

Drainage Statement

Land North of Water Lane, Angmering

Surface Water Drainage

This drainage statement should be read in conjunction with the Outline Drainage Strategy as illustrated on Drawings no. 19495-Nth-301-004 attached.

For the purposes of managing surface water runoff, the site is split into three distinct catchments as shown on the Outline Drainage Strategy:

- The northern catchment (shaded blue), Catchment Area – A.
- The southern catchment (shaded green), Catchment Area – B.
- The south-western catchment (shaded grey).

The Outline Drainage Strategy shows indicative surface water drainage in the proposed estate roads serving the development, shown as blue dashed lines, with solid blue circles representing manhole chambers. The surface water drainage is shown indicatively at present since the proposals are outline only. When the proposals are at the detailed design stage the surface water drainage will have been fully designed as part of the engineering layout for the site.

The surface water drainage serving the northern catchment, (Catchment Area – A), drains into an attenuation basin, (Attenuation Basin A, coloured blue), shown situated immediately to the south of the northern catchment on the Outline Drainage Strategy. The attenuation basin would normally be dry, with no water stored. The drainage outlet to the attenuation basin will incorporate a flow restriction device; essentially a means of reducing the flow leaving the attenuation basin such that in times of heavy rainfall, the attenuation basin fills with surface water and only empties slowly. This flow reduction means that the receiving watercourse, (the Black Ditch), will not receive excessive surface water runoff from the site in times of heavy rainfall, thereby reducing flood risk to properties in Angmering downstream.

The surface water drainage serving the southern catchment, (Catchment Area – B), drains into Attenuation Basin B, coloured green, shown situated immediately to the south and west of the southern catchment and north of the Black Ditch watercourse on the Outline Drainage Strategy. Attenuation Basin B functions in the same way as Attenuation Basin A, in that the outlet will incorporate a flow restriction device such that in times of heavy rainfall, the attenuation basin fills with surface water and only empties slowly, thus reducing flows into the Black Ditch watercourse and thereby reducing flood risk to properties in Angmering downstream.

Flow rates from catchment area A and B will be restricted to 28.5 litres/sec before discharging into the Black Ditch watercourse which is less than that is currently being discharged into this ditch. There will be approximately 38.5 litres per second controlled surface water for the whole site including the development in south-western parcel will be discharging into Black Ditch watercourse which is less than the greenfield rate of 39.1 litres/sec. The exact rate of surface water discharge will be determined at the detailed design stage of the development.

The south-western catchment is separate from the northern and southern catchments and is served by a smaller attenuation basin and geo-cellular storage units, with a separate flow restricted outfall to the Black Ditch watercourse as shown on the Outline Drainage Strategy. The smaller attenuation basin and geo-cellular storage units function in the same way as Attenuation Basins A and B in reducing flows into the Black Ditch watercourse and thereby reducing flood risk to properties in Angmering downstream.

The assessment of runoff from the catchments and sizing of the attenuation basins and geo-cellular storage units is described in more detail in the Flood Risk Assessment undertaken for the site, referenced FRA-19495-16-140.

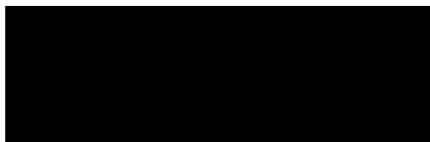
As with the indicative surface water drainage, the attenuation basins and geo-cellular storage units are shown indicatively at present since the proposals are outline only. When the proposals are at the detailed design stage the attenuation basins and geo-cellular storage units will have been fully designed as part of the engineering layout for the site.

Foul Water Drainage

The Flood Risk Assessment undertaken for the site and Outline Drainage Strategy have highlighted that the indicative foul water drainage in the proposed estate roads serving the development, shown as brown dashed lines, with solid brown circles representing manhole chambers, will require a new sewer to be provided to connect the site with the existing off-site foul sewerage infrastructure by means of a sewer requisition pursuant to Section 98 of the Water Industry Act 1991.

The sewer requisition made and fulfilled by Southern Water will provide the new sewer to connect the site with the existing off-site foul sewerage infrastructure and any off-site upgrading and reinforcements, as determined by Southern Water, to provide for the additional foul flows generated by the proposed development.

Sewer requisition application is still undergoing consultation process. Following the outline planning application approval, the developer will be required to submit a Section 106 Application to Southern Water for new the sewer connection.



Paul Ghattaora
Lead Principal Civil Engineer
On behalf of IDOM

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