

Flood Risk Assessment

Phase 4
20019.TN02

PROJECT:

Orb Drive

CLIENT:

Edenstone Homes

- 1.0 Introduction
- 2.0 Historic Flood Consultation
- 3.0 Current Flood Risk
- 4.0 Summary

Appendix A

Flood maps

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Site Location Plan

Revision	Date	Description	Author(s)	Reviewer(s)	Approval
TN02	14/09/2021		MJ	WM	MJ

1.0 Introduction

This note has been prepared to support a planning application for Phase 4 of the Orb Drive development.

This part of the Orb Drive site has been previously consented as part of outline consent 04/1173 and more recent reserved matters applications 09/0850.

Flood consultation has been carried out as have physical flood defence works intended to support this development. This work was carried out under a formal S106 planning agreement.

Recent planning history includes:

- 04/1173 - original permission for 250-450 residential units
- 09/0180 - variation of 04/1173 to allow phased development of the site
- 09/0850 - partial reserved matters (includes phase 4) for 176 units.

This note is a summary of flood defence correspondence and flood defences installed throughout the recent history of this site, it also includes a description of the current flood risk in August 2021.

This note is not intended as a detailed TAN 15 compliant flood risk assessment but as supporting information to update the planning officer on current risks.

2.0 Historic flood consultation

The original 2004 permission was accompanied by a S106 agreement which required the development to deliver the Liswerry Pill Flood defence works.

In July 2009 Condition 13 of 09/0180 required that no development above damp-proof course level shall take place until the River Usk East Bank Flood Defences have been completed in their entirety as approved under planning permissions 06/1011, 07/0974 and 06/0777 (or such other flood defence scheme as may be granted planning permission by the Local Planning Authority).

We can assume these have been undertaken in their entirety because housing has been completed on site in compliance with this condition and in October 2009 the Environment provided the following advice.

“The proposed development lies within zone C1 as defined by the development advice maps (dam) referred to under TAN 15 Development and Flood Risk (July 2004) It is therefore considered that this area is at risk of flooding during the 0.1 % (1 in 1000 year) tidal flood event.

Furthermore, the Environment Agency's flood maps indicate this area to be within the 0.5% (1 in 200 year) tidal boundary. TAN15 requires a Flood Consequence Assessment (FCA) is carried out for proposed development within zone C1.

We have considered this application in conjunction with the progress made on implementing the East Bank Landform by Newport City Council which seeks to manage the consequences of flooding within this area of Newport.

We are now aware that the Landform is now substantially complete and therefore our view is that a FCA is not required in this instance to support this proposal."

3.0 Current Flood Risk

The information that Natural Resources Wales holds changes from time to time and so a review of the current flood risk mapping has been carried out.

The site remains in flood zone C1, described as "served by significant infrastructure, including flood defences".

Flood risk mapping shows the undefended risk and indicates that the flood risk from rivers is partially in Medium (1:30-1:100) and partially in Low risk (greater than 1:100). The site is very flat ranging from 6.5-7.2 across the site however comparison with topographical data suggests that the Medium to Low boundary approximately aligns with a contour at 6.90m.

Flood risk mapping shows that the site is at flood risk from the sea is low which is less than a risk between 1:200 and 1:1000 years.

The NRW flood mapping tool provides information on flood velocities in the event of a flood event and for this site are indicated in the lowest, less than 1m/s band.

Mapping indicating the above is included in Appendix A.

4.0 Summary

The site benefits from flood defences which were funded by the development through a Section 106 agreement.

The presence of defences installed as part of the development were accepted by the Environment Agency offering sufficient protection to the site during the 2009 RM application.

The site remains in Zone C1 but the flood risk from rivers does not appear to be significantly changed since the reserved matters application was made in 2009. Risk from tidal sources may be slightly reduced as current mapping indicates Low risk.

It should be noted that notwithstanding the above and installed flood defences the site is in an area where flood risk is present.

Residents should be advised to sign up to Natural Resources Wales early warning flood information.

Floodline: 0345 988 1188

Website: <https://naturalresources.wales/flooding/sign-up-to-receive-flood-warnings>

Matt Jessop MICE CEng.

Director

Jessop Reynolds Consulting Limited.

