

Eagle House Flood Consequence Assessment

Version 1

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This report describes work commissioned by Dyfan Williams, on behalf of Castell Group, by an email dated 19th August 2021. Hannah Booth of JBA Consulting carried out this work.

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Purpose

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1 Introduction

1.1 Terms of Reference

JBA Consulting (JBA) were commissioned by Castell Group to undertake a Flood Consequence Assessment (FCA) for the demolition of Eagle House and the construction of 4 retail units, and 20 apartments for social housing.

1.2 FCA requirements

This FCA follows Welsh Government guidance on development and flood risk set out in Technical Advice Note 15: Development and Flood Risk (TAN15). Where appropriate, the following aspects of flood risk should be addressed in all planning applications over their expected lifetime:

- The likely mechanisms of flooding
- The likely source of flooding
- The depths of flooding through the site
- The speed of inundation of the site
- The rate of rise of flood water through the site
- Velocities of flood water across the site
- Overland flow routes
- The effect of access and egress and infrastructure, for example, public sewer outfalls, combined sewer outflows, surface water sewers and effluent discharge pipes from wastewater treatment works
- The impacts of the development in terms of flood risk on neighbouring properties and elsewhere on the floodplain

2 Site description

2.1 Site summary

The proposed development site is located at Eagle House, 2 Talbot Road, Port Talbot. The development site comprises an existing building (currently used as offices), a car park and two small buildings located within the car park.

The site is bounded by residential developments to the north and the east, Talbot Road to the south and Oakwood Lane and The Grand Hotel to the west. Table 2-1 summarises the key characteristics of the site. The site location is shown in Figure 2-1.

Table 2-1 Site summary

Site name	Eagle House
Site area	Approximately 0.09ha
Existing land use	Office and car park
Purpose of development	Commercial and residential
OS NGR	SS 76818 89638
Local Planning Authorities	Neath Port Talbot Council
Lead Local Flood Authority	Neath Port Talbot Council



Figure 2-1 Site location

2.2 Site topography

A topographic survey of the site undertaken by Healer Surveys Ltd, on behalf of Castell Group, dated April 2021. The topographic survey is contained in Appendix A.

The topographic survey indicates that ground levels range between 7.14mAOD and 7.71mAOD. The existing building has a finished floor level of 7.66mAOD. Ground levels in the area of the proposed new building range between approximately 7.48mAOD to 7.69mAOD.

2.3 Soils and geology

According to the British Geological Survey (BGS) Geology of Britain Viewer¹ the area's geology consists of a bedrock of South Wales Middle Coal Measures Formation, which is comprised of mudstone, siltstone and sandstone. This bedrock is overlain by superficial Tidal Flat Deposits of clay, silt and sand.

The Cranfield University Soilscape viewer² describes the site's soil as loamy and clayey soils of coastal flats with naturally high groundwater.

2.4 Watercourses

Two National Resources Wales (NRW) designated Main Rivers are located in close proximity to the site, as shown in Figure 2-2. Both watercourses are located approximately 500m from the site. The River Afan to the north and the Ffrwd Wylt to south east of the site.

The tidal Swansea Bay is located approximately 2km to the southwest of the site and the Port Talbot Docks approximately 300m to the southwest of the site.

Flood defences are located along the banks of the River Afan as shown in Figure 2-2. The flood defences consist of a raised embankments and flood walls. These flood defences offer flood protection to large parts of Port Talbot. The flood defences have an estimated 1 in 100-year standard of protection.

¹ Geology of Britain Viewer. <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

² Cranfield Soil Scapes Viewer. <http://www.landis.org.uk/soilscales/>

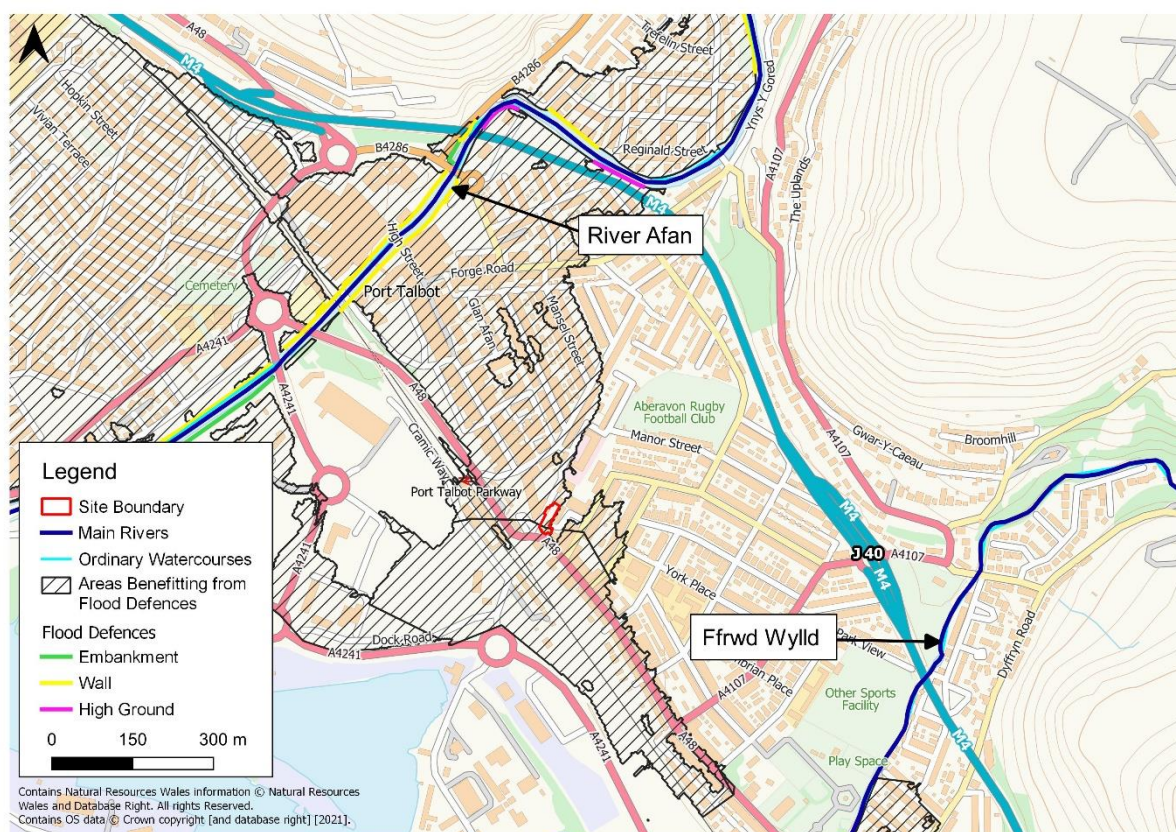


Figure 2-2 Nearby watercourses

2.5 Development proposals

Development proposals for the site are to demolish the existing Eagle House building and construct a replacement building of a similar footprint, consisting of four retail units, and 20 apartments for social housing.

The ground floor will consist of 4 retail/commercial units, as well as bin and cycle stores, plant and meter rooms. The first to fourth floors will comprise of a total of 20 residential flats. The buildings will have a ground floor finished floor level of 7.80mAOD.

Figure 2-3 (provided in full in Appendix B) shows the existing site plan and the 318m² of buildings that will be demolished.

Figure 2-4 (provided in full in Appendix B) shows the proposed site layout, consisting of a total building footprint of 363m², Or 311m² if the undercroft bin and bike stores are excluded from the footprint measurement. The figure also identifies the five allocated residential parking spaces that are proposed. The car park will be resurfaced on completion of the works and the residentially spaces nominally raised to a minimum level of 7.79mAOD.



