a fully certified FDS and FSS across the site, with routine testing and inspection / maintenance schedule to ensure optimization of the systems. Refer to Sire Suppression System Details, 2021 report. In addition, it should be noted that 3 hydrants, each of 100mm diameter, are located within 50m of the Facility, with one hydrant located on Trafford Road adjacent to the Waste Reception Building. These will provide a readily available supply of water to the Fire Rescue Service to rapidly suppress a fire in the Waste Reception Building. Correspondence with the local Fire Service confirming this is provided in Appendix K.	Yes
Installation of secondary and tertiary containment to prevent fire-water run-off polluting the local receiving environment.	Within the waste process buildings, drainage is directed to a sealed tank. The tank contents are emptied by a licensed waste carrier and taken offsite for disposal at a suitably permitted facility. In the external yard, water will be applied to the external waste storage bays. The water will be accessed from the hydrant located adjacent to site. Drainage within the yard will be sealed to prevent loss of firewater. Firewater will be retained within the yard by an external lip / kerb and reapplied to fire where feasible. Post event, fire water will be retrieved / vacuum tanked by a licensed waste carrier and taken offsite for disposal at a suitably permitted facility.	Yes
Water supply volume available, rate of supply and location to site	Water is available from hydrants located to the north and west of the site. Each hydrant connection is 100mm so is considered suitable to supply water at the required rate of 2000l/minute.	Yes
Containment of fire water volume	The total area of the external yard, Waste Processing Buildings and covered area is approximately 6000m2. The largest waste pile will be 750m3, requiring 900,000L water to extinguish a fire in 3 hours at a rate of 2000L/min, based on The Environment Agency's Fire Prevention Plan Guidance. This will require a kerb of 15cm height around the perimeter of the yard to contain the firewater within the yard effectively.	Yes

4.9.2 Firefighting equipment will be maintained on site in accordance with fire regulations.

4.9.3 All site staff will be trained in the fire emergency response procedure in appendix f and in the use of firefighting equipment. Training records will be maintained in accordance with the facilities' management system. The fire emergency response procedure is incorporated within the site's environmental management system.

4.9.4 Any incidents of fire will be reported to the environment agency in accordance with the environmental permit and recorded in the site diary including the outcome of any root-cause investigations.

4.9.5 In the event of a fire in the waste storage bays, plant and equipment on site will be used to remove the waste and place it in the quarantine area. Where unsafe to do so waste bays will be doused with water until returned to ambient temperature.

4.9.6 Water or inert material will be applied to fire and unburned material for cooling if the level of risk permits these actions as detailed in table 4.7.1a: summary of fire-fighting techniques for combustible wastes stored on-site, which is provided below.

4.9.7 The site manager will oversee any decision to apply on-site fire-fighting equipment and has the authority to cease on-site measures should the risk to personnel prove too high.

4.9.8 In the very unlikely event of a serious fire, which resulted in the site not being able to accept waste, materials would be diverted to r collard's permitted site in Eversley, permit reference EPR/QP3790EA/V002. The facility used would depend on the type of waste to be diverted, where the waste originated and the capacity available at the receiving facility.

4.9.9 All waste acceptance and processing operations will cease as a result of a serious fire. Firewater contained on the site will be tankered off the site using a local waste contractor.

4.10 ACTIONS AFTER A FIRE

4.10.1 Should a fire occur, the site will undergo a thorough cleaning process and any waste materials created as part of this process shall be sent off site to a suitably permitted facility for disposal.

4.10.2 Plant and equipment shall be checked to ensure it is still operational and where necessary serviced or replaced.

4.10.3 The site will not become operational before the operator is confident that processes and procedures can continue as before the fire, in line with the requirements of the environmental permit.

4.11 SUMMARY OF FIRE PREVENTION AND FIREFIGHTING TECHNIQUES

4.11.1 It is proposed that water from the hydrants located to the west and north of the site be used to fight fires in the external yard. Hydrants are marked on the plans presented in Appendix C.

Table 4.7.1A: Summary of Fire Fighting Techniques for Combustible Wastes Stored on Site

Waste Storage Area	Technique	Method
Waste Processing Building	FDS & FSS	The FSS in located both inside and outside of the main waste building located on the site. The system is proportionate in nature and scale when considering the risk associated with the operation as identified in Collard this Fire Prevention Plan (FPP), along with the mitigating measure employed to reduce the risks to acceptable levels to allow operations to commence. The system is a multiple approach system that will allow any potential fire to be detected, and if necessary extinguished within 4 hours. The system has been

Waste Storage Area	Technique	Method
		designed to have full and successful integration with FRS.
Bays storing wood, hard plastic and plasterboard, WEEE and combustibles	Bays with fire resistant walls located on hardstanding with sealed drainage. Water from the mains hydrant will be used to fight the fire	Water from the mains hydrant connection will be applied to the fire. It is considered that applying water at a rate of 2000l/minute using the 100mm mains hydrant connection is sufficient to provide water to cool the fire as it follows the Environment Agency's Fire Prevention Plan Guidance. Contact was made with the local Fire and Rescue Service, and they confirmed they are happy to use the local fire hydrants to fight fires at the site. See letter in Appendix K. Water will be applied to the waste until temperatures return to ambient levels in all parts of the piles as measured by an infra-red thermometer. This area is served with a surface water drainage system, which will be sealed in the event of a fire using drain blockers. The site is concreted and is surrounded by a 15cm kerb to contain firewater. Contaminated firewater will be disposed of using an authorised waste contractor, where it can't be recycled as firewater or discharged to sewer with approval from Thames Water.
Bales of cardboard, plastic, cans and bottles.	Located under a canopy on hardstanding with sealed drainage. Water from the mains hydrants will be used to fight the fire.	Water from the mains hydrant connection will be applied to the fire. It is considered that applying water at a rate of 2000l/minute using the 100mm mains hydrant connection is sufficient to provide water to cool the fire as it follows the Environment Agency's Fire Prevention Plan Guidance. Contact was made with the local Fire and Rescue Service, and they confirmed they are happy to use the local fire hydrants to fight fires at the site. See letter in Appendix K. Water will be applied to the waste until temperatures return to ambient levels in all parts of the piles as measured by an infra-red thermometer. This area is served with a surface water drainage system, which will be sealed in the event of a fire using drain blockers. The site is concreted and is surrounded by a 15cm kerb to contain firewater. Contaminated firewater will be disposed of using an authorised waste contractor, where it can't be recycled as firewater or discharged to sewer with approval from Thames Water.
Mixed metal in a secure container	Water from the mains hydrants will be used to fight the fire	Water from the mains hydrant connection will be applied to the fire. It is considered that applying water at a rate of 2000l/minute using the 100mm mains hydrant connection is sufficient to provide water to cool the fire as it follows the Environment Agency's Fire Prevention Plan Guidance. Contact has been made with the local Fire and Rescue Service who have confirmed they are happy to use the local fire hydrants to fight fires at the site. See letter in Appendix K.

4.12 ABNORMAL OPERATING CONDITIONS

4.12.1 Operators must also consider what incidents or emergencies might increase the risk of fire in order that they can plan and take appropriate steps to reduce the likelihood of the incident occurring; minimise any impacts if the incident were to occur; and re-establish normal operations as quickly as possible.

4.12.2 Periods of very warm weather can increase the risk of fire. During these periods, additional site inspections and monitoring will take place, especially temperature monitoring of waste.

4.12.3 Maintenance operations, routine or otherwise, may increase the risk of fire by introducing potential ignition and heat sources. Separation distances between any ignition sources and combustible wastes will be adhered to as detailed in above. During maintenance operations, additional inspections will take place.

5 RECORDS AND REPORTING

5.1 RECORD KEEPING

5.1.1 Records will be maintained of the following activities on-site:

- Incidents including post-incident investigation.
- Feedstock management.
- Training of operatives.
- Site inspections.
- Maintenance.
- Monitoring.
- Testing of firefighting equipment; and
- Complaints.

5.1.2 All records of events and actions taken will be retained as required by the environmental permit.

5.2 NOTIFYING THE ENVIRONMENT AGENCY

5.2.1 In the event of a fire, the operator will notify the fire rescue service in the event of an emergency and the environment agency as soon as practically possible, using the emergency 24hr phone line (0800 80 70 60). A schedule 5 notification will be completed and submitted to the environment agency as soon as practically possible, and following the incident, the site manager will advise what remedial measures or actions have been taken to prevent further incidents, in accordance with the schedule 5 form.

5.3 FIRE PREVENTION PLAN REVIEW

5.3.1 This fire prevention plan will be regularly reviewed and updated by senior management.

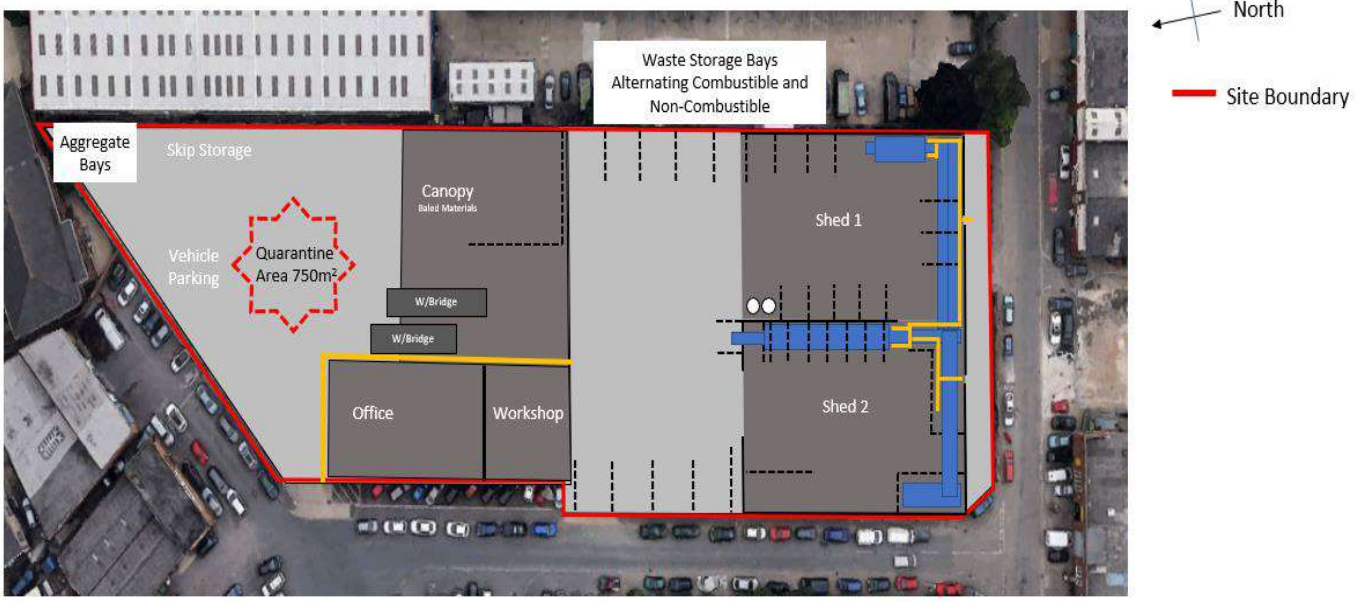
5.3.2 Any technical and managerial changes on site will also initiate a review of the fire prevention plan to ensure that the control techniques remain appropriate for the site.

5.3.3 The first review and update of the plan will occur during site commissioning prior to full operations commencing to include further detailed information on the proposed mitigation measures installed at the facility.

APPENDIX A: EMERGENCY CONTACT INFORMATION

SITE DETAILS		
Location: R Collard Ltd, 128 Cardiff Road, Reading, Berkshire		
Postcode: RG1 8PQ		
Site Access Grid Reference: SU 70523 74214		
SITE CONTACTS	Office Hours 08.30 – 17.00	Out of hours
Site Manager: Glen Long	0118 959 0252	07747 216928
Area Manager: Karen Kinsella	0118 959 0252	07774 312381
HSEQ Director: Paul Beardall	01252 844 688	07570 776506
Director of Operations: Lee Phelan	01252 844 688	07384 257697
EMERGENCY SERVICES	Office Hours	Out of hours
Emergency	999	999
Medical:	111/999	111/999
Police:	999	999
Fire:	999	999
REGULATORS	Office Hours	Out of hours
Health and Safety Executive (HSE)	0845 300 9923	0151 922 9235
Local Authority:	0118 937 3787	
Environment Agency (Local)	0870 850 6506	
Environment Agency (24-hour emergency hotline)	0800 80 70 60	
ADJACENT BUSINESS OWNERS		
UPS Reading	0345 787 7877	
Precision Aircraft Limited	0118 957 2768	

Reading Depot – Site Layout Plan



APPENDIX C: FIRE ALARM / SECURITY / DRAINAGE PLANS

(As per main permit variation application document and supporting information)