Appendix A

Flood Mapping (Natural Resources Wales)



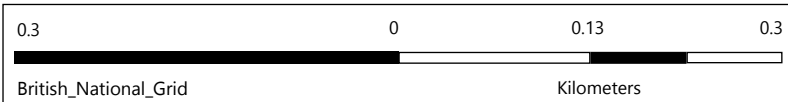
Map Perygl Llifogydd / Flood Risk Map -

Allwedd / Map Key

- Zone C1
- Zone C2
- Zone B
- Zone A

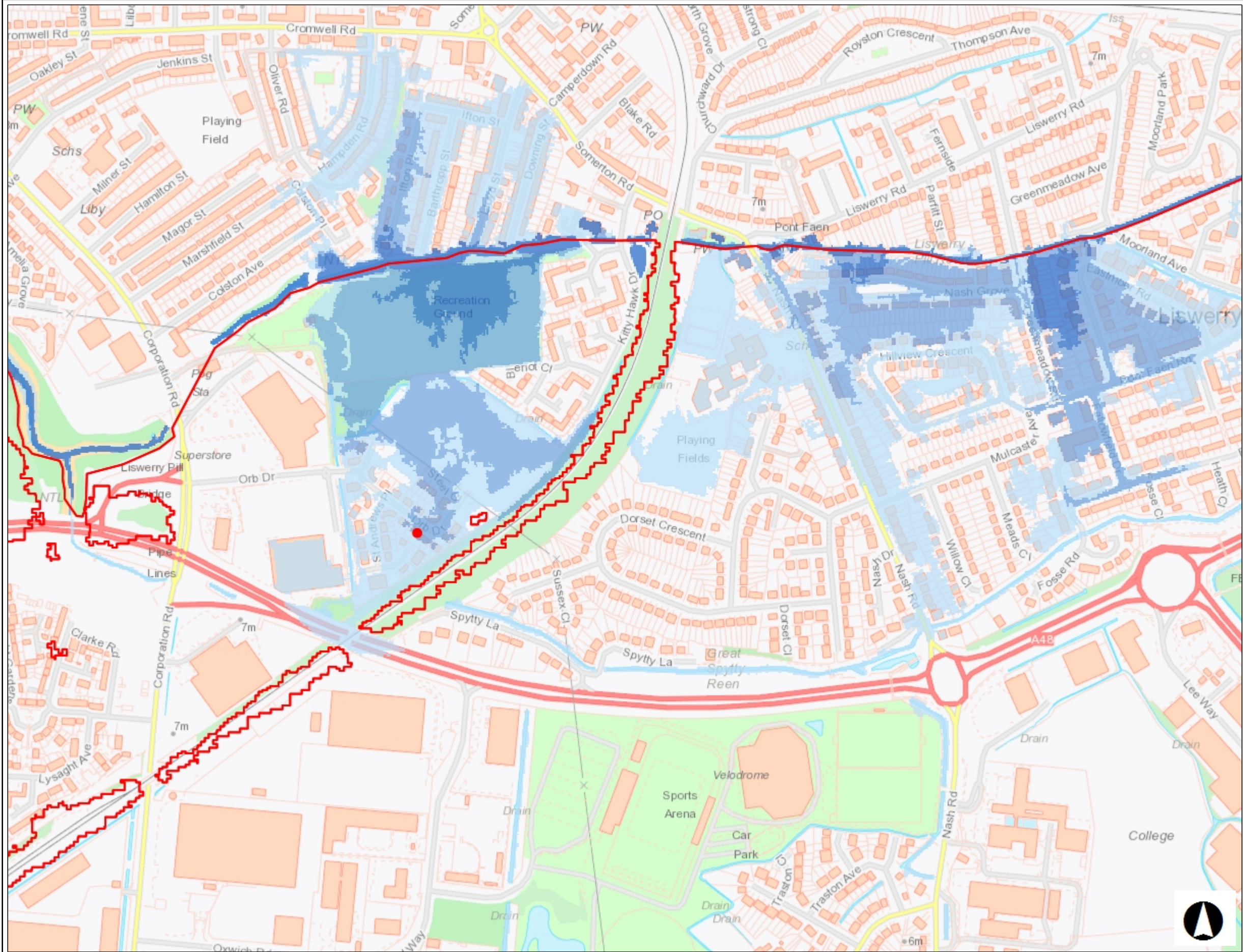
Graddfa / Scale at A3 1: 5,000

Dyddiad / Date
19/08/2021



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Map Perygl Llifogydd / Flood Risk Map -

Allwedd / Map Key

Flood Risk from Rivers - Extent

- High
- Medium
- Low

Graddfa / Scale at A3 1:5,000

Dyddiad / Date
02/09/2021

0.3 0 0.13 0.3
British_National_Grid Kilometers

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Map Perygl Llifogydd / Flood Risk Map -

