Natural Resources Wales

Stephenson Street Flood Risk Management Scheme

Flood Consequence Assessment

4-50

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1 Introduction and background

This report presents a Flood Consequences Assessment (FCA) for proposed enhanced flood defences at Stephenson Street, Newport. The flood risk management scheme is being promoted by Natural Resources Wales (NRW), funded by Welsh Government and supported by Newport City Council.

The proposed enhanced flood defences are located on the left (eastern) bank of the River Usk near the Severn Estuary (Figure 1), south of the A48 (ST3204385896). Drawings of the proposed defences are included with the planning application.

The existing flood embankment crest level varies along its length. The current Standard of Protection (SoP) is less than a 1 in 30 chance in any year. Recent tidal surge events with recorded localised overtopping include January 2014 and March 2020. The embankment's structural condition is a concern and there is a risk of it will suddenly breach during flood water overtopping.

The proposed enhanced flood defences comprise raised flood banks, walls and a flood gate (Figure 1). The defences tie into the existing high ground of the Uskmouth Railway embankment. Together, these will provide a design standard of 1 in 200-year Standard of Protection (SoP) up to 2069, after which the SoP is would reduce due to sea level rise, unless interim measures have been taken. The proposed defence levels, including freeboard allowance, are given in Table 1.

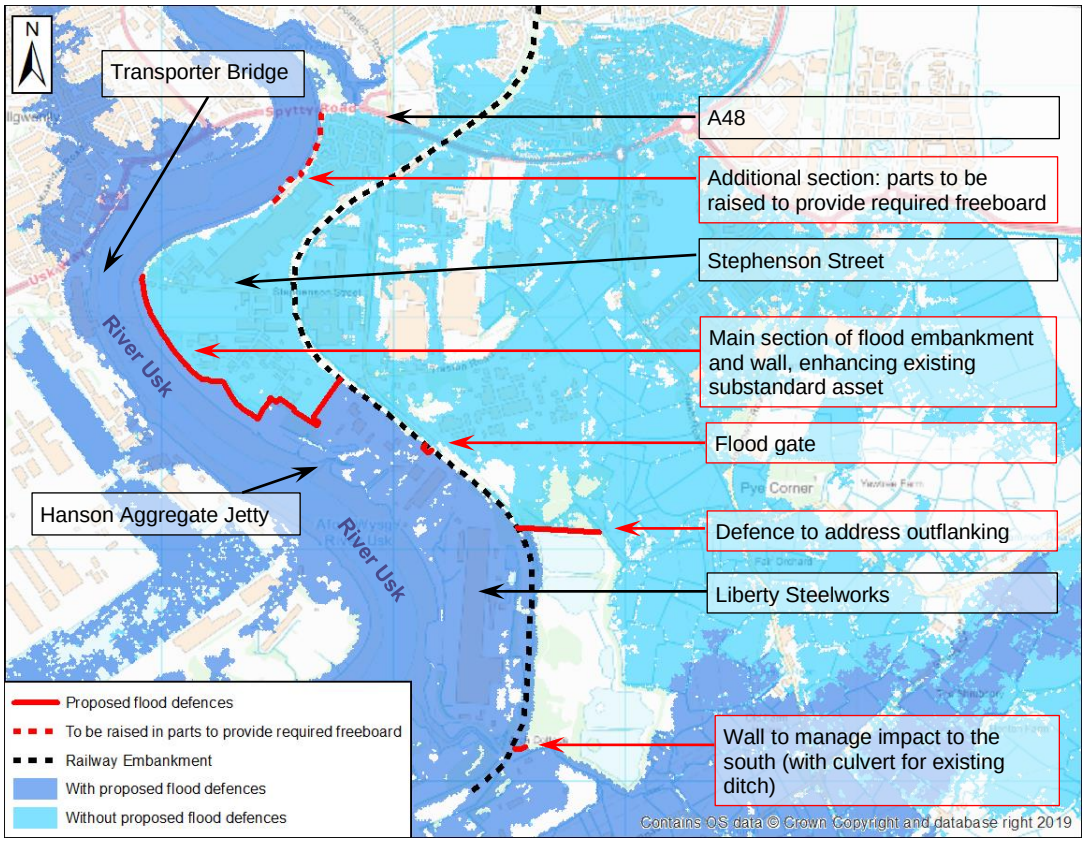

Figure 1: Location of proposed flood defences and the 1:200yr flood extent in 2069 with and without proposed flood defences.

Table 1: Proposed defence levels including freeboard allowance.

Section of proposed defence	Proposed defence level including freeboard (m AOD)
Main section western part	9.28
Main section middle part	9.31
Main section eastern part	9.20
Railway section	9.13
Wall at Nash to manage impact to the south	8.00

This FCA has been undertaken using the principles set out in the Planning Policy Wales (PPW) (December 2018) and Technical Advice Note 15 (TAN 15) – Development and Flood Risk (July 2004).

2 Baseline Information

1.1 TAN15 Development Advice Map (DAM)

The TAN15 Development Advice Map (DAM) for the area of Stephenson Street indicates that the majority of the area behind the proposed enhanced flood defences is **within Zone C1** (Figure 2). Definition of the various flood zones as stated in TAN15: *Development and Flood Risk* are given below.

- Zone A – Defined as an area considered to be at little or no risk of fluvial or tidal/coastal flooding.
- Zone B – Areas known to have been flooded in the past evidenced by sedimentary deposits.
- Zone C1 – Area of floodplain developed and served by significant infrastructure, including flood defences, and liable to flood events with probability of occurrence of 0.1% or greater (i.e. 1 in 1000 annual chance flood event or greater).
- Zone C2 – Area of floodplain without significant flood defence infrastructure, and liable to flood events with probability of occurrence of 0.1% or greater (i.e. 1 in 1000 annual chance flood event or greater).

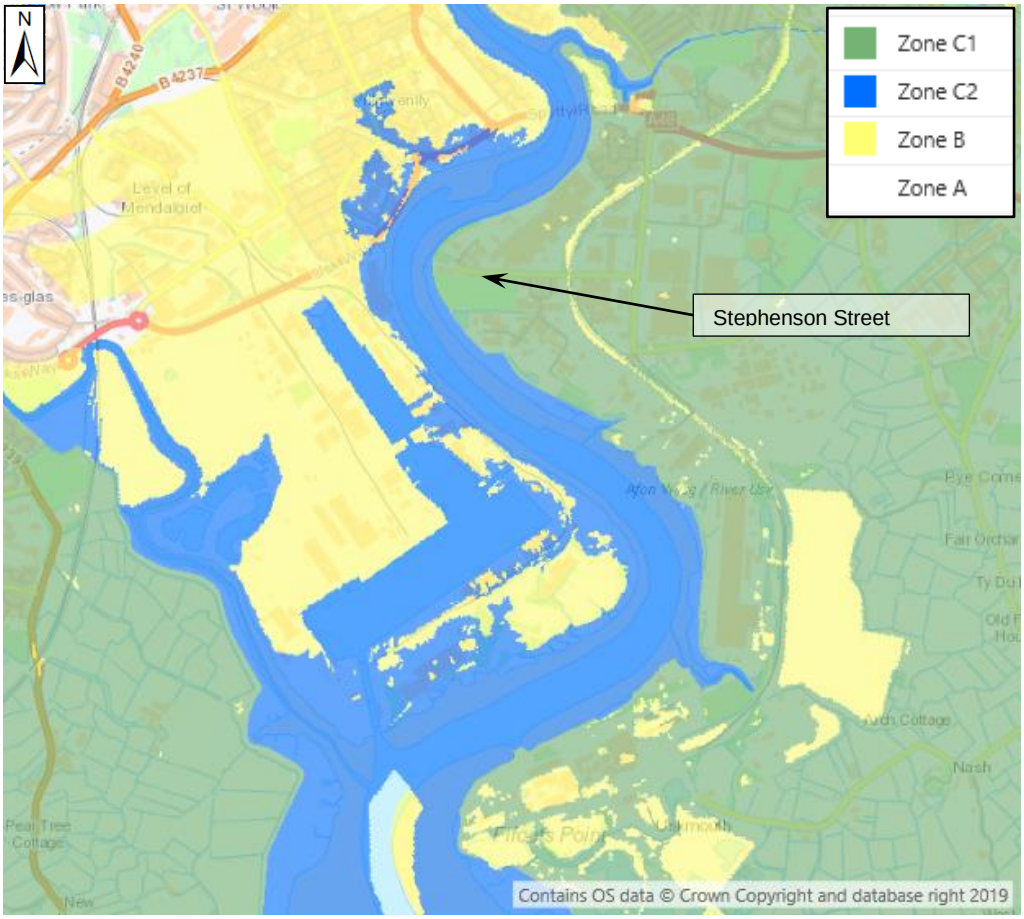

Figure 2: Development Advice Map accessed on 8th April 2020.

The primary mechanism of flooding from the River Usk in Newport is tidal inundation resulting from overtopping of river banks and existing flood defences along the River Usk.

1.2 Justification of the Scheme

The proposed enhancements to flood defences at Stephenson Street are to be delivered by NRW. NRW is responsible for maintenance and improvement work on main rivers in Wales to manage flood risk. NRW's Outline Business Case[1], prepared preceding the design stage, has justified the project for public investment. The consequences of flooding are considered and justified as outlined within this FCA, considering the overall benefit the scheme provides to the community.

Newport has a history of tidal flooding. The highest recent tidal surge was recorded in December 1981 with a level of 8.4mOD recorded at Newport Docks. Other notable local tidal floods include January 1936 and February 1957. Much of the Spytty area of Liswerry is at risk of tidal flooding including homes, businesses, leisure amenities and infrastructure such as the A48, Newport International Sports Village, Newport Stadium and Dragon Park.

[1] Stephenson Street Embankment Outline Business Case, Ove Arup and Partners for NRW, July 2016.

An embankment is shown on its present alignment on the earliest available mapping, dating from 1882. The current flood embankment is in a poor state of repair. There are signs of subsidence and structural failure. The embankment crest undulates along its length (maximum 9.7mOD; minimum 7.8mOD; average 8.5mOD). There are large sections where the crest width is narrow. In the absence of maintenance, failure of a section of the embankment is likely within 20 years.

Assuming a breach were to occur today some 192 residential and 620 non-residential properties in Spytty have greater than a 1 in 200 chance of tidal flooding in any given year. The predicted speed and depth of inundation is hazardous, extending some 2.5km from the embankment. Some 209 properties (including 1 residential) are predicted to flood during an event with a 1 in 10 chance in any year. Sea level rise due to climate change increases the predicted risk in 50 years significantly to 1,117 residential and 1,016 non-residential properties.

The proposals are estimated to reduce flood risk to people and property equating to present value benefits (flood damages avoided) of £178 million over the 100-year appraisal period. The proposals support the Severn Estuary Shoreline Management Plan (SMP2) and the Severn Estuary Flood Risk Management Strategy (SEFRMS) policy to “hold the line” by delivering a tidal defence Standard of Protection of 1 in 200 chance in any year (0.5% AEP) with allowance for 50 years of sea level rise.

3 Summary of hydraulic modelling

Hydraulic modelling has been undertaken to:

- Estimate required defence levels, including uncertainty allowance (freeboard).
- Assess impact of the proposed scheme on flood risk.
- Assess detriment resulting from the proposed scheme and identify potential mitigation measures.

A baseline hydraulic model has been developed. This is an integrated 1d-2d hydrodynamic model comprising a 1d ESTRY model representing river channels and a 2d TUFLOW model representing the river banks and floodplain topography. The model was developed by NRW and was refined as part of the current study to incorporate topographic survey of existing bank levels and additional flow paths on the floodplain.

The extreme tidal water levels used in the model are based on the UK coastal flood boundary conditions[2] and were subsequently compared against the updated 2018 boundary conditions when these were released. As the extreme water levels used in the model were slightly higher than the updated levels, NRW agreed that the model did not require revision.

Initial modelling showed that flood risk from the River Usk in Newport is dominated by tidal events as opposed to fluvial events. All subsequent modelling

[2] Coastal flood boundary conditions for UK mainland and islands, Environment Agency, 2011.

is based on tidal events in combination with a nominal 1 in 2 annual chance fluvial event.

The baseline model has been used to assess flood risk for flood event magnitudes up to the 1 in 1000 annual chance event for 2019, 2069 and 2119. Climate change allowances applied in the model for 2069 and 2119 were derived from Welsh Government guidance current at the time of modelling. The Welsh Government climate change guidance was updated after the modelling was undertaken. The updated guidance[3] results is slightly less sea level rise than has been modelled. The sea level rise values used in the modelling are compared against those derived from the latest guidance in Table 2.

Table 2: Sea level rise used in the modelling compared against sea level rise derived from the latest guidance.

	Sea level rise (m) from base year of 2019		
Year	**Used in the model**	**Derived from latest guidance**	**Difference (m)**
2069	0.439	0.422	0.017
2119	1.131	1.099	0.032

The hydraulic model was used to determine the required height of flood defence levels and to assess residual uncertainty to determine freeboard allowances.

A hydraulic model was then set up to represent the proposals by adding the proposed enhanced flood defences, including freeboard allowance, to the baseline model. The proposed flood defences include a bund to contain floodwaters to mitigate detriment to the south (Figure 1) which was identified through options modelling. The proposals model was run for the same return periods and climate change years as the baseline model. The modelled flood depths from the proposals model were compared against those from the baseline model to assess flood consequences.

The alignment of the proposed flood defences was subsequently modified to reduce temporary/permanent works impact on third-parties; this modified option is referred to as ‘Option 2b’ and this is now the final option referenced within the planning application. The Option 2b model was run for the same return periods and climate change years as the baseline model and results compared against the baseline model to assess flood consequences. The model results and assessment of consequences presented within this FCA relates to ‘Option 2b’.

Additional modelling tests were undertaken as follows:

- The roughness patch that was originally used to improve model stability at the Caldicot Levels was removed to improve realism of floodplain roughness values. This resulted in a slight increase in risk to third party land at Nash. To mitigate this increased impact, the level of the proposed wall at Nash was increased from 7.7m to 8.0m AOD. Modelling of the

[3] Climate change allowances and flood consequence assessments (CL-03-16), Welsh Government, August 2016.

updated wall level showed this would prevent the third party impacts at Nash.

- A sensitivity test was carried out to assess the impact on model results of adding a culvert at the proposed wall at Nash to allow drainage of the existing ditch. The model results showed this would not affect flood risk to third parties.

4 Assessing Flooding Consequences

The following flooding consequences assessment has been undertaken in accordance with guidance provided in Section 7 and Appendix 1 of TAN15: *Development and Flood Risk*, and is referenced against the relevant clauses within those sections.

Clause A1.2

The assessment has been undertaken with the objective of:

- Developing a full appreciation of the flood risk management from the development.
- Developing a full appreciation of the consequences of the development on flood risk elsewhere.
- Establishing whether mitigation measures are required to be incorporated within the design to minimise risk to life and property resulting from flooding.

Clause A1.3

The primary mechanism of flooding in the existing situation, i.e. without proposed flood defences, is tidal inundation resulting from either breaching of the existing river banks or due to overtopping of the existing river banks. The current SoP for overtopping is less than a 1 in 30 chance in any year based on present day climate. Overtopping first occurs at East Bank Road and resultant floodwaters flow in a northerly direction to Stephenson Street (Figure 3). In the 1 in 100 annual chance event for present day climate, overtopping of more sections of the existing river banks occurs resulting in inundation of most properties to the south of Stephenson Street and to the west of the rail embankment (Figure 4).

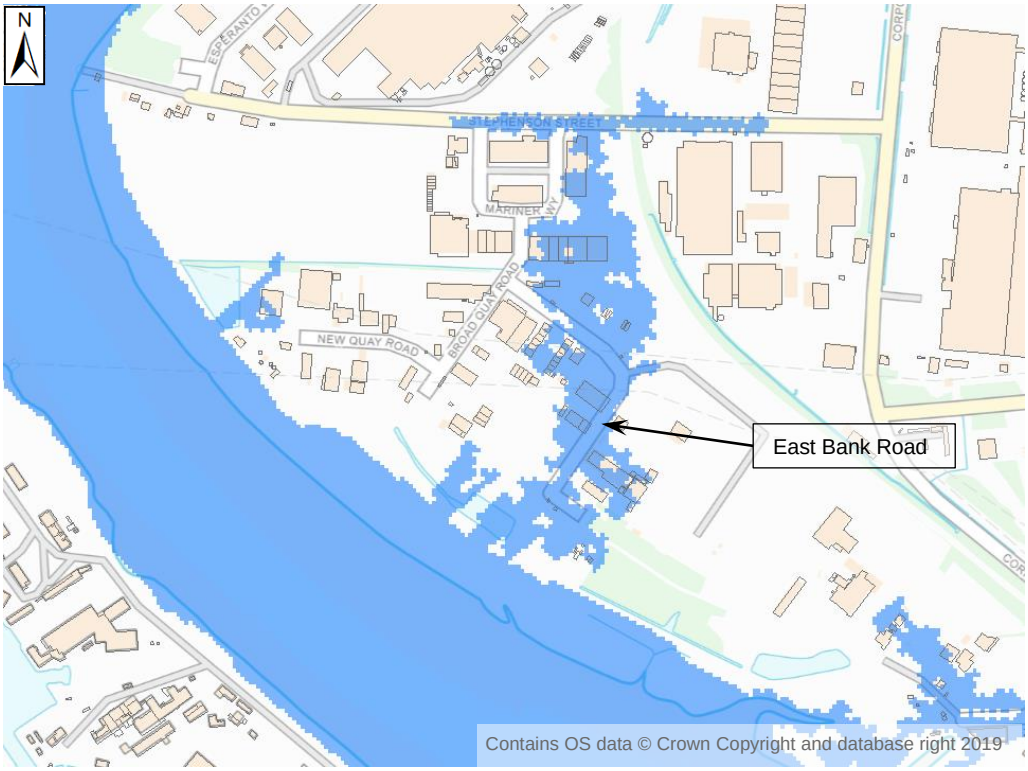

Figure 3: 1 in 30 annual chance flood extent due to overtopping (without breach) for present day climate without proposed enhanced flood defences.

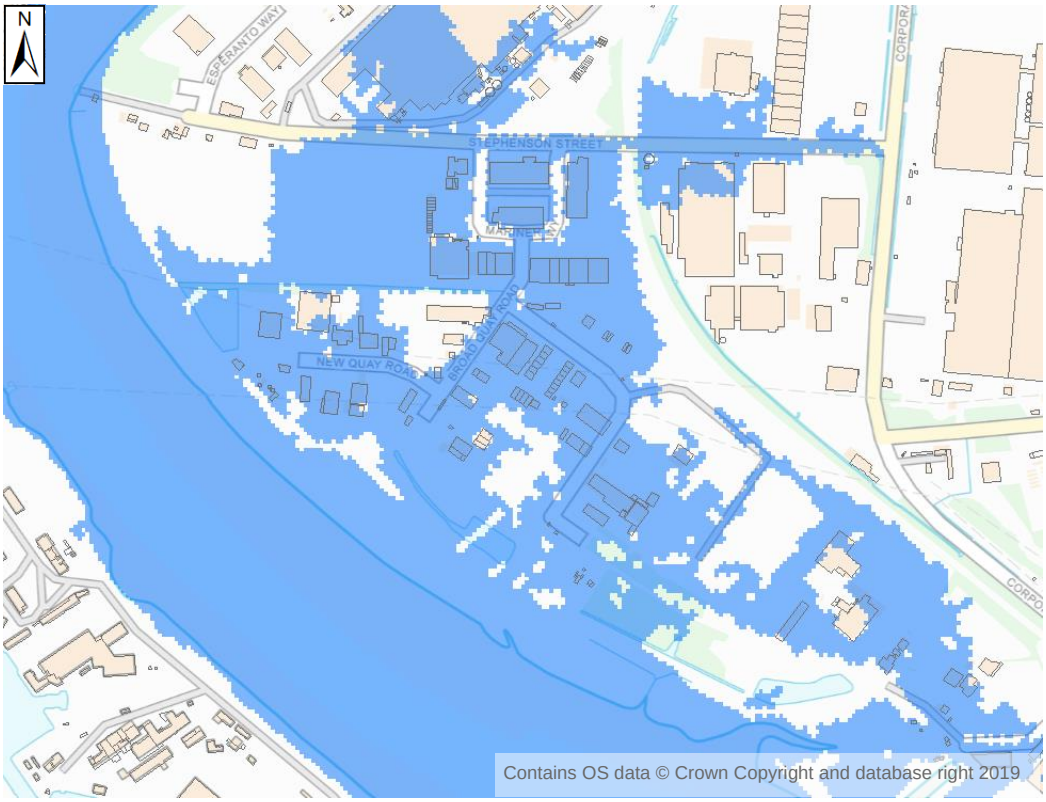

Figure 4: 2019 1 in 100 annual chance flood extent due to overtopping (without breach) for present day climate without proposed enhanced flood defences.

Clause A1.4

Level of confidence in flood estimation: We acknowledge that levels of confidence in extreme water levels and associated flood risk may not be high. To manage uncertainty for events up to the design standard, the proposed scheme incorporates freeboard allowances that have been derived using the current guidance on accounting for residual uncertainty[4] and these incorporate uncertainties in tidal water levels and an allowance for the impact of waves.

Clause A1.5

As the primary flood mechanism to the area behind the proposed defences is defended against up to the 1 in 200 annual chance event in 2069, the water that would otherwise flow into this area is kept in the river channel. This reduces flood risk to the area behind the proposed flood defences and is the principal objective and benefit of the scheme. Some 812 properties are predicted at risk of flooding during a 1 in 200 annual chance event today, increasing to 2,133 properties in 50 years due to predicted sea level rise.

Model results for the baseline without breach and the final option (Option 2b) including freeboard, have been used to determine the number of properties within the high, medium and low flood risk bands for 2019, 2069 and 2119 for each option. The flood risk bands are defined by NRW[5] as:

- Very low risk: Very low means that each year, this area has a chance of flooding of less than 1 in 1000 (0.1%).
- Low risk: Low means that each year, this area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%);
- Medium risk: Medium means that each year, this area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%);
- High risk: High means that each year, this area has a chance of flooding of greater than 1 in 30 (3.3%).

The property counts (Table 3) are based on an analysis of properties off the left (eastern) bank of the Usk downstream of George Street Bridge. The property counts show the proposed scheme would reduce the risk of flooding to a significant number of properties. Note that for 2119, the scheme would cause an increase in the number of properties in the low and medium risk bands; this is due to properties moving from the high-risk band into lower risk bands.

[4] Accounting for residual uncertainty: an update to the fluvial freeboard guide, Environment Agency, February 2017.
[5] https://naturalresources.wales/evidence-and-data/maps/long-term-flood-risk

Table 3: Number of properties in each flood risk band for baseline and scheme (i.e. flood scheme benefits).

		Predicted Flood Risk - Number of properties	
Year	**Flood risk band**	**Existing baseline without breach**	**With Proposed scheme**
2019	Low	1,856	102
	Medium	100	32
	High	56	29
	Total	**2,012**	**163**
2069	Low	3,839	2,440
	Medium	1,034	87
	High	895	75
	Total	**5,768**	**2,602**
2119	Low	1,942	3,204
	Medium	1,469	3,041
	High	5,957	2,935
	Total	**9,368**	**9,180**

The additional flow kept in channel by the proposed scheme marginally increases water levels in the River Usk which marginally exacerbates flooding in some locations causing detriment relative to the baseline model in a number of areas. This detriment is an increase in the depth of flooding of greater than 4mm.

Detriment maps are presented in Appendix A. These show where the proposed flood defences increase flood depths and the scale of the increase in flood depth. These show that the primary areas affected by detriment are:

- The industrial properties off the left bank of the Usk to the south of East Bank Road that fall outside of the area protected by the proposed scheme, currently subject to significant depths of predicted flooding.
- Properties at Pillgwenlly to the west of Usk Way.
- Several properties between Pillgwenlly and Newport Bridge.
- Properties on or near Wentwood Road.

A property level assessment of detriment has been undertaken to identify properties predicted to be at detriment and to assesses whether this predicted detriment is considered to materially affect flood risk for each property identified. This assessment has used the National Receptor Dataset to identify properties. Additional work was then undertaken to assess in more detail the properties predicted to be materially affected; this included reviewing the property type and collecting and reviewing property threshold survey. The property level assessment of detriment, which is described in more detail in Section 5, identified detriment is predicted to have a material impact on flood risk to:

- Ten industrial properties / buildings located on the undefended side of the defence line to the south of East Bank Road. These are shared between

two landowners and one of the properties in question is classified as being a 'possible upper floor property'. Engagement with the property owner/occupier and/or land owners is recommended as the detriment is unlikely to be material given the nature of the building and land use and the already high baseline flood risk in this area.

- Five properties located upstream of the scheme:
    - One residential property in the 1 in 30 annual chance event in 2069.
    - Four non-residential properties in the 1 in 100 annual chance event in 2069.

Communication with affected properties / landowners is planned during the consultation on the planning application, with letters to be sent by NRW and public engagement planned.

For flood events up to the design standard of the scheme, there is no material change in the onset of flooding due to the tidal nature of flooding. For flood events that exceed the design standard of the scheme, the properties in the area behind the proposed defences with residual flood risk have a slightly later onset of flooding due to the presence of the proposed flood defences.

The change in flood risk category is presented in the chance of flooding maps in Appendix B. This shows there are no discernible increases in flood risk category to properties. The only obvious location where flood risk category increases is at the sludge bed landward of the Liberty Steel site where the chance of flooding in some parts of the sludge bed increases from Very Low to Low or from Low to Medium. The results from the property level assessment of detriment undertaken for 2069 identified that no properties would move into a higher risk band (see Section 5). All properties are predicted to remain in the same risk band or move into a lower risk band.

The overall benefit provided by the proposed scheme is considered to outweigh the detriment.

NRW have taken a risk-based approach to flooding, betterment and detriment to assess the viability of the flood risk management scheme, in accordance with the provisions of the Water Resources Act 1991 (as amended by the 2010 Flood and Water Management Act). The scheme creates significant betterment to protect properties at relatively high likelihood and high-risk flood events and this is considered beneficial compared to the relatively low levels of detriment to properties generally at relatively lower likelihood flood events.

Clause A1.6

Given the tidal nature of flood risk and the nature of the proposed flood risk management scheme, there is considered to be no increase in flood risk due to potential blockages of riverine structures.

Clause A1.7

This FCA is for proposed new flood defence works. The proposed works are designed and are to be constructed to be structurally adequate for their intended purpose of flood defence. The flood defences are designed to resist structural failure due to breaching and to resist structural failure when overtopped for flood events up to the 1 in 1000 annual chance event.

The proposed flood gate at Corporation Road will be operated and maintained by NRW. A precautionary operating protocol will be developed to ensure closure in advance of forecast tidal surge events, with suitable lead-time and regular maintenance, inspection and test deployments.

The residual flood risk due to overtopping of the proposed flood defences in the 1 in 1000 annual chance event has been assessed. The results show the residual flood depths behind the proposed flood defences are lower than for the baseline for 2019 and 2069 climate and 20-30mm higher for the 2119 climate for the area between the proposed flood defences and the rail embankment (see Appendix A).

Clause A1.8

The acceptability criteria for flooding consequences are shown to be satisfied (see A1.12 and A1.13).

Clause A1.9

There is an overall net avoidance of economic damages provided by the proposed FRM scheme totalling £178 million over the 100-year appraisal period, due to the high probability of flood events being protected against compared to the low levels of detriment being caused. We have thoroughly analysed the impacts arising elsewhere from the scheme and sought, where possible and practical to do so, to minimise detriment. However, avoiding detriment in a heavily urbanised location at tidal flood risk is very difficult to achieve and hence compromises and risk-based decisions have had to have been made. The mitigation measures considered are listed as follows:

- Flood storage: While this measure can be effective in fluvial situations, it is considered impractical in tidal situations due to the very large volumes of floodwater and limited space for flood storage in the study area.
- Additional flood defences: A range of flood defence options for mitigating detriment that were considered practical within the constraints of the FRM scheme were agreed and modelled. This identified that a bund near Julian's Gout outfall (shown in Appendix A) could significantly reduce detriment to areas to the south of this proposed bund. This measure has been incorporated into the scheme design.
- Other measures tested in the model were less effective at mitigating detriment and/or were found to be impractical. It was considered that constructing additional flood defences adjacent to areas predicted to be at detriment would likely move the detriment further upstream and that the scale and cost of these would not be proportionate to the relatively low levels of detriment predicted.

- Property level protection measures were considered but it was agreed that the successful and consistent operation of these during flood events by property owners could not be relied upon as part of the FRM scheme.

Clause A1.10

The FCA has been prepared by a suitably qualified competent engineer with previous experience of preparing FCAs.

Clause A1.11

The proposed FRM scheme will reduce overall flood risk. The acceptability criteria for flooding consequences are shown to be satisfied (see A1.12 and A1.13).

Clauses A1.12 and A1.13

The following conditions have been satisfied by NRW or, where indicated, are not applicable:

- Flood defences must be shown by the developer to be structurally adequate particularly under extreme overtopping conditions (i.e. that flood with a probability of occurrence of 0.1%): The proposed new flood defences are designed to meet these requirements;
- The cost of future maintenance for all new/approved flood mitigation measures, including defences must be accepted by the developer and agreed with NRW: The proposed FRM scheme is being designed and managed by NRW who have allowed for future maintenance costs;
- The developer must ensure that future occupiers of development are aware of the flooding risks and consequences: Not applicable as this FCA is for proposed new flood defences and not a development;
- Effective flood warnings are provided at the site: The area is currently served by and will continue to be served by NRW Flood Warning for 'Usk Estuary';
- Escape/evacuation routes are shown by the developer to be operational under all conditions: Not applicable as this FCA is for proposed new flood defences and not a development;
- Flood emergency plans and procedures produced by the developer must be in place: Not applicable as this FCA is for proposed new flood defences and not a development;
- The development is designed by the developer to allow the occupier the facility for rapid movement of goods/possessions to areas away from the floodwaters: Not applicable as this FCA is for proposed new flood defences and not a development;
- Development is designed to minimise structural damage during a flooding event and is flood proofed to enable it to be returned to its prime use quickly in the aftermath of the flood: Not applicable as this FCA is for proposed new flood defences and not a development;

- No flooding elsewhere: There is no discernible flooding elsewhere due to the proposed scheme (see Appendix B). However, there is detriment (increase in flood depth) which materially affects flood risk at eight properties (see Clause A1.5). Detriment has been mitigated where practicable.

Clauses A1.14 to A1.16

These clauses are not applicable as this FCA is for proposed new flood defences and not a development.

Clause A1.17

The following technical requirements have been met in assessing the flooding consequences.

- A site location plan showing the locations of the proposed flood defence works and the River Usk is included within the planning application.
- The proposed defence levels are to protect properties from a 1 in 200 annual chance event in 2069 including freeboard allowance (Table 1). Freeboard allowance has been calculated using the current guidance on accounting for residual uncertainty[4].
- The proposed flood defences will be maintained by NRW.
- The mechanisms of flooding have been described above in A1.3.
- An assessment has been made of the likely impact of the proposed flood defences on flood risk elsewhere.
- Climate change allowance has been included in accordance with current Welsh Government guidance.
- An assessment of residual risks has been undertaken for flood events up to the 1 in 1000 annual chance event.

Communication with affected properties is planned during the consultation on the planning application, with letters to be sent by NRW and public engagement planned.

5 Property level assessment of detriment

The proposed enhanced flood defences keep flood water in channel, causing detriment relative to the baseline model in a number of areas. The impact has been assessed in accordance with a methodology agreed with NRW.

Detriment, defined as the increase in flood depth, has been assessed for the 1 in 30, 1 in 100 and 1 in 1000 annual chance events. These events were selected to be consistent with the NRW flood risk categories, which are defined by NRW[5] as:

- Very low risk: Very low means that each year, this area has a chance of flooding of less than 1 in 1000 (0.1%).
- Low risk: Low means that each year, this area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%);
- Medium risk: Medium means that each year, this area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%);
- High risk: High means that each year, this area has a chance of flooding of greater than 1 in 30 (3.3%).

Detriment has been assessed for 2019, 2069 and 2119 for the above return period events and is presented as a series of banded detriment maps (Appendix A). These show the increase in flood depth due to the proposed scheme (including detriment mitigation) compared to the existing situation (no scheme).

For the 1 in 30 and 1 in 100 annual chance events in 2019 and 2119, detriment is limited to the riverside area off the left (eastern) bank of the Usk to the south of the East Bank Road which affects some industrial properties. Some detriment occurs beyond this area for the 1 in 30 and 1 in 100 annual chance events in 2069.

A property level assessment of detriment has been undertaken to assess detriment to properties and to identify if and where increases in flood depth to properties is considered to materially affect flood risk to these properties. The detriment assessment has been based on the 1 in 30 and 1 in 100 annual chance events for 2069 as these give greater detriment than the same events in 2019 and 2119. Detriment has been assessed for properties using the National Receptor Database (NRD) property dataset, considering building footprints for each property from Ordnance Survey mastermap data, and is based on maximum flood depth results from the hydraulic modelling. Where threshold survey data was not available at the time of this assessment, it has been assumed that the threshold of each property is 0.15m above ground level.

Properties where detriment is considered to materially affect flood risk are those where either:

- the property is predicted to move into a higher flood risk band based on the low, medium and high risk categories; or
- the predicted detriment causes the property to flood when it was not flooded before; or

- the predicted detriment causes the flood depth to exceed 0.60m when this value was not exceeded before, this value being representative of the threshold at which typical property risks experiencing structural issues retaining water.

The results of the above assessment are presented as a list of properties that are predicted to have detriment (≥5mm increase in flood depth) with indication of whether this is considered to materially affect flood risk (Appendix C). There are 527 "properties" within this list that have detriment in either the 1 in 30 or 1 in 100 annual chance event for 2069. However, this includes all affected property points including 5 classified as being recorded upper floor and 50 classified as being possible (but not confirmed) upper floor properties. There are 314 definite ground floor properties and 158 possible ground floor properties. Note also that some properties comprise multiple property points, e.g. there are points for each building within a single industrial or commercial property and there is a total of 108 property points for Endeavour House on Usk Way. A summary of this data, split into the main communities affected, is presented in Table 4. This table incorporates findings from the more detailed assessment of materially affected properties described below which found 10 of the materially affected properties were not at detriment and one further property was at detriment but this did not materially affect flood risk.

The results from the property level assessment of detriment identified that no properties would move into a higher risk band. All properties are predicted to remain in the same risk band or move into a lower risk band.

The following 27 properties / buildings were initially identified to have detriment that could materially affect flood risk:

- For the 2069 1 in 30 annual chance event: 8 properties, of which 1 is residential and 7 are non-residential.

- For the 2069 1 in 100 annual chance event: 19 properties (all different from the above 8), of which 4 are residential and 15 are non-residential. One of these residential properties (39 Chichester Close) was initially predicted to move from the low to the medium risk band.

The above 27 properties / buildings include 10 industrial buildings located on the undefended side of the defence line to the south of East Bank Road. These are shared between two landowners and one of the properties in question is classified as being a 'possible upper floor property'. The detriment is unlikely to be material given the nature of the building and land use and the already high chance of flooding in this area as shown in Appendix A. Communication with affected properties is planned during the consultation on the planning application, with letters to be sent by NRW and public engagement planned.

The 10 industrial buildings identified above do not include the Liberty Steel site buildings where detriment is shown to exceed 100mm for part of the site in the 2069 1 in 100 annual chance event (Appendix A); the maximum detriment is approximately 190mm. This is because the flood risk in this area, in terms of both 'chance of flooding' and flood depths are already high in the baseline situation:

80% of buildings on the site have flood depth of greater than 1.0m and all have flood depths greater than 0.7m in the 1 in 100 annual chance event in 2069.

Additional work was undertaken to assess the remaining 17 materially affected properties in more detail, including reviewing the property type and collecting and reviewing property threshold survey. This detailed assessment (Appendix D) identified that of these 17 properties, only one residential property is subject to material detriment in the 2069 1 in 30 annual chance event and only four non-residential properties are subject to material detriment in the 2069 1 in 100 annual chance event due to an increase in flood depth:

- Residential property 19 Church Street: Predicted flood level was 1.4mm below the surveyed threshold level and the with-scheme predicted flood level is 4mm above the surveyed threshold level – i.e. within modelling tolerance and marginal. Engagement with the property owner/occupier could be undertaken as the detriment is unlikely to be material.

- Non-residential properties Unit 1A and 1B, Mill Parade: All thresholds remain above predicted with-scheme flood levels except one section of Unit 1B industrial threshold level which is 105mm below predicted with-scheme flood level. Engagement with the Unit 1B property owner/occupier is recommended as the detriment is unlikely to be material given the nature of the building use.

- Non-residential property Unit 1 and 2, Rear of 17 St Stephen's Road: Whilst Unit 1 thresholds and ground levels, and Unit 2 habited threshold (office space) are 88mm to 130mm above predicted with-scheme flood levels, Unit 2 industrial threshold level is 99mm below predicted with scheme flood level. Engagement with the property owner/occupier is recommended as the detriment is unlikely to be material given the nature of the building use.

- Unknown non-residential property Mill Parade: With-scheme predicted flood level is +27mm from the baseline and between +40mm and +91mm above surveyed industrial threshold level, however 20mm to 60mm below habited thresholds (office space). Engagement with the property owner/occupier is recommended as the detriment is unlikely to be material given the nature of the building use.

- Non-residential property Unit 1-5 Isca Foundary, Milman Street: With-scheme predicted flood level is +44mm from the baseline and between +18mm and +106mm above surveyed threshold level. Engagement with the property owner/occupier is recommended as the detriment is unlikely to be material given the nature of the building use.

A summary of detriment to properties, including numbers of properties considered to be materially affected and those considered not to be materially affected, is given in Table 4.

Communication with affected properties is planned during the consultation on the planning application, with letters to be sent by NRW and public engagement planned.

Table 4: Summary property counts for predicted flood risk to properties. Refer to Figure 5 for location of communities given in the first column.

