

Land North of Sefter Road, Pagham - P/49/21/RES RM Application

Response to ADC Drainage Consultation Comments dated 28 May 2021

	ADC Drainage comments	Applicants Response
1.	The total impermeable development area is reportedly 5.475Ha, QBar according to uk suds is 15.73l/s. It appears that discharge is proposed in two locations via 3 outfalls. The proposed discharge rates appear to be 10l/s, 3.5l/s and 5l/s. This in total is greater than the QBar rate. Please provide an impermeable areas plan and QBar calculations for each catchment. Currently Q1 calculations area supplied.	As clarified in the Teams meeting on the 25/06/2021- the overall discharge is less than the agreed restricted discharge rate of 48.10l/s to the "anti-tank ditch" which was agreed during the Outline planning stage with ADC's Drainage Department. The current proposals have restricted the peak overall discharge to 15.9l/s which is a significant reduction to the previously agreed peak restricted discharge.
2.	Please make it clear on plans where points of discharge are. The eastern network appears to have a discrepancy on the label for S46. The leader indicates an I.L of 4.4.04 but the actual network label indicates 4.872 which tallies with calcs. Without zooming in this does cause some confusion as it appears the network breaks its back based upon the leaders.	Noted this will be made clearer on the discharge of conditions submission (condition 10 – details of surface water drainage scheme pursuant to Outline planning permission ref. P/134/16/OUT).
3.	Please provide two perpendicular cross sections per basin. These do not have to be construction detail level of detail but need to show basin dimensions.	Noted this will be provided with the discharge of conditions submission.
4.	Please detail the invert level of the existing culvert at the proposed points of connection. We will expect connections to be made soffit to soffit.	The invert level at the connection point is provided on the strategy plan. Construction details of the connection to the "anti-tank ditch" culvert will be provided during the discharge of conditions submission.
5.	Please provide calculation printouts of the storage inputs for network 1. There are no printouts for the basins within these calculations. There is also no flow control printouts, please provide.	Provided as attached with FEH calcs.
6.	Please provide a manhole schedule printout for network 2 in microdrainage.	Provided as attached with FEH calcs.
7.	The leader for S79 indicates a discharge rate of 3.5l/s but in calculations this is 3l/s please ensure consistency.	Noted, whilst the peak flow is 2.9l/s for this network, the design criteria for the hydrobrake is 3.5l/s with associated design head to provide an efficient hydraulic discharge curve. The note on the drawing is relating to the hydrobrake peak flow criteria. This will be made clear on the discharge of conditions submission.

	ADC Drainage comments	Applicants Response
8.	There are inconsistencies between calculations and the layout for; the attenuation tank at S80, pond at S75, pond at S79, please update.	Noted this will be made clearer on the discharge of conditions submission.
9.	Please provide printouts for storage inputs and hydrobrake for network 3.	Provided as attached with FEH calcs.
10.	Please run calculations with latest FEH rainfall data applied.	Provided as attached.
11.	Where there is a gap in the bund for future connections, please detail whether the ground level here will be raised or not. We also wish to discuss the extent of this bund.	This is raised as per out discussions held on the 25/06/21.
12.	We note that the watercourse around pond 4 is proposed to be diverted, we are concerned by how little distance there is between the pond and watercourse.	This has been addressed in the updated layout, with the diverted watercourse offset further from the edge of the new SuDS basin to suit.
13.	I note that indicative buoyancy resistance measures are detailed on the plans. Please could you provide flotation calculations if these have been completed. We will need to see at least one set to be confident at this stage that this has been accounted for in design and that there is space within the layout.	Provided as attached.
14.	The use of permeable paving should be extended to all driveways to ensure adequate treatment of surface water prior to discharge.	This is raised as per out discussions held on the 25/06/21 and agreed to only have lined permeable paving in the western part of the development since the eastern catchment had sufficient levels of treatment of run-off in accordance with Ciria 753.
15.	We wish to be provided with an action plan for rectifying the issues identified with the ordinary watercourse network through this development.	Noted this will be made clearer on the discharge of conditions submission (condition 12 – details of maintenance and management of the surface water drainage system pursuant to Outline planning permission ref. P/134/16/OUT).
16.	Existing root protection area and proposed root potential areas must be considered with drainage design. This must be considered very carefully on this site due to the reliance on impermeable liners for keeping groundwater out of the system.	Noted this has been considered and will continue to do so during the detailed design stage.

	ADC Drainage comments	Applicants Response
	<i>Further Information required</i>	
1.	Further information on the exact position of culverted watercourses on site. We understand there to be a further branch into the anti-tank ditch culvert which could clash with the proposed locations of some dwellings.	Further CCTV surveys were undertaken to establish the location of the missing culvert and it has been confirmed that the culvert does not cross Taylor Wimpey's land and appears to be a high-level overflow from the anti-tank culvert into the shallow ditch into the Osborne refrigeration site. ADC Drainage Officer Paul Cann has confirmed that no further assessment is required.
2.	A buffer plan showing a 3m buffer around the top of the bank of all basins and watercourses. There must be a minimum unobstructed width of 3m from the top of the bank of basins and watercourses to ensure that future maintenance can be completed.	This is raised as per out discussions had on the 25/06/21 and discussed that whilst a full 3m wide buffer couldn't be provided around the whole perimeter of each basin min 3m maintenance access was still provided along one side of each basin which provides a means for future maintenance.
3.	A revised drainage strategy, updated to include the details requested above.	Updated strategy plan provided.
4.	A plan which clearly shows proposed changes in ground levels.	Level strategy plan provides this level of information.

Encl.:

RCP CALC SHEET - Catchment 1 - Ponds-rev 1
 RCP CALC SHEET - Catchment 2 - Ponds-rev 1
 RCP CALC SHEET - Catchment 3 - Pond-Rev1
 SW1-FEH review-21-07-26
 SW2-FEH review-21-07-26
 SW3-FEH review-21-07-26
 WSC-E4775-008 Rev F Drainage Strategy
 WSC-E4775-009 Rev F Drainage Strategy
 WSC-E4775-010 Rev F Drainage Strategy