



ADDENDUM TO BREEAM DOMESTIC REFURBISHMENT PRELIMINARY REPORT FOR PLANNING SUBMISSION

In accordance with written Planning Guidance received from Camden Council, we make the following additional submission comments as appropriate to each section heading:

- 1. how the development has been designed to enable occupants to cope with the anticipated climate
 - a. insulation; all units will be designed to a good quality and include thermal upgrading as far as possible within spatial and cost limitations. The scope for inclusion of a green roof is potentially good, cost allowing and at Detailed Design stage there will be an examination of the implication of such a measure
 - b. water cooling; the scheme is likely to include a Green Roof. However, aside from the beneficial effects of the Green Roof, the external space on site is so limited that this aspect is not suited to this development and will be unable to include the further measures suggested
 - c. natural ventilation; a NatVent strategy will be used for all of the dwellings in this development and all units will be designed to avoid overheating
 - d. thermal materials; these can perform a useful role within the energy strategy and for overheating and the potential for their use will be examined at detailed design stage
 - e. orientation; the scheme faces Northeast/ Southwest and whilst this cannot be altered, nevertheless it does not unduly increase the problematic potential for overheating, whilst most units will gain some useful afternoon warmth from the sun
 - f. 'cool' surfaces; this aspect does not offer good scope for beneficial compliance on this particular development due to the compact site
 - g. SUDs; the Green Roof will contribute to notable attenuation of peak flow rainwater volumes from the site
 - h. green space; no provision is anticipated for this as there is an extremely limited amount of external space
 - i. plants and vegetation; no provision is anticipated for this as there is an extremely limited amount of external space. What there will is will be heavily shaded in a lightwell and so for ease of maintenance and longevity will be a private external space with a hard surface
 - j. water efficient fixtures and fittings; all units will be specified to a design rate of 105 litres PPPD
 - k. re-using water; with no soft landscaping there is very limited potential for this for external water use. Re-use of water for internal purposes, by comparison with direct use of mains water, is associated with much higher CO2 emissions and so has been excluded
- 2. where green or brown roofs or green walls have not been provided, why this has not been possible
 - a. it is likely that a green roof will be provided, costs allowing





3. Although not specifically mentioned in the letter from the Planning Department, we think it helpful to address Camden's Checklist for Retrofitting Measures:

Measure	Specification	Evidence
Draught proofing	Yes	To follow at Design Stage
Reflective radiator panels	Possibly, if appropriate	To follow at Design Stage
Overhauling/upgrading windows	Yes	To follow at Design Stage
New boiler	Yes. Probably combis	To follow at Design Stage
LED lighting	Yes	To follow at Design Stage
Meters, timers, sensors, controls on heating or lighting	Energy Display Devices, Zoned heating, PIRs & daylight sensor external lights	To follow at Design Stage
Mechanical Ventilation with Heat Recovery	Possibly, if cost / energy effective	To follow at Design Stage
Insulation	Yes	To follow at Design Stage
Hot water tank & pipes	Likely to use combi boilers	To follow at Design Stage
Roof	Yes	To follow at Design Stage
Walls Internal	Possibly	To follow at Design Stage
Walls External	Possibly	To follow at Design Stage
Floor	Yes	To follow at Design Stage
Renewable energy technology	Possibly PV or Solar Thermal	To follow at Design Stage
Solar PV panels	Possibly	To follow at Design Stage
Solar thermal (hot water) panels	Possibly	To follow at Design Stage
Ground source heat pumps	No	Not cost-effective
Double glazed windows / Secondary glazing	Yes	To follow at Design Stage
Combined heat and power unit	No	Development too small
Green or brown roof	Yes	To follow at Design Stage
Rainwater harvesting	No	Not CO2-efficient for mains water areas
Join the Camden Climate Change Alliance (commercial only)	N/A	
Off-setting contribution £3,000	No	