Community	Property type	**Properties with predicted increase chance of flooding** i.e. moving into higher flood risk band	**Properties with predicted increase in flood depth >4mm**	**Material detriment** i.e. detriment causes a) property to move into a higher flood risk band, or b) property to flood when previously it was flood free, or c) flood depth to exceed 600mm	**Properties with increase in flood depth >4mm**		**Maximum increase in flood depth**		
					Medium likelihood (1:100)	**High likelihood (1:30)**	**5 - 25mm**	**25 - 50mm**	**> 50mm**
Left bank upstream of M4	Residential	0	22	-	22	-	22	-	-
	Non-Res	0	-	-	-	-	-	-	-
	Unknown	0	9	-	9	-	9	-	-
Right bank upstream of M4	Residential	0	128	-	128	-	128	-	-
	Non-Res	0	-	-	-	-	-	-	-
	Unknown	0	-	-	-	-	-	-	-
Caerleon	Residential	0	2	-	1	1	2	-	-
	Non-Res	0	1	-	-	1	1	-	-
	Unknown	0	4	-	4	-	4	-	-
Left bank central Newport	Residential	0	3	-	3	1	3	-	-
	Non-Res	0	-	-	-	-	-	-	-
	Unknown	0	-	-	-	-	-	-	-
Right bank central Newport	Residential	0	108	-	108	-	108	-	-
	Non-Res	0	5	-	5	1	4	-	3
	Unknown	0	9	-	9	3	9	-	-
Pillgwenlly	Residential	0	48	1	41	14	42	-	6
	Non-Res	0	75	5	69	20	58	8	9
	Unknown	0	27	-	25	6	22	3	2
Left bank downstream of scheme (undefended riverfront industrial area)	Residential	0	-	-	-	-	-	-	-
	Non-Res	0	15	10	15	11	2	-	13
	Unknown	0	54	-	54	21	18	7	29

Community	Property type	Properties with predicted increase chance of flooding i.e. moving into higher flood risk band	Properties with predicted increase in flood depth >4mm	Material detriment i.e. detriment causes a) property to move into a higher flood risk band, or b) property to flood when previously it was flood free, or c) flood depth to exceed 600mm	Properties with increase in flood depth >4mm		Maximum increase in flood depth		
					Medium likelihood (1:100)	High likelihood (1:30)	5 - 25mm	25 - 50mm	> 50mm
Right bank downstream of scheme	Residential	0	-	-	-	-	-	-	-
	Non-Res	0	2	-	2	-	1	1	-
	Unknown	0	4	-	4	-	4	-	-
Total of all communities	Residential	**0**	**311**	**1**	**303**	**16**	**305**	**-**	**6**
	Non-Res	**0**	**98**	**15**	**91**	**33**	**66**	**9**	**25**
	Unknown	**0**	**107**	**-**	**105**	**30**	**66**	**10**	**31**
	Total	**0**	**516**	**16**	**499**	**79**	**437**	**19**	**62**

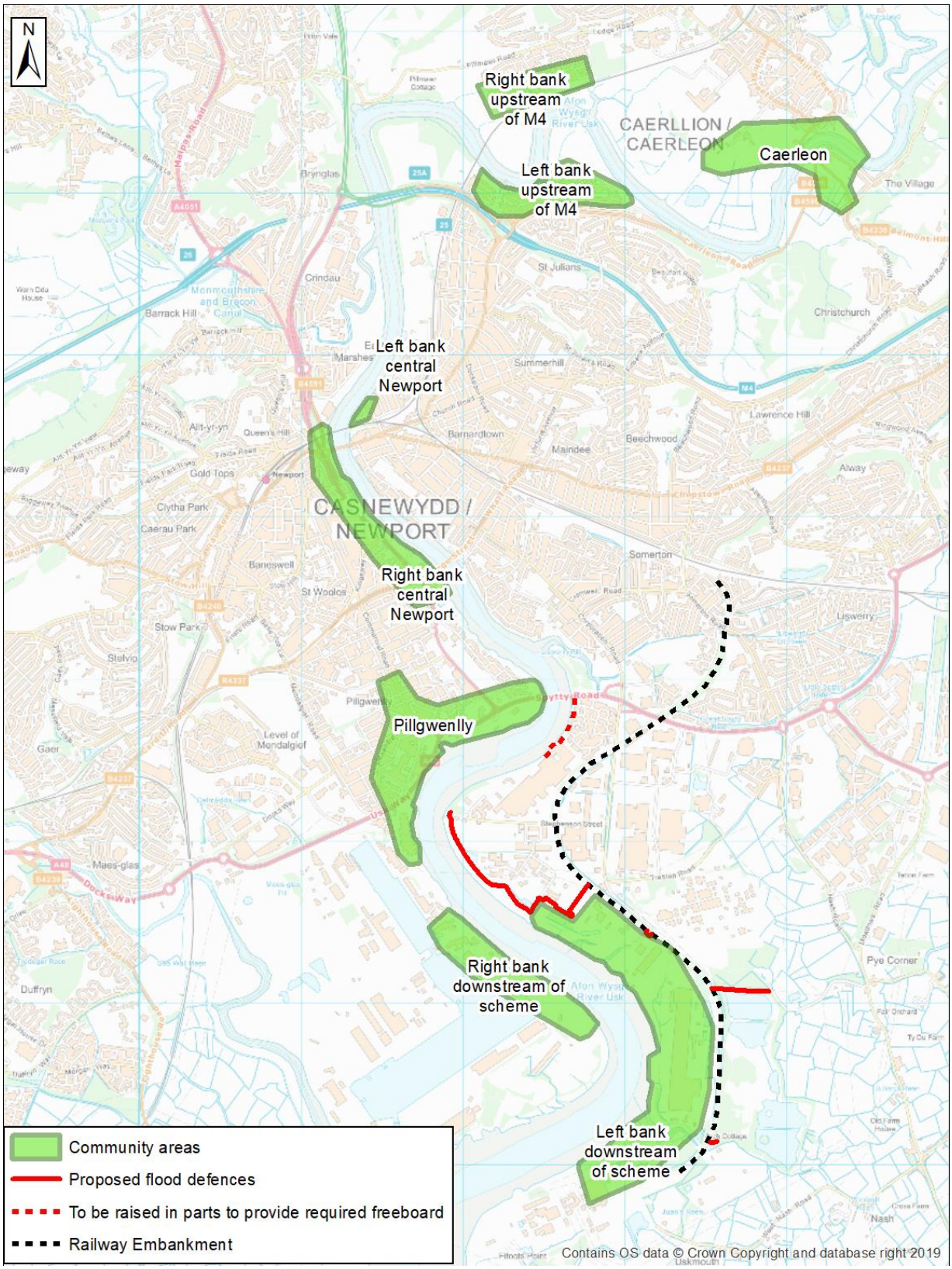

Figure 5: Community areas used for Table 2.

6 Summary

A Flood Consequences Assessment (FCA) has been undertaken for proposed enhanced flood defences for the Stephenson Street Flood Risk Management scheme in Newport. This FCA has been undertaken in accordance with guidelines provided in TAN 15: *Development and Flood Risk.*

The proposed enhanced flood defences comprise raised flood banks, walls and a flood gate. The defences tie into the existing high ground of the Uskmouth Railway embankment. Together, these will provide a design standard of 1 in 200-year Standard of Protection (SoP) up to 2069, after which the SoP is would reduce due to sea level rise, unless interim measures have been taken.

The proposed flood defences result in some detriment elsewhere, which we have thoroughly investigated and assessed, including consideration of mitigation measures. Properties where detriment is predicted to material affect flood risk have been identified. Communication with affected properties is planned during the consultation on the planning application, with letters to be sent by NRW and public engagement planned. NRW and Welsh Government are supporting a risk managed approach to enable the scheme to progress with detriment, as the scheme benefits outweigh this impact.

Appendix A

Detriment maps

A3

20/01/2020 14:18:08

Legend

Detriment mitigation bund at 7.7mAOD across Julian's Gout

Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
1. Detriment is increase in flooding compared to the existing situation without breach.
2. Modelling includes freeboard for scheme defences.

Metres

0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

ARUP

63 St Thomas Street
Bristol BS1 6JZ
+44 117 976 5432
www.arup.com

Client
NRW

Job Title
Stephenson Street Modelling

Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2019 1 in 30yr

Scale at A3
1:25,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
100	**D1**

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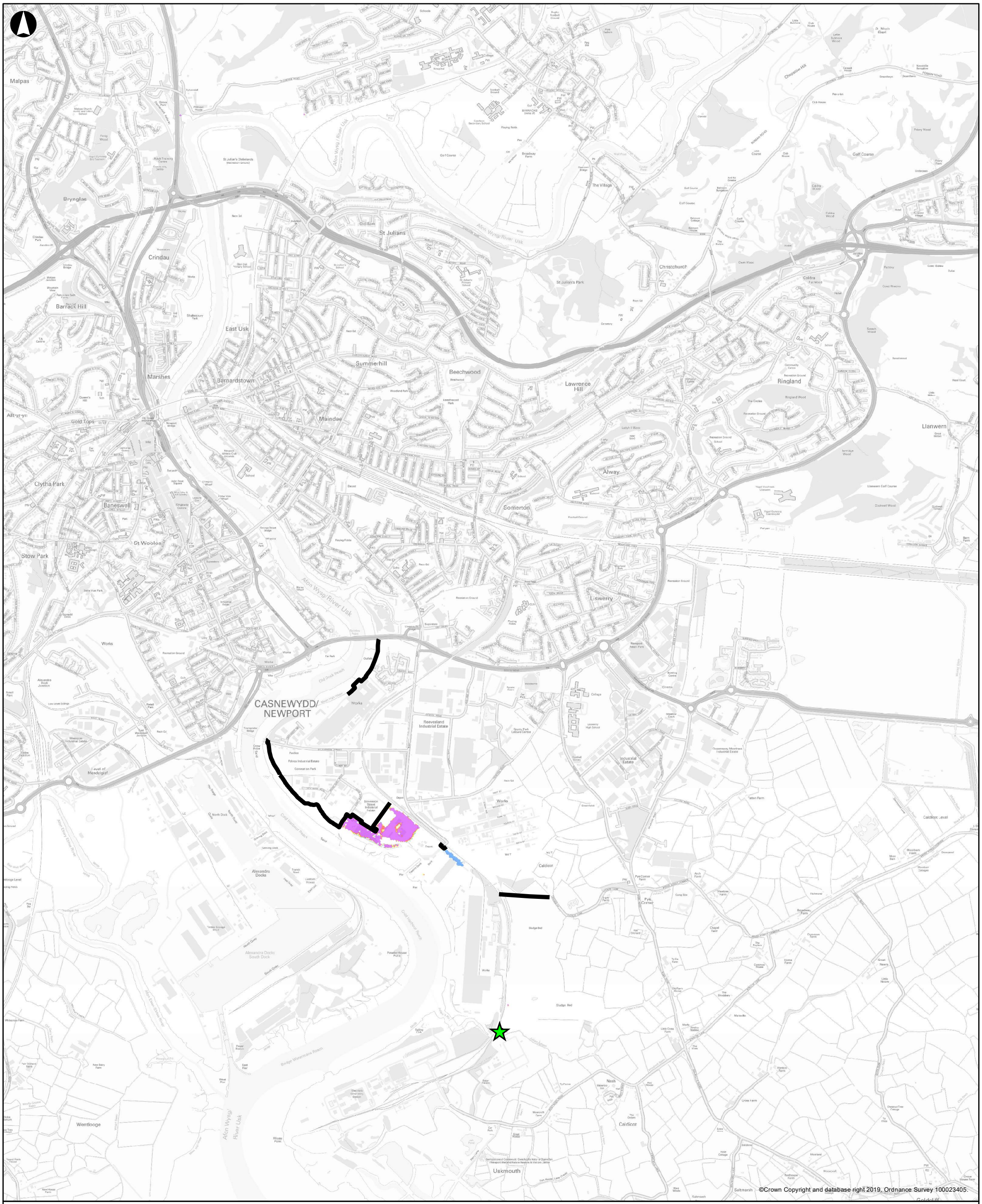
A3

20/01/2020 14:18:35



Legend

Detriment mitigation bund at 7.7mAOD across Julian's Gout

Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
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2. Modelling includes freeboard for scheme defences.

Metres
0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

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Client
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Job Title
Stephenson Street Modelling

Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2019 1 in 100yr

Scale at A3
1:25,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
101	**D1**

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A3

20/01/2020 14:19:00

Legend

- Detriment mitigation bund at 7.7mAOD across Julian's Gout
- Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
1. Detriment is increase in flooding compared to the existing situation without breach.
2. Modelling includes freeboard for scheme defences.

Metres
0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

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Stephenson Street Modelling

Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2019 1 in 1000yr

Scale at A3
1:25,000

Job No	Drawing Status
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Drawing No	Issue
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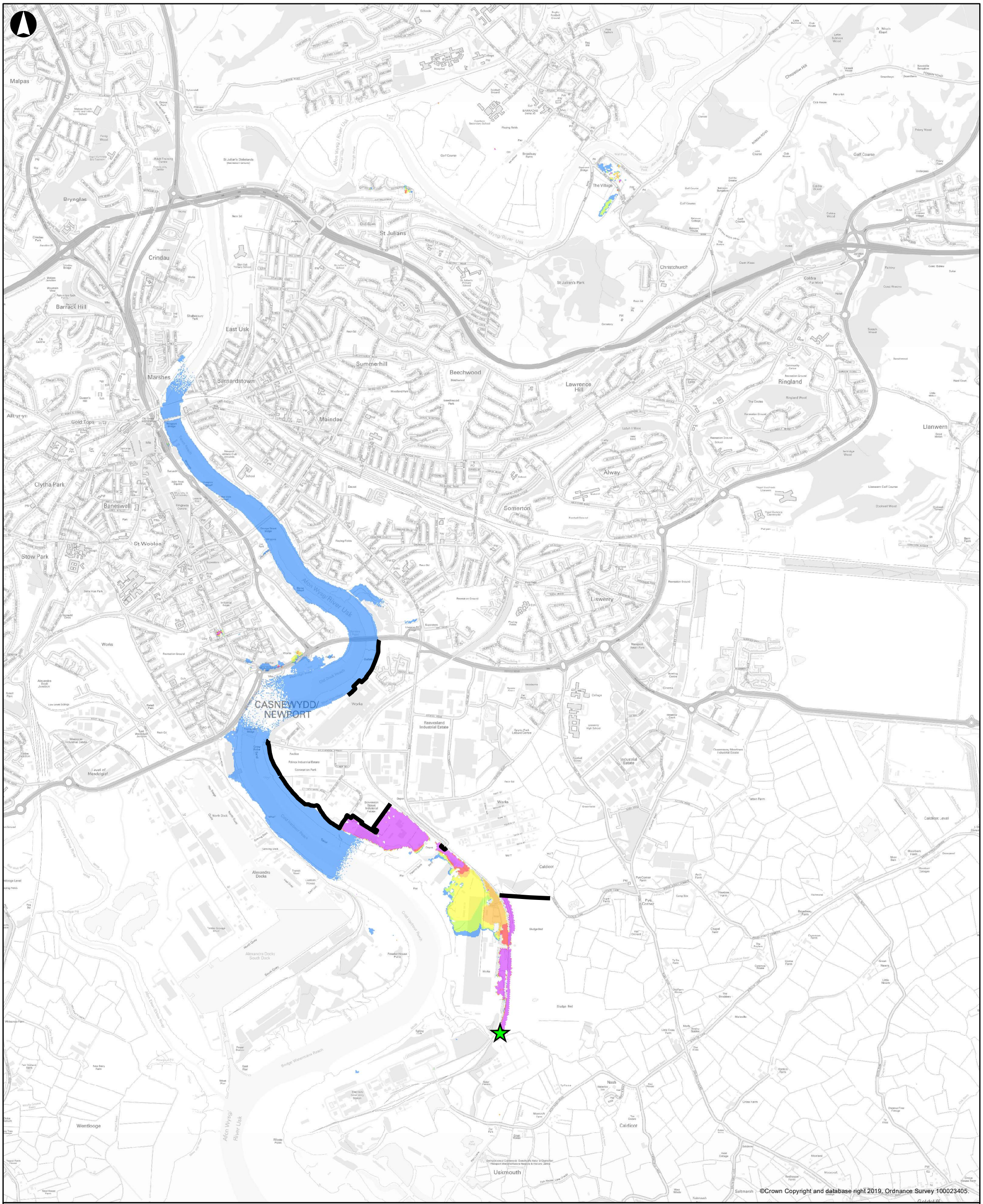

Legend

Detriment mitigation bund at 7.7mAOD across Julian's Gout

Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
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2. Modelling includes freeboard for scheme defences.

Metres
0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2069 1 in 30yr

Scale at A3
1:25,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
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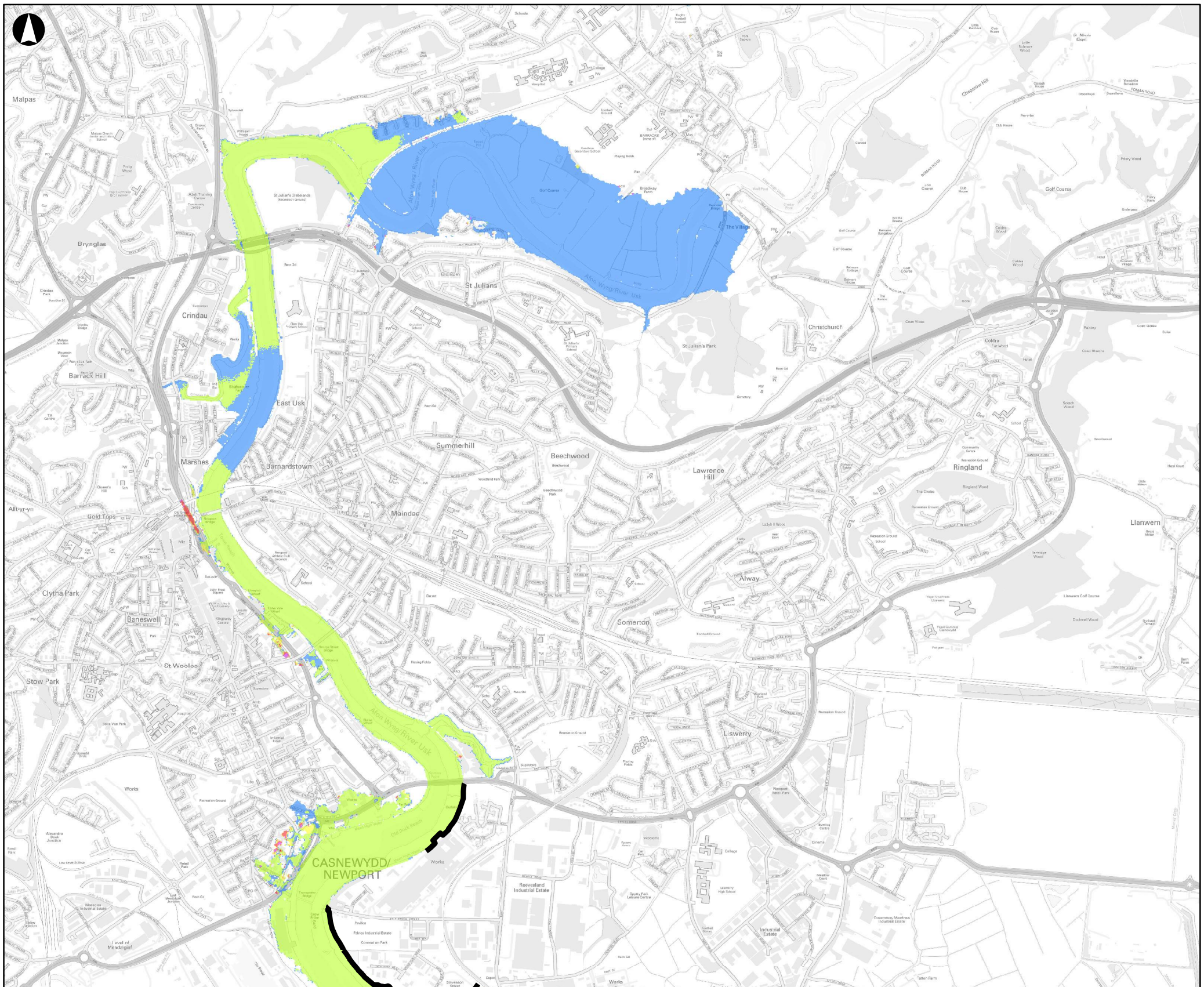

Legend

Detriment mitigation bund at 7.7mAOD across Julian's Gout

Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
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2. Modelling includes freeboard for scheme defences.

Metres
0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

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63 St Thomas Street
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Client
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Job Title
Stephenson Street Modelling

Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2069 1 in 100yr

Scale at A3
1:25,000

Job No	Drawing Status
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Drawing No	Issue
104	**D1**

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A3

20/01/2020 14:20:14

Legend

Detriment mitigation bund at 7.7mAOD across Julian's Gout

Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
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Metres
0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

ARUP

63 St Thomas Street
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Client
NRW

Job Title
Stephenson Street Modelling

Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2069 1 in 1000yr

Scale at A3
1:25,000

Job No	Drawing Status
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Drawing No	Issue
105	**D1**

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A3

20/01/2020 14:20:36

Legend

Detriment mitigation bund at 7.7mAOD across Julian's Gout

Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
1. Detriment is increase in flooding compared to the existing situation without breach.
2. Modelling includes freeboard for scheme defences.

Metres

0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

ARUP

63 St Thomas Street
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Client
NRW

Job Title
Stephenson Street Modelling

Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2119 1 in 30yr

Scale at A3
1:25,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
106	**D1**

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A3

20/01/2020 14:20:58

Legend

Detriment mitigation bund at 7.7mAOD across Julian's Gout

Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
1. Detriment is increase in flooding compared to the existing situation without breach.
2. Modelling includes freeboard for scheme defences.

Metres
0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

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Client
NRW

Job Title
Stephenson Street Modelling

Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2119 1 in 100yr

Scale at A3
1:25,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
107	**D1**

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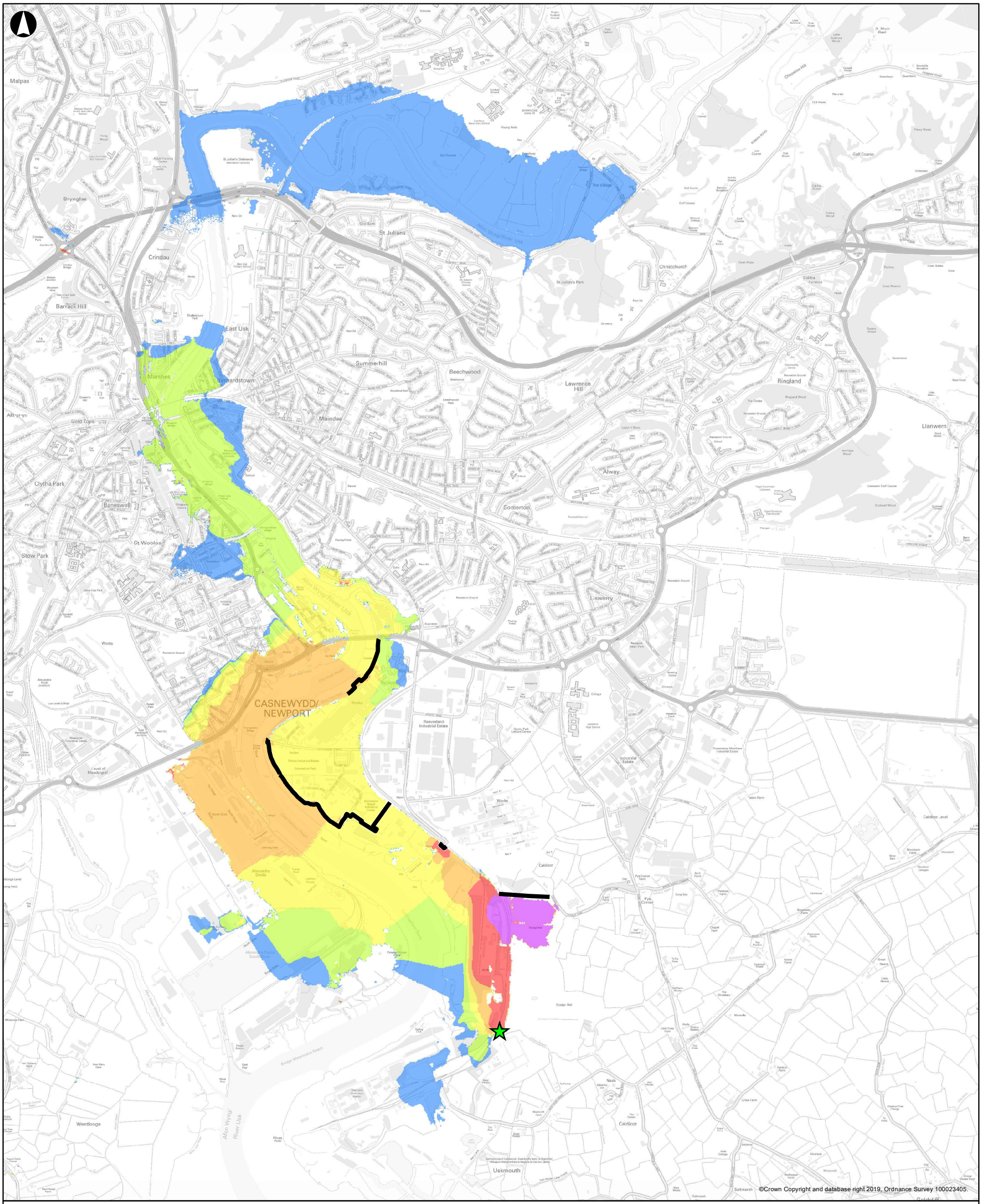

Legend

Detriment mitigation bund at 7.7mAOD across Julian's Gout

Proposed Defences

Flood Detriment (mm)

- < 5
- 5 - 10
- 10 - 20
- 20 - 30
- 30 - 50
- 50 - 100
- > 100

Notes:
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2. Modelling includes freeboard for scheme defences.

Metres
0 270 540 1,080

Issue	Date	By	Chkd	Appd
D1	2020-01-20	VCP	DVDL	RC

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Job Title
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Flood detriment for Option 2B Scheme with preferred detriment mitigation option 2119 1 in 1000yr

Scale at A3
1:25,000

Job No	Drawing Status
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Drawing No	Issue
108	**D1**

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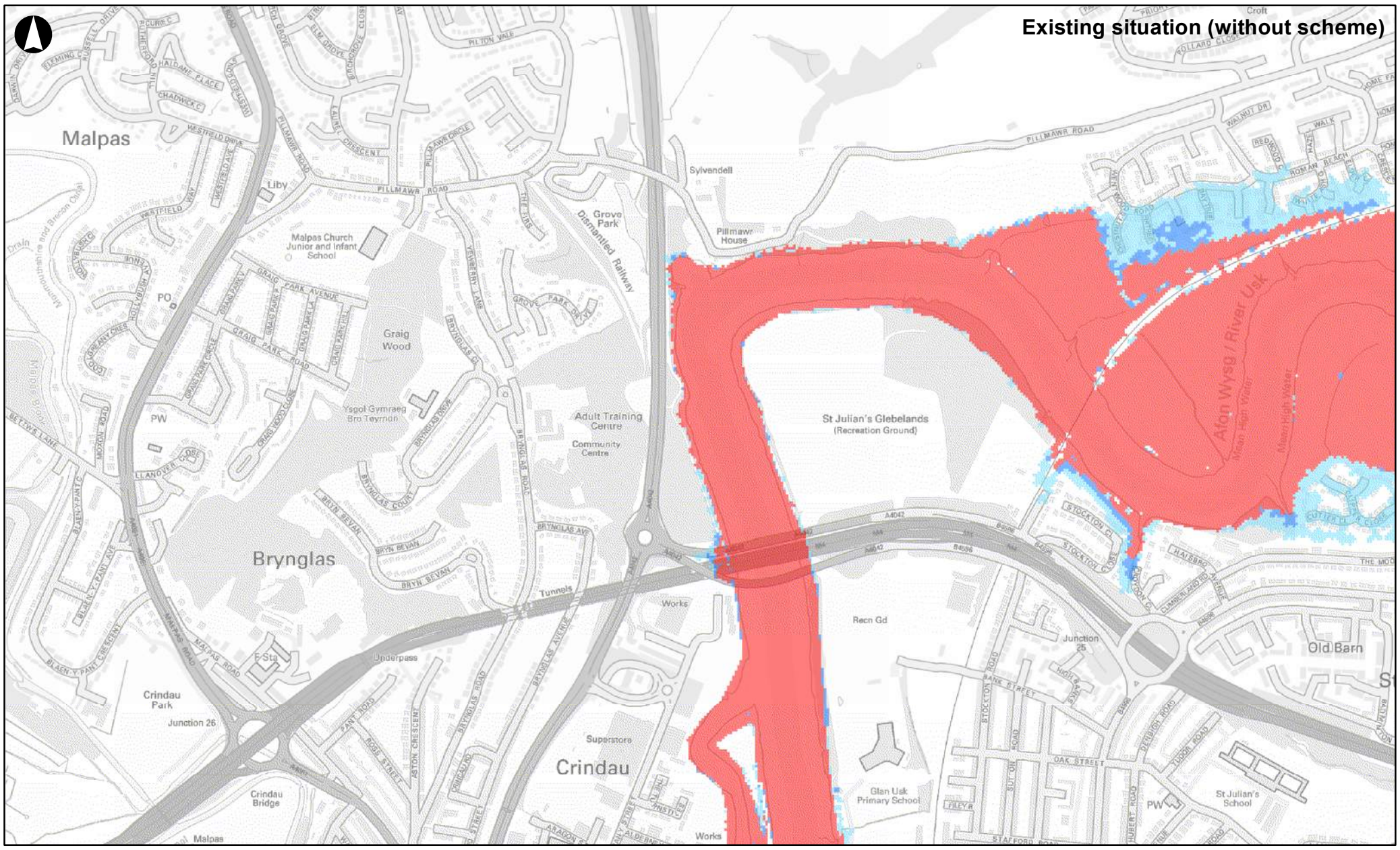
Appendix B

Chance of flooding maps

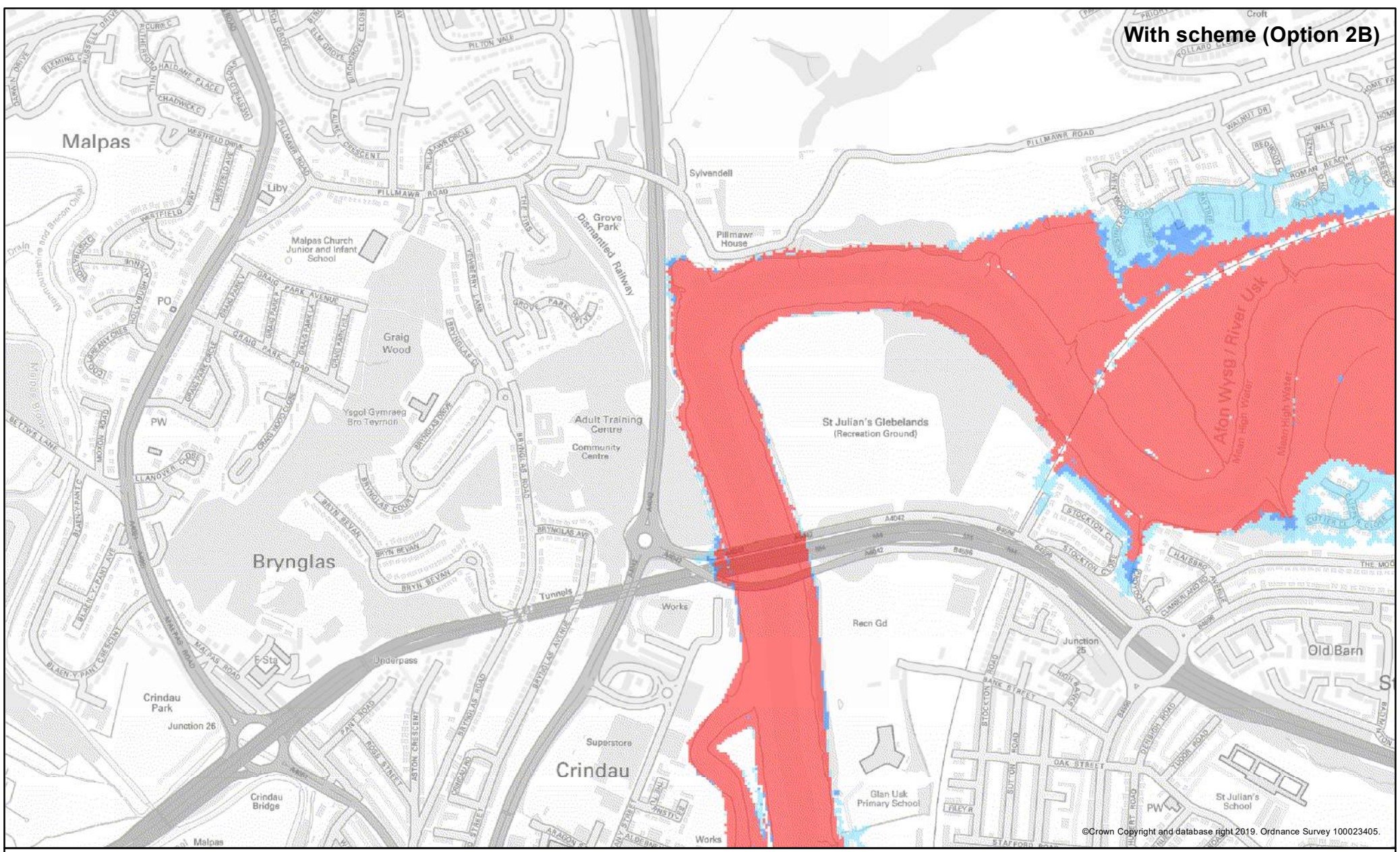
A3

20/01/2020 14:08:08

Existing situation (without scheme)



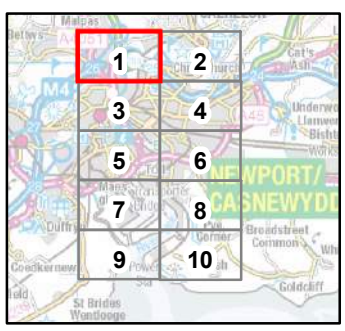
With scheme (Option 2B)



Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

ARUP
63 St Thomas Street
Bristol BS1 6JZ
+44 117 976 5432
www.arup.com

Client
NRW

Job Title
Stephenson Street Modelling

Chance of Flooding in 2019
With and Without Scheme
Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A1	**D2**

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A3

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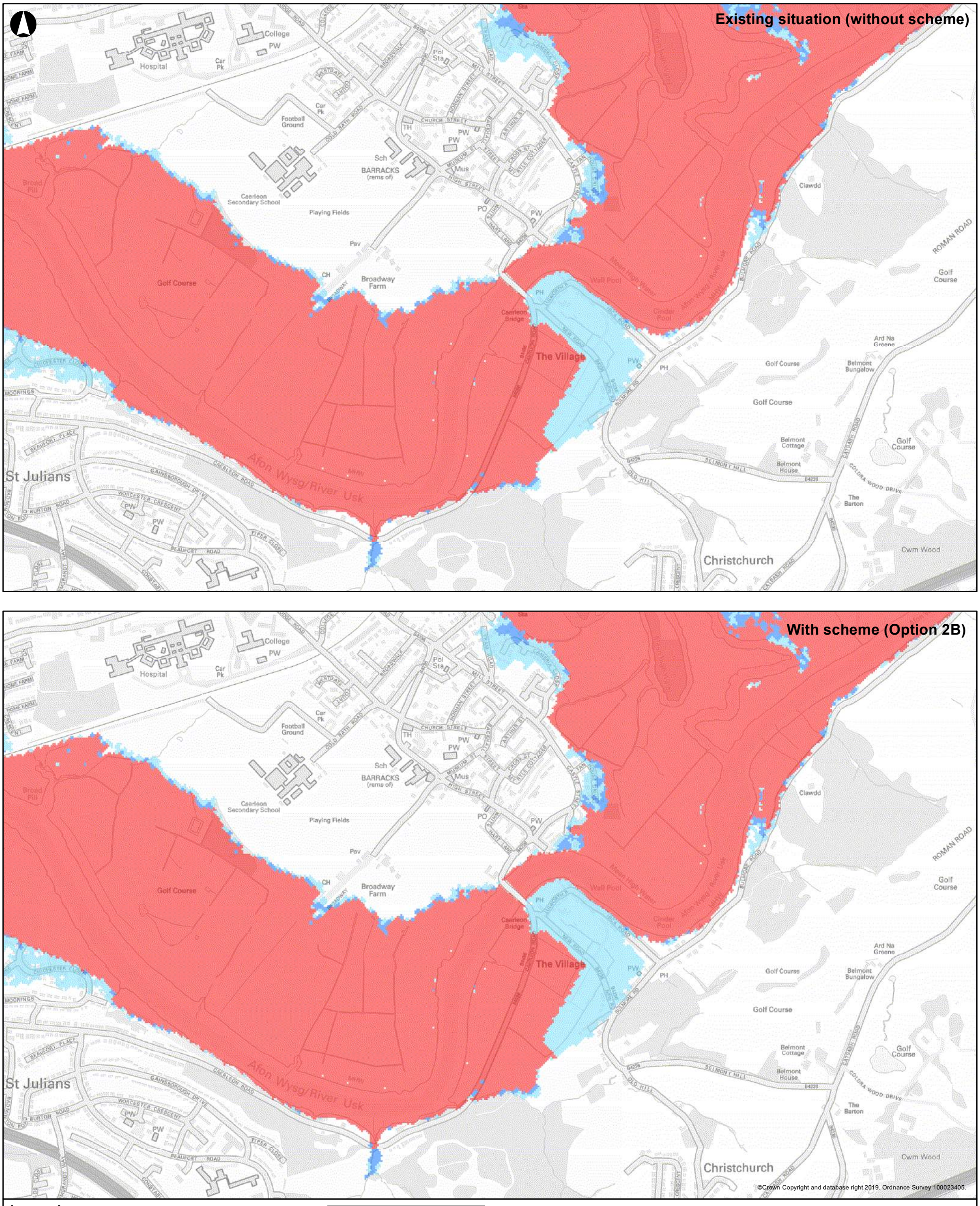
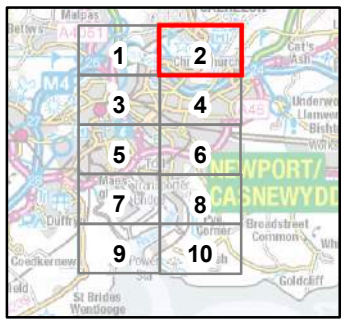


Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

ARUP
63 St Thomas Street
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www.arup.com

Client
NRW

Job Title
Stephenson Street Modelling

Chance of Flooding in 2019
With and Without Scheme
Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A2	**D2**

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A3

20/01/2020 14:08:51

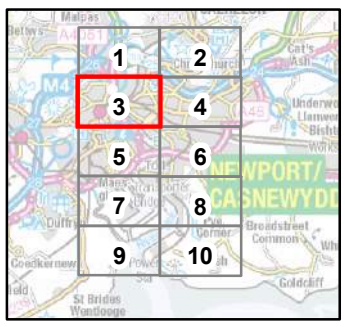
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Client
NRW

Job Title
Stephenson Street Modelling

Chance of Flooding in 2019 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

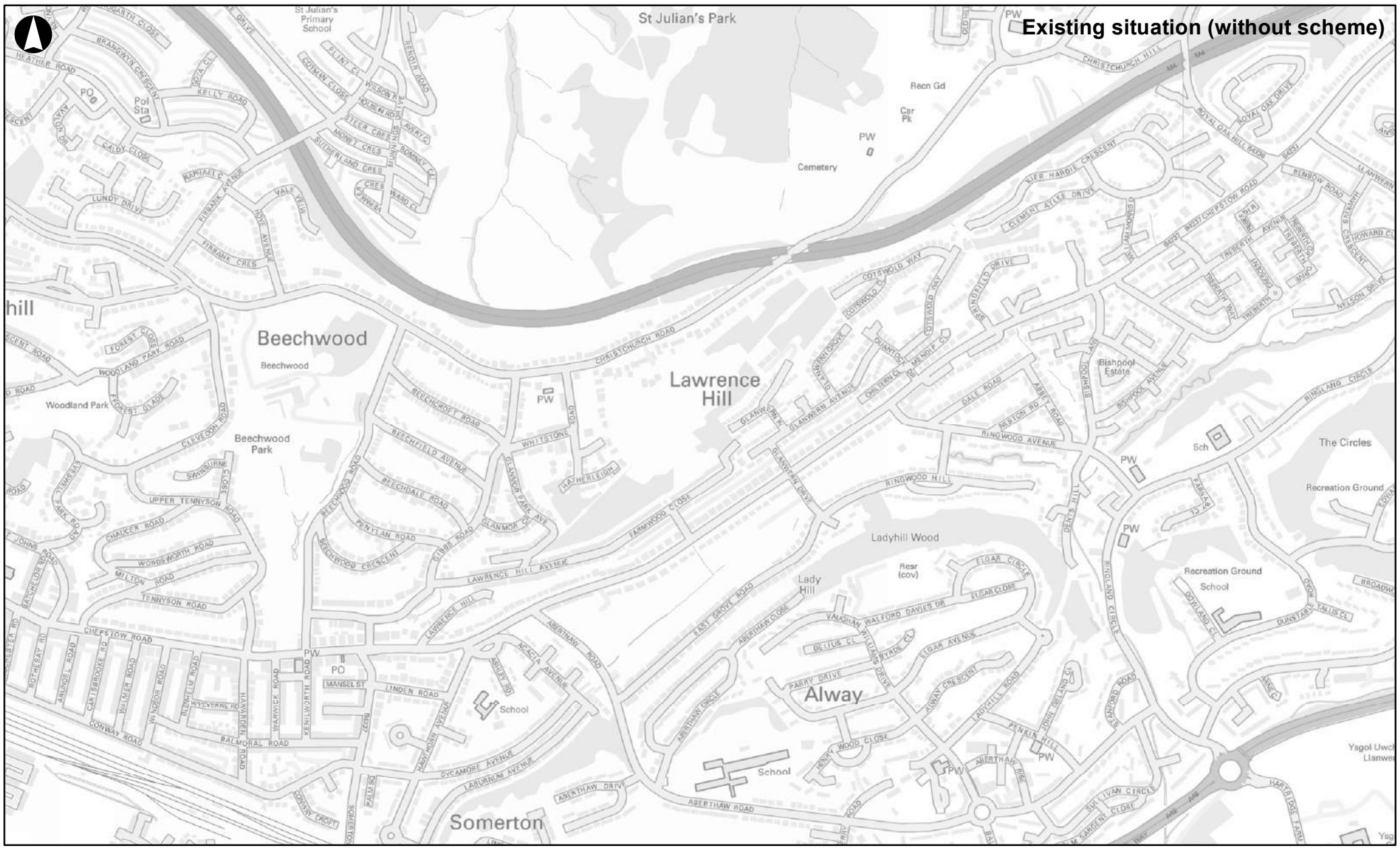
Drawing No	Issue
A3	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

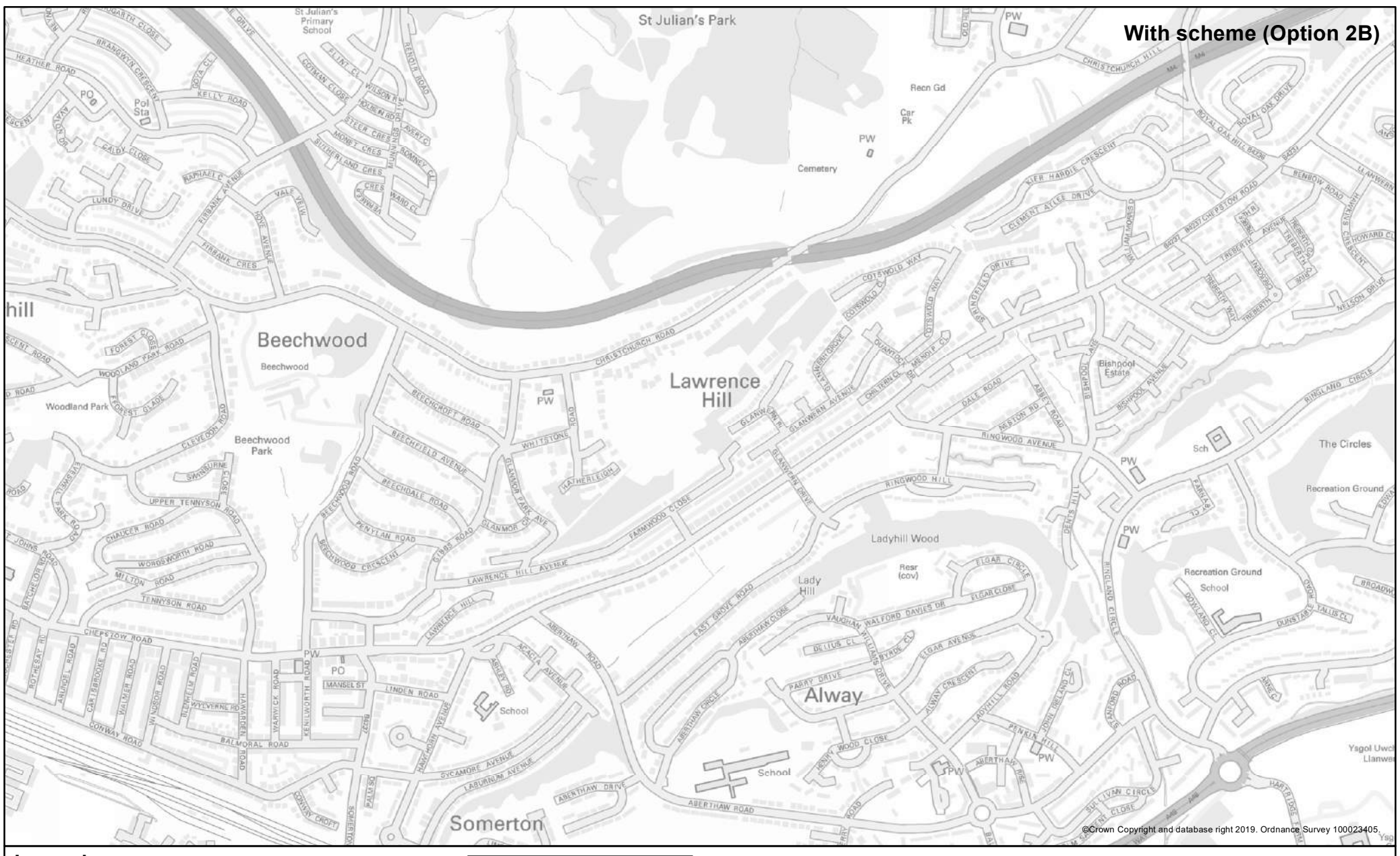
A3

20/01/2020 14:09:14

Existing situation (without scheme)



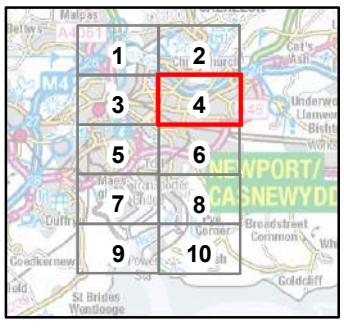
With scheme (Option 2B)



Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

ARUP

63 St Thomas Street
Bristol BS1 6JZ
+44 117 976 5432
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Client
NRW

Job Title
Stephenson Street Modelling

Chance of Flooding in 2019 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A4	**D2**

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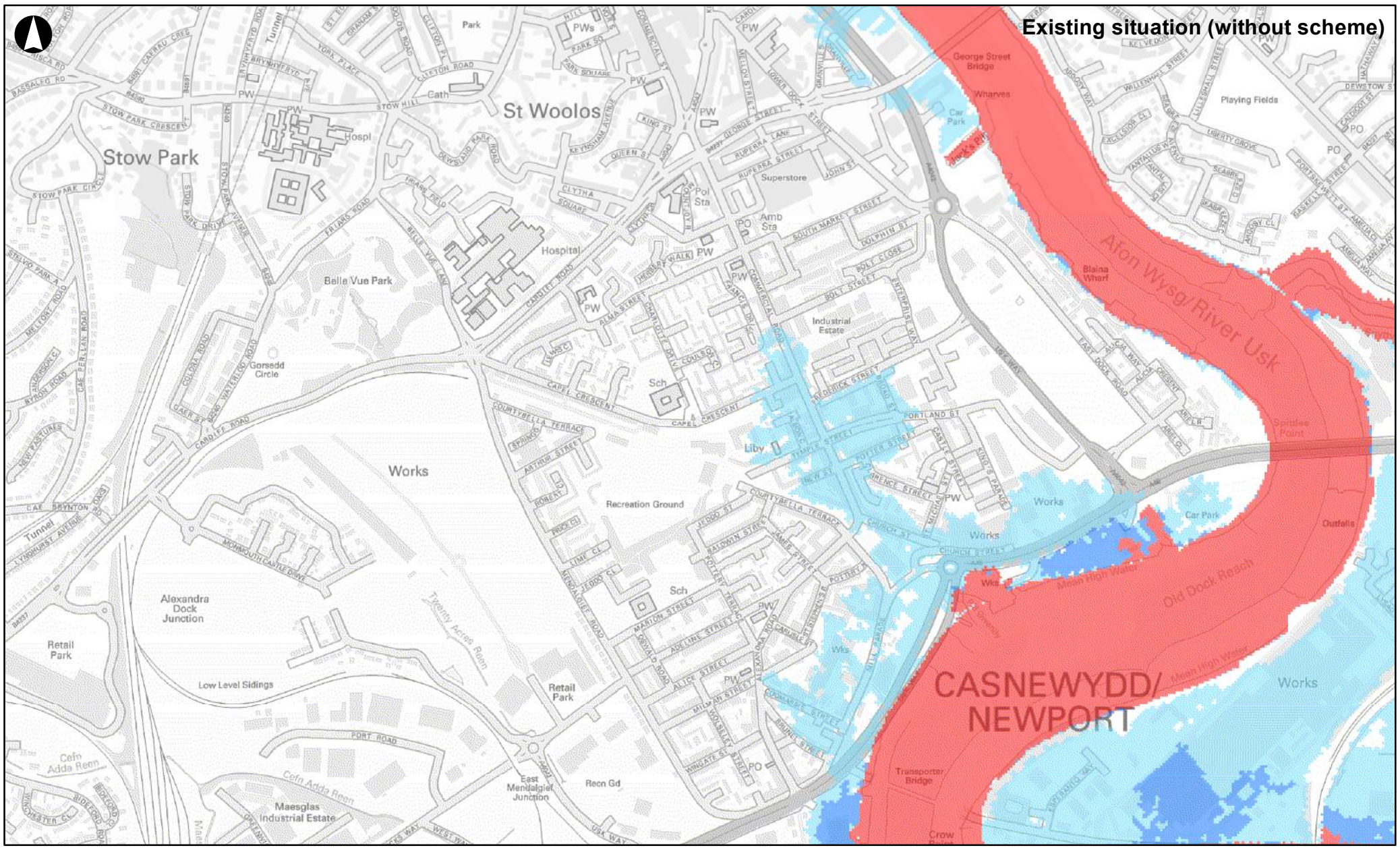
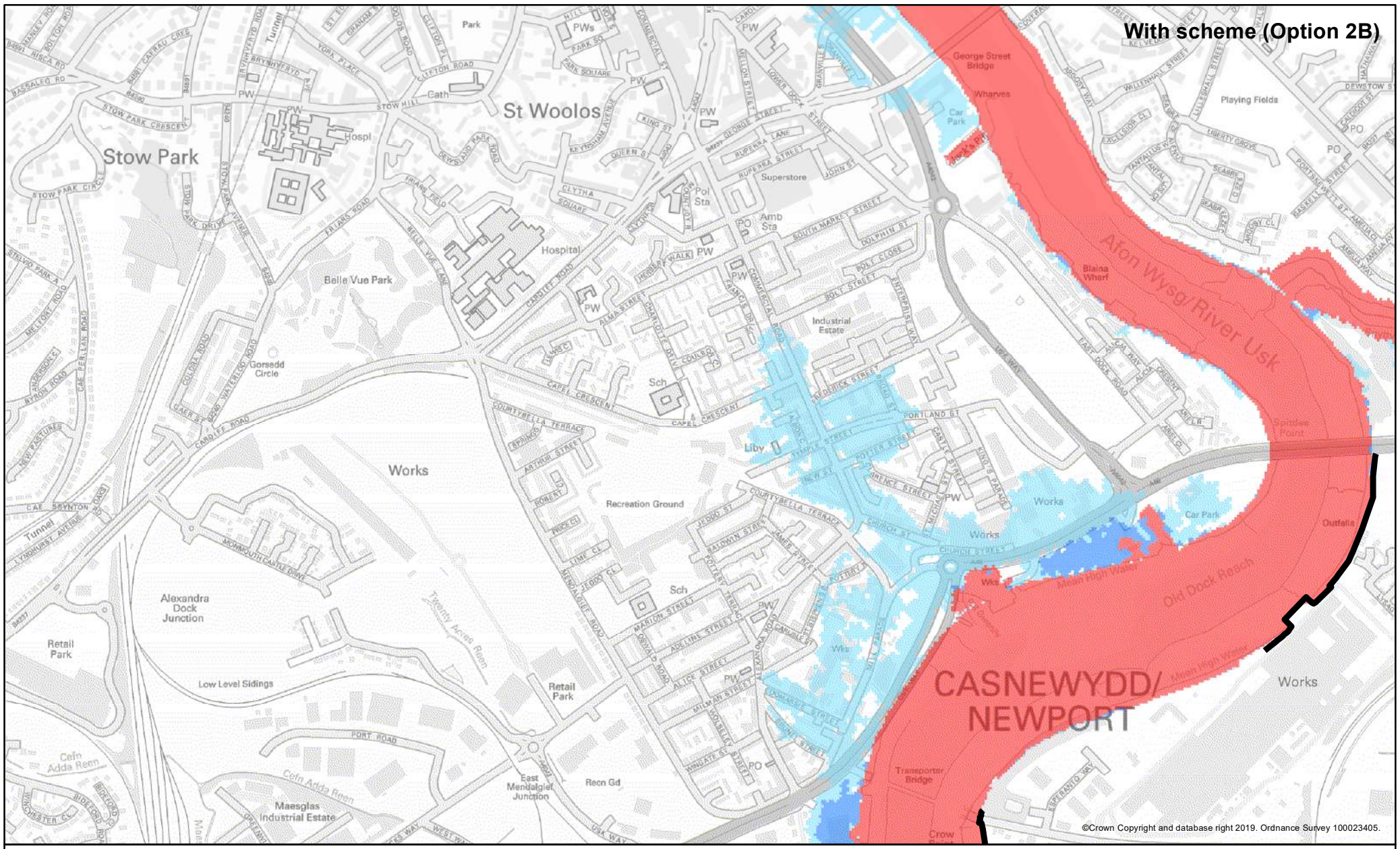
A3

20/01/2020 14:09:37

Existing situation (without scheme)



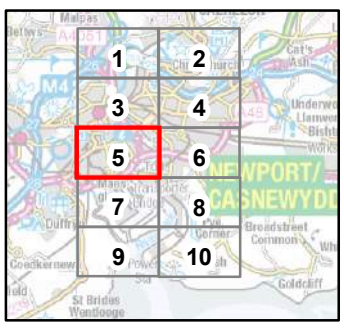
With scheme (Option 2B)



Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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63 St Thomas Street
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Client
NRW

Job Title
Stephenson Street Modelling

Chance of Flooding in 2019 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A5	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:09:56

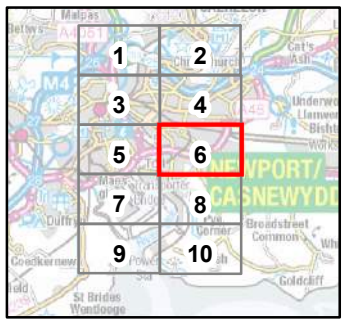
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Chance of Flooding in 2019 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A6	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:10:19

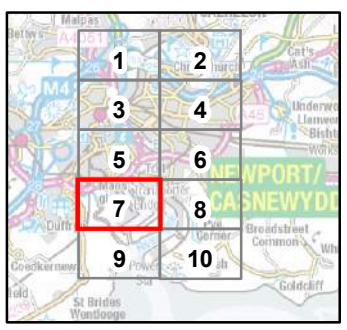
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
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Chance of Flooding in 2019 With and Without Scheme Option 2B

Scale at A3
1:10,000

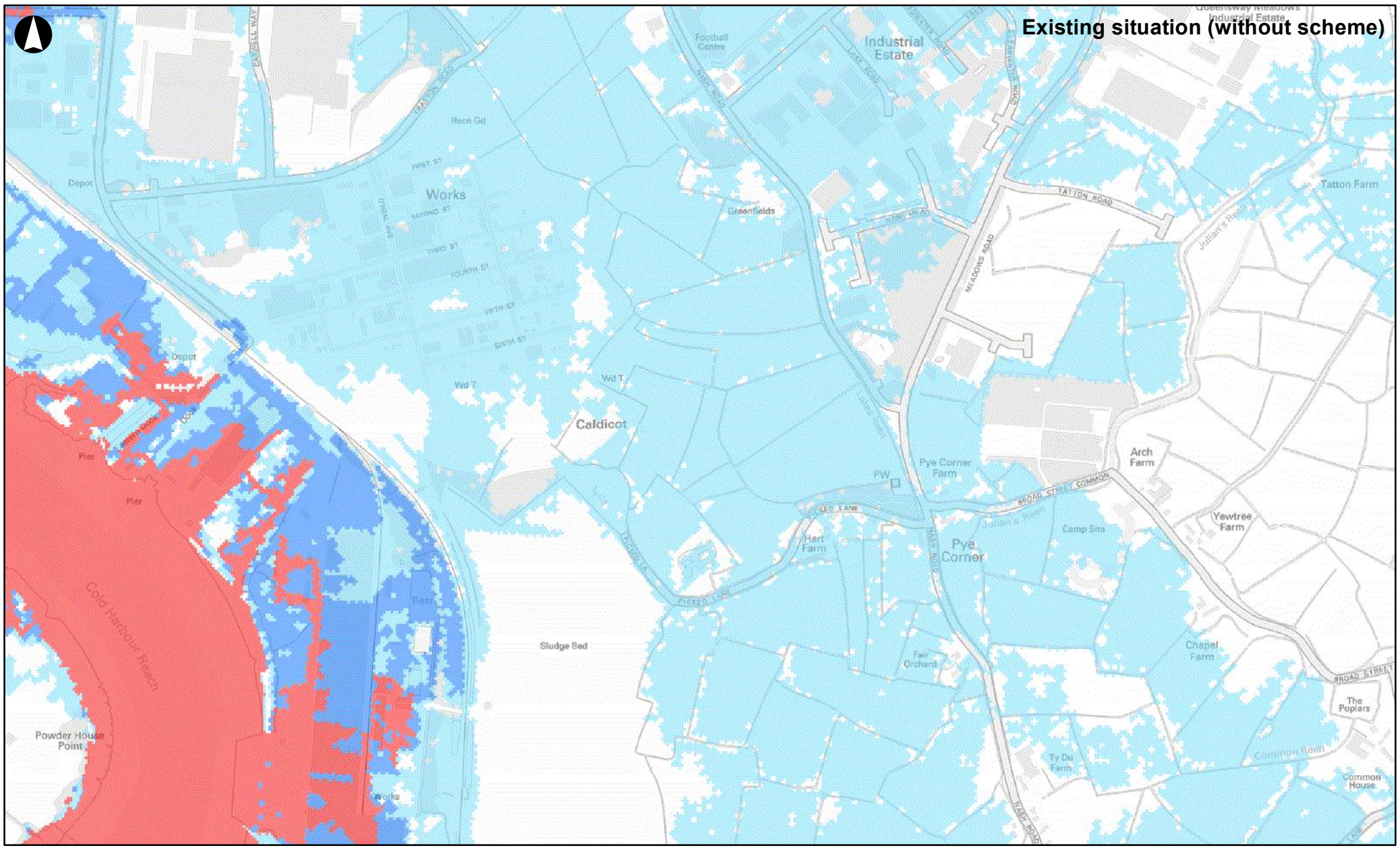
Job No	Drawing Status
246344-00	**Draft**

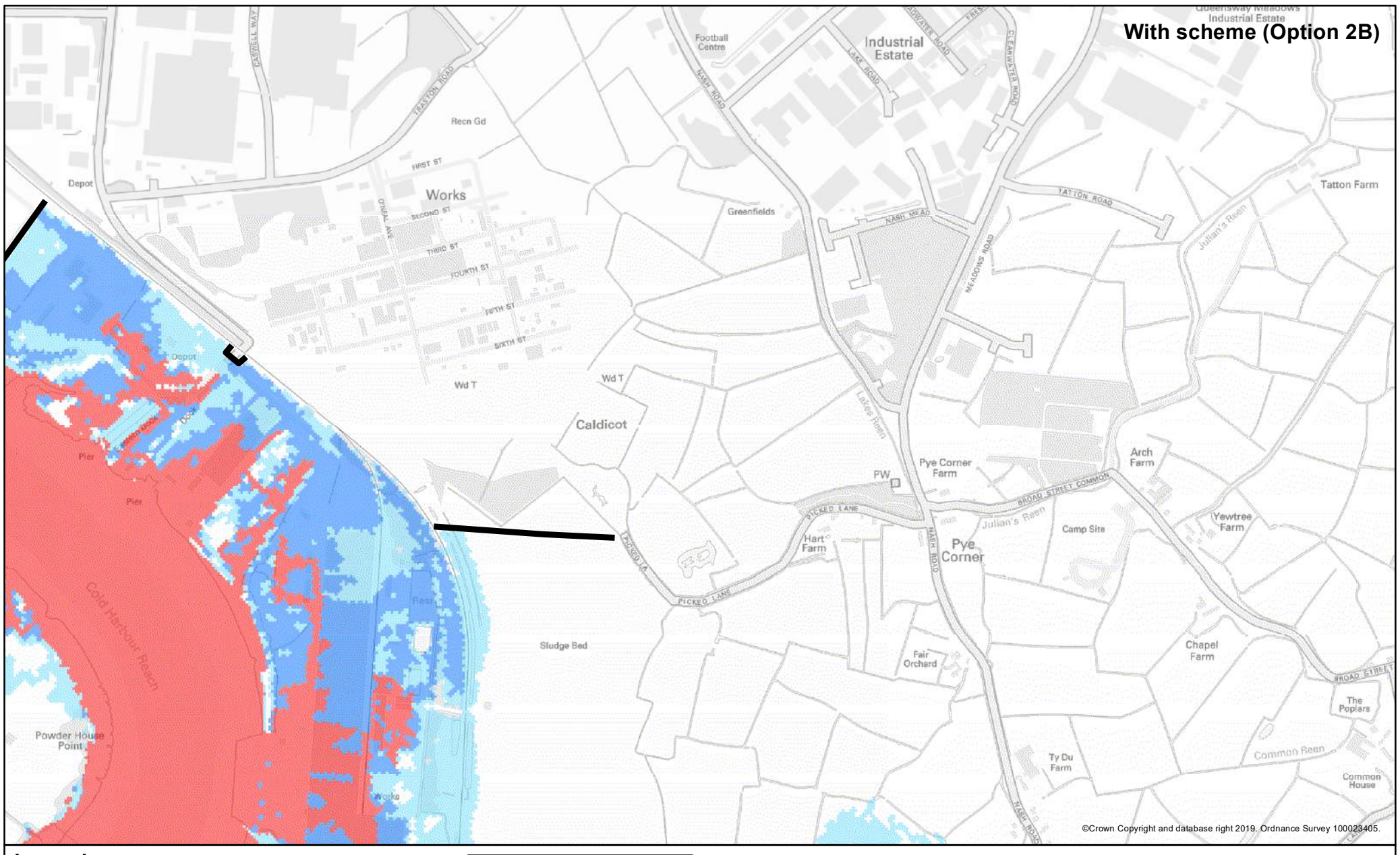
Drawing No	Issue
A7	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:10:38

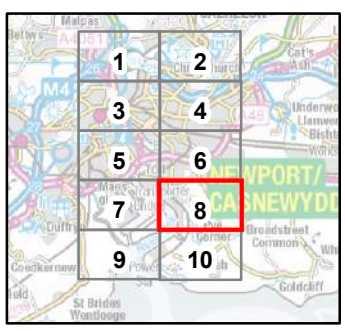




Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
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Chance of Flooding in 2019 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

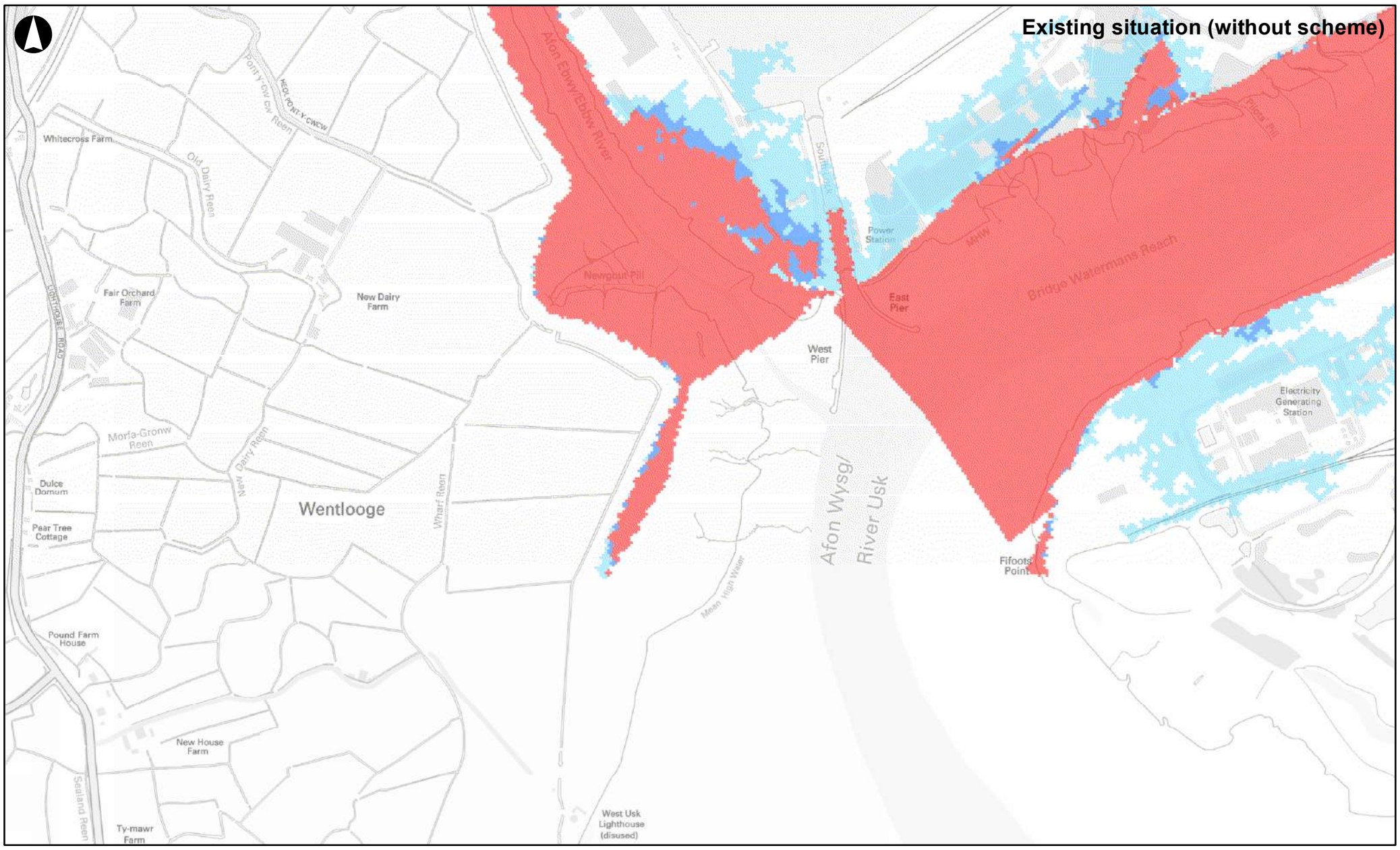
Drawing No	Issue
A8	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

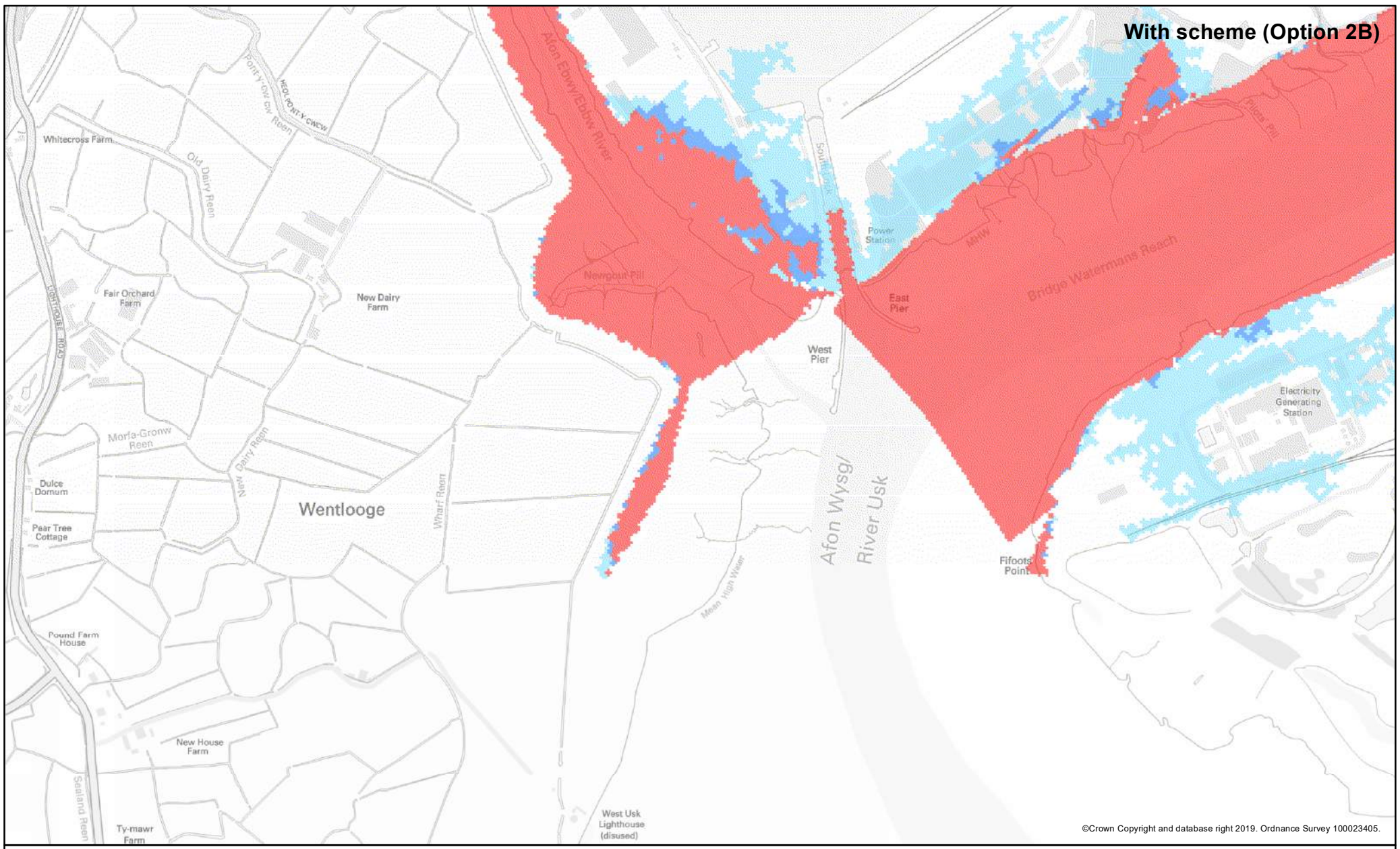
A3

20/01/2020 14:10:59

Existing situation (without scheme)



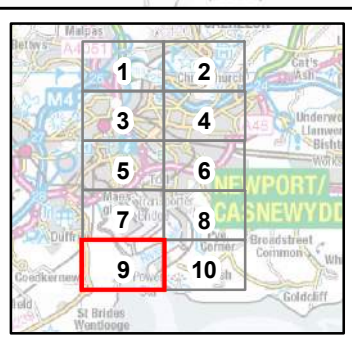
With scheme (Option 2B)



Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
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Chance of Flooding in 2019 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

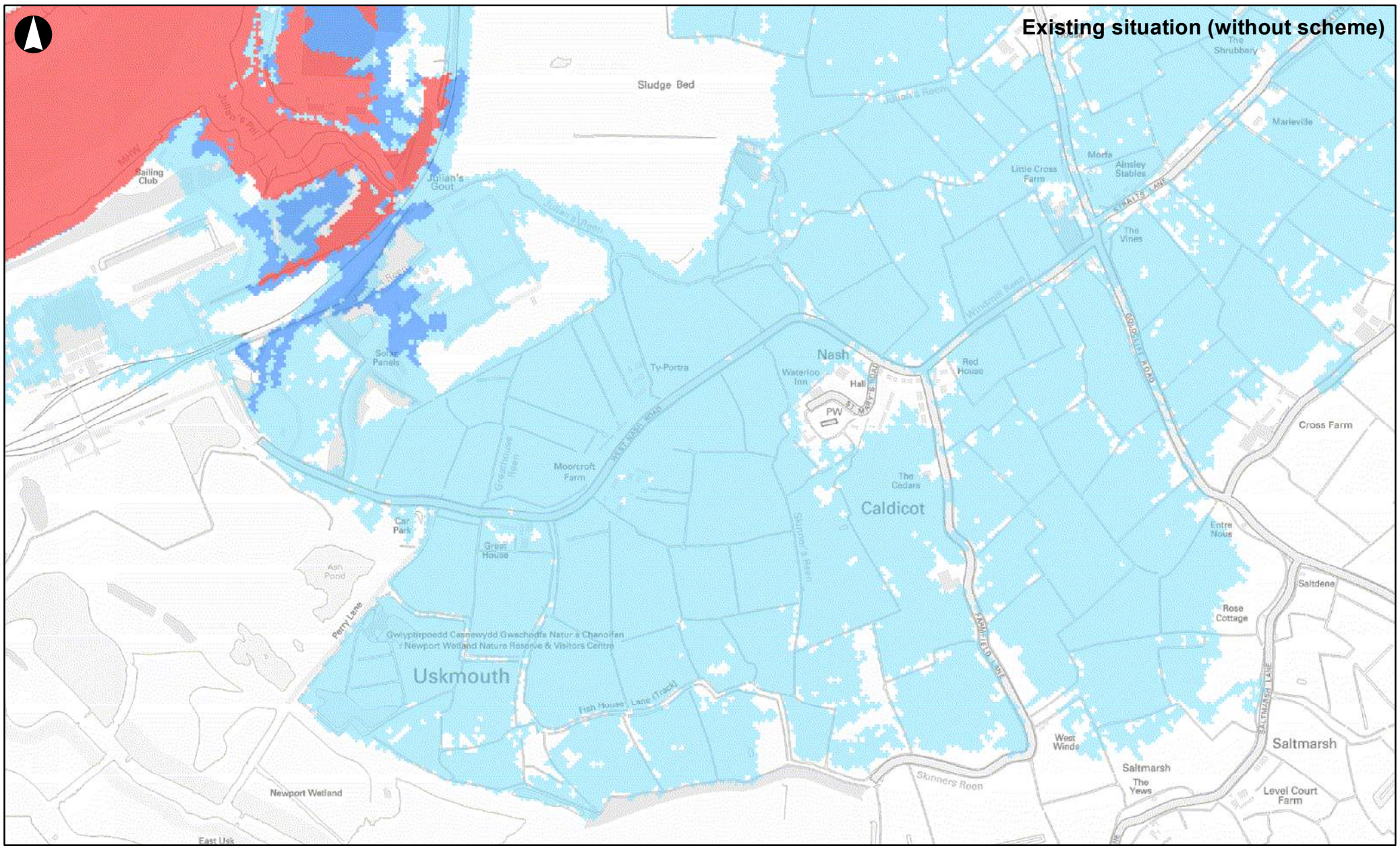
Drawing No	Issue
A9	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

