

Drainage Statement

1. Introduction

This Drainage Statement has been prepared in support of the proposed development at CT Lewis Ltd, Trojan Close, Swansea. The site is acknowledged to lie within an area identified as being at risk of flooding and this statement has therefore been prepared to demonstrate how drainage considerations have informed the development proposals and how the scheme responds to the objectives of Technical Advice Note (TAN) 15: *Development, Flooding and Coastal Erosion* (2025).

This statement should be read alongside the Soil Infiltration Test Summary – Trojan Close, Swansea which provides site-specific infiltration testing and drainage assessment information.

2. Existing Site Conditions

The site comprises an existing commercial transport and HGV yard with established hardstanding and operational areas. Infiltration testing undertaken on 30 June 2026 in accordance with BRE 365 identified ground conditions comprising crushed stone and gravel over granular made ground and underlying sandy strata. Groundwater was encountered at approximately 1.4m below ground level. No evidence of contamination was identified during the investigation.

The testing concluded that the site exhibits good natural drainage characteristics and is considered free-draining. A calculated infiltration rate of 15.7×10^{-6} m/s was recorded, with a design infiltration coefficient of 10.5×10^{-6} m/s adopted following the application of an appropriate factor of safety.

3. Surface Water Drainage

The submitted infiltration assessment considered a drainage area of approximately 2,400m² and assessed site performance during a 1-in-100-year storm event including a 30% climate change allowance. The assessment demonstrated that only a 23mm infiltration blanket depth would be required and that stored water would reduce to half volume within approximately 17 minutes, significantly exceeding the performance requirements set out within BRE 365 and CIRIA guidance.

The report concludes that the site has sufficient infiltration capacity to accommodate surface water runoff and that the existing permeable yard arrangement can continue to function effectively as an infiltration blanket. Surface water is therefore capable of infiltrating naturally into the underlying soils without the need for significant additional drainage infrastructure.

4. Flood Risk and Climate Resilience

Whilst the site is located within an area identified as being at risk of flooding, the proposed development does not involve the introduction of highly vulnerable land uses and does not result in a significant increase in impermeable surface area.

In addition, the proposals include the construction of a landscaped earth bund along the southern boundary containing approximately 110m³ of imported soil and 174m² of wildflower planting. The bund introduces additional permeable and vegetated land within the site, capable of intercepting rainfall, promoting infiltration and slowing the movement of surface water during periods of intense rainfall. The bund therefore contributes positively to the site's resilience to extreme weather events and complements the favourable infiltration characteristics identified through the BRE 365 testing.

Although not intended as a flood defence structure, the bund forms part of a wider environmental enhancement strategy that increases vegetation cover, improves habitat provision and supports natural drainage processes.

5. Conclusion

The site-specific infiltration testing confirms that the site possesses good infiltration characteristics and sufficient capacity to accommodate runoff from a 1-in-100-year rainfall event plus a 30% climate change allowance. The ground conditions are considered free-draining and capable of effectively managing surface water through infiltration. [

The proposed development will not materially increase impermeable area, will not introduce highly vulnerable development and incorporates additional permeable landscaping through the formation of a landscaped bund and wildflower planting. On the basis of the available evidence contained within the Soil Infiltration Test Summary – Trojan Close, Swansea, the proposals are not expected to increase flood risk on-site or elsewhere and demonstrate an appropriate response to the drainage and climate resilience objectives of TAN 15.