ABLEY LETCHFORD PARTNERSHIP
Consulting Engineers

TECHNICAL NOTE

Project Title:	**Knowle Lane, Cranleigh**
Project No/ Document Reference:	**A423/TN001**
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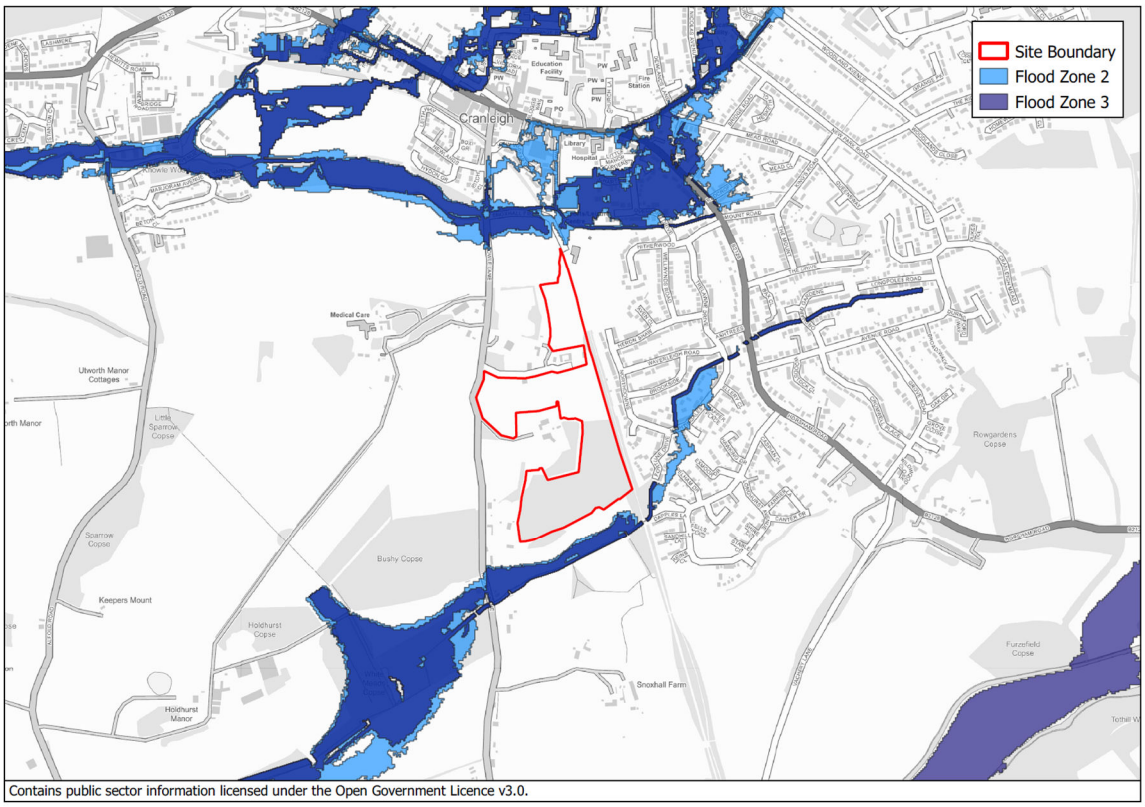
FLOODING AND DRAINAGE

