

# Coverack Road - Flood Consequences Assessment

**Version 1**

April 2025

Prepared for:  
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This report describes work commissioned by Tai Hedyn Ltd, by an instruction dated 14th April 2025. The Client's representative for the contract was Josh Guy of Newport City Homes. George Williams of JBA Consulting carried out this work.

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## Abbreviations

|        |                                            |
|--------|--------------------------------------------|
| 1D     | One Dimensional (modelling)                |
| 2D     | Two Dimensional (modelling)                |
| AEP    | Annual Exceedance Probability              |
| AOD    | Above Ordnance Datum                       |
| BGS    | British Geological Survey                  |
| CFB    | Coastal Flood Boundary                     |
| FCA    | Flood Consequence Assessment               |
| FMfP   | Flood Map For Planning                     |
| FRM    | Flood Risk Management                      |
| LFRMS  | Local Flood Risk Management Strategy       |
| LiDAR  | Light Detection And Ranging                |
| NGR    | National Grid Reference                    |
| NRW    | Natural Resources for Wales                |
| OS     | Ordnance Survey                            |
| OS NGR | Ordnance Survey National Grid Reference    |
| PFRA   | Preliminary Flood Risk Assessment          |
| RCP    | Representative Concentration Pathway       |
| SMP    | Shoreline Management Plan                  |
| TUFLOW | Two-dimensional Unsteady FLOW (a hydraulic |
| UKCP   | United Kingdom Climate Projections         |

# 1 Introduction

## 1.1 Terms of Reference

JBA Consulting (JBA) were commissioned by Tai Hedyn Ltd to prepare a Flood Consequence Assessment (FCA) to support a planning application for a residential development on Coverack Road, Newport. This development comprises Phase 2 of the Galliford's Yard development site.

## 1.2 FCA Requirements

This FCA follows the Welsh Government guidance on development and flood risk set out in the Technical Advice Note 15: Development, Flood Risk and Coastal Erosion (TAN-15). TAN-15 states that:

'The prime objective of a Flood Consequences Assessment is to develop a full appreciation of:

- The risks and consequences of flooding on the development; and
- The risk and consequences (i.e the overall impacts) of the development on flood risk elsewhere.'

To achieve this, the FCA should establish if suitable avoidance and mitigation measures can be incorporated, in a manner compatible with the placemaking aims of Planning Policy Wales, within the site design to ensure that development is safe and there is:

- Minimal risk to life;
- Minimal disruption to people living and working in the area;
- Minimal potential damage to property; and
- Minimal disruption to the sustainable management of natural resources.

## 2 Site Description

### 2.1 Site Summary

The application is for the development of a residential apartment block on the former Galliford's Yard site, Coverack Road, close to the city centre of Newport. Figure 2-1 shows the location of the site, which is approximately 0.16ha in area. The site was previously used for light industrial use and is currently vacant open land. The land is classified as Previously Developed Land.

The site is located in a mixed residential and industrial area, with residential properties to the north and east of the site, and the River Usk to the south-west. George Street Bridge crosses above the site's northwestern perimeter. To the north of George Street Bridge, Phase One of Galliford's Yard development is located, comprising two residential blocks, containing a total of 76 apartments.

Table 2-1 Site Summary

| Parameter                  | Description               |
|----------------------------|---------------------------|
| Site Name                  | Galliford's Yard, Phase 2 |
| Site area                  | Approximately 0.16ha      |
| Existing land use          | Previously Developed Land |
| Purpose of development     | Residential Development   |
| OS NGR                     | ST319877                  |
| Local Planning Authorities | Newport City Council      |
| Lead Local Flood Authority | Newport City Council      |

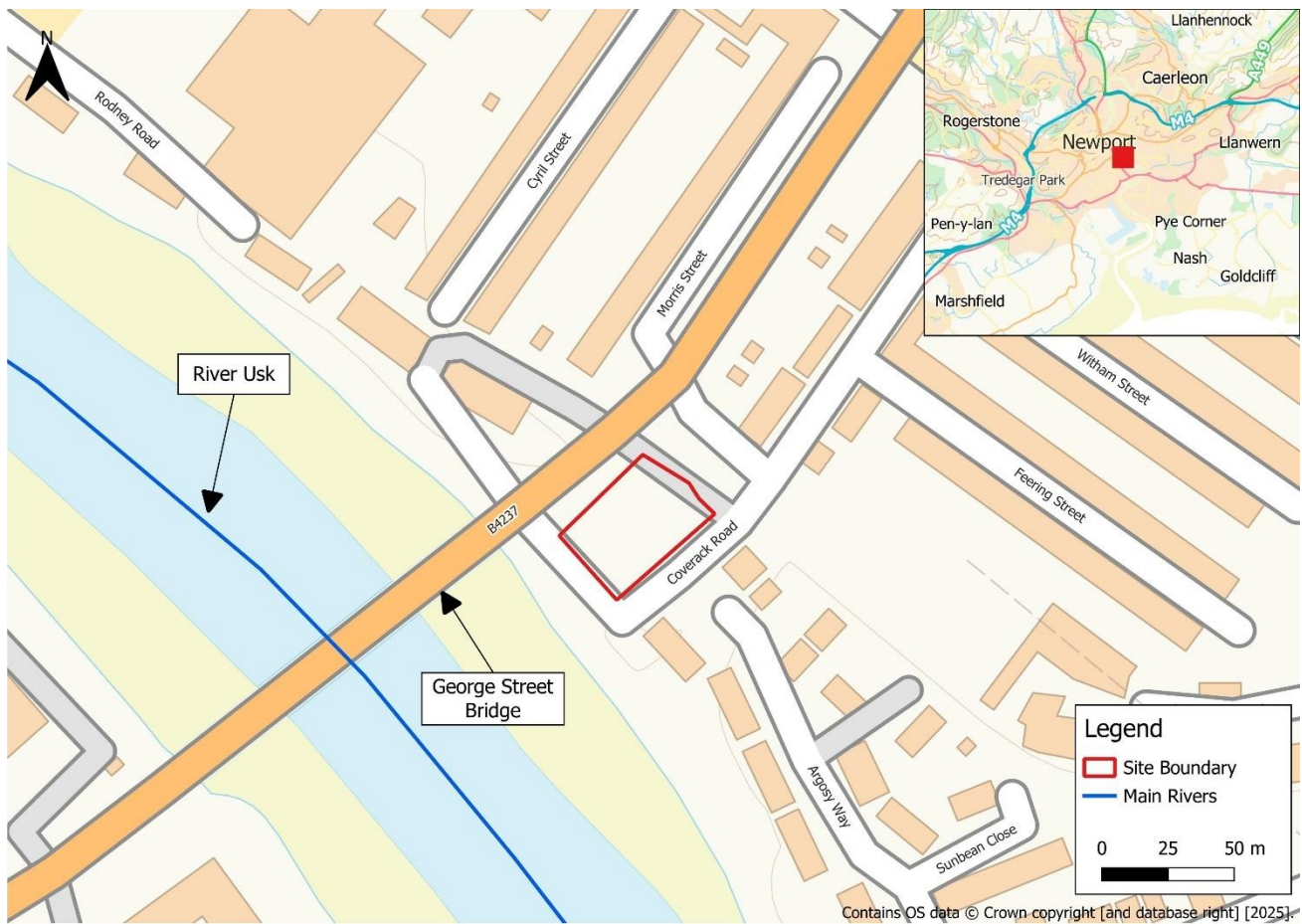


Figure 2-1 Site Location

## 2.2 Site Topography

The proposed development site is currently a vacant brownfield site. It was formerly the site of a light industrial unit. However, the site has been vacant for a number of years now. It is currently being used as a compound for the Phase 1 development to the north of George Street Bridge.

Figure 2-2 shows Natural Resources Wales (NRW) Open Source 1m Light Detection and Ranging (LiDAR) data, highlighting that elevations on the site remain fairly level at approximately 10.2mAOD. There is a slight increase in levels to the southwest of the site to 10.79mAOD, however this is likely due to the temporary storage of materials.

There are no proposals to change ground levels for the proposed development.

