



Asphalt Plant, Edwards Works, Llandarcy, SA10 6JY

Emergency Flood Response Plan

G D Harries & Sons Ltd

Prepared by:

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SLR Project No.: 407.064673.00001

1 July 2024

Revision: 0

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
0	1 July 2024	ILW	MB	MB
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Basis of Report

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Appendices

- Appendix A Out of Hours Staff Contact Details (CONFIDENTIAL)
- Appendix B Service Isolation Points



Emergency Contacts

Organisation	Contact details
Floodline (NRW)	0345 988 1188
5 day flood risk for Wales (NRW)	https://5-day-flood-risk.naturalresources.wales/?culture=en-GB
Flood warnings and alerts (NRW)	https://flood-warning-information.service.gov.uk/warnings
UK weather warnings (Met Office)	https://www.metoffice.gov.uk/public/weather/warnings
Police / fire brigade/ ambulance service (emergency only)	999
NHS 111 Healthcare advice for less urgent medical issues	111
Mid And West Wales Fire And Rescue Service (non-emergency)	0370 6060699 mail@mawwfire.gov.uk
Police non-emergency	101
G D Harries & Sons Ltd	01792 345 676



1.0 Introduction

This Emergency Flood Response Plan (EFRP) has been prepared by SLR Consulting for G D Harries & Sons Ltd. and relates to their Asphalt Plant at Edwards Works, Llandarcy, SA10 6JY ('the Site').

1.1 Site Context

The Asphalt Plant is within the former E M Edwards Works as shown by Figure 1 1.

Access to the Site is off the B4290 and via a bridge over the Tennant Canal and several railway lines and through the industrial estate.

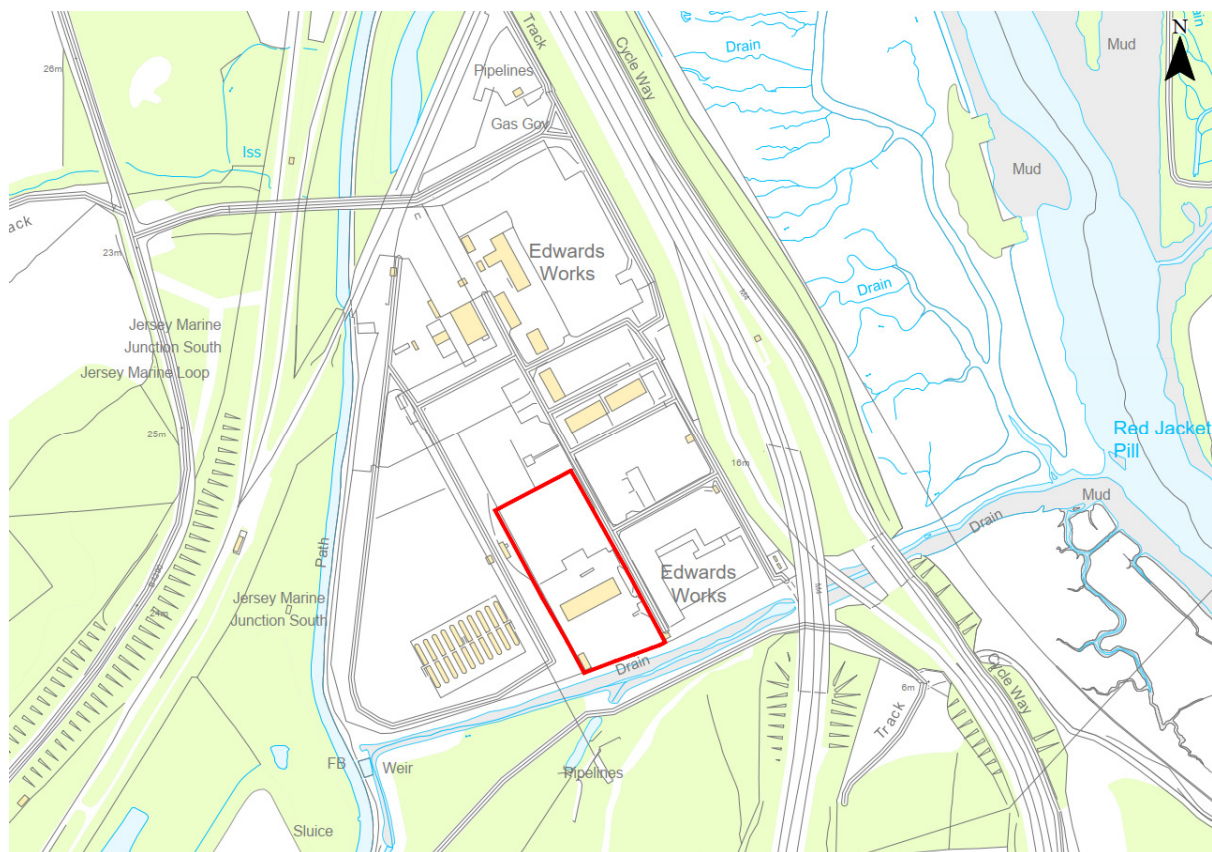
the Red Jacket Pill flows to the west along the southern boundary of the Site joining the Afon Nedd that flows in a southerly direction approximately 400m to the west.

