

Technical Note – Flood Risk

The Chocolate Factory, Unit 3, Kenfig Industrial Estate

This Technical Note is prepared to support a planning application to renew a consent for the storage of wood logs, chips and woodchip biomass boilers.

The consent was linked to the site plan in Appendix I of this note.

The Development Advice Map (DAM) shows areas at risk of flooding for the purposes of land-use planning and is used alongside Planning Policy Wales and Technical Advice Note 15 (TAN15) to guide new development away from areas at risk of flooding wherever possible. From March 2017 Zone C is updated quarterly to align with NRW's extreme flood outline updates.

Previous DAM Map

At the time of the original consent at this site, the DAM Map in the vicinity of the site was as shown in Fig 1 below. The application site (edged red) was clearly located in Zone A, well outside the Zone C2 floodplain at this time.

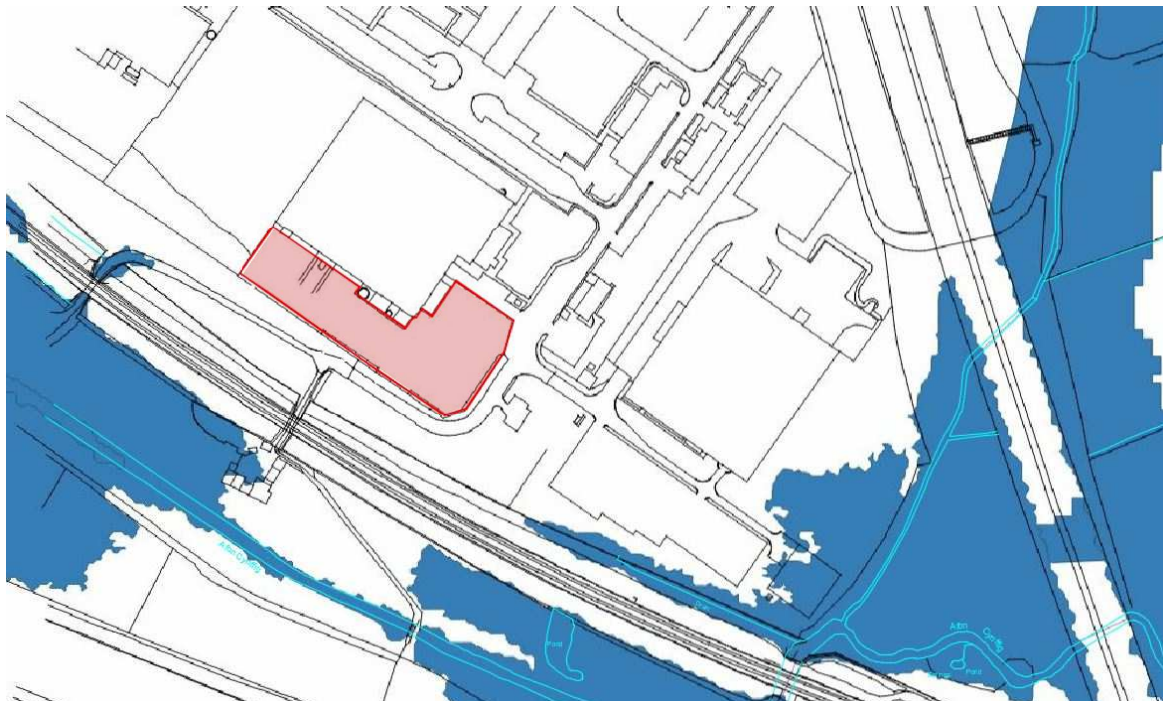


Figure 1 – DAM Map at time of original consent.

The blue shaded area represents Zone C2 which at this location is the fluvial floodplain emanating from two watercourses, the Afon Kenfig and the Tu Du Brook, which flows into the Kenfig some 0.25km east of the site. The Kenfig then passes beneath the elevated main railway line embankment which runs east-west to the south of the site.

Current DAM Map

The current DAM Map is shown in Appendix II attached. The Zone C2 flood plain now approaches much more closely to the site but does not encroach within the red line boundary of the application site at any point.