Figure 2-3 Existing site plan

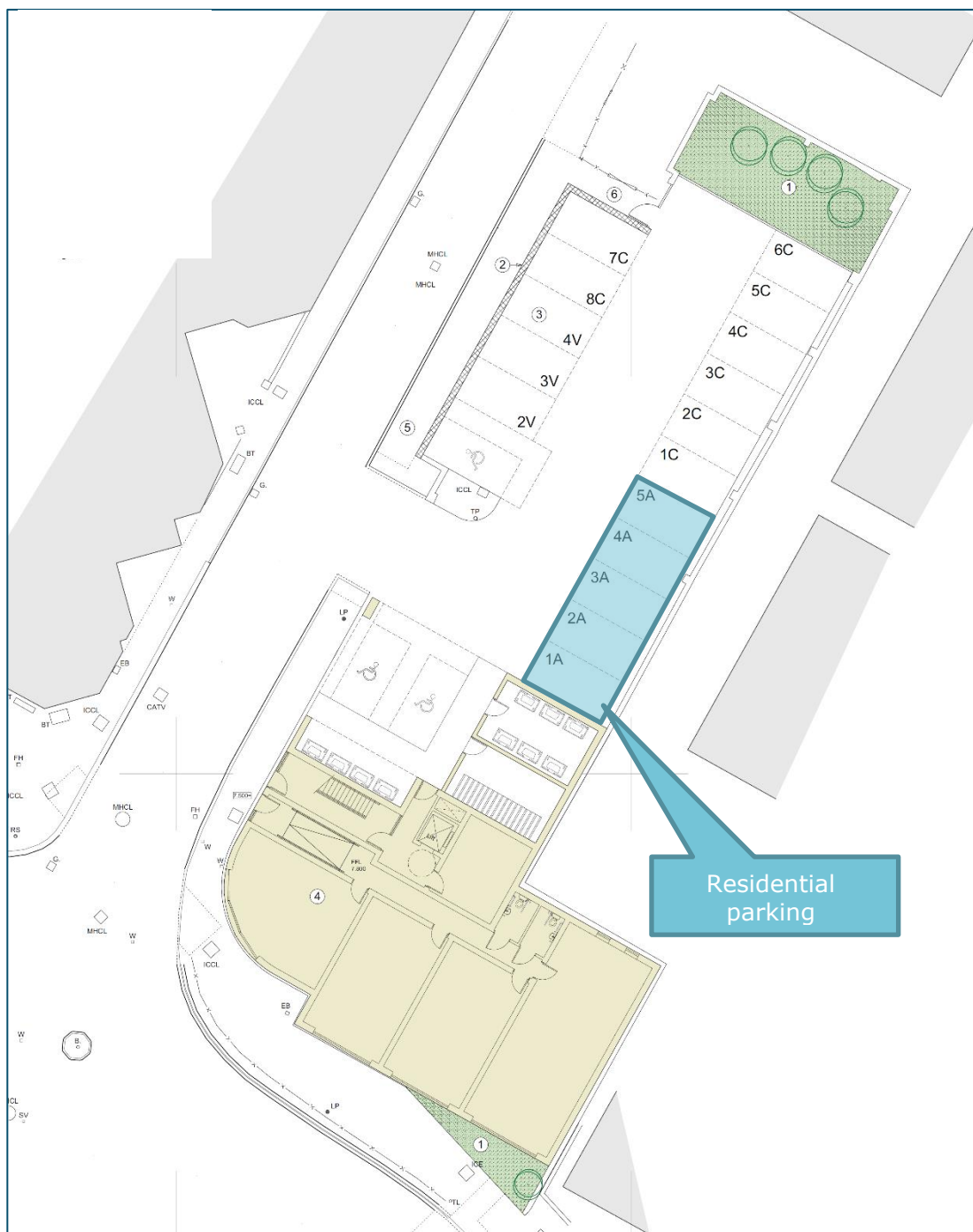


Figure 2-4 Proposed development

3 Planning Policy and Flood Risk

3.1 Planning Context

TAN-15 was introduced in 2004 by the Welsh Assembly Government. It is technical guidance related to development planning and flood risk using a sequential characterisation of risk based on the Welsh Government's Development and Flood Risk Advice Map (DAM). Its initial requirement is to identify the flood zones and vulnerability classification relevant to the proposed development, based on an assessment of current and future conditions.

3.2 Vulnerability classification

TAN-15 assigns one of three flood risk vulnerability classifications to a development, as shown in Table 3-1. The proposed development comprises commercial and residential development. Consequently, the development is classified as **More Vulnerable**, as a result of the residential component.

Table 3-1 Development categories defined by TAN-15

Development category	Types
Emergency services	Hospitals, ambulance stations, fire stations, police stations, coastguard stations, command centres, emergency depots and buildings used to provide emergency shelter in time of flood.
Highly vulnerable development	All residential premises (including hotels and caravan parks), public buildings, (e.g. schools, libraries, leisure centres), especially vulnerable industrial development (e.g. power stations, chemical plants, incinerators), and waste disposal sites.
Less vulnerable development	General industrial, employment, commercial and retail development, transport and utilities infrastructure, car parks, mineral extraction sites and associated processing facilities, excluding waste disposal sites.

3.3 Development Advice Map Classification

As shown in Figure 3-1, the proposed development site falls into Zone C1 of the DAM. The DAM zone classification is used to trigger different planning actions based on a precautionary assessment of flood risk. Zone C1 is described as "areas of the floodplain served by significant infrastructure, including flood defences".

Highly vulnerable development within Zone C1 can occur subject to the application of a Justification Test, including the acceptability of consequences.

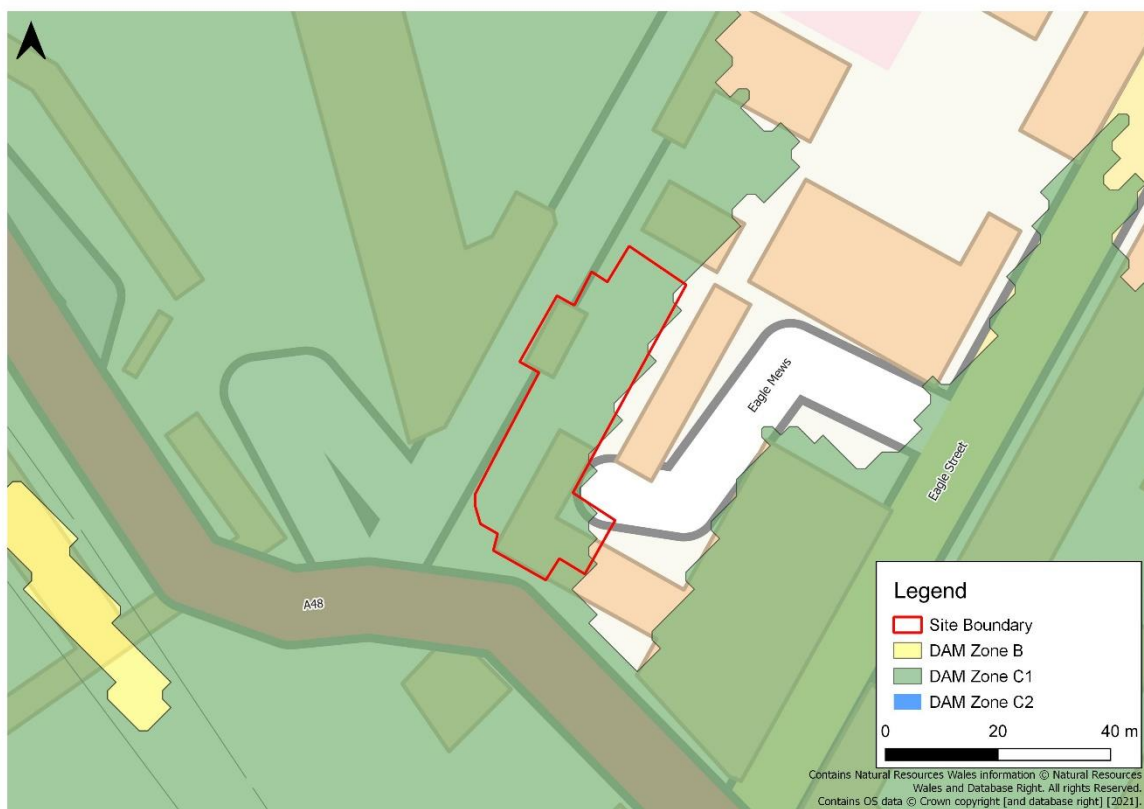


Figure 3-1 Development Advice Map

3.4 Local Development Plan

The Local Development Plan (LDP) is a land-use document where the Council sets out its land use development over a 15-year period. Neath Port Talbot Council's Local Development Plan³ was adopted in January 2016 and provides a framework to guide future development and set out where, when, and how much new development can take place within the plan period (2011-2026).

Within the LDP, Policy SP7 identifies the number of dwellings which are required to be built as part of the local plan. The proposed development will contribute to these targets with the provision of 20 new homes.

The proposed development also supports Policy SP11 'Employment Growth' of the LDP by retaining the site for employment use.

The strategy also identifies that large areas of the County Borough are brownfield land (formerly developed land) and that these areas should be prioritised through regeneration schemes to prevent the unnecessary loss of greenfield land. Policies SP16 and BE1-C require that the development of brownfield land is prioritised over greenfield sites.

3.5 Justification Test

TAN-15 states that development will be justified if it can be demonstrated that:

³ Neath Port Talbot Borough Council Adopted Local Plan 2011-2026: <https://www.npt.gov.uk/7328>

Its location in zone C is necessary to assist, or be part of, a local authority regeneration initiative or a local authority strategy required to sustain an existing settlement;

or

Its location in zone C is necessary to contribute to key employment objectives supported by the local authority, and other key partners, to sustain an existing settlement or region;

and

It concurs with the aims of Planning Policy Wales and meets the definition of previously developed land;

and,

The potential consequences of a flooding event for the particular type of development have been considered and found to be acceptable.

The proposed development has been assessed against the requirements of the Justification Test, with the results summarised in Table 3-2.