DO NOT SCALE
Works
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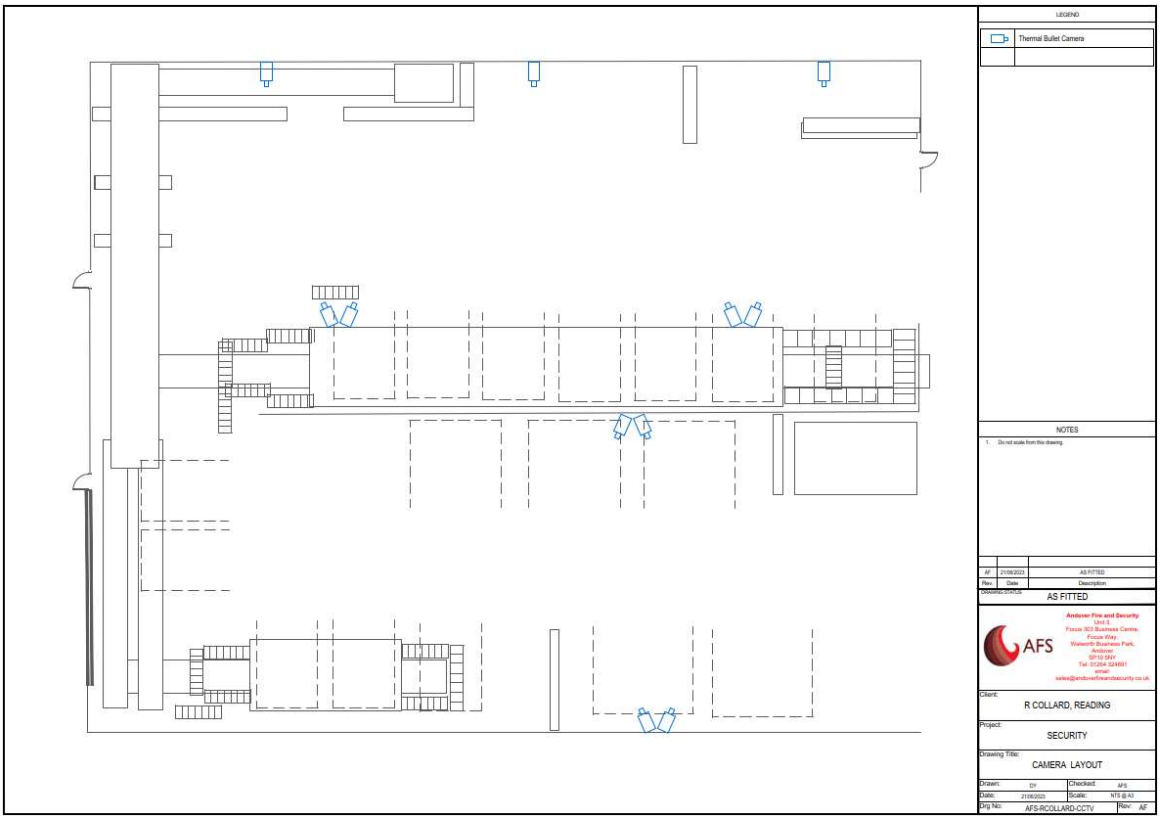
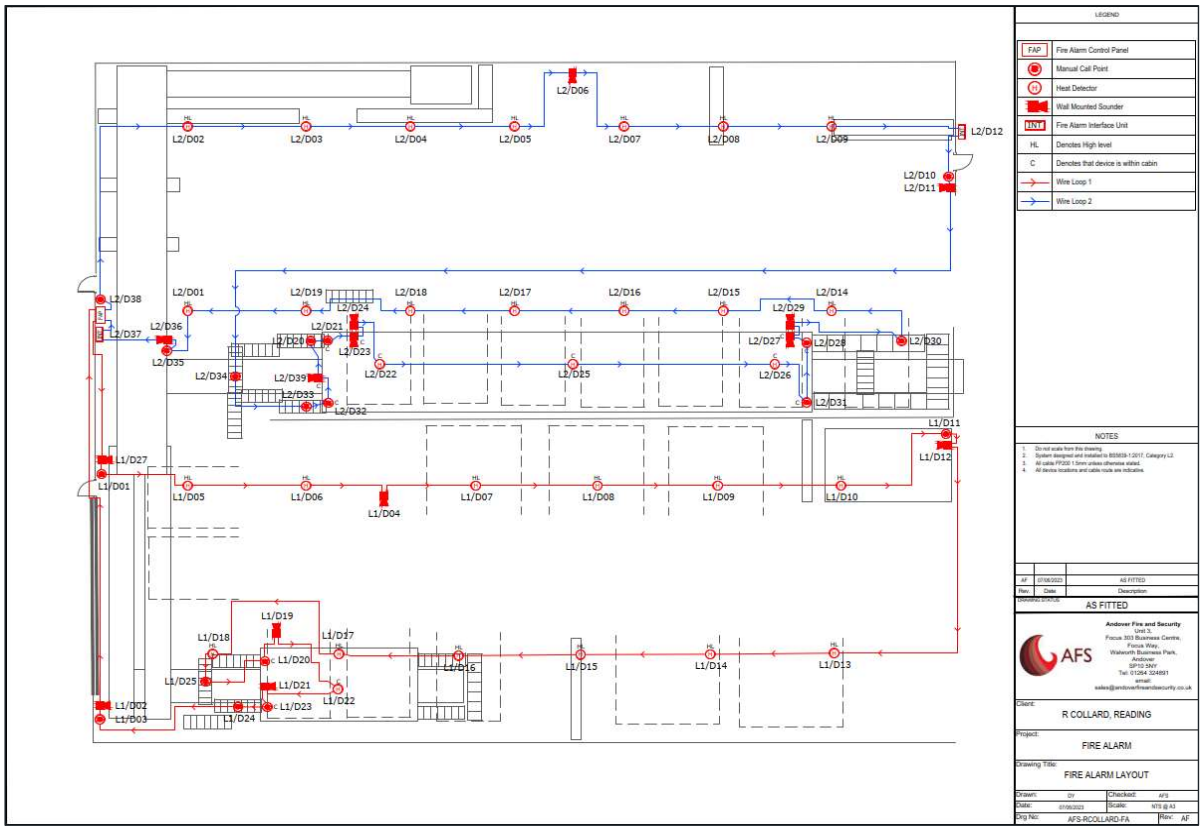
El
Sub Sta
TRAFFORD ROAD
Depot
140
128
124
+ 38.6m
+ 38.8m
CARDIFF ROAD
191 to 195
197
Works
S0 - WORK IN PROGRESS
R COLLARD LTD
WASTE RECYCLING CENTRE EXPANSION
DRAINAGE STRATEGY
RAINWATER AND SURFACE WATER
7063683-WSD-XX-SKETCH-DR
P02
© WSP UK Ltd


LEGEND
Thermal Bullet Camera
NOTES
1. Do not scale from this drawing.
AF 21/06/2023 AS FITTED
Rev Date Description
DRAWING STATUS
AS FITTED
Andover Fire and Security
Unit 3,
Focus 303 Business Centre,
Focus Way,
Walworth Business Park,
Andover
SP10 5NY
Tel: 01264 324691
email:
sales@andoverfireandsecurity.co.uk
AFS
Client:
R COLLARD, READING
Project:
SECURITY
Drawing Title:
CAMERA LAYOUT
Drawn: DY
Checked: AFS
Date: 21/06/2023
Scale: NTS @ A3
Drg No: AFS-RCOLLARD-CCTV
Rev: AF


LEGEND
FAP
Fire Alarm Control Panel
Manual Call Point
Heat Detector
Wall Mounted Sounder
FIRE ALARM INTERFACE UNIT
Fire Alarm Interface Unit
HL
Denotes High level
C
Denotes that device is within cabin
Wire Loop 1
Wire Loop 2
NOTES
AS FITTED
Andover Fire and Security
Unit 3,
Focus 303 Business Centre,
Focus Way,
Walworth Business Park,
Andover,
SP10 5NY
Tel: 01264 324891
email:
sales@andoverfireandsecurity.co.uk
Client:
R COLLARD, READING
Project:
FIRE ALARM
Drawing Title:
FIRE ALARM LAYOUT
Drawn:
Checked:
Date:
Scale:
NTS @ A3
Drg No:
AFS-RCOLLARD-FA
Rev:
AF
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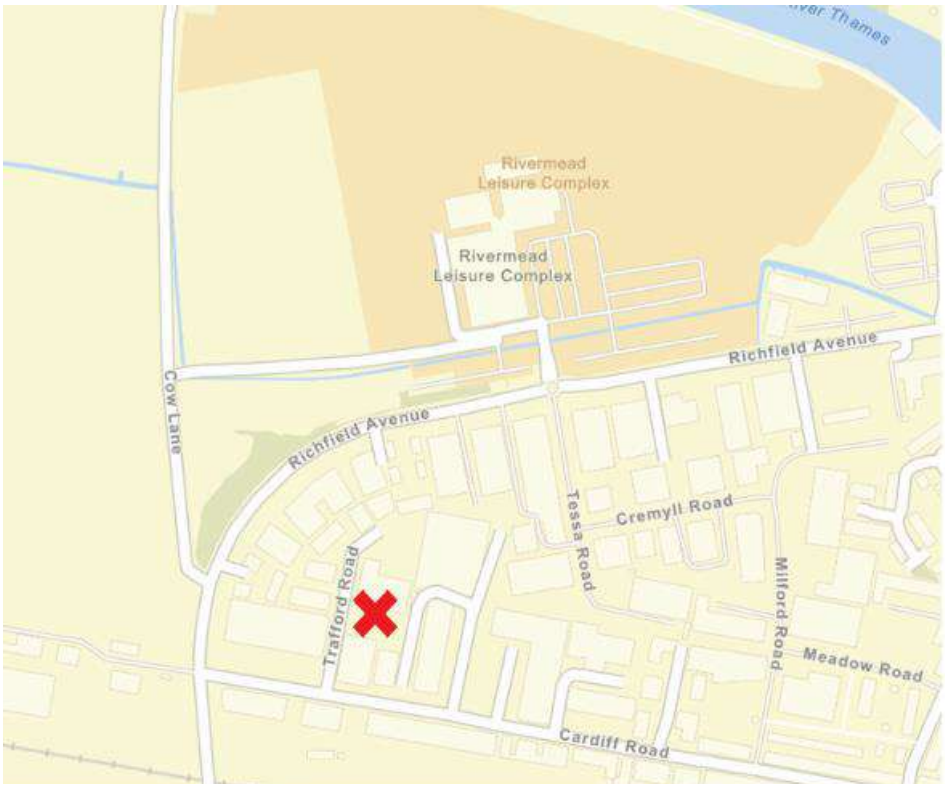
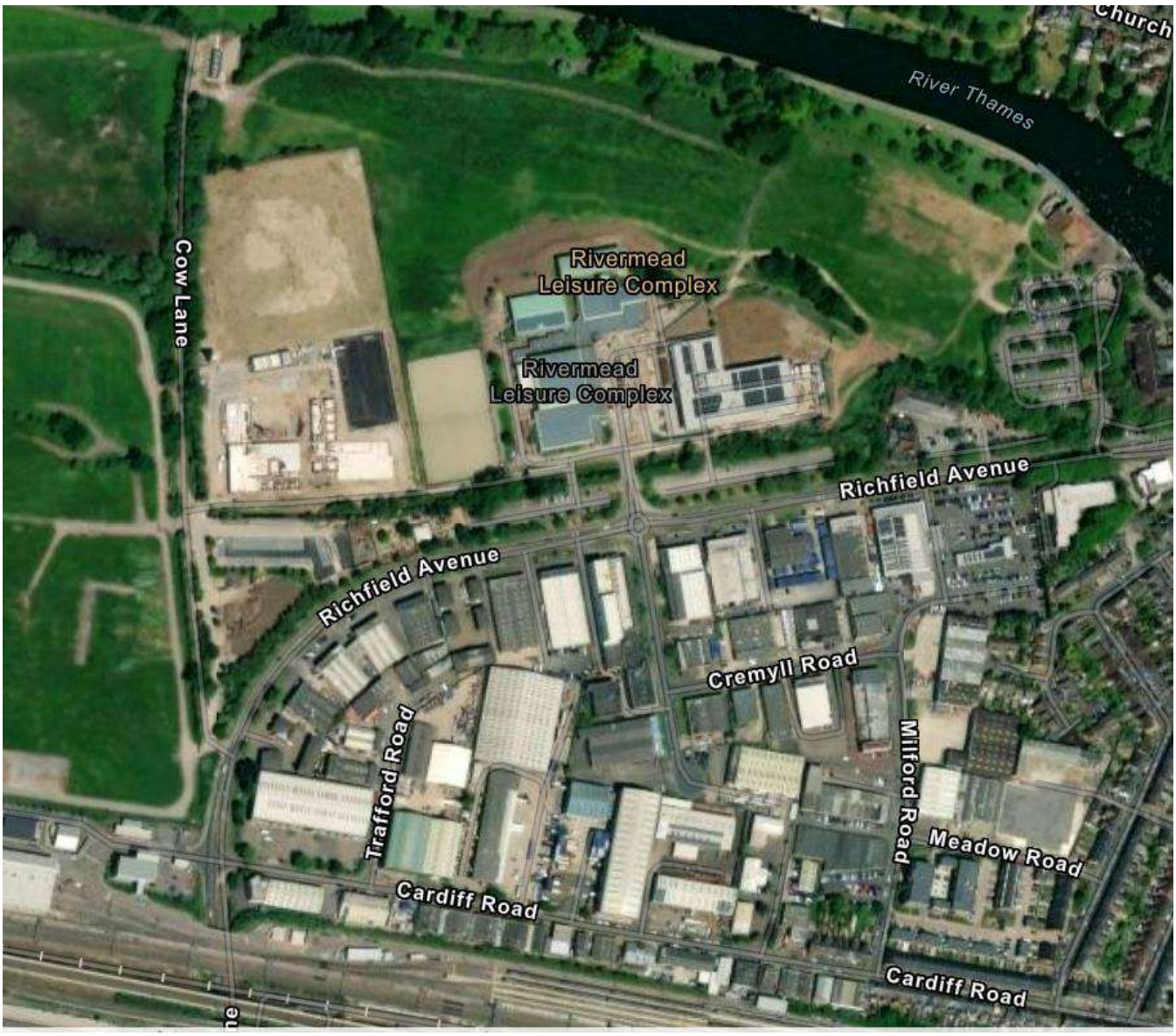
APPENDIX D: SITE LOCATION MAP



APPENDIX E: MAP OF SENSITIVE RECEPTORS

(AS PER ORIGINAL SUBMISSION – LOCATION MAP BELOW)



On Discovering a Fire:

- Sound the alarm by operating the nearest fire alarm call point.
- Dial 999 to call the fire service.
- If possible, tackle the fire with the appropriate firefighting equipment. Do not endanger yourself or others in doing so.
- Notify adjacent business that a fire has occurred.

