FIRE PREVENTION PLAN

MERIDEN WASTE TRANSFER STATION
CORNETS END LANE
MERIDEN
COVENTRY
CV7 7LG

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MERIDEN WASTE TRANSFER STATION, CORNETS END LANE, MERIDEN, COVENTRY, CV7 7LG

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1	October 2022	Amendments to account for revised permit boundary and operational layout	R Chapple	D Thomas

BIFFA WASTE SERVICES LTD
MERIDEN WASTE TRANSFER STATION
CORNETS END LANE,
MERIDEN,
COVENTRY,
CV7 7LG

FIRE PREVENTION PLAN

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1.0 INTRODUCTION

1.1 Scope

1.1.1 Sirius Environmental Limited (Sirius) has been commissioned by Biffa Waste Services Limited (Biffa) to prepare a Fire Prevention Plan (FPP) to support the operation of their proposed Waste Transfer Station to be located at Meriden, Coventry.

1.1.2 The document provides a structured framework approach in effectively preventing potential fires associated with the processing and storage operations at the site. This FPP has been produced in accordance with the Environment Agency's Fire Prevention Plan Guidance (updated 11th January 2021).

1.1.3 This FPP meets to fundamental objective of the FPP Guidance as it demonstrates that the site can:

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

1.1.4 This FPP has been structured in accordance with the EA Fire Prevention Plan Guidance and considers the following relevant aspects of the facility:

- Managing common causes of fire
- Preventing self-combustion
- Managing waste piles
- Preventing fire spreading
- Quarantine area
- Detecting fires
- Supressing fires
- Firefighting techniques
- Water supplies
- Managing fire water
- Actions during and after an incident

1.1.5 This FPP is a 'live' document and will form part of the key environmental management document for the facility. All monitoring procedures, responsibilities and compliance actions will be updated as and when required.

1.1.6 The facility is proposed to comprise a Waste Transfer Station for the manual (and plant assisted) sorting and bulking of non-hazardous commercial and industrial wastes. In line with guidance, this FPP will only focus on the storage of combustible non-hazardous wastes.

1.1.7 The existing buildings on site will be adapted for the proposed WTS. The fire prevention and mitigation strategy presented in this plan have been developed on the most conservative scenario posed by the proposed operational design.

1.1.8 In line with Section 5 of the EA's Guidance on Fire Prevention Plans (2021), this document has been produced as a standalone document, with all documentation required appended. This FPP forms part of the site's management system. As such, the requirements of this Fire Prevention and Mitigation Plan will be communicated to all relevant personnel on site and appropriate training will be provided where indicated as part of this FPP.

2.0 SITE DETAILS

2.1 Site Setting and Activities

2.1.1 The WTS is located off Cornets End Lane, Coventry, West Midlands, CV7 7LG. The facility will be regulated in accordance with the requirements of the Environmental Permitting Regulations, under the conditions of the Environmental Permit once determined.

2.1.2 The facility will accept up to 50,000 tonnes of non-hazardous waste per annum for waste treatment (comprising of manual and plant assisted sorting and bulking only) and storage prior to transfer off site. No hazardous waste will be permitted to be accepted at the site. The wastes will comprise general waste, dry mixed recyclates and construction and demolition waste.

2.1.3 Waste will be delivered to the site and will undergo waste acceptance procedures and checks and inspection by the Weighbridge Operator, furthermore, the Duty of Care documentation will be reviewed. Any unacceptable waste will be rejected and in the event a smouldering / burning load is delivered to site, this will be tipped onto the yard floor where possible and the Fire Rescue Service will be notified. If the waste is found to be acceptable, delivery vehicles will be directed to the main site building in which the waste will be unloaded in the 'enclosed tipping area' for further inspection. If accepted, from there the waste will be taken to the appropriate storage area.

2.1.4 The site location is shown in **Drawing No.: BF5066/12/01**. The site is approximately centred on National Grid Reference (NGR): SP 23044 81103. The indicative site operational layout is shown in **Drawing No.: BF5066/12/03**.

2.1.5 The village of Meriden lies approximately 1.6km north-east of the site, the outskirts of Coventry lie c. 5.3km to the east and Solihull is located c. 7.8km to the west of the proposed site. The site is situated within close proximity to an area which is subject to sand and gravel extraction (Meriden Quarry), together with agricultural land and a nearby golf course.

2.1.6 To the north and east of the site is an operational quarry that is accessed along a road immediately adjacent to the site's northern and western boundary. Quarry buildings are located to the northwest of the site at distances of approximately 40m and 80m. A large one-storey office building is located immediately to the west of the south-western corner of the site. An operational quarry, together with man-made lakes occupies the land to the south of the site, on the opposite side of Cornets End Lane.

2.1.7 The nearest residential properties are Keepers Cottage at a distance of c. 115m to the east of the site, Cornets End Farm approximately 310m to the southeast and Hornbrook Farm c.530m to the west of the site. The remainder of the surrounding area is occupied predominantly by agricultural land.

2.1.8 **Table FPP1**, below provides a summary of the land uses in the areas surrounding the site.

Table FPP1: Site Setting Summary

Direction	Description
North	Immediate vicinity: Quarry Within 500m: Quarry, North Warwickshire Golf Course Beyond 500m: Quarry Lake, A45 Birmingham Road, Unoccupied land.

Direction	Description
North-East	Immediate vicinity: Quarry Within 500m: Quarry, unoccupied land. Beyond 500m: Unoccupied land, Meriden, A45 Birmingham Road.
East	Immediate vicinity: Quarry Within 500m: Quarry, Unoccupied land, residential properties (Keeper's Cottage ~215m east-southeast and Cornets End Farm ~310m east). Beyond 500m: Unoccupied land, Coventry.
South-East	Immediate vicinity: Cornets End Lane, Unoccupied land. Within 500m: Unoccupied land, Beyond 500m: Unoccupied land, scattered residential properties (including Park Farm Cottage ~700m southeast and Holloway Farm ~1km southeast), Four Oaks, Flint's Green, Berkswell.
South	Immediate vicinity: Cornets End Lane, Quarry. Within 500m: Quarry, Manmade lakes. Beyond 500m: Quarry, residential property (Park Farm House ~ 695m southeast), unoccupied land, A452.
South-West	Immediate vicinity: Cornets End Lane, Quarry. Within 500m: Quarry Beyond 500m: Residential property (Mercote Mill Farm ~510m southwest), unoccupied land, A452, Bradnocks Marsh, Eastcote
West	Immediate vicinity: Cornets End Lane, Unoccupied land. Within 500m: Unoccupied land, A452 Beyond 500m: Residential property (Hornbrook Farm ~530m west), unoccupied land, Hampton in Arden, Solihull
North-West	Immediate vicinity: Quarry Within 500m: Quarry, unoccupied land, A452 Beyond 500m: Unoccupied land, scattered residential properties, Stonebridge, Birmingham

2.1.9 **Drawing No.: BF5066/12/05** illustrates the potential sensitive receptors within 1km from the site.

2.1.10 The Environment Agency flood zone database indicates that the site lies entirely within a Flood Zone 1 (low risk) and is therefore considered to be within an area of low probability with regards to flooding (land assessed as having a less than 1 in 1,000 annual probability of flooding (<0.1%)).

2.1.11 Although the site is not considered to be highly sensitive in terms of proximity, the facility has been designed to prevent and mitigate the offsite impacts associated with fire as far as practicably possible.

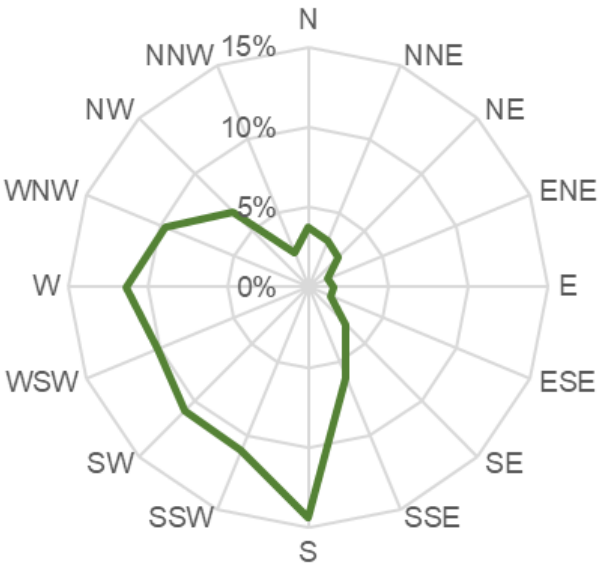
2.1.12 The closest meteorological recording station to the site is Birmingham Airport, which lies 5.5 km north-west of the site (International Civil Aviation Organisation (ICAO) Airport Code: EGBB) The National Grid Reference NGR for Birmingham Airport is SP 17505 84071. This weather station is deemed the most appropriate for use in order to characterise the site due to its proximity to the site. Wind patterns at the Birmingham Airport Station are likely to be similar to those experienced at the site.

2.1.13 Data from the RenSMART wind data archive, for a 10-year period between 2000 and 2010 has been utilised for the Birmingham Airport Station in order to typify the meteorological conditions likely at the site. The wind rose, as shown by **Figure FPP1** shows the percentage of wind vector that could be generated in each of the 16 points of a compass.

2.1.14 The wind rose indicates that the predominant wind directions are from the south-western quadrant, which makes up ~46.5% of the winds. It can be observed from **Figure FPP1** that the wind will be blowing primarily from the south.

Figure FPP1: Wind Rose for Birmingham Airport Meteorological Recording Station between 2000 – 2010 inclusive (Source: RenSMART)

Direction	Percentage
N	3.78%
NNE	3.15%
NE	2.61%
ENE	1.35%
E	1.60%
ESE	1.52%
SE	3.29%
SSE	6.12%
S	14.43%
SSW	10.99%
SW	10.88%
WSW	10.20%
W	11.41%
WNW	9.73%
NW	6.63%
NNW	2.31%



3.0 FIRE PREVENTION PLAN

3.1 Introduction

3.1.1 This Fire Prevention Plan (FPP) has been developed to assess the risk of fire on site and to detail the measures in place to prevent, detect, suppress, mitigate and contain fires.

3.1.2 This Fire Prevention Plan (FPP) has been prepared with consideration given to the measures stipulated within the Environment Agency's Fire Prevention Guidance. This FPP identifies areas of fire risk posed by the proposed permitted operations and details how those risks are to be mitigated to ensure that the likelihood of a fire event is reduced as far as practicable. In addition, this FPP also details what actions should be taken in the event of a fire to limit the damage caused to the environment or human health. As such, in accordance with EA Guidance, the objectives of this FPP are to:

- Minimise the likelihood of a fire occurring.
- Establish the protocols in place at the site to ensure that a fire will be extinguished within 4 hours.
- Minimise the spread of a fire within the site and neighbouring sites.

3.1.3 All staff and contractors working on site will understand the contents of the Fire Prevention Plan where it is applicable to their role and what they must do during a fire.

3.1.4 The Fire Prevention Plan will be kept in the Site Office and all staff will be aware of where it is kept.

3.1.5 Quarterly reviews and exercises will also be carried out to test how well the plan works, and that staff understand what to do as part of their daily role to prevent fire and what must be done in the event of a fire. These exercises will include refresher training and fire drills.

3.2 Control of Potential Causes of Fire

3.2.1 **Table FPP2**, below, identifies common causes of fire and the measures that Biffa will take to reduce the risk.

