

1 Introduction

A Flood Risk Assessment and separate Drainage Strategy Report (ref M00514-ENG-XX-ZZ-RP-C-0002 and M00514-ENG-ZZ-XX-RP-C-0003) were prepared by Engenuiti and submitted to South Holland District Council (SHDC) for the proposed construction of a two-storey extension to the existing Castle Sports Complex building in Spalding, PE11 2AJ. The SHDC application reference is H16-0462-24.

The planning application was approved, with a condition imposed for the surface water drainage (Condition 7). The purpose of this Technical Note is to provide the information required to discharge the condition.

2 Recommended Condition

The recommended condition is outlined below, along with Engenuiti's response.

2.1 Condition 7

No development shall take place until a surface water drainage scheme has been submitted to and approved in writing by the Local Planning Authority. The approved scheme shall be completed before the development is used. The scheme shall:

- be based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development;*
- provide flood exceedance routing for storm event greater than 1 in 100 year;*
- provide details of how run-off will be safely conveyed and attenuated during storms up to and including the 1 in 100 year critical storm event, with an allowance for climate change, from all hard surfaced areas within the development into the existing local drainage infrastructure and watercourse system without exceeding the run-off rate for the undeveloped site;*
- provide attenuation details and discharge rates which shall be restricted to no more than what would be the greenfield run-off rate of the undeveloped land;*
- provide details of the timetable for and any phasing of implementation for the drainage scheme and*
- provide details of how the scheme shall be maintained and managed over the lifetime of the development, including any arrangements for adoption by any public body or Statutory Undertaker and any other arrangements required to secure the operation of the drainage system throughout its lifetime.*

-the use of the permitted development shall not be commenced until the approved scheme has been completed or provided on the site in accordance with the approved phasing. The approved scheme shall be retained and maintained in full, in accordance with the approved details.

Reason: *To ensure that the site can be adequately drained This Condition is imposed in accordance with Policies 2 and 3 of the South East Lincolnshire Local Plan, 2019 and national guidance contained in the National Planning Policy Framework, December 2024.*

2.2 Response

An updated drainage design is provided under separate cover (drawing ref M00514-ENG-ZZ-XX-DR-C-3001 (Rev T1), 3002 (Rev T1) and 3003 (Rev T1)) and further information is provided below.

Sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development

As noted in Section 6.3 of the Drainage Assessment Report submitted for planning, the surface water drainage has been designed in accordance with national standards and local requirements. This development type falls within the central allowance and the surface water drainage has been designed to store the 1 in 30-year storm event below ground, and the 1 in 100-year plus 25% climate change event is managed safely on site.

In line with Lincolnshire County Council's Sustainable Drainage design and Evaluation Guide, the proposed discharge rate from the site has been limited to the Qbar greenfield rate of 1.6l/s. Calculations are provided under separate cover, indicating the parameters used.

The following SuDS measures are proposed as part of the drainage design:

- An attenuation basin
- A swale
- Permeable paving (tanked to prevent infiltration)
- A below ground attenuation tank

Flood exceedance routing for storm event greater than 1 in 100-year

The site is designed such that surface water exceedance flows are directed away from the proposed building. Within the proposed hardstanding areas, levels fall such that exceedance flows will be directed north to the existing water course. Within the soft landscaping areas, the existing flow routes towards the water course will be retained. An exceedance flow plan has been submitted under separate cover (drawing ref M00514-ENG-ZZ-XX-DR-C-3600).

Details of how run-off will be safely conveyed and attenuated during storms up to and including the 1 in 100-year critical storm event, with an allowance for climate change AND attenuation details and discharge rates which shall be restricted to no more than what would be the greenfield run-off rate of the undeveloped land

The proposed strategy is to convey surface water to the ordinary watercourse to the north of the site. The discharge rate will be limited to Qbar greenfield rate of 1.6l/s for all storm events up to and including the 1 in 100 year +25% climate change event (this has been agreed in principle with the local IDB).

The following volumes of attenuation are required across the site to limit the flow into the watercourse:

- 197m³ of attenuation is provided within a lined attenuation basin.
- 156m³ of attenuation is provided within a lined attenuation swale.
- 761m³ of attenuation is within sub-base replacement geo-cellular tanks below permeable paving.
- Additional storage is also provided within the stone sub-base below permeable paving (refer to calculations submitted under separate cover).

Timetable for and any phasing of implementation for the drainage scheme and details of how the scheme shall be maintained and managed over the lifetime of the development

- Early works drainage (Existing Car Park) - July to Sep 2025
 - Drainage and Ducting
 - Kerbs and edging
 - Sub-base stone for permeable surface
- Main drainage - May / June to Sep 2026
 - New storm and foul drainage (including pump chambers)
 - Attenuation below AGP
 - Attenuation Basin
 - Complete drainage runs
 - Kerbs and edging
 - Sub-base
 - Paving

Please refer to Section 8 of the Drainage Assessment Report submitted for planning, which includes maintenance details for each of the SuDS features proposed

- Attenuation basin
- Swale
- Permeable paving (tanked to prevent infiltration)
- A below ground attenuation tank