



Scyld, Horsemere Green Lane, Eastergate

Proposed development for 9 No Residential Dwellings

DRAINAGE STRATEGY

Foul Drainage

There is 100mm dia. public foul sewer north of the proposed development in Horsemere Green Lane Lane.

The proposed development is for 9 No. residential dwellings, Calculated in accordance with the WRc document '*Sewers for Adoption*', the peak foul water flow into this sewer is 0.416 lits/sec.

It is proposed that there will be a gravity connection from the site into the public sewer system at a new manhole constructed on the sewer line. The final connection will be subject to a Section 106 application with Southern Water Services and payment of the current infrastructure charges.

Details of the existing sewer along with the proposed foul drainage strategy can be seen on the Kazys Narbutas Consulting drawing KNC1928-602-01 included with this strategy.

Surface Water Drainage

Southern Water sewer records show that there are no public surface water sewers in the vicinity of the development site.

In line with current SuDS (Sustainable Drainage Systems) practise it is proposed to utilise infiltration methods as the means of surface water disposal for the new development. In order to ascertain maximum depths of soakaways winter groundwater measurements will be undertaken in line with Arun District Council drainage requirements. Having established the highest groundwater levels, tests in accordance with BRE365 will be undertaken at various locations across the site. The results will confirm the suitability of infiltration methods and provide the infiltration rates at the proposed depths of the domestic soakaways and permeable paving sub-grade. The results will be utilised for the detailed design of the infiltration measures, which is in accordance with current Environment Agency recommendations will include an allowance of 40% for climate change.



All detailed design will be in accordance with Arun District Council's Specifications and requirements.

Roof drainage areas will discharge to gravel filled trench soakaways through silt traps in order to minimise sediment deposit in the soakaways. The access road, domestic drives and parking areas will be constructed of permeable block paving.

Details of the proposed surface water drainage strategy utilising a soakaway and permeable paving drainage solution can be seen on the Kazys Narbutas Consulting drawing KNC1928-602-01 which is included with this strategy.

In the event of infiltration testing showing that a soakaway strategy is not feasible an alternative means of surface water disposal will be utilised.

Based on the agreed 'greenfield run off' an attenuation scheme will be produced that stores the run off from the impermeable areas for the 100yr storm event with a 40% addition for climate change. This stored volume will be discharged into the watercourse/ditch that is sited at the northern boundary of the site at the agreed 'green field run' off rate.

Conclusions

The increase in foul water flow from the new site development is low enough not to have any impact on the sewer network and will be covered by Southern Water's infrastructure charges.

The proposal to utilise an infiltration system embraces the concept of the SuDS philosophy for the disposal of surface water drainage on new development sites. Such a proposal further enhances the drainage sustainability of the proposed site. In accordance with standard procedures a '*Maintenance Manual*' for the ongoing servicing of the surface water drainage systems has been produced and is included with this drainage strategy.

The alternative drainage solution, should infiltration techniques not prove feasible will be to provide an on-site attenuation system that will discharge into the adjacent watercourse at an agreed rate.