From: Harrison, Lauren <Lauren.Harrison@balfourbeatty.com>
Sent: 24 July 2023 08:28
To: Banks, Andrew <Andrew.Banks@herefordshire.gov.uk>
Subject: 231836 - Land at Linton Trading Estate

Hi Andrew,

For the above site, we appreciate that an infiltration rate could not be established due to rapid soakage. It is unclear why the soakaways have currently been sized for a 2-hour event. The proposed soakaway/s should be sized to using an appropriate infiltration rate from the below table for the respective soil type, as stipulated within the CIRIA SuDS Manual. We require confirmation that the soakaway/s have been sized to accommodate a 1 in 100yr + 40% CC event.

TABLE 25.1 Typical infiltration coefficients based on soil texture (after Bettess, 1996)

Soil type/texture	ISO 14688-1 description (after Blake, 2010)	Typical infiltration coefficients (m/s)
Good infiltration media		
• gravel	Sandy GRAVEL	$3 \times 10^{-4} - 3 \times 10^{-2}$
• sand	Slightly silty slightly clayey SAND	$1 \times 10^{-5} - 5 \times 10^{-5}$
• loamy sand	Silty slightly clayey SAND	$1 \times 10^{-4} - 3 \times 10^{-6}$
• sandy loam	Silty clayey SAND	$1 \times 10^{-7} - 1 \times 10^{-5}$
Poor infiltration media		
• loam	Very silty clayey SAND	$1 \times 10^{-7} - 5 \times 10^{-6}$
• silt loam	Very sandy clayey SILT	$1 \times 10^{-7} - 1 \times 10^{-5}$
• chalk (structureless)	N/A	$3 \times 10^{-6} - 3 \times 10^{-6}$
• sandy clay loam	Very clayey silty SAND	$3 \times 10^{-10} - 3 \times 10^{-7}$
Very poor infiltration media	–	
• silty clay loam	–	$1 \times 10^{-9} - 1 \times 10^{-6}$
• clay	Can be any texture of soil	$< 3 \times 10^{-9}$
• till	described above	$3 \times 10^{-9} - 3 \times 10^{-6}$
Other		
• rock* (note mass infiltration capacity will depend on the type of rock and the extent and nature of discontinuities and any infill)	N/A	$3 \times 10^{-6} - 3 \times 10^{-5}$

We also expect the drainage strategy to be accompanied by a drainage layout plan. This must show that the required offset distances can be accommodated onsite. It may prove more suitable to provide a larger, singular soakaway rather than multiple smaller ones.

The drainage strategy outlines proposals for the adjacent building to the south of the site to be served by an additional 3 soakaways to be located within this red line site boundary. The Applicant should reconsider locating these closer to the adjacent unit. The drainage layout drawing must clarify this.

Upon the submission of the above details, we will look to provide a formal consultation response.

Kind regards,
Lauren

Lauren Harrison

Graduate Drainage Engineer | Balfour Beatty | Services | Living Places | Herefordshire Public Realm

(Seconded to BBLP from Waterman Aspen)

M: 07972 491164 | E: Lauren.Harrison@balfourbeatty.com

Balfour Beatty Living Places | Unit 3, Thorn Business Park | Rotherwas | Hereford | HR2 6JT

Download the : Herefordshire SuDS Handbook and the Strategic Flood Risk Assessment (Level 1)