

Director of Environment & Infrastructure:
Mark Kemp



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Date 02 March 2021

RE: 6/2020/3420/MAJ – Biopark, Broadwater Road, Welwyn Garden City, AL7 3AX

Dear Clare,

Thank you for your re-consultation in relation to the above planning application for the demolition of existing buildings and construction of 289 residential units (Use Class C3) and community hub (Use Class E/F.2), with public realm and open space, landscaping, access, associated car and cycle parking, refuse and recycling storage and supporting infrastructure at Biopark, Broadwater Road, Welwyn Garden City, AL7 3AX.

Following a review of the Flood Risk Assessment and Drainage Strategy report prepared by Curtins Consulting Ltd, reference 077090-CUR-00-XX-RP-D-92001, revision P02, dated 5 February 2021, the LLFA Response Letter prepared by Curtins Consulting Ltd, reference 077090/LT/1, dated 2nd February 2021 and the additional information submitted to the LPA, we can confirm that we Hertfordshire County Council as the Lead Local Flood Authority are now in a position to remove our objection on flood risk grounds.

Based on the provided documents the drainage strategy is based upon permeable paving with sub-base storage, an attenuation basin, green roofs, bioretention areas, an underground attenuation tank and discharge into Thames Water surface water sewer. We note surface water calculations have been provided with the final discharge from the site to be pumped and limited to 1.6 l/s, which corresponds to the 1 in 1 year greenfield runoff rate. However, we would like to highlight that the proposed drainage strategy may need to be updated, subject to detailed design.

We therefore recommend the following conditions to the LPA should planning permission be granted.

Condition 1 - Implementation

The development permitted by this planning permission shall be carried out in accordance with the sustainable urban drainage principles and the following mitigation measures:

1. Limiting the surface water runoff generated by the critical storm events so that it should not exceed the surface water runoff rate of 1.6 l/s (or a rate agreed with the LPA) during the 1 in 100 year event plus a 40% allowance for climate change. If an increased discharge rate is required to ensure effective drain down times, this must not be greater than 5.3 l/s for up to and including the 1 in 100 year event plus a 40% allowance for climate change.
2. Providing storage to ensure no increase in surface water runoff volumes for all rainfall events up to and including the 1 in 100 year plus climate change event plus a 40% allowance for climate change, providing a minimum of around 840 m³ (or such storage volume as agreed with the LPA) of storage volume in features including; permeable paving with sub-base storage, an attenuation basin, green roofs, bioretention areas and an underground attenuation tank.
3. Discharge of surface water from the private drainage network to be directed into the existing Thames Water surface water sewer network on Broadwater Road.

The mitigation measures shall be fully implemented prior to occupation and subsequently in accordance with the timing / phasing arrangements embodied within the scheme, or within any other period as may subsequently be agreed, in writing, by the Local Planning Authority.

Reason

1. To prevent flooding by ensuring the satisfactory storage and disposal of surface water from the site.
2. To reduce the risk of flooding to the proposed development and future occupants.

Condition 2 – Detailed Design

No development above ground and no drainage works shall take place until a detailed surface water drainage scheme for the site based on sustainable drainage principles, has been submitted to and approved in writing by the Local Planning Authority in consultation with Hertfordshire County Council as Lead Local Flood Authority. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed.

The scheme shall include:

1. Full, detailed modelling for the surface water drainage network to demonstrate how the system operates during up to and including the 1 in 1 year, the 1 in 30 year and the 1 in 100 year rainfall event including a 40% allowance for climate change. Half drain down times for all storage features should be included.

2. Full, detailed, engineering drawings of any SuDS, surface water storage or conveyance features including cross and long sections, location, size, volume, depth and any inlet and outlet features. This should be supported by a clearly labelled drainage layout plan showing any SuDS and pipe networks. The plan should show any pipe 'node numbers' that have been referred to in network calculations and it should also show invert and cover levels of manholes. Total storage volumes provided within each storage feature should be identified.
3. Detailed engineered drawings of the proposed SuDS features including cross section drawings, their size, volume, depth and any inlet and outlet features including any connecting pipe runs.
4. Demonstrate an appropriate SuDS management and treatment train.
5. Details of final exceedance routes, including those for an event which exceeds the 1 in 100 year rainfall event including climate change event.
6. Detailed management plan to include arrangements for adoption and any other arrangements to secure the operation of the scheme throughout its lifetime.

All surface water drainage infrastructure shall be designed and fully implemented in accordance with the details thus approved.

Reason

1. To prevent the increased risk of flooding, both on and off site.

Condition 3 – Construction Phase

No development of any phase of the proposed development or construction of any SuDS infrastructure shall take place until the submission of a surface water management plan for the construction phase of the development is submitted to and approved in writing by the Local Planning Authority.

Reason

To prevent the increased risk of surface water flooding, to improve and protect water quality, protect natural habitats and the amenity of residents during the construction phases of the development.

Condition 4 - Completion and Verification

Prior to the occupation of the development a final Completion and Verification Report to a specification agreed and defined by the Local Planning Authority, signed off by an appropriate, qualified person or body which demonstrates that the sustainable urban drainage measures have been implemented as per the details approved; shall be submitted to and approved in writing by the Local Planning Authority.

It shall include the following:

1. Provision of a Completion and Verification Report appended with substantiating evidence demonstrating the approved construction details and specifications have been implemented in accordance with the surface water drainage scheme. The verification report shall include photographs of excavations and soil profiles/horizons, installation of any surface water structure, during construction and final make up, and the control mechanism.
2. Provision of a complete set of as built drawings for site drainage.
3. Post-construction surveys including a CCTV survey for any underground features and piped networks.
4. A management, maintenance and adoption plan for the SuDS features and drainage network.

Reason

To prevent the increased risk of surface water flooding, to improve and protect water quality, protect natural habitats and the amenity of residents, and ensure the future maintenance of the Sustainable Urban Drainage System in perpetuity.

Informative to the LPA

We would recommend the LPA obtains a management, maintenance and adoption plan, to ensure the SuDS features can be maintained throughout the development's lifetime. This should follow the manufacturers' recommendation for maintenance and/or guidance in the SuDS Manual by Ciria.

Due to the development site being located directly in the vicinity of a railway and other residential areas, we are advising to include a during construction surface water management condition, to ensure there will not be any increased surface water flood risk off site during construction phase.

Please note if the LPA decide to grant planning permission, we wish to be notified for our records should there be any subsequent surface water flooding that we may be required to investigate as a result of the new development.

Yours sincerely,

Julia Puton
SuDS Officer
Hertfordshire County Council