The Tennant Canal is located on the western side of the wider industrial site approximately 250m to the west of the Site

The Site is shown by the Flood Map for Planning¹ to be at risk of tidal flooding from the Afon Nedd.

A site location plan is provided as Figure 1-1.

Figure 1-1: Site Location Map



¹ <https://flood-map-for-planning.naturalresources.wales/>

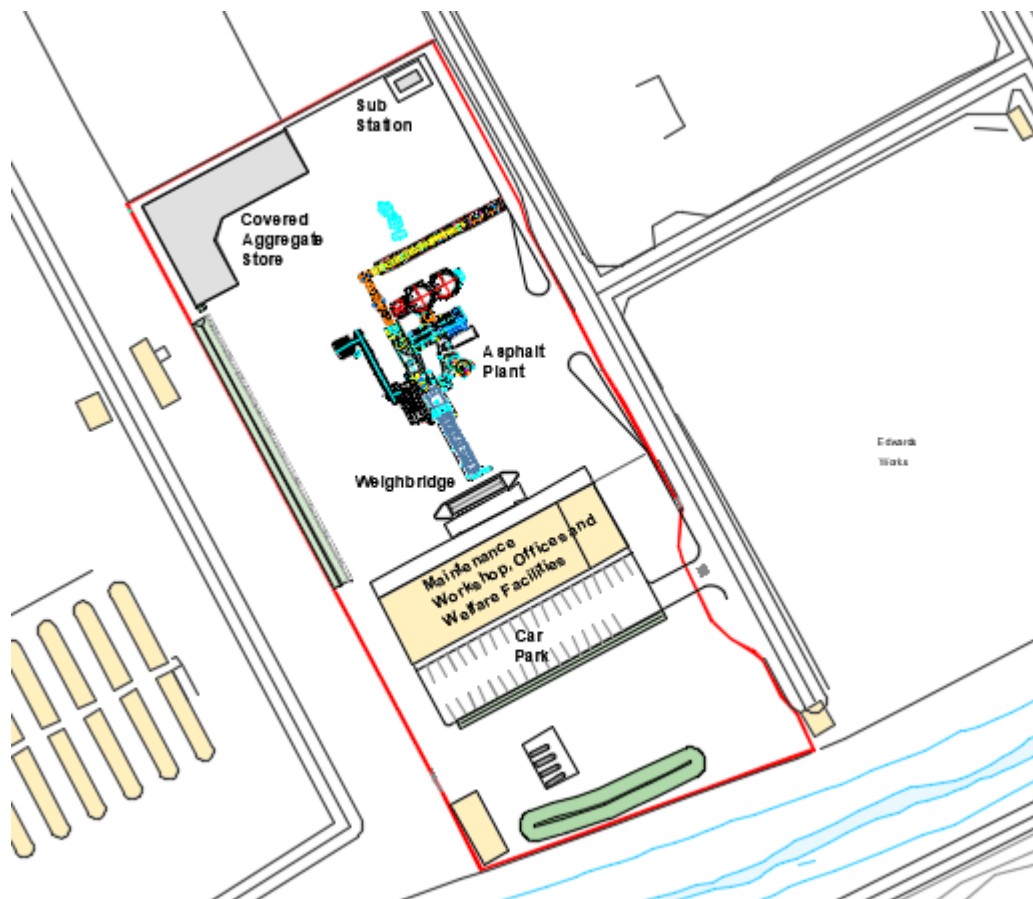


1.2 Site Operations

The development within the Site comprises an Asphalt Plant together with aggregates storage area, weighbridge, offices and ancillary infrastructure works.