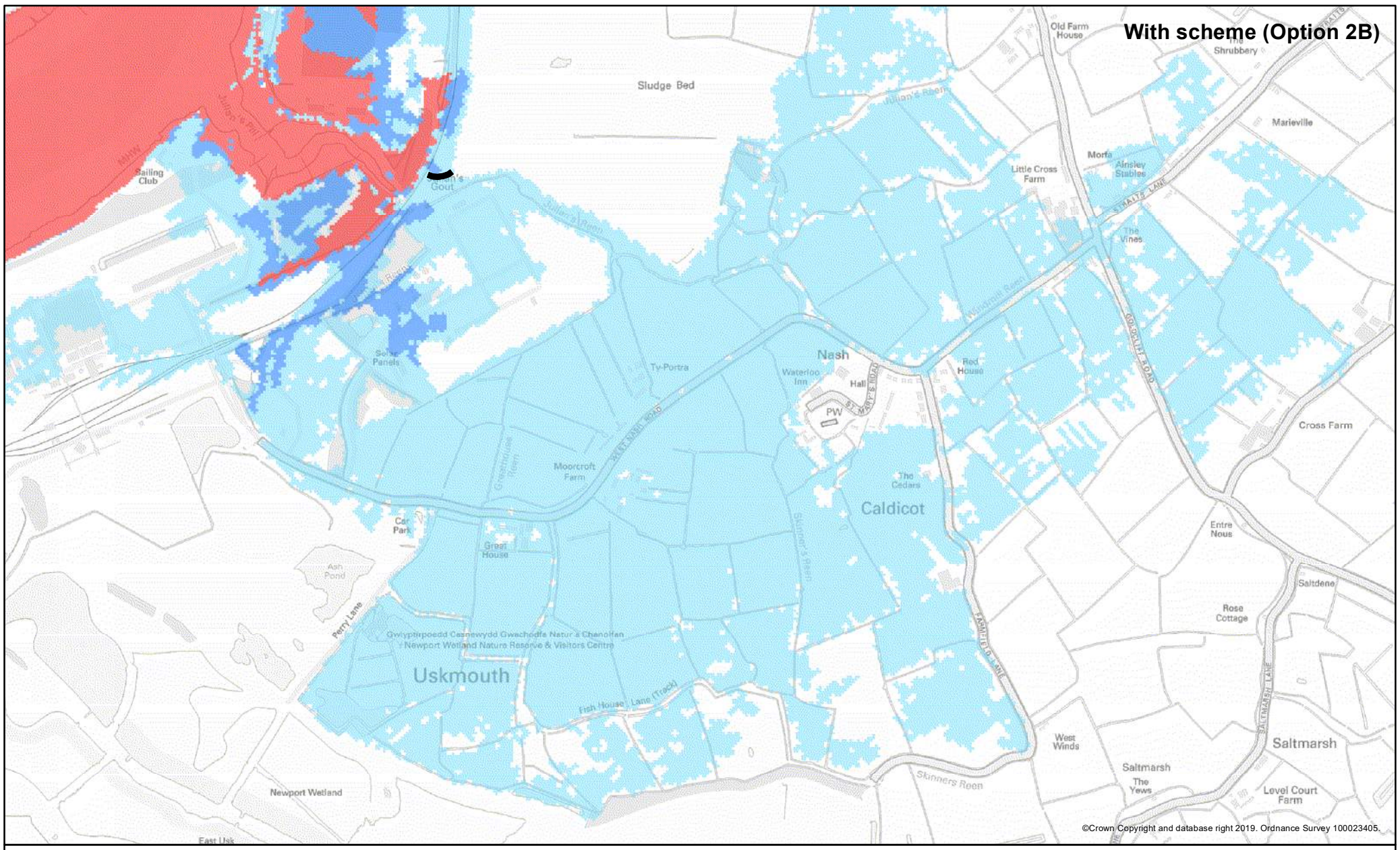
A3

20/01/2020 14:11:19

Existing situation (without scheme)



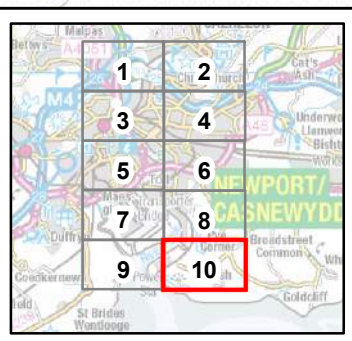
With scheme (Option 2B)



Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Chance of Flooding in 2019 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A10	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:11:40

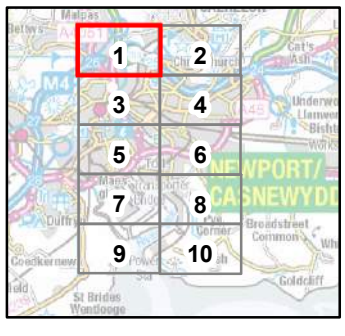
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Chance of Flooding in 2119
With and Without Scheme
Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

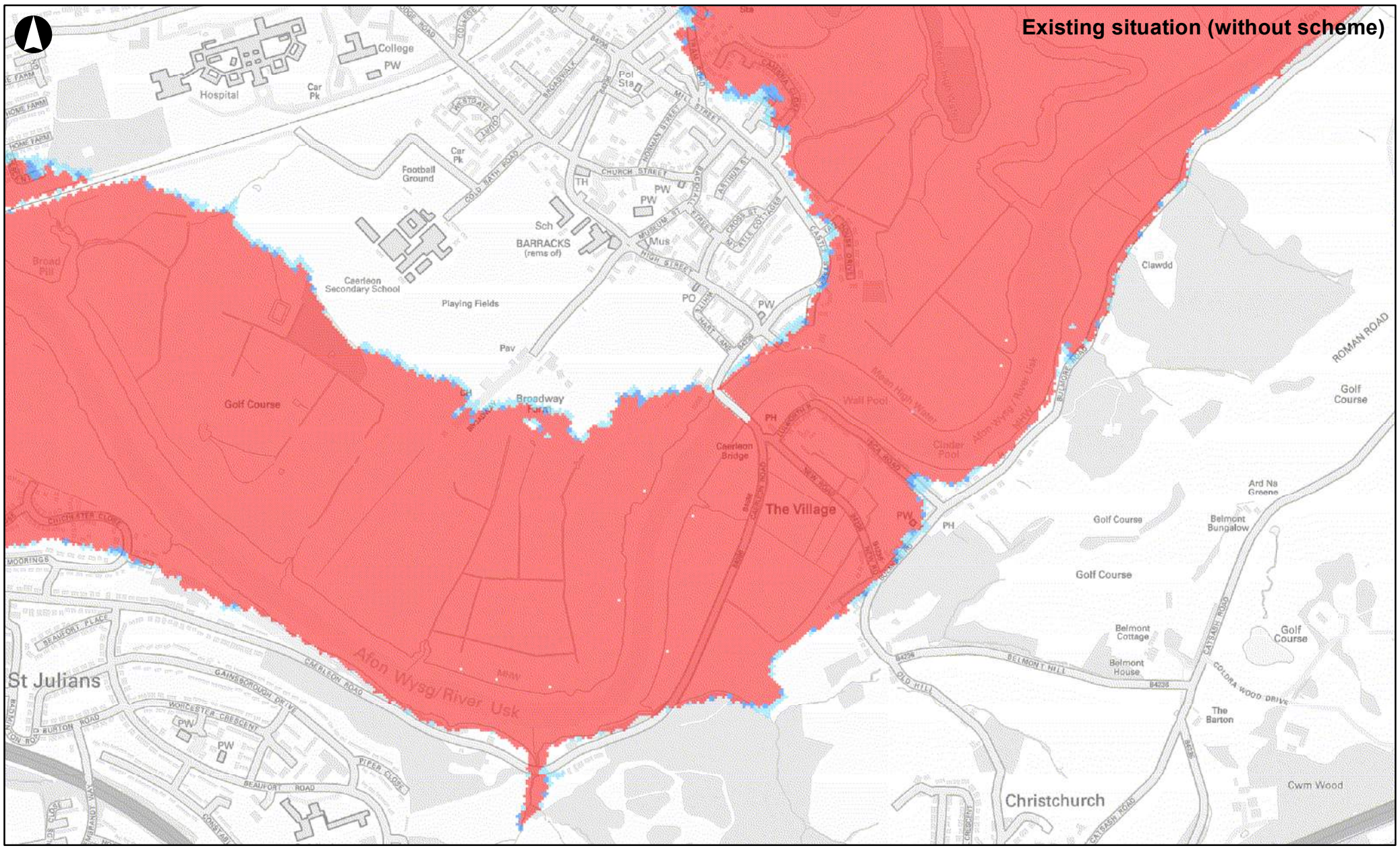
Drawing No	Issue
A11	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

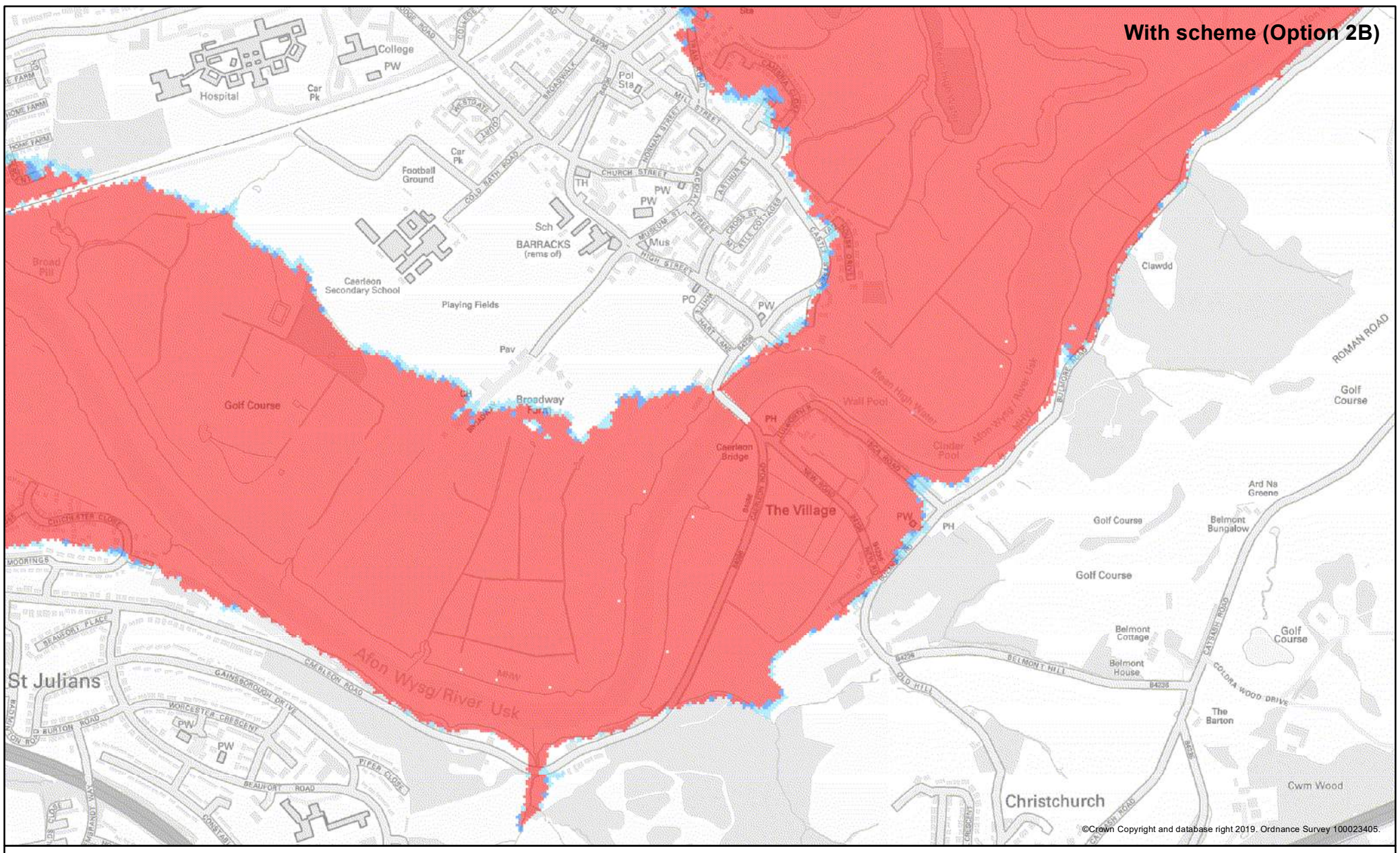
A3

20/01/2020 14:12:13

Existing situation (without scheme)



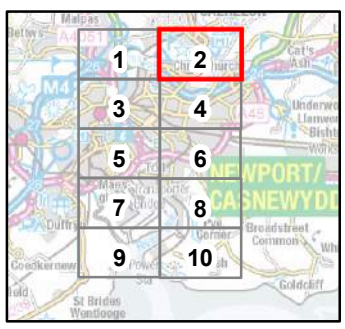
With scheme (Option 2B)



Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Chance of Flooding in 2119
With and Without Scheme
Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A12	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:12:39

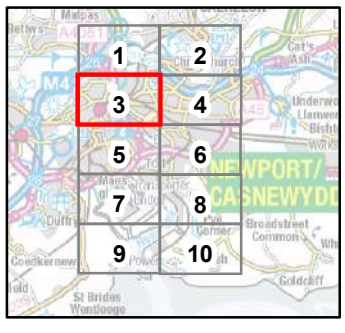
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Chance of Flooding in 2119
With and Without Scheme
Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A13	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:13:05

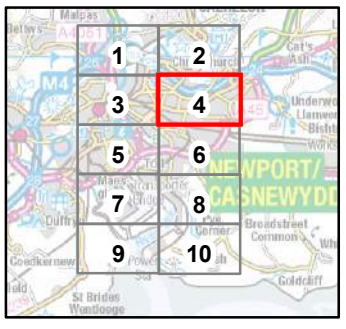
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Chance of Flooding in 2119 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A14	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:13:34

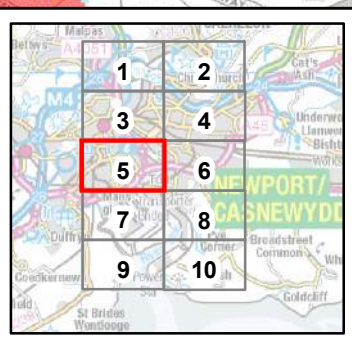
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Chance of Flooding in 2119
With and Without Scheme
Option 2B

Scale at A3
1:10,000

Job No
246344-00

Drawing Status
Draft

Drawing No
A15

Issue
D2

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:14:01

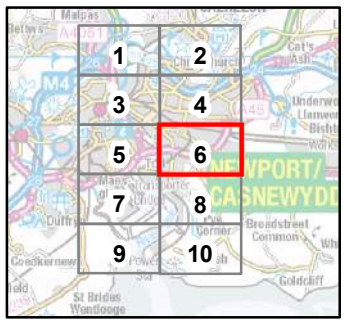
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



D2	2020-01-20	VCP	DVDL	RC

Issue	Date	By	Chkd	Appd

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Job Title
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Chance of Flooding in 2119
With and Without Scheme
Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A16	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:14:28

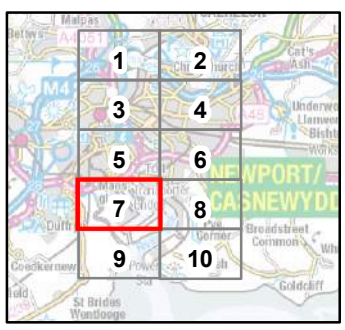
Existing situation (without scheme)

With scheme (Option 2B)

Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



D2	2020-01-20	VCP	DVDL	RC

Issue	Date	By	Chkd	Appd

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Job Title
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Chance of Flooding in 2119
With and Without Scheme
Option 2B

Scale at A3
1:10,000

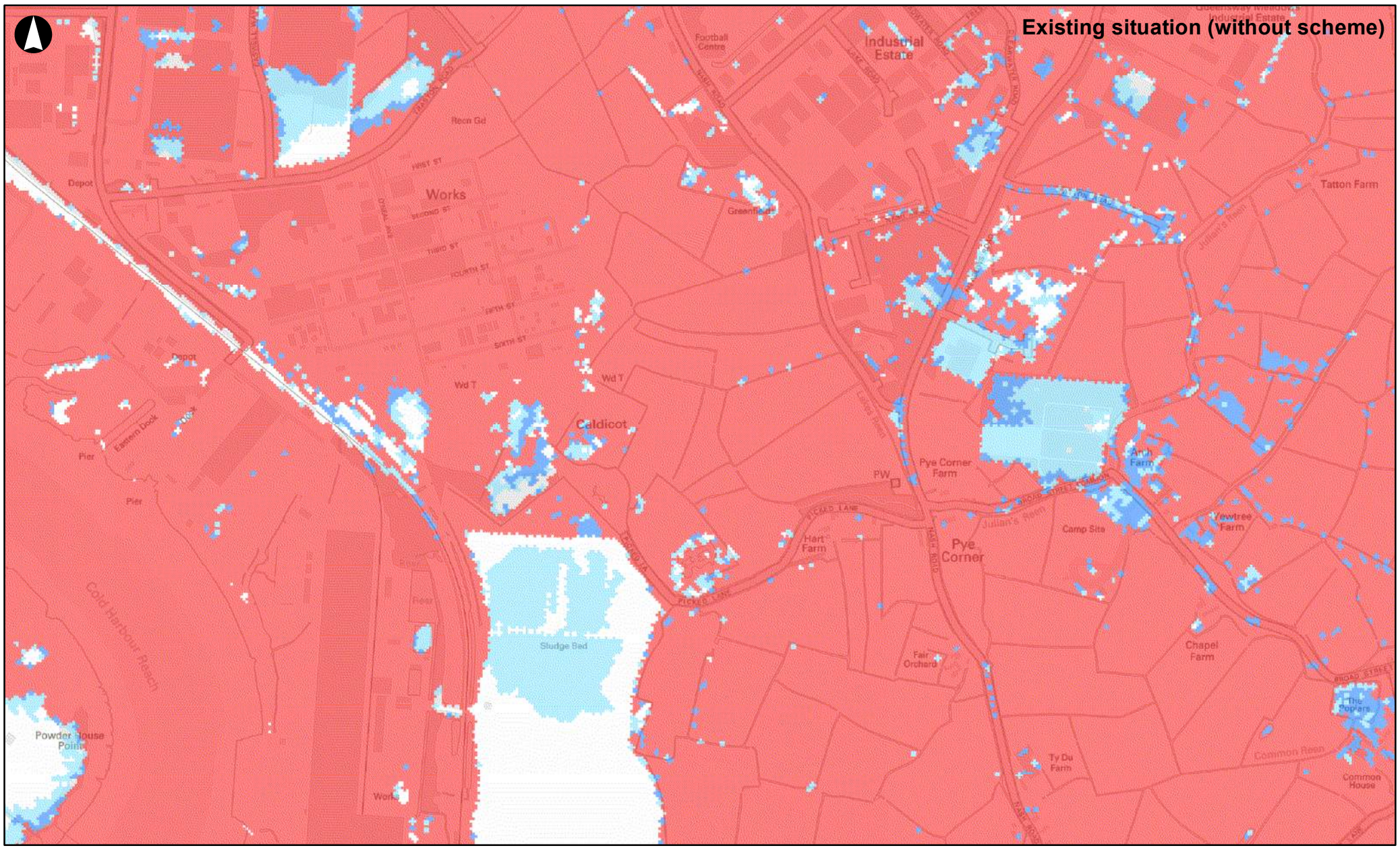
Job No	Drawing Status
246344-00	**Draft**

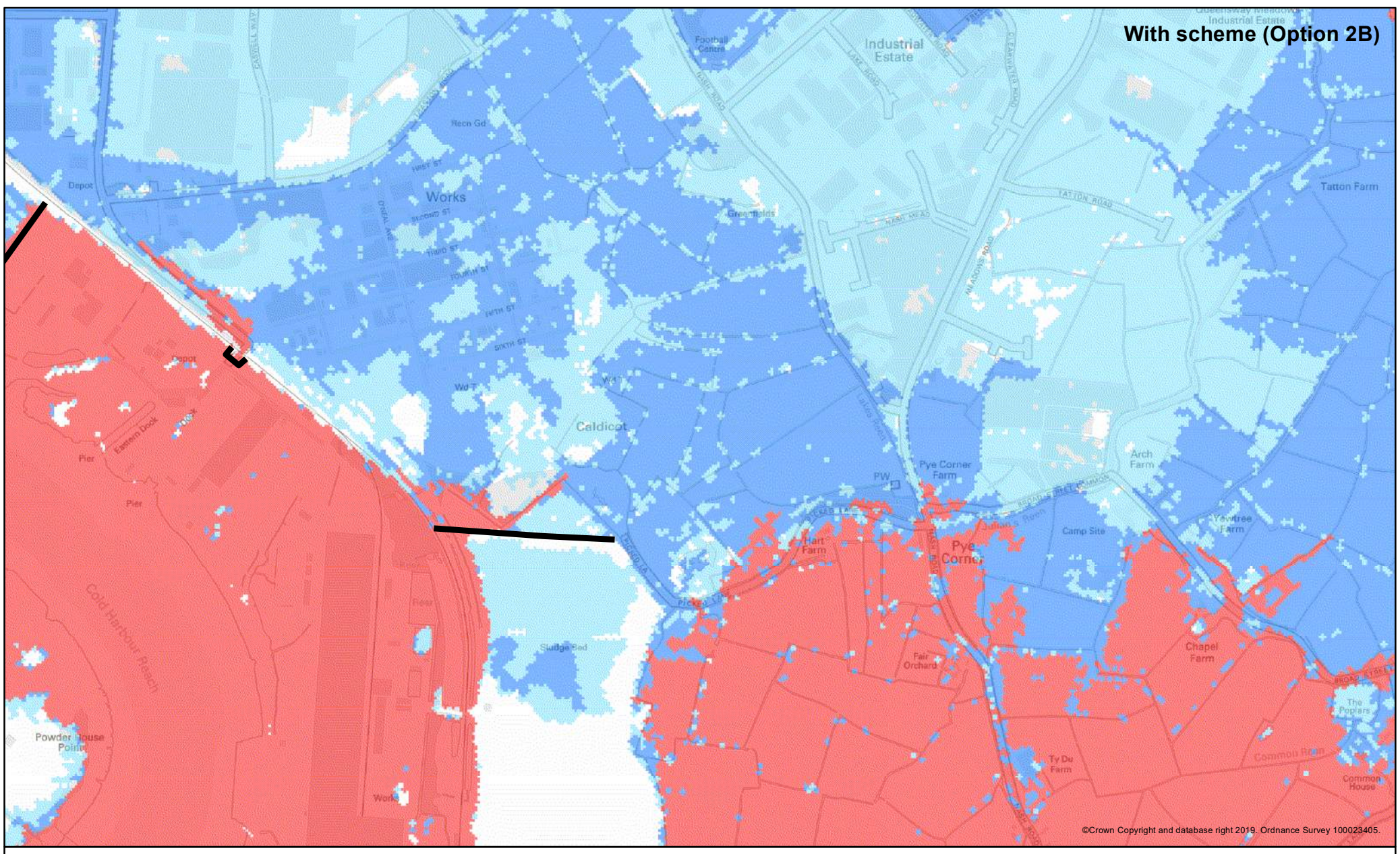
Drawing No	Issue
A17	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

20/01/2020 14:14:55

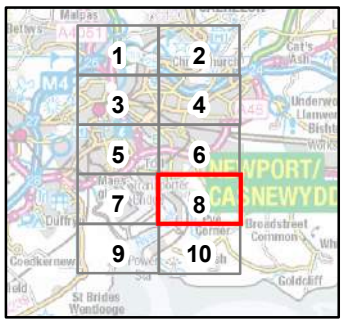




Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Job Title
Stephenson Street Modelling

Chance of Flooding in 2119 With and Without Scheme Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

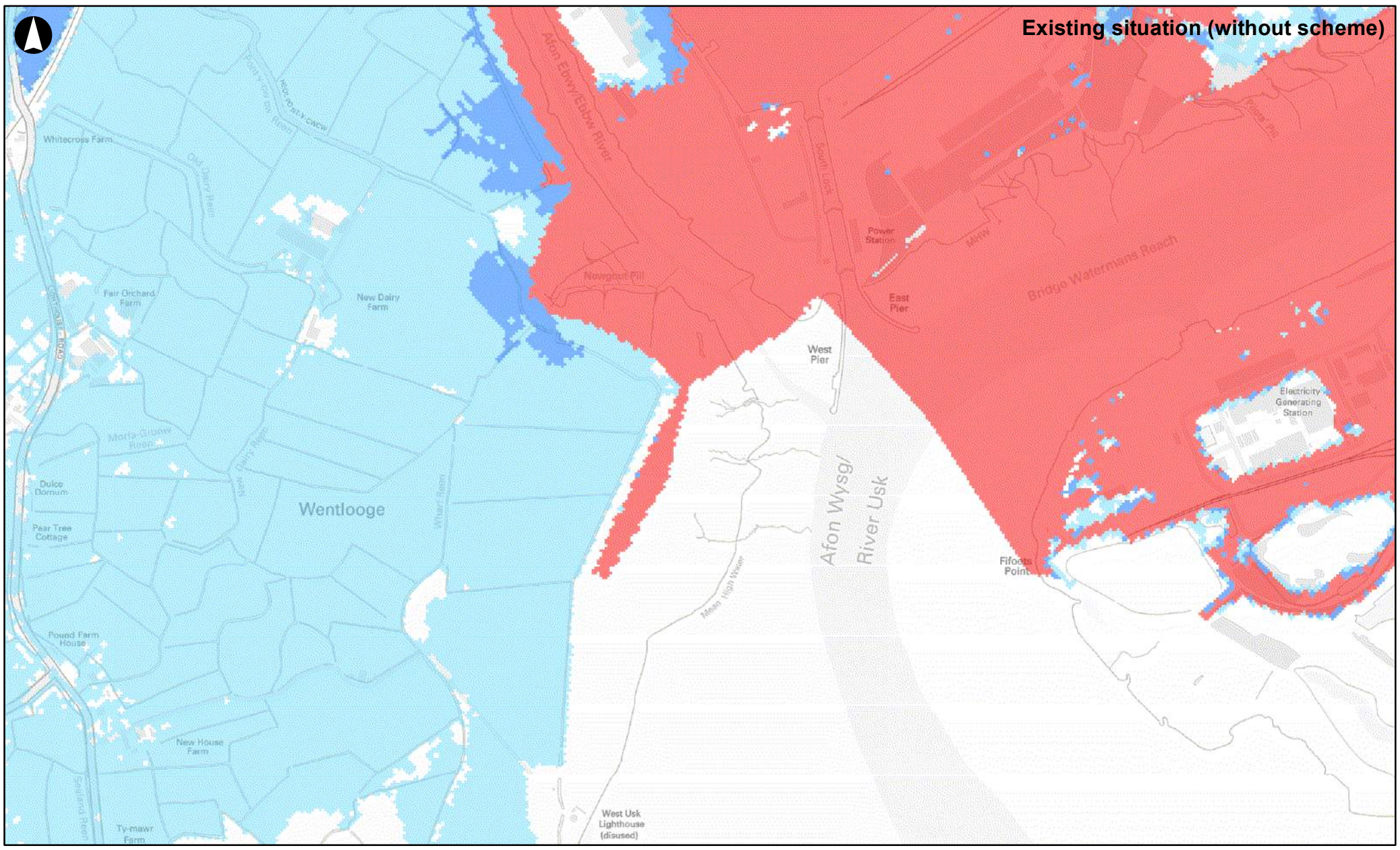
Drawing No	Issue
A18	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

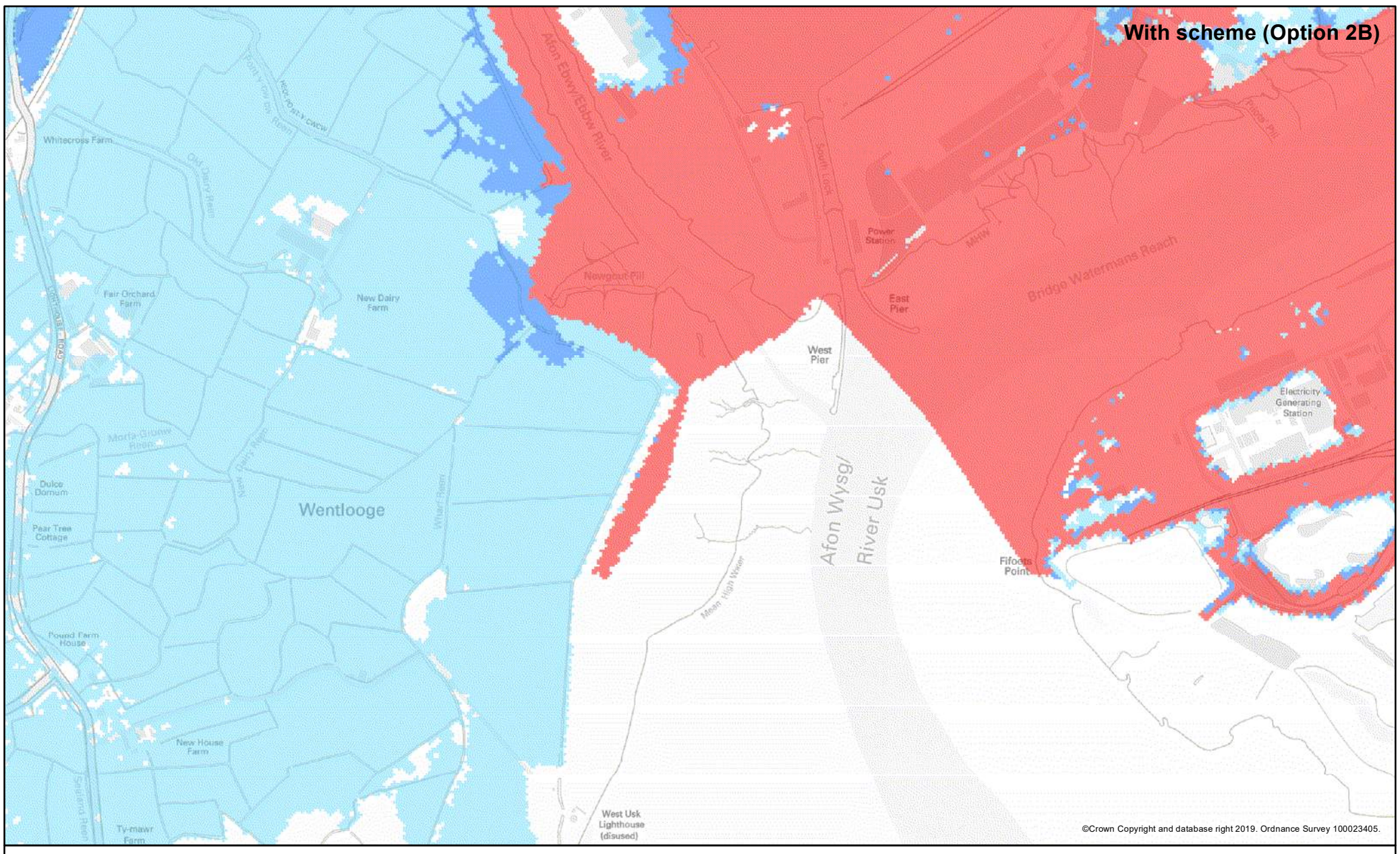
A3

20/01/2020 14:15:24

Existing situation (without scheme)



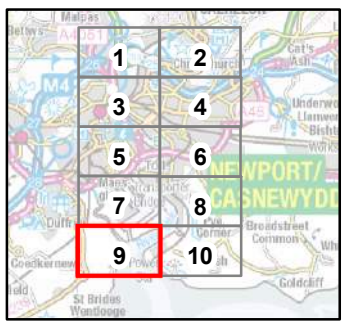
With scheme (Option 2B)



Legend

- Proposed Defences
- High: chance of flooding greater than 1 in 30 (3.3%)
- Medium: chance of flooding between 1 in 100 (1%) and 1 in 30 (3.3%)
- Low: chance of flooding between 1 in 1000 (0.1%) and 1 in 100 (1%)
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



Issue	Date	By	Chkd	Appd
D2	2020-01-20	VCP	DVDL	RC

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Client
NRW

Job Title
Stephenson Street Modelling

Chance of Flooding in 2119
With and Without Scheme
Option 2B

Scale at A3
1:10,000

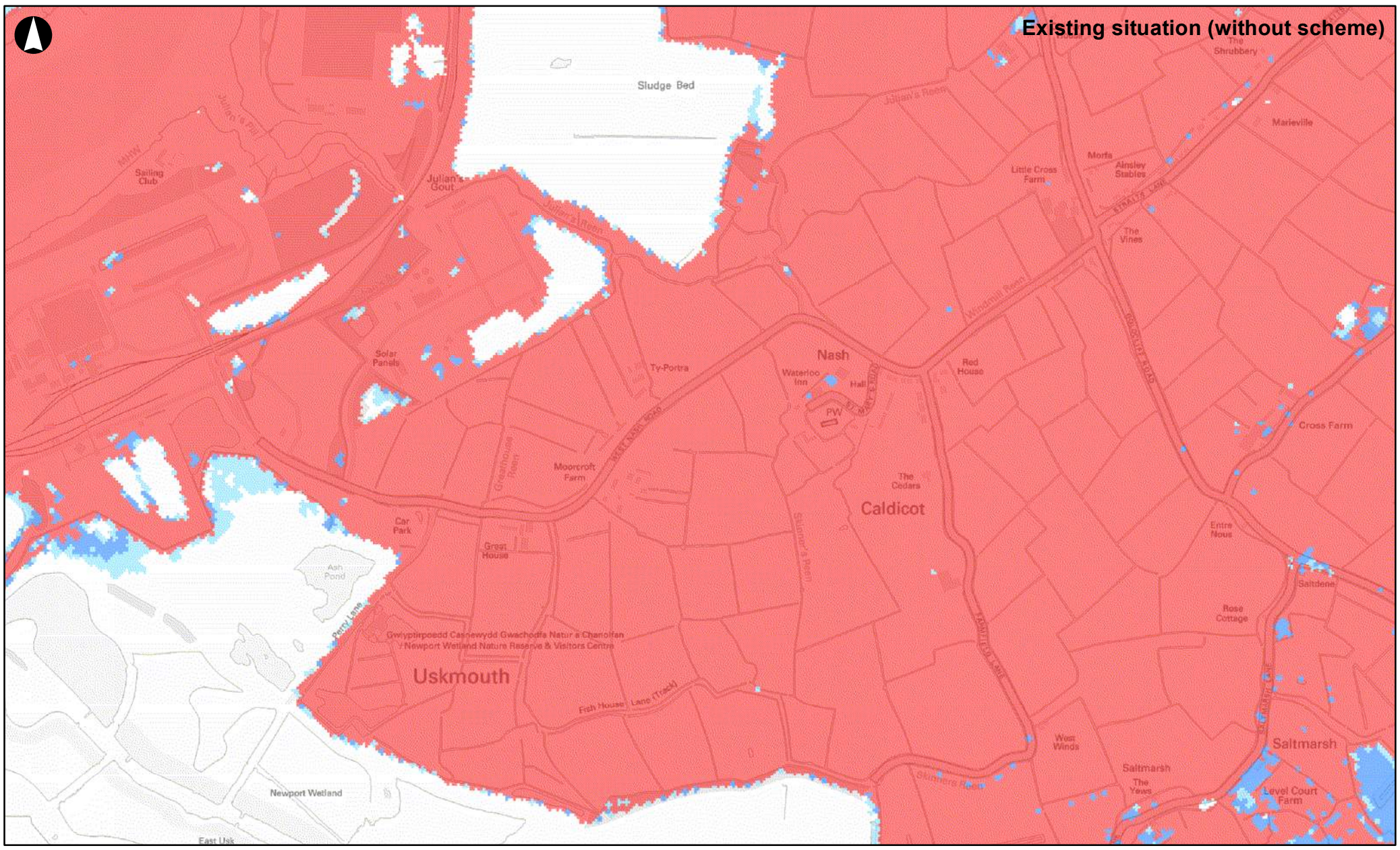
Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A19	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

A3

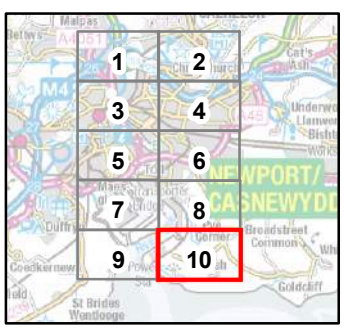
20/01/2020 14:15:53



Legend

- Proposed Defences
- Very Low: chance of flooding less than 1 in 1000 (0.1%)

Metres
0 110 220 440



D2	2020-01-20	VCP	DVDL	RC

Issue	Date	By	Chkd	Appd

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Option 2B

Scale at A3
1:10,000

Job No	Drawing Status
246344-00	**Draft**

Drawing No	Issue
A20	**D2**

\\global\europe\Cardiff\Jobs\246000\246344-00\4 Internal Project Data\4-80 GIS\4-84 Map Documents\WAT_Water\StephensonStreet_FloodModelling2019_ChanceOfFlooding_vic_v03.mxd