Table FPP2: Control of Potential Causes of Fire

Source of Fire	Applicability to Site and Proposed Management Controls	Residual Risk
Arson	The site has a perimeter fence which will be routinely inspected to ensure that the site security has not been compromised. The site is well lit and secured. All wastes are securely stored within a building CCTV monitoring of the external and internal areas of the installation will be in place. Any fire would be identified quickly by the site's visual inspection procedure and fire detection equipment.	**VERY LOW**
Plant and Equipment	The site has a regular inspection and maintenance programme which identifies any electrical or	**VERY LOW**

Source of Fire	Applicability to Site and Proposed Management Controls	Residual Risk
	mechanical machinery faults which could result in a machinery fire. Machinery will always be parked in the mobile plant storage area, as shown in **Drawing Ref.: BF5066/12/03**. All machinery will be visually inspected during the daily Operations and Maintanence checks. Machinery will be regularly cleaned to remove any dust, wood etc to ensure that this does not accumulate on moving parts. Site vehicles are fitted with fire extinguishers with the potential for sparks regularly being monitored by site staff.	
Electrical Faults Including Damaged or Exposed Electrical Cables	The risk of damaged or exposed electrical cables is controlled via the regular inspection and maintenance programme. Any electrics on site are fully certified by a qualified electrician.	**VERY LOW**
Discarded Smoking Materials	Staff and visitors are only permitted to smoke within the designated area, which is located away from the waste transfer building. There is no smoking permitted within the operational area where waste is stored or handled.	**VERY LOW**
Hot Works	The following procedures will be carried out when "hot work" (i.e. maintenance/repair) is being carried out on site: ▪ All staff and contractors will be required to operate under strict 'Permit to Work' systems and follow safe working practices when undertaking any hot working such as welding and cutting. ▪ Fire extinguishers will be provided at the scene of any hot work so that they can be used immediately should a fire occur. The extinguishers will be stationed adjacent to the pathway of escape from the work area and not in a place where staff using them could be trapped by a fire. ▪ Any hot work in areas where wastes or other combustible materials are present, a 6m 'safe' area will be cleared and all work will be designated as a two-person job. One person doing the hot work and a second acting as a fire watch. ▪ As far as practical, wastes will be cleared away from the area of any hot work before hot work starts. ▪ Potentially combustible materials, including mobile plant hydraulic lines, will be covered by a fire blanket and/or damped down with water as appropriate before hot works start. ▪ A fire watch will be conducted at the scene of any hot work for at least one hour after hot work has finished as sparks from hot works can smoulder for a significant time period.	**VERY LOW**
Industrial Heaters	No industrial heaters will be used on site.	**N/A**

Source of Fire	Applicability to Site and Proposed Management Controls	Residual Risk
Hot Exhausts	There will be a scheduled maintenance and inspection programme for areas of the site. This process will specifically ensure that all plant (fixed or mobile) is maintained at a sufficient level of cleanliness and housekeeping to ensure that the plant does not present a fire risk. This programme will aim to keep levels of dust, loose fibre and any other combustible materials on or around hot exhausts to a minimum. All site vehicles and mobile plant will be fitted with fire extinguishers and dust filters. In the event of a formal plant "shut-down" or once operatives are finished using mobile plant, such as a loading shovel, there will be a complete inspection of the site after the work has ceased to reduce the risk of a smoulder being undetected and turning into a fire. The procedure will address issues such as: ▪ Ensuring that any flammable materials such as fuels have been secured. ▪ Checking the thermal camera images following work to ensure temperatures do not indicate a combustion risk and that there are no 'hot spots'. ▪ Check that mobile plant has been moved to a safe distance away from combustible material. ▪ Check that fire detection systems are still active and monitoring the appropriate areas. ▪ Check that all security systems are still active and monitoring the appropriate areas. The site will be monitored remotely outside of operational hours via CCTV by a third-party security contractor.	**VERY LOW**
Ignition Sources	No routine aspect of the plant or processes requires the use of any naked flames. Any ignition sources as part of non-routine activities on site will be subject to permit to work. Any such works will be kept at least 6 metres away from the stored waste on site.	**N/A**
Leaks and Spillages of Oil and Fuels	The prevention of fuels and oil leaking out from site vehicles will be achieved by the regular inspection and maintenance programme. If there are any leaks, the regular inspections allow this to be dealt with straight away. The programme will specifically ensure that all site vehicles and mobile plant are maintained to a standard in line with manufacturers' recommendations to prevent fuels and combustible liquids leaking or being tracked around the site. Any identified faults will be recorded and repaired by a fully certified mechanic. Spill kits will be provided throughout the site. All staff will be trained on how to use the spill kit as well as the procedures to carry out in the event of a spillage.	**VERY LOW**
Build-up of Loose Combustible Waste and Dust	The site will have a regular inspection and maintenance programme which will identify any build-up of wastes and dust on site surfaces and aim to assess the general site condition. The results of these	**VERY LOW**

Source of Fire	Applicability to Site and Proposed Management Controls	Residual Risk
	inspections and monitoring will be recorded on the 'Daily site inspection sheet'. This programme will specifically ensure that all areas of the site are maintained to a sufficient level of cleanliness and housekeeping to ensure that the plant does not present a fire risk. This programme will aim to keep levels of dust, loose fibre and any other combustible materials (with the exception of stored wood waste) to a minimum. Machinery is regularly cleaned to remove any dust, wood waste etc to ensure that it does not accumulate on moving parts. The site is inspected at least twice a day in accordance with the sites inspection procedure. Any build-up of waste and dust would be identified during the inspection. If any dust, wood waste etc was identified then the area would be immediately cleaned (swept, dampened down, blown down etc). Additionally, at the end of every shift the operational areas of the site will be cleaned. All inspections are logged on the Site Walkover Inspection Form. All forms are stored in the site office.	
Reactions Between Wastes	All waste received at the site will be non-hazardous, the characteristics of which will be assessed prior to delivery to the site. Any non-conforming waste will be segregated and stored in an appropriate container separate from other waste types.	**VERY LOW**
Hot Loads	Biffa Waste Services Limited do not receive hot loads.	**N/A**

3.3 Preventing Self-Combustion

Managing Storage Times

3.3.1 All incoming vehicles will be directed from the weighbridge to the WTS building. The waste will be unloaded directly into the enclosed tipping area within the building. Once inspected and approved, the waste will be moved to the appropriate storage area within the building. There are three storage bays within the WTS building, **Table FPP3** summarises their maximum capacities as well as the maximum storage durations.

Table FPP3: Maximum Storage Bay Capacities and Storage Duration Periods

Waste Description	Maximum Storage Capacity (m^3)	Maximum Storage Period
General Waste	470	3 days[3]
Dry mixed Recyclates	300	3 days[3]
Construction and Demolition Waste[1] • *Combustible* • *Non-Combustible*	 290 435	 3 months[2] 6 months

Note: [1] – Non-combustible CDW will be stored to full bay height of 3m. Combustible CDWs will be stored with a 1m freeboard level
[2] – This storage duration has been updated in line with FPP Guidance to prevent the need for further measures to be implemented to prevent self-combustion.

[3] – Typically biodegradable wastes will be stored for 2 days but during certain times, such as a bank holiday weekend, the storage time may extend to 3 days, which will be the maximum for the site.

3.3.2 The storage bays will be utilised to store dry mixed recycling, construction and demolition waste and general waste; all of which will be categorised as non-hazardous as part of the pre-acceptance checks. The storage bays will be managed to ensure that full stock rotation is achieved. This rapid turnover of stock significantly reduces the risk of "older" material from self-heating and practically eliminate the potential for thermal build up and self-combustion.

3.3.3 The site operators, Biffa Waste Services Ltd, will track material flow through the site to ensure that the storage times specified in this plan are adhered to. All material is processed through the site on a 'first in – first out' principle.

3.3.4 All storage bays will be managed to ensure full stock rotation is achieved. Incoming general wastes and DMR will not deposited over wastes that have been on site for more than 2 days. The Sie Operations Manager or nominated deputy will be responsible for managing the rotation of waste.

3.3.5 The stock rotation will be achieved by filling bays systematically, for example from left to right, to ensure that the older waste will always be on the same side. This will enable the emptying of the bay to commence with the older waste. This will also ensure that new waste is not placed on top of older waste. Any cleared sections of the bays will be swept and / or shovelled to minimise the build-up of residual waste.

3.3.6 In the event that the primary route for onward transfer of any wastes is not available, the waste will be diverted to alternative authorised facilities.

3.3.7 A twice daily review of the WTS Building will be made by the Site Operations Manager as part of the daily site Operations and Maintanence Inspections. These checks are aimed at reviewing the general housekeeping and identifying any risk sources etc.

3.3.8 Waste will be received and accepted in accordance with Biffa's established waste acceptance and rejection procedures.

Monitor and Control Temperature

3.3.9 No pre-processing (shredding, chipping etc) activities will take place on site.

3.3.10 Thermal imaging cameras will be operated in the waste transfer building which will be used by site operatives to help identify any hot wastes.

3.3.11 The detection systems (detailed within **Section 3.7** of this FPP) would immediately identify any fire which in turn would trigger the sprinkler system to suppress the fire pending the arrival of the FRS.

3.3.12 A trained and qualified site operative will carry out a visual inspection on site twice daily to ensure that the WTS Building is being managed correctly and will conduct basic visual checks to confirm that all detection and suppression equipment is operating.

3.3.13 General wastes and DMR will be typically stored for periods of no more than 2 days, and up to a maximum of 3 days. Combustible CDW will typically be stored for periods of up to 1 month, up to a maximum of 3 months. No waste treatment operations resulting in particle size reduction (for example the shredding of residual wastes etc) will be carried out at the facility. The likelihood of self-combustion is therefore low.

3.3.14 All of the above measures meet the expectations defined with the EA Fire Prevention Plan Guidance.

3.4 Management of Waste Piles

Maximum Pile Sizes

3.4.1 The proposed pile sizes are to be significantly lower than those stipulated in the Fire Prevention Plan Guidance. Waste storage bays will be constructed from pre-cast concrete panels. The maximum storage capacities and durations are summarised in **Table FPP3**.

3.4.2 The site manager or nominated deputy will conduct visual inspections of the site twice daily to ensure that the waste pile sizes are in line with the bay maximum capacities. The live CCTV feed in the office areas will also provide further opportunity for visual inspection of the pile sizes.

3.5 Prevention of Fire Spreading

Separation Distances

3.5.1 All plant and machinery will be parked at a minimum of 6m from the waste storage bays when not in use. The location of the internal storage area for plant and machinery is shown in **Drawing Ref.: BF5066/12/03**.

Fire Walls and Bays

3.5.2 Th rear and sidewalls of each bay will be constructed to 3m high using pre-cast concrete panels. The pre-cast units will have a fire resistance period of at least 120 minutes to allow the waste to be isolated.

3.5.3 All storage bays will be managed to ensure full stock rotation is achieved. This will be achieved by filling bays systematically, for example from left to right, to ensure that the older waste will always be on the same side. This will enable the emptying of the bay of older wastes to enable the deposit of new incoming waste streams. This will also ensure that new waste is not placed on top of older waste which will have been received the day prior to new waste e.g. new incoming waste streams will not placed over wastes received the previous day. Incoming general waste and DMR will not be tipped over wastes that have already been on site for more than 2 days. The Site Operations Manager or nominated deputy will be responsible for managing the rotation of waste.

3.5.4 There will be a 'freeboard' space of 1m at the top of the storage bays containing combustible waste which will remain clear at all times to prevented fire spreading over the walls. The freeboard level label will be marked on each of the bays walls as a guide for site operatives.

3.5.5 A trained site operative will carry out a visual inspection of the site twice daily in accordance with the site Operations and Maintanence procedures to ensure that all piles are being managed correctly and in line with the Fire Prevention Plan.

3.6 Quarantine Area

3.6.1 An area of ~340m^2 is available in the external yard area to the south of the WTS building to provide a fire quarantine area to support fire-fighting capability. The fire quarantine area will be at least 6m from the WTS building, vehicles and other infrastructure such as the sprinkler tanks and walkways and at least 10m

from the fuel tank. The location of the fire quarantine area is identified on **Drawing Reference No.: BF5066/12/07**. This area is more than capable of accommodating 50% of the largest combustible pile size of 470m^3.

3.6.2 In the event of a hotspot being identified by the detection system, waste in the affected bay(s) will be safely transferred using the wheel loader and spread across the quarantine area.

3.7 Detecting Fires

3.7.1 A fire alarm system has been provided to meet the requirements of BS5839: Part 1: 2013. The fire alarm has been installed by Planet Fire.

3.7.2 The system is a mixture of automatic detection and manual call points with thermal camera enhancement in the waste transfer building.

3.7.3 The fire alarm system is based on a multi-zone addressable XFP-(CF3000) system, with two linked fire alarm panel manufactured by Morley-(Eaton) and installed by Planet Fire.

3.7.4 The main fire alarm panel is located on site (within the site office building) with repeater panels located within the main site office, the Weighbridge Office and the WTS working area.

3.7.5 Fire alarms will be tested weekly in line with British Standard BS 5839. During these tests, at least one fire alarm call-point will be activated to check that the alarm sounds and that the panel receives the signal. The fire alarm system will be inspected and maintained / serviced by a third-party at least every 6 months (in line with British Standard BS 5829).

3.7.6 Electronic sounders and flashing hazard lights are utilised throughout the facility to raise an alarm. The fire alarm installation system has been co-ordinated with other high-level systems and services in the buildings to ensure that the fire protection works correctly.

3.7.7 Interfaces have been provided to shut-off independent specialist processes as required.

3.7.8 The system is a single stage evacuation type, except where linked to the thermal imaging camera which will have staged warning/notification levels for the operators, its highest level of detection will be linked to the fire alarm in order to cause the main fire alarm system to activate.

3.7.9 In the WTS Building, it is proposed to have both thermal imaging cameras and Internet Protocol (IP) overview low light cameras to cover the waste area. The 4 cameras will signal back to a network video recorder in the office building.

<u>Thermal Imaging Cameras</u>

3.7.10 The thermal imaging system comprises of thermal imaging cameras mounted at high levels in WTS Building, linked by ethernet to a PC based monitoring system located in the site office building.

3.7.11 The system software will be set up to rotate the camera to monitor and record the temperature and observe the whole of the WTS Building and will connect to the fire alarm via relays to give the first stage alarms. The first stage can be set at any threshold. This will communicate via the fire alarm remote signalling device. As a backup the four cameras will connect to a CCTV Network Video recorder. The recorder will then in turn connect to a 3rd party remote video

monitoring centre. On the activation of a camera the system will open up a link between the site and the 3rd party monitor to allow the monitor to investigate the area. If a fire is identified then the operator will call the Fire Brigade. In most cases the Fire service will only attend the site with a "visual verification or double knock", if the alarm triggers and there is no visual signs of fire, a key holder will be contacted to attend site. The monitor will continue to monitor any further triggers for live verification of fire. In the event of a fire detection outside of operational hours, a key holder will be contacted to attend the site to ensure that the Fire service will be able to gain access to the site.

