

Flood Warning & Evacuation Plan

33 Furnace Terrace, Melyn, Neath, SA11 2EE

7 August 2026

Quantum Survey & Project Management Ltd



Document Control

Client	Quantum Survey & Project Management Ltd
Report Title	Flood Warning & Evacuation Plan – 33 Furnace Terrace, Melyn, Neath, SA11 2EE
Report Reference	247826-F02
Report Status	Final
Prepared by	N. Clarke
Checked by	H. Fisher
Approved by	O. Baldock
Date of Issue	07/08/2026
Issue Method	PDF

Legal

This report has been prepared by Ashfield Solutions Group Ltd (Ashfield) exercising all reasonable skill, care and diligence within the terms of our agreement with the client, incorporating our general Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client. This report should not be used by the client in relation to any other matters not covered specifically by aforementioned scope. Unless otherwise and explicitly stated this report is intended for the sole use of the client and may not be copied, forwarded or in any other way distributed to any other party without the knowledge and written consent of Ashfield. We accept no responsibility to third parties to whom this report, or any part thereof, is made available and any such party relies on the report at their own risk. By receiving this report and acting on it, the client or any other person accepts that no individual is personally liable for breach of statutory duty, or otherwise in connection with its content,

Ashfield Solutions Group Ltd (Reg. No. 09729218), Ashfield Solutions Ltd (Reg. No. 5831575) and Ashfield Flood Risk Solutions Ltd (Reg. No. 09920534) are registered in England and Wales. Registered Office: Cwm Cynon Business Centre, Mountain Ash, CF45 4ER.

Contents

1. Introduction	1
2. Flood Risk Summary	2
3. NRW Flood Warning	5
4. Evacuation Plan	10
5. Summary	12

Figures

Figure 1	NRW Flood Risk from Seas
Figure 2	NRW Flood Risk from Rivers
Figure 3	Flood Alert Area for the site location
Figure 4	Flood Warning Area for the site location
Figure 5	Safe Evacuation Route

Distribution

Quantum Survey & Project Management Ltd
Brennan Architectural Design

Client
Luke Brennan





1. Introduction

1.1 Authorisation and Context

Ashfield Flood Risk Solutions Limited ("Ashfield") were commissioned by Brennan Architectural Design on behalf of Quantum Survey & Project Management Ltd ("the client") to undertake a Flood Warning and Evacuation Plan ("FWEP") in support of a planning application for the replacement of an existing building that was damaged by a fire in 2025, at 33 Furnace Terrace, Melyn, Neath, SA11 2EE ("the site" or "the dwelling"). The redevelopment will be undertaken on a like-for-like basis, with no alterations to the existing building layout, configuration or footprint.

A Flood Consequence Assessment (FCA) has been completed by Ashfield (Ref: 247826-F01) and should be read in conjunction with this report.

1.2 Purpose of the Plan

The overall aim of this FWEP is to provide a site-specific action plan to ensure that the residents occupying the building are fully informed regarding the risk of flooding and know what actions to take, should a flood event be predicted to occur. This FWEP also seeks to ensure the residents safety in relation to access/egress around the site, and that the residents will be able to safely evacuate the site in a timely manner, if required, prior to the onset of any projected local flooding.

This FWEP will ensure that flood warning procedures and subscription details to the Natural Resources Wales (NRW) flood warning systems are made available for the users of the site.

1.3 Limitations

This document has been devised specifically for the purposes of flood response, in the context of the proposed reinstatement of the building. Ashfield has used NRW flood mapping data as part of the analysis of flood risk, understood to be the most up to date data available at the time of writing.

1.4 Site Location

The site is located in Neath, approximately 367m southwest of Melyn Park, within the postcode SA11 2EE. The site currently comprises an existing fire-damaged dwelling, which is accessed from Furnace Terrace to the west. Residential properties surround the site to the north, east, and south, while Furnace Terrace and the adjacent railway line are situated to the west.



2. Flood Risk Summary

Table 1 provides a summary of the classification of risk to the site from all potential flood sources.

