

The Crescent, Block A- Newport

Version 4

November 2025

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Document Status

Issue date	November 2025
Issued to	Hedyn Group Ltd
BIM reference	JYV-JBAU-XX-XX-RP-Z-0001-S3-P04
Revision	Version 4
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This report describes work commissioned by Hedyn by an instruction dated 7th October 2025. Gemma Aubrey and Hannah Booth 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
DEM	Digital Elevation Model
FAS	Flood Alleviation Scheme
FCA.....	Flood Consequence Assessment
FFL.....	Finished Floor Level
FMfP.....	Flood Map for Planning
LDP	Local Development Plan
LiDAR.....	Light Detection and Ranging
mAOD	metres Above Ordnance Datum
NGR	National Grid Reference
NRW.....	Natural Resources for Wales
OS	Ordnance Survey
OS NGR.....	Ordnance Survey National Grid Reference
PPW	Planning Policy Wales
RCP	Representative Concentration Pathway
SMP	Shoreline Management Plan
TAN-15.....	Technical Advice Note 15: Development and Flood Risk
TAN15.....	Welsh Assembly Government Technical Advice Note 15
TUFLOW	Two-dimensional Unsteady FLOW (a hydraulic model)
UKCP	United Kingdom Climate Projection

1 Introduction

1.1 Terms of Reference

JBA Consulting (JBA) were commissioned by Hedyn to undertake a Flood Consequences Assessment (FCA) to support a planning application for the construction of a residential apartment block and associated parking at a site located off Corporation Road, Newport.

This FCA assesses and demonstrates the suitability of the proposed development and describes the flood mitigation measures recommended to appropriately manage flooding at the site.

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 (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;
- Minimal impact of the proposed development on flood risk generally; and
- Minimal disruption to the sustainable management of natural resources.

1.3 NRW Comments & FCA update

Natural Resources Wales (NRW) provided comment on the statutory pre-application consultation in their letter dated 3rd October 2025 (CAS-287460-R4D1), provided in Appendix A). In their response, NRW has raised a number of points of concern which this updated FCA has sought to address. These concerns were as follows:

1. Based on the proposed site levels of the various components of the development, the residential dwellings are predicted to be flood free during the 1 in 200 year (0.5%) plus climate change event 2123. The majority of the car park is predicted to be flood free during this event. However, flood depths of less than 0.21m are predicted across of the rest of the car park. The highway is also predicted to flood to a depth of 1.07m and the bin store to 1.51m. Therefore, the proposed development is not compliant with Figure 5 of TAN15.
2. The FCA has not considered a breach assessment or provided justification for not assessing this during the 1 in 200 year plus climate change event in the FCA. We advise that this scenario should be included within an amended FCA, and this should be the design event for the 1 in 200 year plus climate change assessment.
3. Based on the proposed site levels, the residential dwellings are predicted to be flood free during the 1 in 1,000 year (0.1%) plus climate change event. All areas of the car park apart from the ramp are predicted to flood to depths of up to 0.51m and are therefore compliant with the suggested tolerable flood depths of 600mm within Figure 6 of TAN15.

However, flood depths of up to 1.37m are predicted in the vicinity of the highway connection with the adjoining site. The bin storage area is predicted to flood to depths of 1.81m. These exceed the limits set out in Figure 6 of TAN 15.

This version of the FCA has been updated to respond to the above concerns. The relevant sections of the report are as follows:

1. Section 7.2.1 for the proposed development's compliance with the requirements set out in Figure 5 of TAN-15.
2. Section 7.2.2 for development's compliance with the requirements set out in Figure 6 of TAN-15.
3. Section 5.2 for the assessment of flood defence breach risk.

2 Site Description

2.1 Site Summary

The proposed development site is located on land to the west of Corporation Road, Newport, as shown in Figure 2-1.

The site is approximately 0.13ha in area and comprises previously developed land, formerly known as Robert Price Transport Yard. Access to the site is available from the east of the site, from Corporation Road.

The proposed development site is bound to the north by a car dealership, to the east by Corporation Road, to the west by further brownfield land and to the south by a cycle path. Table 2-1 summarises the key characteristics of the site.

Table 2-1 Site Summary

Site name	The Crescent Block A
Site area	0.13ha
Existing land use	Brownfield land
Purpose of development	Residential development
OS NGR	ST 32947 87076
Local Planning Authorities	Newport City Council
Lead Local Flood Authority	Newport City Council



Figure 2-1 Site Location

2.2 Site topography

A topographic survey was undertaken by Azimuth Land Surveys Ltd in July 2018 and is contained in Appendix B. The topographic survey shows that the site varies in level due to rough ground and overgrown foliage at the site. The lowest level is in the northern part of the site at approximately 7.07m AOD. The greatest levels are in the southern part of the site at 9.28m AOD.

NRW 1m LiDAR has been provided in Figure 2-2 as an alternative illustration of site topography. The site is predominantly flat across most of the site with ground levels ranging from 7.27mAOD to 7.8mAOD. A sharp increase in levels is present in the centre, and south of the site where ground levels are between 7.50mAOD to 9.34mAOD.

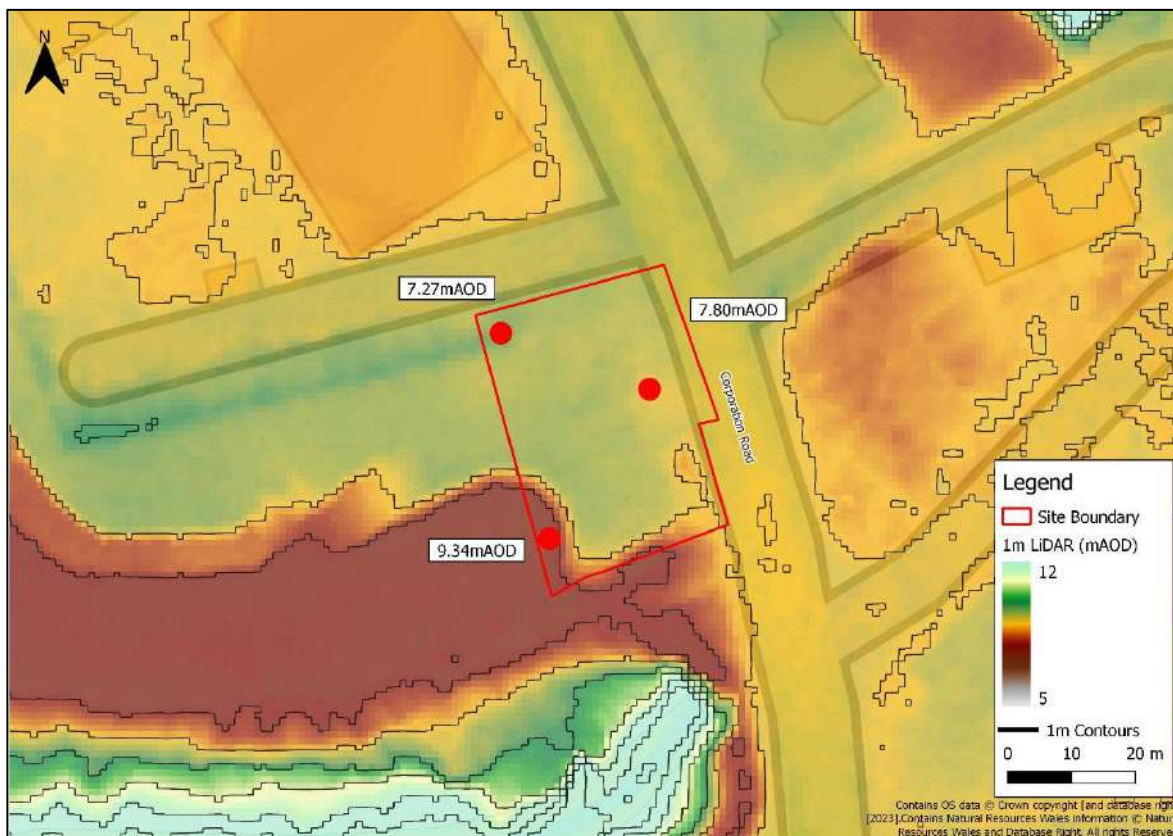


Figure 2-2 1m LiDAR

2.3 Soils and geology

According to the British Geological Survey (BGS) Geology of Britain Viewer¹, bedrock at the site is described as Mercia Mudstone Group comprised of mudstone. Superficial deposits are classified as Tidal Flat Deposits comprised of clay and silt.

The Cranfield University Soilsclapes² viewer describes the underlying strata as loamy and clayey soils of coastal flats with naturally high groundwater.

2.4 Watercourses and flood defences

Two NRW-designated Main Rivers are relevant to the proposed development site. These are the Liswerry Pill, situated 25m south of the proposed development site, and the River Usk, located approximately 300m west of the site, as shown in Figure 2-3.

The Liswerry Pill flows in open channel 76m east of the proposed development site before it is culverted under Corporation Road and the surrounding buildings. The watercourse re-emerges 20m south of the proposed development site in open channel and continues to flow west into the River Usk. Figure 2-3 shows the indicative location of the culvert and watercourse. There is a flood embankment to the south of the site which is heavily vegetated along the Southern Distributor slip road, which is 160m in length.

The River Usk is a tidally influenced river, and the site is within the tidal reaches of the River Usk and the Bristol Channel. A series of NRW flood defences serve the eastern bank of the River Usk, providing flood protection to large areas of the city.

The site is also located within the tidal floodplain of the Severn Estuary, which is located approximately 5km to the south of the site. The coastline between Newport and Caldicot is protected by extensive and significant coastal flood defences owned and maintained by NRW. The extent of these is indicated in Figure 2-5.