1. Flooding

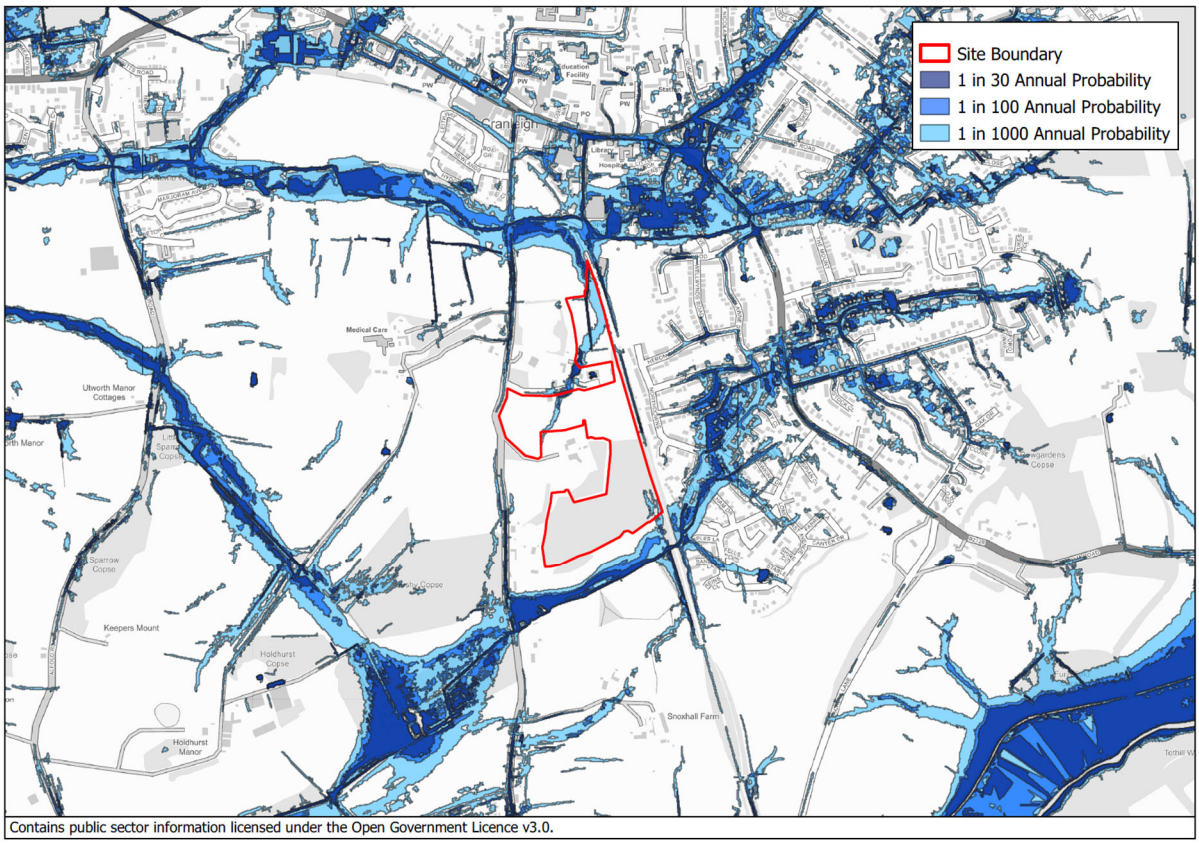
1.1. Based on information provided by the Environment Agency the entire site lies within flood zone 1 which represents a low probability of flooding related to watercourses.

Watercourse Flooding Extent



1.2. The majority of the site is also at a very low risk from surface water flooding from overland flow. The one exception is a self-generated flow of water in extreme events. This flow will be reduced by the introduction of a positive drainage system within the development and any residual flow will be directed to a suitable watercourse.

