

## Sexton, Gavin

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**From:** Jon Mayes [JonMayes@spencermayes.co.uk]  
**Sent:** 17 July 2013 06:15  
**To:** Sexton, Gavin  
**Cc:** Emma Nsugbe; Roger Walsh  
**Subject:** FW: MRH\_Planning Feedback on pre-commencement\_conditions

Gavin

Regarding the energy link to surrounding sites I still await feedback from your colleagues as to exactly what in the way of power feeds and / or heat supply and how this transfer of energy is to be metered. Is the supply required 24/7?

Regarding your query below to Condition 19 we have calculated water run off from the proposed development. I have extracted the key comments from our April 2013 report which confirm compliance with PPS25.

The run off figure in our calculation sheet less the attenuated flow from roof areas with a Bauder or similar system, less the pump chamber equates to a non attenuated volume of water equating to 4881 litres or 40.6l/sec based upon a 2min storm duration. We propose a mix of attenuation blocks and rain water harvesting tank equating to a minimum 5000 litres to deal with this volume of water. The outflow from the site will therefore not exceed 5 litres /sec.

We await your comments to both points

If you have any queries please contact us

Regards

In accordance with PPS25 [Planning Policy Statement 25] which sets out government policy on development and flood risk and in accordance with current best practice guidelines SpencerMayes propose to provide attenuation up to and including for a 1 in 100 year storm event + 30% for Climate Change.

The applicable surface water discharge rate is 5 l/s for all storm events up to and including the 1 in 100 year plus 30% for climate change.

The surface water attenuation required from the **roof area** of approx  $1600\text{m}^2$  is  $14.3\text{m}^3$ , for a single 1 in 100 year event of 2mins duration.

Allowing for the use of a Bauder DSE20 (or similar) extensive green roof system, with 20mm drainage trays and roof build up of 105mm [45l/m<sup>2</sup>].

Construction upstands/parapets would be a min. of 150mm.

The surface water attenuation required from the **garden area** of approx  $600\text{m}^2$  is  $5.3\text{m}^3$ , for a single 1 in 100 year event of 2mins duration.

Allowing for the use of a Bauder DSE60 (or similar) system with 60mm drainage trays [10l/m<sup>2</sup>] the build up being dependent upon the finishes required.

The surface attenuation required from the **hardstanding areas** of approx  $963\text{m}^2$  is  $8.5\text{m}^3$  for a single 1 in 100 year event of 2mins duration.

Allowing for the attenuation of the hardstanding areas of 963m<sup>2</sup> the use of polystorm cells could be considered @ 1000x500x400mm deep they have a volume storage of 190ltrs per block. These would locate at the point of exit from the site.

Provide a 5,000 litre harvesting tank within the Plantroom at basement level with suitable pump and controls for automatic irrigation to serve the soft landscaped areas across the growing season and bin store cleaning.

The pumped system from the front lightwell is  $190\text{m}^2 = 1650$  litres of RW to store and then pump away. The pump chamber would be required to accommodate the inflow from a single storm event and any ingress of ground water from the water proofing system installed.

24/07/2013

A polypropylene in ground pump station of dims 1500mm dia x 2000mm deep [1500mm working] would accommodate 2.6m<sup>3</sup>, allowing adequate volume for grd water infiltration.