¹ <https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/>

² <https://www.landis.org.uk/soilsclapes/index.cfm>

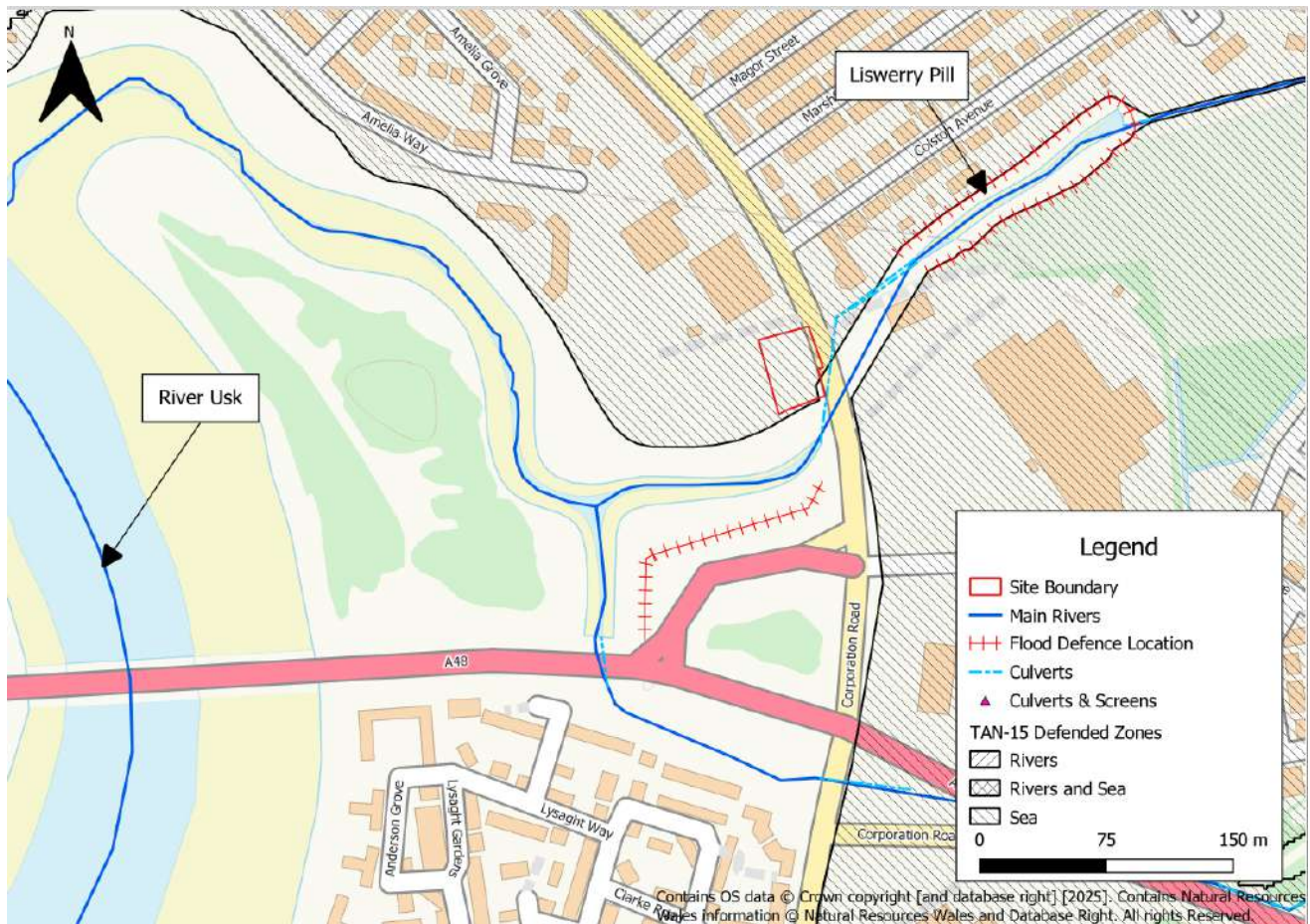


Figure 2-3 Nearby Watercourses

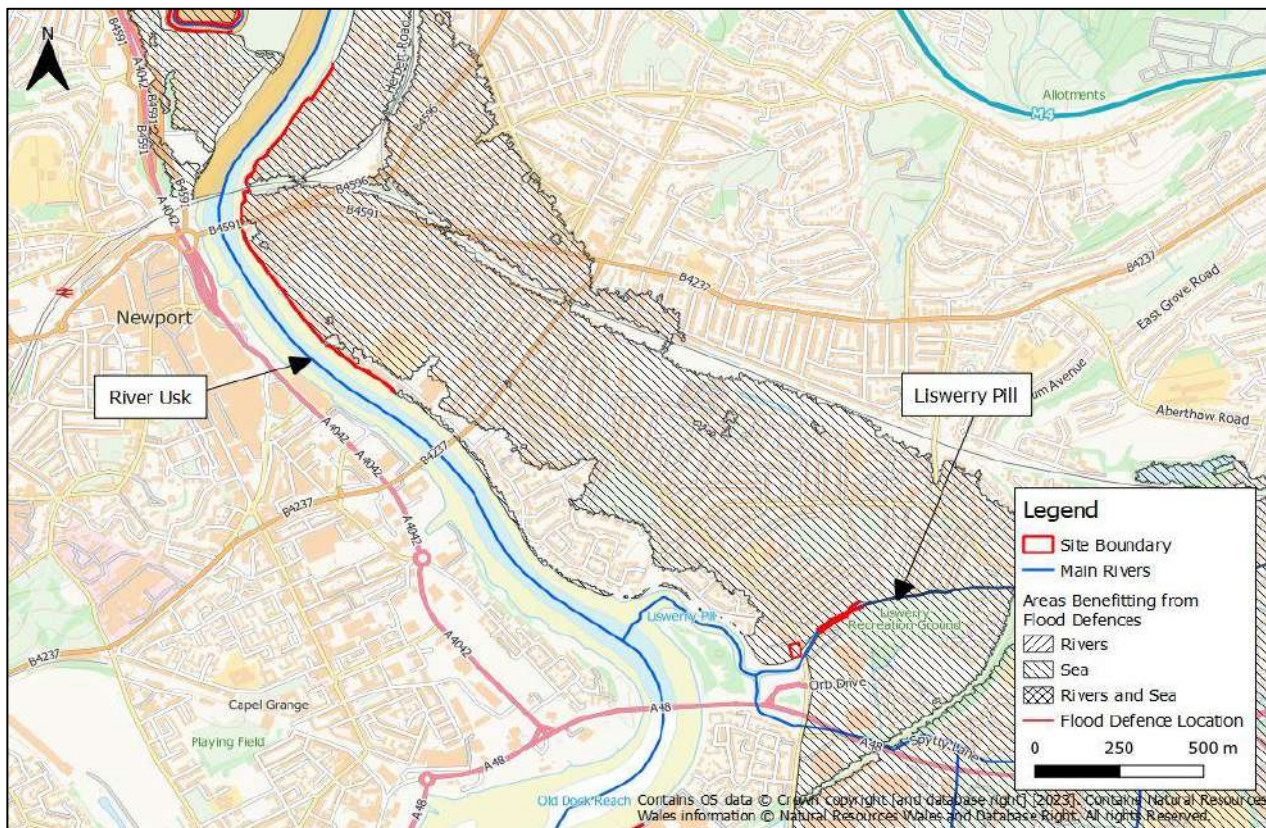


Figure 2-4 Nearby watercourses and flood defences

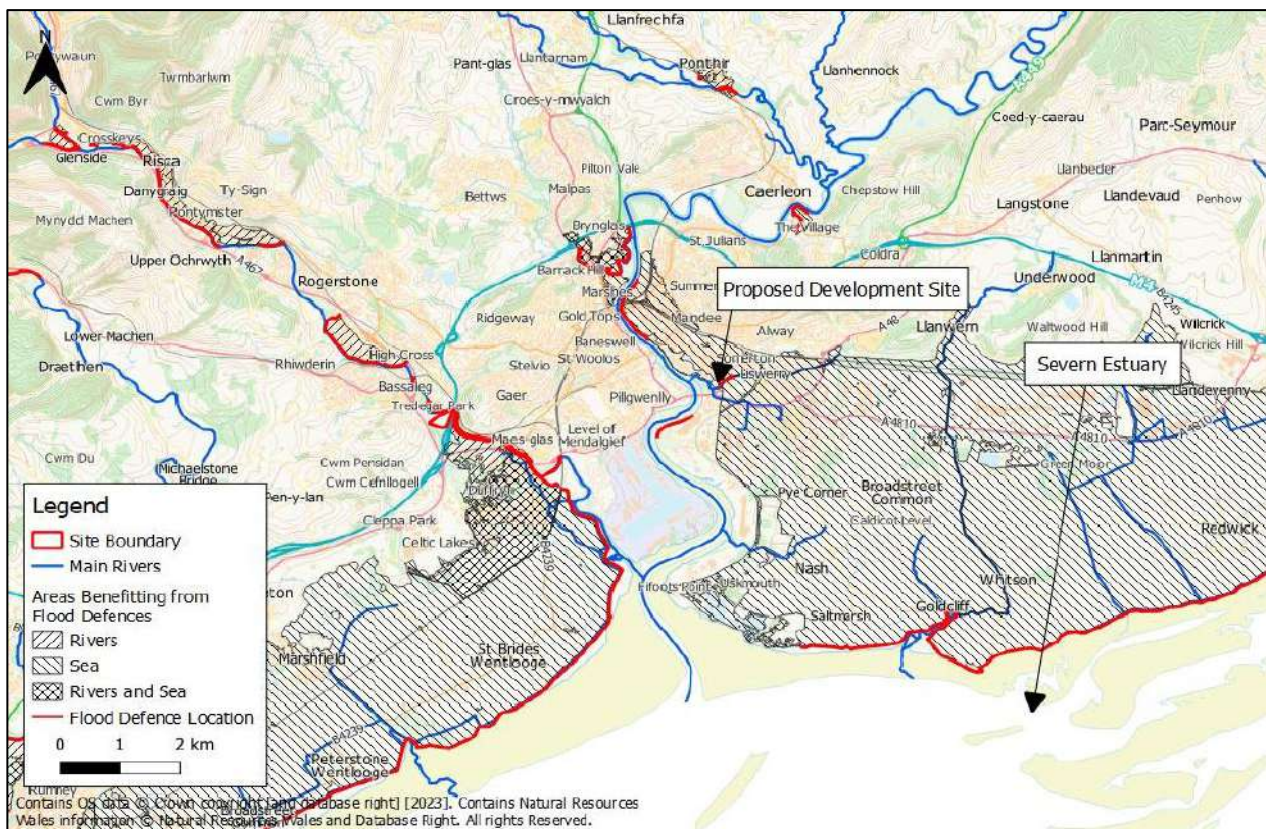


Figure 2-5 Severn Estuary and flood defences

2.5 Planning history

A previous outline planning application (18/0973) which covered a larger extent, including the proposed development site, was approved in December 2019. The scheme was for the re-development of the former transport yard, Corporation Road for mixed use provision of residential (C2 and C3) and drive-thru coffee shop (A1 / A3) along with associated infrastructure and facilities. The outline permission included 68 residential units split across 5 blocks (Blocks B-F), and a single commercial unit (Block A). The layout of the outline scheme is shown in Figure 2-6.

Reserved Matters have subsequently been approved (19/1301) for the development of Blocks B-F. However, the Reserved Matters application excluded Block A which is the site of the current application.



Figure 2-6: Proposed Layout (18/0973)

The mixed-use development was supported by an FCA undertaken by Quad Consult in July 2018. This FCA concluded that the proposed buildings were predicted to be flood free. However, due to the need to tie into existing highway levels, the car park and access road were predicted to flood in excess of the indicative guidance of A1.14 and A1.15 of TAN15 (2004). A1.14 required development and its associated car parking to be flood free in the 0.5% AEP tidal event and A1.15 recommended that development should not flood to depths greater than 600mm in the 0.1% AEP tidal event.

Within the planning officers report, it was noted that:

"Overall, the proposal does not comply with Policy SP3 (Flood Risk) of the adopted Newport Local Development Plan (NLDP) since it does not fully accord with the advice of Technical Advice Note 15. However, Policy GP1 (Climate Change) requires that the risks and consequences of flooding on the site should be acceptably managed and on this occasion, it is judged that the risks can be effectively managed and therefore the harm to national and local policy is judged to be modest and of comparatively little weight in the decision-making process".

It has been accepted by the planning officer that whilst the development did not wholly comply with the requirements of TAN-15 (2004), it had been accepted that every effort had been made to mitigate flooding as far as possible whilst being realistic on the site's design constraints. This approach to developing the site follows a similar mitigation strategy to that of the other approved phases of the development, as outlined in Section 2.5.

2.6 Development Proposal

Development proposals for the site are for the construction of 14 residential units with associated parking spaces, bike storage, bin storage and landscaping, as shown in Figure 2-7 and Appendix C.

Ground levels will be raised across the site to reduce the risk of flooding. These levels are summarised in Table 2-2 below for the different parts of the proposed development site. The residential block will have a ground floor finished floor level (FFL) of 9.80mAOD. The proposed car park will be raised to between 9.10 to 9.55mAOD with a gradual decline in levels from north to south of the car park. To facilitate a connection to the existing highway, a ramp is proposed which will decrease site levels from 9.55mAOD to 8.26mAOD at the western part of the site. The bin storage area will have an FFL of 7.80mAOD to provide level access to street level. Areas of planting to the north of the site will be 7.80m AOD, east of the site will be between 8.30-9.30m AOD and south of the site will be 9.25m AOD.