Table 3-2: Justification Test applied to the proposed development

TAN 15 Justification Criteria	Comments	Achievable?
<i>Its location is necessary to assist a local authority regeneration initiative or strategy, or contribute to key employment objectives, necessary to sustain an existing settlement or region.</i>	The proposed development will assist with the relevant policies listed in the Local Development Plan and will contribute to housing targets in the County Borough.	✓
<i>The site meets the definition of previously developed land (i.e., it is not a Greenfield site) and concurs with the aims of Planning Policy Wales (i.e., the presumption in favour of sustainable development).</i>	The proposal involves the redevelopment of a previously developed site (ref. Section 2.2). The proposals therefore concurs with the aims of Planning Policy Wales.	✓
<i>A Flood Consequence Assessment has been produced to demonstrate that the potential consequences of a flood event up to the extreme flood event (1 in 1000 chance of occurring in any year) have been considered and meet the [Acceptability Criteria] ... in order to be considered acceptable.</i>	The flood consequences have been assessed and are detailed further in Sections 4 and 5.	✓

4 Review of existing flood risk data

This section assesses the risk to the proposed development from all sources of flooding, the risk of increased flooding to others, and how flood risks can be managed. As a Level 1 FCA, the flood risk assessment is based solely on a desk-based analysis of existing flood risk data.

4.1 Summary of existing flood risk data

The latest available information on flood risk at the site, published by Natural Resources Wales (NRW) and Neath and Port Talbot Council is summarised in Table 4-1 below.

Table 4-1 Existing Flood Risk Data for the Site

Source of Flooding	Onsite Presence	Description
Flood Risk from Rivers	✓	The site is in an area at risk of river flooding.
Flood Risk from the Sea	✗	The site is not at risk of tidal flooding.
Flood Risk from Surface Water and Small Watercourses	✗	The site is at very low risk of surface water flooding.
Flood Risk from Groundwater	✗	The site is at very low risk of flooding from groundwater.
Flood Risk from Reservoirs	✗	The site is not considered to be at risk of flooding from reservoirs.
Flood Risk from Sewers	✗	There is no evidence to suggest that the site is at risk of flooding from sewers.

4.2 Historical flooding

NRW's map of recorded flood extents does not show any evidence of historic flooding on the site. No other historic flooding records were identified at the site in the Neath and Port Talbot Flood Risk Management Plan⁴. In the Neath and Port Talbot Preliminary Flood Risk Assessment⁵, historical flood events from a local source of flooding are indicated. In Neath and Port Talbot 749 surface water flooding events occurred between April and December 2010. The proposed development site is located in this general area but it is not clear as to whether historic flooding has occurred at the site.

4.3 Flood Risk from Rivers

NRW's Flood Risk Assessment Wales (FRAW) map for Flood Risk from Rivers shows that the proposed development site is at low risk of fluvial flooding. This means that the site has between a 1 in 1000 (0.1%) and 1 in 100 (1%) chance of flooding during a flood event, as shown in Figure 4-1.

Flood defences are present along the banks of the River Afan. Consequently, the site is located within an 'Area Benefitting from Flood Defences' designated by NRW's FRAW map.

⁴ Neath and Port Talbot Council (2015) Flood Risk Plan. Retrieved from: <https://www.npt.gov.uk/6789>

⁵ Neath and Port Talbot Council (2017) Preliminary Flood Risk Assessment. Retrieved from: <https://www.npt.gov.uk/2389>

To better understand the risk of flooding posed by fluvial flooding sources, further assessment using modelled data was undertaken and is discussed in Section 5.

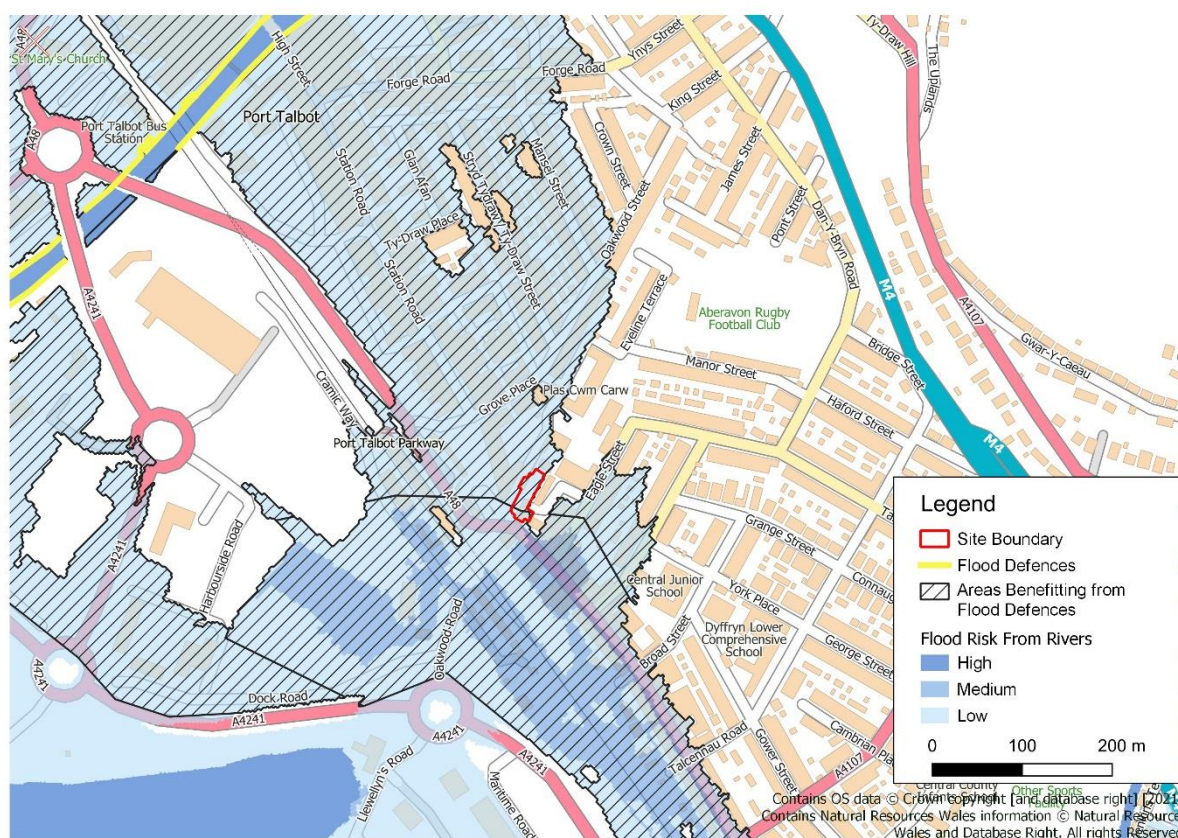


Figure 4-1 Risk of flooding from rivers

4.4 Flood Risk from the Sea

The NRW FRAW Flood Risk from the Sea map shows that the site is **not at risk of tidal flooding**. Tidal flood water is confined to the Port Talbot docks (as shown in Figure 4-2)

To better understand the risk of flooding posed by tidal flooding, and the potential implications of climate change, further assessment using modelled data was undertaken and is discussed in Section 5.

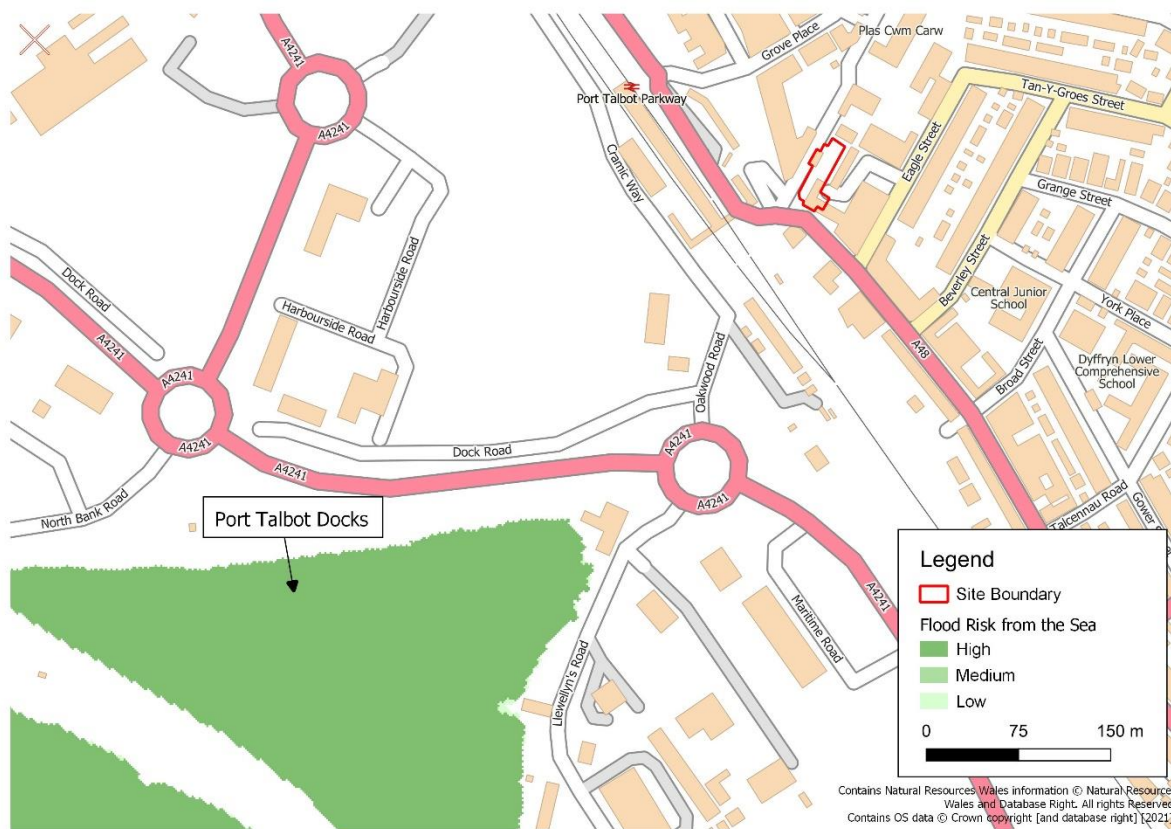


Figure 4-2 Risk of flooding from the sea

4.5 Flood Risk from Surface Water and Small Watercourses

The NRW FRAW Surface Water and Small Watercourses map indicates that the site is at very low risk of surface water flooding, as shown in Figure 4-3. However, there is a flow path which flows south on Oakwood Lane before converging with a flow path on Talbot Lane. This flow path does not affect the site and is confined to the carriageway. The flow path on Oakwood Lane occurs during the medium risk (between 1 in 100 (1%) and 1 in 30 (3.3%)) to low risk (between 1 in 1000 (0.1%) and 1 in 100 (1%)) scenarios. The flow path on Talbot Lane occurs during the high risk (greater than 1 in 30 (3.3%)) to low risk (between 1 in 1000 (0.1%) and 1 in 100 (1%)) scenarios which is located by the site's western boundary.