3.7.12 The thermal imaging cameras work as stored waste will emit infrared energy, in the form of electromagnetic waves, which can be measured by the camera and converted into temperature values. The software detects small increases in temperature of the stored waste, providing early warning of developing hot spots on or below the surface. If detected, an alarm will be generated on the PC in the control room, indicating the location of the hotspot. On receipt of the alarm the plant operators will investigate the cause and initiate intervention measures.

3.7.13 The cameras will continue to monitor temperature and any further increase will generate a second alarm. Should the temperature continue to rise a third alarm will be generated and the fire suppression system will be automatically activated.

3.7.14 The high temperature alarm will be set at between 40°C and 90°C. This value will be subject to review and adjustment during commissioning and the early stages of operation, as well as throughout the operational period of the site to account for seasonal variations in temperatures.

3.7.15 The camera is installed in protective housing that incorporates a fan to provide a constant flow of air across the window in front of the lens to prevent accumulation of dust.

3.7.16 The design, installation and maintenance of the fire detection systems on site have been covered by an appropriate accredited third-party certification scheme.

3.7.17 A suitably trained and qualified site operative will carry out a visual inspection on site twice daily to ensure that the WTS Building is being managed correctly and will conduct basic visual checks to confirm that the thermal imaging cameras are operational.

3.7.18 Any member of site staff and site security will raise the alarm as soon as they become aware of a fire, including contacting emergency services.

3.7.19 The automatic fire detection system and thermal imaging camera provide 24/7 cover of the WTS Building. This allows a fire to be detected and supressed immediately.

3.8 Supressing Fires

3.8.1 The fire suppression system will comprise of a Tyco fire sprinkler system which will cover waste storage bays within the WTS building. This sprinkler system will have a storage capability of a 47,000 litre water tank. The system will be served by two main pumps with a back up diesel pump and a jockey pump to top up any lost pressure.

3.8.2 The site will also be covered by strategically placed fire hose reels. Handheld fire extinguishers will also be present at strategic locations on site.

3.8.3 The area covered by the sprinkler system and the location associated infrastructure are illustrated in **Drawing No. BF5066/12/07.**

Scenarios

3.8.4 The thermal imaging camera's high temperature alarm will be set to be activated once a temperature of between 40°C and 90°C is recorded (as aforementioned, this temperature is subject to review and change during the early stages of operation and throughout the operational period to account for seasonal variations in temperature). In the event the high temperature alarm is activated over the WTS building, the following actions will be implemented:

- Alarm is activated on thermal imaging PC in office building (Flashing Red Screen);
- Manual intervention is required and the operatives attend bay with issue;
- Waste is removed from the bay and transferred to the quarantine area where it will be spread to enable cooling. A temperature probe will be used to ensure that the waste is an acceptable temperature before it is transferred back into the storage bay.

3.8.5 The thermal imaging cameras high temperature alarm will be deactivated during operational hours and will be replaced by inspections carried out by trained site operatives as well as manual checks carried out by the Site Manager or nominated deputy using the thermal imaging cameras.

3.9 Fire Fighting Techniques

3.9.1 The site has been designed in order to allow active firefighting.

3.9.2 Upon identifying or being made aware of a fire, the site manager, or nominated deputy on site at the time of the incident, will raise the alarm, alert all present on site to the fire and its location and alert the emergency services.

3.9.3 The site will be evacuated in accordance with the site evacuation plan with the exception of those staff involved in active firefighting.

3.9.4 All staff, contractors and visitors would follow the Fire Evacuation procedure as included in **Section 3.10** below.

3.9.5 Trained staff will only tackle the fire using the fire extinguishers if it is safe to do so, and only in relation to small scale fires.

3.9.6 The Site manager or nominated deputy and site fire marshals will be responsible for ensuring that all personnel, visitors and sub-contractors are accounted for, and to give the Emergency Services that information on arrival.

3.9.7 All personnel working on site will be provided training in the Fire Prevention Plan and all associated procedures and controls, via site induction training, via on site tool box talks or third party training as appropriate. Follow on tool box talks are scheduled to refresh training.

3.9.8 The FPP training will be provided to all new starters and temporary employees working at the site. FPP refresher training will be carried out to all personnel at least annually.

3.9.9 In the unlikely event of a fire which has unsuccessfully been extinguished by the sites suppression system, staff are to await the arrival of the Fire and Rescue Service (FRS), who would then take the appropriate actions.

3.9.10 The FRS will be contacted by site staff during operational hours and the third-party remote monitoring company outside of operational hours. The indicative FRS Travel Times are included in **Appendix FPP4**; there are five Fire Stations located within a 30-minute radius (drive time) of the site. The FRS will be able to gain access to the site via a Gerda Box for which they will possess a key or code to open. The Gerda box will contain the site key for enable access and also the Incident Response Plan and other relevant information such as the location and method of shutting the Penstock Valve. The information contained in this box will be kept up to date to ensure reliability.

3.10 Fire Evacuation

3.10.1 Fire evacuation points are located at the main office and are clearly signposted.

3.10.2 Sites rules are reinforced via use of fire drills and planned response scenarios.

3.10.3 All personnel to follow the instructions of the Fire Wardens and the Site Manager.

3.10.4 A list of trained Fire Wardens is maintained and displayed on the site, together with a list of on call staff to attend the site in the event of a fire outside of normal operation hours.

3.10.5 The Fire Evacuation Procedure is provided to staff, contractors and visitors which states:

- On discovery of a fire, immediately operate the fire alarm by pressing the nearest break glass call point and / or contact the Site Manager via a radio to ensure the alarm is raised.
- Fire Wardens and staff must only tackle to fire if they are trained to do so, the equipment is appropriate and if their safety or that of others is not compromised.
- Leave the building / work area by the nearest available exit / safe route and report directly to the assembly point located at the main office.
- Leave quickly but in a calm, controlled and orderly manner. Do not detour to collect personal items.
- Do not re-enter the building / work area for any reason until authorisation has been given by the Site Manager / Fire Brigade.
- The Site Manager will assess the situation and call the Fire and Rescue Service if required.

3.10.6 This document is reviewed and updated annually, or sooner if required. The document details all hazards and the control measures that are in place and / or required to prevent fires.

3.11 Water Supplies

3.11.1 There is a 471,000 litre fire water tank installed at the site to supply the fixed fire suppression systems. This tank has a 100mm mains connection whereby the tank will start to refill as soon as water is drawn from it (e.g. to supply the sprinkler system). There is also a connection point on this tank for the FRS which accords with the British Standard and enables a constant supply of water for firefighting. This infrastructure will be checked as part of the regular maintanence inspections undertaken by trained site operatives.

3.11.2 In accordance with the guidance, the site needs enough water supply for a worst-case scenario, which is considered as the largest pile on site catching fire. The guidance specifies that for a 300m^3 pile of combustible material you must

have a water supply of at least 2,000 litres a minute for a minimum of 3 hours. Based on the maximum proposed pile size of 470m^3 a minimum of 564m^3 of fire water will be required. Therefore, the total firewater supply volume of 671,000 litres will be sufficient. The calculations for the minimum required firewater supply are shown below:

2,000 (litres per minute) ÷ 300 (m^3) = 6.6667 l/min/m^3
470 (m^3) x 6.6667 = 3,133 (litres/min)
3,133 litres/min x 180 mins = 564,000 litres (564 m^3)
564,000 litres of firewater required (minimum)

3.11.3 Owing to the mains supply on site via the firewater tank (aka sprinkler tank) and the available connection point for the FRS, there will be more than enough water supply at the site in the event of a fire.

3.11.4 There is also a surface water attenuation pond on site which currently has an as-built holding capacity of 230,000 litres. It is proposed to increase the footprint of the lagoon to the west which would generate a total holding capacity of 565m^3. Additionally, there is a rainwater harvesting tank with a capacity of 200,000 litres which can principally be used for site activities such as dust emission control. Dependant on the water available in this tank during an incident this may be able to provide an additional water supply capacity.

3.11.5 In the unlikely event that further water is needed, the firewater in the surface water attenuation pond may be recycled by the FRS for fire suppression. The FRS would deploy a pump into the attenuation lagoon and a pipe would enable the water to be transported across the site to the location of the fire for suppression.

3.12 Managing Fire Water

3.12.1 Firewater generated within the building will be prevented from exiting the eastern access points of the building by means of shallow ramps/speedbumps. Firewater that isn't captured and held by the internal drainage channel and sump will therefore be encouraged to flow out into the southern yard area, where it will be captured by the surface water drainage network and subsequently collect with the attenuation pond located on the western edge of the site.

3.12.2 The discharge point from the lagoon is fitted with a Penstock valve to allow the system to be isolated in the event of a fire. This will prevent potentially contaminated water entering the offsite surface water system.

3.12.3 The current capacity of the as built attenuation pond is 230,000 litres. It is proposed to increase the footprint of the attenuation lagoon which would give a holding capacity of ~565,000 litres, which will provide adequate holding capacity to contain the estimated firewater volumes should a fire occur with the largest waste pile (see **Section 3.11**).

3.12.4 There is also a small additional capacity within the subsurface pipe network and subsurface tank which supports the sealed drainage system within the WTS building.

3.12.5 The contaminated fire water will be removed via tanker from the on-site surface water drainage system and will be transported offsite to an appropriate treatment facility.

3.12.6 Prior to transfer off site, all spent firewater will be tested to ensure it is taken to the most appropriate facility for treatment and disposal.

3.13 During and After an Incident

During

3.13.1 During any firefighting or subsequent clear up operations, any incoming wastes will be diverted to an alternative waste processing site operated by Biffa. This includes, but may not be limited to, Biffa's Newhurst Energy Recovery Facility in Leicester, Biffa's Tipton transfer station and Biffa's Oldbury transfer station.

3.13.2 The Environment Agency and Local Authority will be informed by Biffa of any major incident. The Fire Rescue Service will contact any other relevant people, including nearby businesses and residential properties, if required, for example, in the event the fire poses a health and safety risk for potential receptors close to the site.

After

3.13.3 Once the FRS is satisfied that the fire has been extinguished, the following steps will be carried out to ensure that the site is fully decontaminated prior to the site returning to full operation:

- Affected materials will be quarantines for a minimum of 24 hours. After this period, testing will be carried out first to establish the nature of the waste and ensure that it is taken to the most suitable facility for treatment and / or disposal.
- All fire water captured by the drainage system will be tested and subsequently transferred off site via tanker to an appropriate facility.
- The site will undergo deep cleaning, including the sealed drainage system, and the site infrastructure will be tested. Any damaged equipment / infrastructure will be replaced or repaired as soon as practicable.

3.13.4 Records of testing on any burnt material and fire water will ensure that the facility accords with Duty of Care requirements.

3.13.5 Only once the above works have been done and the site has been inspected will the operator re-open the site. The EA will be informed at every juncture.

APPENDICES

APPENDIX FPMP1

Risk Assessment

Data and information				Judgement (if a fire occurs)				Action	
Source	**Harm**	**Pathway**	**Receptor**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is the agent or process with potential to cause harm?	*What are the harmful consequences if things go wrong?*	*How might the receptor come into contact with the source?*	*What is at risk? What do I wish to protect?*	*How likely is this contact?*	*How severe will the consequences be if this occurs?*	*What is the overall magnitude of the risk?*	*On what did I base my judgement?*	*How can I best manage the risk to reduce the magnitude?*	*What is the magnitude of the risk after management?*
Fugitive Emissions to Air (Smoke)									
Smoke emissions from a major fire at the WTS involving non-hazardous combustible waste e.g. plastic and wood	Harm to human health – respiratory irritation and illness	Air transport, then inhalation	Site personnel, local population, and air quality.	Moderate	High	**High**	Predominant wind direction is from South and Southwest. Residential receptors are located 115m East of the site boundary, industrial / commercial premises (including places of work) are located close to the site. The site will accept a range of non-hazardous wastes that may release a range of pollutants when burnt.	1. The fire mitigation strategy aims for a fire to be extinguished within 4 hours of starting. 2. Procedures will be incorporated into an 'Emergency Action Plan'. 3. No fires are permitted on site. 4. All waste will be stored internally within the WTS building in storage bays with the appropriate separation and firewalls. A 1m freeboard space will be maintained in each storage bay to ensure fire cannot spread over the walls and into a neighbouring bay. These precautions will reduce the rate of fire spread and enable targeted firewater use. 5. Immediate action will be taken to extinguish all fires if safe to do so. 6. The WTS building will be equipped with an automated sprinkler system (with a 47,000 litre water tank), a fire detection and alarm system and thermal imaging cameras to monitor the temperature of the waste piles and allow preventative actions to be made when necessary to prevent fire. Outside of operational hours third party monitoring will be implemented to ensure that in the unlikely event a fire broke out it would be identified as soon as possible to enable fire suppression to be conducted. 7. There are 5 FRS stations within a 30-minute drive time radius of the site. Incident response times are likely to be between 12 and 28 minutes. Each station is fully crewed 24 hours per day. 8. The site has a fire water supply of 670,000 litres, which exceeds the requirement for the worst-case scenario of 600,000 litres. 9. If necessary, a representative of Biffa will contact the local authority who will inform local residents/businesses and advise them to close all windows and doors until the fire has been extinguished. 10. A representative of Biffa will contact National Highways should the safety of any major road networks be at risk. 11. Firefighting equipment will be available and maintained, and site operators will be trained in their correct use. This will include extinguishers and fire hoses. 12. The combustion risk of waste types stored on-site which have been identified as potentially combustible; including incidental contaminants (e.g. wood and plastic) is considered to be low. All waste identified as having combustible properties will be proactively monitored by site personnel for potential combustion indications and will be 'conditioned' to limit combustion potential.	Low
	Visual impairment of drivers caused by thick smoke, disruption to services	Air transport	Users of local infrastructure e.g. local roads.	Moderate	Moderate	**Moderate**	Cornets End Lane lies adjacent to the site to the south and north. Kenilworth Road (A452) lies ~950m west of the waste transfer building. Hampton Lane (B4102) lies ~850m north of the waste transfer building. Somers Road lies ~880m north of the site.		Low
Firewater									
Production of firewater	Pollution of land and ground water	Absorption to and downwards percolation through ground	Land, groundwater, water abstractions	Very Low	Moderate	**Low**	All internal and external yards consist of impermeable pavement with kerbed edges and are graded to fall to a drainage network. Site is located over low permeability waste deposits	1. The site design includes for the construction of engineered impermeable surfacing across the site. The integrity of which will be maintained throughout the life of the facility. 2. In the unlikely event of a fire in the operational area, all firewater will be contained on site. The external drainage network directs water to the surface water attenuation	Low

