

FIRE PREVENTION PLAN

Gird Powr (UK) Ltd

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Sol Environment Ltd

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1 Introduction

1.1 Introduction

This document has been prepared by Sol Environment Ltd on the behalf of Grid Powr (UK) Ltd for the proposed operation of a renewable energy generation facility at their site on land off the Houghton Main Colliery Roundabout, Park Spring Road, Houghton Main, Barnsley.

The document provides a structured framework and approach in effectively preventing potential fires associated with the operation of the facility.

This Fire Prevention Plan document (referred hereafter as the 'FPP') has been produced in accordance with the updated Environment Agency's Fire Prevention Plan Guidance (published 29th July 2016, updated 4th May 2018 and 11th January 2021).

This Fire Prevention Plan meets the 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.

1.2 Structure of the Fire Prevention Plan

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 RDF Piles;
- Preventing Fire Spreading;
- Quarantine Area;
- Detecting Fires;
- Suppressing Fires;
- Firefighting Techniques;
- Water Supplies;
- Managing Fire Water; and
- During and after an Incident.

1.3 Status of the Fire Prevention Plan

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

2 SITE BACKGROUND

2.1 Site Setting

Grid Powr (UK) Ltd ('GP' hereafter) intend to operate a renewable energy generation facility on land off the Houghton Main Colliery Roundabout, Park Spring Road, Houghton Main, Barnsley. The facility will be regulated in accordance with the requirements of the Environmental Permitting Regulations, under the conditions of an Environmental Permit.

The Advanced Thermal Treatment (ATT) plant is designed to use Refuse Derived Fuel (RDF) feedstocks to produce heat to raise steam in a conventional tube boiler for utilisation in a steam turbine for the production of renewable electricity with a gross electrical output of up to 16MWe.

The Installation has been designed to process a maximum of 145,000 tonnes of pre-prepared Refuse Derived Fuel (RDF) per annum.

The location of the subject Site is shown on Figure A1, Annex A, centred at approximate National Grid Reference OS X (Eastings) 441640 OS Y (Northings) 406444 (NGR SE 41640 06444). The site layout is shown in Figure A2.

The application site is located to the north of the town of Darfield, and the surrounds are heavily dominated by agricultural or rural land. The site is bound to the south, north and west by agricultural sites, with the east being bound by the A6195. The River Dearne is located approximately 10m to the north of the proposed development, running north south along the western border. It is well connected by existing infrastructure corridors such as the A6195, further connecting to the M1.

The majority of the site consists of undeveloped and rural land. The nearest residential area to the site is Ings Lane which lies approximately 625m south of the site immediately west of the A6195 road.

Table 2.1 provides further information in relation to the site.

Table 2.1: Site Setting	
Direction	Observations
North	Immediate Vicinity: Disused Railway. Within 500m: Rural Land, Agricultural Land, Line of Trees. Beyond 500m: A6195, Rural Land, Agricultural Land, Grimethorpe Nature Reserve.
North East	Immediate Vicinity: A6195. Within 500m: Woodland, Agricultural Land, Unnamed Road, Wind Turbine. Beyond 500m: Agricultural Land, Wind Turbine, Rural Land.
East	Immediate Vicinity: A6195. Within 500m: Warehouse, Rural Land Beyond 500m: Agricultural Land, Woodland, Rural Land.

South East	<p>Immediate Vicinity: A6195.</p> <p>Within 500m: Warehouse, Woodland, Agricultural Land, Unnamed Road, Wind Turbine.</p> <p>Beyond 500m: Agricultural Land, Woodland, Rural Land, Residential Dwellings (Middlecliff Lane).</p>
South	<p>Immediate Vicinity: Rural Land.</p> <p>Within 500m: River Dearne, Agricultural Land,</p> <p>Beyond 500m: Agricultural Land, Residential Dwellings (Ings Lane).</p>
South West	<p>Immediate Vicinity: Rural Land.</p> <p>Within 500m: River Dearne, Agricultural Land, Woodland.</p> <p>Beyond 500m: Agricultural Land, Residential Dwellings (Lane Edderthorpe Lane).</p>
West	<p>Immediate Vicinity: Rural Land.</p> <p>Within 500m: River Dearne, Agricultural Land, Woodland, RSPB Dearne Valley – Houghton Washlands, Line of Trees.</p> <p>Beyond 500m: Agricultural Land, RSPB Edderthorpe Flash, Rural Land.</p>
North West	<p>Immediate Vicinity: Rural Land.</p> <p>Within 500m: River Dearne, Agricultural Land, Woodland, RSPB Dearne Valley – Houghton Washlands.</p> <p>Beyond 500m: Agricultural Land, Residential Dwellings (Crook House).</p>

The nearest surface water feature is the River Dearne, approximately 36m west of the site, the Dearne was classified by the Environment Agency in 2019 as having a ‘moderate’ ecological status, and ‘failing’ chemical status and overall ‘moderate’ water body rating status.

The facility has been designed to prevent and mitigate the offsite impacts associated with fire as far as practically possible.

The wind direction is pre-dominantly from the south west.

3 FIRE PREVENTION PLAN

This Fire Prevention Plan has been developed to include an assessment of fire risk on site and the measures in place to prevent, detect, suppress, mitigate and contain fires.

This plan forms part of Grid Powr’s management system and sets out the fire prevention measures and procedures that will be put in place and used on site.

All staff and contractors working on site will understand the contents of the Fire Prevention Plan and the Incident and Emergency Management Plan and what they must do during a fire.

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

Regular exercises will be carried out to test how well the plan works and that staff understand what to do. These exercises will take place every quarter.