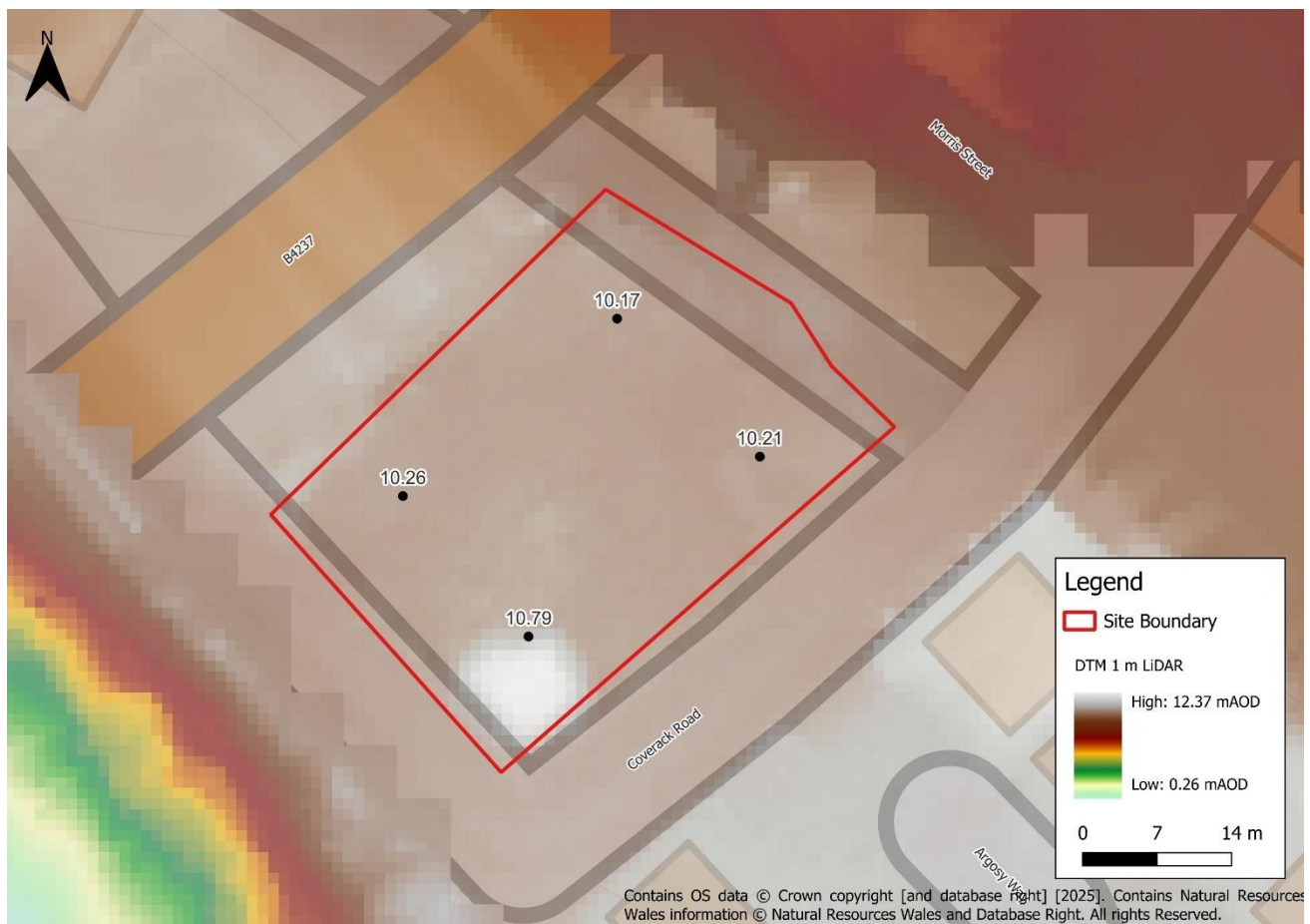


Figure 2-2 LiDAR Topographic data from NRW (1m resolution) with sample points

### 2.3 Soils and Geology

The geology of the site has been assessed using the British Geological Survey (BGS) Geology of Britain Viewer<sup>1</sup>. The bedrock is shown to be St Maughans Formation, comprised of Argillaceous rocks and sandstone. The superficial geology is formed of tidal flat deposits comprised of clay and silt.

The soils on site have been assessed on the Cranfield University Soilscape viewer<sup>2</sup> and are shown to be loamy and clayey soils of coastal flats with naturally high groundwater.

Due to the brownfield and hardstanding existing nature of the site, natural infiltration is unlikely to contribute to the existing drainage and the site is likely to be characterised by made-ground up to significant depths.

### 2.4 Watercourses

The site lies on the left bank of the River Usk. The River Usk is tidally influenced, with the coast located 5.5km to the south. The Spytty Pill is located approximately 710m to the

<sup>1</sup> <https://www.bgs.ac.uk/map-viewers/geoindex-onshore/>

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

South-East of the Galliford's Yard site, where it joins the River Usk. No watercourses cross the proposed development site.

## 2.5 Development Proposal

The proposal is for a block of 40 residential apartments, as shown in Figure 2-3 and Appendix A.



Figure 2-3 Development Plan

### 3 Flood Risk Assessment

This section assesses the risk to the proposed development site from all sources of flooding, based solely on a desk-based analysis of existing flood risk data.

#### 3.1 Review of Existing Flood Risk Data

The latest available information on all sources of flood risk at the site, largely taken from data published by Natural Resources Wales (NRW), is summarised in Table 3-1 below.

Table 3-1 Summary of Flood Risk

| Source of Flooding                                   | Onsite Presence | Description                                                |
|------------------------------------------------------|-----------------|------------------------------------------------------------|
| Flood Risk from Rivers                               | ✗               | The site is at very low risk of river flooding.            |
| Flood Risk from the Sea                              | ✗               | The site is at very low 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 at low risk of flooding from reservoirs.       |
| Flood Risk from Sewers                               | ✗               | The site is at low risk of flooding from sewers.           |

#### 3.2 Historical Flooding

NRW's map of recorded flood extents does not show any evidence of historic flooding on the site. Newport Council's Preliminary Flood Risk Assessment<sup>3</sup> (PFRA) and Local Flood Risk Management Strategy<sup>4</sup> (LFRMS) identified no records of historic flooding at the site.

#### 3.3 Flood Risk from Rivers

NRW's Flood Risk Assessment Wales (FRAW) flood mapping shown in Figure 3-1 indicates that the site is located within an area at **very low** risk of flooding in the Flood Risk from Rivers mapping. Areas at very low risk have less than 1 in 1000 (0.1%) chance of flooding in a given year.

<sup>3</sup> <https://www.newport.gov.uk/documents/Planning-Documents/Flood-risk/Preliminary-Flood-Risk-Assessment-Report-April-2011.pdf>

<sup>4</sup> <https://www.newport.gov.uk/documents/Policies/Newport-LFRMS-Report-Issue-Rev.pdf>

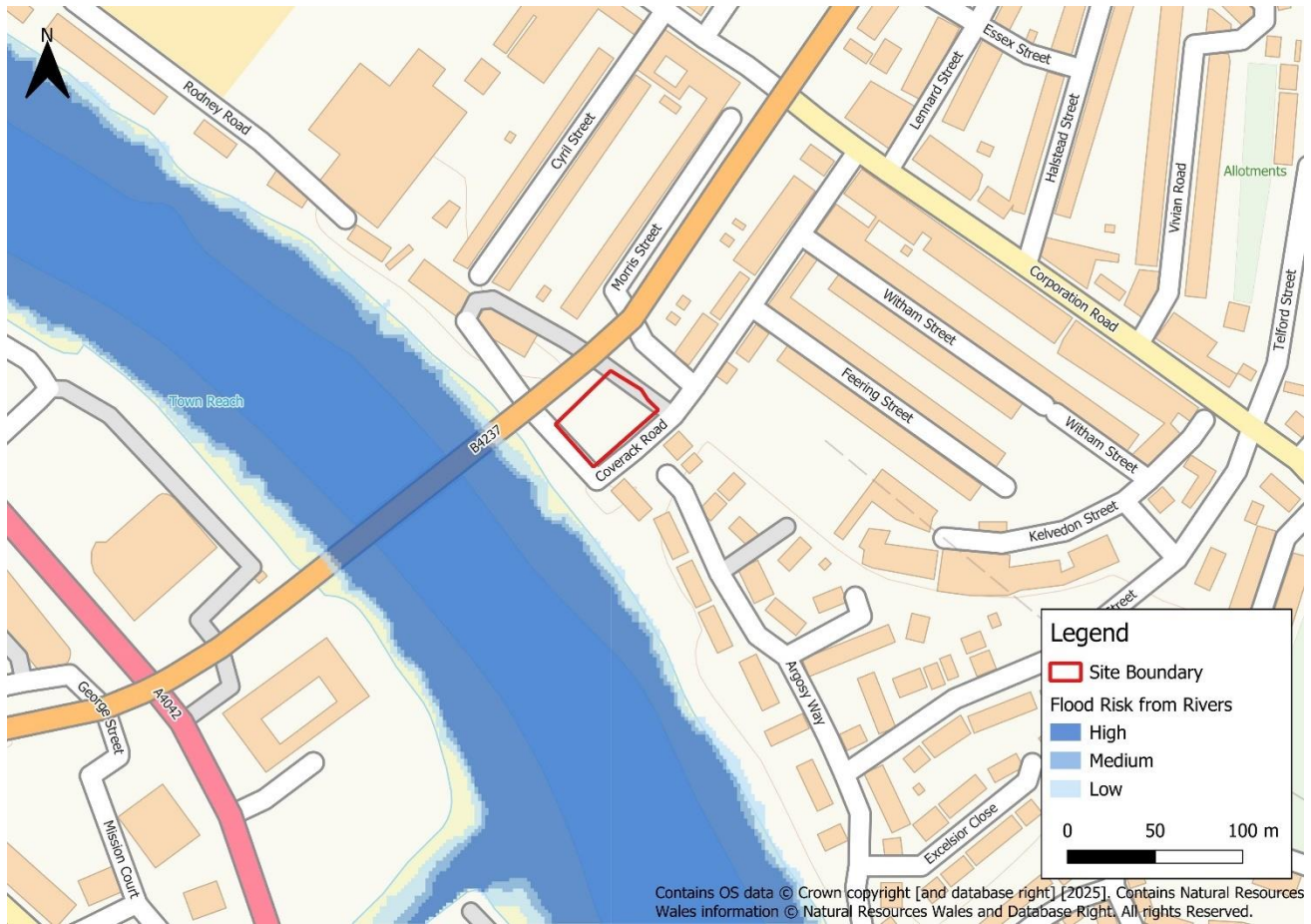


Figure 3-1 FRAW map – Risk of flooding from Rivers

### 3.4 Flood Risk from the Sea

Figure 3-2 highlights that the site is located within an area at **very low** risk of tidal flooding, with less than 1 in 1000 (0.1%) chance of flooding in a given year.

Areas of nearby flood risk are within areas designated as being 'areas benefiting from flood defences'.



Figure 3-2 FRAW map – Risk of flooding from the Sea

### 3.5 Flood Risk from Surface Water and Small Watercourses

The NRW FRAW Surface Water and Small Watercourse map shown in Figure 3-3 also highlights that the site is located outside of the mapped flood extent. The site is therefore at **very low** risk of flooding (<0.1% AEP).