On Hearing the Fire Alarm:

- Leave the building by the nearest available exit.
- Close all doors and windows to contain the smoke and fire.
- Report to the assembly point.
- DO NOT take personal risks.
- DO Not stop to collect personal belongings.
- DO NOT use lifts (if present).
- Do not re-enter the building for any reason, unless authorised to do so.

- Depending on your location within the company, the fire alarm will be identified as either a continuous alarm or a continuous blast on an air horn.
- Staff and/or visitors with a visual impairment may be guided on level surfaces by offering an arm. On stairways the guide should descend first and the person following can then place their hand on the guide's shoulder. If a member of staff or visitor is a guide dog user, they should be asked about how/if they can be assisted. Many disabled people will be able to descend (or ascend) a stairway, however others may need assistance.
- If it is safe to do so wheelchairs, guide dogs and other 'equipment' must be evacuated as well as the disabled person.
- Where disabled staff and visitors are unable to use stairways without assistance, it will be necessary to identify refuge areas. Refuge areas provide a place of relative safety for disabled staff and visitors to be before being assisted to a final exit.
- During an evacuation, Fire Marshals will assume responsibility for the identification of people that have evacuated the building.
- During an evacuation, our access software will identify who is in the building at the time of evacuation, so as to form an accurate roll call.
- During a live evacuation, competent fire marshals will take overall responsibility for ensuring everyone leaves the building as safely as possible, for controlling the assembly point, for conducting the roll call and for coordinating with the Fire Service.

APPENDIX G: WASTE ACCEPTANCE PROCEDURES

1. **Purpose**

   To detail the correct procedure for safely accepting waste on-site and ensuring that the required legal paperwork is completed correctly in order to ensure all waste acceptance and removal is correctly recorded

2. **Scope**

   All waste streams arriving onto site

3. **Relevant Legislation**
   - *Environmental Protection Act* 1990 (Duty of Care)
   - *Environmental Permitting Regulations* 2016 (as amended)

4. **General**

   It is important that Transfer Notes for the receipt of waste on site are completed correctly and with sufficient level of detail to ensure knowledge of, and therefore control over, the waste streams generated and removed from the site.

5. **Procedure for Waste Transfer Facility**

   Upon arrival to the waste transfer facility, all waste delivery vehicles will be directed to the weighbridge near the site offices and underneath the canopy covered area. Drivers will then report to the weighbridge office and provide documents detailing the source and description of the waste. Where possible, loads will be visually inspected by the weighbridge operator to ensure compliance with the permit.

   Waste will only be accepted from licenced waste carriers.

   The following details will be recorded.

   - The date and time of delivery of the load.
   - The origin of the waste.
   - The quantity and characteristics of the waste.
   - The producer.
   - Details and description of the vehicle delivering the waste, the driver's signature and the operator of the vehicle.
   - Any other information as applicable, such as whether the load is 'hot' and requires quarantine prior to processing, or whether a non-permitted waste code has been received.

All waste must be accompanied by a waste transfer note in order to be accepted at the site. The waste transfer note will be check at the weighbridge and all paperwork will be completed there at the weighbridge office. A waste acceptance checks will be undertaken at the weighbridge with additional visual checks being undertaken at the point of discharge and during the processing of the waste. Site operatives are made aware of the permitted waste types and a copy of them appears below.

No waste will be accepted at the site which does not comply with the conditions of the Environmental Permit. Any loads that are found not to comply with the conditions of the Permit, or do not conform to the description provided by the waste producer/carrier will not be accepted at the site. A note will be made in the site diary of any incidents involving unauthorised waste, and a record of the rejected waste will be maintained.

In the event that none permitted wastes are inadvertently delivered to the site, the unauthorised waste will be loaded back onto the vehicle that discharged it, if it is possible and safe to do so. If this is not possible, then the unauthorised waste will be stored on the site in one of the two quarantine areas in the external yard. Such wastes will be removed from the site as soon as practicable. The incident management procedures in the company Management System will be employed and appropriate records will be kept of the incident and subsequent action.

In the event that a hot load is received, for example, a load which is emitting steam, smoke or has a temperature of >10°C above ambient, the load will be quarantined. the load will be placed into one of the quarantine areas until it has cooled sufficiently to allow processing.

R Collard- Waste Types	
Waste Codes	**Description**
01	**WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND PHYSICAL AND CHEMICAL TREATMENT OF MINERALS**
01 01	**wastes from mineral excavation**
01 01 01	wastes from mineral metalliferous excavation
01 01 02	wastes from mineral non-metalliferous excavation
01 03	**wastes from physical and chemical processing of metalliferous minerals**
01 03 06	tailings other than those mentioned in 01 03 04 and 01 03 05
01 03 09	red mud from alumina production other than wastes mentioned in 01 03 07
01 04	**wastes from physical and chemical processing of non-metalliferous minerals**
01 04 08	waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	waste sand and clays
01 04 11	wastes from potash and rock salt processing other than those mentioned in 01 04 07
01 04 12	tailings and other wastes from washing and cleaning of minerals other than those mentioned in 01 04 07 and 01 04 11
01 04 13	wastes from stone cutting and sawing other than those mentioned in 01 04 07
02	**WASTES FROM AGRICULTURE, HORTICULTURE, AQUACULTURE, FORESTRY, HUNTING AND FISHING, FOOD PREPARATION AND PROCESSING**
02 01	**wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing**
02 01 03	plant-tissue waste
02 01 04	waste plastics (except packaging)
02 01 07	wastes from forestry
02 01 10	waste metal
02 02	**wastes from the preparation and processing of meat, fish, and other foods of animal origin**
02 02 03	materials unsuitable for consumption or processing
02 03	**wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, tea and tobacco preparation and processing; conserve production; yeast and yeast extract production, molasses preparation and fermentation**
02 03 04	materials unsuitable for consumption or processing
02 04	**Wastes from sugar processing**

02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 05	**Wastes from the dairy products industry**
02 05 01	materials unsuitable for consumption or processing
02 06	**Wastes from the baking and confectionary industry**
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 07	**Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)**
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials
02 07 02	wastes from spirits distillation
02 07 03	materials unsuitable for consumption or processing
03	**WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PANELS AND FURNITURE, AND CARDBOARD**
03 01	**wastes from wood processing and the production of panels and furniture**
03 01 01	waste bark and cork
03 01 05	sawdust, shavings, cuttings, wood, particle board and veneer other than those mentioned in 03 01 04
03 03	**wastes from pulp, paper and cardboard production and processing**
03 03 01	waste bark and wood
03 03 07	mechanically separated rejects from pulping of wastepaper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	Fibre rejects, fibre-, filler- and coating-sludges from mechanical separation
04	**WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES**
04 01	**wastes from the leather and fur industry**
04 01 08	waste tanned leather (blue sheeting, shavings, cuttings, buffing dust) containing chromium
04 01 09	wastes from dressing and finishing
04 02	**wastes from the textile industry**
04 02 21	wastes from unprocessed textile fibres
04 02 22	wastes from processed textile fibres
06	**WASTES FROM INORGANIC CHEMICAL PROCESSES**
06 09	**wastes from the MSFU of phosphorous chemicals and phosphorous chemical processes**
06 09 02	phosphorous slag

06 09 04	calcium-based reaction wastes other than those mentioned in 06 09 03
06 11	**wastes from the manufacture of inorganic pigments and opacificiers**
06 11 01	calcium-based reaction wastes from titanium dioxide production
07	**WASTES FROM ORGANIC CHEMICAL PROCESSES**
07 02	**wastes from the MFSU of plastics, synthetic rubber and man-made fibres**
07 02 13	waste plastic
09	**WASTES FROM THE PHOTOGRAPHIC INDUSTRY**
09 01	**wastes from the photographic industry**
09 01 07	photographic film and paper containing silver or silver compounds
09 01 08	photographic film and paper free of silver or silver compounds
09 01 10	single-use cameras without batteries
09 01 12	single-use cameras containing batteries other than those mentioned in 09 01 11
10	**WASTES FROM THERMAL PROCESSES**
10 01	wastes from power stations and other combustion plants (except 19)
10 01 01	bottom ash, slag and boiler dust (excluding boiler dust mentioned in 10 01 04)
10 01 05	calcium-based reaction wastes from flue-gas desulphurisation in solid form
10 01 07	calcium-based reaction wastes from flue-gas desulphurisation in sludge form
10 01 15	bottom ash, slag and boiler dust from co-incineration other than those mentioned in 10 01 14
10 01 19	wastes from gas cleaning other than those mentioned in 10 01 05, 10 01 07 and 10 01 18
10 01 24	sands from fluidised beds
10 02	**wastes from the iron and steel industry**
10 02 01	wastes from the processing of slag
10 02 02	unprocessed slag
10 02 08	solid wastes from gas treatment other than those mentioned in 10 02 07
10 02 10	mill scales
10 02 14	filter cakes from gas treatment other than those mentioned in 10 02 13
10 02 15	other filter cakes
10 03	**wastes from aluminum thermal metallurgy**
10 03 02	anode scraps
10 03 05	waste alumina
10 03 16	skimming other than those mentioned in 10 03 15
10 03 18	carbon-containing wastes from anode manufacture other than those mentioned in 10 03 17

10 03 24	solid wastes from gas treatment other than those mentioned in 10 03 23
10 03 26	filter cakes from gas treatment other than those mentioned in 10 03 25
10 03 28	wastes from cooling-water treatment other than those mentioned in 10 03 27
10 03 30	wastes from treatment of salt slags and black drosses other than those mentioned in 10 03 29
10 04	**wastes from lead thermal metallurgy**
10 04 10	wastes from cooling-water treatment other than those mentioned in 10 04 09
10 05	**wastes from zinc thermal metallurgy**
10 05 01	slags from primary and secondary production
10 05 09	wastes from cooling-water treatment other than those mentioned in 10 05 08
10 05 11	dross and skimmings other than those mentioned in 10 05 10
10 06	**wastes from copper thermal metallurgy**
10 06 01	slags from primary and secondary production
10 06 02	dross and skimmings from primary and secondary production
10 06 10	wastes from cooling-water treatment other than those mentioned in 10 06 09
10 07	**wastes from silver, gold and platinum thermal metallurgy**
10 07 01	slags from primary and secondary production
10 07 02	dross and skimmings from primary and secondary production
10 07 03	solid wastes from gas treatment
10 07 05	filter cakes from gas treatment
10 07 08	wastes from cooling-water treatment other than those mentioned in 10 07 07
10 08	**wastes from other non-ferrous thermal metallurgy**
10 08 09	other slags
10 08 11	dross and skimmings other than those mentioned in 10 08 10
10 08 13	carbon-containing wastes from anode manufacture other than those mentioned in 10 08 12
10 08 14	anode scrap
10 08 18	filter cakes from flue-gas treatment other than those mentioned in 10 08 17
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 09	**wastes from casting of ferrous pieces**
10 09 03	furnace slag
10 09 06	casting cores and moulds which have not undergone pouring other than those mentioned in 0 09 05
10 09 08	casting cores and moulds which have undergone pouring other than those mentioned in 10 09 07

10 09 14	waste binders other than those mentioned in 10 09 13
10 09 16	waste crack-indicating agent other than those mentioned in 10 09 15
10 10	**wastes from casting of non-ferrous pieces**
10 10 03	furnace slag
10 10 06	casting cores and moulds which have not undergone pouring, other than those mentioned in 10 10 05
10 10 08	casting cores and moulds which have undergone pouring, other than those mentioned in 10 10 07
10 10 14	waste binders other than those mentioned in 10 10 13
10 10 16	waste crack-indicating agent other than those mentioned in 10 10 15
10 11	**wastes from manufacture of glass and glass products**
10 11 03	waste glass-based fibrous materials
10 11 10	waste preparation mixture before thermal processing, other than those mentioned in 10 11 09
10 11 12	waste glass other than those mentioned in 10 11 11
10 11 16	solid wastes from flue-gas treatment other than those mentioned in 10 11 15
10 11 18	filter cakes from flue-gas treatment other than those mentioned in 10 11 17
10 12	**wastes from manufacture of ceramic goods, bricks, tiles and construction products**
10 12 01	waste preparation mixture before thermal processing
10 12 05	filter cakes from gas treatment
10 12 06	discarded moulds
10 12 08	waste ceramics, bricks, tiles and construction products (after thermal processing)
10 12 10	solid wastes from gas treatment other than those mentioned in 10.12 09
10 12 12	wastes from glazing other than those mentioned in 10.12.11
10 13	**wastes from manufacture of cement, lime and plaster and articles and products made from them**
10 13 01	waste preparation mixture before thermal processing
10 13 04	wastes from calcination and hydration of lime
10 13 07	filter cakes from gas treatment
10 13 10	wastes from asbestos-cement manufacture other than those mentioned in 10 13 09
10 13 11	wastes from cement-based composite materials other than those mentioned in 10 13 09 and 10 13 10
10 13 13	solid wastes from gas treatment other than those mentioned in 10 13 12
10 13 14	waste concrete
11	**WASTES FROM CHEMICAL SURFACE TREATMENT AND COATING OF METALS AND OTHER MATERIALS; NON-FERROUS HYDRO METALLURGY**
11 01	**wastes from chemical surface treatment and coating of metals and other materials**