3.1 Control of Potential Causes of Fire

The following table identifies common causes of fire and the measures that Grid Powr take to reduce the risk of a fire taking place:

Table 3.1 Control of Potential Causes of Fire		
Source of Fire	Applicability to Site and Proposed Management Controls	Residual Risk
Arson	<p>Arson by intruders is controlled via access control systems, CCTV and an electrical gate with an emergency code. The site will be well lit and secured.</p> <p>Any fire would be immediately identified by the sites fire detection equipment.</p>	VERY LOW
Plant and Equipment	<p>The site will have a regular inspection and maintenance programme which identifies any electrical or mechanical machinery faults which could result in a machinery fire.</p> <p>Mobile plant when not in use will always be parked in dedicated mobile plant storage areas. These will be located in segregated areas away from RDF storage which limits the potential for fire spread from machinery to material.</p> <p>All mobile plant is visually inspected daily as per daily check sheets.</p> <p>Machinery and mobile plant will be regularly cleaned to remove any dust, waste etc to ensure that this does not accumulate. All relevant machinery and mobile plant for use in the Fuel Reception Hall has the necessary fire suppression systems fitted.</p> <p>All mobile plant is equipped with manual fire extinguishers.</p>	VERY LOW

Electrical Faults Including Damaged or Exposed Electrical Cables	<p>The risk of damaged or exposed electrical cables is controlled via the regular inspection and maintenance programme.</p> <p>Any electrical work on site will be carried out by a fully certified qualified electrician.</p>	VERY LOW
Discarded Smoking Materials	<p>Staff and visitors are only permitted to smoke within the designated area outside the operational area.</p> <p>There is no smoking permitted within the operational area where RDF is stored or handled.</p>	VERY LOW
Hot Works	<p>No hot works will be carried out on site without the work being managed via the Hot Work Procedure. The hot works will be located at a safe distance from combustible materials. The activity will be very closely managed and with the presence of a fire watchmen.</p> <p>If hot works is carried out on site, a fire watch will be carried out for at least 30 minutes after the hot works finishes which is in line with HSE Guidance.</p>	VERY LOW
Industrial Heaters	<p>The use of industrial heaters on site will be managed by site operational procedures and be maintained according to the maintenance programme.</p>	VERY LOW
Hot Exhausts	<p>The site has a regular inspection and maintenance programme which identifies any signs of a fire caused by dust settling on any hot exhausts and engine parts. This is carried via visual checks throughout the day as well as at the end of the working day.</p> <p>All inspections are carried out as per the sites mobile plant Check Sheets.</p> <p>Machinery is regularly cleaned to remove any dust, waste etc to ensure that this does not accumulate on moving parts.</p>	VERY LOW
Ignition Sources	<p>Any ignition sources on site will be kept at least 6 metres away from the stored RDF on site.</p>	N/A
Leaks and Spillages of Oil and Fuels	<p>The prevention of fuels and oil leaking out from vehicles will be achieved by a regular inspection and maintenance programme. If there are any leaks, the regular inspections allow this to be dealt with straight away. RDF Delivery vehicles are required to be in a safe and good state of repair. Any vehicles suspected of being in a poor state will be rejected from site.</p> <p>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.</p>	VERY LOW
Build-up of Loose Combustible Waste and Dust	<p>The site has a regular inspection and maintenance programme which will identify any build-up of wastes and dust.</p> <p>Machinery is regularly cleaned to remove any dust, waste etc to ensure that it does not accumulate. The site is inspected at least twice a day in accordance with the sites inspection procedure.</p>	VERY LOW

	<p>Any build up of waste and dust would be identified during the inspection.</p> <p>If any dust, waste etc was identified then the area would be immediately cleaned (swept, dampened down, etc).</p> <p>All mobile plant Check Sheets and site walkovers will be logged and retained.</p>	
Reactions Between Wastes	<p>All RDF will be accepted on site in accordance with the sites Waste Acceptance Procedures and RDF Specification. This ensures that no incompatible or unstable RDF will be accepted on site.</p> <p>In the unlikely event of incompatible or unacceptable RDF being accepted on site, RDF or the incompatible item will be transferred to the quarantine area before removed off site.</p>	VERY LOW
Hot Loads	<p>Grid Powr do not receive hot loads.</p> <p>In the event that a hot load is received, it will be spread out and cooled down, then loaded back in the delivery lorry and removed off site.</p>	N/A
Shredding of RDF	<p>RDF may contain Lithium Ion batteries which are known to be a fire risk when damaged by impact. Delivered RDF is visually inspected for compliance and any identified unacceptable waste shall be removed where practicable or whole loads rejected.</p> <p>In addition, heat can be generated and so a fire risk can occur by the action of shredding waste. The pre-processing equipment and subsequent conveyors are fitted with automated fire detection and fire suppression systems.</p>	MEDIUM
Hot and Dry Weather	<p>All RDF is stored internally therefore there is no risk from the external heating of waste.</p>	N/A

The Table 3.2 below provides details of other materials that are stored on site that are not covered by the Fire Prevention Plan Guidance.