A plan showing the key areas of the site is included as Figure 1-2.

Figure 1-2: Site Plan



1.3 Flood Risk at the Site

A site-specific Flood Consequences Assessment was previously been undertaken for the Site to support the planning application².

The assessment concluded that primary flood risk to the Site is from tidal flooding from the Afon Need and is considered to lie with Zone 2C defined by TAN15 as '*floodplain without significant flood defence*'.

The Site and access road is 0.5m above the 2021 0.5% (1 in 200) and 0.1% (1 in 1,000) AEP³ flood levels.

However, the impact of climate change will increase the flood risk to the Site and by 2096, the Site and access road could flood to depths of circa 300mm and 400mm for the 0.5% (1 in 200) and 0.1% (1 in 1,000) AEP flood events respectively.

² JBA Consulting, 2021. *Proposed Asphalt Plant Facility Flood Consequence Assessment*

³ Annual Exceedance Probability (AEP). The probability that an event of a given magnitude will be exceeded in any one year



1.4 Objectives of the Emergency Flood Response Plan

The objectives of this emergency flood response plan are to:

- 1 determine responsibilities for enacting the flood response plan both prior to and during a flood event.
- 2 demonstrate operational preparedness for a flood event.
- 3 detail available flood warning systems relevant to the facility,
- 4 set out responses to flood alerts and warnings issued by National Resources Wales or Met Office locally, and
- 5 detail the most appropriate routes for accessing and leaving the Site during a flood event.



2.0 Responsibilities

A member of operations staff based at the Site will act as the '*Emergency Flood Response Plan (EFRP) Lead*' and will have overall responsibility for maintaining, updating and ensuring implementation of this plan.

The principal duties for the *EFRP Lead* will include keeping the plan under review and ensuring that any significant changes in the Site operations or any changes to the local flood risk are, where appropriate, reflected in the stated actions in Section 0.

In addition, two '*Designated Managers*' will be appointed and would be responsible for implementation of the plan during a flood in the event that *the EFRP Lead* is unavailable and/or not present on Site:

Either the *EFRP Lead* or one of the *Designated Managers* will be on Site during times that the facility is operational.

Table 2-1: Details of staff with responsibilities under this plan

Role	Name	Contact Number
EFRP Lead	Andrew Sainty	07555 639230
Designated Manager	Chris Smith	07825 323190
Designated Manager	Lee Griffiths	07903 879617

The *EFRP Lead* and *Designated Managers* detailed in Table 2.1 will register to receive flood alerts and warnings from the NRW and severe weather warnings from the Met Office for the area detailed Section 4.1.4.



3.0 Operational Preparedness

The following operational measures will be implemented and maintained at the Site to manage flood risk and allow implementation of this plan.

- Two full hard copies of this EFRP should be maintained on site at all times. One to be kept in the weighbridge and one in the main Site office.
- Warning signs to be installed at the weighbridge and in the staff welfare facilities to make customers and staff aware that the Site is at risk of flooding.
- All members of staff at the Site should be made aware of this EFRP and an up to date out of hours staff contact details list should be kept and maintained by G D Harries Limited. A copy of this confidential list is included as Appendix A to this plan.
- A copy of a service plan for the facility clearly showing the isolation points for electricity, mains water and gas are included as Appendix B to this plan.
- Familiarisation with the key elements of the EFRP will be included in the Site induction for all new staff.
- Annual training/re-familiarisation relating to the EFRP will be provided for all staff with designated responsibilities as set out in Section 2.0 of the plan.
- The EFRP will be reviewed annually and updated, as required, to take account of;
 - changes in personnel
 - physical changes to the Site including mains water, electricity and gas supply infrastructure,
 - changes in operations on the Site; and
 - changes in flood warning systems.



4.0 NRW Flood Warning Service

4.1 Flood Warning Levels

NRW issue three tiers of flood warning depending upon prevailing conditions. These are summarised below.



Severe Flood Warning
Severe Flooding -danger to life.



Flood Warning
Flooding is expected - immediate action required



Flood Alert
Flooding is possible - be prepared.