Table 1 – Flood Risk Summary

Flood Source	Risk Rating	Description of Classified Risk
Tidal	Present - Low to Moderate Future – Moderate to High	The NRW flood mapping indicates that the existing dwelling is located within Tidal Flood Zone 3 and is subject to a medium annual probability of tidal flooding. A review of detailed flood model outputs from the <i>Neath Phase 2 Hydraulic Model</i>, published by JBA in March 2017 and subsequently updated in 2023, indicates that the existing dwelling is at risk of tidal flooding during the 1 in 200 year event and more extreme events under both present-day conditions (2023) and future climate change scenarios incorporating projected sea level rise to 2123. Under the climate change scenario, modelled tidal flood depths at the dwelling are projected to exceed 1.0m during both the 1 in 200 year and 1 in 1000 year flood events. Accordingly, the overall tidal flood risk to the site is Low to Moderate under present-day conditions, increasing to Moderate to High when accounting for climate change. During the design flood event (1 in 200 year tidal event plus an allowance for sea level rise to 2123), modelled flood depths along Furnace Terrace adjacent to the site are estimated to reach approximately 3.12m. However, Westbourne Road, which extends southeast from Furnace Terrace, and Morgans Road are both shown to remain outside all modelled tidal flood extents (see Figure 1). This suggests that the site is located on the eastern edge of the projected tidal floodplain, with the extent of inundation terminating in close proximity to the site. Consequently, land immediately east of the site is anticipated to remain unaffected by tidal flooding during the design event, providing a potential route to higher ground beyond the flood-affected area.
Fluvial	Low	The NRW flood mapping indicates that the existing dwelling is located within Fluvial Flood Zone 2 and is subject to a low annual probability of fluvial flooding. A review of the <i>Neath Phase 2 Hydraulic Model</i> indicates that the dwelling remains above the predicted flood extent for all modelled fluvial flood events under both present-day conditions and future scenarios incorporating a 20% allowance for climate change. Accordingly, the overall risk to the site from fluvial flooding is Low. During the design flood event (1 in 100 year fluvial event plus a 20% climate change allowance), an adjacent section of Furnace Terrace to the west of the site is projected to experience flood depths of up to 1.54m. However, Westbourne Road and Morgans Road remains almost entirely outside the modelled flood extents, with the exception of its junction with Furnace Terrace (see Figure 2). This indicates that the site is situated on the margin of the projected fluvial floodplain, with flood extents terminating in close proximity to the site. Land immediately east of the site is shown to remain free from flooding across all modelled scenarios, providing access to areas beyond the extent of inundation.
Surface Water	Low	The NRW Flood Risk Assessment Wales (FRAW) mapping for Surface Water and Small Watercourses indicates that the site is not at risk of surface water flooding. Furthermore, the NRW Flood Map for Planning (FMFP) identifies the site as being located within Flood Zone 1, reflecting a low probability of flooding from these sources. Accordingly, the overall risk of surface water flooding affecting the site is Low. While the site itself is not shown to be at risk, Furnace Terrace immediately west of the site is identified within Flood Zone 3. During the medium annual probability event (1.0% to 3.3% AEP), modelled flood depths in the section of Furnace Terrace adjacent to the site are



Flood Source	Risk Rating	Description of Classified Risk
		projected to exceed 0.9m. However, Westbourne Road and Morgans Road is indicated to remain outside all projected surface water flood extents. This indicates that the site is situated close to the edge of the mapped surface water extents, with land to the south and east remaining unaffected by flooding across the modelled scenarios.
Groundwater	Low	The FRA concluded that the overall risk of groundwater flooding affecting the site is Low.
Artificial Sources	Low	The FRA concluded that the overall risk of artificial flooding affecting the site is Low.
Reservoir Failure	Negligible	The FRA concluded that the overall risk of groundwater flooding affecting the site is Negligible.

Risk to access and egress

As discussed above and illustrated in Figures 1, 2 and 3, there remains a residual risk of flooding from tidal and fluvial sources along a small section (approximately 130m) of the access route to the Property. However, the majority of the route lies outside the projected tidal and fluvial flood extents.

In light of this residual risk, Section 3 focuses on these flood sources over the lifetime of the proposed development and outlines measures to mitigate and minimise the potential impacts flooding.

