

Growth & Environment

Mr Matthew Roberts
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Lead Local Flood Authority
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Contact: SuDS and Watercourses Team
FRMConsultations@hertfordshire.gov.uk

Your ref: 25/1020/OUT
Date: 07 January 2026

Dear Mr Roberts,

RE: 25/1020/OUT – Outline Planning Application for up to 256 Homes (C3 Use Class) (including affordable and self/custom build housing), housing with care (C2 use class), a children's home (for looked after children) (C2 use class) together with associated access (including off-site highway works), parking, open space and landscaping (appearance, layout, landscaping and scale as reserved matters) – Land East of Oxhey Lane, Carpenders Park, Hertfordshire

Thank you for your consultation on the above site, we have reviewed the application as submitted and wish to make the following comments.

The applicant has provided an updated Flood Risk Assessment (FRA) and Drainage Strategy. This is to account for the local flood risk issues and surface water drainage at this location. Following a review of the submitted documents, the details are in accordance with NPPF and Three Rivers Local Plan policies within the LLFA remit.

We would like to highlight that the Environment Agency should comment on the development proposals to build within the fluvial flood zone of the flood storage area to the south of the site. Whilst the applicant has demonstrated that the development would be outside the 1% AEP flood depth, the flood depth provided for the 0.1% AEP (i.e. 1% AEP plus climate change if no other information is available) would encroach onto the development parcel. We highly recommend that a condition is placed to ensure that the sequential approach be applied to all source of flooding. The pluvial (surface water flow path) originates within the boundary of this application and will be incorporated within the positive drainage scheme.

You should also be aware that this application's surface water flow discharge location (for the southern part of the site) will require a permit from the Environment Agency to cross the formal flood defence scheme storage area. The applicant should consult the Environment Agency at a very early stage to get their opinion on this.

The applicant has suggested that they do not have to use a CV value of 1 for the impermeable areas in storage calculations. As all the impermeable areas are 100% impermeable then this is not an overestimate. They have undertaken a drainage modelling scenario to show that the storage using a CV value of 1 is possible with the current masterplan. It is expected that a CV value of 1 is used in the detailed design

We have **no objection subject to conditions being attached to any consent** if this application is approved, and the Applicant is in agreement with pre-commencement conditions. We suggest the following wording. If the following conditions are not included, the development would be contrary to NPPF and Three Rivers Local Plan policies and we would **object** until such time that the details below are submitted for review.

Condition 1: Prior to or in conjunction with the submission of each reserved matters application, in accordance with the submitted FRA and or Drainage Strategy (Oxhey Lane, Carpenders Park, Land at Carpenders Park Farm Flood Risk and Drainage Strategy, Ref 2403160-ACE-XX-XX-RP-C-0301 revision B, dated 31 October 2025 by Ardent Consulting Engineers), detailed designs of a surface water drainage scheme incorporating the following measures shall be submitted to and agreed with the Local Planning Authority. The approved scheme will be implemented prior to the first occupation of the development. The scheme shall address the following matters:

- a) Demonstrate how interception for the first 5mm of any storm event will be managed within the site in line with the National Standards (2025)
- b) Surface water runoff rates will be attenuated to 1.3 l/s for 1ha of impermeable areas in the northern catchment discharging to Thames Water Surface Water Sewer and 26 l/s for 2.5ha of impermeable area in the southern catchment discharging to the Main River. If the impermeable areas created are less than the values stated above, then the discharge rates will be recalculated and resubmitted to the Local Planning Authority for approval.
- c) Provision of surface water attenuation storage, sized and designed to accommodate the volume of water generated in all rainfall events up to and including the critical storm duration for the 3.33% AEP (1 in 30 year) and 1% AEP (1 in 100) rainfall events (both including allowances for climate change). All impermeable areas in this calculation will use a CV value of 1, any permeable areas draining into the formal drainage scheme will use an appropriate CV value. The storage calculations will clearly demonstrate how 10% urban creep has been included (via a drainage catchment drawing and associated table which match the supporting calculations of the conveyance network).
- d) Detailed designs, supporting modelling calculations and drawings of the drainage conveyance network in the:

