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Statement on Bioretention System and Rainwater Harvesting Planning Condition 9 (SuDS and Flooding)
Mount Pleasant Phoenix Place - Phase 2
Date: 7<sup>th</sup> May 2021

The incorporation of a bioretention system on the Level 01 podium deck has been considered and found to be infeasible for the following reasons:

- There is insufficient build-up depth on the podium to accommodate an attenuation layer. The
  total construction depth above deck is 300mm which includes for a surface layer of permeable
  paving and insulation. This leaves insufficient depth for attenuation as part of a bio-retention
  system.
- The Level 01 podium is an inverted roof system which can offer a complicated interface between attenuation and insulation layers.
- The podium structural slab has not been designed to take the additional loads associated with the retention of water.

Away from the podium deck, the areas of planting that are present are of a small intimate garden scale and do not constitute a courtyard; as such they are considered unsuited to an engineered bioretention system.

Regarding the attenuation feature of bio-retention systems, it can be noted that the drainage scheme already provides attenuation by means of a restricted flow rate to the main sewer in line with the agreed flow rates at Planning stage. This is achieved by means of a flow restrictor (Hydro-brake) set in conjunction with a 99.8m.cu attenuation tank for temporary storage of rainwater.

The rainwater harvesting tank indicated at planning approval was approved for removal as part of the Non-Material Amendment 2019-1931-P as it was no longer required as part of the drainage strategy.

John Roberts BSc (Hons)