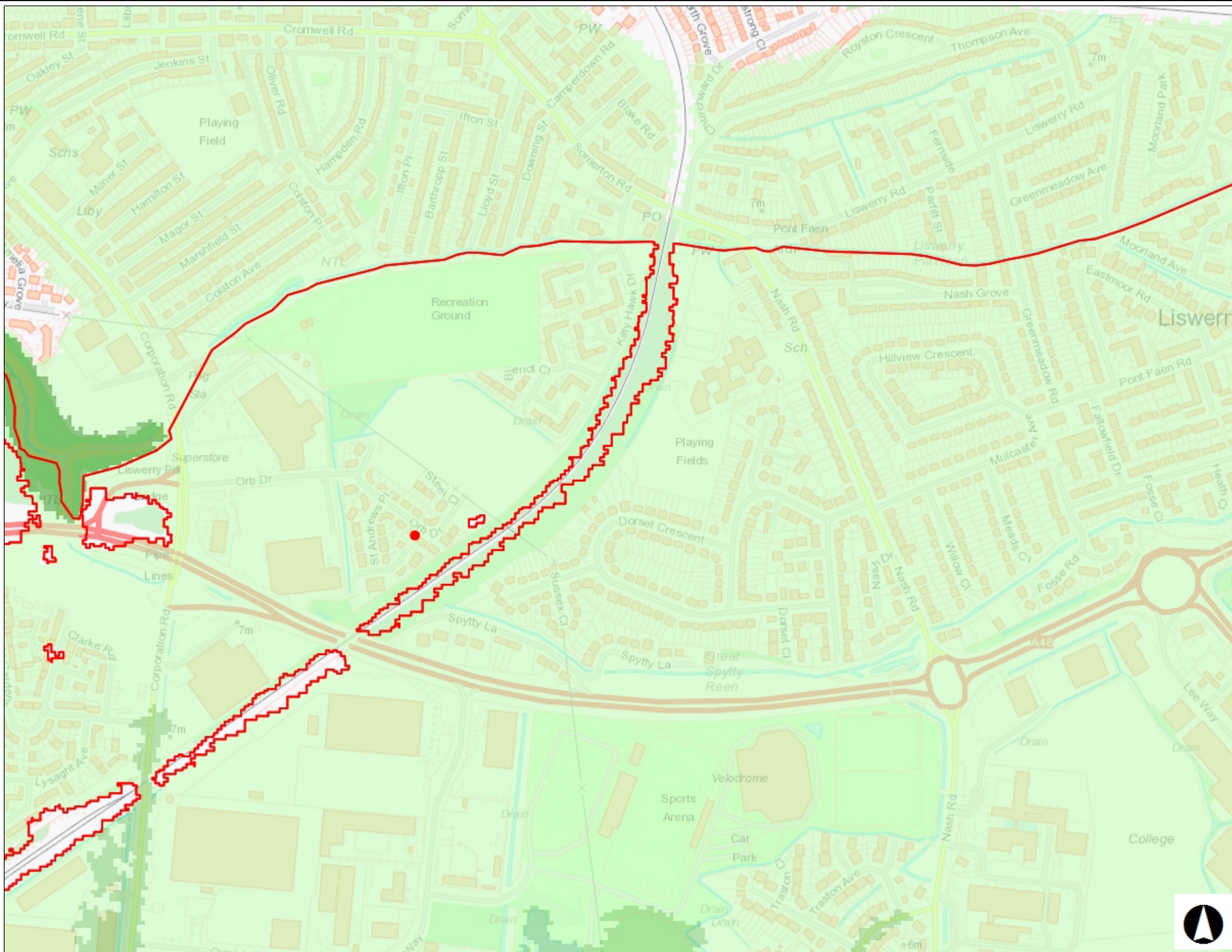
Allwedd / Map Key

Flood Risk from the Sea

- High
- Medium
- Low

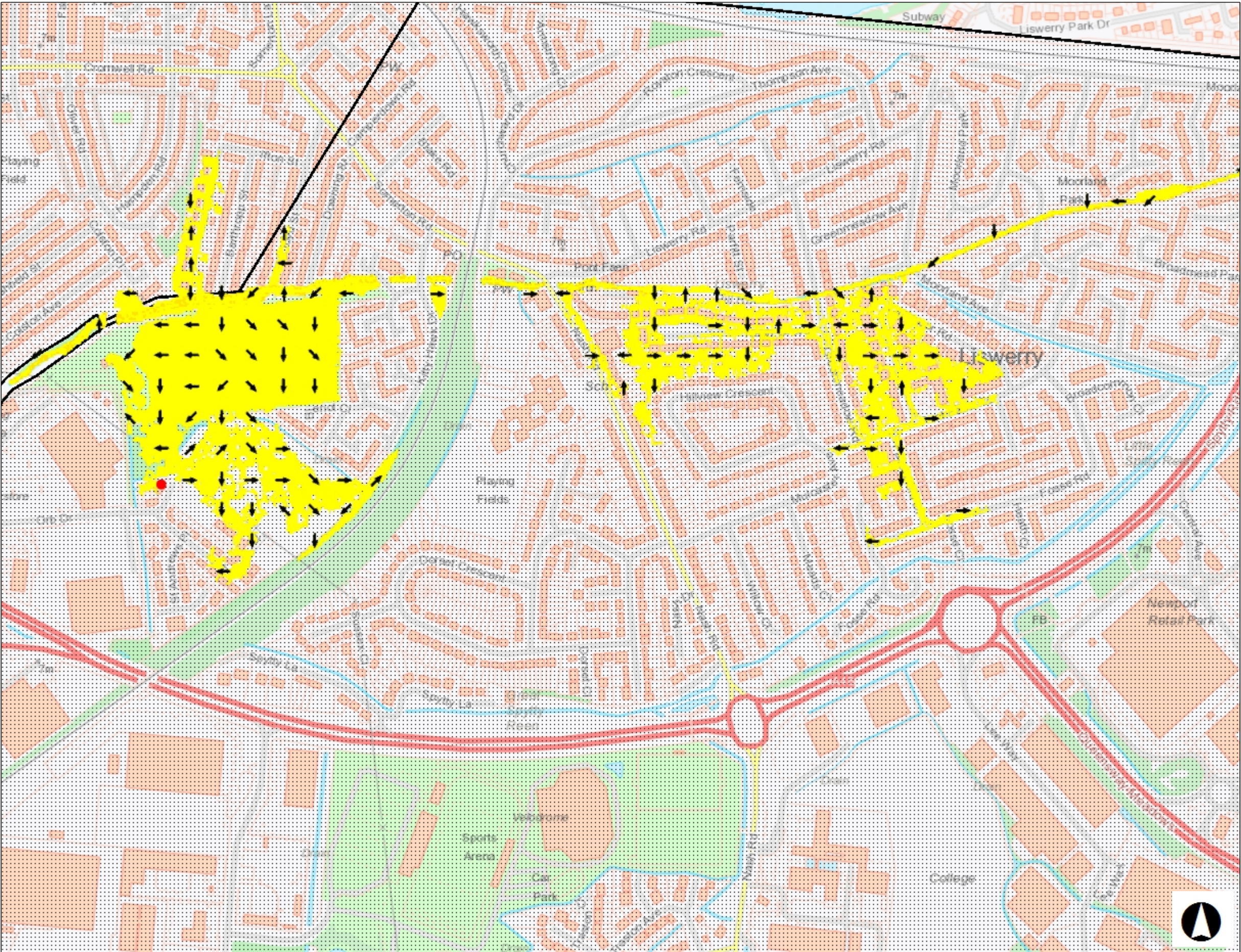
Graddfa / Scale at A3 1:5,000

Dyddiad / Date
02/09/2021



0.3 0 0.13 0.3
British_National_Grid Kilometers










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Map Perygl Llifogydd / Flood Risk Map -

Allwedd / Map Key


Flood Risk Areas

-  Cardiff
-  Flintshire
-  Gwynedd Coast
-  Monmouthshire
-  Newport
-  North Wales Coast
-  South Wales Valleys
-  Swansea Bay
-  Wrexham

Rivers Velocity - Medium Risk

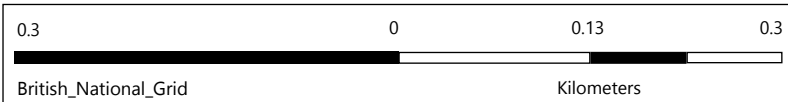
-  Less than 1m/s
-  1 - 2m/s
-  2 - 3m/s
-  Greater than 3m/s