The development proposals for the site shall provide a flood risk betterment in comparison to those for commercial development contained in the outline permission. This is because residential development of Block A will complete a consistently raised level across the wider site, whereas the commercial development would have required little or no ground raising. The development will therefore enhance the flood risk protection along the riverbanks of the River Usk in a way that is robust, passive and neatly ties into the formal flood defences in the area.



Figure 2-7 Development Plans- Ground Floor

Table 2-2 Proposed development levels

Development Area	Proposed Development level (FFL) (mAOD)
Residential building	9.80
Car parking	9.10 - 9.55
Ramp access	8.26 - 9.55
Bin storage area	7.80
Areas of planting (Water-compatible development)	7.80 - 9.25

3 Planning Policy and Flood Risk

3.1 Planning Context

Planning Policy Wales (PPW)³ 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 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)⁴, 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 plan making and development management decisions.

3.2 Form of Development

TAN-15 recognises two key forms of development. New development and Redevelopment. The definition of both terms is provided in Table 3-1.

Table 3-1 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 the development site comprises previously developed land, previously Robert Price Transport Yard, the proposals are classed as **redevelopment**.

3.3 Vulnerability Classification

TAN-15 assigns one of three flood risk vulnerability classifications to a development, as shown in Table 3-2. The proposed development is a residential development and is consequently classified as Highly Vulnerable Development. The car park is classed as

³ Planning policy Wales | GOV.WALES

⁴ Technical Advice Note (TAN) 15: development, flooding and coastal erosion | GOV.WALES

Less Vulnerable Development, and the areas of landscaping/public open spaces are Water Compatible Development.

Table 3-2 Development Categories Defined by TAN-15

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

3.4 Lifetime of development

Section 10.28 of TAN-15 advises that "*Generally, it is appropriate to think of new dwellings as having a lifetime of 100 years.*"

The proposed development is for 14 new residential dwellings, which is a highly vulnerable development. In accordance with the guidance, a 100-year lifetime has been considered in the assessment.

3.5 Flood Map for Planning Classifications

The Flood Map for Planning (FMfP) is the starting point for the consideration of flood risk in the planning system. 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 main zones are Flood Zone 1, Flood Zone 2, Flood Zone 3 and the Defended Zone. The FMfP displays predicted future flood risk with an allowance made for climate change.

Proposals for development located partially or wholly in Flood Zone 2,3 or a TAN-15 Defended Zone must be supported by a Flood Consequences Assessment (FCA).

3.5.1 Flood Map for Planning - Rivers

As shown in Figure 3-1, the site is located within Flood Zone 1 of the Flood Map for Planning for Rivers. Flood Zone 1 represents areas which have less than 1 in 1000 (0.1%) chance of flooding in a given year, including climate change.



Figure 3-1 Flood Map for Planning - Rivers

3.5.2 Flood Map for Planning - Sea

Figure 3-2 shows the site is located in TAN-15 Defended Zone for the Sea. This indicated areas where flood risk management infrastructure provides a minimum standard of protection against flooding from the sea up to the 1 in 200-year (plus climate change and freeboard) event.

This source of flood risk is assessed in detail in Section 5 of the FCA.



Figure 3-2 Flood Map for Planning - Sea

3.5.3 Flood Map for Planning- Surface Water and Small Watercourses

Figure 3-3 shows that the site is in Flood Zone 1 of the flood map for planning for surface water and small watercourses. The site is shown to be at a very low risk of flooding from surface water and small watercourses.



Figure 3-3 Flood Map for Planning- Surface Water and small watercourses

3.6 Local Development Plan

The Local Development Plan (LDP) is a land-use document in which the council sets out its land use development over a 15-year period. The current LDP for Newport was adopted in 2015⁵ 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, Objective 4 states that Newport aims to deliver approximately 10,350 new homes. The proposed development, therefore, supports this key objective by providing new residential flats, which will contribute to the number of homes required by the LDP.

The proposed development will also deliver housing land in line with Policy SP18 Urban Regeneration which states “Proposals will be favoured which assist the regeneration of the urban area, particularly where they contribute to:

1. The vitality, viability and quality of the environment of the city centre
2. The provision of residential and business opportunities within the urban area
3. Re-use of vacant, underused or derelict land
4. Encourage the development of community uses where appropriate”

The proposed development meets points 2) and 3) of Policy SP18.

3.7 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 3-4.

The site lies within Management Unit NEW 5 - River Usk (East bank) at Spyttly Pill (North of A48 crossing) to Uskmouth Power Station point. 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”.

5 <https://www.newport.gov.uk/en/Planning-Housing/Planning/Planning-policy/Local-Development-Plan/Local-Development-Plan.aspx>

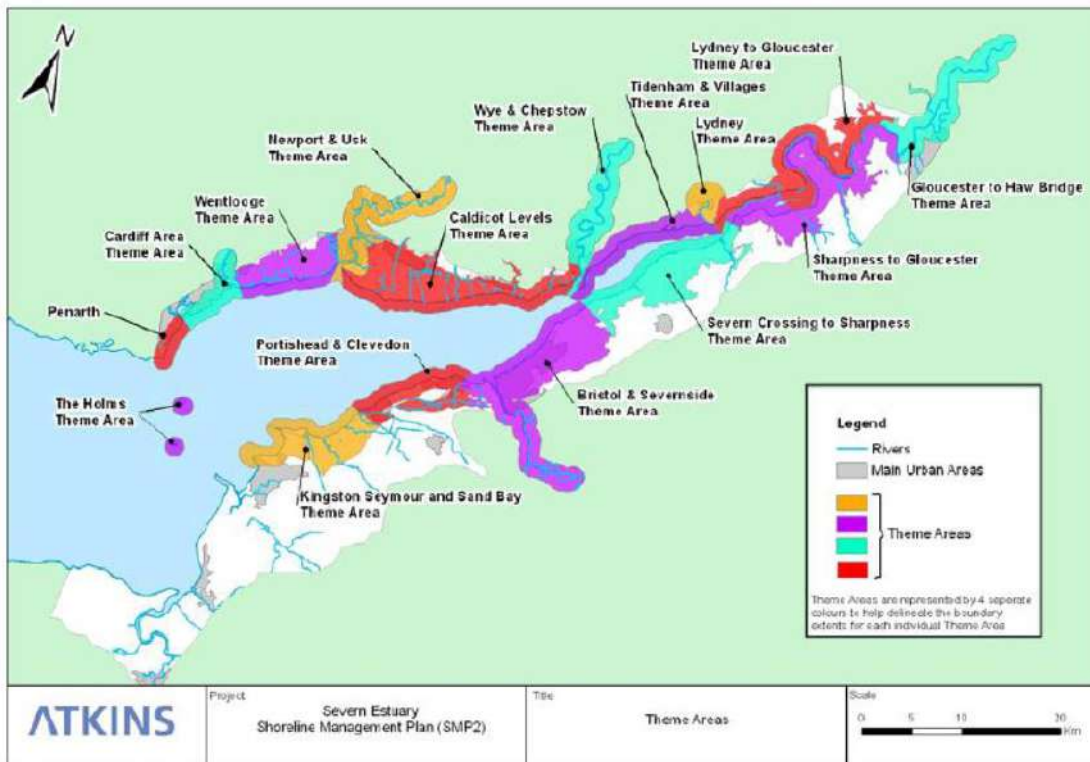


Figure 3-4 Theme Areas - Severn Estuary Shoreline Management Plan

4 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.

4.1 Review of Existing Flood Risk Data

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

Table 4-1 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	✓	Refer to Chapter 5 for detailed assessment
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 low risk of groundwater flooding.
Flood Risk from Reservoirs	✗	The site is considered to be at low risk of flooding from reservoirs.
Flood Risk from Sewers	✗	The site is at low risk of sewer flooding.

4.2 Historical Flooding

NRW's map of recorded flood extents does not record any historic flooding on the site.

Newport City Council's Preliminary Flood Risk Assessment⁶ and Flood Risk Management Strategy identified no other historic flooding records at the site.

4.3 Flood Risk from Rivers

Flood risk should be considered for a site with an appropriate consideration for climate change. Within the available NRW datasets, it is considered that the FMfP provides the most up to date assessment of flood risk, with an allowance for climate change included. As discussed in Section 3.5.1, the site is located in Flood Zone 1 for flood risk

⁶ Newport City Council - Preliminary Flood

Risk Assessment (2011). Retrieved from: <https://www.newport.gov.uk/documents/Planning-Documents/Flood-risk/Preliminary-Flood-Risk-Assessment-Report-April-2011.pdf>

from fluvial sources. It is therefore concluded that the risk of flooding from fluvial sources is **very low**.

4.4 Flood Risk from Surface Water and Small Watercourses

The Flood Map for Planning (FMfP) for Surface Water and Small Watercourses is informed by the National Flood Risk Assessment Wales mapping, which is national scale mapping undertaken in 2019. This modelling used the LiDAR data available at the time to identify the topographic levels across Wales.

The FMfP for surface water and small watercourses, shown in Figure 3-3 shows that the proposed development site is at very low risk of flooding from these sources (i.e. Flood Zone 1). This means that is a less than 1 in 1000 (<0.1% AEP) chance of flooding in any given year, including with an allowance for climate change. It is therefore concluded that the risk of flooding from surface water and small watercourses is **very low**.

4.5 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 Flood Risk Management Plan⁷ states that 'groundwater is not considered a significant flood risk' in Newport. It can therefore be concluded that the risk of groundwater flooding at the site is **low**.

4.6 Flood Risk from Reservoirs

The NRW FRAW Flood Risk from Reservoirs flood maps indicate that a very small part of the proposed development site is at risk of flooding due to reservoir failure, as shown in Figure 4-1. All large reservoirs must be inspected and supervised by reservoir panel engineers. As the enforcement authority for the Reservoirs Act 1975 in Wales, NRW ensure that reservoirs are inspected regularly, and essential safety work is carried out. The regulatory nature of reservoir management means that the probability of a failure at a statutory reservoir is very low. It is therefore concluded, given the probability and consequences of such an event, that the risk at the proposed development site as a result of reservoir failure is **very low**.

⁷ NCC Flood Risk Management Plan: <https://www.newport.gov.uk/documents/Council-and-Democracy/Consultations/Newport-Flood-Risk-Management-Plan-Report-Issue-for-Consultation.pdf>



Figure 4-1 FRA map - Risk of flooding from Reservoirs

4.7 Flood Risk from Sewers

Newport's Preliminary Flood Risk Assessment suggests there is no evidence of historic sewer flooding at the site. The PFRA 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**.

5 Detailed Tidal Flood Risk Assessment

As identified in Sections 3 and 4, the predominant source of flood risk to the site is from the sea (tidal). Therefore, to better understand the risk of tidal flooding posed to the site and the potential implications of climate change, further assessment using detailed hydraulic modelling is provided in this section.

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 has been updated to include the recently completed Crindau flood defences. 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 Assessments⁸ to consider flood risk for the lifetime of development (100 years).

Table 5-1 summarises the coastal flood boundary data used for updating the tidal boundary conditions in the Newport Tidal Flood Model.

Table 5-1 Coastal flood boundary (CFB) data

Highest Astronomical Tide (HAT) Location	Surge Donor Location	CFB dataset point chainage
Newport	22, Newport	_396

To represent the present-day 2023 scenario, the tidal boundary conditions were uplifted 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 5-2 summarises the sea level rise uplifts applied to the tidal boundary conditions and the resulting peak tide

⁸ https://gov.wales/sites/default/files/publications/2021-09/climate-change-allowances-and-flood-consequence-assessments_0.pdf

levels for the 2023 model update. It is recognised that the 2023 update to the Newport model is now two years old. Consequently, Table 5-2 provides a comparison of peak tide levels for 2023 and 2025. There is shown to be minimal difference in the peak tide levels for 2025 in comparison to 2023 and 2123 in comparison to 2125. Given the precautionary flood risk mitigation measures proposed for the development, it is considered acceptable to use the 2023 model for this report.