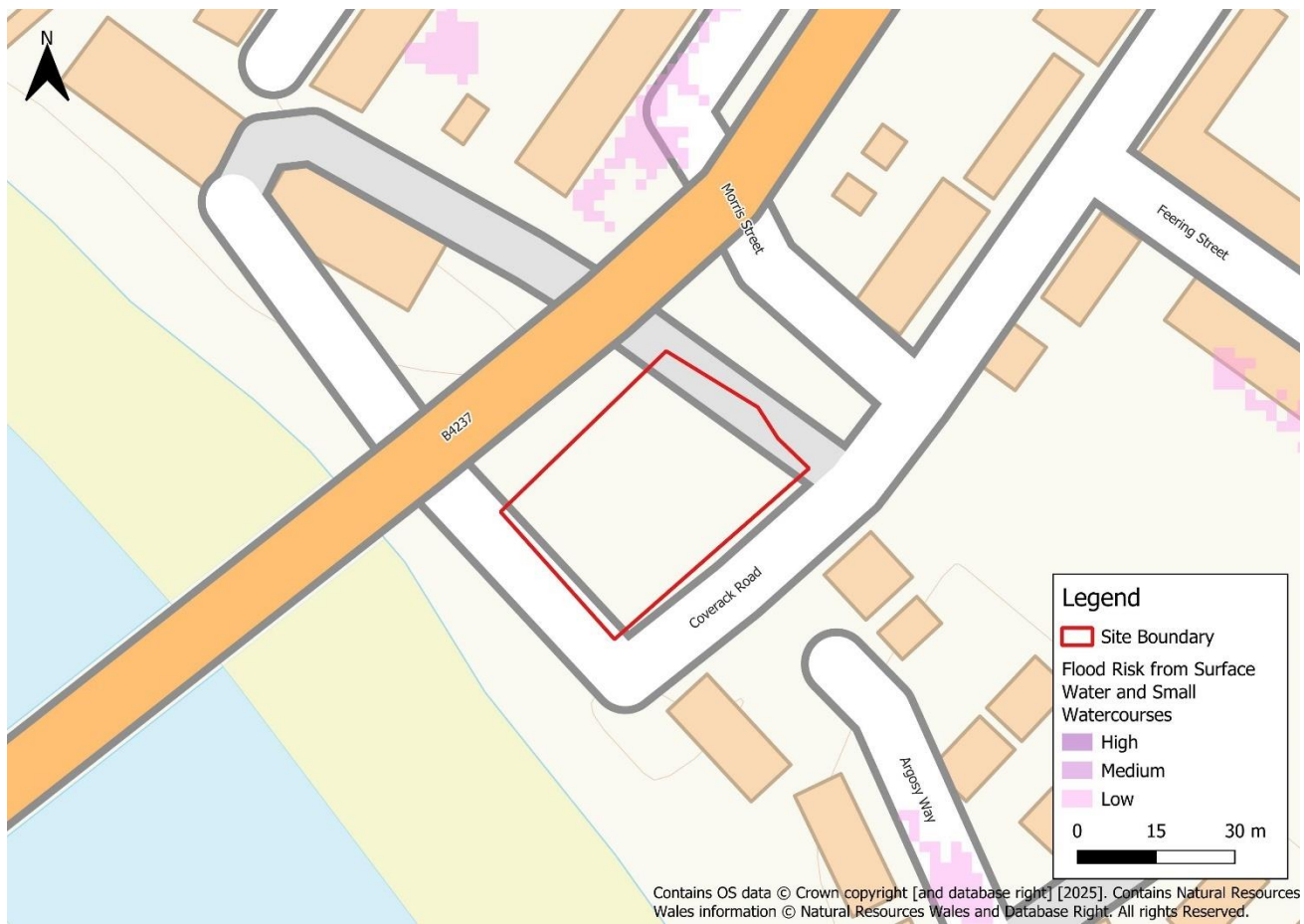


Figure 3-3 FRAW map - Risk of flooding from Surface Water and Small Watercourses

### 3.6 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.

Newport City Council's Local Flood Risk Management Plan (2015)<sup>5</sup> states that groundwater flooding is not considered to be a significant flood risk and there are very few instances of groundwater flooding in Newport. Therefore, the groundwater flood risk to the proposed development site is considered to be **very low**.

<sup>5</sup> <https://www.newport.gov.uk/documents/Council-and-Democracy/Consultations/Newport-Flood-Risk-Management-Plan-Report-Issue-for-Consultation.pdf>

### 3.7 Flood Risk from Reservoirs

NRW flood maps indicate that the proposed development site is located within an area at risk of reservoir flooding, as shown in Figure 3-4. The southwestern portion of the site is at risk of flooding from Llandegfedd Reservoir, located 11km north of the site.

However, as a result of regular inspections covered by the 1975 Reservoir Act, it is extremely unlikely that a reservoir would fail, and due to the location of the reservoirs in relation to the site, substantial warning time would be available. Therefore, the risk of reservoir flooding is considered to be **low**.

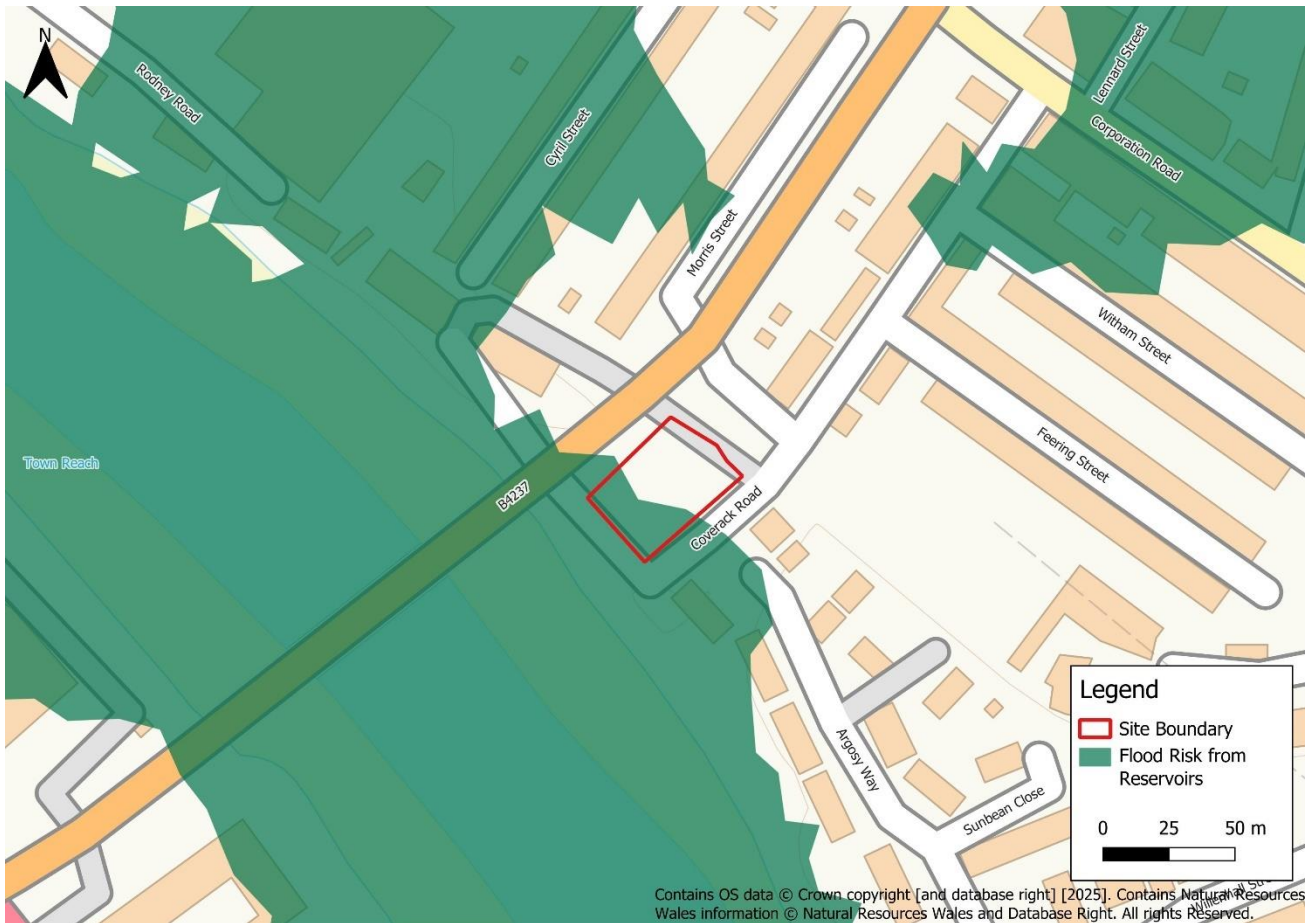


Figure 3-4 Risk of Reservoir flooding

### 3.8 Flood Risk from Sewers

Newport's PFRA<sup>3</sup> states that 'Data provided by DCWW indicates a total of 78 locations across the council area that have suffered from historical sewer flooding.' However, there is no evidence to suggest previous flooding at the development site. The report also concluded that flooding from sewers does not have significant consequences at a strategic scale, so it can be concluded that the risk of sewer flooding at the site is **low**.

## 4 Planning Policy and Flood Risk

### 4.1 Planning Context

Planning Policy Wales (PPW) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters, which, together with PPW, provide the national planning policy framework for Wales. These policies aim to make all development in Wales is sustainable and improve the social, economic, environmental, and cultural wellbeing of Wales as set out in the Wellbeing of Future Generations Act 2015.

Technical Advice Note 15 (TAN-15), originally introduced by the Welsh Government in 2004 and most recently updated in March 2025, provides technical guidance relating to development planning and flood risk in Wales. TAN-15 provides a framework within which the flood risks arising from rivers, the sea and surface water, and the risk of coastal erosion can be assessed. The approach set out in the most recent update to TAN-15 ensures flooding and coastal erosion are accorded appropriate consideration in planning and development management decisions.

### 4.2 Form of Development

TAN-15 recognises two key forms of development: New development and Redevelopment. The definition of both terms is provided in Table 4-1.

Table 4-1 Form of Development

| Form of Development | Definition                                                                       |
|---------------------|----------------------------------------------------------------------------------|
| New Development     | Any Development on greenfield land                                               |
| Redevelopment       | Any Development on previously developed land as defined in Planning Policy Wales |

As detailed in Section 2, development proposals are 40 new residential apartments, located on a site that was previously used for light industrial use. The site has been vacant for a number of years but has not re-naturalised. As such, the proposed development is classified as **Redevelopment**.

### 4.3 Vulnerability Classification

TAN-15 assigns one of three flood risk vulnerability classifications to developments, as shown in Table 4-2. The proposed development is for residential development and is consequently classified as a **Highly Vulnerable Development**.