Data and information				Judgement (if a fire occurs)				Action	
Source	**Harm**	**Pathway**	**Receptor**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
	Pollution of surface water	Run-off and site drains	Surface water	High	High	**Very High**	The site surface water drainage network discharges to surface water.	pond on site which has a Penstock Valve. This will ensure any firewater is kept on site to enable pumping, tinkering and off-site transfer to an appropriate facility. The drainage layout is shown in **Drawing No.: BF5066/12/04**. The attenuation lagoon has a capacity of 230,000 litres and the attenuation tank has a capacity of 276,000 litres. The projected water supply required to tackle a fire within the largest waste storage bay (500m^3) would equate to approximately 600,000 litres of water over a 3 hour period. Although the firewater capacity would be ~16% below the requirement, when factoring in evaporation and the absorptive potential of the waste, the attenuation capacity is sufficient. 3. The Emergency Incident Plan will be available to the FRS at the site entrance and will notify them of the requirement to shut-off the site drainage system discharge using the Penstock Valve. 4. Upon arrival at the site, the FRS will consider the utilisation of sprays or fogs to tackle a fire, which would reduce the amount of fire water run off created.	Low

APPENDIX FPMP2

BWS Group Fire Prevention Sheet

Management Operational Guidance MOG09-01

Fire Prevention

SHEQ

Contents

Introduction

Central Function Responsibilities

The Learning and Development Department will:

- Provide suitable training arrangements to site operations which supports adherence with this Group Standard

The Procurement Department will:

- Support the Business Unit by enabling the procurement of associated services, resources and equipment required for compliance with this Group Standard

The SHQ Department will:

- Provide coaching and support to Business Unit Managers
- Carry out site inspections and audits to ensure compliance with the Group Standard GS09

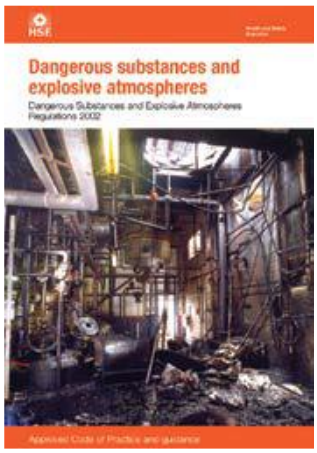
There were on average more than 300 fires per year at waste and recycling plants in the UK between 2001 and 2013. In May 2017, 40 firefighters tackled a blaze that burned for two days at a recycling plant near Rotherham. The same month, 24 residents were evacuated from their homes in Manchester after computer parts went up in flames at a recycling plant in Swinton.

The Guardian/ Oliver Balch July 2017

Overview

The **Regulatory Reform (Fire Safety) Order 2005** requires employers to carry out a fire risk assessment and ensure it is kept up to date. Based on the findings of the assessment employers need to ensure that adequate and appropriate fire safety measures are in place to minimise the risk of injury or loss of life in the event of a fire.

Work which involves the storage, use or creation of chemicals, vapours, dusts etc that can readily burn or explode is regulated under The Dangerous Substances and Explosive Atmospheres Regulations 2002 (**DSEAR**).



Locations with potentially explosive atmospheres must complete a DSEAR risk assessment as described in MOG09.02

This guidance has been developed to safeguard employees, contractors, visitors & members of the public when working at or visiting a Biffa Waste & Recycling site and to develop strategies for the protection of property.

Other guidance is available from the following sources:

- **WASTE 28** (WISH Forum guidance on reducing fire risk at waste management sites)
- Chief Fire Officers **Enforcers Guidance 2015**
- Chief Fire Officers brief guide to **Making your premises safe from fire**

- HM Government guidance on risk assessments for:
  - **Offices and shops**
  - **Factories and warehouses**
  - **Means of escape for disabled people**

- EA guidance on **Fire Prevention Planning**
- BSI publication BS9997:2019 **Fire risk management systems**

A Biffa Work Instruction manual (BWI09) provides mandatory instructions for fire prevention and interventions.

Responsibilities of the Business Unit Manager

Business Units must ensure the following documents are completed by a competent person

- Fire risk assessment
- Emergency services information pack
- Fire prevention plan

Copies are uploaded onto the compliance database and are reviewed at least annually but more frequently if there are any reported incidents or changes in work activities or infrastructure.

Templates can be found here**:**

GF09-01 - Fire Risk Assessment – High risk locations
GF09-02 - Fire Risk Assessment – Low risk locations
GF09-07 - Emergency Services Information Pack
GF09-08 - Fire Prevention Plan

Business Unit Managers must:

1. Appoint one or more competent persons, depending on the size and use of the premises, to carry out preventive and protective measures required by the Order and identified in the fire risk assessment. A competent person is someone with adequate training and experience and knowledge and other qualities to be able to implement these measures properly. For complex sites, a third-party contractor or consultant may be required to undertake the fire risk assessment

2. Provide employees with clear and relevant information on the risks to them as identified by the fire risk assessment, about the measures taken to prevent fires, and how these measures will protect them if a fire breaks out

3. Consult with employees (or their elected representatives) about nominating people to carry out particular roles in connection with fire safety and about proposals for improving the fire precautions. Provide training to all appointed site staff in accordance with Appendix C and record the responsibilities on the location responsibility matrix (GF04-01)

4. Inform non-employees, such as customers, agency staff, or contractors of the relevant risks to them, and provide them with information about the nominated competent persons, and about the fire safety procedures for the premises

5. Cooperate and coordinate with other responsible persons who also have premises in the building, inform them of any significant risks you find and how you will seek to reduce/control those risks which might affect the safety of their employees

6. Establish a suitable means of contacting the emergency services and provide them with any relevant information about dangerous substances (**GF09-07**)

7. Complete monthly inspections on form (**GF04-05**)

8. Make arrangements for statutory inspections of essential safety equipment and carry out testing as listed in GS02 (Statutory Inspections)

9. Maintain a fire log book using form (**GF09-05**)

10. Carry out emergency drills every 6 months

11. Manage the storage of waste and combustible material in accordance with the fire prevention plan (**GF06-08**)

12. Ensure the location has appropriate escape routes in accordance with Appendix A

13. Ensure that fire signage is provided and maintained in accordance with Appendix B

14. Provide and maintain portable fire extinguishers in accordance with Appendix D

15. Provide and maintain suitable fire detection and warning systems in accordance with WISH28 and Appendix E

16. Complete a Personal Emergency Evacuation Plan (PEEP) in accordance with Appendix F to ensure the safe exit of all Biffa colleagues who require assistance during an emergency evacuation

17. Install and maintain emergency lighting in accordance with Appendix G

18. Complete and communicate emergency plans in accordance with GS17

19. Carry out building construction and modification works in accordance with current building regulations

Fire Risk Assessment

By law, all businesses must carry out an assessment of fire risks and based on this assessment put in place appropriate controls and measures (the Fire Prevention Plan)

In multi-occupied buildings, Business Unit Managers will cooperate and coordinate with other responsible persons who also have premises in the building and inform them of any significant risk and how the risk is reduced or controlled. Only those trained and authorised by the business are able to complete a fire risk assessment.

When carrying out your fire risk assessment careful consideration needs to be given to the following:

- Identifying the location operating activities and processes, waste and materials storage and where on your site you have combustible and/or flammable materials
- Identifying where on your site you have potential ignition sources
- Identifying who or what (such as the environment) may be affected and how
- From the above information putting in place your plan of controls and measures aimed at reducing the risk of a fire occurring and the impact should a fire occur

Completing a fire risk assessment

The Business Unit must ensure that the person(s) carrying out the fire risk assessment is competent. Third party expertise of a professional fire risk assessor will be utilised where there is no in-house competence and the standard Biffa template (**GF09-01**) is to be used to record the assessment.

The person must be competent to complete a 'suitable and sufficient' assessment of that particular building and all the fire controls and fire prevention equipment installed. For advice on the selection of a suitable risk assessor, see the table below and consider the Fire Risk Assessment Competency Council document, **A Guide to Choosing a Competent Fire Risk Assessor.**

The competent person selects the type of assessment (Low risk or high risk) based on the general risk profile of the location.

Site Type	Risk Level	Notes to assessors	Who Assesses?
All MRF's, Hazardous Waste locations, AD Plants, GTE plant	High	Automatically high risk based on size of premises, waste materials being stored on site and potential loss to the business	Competent external fire risk assessment professional
Landfills	Low	Consider DSEAR, waste type, subterranean fire risk, number of people, mobile plant, site area, availability of water, gas levels, accessibility, and proximity of neighbouring hazards	BU Manager with support from the SHQ deprtment or a competent external fire risk assessor

Site Type	Risk Level	Notes to assessors	Who Assesses?
Collection and Municipal depot	Low or High	Low risk for simple one storey buildings with an easy means of escape and access and no risk from or to neighbouring properties and activities High risk where there is: • A multi storey building • A difficult means of access or escape • Complex activities, large waste stockpiles • Complex machinery • Presence of chemicals or explosive substances	Low risk – BU Manager with support from the SHQ Department or a competent external fire risk assessor High risk– Competent external fire risk assessment professional
Composting plant	Low	Consider volumes of stockpiles, mobile plant, and complexity of site access to water	Low – BU Manager with support from the SHQ Department or a competent external fire risk assessor
HWRC sites	Low or High	Consider volumes of waste, chemicals and combustible material and the number of people with potential exposure. Also consider the complexity of site, access and escape arrangements and any multi storey buildings	Low risk – BU Manager with support from the SHQ Department or a competent external fire risk assessor High risk– Competent external fire risk assessment professional
Fleet workshop	High	Consider attachment or proximity to another building, neighbouring hazards, plant and equipment, chemical storage, complexity of building, number of people, and number of bays	Competent external fire risk assessment professional
Non-hazardous Waste Transfer stations	Low or High	Low risk for simple one storey buildings with an easy means of escape and access and no risk from or to neighbouring properties and activities High risk where there is: • A multi storey building • A difficult means of access or escape • Complex activities, large waste stockpiles • Complex machinery • Presence of chemicals or explosive substances	Low risk – BU Manager with support from the SHQ Department or a competent external fire risk assessor High risk– Competent external fire risk assessment professional
Offices	Low or High	Low risk for simple one storey office buildings (e.g. portacabins) with easy means of access or escape and no neighbouring additional risks High risk for all: • Multi-storey offices • Offices that house in excess of 25 people • Difficult access and escape arrangements • Risks to and from neighbouring properties or activities	Low risk – BU Manager with support from the SHQ Department or a competent external fire risk assessor High risk– Competent external fire risk assessment professional

NB If a location has several business units (e.g. Office, workshop, transport yard etc) – assume the highest risk element to score the location.

Review of Fire Risk Assessments

BU Managers must complete a review of the fire risk assessment annually or following any significant changes to the operation, buildings or personnel, or following a significant near miss or a fire to take account of the learning points or any new hazards that may affect the existing fire precautions.

A record of the review is recorded on the original risk assessment document.

Control of Records

The completed fire risk assessment, reviews and actions should be a live document – and uploaded onto the compliance database. A hard copy must be kept on site.

If you share your site with other organisations you will need to share a copy of your completed fire risk assessment with them, and they will need to share theirs with you. Both parties should work together to ensure that fire safety rules are applied consistently.

You may seek the advice of regulators, but in the end, it is not the duty of a regulator to ensure your fire assessment and plan is adequate – this is your duty.