Table 5-2 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
2017 (CFB dataset base year)	N/A	8.33	8.67
2023	0.032	8.36	8.70
2025	0.044	8.37	8.71
2123	1.062	9.39	9.73
2125	1.087	9.42	9.76

Further to the above updates, model performance has been reviewed. This has found that within the updated flood model, 1D negative depths were observed in the 1D domain for the River Usk at cross-section USK08125. Its location is approximately 530m upstream of the proposed development site. Upon further examination, these 1D negative depths occur twice in the simulations for very short periods at low water levels in tidal troughs around 11.75 hours and 48.9 hours and therefore do not impact peak water level results in the 2D model, which in the area of the proposed development site occurs at around 15.8 hours. 1D negative depths were also observed in the Crindau Pill tributary, on the opposite bank of the River Usk to the proposed development site, also around periods of low water levels in tidal troughs. Again, these do not impact peak water levels in the 2D domain.

The Newport tidal flood model has a coarse grid size of 10m and features below 10m in size may not be fully represented. The 10m grid size, however, 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 Breach Assessment

Section 6.8 of TAN-15 states that *"Where appropriate, the Flood Consequences Assessment should demonstrate that in the event of overtopping, breach or blockage the consequences of flooding can be managed to an acceptable level."*

We have carefully considered the requirement for breach modelling at this location. There are comparatively few flood defences in the immediate vicinity of the site. The defence on the Liswerry Pill is largely redundant due to the tidal flap on the Liswerry Pill outfall. This leaves the 160m length of earth embankment along the Southern Distributor slip road.

This heavily vegetated embankment has a typical level of 9.30 mAOD, stands approximately 1m higher than the ground behind it, and has a width of at least 10m. The width of the embankment, modest height and heavy vegetation means that the embankment is likely to be tolerant to the effects of overtopping. Furthermore, in the most extreme 0.1% AEP plus climate change overtopping is predicted to last no longer than 1 hour. Given these factors, a significant failure of the flood embankment is regarded as extremely unlikely.

Nevertheless, when advising on design levels, this assessment has used the predicted water levels in the River Usk adjacent to the site. These water levels represent a precautionary worst-case scenario, as they do not account for reductions in water levels as landforms and flood defences are overtopped. Consequently, these water levels are higher than the undefended or breach results. Therefore, no specific post-development or breach modelling has been undertaken for this assessment.

5.3 Tidal flood risk results

5.3.1 0.5% AEP plus climate change event with central estimate

During the 2123 0.5% AEP tidal event plus climate change, flooding originates from the River Usk and Severn Estuary, flooding large areas of Newport.

The maximum predicted flood level in the River Usk adjacent to the site during the 0.5% AEP plus climate change event is 9.44mAOD, causing overtopping of the active travel route between the river and the site.

Behind this landform, the flood level rapidly reduces as the floodwater spreads across a large area, reducing to a level of 8.14mAOD on the roads adjacent to the site. Correspondingly, flood depths on these roads reach a maximum of 0.5m, as shown in Figure 5-1.

The flood depths shown in Figure 5-1 are not indicative of those that would be predicted on the site as they do not reflect the proposed changes in levels. In the absence of post-development flood modelling, the predicted worst-case flood levels and depths are summarised in Table 5-3.

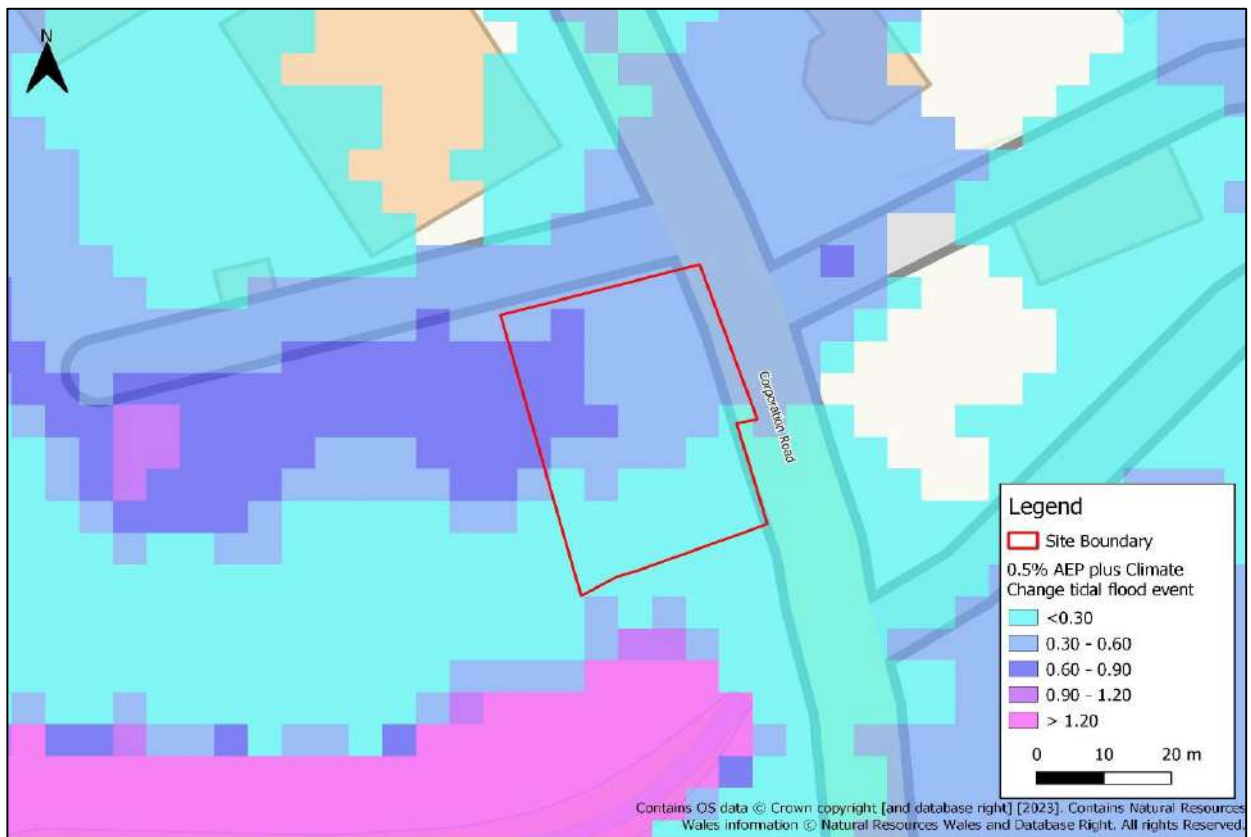


Figure 5-1 0.5% AEP flood event plus climate change

Table 5-3 Predicted flood depths in each part of the proposed development site

Development Area	Design Level (m AOD)	Maximum Flood Level (m AOD)	Flood Depths (Post-development) (m)
Residential development (Ground flood level)	9.80	9.44	Flood-free
Car Park	9.10-9.55	9.44	From flood-free to 0.34
Ramp access to highway	8.26-9.55	9.44*	From flood-free to 1.18
Bin storage area	7.80	9.44*	Up to 1.64
Areas of landscaping (Water-compatible development)	7.80-9.25	9.44*	0.19 - 1.64

* Worst-case flood level. Flood levels to the landward side of the development are predicted to be substantially less, with a predicted flood level of 8.14m AOD

As noted in Section 2.6, site levels will be raised to reduce the risk of flooding. Following the raising of the site the residential building will be flood free, being raised to 9.80m AOD, which is 0.36m above the flood level of 9.44m AOD. This accords with the recommended flood frequency thresholds of Figure 5 of TAN15.

The car park area will be raised to between 9.10 to 9.55m AOD. The maximum flood depth in the southern part of the car park will be 0.34m, the northern side of the car park will remain flood free.

The potential damage to any vehicles in the car park can be mitigated by removing vehicles from the site prior to a flood event, utilising the recommendations of a Flood Response Plan and NRW Flood Warning and Flood Alert system. Further guidance on flood mitigation is provided in Section 6.3.

The bin store could flood to depths of up to 1.64m if the water level behind the flood defences were to equal the flood level in front of the defences. However, this is unlikely and the defended modelling suggests that the flood level in this area will only reach 8.14mAOD and therefore the flood depths in the bin store will not exceed 0.34m in this event. Such flooding is unlikely to cause significant damage or disruption to the bin store.

5.3.2 0.5% AEP plus climate change event with upper end estimate

Section 4.3 of TAN-15 advises that an FCA is required to consider a range of climate change scenarios, including the upper end estimates, making reference to the Welsh Government guidance on climate change allowances for planning purposes.

Although the upper end estimate event has not been simulated, the extreme sea level estimate has been calculated, and it is noted that the modelled flood events show negligible difference between the modelled tidal boundary and the site. In the 0.5% AEP plus climate change event with the higher end estimate, a flood level of 9.76mAOD is predicted. This flood level is almost identical to the 0.1% AEP plus climate change event discussed in Section 5.3.3, and remains just below the proposed ground floor level of the development. As such, the building is predicted to be flood-free in this event.

5.3.3 0.1% AEP plus climate change event

The maximum predicted flood level in the River Usk adjacent to the site during the 0.1% AEP plus climate change event is 9.75mAOD, causing overtopping along the active travel route that runs between the river and the site. Behind this landform, the flood level rapidly reduces as the floodwater spreads across a large area, reducing to a level of 8.84mAOD on the roads adjacent to the site. Correspondingly, flood depths on these roads reach a maximum of 1.2m, as shown in Figure 5-2.

The flood depths shown in Figure 5-2 are not indicative of those that would be predicted on the site as they do not reflect the proposed changes in levels. In the absence of post-development flood modelling, the predicted worst-case flood levels and depths are summarised in Table 5-4.

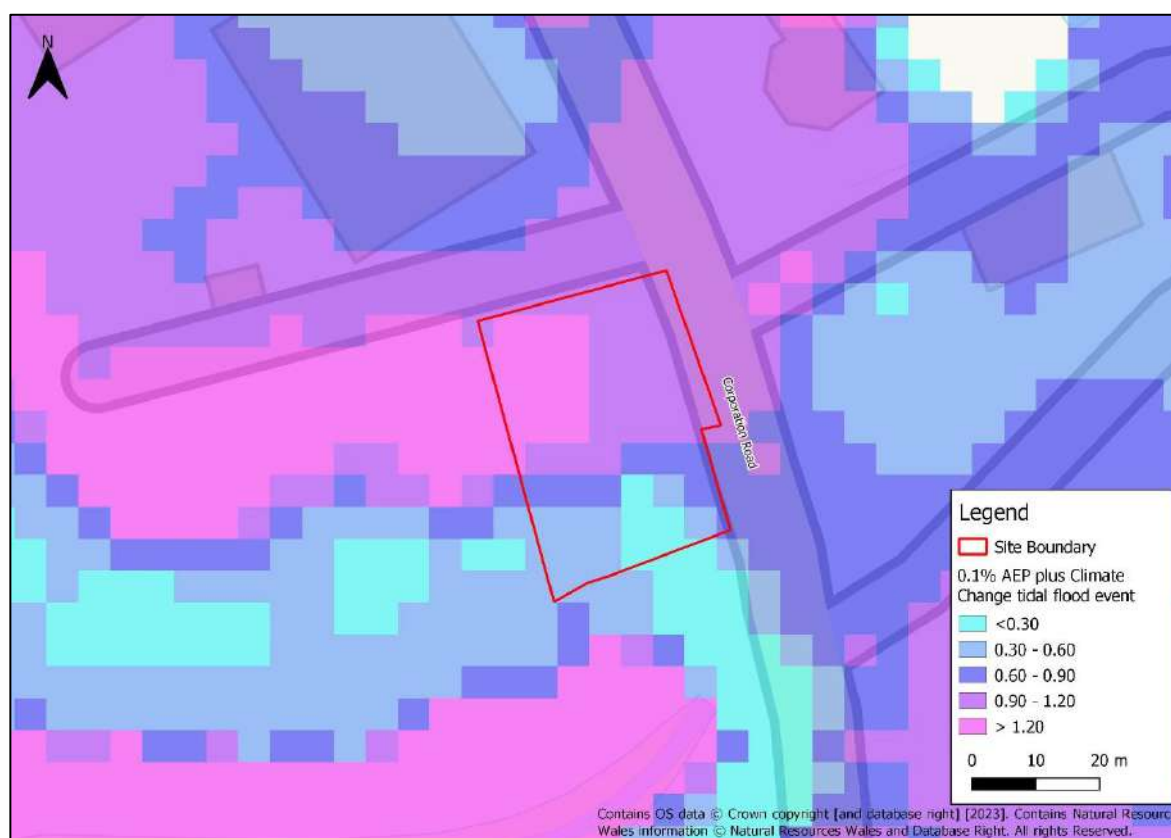


Figure 5-2 0.1% AEP event plus climate change

Table 5-4 Predicted flood depths in each part of the proposed development site based on max flood levels taken from Newport Tidal model