This is illustrated more clearly on the larger scale site plan included in Appendix III. This plan shows the Zone C2 flood plain split into its constituent elements: Zone 3 (up to 1 in 100 annual chance of flooding, or 1% APE) is shaded dark blue; and Zone 2 (up to 1 in 1000 annual chance of flooding or 0.1% APE) is light blue.

Beyond Zone 2 lies Zone 1 (uncoloured), in which the entire application site lies, which corresponds with Zone A of the DAM Map, and is defined as area considered to be at little or no risk of flooding.

Site Levels

The plan in Appendix III shows ground contours at 0.1m intervals taken from the latest available LIDAR data. This shows the site entrance and the majority of the site yard is at an elevation of approximately 10.70m AOD. The perimeter road beyond the site boundary falls in elevation from 10.70m AOD at the yard entrance, down to 9.30m just beyond the bend, rising thereafter to approximately 10.0m AOD halfway along the southern boundary.

The limit of the Zone 2 floodplain is seen to extend around the bend of the perimeter road to a point at approximately 10.6m AOD, indicating that this is the extreme (0.1% APE) flood level around the eastern half of the site, which at no point encroaches on to the site.

Yard levels fall slightly towards the western end of the site, which is generally at 10.3-10.4m AOD and approximately 10.1m AOD at the lowest point. However this area is more remote from the fluvial flood source and the 0.1% APE flood level is accordingly lower such that again, the extreme flood envelope does not encroach onto the application site at the western end.

A streetview of the perimeter road bend at the corner of the site is shown in Figure 2. This clearly illustrates the level difference between the perimeter road (in the flood plain) and the site yard (outside the floodplain).



Figure 2 – Streetview: south east corner of site

Summary

This application is to renew a previous consent for storage at an Industrial Estate yard.

This development proposal is considered 'less vulnerable' in terms of TAN15.

The DAM Map update that has resulted in the closer proximity of Zone C to this site is relatively recent, and as such we do not consider that further hydraulic modelling updates are necessary or proportionate to inform flood risk in the context of this site and development proposal.