Any actions identified in the risk assessment are rated as shown below:

High	High priority to be actioned immediately Breaches of legal requirements, which could cause injury and require immediate short-term action. Also includes matters that can be resolved at minimal cost and time Breaches of legal requirements, which do not present a risk to life or injury but has a business impact require action within 1 week
Medium	Medium priority to be actioned within 1 week to 3 months Breaches in legislation that may require medium/long term action to resolve
Low	Low priority to be actioned within 3 to 6 months or when time and resources permit. Items of non-urgent priority or for future consideration, however if they are of minor nature and can be easily resolved, they should be done quickly
Notes	Additional issues that have been identified that may be required to satisfy Environmental Agency guidance and legislation or that may benefit property protection, business continuity or insurance conditions

Fire Prevention and Protection of Personnel

Detection systems and alarms

All locations must have a suitable fire detection and warning system as described in **WASTE28**

On very low risk sites this could be a simple shouted warning, though most Biffa premises will need some form of electrical detection and warning system. The system must be able to warn people in all circumstances. The requirements must be identified by a competent person and documented within the fire risk assessment.

Suppression systems

Must be installed and maintained in accordance with the fire risk assessment. General guidance is provided within the **WASTE28** document. Equipment can vary from a simple bucket of sand or portable extinguishers to complex automated deluge or sprinkler systems.

The selection of a suitable system must be approved by a competent fire engineer based on the findings of the risk assessment. BU Managers must ensure all safety equipment is maintained and statutory testing and inspections carried out in accordance with **GS02**

Emergency lighting

Must be installed and maintained in accordance with the fire risk assessment. Selection must be in accordance with the guidance in **Appendix G** and BS5266-1

Emergency escape routes

Adequate emergency escape routes must be provided and maintained in accordance with **Appendix A**. The BU Manager must ensure that the routes are free from obstructions at all times and provide signage to ensure the routes are clear.

Fire safety signage

Must be installed and maintained in accordance with **Appendix B** and further guidance in **WASTE28**. Signage must also comply with **Health and Safety (Safety Signs and Signals) Regulations 1996**

Assembly points

These are sometimes referred to as muster points. Assembly points must be provided and clearly identified as a safe meeting point for all personnel in the event of a fire and to conduct a roll call to ensure everyone is accounted for. Car parks are commonly used as assembly points, but the location must be fully considered as a part of the fire risk assessment

Emergency planning

Business Units must provide and maintain emergency plans in accordance with Group Standard GS17. These plans must be communicated to all site users and drills carried out at least every 6 months

Inspections and monitoring

A monthly inspection must be carried out by a competent person to check and inspect fire equipment, signage and evidence of additional fire risk. This inspection is recorded on **GF04-05** and any actions recorded on the compliance database.

Fire safety training and intervention

All personnel must receive fire training in accordance with Appendix C. This can vary from some basic fire awareness training as part of the induction programme to detailed practical training for any personnel with responsibilities during a fire or anyone expected to fight a fire. All staff must be aware of their own responsibilities as documented within the fire prevention plan.

No one must fight fires without appropriate training. Any staff expected to intervene or act in the event of a fire must be fully trained. Staff who have simply received basic awareness training as part of their induction are only permitted to use extinguishers on a very small fire where there is no personal risk or to assist evacuation. They must raise an alarm and then evacuate.

Fire emergency planning

Assistance should be sought from the SHQ Department and/or a competent fire engineer for complex operations. Where sites have individuals working on their site who may need additional assistance in the event of an emergency, a Personal Emergency Evacuation Plan (PEEP) must be completed.

Personal emergency evacuation planning

A plan must be in place at all locations where a Biffa colleague may require assistance during an emergency evacuation. BU Managers should discuss plans with employees and ask any vulnerable personnel to complete the questionnaire and then complete and agree a plan (see Appendix F)

Appropriate equipment must be provided to aid evacuation and the equipment is subject to statutory inspection and testing by the FM Contractors. Drills must be carried out every 6 months and all personnel with responsibilities within the plan are informed and suitably trained

Fire prevention plans

The Business Unit Manager will create a fire prevention plan which will take in to account the Environment Agency's 3 objectives:

- To minimise the likelihood of a fire happening
- Aim for a fire to be extinguished within 4 hours
- Minimise the spread of fire within the site and to neighbouring sites

Business Unit Managers will use the fire prevention plan template **GF09-08** and supportive guidance to document and communicate the plan.

All sites adopt a no smoking policy and hot works are controlled by the issue of work permits

Fire Intervention and Protection of Property

Trained personnel are expected to take early intervention actions to prevent the spread of fire and to protect life and property.

The following work instructions are available in the Biffa Work Instruction Manual (BWI09.01):

- Mobile plant – assisting with fire intervention
- End of shift process and procedures
- Hot works
- Water & drainage control
- Dealing with hot loads – work instruction
- Vehicle fires
- Process plant fires
- Monitoring additional summertime risks
- Dealing with battery fires

Compliance with Regulations

BU Managers must comply with the requirements of the Regulatory Reform (Fire Safety) Order 2005 and with fire prevention plans where these are approved by the Environment Agency. The Business Unit Manager shall use the fire prevention plan template GF09-08, and supporting guidance to document and communicate the plan. Alternative formats may one be used where they are approved by the regulators and a master template copy registered as an "approved exception document" by the SHEQ Systems Team.

Storage of materials must comply with permit and licence conditions and meet the requirements of **WASTE28**.

Internal and External References

Internal	External
Biffa Work Instruction manual (BWI09) provides mandatory instructions for fire prevention and interventions.	WASTE28 guidance on reducing fire risk at waste management sites
	Chief Fire Officers Enforcers Guidance 2015
	Chief Fire Officers brief guide to “Making your premises safe from fire”
	HM Government guidance on risk assessments for: • Offices and shops • Factories and warehouses • Means of escape for disabled people • Transport premises and facilities
	BSI publication BS9997:2019 fire risk management systems
	EA guidance on Fire Prevention Planning

Definitions, Abbreviations and Additional Guidance

Abbreviation	Definition
Biffa	Includes Biffa Waste Services Ltd and all Biffa Group companies
BU	Business Unit. Managed on a day to day basis by the Business Unit Manager (Typically this will be Site Managers, Depot Managers, Workshop Managers, Landfill Managers, Plant Managers etc.)
BD	Business Director
Obi	Biffa Intranet

Document Control

Document Status and Version Control

Document Title	Issue No	Issued by name	Function /Division	Biffa IMS Ref	Security Classification	Date of Issue	Review Date	Approved by:
Management Operational Guidance for fire prevention	1	P Gough	SHEQ	MOG\Grp\MOG09 .01 fire prevention	Unclassified	01/04/20	01/04/21	Paul Wright
Management Operational Guidance for fire prevention	2	Karen Daykin	SHEQ	Pg 12 wording changes	Unclassified	01/11/2020	01/09/23	Paul Wright

APPENDIX FPMP3

End of Shift Check Sheet

End of Shift Check Sheet

Date:

Completed by:

Signature:

Waste Types and Stockpile Volumes

Waste Transfer Station Building:

Waste Checks	***Initial to confirm***
Floors of all buildings generally clear (free of dust/litter/debris/spillages)	
External infrastructure area clean (free of litter/dust/debris spillages)	
Vehicle exhausts checked and cleared of dust/litter/debris	
Flammable liquids returned to storage areas	
Waste storage areas checked for indication of combustion/smouldering	
Waste storage areas checked for indication of excessive build up/ overspills	
Other ignition sources kept away from waste piles	
All doors locked (where appropriate) and security system activated	
If the quarantine area is being used for storage of combustible waste – ensure waste is cooled before leaving site	
If bays are being used to store combustible waste check free board space is retained	
Perimeter fence secure	
Access point to the site not obstructed	
Mobile plant parked away from combustible material	
All machinery/ plant equipment/ lighting turned off (where appropriate)	

Date:

Completed by:

Signature:

Waste Types and Stockpile Volumes

Waste Transfer Station Building:

Waste Checks	***Initial to confirm***
Any defects or damages to any equipment/plant? If yes, further information to be discussed in additional comments.	
Additional comments	

I confirm that all checks have been carried out as detailed above and that all lock off procedures have been followed.

Name:

Signature:

Date:

APPENDIX FPMP4

Indicative FRS Travel Times

bing maps

A Cornets End Lane, Meriden, Coventry CV7 7LG

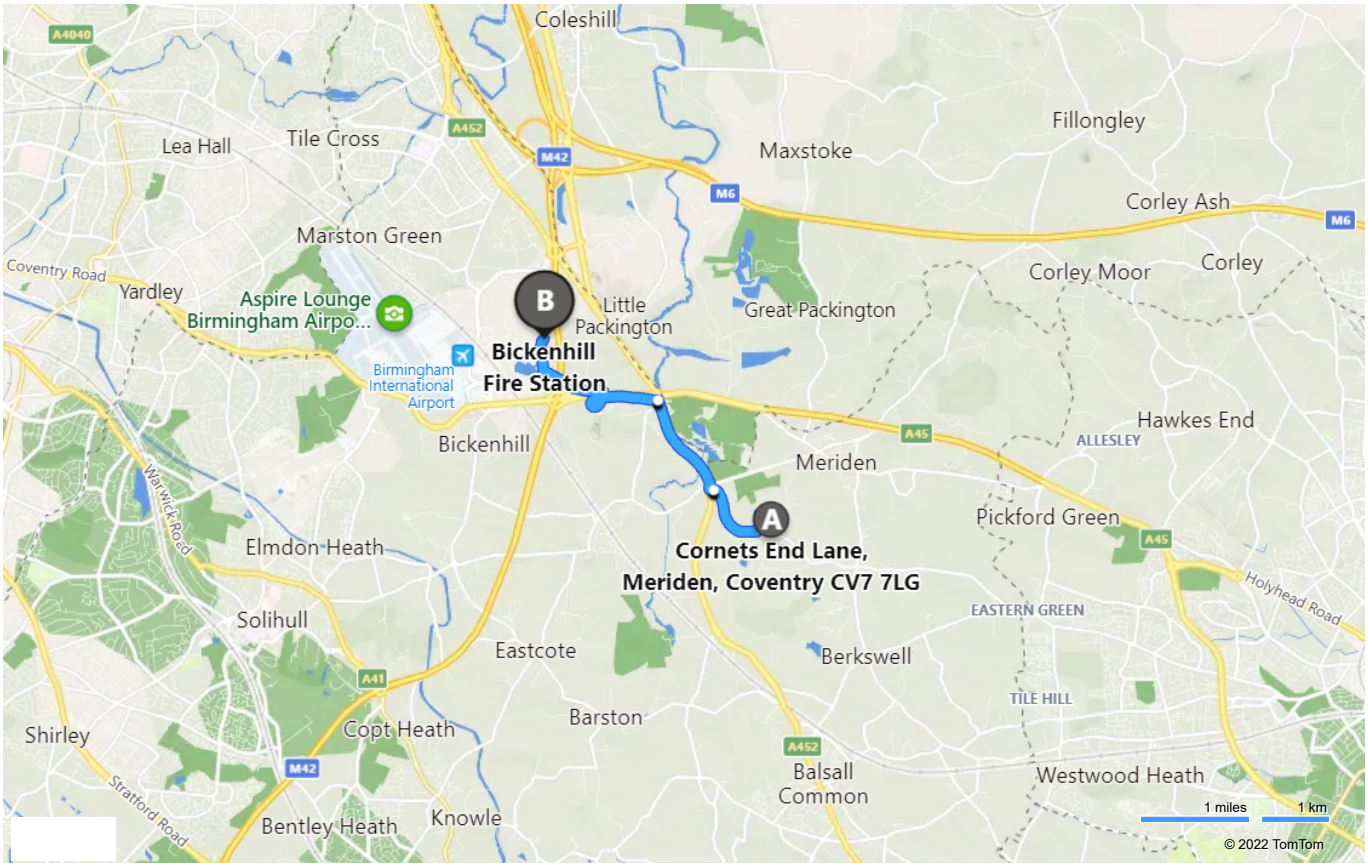
B Bickenhill Fire Station, Fire Station National Exhibition Centre, Birmingham B40 1PW

8 min , 3.8 miles
Light traffic (Leave at 11:59)
Via A452, East Way

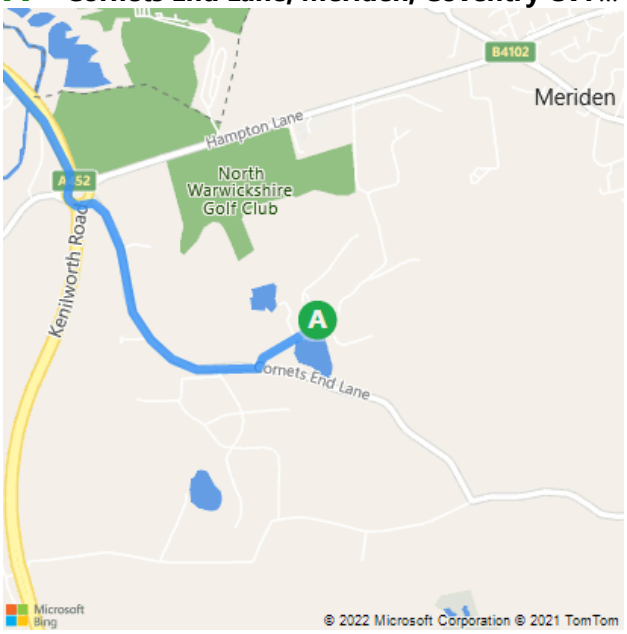
A Cornets End Lane, Meriden, Coventry CV7 7LG