Figure 4-3 Risk of flooding from surface water and small watercourses

4.6 Flood Risk from Groundwater

Groundwater flooding is caused by unusually high groundwater levels. It occurs as excess water emerges at the ground surface or within manmade structures such as basements. Groundwater flooding tends to be more persistent than surface water flooding, in some cases lasting for weeks or months, and can result in damage to property. This risk of groundwater flooding depends on the nature of the geological strata underlying the site and the local topography.

The Neath Port Talbot County Borough Council Flood Risk Management Plan⁵, states that 'there are no specific areas of historical groundwater flooding recorded in the Neath and Port Talbot area'. It can therefore be concluded that the risk of groundwater flooding at the site is **very low**.

4.7 Flood Risk from Reservoirs

NRW flood maps indicate that the proposed development site is not at risk of flooding due to reservoir failure, as shown in Figure 4-4. It can therefore be concluded that there is no risk of reservoir flooding at the site.

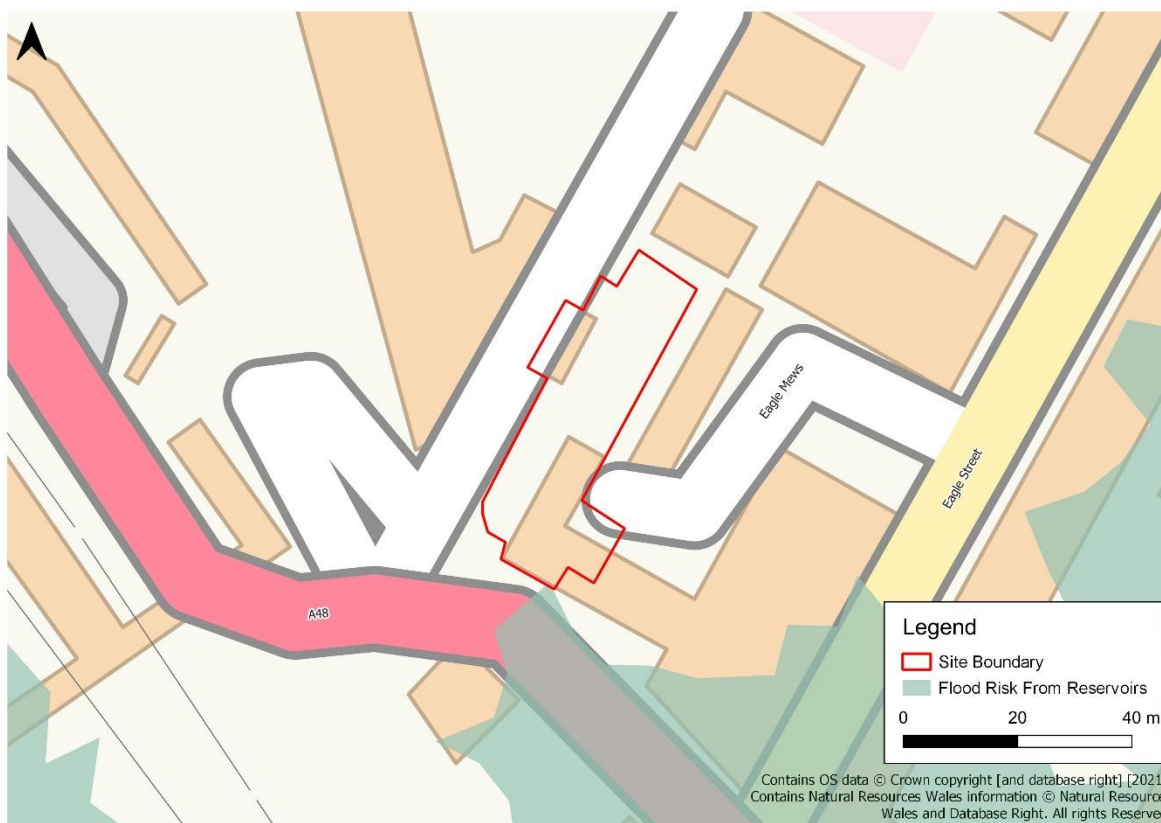


Figure 4-4 Risk of flooding from reservoirs

4.8 Flood Risk from Sewers

The Neath Port Talbot County Borough Council Flood Risk Management Plan does not contain any evidence of historic sewer flooding on or close to the site. It can therefore be concluded that the risk of sewer flooding at the site is **very low**.

5 Detailed Tidal and Fluvial Flood Risk Assessment

As identified in Section 4, the primary source of flood risk identified at the development site is Flood Risk from Rivers (fluvial flood risk). A better understanding of the risk posed by tidal flooding, and the potential implications of climate change is also required. The following section therefore assesses these sources of flood risk in more detail.

5.1 Detailed hydraulic modelling

The detailed fluvial and tidal flood risk modelling data for Port Talbot is sourced from a flood model which was updated for another development in close proximity to the proposed development (planning reference P2020 0303). The model consisted of the 1D-2D linked ESTRY-TUFLOW Model of Port Talbot, developed by JBA Consulting in August 2017.

Updates to the modelling include:

- Updating the building representation to be based solely on the OS Mastermap layer with a 90% blockage factor applied.
- Run the model with the latest version of TUFLOW.
- Update the tidal boundary conditions to be uplifted to 2021 to represent present day conditions and consider the impact of the 2121 climate change epoch.

The results for the 0.5% AEP plus climate change and 0.1% plus climate change were used to assess the risk of tidal flooding. To assess the risk of fluvial flooding, the 1% AEP plus climate change and 0.1% AEP defended events were used for this assessment. The results from these return periods are detailed below.

5.2 Detailed flood model results- Tidal Flooding

In accordance with Welsh Government Guidance on Climate Change Allowances for Planning Purposes⁶ the 100-year cumulative Sea Level Rise needs to be considered for residential land-uses. Therefore the impact of climate change on tidal flood risk has been assessed using the 2121 0.5% AEP and 0.1% AEP events.

5.2.1 0.5% AEP plus climate change event

Figure 5-1 below shows that the site is not predicted to flood in the 0.5% AEP plus climate change tidal flood event.

⁶ Welsh Government Guidance on Climate Change Allowances for Planning Purposes: <https://gov.wales/sites/default/files/publications/2018-11/flood-consequence-assessments.pdf>