Figure 1 – NRW Flood Risk from Sea

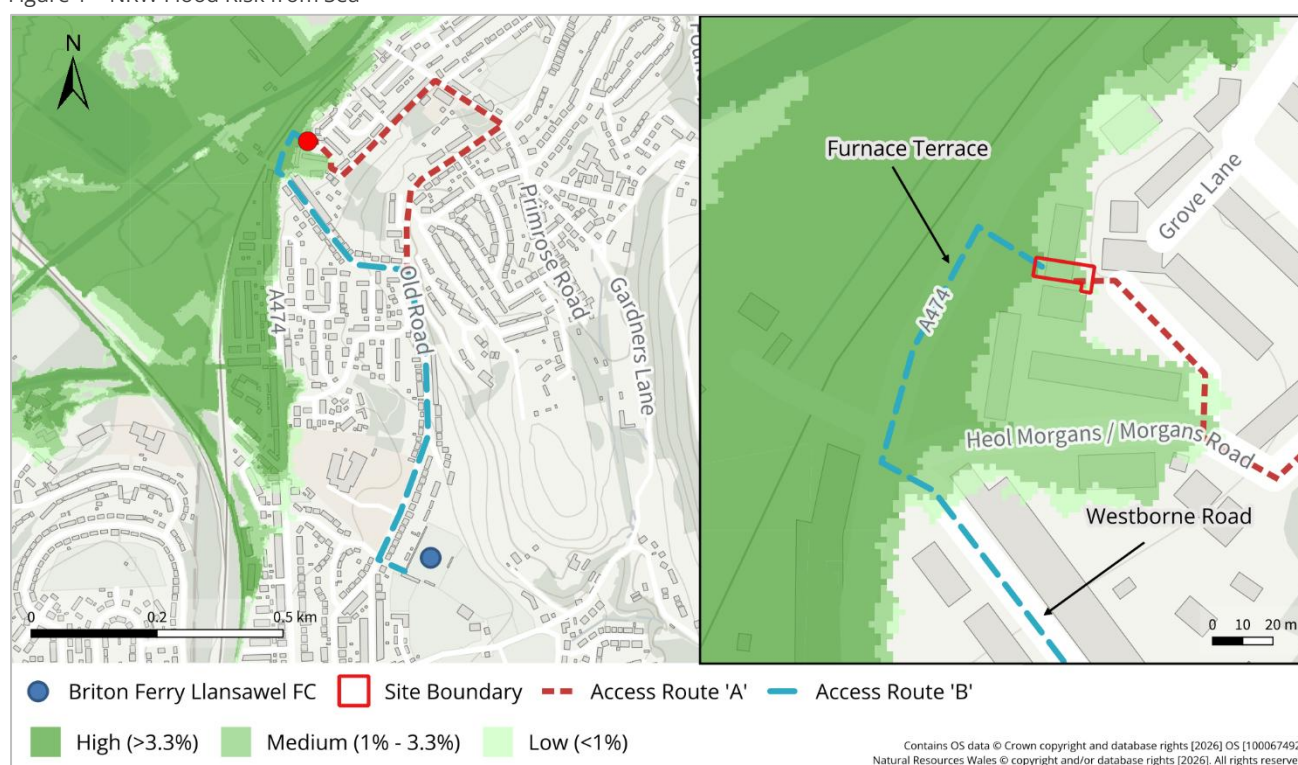
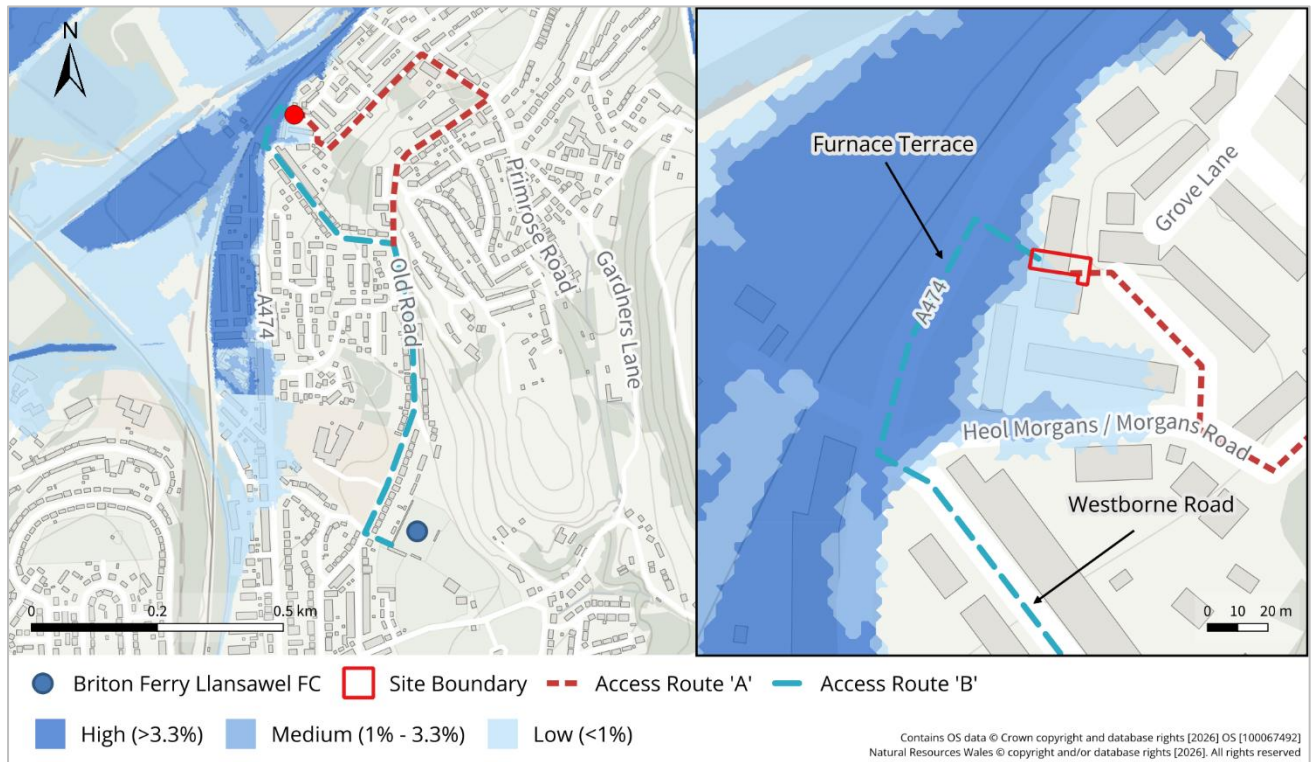




