

Energy & Sustainability Report

Proposed development at Grove Garage, Kingsley Road, Cellarhead

Planning ref: SMD/203/0903

14/10/16

SD1 – Sustainable use of resources

- 1) The proposed development will be undertaken on previously developed land
- 2) The proposed development is a brownfield site
- 3) The development will incorporate low energy design techniques including managing solar gain through orientation of the dwellings
- 4) At this stage of the development we have committed to address energy efficiency, water conservation, sourcing of construction materials, orientation and the feasibility of renewable energy in the scheme. Detailed proposals will be provided by Active Energy Assessors who have been appointed to develop SAP energy calculations that will support the achievement of core strategy policies.
- 5) Construction waste will be minimized and materials re-used on site where possible, additionally the local supply chain will be used wherever possible in order to minimize carbon emissions from delivery vehicles.
- 6) The developers undertake to assess the water use against Part G requirements and to investigate opportunities to achieve less than 125l/pp/day through the use of low flush WCs and tap & shower restrictors. If washing machines or dishwashers are provided they will be at least "A" rated. Rainwater collection systems will be used for external garden use only.

SD2 – Renewable energy & low carbon energy

- 1) As part of the detailed Part L Building Regulation compliance package provided by Active Energy Assessors Ltd the feasibility of renewable energy will be considered. On a residential scheme of this nature we expect to consider the viability of solar thermal, solar PV, heat pumps & biomass secondary heating. None of which will have adverse impact on surrounding landscape, biodiversity or the amenities of nearby residents.

SD3 – Carbon saving measures in development

- 1) The proposed development will aim to exceed the standard 2013 Part L1A thermal efficiency standards.

| Building Fabric | Table 2 - AD L1A | Proposed Targets |
|------------------|------------------|-------------------|
| Walls | 0.30 W/m2k | 0.23 - 0.21 W/m2k |
| Floor | 0.25 W/m2k | 0.17 - 0.12 W/m2k |
| Roof | 0.20 W/m2k | 0.13 - 0.11 W/m2k |
| Party wall | 0.20 W/m2k | 0.00 W/m2k |
| Windows | 2.0 W/m2k | 1.6 – 1.4 W/m2k |
| Doors | 2.0 W/m2k | 1.8 – 1.6 W/m2k |
| Air Permeability | 10 m3/(h.m2) | 5 – 4 m3/(h.m2) |
| Thermal Bridging | Default | Use ACDs |
| | | |

- 2) The development is not large enough to support communal renewables or a district heating installation. There is no known heat network nearby.
- 3) The proposed development is for five new houses and does not include the refurbishment of existing dwellings.

Prepared by:-

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