Appendix C

Property assessment of detriment

UniqueID	Raw NRD address data	NRD Class description	Property type (MCM)	Floor area	Floor level (dU = definite ground, pG = possible ground floor, pU = possible upper floor)	X	Y	Modelled Flood Depth (m) Baseline vs Scheme Option 2b (* fully constructed with new freeboard and detriment mitigation bund at Nash) Green <0.15m (below typical property threshold), 0.15m < Yellow (above typical property threshold) <0.6m, >0.6m (above typical property risks experiencing structural issues retaining water)																		
								1 in 30yr in 2069									1 in 100yr in 2069									
								Baseline	Scheme *	Increase in flood depth	Increase in flood depth >=5mm?	Is property predicted at increase likelihood of flooding?	Scheme increases flood depth to > 150mm?	Scheme increases flood depth to > 600mm?	Is increase in flood depth likely to be material?	Comments on raw results (before manual check)	Baseline	Scheme *	Increase in flood depth	Increase in flood depth >=5mm?	Is property predicted at increase likelihood of flooding?	Scheme increases flood depth to > 150mm?	Scheme increases flood depth to > 600mm?	Is increase in flood depth likely to be material?	Comments on raw results (before manual check)	Material Detriment Manual Check (from desk study / survey)
16672	3, CHICHESTER CLOSE, NEWPORT, NP19 7LJ	Detached	Residential	64.6	dG	332853	190032			0.000	No	No	No	No	No		0.148	0.1526	0.005	Yes	No	Yes	No	Yes	Possible material detriment at Residential property	Detriment not material - see desk study
16665	21, CHICHESTER CLOSE, NEWPORT, NP19 7LJ	Detached	Residential	66.2	dG	332764	190021			0.000	No	No	No	No	No		0.150	0.1552	0.005	Yes	No	No	No	No		
12447	LOWER FLOORS, ALACRITY HOUSE, NEWPORT, NP20 1HG	Office / Work Studio	Non-Residential		dG	331311.8	188116.5			0.000	No	No	No	No	No		0.145	0.1582	0.013	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Detriment not material - see desk study
12448	UPPER FLOORS, ALACRITY HOUSE, NEWPORT, NP20 1HG	Office / Work Studio	Non-Residential		rU	331314.2	188117.6			0.000	No	No	No	No	No		0.145	0.1582	0.013	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Detriment not material - upper floor property
4189	UNIT 1A, NEWPORT, NP20 2JQ	Office / Work Studio	Non-Residential	1921.5	dG	331751	186660			0.000	No	No	No	No	No		0.133	0.1597	0.027	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Detriment not material - see desk study
4399	DISCOUNT DIY, UNIT 1B-3A, 1B, MILL PARADE, NEWPORT, NP20 2JQ	Workshop / Light Industrial	Non-Residential	1921.5	pG	331723	186689			0.000	No	No	No	No	No		0.133	0.1597	0.027	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Material Detriment confirmed
6980	UNIT 1, REAR OF 17, NEWPORT, NP20 2JJ	Workshop / Light Industrial	Non-Residential	119.6	pG	331629	186604			0.000	No	No	No	No	No		0.107	0.1599	0.053	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Detriment not material - see desk study
6981	UNIT 2, REAR OF 17, NEWPORT, NP20 2JJ	Warehouse / Store / Storage Depot	Non-Residential	119.6	pG	331640	186595			0.000	No	No	No	No	No		0.107	0.1599	0.053	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Material Detriment confirmed
2990	14, BRUNEL STREET, NEWPORT, NP20 2JT	Terraced	Residential	53.7	dG	331560	186333			0.000	No	No	No	No	No		0.144	0.1617	0.018	Yes	No	Yes	No	Yes	Possible material detriment at Residential property	Detriment not material - see desk study
10354	26, CLIPPER CLOSE, NEWPORT, NP19 7LL	Detached	Residential	70.8	dG	332697	190119			0.000	No	No	No	No	No		0.155	0.1619	0.007	Yes	No	No	No	No		
25536	NP197LL	0	Unknown	30.8	pG	332600.8	190150.9			0.000	No	No	No	No	No		0.157	0.1639	0.007	Yes	No	No	No	No		
5380	NINJA TUNE, 21, MILL PARADE, NEWPORT, NP20 2JQ	Shop / Showroom	Non-Residential	286.0	dG	331695	186569			0.000	No	No	No	No	No		0.152	0.1646	0.012	Yes	No	No	No	No		
10924	D14, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10925	D15, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10981	D4A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10982	D4B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10983	D4C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10984	D4D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10985	D4E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10986	D5A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10987	D5B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10988	D5C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10989	D5D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10990	D5E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10991	D5F, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10992	D6A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10993	D6B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10994	D8A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10995	D8B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10996	D8C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10997	D8D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10998	D8E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
10999	D8F, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11000	D9A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11001	D9B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11002	D9C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11003	D9D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11004	D9E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11005	D10A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11006	D10B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11007	D10C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11008	D10D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11009	D15A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11010	D15B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11011	D15C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11012	D15D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11013	D15E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11014	D16A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11015	D16B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11016	D16C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11019	D16D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11779	D3, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11780	D11, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11781	D12, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11782	D13, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11946	D1A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11947	D1B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11948	D1C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11949	D1D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11956	D6C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11957	D6D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11958	D6E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11959	D7A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11960	D7B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11961	D7C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11970	D7D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11971	D7E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11972	D1E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11978	D10E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11979	D11A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11980	D11B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11981	D11C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11982	D11D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11983	D11E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11984	D11F, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11985	D12A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11986	D12B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11987	D12C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11988	D12D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11992	D12E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
11993	D13A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12000	D16E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12001	D17A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12002	D17B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12003	D17C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12004	D17D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12005	D17E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12006	D17F, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12007	D18A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12008	D18B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12009	D18C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12036	D18D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
12037	D18E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26285	D4, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26286	D5, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26287	D6, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26288	D7, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26289	D8, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26290	D9, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26291	D10, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26379	D1, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26380	D2, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26382	D16, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26383	D17, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26384	D18, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		pU	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26393	D3A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26394	D3B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26395	D3C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26396	D3D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26397	D3E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26398	D13B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26399	D13C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26400	D13D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26401	D13E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26402	D14A, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26403	D14B, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26404	D14C, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26405	D14D, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26406	D14E, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
26407	D14F, ENDEAVOUR HOUSE, USK WAY, NEWPORT, NP20 2DZ	Residential Education	Residential		dG	331820	187599			0.000	No	No	No	No	No		0.155	0.1653	0.010	Yes	No	No	No	No		
20798	5, PEARTREE CLOSE, NEWPORT, NP18 3RL	Detached	Residential	78.3	dG	332508	190641			0.000	No	No	No	No	No		0.160	0.1672	0.007	Yes	No	No	No	No		
16348	10, CHICHESTER CLOSE, NEWPORT, NP19 7LJ	Detached	Residential	72.4	dG	332788	190052	0.680	0.0616	-0.618	No	No	No	No	No		0.163	0.1683	0.006	Yes	No	No	No	No		
25989	32, CLIPPER CLOSE, NEWPORT, NP19 7LL	Detached	Residential	77.0	dG	332631	190144			0.000	No	No	No	No	No		0.162	0.1697	0.008	Yes	No	No	No	No		
2084	20, BRUNEL STREET, NEWPORT, NP20 2JT	Terraced	Residential	49.7	dG	331546	186345			0.000	No	No	No	No	No		0.154	0.1705	0.017	Yes	No	No	No	No		
6182	NP190RD	0	Unknown	25.2	pG	331673.9	186268.3	0.118	0.0126	-0.105	No	No	No	No	No		0.161	0.174	0.013	Yes	No	No	No	No		
6768	NP202JQ	0	Non-Residential		pG	331695.6	186551.8			0.000	No	No	No	No	No		0.148	0.1749	0.027	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Material Detriment confirmed
1363	ACORN GLASS WINDOWS AND DOORS, ISCA WORKS, NEWPORT, NP20 2JQ	Factory/Manufacturing	Non-Residential	1000.4	pU	331647	186501			0.000	No	No	No	No	No		0.135	0.1758	0.041	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Detriment not material - see desk study
2180	EX STOCK STEELS LTD, UNIT 1 TO 5, ISCA FOUNDARY, ISCA FOUNDRY, MILMAN STREET, NEWPORT, NP20 2JI	Workshop / Light Industrial	Non-Residential	1000.4	pG	331615	186489			0.000	No	No	No	No	No		0.135	0.1758	0.041	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Material Detriment confirmed
4287	UNIT 2, ISCA WORKS, NEWPORT, NP20 2JQ	Workshop / Light Industrial	Non-Residential	1000.4	pU	331650	186512			0.000	No	No	No	No	No		0.135	0.1758	0.041	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Detriment not material - see desk study
5753	DIESEL INJECTION SYSTEMS, UNIT 1, ISCA WORKS, MILL PARADE, NEWPORT, NP20 2JQ	Workshop / Light Industrial	Non-Residential	1000.4	pG	331637	186484			0.000	No	No	No	No	No		0.135	0.1758	0.041	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Detriment not material - see desk study
1163	BARGAIN TYRES, BARGAIN TYRES, MILL PARADE, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential		dG	331706	186456			0.000	No	No	No	No	No		0.169	0.1804	0.011	Yes	No	No	No	No		
17468	N G DAVIES MOTORS, 12, GRANVILLE LANE, NEWPORT, NP20 2AL	Workshop / Light Industrial	Non-Residential	122.0	dG	331668	187641			0.000	No	No	No	No	No		0.145	0.1813	0.037	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	Detriment not material - see desk study
15933	42, STOCKTON CLOSE, NEWPORT, NP19 7HH	Semi-Detached	Residential	41.7	dG	332186	189941			0.000	No	No	No	No	No		0.173	0.1816	0.008	Yes	No	No	No	No		
5838	6, BRUNEL STREET, NEWPORT, NP20 2JT	Terraced	Residential	52.2	dG	331578	186319			0.000	No	No	No	No	No		0.171	0.1817	0.011	Yes	No	No	No	No		
1149	14, NEWPORT, NP20 2NQ	Maintenance Depot	Non-Residential		dG	331879	185398			0.000	No	No	No	No	No		0.154	0.1861	0.033	Yes	No	No	No	No		
21838	134, THE MOORINGS, NEWPORT, NP19 7JL	Semi-Detached	Residential	47.2	dG	332978	189971			0.000	No	No	No	No	No		0.181	0.1891	0.008	Yes	No	No	No	No		
1601	FLAT 1, 85A, NEWPORT, NP20 2JE	Self Contained Flat (Includes Maisonette / Apart	Residential	66.4	pG	331506	186448			0.000	No	No	No	No	No		0.173	0.19	0.017	Yes	No	No	No	No		
1602	FLAT 2, 85A, NEWPORT, NP20 2JE	Self Contained Flat (Includes Maisonette / Apart	Residential	66.4	pU	331507	186448			0.000	No	No	No	No	No		0.173	0.19	0.017	Yes	No	No	No	No		
6122	NP202US	0	Unknown	134.7	pG	331650.9	186379.7			0.000	No	No	No	No	No		0.183	0.1907	0.008	Yes	No	No	No	No		
20465	1, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	35.3	dG	332650	190720			0.000	No	No	No	No	No		0.184	0.192	0.008	Yes	No	No	No	No		
4697	NP202NP	0	Unknown	993.1	pG	331995.4	185379.4			0.000	No	No	No	No	No		0.175	0.1948	0.020	Yes	No	No	No	No		
16011	14, CHICHESTER CLOSE, NEWPORT, NP19 7LJ	Detached	Residential	73.5	dG	332766	190052			0.000	No	No	No	No	No		0.190	0.1948	0.005	Yes	No	No	No	No		
6008	NP202JE	0	Unknown	55.1	pG	331503.5	186437.4			0.000	No	No	No	No	No		0.187	0.2044	0.018	Yes	No	No	No	No		
13585	32, STOCKTON CLOSE, NEWPORT, NP19 7HH	Semi-Detached	Residential	71.2	dG	332175	190030	0.133	0.0135	-0.120	No	No	No	No	No		0.201	0.2065	0.006	Yes	No	No	No	No		

Modelled Flood Depth (m)
Baseline vs Scheme Option 2b (* fully constructed with new freeboard and detriment mitigation bund at Nash)
Green <0.15m (below typical property threshold),
0.15m < Yellow (above typical property threshold) <0.6m,
>0.6m (above typical property risks experiencing structural issues retaining water)

UniqueID	Raw NRD address data	NRD Class description	Property type (MCM)	Floor area	Floor level (dU = definite ground, pG = possible ground floor, pU = possible upper floor)	X	Y	1 in 30yr in 2069 Baseline	Scheme *	Increase in flood depth	Increase in flood depth >=5mm?	Is property predicted at increase likelihood of flooding?	Scheme increases flood depth to > 150mm?	Scheme increases flood depth to > 600mm?	Is increase in flood depth likely to be material?	Comments on raw results (before manual check)	1 in 100yr in 2069 Baseline	Scheme *	Increase in flood depth	Increase in flood depth >=5mm?	Is property predicted at increase likelihood of flooding?	Scheme increases flood depth to > 150mm?	Scheme increases flood depth to > 600mm?	Is increase in flood depth likely to be material?	Comments on raw results (before manual check)	Material Detriment Manual Check (from desk study / survey)
6383	NP202JE	0	Unknown	56.2	pG	331520.4	186429.2			0.000	No	No	No	No	No		0.189	0.2068	0.018	Yes	No	No	No	No		
23761	2, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	46.0	dG	332602	190704			0.000	No	No	No	No	No		0.199	0.2074	0.009	Yes	No	No	No	No		
25566	NP201HG	0	Unknown	29.5	pG	331275.5	188209.5	0.180	0.0111	-0.169	No	No	No	No	No		0.196	0.21	0.014	Yes	No	No	No	No		
4661	NP182BZ	0	Unknown	34.6	pG	333021	184184.4	0.119	0.0127	-0.106	No	No	No	No	No		0.209	0.2155	0.006	Yes	No	No	No	No		
1606	1, to 4, NEWPORT, NP20 2JP	Childrenâ€™s Nursery / CrÃ¨che	Non-Residential	55.3	dG	331512	186433			0.000	No	No	No	No	No		0.199	0.217	0.018	Yes	No	No	No	No		
23055	35, STOCKTON CLOSE, NEWPORT, NP19 7HH	Semi-Detached	Residential	59.1	dG	332193	190014			0.000	No	No	No	No	No		0.213	0.2208	0.008	Yes	No	No	No	No		
6009	NP202JE	0	Unknown	55.1	pG	331509.1	186434.7			0.000	No	No	No	No	No		0.207	0.2249	0.018	Yes	No	No	No	No		
1666	22B, NEWPORT, NP20 2JQ	Workshop / Light Industrial	Non-Residential	267.4	pG	331700	186559			0.000	No	No	No	No	No		0.200	0.2257	0.026	Yes	No	No	No	No		
3977	22A, NEWPORT, NP20 2JQ	Workshop / Light Industrial	Non-Residential	267.4	pU	331702	186558			0.000	No	No	No	No	No		0.200	0.2257	0.026	Yes	No	No	No	No		
12598	11, CHICHESTER CLOSE, NEWPORT, NP19 7LJ	Detached	Residential	69.1	dG	332823	190028			0.000	No	No	No	No	No		0.218	0.2257	0.007	Yes	No	No	No	No		
22631	6, CHICHESTER CLOSE, NEWPORT, NP19 7LJ	Detached	Residential	69.7	dG	332818	190059			0.000	No	No	No	No	No		0.224	0.231	0.007	Yes	No	No	No	No		
2985	16, BRUNEL STREET, NEWPORT, NP20 2JT	Terraced	Residential	56.7	dG	331555	186337			0.000	No	No	No	No	No		0.215	0.2321	0.017	Yes	No	No	No	No		
16298	36, STOCKTON CLOSE, NEWPORT, NP19 7HH	Semi-Detached	Residential	45.7	dG	332200	189996			0.000	No	No	No	No	No		0.226	0.2354	0.009	Yes	No	No	No	No		
13952	3, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	48.6	dG	332604	190698			0.000	No	No	No	No	No		0.227	0.2368	0.009	Yes	No	No	No	No		
9748	17, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	60.0	dG	332168	190626	0.520	0.0057	-0.514	No	No	No	No	No		0.228	0.2369	0.009	Yes	No	No	No	No		
22633	33, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	53.1	dG	332551	190685			0.000	No	No	No	No	No		0.230	0.2388	0.009	Yes	No	No	No	No		
23760	32, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	31.0	dG	332546	190683			0.000	No	No	No	No	No		0.230	0.2388	0.009	Yes	No	No	No	No		
6236	NP182BZ	0	Unknown	55.9	pG	333014.1	184167.7			0.000	No	No	No	No	No		0.232	0.239	0.007	Yes	No	No	No	No		
1729	4, BRUNEL STREET, NEWPORT, NP20 2JT	Terraced	Residential	56.3	dG	331583	186316			0.000	No	No	No	No	No		0.229	0.2402	0.011	Yes	No	No	No	No		
16671	39, CHICHESTER CLOSE, NEWPORT, NP19 7LJ	Detached	Residential	71.5	dG	332725	190108			0.000	No	No	No	No	No			0.2423	0.242	Yes	Yes	Yes	No	Yes	Possible material detriment at Residential property	Detriment not material - see desk study
5972	NP202JQ	0	Unknown	43.8	pG	331709.2	186625.6			0.000	No	No	No	No	No		0.213	0.2426	0.030	Yes	No	No	No	No		
2984	ORCHARD MOTORS, UNIT 5, LATCHES WHARF, MILL PARADE, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential	528.4	pG	331727	186480			0.000	No	No	No	No	No		0.230	0.2451	0.015	Yes	No	No	No	No		
3736	B J MOTORS, UNIT 4, LATCHES WHARF, MILL PARADE, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential	528.4	pG	331722	186471			0.000	No	No	No	No	No		0.230	0.2451	0.015	Yes	No	No	No	No		
4288	CITY TESTING, UNIT 6, LATCHES WHARF, MILL PARADE, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential	528.4	pG	331738.3	186466			0.000	No	No	No	No	No		0.230	0.2451	0.015	Yes	No	No	No	No		
1608	OFFICE, TRANSPORTER BRIDGE, NEWPORT, NP19 0RD	Office / Work Studio	Non-Residential	35.1	dG	331682	186266	0.753	0.0758	-0.677	No	No	No	No	No		0.232	0.2455	0.014	Yes	No	No	No	No		
14958	4, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	32.1	dG	332610	190691			0.000	No	No	No	No	No		0.237	0.2468	0.010	Yes	No	No	No	No		
5417	TREW & REECE AUTO ENGINEERS, 32, 26, COOMASSIE STREET, NEWPORT, NP20 2JP	Workshop / Light Industrial	Non-Residential	210.8	dG	331603	186397			0.000	No	No	No	No	No		0.230	0.2476	0.018	Yes	No	No	No	No		
6864	THE YARD, NEWPORT, NP20 2BY	Workshop / Light Industrial	Non-Residential		dG	331763	186709			0.000	No	No	No	No	No		0.240	0.2494	0.010	Yes	No	No	No	No		
4548	NP202TX	0	Unknown	80.6	pG	331990.5	186810.9			0.000	No	No	No	No	No		0.239	0.2508	0.012	Yes	No	No	No	No		
3737	KURBSIDE MOTORS, UNIT 3, LATCHES WHARF, MILL PARADE, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential	88.7	pG	331719	186462			0.000	No	No	No	No	No		0.241	0.2533	0.012	Yes	No	No	No	No		
5971	NP202JJ	0	Unknown	28.5	pG	331658.2	186606			0.000	No	No	No	No	No		0.194	0.2546	0.060	Yes	No	No	No	No		
6982	STORE, REAR OF 17, NEWPORT, NP20 2JJ	Warehouse / Store / Storage Depot	Non-Residential	39.2	dG	331659	186604			0.000	No	No	No	No	No		0.194	0.2546	0.060	Yes	No	No	No	No		
12230	UNIVERSITY OF WALES, UNIVERSITY OF WALES NEWPORT CITY CAMPUS, NEWPORT CITY CAMPUS, USK WAY	University	Non-Residential	3109.3	dG	331524	187893			0.000	No	No	No	No	No		0.239	0.2555	0.017	Yes	No	No	No	No		
4729	NP194RE	0	Unknown	67.2	pG	333024.9	185458.6			0.000	No	No	No	No	No		0.169	0.2564	0.088	Yes	No	No	No	No		
24471	34, STOCKTON CLOSE, NEWPORT, NP19 7HH	Semi-Detached	Residential	73.3	dG	332188	190019			0.000	No	No	No	No	No		0.252	0.2597	0.008	Yes	No	No	No	No		
2991	2, BRUNEL STREET, NEWPORT, NP20 2JT	Terraced	Residential	51.7	dG	331587	186313			0.000	No	No	No	No	No		0.252	0.2616	0.010	Yes	No	No	No	No		
22311	NP201HG	0	Unknown	182.9	pG	331258.1	188229.5			0.000	No	No	No	No	No		0.251	0.2625	0.012	Yes	No	No	No	No		
22314	NP201HG	0	Unknown	58.0	pG	331268.4	188224.5			0.000	No	No	No	No	No		0.251	0.2625	0.012	Yes	No	No	No	No		
2298	I D M DOORS LTD, IDM DOORS LTD, ROCK WHARF, MILL PARADE, NEWPORT, NP20 2JR	Warehouse / Store / Storage Depot	Non-Residential	156.6	dG	331711	186421			0.000	No	No	No	No	No		0.252	0.2628	0.011	Yes	No	No	No	No		
24844	6, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	52.1	dG	332614	190679	0.793	0.0803	-0.713	No	No	No	No	No		0.257	0.2673	0.010	Yes	No	No	No	No		
4298	18, BRUNEL STREET, NEWPORT, NP20 2JT	Terraced	Residential	57.4	dG	331550	186341			0.000	No	No	No	No	No		0.256	0.2738	0.018	Yes	No	No	No	No		
264	UNIT 5, REAR OF 17, NEWPORT, NP20 2JJ	Warehouse / Store / Storage Depot	Non-Residential	69.9	pG	331660	186580			0.000	No	No	No	No	No		0.199	0.2757	0.077	Yes	No	No	No	No		
2719	UNIT 5A, REAR OF 17, NEWPORT, NP20 2JJ	Warehouse / Store / Storage Depot	Non-Residential	69.9	pG	331660	186582			0.000	No	No	No	No	No		0.199	0.2757	0.077	Yes	No	No	No	No		
23758	5, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	53.5	dG	332611	190686	0.160	0.0179	-0.142	No	No	No	No	No		0.267	0.2769	0.010	Yes	No	No	No	No		
10340	16, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	76.8	dG	332159	190620	0.382	0.0392	-0.343	No	No	No	No	No		0.269	0.2799	0.011	Yes	No	No	No	No		
14949	24, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	38.3	dG	332521	190648			0.000	No	No	No	No	No		0.272	0.2816	0.010	Yes	No	No	No	No		
6373	NP202JR	0	Unknown	40.0	pG	331703.7	186427.7			0.000	No	No	No	No	No		0.275	0.2829	0.008	Yes	No	No	No	No		
6004	NP202JP	0	Unknown	181.4	pG	331607.6	186408.3			0.000	No	No	No	No	No		0.268	0.2862	0.018	Yes	No	No	No	No		
1558	ACE AUTOS, UNIT 3, REAR OF 17, THE OLD BREWERY, ST. STEPHENS ROAD, NEWPORT, NP20 2JJ	Workshop / Light Industrial	Non-Residential	69.9	pG	331670	186619			0.000	No	No	No	No	No		0.256	0.2905	0.035	Yes	No	No	No	No		
5967	NP202JN	0	Unknown	69.9	pG	331680.5	186620.3			0.000	No	No	No	No	No		0.256	0.2905	0.035	Yes	No	No	No	No		
21907	NP197LJ	0	Unknown	30.5	pG	332812.9	190034.6	0.123	0.1244	0.002	No	No	No	No	No		0.284	0.2909	0.007	Yes	No	No	No	No		
15641	6, PEARTREE CLOSE, NEWPORT, NP18 3RL	Detached	Residential	80.9	dG	332498	190636			0.000	No	No	No	No	No		0.288	0.2949	0.007	Yes	No	No	No	No		
20731	132, THE MOORINGS, NEWPORT, NP19 7JL	Semi-Detached	Residential	49.3	dG	332984	189969	0.187	0.1103	-0.077	No	No	No	No	No		0.287	0.2952	0.008	Yes	No	No	No	No		
25793	NP197LJ	0	Unknown	30.5	pG	332818.4	190035.2			0.000	No	No	No	No	No		0.289	0.2958	0.007	Yes	No	No	No	No		
16664	2, CHICHESTER CLOSE, NEWPORT, NP19 7LJ	Detached	Residential	61.0	dG	332819	190079	0.216	0.2113	-0.005	No	No	No	No	No		0.287	0.2977	0.011	Yes	No	No	No	No		
6403	NP202BW	0	Unknown	551.1	pG	332332.5	186809.7			0.000	No	No	No	No	No		0.280	0.2979	0.018	Yes	No	No	No	No		
13947	23, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	55.0	dG	332523	190642	0.379	0.0386	-0.340	No	No	No	No	No		0.288	0.298	0.010	Yes	No	No	No	No		
5674	27, to 30, 27-30, COOMASSIE STREET, NEWPORT, NP20 2JP	Workshop / Light Industrial	Non-Residential	456.4	dG	331586	186397			0.000	No	No	No	No	No		0.281	0.2984	0.018	Yes	No	No	No	No		
12851	144, THE MOORINGS, NEWPORT, NP19 7JL	Detached	Residential	103.3	dG	332947	190006	0.318	0.0337	-0.284	No	No	No	No	No		0.290	0.2984	0.008	Yes	No	No	No	No		
16661	93, THE MOORINGS, NEWPORT, NP19 7JL	Detached	Residential	97.2	dG	332902	190017	0.175	0.0332	-0.142	No	No	No	No	No		0.292	0.3003	0.008	Yes	No	No	No	No		
2782	MANAGERS ACCOMMODATION, 42, WEST OF ENGLAND HOTEL, NEWPORT, NP20 2JS	Self Contained Flat (Includes Maisonette / Apart	Residential		pU	331604	186304			0.000	No	No	No	No	No		0.289	0.3008	0.012	Yes	No	No	No	No		
4049	WEST OF ENGLAND TAVERN, 42, WEST OF ENGLAND HOTEL, 42, MILL PARADE, NEWPORT, NP20 2JS	Hotel/Motel	Non-Residential		pG	331609	186302			0.000	No	No	No	No	No		0.289	0.3008	0.012	Yes	No	No	No	No		
3403	14, MILL PARADE, NEWPORT, NP20 2JQ	Terraced	Residential	70.7	dG	331716	186605			0.000	No	No	No	No	No		0.296	0.3039	0.008	Yes	No	No	No	No		
2189	THE MALTINGS, NEWPORT, NP20 2BW	Workshop / Light Industrial	Non-Residential	521.8	dG	332325	186801			0.000	No	No	No	No	No		0.290	0.3042	0.014	Yes	No	No	No	No		
1488	STORE, NEWPORT AUCTIONS LTD, NEWPORT, NP20 2BW	Warehouse / Store / Storage Depot	Non-Residential	798.3	dG	332043	186826			0.000	No	No	No	No	No		0.290	0.3046	0.015	Yes	No	No	No	No		
4606	NP202JP	0	Unknown	49.8	pG	331621.9	186407.6			0.000	No	No	No	No	No		0.289	0.3069	0.018	Yes	No	No	No	No		
12916	22, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	50.3	dG	332525	190636	0.525	0.0533	-0.472	No	No	No	No	No		0.299	0.3083	0.010	Yes	No	No	No	No		
20454	97, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	74.7	dG	332457	190680	0.716	0.0728	-0.643	No	No	No	No	No		0.311	0.3163	0.005	Yes	No	No	No	No		
16601	40, STOCKTON CLOSE, NEWPORT, NP19 7HH	Semi-Detached	Residential	41.4	dG	332190	189960	0.143	0.1443	0.001	No	No	No	No	No		0.308	0.3164	0.008	Yes	No	No	No	No		
17720	7, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	34.6	dG	332616	190674	0.130	0.1046	-0.025	No	No	No	No	No		0.308	0.318	0.010	Yes	No	No	No	No		
25686	NP190UU	0	Unknown	71.3	pG	331178.8	188366.3			0.000	No	No	No	No	No		0.304	0.3184	0.015	Yes	No	No	No	No		
16948	89, THE MOORINGS, NEWPORT, NP19 7JL	Semi-Detached	Residential	47.4	dG	332908	189993			0.000	No	No	No	No	No		0.314	0.3218	0.008	Yes	No	No	No	No		
16968	91, THE MOORINGS, NEWPORT, NP19 7JL	Semi-Detached	Residential	77.7	dG	332908	190000	0.900	0.0028	-0.897	No	No	No	No	No		0.314	0.3218	0.008	Yes	No	No	No	No		
22122	NP197LJ	0	Unknown	31.0	pG	332811.2	190049.9			0.000	No	No	No	No	No		0.321	0.3285	0.007	Yes	No	No	No	No		
22273	NP197LJ	0	Unknown	29.7	pG	332816.8	190050.5			0.000	No	No	No	No	No		0.321	0.3285	0.007	Yes	No	No	No	No		
6333	NP202TX	0	Unknown	74.1	pG	332003.8	186812			0.000	No	No	No	No	No		0.323	0.3383	0.015	Yes	No	No	No	No		
21554	33, STOCKTON CLOSE, NEWPORT, NP19 7HH	Semi-Detached	Residential	61.0	dG	332180	190025			0.000	No	No	No	No	No		0.330	0.3385	0.008	Yes	No	No	No	No		
16009	18, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	48.0	dG	332629	190702	0.134	0.1344	0.001	No	No	No	No	No		0.331	0.3412	0.011	Yes	No	No	No	No		
13865	37, STOCKTON CLOSE, NEWPORT, NP19 7HH	Semi-Detached	Residential	45.5	dG	332197	189992			0.000	No	No	No	No	No		0.336	0.3454	0.009	Yes	No	No	No	No		
6207	NP202NQ	0	Unknown	412.6	pG	332611.3	184946.5	0.887	0.0919	-0.795	No	No	No	No	No		0.335	0.3456	0.011	Yes	No	No	No	No		
2181	A R ADAMS & SON LTD, PILL BANK WORKS, COOMASSIE STREET, NEWPORT, NP20 2US	Workshop / Light Industrial	Non-Residential	465.8	pG	331647	186389			0.000	No	No	No	No	No		0.329	0.3466	0.018	Yes	No	No	No	No		
2983	35, NEWPORT, NP20 2JP	Workshop / Light Industrial	Non-Residential	465.8	pU	331639	186372			0.000	No	No	No	No	No		0.329	0.3466	0.018	Yes	No	No	No	No		
5759	OSAKA TOYOTA SPECIALIST, 34, 26, COOMASSIE STREET, NEWPORT, NP20 2JP	Workshop / Light Industrial	Non-Residential	366.8	pG	331615	186392			0.000	No	No	No	No	No		0.334	0.3513	0.018	Yes	No	No	No	No		
28852	NP181AA	0	Unknown	73.9	pG	333998.5	190273.2	0.157	0.1590	0.002	No	No	No	No	No		0.344	0.3522	0.008	Yes	No	No	No	No		
6547	4, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	48.7	dG	331703	186763	0.595	0.0620	-0.533	No	No	No	No	No		0.357	0.3622	0.005	Yes	No	No	No	No		
25784	NP197JL	0	Unknown	30.5	pG	332888.4	190013.9	0.750	0.0297	-0.720	No	No	No	No	No		0.359	0.3669	0.008	Yes	No	No	No	No		
14947	12, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	50.4	dG	332601	190662	0.138	0.1398	0.002	No	No	No	No	No		0.361	0.3708	0.010	Yes	No	No	No	No		
14301	7, PEARTREE CLOSE, NEWPORT, NP18 3RL	Detached	Residential	78.9	dG	332488	190631	0.686	0.0704	-0.616	No	No	No	No	No		0.366	0.3722	0.006	Yes	No	No	No	No		
4681	NP182BZ	0	Unknown	28.8	pG	333035.9	184188.8	0.167	0.1696	0.002	No	No	No	No	No		0.368	0.3743	0.007	Yes	No	No	No	No		
19506	6, CYPRESS CLOSE, NEWPORT, NP18 3RN	Detached	Residential	75.6	dG	332134	190647	0.177	0.1809	0.004	No	No	No	No	No		0.369	0.38	0.011	Yes	No	No	No	No		
23766	13, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	54.3	dG	332595	190660	0.149	0.1519	0.003	No	No	Yes	No	No		0.378	0.3877	0.010	Yes	No	No	No	No		
24480	8, PEARTREE CLOSE, NEWPORT, NP18 3RL	Detached	Residential	79.9	dG	332472	190619	0.173	0.1753	0.003	No	No	No	No	No		0.379	0.3881	0.009	Yes	No	No	No	No		
1362	UNION MOTORS, UNIT 7, LATCHES WHARF, MILL PARADE, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential	286.0	pG	331735	186456			0.000	No	No	No	No	No		0.384	0.3979	0.014	Yes	No	No	No	No		
2981	UNIT 8, LATCHES WHARF, MILL PARADE, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential	286.0	pU	331732	186445			0.000	No	No	No	No	No		0.384	0.3979	0.014	Yes	No	No	No	No		
5835	UNIT 2, LATCHES WHARF, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential	286.0	pU	331715	186451			0.000	No	No	No	No	No		0.384	0.3979	0.014	Yes	No	No	No	No		
17303	91, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	63.8	dG	332405	190675	0.119	0.1205	0.001	No	No	No	No	No		0.392	0.4	0.008	Yes	No	No	No	No		
22635	16, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	45.1	dG	332572	190657	0.194	0.1966	0.003	No	No	No	No	No		0.397	0.4071	0.010	Yes	No	No	No	No		
23534	J & A PHILLIPS, 13, GRANVILLE LANE, NEWPORT, NP20 2AL	Shop / Showroom	Non-Residential	269.1	dG	331679	187635			0.000	No	No	No	No	No		0.248	0.4077	0.159	Yes	No	No	No	No		
23764	20, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	47.3	dG	332540	190641	0.192	0.1939	0.002	No	No	No	No	No		0.401	0.4104	0.010	Yes	No	No	No	No		
10628	THE RIVERFRONT, THE RIVERFRONT, KINGSWAY, NEWPORT, NP20 1HG	Bingo Hall / Cinema / Conference / Exhibition Ce	Non-Residential	221.3	pG	331272	188184	0.162	0.1677	0.005	Yes	No	No	No	No		0.398	0.4116	0.014	Yes	No	No	No	No		
22318	NP201HG	0	Unknown	35.2	pG	331289.6	188184	0.162	0.1677	0.005	Yes	No	No	No	No		0.398	0.4116	0.014	Yes	No	No	No	No		
25564	NP201HG	0	Unknown	221.3	pG	331271.9	188183.1	0.162	0.1677	0.005	Yes	No	No	No	No		0.398	0.4116	0.014	Yes	No	No	No	No		
25668	NP197LJ	0	Unknown	30.9	pG	332728.4	190095.6			0.000	No	No	No	No	No		0.409	0.4153	0.007	Yes	No	No	No	No		
24477	9, PEARTREE CLOSE, NEWPORT, NP18 3RL	Detached	Residential	85.0	dG	332466	190628	0.176	0.1774	0.002	No	No	No	No	No		0.410	0.416	0.006	Yes	No	No	No	No		
15648	21, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	34.0	dG	332526	190631	0.184	0.1858	0.002	No	No	No	No	No		0.408	0.4183	0.010	Yes	No	No	No	No		
22272	NP197LJ	0	Unknown	30.9	pG	332707.8	190128	0.218	0.2201	0.002	No	No	No	No	No		0.414	0.4217	0.008	Yes	No	No	No	No		
24476	10, PEARTREE CLOSE, NEWPORT, NP18 3RL	Detached	Residential	72.8	dG	332463	190642	0.123	0.1244	0.001	No	No	No	No	No		0.416	0.422	0.006	Yes	No	No	No	No		
22632	59, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	71.3	dG	332203	190627	0.146	0.1478	0.001	No	No	No	No	No		0.416	0.4249	0.009	Yes	No	No	No	No		
300	VACANT PART OF FACTORY, PRECISION CAST COMPONENTS, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential	495.4	pG	332001.2	186759.6	0.550	0.0056	-0.544	No	No	No	No	No		0.410	0.4251	0.016	Yes	No	No	No	No		
301	UNIT 7, USK SIDE BUSINESS PARK, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential	495.4	pG	331981.4	186773.9	0.550	0.0056	-0.544	No	No	No	No	No		0.410	0.4251	0.016	Yes	No	No	No	No		
1318	PRECISION CAST COMPONENTS, NEWPORT, NP20 2TX	Factory/Manufacturing	Non-Residential	495.4	pG	332002.3	186767.3	0.550	0.0056	-0.544	No	No	No	No	No		0.410	0.4251	0.016	Yes	No	No	No	No		
1544	UNIT 8 DRIVE UK, USK SIDE BUSINESS PARK, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential	495.4	pU	331993.6	186764.9	0.550	0.0056	-0.544	No	No	No	No	No		0.410	0.4251	0.016	Yes	No	No	No	No		
1545	UNIT 8 AUTO REPAIRS, USK SIDE BUSINESS PARK, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential	495.4	pU	331994.3	186763.4	0.550	0.0056	-0.544	No	No	No	No	No		0.410	0.4251	0.016	Yes	No	No	No	No		
1546	UNIT 8 UPPER FLOOR, USK SIDE BUSINESS PARK, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential	495.4	rU	331995.6	186761.5	0.550	0.0056	-0.544	No	No	No	No	No		0.410	0.4251	0.016	Yes	No	No	No	No		
1547	UNIT 9, USK SIDE BUSINESS PARK, UNIT 9, CHURCH STREET, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential	495.4	pU	332009.5	186768	0.550	0.0056	-0.544	No	No	No	No	No		0.410	0.4251	0.016	Yes	No	No	No	No		
22328	NP202BP	0	Unknown	1627.8	pG	331479.8	187909.3			0.000	No	No	No	No	No		0.411	0.4276	0.017	Yes	No	No	No	No		
1358	UNIT 9, LATCHES WHARF, NEWPORT, NP20 2JR	Workshop / Light Industrial	Non-Residential	753.0	pG	331722.7	186421.1			0.000	No	No	No	No	No		0.415	0.4289	0.014	Yes	No	No	No	No		
2776	1, STORAGE ADJACENT TO, LATCHES WHARF, NEWPORT, NP20 2JR	Warehouse / Store / Storage Depot	Non-Residential	753.0	pU	331709	186430			0.000	No	No	No	No	No		0.415	0.4289	0.014	Yes	No	No	No	No		
2911	LAURENCE BAILEY BODY REPAIRS & RECOVERY, UNIT 1, LATCHES WHARF, MILL PARADE, NEWPORT, NP20 2	Workshop / Light Industrial	Non-Residential	753.0	pG	331713	186438			0.000	No	No	No	No	No		0.415	0.4289	0.014	Yes	No	No	No	No		
17306	73, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	77.6	dG	332298	190663	0.143	0.1454	0.002	No	No	No	No	No		0.427	0.4349	0.008	Yes	No	No	No	No		
6015	NP202BW	0	Unknown	87.7	pG	332097.1	186792.4			0.000	No	No	No	No	No		0.420	0.4356	0.016	Yes	No	No	No	No		
25836	NP201HG	0	Unknown	33.5	pG	331281.5	188195.8	0.194	0.1997	0.005	Yes	No	No	No	No		0.422	0.4357	0.014	Yes	No	No	No	No		
6548	5, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	48.5	dG	331708	186761	0.118	0.1214	0.003	No	No	No	No	No		0.430	0.4362	0.006	Yes	No	No	No	No		
2433	JOHNS ELECTRICS LTD, 13, MILL PARADE, NEWPORT, NP20 2JQ	Workshop / Light Industrial	Non-Residential	78.8	dG	331715	186623			0.000	No	No	No	No	No		0.432	0.441	0.009	Yes	No	No	No	No		
17312	93, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	59.8	dG	332428	190677	0.186	0.1861	0.000	No	No	No	No	No		0.434	0.4412	0.008	Yes	No	No	No	No		
23757	14, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	31.5	dG	332590	190657	0.210	0.2023	-0.008	No	No	No	No	No		0.433	0.4432	0.010	Yes	No	No	No	No		
14950	11, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	36.3	dG	332607	190663	0.227	0.2284	0.002	No	No	No	No	No		0.435	0.4452	0.010	Yes	No	No	No	No		
21558	65, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	71.1	dG	332250	190634	0.196	0.1966	0.001	No	No	No	No	No		0.439	0.4487	0.009	Yes	No	No	No	No		
17722	15, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	32.4	dG	332570	190663	0.242	0.2449	0.003	No	No	No	No	No		0.444	0.4537	0.010	Yes	No	No	No	No		
11040	EMLYN CANVASS, THE EMLYN CANVAS AND CORDAGE LTD, GRANVILLE SQUARE, NEWPORT, NP20 2AB	Shop / Showroom	Non-Residential		dG	331672	187623			0.000	No	No	No	No	No		0.348	0.4588	0.111	Yes	No	No	No	No		
11146	M AND M MOTORS, NEWPORT, NP20 2AL	Shop / Showroom	Non-Residential		dG	331672	187623			0.000	No	No	No	No	No		0.348	0.4588	0.111	Yes	No	No	No	No		
23763	19, WHITE ASH GLADE, NEWPORT, NP18 3RB	Semi-Detached	Residential	49.2	dG	332545	190643	0.244	0.2467	0.003	No	No	No	No	No		0.449	0.4593	0.010	Yes	No	No	No	No		
19494	12, PEARTREE CLOSE, NEWPORT, NP18 3RL	Detached	Residential	77.6	dG	332464	190663			0.000	No	No	No	No	No		0.456	0.4618	0.005	Yes	No	No	No	No		
5188	22, NEWPORT, NP20 2BY	Terraced	Residential	53.2	dG	331819	186717	0.272	0.2749	0.003	No	No	No	No	No		0.454	0.4632	0.009	Yes	No	No	No	No		
16670	7, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	62.5	dG	332244	190563	0.234	0.2366	0.002	No	No	No	No	No		0.457	0.4671	0.010	Yes	No	No	No	No		
17721	1, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	67.7	dG	332311	190651	0.235	0.2041	-0.031	No	No	No	No	No		0.460	0.4682	0.008	Yes	No	No	No	No		
4601	NP202JQ	0	Unknown	633.6	pG	331720.5	186727.7	0.119	0.1042	-0.015	No	No	No	No	No		0.461	0.4686	0.008	Yes	No	No	No	No		
17305	61, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	69.7	dG	332216	190626	0.197	0.1979	0.001	No	No	No	No	No		0.460	0.4692	0.009	Yes	No	No	No	No		
19493	3, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	58.7	dG	332435	190641	0.229	0.2294	0.001	No	No	No	No	No		0.466	0.4736	0.007	Yes	No	No	No	No		
10353	13, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	62.1	dG	332166	190585	0.252	0.2560	0.004	No	No	No	No	No		0.463	0.4741	0.011	Yes	No	No	No	No		
19491	9, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	57.4	dG	332399	190635	0.223	0.2240	0.001	No	No	No	No	No		0.470	0.4777	0.008	Yes	No	No	No	No		
21174	85, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	57.6	dG	332371	190678	0.185	0.1866	0.001	No	No	No	No	No		0.473	0.4805	0.008	Yes	No	No	No	No		
19132	8, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	34.2	dG	332669	190676	0.265	0.2673	0.002	No	No	No	No	No		0.471	0.4819	0.011	Yes	No	No	No	No		
303	THE SHIP & PILOT, 20, to 21, THE SHIP AND PILOT, 20-21, CHURCH STREET, NEWPORT, NP20 2BY	Public House / Bar / Nightclub	Non-Residential	120.0	pG	331813	186725	0.252	0.2551	0.003	No	No	No	No	No		0.474	0.4832	0.010	Yes	No	No	No	No		