Figure 2 – NRW Flood Risk from Rivers





3. NRW Flood Warning

A Flood Warning & Evacuation Plan is required to ensure all residents are aware of the risk and are able to safely evacuate and/or seek refuge, prior to the onset of a flood.

3.1 Flood Information Service

The NRW website provides up to date flood warning information based on address/postcode locations, using the link: <https://naturalresources.wales/flooding/check-flood-warnings/?lang=en>.

Furthermore, Floodline can be called to receive up-to-date flooding information through the following number: 0345 988 1188. The postcode for the site is: SA11 2EE

Signing up for the NRW Flood Warning Service is recommended to be undertaken by all residents. The service is free, and information is provided through telephone, mobile, email, SMS text message or fax. The information provided through these channels would be based on continually updated information that would also be available on the NRW website. Registration for this service can be carried out over the phone (0345 988 1188) or by using the following link: <https://naturalresources.wales/flooding/sign-up-to-receive-flood-warnings/?lang=en>

Once registered, warnings will be issued up to two days in advance. All residents should be aware of this FWEP, its contents and location.

The flood alert areas that the site is located within is illustrated in Figure 3 for reference (Ref: 102WABT04 - Swansea Bay and the Gower coast and 102WAFF18 - River Neath). The site location within the flood warning area, is illustrated in Figure 4 for reference, (Ref: 102FWF112B - River Neath at Neath).