NRW have monitoring stations across Wales that measure river levels. This data is analysed along with weather, storm surge and wave forecasts from the Met Office to help forecast when flooding might happen.

It should be noted that a Flood Warning will not necessarily be preceded by Flood Alert.

4.1.1 Flood Alerts

NRW issue Flood Alerts when the risk of flooding is lower but it is possible.

Expect flooding of low-lying land, minor roads, car parks, recreational land and farmland. There may be spray or wave overtopping at the coast.

4.1.2 Flood Warnings

NRW issue Flood Warnings when flooding is expected and properties could flood. In addition:

- travel on road and rail may also be impacted
- significant waves and spray on coast
- extensive flood plain inundation
- flooding of caravan parks or campsites

4.1.3 Severe Flood Warning

NRW issue Severe Flood Warnings when there is a significant risk to life or significant disruption to the community. They are the highest warning level and are issued when dangerous deep and fast flowing floods are expected or already happening.

With a Severe Flood Warning the following may be expected:

- deep, fast flowing water
- debris in the water adding to the danger



- damage or collapse of buildings and other structures
- communities isolated by floodwaters
- critical infrastructure disabled
- communities evacuated

4.1.4 Flood Alert and Warning Areas

The Site is located within the **Swansea Bay and the Gower coast** Flood Alert area

However, due to the low flood risk to the Site, it is not located within a Flood Warning area.

The nearest Warning Area to the Site is the **Tidal area at Briton Ferry** approximately 1km downstream. The *EFRP Lead* and *Designated Managers* will therefore sign up to Flood Warnings issued for the **Tidal area at Briton Ferry**.

Live Flood Warnings and Flood Alerts are available at

<https://flood-warning.naturalresources.wales/>

and a 5 day flood risk forecast at:

<https://5-day-flood-risk.naturalresources.wales/?culture=en-GB>

A 24 hour service is also available via the Floodline Service on **0345 988 1188**

Live river levels in the Afon Nedd are available at:

<https://rivers-and-seas.naturalresources.wales/Station/4112?parameterType=1>

4.1.5 Flood Severity Associated with Flood Warnings

As discussed above, the flood risk to the Site is considered low and therefore Flood Alerts and Flood Warnings will be issued for events that are unlikely to directly impact the Site. However, these may impact staff and customers travelling in the surrounding area.

4.2 National Severe Weather Warnings

the Met Office is responsible for issuing weather warnings, which warn of impacts caused by severe weather. The warnings are designed to let people, businesses, emergency responders and governments know what weather is in store and what the impacts of that weather may be.

The Met Office operates 24 hours a day, 365 days a year so warnings can be issued at any time, day or night.

The warnings are provided up to seven days ahead for rain, thunderstorms, wind, snow, lightning, ice, extreme heat and fog.

Each warning contains the following sections:

- Headline – a short weather headline, which states what weather type, is forecast
- What to expect – details on the types of impact forecast and an indication of how likely those impacts are
- What should I do – this section links to advice and guidance from our partners on how to stay safe in severe weather
- Further details – additional information on the forecast weather.

When applicable, warnings will include information on why a warning has been updated.



The warnings are given a colour (yellow, amber or red) depending on a combination of both the impact the weather may have **and** the likelihood of those impacts occurring. These are summarised below.

Warning Level	Description
Yellow	Yellow warnings can be issued for a range of weather situations. Many are issued when it is likely that the weather will cause some low level impacts, including some disruption to travel in a few places. Many people may be able to continue with their daily routine, but there will be some that will be directly impacted and so it is important to assess if you could be affected. Other yellow warnings are issued when the weather could bring much more severe impacts to the majority of people but the certainty of those impacts occurring is much lower. It is important to read the content of yellow warnings to determine which weather situation is being covered by the yellow warning.
Amber	There is an increased likelihood of impacts from severe weather, which could potentially disrupt your plans. This means there is the possibility of travel delays, road and rail closures, power cuts and the potential risk to life and property. You should think about changing your plans and taking action to protect yourself and your property. You may want to consider the impact of the weather on your family and your community and whether there is anything you need to do ahead of the severe weather to minimise the impact.
Red	Dangerous weather is expected and, if you haven't already done so, you should take action now to keep yourself and others safe from the impact of the severe weather. It is very likely that there will be a risk to life, with substantial disruption to travel, energy supplies and possibly widespread damage to property and infrastructure. You should avoid travelling, where possible, and follow the advice of the emergency services and local authorities.