- 3.33% AEP (1 in 30 year) critical rainfall event plus climate change to show no flooding outside the drainage features on any part of the site.
 - 1% AEP (1 in 100 year) critical rainfall plus climate change event to show, if any, the depth, volume and storage location of any flooding outside the drainage features, ensuring that flooding does not occur in any part of a building or any utility plant susceptible to water (e.g. pumping station or electricity substation) within the development. It will also show that no runoff during this event will leave the site uncontrolled.
- e) The design of the attenuation / detention basin will incorporate an emergency spillway and any drainage structures include appropriate freeboard allowances.
 - f) Drawings to be submitted showing the routes for the management of exceedance surface water flow routes that minimise the risk to people and property during rainfall events in excess of 1% AEP (1 in 100) rainfall event plus climate change allowance.
 - g) Finished ground floor levels of properties are a minimum of 300mm above expected flood levels of all sources of flooding (including the ordinary watercourses, SuDS features and within any proposed drainage scheme) or 150mm above ground level, whichever is the more precautionary.
 - h) Details of how all surface water management features, swales and / or bioretention areas adjacent to the roads, permeable paving and basins will to be designed in accordance with The SuDS Manual (CIRIA C753, 2015), including appropriate treatment stages for water quality prior to discharge.

Reason: To prevent flooding in accordance with National Planning Policy Framework paragraphs 181,182 and 187 by ensuring the satisfactory management of local sources of flooding surface water flow paths, storage and disposal of surface water from the site in a range of rainfall events and ensuring the SuDS proposed operates as designed for the lifetime of the development.

Condition 2: Development shall not commence until details and a method statement for interim and temporary drainage measures during the construction phases have been submitted to and approved in writing by the Local Planning Authority. This information shall provide full details of who will be responsible for maintaining such temporary systems and demonstrate how the site will be drained to ensure there is no increase in the off-site flows, nor any pollution, debris and sediment to any receiving watercourse or sewer system. The site works and construction phase shall thereafter be carried out in accordance with approved method statement, unless alternative measures have been subsequently approved by the Planning Authority

Reason: To prevent flooding and pollution offsite in accordance with the NPPF

Condition 3 : Construction shall not begin until a detailed construction phase surface water management plan for the site has been submitted to and approved in writing by

the Local Planning Authority. The scheme to ensure that all permanent Surface water Drainage features are adequately protected from construction runoff, shall subsequently be carried out in accordance with the approved details.

Reason: To ensure that the construction of the site does not result in any flooding both on and off site and that all Surface water Drainage features are adequately protected.

Condition 4: The development hereby approved shall not be occupied until details of the maintenance and management of the sustainable drainage scheme have been submitted to and approved in writing by the Local Planning Authority. The drainage scheme shall be implemented prior to the first occupation of the development hereby approved and thereafter managed and maintained in accordance with the approved details in perpetuity. The Local Planning Authority shall be granted access to inspect the sustainable drainage scheme for the lifetime of the development. The details of the scheme to be submitted for approval shall include:

- a) a timetable for its implementation.
- b) details of SuDS feature and connecting drainage structures and maintenance requirement for each aspect including a drawing showing where they are located.
- c) a management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable drainage scheme throughout its lifetime. This will include the name and contact details of any appointed management company.

Reason: To ensure that the development achieves a high standard of sustainability and ensure the flood risk is adequately addressed for each new dwelling and not increased in accordance with NPPF and Local Plan Policies of Three Rivers District Council.

Condition 5: Prior to first use of each phase of the development a detailed verification report, (appended with substantiating evidence demonstrating the approved construction details and specifications have been implemented in accordance with the surface water drainage scheme), has been submitted to and approved (in writing) by the Local Planning Authority. The verification report shall include a full set of “as built” drawings plus photographs of excavations (including soil profiles/horizons), and any installation of any surface water drainage structures and control mechanisms. It shall also include CCTV survey and topographic survey where appropriate.

Reason: To ensure that the development achieves a high standard of sustainability and ensure the flood risk is adequately addressed for each new dwelling and not increased in accordance with NPPF and Local Plan Policies of Three Rivers District Council.

Both FEH13 and FEH22 are currently accepted to support drainage modelling calculations. For the avoidance of doubt the use of FSR and FEH1999 data has been superseded and therefore, use in rainfall simulations are not accepted.

Please note if, you the Local Planning Authority review the application and decide to grant planning permission, notify the us (the Lead Local Flood Authority), by email at FRMConsultations@hertfordshire.gov.uk.

Yours sincerely

Elaine

Elaine Simpson
Senior SuDS and Watercourses Support Officer
Growth & Environment