

Your Ref:

Chkd: AL

Our Ref: MS40837 – L009/AM/am

Oakford Homes
Hensor Court Farm
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SL1 8PE

For the attention of Peter Hawkey

29 November 2016

Dear Peter

Re: The Watermill, Royal Quay, Harefield – Sustainable Drainage Planning Condition

Further to your email dated 03 October 2016 regarding the sustainable drainage planning condition for The Watermill, planning reference 70734/APP/2016/3060, we provide a letter as requested providing a summary of the surface water and foul water drainage design for the Watermill Refurbishment.

Surface Water Drainage Design

The planning department queried how “the current proposal (for the surface water drainage) fits in with the wider strategy to control surface water.”

We highlight that the original approved Flood Risk Assessment (FRA) report and Supplementary FRA report and drainage strategy prepared by RSK for planning application reference 43159/APP/2013/1094 for the new build housing and refurbishment of the Manor House identified that development site included existing commercial buildings to be retained. The original FRA and drainage strategy proposed amendments to the external works onsite to serve the Long Room and the Watermill which were to be retained for office use.

The drainage strategy for the development determined that the development would discharge into the existing surface water system onsite at a restricted discharge rate of 46.8 l/s and provide underground attenuation tanks onsite.

The redesign of the development by others resulted in a reduction in the car parking area required for the Long Room which enabled 3 no. additional plots to be provided onsite. The 3 no. plots were located in an area which had been originally been allocated as an impermeable car park. This resulted in a reduction in impermeable area which therefore reduced the discharge of surface water into the drainage system.

The amendments to the external works to serve the development site, including the Long Room, the Watermill and the 3 no. additional plots, have been carried out in accordance to the original drainage strategy for the development site.

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The refurbishment of the Long Room and the Watermill has not resulted in the roof areas of the buildings being increased. The restricted discharge rate from the new dwellings and current external works remains 46.8 l/s and underground attenuation tanks have been sized and provided onsite for the 1 in 100 year plus 30 % storm event.

Tank permeable paving and a SEL attenuation system have been provided to improve water quality onsite prior to discharging water into the watercourse as required by the original FRA report.

Foul Water Drainage Design

The development site is served by an existing private foul water pumping station. The pumping station discharges to a 225mm diameter public foul water sewer located in Royal Quay outside the development site. Thames Water have been notified regarding the new build houses onsite and that the existing pumping station and pumps will be retained and will operate as existing. The flow rate into the public sewer will not be increased as a result of the development.

The existing pumping station has been retained to serve the development. The pumps have been recently replaced by a pumping specialist as appointed by the developer and the pumping station is currently operating satisfactorily. Day to day and programmed management and maintenance is being undertaken by the estate management company.

Two new package pumping stations have also been provided onsite to serve the apartments and the houses located on the islands. The pumping stations were designed and procured through TT Pumps, a specialist pumping station provider.

In order to comply with Building Regulations Part H JNP Group carried out an exercise to ensure that the foul water sewerage system upstream of the pumping stations provide sufficient storage to contain a 24 hour inflow to allow for a disruption in service. This was based on the development comprising of the original new build housing, the 3 no. additional plots and the refurbishments to the Long Room, the Manor House and the Watermill and this was found to be satisfactory.

Our design provides an acceptable solution for both the foul and surface water drainage with no detrimental impact on the sewerage systems we are connecting into. The following drainage drawings for the development provide an overall plan which clearly shows the drainage networks and SuDS which serve the development:

MS40837 D408 Rev D Detailed Drainage Strategy Sheet 1 of 2

MS40837 D409 Rev F Detailed Drainage Strategy Sheet 2 of 2

Please contact me if you have any queries.

Yours sincerely



Anthony McNevin
Associate

Enc

MS40837 D408 Rev D Detailed Drainage Layout Sheet 1 of 2

MS40837 D409 Rev F Detailed Drainage Layout Sheet 2 of 2