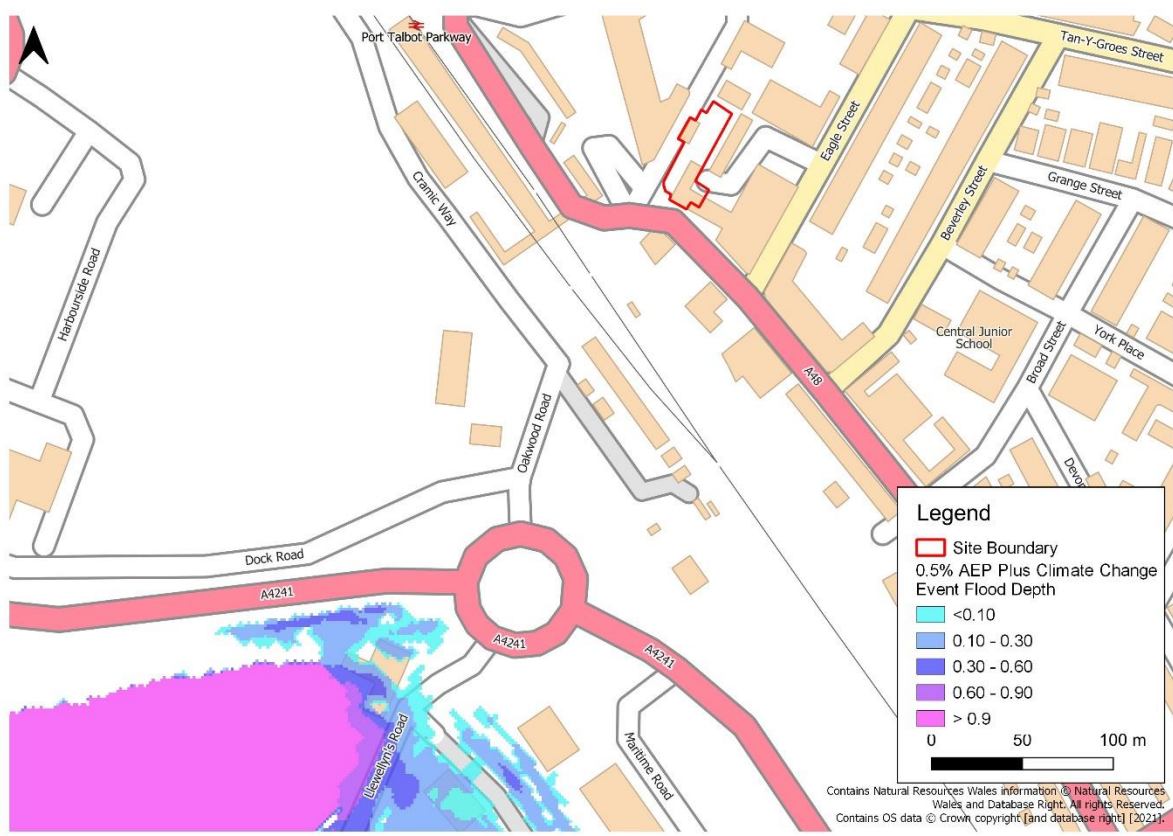


Figure 5-1 0.5% AEP plus climate change flood depths

5.2.2 0.1% AEP event plus climate change event

Figure 5-2 below shows that the site is not predicted to flood in the 0.1% AEP event plus climate change tidal flood event.

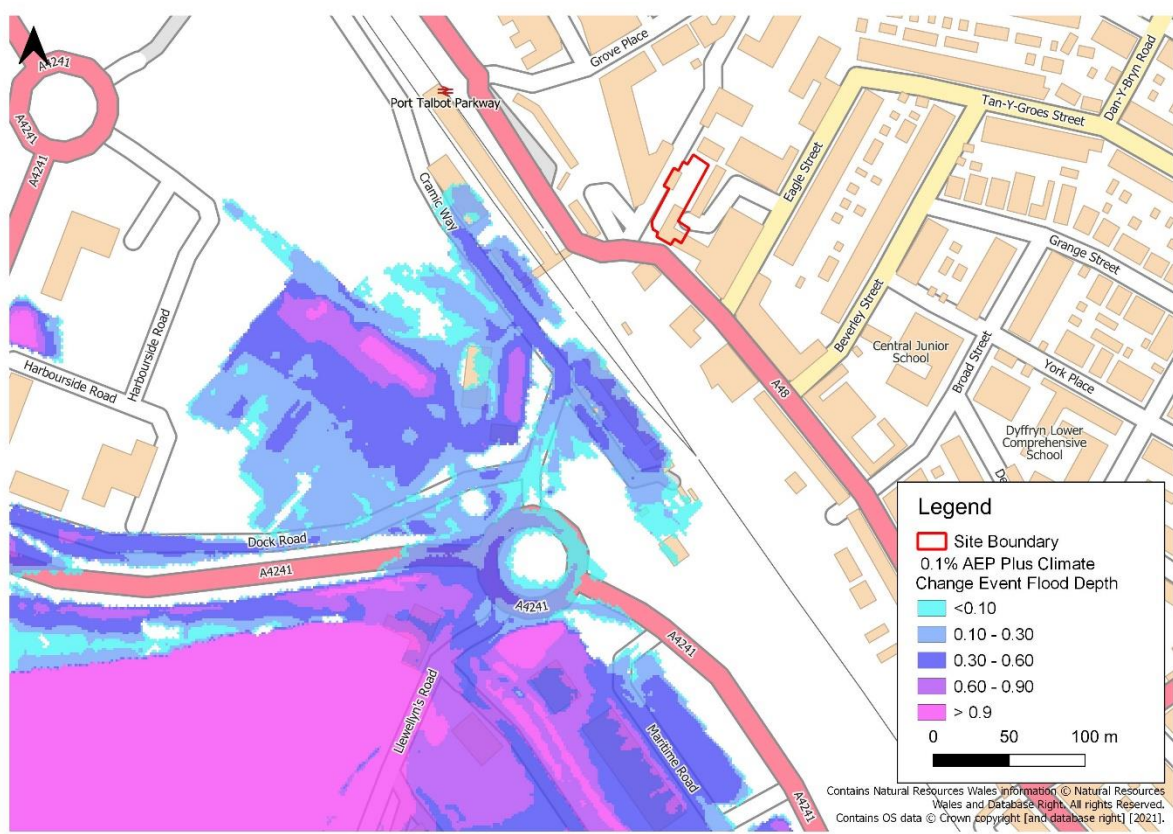


Figure 5-2 0.1% AEP plus climate change flood depths

5.3 Detailed flood model results- Fluvial Flooding

This section details the modelled flood extents, depths and velocities for the 1% AEP plus climate change and the 0.1% AEP events, as required by TAN15.

5.3.1 1% AEP plus climate change event

Figure 5-3 below shows that the site is predicted to flood in the 1% AEP plus climate change event. This indicates that the whole of the proposed development site is at risk of flooding in this event.

During this scenario, flood depths at the proposed development site are generally shallow. The majority of the proposed development site is predicted to flood to a maximum depth of 0.3m. A small part of the south of the site is predicted to flood to a maximum depth of 0.6m, although this is not reflective of the actual finished floor level of existing building. Velocities at the site are less than 0.1m/s

The flood level at the site are predicted to be 7.79mAOD during to the 1% plus climate change event. This compares to the existing finished floor level of 7.60mAOD. Consequently, it is predicted that in this event the existing building will experience shallow flooding less than 0.3m in depth.

The proposed building will have a finished floor level of 7.8mAOD. Considering this finished floor level, the proposed building is predicted to be **flood free** in the 1% plus climate change flood event.

The existing car park is predicted to flood to shallow depths of less than 0.3m. To mitigate risk of the residential parking spaces flooding in the 1% AEP plus climate change event these spaces will be nominally raised to a minimum level of 7.79mAOD when final resurfacing occurs.

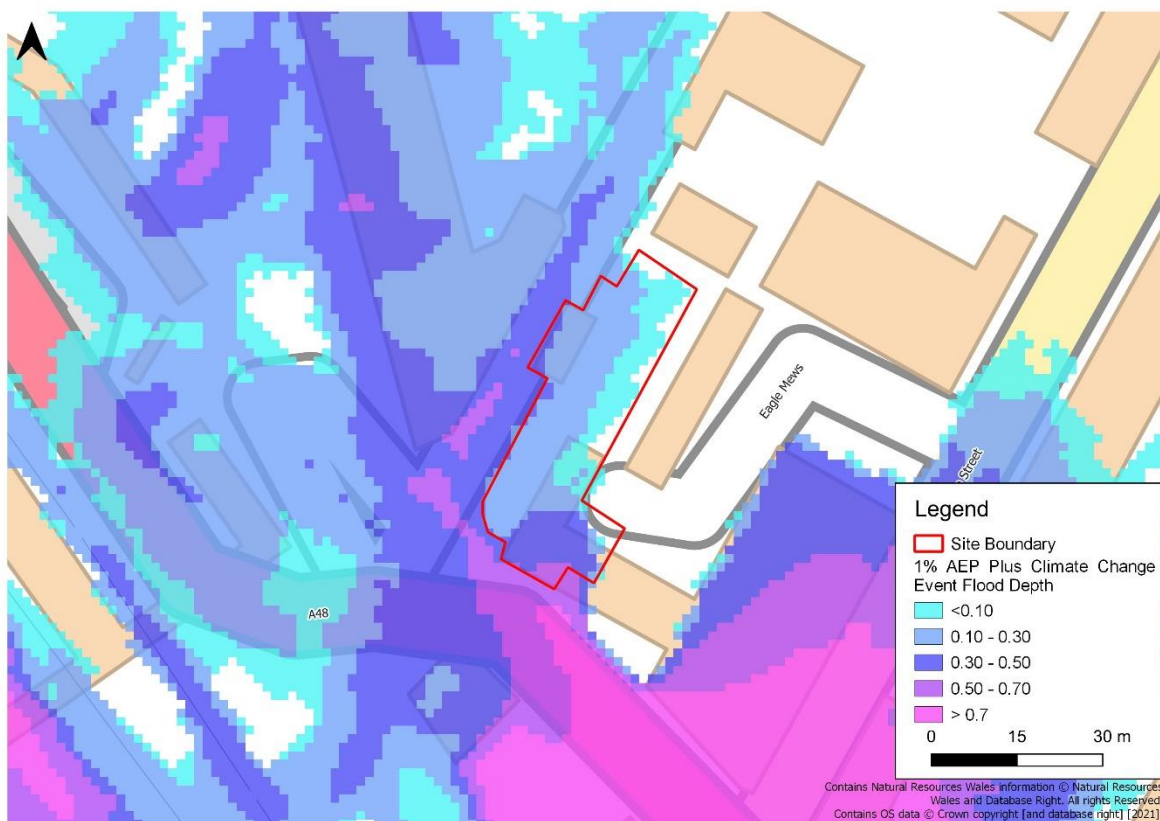


Figure 5-3 1% AEP plus climate change flood depths

5.3.2 0.1% AEP event

Figure 5-4 below shows that the site is predicted to flood in the 0.1% AEP event. These results indicate that the whole of the proposed development site is at risk of flooding in this event.

