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**AE2699(2) Bicester Eco Town Phase 2
 Statement Relating to Planning Condition 11**

Attached to the hybrid planning permission issued in August 2011 (ref. 10/01780/HYBRID) is Condition 11 which states:

“Plots 2, 30, 113, 114, 115, 126, 127, 128, 129, 130, 131, 172, 173, 174, 226, 227, 281, 282, 283 and 313 the house designs shall be constructed with passive ventilation and thermally massive floors to reduce heat gain and loss as set out in the Design and Access Statement accompanying the application, in accordance with details that have first been agreed in writing by the Local Planning Authority.”

Affected Properties

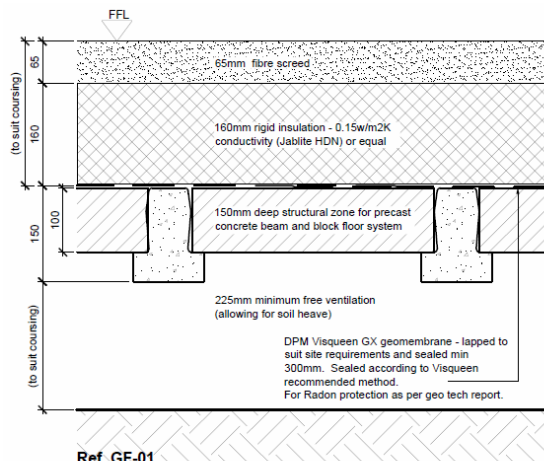
Plots 282 and 283 within phase 2 are specifically required to comply with this condition. The proposed approach to address the two elements of the condition, are outlined below.

Passive ventilation strategy

It is proposed to use a proprietary passive ventilation with heat recovery system (PVHR system by 'Ventive' or similar - see <http://www.ventive.co.uk/products/overview/> for more details) in these plots. This system combines passive stack ventilation with heat recovery and so provides a non-mechanical alternative to Mechanical Ventilation with Heat Recovery (MVHR). A passive ventilation strategy (especially night time cooling) needs to work in conjunction with thermally massive elements (see below) to generate a flow of air through the dwelling. This will provide a self-regulating environment and reduce the risk of overheating.

Thermally massive floors (TMF)

The objective of a thermally massive floor is to absorb daytime heat gains until exposed to the cooler evening/night environment when the heat is released. This works mainly through the ability of internal mass to capture and recycle heat gains from South and West facing windows. The effect of thermally massive floors is enhanced by direct exposure to the sun's rays through the glass. In addition to this, the thermal mass should ideally be at ground floor level so that heat may rise through the first floor and out of the dwelling through open windows by means of passive stack effect. Thermally massive floors are provided for plots 282 and 283 in the form of the screeded finish at ground floor level. These floors will also feature a hard floor covering (laminates/tiles) to ensure that thermal mass will not be isolated from the dwelling. See proposed floor construction below.



Ref. GF-01
 GROUND FLOOR CONSTRUCTION HOUSES /FLATS
 -U value = 0.15W/m²K