Table 4-2 TAN-15 Vulnerability Classification

| Development category          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Highly vulnerable development | <p><b>All residential premises</b> (including hotels, Gypsy and Traveller sites, caravan parks and camping sites).</p> <p>Schools and childcare establishments, colleges and universities. Hospitals and GP surgeries.</p> <p>Especially vulnerable industrial development (e.g. power generating and distribution elements of power stations, transformers, chemical plants, incinerators), and waste disposal sites.</p> <p>Emergency services, including ambulance stations, fire stations, police stations, command centres, and emergency depots.</p> <p>Buildings used to provide emergency shelter in time of flood.</p> |
| Less vulnerable development   | <p>General industrial, employment, commercial and retail development. Transport and utilities infrastructure.</p> <p>Car parks.</p> <p>Mineral extraction sites and associated processing facilities (excluding waste disposal sites).</p> <p>Public buildings including libraries, community centres and leisure centres (excluding those identified as in Highly Vulnerable category and emergency shelters).</p> <p>Places of worship.</p> <p>Cemeteries.</p> <p>Equipped play areas. Renewable energy generation facilities (excluding hydro generation).</p>                                                               |
| Water Compatible Development  | <p>Boatyards, marinas and essential works required at mooring basins.</p> <p>Development associated with canals.</p> <p>Flood defences and management infrastructure. Open spaces (excluding equipped play areas).</p> <p>Hydro renewable energy generation.</p>                                                                                                                                                                                                                                                                                                                                                                |

#### 4.4 Lifetime of Development

An FCA should help the planning authority determine whether the risk and consequences of flooding are acceptable over the lifetime of development. TAN-15 states:

'Generally, it is appropriate to think of new dwellings as having a lifetime of 100 years. Lifetimes for other types of development will vary, but 75 years is considered a reasonable rule of thumb'.

As the proposals are for a residential development a 100-year lifetime of development has been considered in this assessment.

#### 4.5 Flood Map for Planning

The Flood Map for Planning (FMfP) is the starting point for consideration of flood risk. The map uses flood zones to indicate the degree to which land is at risk of flooding from rivers, the sea, surface water and small watercourses. The zones are Zone 1, Zone 2, Zone 3 and the Defended Zone. The FMfP displays predicted future flood risk with an allowance made for climate change over a 100-year lifetime of development.

##### 4.5.1 Flood Map for Planning - Rivers

As shown in Figure 4-1, the proposed development site is located within Flood Zone 1 of the Flood Map for Planning for the Rivers. Flood Zone 1 represents areas which have less than a 1 in 1000 (0.1%) chance of flooding in a given year, including climate change.

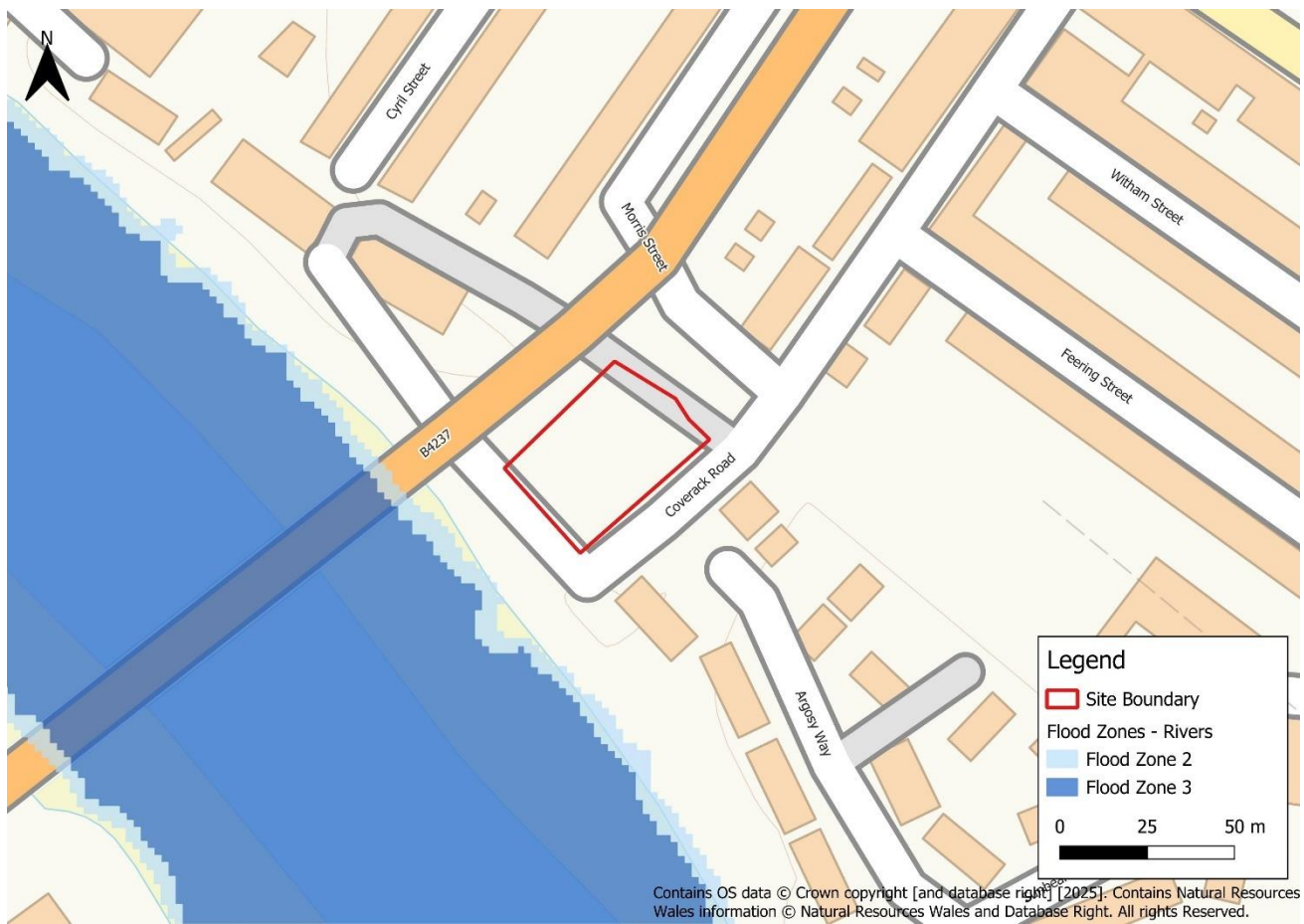


Figure 4-1 Flood Map for Planning – Rivers

#### 4.5.2 Flood Map for Planning - Sea

Figure 4-2 also shows that the site is located within Flood Zone 1 of the Flood Map for Planning for the Sea. Flood Zone 1 represents areas which have less than a 1 in 1000 (0.1%) chance of flooding in a given year, including climate change.

The site is located outside of the TAN-15 defended zone for sea and is therefore not directly protected by any tidal flood defences.



Figure 4-2 Flood Map for Planning – Sea

#### 4.5.3 Flood Map for Planning - Surface Water and Small Watercourses

Figure 4-3 shows that the site is located within Flood Zone 1 of the Flood Map for Planning for Surface Water and Small Watercourses. Flood Zone 1 represents areas which have less than a 1 in 1000 (0.1%) chance of flooding in a given year, including climate change.