Figure 3 – Flood Alert Area for the site location

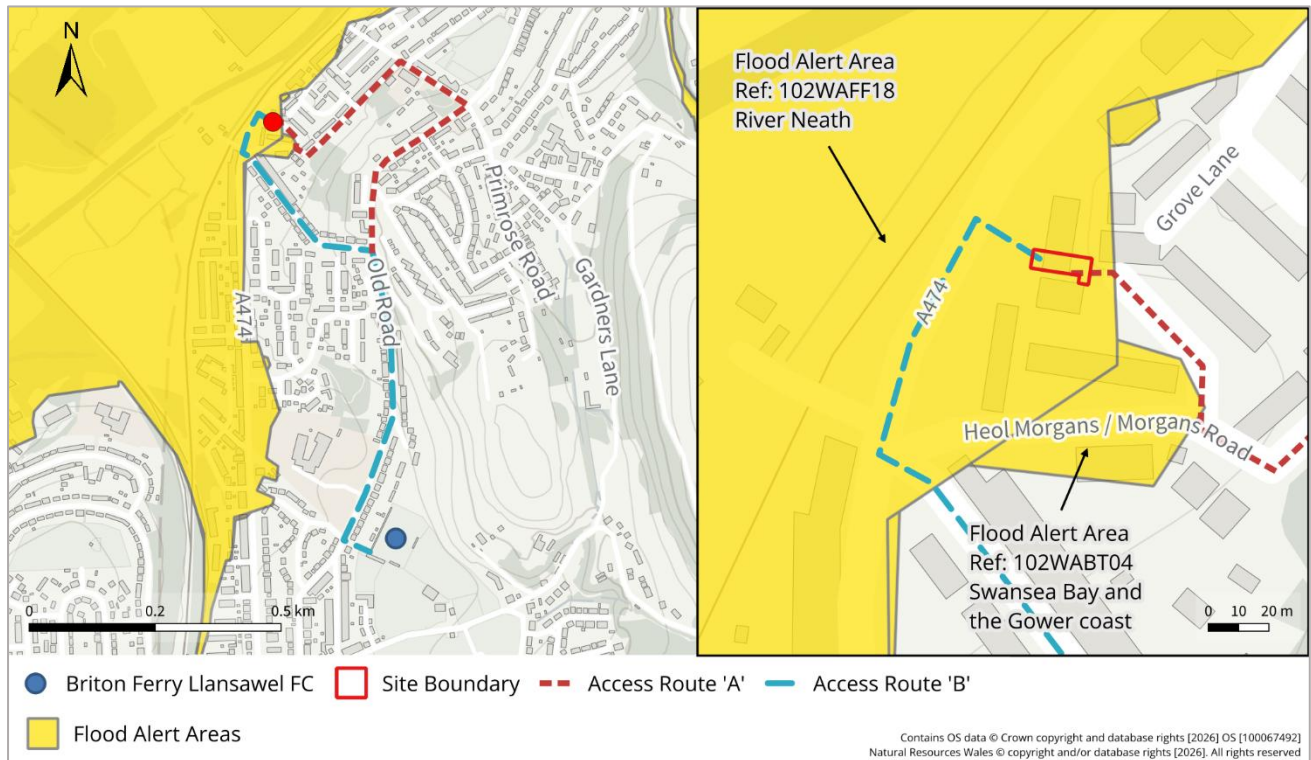
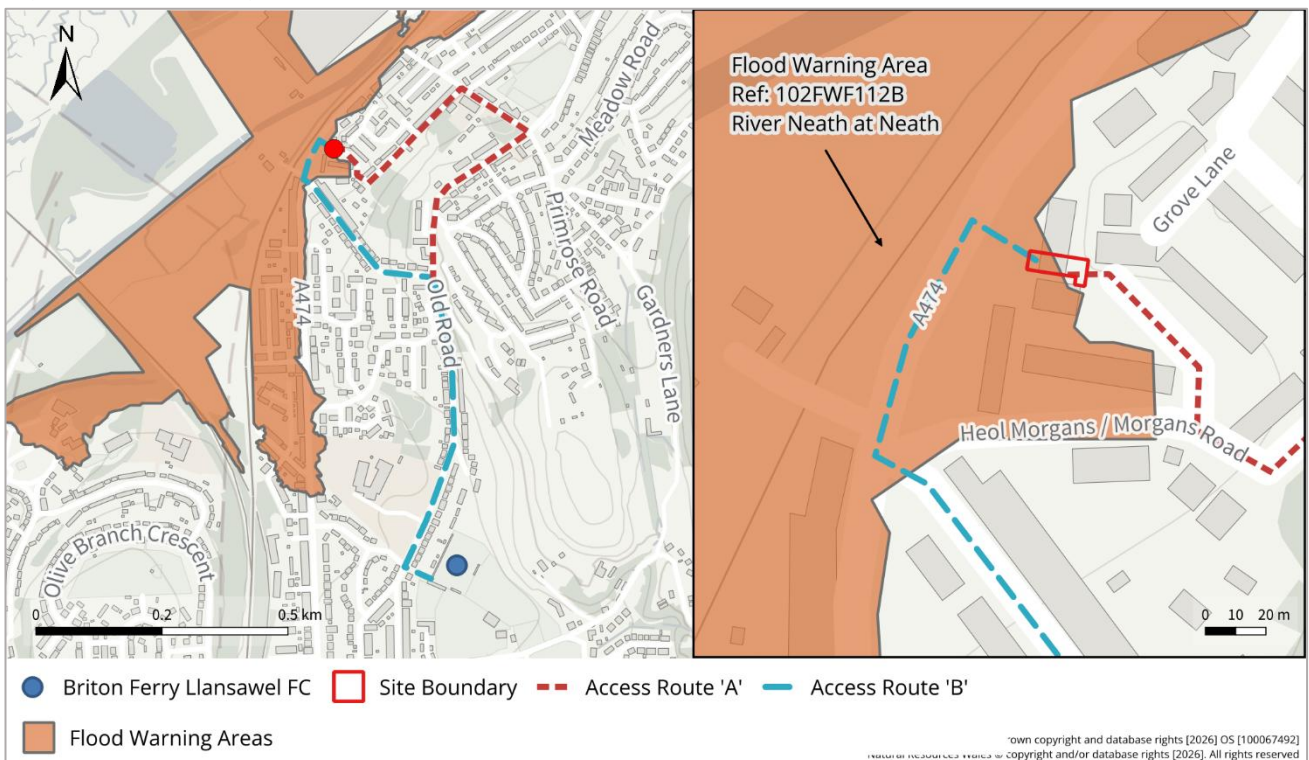