UniqueID	Raw NRD address data	NRD Class description	Property type (MCM)	Floor area	Floor level (dU = definite ground, pG = possible ground floor, pU = possible upper floor)	X	Y	Modelled Flood Depth (m) Baseline vs Scheme Option 2b (* fully constructed with new freeboard and detriment mitigation bund at Nash) Green <0.15m (below typical property threshold), 0.15m < Yellow (above typical property threshold) <0.6m, >0.6m (above typical property risks experiencing structural issues retaining water)																		
								1 in 30yr in 2069									1 in 100yr in 2069									
								Baseline	Scheme *	Increase in flood depth	Increase in flood depth >=5mm?	Is property predicted at increase likelihood of flooding?	Scheme increases flood depth to > 150mm?	Scheme increases flood depth to > 600mm?	Is increase in flood depth likely to be material?	Comments on raw results (before manual check)	Baseline	Scheme *	Increase in flood depth	Increase in flood depth >=5mm?	Is property predicted at increase likelihood of flooding?	Scheme increases flood depth to > 150mm?	Scheme increases flood depth to > 600mm?	Is increase in flood depth likely to be material?	Comments on raw results (before manual check)	Material Detriment Manual Check (from desk study / survey)
1548	MANAGERS ACCOMMODATION, 20, to 21, THE SHIP AND PILOT, NEWPORT, NP20 2BY	Self Contained Flat (Includes Maisonette / Apart	Residential	120.0	pU	331813	186726	0.252	0.2551	0.003	No	No	No	No	No		0.474	0.4832	0.010	Yes	No	No	No	No		
24481	7, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	48.5	dG	332409	190615	0.253	0.2519	-0.001	No	No	No	No	No		0.476	0.4836	0.008	Yes	No	No	No	No		
19489	14, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	53.3	dG	332634	190667	0.269	0.2705	0.002	No	No	No	No	No		0.475	0.4849	0.010	Yes	No	No	No	No		
17313	87, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	60.8	dG	332381	190679	0.190	0.1909	0.001	No	No	No	No	No		0.477	0.4851	0.008	Yes	No	No	No	No		
14285	69, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	56.0	dG	332269	190645	0.234	0.2345	0.001	No	No	No	No	No		0.478	0.4867	0.009	Yes	No	No	No	No		
19496	11, PEARTREE CLOSE, NEWPORT, NP18 3RL	Detached	Residential	72.7	dG	332465	190653	0.743	0.0764	-0.667	No	No	No	No	No		0.481	0.4868	0.006	Yes	No	No	No	No		
10343	5, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	55.0	dG	332203	190570	0.229	0.2301	0.001	No	No	No	No	No		0.478	0.4875	0.010	Yes	No	No	No	No		
22415	4, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	52.5	dG	332198	190579	0.229	0.2301	0.001	No	No	No	No	No		0.478	0.4875	0.010	Yes	No	No	No	No		
17310	63, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	61.2	dG	332226	190626	0.225	0.2260	0.001	No	No	No	No	No		0.480	0.4894	0.009	Yes	No	No	No	No		
323	25, NEWPORT, NP20 2BY	Terraced	Residential	42.1	dG	331840	186712	0.276	0.2805	0.004	No	No	No	No	No		0.478	0.4896	0.012	Yes	No	No	No	No		
23767	17, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	50.0	dG	332574	190651	0.275	0.2730	-0.002	No	No	No	No	No		0.480	0.4896	0.010	Yes	No	No	No	No		
19492	6, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	62.8	dG	332419	190614	0.252	0.2529	0.001	No	No	No	No	No		0.483	0.4902	0.007	Yes	No	No	No	No		
4917	23, NEWPORT, NP20 2BY	Terraced	Residential	35.1	dG	331824	186716	0.313	0.3051	-0.008	No	No	No	No	No		0.482	0.4903	0.008	Yes	No	No	No	No		
320	19, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	58.1	dG	331798	186725	0.148	0.1538	0.005	Yes	No	Yes	No	Yes	Possible material detriment at Residential property	0.482	0.4926	0.011	Yes	No	No	No	No		Material Detriment confirmed
17301	83, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	64.0	dG	332361	190678	0.221	0.2036	-0.017	No	No	No	No	No		0.486	0.4938	0.008	Yes	No	No	No	No		
17316	95, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	61.0	dG	332439	190679	0.239	0.2396	0.000	No	No	No	No	No		0.489	0.4962	0.007	Yes	No	No	No	No		
20473	71, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	67.9	dG	332279	190653	0.244	0.2444	0.001	No	No	No	No	No		0.487	0.4966	0.009	Yes	No	No	No	No		
6317	NP194RE	0	Unknown	199.5	pG	333214.7	185303.2	0.495	0.2032	-0.292	No	No	No	No	No		0.413	0.4986	0.086	Yes	No	No	No	No		
19133	16, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	48.2	dG	332634	190689	0.268	0.2695	0.001	No	No	No	No	No		0.488	0.4987	0.011	Yes	No	No	No	No		
12596	9, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	33.3	dG	332664	190674	0.283	0.2849	0.002	No	No	No	No	No		0.489	0.4996	0.011	Yes	No	No	No	No		
21168	17, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	52.9	dG	332631	190695	0.263	0.2640	0.001	No	No	No	No	No		0.490	0.5005	0.011	Yes	No	No	No	No		
25786	NP197JL	0	Unknown	31.9	pG	332963.4	190006.8	0.385	0.3116	-0.073	No	No	No	No	No		0.501	0.509	0.008	Yes	No	No	No	No		
19495	2, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	55.7	dG	332435	190649	0.263	0.2635	0.001	No	No	No	No	No		0.502	0.5093	0.007	Yes	No	No	No	No		
16012	7, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	97.3	dG	332210	190551	0.292	0.2953	0.004	No	No	No	No	No		0.501	0.5117	0.011	Yes	No	No	No	No		
15328	1, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	60.0	dG	332435	190658	0.263	0.2635	0.001	No	No	No	No	No		0.504	0.5118	0.007	Yes	No	No	No	No		
20112	2, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	60.7	dG	332315	190641	0.263	0.2637	0.001	No	No	No	No	No		0.509	0.517	0.008	Yes	No	No	No	No		
13589	10, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	71.9	dG	332341	190657	0.234	0.2349	0.001	No	No	No	No	No		0.513	0.5209	0.008	Yes	No	No	No	No		
15324	1, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	57.6	dG	332374	190657	0.228	0.2299	0.002	No	No	No	No	No		0.514	0.5216	0.008	Yes	No	No	No	No		
17307	79, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	47.8	dG	332326	190676	0.286	0.2112	-0.075	No	No	No	No	No		0.515	0.5228	0.008	Yes	No	No	No	No		
10593	6, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	77.2	dG	332222	190556	0.293	0.2959	0.003	No	No	No	No	No		0.513	0.5229	0.010	Yes	No	No	No	No		
17311	89, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	56.1	dG	332395	190675	0.239	0.2405	0.002	No	No	No	No	No		0.520	0.528	0.008	Yes	No	No	No	No		
19490	15, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	38.2	dG	332636	190683	0.310	0.3024	-0.008	No	No	No	No	No		0.518	0.5285	0.011	Yes	No	No	No	No		
137	BALTIC GREASE WORKS, NEWPORT, NP20 2BW	Workshop / Light Industrial	Non-Residential	422.7	dG	332117	186823	0.000	0.0197	0.020	Yes	No	No	No	No		0.513	0.5287	0.016	Yes	No	No	No	No		
19497	10, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	57.7	dG	332403	190645	0.270	0.2704	0.001	No	No	No	No	No		0.525	0.5322	0.007	Yes	No	No	No	No		
19488	10, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	45.5	dG	332659	190672	0.319	0.3207	0.002	No	No	No	No	No		0.525	0.5355	0.011	Yes	No	No	No	No		
9746	1, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	75.4	dG	332196	190613	0.277	0.2778	0.001	No	No	No	No	No		0.527	0.5362	0.009	Yes	No	No	No	No		
25985	10, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	78.8	dG	332178	190552	0.318	0.3222	0.004	No	No	No	No	No		0.527	0.5385	0.011	Yes	No	No	No	No		
10344	9, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	63.2	dG	332182	190541	0.320	0.3234	0.004	No	No	No	No	No		0.529	0.5394	0.011	Yes	No	No	No	No		
24840	3, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	61.9	dG	332316	190632	0.286	0.2872	0.001	No	No	No	No	No		0.535	0.5428	0.008	Yes	No	No	No	No		
18816	3, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	56.0	dG	332386	190622	0.323	0.3246	0.002	No	No	No	No	No		0.536	0.5442	0.008	Yes	No	No	No	No		
4663	NP194RE	0	Unknown	194.8	pG	333147.2	185334.7	0.290	0.2928	0.003	No	No	No	No	No		0.483	0.5454	0.063	Yes	No	No	No	No		
15643	8, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	55.3	dG	332347	190638	0.265	0.2655	0.001	No	No	No	No	No		0.538	0.5459	0.008	Yes	No	No	No	No		
19503	12, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	31.3	dG	332643	190671	0.332	0.3338	0.002	No	No	No	No	No		0.538	0.5486	0.011	Yes	No	No	No	No		
605	THE GREENHOUSE HEALTH CLUB, 24, CHURCH STREET, NEWPORT, NP20 2BY	Indoor / Outdoor Leisure / Sporting Activity / Ce	Non-Residential	117.4	dG	331832	186713	0.355	0.3589	0.004	No	No	No	No	No		0.542	0.5516	0.010	Yes	No	No	No	No		
14289	67, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	66.8	dG	332261	190639	0.330	0.3036	-0.026	No	No	No	No	No		0.546	0.5555	0.009	Yes	No	No	No	No		
13588	2, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	59.9	dG	332376	190648	0.264	0.2655	0.002	No	No	No	No	No		0.550	0.5573	0.008	Yes	No	No	No	No		
10600	8, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	64.2	dG	332186	190532	0.343	0.3471	0.004	No	No	No	No	No		0.551	0.5612	0.011	Yes	No	No	No	No		
21177	75, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	51.4	dG	332307	190669	0.265	0.2669	0.002	No	No	No	No	No		0.554	0.5621	0.008	Yes	No	No	No	No		
20797	10, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	35.5	dG	332616	190661	0.353	0.3523	-0.001	No	No	No	No	No		0.556	0.5655	0.010	Yes	No	No	No	No		
19131	13, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	35.9	dG	332639	190669	0.353	0.3553	0.002	No	No	No	No	No		0.559	0.5698	0.011	Yes	No	No	No	No		
25987	11, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	64.6	dG	332172	190565	0.348	0.3518	0.004	No	No	No	No	No		0.558	0.5699	0.012	Yes	No	No	No	No		
3728	1, ST. MICHAEL STREET, NEWPORT, NP20 2BZ	Semi-Detached	Residential		pU	331801	186738	0.197	0.2062	0.009	Yes	No	No	No	No		0.562	0.5704	0.009	Yes	No	No	No	No		
6997	FLAT 2, 1, NEWPORT, NP20 2BZ	Self Contained Flat (Includes Maisonette / Apart	Residential		pG	331799	186739	0.197	0.2062	0.009	Yes	No	No	No	No		0.562	0.5704	0.009	Yes	No	No	No	No		
17117	5, FRANK STREET, NEWPORT, NP19 7AF	Terraced	Residential	83.8	dG	331376	188655	0.377	0.3814	0.005	No	No	No	No	No		0.563	0.5715	0.009	Yes	No	No	No	No		
6413	NP202TX	0	Unknown	109.6	pG	332032	186723.5	0.123	0.1255	0.002	No	No	No	No	No		0.560	0.5738	0.014	Yes	No	No	No	No		
6505	18, CHURCH STREET, NEWPORT, NP20 2BY	HMO Not Further Divided	Residential	45.6	dG	331793	186727	0.280	0.2158	-0.064	No	No	No	No	No		0.564	0.5741	0.011	Yes	No	No	No	No		
18817	4, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	52.1	dG	332376	190620	0.355	0.3571	0.002	No	No	No	No	No		0.567	0.5748	0.008	Yes	No	No	No	No		
4656	NP194RE	0	Unknown	418.0	pG	333147.9	185348.6	0.315	0.3051	-0.010	No	No	No	No	No		0.487	0.5762	0.089	Yes	No	No	No	No		
25984	14, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	54.5	dG	332163	190595	0.363	0.3675	0.005	No	No	No	No	No		0.570	0.5803	0.011	Yes	No	No	No	No		
14299	8, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	59.9	dG	332400	190616	0.354	0.3558	0.002	No	No	No	No	No		0.573	0.5818	0.008	Yes	No	No	No	No		
4680	NP194RE	0	Unknown	28.7	pG	333226.3	185308.1	0.174	0.2778	0.104	Yes	No	No	No	No		0.481	0.5826	0.101	Yes	No	No	No	No		
21566	9, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	60.4	dG	332346	190647	0.321	0.3027	-0.018	No	No	No	No	No		0.578	0.5855	0.008	Yes	No	No	No	No		
24845	4, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	55.6	dG	332330	190609	0.357	0.3590	0.002	No	No	No	No	No		0.577	0.5858	0.009	Yes	No	No	No	No		
311	17, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	47.9	dG	331787	186729	0.222	0.2310	0.009	Yes	No	No	No	No		0.576	0.5859	0.010	Yes	No	No	No	No		
4603	NP202BY	0	Unknown	45.8	pG	331876.4	186724.8	0.216	0.2200	0.004	No	No	No	No	No		0.576	0.5867	0.011	Yes	No	No	No	No		
13591	11, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	45.9	dG	332652	190670	0.372	0.3742	0.002	No	No	No	No	No		0.578	0.589	0.011	Yes	No	No	No	No		
12914	81, WENTWOOD ROAD, NEWPORT, NP18 3RW	Detached	Residential	45.6	dG	332336	190677	0.276	0.2786	0.003	No	No	No	No	No		0.582	0.5896	0.008	Yes	No	No	No	No		
21169	5, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	34.9	dG	332671	190698	0.375	0.3772	0.002	No	No	No	No	No		0.579	0.5897	0.011	Yes	No	No	No	No		
19134	7, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	49.3	dG	332675	190686	0.383	0.3852	0.002	No	No	No	No	No		0.581	0.5923	0.011	Yes	No	No	No	No		
10341	12, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	62.1	dG	332169	190576	0.371	0.3741	0.003	No	No	No	No	No		0.583	0.594	0.011	Yes	No	No	No	No		
16170	6A, FRANK STREET, NEWPORT, NP19 7AF	Detached	Residential	68.3	dG	331394	188683	0.394	0.3987	0.005	Yes	No	No	No	No		0.586	0.5957	0.009	Yes	No	No	No	No		
12929	9, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	84.2	dG	332288	190619	0.345	0.3456	0.001	No	No	No	No	No		0.587	0.5961	0.009	Yes	No	No	No	No		
4916	26, NEWPORT, NP20 2BY	Terraced	Residential	41.1	dG	331844	186711	0.364	0.3682	0.005	No	No	No	No	No		0.584	0.5964	0.013	Yes	No	No	No	No		
22418	3, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	68.2	dG	332195	190587	0.338	0.3389	0.001	No	No	No	No	No		0.588	0.5972	0.009	Yes	No	No	No	No		
19127	5, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	60.5	dG	332364	190616	0.381	0.3822	0.001	No	No	No	No	No		0.590	0.5984	0.009	Yes	No	No	No	No		
10342	15, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	81.3	dG	332155	190605	0.379	0.3836	0.005	No	No	No	No	No		0.587	0.5988	0.012	Yes	No	No	No	No		
15327	4, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	70.8	dG	332444	190622	0.375	0.3765	0.002	No	No	No	No	No		0.592	0.6	0.008	Yes	No	No	No	No		
20458	5, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	67.8	dG	332434	190621	0.375	0.3765	0.002	No	No	No	No	No		0.592	0.6	0.008	Yes	No	No	No	No		
10598	2, CHESTNUT GROVE, NEWPORT, NP18 3RP	Detached	Residential	74.5	dG	332191	190606	0.344	0.3448	0.001	No	No	No	No	No		0.595	0.6043	0.009	Yes	No	No	Yes	Yes	Possible material detriment at Residential property	Detriment not material - see desk study
6047	NP194RE	0	Non-Residential	304.4	pG	333014.7	185462			0.000	No	No	No	No	No		0.494	0.6089	0.115	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	Material Detriment confirmed
20470	10, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	69.7	dG	332286	190630	0.361	0.3617	0.001	No	No	No	No	No		0.603	0.6125	0.009	Yes	No	No	No	No		
12601	9, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	70.6	dG	332229	190579	0.363	0.3634	0.001	No	No	No	No	No		0.608	0.6167	0.009	Yes	No	No	No	No		
20453	1, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	59.9	dG	332256	190616	0.364	0.3643	0.001	No	No	No	No	No		0.608	0.6167	0.009	Yes	No	No	No	No		
18815	7, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	48.1	dG	332338	190614	0.391	0.3930	0.002	No	No	No	No	No		0.609	0.6176	0.009	Yes	No	No	No	No		
20792	11, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	60.4	dG	332229	190599	0.363	0.3632	0.001	No	No	No	No	No		0.609	0.6184	0.009	Yes	No	No	No	No		
3875	MONO METALS, VOLEHURST, OLD TOWN DOCK, NEWPORT, NP20 2BW	Workshop / Light Industrial	Non-Residential		dG	331992	186722	0.136	0.1368	0.001	No	No	No	No	No		0.604	0.6185	0.014	Yes	No	No	No	No		
6240	NP194RE	0	Non-Residential	65.0	pG	333149.4	185382.9	0.247	0.3121	0.065	Yes	No	No	No	No		0.454	0.6207	0.167	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	Material Detriment confirmed
17724	8, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	58.5	dG	332284	190591	0.397	0.3987	0.002	No	No	No	No	No		0.611	0.6209	0.010	Yes	No	No	No	No		
20467	12, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	54.1	dG	332227	190607	0.363	0.3640	0.001	No	No	No	No	No		0.612	0.6209	0.009	Yes	No	No	No	No		
19505	6, BAY TREE CLOSE, NEWPORT, NP18 3RT	Detached	Residential	67.7	dG	332346	190617	0.460	0.4027	-0.057	No	No	No	No	No		0.612	0.6212	0.009	Yes	No	No	No	No		
24478	11, BLACKTHORN GROVE, NEWPORT, NP18 3RG	Detached	Residential	56.2	dG	332403	190654	0.354	0.3550	0.001	No	No	No	No	No		0.614	0.6214	0.008	Yes	No	No	No	No		
23762	18, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	34.3	dG	332576	190646	0.455	0.4081	-0.047	No	No	No	No	No		0.612	0.6223	0.010	Yes	No	No	No	No		
19130	6, ELDER CLOSE, NEWPORT, NP18 3RD	Terraced	Residential	45.8	dG	332673	190692	0.415	0.4126	-0.002	No	No	No	No	No		0.616	0.6271	0.011	Yes	No	No	No	No		
20793	4, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	58.4	dG	332278	190580	0.395	0.3962	0.002	No	No	No	No	No		0.622	0.6314	0.010	Yes	No	No	No	No		
6382	NP202JP	0	Unknown	248.9	pG	331566	186407			0.000	No	No	No	No	No		0.618	0.6354	0.018	Yes	No	No	No	No		
16669	5, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	59.9	dG	332269	190575	0.476	0.4093	-0.067	No	No	No	No	No		0.631	0.6411	0.010	Yes	No	No	No	No		
343	APEX COMPUTER SERVICES (WALES) LTD, UNIT 2, ST MICHAELS COURT, ST. MICHAELS COURT, CHURCH STRE	Office / Work Studio	Non-Residential	99.6	dG	331752	186780	0.354	0.3543	0.000	No	No	No	No	No		0.637	0.6437	0.006	Yes	No	No	No	No		
22636	10, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	54.9	dG	332230	190590	0.389	0.3895	0.001	No	No	No	No	No		0.635	0.6443	0.009	Yes	No	No	No	No		
12602	8, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	64.0	dG	332232	190562	0.480	0.4109	-0.069	No	No	No	No	No		0.634	0.6444	0.010	Yes	No	No	No	No		
6553	6, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	57.4	dG	331714	186758	0.325	0.3245	-0.001	No	No	No	No	No		0.642	0.6484	0.007	Yes	No	No	No	No		
12918	5, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	65.4	dG	332321	190605	0.419	0.4208	0.002	No	No	No	No	No		0.645	0.6538	0.009	Yes	No	No	No	No		
20456	2, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	59.5	dG	332257	190607	0.431	0.4037	-0.027	No	No	No	No	No		0.646	0.655	0.009	Yes	No	No	No	No		
6274	NP194RE	0	Non-Residential	376.8	pG	333284	185322.6	0.248	0.3523	0.104	Yes	No	No	No	No		0.557	0.656	0.099	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	Material Detriment confirmed
6032	NP202NQ	0	Unknown	52.3	pG	332611.4	184918.4	0.434	0.4370	0.004	No	No	No	No	No		0.647	0.6573	0.011	Yes	No	No	No	No		
24485	3, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	56.8	dG	332261	190595	0.414	0.4110	-0.003	No	No	No	No	No		0.653	0.6623	0.009	Yes	No	No	No	No		
5481	FIRST FLOOR FLAT, 137, COMMERCIAL ROAD, NEWPORT, NP20 2PH	Self Contained Flat (Includes Maisonette / Apart	Residential		rU	331577	186952	0.224	0.2699	0.046	Yes	No	No	No	No		0.662	0.6626	0.001	No	No	No	No	No		
5647	JAMAS MINI MARKET, 137, COMMERCIAL ROAD, NEWPORT, NP20 2PH	Shop / Showroom	Non-Residential		pG	331579	186953	0.224	0.2699	0.046	Yes	No	No	No	No		0.662	0.6626	0.001	No	No	No	No	No		
13945	8, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	45.8	dG	332625	190664	0.455	0.4525	-0.003	No	No	No	No	No		0.657	0.6666	0.010	Yes	No	No	No	No		
23759	9, WHITE ASH GLADE, NEWPORT, NP18 3RB	Terraced	Residential	35.2	dG	332620	190662	0.455	0.4525	-0.003	No	No	No	No	No		0.657	0.6666	0.010	Yes	No	No	No	No		
139	11, NEWPORT, NP20 2NQ	Warehouse / Store / Storage Depot	Non-Residential	566.9	dG	332649	184916	0.445	0.4490	0.004	No	No	No	No	No		0.661	0.6722	0.011	Yes	No	No	No	No		
2268	PENMAEN WHARF, NEWPORT, NP20 2BW	Workshop / Light Industrial	Non-Residential	98.2	dG	331944	186652	0.441	0.4459	0.005	No	No	No	No	No		0.660	0.6737	0.014	Yes	No	No	No	No		
20804	6, FIR TREE CLOSE, NEWPORT, NP18 3RR	Detached	Residential	65.5	dG	332260	190574	0.439	0.4403	0.001	No	No	No	No	No		0.667	0.6762	0.010	Yes	No	No	No	No		
19502	7, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	64.1	dG	332293	190598	0.445	0.4466	0.002	No	No	No	No	No		0.668	0.677	0.009	Yes	No	No	No	No		
1629	UNIT 10, USK SIDE BUSINESS PARK, UNIT 10, CHURCH STREET, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential	163.5	dG	332026.2	186726.5	0.213	0.2182	0.005	Yes	No	No	No	No		0.663	0.6775	0.014	Yes	No	No	No	No		
12928	6, COPPER BEECH CLOSE, NEWPORT, NP18 3RS	Detached	Residential	60.2	dG	332313	190603	0.459	0.4524	-0.007	No	No	No	No	No		0.680	0.6888	0.009	Yes	No	No	No	No		
5164	16, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	63.2	dG	331782	186731	0.334	0.3420	0.008	Yes	No	No	No	No		0.698	0.7066	0.009	Yes	No	No	No	No		
6499	15, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	65.5	dG	331778	186733	0.356	0.3624	0.007	Yes	No	No	No	No		0.721	0.7298	0.009	Yes	No	No	No	No		
6415	NP202NQ	0	Unknown	522.5	pG	332676.1	184960.2	0.516	0.5201	0.004	No	No	No	No	No		0.733	0.7442	0.011	Yes	No	No	No	No		
331	13A, PILLBOX HALL, PILL BOX HALL 13A, CHURCH STREET, NEWPORT, NP20 2BY	Office / Work Studio	Non-Residential	162.8	dG	331762	186754	0.375	0.3799	0.005	No	No	No	No	No		0.737	0.7458	0.009	Yes	No	No	No	No		
2282	UNIT 1, ST MICHAELS COURT, NEWPORT, NP20 2BY	Office / Work Studio	Non-Residential	95.7	dG	331749	186770	0.490	0.4929	0.003	No	No	No	No	No		0.741	0.748	0.007	Yes	No	No	No	No		
28862	NP181AA	0	Unknown	73.1	pG	333988.9	190261.9	0.592	0.5946	0.003	No	No	No	No	No		0.780	0.788	0.008	Yes	No	No	No	No		
7021	ALL MARQUE P M S LTD, ALLMARQUE PAVEMENT MARKING SYSTEMS, USK WAY, NEWPORT, NP20 2HZ	Workshop / Light Industrial	Non-Residential	1406.2	pG	332122.8	186792.2	0.217	0.2354	0.018	Yes	No	No	No	No		0.778	0.794	0.016	Yes	No	No	No	No		
5980	NP202BY	0	Unknown	75.6	pG	331755.7	186757.8	0.455	0.4586	0.004	No	No	No	No	No		0.793	0.8007	0.008	Yes	No	No	No	No		
314	14, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	95.2	dG	331772	186736	0.429	0.4359	0.007	Yes	No	No	No	No		0.795	0.8036	0.009	Yes	No	No	No	No		
6164	NP202NP	0	Unknown	161.5	pG	331665.1	185913.4	0.586	0.5921	0.006	Yes	No	No	No	No		0.809	0.8235	0.015	Yes	No	No	No	No		
6187	NP202NP	0	Unknown	130.1	pG	331614.7	186119.6	0.598	0.5957	-0.002	No	No	No	No	No		0.817	0.8312	0.015	Yes	No	No	No	No		
6554	7, CONSTABLES CLOSE, NEWPORT, NP20 2BN	Self Contained Flat (Includes Maisonette / Apart	Residential	60.5	pG	331728	186774	0.539	0.5430	0.004	No	No	No	No	No		0.826	0.8323	0.006	Yes	No	No	No	No		
6555	8, CONSTABLES CLOSE, NEWPORT, NP20 2BN	Self Contained Flat (Includes Maisonette / Apart	Residential	60.5	pU	331724	186776	0.539	0.5430	0.004	No	No	No	No	No		0.826	0.8323	0.006	Yes	No	No	No	No		
6195	NP202BW	0	Unknown	54.9	pG	332196.5	186724.4	0.615	0.6213	0.006	Yes	No	No	No	No		0.833	0.8472	0.015	Yes	No	No	No	No		
403	5, CONSTABLES CLOSE, NEWPORT, NP20 2BN	Self Contained Flat (Includes Maisonette / Apart	Residential	60.9	pG	331731	186780	0.586	0.5897	0.004	No	No	No	No	No		0.861	0.8666	0.006	Yes	No	No	No	No		
404	6, CONSTABLES CLOSE, NEWPORT, NP20 2BN	Self Contained Flat (Includes Maisonette / Apart	Residential	60.9	pU	331726	186782	0.586	0.5897	0.004	No	No	No	No	No		0.861	0.8666	0.006	Yes	No	No	No	No		
413	1, CONSTABLES CLOSE, NEWPORT, NP20 2BN	Self Contained Flat (Includes Maisonette / Apart	Residential	60.6	pG	331735	186792	0.620	0.6062	-0.014	No	No	No	No	No		0.875	0.88	0.005	Yes	No	No	No	No		
414	2, CONSTABLES CLOSE, NEWPORT, NP20 2BN	Self Contained Flat (Includes Maisonette / Apart	Residential	60.6	pU	331730	186793	0.620	0.6062	-0.014	No	No	No	No	No		0.875	0.88	0.005	Yes	No	No	No	No		
6551	3, CONSTABLES CLOSE, NEWPORT, NP20 2BN	Self Contained Flat (Includes Maisonette / Apart	Residential	60.8	pG	331733	186786	0.620	0.6062	-0.014	No	No	No	No	No		0.875	0.88	0.005	Yes	No	No	No	No		
6552	4, CONSTABLES CLOSE, NEWPORT, NP20 2BN	Self Contained Flat (Includes Maisonette / Apart	Residential	60.8	pU	331728	186787	0.620	0.6062	-0.014	No	No	No	No	No		0.875	0.88	0.005	Yes	No	No	No	No		
6168	NP202PH	0	Unknown	27.8	pG	331566	186914.9	0.484	0.5218	0.038	Yes	No	No	No	No		0.880	0.8802	0.001	No	No	No	No	No		
6873	CEMEX CONCRETE, EASTERN DRY DOCK, NEWPORT, NP19 4PP	Warehouse / Store / Storage Depot	Non-Residential		dG	332651	185512	0.120	0.5081	0.388	Yes	No	Yes	No	Yes	Possible material detriment at Non-Residential property	0.767	0.8832	0.116	Yes	No	No	No	No		Material Detriment confirmed
6500	13, CHURCH STREET, NEWPORT, NP20 2BY	Semi-Detached	Residential	64.5	dG	331749	186745	0.527	0.5309	0.004	No	No	No	No	No		0.883	0.891	0.008	Yes	No	No	No	No		
1549	D SIMPSON, UNIT 3, USK SIDE BUSINESS PARK, UNIT 3, CHURCH STREET, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential		pG	331954.1	186746.5	0.543	0.5516	0.008	Yes	No	No	No	No		0.881	0.894	0.013	Yes	No	No	No	No		
1550	THE BOOK PEOPLE, UNIT 4, USK SIDE BUSINESS PARK, UNIT 4, CHURCH STREET, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential		pG	331952.6	186758	0.543	0.5516	0.008	Yes	No	No	No	No		0.881	0.894	0.013	Yes	No	No	No	No		
1551	CITY WINDOWS, UNIT 5, USK SIDE BUSINESS PARK, UNIT 5, CHURCH STREET, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential		pG	331965.5	186758	0.543	0.5516	0.008	Yes	No	No	No	No		0.881	0.894	0.013	Yes	No	No	No	No		
1552	UNIT 2A, USK SIDE BUSINESS PARK, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential		pU	331951.5	186727.1	0.543	0.5516	0.008	Yes	No	No	No	No		0.881	0.894	0.013	Yes	No	No	No	No		
6968	UNIT 1, USK SIDE BUSINESS PARK, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential		pU	331896.5	186723.8	0.543	0.5516	0.008	Yes	No	No	No	No		0.881	0.894	0.013	Yes	No	No	No	No		
6969	BLACK CLAWSON LTD, UNIT 2, USK SIDE BUSINESS PARK, UNIT 2, CHURCH STREET, NEWPORT, NP20 2TX	Workshop / Light Industrial	Non-Residential		pG	331951.5	186717.7	0.543	0.5516	0.008	Yes	No	No	No	No		0.881	0.894	0.013	Yes	No	No	No	No		

Modelled Flood Depth (m)
Baseline vs Scheme Option 2b (* fully constructed with new freeboard and detriment mitigation bund at Nash)
Green <0.15m (below typical property threshold),
0.15m < Yellow (above typical property threshold) <0.6m,
>0.6m (above typical property risks experiencing structural issues retaining water)

