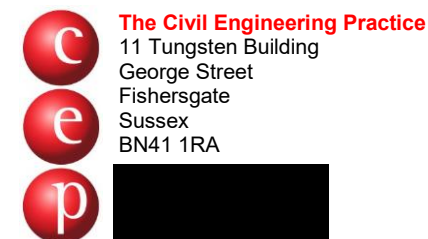


Designer's Response



Project	Sefter Farm Engineering Block
Project Number	24125

Comments Received from Adur

Date Comments Received 21 September 2026

Date of Response 25 September 2026

Comment / Query		Designer's response
1	Runoff destination	
1.1	There is an irrigation demand at the site and the drainage strategy includes provision to convey runoff to an existing above ground irrigation reservoir. This is via mechanical pumping and while mechanical pumping is noted to be avoided unless necessary in the NSfS, the system is not reliant upon the pumping to avoid failure or flooding and it is common for pumps to be used to transfer water for irrigation at this type of farm operation. The use of pumping to convey flow to the reservoir is therefore acceptable for this application. The provision for reuse of rainwater is acceptable.	No comment as acceptable.



Comment / Query		Designer's response
1.2	Ground investigations confirm that the site is not suitable for discharge to ground via infiltration owing to high winter groundwater (within 700mm of the surface). This is in line with our experience and understanding of the location.	No comment as acceptable.
1.3	An outlet to the existing watercourse to the south, which is an ordinary watercourse and tributary of the Pagham Rife main river, is also proposed. The basis of the proposed outlet that whilst the operational intention is to reuse the runoff water, water reuse is not guaranteed as the pumps required to convey the runoff to the irrigation reservoir may not operate or the reservoir may be full.	No comment as acceptable.
1.4	The additional outlet to a watercourse is acceptable on the basis it is downstream of flow controls and would only occur if the reservoir is full or otherwise inoperable, which therefore replaces the requirement for an overflow.	No comment as acceptable.
2	Interception Drainage	
2.1	Surface water runoff does not discharge to ground via infiltration as this is precluded by the ground conditions / high ground water. Interception drainage is provided in the design by permeable pavement, swales and water reuse.	No comment as acceptable.
2.2	The permeable pavement is acceptable for the self-drained area. Calculations should be provided to confirm that the remaining positively drained area meets NSfS criteria (this is likely to be met with calculations in accordance with BS EN 16941 for rainwater harvesting).	Please see Interception Drainage Note.
3	Extreme Rainfall and flooding	

Comment / Query	Designer's response
3.1 The latest national surface water flood modelling data set ('Surface Water Spatial Planning') appears to indicate areas of surface water flood risk at the site, possibly in the location of the new building. The FRA should be updated to show the latest surface water risk areas to the site against the proposed development layout and assess the risk of external surface water flooding to the development or drainage system.	Please see the two surface water flood maps for the future year event indicating surface water flooding over 150mm and over 300mm. The mapping indicates an isolated area of flooding at over 150mm in depth but less than 300mm in depth over the existing packhouse building adjacent to the development and a small area within this development site and in the area of the proposed Engineering Block. The mapping does not indicate a flow route, the existing packhouse building is positively drained and the Engineering Block, Hardstanding and Car Parking areas are proposed to be positively drained. The existing ground levels at the engineering building are approximately 4.950m AOD and the proposed finished floor level is 5.150m AOD. The building is therefore 200mm above existing ground levels and on completion the whole area indicated as a future surface water flood risk will be positively drained. The mapping is clearly incorrect. However, even if correct the residual risk of surface water flooding is considered negligible.
3.2 Calculations are provided which indicate the design storm can be contained within the permeable pavement voided subbase stone layer without flooding. However, the subbase of the footpaths has been calculated with a porosity of 1. This needs to be corrected as the model currently assumes open storage within the subbase of the footpaths, when in fact it is a 30% voided subbase.	This is an error within the footpath calculation which has been corrected to indicate porosity of 0.3. The base of the subbase has been adjusted to 4.545m AOD across the permeable areas and the design drawings have been updated. Please see revised calculations and drawings 200B, 201B, 202A, 501A, 511A and 512A.
3.3 The design peak outflow rate of 2.8 litres per second is based upon 3l/s/ha applied to the drained area and is in accordance with the NSfS.	No comment as acceptable.

Comment / Query	Designer's response
3.4 There is an area of existing access road within the red line boundary which is an existing drained area and can be omitted. The swales and irrigation reservoir are excluded from the drained areas which is acceptable as the swales are downstream of the flow controls are conveyance only and can replicate greenfield runoff of the previous greenfield land, the irrigation reservoir is a pre-existing facility downstream of the flow controls.	No comment as acceptable.
3.5 However, there is an area of subbase storage to the east of the car park which should be clarified whether the area will remove topsoil and should be included in the drained area. There is also a smaller area linking the existing and new access road which should be included in the calculations.	This comment is not clear. The drained areas are as indicated on Drawing 03A located in the Flood Risk Assessment and Drainage Strategy v1.1 Appendix 5.
3.6 The watercourse may cause backflow into the swale during the design storm and an assessment of potential for downstream surcharge should be provided for the downstream condition during the lifespan of development. This can be based upon the 2070 national surface water flood modelling or other robust assumption.	The top of bank of the Rife to which the swale connects is at 3.5m AOD at the north side of the Rife and 2.93m AOD on the south side of the rife. The bed level of the swale immediately downstream of the pumping station is 4.365m AOD. The discharge from the permeable pavement is at level 4.545m AOD. The bed level of the majority of the proposed swale with the exception of the final connection to the rife is above the top of bank level of the rife. At the location where the final headwall from the proposed surface water network discharges to the swale the bed of the swale is 1.435m above the top of bank of the rife. The surface water from the site is pumped to the reservoir on site for reuse. There is minimal risk of surcharging of the swale and there is no risk that any surcharging will prevent the system draining as designed.

4	Water Quality	
4.1	The design includes permeable pavement car parking, all upstream runoff the drained through the permeable paving subbase layer, and the swales. The assessment of water quality mitigation is in accordance with the SuDS Manual Simple Index Approach and is therefore acceptable.	No comment as acceptable.
5	Amenity	
5.1	As a major development, NSfS requires that the SuDS Approach maximises benefits for amenity through the creation of multi-functional places and landscapes.	Please see Amenity and Biodiversity Assessment.
5.2	Other than the use of permeable pavement, no assessment is provided on the amenity aspect for the sustainable drainage system. A more thorough assessment should be provided to set out how the drainage system addresses Standard 5.	Please see Amenity and Biodiversity Assessment.
6	Biodiversity	
6.1	The NSfS and ADC guidance requires that a site-specific biodiversity risk and opportunity (BRO) assessment is used to ensure biodiversity is considered from the outset of the design. The biodiversity report should demonstrate how biodiversity is enhanced by the SuDS design.	Please see Amenity and Biodiversity Assessment.
6.2	Currently the Ecology reports do not assess the mitigation or specific design proposed for the biodiversity aspect of the sustainable drainage system.	Please see Amenity and Biodiversity Assessment.

7	Construction, operation, maintenance, decommissioning and structural integrity	
7.1	An interim management and maintenance plan is submitted with the planning application. The site is within one ownership and management would be undertaken by the site operator, added to an existing drainage system and maintenance responsibility.	No comment as acceptable.
7.2	A detailed maintenance plan can be a requirement of a planning condition. Specific maintenance requirements will need to be included for all aspects including permeable paving, flow control device, pumping station, swales and headwalls.	No comment as acceptable.