Table 3.2: Material Summary			
Reference on Site Plan	Hazardous Substance / Material	Size	Location
2	Hydraulic Oil Tank	1,000 litres tank	Main Building
3.5 and 3.6	2 x Feedwater Tank	2 x 20m ³ tank	Main Building
TBC	<p>Boiler Chemicals:</p> <ul style="list-style-type: none"> Chemical oxygen scavenger (as NALCO 4221) – 4 x 1 m³ Condensate corrosion inhibitor (as NALCO 72310) – 4 x 1 m³ 	Each chemical 4 x 1m ³ IBC's	Main Building

	<ul style="list-style-type: none"> Boiler internal treatment (as NALCO 72215) 4 x 1 m³ 		
4.3 and 4.4	Sodium Bicarbonate	2 x 80m ³ silo	Main Building
4.5 and 4.6	Powdered Activated Carbon	2 x 70m ³ silo	Main Building
4.9 and 4.10	Air Pollution Control Residue	2 x 100m ³ silo	External to Main Building
5	CEMS Calibration Gases	Various Gas Bottles	Main Building
6.3	Ammonia Hydroxide	50m ³ tank	Main Building
7.3	Condensate and Makeup Water	50m ³ tank	Main Building
8	Water Treatment Plant Chemicals (HCl, NaOH, Antiscalant)	6 x 1m ³	Main Building
11.1	Diesel (for generator)	1,000 litre tank	External to Main Building
11.2	Fuel Oil	90m ³ tank	External to Main Building
11.3	Fire Water	800m ³ tank	External to Main Building

3.2 Self Combustion

3.2.1 Managing Storage Time

RDF will be delivered to the Fuel Reception Hall and unloaded internally in the vehicle offloading area where it will be visually inspected prior to transfer to the pre-processing equipment. RDF will be stored within the offloading area for less than 24 hours.

Once pre-processed, RDF will be transferred to one of the two bunkers for storage prior to loading via crane into the gasification system. Each bunker has been designed for 3 days of operation at the plant's full capacity.

The crane control system operates using a first in, first out priority system (FIFO).

This rapid turnover of stock significantly reduces the risk of 'older' material from self-heating and practically eliminates the potential for thermal runaway and self-combustion. This is significantly lower than the stipulated Fire Prevention Plan Guidance maximum storage time of 6 months. The risk of self heating and fires is therefore considered to be very low.

The storage capacities are continuously monitored by operational staff and the automatic storage control system.

RDF will be received, inspected and accepted in accordance with the established site waste acceptance procedures. The procedure will dictate that all RDF is required to be compliant with the RDF supply agreement and Fuel Specification.

3.2.2 Monitor and Control Temperature

The bunkers will be continuously monitored for temperature via the sites detection system.

The control room is manned 24/7 ensuring that there is always a trained operative available to act in the event of an alarm.

A trained site operative will carry out a visual inspection each 12 hour shift to ensure that the RDF storage areas are being managed correctly and that all detection and suppression equipment is working.

RDF is stored internally in a dedicated system and is not subject to fluctuations in temperature caused by external weather conditions.

In the event the detection system identifies a fire within the bunker, an automated suppression system will be used to extinguish the fire.

The RDF offloading area will also be equipped with automatic fire detection and sprinkler systems.

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

3.3 Manage RDF Piles

3.3.1 Maximum Pile Sizes

Waste will initially be stored in the vehicle offloading area prior to transfer to the pre-processing area. The offloading area has the following dimensions; 30m long and 16.5m wide and will be stored at a maximum of 2m high (990m³). Waste will be stored in 3 separate piles within this area in line with the 3 vehicle delivery doors. The piles will be separated by 6m separation distances.

Each of the two fuel bunkers will store 2,600m³ (18.2m W x 17.9m L x 8m H).

Although the Fuel Storage Bunker exceeds the pile size requirements in the guidance, fuel being stored for a maximum of 3 days ensures that self-combustion is extremely unlikely. Additionally, the presence of dedicated automatic detection and suppression equipment covering the fuel bunkers ensures that in the event of a fire, the fire would be put out immediately. Any incident would be dealt with within the bunker. The resultant fire risk is low and is considered BAT for this Installation.

Please refer to the Site Layout Plan layout provided within Annex A.

3.4 Prevent Fire Spreading

3.4.1 Separation Distances

The two bunkers are purpose-built storage bunkers, therefore the separation distances stipulated within the FPP Guidance are not considered appropriate.

However as previously stated, the rapid turnaround of the RDF stored on site means that the risks of self-combustion and thermal runaway conditions are negligible. In the event that a fire did occur, it would be detected via the detection systems (detailed within Section 3.6 and Section 3.7 of this FPP). This would in turn trigger the suppression system resulting in any fire being extinguished.

Within the offloading area, waste will be stored in 3 separate piles separated by 6m separation distances.

All Mobile Plant will be parked within dedicated areas away from any combustible waste.

3.4.2 Fire Walls and Bays

The fuel storage bunkers are purpose-built fuel storage bunkers. The RDF will not be separated by fire walls or stored in bays.

Within the offloading area, waste will be stored in 3 separate piles separated by 6m separation distances. As such there are no bays and fire walls are not required to provide separation.

All waste will be processed ensuring first in, first out (FIFO).

3.5 Quarantine Area

Due to the design of the bunker and the detection and suppression equipment provided throughout the bunker, a quarantine area sized in accordance with the FPP Guidance requirements (namely 50% of the largest single pile) is not considered appropriate.

All incidents will be dealt with within the bunker, resulting in there being no need for an external quarantine area on site.

Any fire would be immediately detected which in turn would trigger the suppression system resulting in the fire being extinguished. Burning RDF would never need to be removed from the bunkers and extinguished in a quarantine area.

In the event of a fire, dependent on severity, the plant would be shut down and the fire suppression system operated. During such an emergency, no further deliveries will be accepted on site until the incident was fully under control, extinguished and all affected fuel material removed.

In the unlikely event that a hot spot is identified within the temporary storage bay and waste needs to be spread out and cooled, there is a quarantine area located within the Fuel Reception Hall which can hold 644m³ at a height of 2m.

