19 December 2023

Attention: R & P Knill
Garter Hall, Llantyre
Llandrindod Wells
Powys LD1 6DY

SLR Project No.: 425.002423.00001

Client Reference No.: 136787

RE: Initial Flood Risk and Drainage Appraisal
Proposed Residential Development, Tremont Park, Llandrindod Wells, Powys, Wales

Flood Consequence and Drainage Appraisal for Tremont Park, Llandrindod Wells, Powys

SLR Consulting has been instructed by R & P Knill (the "Client") to undertake an initial flood consequence and drainage appraisal for a greenfield site east of Tremont Park, Llandrindod Wells, Powys to support a pre-application consultation for a proposed residential development.

Site Description

The site is located on greenfield land at the north-western edge of the town of Llandrindod Wells, at grid reference SO 06578 62112. A site location plan is enclosed. An existing residential development is located immediately north-west of the site, Llandrindod Wells Police Station is to the north and areas immediately west, east and south comprise fields.

A topographical survey shows that the site generally falls from south-east to north-west, with a range in levels from approximately 230 m above Ordnance Datum (AOD), to approximately 206 m AOD.

A minor drainage ditch flows through the northern part of the site. The drains into the River Ithon, which is located approximately 500 m northwest of the site.

Flood Consequences to the Development

According to the Welsh Government's Development Advice Map (enclosed), the entire site is in Zone A. This is defined as land that at little or no risk of flooding from rivers or the sea.

The Natural Resources Wales (NRW) Flood Map for Planning (enclosed) also shows that the site is not at risk of flooding from rivers or the sea.

The NRW Flood Risk from Surface Water and Small Watercourses Map, shows that a surface water flood flow path flows from south to north, then south-west to north-east, through the northern part of the site. This largely corresponds to the location of drainage ditch. This area is at high risk of surface water flooding. The remainder of the site is not at risk of surface water flooding. An extract of this mapping for the site is enclosed.

The masterplan of the site will need to make an allowance for this drainage ditch and the associated surface water floodplain. This will allow for flow to pass through the site without obstruction, which will help to minimise flood consequence to both people and property.

Other sources of flood risk could be present, such as from groundwater or sewers. However, these are unlikely to be significant or impact the masterplan but will need to be investigated in more detail to inform the planning submission.

The proposed development is classified as 'More Vulnerable' development under TAN15[1]. The proposed development is entirely within DAM Zone A and Flood Zone 1. Therefore, the Justification Test does not need to be applied.

Flood Risk from the Development

It is well understood that one of the effects of development is typically to reduce the permeability of the site and consequently to change its response to rainfall. Therefore, a surface water drainage strategy is required to ensure that the surface water runoff regime is managed appropriately and that the proposed development would not increase flood risk on the site and/or to surrounding areas.

Surface water runoff will be managed using Sustainable Drainage Systems (SuDS). This will be informed by a SuDS Approving Body (SAB) Pre-App and subsequent SAB Full Application.

According to published British Geological Survey mapping, the superficial deposits beneath the site consist of Glacial Till (Diamicton). The solid geology underlying the site comprises Granite and volcanic Tuff, interspersed with Mudstone of the Builth Mudstone Formation[2].

The ground conditions indicate that infiltration as a means of surface water disposal is unlikely to be possible. However, this may need to be confirmed through infiltration testing.

A drainage ditch is present on site, which connects to the River Ithon. If infiltration drainage is not possible, surface water runoff will be discharged to this ditch. However, it will be necessary to provide attenuation of surface water, so that it is discharged at greenfield rates. This will be achieved using SuDS, which will also be designed to offer improvements with respect to water quality and biodiversity. These measures will help to ensure that the proposed development has no adverse impact on the local drainage regime.

To meet with SAB approval, it is likely that the masterplan for the site will require modification to reflect a more extensive network of SuDS. However, this will be addressed after the pre-application consultation.

Conclusions

Most of the site is not considered to be constrained by flooding, but the masterplan will need to consider the surface water flood flow path associated an existing ditch in the northern part of the site.

Surface water runoff will be managed using SuDS, which will help to ensure that the proposed development has no adverse impact on the local drainage regime.

I trust that the information contained within this letter report is clear, however should further information be required, please contact me using the details below.