↑	1.	Depart and head (**south**) • *Private Road*	180 ft
↰	2.	Turn **left** • *Private Road*	56 ft
↱	3.	Turn **right** towards **Cornets End Lane** • *Private Road*	0.2 mi
↱	4.	Turn **right** onto **Cornets End Lane**	0.7 mi
⟳	5.	At the roundabout, take the **3rd** exit for **A452 / Kenilworth Road**	1.1 mi
⟳	6.	At the roundabout, take the **1st** exit for **Coventry Road** towards **Bickenhall Household Waste Recycling Centre / Birmingham International / Birmingham / Elmdon Trading Estate / Lichfield / N.E.C. / Solihul**	0.6 mi
↰	7.	Bear **left** onto **East Way**	0.6 mi
⟳	8.	At the roundabout, take the **1st** exit	0.3 mi
⟳	9.	At the roundabout, take the **2nd** exit for **Pendigo Way**	0.2 mi
⟳	10.	At the roundabout, take the **3rd** exit for **Northway**	505 ft
	11.	Arrive at **Northway** The last junction before your destination is Pendigo Way If you reach North Avenue, you have gone too far	

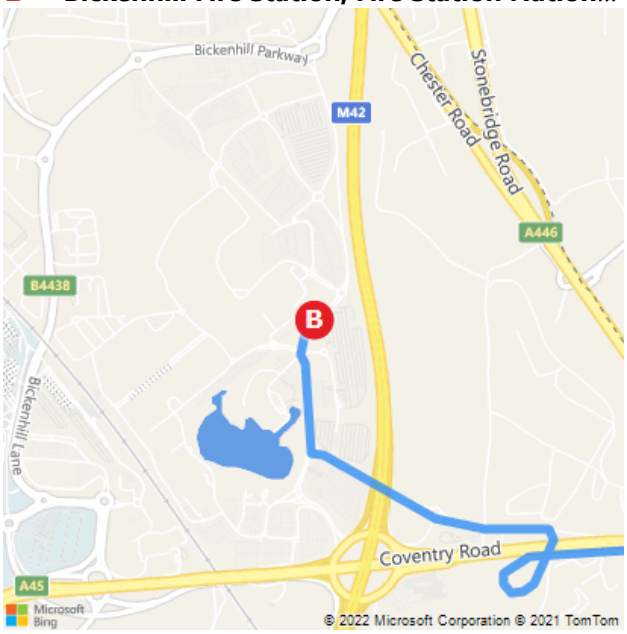
B Bickenhill Fire Station



A Cornets End Lane, Meriden, Coventry CV7...



B Bickenhill Fire Station, Fire Station Nation...



bing maps

A Cornets End Lane, Meriden, Coventry CV7 7LG

B Canley Fire Station, Canley Fire Station, Sir Henry Parkes Rd, Coventry CV4 7BA

14 min , 6.8 miles
Light traffic (Leave at 12:06)
Via Spencer's Lane, Charter Avenue
· Local roads

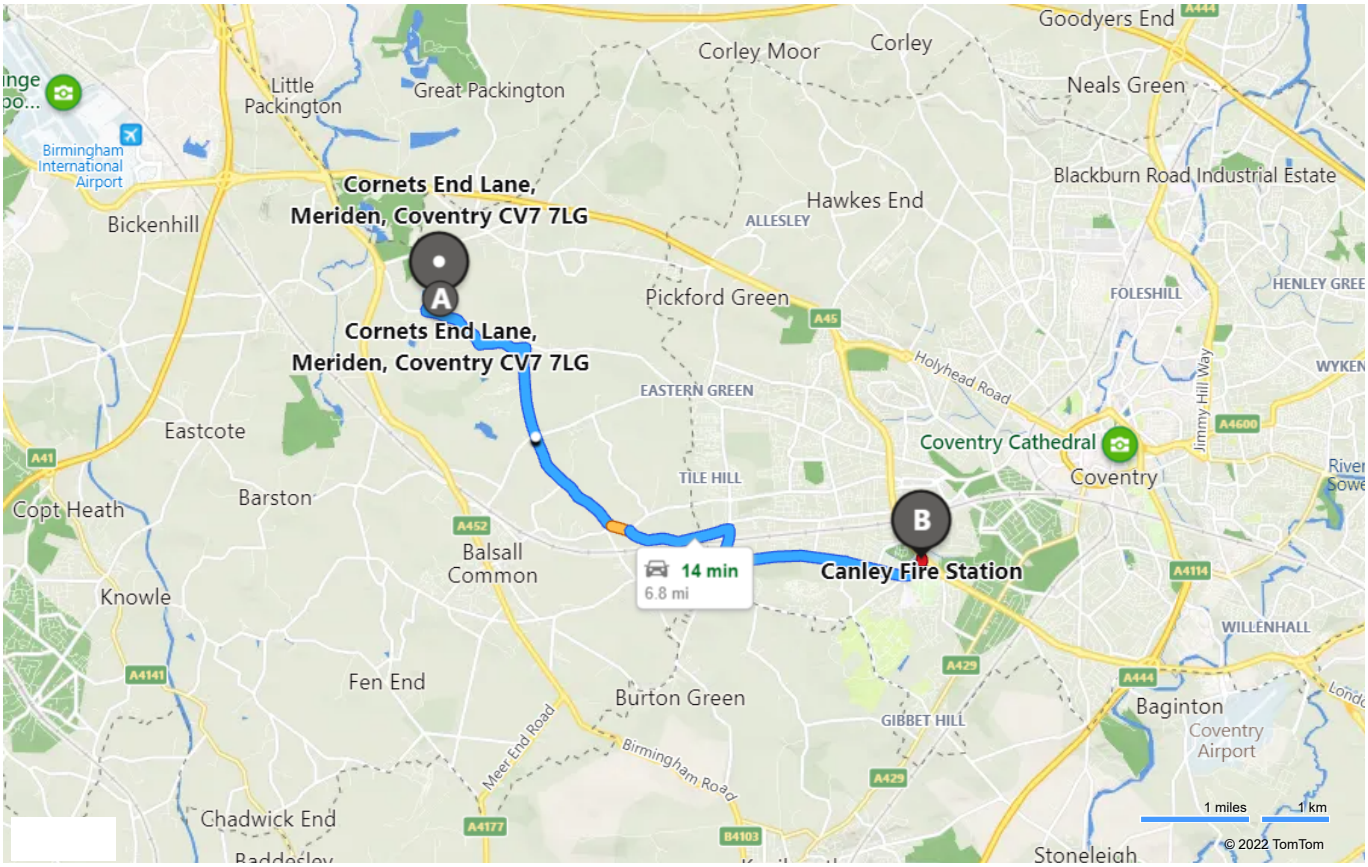
A Cornets End Lane, Meriden, Coventry CV7 7LG

↑	1.	Depart and head (**south**) • *Private Road*	180 ft
↰	2.	Turn **left** • *Private Road*	56 ft
↱	3.	Turn **right** towards **Cornets End Lane** • *Private Road*	0.2 mi
↰	4.	Turn **left** onto **Cornets End Lane**	1.1 mi
↱	5.	Turn **right** onto **Meriden Road**	0.9 mi
↑	6.	Road name changes to **Spencer's Lane**	1.3 mi
⟳	7.	At the roundabout, take the **2nd** exit	128 ft
↖	8.	Bear **left** onto **B4101 / Spencer's Lane**	0.2 mi
↖	9.	Bear **left** onto **Duggins Lane**	0.8 mi
↑	10.	Keep **straight** to get onto **Station Avenue**	144 ft
↱	11.	Turn **right** onto **Cromwell Lane**	0.3 mi
↰	12.	Turn **left** onto **Charter Avenue**	1.2 mi
⟳	13.	At the roundabout, take the **2nd** exit	0.6 mi
⟳	14.	At the roundabout, take the **1st** exit for **Sir Henry Parkes Road**	0.2 mi
↑	15.	Keep **left** to stay on **Sir Henry Parkes Road**	197 ft

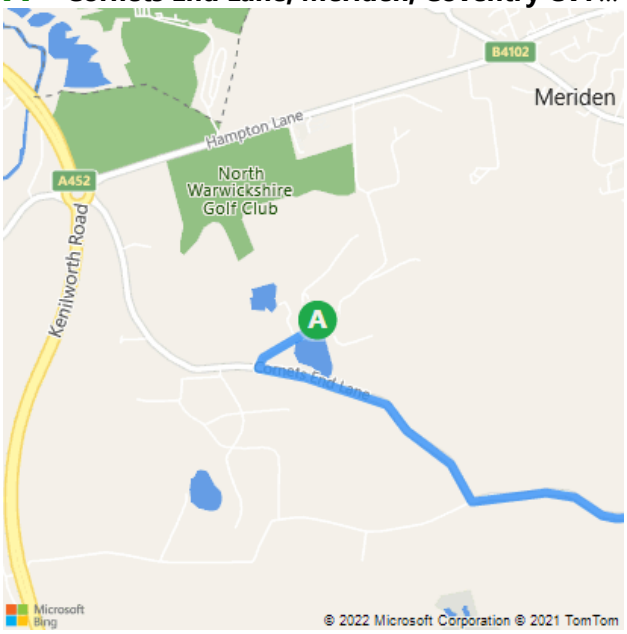
Arrive at **Sir Henry Parkes Road**

16. The last junction before your destination is Centenary Road
If you reach a45 / Fletchamstead Highway, you have gone too far

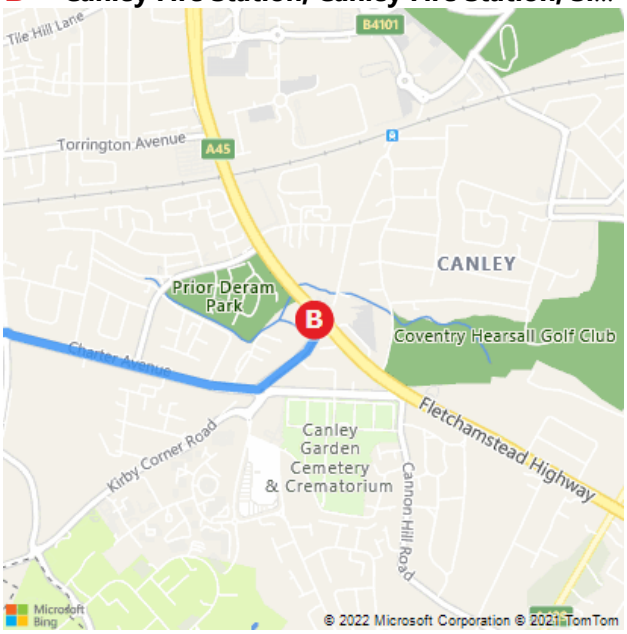
B Canley Fire Station



A Cornets End Lane, Meriden, Coventry CV7...



B Canley Fire Station, Canley Fire Station, Si...



bing maps

A Cornets End Lane, Meriden, Coventry CV7 7LG

B Coventry Fire Station - Home | Facebook, Radford Road, Coventry CV1 4EL

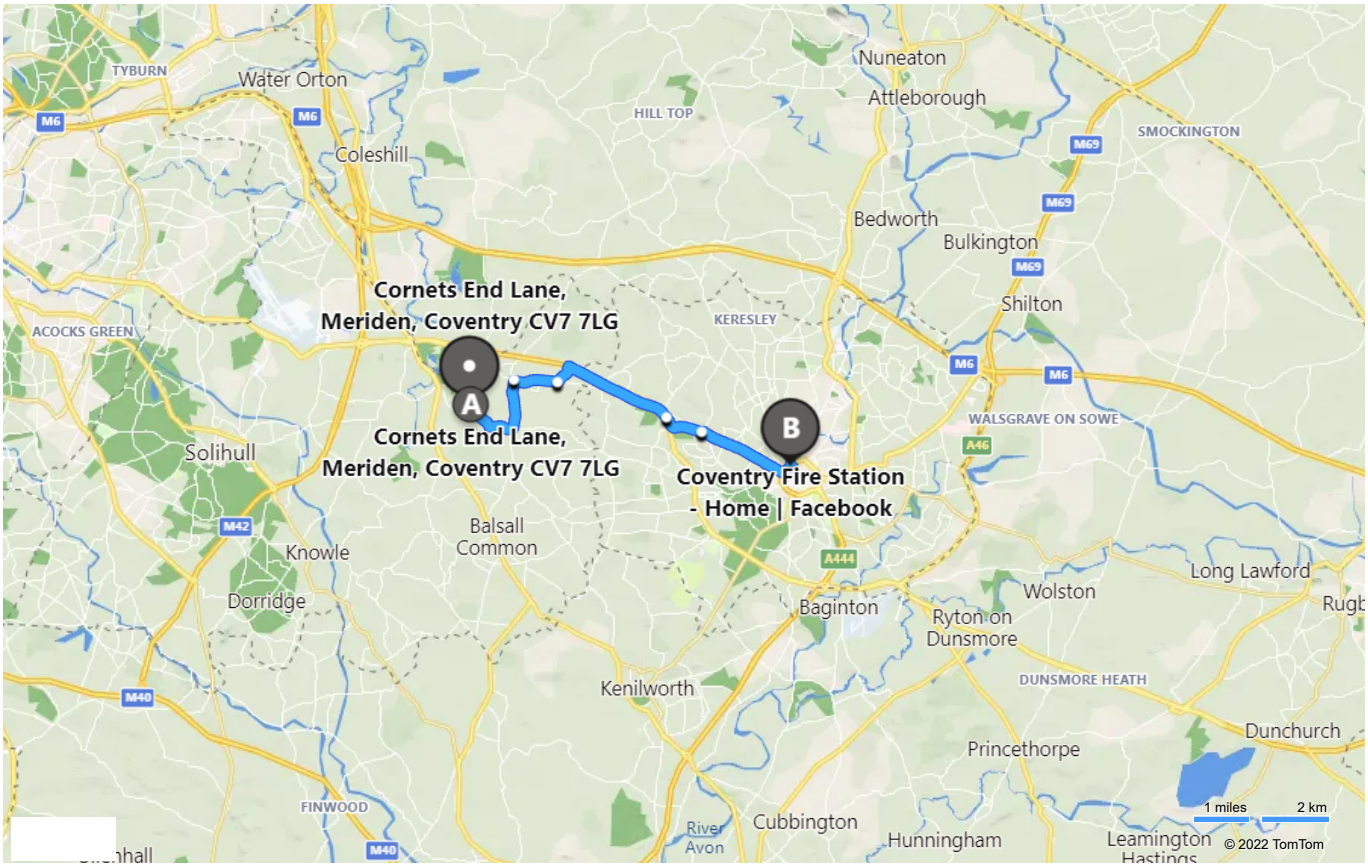
18 min , 8.5 miles
Light traffic (Leave at 12:08)
Via a45, A4114