3.6 Detecting Fires

The fire strategy for the general building will ensure compliance with all relevant safety regulations within the UK (i.e. Building Regulations and associated Legislation, e.g. BS 9990). The fire strategy for

the fuel and process areas and plant will be based on compliance with the Chubb Guidance Documents which are based on NFPA standards.

An independent fire detection and alarm system will be installed within the facility accordance with BS EN 54. The fire alarm detection system will be linked to the fire pump and suppression system, which will activate accordingly.

The design, installation and maintenance of all fire detection systems on site will be covered by an appropriate UKAS accredited third party certification scheme.

The automatic fire detection systems will provide 24/7 detection of all waste storage areas. This allows a fire to be detected and suppressed immediately.

3.7 Suppressing Fires

A suppression system will be provided to the roof area of the Fuel Reception Hall. A fire water storage tank will be installed of a suitable volume to provide a 2 hour supply as dictated by NFPA 850 section 6.2 and Chubb guidance document.

If a fire is identified by the detection system, the suppression system will be activated and the fire extinguished.

The bunkers will be fitted with a fire suppression and detection system based around water suppression and will be developed during detailed design.

Please note that the design, installation and maintenance of all automated suppression system equipment will be covered by an appropriate UKAS-accredited third party certification scheme.

3.8 Firefighting Techniques

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

The person discovering the fire will raise the alarm as per the site induction, and inform the control room. The control room operator shall implement the Incident and Emergency Plan and inform the Shift Team Leader. The Shift Team Leader shall assess the situation and contact the emergency services as appropriate.

The site has the following resources required for active firefighting:

- Material Loaders which can be used to move waste from the offloading area if considered necessary. This would allow unburnt material to be separated from the pile;
- 24/7 staff availability; and
- A sufficient water supply on site.

Active firefighting by site operatives will only take place if it is safe to do so and the operative is suitably trained and competent.

All site operatives will be trained in all aspects of the Fire Prevention Plan, incident and emergency management plan and active firefighting measures.

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

All staff, contractors and visitors would follow the Fire Evacuation procedure as included in Section 3.9 below.

Staff will only tackle the fire if it is safe to do so.

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

All personnel working on site will be provided training in the Fire Prevention Plan and Incident and Emergency Management plan.

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 Evacuation and Fire Muster point

The Fire Muster point will be located opposite the main reception and carpark and is clearly signposted.

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

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

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.

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 Water Supplies

The table overleaf provides a summary of the on-site firefighting water supplies:

Table 3.4: Fire Water Supplies		
Description	Volume	Location
1 x 800m ³ Fire Water Tank	<p>The tank will provide 800,000 litres of water.</p> <p>Connected to towns water supply therefore the supply of water is unlimited.</p> <p>A combined main fire hydrant / fire ring main will be provided around the site from the fire pump house.</p>	In the north-west corner of the site.

On-site firefighting water supplies in accordance with the Guidance are not appropriate for the bunkers. In the unlikely event of a fire within the bunkers, all incidents will be dealt with within the bunkers by proposed water suppression systems.

The sites fire suppression systems will be designed to comply with NFPA 850 and Chubb guidance.

Excluding the storage conveyors, the largest pile on site will be 330m³ (990m³ / 3 piles). Therefore, in accordance with the guidance and a worst-case scenario event of the largest waste pile catching fire, the site requires 2,200 litres a minute for a minimum of 3 hours. This results in the site requiring 396,000 litres of fire water to meet the guidance.

This is provided by the fire water tank detailed within Table 3.4 above.

The above demonstrates that there is sufficient water supply to extinguish a fire within the 3 hour timescale, due to the firewater supply in the tank.

The provision of the above water supplies as well as the automatic detection and suppression systems is considered BAT for site.

3.11 Managing Fire Water

A site drainage plan is provided within Annex B.

In the event of a fire within the bunkers, any water from the suppression system will be retained within the bunkers.

In the event of a fire within the offloading area, the area has been designed such that all firewater will be contained within the building. The entire area will have a bunding system to stop any potentially contaminated firewater escaping the area which will be finalised during detailed design.

The firewater collected will be tankered off site for disposal.

3.12 During and After an Incident

During

During any fire fighting or subsequent clear up operations, any incoming RDF will be diverted to an alternative waste processing site.

All nearby residents, businesses and the Environment Agency will be notified according to the Incident and Emergency Management Plan.