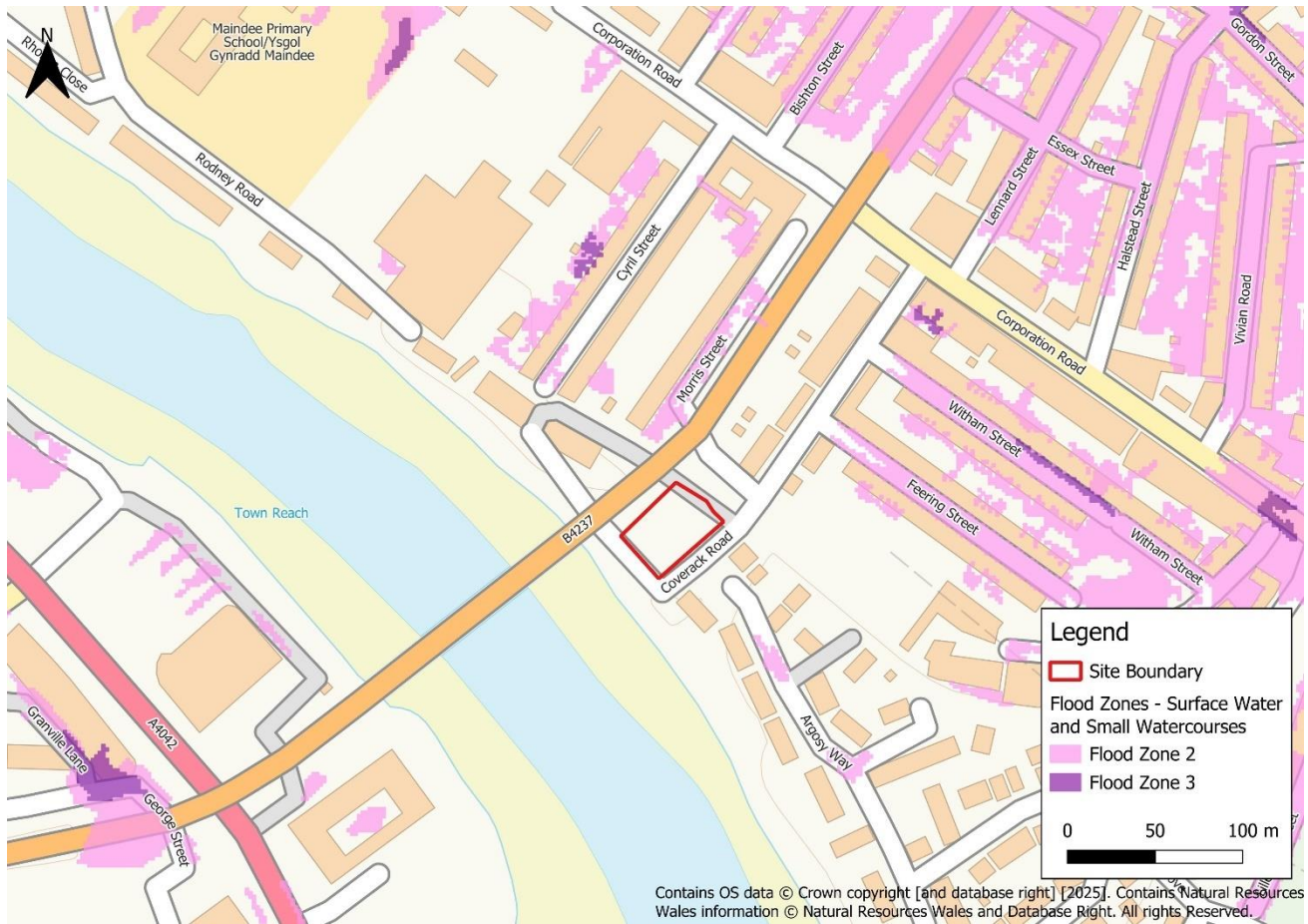


Figure 4-3 Flood Map for Planning – Flood Risk from Rivers and the Sea

#### 4.6 Newport City Council Local Development Plan

The Newport Local Development Plan 2011 - 2026<sup>6</sup> is designed to guide development within Newport up to 2026. The vision of the plan is to make Newport "a centre of regeneration that celebrates its culture and heritage, while being a focus for varied economic growth that will strengthen its contribution to the region". To achieve this vision, the plan has ten detailed objectives.

Objective 1 is the "Sustainable Use of Land". This objective plans to ensure that "development makes the most efficient use of natural resources by seeking to locate development in the most sustainable locations". Specifically, Newport City Council wants to make use of the numerous brownfield sites that exist around the city, such as this site on Coverack Road.

Objective 4 sets out plans for housing provision "to ensure there is an adequate supply of land for housing in the most sustainable locations, and to ensure that the quantity, and quality and variety of housing provision meets the needs of the population". Objective 4 aims to reuse brownfield sites to ensure sustainability. It has also provided a target to

<sup>6</sup> <http://www.newport.gov.uk/documents/Planning-Documents/LDP-2011-2026/LDP-Adopted-Plan-January-2015.pdf>

deliver approximately 10,350 new homes by 2026, to cope with the population increase of Newport.

#### 4.7 Severn Estuary Shoreline Management Plan

The development site falls within the Newport, River Usk and surrounding area Theme Area of the Severn Estuary SMP (SMP) as seen in Figure 4-4.

The site lies within Management Unit NEW 4 - River Usk (East bank) at M4 crossing to Spytty Pill (north of A48 crossing). This management unit has a Hold the Line policy for the 50-100-year epoch (year 2105).

Hold the line is defined as “keeping the line of defence in approximately its current location. This may mean repairing or replacing defences”.

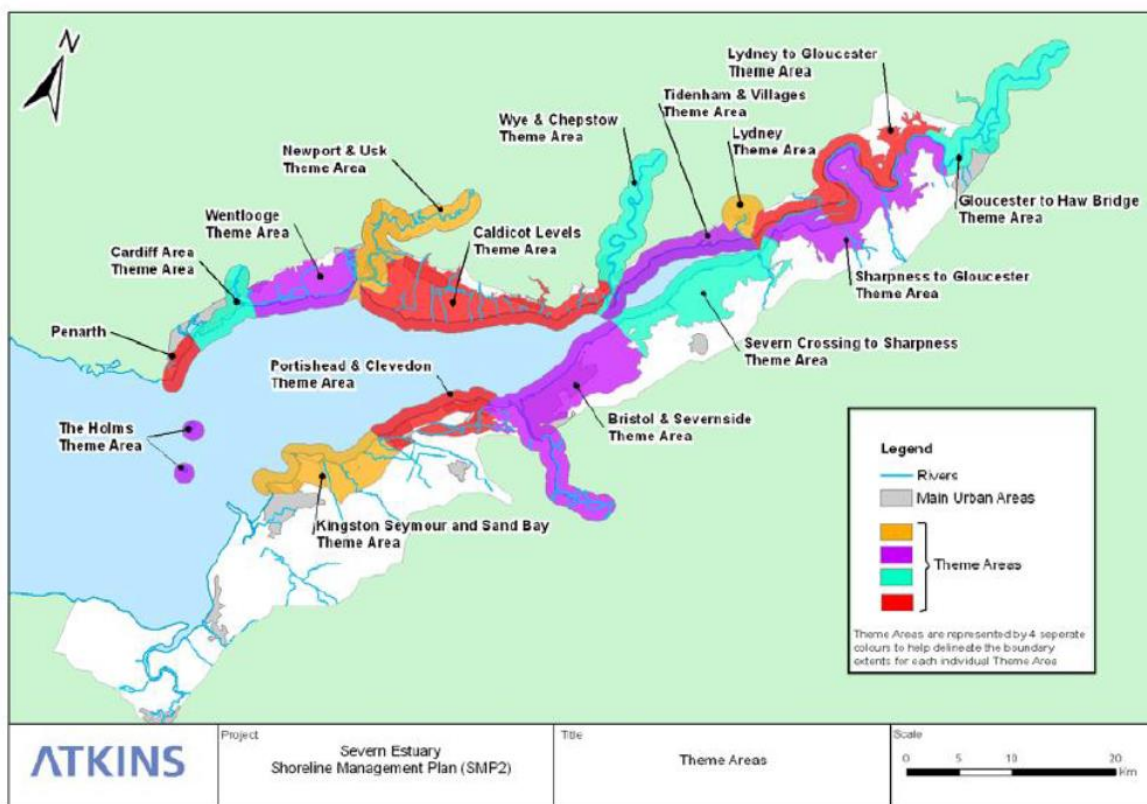


Figure 4-4 Theme Areas - Severn Estuary Shoreline Management Plan

#### 4.8 Application of Flood Zones to Development Management Decisions

When considering a site for development, TAN-15 sets out the requirements for the form of development in any given flood zone.

For a proposed redevelopment site within Flood Zone 1, Section 10.12 of TAN-15 states:

Applications for all types of development, change of use or conversion are acceptable in principle. Informed by a Strategic Flood Consequences Assessment, planning authorities should develop locally specific planning policies for areas at risk of flooding against which applications can be assessed.

As the site is located within Flood Zone 1, the proposals are identified as acceptable in principle in terms of flood risk. Being located in Flood Zone 1, the site does not need to be tested against the acceptability criteria of TAN-15. A brief review of detailed hydraulic modelling in Section 5 further supported this.

Adopting a precautionary approach, all aspects of the Acceptability Criteria set out in TAN-15 have been assessed in section 6 below.

## 5 Detailed Flood Risk Assessment

As identified in Section 3, the site is not shown to be at risk of flooding. However, to better understand the flooding potential, further assessment using results from the latest tidal flood model for Newport are discussed below.

### 5.1 Hydraulic Modelling Availability

The detailed assessment of tidal flood risk is based on Version 7.0 of the Newport Tidal Flood Model (June 2020). This is a 1D-2D ESTRY-TUFLOW tidal model of Newport, which JBA Consulting prepared for a successful Flood Map Challenge at that time. Further to the model updates contained in the Flood Map Challenge, the Newport Tidal model (Version 7.0) was further updated by JBA Consulting in 2022 and 2023 to include several further model improvements.

The latest JBA model of Newport was updated to include the recently completed Crindau flood defences, and the ESTRY-TUFLOW version was updated to 2020-10-AD -iSP-w64. In addition, the tidal boundary conditions were updated in line with the latest (September 2021) Welsh Government climate change guidance for Flood Consequence Assessments<sup>7</sup> to consider flood risk for the lifetime of development (100 years).

To represent the present-day (2023) scenario, the tidal boundary conditions were uplifted to the current year, from the CFB dataset base year of 2017, using the Higher Central allowance (70th percentile) of the UK Climate Projections (UKCIP 18) for 2100 for Representative Concentration Pathway 8.5 (RCP 8.5).

To account for the impact of sea level rise over the lifetime of the development (100 years), a further uplift was calculated for the 2123 scenario based on the Higher Central allowance (70th percentile) of the UKCIP 18 for 2100, RCP 8.5 dataset. The uplift for the 23 years of additional climate change beyond 2100 was applied based on the dataset's average increase in the last five years. Table 5-1 summarises the sea level rise uplifts applied to the tidal boundary conditions and the resulting peak tide levels.

Table 5-1 Sea level rise uplifts and peak tide levels

| Scenario                     | Sea level rise uplift (m) | Peak tide level (m AOD) |                |
|------------------------------|---------------------------|-------------------------|----------------|
|                              |                           | 0.5% AEP                | 0.1% AEP event |
| 2017 (CFB dataset base year) | N/A                       | 8.33                    | 8.67           |
| 2023                         | 0.032                     | 8.36                    | 8.70           |
| 2123                         | 1.062                     | 9.39                    | 9.73           |

<sup>7</sup> [https://gov.wales/sites/default/files/publications/2021-09/climate-change-allowances-and-flood-consequence-assessments\\_0.pdf](https://gov.wales/sites/default/files/publications/2021-09/climate-change-allowances-and-flood-consequence-assessments_0.pdf)

The Newport tidal flood model has a coarse grid size of 10m and features below 10m in size may not be fully represented. However, the 10m grid size provides a balance between representing sufficient detail of the floodplain/flow routes across the mainly rural catchment and model run times, whilst also limiting the computational size of model outputs and has been previously accepted by NRW as part of the Flood Map Challenge circa June 2020.

## 5.2 Tidal Flood Risk Results

### 5.2.1 0.5% AEP Plus Climate Change

Figure 5-1 shows that the proposed development is not at risk of flooding during the 0.5% AEP plus Climate Change event.