During the 0.1% AEP event flood levels are predicted to reach a maximum of 8.20m AOD during the 0.1% event. Consequently, the existing building (FFL = 7.6m AOD) would flood to a depth of 600mm, and existing car park (ground level = 7.70 - 7.50m AOD) would flood to depths of 500-700mm. The predicted flood depths shown in Figure 5-4 are based on the less accurate LiDAR derived ground model. Flood velocities are predominantly less than 0.5m/s with some areas around the car park and the proposed building predicted to experience higher flood velocities of between 0.5-1m/s.

The proposed building will have a finished floor level of 7.80m AOD. Therefore, ground floor of the building is predicted to flood to a maximum depth of 400mm in the 0.1% AEP flood event. This flooding will not affect any of the residential flats, which are located above the ground floor.

Potential flood mitigation measures to future reduce the flood risk are provided in section 5.4.

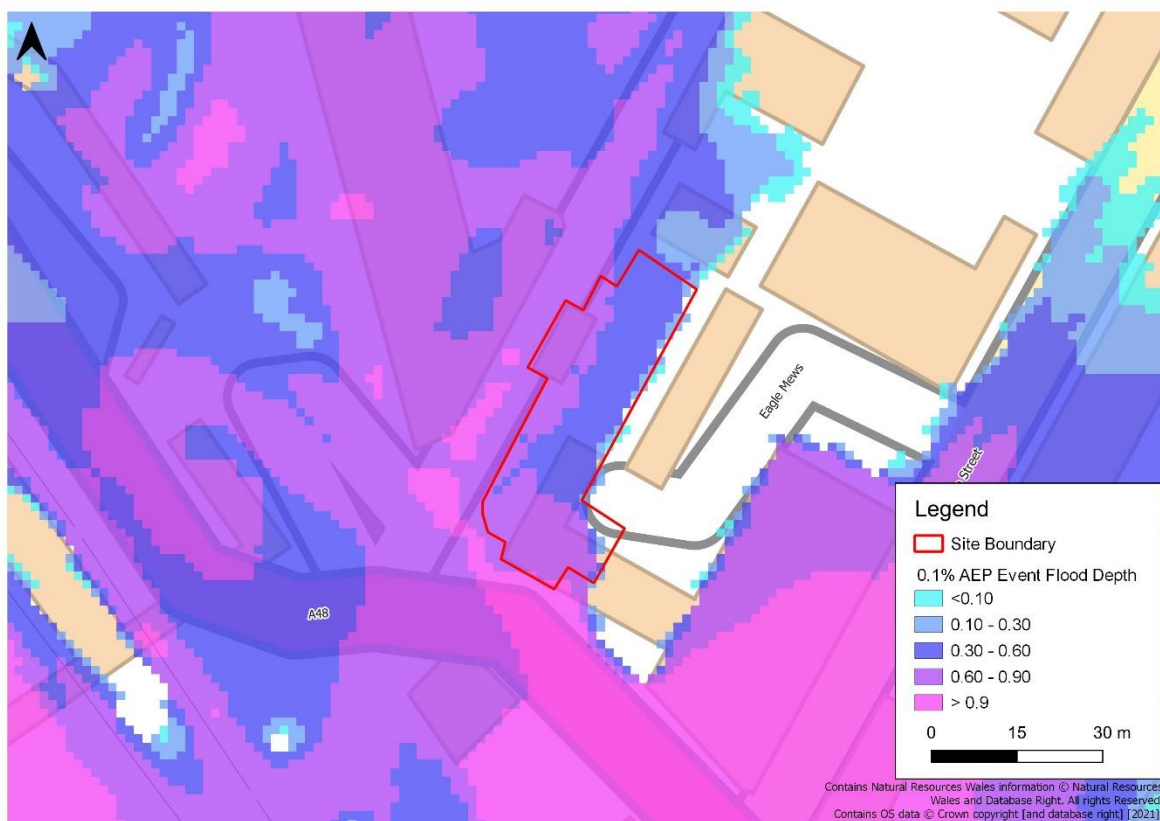


Figure 5-4 0.1% AEP flood depths

5.4 Flood risk mitigation

5.4.1 Flood emergency plan

Recognising the modest residual risk of flooding, it is recommended that a Flood Emergency Plan is prepared for occupants of the site. At a minimum, the flood emergency plan should cover adequate flood warning, evacuation and access/egress routes in the event of flooding for the lifetime of the development. NRW provide guidance for the production of flood emergency plans⁷. This guidance should be used to inform flood response procedures at the site.

5.4.2 Flood Resilient Design

The proposed building is predicted to flood during the 0.1% AEP climate change event. Therefore, it is recommended that Flood Resilience Measures such as raised electrical sockets, tiled floors and water resilient plaster are considered in the building design (where appropriate). This is particularly relevant to the residential services room on the ground floor. Installation of these measures will enable the development to recover more quickly from a flood event and in a cost-effective manner.

5.4.3 Flood warning service

NRW flood warnings for fluvial flood events are typically provided 1-2hrs in advance of an event. Flood warnings give notice that "flooding is expected" and "immediate action is

⁷ Natural Resources Wales, How to prepare your home business or farm for a flood, retrieved from: <https://naturalresources.wales/flooding/preparing-your-home-business-or-farm-for-a-flood/?lang=en>

required". A lower grade flood alert is used to prepare for possible flooding and will generally be issued with a greater lead-time.

The proposed development site is located within the 'River Afan at Port Talbot' flood warning area and the 'River Afan and Kenfig' flood alert area, as shown in Figure 5-5. It is recommended, if not already so, that the occupants sign up for these flood warnings and alerts to ensure the site can be evacuated before a flood event.

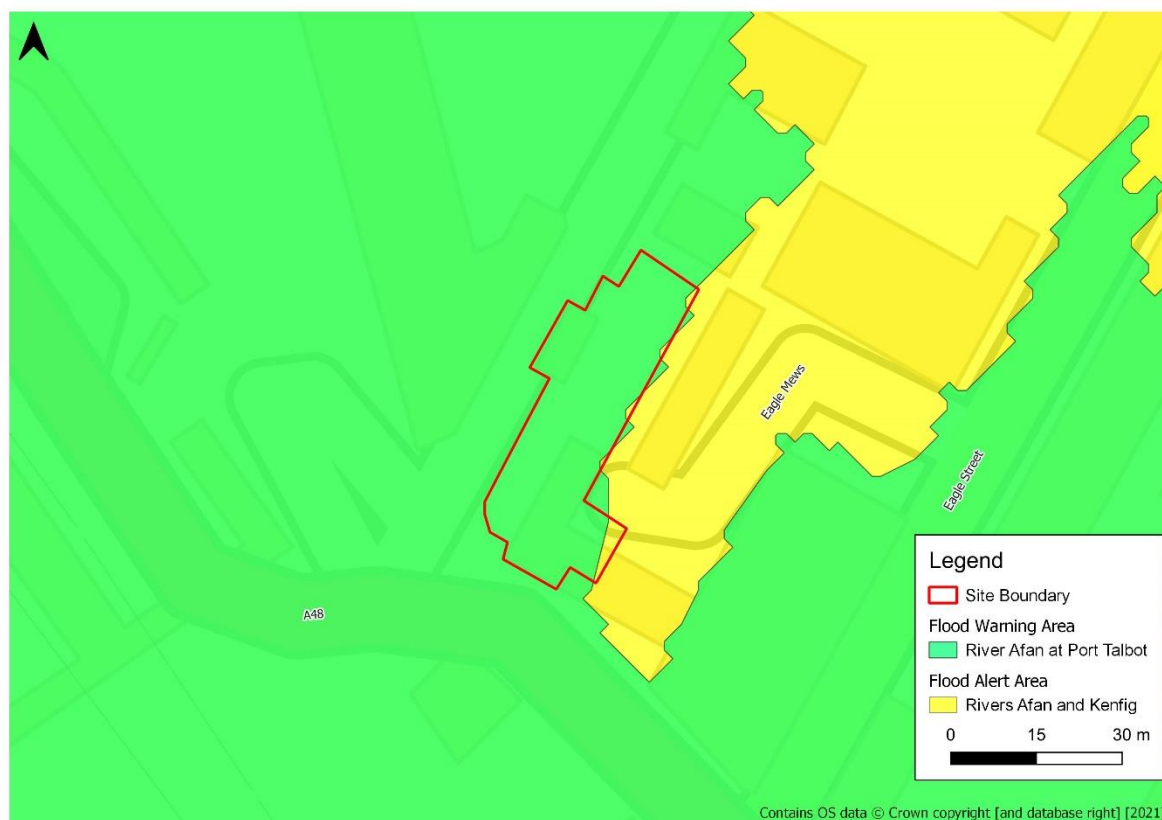


Figure 5-5 Flood Warning and Flood Alert Areas

5.5 Emergency Access and Egress

Access and egress to and from the site may be restricted by flood water. This forms a wider strategic issue within this area of Port Talbot and affects many redevelopments in the area including the recent redevelopment of the Port Talbot Police Station (planning reference P2015/0641).