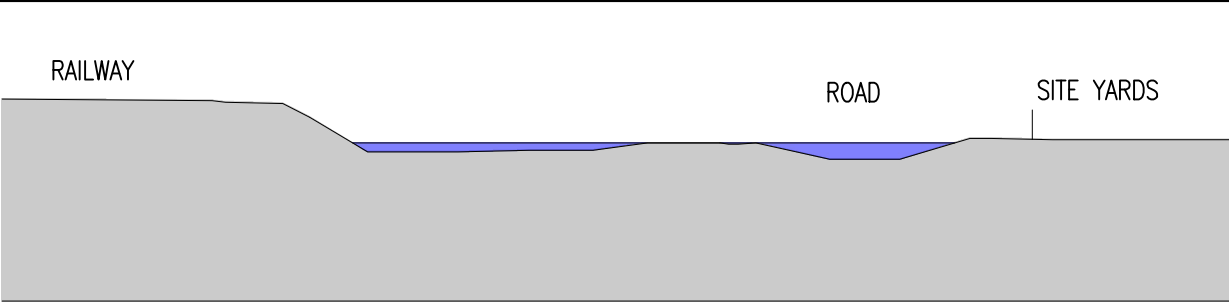
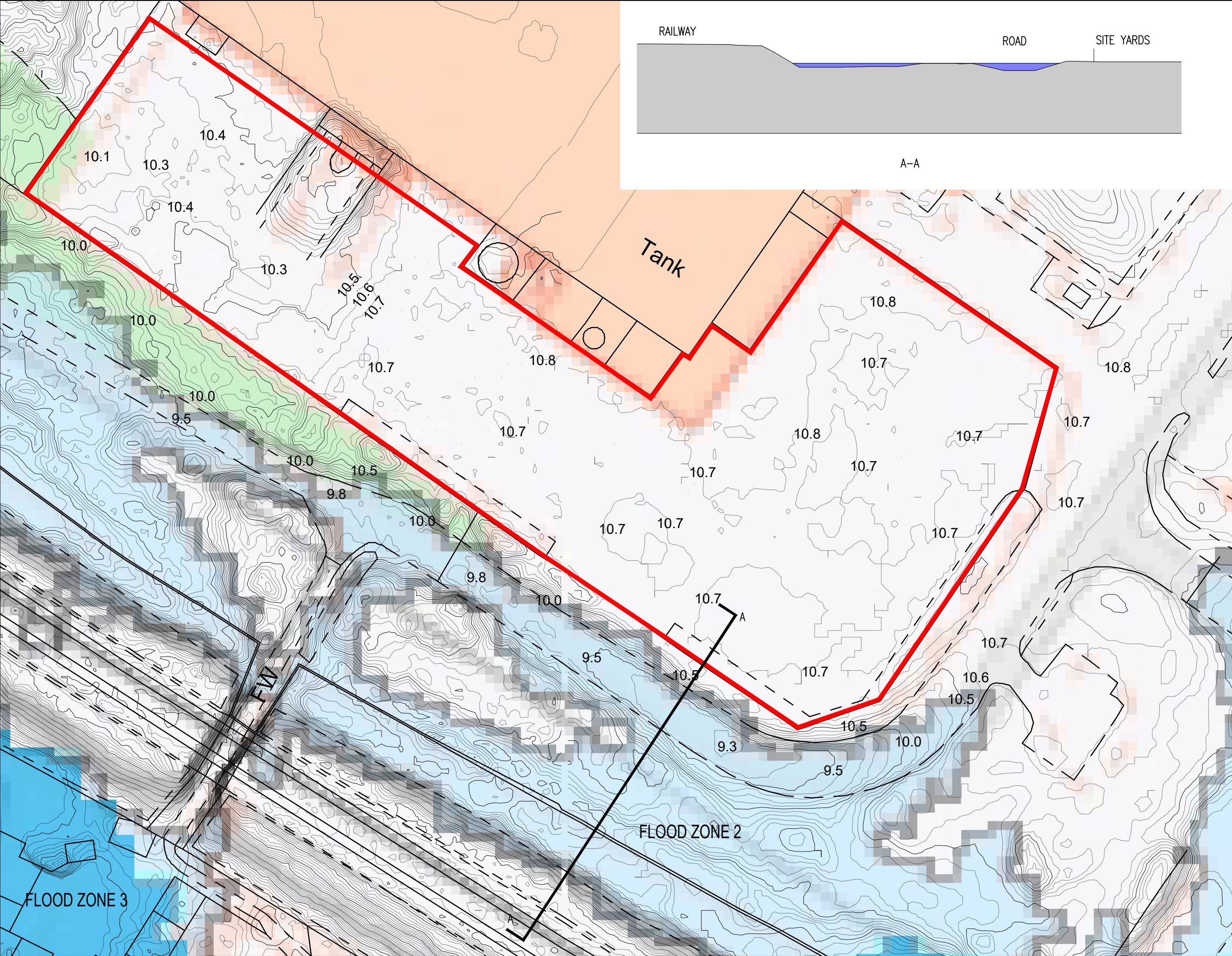
Moreover, the red line application site lies entirely within Zone A of the current DAM Map.

For these reasons we consider that this Technical Note is a proportional assessment of the flood risk at this site for the purposes of this planning application.

Appendices

- I) Proposed Site Layout (previous consent)
- II) Current Development Advice Map
- III) Site Plan showing Zone 2/3 flood plain and ground contours





- GENERAL NOTES
1. DO NOT SCALE THIS DRAWING.
 2. CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ALL ERRORS AND OMISSIONS TO THE ENGINEER.
 3. ANY DISCREPANCY TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
 4. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SUBCONTRACTORS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.

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Revisions			
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Drawing Title
SITE PLAN & SECTION USING LIDAR GOUND DATA

INFORMATION

Project No. C1554	Drawing No. C-002
Scales 1:250	Date 22.11.19
Drawn CD	Checked DT
Sheet Size A1	Revision —

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