	(for example galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 10	filter cakes other than those mentioned in 11 01 09
11 01 14	degreasing wastes other than those mentioned in 11 01 13
11 02	**wastes from non-ferrous hydrometallurgical processes**
11 02 03	wastes from the production of anodes for aqueous electrolytical processes
11 02 06	wastes from copper hydrometallurgical processes other than those mentioned in 11 02 05
11 05	**wastes from hot galvanising processes**
11 05 01	hard zinc
11 05 02	zinc ash
12	**WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND PLASTICS**
12 01	**wastes from shaping and physical and mechanical surface treatment of metals and plastics**
12 01 01	ferrous metal filings and turnings
12 01 03	non-ferrous metal filings and turnings
12 01 05	plastics shavings and turnings
12 01 13	welding wastes
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
15 01	**packaging (including separately collected municipal packaging waste)**
15 01 01	paper and cardboard packaging
15 01 02	plastic packaging
15 01 03	wooden packaging
15 01 04	metallic packaging
15 01 05	composite packaging
15 01 06	mixed packaging
15 01 07	glass packaging
15 01 09	textile packaging
15 02	**absorbents, filter materials, wiping cloths and protective clothing**
15 02 03	absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
16	**WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
16 01	**end-of-life vehicles from different means of transport [including off-road machinery] and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13,14, 16 06 and 16 08)**
16 01 03	end-of-life tyres

16 02	**wastes from electrical and electronic equipment**
16 02 14	discarded equipment other than those mentioned in 16 02 09 to 16 02 13
16 02 16	components removed from discarded equipment other than those mentioned in 16 02 15
16 03	**off-specification batches and unused products**
16 03 04	inorganic wastes other than those mentioned in 16 03 03
16 03 06	organic wastes other than those mentioned in 16 03 05
16 06	**batteries and accumulators**
16 06 04	alkaline batteries (except 16 06 03)
16 06 05	other batteries and accumulators
16 11	**waste linings and refractories**
16 11 02	carbon-based linings and refractories from metallurgical processes others than those mentioned in 16 11 01
16 11 04	other linings and refractories from metallurgical processes other than those mentioned in 16 11 03
16 11 06	linings and refractories from non-metallurgical processes others than those mentioned in 16 11 05
17	**CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL FROM CONTAMINATED SITES)**
17 01	**concrete, bricks, tiles and ceramics**
17 01 01	concrete
17 01 02	bricks
17 01 03	tiles and ceramics
17 01 07	mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06
17 02	**wood, glass and plastic**
17 02 01	wood
17 02 02	glass
17 02 03	plastic
17 03	**bituminous mixtures, coal tar and tarred products**
17 03 02	bituminous mixtures other than those mentioned in 17 03 01
17 04	**metals (including their alloys)**
17 04 01	copper, bronze, brass
17 04 02	aluminium
17 04 03	lead
17 04 04	Zinc
17 04 05	iron and steel

17 04 06	Tin
17 04 07	mixed metals
17 04 11	cables other than those mentioned in 17 04 10
17 05	**soil (including excavated soil from contaminated sites), stones and dredging spoil**
17 05 04	soil and stones other than those mentioned in 17 05 03
17 05 08	track ballast other than those mentioned in 17 05 07
17 06	**insulation materials and asbestos-containing construction materials**
17 06 04	insulation materials other than those mentioned in 17 06 01 and 17 06 03
17 08	**gypsum-based construction material**
17 08 02	gypsum-based construction materials other than those mentioned in 17 08 01
17 09	**other construction and demolition wastes**
17 09 04	mixed construction and demolition waste other than those mentioned in 17 09 01, 17 09 02 and 17 09 03
18	**Healthcare Wastes**
18 01	Human healthcare wastes
18-01-01	Sharps [except for 18-01-03]
18-01-03*	Sharps and related wastes including cytotoxic and cytostatic contaminated, other medicinally contaminated or non-medically contaminated. Infectious clinical waste (no chemicals or pharmaceuticals) - orange bag.
18-01-04	Outer dressings and protective clothing like masks, gowns and gloves that are contaminated with body fluids, and sterilised laboratory waste. Plaster and similar wastes, for example from dentistry and fracture clinics
18-01-06*	Laboratory chemicals and photochemicals – other chemicals (hazardous). Infectious clinical wastes (yellow bag)
18-01-07	Laboratory chemicals and photochemicals – other chemicals
18-02-02*	Animal healthcare waste including sharps and related wastes including cytotoxic and cytostatic contaminated, other medicinally contaminated or non-medically contaminated. Infectious clinical waste (no chemicals or pharmaceuticals) - orange bag.
18-02-05*	Animal healthcare waste including Infectious clinical wastes (yellow bag).
18-02-07*	Animal healthcare waste including sharps and related wastes including cytotoxic and cytostatic contaminated, other medicinally contaminated or non-medically contaminated.
18-01-08*	Cytotoxic and cytostatic medicines
18-01-09	Other medicines
18 02	**Research and animal / healthcare wastes.**
18-02-01	Sharps [except 18-02-02].
18-02-02*	Animal healthcare waste including sharps and related wastes including cytotoxic and cytostatic contaminated, other medicinally contaminated or non-medically contaminated. Infectious clinical waste (no chemicals or pharmaceuticals) - orange bag.
18-02-05*	Animal healthcare waste including laboratory chemicals and photochemicals – other chemicals

18-02-06	Animal healthcare waste including laboratory chemicals and photochemicals – other chemicals
18-02-07*	Animal healthcare waste including cytotoxic and cytostatic medicines
18-02-08	Animal healthcare waste including other medicines
19	**WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTEWATER TREATMENT PLANTS AND PREPARATION OF WATER INTENDED FOR HUMAN CONSUMPTION/INDUSTRIAL USE**
19 01	**wastes from incineration or pyrolysis of waste**
19 01 02	ferrous materials removed from bottom ash
19 01 12	bottom ash and slag other than those mentioned in 19 01 11
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 01 19	sands from fluidised beds
19 02	**wastes from physico/chemical treatments of waste (including dechromatation, decyanidation, neutralisation)**
19 02 03	premixed wastes composed only of non-hazardous wastes
19 02 10	combustible wastes other than those mentioned in 19 02 08 and 19 02 09
19 04	**vitrified waste and wastes from vitrification**
19 04 01	vitrified waste
19 05	**wastes from aerobic treatment of solid wastes**
19 05 01	non-composted fraction of municipal and similar wastes
19 05 02	non-composted fraction of animal and vegetable waste
19 05 03	off-specification compost
19 12	**wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified**
19 12 01	paper and cardboard
19 12 02	ferrous metal
19 12 03	non-ferrous metal
19 12 04	plastic and rubber
19 12 05	glass
19 12 07	wood other than that mentioned in 19 12 06
19 12 08	textiles
19 12 09	minerals (for example sand, stones)
19 12 10	combustible waste (refuse derived fuel)
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11.
19 13	**wastes from soil and groundwater remediation**

19 13 02	solid wastes from soil remediation other than those mentioned in 19 13 01
20	**MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS**
20 01	**separately collected fractions (except 15 01)**
20 01 01	paper and cardboard
20 01 02	Glass
20 01 08	biodegradable kitchen and canteen waste
20 01 10	Clothes
20 01 11	Textiles
20 01 13*	Acids
20 01 14*	Alkalines
20 01 17*	Photochemicals
20 01 19*	Pesticides
20 01 21*	Fluorescent tubes and other mercury-containing waste
20 01 23*	Discarded equipment containing chlorofluorocarbons
20 01 25	Edible oils and Fats
20 01 26*	Oil and fat other than those mentioned in 20 01 25
20 01 27*	Paint, inks, adhesives, and resins containing hazardous substances
20 01 28	Paint, inks, adhesives, and resins other than those mentioned in 20 01 27
20 01 29*	Detergents containing hazardous substances
20 01 30	Detergents other than those mentioned in 20 01 29
20 01 33*	Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries
20 01 34	batteries and accumulators other than those mentioned in 20 01 33
20 01 35*	Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35
20 01 37*	Wood containing hazardous substances
20 01 38	wood other than that mentioned in 20 01 37
20 01 39	Plastics
20 01 40	Metals
20 01 41	wastes from chimney sweeping
20 01 99	Other fractions not otherwise specified – including hygiene waste and sanitary protection like nappies and incontinence pads

20 02	**garden and park wastes (including cemetery waste)**
20 02 01	biodegradable waste
20 02 02	soil and stones
20 03	**other municipal wastes**
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 07	bulky waste

APPENDIX I: MAINTENANCE AND INSPECTION CHECKLIST

The programme of planned preventative maintenance seeks to minimise the risk to safety, health and the environment by ensuring that all appropriate items and elements within the site are serviced and inspected on a regular basis. All plant and equipment will be maintained in accordance with their manufacturing warranties and guidance given by the supplier.

Whilst the maintenance programme will be followed to minimise the failure of equipment, there may be faults, breakdowns or unplanned repairs needed at other times. In the event that this does happen details will be documented within the site diary. Faults and breakdowns will be investigated, and the service schedule revised if necessary.

Scope:

This procedure applies to the entire site, including plant and machinery.

Responsibilities:

The Site Manager is responsible for maintaining the site.

Maintenance Checklist

Item requiring maintenance	**How often? (Tick the appropriate box)**					
	Daily	**Weekly**	**Monthly**	**Quarterly**	**Annually**	**Bi-Annually**
Check the forecourt interceptors for blockages/liquid level		✔				
Check and maintain the plant and equipment in accordance with the manufacturers and check for signs of wear and tear.			✔			
Check drains and drainage channels for blockages		✔				
Check for and clean any spills	✔					

on surfaced areas						
Check the condition of fences and gates.			✔			
Check the hardstanding for cracks or signs of visible damage			✔			
Check the floor of the waste reception building for cracks and signs of damage			✔			
Inspect the drainage sump in the waste reception building for potential leaks and quantity of liquid within it.		✔				
Inspect all waste processing areas for the build-up of loose combustible waste, dust and fluff. Sweep and remove as required.	✔					

APPENDIX J: HOT WORKS PROCEDURE

Hot works are only to be carried out once a Permit to Work, Safe Systems of Work and Hot Works Permit have been submitted to the Site Manager and approved. The permit must detail arrangements to prevent fire propagation and minimise risk of harm to workers directly involved in the task and other members of staff, and final inspection and permit closure by a competent person.

Hot works will preferentially be conducted in the workshop, but if required, may be undertaken at other locations within the site boundary. Before any cutting welding or grinding is carried out ensure that any flammable and combustible substances are clear of the work area. If applicable, the surrounding area may be damped down with water. However, this must consider preventing pooled water and consider the risk of electric shock if electro-arc welding is to be used. It is also important to ensure the area is adequately ventilated to reduce expose to welding fumes and shielding gases.

Check that there are no unauthorised people in the area and advise other staff that you are about to weld so they can take the necessary precautions. E.G. Not to look at the arc or flame.

Ensure that you have the relevant PPE e.g., goggles, welding mask, heat resistant gloves.

If it is possible position welding screens around the area to catch sparks etc. that will come off the welding / cutting and to shield other people from the arc etc. Check that you know where the fire extinguishers are positioned. In some cases, it may be advisable to position a fire extinguisher by the area being worked in.

Check that the equipment that you are about to use is in good working order all cables are not damaged or trapped and are clear of the area to be worked which includes the area where sparks or hot metal will fall. If using gas equipment, ensure that all pipes are in good order and are clear of the area to be worked which includes the area where sparks or hot metal will fall. Also check that the regulators and torch and flash back arrestors are in good working order and connected properly.

Carry out a visual risk assessment of the job and if required ask a colleague to assist. You can then proceed to carry out the job in hand you will need to stop work and keep checking around you for any signs of fire or possible damage caused by sparks or hot metal.

When you have completed the welding, cutting or grinding check the whole area for any signs of smoke or fire if using gas equipment ensure that the bottles are turned off and regulators are wound back to the off position and valves on the torch are turned off. If using welding and other electrical equipment, ensure that this is all turned off and put away

Continue to monitor the area for at least one hour after the job is finished. Whenever possible welding, cutting or grinding should not be carried out in the last hour of the working day to allow the area to be monitored for one hour after the works have finished.

From: Peter Gray <grayp@RBFRS.co.uk>
Sent: 30 January 2018 14:22
To: Steph Charnaud <Steph.Charnaud@enzygo.com>
Subject: RE: Waste Site Fire Prevention Plan - Hydrant Location

Good afternoon, Steph

The building in question, 128 Cardiff Road, Reading has 3 Fire Hydrants around it and the furthest one is 50 meters away from the boundary. The other 2 are closer with the one in Trafford Road being on the opposite side of the road.

All 3 could be comfortably used in an incident

I hope this answers your question?