The precise impacts of a warning issued will depend on the nature of the predicted weather systems and, as the rating are derived based on both probability and level of impact, may be notably different in nature on different occasion (i.e. an amber warning for rainfall may be issued in response to very different types of events). As a result, care should be taken to read the details of the warnings issued.

Severe weather warnings are issued by the Met Office on a regional basis. The Site falls within the **Wales** region.

The EFRP Lead and Designated Managers will sign up to the email alerts provided by the Met Office at:

<https://www.metoffice.gov.uk/about-us/news-and-media/media-centre/subscribe-to-email-alerts>

4.3 Flood Severity Associated with Severe Weather Warnings

As discussed above the Site is at predominantly risk of tidal flooding. It is not therefore anticipated that a severe weather warning would indicate there is a significant risk of flooding to the Site, however, the ability to access and egress from the Site might be impacted by flooding to local roads.



5.0 Flood Response Plan Actions

5.1 Flood Alert



Upon the issue of either of the following;

- A Flood Alert for the **Swansea Bay and the Gower coast** Flood Alert area.
- An Amber severe weather warning for rainfall or thunderstorms within the **Wales** region.

The *EFRP Lead* or the on duty *Designated Manager* will ensure that the following actions are undertaken:

5.1.1 Communication

- 1 Working staff will be informed of the Flood Alert or weather warning status and the appropriate response to this.
- 2 Working staff will be reminded to immediately report any observed flooding on or near the Site to the *EFRP Lead* or the on duty *Designated Manager*.
- 3 Designated *EFRP Lead* (if not already present) will be informed of elevated risk status.

5.1.2 Actions (EFRP Lead or Designated Manager)

- 1 The *EFRP Lead* or the duty *Designated Manager* will review available meteorological forecasts and information on the likelihood of the flood event escalating by following updates on broadcast and social media.
- 2 Make preparations should Flood Alert escalate to Flood Warning or Severe Flood Warning.

5.2 Flood Warning or Severe Flood Warning



Upon the issue of either of the following;

- A Flood Warning or Severe Flood Warning for the **Tidal area at Briton Ferry** Flood Warning area.
- A Red severe weather warning for rainfall or thunderstorms within the **Wales** region.

The *EFRP Lead* or the on duty *Designated Manager* will ensure that the following actions are undertaken;

5.2.1 Communication

- 1 Designated *EFRP Lead* (if not already present) will be informed of elevated risk status.
- 2 Staff will be informed of the Flood Warning and/or weather warning status and advised that it may be necessary to close the Site.
- 3 Customers will be informed of the local Flood Warning or severe weather warning and advised that it may be necessary to close the Site.
- 4 Any non-essential Staff who are due to arrive on site/start a shift will be contacted and advised not to come in until advised otherwise.



5.2.2 Actions (EFRP Lead or Designated Manager) Flood Warning

- 1 If a Flood Warning is issued for the **Tidal area at Briton Ferry** Flood Warning area the *EFRP Lead or Designated Manager* should ensure that there are no potentially harmful chemicals stored on the Site that could be released in the environment by floodwaters.
- 2 Equipment and plant that is potentially vulnerable to flooding should be moved to a place of safety. This might include ensuring all laptops and other electrical equipment is placed on desktops rather than the floor and plant moved to the junction with the B4290.

5.2.3 Actions (EFRP Lead or Designated Manager) Severe Flood Warning

- 1 If a Severe Flood Warning is issued for **Tidal area at Briton Ferry** Flood Warning area, the Site should be evacuated.
- 2 The *EFRP Lead or Designated Manager* will ensure that all staff and Customers have left Site
- 3 The *EFRP Lead or Designated Manager* will ensure that all services have been isolated.
- 4 On leaving the site, signs should be placed at the junction with the B4290 to advise that the Site is closed.
- 5 Incoming delivery schedule should be checked and any deliveries for the period of warning will be postponed and rescheduled.
- 6 Review of the local flood situation and once considered safe to do so, inform staff that it is safe to return to work.