Development Area	Finished Floor Level (mAOD)	Flood level (mAOD)	Maximum Flood Depth (m)
Residential development (Ground flood level)	9.80	9.75	Flood Free
Car Park	9.10-9.55	9.75	Up to 0.65
Ramp access to highway	8.26-9.55	9.75*	Up to 1.49
Bin storage area	7.80	9.75*	1.95
Areas of planting (Water-compatible development)	7.80-9.25	9.75*	0.50-1.95

* Worst-case flood level. Flood levels to the landward side of the development are predicted to be substantially less, with a predicted flood level of 8.84mAOD

As noted in Section 2.6, site levels will be raised on site to reduce the risk of flooding. Following the raising of the site the residential building will be flood free, raised to 9.80m AOD, 0.05m above the flood level of 9.75m AOD.

The car park area will also be raised to between 9.10 to 9.55m AOD. Therefore, the maximum flood depth in the car park will be 0.65m.

The potential damage to any vehicles in the car park can be mitigated by removing vehicles from the site prior to a flood event, utilising the recommendations of a Flood Response Plan and NRW Flood Warning and Flood Alert system. Further guidance on flood mitigation is provided in Section 6.3.

The bin store could flood to depths of up to 1.95m if the water level behind the flood defences were to equal the flood level in front of the defences. However, this is unlikely and the defended modelling suggests that the flood level in this area will only reach 8.84mAOD and therefore the flood depths in the bin store will not exceed 1.04m in this event. Such flooding is unavoidable due to the need to tie in with the existing highway connection for refuse collection.

5.4 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 scenarios, as shown in Figure 5-3 and Figure 5-4. Access will be restricted not only because of flooding in the immediate area, but also because of the scale of flooding across Newport. It is therefore recommended that Hedyn and the residents sign up for NRW flood warnings, which will typically provide advance warning of tidal flooding 48 hours in advance of flooding. Furthermore, Hedyn are advised to prepare and share a Flood Response Plan for the site. This should encourage residents to evacuate site prior to a flood event. If residents were unable or unwilling to evacuate the building, then it is recommended that they shelter in the building, which will remain flood free, until flooding recedes to a safe level. Given the proposed flood mitigation measures, the site will provide dry refuge to residents.

Flooding will be short-lived, with overtopping of the flood defences and landforms lasting no longer than 1 hour, after which the tidal level will very rapidly recede.

Further guidance on mitigating the risk of flooding to the proposed development is provided in Section 6 below.

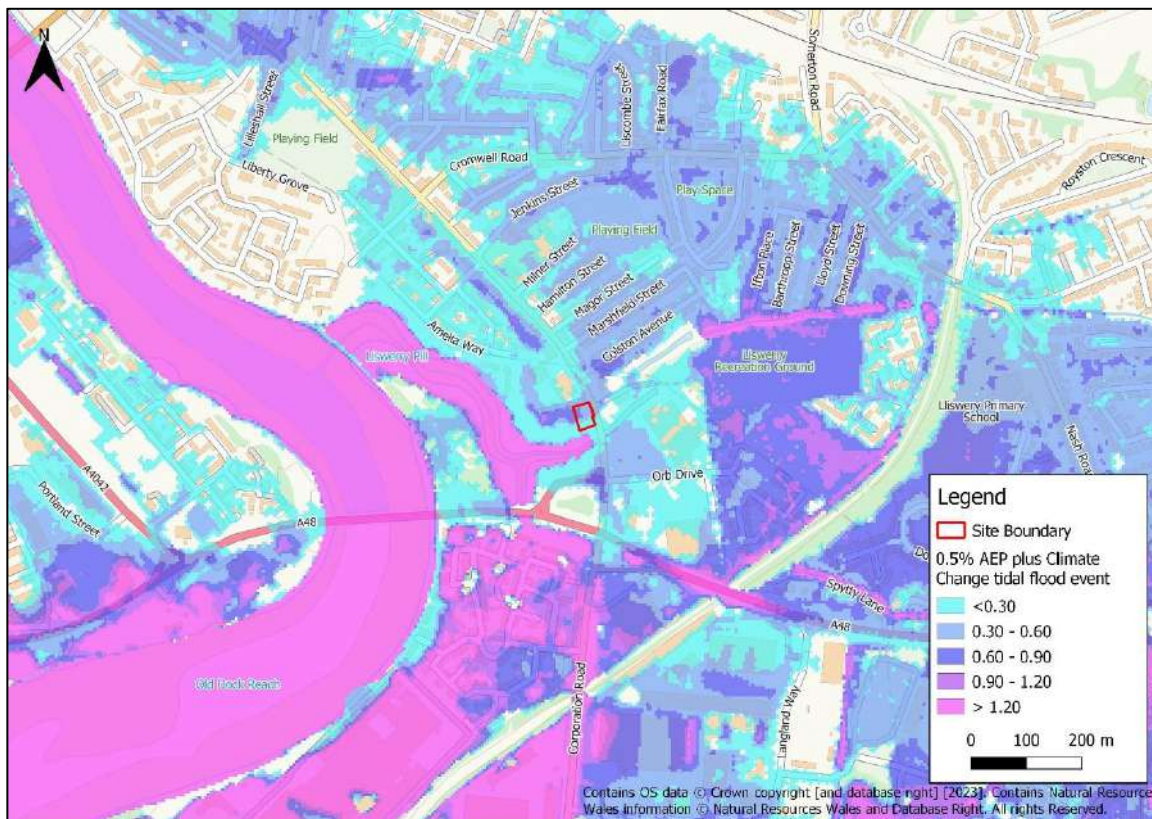


Figure 5-3 Baseline – 0.5% AEP event plus climate change- Wider view

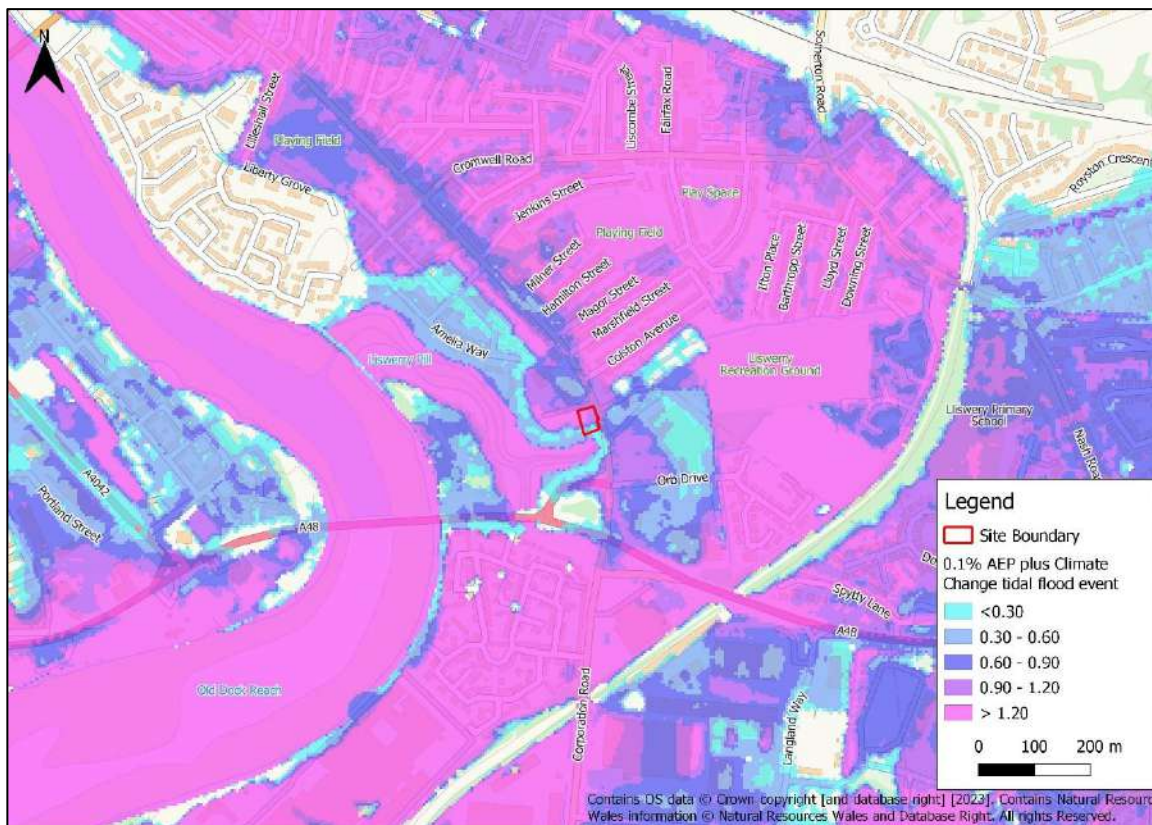


Figure 5-4 Baseline – 0.1% AEP event plus climate change- Wider view

6 Flood Risk Resilience

TAN15 promotes the flood resilience of existing communities and the incorporation of flood resilience measures for redevelopment sites where there remains an element of flood risk. The redevelopment site is shown to be at risk of tidal flooding during the 0.5% AEP plus climate change and 0.1% AEP plus climate change events, and flood resilience is therefore integral to whether the consequences of flooding can be safely managed at a site.

Section 13.6 of TAN15 guides assessments to industry standard advice on incorporating resistance and resilience into development through design. This section has therefore been prepared in accordance with the CIWEM Code of Practice for Property Flood Resilience and the Ciria Code of Practice for Property Flood Resilience. The code of practice sets out recommendations for mitigation in categories defined as: realignment, resistance, resilience and response. Mitigation in relation to each category and how it can be applied to the proposed development is considered below.

6.1 Realignment

Opportunities to realign the flood receptor (i.e. the proposed development) and realign the flood pathways are set out in Table 6-1. Given the predicted extent of flooding to the site in the most extreme design event, there are limited opportunities for realignment, although a sequential approach to the proposals have been followed.

Table 6-1 Realignment Mitigation

Measure	Description	Feasibility
Realign flood receptor	Sequential approach in layout	The redevelopment proposes less vulnerable use to the ground floor whilst siting highly vulnerable development on the upper stories, consequently resulting in the most vulnerable areas being flood free in all design events.
	Raise finished floor levels	Ground levels and Finished Floor Levels shall be retained as close to typical existing levels as possible to avoid the potential for detriment to third parties as a result of the proposals.
	Locate vulnerable elements to first floor	Highly vulnerable aspects to the development are located on the upper stories, with less vulnerable development on the ground floor.