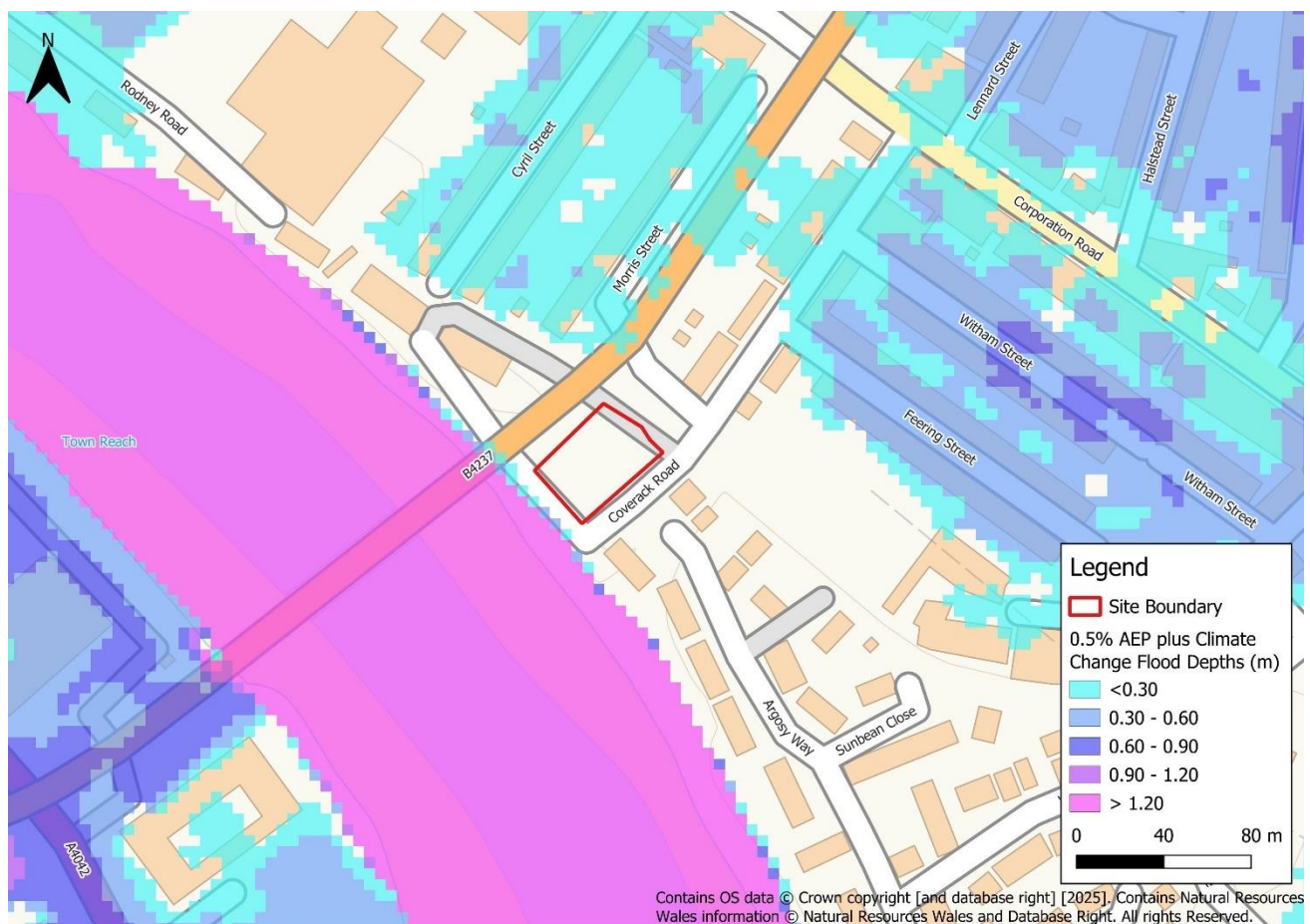


Figure 5-1 Baseline – 0.5% AEP event plus Climate Change

### 5.2.2 0.1% AEP plus Climate Change event

Figure 5-2 highlights that although a significant area of Newport is at risk of flooding, the proposed development site remains flood-free during the 0.1% AEP plus Climate Change event.

Water levels to the southwest of the site are shown to be 9.8mAOD, and 8.46mAOD to the northeast, with the current site level approximately 10.2mAOD. It is therefore evident that

the site levels are higher than the area at risk of flooding in the 0.1% AEP plus climate change event, and there is no need to consider flood risk further as development meets the requirements set out in TAN-15.

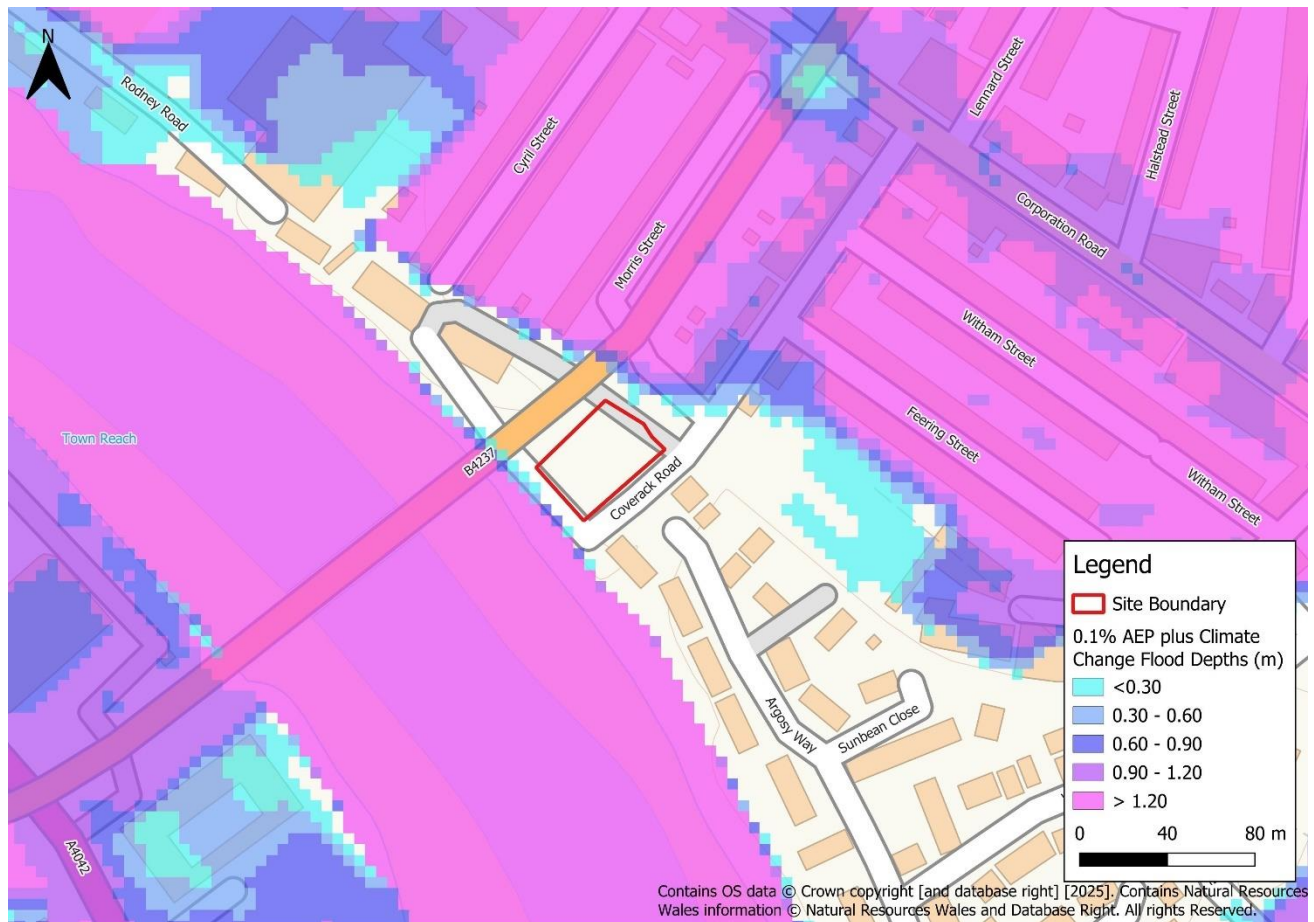


Figure 5-2 Baseline – 0.1% AEP event plus Climate Change

### 5.3 Access and Egress

Access and egress to and from the proposed development site may be restricted due to the significant flood depths present across Newport in both the 0.5% AEP plus climate change and 0.1% AEP plus climate change scenario, as shown in Figure 5-3 and Figure 5-4.

Access to dry land will be available at the site, but access will be restricted due to the scale of flooding across Newport, assuming flood defences are not improved in the future. It is therefore advisable that residents evacuate the site in advance of flooding or make preparations to shelter in place.

It is recommended that Newport City Homes and residents sign up for NRW flood warnings. Newport City Homes should prepare and share an emergency flood plan for the site, covering (at a minimum) adequate flood warning, evacuation and access/egress routes in the event of flooding for the lifetime of the development. This should encourage residents to evacuate the site prior to a flood event. If residents were unable or unwilling to evacuate the

building, the proposed development will provide safe refuge to residents, given that the site is not at risk of flooding.

Flooding is likely to be short lived as tidal water will begin to recede rapidly after the peak of high tide.

