SURFACE WATER DRAINAGE STRATEGY

'MELLENDENE' HIGH HOUSE ROAD, ST. BEES, CUMBRIA CA27 0BY

INTRODUCTION

This Surface Water Drainage Strategy document has been prepared to support a Discharge of Conditions application at the above property. The planning application reference is 4/24/2366/0B1.

THE SITE

The site has a grid reference of: NGR NY 297344 E: 511889 N.

The site/ property is in Flood Zone 1.

PROPOSED DEVELOPMENT

Planning permission was granted for a replacement dwelling on 28/05/2024 under planning ref: 4/24/2096/0F1.

Condition 3 of the above consent requires information to be submitted relative to the surface water design.

SURFACE WATER SYSTEM.

The nature of the site is such that there are limitations in relation to surface water disposal.

The site is in a built-up area and is steeply sloping. The existing bungalow (now demolished) benefitted from a combined discharge to the public sewer via an existing manhole to the front of the property.

Three trial holes were excavated to inform soil testing as requested by the structural engineers designing the foundations. This laboratory classification test results (attached) confirmed that the sub-soils were of a clay nature and therefore unsuitable for percolation. This was confirmed when the trial holes were filled with water and failed to drain away meaning that percolation is not possible. It is therefore considered that the surface water drainage hierarchy has been satisfactorily addressed in this regard.

There is no watercourse available in the immediate vicinity and there is no dedicated surface water drain in the public highway. This means that options two and three on the disposal hierarchy are not feasible and have been discounted.

The proposed development includes the demolition of the existing bungalow and full site clearance to create the development site.

The existing bungalow to be demolished has an uncontrolled surface water discharge to the public combined sewer in the public highway. The existing discharge includes the roof water from the existing building and surrounding impermeable areas.

The surface water solution for the replacement dwelling is therefore to replicate the existing discharge arrangement to the public sewer but with the introduction of an attenuation system with flow control to provide betterment to the existing situation.

All new surface water drainage will meet the appropriate standards required by Approved Document H of the Building Regulations.

CONCLUSION.

Surface water disposal has been assessed in line with the national hierarchy.

Option 1 (percolation) has been tested and discounted due to the clay sub-soils and lack of permeability.

Option 2 (watercourse) and option 3 (surface water drain) have been discounted due to lack of available options in the immediate locality.

Option 4 (public sewer) has been proposed and reflects the existing situation on site but with betterment provided by way of an attenuated system and flow control.

New surface water will meet the appropriate standards required by Approved Document H of the Building Regulations.

Alpha Design 13/01/2025