In the 1% AEP plus climate change event, pedestrian access/egress is available through along a route where shall not exceed 300mm in depth. The vehicular access/egress route shall not exceed flood depth greater than 500mm.

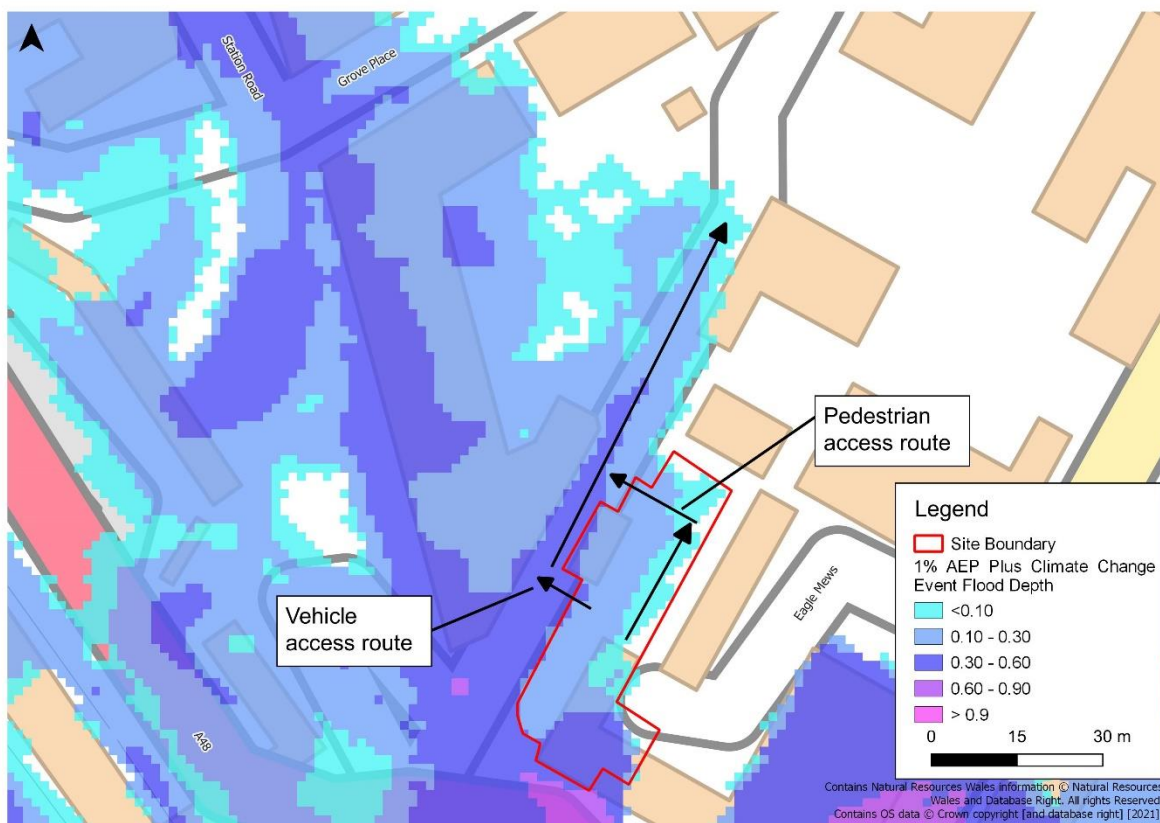


Figure 5-6 Access and egress routes

In the 0.1% AEP event, the access/egress routes will experience maximum flood depths of 0.78 and 0.95 for pedestrians and vehicles respectively. It is recognised that these depths exceed the recommended and indicative thresholds of TAN15. However, the Flood Emergency Plan will make it clear that if prior evacuation is not possible, residents should shelter in place for the duration of flooding. This strategy is particularly applicable given that all residential units are located above the ground floor.

6 Assessment of Acceptability Criteria

Table 6-1 below details the acceptability criteria required by TAN-15.

Table 6-1 TAN-15 Acceptability Criteria

TAN-15 Acceptability Criteria	Comments	Satisfied
Developer is required to demonstrate that the site is designed to be flood free for the lifetime of development for a 1 in 100(1%) chance (fluvial) and 1 in 200 (0.5%) chance (tidal) flood event including an allowance for climate change, in accordance with Tan-15 Table A1.14.	The proposed building and residential parking spaces will be flood free in the 1% AEP plus climate change fluvial flood event. Depending on the final surface level of the car park, very shallow flooding of some areas of the car park is possible. In the 0.5% AEP plus climate change tidal flood event, the proposed development site is predicted to be flood free.	Yes
In respect of the residual risk to the development it should be designed so that in an extreme (1 in 1000 chance) fluvial flood event and 0.1 plus climate change tidal flood event there would be less than 600mm of water on access roads and within property.	In the 0.1% AEP event, the development is predicted to flood to a localised maximum internal depth of 400mm, below the 600mm threshold required of TAN15. The residential parking spaces are predicted to flood to approximately 450mm, with other spaces likely to flood by a little more depending on the final resurfaced levels. In the 0.1% plus climate change tidal flood event, the proposed development is predicted to be flood free.	Yes
No flooding elsewhere	The proposed development will not result in a measurable displacement in floodwater. The proposed building footprint location and area are essentially unchanged and changes in finished floor levels and ground levels will be nominal (~200mm).	Yes
Flood defences must be shown by the developer to be structurally adequate particularly under extreme overtopping conditions (i.e. that flood with a 1 in 1000 chance of occurring in any given year).	The flood defences in Port Talbot are owned and maintained by NRW and are regularly inspected.	Yes
Effective flood warnings are provided at the site.	The site is located within NRW's 'River Afan at Port Talbot' flood warning area.	Yes
The developer must ensure that future occupants of the development are aware of the flooding risks and consequences.	The building occupants should sign up to the NRW Flood Warning Service to provide warning in the event of an extreme flood event. It is recommended that a Flood Emergency Plan is prepared to ensure that future occupants of the site are aware of the	Yes

	flood risk.	
Escape/evacuation routes are shown by the developer to be operational under all conditions.	Once the River Afan flood defences are overtopped widespread flooding across Port Talbot is predicted. This is a strategic issue for redevelopment in the area. In the 1% plus climate change event, safe access/egress from the site is maintained. However, in the most extreme and exceptional 0.1% AEP event the site access shall not always remain operational. Consequently, if flooding occurs and it has not been possible to evacuate from the area in advance, residents are advised to shelter in place and not enter potentially hazardous floodwaters. Whilst the ground floor is predicted to be vulnerable to inundation of flood water, this area is limited to less vulnerable commercial use. The first floor, associated with highly vulnerable, residential occupants, will remain flood free in the most extreme of simulated scenarios and provide safe refuge throughout.	Yes
The development is designed by the developer to allow the occupier the facility for rapid movement of goods/possessions to areas away from flood waters.	The developed is raised above the 1% AEP plus climate change event. In the extreme 0.1% AEP event internal flooding will not exceed 400mm; a depth that will enable most possessions within the commercial units to be raised above the floodwaters (eg. On a desk or counter).	Yes
Development is designed to minimise structural damage during a flooding event and is flood proofed to enable it to be returned to its prime use quickly in the aftermath of the flood.	The developed is raised above the 1% AEP plus climate change event. In the extreme 0.1% AEP event internal flooding will not exceed 400mm. Consequently the building is not expected to experience structural damage for such shallow flooding.	Yes

7 Conclusions and Recommendations

- JBA Consulting (JBA) were commissioned by Castell Group to prepare a Flood Consequence Assessment (FCA) for the demolition of the Eagle House and the construction of 4 retail units, and 20 apartments.
- Development proposals for the site are to demolish the existing Eagle House building and construct four retail units, and 20 apartments for social housing. Car parking will also be provided for use for the developer.
- The proposed development lies within Zone C1 of the Natural Resources Wales (NRW) Development Advice Map (DAM). Zone C1 denotes areas of the floodplain that are developed and are served by significant infrastructure, including flood defences. Development is permitted in Zone C1 subject to application of the Justification Test, and the acceptability of flood consequences.
- The site is at low risk of fluvial flooding, and little or no risk of flooding from the sea, surface water and small watercourses, reservoirs, groundwater, and sewers.
- Detailed hydraulic modelling results were used to assess the risk of fluvial and tidal flooding to the site. This demonstrated that although the existing building is predicted to flood in the 1% AEP plus climate change fluvial flood risk scenario, the proposed building and residential parking will be flood free, thus satisfying the requirements of A1.14 of TAN15. The proposed development site is also predicted to be flood free in the 0.5% AEP plus climate change tidal flood risk scenario.
- Flood depths in the 0.1% AEP fluvial flood event are predicted not to exceed 400mm within the proposed building, remaining well within the recommended acceptable thresholds of A1.15 of TAN15. The residential parking spaces will also only flood to depths less than 450mm. The depth of flooding for the other parking spaces will generally remain less than 600mm depending on the final resurfacing levels achieved. The proposed development site is also predicted to be flood free in the 0.1% AEP plus climate change tidal flood risk scenario.
- It is recommended that the building owners and occupiers should sign up to the NRW Flood Warning Service and that a Flood Emergency Plan is prepared to ensure that future occupiers of the site are aware of the flood risk and recommended flood risk management actions.
- It is concluded that on the grounds of flood risk, the proposed development meets the principles and requirements set out in TAN-15 and the aims of Planning Policy Wales.