Many thanks

Peter

Peter Gray

Water & Logistics Officer

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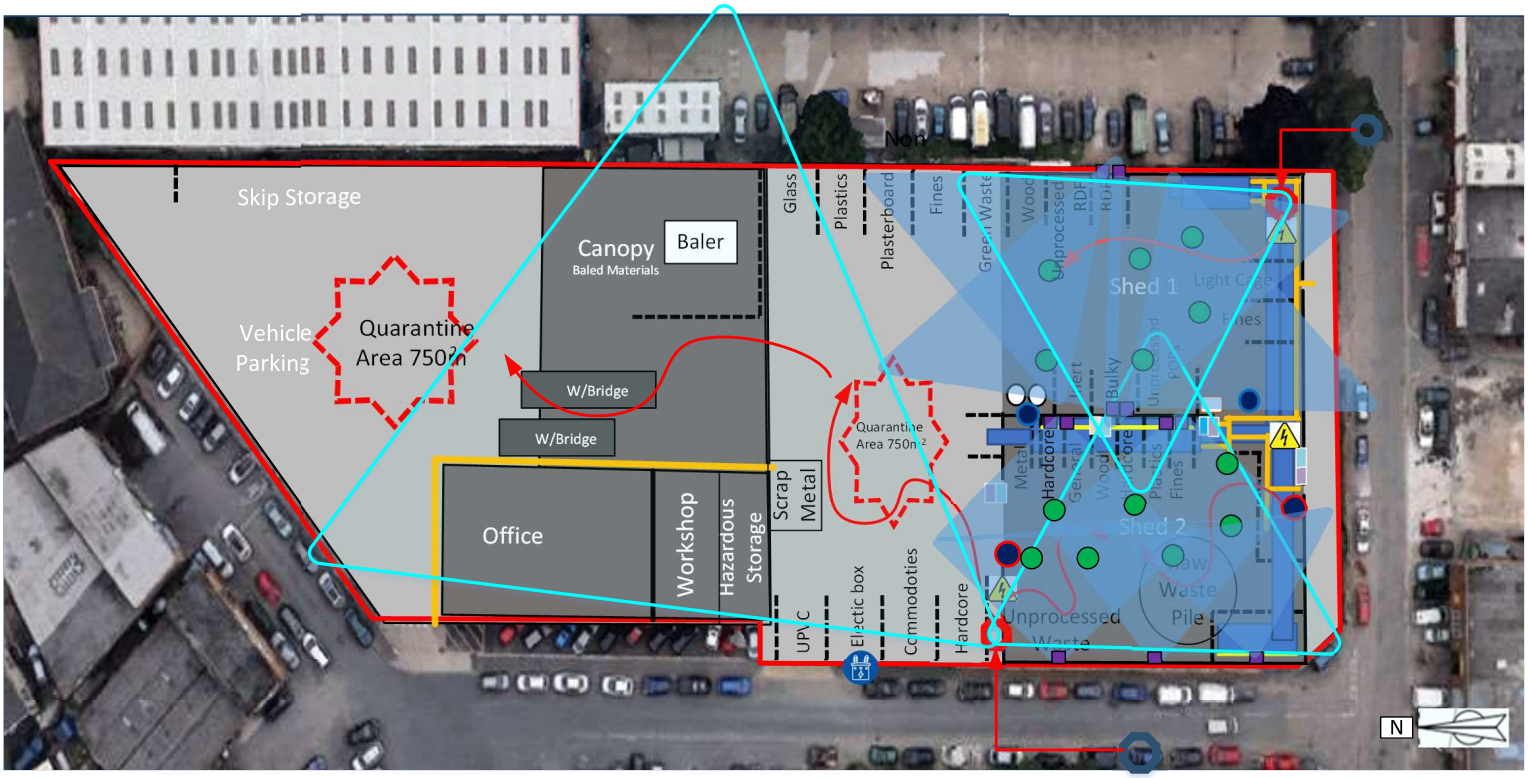

- Recycling Plant
- Walkways
- Water Tank
- Sub-station
- Electrical Box
- 5000ltr Mist Air Water Tank
- Fire Hydrant
- Fire Hose Connectors
- Fire Hoses
- Atomiser Sprinkler Head
- Fire Blanket Coverage
- CO2 Extinguisher
- Powder Extinguisher
- Foam Extinguisher
- Water Extinguisher
- Early Warning Heat Detection Camera
- Heat Detection Camera Coverage
- Water Feed with Hose
- Water Feed
- Fire Hose Coverage

Fire Suppression System details

i. Version History

Document Control					
Version	**Date**	**Page**	**Revised By**	**Reason for change**	**Approved by**
1	**15/10/21**			**Original document**	**Chris Walsh**
2	**10/05/22**		**Glen Long / Karen Kinsella**	**EA feedback**	**Chris Walsh**

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Appendices

1.0 Introduction

On 17 October 2018 Collard was issued a permit variation for Reading Materials Recycling facility (EPR/EB3500KB/V002). The permit issued had an improvement programme detailed within Table 1.3 Improvement Programme Requirements as detailed below: -

Table 1.3 Improvement Programme Requirements		
Reference	Requirement	Date
1	The operator shall install a suppression system within the building. The design, installation and maintenance of the system will be covered by an appropriate UKAS-accredited third-party certification scheme as in accordance with the FPP. Details of the system will be submitted to the EA for approval and documents and procedures will be updated to reflect this change once the system is installed.	Within 6 months from date of issue of the permit variation.

This document details the system covered by an appropriate UKAS-accredited third-party certification scheme, including the documents and procedures which have been updated to reflect any changes.

2.0 Installed Fire Suppression System (FSS)

Designer and installation of the system

Harrold Jones Services (HJS), is the qualified company carrying out the design and installation of the FSS.

The FSS in located both inside and outside of the main waste building located on the site. Please refer to Appendix 1 and Appendix 2 for diagrams illustrating the system.

The system is proportionate in nature and scale when considering the risk associated with the operation. The risks are identified in Collard attached Fire Prevention Plan (FPP), along with the mitigating measure employed to reduce the risks to acceptable levels to allow operations to commence.

The system is a multiple approach system that will allow any potential fire to be detected, and if necessary extinguished within 4 hours. The system has been designed to have full and successful integration with FRS. The system includes the following: -

Early warning and video fire detection system

- UKAS Accredited (BS 5839) total integration of the fire system and video detection early warning system

- The systems offered utilises the Gent by Honeywell Vigilon 1-4 Loop Panels managed protocol system using S-Quad peripheral devices. Also utilising Ciqurix video detection
- A 1 x 1-loop, self-contained panel complete with integral batteries, which will be surface mounted in the Gent standard finish.
- The peripheral devices comprise: -
    - Manual Call Points
    - Optical Heat
    - Smoke/Sounders
    - Interfaces
    - Optical/Heat Sounder/strobes
    - Electronic Sounder/strobes
    - Video Fire Cam
- All these devices are loop-powered and include individual loop short circuit isolation.
- The system is based on a “one-out, all-out”, cause and effect.
- The system is capable of offering a two-stage alarm.
- An audibility test will be carried out during commissioning to ascertain the acceptability of the sound pressure levels. If there are areas deemed unacceptability low these will be highlighted and additional sounders will be installed.

Equipment and materials

To carry out the above the following will be required ***Control Panel***		1
Vigilon Panel c/w 1 Loop Card and Batteries	VIG1-24	1
MCP's		4
Vigilon Manual Call Point with resettable element	S4-34805	9
Back Box for Manual Call Point	S4-34892	9
Manual call point covers	Cover-1	9
Detectors		30
O2HStSp - Dual Optical+Heat Multisensor+Strobe+Speech or Sounder	S4-711-ST-VO	3
Base – Common for all S-Quad Sensors	S4-700	3
Audible Alarms		1
Electronic Sounder/Strobe - red body, red lens	S3-SN-ST-RR-V2	13
Ancillary Items		1
Single Channel mains rated output Interface c/w metal enclosure	S4-34415	1
Four Channel Interface complete with large enclosure	S$-34420	1

Commissioning and Installation		1
Commissioning & Certification	COMM	1
Cable and Sundries	Install	1

Fire suppression system

- UKAS certified fire reel hoses are located outside of the main waste building areas for use by the FRS or the responsible person
- UKAS certified cup-links and connectors are also located outside of the main waste building for the FRS or responsible person to attach
- 3 fire hydrant supplies are located within 50 meters of the waste building, with access to 2 aspects. Each hydrant is 100mm in diameter, and therefore capable of delivering 2000/l per minute.
- Fire blankets strategically located for maximum impact based on risk profile of the various waste types as detailed within the FPP.
- Automated suppression system where the primary function is for dust suppression, however this system will contribute towards extinguishing any fire within the 4 hours required, as detailed within the FPP.
- Heat monitoring completed daily throughout periods of sustained high temperatures, this monitoring takes place 3 times per day using a UKAS certified heat gun.
- Fire extinguishers as detailed in Appendix 1 Fire suppression System (FSS) diagram, all extinguishers are inspected, tested and recorded in the fire safety logbook.
- Fire emergency response procedure to be used in the event of a fire
- Daily site inspections take place, ensuring the fire fighting equipment is in full working order, and recorded.
- Fire watch system is in place to check for signs of heat or fire at the start and end of each shift.
- Planned and unplanned fire drills to take place and recorded
- The overall fire suppression system is audited and incorporated in to Collards third party UKAS accreditation scheme completed independently by Alcumus.
- Fire containment bays are used to store various waste materials as detailed within the FPP, along with stockpile volumes and rotation.

The equipment used will be compliant to the following standards laid out in Table 1 Equipment standards.

Table 1 Equipment Standards

Equipment Item	Details	Standard
Fire hoses	Fire hoses used for connecting to the fire hydrants	BS EN 6391
Fire Blankets	Maximum of 1.8m x 1.8m	BS EN1869: 1997

3.0

Fire extinguisher	C02, Foam, Water, Powder	BS 5306-3 : 2017 - Fire extinguishing installations and equipment on premises. Commissioning and maintenance of portable fire extinguishers. Code of practice
Fire Alarm		BS5839
Automated Mist Air suppression system		CE Mark
Fire alarm and video early warning detection system	Total integration of the fire system and video detection, Please refer to Appendix 2 for full details	BS 5839
Cuplinks and valves	Fire hydrant valves and connectors	BS 5041
UKAS certified Heat Gun	For use monitoring waste stock piles	RS PRO Infrared Thermometer, Max Temperature +800 °C, +1472 °F, ±1.8 °F, ±1 °C, Centigrade, Fahrenheit RS Stock No.: 193-8693 Brand: RS PRO

How the system works effectively

Collard have ensured the system works correctly, efficiently and above all safely by adopting the following measures: -

- Design and Installation completed by fully certified and competent UKAS accredited and BAFE SP203 qualified contractor.
- Ensuring the system is independently audited annually by Alcumus to a UKAS accreditation
- Ensuring the processes and procedures detailed in the FPP is fully trained out with all personnel which may operate from the site, and records kept of such training
- All site staff will be trained in the Fire Emergency Response Procedure in Appendix 3 Emergency Response Plan and in the use of firefighting equipment. Training records will be maintained in accordance with the Facilities' Management System.
- The Fire Emergency Response Procedure is incorporated within the site's Environmental Management System.

- In the event of a fire in the waste storage bays, plant and equipment on site will be used to remove the waste and place it in the quarantine area. Where unsafe to do so waste bays will be doused with water until returned to ambient temperature.
- Water or inert material will be applied to fire and unburned material for cooling if the level of risk permits these actions as detailed in the FPP.
- The Site Manager will oversee any decision to apply on-site fire-fighting equipment and has the authority to cease on-site measures should the risk to personnel prove too high.
- In the very unlikely event of a serious fire, which resulted in the site not being able to accept waste, materials would be diverted to R Collard's Permitted site in Eversley, permit reference EPR/QP3790EA/V002. The facility used would depend on the type of waste to be diverted, where the waste originated and the capacity available at the receiving facility.
- All waste acceptance and processing operations will cease as a result of a serious fire.
- Firewater contained on the site will be tankered off the site using a local waste contractor, in line the details set out in the FPP

4.0 Third Party UKAS Certification

Please refer to Appendix 4 ISO 14001, 9001 & 45001 UKAS Accreditation Scheme Certificates. Collards Waste Management systems and all activities carried out within them are certified by Alcumus ISOQAR and is compliant with ISO 14001, 9001 & 45001 a UKAS accredited scheme, including: -

- Waste Management operations processes and procedures
- Emergency Procedures
- Fire Fighting Procedures
- Plant and Equipment maintenance processes and procedures
    - Including any fire suppression system
- Training processes
- Purchasing of equipment

The design and installation of the system will be by Harold Jones Services (HJS) as detailed in Appendix 2. HJS are fully qualified contractors and experts in this field of work. HJS installations and products supplied are of the highest quality available and are endorsed by the appropriate accreditation bodies, including being accredited to ISO 9001:2015 and BAFE SP203 amongst many other Industry leading qualifications.

6.0 Operating and monitoring out of hours

The operating hours for the site are set out in the planning permission for the site, they are:

- Monday - Saturday 07:00 – 19:00
- Sunday/ Bank Holidays 09:00 – 18:00

Except for the following HGV vehicle movements:

- Six 2-way daily movements: Monday – Saturday 19:00 – 07:00
- Seven 2-way daily movements: Sunday/ Bank Holidays 18:00 – 09:00

Monitoring of the suppression system and waste materials throughout these operating hours is completed using the following techniques: -

- Daily inspections of the site, including specific checks on the firefighting manual system
- Daily heat gun temperature readings taken from all combustible waste materials, these checks are completed 3 times per day
- Visual monitoring completed by the site supervisor and site manager constantly throughout the day.
- Remote monitoring via CCTV from within the site offices (manned 24 hrs), and remotely from the central security control based in Eversley in Hampshire (also manned 24hrs).