Figure 4 – Flood Warning Area for the site location





3.2 NRW Flood Warning Codes

Flood warnings are issued at differing levels of magnitude, defined as “flood warning codes” based on the latest NRW guidance¹. These codes relate to the level of risk that the site is potentially at, and each one is outlined below.

Important

Where possible, Ashfield has provided site specific advice that provides an increased level of understanding of what actions may need to be taken for the differing levels of flood warning severity on site. The responsibility of engaging with the correct information providers and carrying out specific actions that relate to the severity of warning lies with all the residents. Information on flood warnings can be sought using the direct links provided within this FWEP.

3.3 Five-Day Forecast

“Be aware. Think ahead. Keep an eye on the weather situation”.

Forecasts are updated daily on the Flood Information Service and more frequently for situations of increased flood risk. NRW work with the Joint Flood Forecasting Centre, based at the Met Office in Exeter to provide a five-day assessment of flood risk from all sources on a county scale.

National mapping within this interface will show one of four levels of risk for each county:

1. Green = **No risk** of flooding.
2. Yellow = **Low risk** of flooding.
3. Amber = **Medium risk** of flooding.
4. Red = **High risk** of flooding.

3.4 Flood Alert

“Flooding is possible. Be prepared”.



A *Flood Alert* shall be issued between two hours and two days in advance depending on the confidence of the prediction methods. This may be triggered by weather forecast predicting intense rainfall within the vicinity of the site or further upstream.

Site Specific Action

This magnitude of warning should trigger an increased level of awareness to residents at the dwelling. Whilst flooding is not expected during most events, significant flooding may occur during extreme fluvial or tidal events associated with the River Neath. Therefore, all residents are recommended to:

- Be made aware that this warning is in place and be kept informed;

¹ <https://naturalresources.wales/flooding/managing-flood-risk/how-we-forecast-floods-issue-warnings-and-assess-flood-risk/?lang=en>



- Be mindful of potential areas of localised water accumulation to areas on-site or nearby that may affect the residents and neighbours, and report these instances immediately;
- Periodic checking of the NRW website, Floodline and Flood Information Service should be carried out every two hours to establish whether the Flood Alert has been de-escalated, or escalated to a higher level (Flood Warning or Severe Flood Warning); and,
- Keep informed of any updates.

3.5 Flood Warning

“Flooding is expected. Immediate action required”.



Flood Warnings are issued half an hour to one day in advance of potential flooding occurring, depending on the accuracy of the prediction methods. This may be triggered by high tides combined with strong winds; and/or forecasted heavy rainfall within close proximity or upstream of the site.

Site Specific Action

A *Flood Warning* would warrant an increased level of vigilance and include the following recommended actions:

- Ensure that any localised accumulation of water is identified and monitored outside of the dwelling and wider area;
- Ensure that all access and egress routes are still fully passable and not being encroached by flood water. All residents should evacuate the dwelling at this point (See Section 4);
- Periodic checking of the Flood Information Service should be carried out every two hours to establish whether the *Flood Warning* has been de-escalated or escalated to a higher level (*Severe Flood Warning*); and,
- Ensure residents contact any acquaintances planning to stay/visit over the following days to forewarn of the Flood Warning and offer an opportunity for plans to be altered.

3.6 Severe Flood Warning

“Severe flooding. Danger to life”.



A *Severe Flood Warning* poses a significant risk to life or significant disruption to local communities or infrastructure. Escalation to this level would be triggered by:

- Actual flooding being identified where it poses significant risk to life;
- Breach of flood defences or failure of a flood barrier; and/or,
- Specialised knowledge of the area that warrants its escalation.