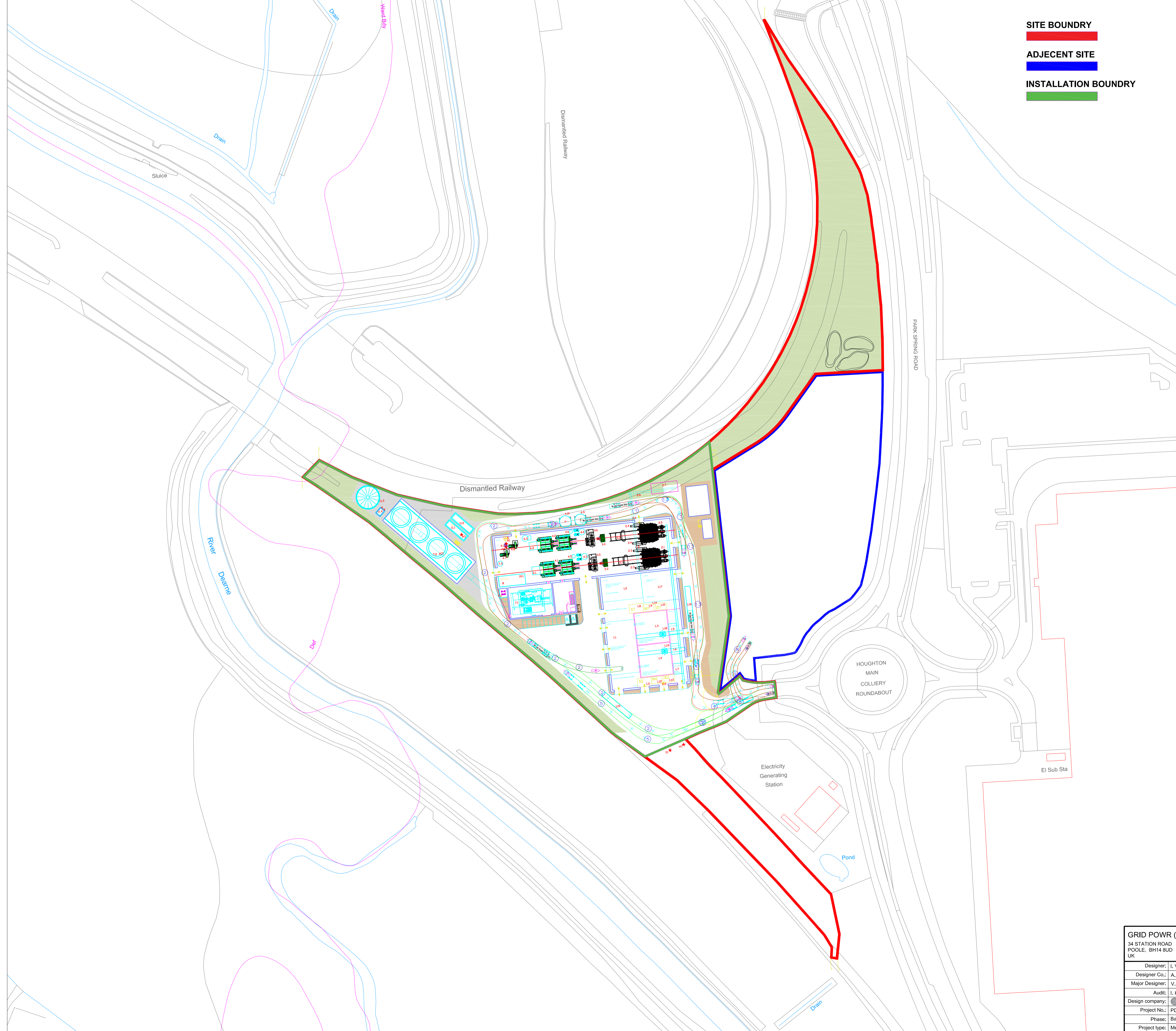
After

Should there ever be a fire event on site, Grid Powr will liaise and agree with the Environment Agency the steps to be taken to bring the site back into operational use.

The steps would include:

- Once the fire is extinguished all burnt items will be sorted and removed from site to an appropriately licensed waste disposal facility;
- All potentially contaminated firewater contained on site will be tankered off site for disposal;
- All firefighting equipment inspected, serviced and replaced as necessary;
- All infrastructure to be inspected by appropriately qualified persons with repairs to buildings and equipment to be organised to enable the site to re-open as quickly as possible;
- Determine how and why the fire started and revise Fire Prevention Procedures as necessary to reduce risk of a reoccurrence;
- Carry out a full review of the Fire Risk Assessment; and
- Divert all deliveries of waste and materials to alternative sites or cease deliveries if required.