Measure	Description	Feasibility
	Restrict use of building	Highly vulnerable aspects to the development are located on the upper stories, with less vulnerable development on the ground floor. Flooding occurs in the most extreme design event, with sufficient lead times to enable Flood Response Plans to be enacted, if required. Less Vulnerable development comprises a convenience store, which can be closed in the event of the extreme flood.
Realign flood pathway	Redirect flow pathway	Given the extensive nature of flooding to the site and wider area in the extreme event, no opportunities arise to redirect flow paths to and around the site. To do so may result in detriment to third parties.
	Change ground levels	Not feasible without increasing the risk of flooding elsewhere. For this reason, ground levels across the site are typically maintained as per the baseline scenario.
	Sustainable Drainage Systems (SuDS)	Given the extensive nature of flooding to the site and wider area in the extreme event, SuDS are unlikely to be sufficient to manage flood flows/volumes.

6.2 Resistance and Resilience

Further to the consideration of realignment measures, it is normally recommended that developments should adopt flood resistance measures, where applicable, in accordance with the CIRIA Property Flood Resilience Code of Practice. However, in this instance, the residential dwellings are predicted to be flood free in all design events, with the FFLs raised above the extreme tidal flood level. Consequently, the application of PFR measures is not recommended for this development.

6.3 Response

Preparation in how to respond in the event of a flood is a critical mitigation measure.

The site manager should sign up to the NRW's flood warnings to allow the closure or evacuation of the site before a flood event if sufficient warning is provided. The site is covered by the 'Usk Estuary at Maindee, North Liswerry and Spytty Pill' flood warning area and the 'Usk Estuary' flood alert area.

NRW flood warnings for tidal surge events are typically provided >48 hours in advance of a flood event. Flood warnings give notice that "flooding is expected" and "immediate action is required". Such significant lead times provide ample time for residents to prepare and respond to a flood warning – particularly given that any flooding would not

directly impact the residential dwellings. On the receipt of a flood warning, residents would be advised to evacuate or very closely monitor the situation around high tide; following the advice of the emergency services.

In the event that insufficient warning is provided, residents should enact a 'stay put' exercise, remaining in their apartments until the flood event has passed.

The effectiveness, accuracy and lead-in time for flood warnings can reasonably be expected to improve over time and may be significantly improved when the site's flood risk becomes more significant.

It is recommended that a Flood Response Plan (FRP) is prepared to inform the occupants of the risk of flooding and detail actions before, during and after a flood event. At a minimum, the Flood Response Plan should cover adequate flood warning, evacuation and access/egress routes in the event of flooding for the lifetime of the development. NRW provide guidance⁹ for the production of flood emergency plans. This guidance should be used to inform flood response procedures at the site.

6.4 Flood Defences

In the 2123 flood events large areas of Newport, including the Liswerry area in which the site is located, are predicted to flood to depths in excess of 0.6m (600mm). The modelling included as part of this FCA identifies that parts of the proposed development site and access from the proposed site will flood in the 0.5% AEP and 0.1% tidal events as a result of climate change, along with large areas of Newport when existing defences are overtopped.

The lifetime of the development is 100 years, and therefore this future flood risk will need to be appropriately managed as sea levels rise. As discussed in Section 3.7, the proposed development site is located on the border of Policy Units NEW5 of the Severn Estuary Shoreline Management Plan, which is subject to a 'Hold the Line' policy. Policy Unit NEW5 covers a large section of Newport, on the eastern bank of the River Usk from the Spyty Pill to the Uskmouth Power Station adjacent the River Severn and therefore contains a high number of properties and businesses. As such, there is an overwhelming business case for addressing future tidal flood risk in Newport on a strategic scale. The proposed development site is located in an area benefitting from existing defences and will therefore benefit from the future actions stated in the Severn Estuary SMP.

It is considered probable that future flood risks to the development site will be at least in part managed by future flood defence improvements in an effort to protect existing property in the area. This shall also support a sustainable future for Newport, allowing sites such as the proposed development site to proceed in compliance with TAN-15. We therefore believe that a pragmatic approach should be taken when considering this

⁹ <https://naturalresources.wales/flooding/preparing-for-a-flood/?lang=en>

planning application in terms of its future flood risk. The proposed redevelopment of sites like the development site enables climate change adaptation and increased flood resilience to be designed into a redevelopment; thereby reducing the flood risks whilst maintaining the sustainability of an existing community.

7 Flooding and the Plan Led System

7.1 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.

It is understood that the presence of the site within the TAN-15 Defended Zone supplants the sites' location within Flood Zones 3, regardless of the source of risk. TAN-15 states the following should be considered for redevelopment proposals within the TAN15 Defended Zone:

On brownfield sites redevelopment proposals should not over intensify use neither should they reduce the area's ability to absorb flood water nor cause problems with flooding elsewhere. All applications should consider opportunities to incorporate flood resilient design as appropriate.

Development proposals are for the construction of 14 residential units with associated parking spaces, bike storage, bin storage and landscaping. The proposals form an extension to the adjacent, consented residential development. It is therefore considered that the proposals do not result in an over-intensification of use, given the precedent and demand for new residential development in the area.

Given the tidal nature of flood risk to the site, the development is unlikely to result in detriment to third parties. Resilience has been incorporated into site design wherever possible, as detailed in Section 6 of this report. The proposals result in a betterment to flood risk to the site compared to the existing scenario, and the proposed approach to developing the site follows a similar mitigation strategy to that of the other approved phases of the development, as outlined in Section 2.5 of this report.

Where the principle of development is justified, development must demonstrate compliance with the acceptability considerations set out within Section 11 of TAN-15. This is demonstrated in Section 7.2.

7.2 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.

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

Table 7-1 Assessment of Acceptability Criteria

TAN-15 Acceptability Criteria	Comments	Achieved
No increase in flooding elsewhere.	The land raising of the site will not increase flood risk to third parties due to the extensive and massive volume of tidal flooding across Newport.	Yes
Occupiers aware of flood risk	The site owners will be provided with information on the risk to the site in the form of this report. It is recommended that a Flood Response Plan is prepared to inform future occupiers are aware of the risk and can act safely in the event of a flood.	Yes
Escape/evacuation routes present	As the risk to the site is from tidal flooding there would be flood warnings with large lead times which would allow people to evacuate the site. The flooding will also be of short duration (~1hr) due to the rapid change in tide levels. Additionally, the property will be able provide safe and dry refuge in a stay put scenario.	Yes
Flood emergency plans and procedures agreed and in place	It is recommended that a Flood Response Plan is developed and put in place prior to development of the proposed site.	Yes
Flood resistant and resilient design	The ground floor of the property will be raised above all predicted flood levels.	Yes
Acceptable consequences for type of use	Detailed in section 0 and 7.2.2.	Yes

7.2.1 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, as stated in section 11.7 of TAN-15. For Redevelopment, this threshold is a guide.

The ground floor of the proposed building will have an FFL of 9.80m, 0.36m higher than the predicted flood level in the 2123 0.5% AEP plus climate change event and therefore meets this criterion.

Many ancillary areas of the development, including the car park, access ramp, bin store and landscaping, are susceptible to flooding. However, the associated flood depths are predicted to be shallow, as detailed in Section 5.3.1, with the exception of some water-compatible areas of landscaping. Should a breach in the flood defences occur, flood depths in these ancillary areas may increase, but the property will remain flood free.

Consequently, it is considered that the proposals meet the flood frequency requirements of TAN-15.

7.2.2 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 More Vulnerable Developments.

As stated in 0, the thresholds may be applied with more flexibility for redevelopment where there are limitations on redesigning the development. Therefore, the thresholds outlined in Figure 6 of TAN-15 should be used as a guide for assessing development, and consideration should be given to the limitations of redesign.

The proposed residential building will be flood free during the 0.1% AEP plus an allowance for climate change flood event over the lifetime of the development. The car park will flood to depths of between 200-650mm.

Due to the unavoidable requirement to provide level access to the highway, the ramp access, bin store, and areas of planting (water-compatible development) are predicted to flood to greater depths in the worst-case scenario. This is unavoidably required to tie in with Corporation Road and the existing planning permission for residential development to the west of the site. Every effort has been made to reduce the flooding on the site by raising the levels to as high as practicable.

It is therefore concluded that the proposals broadly align with the recommended tolerable conditions threshold and aims of TAN15.

8 Conclusions

JBA Consulting were commissioned by Hedyn to undertake a Flood Consequences Assessment (FCA) to support a planning application for the construction of a residential apartment block and associated parking at a site located off Corporation Road, Newport.

The proposed development site is located on land to the west of Corporation Road in Newport and is approximately 0.13ha and comprises brownfield land.

The site benefits from previous outline planning approval for a commercial unit on the site. Reserved matters have been approved for neighbouring residential blocks which adopt a similar approach to flood risk management. The proposed change to the 'Block A' proposals will provide greater consistency to the development and associated flood mitigation measures, to the benefit of the wider area. This approach to developing the site follows a similar mitigation strategy to that of the other approved phases of the development, as outlined in Section 2.5.

The site is in TAN 15 Defended Zone for the Sea which is protected against flooding from the sea up to the 1 in 200-year (plus climate change and freeboard) event.

There is little or no risk of fluvial, surface water, groundwater, sewer or reservoir flooding.

To manage the risk of flooding, the ground floor of the proposed residential buildings shall be raised to a minimum level of 9.80mAOD. The car parking shall range between 9.10 and 9.55mAOD. To facilitate a connection to the existing highway, an access ramp is proposed which will range between 8.26mAOD and 9.55mAOD. The bin storage area will have an FFL of 7.80mAOD to provide level access to street level. The areas of perimeter landscaping will tie into existing levels around the boundary of the site.

The detailed assessment of tidal flood risk has been based on an updated version of NRW's Newport Tidal Flood Model (previously produced by JBA). This model has been updated to account for the latest extreme sea level estimates and climate change guidance. Post-development flood modelling or breach modelling has not been completed. Therefore, to assess the tidal flood risk to the site, a precautionary approach has been adopted, based on the maximum water level in the River Usk adjacent to the site.

The flood modelling data demonstrates that the proposed residential building will be flood-free in all design events over its lifetime. The car park will generally experience shallow flood depths, up to 650mm in the extreme design event. Flood depths in ancillary areas (access ramps, bin store and landscaping) may be significant, depending on whether the NRW flood defences in the area fail or not. However, the

consequences of flooding in these ancillary areas will be minimal and are unavoidable due to the constraints of the site and surrounding highway connections.

The proposed development shall not increase flood risk elsewhere, due to the overwhelming volume of tidal flooding.

Considering the risk of tidal flooding across the site, it is recommended that a Flood Plan is prepared for future occupants of the buildings. At a minimum, the flood response plan should cover adequate flood warning, evacuation and access/egress routes in the event of flooding for the lifetime of the development. The properties will be owned and managed by Hedyn, who, as a housing association, are well placed to prepare, maintain, communicate and support the implementation of a flood response plan.

The area is well served by NRW's flood warning system, typically providing 48hrs of warning ahead of tidal flooding, and overtopping of the flood defence is predicted to last for a maximum of 1hr.

The FCA has found that in respect to flood risk, the development aligns with the requirements set out in TAN-15 and aims of Planning Policy Wales.

Appendix A- NRW Comments

Via email to: admin@lrmp planning.com

Ein cyf/Our ref: CAS-287460-R4D1
Eich cyf/Your ref:
TheCrescentStatPreAP

Dyddiad/Date: 03 October 2025

Annwyl Syr/Madam/Dear Sir/Madam,

**STATUTORY PRE-APPLICATION CONSULTATION – TOWN AND COUNTRY PLANNING
(DEVELOPMENT MANAGEMENT PROCEDURE) (WALES) ORDER 2012 AS AMENDED**

**BWRIAD/PROPOSAL: Phase 2, Block A the Crescent comprising 14
residential units with access arrangements, parking and associated works**

LLEOLIAD/LOCATION: The former Transport Yard, Corporation Road, Newport.