Site Specific Action

When a Severe Flood Warning is in place, the following actions are recommended to be undertaken:

- Usually, this level of risk warrants that access to the dwelling should be avoided by all. Evacuation will have already been taken from issue of a Flood Warning;
- Continual monitoring of the NRW website, Floodline and Flood Information Service, as well as local media to understand the potential length and magnitude of the risk;



- Communication directly with NRW;
- Residents should communicate with anyone that is due to arrive at the dwelling that access is temporarily unavailable until this warning has been downgraded or subsided; and,
- The dwelling should not be accessed until confirmation can be sought that the Severe Flood Warning has been removed, and further clarification from the emergency services has been given that safe access to dwelling has been restored.

3.7 Alert No Longer in Force

“No further flooding is currently expected for your area”.

When flood alerts are no longer in force, this means that the risk of flooding has subsided, and no further flooding is expected. This decision will have been triggered through the judgement of professionals and discussions with partners which are in agreement for this to occur.

Site Specific Action

Should flooding have occurred on site, it should be initially evaluated whether access has been fully re-established to site. This should be done in conjunction with NRW, Emergency Services, and any other parties. Moreover, forward communication should be conducted for parties who may be due to arrive, providing an opportunity for re-scheduling.

The scope of this FWEP does not cover any further actions that should be undertaken on site should severe damage have occurred. In this instance, the relevant person(s) should work alongside NRW and relevant authorities to establish whether it is safe to access the dwelling.



4. Evacuation Plan

4.1 Introduction

An evacuation plan is required to ensure that a safe egress route has been provided to a safe refuge point should flooding be identified to occur at the site or along any important access routes.