ANNEX A: SITE PLANS

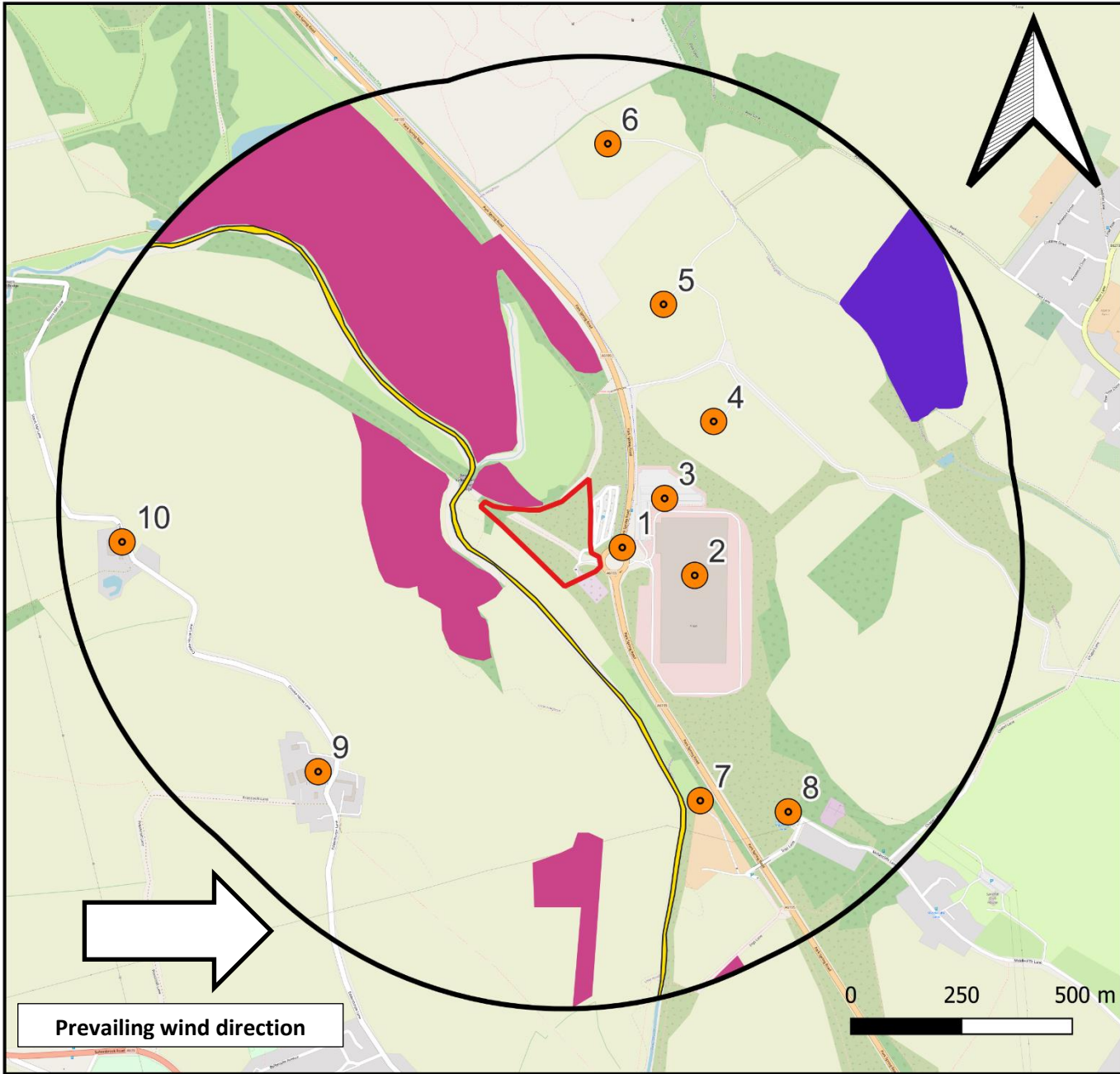


- SITE BOUNDARY**
- ADJACENT SITE**
- INSTALLATION BOUNDARY**

PLANT LIST

- 1 Fuel storage**
 - 1.1 Reception area 1 (RDF 300 mm)
 - 1.2 Quarantine area
 - 1.3 Main storage 1 (RDF 80 mm)
 - 1.4 Main storage 2 (RDF 80 mm)
 - 1.5 Feed hopper 1
 - 1.6 Feed hopper 2
 - 1.7 Spare and refuse hopper
 - 1.8 Shredder 1
 - 1.9 Magnet metal separator 1
 - 1.10 Eddy current separator 1
 - 1.11 Shredder 2
 - 1.12 Magnet metal separator 2
 - 1.13 Eddy current separator 2
 - 1.14 Separated metal bins
 - 1.15 Weighbridge IN
 - 1.16 Weighbridge OUT
 - 1.17 Spare area
 - 1.18 Overhead crane with grab 1
 - 1.19 Overhead crane with grab 2
- 2 HCU**
 - 2.1 HCU 1
 - 2.2 HCU 2
 - 2.3 Deashing system HCU 1 and Boiler 1 closed
 - 2.4 Deashing system HCU 2 and Boiler 2 closed
 - 2.5 Common closed ash chain transporter
 - 2.6 Common closed ash belt transporter
 - 2.7 Covered waterproof ash storage
- 3 Boiler**
 - 3.1 Boiler 1
 - 3.2 Boiler 2
 - 3.3 Economizer boiler 1
 - 3.4 Economizer boiler 2
 - 3.5 Feedwater tank boiler 1
 - 3.6 Feedwater tank boiler 2
- 4 Flue gas treatment**
 - 4.1 Bag filter 1
 - 4.2 Bag filter 2
 - 4.3 Bicarb silo 1
 - 4.4 Bicarb silo 2
 - 4.5 PAC silo 1
 - 4.6 PAC silo 2
 - 4.7 ID Fan 1
 - 4.8 ID Fan 2
 - 4.9 APCR silo 1
 - 4.10 APCR silo 2
 - 4.11 Stack (2 flues)
- 5 CEMS**
- 6 DeNOx**
 - 6.1 SCR 1
 - 6.2 SCR2
 - 6.3 Ammonia hydroxide tank and pumps
- 7 TG Set**
 - 7.1 Turbine and generator
 - 7.2 ACC
 - 7.3 Condensate and make-up tank
- 8. Water treatment**
- 9. High voltage**
 - 9.1 Own consumption
- 10. Control system**
 - 10.1 Control cabinets
- 11 Auxiliaries**
 - 11.1 Diesel generator
 - 11.1.1 Fuel oil tank
 - 11.3 Fire water tank
 - 11.4 Fire water pumps

GRID POWER (UK) Ltd. 34 STATION ROAD POOLE, BH14 8UD UK		Rev. 0	Investor: GRID POWER (UK) Ltd.
Designer: I. Vidović Designer Co.: A. Plevnik Major Designer: V. Plevnik Audit: I. Kreča Design company: ENERKON 10 000 Zagreb, Croatia Project No.: PD-01-22-BD Phase: Basic design Project type: Mechanical engineering project		Building: 2 x 25 MWth, 13,6 MWe - EW Houghton Main Content: Houghton Main INSTALLATION BOUNDARY	Draft No.: PD-01-22-BD-100-01 Sheet: 001/001 Scale: 1:1000 Date: October 2022



-  Receptor
-  1km Buffer
-  River Dearne
-  Little Park (Ancient Woodland)
-  Dearne Valley Wetlands (SSSI)
-  Site Boundary

Receptors

- 1. Park Spring Road**
- 2. ASOS Warehouse**
- 3. Car Park**
- 4. Wind Turbine**
- 5. Wind Turbine**
- 6. Wind Turbine**
- 7. Residential Dwellings**
- 8. Little Houghton**
- 9. Farm and Residential Dwelling**
- 10. Farm and Residential Dwelling**