Thank you for providing a requisite notice to us under Article 2D of the above Order. We received a copy of your proposed application on 01 September 2025.

We have concerns with the application as proposed because inadequate information has been provided. To overcome these concerns, you should provide further information in your planning application regarding flood risk. If this information is not provided, we may object to the planning application when formally consulted by the planning authority. Further details are provided below.

We also advise that based on the information submitted to date, we would ask the planning authority to include conditions regarding protected sites, protected species, and land contamination on any planning permission granted. Without the inclusion of these conditions by the planning authority we would be likely to object to the planning application.

Flood Risk

The planning application proposes highly vulnerable development (14 residential dwellings). The Flood Map for Planning identifies the application site to be at risk of flooding and within Flood Zone 2 and /or 3 (Sea) and TAN15 Defended Zone.

Section 10 of Technical Advice Note 15: Development, flooding and coastal erosion, dated 2025 (TAN15) provides advice on how this application should be considered in line with current planning policy. Our role is to provide detailed advice to the local planning authority on the findings and conclusions of the Flood Consequences Assessment (FCA) in relation to flooding from rivers and/or the sea, including the impact on flooding elsewhere. For advice on flood risk from surface water and or small watercourses you should consult the Lead Local Flood Authority.

Therefore, we have reviewed the FCA undertaken by JBA dated August 2025 referenced JYV-JBAU-XX-XX-RP-Z-0001-S3-P03 fails to demonstrate that the potential risks and consequences of flooding are manageable for the reasons explained below.

We note that ground levels will be raised across the site to reduce the risk of flooding. The residential blocks will have a ground floor finished floor level (FFL) of 9.80m AOD. The proposed car park will be raised to between 9.10 to 9.50m AOD with a gradual decline in levels from east to west. To facilitate a connection to the existing highway, a ramp is proposed which will decrease site levels from 9.5m AOD to 8.24m AOD. The bin storage area will have a FFL of 7.8m AOD to provide level access to street level.

Frequency thresholds

The FCA indicates that the predicted flood level in the 1 in 200 year (0.5%) plus climate change event 2123 is 9.31m AOD. Therefore, the average flood depth across the site is 0.39m, with areas in the northwest of the site predicted to flood up to 0.75m.

Based on the above proposed site levels of the various components of the development, the residential dwellings are predicted to be flood free during this event. The majority of the car park is predicted to be flood free during this event. However, flood depths of less than 0.21m are predicted across of the rest of the car park. The highway is also predicted to flood to a depth of 1.07m and the bin store to 1.51m.

Therefore, the proposed development is not compliant with Figure 5 of TAN15.

The FCA recognises that the site is located within a TAN 15 Defended Zone, and that the defences will be overtopped during the extreme flood events. However, the FCA has not considered a breach assessment or provided justification for not assessing this during the 1 in 200 year plus climate change event in the FCA. We advise that this scenario should be included within an amended FCA, and this should be the design event for the 1 in 200 year plus climate change assessment.

Tolerable Conditions

The maximum flood level in the 0.1% plus climate change event is predicted to be 9.61m AOD. Whilst all residential units are predicted to be flood free during this event, the average flood depth across the site is predicted to be 0.91m with the northern part of the site predicted to experience more significant flood depths of up to 1.35m.

Based on the above proposed site levels, the residential dwellings are predicted to be flood free during this event. All areas of the car park apart from the ramp are predicted to flood to depths of up to 0.51m and are therefore compliant with the suggested tolerable flood depths of 600mm within Figure 6 of TAN15. However, flood depths of up to 1.37m are predicted in the vicinity of the highway connection with the adjoining site. The bin storage area is predicted to flood to depths of 1.81m.

Section 5.3 of the FCA states that *“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 1 in 200 year plus climate change and the 1 in 1000 year plus climate*

change scenario". We do not comment on whether safe access and egress can be achieved to and from a site as this is a matter for emergency services to determine.

In summary, the FCA demonstrates that the residential element of the development is predicted to be flood free during the 1 in 200 year plus C.C event but other elements of the development are predicted to flood in this event. This is not compliant with figure 5 of TAN15. In addition, a breach analysis has not been undertaken.

Similarly, in the 1 in 1000 year event plus C.C event, the residential element of the development is predicted to be flood free and the car parking will be within the tolerable limits in TAN 15, however, the other elements of the proposal are predicted to flood to depths in excess of the limits set out in figure 6 of TAN 15.

The FCA provides justification as to why these elements cannot be raised to eliminate the risk of flooding, which include limiting any third-party impacts and tying into existing infrastructure. It will be for the LPA to be satisfied the predicted flooding consequences, as outlined above, are acceptable.

European Protected Species and Protected Sites

The proposal lies adjacent to the River Usk, which at this location is designated as a Special Area of Conservation (SAC) and Special Site of Scientific Interest (SSSI). The otter is a feature of both the SAC and SSSI.

We note that an updated walkover survey was undertaken in July 2025 which is detailed in the Ecology Summary Note, by Soltsbrewster, dated July 2025. Although no evidence of otter was found during the walkover survey, adjacent habitats are considered suitable for use by commuting otter and they are known to inhabit the nearby area.

Given the potential for the proposed development to impact protected species through lighting during construction and operation, a lighting strategy should be submitted. This should demonstrate how lighting will be designed (during construction and operation) to avoid illumination of the river corridor and any scrub habitat for retention.

Condition 1

Prior to its installation, full details of lighting shall be submitted to and agreed in writing by the Local Planning Authority. The Lighting Plan should include:

- Details of the siting and type of external lighting to be used
- Drawings setting out light spillage in key sensitive areas
- Details of lighting to be used both during construction and/or operation
- Measures to monitor light spillage once development is operational

The lighting shall be installed and retained as approved during construction and operation.

Justification: A lighting plan should be submitted to ensure lighting details are agreed prior to installation and to reduce the impacts of lighting in the interest of protected species and protected sites.

Conditions 2 and 3: European Protected Species and Protected Sites

We note that the Ecology Summary Note recommends timings for construction works near the inlet to be timed to avoid the period around sunrise and sunset (one hour prior and post respectively) to avoid times when Otters are most likely to be active.

In addition to this, any piling within 30 metres of the riverbank (mean high tide level) should be timed to avoid the shad migration period (March to June inclusive). Where piling cannot be avoided during the shad migration period (March to June inclusive) and is within 30 meters of the mean high tide level, non-percussive piling methods should be used and must only take place on a falling tide from 1 hour after high tide to 1 hour before low tide. Please note that this is separate from condition 5 below relating to land contamination.

We advise that these controls are secured by condition to any planning permission granted by the LPA.

Condition 4 Construction Environmental Management Plan

Also given the sensitive nature of the SAC/SSSI we would advise the LPA that a planning condition is secured requiring the submission of a Construction Environmental Management Plan to prevent pollution to the SAC/SSSI.

No development including site clearance, shall commence until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP should include:

- Construction methods: details of materials, how waste generated will be managed;
- General Site Management: details of the construction programme including timetable, details of site clearance; details of site construction drainage, containments areas, appropriately sized buffer zones between storage areas (of spoil, oils, fuels, concrete mixing and washing areas) and any watercourse or surface drain.
- Biodiversity Management: details of tree and hedgerow protection; invasive species management; species and habitats protection, avoidance and mitigation measures.
- Soil Management: details of topsoil strip, storage and amelioration for re-use.
- CEMP Masterplan: details of the extent and phasing of development; location of landscape and environmental resources; design proposals and objectives for integration and mitigation measures.
- Control of Nuisances: details of restrictions to be applied during construction including timing, duration and frequency of works; details of measures to minimise noise and vibration from piling activities, for example acoustic barriers; details of dust control measures; measures to control light spill.
- Resource Management: details of fuel and chemical storage and containment; details of waste generation and its management; details of water consumption, wastewater and energy use
- Traffic Management: details of site deliveries, plant on site, wheel wash facilities
- Pollution Prevention: demonstrate how relevant Guidelines for Pollution Prevention and best practice will be implemented, including details of emergency spill procedures and incident response plan.

- Details of the persons and bodies responsible for activities associated with the CEMP and emergency contact details.
- Landscape/ecological clerk of works to ensure construction compliance with approved plans and environmental regulations.

The CEMP shall be implemented as approved during the site preparation and construction phases of the development.

Justification: A CEMP should be submitted to ensure necessary management measures are agreed prior to commencement of development and implemented for the protection of the environment during construction.

Best practices regarding pollution prevention can be found in the GPP documents: [Guidance for Pollution Prevention \(GPP\) documents | NetRegs | Environmental guidance for your business](#).

Land potentially affected by Contamination

It is understood that the site comprises previously developed land, historically used as a tip and as a builder's yard, yet is it currently vacant. It is understood that contaminated land conditions were placed on outline application (Condition 3 on planning reference 18/0973), for which this phase 2 site was included within the red line boundary and therefore subject to assessment. It is understood that remedial works with respect to controlled waters comprised quarterly groundwater monitoring. Some aspects of the Condition (for example verification of remediation – part d of Condition 3) still remain associated with that outline application. It is therefore considered that contaminated land aspects at this site have been managed under outline application 18/0973.

It is unknown if piling will be required for this proposal. Therefore, due to the risks associated with the potential creation of new pathways at the site. Should a piled foundation solution be required, then we would request a piling works risk assessment to be undertaken.

It is understood from the SAB Compliance Report (Quad Consult, Revised August 2025) that surface water from the proposed development will not be discharged via infiltration to ground. Due to the historical land uses at the site and the potential for contamination to be present, infiltration of surface water would potentially give risk to mobilisation of contamination. At this stage, formal drainage plans do not appear to have been confirmed, therefore depending on the plans submitted with any future application, a condition to manage infiltration of surface water may or may not be required.

In the absence of additional information being provided with any future planning application we would recommend to the local authority that they should only grant planning permission for this scheme if the conditions listed below are attached to the planning permission:

Condition 5

No development or phase of development shall commence until details of piling or any other foundation designs using penetrative methods sufficient to demonstrate that there is no unacceptable risk to groundwater have been submitted to and approved in writing by the Local Planning Authority.

The piling/foundation designs shall be implemented in accordance with the approved details.

Justification:

Piling/foundation details should be submitted to ensure there is no unacceptable risk to groundwater during construction and methods/design are agreed prior to the commencement of development or phase of development.

Condition 6

No infiltration of surface water drainage into the ground is permitted other than with the express written consent of the local planning authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to controlled waters. The development shall be carried out in accordance with the approval details.

Justification: To prevent both new and existing development from contributing to or being put at unacceptable risk from or being adversely affected by unacceptable levels of water pollution.

Condition 7

If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local Planning Authority) shall be carried out until a remediation strategy detailing how this unsuspected contamination shall be dealt with has been submitted to and approved in writing by the Local Planning Authority. The remediation strategy shall be carried out as approved.

Justification:

To ensure the risks associated with previously unsuspected contamination at the site are dealt with through a remediation strategy, to minimise the risk to both future users of the land and neighbouring land, and to ensure that the development can be carried out safely without unacceptable risks.

Other Matters

Please note, if further information is prepared to support an application, it may be necessary for us to change our advice in line with the new information.

The advice in this letter relates to matters which are included on our [consultation topics list](#). We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests.

In addition to planning permission, you are advised to ensure all other permits/consents/licences relevant to the development are secured. Please refer to our [website](#) for further details.

Further advice on the above matters could be provided prior to your planning application being submitted, however there would be a charge for this service. Additional details are available on our [website](#).