Rivers Flow Direction - Medium Risk

-  Flow Direction

Graddfa / Scale at A3 1: 5,000

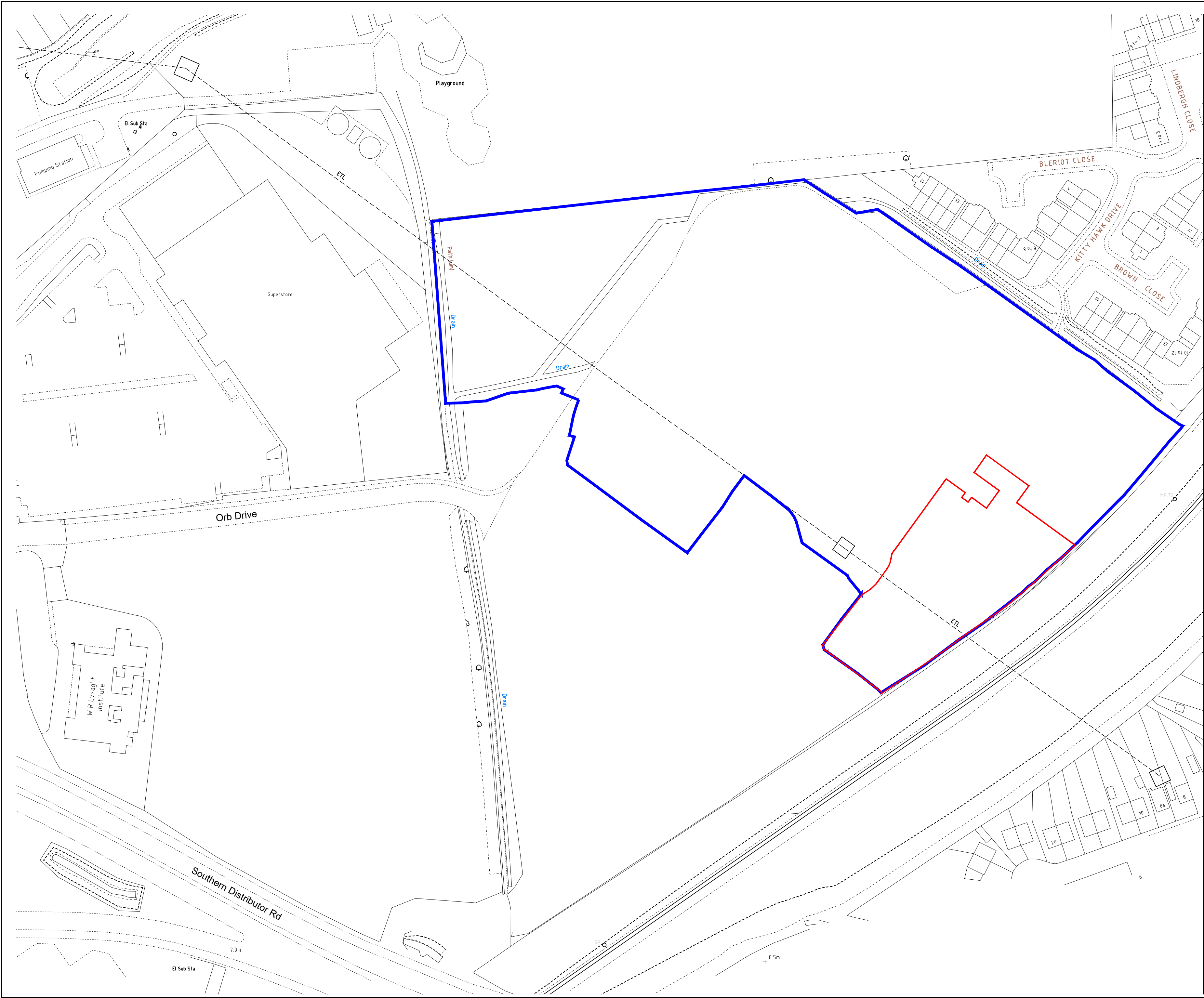
Dyddiad / Date
02/09/2021



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Appendix B

Site Location Plan



GENERAL NOTES

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Legend

Application Boundary

Rev	Date	By	Comment		
<div><div></div><div>BLUEBELL HOMES</div></div>					
Project Title					
Orb Drive, Newport					
Drawing Title					
Location Plan Phase 4					
Drawing Status					
Planning					
Drawn By		Checked By		Scales	Date
HR				1:1000	A2 July 21
Project No.			Drawing No.		Rev.
1712			P4 - 5000		