A Cornets End Lane, Meriden, Coventry CV7 7LG

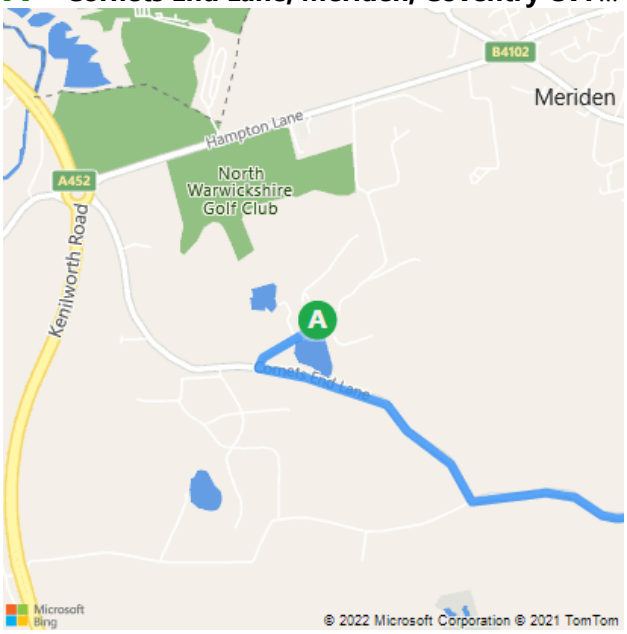
↑	1.	Depart and head (**south**) • *Private Road*	180 ft
↰	2.	Turn **left** • *Private Road*	56 ft
↱	3.	Turn **right** towards **Cornets End Lane** • *Private Road*	0.2 mi
↰	4.	Turn **left** onto **Cornets End Lane**	1.1 mi
↰	5.	Turn **left** onto **Berkswell Road**	0.9 mi
↱	6.	Turn **right** onto **B4102 / main road**	0.9 mi
⟳	7.	At the roundabout, take the **1st** exit for **Showell Lane**	0.4 mi
a45	8.	Take the slip road on the **right** for **a45**	2.1 mi
↰	9.	Take the slip road on the **left** for **A4114** and head towards **Allesley / Brownshill Green / City Centre**	0.2 mi
⟳	10.	At the roundabout, take the **2nd** exit for **A4114 / Pickford Way** towards **Allesley / A4114**	0.6 mi
⟳	11.	Go through 3 roundabouts, staying on **A4114**	1.8 mi
↑	12.	Keep **straight** to get onto **Ringway Hill Cross**	312 ft
↑	13.	Keep **straight** to get onto **B4098 / Ringway Hill Cross**	397 ft
⟳	14.	Enter the roundabout	20 ft

	15.	Exit the roundabout at Exit **0** • *Private Road*	249 ft
	16.	Arrive at your destination on the right The last junction before your destination is B4098 / Radford Road	

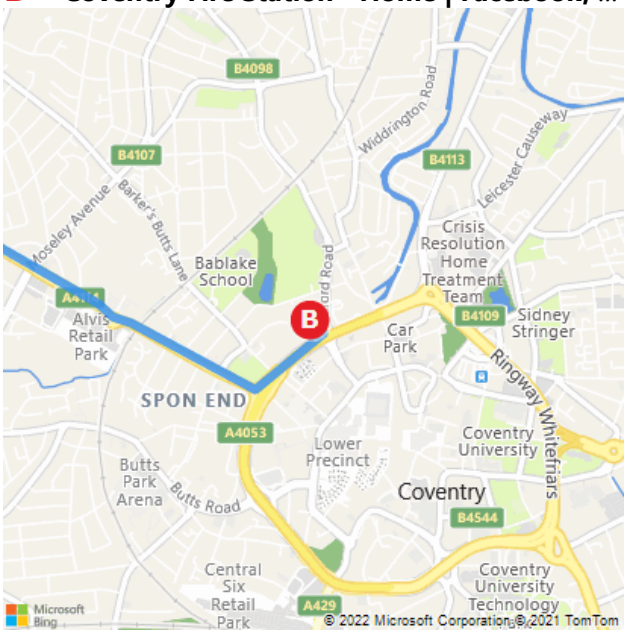
B **Coventry Fire Station - Home | Facebook**



A Cornets End Lane, Meriden, Coventry CV7...



B Coventry Fire Station - Home | Facebook, ...



bing maps

A Cornets End Lane, Meriden, Coventry CV7 7LG
B Foleshill Fire Station, Foleshill Rd, Coventry CV6 5HN

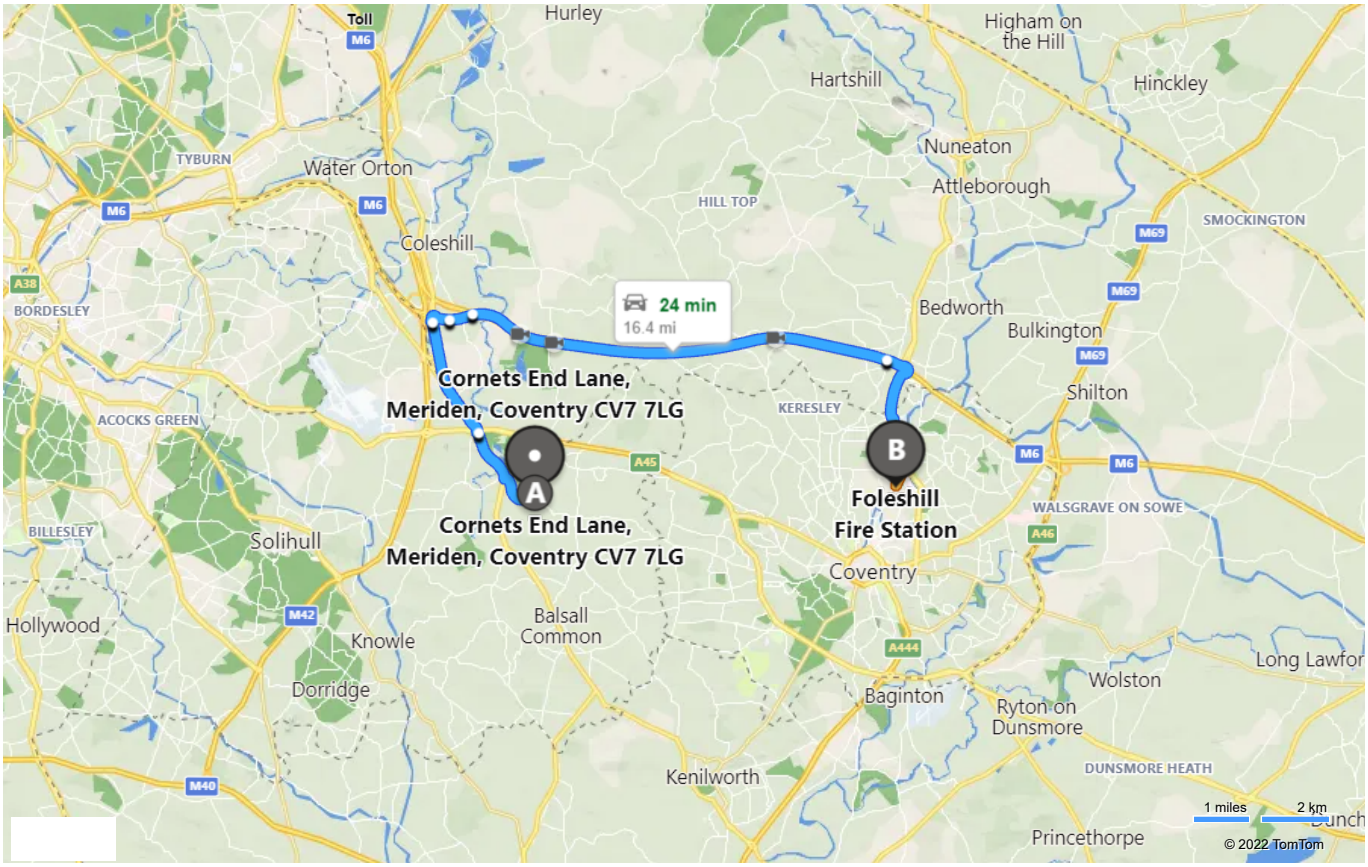
24 min , 16.4 miles
Light traffic (Leave at 12:12)
Via M6, A444

A Cornets End Lane, Meriden, Coventry CV7 7LG

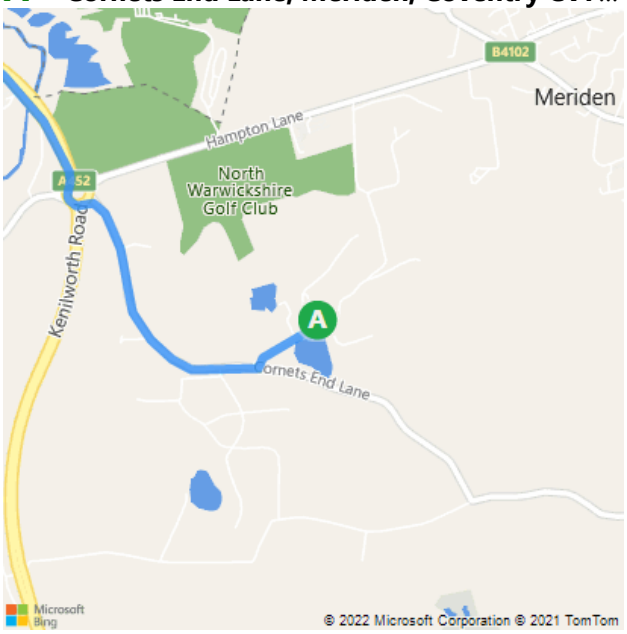
↑	1.	Depart and head (**south**) • *Private Road*	180 ft
↰	2.	Turn **left** • *Private Road*	56 ft
↱	3.	Turn **right** towards **Cornets End Lane** • *Private Road*	0.2 mi
↱	4.	Turn **right** onto **Cornets End Lane**	0.7 mi
⟳	5.	At the roundabout, take the **3rd** exit for **A452 / Kenilworth Road**	1.1 mi
⟳	6.	At the roundabout, take the **2nd** exit	1.0 mi
↑	7.	Keep **straight** to get onto **A446 / Stonebridge Road**	1.4 mi
⟳	8.	At the roundabout, take the **3rd** exit for **slip road** towards **Coventry (N&E) / London / M6**	0.5 mi
M6	9.	Merge onto **M6**	0.5 mi
M6	10.	Take the slip road for **M6**	8.1 mi
↰	11.	At Junction **3**, head **left** on the slip road for **A444** towards **Bedworth / Coventry (N) / Nuneaton**	0.3 mi
⟳	12.	At the roundabout, take the **4th** exit for **A444 / Jimmy Hill Way** towards **Coventry / Holbrooks / Rowley's Green Ind Estate** ▲ *Minor Congestion*	1.2 mi
⟳	13.	Go through 2 roundabouts, staying on **A444** ▲ *Minor Congestion*	1.1 mi

14.	At the roundabout, take the **3rd** exit for **B4113 / Foleshill Road** ▲ *Minor Congestion*	0.4 mi
15.	Arrive at **B4113 / Foleshill Road** The last junction before your destination is Queen Mary's Road If you reach Culworth Row, you have gone too far	

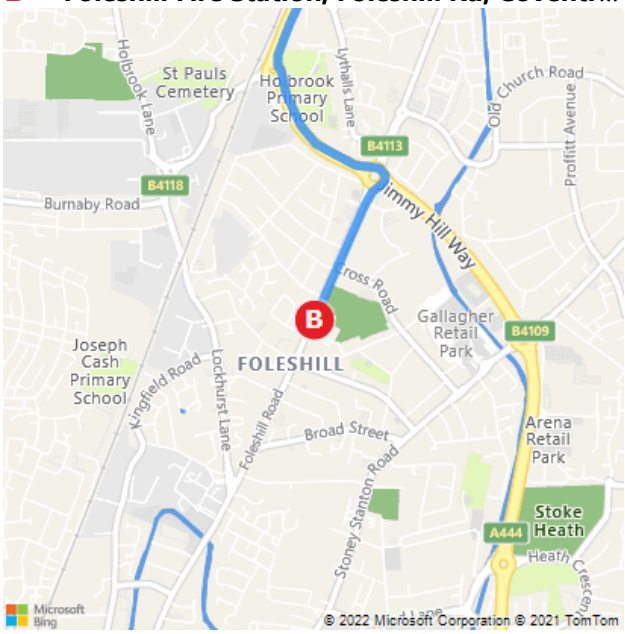
B **Foleshill Fire Station**



A Cornets End Lane, Meriden, Coventry CV7...