Regards,

SLR Consulting Limited

[1] https://www.gov.wales/technical-advice-note-tan-15-development-flooding-and-coastal-erosion accessed December 2023
[2] https://www.bgs.ac.uk/map-viewers/geoindex-onshore/ accessed December 2023

Nick Bosanko

Nick Bosanko
Technical Director – Hydrology and Hydrogeology

Office phone +44 3300 886631
Mobile 07947 220321
Email Nick.Bosanko@slrconsulting.com

Attachments
- Topographical Survey - Ref. 1546 by Usk Land Survey, September 2023
- Site Location Plan
- Development Advice Map
- Fluvial Flood Zone Map
- Surface Water Flood Zone Map


Fire Station
Police Station
ITHON VIEW
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HERNOG CL
TREMONT PARK
CAMDDWR RS
AFON WY
TREMONT ROAD
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DDOLE ROAD
BROOKLAND ROAD
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Education Facility
Art Gallery
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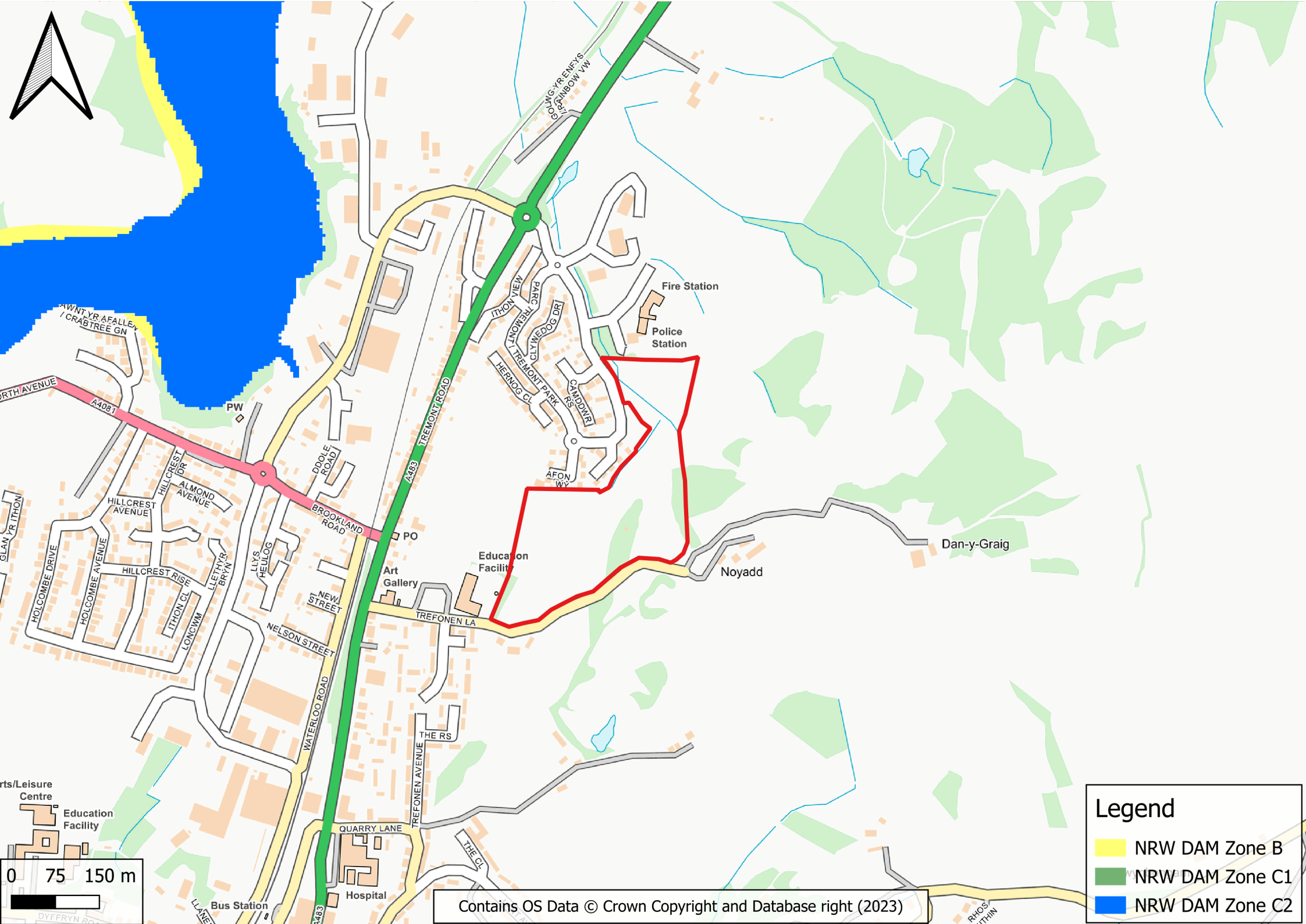
