

REF: 8/1982/LLFA

Comment reference: SWM/2019/0615

Our reference: APP/19/00703

23rd September 2019

RE: Part-demolition of Building 1000 and associated works; the erection of new flexible use industrial units; and a new parking layout with associated works to layout and access at Langstone Technology Park, 2B Langstone Road, Havant, PO01SA.

We are writing with respect to the LLFA response (Hampshire County Council Letter of 20th August 2019 – ref SWM/2019/0615)

This is an existing brownfield site which is almost fully developed with impermeable roof and parking areas.

There is a very slight increase in impermeable area overall (representing approximately 4.5% new impermeable area across the park) mostly related to the addition of parking area. However, this is being compensated with the introduction of a ~4,400m² of permeable paving areas. It is proposed that all water from areas 3 and 4 are to be drained to the river via the existing connection as indicated on SK04 provided in the flood risk assessment.

The permeable paving will directly slow water down and provide attenuation as the water will take time to filter through the drainage stone sub-base. The sub-base stone will provide extensive storage, preliminary designs have assumed 2m² of impermeable area to 1m² of permeable paving which will provide approximately 685m³ of storage volume when assuming a 30% void ratio in the material not inclusive of the proposed geocellular storage tanks which preliminary calculations indicate will provide approximately 1350m³ of storage to area 2 of the proposals.

In addition, the permeable paving will provide pollution removal from the water that is discharged into the river in accordance with CIRIA C753 (The SuDS Manual) water quality requirements and detailed in section 5.2.5 of the submitted Flood Risk Assessment.

The development will provide reduced flows, reduce volumes (first 5mm will be held in the paving) and improved water quality above that provided by the existing drainage network. Therefore the development will help to reduce flood risk overall and improve water quality.

The Environment Agency do not require applications for surface water discharges for this site.

Furthermore, the new light industrial park is being constructed on land which is currently ~95+% impermeable with only small verges providing permeable areas and currently drained to a below ground piped system. This connection is to remain the same and discharges to the Development to the South. There is no approval process required or applicable for this discharge as it is not changing as a result of the development other than to improve and reduce flood risk.

The development provides the opportunity to reduce flow rates to this existing system and how this will be achieved has been demonstrated in the drainage strategy. Storage is shown in oversized pipe structures and attenuation tanks.

Preliminary hydraulic calculations **have** been provided for this site which indicate the quantity of storage volume required. A conservative assessment has been made at this point and it shows clearly that there is adequate space on site for the storage structures.

It is our view that the detailed design of the surface water drainage system should be conditioned so that it can be developed at a later stage. This will mean that it can be fully co-ordinated with all other later design stage items that will impact on the design such as, above

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ground drainage, foundation, ground slabs, below ground utilities etc. Development of the detailed drainage design in isolation to these elements does not provide any benefit at this point.

Overall, the development provides the opportunity to reduce flow rates and reduce the risk of flooding in and around the site. The site has adequate space to provide the features and structures required, all of which can be designed and delivered post planning as part of a condition for approval by the Authority.

We hope that this letter fully addresses your queries.

Kind regards

A handwritten signature in black ink, appearing to read 'C. Hardingham'.

Charles Hardingham
Civil Engineer
Clancy Consulting Ltd