If you have any queries on the above, please do not hesitate to contact us.

Yn gywir / Yours faithfully

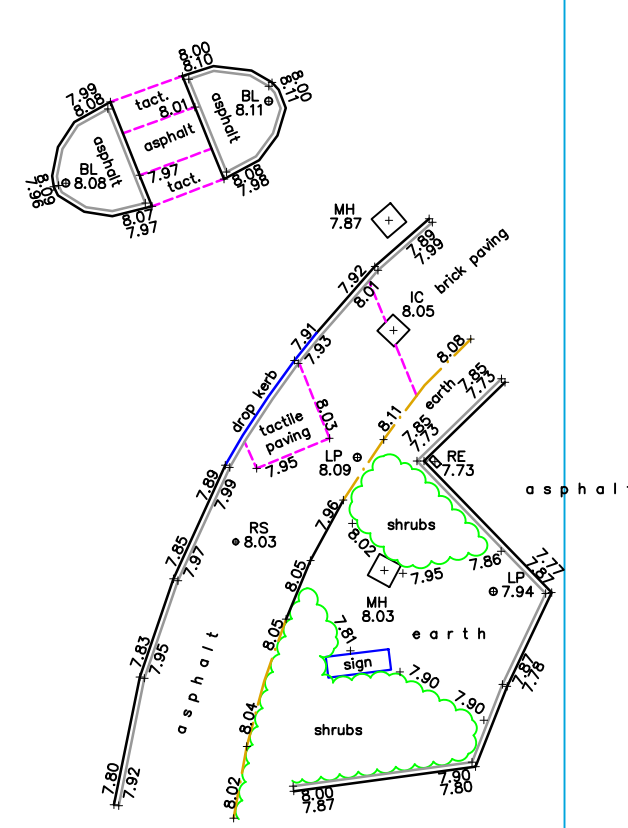
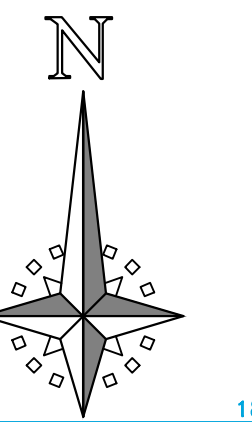
Claire McCorkindale

Cynghorydd - Cynllunio Datblygu/Advisor - Development Planning
Cyfoeth Naturiol Cymru/Natural Resources Wales

E-bost/E-mail: southeastplanning@cyfoethnaturiolcymru.gov.uk

Croesewir gohebiaeth yn Gymraeg a byddwn yn ymateb yn Gymraeg, heb i hynny arwain at oedi./Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay.

Appendix B- Topographic Survey



 THE SURVEY ASSOCIATION AZIMUTH GEO DATA AZIMUTH LAND SURVEYS  Ordnance Survey  Landmark Surveying Limited www.azimuthland.co.uk	Abbreviations: 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000	141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246
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Appendix C- Development Proposals



REV.	DESCRIPTION	DATE
CLIENT		
Newport City Homes		
JOB TITLE		
Block A, Corporation Road		
DRAWING TITLE		
Block A		
Ground Floor Plan		
SCALE @ A3	DATE	DRAWN BY
1:200	October '19	SC
JOB NO.	DRAWING NO.	REVISION
2119	S01 BLA_MP_GF_00 B	



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01 Block A - Ground Floor Plan
Scale 1:200 @ A3



ELEVATION 01



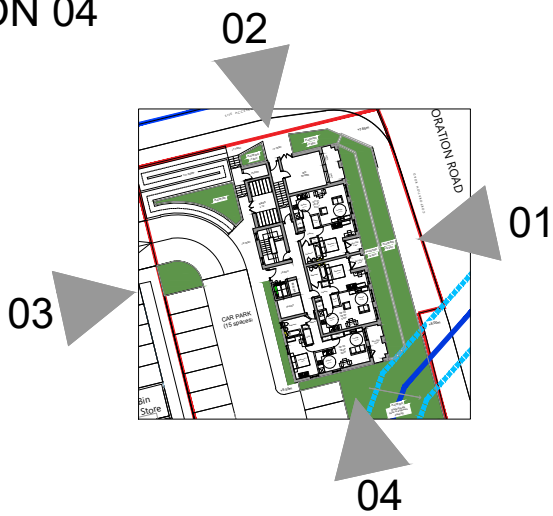
ELEVATION 02



ELEVATION 03



ELEVATION 04



REV.	DESCRIPTION	DATE
CLIENT		
Newport City Homes		
JOB TITLE		
Block A, Corporation Road		
DRAWING TITLE		
Block A Elevations		
SCALE @ A3	DATE	DRAWN BY
1:200	October '19	SC
JOB NO.	DRAWING NO.	REVISION
2119	S10 BLA_MP_ELE_00	A

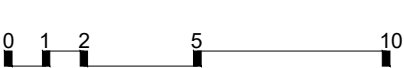


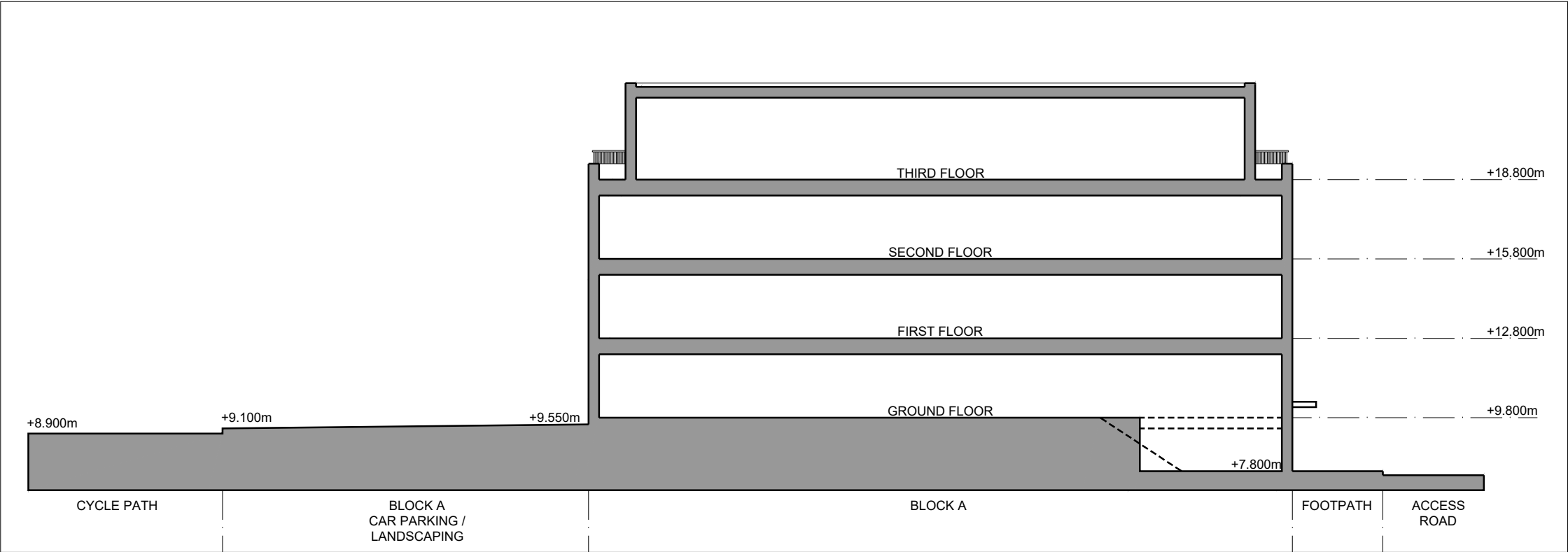
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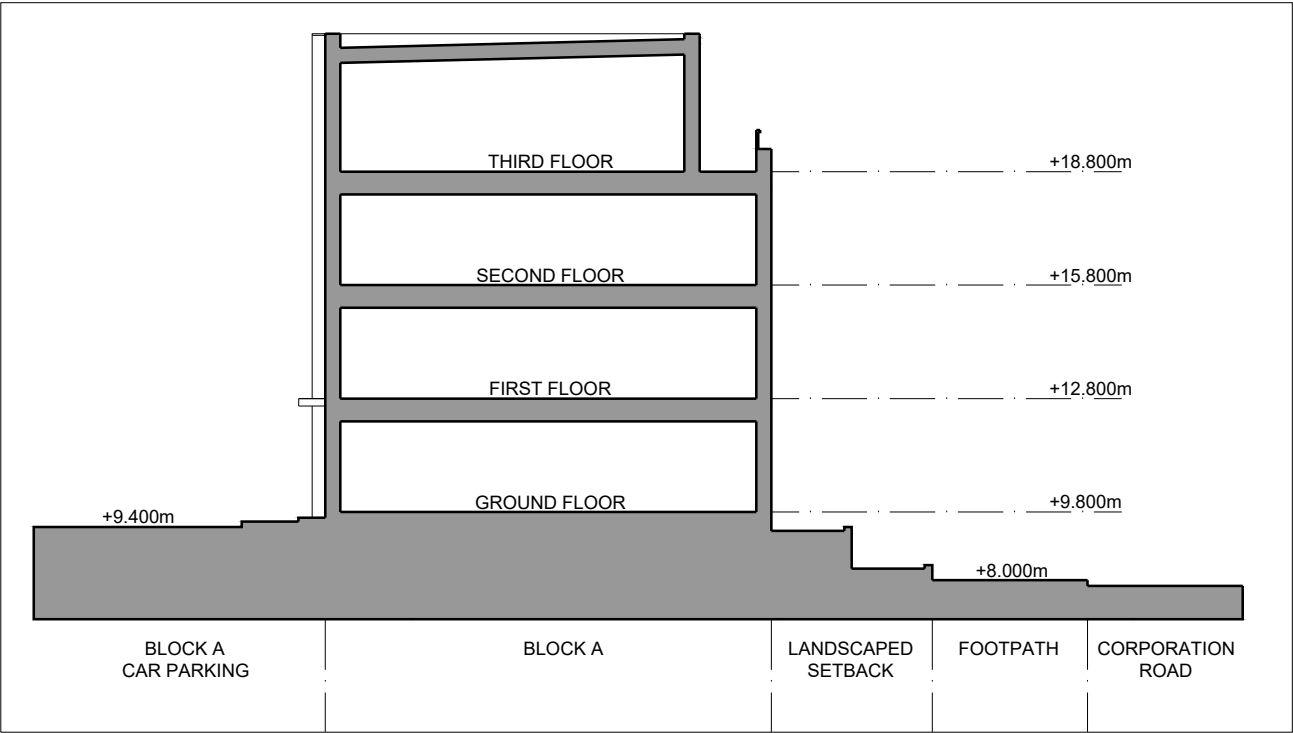
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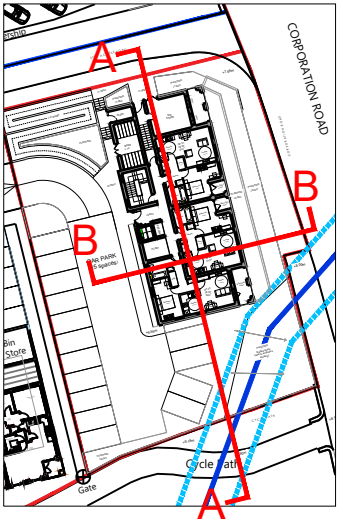




SECTION AA



SECTION BB



REV.	DESCRIPTION	DATE
CLIENT Newport City Homes		
JOB TITLE Block A, Corporation Road		
DRAWING TITLE Block A Sections		
SCALE @ A3 1:200	DATE October '19	DRAWN BY SC
JOB NO. 2119	DRAWING NO. S12 BLA_MP_SEC_02	REVISION



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