B Foleshill Fire Station, Foleshill Rd, Coventr...



bing maps

A Cornets End Lane, Meriden, Coventry CV7 7LG

B Solihull Fire Station, 620 Streetsbrook Road, Solihull B91 1QY

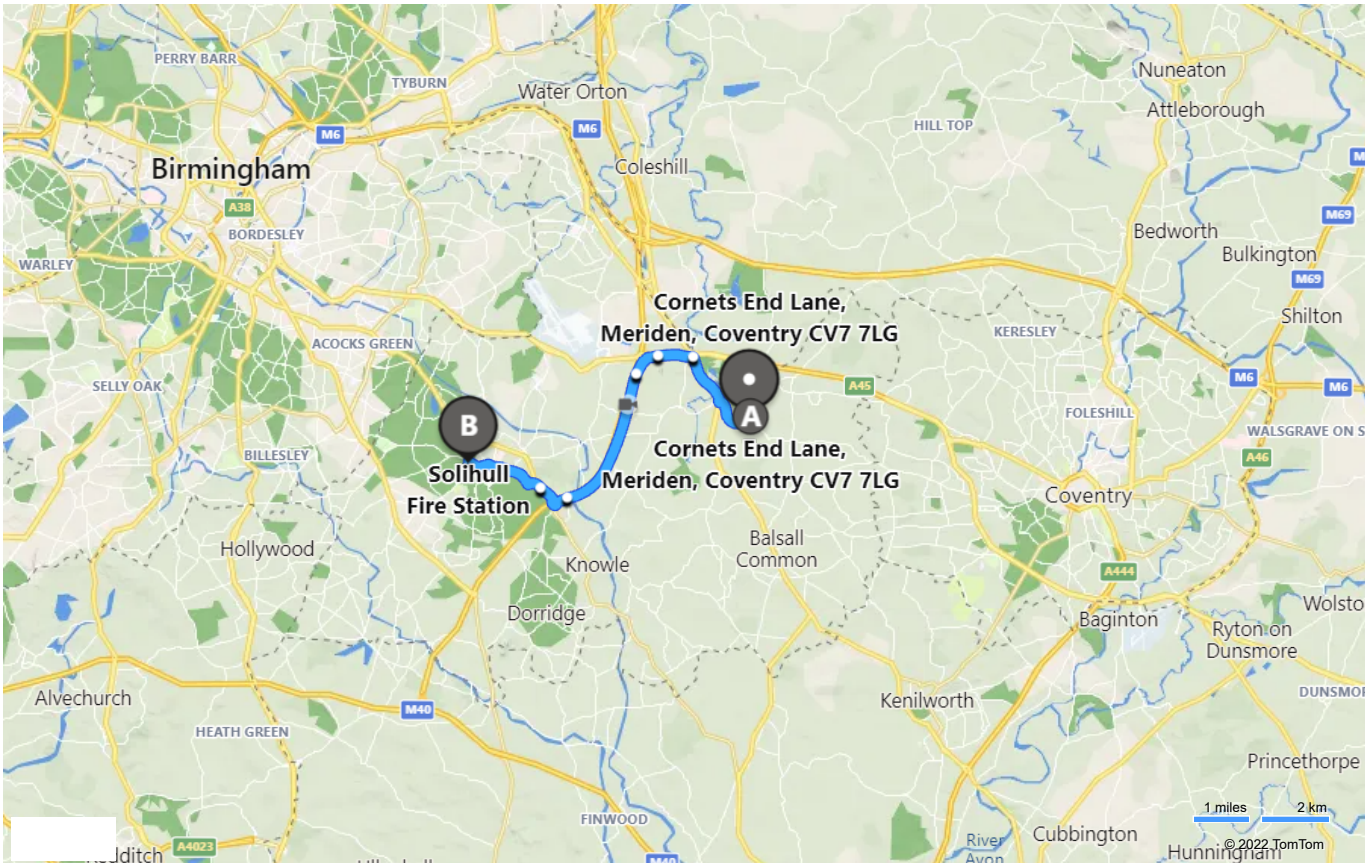
17 min , 8.4 miles
Light traffic (Leave at 12:11)
Via A452, M42

A Cornets End Lane, Meriden, Coventry CV7 7LG

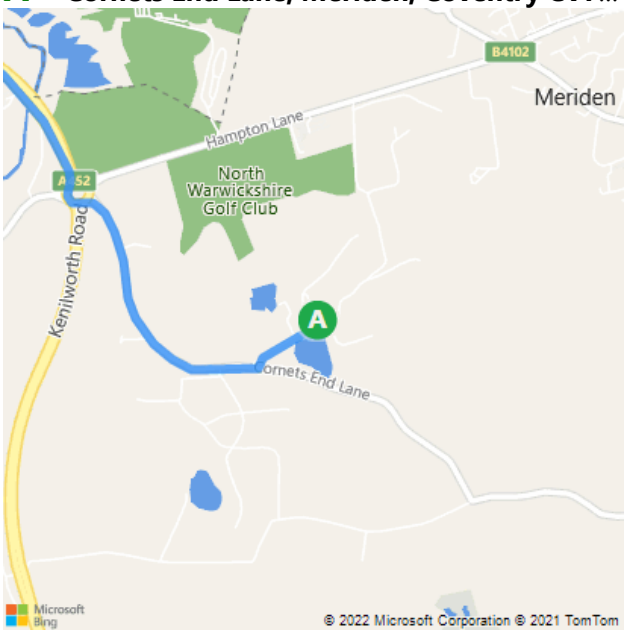
↑	1.	Depart and head (**south**) • *Private Road*	180 ft
↰	2.	Turn **left** • *Private Road*	56 ft
↱	3.	Turn **right** towards **Cornets End Lane** • *Private Road*	0.2 mi
↱	4.	Turn **right** onto **Cornets End Lane**	0.7 mi
⟳	5.	At the roundabout, take the **3rd** exit for **A452 / Kenilworth Road** ▲ *Minor Congestion*	1.1 mi
⟳	6.	At the roundabout, take the **1st** exit for **Coventry Road** towards **Bickenhall Household Waste Recycling Centre / Birmingham International / Birmingham / Elmdon Trading Estate / Lichfield / N.E.C. / Solihul**	0.2 mi
a45	7.	Take the slip road on the **right** for **a45 / Coventry Road**	0.5 mi
↑	8.	Take the slip road on the **left** for **Coventry Road** and head towards **Lichfield / Solihull**	0.2 mi
⟳	9.	At the roundabout, take the **2nd** exit for **slip road** towards **London / Solihull / The South West / Warwick / M42** ▲ *Minor Congestion*	0.4 mi
M42	10.	Merge onto **M42 / E05**	2.9 mi
↰	11.	At Junction **5**, head **left** on the slip road for **A41** towards **Solihull**	0.2 mi
⟳	12.	At the roundabout, take the **3rd** exit for **a41 / Solihull Bypass** towards **Birmingham / Solihull Town Centre / A41**	0.5 mi
↰	13.	Take the slip road on the **left**	0.2 mi

	14.	At the roundabout, take the **2nd** exit for **B4025 / Warwick Road**	0.4 mi
	15.	Keep **straight** to get onto **B4102 / Warwick Road**	0.5 mi
	16.	At the roundabout, take the **1st** exit	0.2 mi
	17.	At the roundabout, take the **4th** exit for **B4025 / Streetsbrook Road**	0.3 mi
	18.	Arrive at **B4025 / Streetsbrook Road** The last junction before your destination is Station Approach If you reach Broad Oaks Road, you have gone too far	

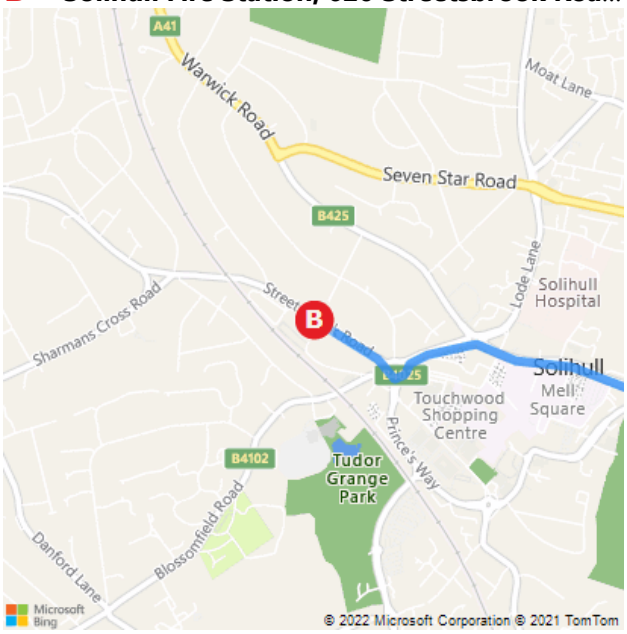
B **Solihull Fire Station**



A Cornets End Lane, Meriden, Coventry CV7...



B Solihull Fire Station, 620 Streetsbrook Roa...



APPENDIX FPMP5

Emergency Contacts

Emergency Contacts

Robert Campbell (Site Manager) - 07773813637

Fire/Ambulance/Police Service - 999

Environment Agency - 03708 506 506 / 0800 80 70 60

Severn Trent Water – 0800 783 4444

Solihull Metropolitan Borough Council - 0121 704 8001

National Highways – 0300 123 5000

NRS Meriden Aggregates Limited – 01676 488 028

Rachel's Café – 07472 077262

In The Doghouse – 01675 443399

Midland Mix Concrete – 01827 370433

Tarmac Coventry Dry Silo Mortar Plant – 0370 111 6116

A&A Recycling Services Limited – 01675 442249

APPENDIX FPMP6

Incident Response Plan

INCIDENT RESPONSE PLAN

Introduction

The information box contains the following information to assist when responding to an incident at this facility:-

- Incident Response Plan *(this document)*
- Operational Layout Plan – **Drawing No. BF5066/12/03**
- Drainage Layout Plan – **Drawing No. BF5066/12/04**
- Fire Prevention and Mitigation Infrastructure Plan **Drawing No. BF5066/12/07**

Site Description

The facility comprises a Waste Transfer Station (WTS) which stores and treats (manual and plant assisted sorting only) Industrial and Commercial non-hazardous wastes streams, including general waste, dry mixed recyclates and construction and demolition waste. In line with the EA's Fire Prevention Plan Guidance, this Incident Response Plan will focus on the storage of the non-hazardous combustible waste streams. The non-hazardous combustible waste streams stored on site include textiles, metals, plastics, tyres, WEEE, wood, bulky waste, paper and cardboard.

All waste streams will be stored within the WTS building, within three storage bays. Site storage arrangements are presented in **Drawing No. BF5066/12/03.**

Incident Response Infrastructure/Procedures

1. **Water Supply** – A sprinkler system is supported by a 470m^3 tank. A 200m^3 capacity rainwater harvesting tank is also provided and is fitted with a connection point agreed with the FRS. The positions of the supply sources are shown on **Drawing No. BF5066/12/07.**

2. **Fire Water Management** – as shown on **Drawing No. BF5066/12/04**, the surface water run-off from all areas of the site ultimately discharge to surface water via the attenuation lagoon located on the western edge of the site. The discharge point from the lagoon is fitted penstock valve that should be closed in the event of a fire. The holding capacity of the lagoon is 230m^3.

   The eastern yard drains via a rising main, which itself is supported by a 276m^3 capacity underground storage tank. The rising main will automatically stop pumping once the western attenuation lagoon is full.

   Furthermore, there is a small additional capacity within the subsurface pipe network and subsurface tank which supports the sealed drainage system within the WTS building. Run off within the WTS will be directed to the central channel drain and from there it will enter the tank. The contents will then be pumped out and tankered for transfer offsite to an appropriate facility. This tank, therefore, offers a small amount of additional capacity for firewater which has been used for suppression in the event of a fire.

3. **Out of hours contact details** –the security contractor has been provided with the relevant point of contact in the event of an emergency. A member of staff will attend site as soon as practicable.