The site is also monitoring outside of the planned operational hours. This is completed using: -

- Remote monitoring via a fully manned 24 hrs CCTV surveillance from Collard central security control based in Eversley in Hampshire, and on site via the 24hr security and fire watch responsible person.
- Remote monitoring of the early warning video detection system 24 hrs via the Collard central security control based in Eversley and on site via the 24hr security and fire watch responsible person.
- In the unlikely event of smoke or fire detection the on-duty operative will follow the emergency procedure set out in Appendix 3.
- The FRS will be contacted immediately and deployed to the site
- The local key holder for the site will be contacted to attend site.
- The site Manager and Senior Manager responsible for the site will also be contacted and one will immediately attend site
- The fire fighting techniques set out in the FPP will be deployed by the on site security and fire watch responsible person.

Deployment of the FSS out of hours

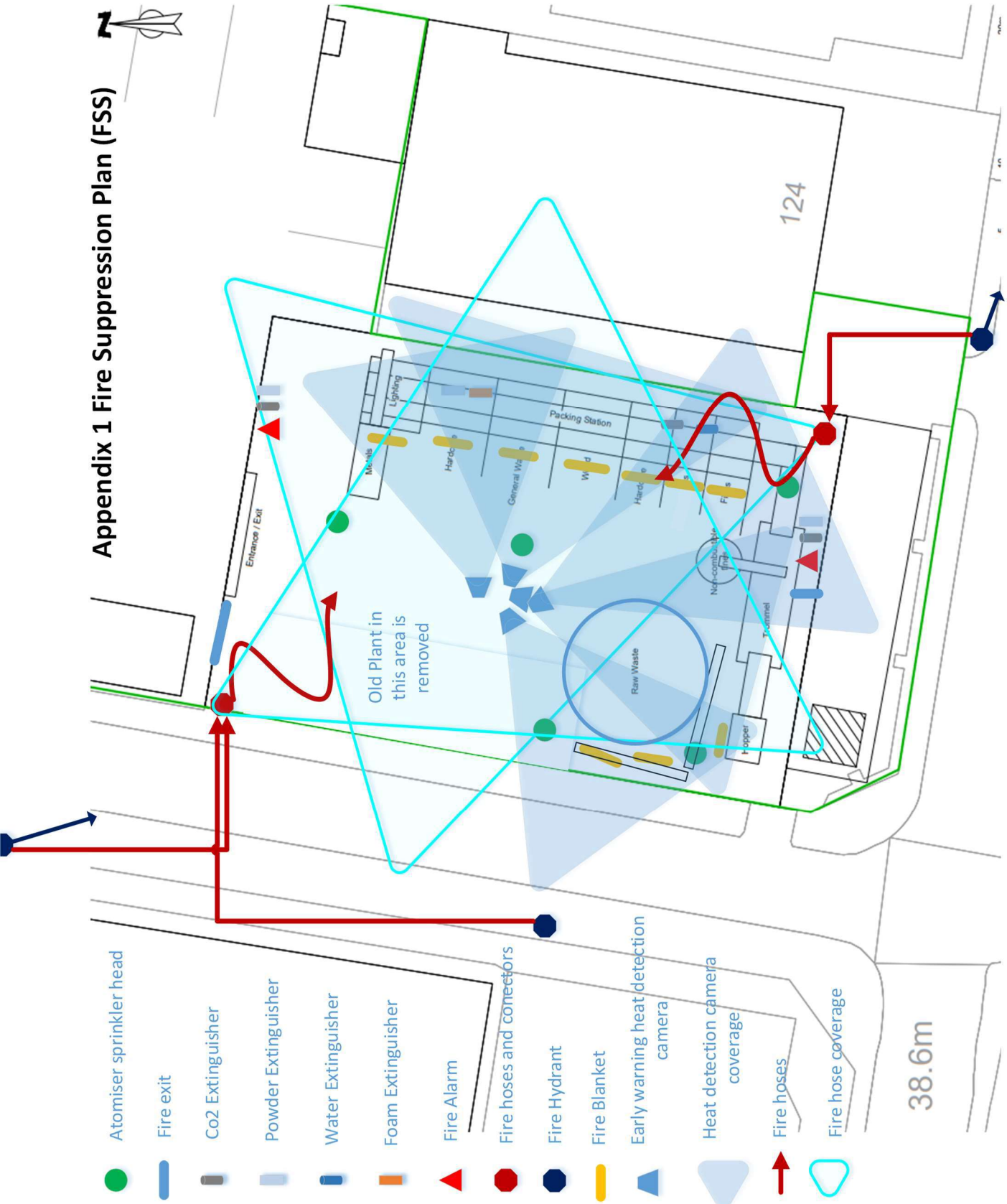
- Wherever possible all combustible waste storage bays will be emptied at the end of each working day, to minimise any potential fire risk.
- If the heat detection system is triggered then the on duty responsible person will follow the extended procedure for remote monitoring as set out in Appendix 3[1].
- The site is manned 24 hrs a day via overnight security and fire watch responsible person. The responsible person is fully trained in fire fighting techniques as set out in the FPP.
    - In the event of any triggered heat detection the responsible person will immediately deploy the water to the affected area using the hydrant supply from the North and the West of the site.
    - The on-site firefighting equipment set out in Table 1 Equipment Standards will be used as illustrated in Appendix 1 Fire Suppression Plan.
    - The water available from the hydrants is considered suitable to deliver water at a rate of 2000l/minute. The largest stock pile of materials on site will be 750m3, requiring 900,000l of water to extinguish a fire in 3 hours based on the Environment Agency's Fire Prevention Plan Guidance.

[1] The local FRS are located 1.1 mile from the site. FRS has confirmed in writing the distance and anticipated travel time of 4 minutes to reach the site.

7.0 Inspection and testing

Please refer to Appendix 5 Inspection & Test Plan for details of how the suppression system is inspected and maintained throughout its working life, to ensure the fire fighting equipment is always fully operational if ever called upon in the event of a fire.

Appendix 1 – Fire Suppression System (FSS)


Appendix 1 Fire Suppression Plan (FSS)
124
Packing Station
Lighting
Entrance / Exit
Old Plant in this area is removed
Raw Waste
Trommel
Hopper
38.6m
Atomiser sprinkler head
Fire exit
Co2 Extinguisher
Powder Extinguisher
Water Extinguisher
Foam Extinguisher
Fire Alarm
Fire hoses and conectors
Fire Hydrant
Fire Blanket
Early warning heat detection camera
Heat detection camera coverage
Fire hoses
Fire hose coverage

Appendix 2 Early Warning Video Fire Detection System

System Proposal

The design is based on the following information.

- Mains installation by HJS
- Total integration of the fire system and video detection by HJS
- Lifter hire by others
- Working out of hours at night Monday to Friday

System Specification

Specification

- Drawings provided outline plans and Cad Drawing for Video Detection
- Scope of Works Supply & commission to current standards and code.
- System Category Category L1
- Protocol Gent by Honeywell Vigilon and Ciqurix Video Detection
- Battery Standby 24 Hour
- Cable Types FP200 2 Core Red and Fire Rated Cat 6
- Containment N/A
- Applicable Standards BS 5839-1 2017
- Must be installed by an accredited contractor to ISO 9001:2015 and certified to BAFE SP203

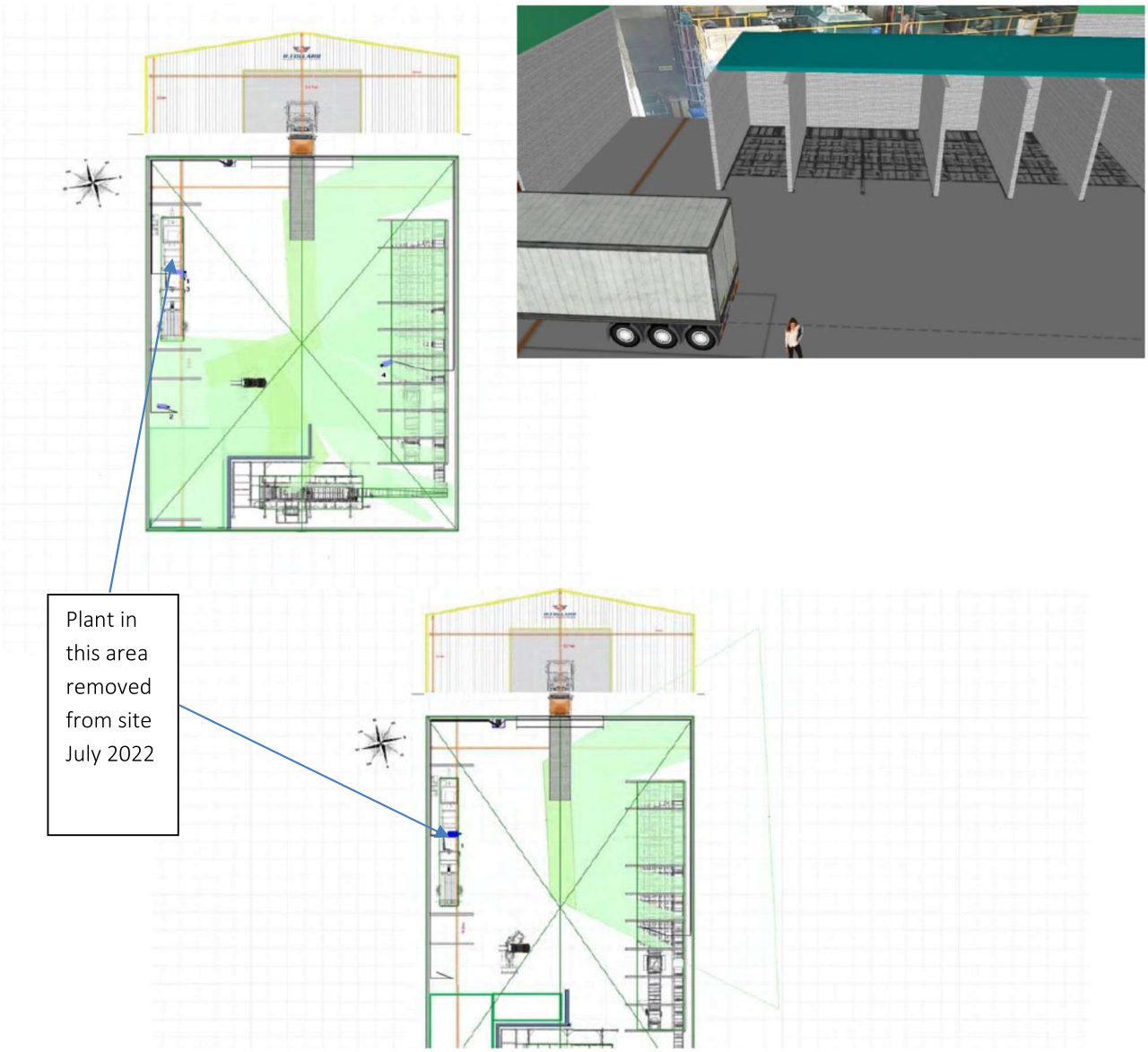
The system offered utilises the Gent by Honeywell Vigilon 1-4 Loop Panels managed protocol system using S-Quad peripheral devices. We will also be using Ciqurix video detection

We have allowed for a 1 x 1-loop, self-contained panel complete with integral batteries, which will be surface mounted in the Gent standard finish.
The peripheral devices comprise: -
• Manual Call Points
• Optical Heat
• Smoke/Sounders
• Interfaces
• Optical/Heat Sounder/strobes
• Electronic Sounder/strobes
• Video Fire Cam

All these devices are loop-powered and include individual loop short circuit isolation. The system is capable of offering a two-stage alarm should this be required.

Audibility
An audibility test will be carried out during commissioning to ascertain the acceptability of the sound pressure levels. If there are areas deemed unacceptability low these will be highlighted and additional sounders fitted.

