

BURTREE GARDEN VILLAGE



CLIENT:

Hellens Development

PROJECT VALUE:

£

PROJECT DETAILS:

Construction of a mixed-use garden development on the outer fringes of Darlington's urbanised area. Approximately 2000 homes and 19.0Ha of commercial development are planned across the garden village

With an overall site area of 178 hectares the proposed development will form a significant extension to the urban areas within Darlington. The development will be of mixed use including residential, commercial, education, community and care facilities. The masterplan along with the SuDS/drainage designs were heavily influenced by the existing water courses and the well-established trees/hedgerows that occupy the predominately arable land.

The development proposed which is to be split into three phases is estimated to be constructed over the next 20-25 years.

The site wide drainage strategy carried out by ourselves identified thirteen separate surface water networks. Each network would be designed to mimic the existing, naturally occurring, catchments as far as was practically possible. Each network would allow attenuation in the form of multiple basins and flow restrictions prior to connecting to one of the existing water courses. Foul water was identified as needing pumping stations to drain each of the development phases due to the site levels and locality of existing public sewers capable of receiving the estimated flows.

The detailed design of the phase 1 infrastructure, located centrally within the development, has been progressed further to the above-mentioned overall drainage strategy, this comprised of the following: Surface water drainage designs; Phase 1 contained 5 separate surface water networks and 1 foul water network, the largest of which is network 7 and is the focus of the below notes.

This network was designed to serve the main spine road, providing access to phase 1, along with the school and care cells SC1 and Cell K, and 9 residential cells A, B, CH, D, E, G, H, I and J.

The drainage designs were developed whilst working closely with the landscape architects to ensure that existing trees and hedgerows were maintained whilst ensuring that the landscape planting strategy within the SuDS features were designed to provide the maximum biodiversity possible. Close dialogue with the LLFA and NWL was paramount in the development of the drainage strategy and detailed designs. Multiple meetings were held right from the concept stage and through the detailed design stages to ensure the most sustainable and functional designs were progressed and allow approval through the planning process and Section 104 technical submission.