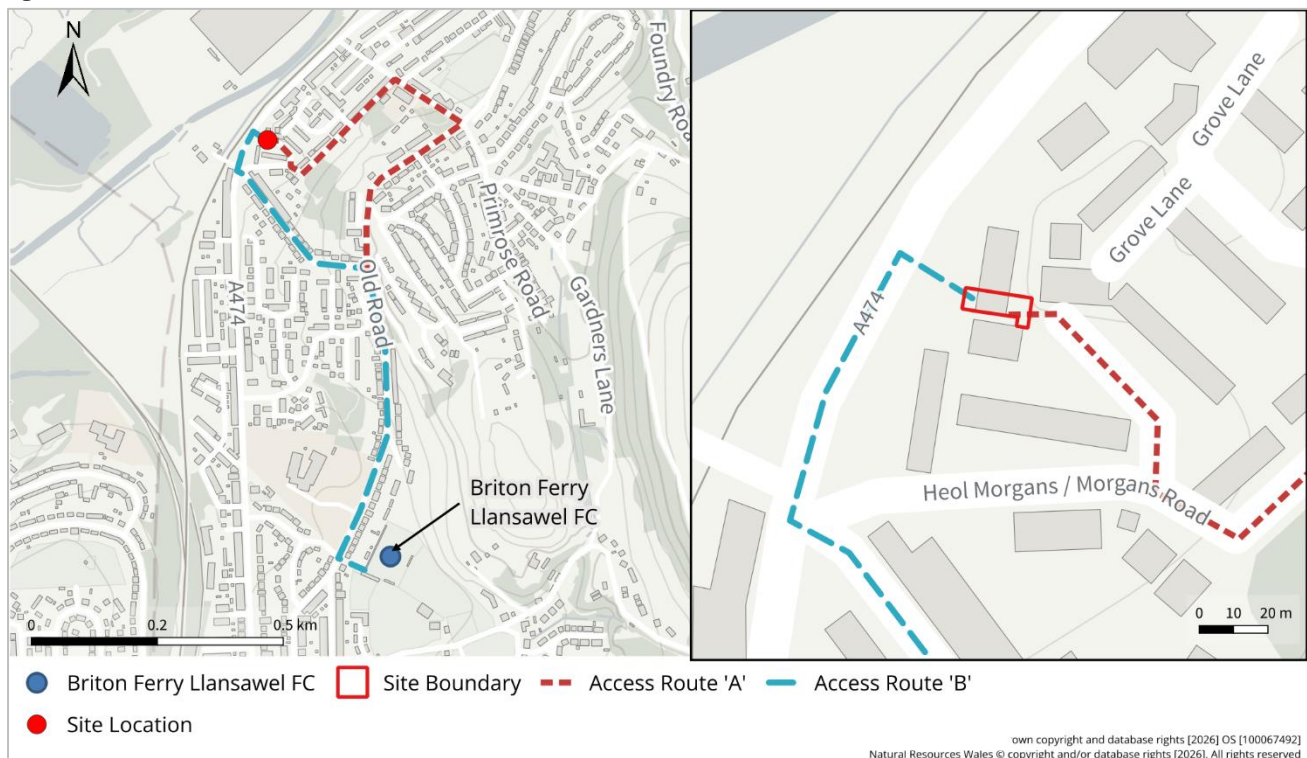
4.2 Safe Refuge Point

A safe refuge area is to be established and located outside of any potential flooding. Based upon this, it is recommended that the site is evacuated prior to a flood event occurring. Figure 5 shows the site location in relation to nearest appropriate public point of safe refuge, which is not liable to flooding (Briton Ferry Llansawel FC). This location has been selected as the Briton Ferry Llansawel Football Club as it is situated at outside of the modelled flood extents (from every source) and can be accessed prior to the onset of flooding. Furthermore, the club is expected to operate on a 24-hour basis, providing a continuously accessible point of refuge.

Figure 5 also presents two access routes to the safe refuge area that take account of the residual flood risk discussed in Section 2. Access Route A is the preferred option from a flood risk perspective, as it avoids Furnace Terrace, which is susceptible to both fluvial and tidal flooding. This route requires residents to exit via the rear of the dwelling and access their vehicle parked along Morgans Road.

Access Route B also provides a viable means of access to the safe refuge area. However, it must be used prior to the onset of flooding along Furnace Terrace. This route is most appropriate where residents have parked their vehicle at the front of the Property on Furnace Terrace.

Figure 5 - Safe Evacuation Route





Safe Refuge Point Location Description & Address: Old Rd, Neath SA11 2BU

XY Coordinates: 274596, 195254

Access: The refuge point should be accessed by vehicle as it is located approximately 860m away (as the crow flies – approximately 1.5km by Access Route 'A' and 1.1km by Access Route 'B').

Should the safe point of refuge be changed in future, based upon further advice from the Local Authority or NRW, this will need to be fully communicated to all users of this FWEP.

4.3 Evacuation Procedure

Following the flood warning guidelines in Section 3, the Evacuation Procedure would be instigated when a Flood Warning is issued. In this instance, all residents should evacuate the site and proceed to the pre-determined egress route to the refuge point.

Upon issue of a Flood Warning, it is the individual responsibility of residents to evacuate the building. Should it not be safe to evacuate, the emergency services should be contacted to inform them of your location.

4.4 Vulnerable Residents

Where residents are elderly, disabled, or otherwise require assistance, personal evacuation arrangements should be established in advance of any flood event. These arrangements should clearly identify the support required, how assistance will be provided, and any aids or measures necessary to enable safe and timely evacuation. Additionally, residents should ensure these plans are regularly reviewed and remain practical and achievable.



5. Summary

This FWEP provides an overview of flood risk at the site. The measures included within this FWEP are considered to be appropriate based on the level of residual tidal/fluvial/surface water risk that exists within the vicinity of the site.

To ensure an enhanced awareness of flood risk in the local area, all residents should register to NRW Flood Warning service as per Section 3 of this FWEP.

The evacuation strategy is based upon the findings of the FCA, which demonstrates that advance warning of tidal and fluvial flooding is expected to be available.



Limitations of this report

This report has been prepared by Ashfield Flood Risk Solutions Limited ("Ashfield") for the sole benefit of Quantum Survey & Project Management Ltd (the "Client") and has not been assigned to any other third parties. If reliance on this report was required by a third party, this could be arranged for an agreed fee. This report should not be used by the client in relation to any other matters not covered specifically by the scope of the report. If this report does not contain a signature in the Document Control window, then this is an uncontrolled electronic copy and should not be relied upon by the client or any other recipient, as Ashfield cannot give assurances on the source or content of the document. Ashfield has used all reasonable skill, care and diligence in the preparation of this report.

This Flood Response Plan has been prepared for the client as outlined in Section 1. It only includes a site investigation where specifically referenced. Ashfield accepts no responsibility for the accuracy or completeness of third-party data reviewed within this assessment.

This report is provided under Ashfield Solutions Limited Standard Terms and Conditions.



Thank you

for using Ashfield Solutions

Head Office:
Cwm Cynon Business Centre,
Cwm Cynon Business Park,
Mountain Ash, RCT, CF45 4ER

ashfieldsolutions.com

+44 (0)1443 803 540