UniqueID	Raw NRD address data	NRD Class description	Property type (MCM)	Floor area	Floor level (dU = definite ground, pG = possible ground floor, pU = possible upper floor)	X	Y	1 in 30yr in 2069									1 in 100yr in 2069									Material Detriment Manual Check (from desk study / survey)
								Baseline	Scheme *	Increase in flood depth	Increase in flood depth >=5mm?	Is property predicted at increase likelihood of flooding?	Scheme increases flood depth to > 150mm?	Scheme increases flood depth to > 600mm?	Is increase in flood depth likely to be material?	Comments on raw results (before manual check)	Baseline	Scheme *	Increase in flood depth	Increase in flood depth >=5mm?	Is property predicted at increase likelihood of flooding?	Scheme increases flood depth to > 150mm?	Scheme increases flood depth to > 600mm?	Is increase in flood depth likely to be material?	Comments on raw results (before manual check)	
4457	NP194XE	0	Unknown	257.9	pG	333451.8	184871.9	0.237	0.2615	0.024	Yes	No	No	No	No		0.705	0.905	0.200	Yes	No	No	No	No		
317	7, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	65.8	dG	331721	186754	0.569	0.5731	0.004	No	No	No	No	No		0.888	0.8952	0.007	Yes	No	No	No	No		
4452	NP194RE	0	Unknown	302.5	pG	333077.5	185361.1	0.660	0.6649	0.005	Yes	No	No	No	No		0.867	0.9103	0.043	Yes	No	No	No	No		
6408	NP194RE	0	Unknown	70.4	pG	332960	185408.7	0.523	0.5446	0.022	Yes	No	No	No	No		0.823	0.9195	0.096	Yes	No	No	No	No		
332	UNIT 1 - 2 AND 4, PENMAEN WHARF, NEWPORT, NP20 2BW	Warehouse / Store / Storage Depot	Non-Residential		pU	331919	186650	0.695	0.6998	0.005	Yes	No	No	No	No		0.913	0.9266	0.014	Yes	No	No	No	No		
1571	UNIT 3, PENMAEN WHARF, NEWPORT, NP20 2BW	Workshop / Light Industrial	Non-Residential		pG	331927	186652	0.695	0.6998	0.005	Yes	No	No	No	No		0.913	0.9266	0.014	Yes	No	No	No	No		
4911	9, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	63.0	dG	331730	186751	0.592	0.5943	0.002	No	No	No	No	No		0.922	0.9292	0.007	Yes	No	No	No	No		
4644	NP194XE	0	Unknown	27.3	pG	333478.1	184856.6	0.289	0.2979	0.009	Yes	No	No	No	No		0.740	0.9417	0.202	Yes	No	No	No	No		
329	8, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	62.7	dG	331726	186753	0.594	0.5978	0.004	No	No	No	No	No		0.925	0.932	0.007	Yes	No	No	No	No		
604	12, CHURCH STREET, NEWPORT, NP20 2BY	HMO Not Further Divided	Residential	60.2	dG	331744	186745	0.593	0.5969	0.004	No	No	No	No	No		0.942	0.9503	0.008	Yes	No	No	No	No		
4552	NP194XE	0	Unknown	204.9	pG	333494.6	184823	0.327	0.3293	0.002	No	No	No	No	No		0.768	0.9712	0.204	Yes	No	No	No	No		
4698	NP194RE	0	Unknown	145.1	pG	333050.1	185104.3	0.740	0.7437	0.004	No	No	No	No	No		0.955	0.9674	0.012	Yes	No	No	No	No		
1447	CEMEX AGGREGATES, CEMEX AGGREGATES, EASTERN DRY DOCK, CORPORATION ROAD, NEWPORT, NP19 4I	Workshop / Light Industrial	Non-Residential		dG	332646	185502	0.211	0.6051	0.394	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	0.856	0.972	0.116	Yes	No	No	No	No		Material Detriment confirmed
895	DISCOUNT TYRES, DISCOUNT TYRES LTD, OLD TOWN DOCK, NEWPORT, NP20 2BW	Shop / Showroom	Non-Residential	115.3	dG	332195	186692	0.744	0.7497	0.006	Yes	No	No	No	No		0.961	0.976	0.015	Yes	No	No	No	No		
383	BIRDPORT LTD - CARGO DEPOT, EASTERN DRY DOCK, NEWPORT, NP19 4RE	Warehouse / Store / Storage Depot	Non-Residential	2372.5	dG	333172	185287	0.581	0.6680	0.087	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	0.848	0.9771	0.129	Yes	No	No	No	No		Material Detriment confirmed
384	BIRD PORT LTD, BIRDPORT LTD, EASTERN DRY DOCK, CORPORATION ROAD, NEWPORT, NP19 4RE	Workshop / Light Industrial	Non-Residential	2372.5	pG	333177	185293	0.581	0.6680	0.087	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	0.848	0.9771	0.129	Yes	No	No	No	No		Material Detriment confirmed
1633	WEST COAST FREIGHT LTD, EASTERN DRY DOCK, NEWPORT, NP19 4RE	Office / Work Studio	Non-Residential	2372.5	pU	333197	185324	0.581	0.6680	0.087	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	0.848	0.9771	0.129	Yes	No	No	No	No		Material Detriment confirmed
4702	NP194RE	0	Non-Residential	312.4	pG	332970.8	185448.2	0.392	0.6087	0.216	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	0.870	0.9828	0.113	Yes	No	No	No	No		Material Detriment confirmed
5165	11, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	65.5	dG	331740	186747	0.639	0.6428	0.004	No	No	No	No	No		0.975	0.9828	0.008	Yes	No	No	No	No		
6853	MIR STEEL UK, NP19 4XE	Factory/Manufacturing	Non-Residential		dG	333400	184800	0.388	0.3903	0.002	No	No	No	No	No		0.806	0.9874	0.182	Yes	No	No	No	No		
28211	BRIDGE HOUSE, USKSIDE, NEWPORT, NP18 1AA	Detached	Residential	236.9	dG	334048	190263	0.794	0.7966	0.002	No	No	No	No	No		0.982	0.9894	0.008	Yes	No	No	No	No		
1139	NEWPORT CONTAINER VALET, NEWPORT CONTAINER VALET LTD, EASTERN DRY DOCK, CORPORATION ROAI	Workshop / Light Industrial	Non-Residential		dG	332980	185466	0.247	0.6172	0.370	Yes	No	No	Yes	Yes	Possible material detriment at Non-Residential property	0.874	0.9904	0.116	Yes	No	No	No	No		Material Detriment confirmed
6394	NP194RE	0	Unknown	761.7	pG	333030.4	185345.8	0.731	0.7362	0.005	Yes	No	No	No	No		0.952	1.0045	0.052	Yes	No	No	No	No		
4922	10, CHURCH STREET, NEWPORT, NP20 2BY	Terraced	Residential	62.0	dG	331735	186749	0.667	0.6712	0.004	No	No	No	No	No		0.999	1.006	0.007	Yes	No	No	No	No		
4822	NP194RE	0	Unknown	196.5	pG	333021.1	185186.2	0.783	0.7870	0.004	No	No	No	No	No		0.998	1.0113	0.014	Yes	No	No	No	No		
4460	NP182BZ	0	Unknown	40.8	pG	333393.2	184270.9	0.822	0.8051	-0.017	No	No	No	No	No		1.009	1.0158	0.007	Yes	No	No	No	No		
4825	NP182BZ	0	Unknown	464.8	pG	333365.8	184272.8	0.821	0.8051	-0.016	No	No	No	No	No		1.010	1.0168	0.007	Yes	No	No	No	No		
25787	NP181AY	0	Unknown	68.2	pG	333550.5	190204.1	0.881	0.8844	0.003	No	No	No	No	No		1.073	1.0809	0.008	Yes	No	No	No	No		
4459	NP182BZ	0	Unknown	34.7	pG	333344.5	184288.1	0.868	0.8708	0.003	No	No	No	No	No		1.080	1.0867	0.007	Yes	No	No	No	No		
6427	NP194RE	0	Unknown	392.5	pG	333061.2	185182.3	0.885	0.8892	0.004	No	No	No	No	No		1.097	1.1145	0.018	Yes	No	No	No	No		
4470	NP182BZ	0	Unknown	74.8	pG	333346.4	184317.9	0.920	0.9032	-0.017	No	No	No	No	No		1.112	1.1186	0.007	Yes	No	No	No	No		
357	UNIT 2, 26, NEWPORT, NP20 2JP	Workshop / Light Industrial	Non-Residential		pU	331550	186426			0.000	No	No	No	No	No		1.101	1.1187	0.018	Yes	No	No	No	No		
1592	UNIT 1, 26, NEWPORT, NP20 2JP	Workshop / Light Industrial	Non-Residential		pU	331546	186427			0.000	No	No	No	No	No		1.101	1.1187	0.018	Yes	No	No	No	No		
2292	UNIT 2 - STORAGE, 26, NEWPORT, NP20 2JP	Warehouse / Store / Storage Depot	Non-Residential		pU	331550	186424			0.000	No	No	No	No	No		1.101	1.1187	0.018	Yes	No	No	No	No		
2775	UNIT 3, 26, NEWPORT, NP20 2JP	Workshop / Light Industrial	Non-Residential		pU	331558	186406			0.000	No	No	No	No	No		1.101	1.1187	0.018	Yes	No	No	No	No		
5195	GRAHAMS MOTORS, UNIT 4, 26, COOMASSIE STREET, NEWPORT, NP20 2JP	Workshop / Light Industrial	Non-Residential		pG	331542	186429			0.000	No	No	No	No	No		1.101	1.1187	0.018	Yes	No	No	No	No		
6429	NP182BZ	0	Unknown	13998.2	pG	333445.1	184477.6	0.779	0.7817	0.003	No	No	No	No	No		0.986	1.1352	0.149	Yes	No	No	No	No		
6250	NP194XE	0	Unknown	25.6	pG	333412.2	184765.9	0.532	0.5337	0.002	No	No	No	No	No		0.936	1.1354001	0.200	Yes	No	No	No	No		
6249	NP182BZ	0	Unknown	51.5	pG	333329.5	184283.4	0.969	0.9641	-0.005	No	No	No	No	No		1.174	1.1806999	0.007	Yes	No	No	No	No		
130	AUTO FIX, AUTOFIX, OLD TOWN DOCK, NEWPORT, NP20 2BW	Workshop / Light Industrial	Non-Residential	158.8	dG	332212	186697	0.955	0.9616	0.006	Yes	No	No	No	No		1.173	1.1882	0.015	Yes	No	No	No	No		
4454	NP194XE	0	Unknown	75.9	pG	333516	184839.5	0.544	0.5794	0.035	Yes	No	No	No	No		0.998	1.1906	0.193	Yes	No	No	No	No		
4461	NP182BZ	0	Unknown	57.5	pG	333282.6	184294.3	0.979	0.9741	-0.005	No	No	No	No	No		1.186	1.1928	0.007	Yes	No	No	No	No		
6410	NP194RE	0	Unknown	155.1	pG	332935.3	185216.5	0.964	0.9686	0.004	No	No	No	No	No		1.182	1.1950999	0.014	Yes	No	No	No	No		
6253	NP182BZ	0	Unknown	72.1	pG	333331.8	184319.3	0.988	0.9911	0.003	No	No	No	No	No		1.201	1.2074	0.007	Yes	No	No	No	No		
2143	FIRST FLOOR FLAT, 136, NEWPORT, NP20 2PH	Self Contained Flat (Includes Maisonette / Apart	Residential		rU	331579	186946	0.692	0.7921	0.101	Yes	No	No	No	No		1.213	1.2134	0.001	No	No	No	No	No		
4184	136, COMMERCIAL ROAD, NEWPORT, NP20 2PH	Shop / Showroom	Non-Residential		pG	331580	186947	0.692	0.7921	0.101	Yes	No	No	No	No		1.213	1.2134	0.001	No	No	No	No	No		
4185	SECOND FLOOR FLAT, 136, NEWPORT, NP20 2PH	Self Contained Flat (Includes Maisonette / Apart	Residential		rU	331578	186946	0.692	0.7921	0.101	Yes	No	No	No	No		1.213	1.2134	0.001	No	No	No	No	No		
4659	NP194XE	0	Unknown	71432.9	pG	333342.6	184712.6	0.920	0.9227	0.003	No	No	No	No	No		1.174	1.2211	0.047	Yes	No	No	No	No		
4660	NP182BZ	0	Unknown	72.1	pG	333325.8	184275.6	1.970	1.0129	-0.957	No	No	No	No	No		1.223	1.2299	0.007	Yes	No	No	No	No		
5749	WORKSHOP REAR OF, 135, NEWPORT, NP20 2PH	Warehouse / Store / Storage Depot	Non-Residential	75.9	dG	331563	186932	0.716	0.8111	0.095	Yes	No	No	No	No		1.232	1.2325	0.001	No	No	No	No	No		
6251	NP194XE	0	Unknown	570.5	pG	333281.6	184971.9	0.899	0.9217	0.023	Yes	No	No	No	No		1.209	1.2445	0.036	Yes	No	No	No	No		
6252	NP194XE	0	Unknown	1172.9	pG	333428.5	184786.7	0.664	0.6654	0.002	No	No	No	No	No		1.075	1.2761	0.201	Yes	No	No	No	No		
29517	NP181LU	0	Unknown	124.7	pG	336479.3	192462.5	1.925	1.0952	-0.830	No	No	No	No	No		1.273	1.2778	0.005	Yes	No	No	No	No		
4643	NP194XE	0	Unknown	480.9	pG	333440.7	184979.3	0.681	0.6465	-0.035	No	No	No	No	No		1.092	1.2895	0.198	Yes	No	No	No	No		
3477	135, NEWPORT, NP20 2PH	Shop / Showroom	Non-Residential		pU	331583	186941	0.764	0.8609	0.097	Yes	No	No	No	No		1.282	1.2822	0.001	No	No	No	No	No		
4910	FLAT B, 135, NEWPORT, NP20 2PH	Self Contained Flat (Includes Maisonette / Apart	Residential		pG	331581	186940	0.764	0.8609	0.097	Yes	No	No	No	No		1.282	1.2822	0.001	No	No	No	No	No		
5161	FLAT A, 135, NEWPORT, NP20 2PH	Self Contained Flat (Includes Maisonette / Apart	Residential		pU	331582	186941	0.764	0.8609	0.097	Yes	No	No	No	No		1.282	1.2822	0.001	No	No	No	No	No		
4821	NP194XE	0	Unknown	243.2	pG	333284.5	185015.6	0.947	0.9706	0.024	Yes	No	No	No	No		1.250	1.2914	0.041	Yes	No	No	No	No		
6228	NP194RE	0	Unknown	32.1	pG	332927.7	185208.5	1.633	1.0677	-0.565	No	No	No	No	No		1.281	1.2929	0.012	Yes	No	No	No	No		
4653	NP194RE	0	Unknown	77.4	pG	333075.4	185199.6	1.646	1.0687	-0.577	No	No	No	No	No		1.277	1.2941	0.018	Yes	No	No	No	No		
24552	23, BOND STREET, NEWPORT, NP19 7AE	Terraced	Residential	128.3	dG	331353	188623	1.892	1.0948	-0.797	No	No	No	No	No		1.301	1.312	0.011	Yes	No	No	No	No		
71	133, NEWPORT, NP20 2PH	Shop / Showroom	Non-Residential	316.6	dG	331585	186918	0.895	0.9569	0.062	Yes	No	No	No	No		1.323	1.3234	0.001	No	No	No	No	No		
6049	NP194XE	0	Unknown	138.1	pG	333286.1	185041.6	0.987	1.0113	0.024	Yes	No	No	No	No		1.289	1.3316	0.042	Yes	No	No	No	No		
1482	CARDIFF STEVEDORING AND CARGO HANDLING LTD, EASTERN DRY DOCK, NEWPORT, NP19 4RE	Workshop / Light Industrial	Non-Residential	4939.5	pG	333124	185234	1.180	1.1120	-0.068	No	No	No	No	No		1.319	1.3378	0.019	Yes	No	No	No	No		
1483	BRITISH DREDGING SERVICES LTD, EASTERN DRY DOCK, NEWPORT, NP19 4RE	Workshop / Light Industrial	Non-Residential	4939.5	pU	333099	185201	1.180	1.1120	-0.068	No	No	No	No	No		1.319	1.3378	0.019	Yes	No	No	No	No		
4648	NP194XE	0	Unknown	126.6	pG	333480.6	184758.5	0.765	0.7668	0.001	No	No	No	No	No		1.178	1.3811001	0.203	Yes	No	No	No	No		
6370	NP202PH	0	Unknown	56.9	pG	331566.5	186921.3	0.895	0.9619	0.067	Yes	No	No	No	No		1.383	1.3835	0.001	No	No	No	No	No		
6050	NP194XE	0	Unknown	51.9	pG	333412	184733.4	0.853	0.8544	0.001	No	No	No	No	No		1.229	1.4266	0.198	Yes	No	No	No	No		
1567	FLAT 1, 134, NEWPORT, NP20 2PH	Self Contained Flat (Includes Maisonette / Apart	Residential		pU	331572.6	186928.5	0.898	0.9982	0.101	Yes	No	No	No	No		1.419	1.4196	0.001	No	No	No	No	No		
1568	FLAT 2, 134, NEWPORT, NP20 2PH	Self Contained Flat (Includes Maisonette / Apart	Residential		pU	331569	186926.8	0.898	0.9982	0.101	Yes	No	No	No	No		1.419	1.4196	0.001	No	No	No	No	No		
4267	TOP OF THE RANGE CLUB, 134, COMMERCIAL ROAD, NEWPORT, NP20 2PH	Public House / Bar / Nightclub	Non-Residential		pG	331586.9	186933.1	0.898	0.9982	0.101	Yes	No	No	No	No		1.419	1.4196	0.001	No	No	No	No	No		
6235	NP194XE	0	Unknown	219.8	pG	333466.3	184759.6	0.828	0.8298	0.001	No	No	No	No	No		1.238	1.4412	0.203	Yes	No	No	No	No		
4393	NP202NP	0	Unknown	67.9	pG	331705.9	185926.7	1.216	1.2220	0.006	Yes	No	No	No	No		1.438	1.4528	0.014	Yes	No	No	No	No		
4650	NP194XE	0	Unknown	2216.9	pG	333423	184715.9	0.926	0.9275	0.001	No	No	No	No	No		1.305	1.5032001	0.198	Yes	No	No	No	No		
4647	NP194XE	0	Unknown	382.8	pG	333478.8	184744.5	0.966	0.9080	-0.058	No	No	No	No	No		1.312	1.5153	0.203	Yes	No	No	No	No		
6425	NP194XE	0	Unknown	58.1	pG	333242.3	184945.9	1.248	1.2706	0.023	Yes	No	No	No	No		1.559	1.5942	0.035	Yes	No	No	No	No		
4441	NP194PP	0	Unknown	80.0	pG	332830.8	185579.9	0.836	1.2263	0.391	Yes	No	No	No	No		1.481	1.5994	0.119	Yes	No	No	No	No		
6043	NP194XE	0	Unknown	338.7	pG	333270.3	185127.1	1.287	1.3126	0.025	Yes	No	No	No	No		1.585	1.6316	0.047	Yes	No	No	No	No		
27303	MANAGERS ACCOMMODATION, MALTHOUSE HOTEL, NEWPORT, NP18 1QF	Self Contained Flat (Includes Maisonette / Apart	Residential		pU	334251	190205	0.245	0.2545	0.010	Yes	No	No	No	No		1.657	1.6585	0.002	No	No	No	No	No		
28822	MALTHOUSE HOTEL, MALTHOUSE HOTEL, NEW ROAD, NEWPORT, NP18 1QF	Hotel/Motel	Non-Residential		pG	334254	190203	0.245	0.2545	0.010	Yes	No	No	No	No		1.657	1.6585	0.002	No	No	No	No	No		
1442	MARSHALLS, MARSHALLS MONO LTD, EASTERN DRY DOCK, CORPORATION ROAD, NEWPORT, NP19 4RE	Wholesale Distribution	Non-Residential		dG	332836	185561	0.967	1.3579	0.391	Yes	No	No	No	No		1.612	1.7308	0.119	Yes	No	No	No	No		
6398	NP194RE	0	Unknown	26.0	pG	332823.4	185540	0.982	1.3730	0.391	Yes	No	No	No	No		1.628	1.7459	0.118	Yes	No	No	No	No		
6213	NP194RE	0	Unknown	27.5	pG	332826.8	185544.6	1.179	1.4091	0.230	Yes	No	No	No	No		1.664	1.7819	0.118	Yes	No	No	No	No		
6327	NP194RE	0	Unknown	163.9	pG	332836.4	185537.2	1.277	1.4188	0.142	Yes	No	No	No	No		1.673	1.7916	0.119	Yes	No	No	No	No		
2295	ROWECORD ENGINEERING LTD, NEPTUNE WORKS, NEWPORT, NP20 2SS	Warehouse / Store / Storage Depot	Non-Residential	14952.3	pG	331643	186022	1.593	1.5988	0.006	Yes	No	No	No	No		1.815	1.8295	0.014	Yes	No	No	No	No		
4813	NP194RE	0	Unknown	1474.8	pG	332835.1	185517.9	1.152	1.5433	0.391	Yes	No	No	No	No		1.798	1.916	0.118	Yes	No	No	No	No		
1182	HANSON AGGREGATES, HANSON PREMIX, FELNEX INDUSTRIAL ESTATE, NEWPORT, NP19 4PP	Factory/Manufacturing	Non-Residential		dG	332487	185584	1.490	1.8478	0.358	Yes	No	No	No	No		1.991	2.0889001	0.098	Yes	No	No	No	No		
6222	NP194PP	0	Unknown	1637.5	pG	332828	185607.8	1.343	1.7348	0.392	Yes	No	No	No	No		1.989	2.108	0.120	Yes	No	No	No	No		
4722	NP194RE	0	Unknown	50.6	pG	332900.4	185479.6	1.442	1.8299	0.388	Yes	No	No	No	No		2.086	2.2026	0.116	Yes	No	No	No	No		
6430	NP194XE	0	Unknown	120.3	pG	333233.6	184676.3	1.996	1.9988	0.003	No	No	No	No	No		2.220	2.2288001	0.009	Yes	No	No	No	No		
6119	NP194RE	0	Unknown	119.5	pG	332908.3	185489.1	1.526	1.9139	0.388	Yes	No	No	No	No		2.170	2.2867999	0.117	Yes	No	No	No	No		
6184	NP190RD	0	Unknown	51.8	pG	331906.7	186166.8	2.147	2.1529	0.006	Yes	No	No	No	No		2.369	2.3831999	0.014	Yes	No	No	No	No		
5932	NP194RE	0	Unknown	574.6	pG	332771.1	185518	1.936	2.3268	0.391	Yes	No	No	No	No		2.582	2.6998999	0.118	Yes	No	No	No	No		
25687	NP197AA	0	Unknown	66.3	pG	331166.5	188462.2	3.438	3.4365	-0.001	No	No	No	No	No		3.641	3.6524	0.012	Yes	No	No	No	No		
5956	NP202NP	0	Unknown	855.3	pG	331713.3	185967.1	7.825	7.8307	0.006	Yes	No	No	No	No		8.047	8.0614004	0.014	Yes	No	No	No	No		

Appendix D

Property desk study and threshold survey

Technical Note

ARUP

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Project title	Stephenson St Flood Scheme	Job number	246344
cc		File reference	4-20
Prepared by	Jamie Lancaster (Cardiff)	Date	24 March 2020
Subject	Predicted Flood Detriment Property Desk Study and Threshold Survey		

1 Introduction

In March 2018, Natural Resources Wales (NRW) appointed Ove Arup and Partners (Arup) to undertake hydraulic modelling to support the Stephenson Street flood risk management (FRM) scheme, Newport. The embankment is located on the left (eastern) bank of the River Usk south of the Transporter Bridge, near the Severn Estuary (Grid Reference ST 32043 85896).

This note has been prepared for a property desk study which has been undertaken as part of the Flood Consequence Assessment (FCA) for the Stephenson St Flood Scheme. The purpose of the desk study is better understand the properties potentially impacted by predicted detriment.

Subsequent to the desk study, a threshold survey was undertaken of the effected properties in accordance with Section V of the Standard Technical Specification Version 3.1. The survey was specified by Arup and undertaken by Azimuth Land Surveyors on 5th March 2020.

Note this document does not consider the non-residential properties located on the undefended side of the defence line including Hansons, Cemex, Marshalls and Liberty Steel.

2 Context

The preferred option comprises raised flood banks and walls (Figure 1) to provide a design standard of 1:200yr Standard of Protection (SoP) to the Stephenson Street flood cell up to 2069, after which the SoP is anticipated to reduce due to sea level rise.

The preferred option potentially conflicts with Technical Advice Note 15. Contained flood water marginally increases predicted river levels. NRW requested a staged approach to preparing a FCA for the preferred option including the development of necessary associated detriment mitigation measures. In August 2019 an assessment of property impacts was completed as part of the FCA , supported by hydraulic modelling. The FCA followed a risk-based approach and demonstrated residual detriment from the scheme is acceptable with mitigation to address material detriment where practicable.

Subsequently the defence alignment has been amended ('Option 2b') to reduce delivery risk setting back the defences. Following changes to the schemes defence alignment (Option 2b), the flood model and FCA was updated to reflect these changes. The results from the updated FCA are presented in the Detriment Summary Tables (Arup, February 2020). As a result of the update to the FCA, twelve buildings were now found to be potentially materially impacted by detriment, although generally this was as a result of a very small increase in flood depths in the 2069 1:100yr event. The location of the twelve buildings is shown in Appendix A.

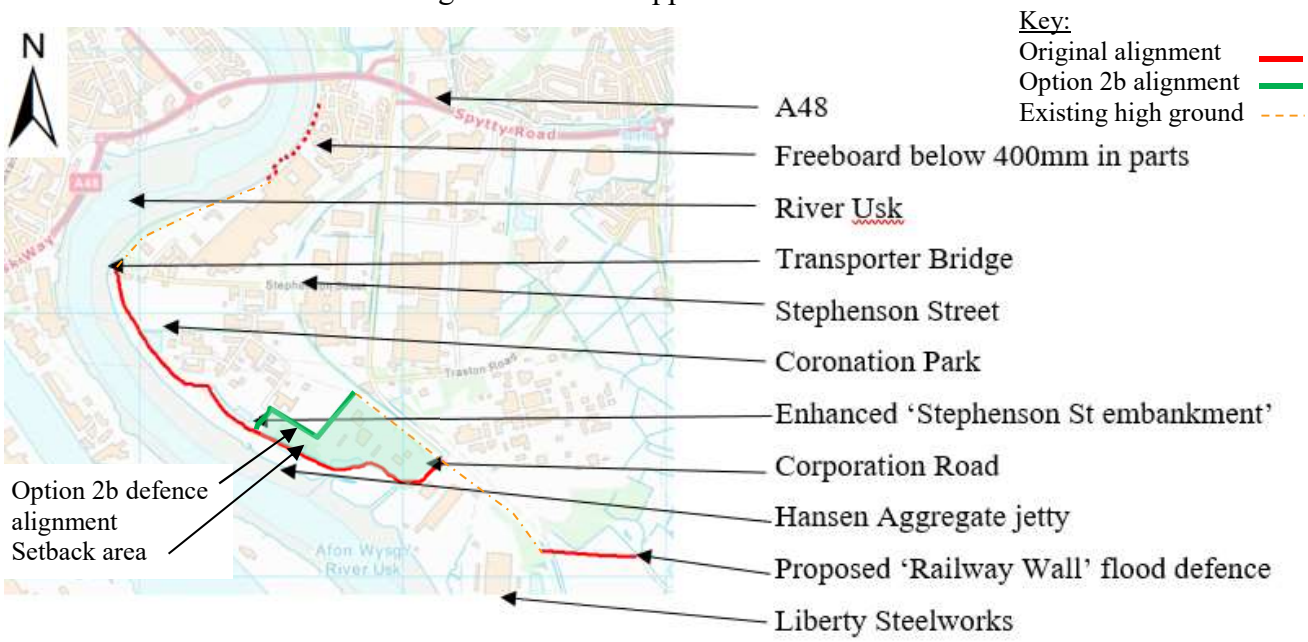


Figure 1: Sketch showing extent of proposed defences.

Setting back the defence alignment creates, marginally, more space for water and this is ordinarily expected to provide a marginal reduction in detriment. However, modelling has found marginal increases in detriment at Pillgwenny and upstream at Home Farm and Chichester Close. The 2069 1:100yr model results show that the change in proposed defence alignment causes water levels in the river to increase by 3mm at Pillgwenny and by 1-2mm near Home Farm. This very small increase can then become magnified in some areas of the floodplain where a very small increase in riverside water level results in a larger increase in water levels inland. This can occur when a slight increase in water level causes greater flow into areas with slightly lower ground levels thereby increasing the ponding depth.

There have been similar findings in previous model runs. In October 2018, modelling found:

while a large number of properties to the north of Newport Bridge are at detriment in the 1:1000yr event; the magnitude of the detriment at nearly all of these properties is less than 20mm. The detriment band map for the 1:1000yr event shows this area of detriment is remote from the main area of detriment to the south of Corporation Road and that detriment is less than 5mm between Corporation Road and Newport Bridge. There does not appear to be an obvious reason for his remote area of detriment north of Newport Bridge and so there is a possibility that this area of detriment is wholly or partially a result of a modelling anomaly that may be caused by small differences in mass errors in the internal calculations within the software and associated model sensitivities.

Model mass-balance performance has been re-checked and the results show very good mass balance performance with cumulative mass balance error maintained within +/-0.04% after the first 1hr for both new and old defence alignments. This is well within the acceptable range.

3 Property desk study

A property desk study of the twelve buildings that potentially have material detriment has been completed based on the relevant information extracted from the National Receptor Dataset (NRD) database and observations made using Google Streetview. The results of the desk study are presented in proformas included in Appendix B.

The primary objective of the desk study was to better understand the threshold levels of the buildings relative to the surrounding ground levels; potential flow paths into the buildings and confirm the accuracy of the NRD database (i.e. use non-residential or residential buildings). In addition, the desk study has confirmed where multiple addresses in the NRD database relate to a single building. There are sixteen NRD points identified as being impacted, which relate to twelve buildings.

4 Threshold survey

A threshold survey was undertaken of the affected properties in accordance with Section V of the Standard Technical Specification Version 3.1. The survey was specified by Arup and undertaken by Azimuth Land Surveyors on 5th March 2020.

The results of the survey are tabulated in Appendix C (note photographs of the surveyed thresholds are available separately).

5 Threshold and flood levels

A comparison of the threshold levels against the flood levels has been undertaken in the context of the material detriment criteria. The results are presented in the tables below against the following criteria:

- Table 1 - Results for properties with potential increase in flood depth over the 600mm flood depth level criteria
- Table 2 - Results for properties with potential increase over the 150mm threshold level in 1 in 30 yr event (2069)
- Table 3 - Results for properties with potential increase over the 150mm threshold level in 1 in 100 yr event (2069)

Note where a property / threshold meets a criterion for material detriment they have been highlighted in orange. Where the flood level is lower than the ground level at the location of the threshold (i.e. there is no flooding at that location) they have been highlighted in green.

In summary, one residential property is potentially subject to material detriment in the 1 in 30 year event (2069) and four commercial properties are potentially subject to material detriment in the 1 in

100 year event (2069) due to an increase in flood level over the property threshold i.e. they now experience flooding which they did not previously.

The findings are discussed in Appendix B.

Table 1 - Results for properties with potential increase over the 600mm flood depth level

Address	Increase in predicted flood level - 1:100y 2069 (mm)	Level taken at	Ground (mOD)	Flood Depth Relative to Ground Level - 1:100y 2069 (mm)
2 Chestnut Grove	+9.3	Front door	8.528	493
		Garage door	8.504	536

Table 2 - Results for properties with potential increase over the 150mm threshold level in 1 in 30 yr event (2069)

Address	Increase in predicted flood level - 1:30y 2069 (mm)	Level taken at	Threshold (mOD)	Ground (mOD)	Flood Depth Relative to Threshold - 1:30y 2069 (mm)
19 Church street	+5.4	Front door	8.266	8.165	4

Table 3 - Results for properties with potential increase over the 150mm threshold level in 1 in 100 yr event (2069)

Address	Increase in predicted flood level - 1:100y 2069 (mm)	Level taken at	Threshold (mOD)	Ground (mOD)	Flood Depth Relative to Threshold - 1:100y 2069 (mm)
3 Chichester Close	+4.9	Front door	9.344	9.152	-300
39 Chichester Close	242.3	Front door	9.298	9.128	-258
Alacrity House, Kingsway	13.1	Front door	9.040	9.027	-78
		Side door 1	9.061	9.029	-99
		Side door 2	9.044	9.020	-82
		Side door 3	9.046	9.014	-84
		Side door 4	9.057	9.014	-95
12 Granville Lane	36.8	Roller Shutter door	8.180	8.131	-56
Unit 1A Mill Parade	26.6	Front door	8.563	8.329	-170
		Roller Shutter door 1	8.530	8.321	-137
		Roller Shutter door 2	8.536	8.536	-143
Unit 1B Mill Parade	26.6	Front door	8.427	8.280	-18
		Roller Shutter door 1	8.304	8.294	105
		Roller Shutter door 2	8.417	8.417	-8
		Roller Shutter door 3	8.434	8.434	-25
		Roller Shutter door 4	8.430	8.430	-21
Unit 1, 17 St. Stephen's road	53.4	Front door	7.427	7.411	-125
		Roller Shutter door	7.390	7.390	-88
Unit 2, 17 St. Stephen's road	53.4	Front door	7.432	7.187	-130
		Roller Shutter door	7.203	7.203	99
Unknown industrial unit, Mill Parade	26.6	Front door	8.298	8.174	-60
		Roller shutter door 1	8.164	8.164	74
		Roller Shutter door 2	8.198	8.198	40
		Side door 1	8.208	8.194	-20

Address	Increase in predicted flood level - 1:100y 2069 (mm)	Level taken at	Threshold (mOD)	Ground (mOD)	Flood Depth Relative to Threshold - 1:100y 2069 (mm)
		Roller shutter door 3	8.190	8.190	48
		Side door 2	8.164	8.139	74
		Roller shutter door 4	8.147	8.147	91
Unit 1, Isca Works, Mill Parade	41.2	Front door	8.331	8.273	-85
Unit 2, Isca Works, Mill Parade	41.2	Front door	8.444	8.327	-254
		Roller shutter door	8.211	8.211	-21
Acorn Glass & Glazing, Isca Works, Mill Parade	41.2	Front door	8.378	8.357	-162
		Side door 1	8.381	8.366	-165
		Side door 2	8.287	8.234	-71
		Roller Shutter door	8.239	8.229	-23
Unit 1-5 Isca Foundry, Milman street	41.2	Front door	8.144	8.093	44
		Roller Shutter door 1	8.082	8.053	106
		Roller shutter door 2	8.170	8.170	18
14 Brunel Street	17.8	Front door	8.313	8.231	-50

6 Conclusions and Recommendations

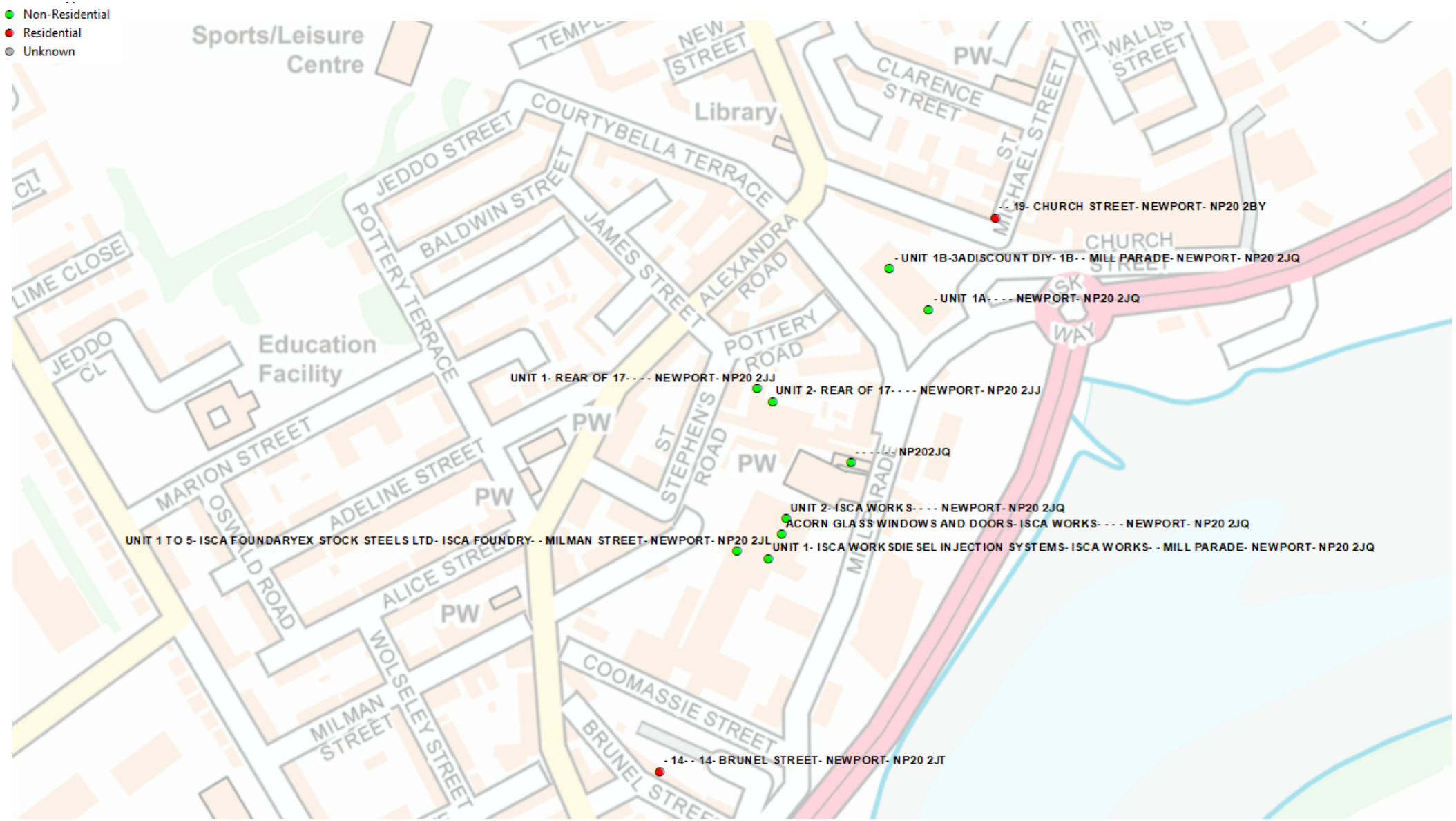
A threshold survey of the identified properties has been undertaken and the results compared against the predicted flood levels in the context of the material detriment criteria. This demonstrated that in most cases surveyed ground/threshold levels were higher than considered by previous analysis.