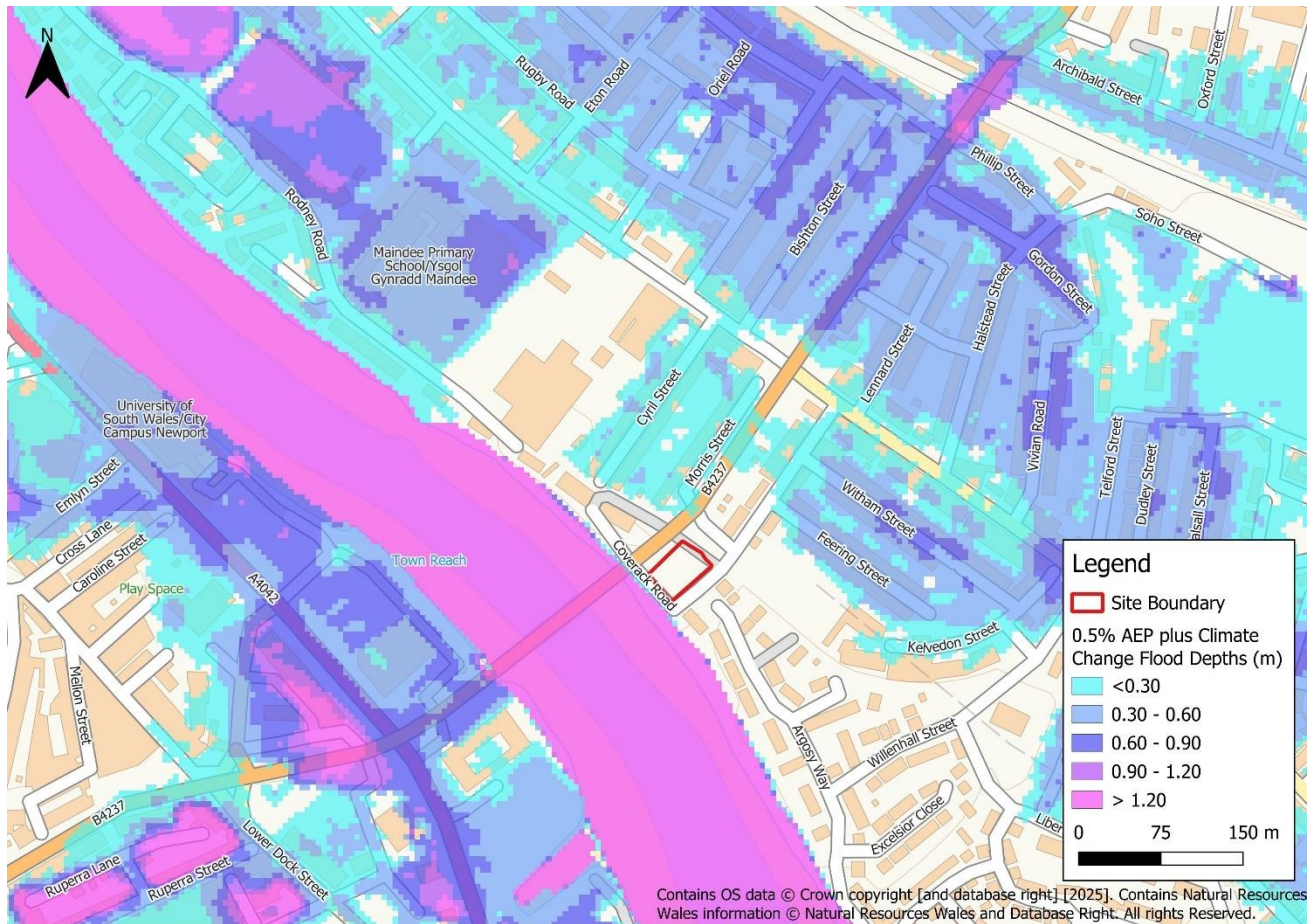


Figure 5-3 Baseline – 0.5% AEP event plus Climate Change Extent

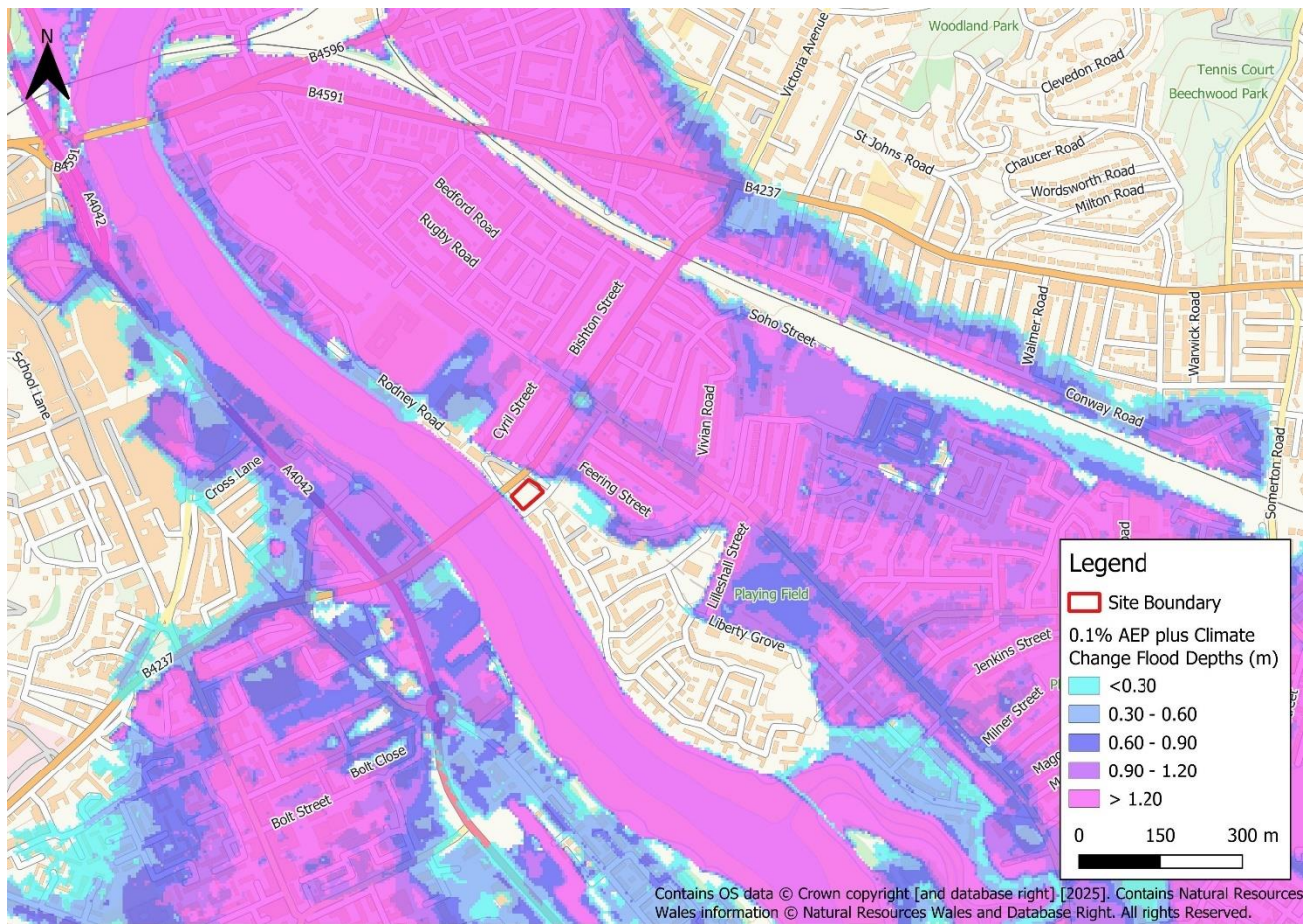


Figure 5-4 Baseline – 0.1% AEP event plus Climate Change Extent

## 6 Acceptability of Flood Consequences

Whether a development should proceed or not will depend upon whether the consequences of flooding can be safely managed, including its effects on flood risk elsewhere. TAN-15 sets out the key conditions that should be met to demonstrate that development is appropriate for its location. As a precautionary measure, as nearby areas to this site are at risk of flooding, the site has been assessed against the acceptability criteria as set out in section 11 of TAN-15.

### 6.1 Acceptability Criteria

The site has been assessed against the Acceptability Criteria of Section 11 of TAN-15, as shown in Table 6-1 below.

Table 6-1 Assessment of Acceptability Criteria

| TAN-15 Acceptability Criteria      | Comments                                                                                                                                                                                                                                                                                    | Achieved |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| No increase in flooding elsewhere. | As the site is predicted to be flood-free for both design events there will be no impact on flooding elsewhere as a result of the proposals.                                                                                                                                                | Yes      |
| Occupiers aware of flood risk      | The developer shall provide purchasers with information on the flood risk in the form of this report. Furthermore, it is suggested that the developer encourages future occupants to sign up for NRW Flood Warnings to prevent any access and egress issues during times of flooding.       | Yes      |
| Escape/evacuation routes present   | Considerable flood warning lead time (>24hrs) should provide plenty of time to evacuate the site safely. If residents were unable or unwilling to evacuate the building, the proposed development would provide a safe refuge to residents, given that the site is not at risk of flooding. | Yes      |

| TAN-15 Acceptability Criteria                                | Comments                                                                                                                                                                                                                                 | Achieved |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Flood emergency plans and procedures are agreed and in place | The site is covered by the 'Usk Estuary at Maindee, North Liswerry and Spyttly Pill' flood warning area and the 'Usk Estuary' flood alert area. Substantial flood warning lead times of several days are typical for tidal storm surges. | Yes      |
| Flood-resistant and resilient design                         | N/A - The site is shown to be flood-free for the duration of its lifetime.                                                                                                                                                               | Yes      |
| Acceptable consequences for the type of use                  | Detailed in Sections 6.2 and 6.3                                                                                                                                                                                                         | Yes      |

## 6.2 Frequency thresholds: designing development to be flood free

The required design standard for new development is to be flood free during the 0.5% AEP tidal event, plus an allowance for climate change over the lifetime of development. This threshold may be applied with more flexibility for redevelopment.

**As per Section 4 of this report, the proposals meet this frequency threshold.**

## 6.3 Tolerable conditions: managing consequences in an extreme flood event

The flood free thresholds relate to very serious but not extreme flood events. During extreme flood events there is recognition that it may not be possible to keep development flood-free. Figure 6 of TAN-15 provides indicative tolerable flood depth and velocity conditions for the 0.1% AEP event, including an allowance for climate change. Up to 600mm of flooding is considered tolerable within Highly Vulnerable Developments, and it is understood that some flexibility to this indicative value is afforded to redevelopment sites.