6.0 Site Access and Egress

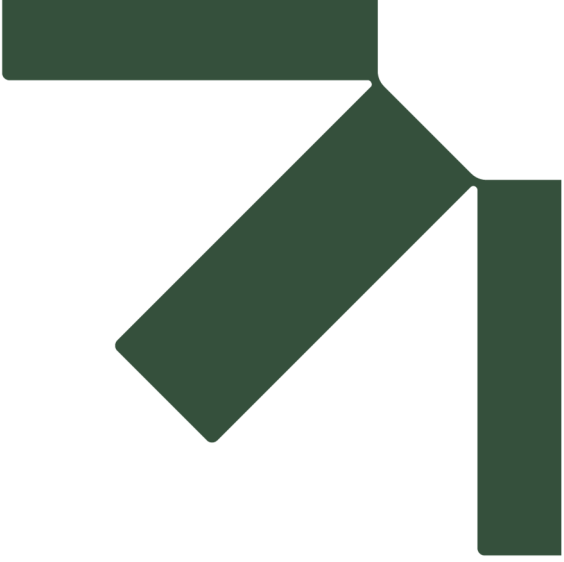
The Site access is off the B4290 approximately 1km south of Junction 43 with the M4. The B4290 between J43 and the Site entrance is well above areas potentially at risk of tidal flooding.

Routes away from the Site in times of flood should keep away from low-lying areas adjacent to rivers and the coast, for example the M4 to the south of the Site at Baglan is at potential risk of flooding.

Areas at risk of tidal flooding in the vicinity of the Site and regionally are shown by the flood risk maps published by NRW at

<https://flood-risk-maps.naturalresources.wales/>





Appendix A Out of Hours Staff Contact Details (CONFIDENTIAL)

Asphalt Plant, Edwards Works, Llandarcy, SA10 6JY

Emergency Flood Response Plan

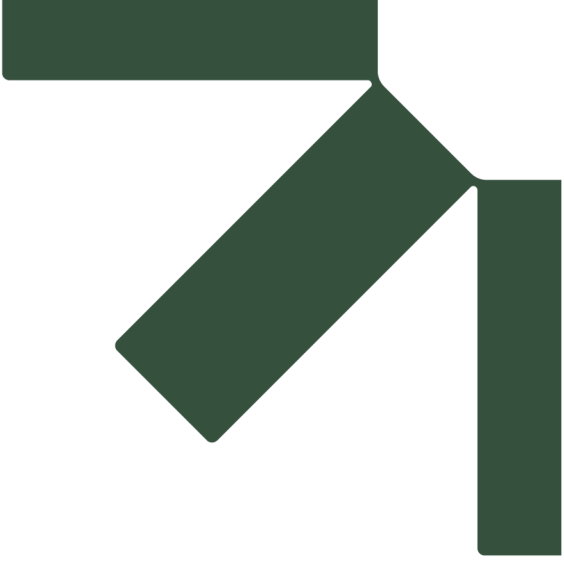
G D Harries Ltd

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1 July 2024

Name	Contact Number
Andrew Sainty	0755639230
Lee Griffiths	07903879617
Chris Smith	07825323190
Jonathan Griffiths	07875530887
Neil Samuel	07947588021
Bradley Fuller	07581418605