Legend
Red Line Boundary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BROOKLAND ROAD
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QUARRY LANE
TREFONEN AVENUE
WATERLOO ROAD
NELSON STREET
NEW STREET
HILLCREST AVENUE
HILLCREST RISE
HILLCREST DR
ALMOND AVENUE
HOLCOMBE DRIVE
HOLCOMBE AVENUE
ITHON CL
LONGWM
LLETHYR BRYN
LLYS HEULOG
DOLE ROAD
HERNOG CL
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NRW DAM Zone B
NRW DAM Zone C1
NRW DAM Zone C2
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THE RS
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LAWNT YR AFALLEN / CRABTREE GN
Sports/Leisure Centre
Education Facility
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Legend
NRW Fluvial Flood Zones
Flood Zone 2
Flood Zone 3
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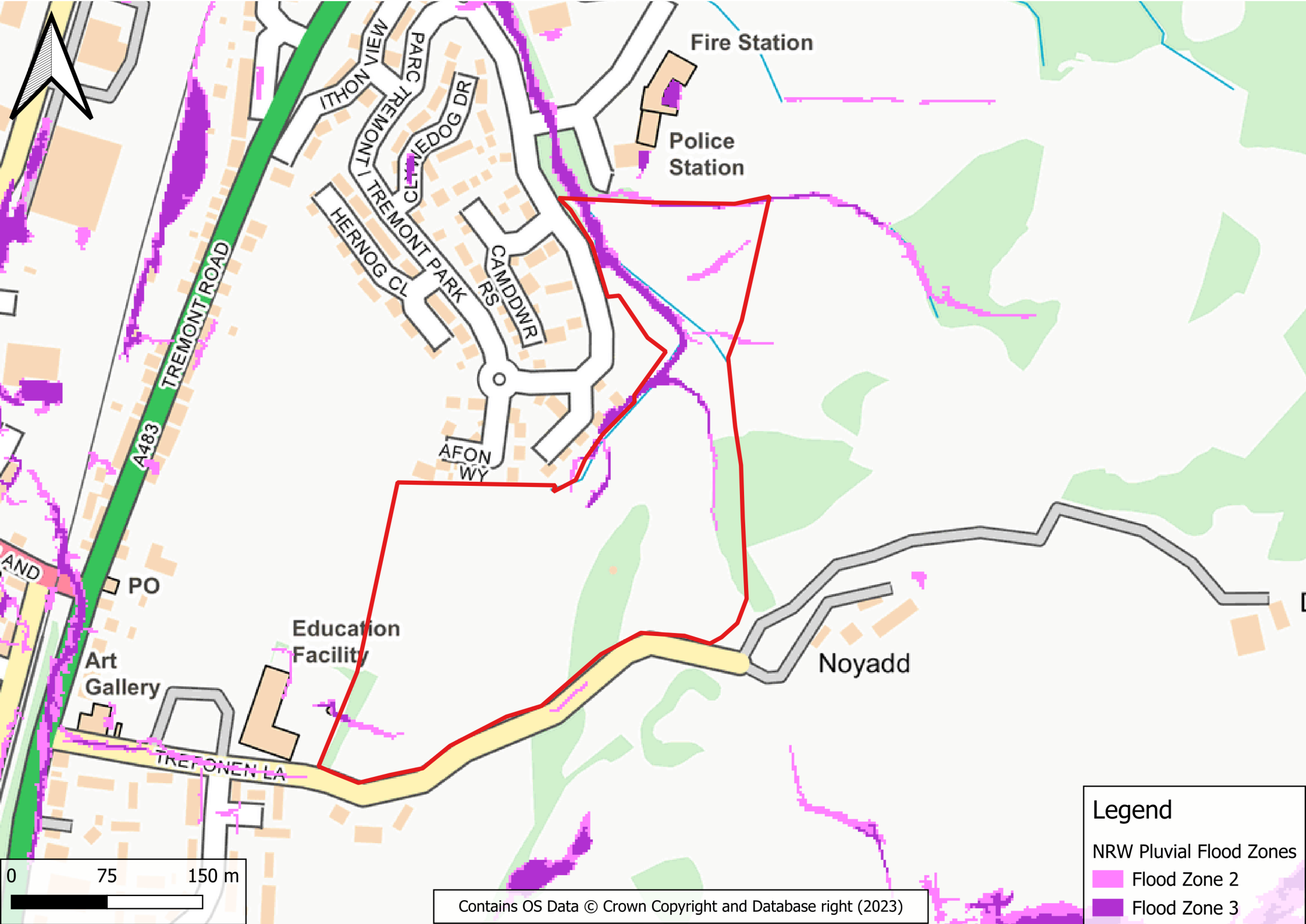
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Flood Zone 3
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