Planning Consultation Response Note – Drainage (Ref: PL 2023 06841)

Project name:	**Land at Marshall Road, Devizes.**
Author:	WS/KH
Date:	15 November 2023
Project number:	P22-2442
Reference:	PL/2023/06841

The following consultation response note has been provided in response to the consultation received by Atkins, working on behalf of Wiltshire Council Drainage, dated 04th September 2023, pursuant to discharge of condition application ref: PL 2023 06841.

This response note includes commentary and the enclosed information provided by the appointed drainage consultant (Phoenix Design Partnership).

Objections:

The drainage team in their capacity as Lead Local Flood Authority have the below objections to the application; these must be overcome before a drainage objection can be removed:

Drainage Strategy

The applicant is currently proposing to discharge to Qbar. Wiltshire Council requires post development discharges to provide 20% betterment over pre-development (greenfield) discharges for both peak flow and volume. No development shall commence on site until the applicant has provided calculations which demonstrate that the required 20% betterment against greenfield rates has been achieved for all storm events between the 1 in 1 year and the 1 in 100 year return period storm events.

Calculations

The applicant has provided calculations modelling the 1 in 100 year + climate change event. The applicant must also provide calculations that demonstrate that the 1 in 30 year rainfall event is contained within the drainage system without causing flooding to any part of the site.

Within the calculations, the MADD factor must be set to zero and the margin for "flood risk" warning in hydraulic models been set to >= 300mm. The MADD factor is currently set to 2m3/ha. If a value other than 0m3/ha is selected for the MADD value, the applicant will need to provide quantitative evidence to demonstrate that this is appropriate.

Exceedance

The calculations show flood risk in some areas in the 1 in 100 year + climate change event. No building can commence on site until the applicant has demonstrated that the finished floor levels above the maximum predicted 100-year flood level or if no flooding is predicted, at a sufficient height above the

SW drainage cover levels. We recommend 150mm but this can be lower if it can be proved that the property will be safe from overland flows during extreme events.

Response: A 20% betterment has been applied to the Qbar greenfield run off rate as requested taking it down from 26l/s to 20.8l/s. Alongside this the MADD factor within the calculations has been reduced to 0 and a limit on flood risk set to 300mm. Calculations for the results of the 1 in 30 year and the 1 in 100 year plus climate change have been provided.

In regard to overland flows there are no flood risks indicated within the calculations in the 30-year event, a number are identified within the 100 year plus climate change event although in these instances no flooding occurs. In the event of blockages any overtopping would occur within the highway where flows would be directed via the kerbs to the next drainage run/gully system.'

Infiltration

The applicant should confirm whether the proposed swales are designed to discharge via infiltration. The initial Flood Risk Assessment submitted under PL/2021/07203 stated that initial ground investigations revealed poor infiltration rates. If the swales are designed to discharge via infiltration, the applicant will need to demonstrate the following;

1) To conform with soakaway guidance, there must be at minimum 1m between the base of any soakaway feature and the highest groundwater level.

Response: The drainage infrastructure will be offered for adoption under a S104 agreement, with the swales and basins being maintained by the Residents Management Company.

2) Soakaway features must be a minimum of 5m from any building foundations or road

Response: The proposals have been revised to ensure soakaway features are at a minimum 5m from a building foundation or road.

As stated in the response initial ground investigation revealed poor infiltration results and therefore it is not proposed to utilise infiltration within the conveyance or basin. Ground water monitoring was undertaken between November 2022 and May 2023 which concluded both seasonal and perched water table levels relating to high periods of rainfall, this will be taken account of in the design of the basin due to the depth of installation.

Ground Investigations

As stated previously in response to PL/2021/07203;

1) The applicant should undertake further groundwater monitoring in order to take account of seasonal variations in groundwater level. The initial ground conditions assessment states that perched groundwater has been encountered at approx. 500mm below ground level on adjacent sites. It is noted that the applicant has conducted trial pits to 3.6m depth, and has not encountered groundwater, but further investigations would be required in order to demonstrate that the risk of groundwater flooding has been fully managed (in accordance with Paragraph 160 of the NPPF).

2) It is noted that there is a low risk of contamination on site due to historic land use, which will be the subject of additional detailed ground investigations. The applicant will be required to design the proposed drainage system to account for contamination encountered in this investigation, to ensure that a pathway between pollutants and sensitive receptors is not created by the drainage design.

Response: As part of the further information provided within the application's revised submission this application is now supported by Ground Water Monitoring Report (enclosed). Groundwater levels recorded during the 6 months are summarised in Table 3.2 of the enclosed monitoring report.

Management and Construction

It is noted that details on operation and maintenance of SuDS features were included in the Flood Risk Assessment submitted under PL/2021/07203. The applicant should now supply further details on the proposed ownership details of the drainage infrastructure and the responsibilities of all parties.

This information has been provided as part of application ref: PL/2023/06303 for discharge of conditions (for conditions not affected by minor material amendment). For ease of reference, this information has been appended (comprising condition 10 Construction Method Statement (CMS) and condition 11: Ecology Construction Environmental Management Plan (CEMP)). It requested that consultation regarding this information be appropriately appended to application ref: PL/2023/06303.