

Walker Associates Consulting Limited Structural and Civil Engineers 13 Capricorn Centre Cranes Farm Road Basildon, Essex SS14 3JJ

Our Ref: 7476/LRW/kc Date 18th September 2023

Lead Local Flood Authority Surrey County Council

For the attention of: Amey Rodwell

By Email

Dear Amy

Re: Land rear of Chicane and Quintons, Ockham Road North, East Horsley, KT24 6PU – Condition 8 Ref LLFA-GU-22-0445 Rev B

Further to the recent holding objection relating to the clearance of Condition 8 of the reserved matters planning approval for this site we comment as follows.

## Condition 8

The development hereby permitted shall not commence until details of the design of a surface water drainage scheme have been submitted to and approved in writing by the planning authority, those details should be in accordance with Flood Risk Assessment & Surface Water Management Strategy – Revision 1, pba part of Stantec, March 2019, Project reference: 34211, Document reference: 4003/FRA. The design must satisfy the SuDS Hierarchy and be compliant with the national Non-Statutory Technical Standards for SuDS, NPPF and Ministerial Statement on SuDS. The required drainage details shall include:

- 8a) The results of infiltration testing completed in accordance with BRE Digest: 365 and confirmation of groundwater levels.
- 8b) Evidence that the proposed solution will effectively manage the 1 in 30 & 1 in 100 (+40% allowance for climate change) storm events and 10% allowance for urban creep, during all stages of the development (Pre, Post and during), associated discharge rates and storage volumes shall be provided using a maximum discharge rate of 4.2 l/s/ha applied to the positively drained areas of the site only.
- 8c) Detailed drainage design drawings and calculations to include: a finalised drainage layout detailing the location of drainage elements, pipe diameters, levels, and long and cross sections of each element including details of any flow restrictions and maintenance/risk reducing features (silt traps, inspection chambers etc.)

01268 530 500

walker-associates.co.uk











Directors
Andy Greenwood
B Eng (Hons) C Eng MI Struct E
Chris Lynas
I Eng AMI Struct E
Lee Wilson



- 8d) A plan showing exceedance flows (i.e. during rainfall greater than design events or during blockage) and how property on and off site will be protected.
- 8e) Details of drainage management responsibilities and maintenance regimes for the drainage system.
- 8f) Details of how the drainage system will be protected during construction and how runoff (including any pollutants) from the development site will be managed before the drainage system is operational.

## Responses

- 8a) A copy of the Leap Environmental soakage test report has been enclosed. This concludes that infiltration is not viable on the site. Previous investigations found that water table to be high and as such would not be suitable for traditional infiltration methods.
- 8b) Causeway Flow simulation reports for each network are attached for all storms up to and including the 1 in 100 year event plus 40% allowance for climate change and urban creep. Discharge rates are in line with the RSK report submitted at planning.
- 8c) The latest drainage plans and details are attached.

The informal footpath crossing the pond will become wet for all floods in excess of the 1 in 1 year event.

The existing ditch is piped with a 600mm culvert to match existing. The central swale is not a watercourse and does not have an inlet from offsite.

The basins are to be line with a proprietary liner to prevent groundwater affecting the attenuation volumes. This will be anchored around the ridge of the pond and covered with 30mm of soil as per detail on C7476/CE13C.

Basins have since been adjusted and renumbered as shown on C7476/CE13C.

The drainage plans are attached. The node numbers within the calculations correlate with the chamber numbers on the plan. For example node 1 will be manhole S1.

The southern basin out fall and the outfall from the site east of the Stratford Brook have been relocated south so as not to interfere with the bridge structure and to avoid issue with adoption by Thames water. The location of thew swale is as per the approved layout.

- 8d) A flood exceedance plan is attached. Exceedance flooding will generally remain within the roads and route out to the open space in the north east corner of the site.
- 8e) Refer to maintenance report attached.
- 8f) Measure included as per the CETMP pages 13-14. See attached.

I look forward to receiving your further comments/approval. If, however you have any further queries please do not hesitate to contact us.

Yours sincerely

for walkerassociates Consulting Limited



LEE WILSON

lee.wilson@walker-associates.co.uk

Enc.

01268 530 500 walker-associates.co.uk











Directors

Andy Greenwood

B Eng (Hons) C Eng MI Struct E

Chris Lynas
I Eng AMI Struct E

Lee Wilson

Consultant
John Buckberry
I Eng AMI Struct E
Associates
Chris Pound
B Eng (Hons) C Eng MI Struct E
Chris Storey