

DUKES MEADOW, WATERLOOVILLE

Proposed Development: Extra Care Apartments

DRAINAGE STRATEGY

Overview

The proposed development is part of the Old Park Farm area development for which an overall foul and surface water drainage strategy and design has been produced and in which due allowance has been made for the area of the proposed nursing home development.

Foul Drainage

The strategic foul drainage design for the area has catered for a foul drainage discharge from the site produced by an Extra Care facility comprising 20 No. one-bedroom and 31 No. two-bedroom apartments. The development will produce a peak discharge of 2.3lits/sec. which can be seen on the appended drainage calculation sheet. The proposed levels of the site will allow a gravity discharge to be made to the adjacent foul sewer via the previously installed lateral connection.

Surface Water Drainage

Site investigations have shown that the use of soakaways as means of surface water disposal are not a viable option on this site. Consequently it has been necessary to utilise a positive drainage system.

The strategic surface water drainage design for the area has catered for a flow from the proposed site of 5 lits/sec. discharging into the sewer system. Restricting the outflow from the site to this level requires the installation of an attenuation system which has been provided by the use of an 'Aquacell' tank arrangement situated within the development area. The sizing of the storage tank has been based on Environment Agency design criteria of 1 in 100 year storm event with an increase of 30% for climate change. The calculated storage volume can be seen on the appended 'MicroDrainage' calculation sheets. Surface water drainage from the tank will discharge by gravity into the adjacent surface water sewer.

A preliminary drainage layout can be seen on Drg. No. ES1413-502-01P.