Surface Water Flooding Extent

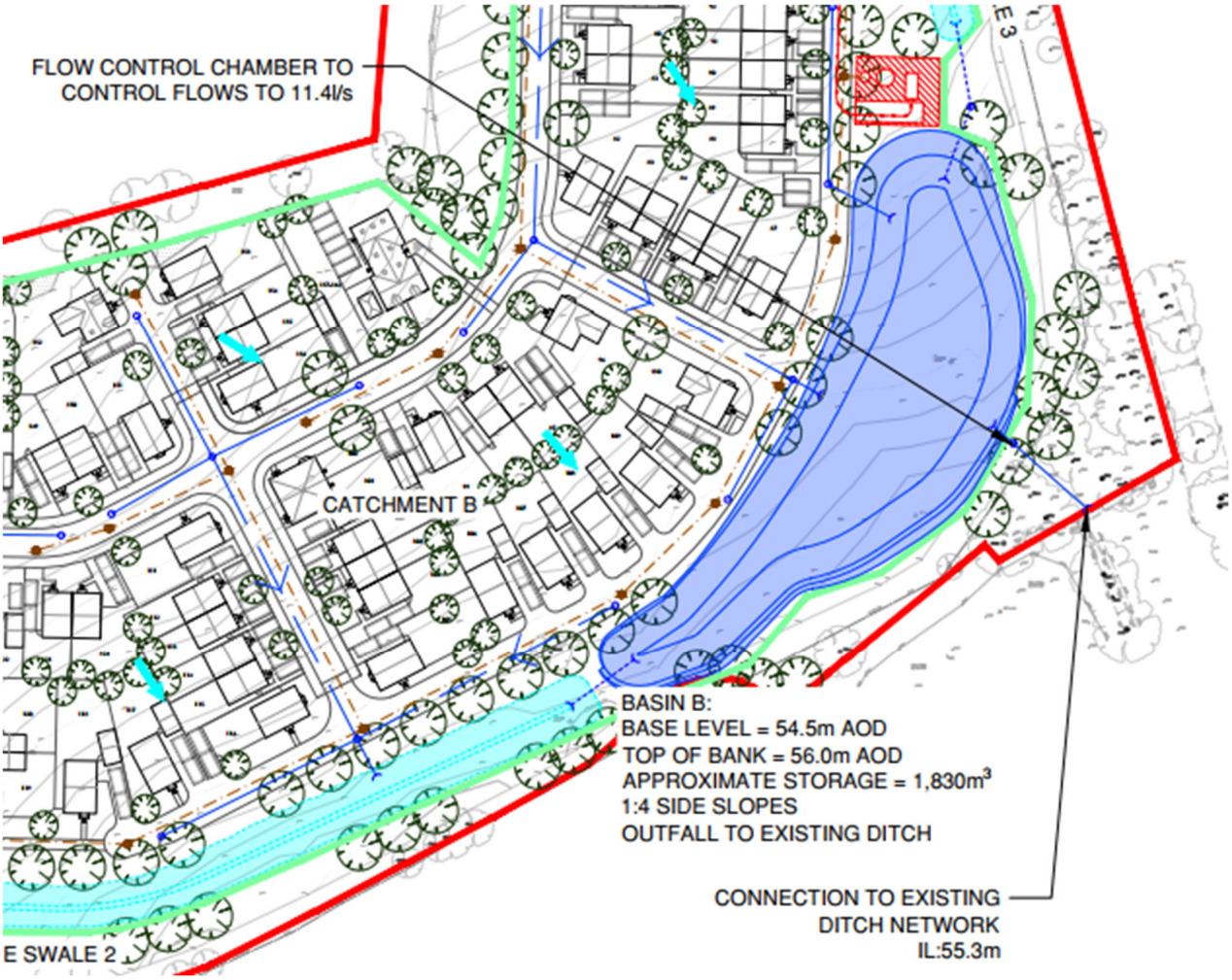


2. Surface Water Management

2.1. Surface water management involves dealing with potential flooding from sewers, drains and groundwater and the run-off from land, watercourses and ditches that can follow from heavy rainfall. Sustainable drainage systems (SuDS), aim to manage surface water run-off to reduce flood risks whilst enhancing biodiversity and amenity benefits through an integrated approach using a variety of water management techniques.

2.2. The site is split into two areas both of which will contain an attenuation basin, these basins will hold water back during significant storms before releasing the water at a rate equivalent to greenfield rate for a 3 year return period storm. This means that during severe storms there will be less flow entering the surrounding ditch and stream network.

Extract from Drainage Strategy



Typical Attenuation Basin and Swale

2.3. In addition to the attenuation basins, permeable paving and swales will be provided to further slow down any surface water flow whilst providing water quality benefits via removal of pollutants.

3. Foul Water

3.1. All foul drainage from the site will discharge into the nearest available public sewer. Half of the site will drain via gravity with the remainder requiring a pumping station. It is intended to offer all sewers within the development for adoption by Thames Water.

3.2. The developer will work closely with Thames Water to ensure that any upgrading or reinforcement of the existing network is undertaken in a timely manner to ensure no detriment to the current drainage system within Cranleigh.