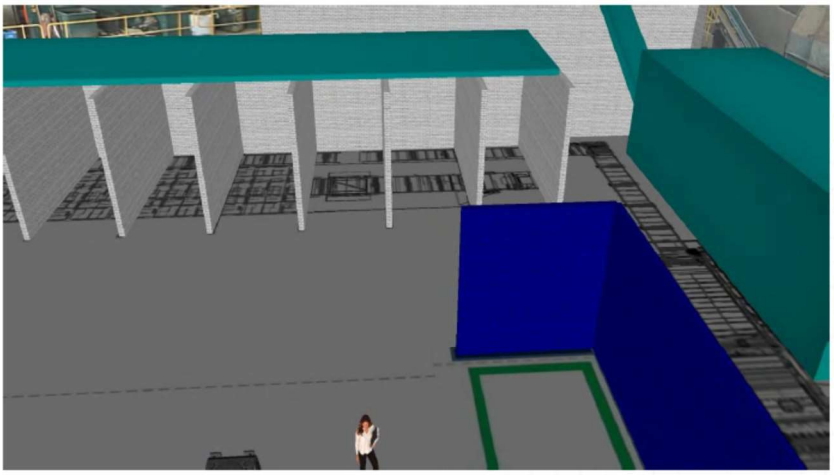
Camera 1 – CIQURIX FC-XFP-104

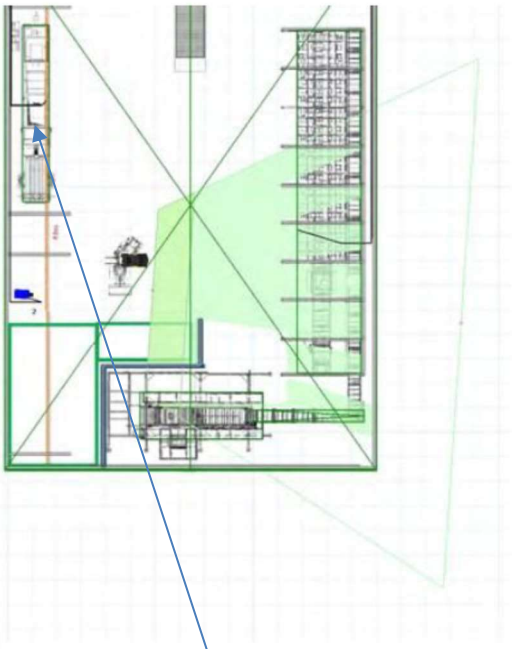


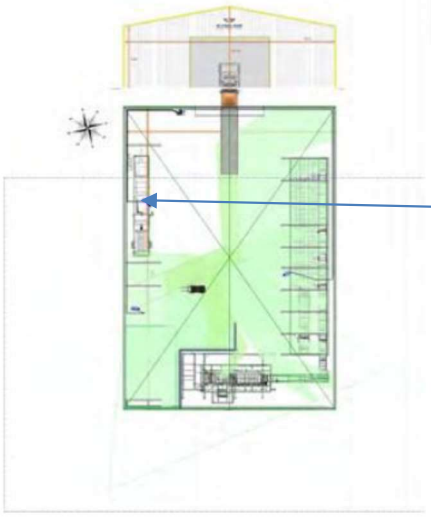
Camera ID	Model	Installation Height, m	Resolu-tion	Focal Length	Sensor Size	Pixels On Target
1	Ciqurix FC-XFP-104	11	1280x720	4	1/3 16:9	28 ppm

Camera 2

Ciqurix: FC-XFP-104





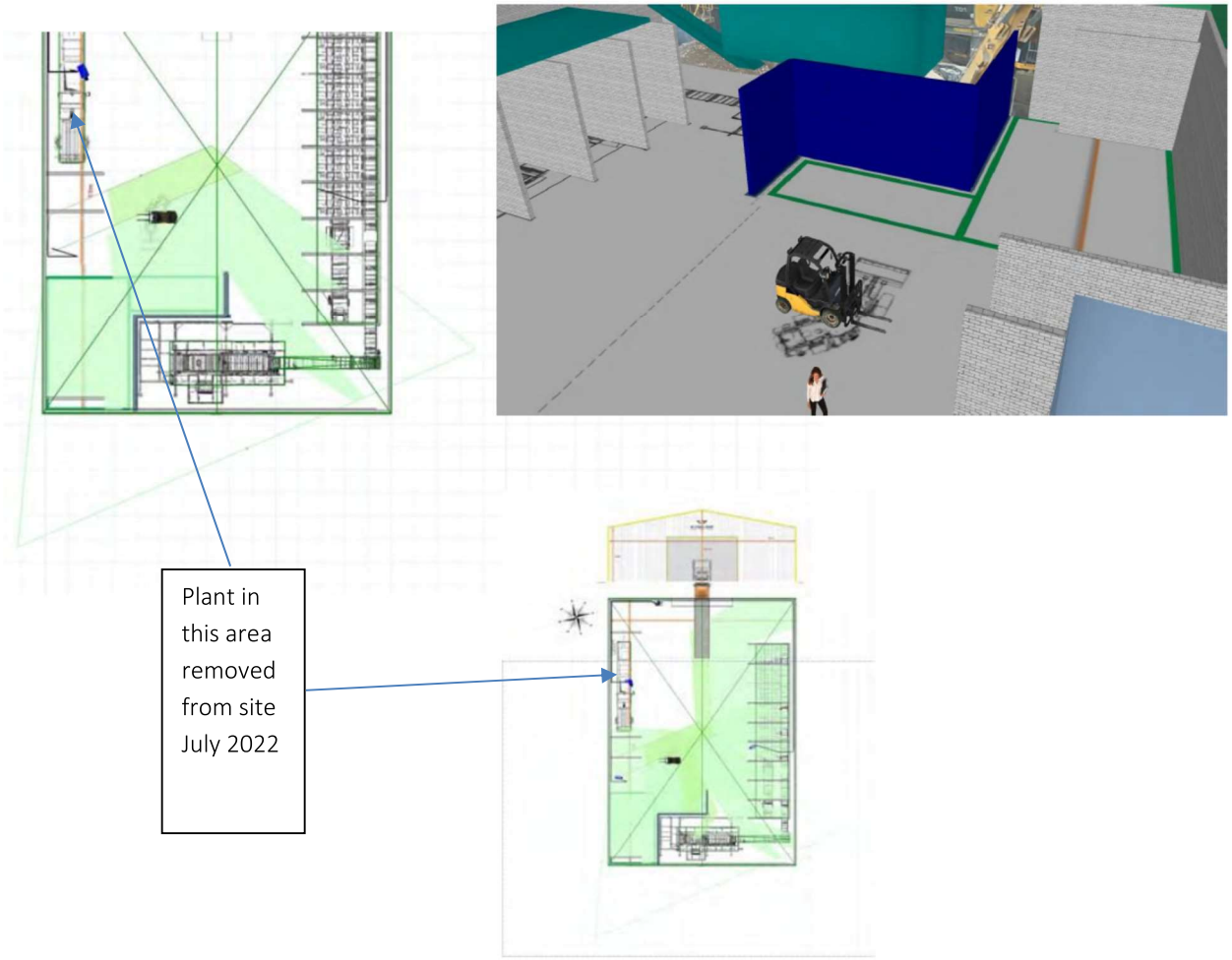


Plant in this area removed from site July 2022

Camera ID	Model	Installation Height, m	Resolution	Focal Length	Sen- sor Size	Pixels On Target
2	Ciqurix FC-XFP-104	11	1280x720	4	1/3 16:9	28 ppm

Camera 3

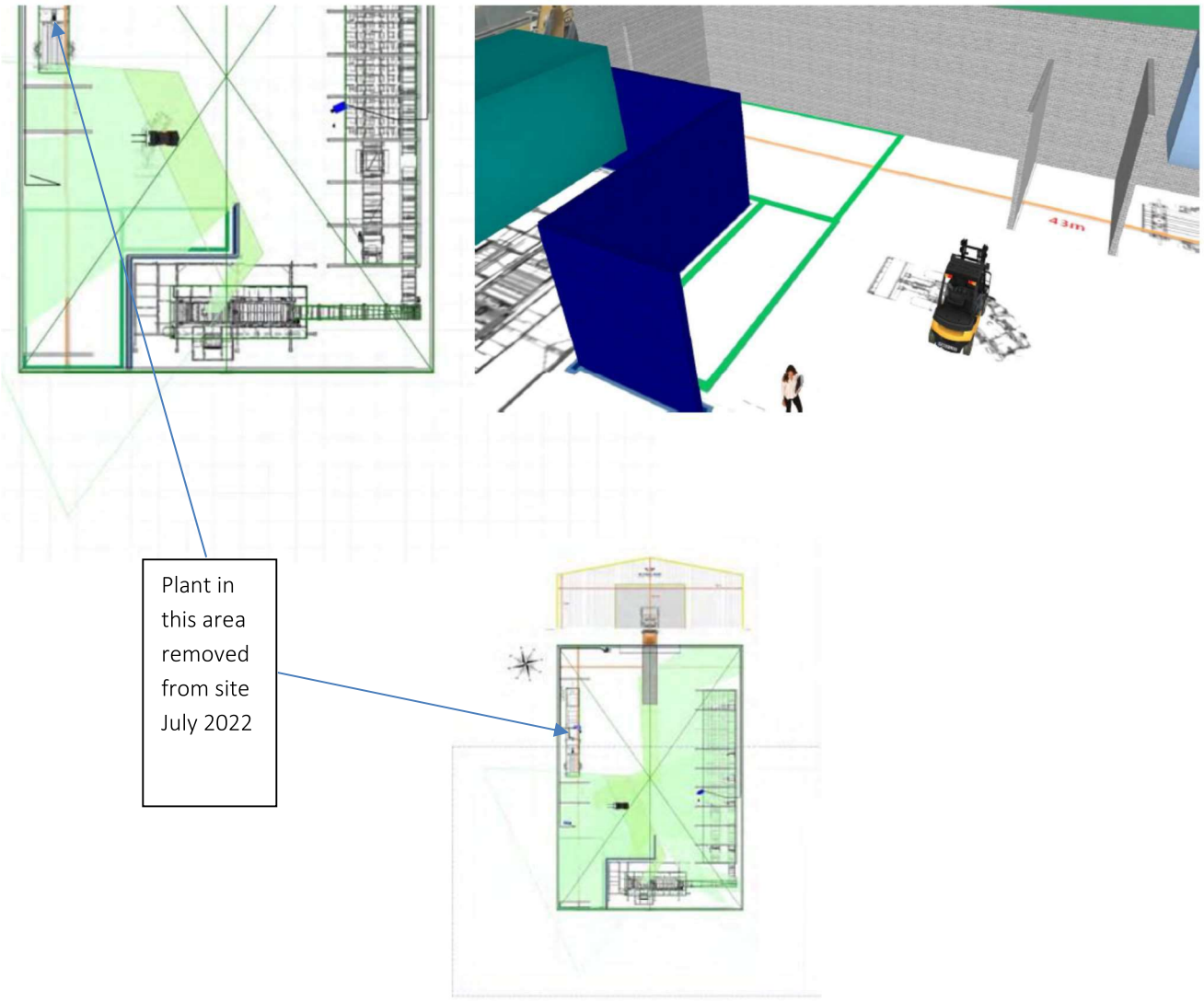
Ciqurix: FC-XFP-104



Camera ID	Model	Installation Height, m	Resolution	Focal Length	Sensor Size	Pixels On Target
3	Ciqurix FC-XFP-104	11	1280x720	4	1/3 16:9	28 ppm

Camera 4

Ciqurix: FC-XFP-104



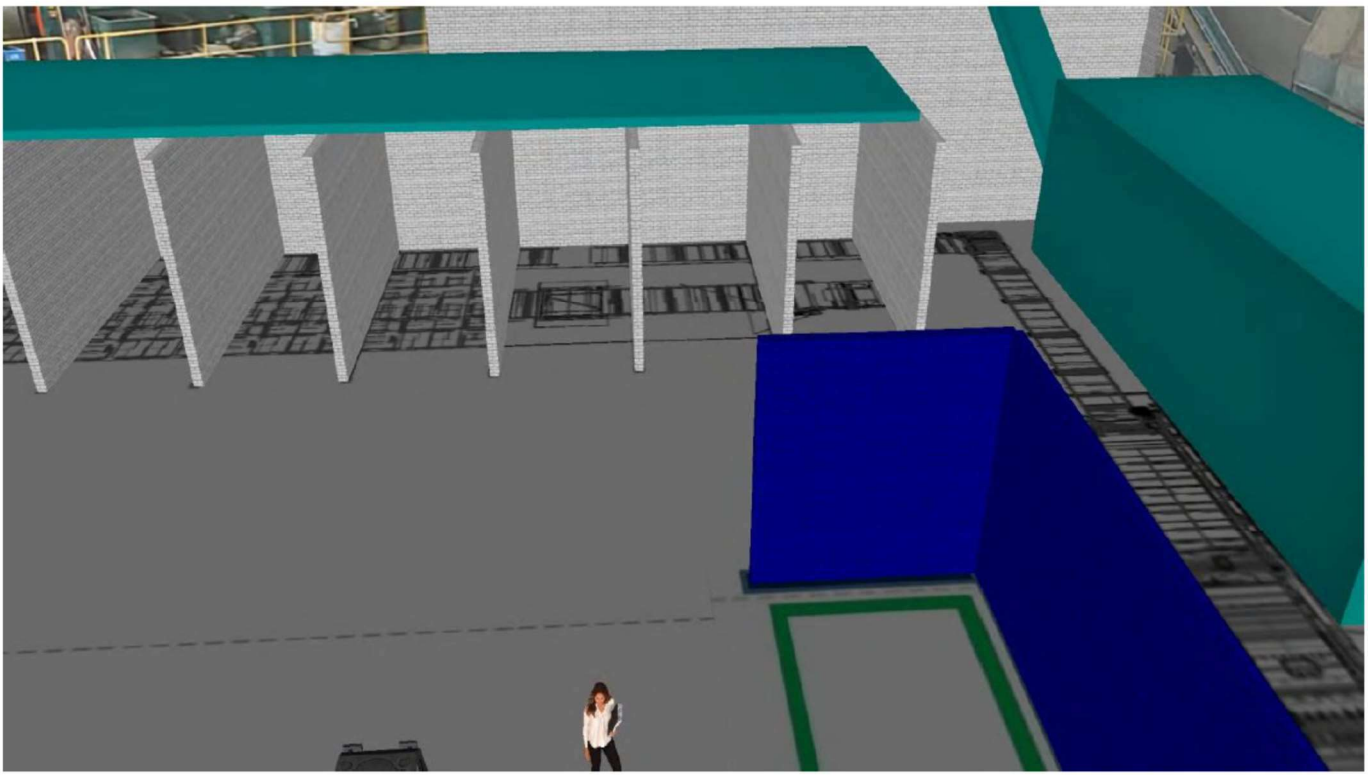
Camera ID	Model	Installation Height, m	Resolution	Focal Length	Sensor Size	Pixels On Target
4	Ciqurix FC-XFP-104	11	1280x720	4	1/3 16:9	32 ppm