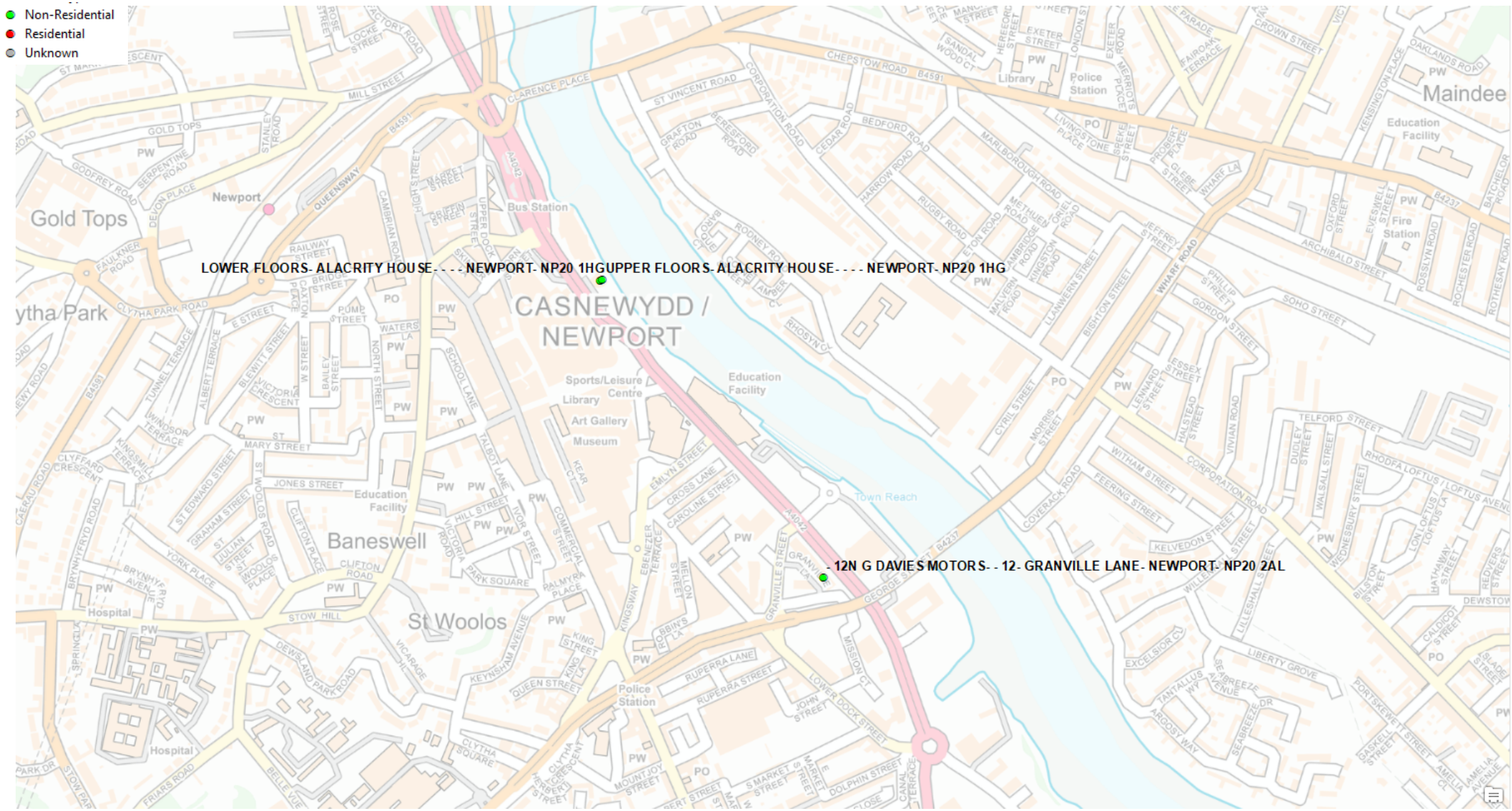
In summary, one residential property is subject to material detriment in the 1 in 30 year event (2069) and four commercial properties are subject to material detriment in the 1 in 100 year event (2069) due to an increase in flood level.

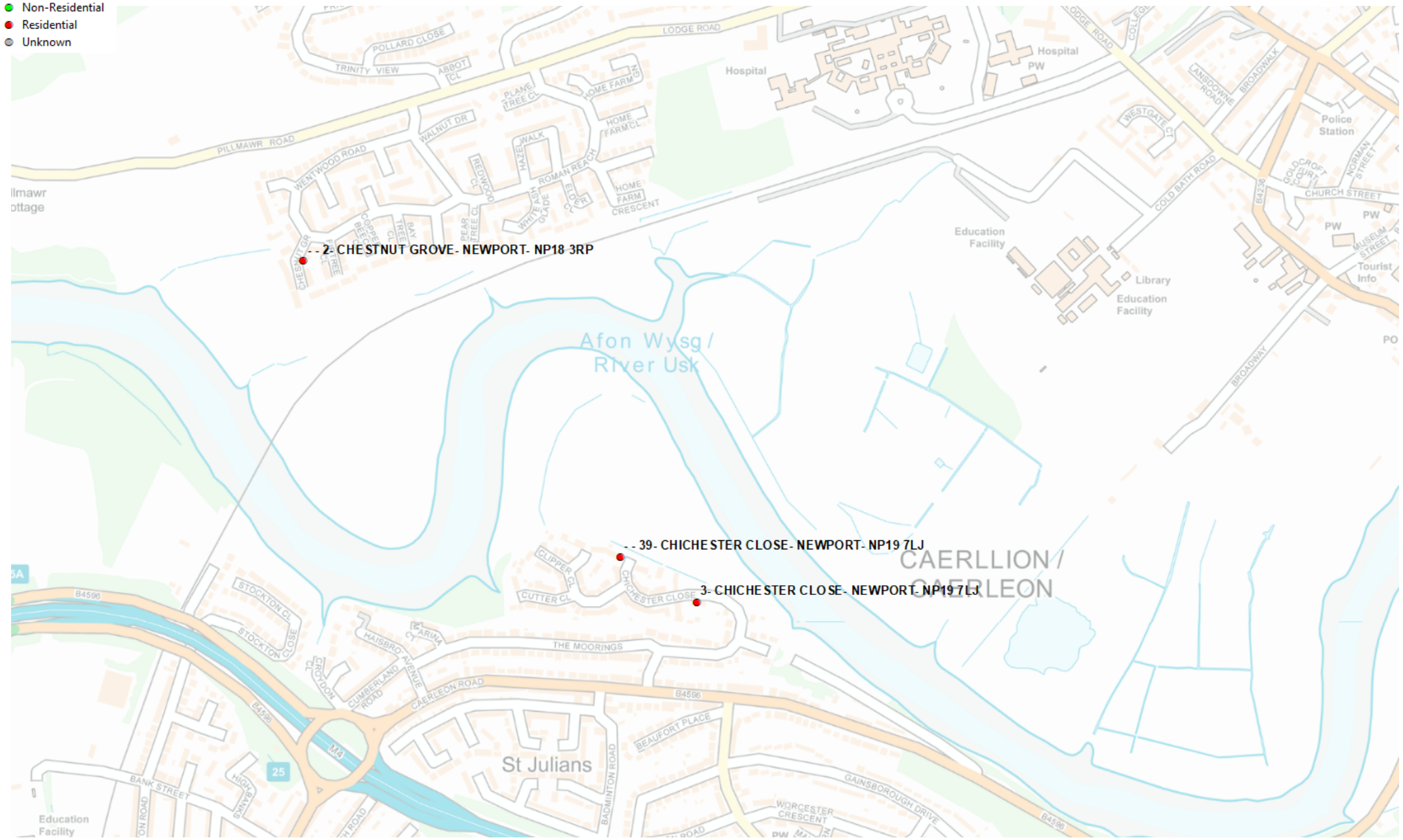
- Residential property 19 Church Street - Predicted flood level was 1.4mm below the surveyed threshold level and the with-scheme predicted flood level is 4mm above the surveyed threshold level – i.e. within modelling tolerance and marginal. Engagement with the property owner/occupier could be undertaken as the detriment is unlikely to be material.
- Non-residential property Unit 1A and 1B, Mill Parade – All thresholds remain above predicted with-scheme flood levels except one section of Unit 1B industrial threshold level which is 105mm below predicted with-scheme flood level. Engagement with the Unit 1B property owner/occupier is recommended as the detriment is unlikely to be material given the nature of the building use.
- Non-residential property Unit 1 and 2 Rear of 17 – Whilst Unit 1 thresholds and ground levels, and Unit 2 habited threshold (office space) are 88mm to 130mm above predicted with-scheme flood levels, Unit 2 industrial threshold level is 99mm below predicted with-scheme flood level. Engagement with the property owner/occupier is recommended as the detriment is unlikely to be material given the nature of the building use.

- Unknown non-residential property Mill Parade - With-scheme predicted flood level is +27mm from the baseline and between +40mm and +91mm above surveyed industrial threshold level, however 20mm to 60mm below habited thresholds (office space). Engagement with the property owner/occupier is recommended as the detriment is unlikely to be material given the nature of the building use.
- Non-residential property Unit 1-5 Isca Foundary – With-scheme predicted flood level is +44mm from the baseline and between +18mm and +106mm above surveyed threshold level. Engagement with the property owner/occupier is recommended as the detriment is unlikely to be material given the nature of the building use.
- Note this document does not consider the non-residential properties located on the undefended side of the defence line including Hansons, Cemex, Marshalls and Liberty Steel. Engagement with the property owner/occupier is recommended as the detriment is unlikely to be material given the nature of baseline flood risk.

Appendix A – Property Locations


Non-Residential
Residential
Unknown
Sports/Leisure Centre
Library
Education Facility
COURTYBELLA TERRACE
JEDDO STREET
POTTERY TERRACE
BALDWIN STREET
JAMES STREET
ALEXANDRA ROAD
POTTERY ROAD
ST STEPHEN'S ROAD
MARION STREET
ADELINE STREET
OSWALD ROAD
ALICE STREET
WOLSELEY STREET
MILMAN STREET
COOMASSIE STREET
BRUNEL STREET
MILL PARADE
CLARENCE STREET
ST MICHAEL STREET
WALLIS STREET
CHURCH STREET
NEWPORT BUSK WAY
LIME CLOSE
JEDDO CL
PW
- - 19- CHURCH STREET- NEWPORT- NP20 2BY
- UNIT 1B-3ADISCOUNT DIY- 1B- - MILL PARADE- NEWPORT- NP20 2JQ
- UNIT 1A- - - - NEWPORT- NP20 2JQ
UNIT 1- REAR OF 17- - - - NEWPORT- NP20 2JJ
UNIT 2- REAR OF 17- - - - NEWPORT- NP20 2JJ
- - - - - - NP202JQ
UNIT 2- ISCA WORKS- - - - NEWPORT- NP20 2JQ
ACORN GLASS WINDOWS AND DOORS- ISCA WORKS- - - - NEWPORT- NP20 2JQ
UNIT 1 TO 5- ISCA FOUNDARYEX STOCK STEELS LTD- ISCA FOUNDRY- - MILMAN STREET- NEWPORT- NP20 2JL
UNIT 1- ISCA WORKSDIESEL INJECTION SYSTEMS- ISCA WORKS- - MILL PARADE- NEWPORT- NP20 2JQ
- 14- - 14- BRUNEL STREET- NEWPORT- NP20 2JT


Non-Residential
Residential
Unknown
LOWER FLOORS- ALACRITY HOUSE- - - - NEWPORT- NP20 1HG
UPPER FLOORS- ALACRITY HOUSE- - - - NEWPORT- NP20 1HG
- 12N G DAVIES MOTORS- - 12- GRANVILLE LANE- NEWPORT- NP20 2AL
CASNEWYDD / NEWPORT
Baneswell
St Woolos
Gold Tops
Maindee
Newport
Bus Station
Police Station
Library
Education Facility
Sports/Leisure Centre
Art Gallery
Museum
Fire Station
Hospital
Town Reach


Non-Residential
Residential
Unknown
- - 2- CHESTNUT GROVE- NEWPORT- NP18 3RP
- - 39- CHICHESTER CLOSE- NEWPORT- NP19 7LJ
3- CHICHESTER CLOSE- NEWPORT- NP19 7LJ
Afon Wysg / River Usk
CAERLLION / CAERLEON
St Julians
LODGE ROAD
PILLMAWR ROAD
WENTWOOD ROAD
POLLARD CLOSE
TRINITY VIEW
ABBOT CL
WALNUT DR
PLANE TREE CL
HOME FARM CL
HOME FARM CRESCENT
HAZEL WALK
ROMAN REACH
WHITE ASH GLADE
ELDER CL
BAY TREE CL
PEAR TREE CL
COPPER BEECH CL
CHESTNUT GR
Hospital
Hospital
PW
Education Facility
Library
Education Facility
Police Station
TOURIST INFO
CHURCH STREET
MUSEUM STREET
NORMAN STREET
OLDCROFT CT
LANSDOWNE ROAD
BROADWALK
WEST GATE CT
COLD BATH ROAD
B4236
BROADWAY
CLIPPER CL
CUTTER CL
CHICHESTER CLOSE
THE MOORINGS
HAISBRO AVENUE
CUMBERLAND ROAD
CROYDON CL
STOCKTON CL
STOCKTON CLOSE
CAERLEON ROAD
B4596
M4
25
BEAUFORT PLACE
BADMINTON ROAD
GAINSBOROUGH DRIVE
WORCESTER CRESCENT
BANK STREET
HIGH BANKS
Education Facility

Appendix B – Desk study updated with threshold survey

Technical Note

246344 24 March 2020

NRD address points	2
Addresses: LOWER FLOORS, ALACRITY HOUSE , NEWPORT, NP20 1HG UPPER FLOORS, ALACRITY HOUSE , NEWPORT, NP20 1HG	
Floor Area	66 m^2
Coordinates	X 331312, Y 188116
Google Location	https://goo.gl/maps/CYTCv61PZz5EdbBx9

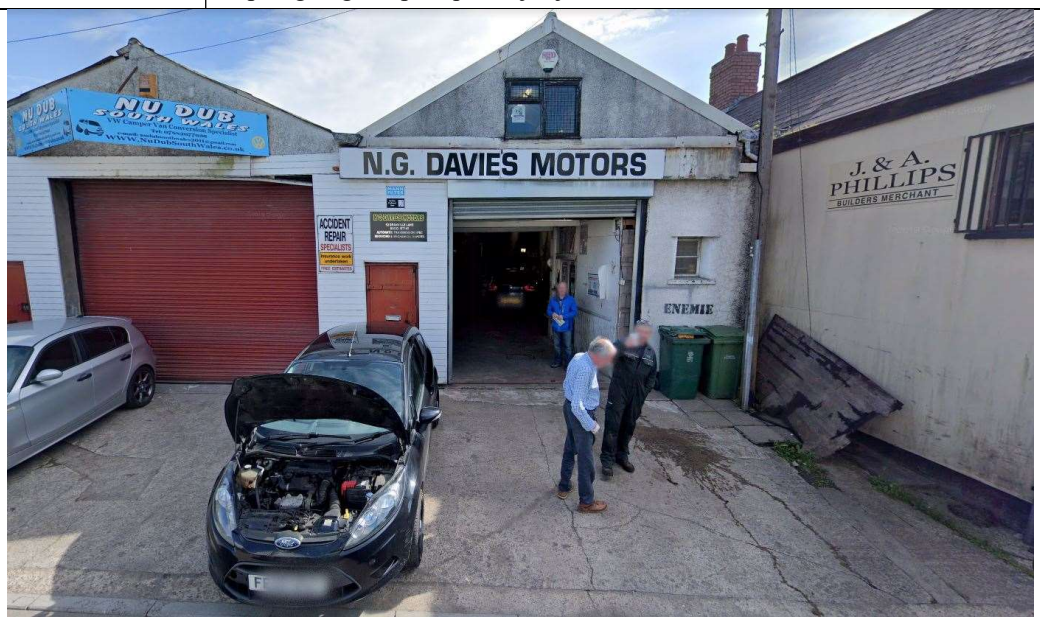
	NRD	Desk study
Category	Non-residential	Charity offices (Alacrity Foundation)
Property Type	Property shell	Occupied office building
Building Type	Detached	Detached

<table>
<tr><td>Floor Level</td><td>NA</td><td></td></tr>
<tr><td>Building Construction</td><td></td><td>Stone walls, period construction</td></tr>
<tr><td>Threshold Level and Flow Paths</td><td></td><td>Building appears to have basement (unclear if occupied). From road side ground floor raised a reasonable distance above ground level (+0.5m) and also kerbing around edge of building. However, from river sides threshold of doors appears to be near ground surface.</td></tr>
<tr><td>Detriment prediction flood depths</td><td colspan="2">1:100 2069 with scheme = 8.9624mOD
1:100 2069 change in flood level from baseline = +13.1mm
<table>
<tr><th>Level taken at</th><th>Threshold (mOD)</th><th>Ground (mOD)</th><th>Flood Depth Relative to Threshold - 1:100y 2069 (mm)</th></tr>
<tr><td>Front door</td><td>9.040</td><td>9.027</td><td>-78</td></tr>
<tr><td>Side door 1</td><td>9.061</td><td>9.029</td><td>-99</td></tr>
<tr><td>Side door 2</td><td>9.044</td><td>9.020</td><td>-82</td></tr>
<tr><td>Side door 3</td><td>9.046</td><td>9.014</td><td>-84</td></tr>
<tr><td>Side door 4</td><td>9.057</td><td>9.014</td><td>-95</td></tr>
</table>
Therefore increase in flood depth >5mm however below threshold value</td></tr>
</table>

Technical Note

246344 24 March 2020

NRD address points	1
Addresses: 12 N G Davies Motors, 21 Granville Lane, Newport NP20 2AL	
Floor Area	122.005m^2
Coordinates	X 331668, Y 187641
Google Location	https://goo.gl/maps/vq2WMjEajJKtttGa7



	NRD	Desk study
Category	Non-residential	Garage workshop
Property Type	Workshop / Light Industrial	Occupied car workshop (N.G. Davies Motors)
Building Type	N/A	Terraced commercial unit
Floor Level	Definitely ground floor	
Building Construction		Rendered blockwork

<table>
<tr><td>Threshold Level and Flow Paths</td><td></td><td>Building appears to have slight slope going up towards entrance (approx. 300mm) from Granville Lane side.</td></tr>
<tr><td>Detriment prediction flood depths</td><td colspan="2">1:100 2069 with scheme = 8.1241mOD
1:100 2069 change in flood level from baseline = +36.8mm
<table><tr><th>Level taken at</th><th>Threshold (mOD)</th><th>Ground (mOD)</th><th>Flood Depth Relative to Threshold - 1:100y 2069 (mm)</th></tr><tr><td>Roller Shutter door</td><td>8.180</td><td>8.131</td><td>-56</td></tr></table>Therefore increase in flood depth >5mm and below threshold value</td></tr>
</table>

Technical Note

246344 24 March 2020

NRD address points	1
Addresses: 2 Chestnut Grove, Newport, NP18 3RP	
Floor Area	74.544m^2
Coordinates	X 332191, Y 190606
Google Location	https://goo.gl/maps/B3pEFwo8QUtJL6on7

	NRD	**Desk study**
Category	Residential	Residential
Property Type	Detached	Detached
Floor Level	Definitely ground floor	
Building Construction		Brick wall, new build.
Threshold Level and Flow Paths		Garden slopes down from road and property is approx. 0.5m below road level. Front door threshold is 2 brick courses high (~150mm). Garage door threshold at ground level. No airbrick evident, but likely to be present as recent build property. Impact of increase in flood levels greater due to property in topographic 'bowl'.
Detriment prediction flood depths	1:100 2069 with scheme = 9.0206mOD 1:100 2069 change in flood level from baseline = +9.3mm	

Level taken at	**Ground (mOD)**	**Flood Depth Relative to Ground Level - 1:100y 2069 (mm)**
Front door	8.528	493
Garage door	8.504	536

Therefore increase in flood depth >5mm however **depth < 0.6m**

Technical Note

246344 24 March 2020

NRD address points	1
Addresses: 39 Chichester Close, Newport, NP19 7LJ	
Floor Area	71.49 m^2
Coordinates	X 332725, Y 190108
Google Location	https://goo.gl/maps/v1Qc8TTsYN66f4RH8

	NRD	**Desk study**
Category	Residential	Residential
Property Type	Detached	Family house
Floor Level	dG	
Building Construction		Brick wall, modern build
Threshold Level and Flow Paths		Front door not visible ground appears to slope up to door level (approx. 300mm). Other potential flow paths unclear from streetview
Detriment prediction flood depths	1:100 2069 with scheme = 9.0403mOD 1:100 2069 change in flood level from baseline = +242.3mm	

Level taken at	**Threshold (mOD)**	**Ground (mOD)**	**Flood Depth Relative to Threshold - 1:100y 2069 (mm)**
Front door	9.298	9.128	-258

Therefore no increase in likelihood of flooding as **below ground level at property.**

NRD address points	1

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Addresses: 3 Chichester Close, Newport, NP19 7LJ	
Floor Area	64.563 m^2
Coordinates	X 332853, Y 190032
Google Location	https://goo.gl/maps/jtERwWyjSL4Kntz96

	NRD	**Desk study**
Category	Residential	Residential
Property Type	Detached	Family house
Floor Level	Definitely ground floor	
Building Construction		Brick wall, modern build
Threshold Level and Flow Paths		Appears to be slight slope up to door level (approx. 200mm). Small 150mm step up to door.
Detriment prediction flood depths	1:100 2069 with scheme = 9.0438mOD 1:100 2069 change in flood level from baseline = +4.9mm	

Level taken at	**Threshold (mOD)**	**Ground (mOD)**	**Flood Depth Relative to Threshold - 1:100y 2069 (mm)**
Front door	9.344	9.152	-300

Therefore no increase in likelihood of flooding as **below ground level at property.**

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NRD address points	2
Addresses: Unit 1A, Newport, NP20 2JQ Unit 1 B, 3A Discount DIY, 1B, Mill Parade Newport, NP20 2JQ	
Floor Area	1921.532 m^2
Coordinates	X 3331629, Y 186604
Google Location	https://goo.gl/maps/fNfP5eoSGMb3eqjGA

	NRD	Desk study
Category	Non-residential	Warehouse
Property Type	Office / Work Studio	Occupied warehouse (2015)
Building Type	Detached	Detached

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<table>
<tr><td>Floor Level</td><td>Definitely ground floor</td><td></td></tr>
<tr><td>Building Construction</td><td></td><td>Lower brick wall, steel cladding upper and roof.</td></tr>
<tr><td>Threshold Level and Flow Paths</td><td></td><td>Entrances to warehouse at ground level, no clear change in ground level to surrounding area</td></tr>
<tr><td>Detriment prediction flood depths</td><td colspan="2">1:100 2069 with scheme = 8.3934 to 8.4086mOD
1:100 2069 change in flood level from baseline = +26.6mm
<table>
<tr><th>Level taken at</th><th>Threshold (mOD)</th><th>Ground (mOD)</th><th>Flood Depth Relative to Threshold - 1:100y 2069 (mm)</th></tr>
<tr><td>1A Front door</td><td>8.563</td><td>8.329</td><td>-170</td></tr>
<tr><td>1A Roller Shutter door 1</td><td>8.530</td><td>8.321</td><td>-137</td></tr>
<tr><td>1A Roller Shutter door 2</td><td>8.536</td><td>8.536</td><td>-143</td></tr>
<tr><td>1B Front door</td><td>8.427</td><td>8.280</td><td>-18</td></tr>
<tr><td>1B Roller Shutter door 1</td><td>8.304</td><td>8.294</td><td>105</td></tr>
<tr><td>1B Roller Shutter door 2</td><td>8.417</td><td>8.417</td><td>-8</td></tr>
<tr><td>1B Roller Shutter door 3</td><td>8.434</td><td>8.434</td><td>-25</td></tr>
<tr><td>1B Roller Shutter door 4</td><td>8.430</td><td>8.430</td><td>-21</td></tr>
</table>
Therefore increase in flood depth >5mm.
Below ground level at Unit 1A. Below habited threshold at Unit 1B, although may be below part of industrial threshold.</td></tr>
<tr><td>Recommendation</td><td colspan="2">Engage property owner/occupier of Unit 1B as detriment unlikely to be material.</td></tr>
</table>

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<table>
<tr><td>NRD address points</td><td>2</td></tr>
<tr><td colspan="2">Addresses:
Unit 1, Rear of 17, St Stephen’s Rd, Newport, NP20 2JJ
Unit 2, Rear of 17, St Stephen’s Rd, Newport, NP20 2JJ</td></tr>
<tr><td>Floor Area</td><td>119.553 m^2</td></tr>
<tr><td>Coordinates</td><td>X 331640, Y 186595</td></tr>
<tr><td>Google Location</td><td>https://goo.gl/maps/Hm8M61kDCWCNwByq5</td></tr>
<tr><td colspan="2"> 
</td></tr>
</table>

	NRD	Desk study
Category	Non-residential	Warehouse / Garage
Property Type	Workshop / Light Industrial	Occupied warehouse / garage
Floor Level	Possibly ground floor	
Building Construction		Unclear
Threshold Level and Flow Paths		Garage entrance appears to be at ground level. Unable to confirm from streetview.
Detriment prediction flood depths	1:100 2069 with scheme = 7.3022mOD 1:100 2069 change in flood level from baseline = +53.4mm	

Level taken at	Threshold (mOD)	Ground (mOD)	Flood Depth Relative to Threshold - 1:100y 2069 (mm)
Unit 1 Front door	7.427	7.411	-125
Unit 1 Roller Shutter door	7.390	7.390	-88
Unit 2 Front door	7.432	7.187	-130
Unit 2 Roller Shutter door	7.203	7.203	99

Therefore increase in flood depth >5mm. Below ground level at Unit 1. Below habituated threshold at Unit 2, but may be below industrial threshold.

Recommendation	Engage property owner/occupier of Unit 2 as detriment unlikely to be material.

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NRD address points	1
Addresses: NP20 2JQ	
Floor Area	N/A
Coordinates	X 331695.614, Y 186551.814
Google Location	https://goo.gl/maps/DkEvqKh2Vk6UbNXH6

	NRD	**Desk study**
Category	Non-residential	Warehouse / Garage
Property Type	-	Detached brick warehouse
Floor Level	N/A	
Building Construction		Brick wall
Threshold Level and Flow Paths		Small kerbing and slope (approx. 150mm) up to multiple entrances at ground surface

Detriment prediction flood depths

1:100 2069 with scheme = 8.2381mOD
1:100 2069 change in flood level from baseline = +26.6mm

Level taken at	Threshold (mOD)	Ground (mOD)	Flood Depth Relative to Threshold - 1:100y 2069 (mm)
Front door	8.298	8.174	-60
Roller shutter door 1	8.164	8.164	74
Roller Shutter door 2	8.198	8.198	40
Side door 1	8.208	8.194	-20
Roller shutter door 3	8.190	8.190	48
Side door 2	8.164	8.139	74
Roller shutter door 4	8.147	8.147	91

Therefore increase in flood depth >5mm and over threshold, although potentially below habited threshold.

Recommendation	Engage property owner/occupier as detriment unlikely to be material.

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NRD address points	3
Addresses: Acorn Glass Windows and Doors, Isca Works, Newport, NP20 2JQ Unit 1, Isca Works, Diesel Injection Systems, Newport, NP20 2JQ Unit 2, Isca Works, Newport, NP20 2JQ	
Floor Area	1000.412 m^2
Coordinates	X 331647, Y 186501
Google Location	https://goo.gl/maps/DkEvqKh2Vk6UbNXH6

	NRD	Desk study
Category	Non-residential	Warehouse / Garage
Property Type	Workshop / Light Industrial	Occupied warehouse / garage
Building Type	-	Semi-detached industrial building
Floor Level	Possibly ground floor	
Building Construction		Industrial steel-clad structure
Threshold Level and Flow Paths		Slight slope up to property level (approx. 100mm). Kerbing in parts along the road.

<table>
<tr><td></td><td></td><td>No clear evidence of difference in ground level to surrounding area.</td></tr>
<tr><td>Detriment prediction flood depths</td><td colspan="2">1:100 2069 with scheme = 8.1898 to 8.2463mOD
1:100 2069 change in flood level from baseline = +41.2mm
<table>
<tr><th>Level taken at</th><th>Threshold (mOD)</th><th>Ground (mOD)</th><th>Flood Depth Relative to Threshold - 1:100y 2069 (mm)</th></tr>
<tr><td>Unit 1 Front door</td><td>8.331</td><td>8.273</td><td>-85</td></tr>
<tr><td>Unit 2 Front door</td><td>8.444</td><td>8.327</td><td>-254</td></tr>
<tr><td>Unit 2 Roller shutter door</td><td>8.211</td><td>8.211</td><td>-21</td></tr>
<tr><td>Acorn Glass Front door</td><td>8.378</td><td>8.357</td><td>-162</td></tr>
<tr><td>Acorn Glass Side door 1</td><td>8.381</td><td>8.366</td><td>-165</td></tr>
<tr><td>Acorn Glass Side door 2</td><td>8.287</td><td>8.234</td><td>-71</td></tr>
<tr><td>Acorn Glass Roller Shutter door</td><td>8.239</td><td>8.229</td><td>-23</td></tr>
</table>
Therefore increase in flood depth >5mm but below threshold and partially below ground level.</td></tr>
</table>

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NRD address points	1
Addresses: Unit 1 to 5, Isca Foundary, Stock Steels LTD, Isca Foundary, Milman Street, Newport, NP20 2JL	
Floor Area	1000.412 m^2
Coordinates	X 331615, Y 186489
Google Location	https://goo.gl/maps/g2pWTegyuEdYPyiL8

	NRD	**Desk study**
Category	Non-residential	Warehouse
Property Type	Workshop / Light Industrial	Occupied warehouse
Building Type	-	Semi-detached industrial building
Floor Level	Possibly ground floor	
Building Construction		Industrial steel clad structure
Threshold Level and Flow Paths		Large industrial doors at ground level, no clear evidence of difference in ground level to surrounding area
Detriment prediction flood depths	1:100 2069 with scheme = 8.1880mOD 1:100 2069 change in flood level from baseline = +41.2mm	

Level taken at	**Threshold (mOD)**	**Ground (mOD)**	**Flood Depth Relative to Threshold - 1:100y 2069 (mm)**
Front door	8.144	8.093	44
Roller Shutter door 1	8.082	8.053	106
Roller shutter door 2	8.170	8.170	18

Therefore increase in flood depth >5mm and over threshold.

Recommendation	Engage property owner/occupier as detriment unlikely to be material given the nature of building use.

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NRD address points	1
Addresses: 14 Brunel Street, Newport NP20 2JT	
Floor Area	53.711 m^2
Coordinates	X 331560, Y 186333
Google Location	https://goo.gl/maps/wirGeDt3UdELDtjw9

	NRD	**Desk study**
Category	Residential	Residential
Property Type	Terraced	Period terraced home
Floor Level	Definitely ground floor	
Building Construction		Rendered brick / stone walls
Threshold Level and Flow Paths		Circa 150mm step up to door from ground level. No airbricks evident
Detriment prediction flood depths	1:100 2069 with scheme = 8.2626mOD 1:100 2069 change in flood level from baseline = +17.8mm	

Level taken at	**Threshold (mOD)**	**Ground (mOD)**	**Flood Depth Relative to Threshold - 1:100y 2069 (mm)**
Front door	8.313	8.231	-50

Therefore increase in flood depth >5mm but **below** threshold value

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NRD address points	1
Addresses: 19 Church Street, Newport, NP20 2BY	
Floor Area	58.129 m^2
Coordinates	X 331798, Y 186725
Google Location	https://goo.gl/maps/Gj5GEQFERjxeEZNP9

	NRD	**Desk study**
Category	Residential	Residential
Property Type	Terraced	Period terraced home
Floor Level	Definitely ground floor	
Building Construction		Brick
Threshold Level and Flow Paths		Circa 100mm step up to door from ground level. No airbricks evident
Detriment prediction flood depths	1:30 2069 with scheme = 8.2621 mOD 1:30 2069 change in flood level from baseline = +5.4mm	

Level taken at	**Threshold (mOD)**	**Ground (mOD)**	**Flood Depth Relative to Threshold - 1:30y 2069 (mm)**
Front door	8.266	8.165	4

Therefore increase in flood depth >5mm and **marginally above** threshold value

Recommendation	Predicted flood level was -1.4mm below the surveyed threshold level and the with-scheme predicted flood level is +4mm above the surveyed threshold level – i.e. within modelling tolerance and marginal. Engagement with the property owner/occupier could be undertaken as the detriment is unlikely to be material.

Appendix C – Threshold Survey

Job Number AR3748
Job Name Stephenson street THL
Surveyed by MR/FV/SJ
Date 05/03/2020

Address			Level taken at	Levels [m]						
Street	Town	Postcode		Treshold	DPC	Airbrick	Ground	Step height	Wheather bar	Floor level
2 Chestnut Grove	Caerleon	NP18 3RP	Front door	**8.676**	**8.646**	N/A	**8.528**	N/A	N/A	N/A
			Garage door	**8.511**	N/A	N/A	**8.504**	N/A	N/A	N/A
3 Chichester Close	Newport	NP19 7LJ	Front door	**9.344**	N/A	**9.285**	**9.152**	N/A	N/A	N/A
39 Chichester Close	Newport	NP19 7LJ	Front door	**9.298**	N/A	**9.262**	**9.128**	N/A	N/A	N/A
Alacrity House, Kingsway	Newport	NP20 1HG	Front door	**9.040**	N/A	N/A	**9.027**	N/A	N/A	N/A
			Side door 1	**9.061**	N/A	N/A	**9.029**	N/A	N/A	N/A
			Side door 2	**9.044**	N/A	N/A	**9.020**	N/A	N/A	N/A
			Side door 3	**9.046**	N/A	N/A	**9.014**	N/A	N/A	N/A
			Side door 4	**9.057**	N/A	N/A	**9.014**	N/A	N/A	N/A
12 Granville Lane	Newport	NP20 2AL	Roller Shutter door	**8.180**	N/A	N/A	**8.131**	N/A	N/A	**8.181**
19 Church street	Newport	NP20 2BY	Front door	**8.266**	N/A	N/A	**8.165**	**8.251**	N/A	N/A
Unit 1A Mill Parade	Newport	NP20 2JQ	Front door	**8.563**	N/A	N/A	**8.329**	**8.540**	N/A	N/A
			Roller Shutter door 1	**8.530**	N/A	N/A	**8.321**	**8.530**	N/A	N/A
			Roller Shutter door 2	N/A	N/A	N/A	**8.536**	N/A	N/A	N/A
Unit 1B Mill Parade	Newport	NP20 2JQ	Front door	**8.427**	N/A	N/A	**8.280**	**8.411**	N/A	N/A
			Roller Shutter door 1	**8.304**	N/A	N/A	**8.294**	N/A	N/A	N/A
			Roller Shutter door 2	N/A	N/A	N/A	**8.417**	N/A	N/A	N/A
			Roller Shutter door 3	N/A	N/A	N/A	**8.434**	N/A	N/A	N/A
			Roller Shutter door 4	N/A	N/A	N/A	**8.430**	N/A	N/A	N/A
Unit 1, 17 St. Stephen's road	Newport	NP20 2JJ	Front door	**7.427**	N/A	N/A	**7.411**	N/A	N/A	N/A
			Roller Shutter door	N/A	N/A	N/A	**7.390**	N/A	N/A	N/A
Unit 2, 17 St. Stephen's road	Newport	NP20 2JJ	Front door	**7.432**	N/A	N/A	**7.187**	**7.356**	N/A	N/A
			Roller Shutter door	N/A	N/A	N/A	**7.203**	N/A	N/A	N/A
??? Mill Parade	Newport	NP20 2JQ	Front door	**8.298**	N/A	N/A	**8.174**	**8.278**	**8.367**	N/A
			Roller shutter door 1	N/A	N/A	N/A	**8.164**	N/A	N/A	N/A
			Roller Shutter door 2	N/A	N/A	N/A	**8.198**	N/A	N/A	N/A
			Side door 1	**8.208**	N/A	N/A	**8.194**	N/A	N/A	N/A
			Roller shutter door 3	N/A	N/A	N/A	**8.190**	N/A	N/A	N/A
			Side door 2	**8.164**	N/A	N/A	**8.139**	N/A	N/A	N/A
			Roller shutter door 4	N/A	N/A	N/A	**8.147**	N/A	N/A	N/A
Unit 2, Isca Works, Mill Parade	Newport	NP20 2JQ	Front door	**8.444**	N/A	N/A	**8.327**	N/A	N/A	N/A
			Roller shutter door	N/A	N/A	N/A	**8.211**	N/A	N/A	N/A
Acorn Glass & Glazing, Isca Works, Mill Parade	Newport	NP20 2JQ	Front door	**8.378**	N/A	N/A	**8.357**	N/A	N/A	N/A
			Side door 1	**8.381**	N/A	N/A	**8.366**	N/A	N/A	N/A
			Side door 2	**8.287**	N/A	N/A	**8.234**	N/A	N/A	N/A
			Roller Shutter door	**8.239**	N/A	N/A	**8.229**	N/A	N/A	N/A
Unit 1, Isca Works, Mill Parade	Newport	NP20 2JQ	Front door	**8.331**	N/A	N/A	**8.273**	**8.323**	N/A	**8.35**
Unit 1-5 Isca Foundry, Milman street	Newport	NP20 2JL	Front door	**8.144**	N/A	N/A	**8.093**	N/A	N/A	N/A
			Roller Shutter door 1	**8.082**	N/A	N/A	**8.053**	N/A	N/A	N/A
			Roller shutter door 2	N/A	N/A	N/A	**8.170**	N/A	N/A	N/A
14 Brunel Street	Newport	NP20 2JT	Front door	**8.313**	N/A	N/A	**8.231**	**8.293**	N/A	N/A

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DOCUMENT CHECKING (not mandatory for File Note)

	Prepared by	Checked by	Approved by
Name	Jamie Lancaster (Cardiff)	Robin Campbell	Robin Campbell
Signature