Appendix B Service Isolation Points

Asphalt Plant, Edwards Works, Llandarcy, SA10 6JY

Emergency Flood Response Plan

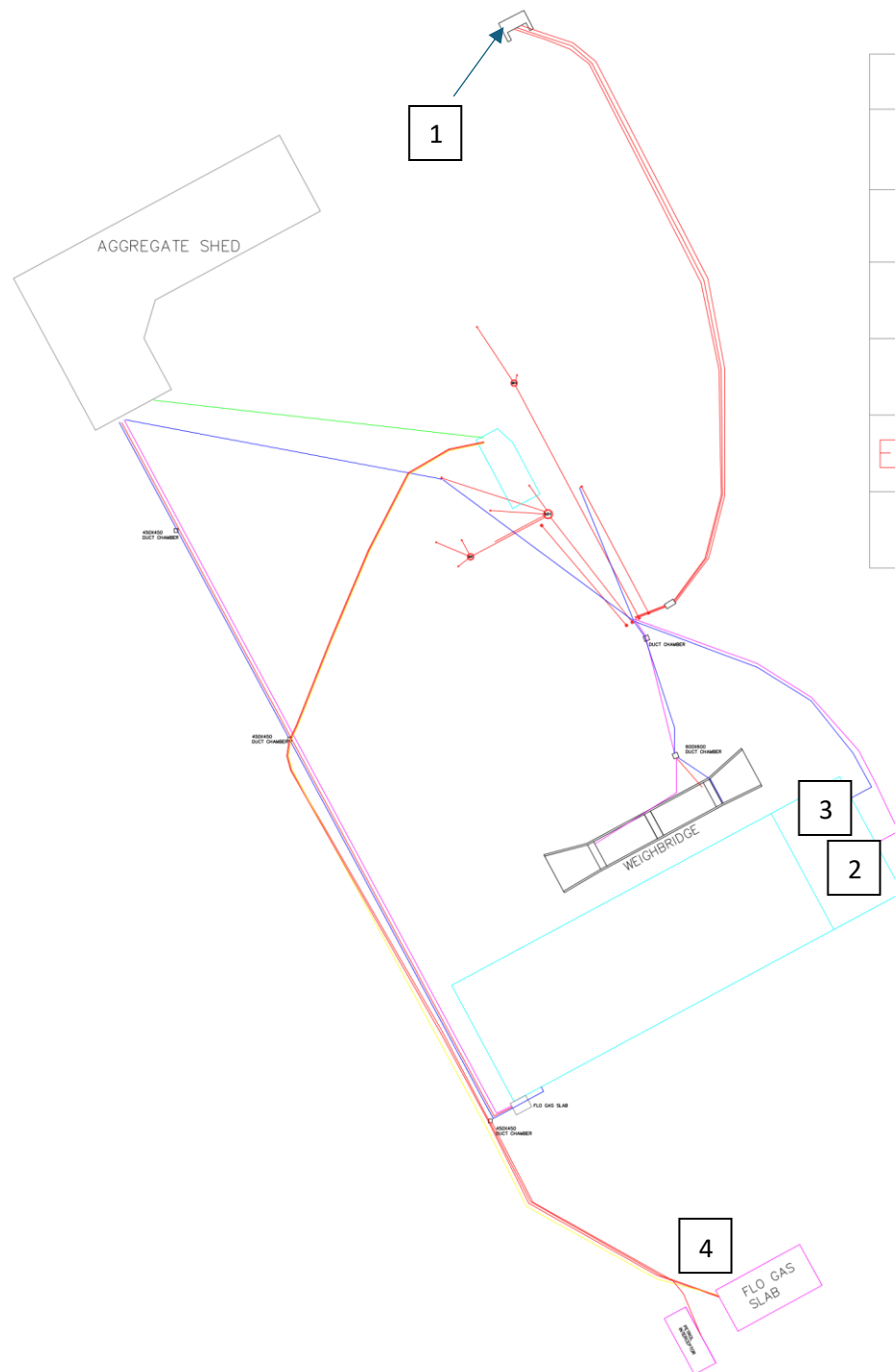
G D Harries Ltd

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1 July 2024

Service Cut Off Point	Location	Shown on Site Plan
Gas	Gas is only via the tanks to the rear of the workshop building and are isolated at the tanks themselves	Yes
Electricity	Electricity for new plant is in the corner of the plant, electricity for the building in is the service room	Yes
Water	Water in service room of main building	Yes





SERVICE LEGEND	
SERVICE	COLOUR
WATER	—
GAS	—
KERO	—
ELECTRIC	—
COMMS	—

- 1 Electric isolation to plant
- 2 Electric isolation to existing building
- 3 Water isolation in building
- 4 Gas isolation at tank

REV1		FIRST_REV		08/02/2024	
Rev	Drawn By	Mod	Dwls	MD	MD
Client:					
GD HARRIES					
Project:					
Llandarcy Asphalt Plant					
Drawing Title:					
Services- As Built					
Drawing No:					
MD001					
Project No.	Org.	Vol.	Level	Type	Dis. Class
SS	N/A				
Suitability Status:		Scale @A1:		Rev	
SS N/A		N/A		01	
Site Geomatics Ltd 49 Pantyfedden, Peniel Carmarthen, SA32 7HN T 07506541440 E mael.davies@yahoo.co.uk W www.sitegeomatics.com Mael Davies					



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