DRAINAGE STRATEGY

JOHN SWIFT HOMES LTD.
LAND AT SUMMERGROVE,
WHITEHAVEN,
CUMBRIA

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INTRODUCTION

This Drainage Strategy has been prepared to accompany a Full planning application for 70 dwellings on land at Summergrove, Whitehaven.

On 24th March 2023 outline planning permission was granted for up to 30 self-build dwellings (4/22/2237/0O1 refers). On 2nd September 2024 outline planning permission was granted for up to 40 self-build dwellings (4/23/2104/0O1 refers). Both outline consents remain valid.

Both outline consents were supported by detailed Drainage Strategy however an updated version has been requested by the LPA.

Detailed discussions have taken place with Nick Hayhurst and given the complexities of submitting two reserved matters applications, it has been agreed that a Full planning application covering the entire site is the most appropriate way forward to a detailed approval.

THE SITE

The site has a grid reference near to the site entrance of: NGR NY 300183 E: 515245 N.

The site area is 8.36 ha.

The land is in Flood Zone 1 (see separate Flood Risk Assessment).

PROPOSED DEVELOPMENT

The planning application seeks Full planning permission for 70 dwellings.

This Drainage Strategy has been carried out to meet the requirements of the LPA.

SURFACE WATER SYSTEM.

The surface water drainage system has been fully designed and submitted as part of the Full planning application. The design solutions are entirely in line with the Flood Risk Assessment and Drainage Strategy approved as part of both outline planning consents.

In summary:

Infiltration.

In-situ permeability testing was undertaken as part of the ground investigation and although not classed as entirely impermeable the slow infiltration rates encountered concluded that disposal of surface water via soakaways would not form an effective drainage solution for this site.

On this basis it is therefore considered that disposal of surface water using full infiltration-based SuDS is not viable for the proposed development and an attenuation-based strategy should be progressed.

Positive drainage – watercourse.

It is therefore proposed that the development will require a positive drainage solution. Surface water runoff will be stored and attenuated to match pre-development Greenfield QBAR rates, with controlled discharge directly from suitably sized dry attenuation basins for the defined site catchment areas to the respective existing drainage ditches located in close proximity to the site boundaries at the western and eastern extremities of the site.

The submitted detailed design reflects the above strategy.

Building Regulations.

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

FOUL WATER SYSTEM.

The foul water drainage system has been fully designed and submitted as part of the Full planning application. The design solutions are entirely in line with the Flood Risk Assessment and Drainage Strategy approved as part of both outline planning consents.

It is proposed that the foul water from the site shall be connected under gravity to the existing 150mm diameter foul sewer located within Summergrove Park to the north of the site.

A Permit to Discharge will be obtained from United Utilities post-planning consent.

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

CONCLUSION.

An appropriate drainage strategy has been considered.

Detailed design solutions have been submitted which fully align with the Flood Risk Assessment and Drainage Strategy approved as part of both outline planning consents.

Surface water disposal has been assessed in line with the national hierarchy. Option 1 (percolation) has been discounted due to the poor permeability of the sub-soils. Option 2 (watercourse) is proposed with appropriately sized dry attenuation basins and a controlled flow discharge.

The new surface water and foul water systems will meet the appropriate standards required by Approved Document H of the Building Regulations.