Fire suppression system details

Ciqurix: FC-XFP-104

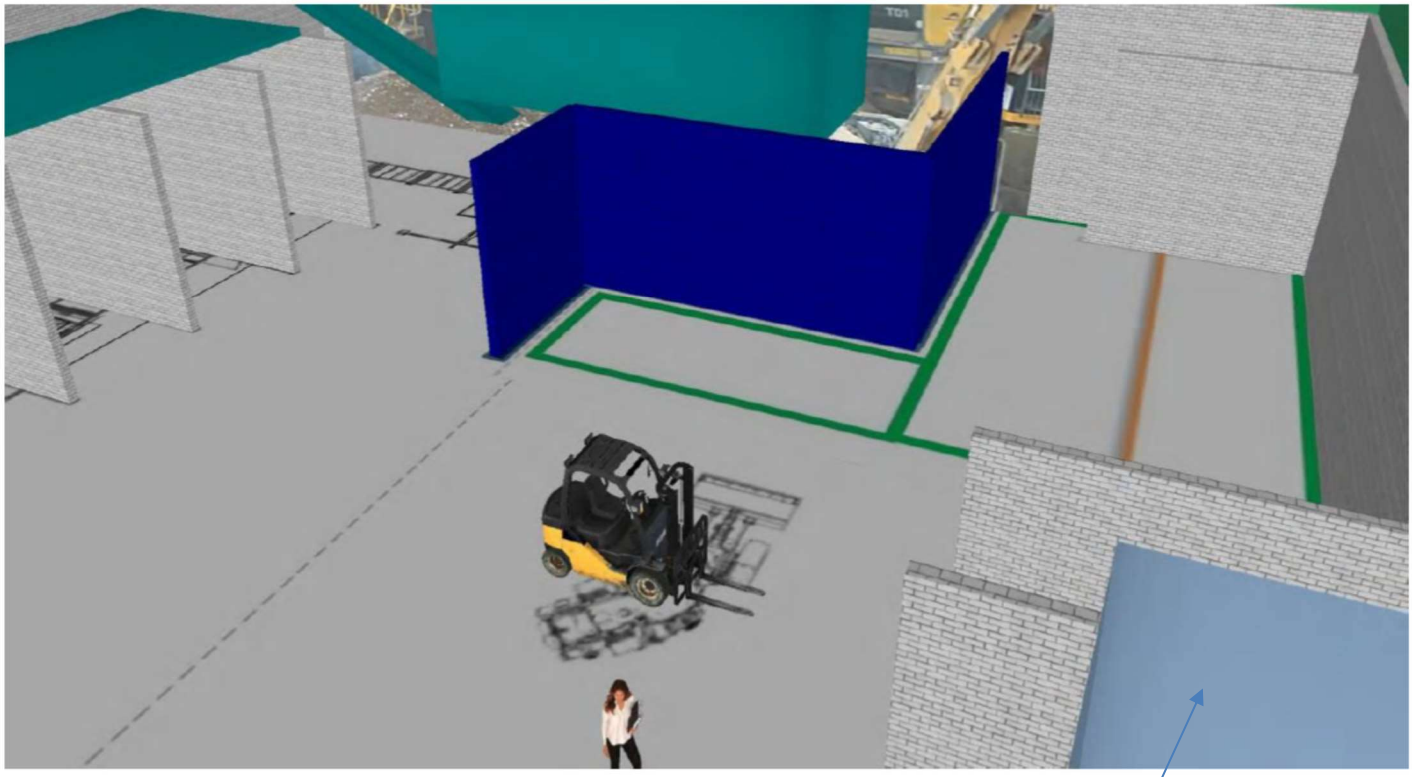
Camera 2

Ciqurix: FC-XFP-104



Camera 3

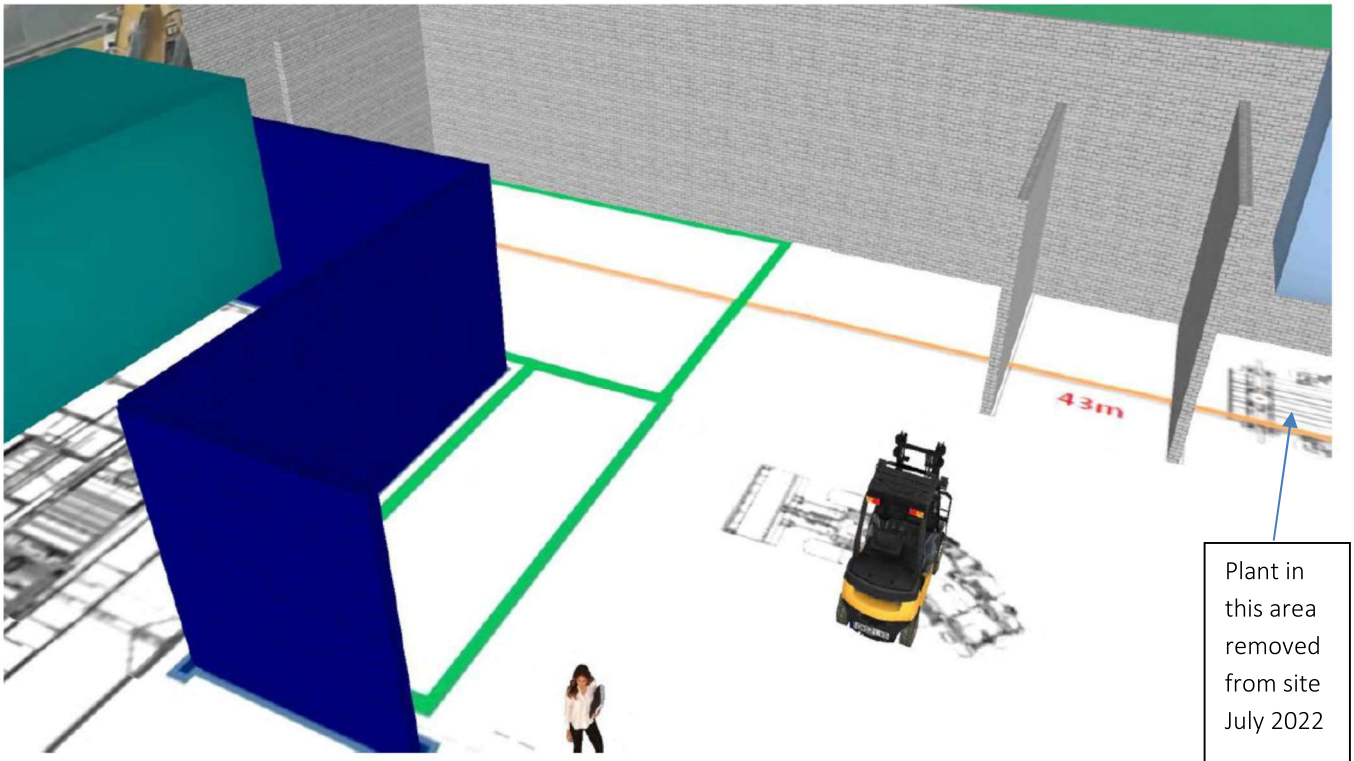
Ciqurix: FC-XFP-104



Plant in this area removed from site July 2022

Camera 4

Ciqurix: FC-XFP-104



Cable ID	Type	From	To	Length, m
2	Combined Cable	2	Server Rack 1	56.75
1	Combined Cable	1	Server Rack 1	37.92
4	Combined Cable	4	Server Rack 1	71.35
3	Combined Cable	3	Server Rack 1	38.27
			Total m length	204.3 m

Appendix 3 Emergency Response Plan

On Discovering a Fire:

- Sound the alarm by operating the nearest fire alarm call point.
- Dial 999 to call the fire service.
- If possible, tackle the fire with the appropriate firefighting equipment. Do not endanger yourself or others in doing so.
- Notify adjacent business that a fire has occurred.

On Hearing the Fire Alarm:

- Leave the building by the nearest available exit.
- Close all doors and windows to contain the smoke and fire.
- Report to the assembly point.
- DO NOT take personal risks.
- DO Not stop to collect personal belongings.
- DO NOT use lifts (if present).
- Do not re-enter the building for any reason, unless authorised to do so.

Extended Procedure for remote monitoring

On Discovering a Fire via remote monitoring:

- If you see smoke or fire on the remote CCTV in any waste storage area, dial 999 to call the fire service.
- Notify adjacent business that a fire has occurred.
- Contact the local key holder to attend the site
- Contact the site Manager and Senior Manager responsible for the site who will immediately attend incident

Appendix 4 ISO 14001, 9001 & 45001 UKAS Accreditation Scheme Certification

Alcumus ISOQAR

Certificate of Registration

This is to certify that the Management System of:

R. Collard Limited

Eversley Haulage Park, Brickhouse Hill, Eversley, Hook, Hants, RG27 0PZ

has been approved by Alcumus ISOQAR and is compliant with the requirements of:

ISO 14001: 2015

ISOQAR REGISTERED UKAS MANAGEMENT SYSTEMS 0026

Certificate Number:	**11439-EMS-001**
Initial Registration Date:	24 October 2013
Previous Expiry Date:	24 October 2019
Recertification Date:	07 August 2019
Re-issue Date:	23 October 2019
Current Expiry Date:	24 October 2022

Scope of Registration:

Provision of demolition, waste recycling, resale and haulage and skip hire services.

Signed:
Steve Stubley, Technical Director
(on behalf of Alcumus ISOQAR)

This certificate will remain current subject to the company maintaining its system to the required standard. This will be monitored regularly by Alcumus ISOQAR. Further clarification regarding the scope of this certificate and the applicability of the relevant standards' requirement may be obtained by consulting Alcumus ISOQAR.

Alcumus ISOQAR Limited, Alcumus Certification, Cobra Court, 1 Blackmore Road, Stretford, Manchester M32 0QY.
T: 0161 865 3699 F: 0161 865 3685 E: isoqarenquiries@alcumusgroup.com W: www.alcumusgroup.com/isoqar

Certificate of Registration

This is to certify that the Management System of:

R. Collard Limited

Eversley Haulage Park, Brickhouse Hill, Eversley, Hook, Hants, RG27 0PZ

has been approved by Alcumus ISOQAR and is compliant with the requirements of:

ISO 9001: 2015

Certificate Number:	**11439-QMS-001**
Initial Registration Date:	24 October 2013
Previous Expiry Date:	24 October 2019
Recertification Date:	2 August 2019
Re-issue Date:	23 October 2019
Current Expiry Date:	24 October 2022

Scope of Registration:

Provision of demolition, waste recycling, resale and haulage and skip hire services.

Signed:
Steve Stubley, Technical Director
(on behalf of Alcumus ISOQAR)

This certificate will remain current subject to the company maintaining its system to the required standard. This will be monitored regularly by Alcumus ISOQAR. Further clarification regarding the scope of this certificate and the applicability of the relevant standards' requirement may be obtained by consulting Alcumus ISOQAR.

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Certificate of Registration

This is to certify that the Management System of:

R. Collard Limited

Eversley Haulage Park, Brickhouse Hill, Eversley, Hook, Hants, RG27 0PZ

has been approved by Alcumus ISOQAR and is compliant with the requirements of:

ISO 45001: 2018

Certificate Number:	**11439-OHS-001**
Initial Registration Date:	24 October 2013
Previous Expiry Date:	24 October 2019
Recertification Date:	2 August 2019
Re-issue Date:	23 October 2019
Current Expiry Date:	24 October 2022

Scope of Registration:

Provision of demolition, waste recycling, resale and haulage and skip hire services.

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Appendix 5 Inspection & Test Plan

Equipment/Task	Period	Action
Fire detection and fire warning systems including self-contained smoke alarms and manually operated devices.	Weekly	Carry out a test and examination to ensure that the system is capable of operating under alarm conditions.
	Annually	This is carried out by a competent person e.g. a service engineer.
	Monthly	Simulate a failure of the normal lighting supply for sufficient time to allow all luminaires to be checked for correct operation.
	Annually	Emergency lighting inspection should be carried out by a competent person e.g. a service engineer.
Fire Hoses and reels	Daily	The responsible person will complete the daily inspection of the equipment
	Annually	The equipment will be independently inspected and tested by a third party UKAS accredited engineer
Fire hose connections	Daily	The responsible person will complete the daily inspection of the equipment
	Annually	The equipment will be independently inspected and tested by a third party UKAS accredited engineer
Fire Blankets	Daily	The responsible person will complete the daily inspection of the equipment
	Annually	The equipment will be independently inspected and tested by a third party UKAS accredited engineer
Heat detection guns	Daily	The responsible person will complete the daily inspection of the equipment
	Annually	The equipment will be independently inspected and tested by a third party UKAS accredited engineer
Fire resistant walls	Daily	The responsible person will complete the daily inspection of the infrastructure
Extinguishers	Monthly	Check to ensure that each extinguisher is in position, accessible and not discharged, damaged or lost pressure.
	Annually	Portable firefighting equipment will be inspected by a competent person in accordance with manufacturer's instructions.

Fire suppression system details

Practice Fire Drill	6 Monthly	Carryout a test evacuation, observe results and discuss improvements needed.
	12 Monthly	Carryout a test “out of hours” remote emergency response call