Appendices

A Topographic Survey

189700N

189675

189650

189625

189600

189575N

276850E

276850E

276825E

276825E

276800E

276800E

189700N

189675N

189650N

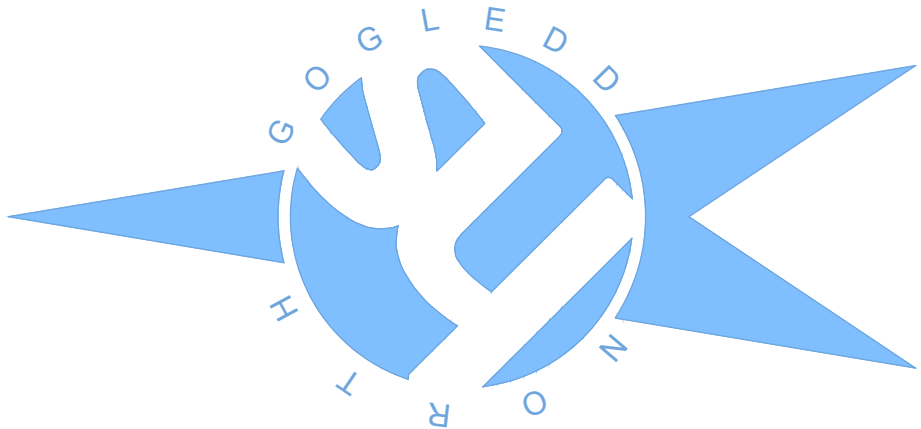
189625N

189600N

189575N

276775E

276775E



Notes:
Tree species is only annotated where known.
Service covers are surveyed where accessible.
Healer Surveys cannot accept liability for missing covers due to them being buried or obscured by parked vehicles at the time of site visit.

Station	Easting	Northing	Level
S1	276829.663	189650.004	7.649
S2	276807.294	189626.318	7.561
S3	276814.681	189661.901	7.448
S4	276801.189	189637.580	7.280

Grid Origin and Level Datum:
Ordnance Survey GPS OSGB36(15) Grid and Levels used.

Revisions:
A:
B:
C:
D:
E:
F:
G:
H:

Client:
CASTELL GROUP

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Project:
Eagle House, Talbot Road, Port Talbot
Drawing:
Topographic Survey

Date:	April 2021		
Surveyed:	JDE		
Drawn:	JDE		
Checked:	RE		
Scale:	Sheet Size:	Sheet No:	
1:250	A2	1 of 1	

Job No:
P3404
Rev.

B Proposed Development design

- Existing buildings to be demolished
TOTAL GEA 318m²
- 1

Existing gates to be removed
- 2

Steel staircase to be removed
- 3

Existing perimeter xxxwall demolished
- 4

Existing 600mm low wall with
1.8m timber fencing retained
- 5

Existing electric Sub Station
to remain



Kennedy James Griffiths
Chartered Architects and Project Managers
Project

KJG

T 02920 545100
10 Victoria Park Court
516 Cowbridge Road East
Cardiff
CF5 1DB

Title

Existing Site Plan/Demolitions

Status

Planning

Job Number

1487-PL1-03

Revision

Drawn by

DJ

Date

21 06 2021

Scale

1:100@ A1
1:200@ A3

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- 1

Vegetated swale and bio retention planting for SuDs compliance
58 sq m to the rear
13 sq m to the front
- 2

New 600mm stone wall to parking area built from materials reclaimed from demolition of existing building
- 3

Parking to be laid out in permeable paving with white lining demarcation

A : Apartments : 6 spaces

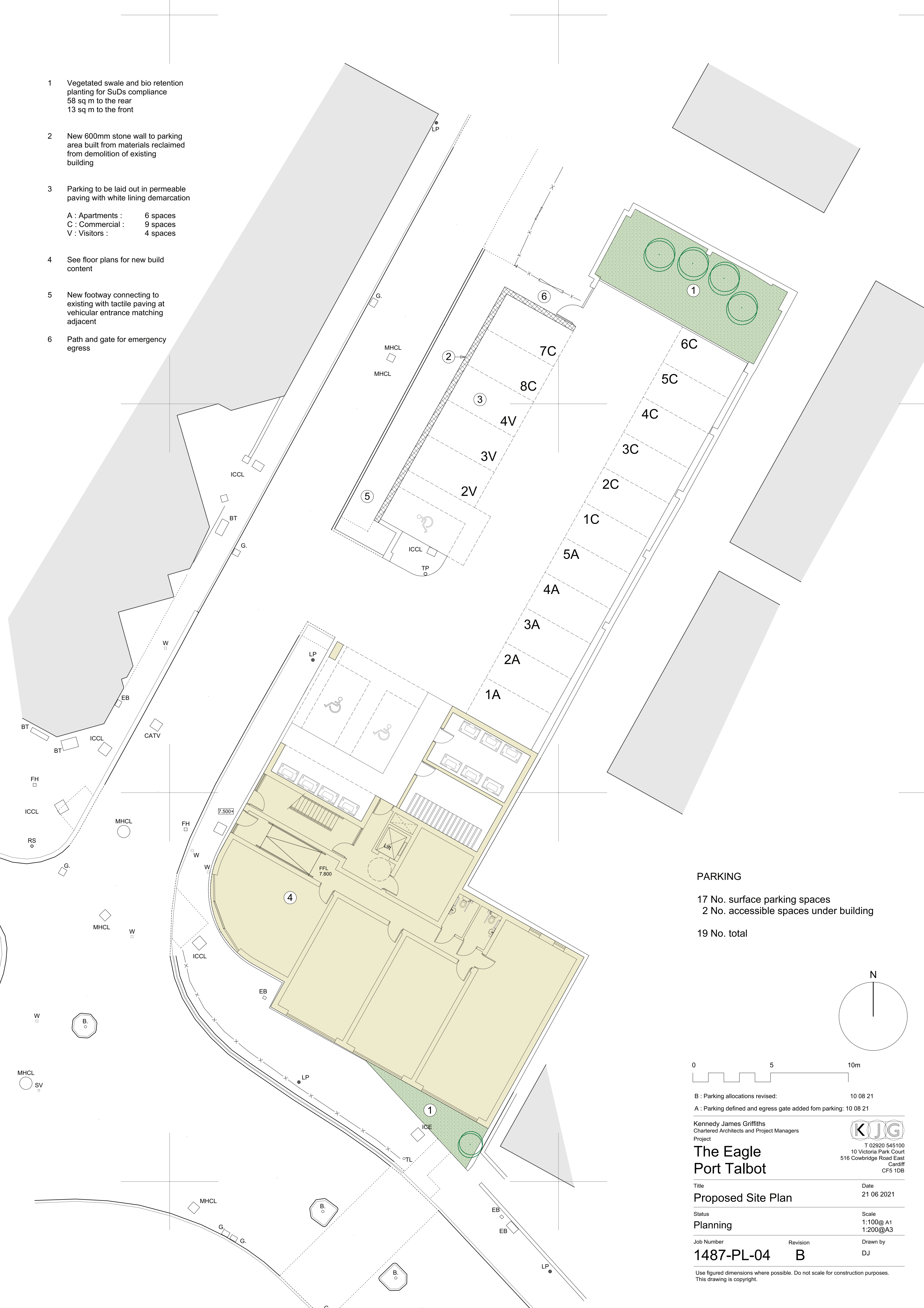
C : Commercial : 9 spaces

V : Visitors : 4 spaces
- 4

See floor plans for new build content
- 5

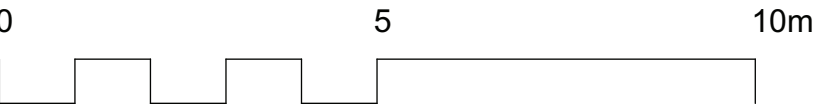
New footway connecting to existing with tactile paving at vehicular entrance matching adjacent
- 6

Path and gate for emergency egress



PARKING

17 No. surface parking spaces
2 No. accessible spaces under building
19 No. total



B : Parking allocations revised: 10 08 21
A : Parking defined and egress gate added fom parking: 10 08 21

Kennedy James Griffiths
Chartered Architects and Project Managers
Project

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Cardiff
CF5 1DB

The Eagle
Port Talbot

Proposed Site Plan

Status
Planning

Job Number
1487-PL-04

Date
21 06 2021

Scale
1:100@ A1
1:200@A3

Revision
B

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