**As per Section 4 of this report, the site is predicted to be flood free in the extreme event and therefore complies with the tolerable conditions as outlined in Figure 6 of TAN-15.**

## 7 Conclusions and Recommendations

- JBA Consulting (JBA) were commissioned by Tai Hedyn Ltd to prepare a Flood Consequence Assessment (FCA) to support a planning application for a residential development on Coverack Road, Newport.
- The development comprises Phase 2 of the Galliford's Yard development site.
- Development proposals are for a block of 40 residential apartments located on brownfield land on Coverack Road, Newport.
- The site lies on the left bank of the River Usk. The River Usk is tidally influenced, with the coast located 5.5km to the south. No watercourses cross the proposed development site.
- The site is shown to be in Flood Zone 1 of the Flood Map for Planning for River, the Sea and Surface Water and Small Watercourses and is therefore compliant with the principal requirements of Section 10 of TAN-15.
- Furthermore, the site is not shown to be at risk of flooding in the tidal 0.5% and 0.1% AEP plus Climate Change events according to JBA's latest hydraulic modelling of Newport. However, many nearby areas are at tidal flood risk, and this has the potential to disrupt access and egress.
- The site is at low risk of sewer and reservoir flooding and is at very low risk of fluvial, tidal, surface water and groundwater flooding.
- Considering the risk of tidal flooding near to the site, it is recommended that a Flood Plan is prepared for future occupants of the building. 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.
- However, adopting a precautionary approach, all aspects of the Acceptability Criteria set out in TAN-15 have been assessed and shown to be satisfied.
- Consequently, we conclude that on the grounds of flood risk, the proposed development meets the requirements set out in TAN-15 and the aims of Planning Policy Wales.

# A Proposed Development Plan

River Walk Active Travel Route

PHASE 2

5 Storey Development

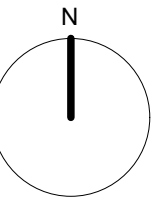
2P 1 Bed : 30 No.  
3P 2Bed : 10 No.  
Total : 40 No.  
Parking : 32 spaces

- General landscaping  
400 sq m
- Bio diverse landscaping for  
SuDS compliance

- ① Bins Store
- ② Secure resident cycle parking  
25 spaces in 2 tier bespoke  
cycle shelter. Premium Amazon  
Shelter by the Bike storage Co.
- ③ Visitor cycle parking

- + 10.02 Existing site levels
- + 10.02 Proposed site levels
- Line of existing ownership

For details of Landscaping refer to  
drawing edp8348\_d003-A-Detailed  
Soft Landscape Plan prepared by  
EDP



Rev : Date Description

Kennedy James Griffiths  
Chartered Architects and Project Managers  
Project



Proposed Apartments  
Coverack Road, Newport

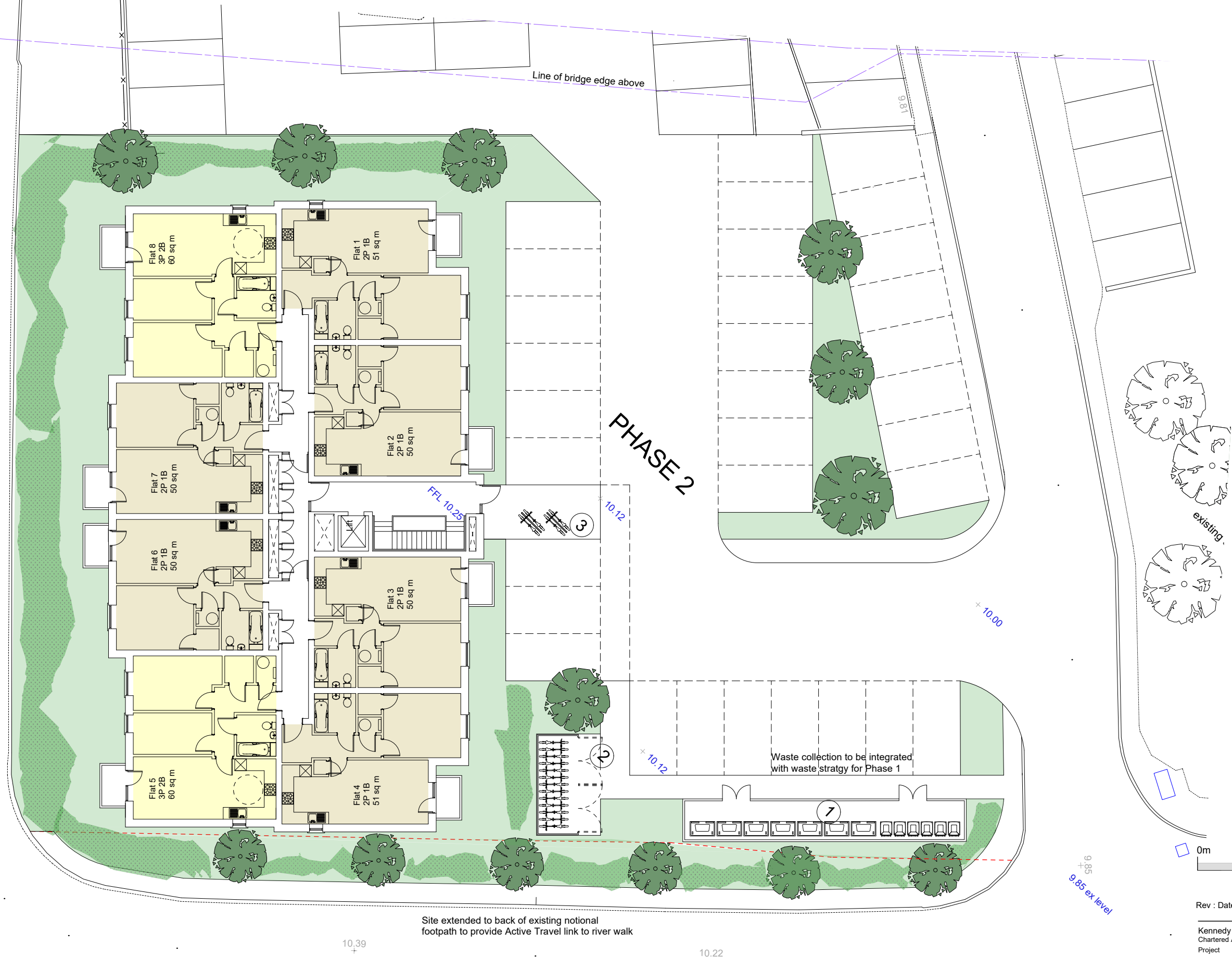
T 02920 545100  
10 Victoria Park Court  
516 Cowbridge Road East  
Cardiff  
CF5 1DB

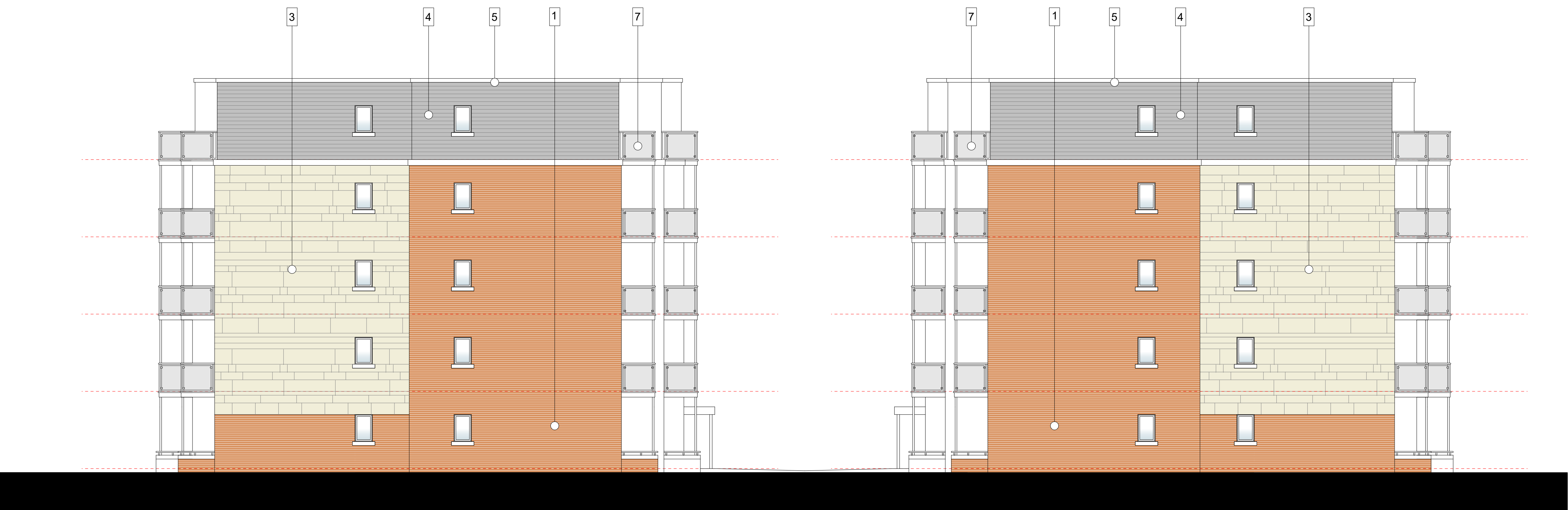
Title Date  
Site Plan Plan 04 12 2024

Status Scale @ A3  
Planning Application 1:200

Job Number Revision Drawn by  
1671-PL-04 CKG

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- Materials
- 1 : Facing brickwork matching Phase 1
  - 2 : Forticrete reconstituted stone string band
  - 3 : Marley Equitone Tectiva : Chalk
  - 4 : Hardie VL Plank horizontal cladding : Mist Grey
  - 5 : Aluminium parapet system : Anthracite Grey
  - 6 : PPC aluminium glazing and doors : Anthracite Grey
  - 7 : PPC balconies with glazed infill panels
  - 8 : Aluminium entrance canopy : Anthracite Grey

Kennedy James Griffiths  
Chartered Architects and Project Managers  
Project  
**Proposed Apartments**  
**Coverack Road, Newport**

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

|            |                      |          |                      |
|------------|----------------------|----------|----------------------|
| Title      | Elevations           | Date     | 10 12 2024           |
| Status     | Planning Application | Scale    | 1:100@A1<br>1:200@A2 |
| Job Number | 1671-PL -07          | Revision |                      |
|            |                      | Drawn by | DJ                   |

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