1. Do not scale off this drawing
 2. All dimensions to be confirmed on site
 3. This drawing is copyright of Sol Environment Ltd
 4. This drawing is to be read in conjunction with relevant consultant drawings and specifications

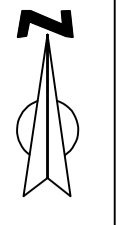
Rev:	Date:	Desc:
0	APR 23	Original

Client:	Grid Powr Ltd
Project:	GRID POWR WASTE PLANT
Drawing Title:	FIRE PREVENTION PLAN SITE PLAN

Job No:	SOL_22_P096_GP_ASCR
Date:	APR 23
Drawn By:	DUDLEY SAUNDERS

Drawing No:	FEE05
Revision:	0
Scale:	NTS

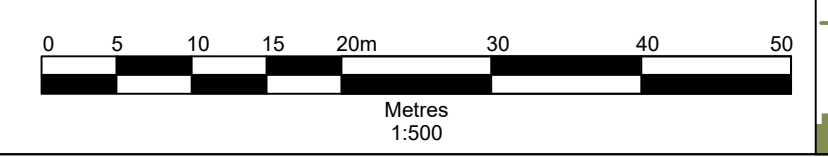
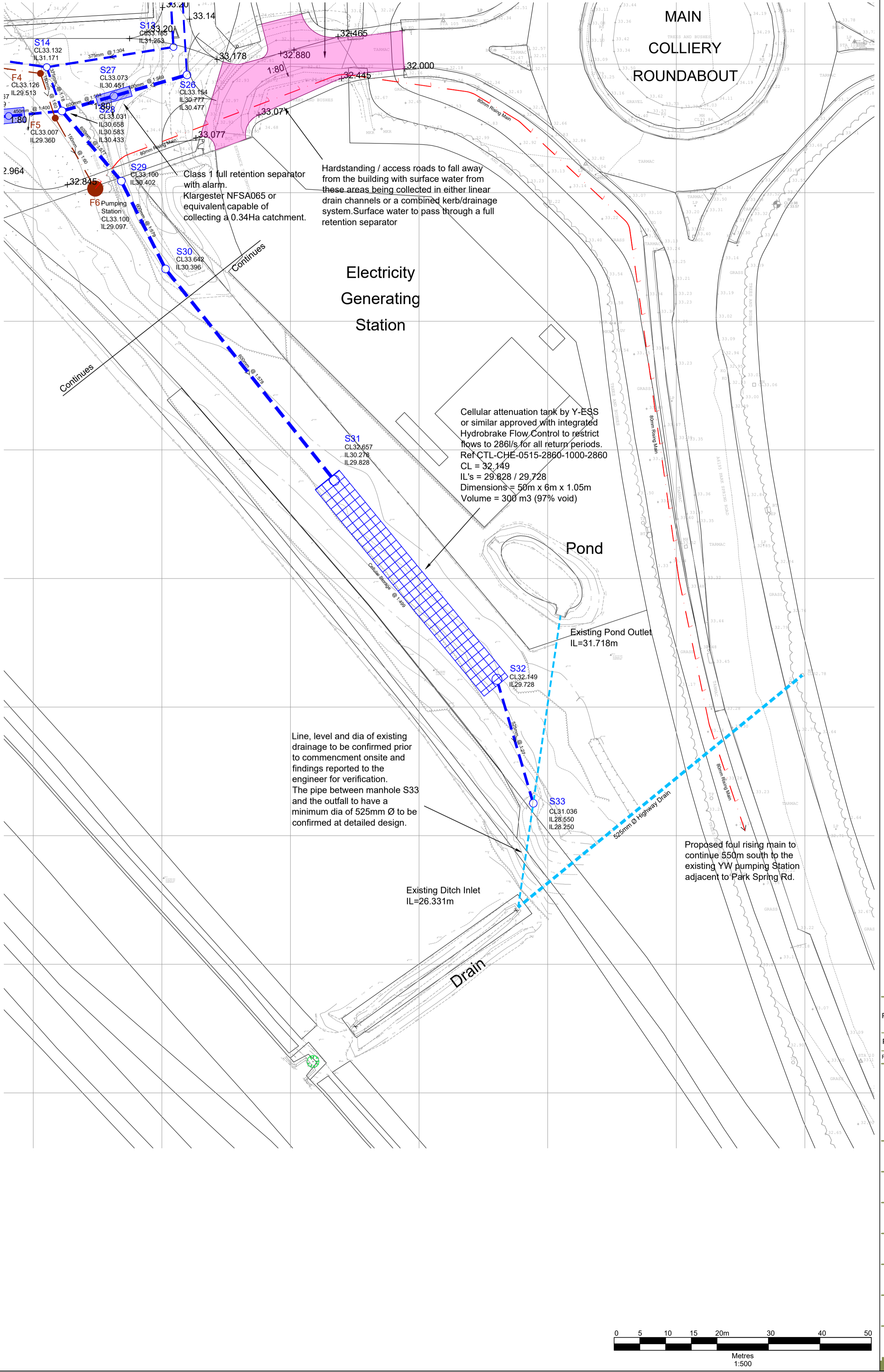
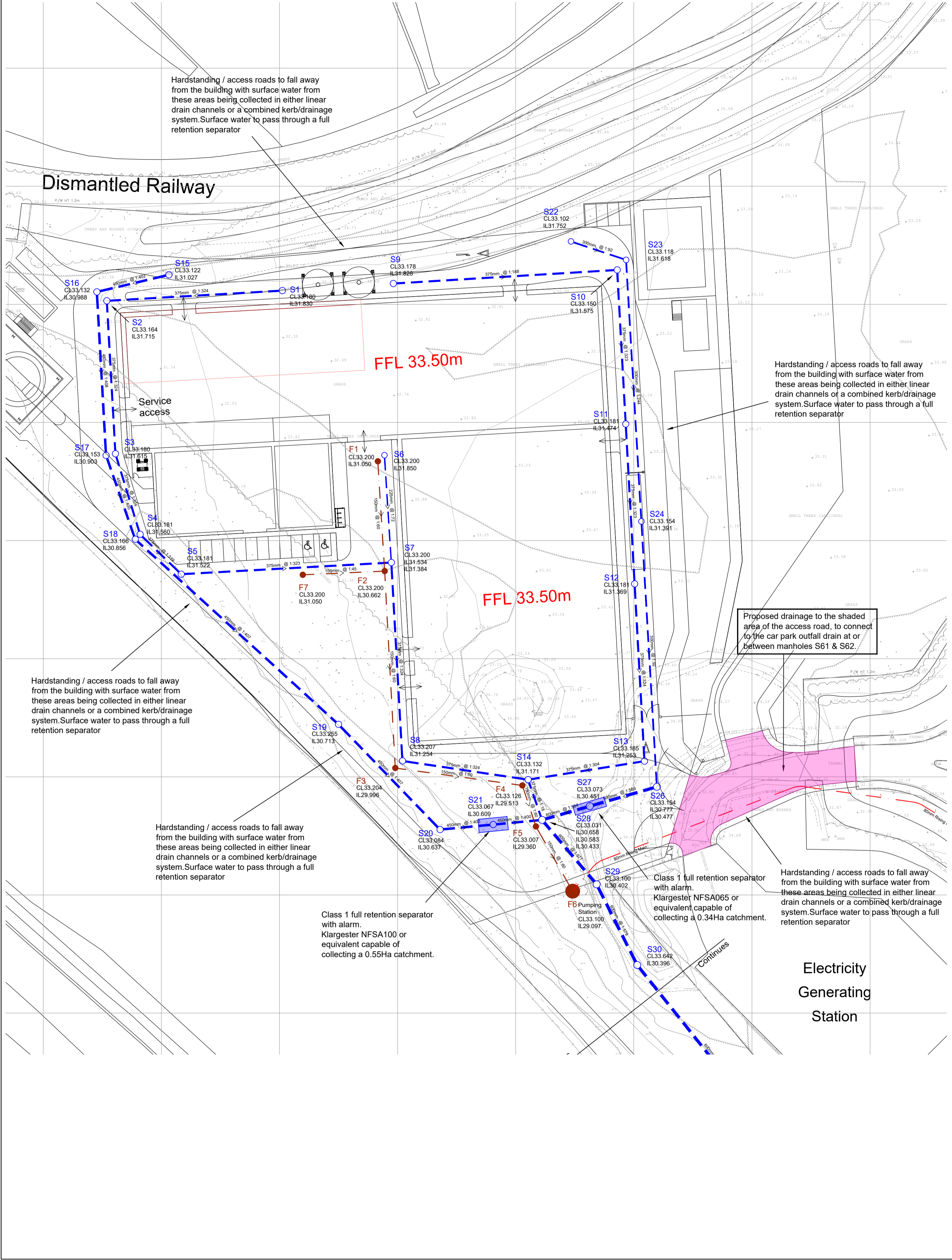
ANNEX B: DRAINAGE PLAN



