

2.4 Energy/Sustainability Assessment

30th August 2021

1 Energy

All dwellings are to be designed to "Passivhaus" standards, to ensure high energy efficiency, and low energy consumption, making the dwellings highly environmentally sustainable.

Standards include

- 1 Accurate design modelling
- 2 Very high levels of insulation
- 3 Extremely high performance windows with insulated frames
- 4 Airtight building fabric
- 5 "Thermal bridge-free" construction
- 6 A mechanical ventilation system with highly efficient heat recovery

All dwellings are to be designed to "Passivhaus" standards, to ensure high energy efficiency, and low energy consumption. Solar arrays will be fitted to each south facing roof, with internal battery storage and "smart" controls to enable "grid trading" for excess energy generation. External air-source heat pumps will be fitted to generate further renewable energy, and each dwelling will also have integral mechanical ventilation system with heat recovery

All dwellings will be "future-proofed" to ensure that adequate supplies can be accommodated, as and when EV charging is required

2 Services

All necessary services are readily available in Wrotham Road, immediately adjacent to the site, and preliminary enquiries would indicate there is sufficient capacity to meet development needs. Additionally, there is an ongoing programme of providing fibre optic cables for broadband connections currently underway locally, which will make available ultrafast download speeds of up to 300mbps

3 Waste and recycling

Individual dwellings have space within each garden for space for dedicated refuse bins. Space is also provided adjacent to the Wrotham Road footpath for collection of the bins by the service provider, without their collection vehicle having to enter the site

4 Flooding

Environment Agency classification states "Your selected location is in flood zone 1, an area with a low probability of flooding" - documentation appended

5 Sustainability

"The site is located on the Wrotham Road and benefits from access to public transport (bus route) and local amenities and would be considered a sustainable location" - GBC PRE20200168 appended
Local amenities details are expanded upon in section "2.1.2 Design and Access Statement - Access"