- NOTES**
- DO NOT SCALE.
 - This drawing is to be read in conjunction with all other relevant drawings.
 - All surveyed information including levels and layout is provided by others.
 - All existing and proposed dimensions, levels and locations to be checked and verified by the main contractor on site prior to the commencement of the works and any anomalies reported to the engineer.
 - All works, workmanship and materials on private drainage to be in accordance with the civil engineering specification for water industry 7th edition published by the water research council.
 - Should there be any conflict between the details indicated on this drawing and those indicated on other drawings, the Engineer should be informed PRIOR to construction on site.
 - Until Technical Approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and Not for Construction. Should the Contractor commence site work prior to Approval being given, it is entirely at his own risk. All dimensions and levels are in metres U.N.O.
 - All pipe sizes in mm unless noted otherwise.
 - All cover levels are indicative only and should be confirmed by architect / landscape architect.
 - Positions of FWDP and RWP to be confirmed by client / architect.
 - Abandoned buried pipework to be grouted or removed.
 - Linear drainage channels, pumping stations, attenuation tanks and any other specialist equipment to manufacturers design and specification.
 - Contractor to confirm no live connections before abandoning pipes.

Key

- S32 CL32.149 IL29.728
- F3 CL33.204 IL29.996
- Surface Water Drainage + Manhole
- Foul Water Drainage + Manhole



PO2	13/2/17	Car park surface water outfall removed. Footpath & shaded access road area extended to car park boundary. Key added.	MJ	MGJ	MT
PO1	23/1/17	First Issue	MJ	MGJ	MT
REV	DATE	DETAIL	DES	CHK	APP



CLIENT:	Peel Environmental Ltd						
PROJECT:	Houghton Main TRRC						
DRAWING TITLE:	Drainage Layout - Planning						
DRAWN:	MJ	DESIGNED:	MJ	CHECKED:	MGJ	APPROVED:	MT
DATE:	15/11/2017	SCALE @ A1:	1:500				
PROJECT NO.:	CRM.066.006	DRAWING NO.:	104				
DRAWING STATUS:	Preliminary	ISSUE:	P02				