

Sustainable Housing Statement

Hybrid Planning Application – Part Full, Part Outline

Proposed demolition of existing dwelling and construction of 2 no. dwellings

Stonehaven, Long Lane, Tilston, Malpas, Cheshire, SY14 7HA

- 1.1. This application proposes 2 no. new build dwellings and thus, in accordance with development plan policy DM 4, is supported by this Sustainable Housing Statement which outlines how the proposed development complies with the requirements of policy DM 4. The application is a hybrid one, made part in full and part in outline and the discussion below relates to the proposed Unit 1 where detailed planning permission is sought. It is envisaged that similar technologies can be installed in Unit 2 but only outline planning permission is being sought for this Unit at present.
- 1.2. Given the scale of the proposed development and the context of the application site the scope to incorporate sustainable design features is somewhat limited but where practical and viable the design has responded to each level of the Council's Energy Hierarchy.

Materials, design and construction
- 1.3. The proposed residential development is constrained in some respects by the need to respond to site context. There is an established building line along Long Lane and typically the dwellings present their principal elevation to the highway with domestic gardens to the rear. The proposed dwellings follow this existing pattern of development, and it is considered that failing to respect this pattern would have a negative impact on the character of the residential area as opposed to reinforcing it.
- 1.4. Likewise, it is considered that the use of non-traditional materials would be out of keeping with the character of the residential area. Visually the proposed use of brick, render and tiles has been chosen because this is reflective of the local vernacular. It has therefore been necessary to ensure, using traditional building materials and construction that appropriate regard has been had to achieving an efficient home.
- 1.5. Professional advice has been taken and the U-values (how effective a material is an insulator) prescribed by current Building Regulations can be met through traditional construction. Unit 1 has been designed with limited areas of glazing (18% of the proposed floor area) and will be ventilated naturally, with the exception of kitchen and bathrooms where efficient extraction/ventilation equipment will be installed appropriate for the ventilation requirements of those specific spaces.
- 1.6. It is in the Applicants' interest to ensure the construction materials are durable and efficient and will take care in sourcing them. It may also be feasible to reclaim materials from the existing property for re-use as hardcore on site.

Reducing energy demand

- 1.7. The proposed dwelling will be constructed to a high standard; energy performance will be through good levels of insulation, reducing the requirement for artificial heating. It is proposed that the property be fitted with an air source heat pump which is an energy efficient form of artificial heating.
- 1.8. The proposed design appropriately balances the need to naturally light rooms within the property with the need to ensure the extent of glazing doesn't affect the energy performance of the building fabric or result in excessive heat through solar gain in the summer months.

Improving energy efficiency

- 1.9. The Applicants are fully intent on ensuring the property is fitted with high performance heating and energy infrastructure and energy efficient lighting and appliances. It is in their interest to do so as not only is this the more sustainable approach, it also means the dwelling will be more economically viable to run.
- 1.10. The property will be heated by air source heat pump with water heated by an electric heater. These heaters are highly efficient converting the energy they intake into heat which is more efficient than gas boilers that are only 80-90% efficient and which can decrease in efficiency with the age of the product.
- 1.11. Low energy LED light fittings are proposed which have a long lifespan and it is proposed to install the technology for these to be controlled via app and/or voice control systems.
- 1.12. The Applicants also propose to install low flush toilets, and water efficient showerheads and taps to reduce water consumption within the property. It is fully expected that the optional higher National Housing Standard for water consumption of 110 litres per person per day can be achieved through use of these fixtures.
- 1.13. It is also proposed that the showers in the property are fitted with a wastewater heat recovery system. These operate by heat exchange transfer from the waste hot shower water to the incoming fresh water supply meaning that when this water arrives at the mixing valve less hot water is drawn from the water heater. This apparatus will reduce energy demand and thus emissions and will also have the additional benefit of reducing energy costs.

On-site renewable, low and zero carbon technologies

- 1.14. Given the scale of the site, and its position within an established residential area it isn't feasible to install significant energy generating technologies on site. The use of PV panels has been considered but at this point in time it not a viable option for the Applicants to install these. The application however proposes the use of grey tiles so that, if the installation of PV panels becomes a viable option in the future, they will visually unobtrusive when installed. The application also proposes an outbuilding to the rear of Unit 1 and there is future potential for the installation of a PV array on its roof if this becomes a feasible option.
- 1.15. Connection to a district heat network has not been investigated because the application site lies within a relatively small rural settlement, and it is not considered a likely possibility with a reasonable period of time.

Reduction of energy use through conventional solutions

- 1.16. The Applicants are keen to ensure that their dwelling performs well environmentally, particularly in terms of its energy requirements. The Applicants are au fait with the use of available technologies that can assist with monitoring energy requirements and control of lighting and heating and they propose to install these, as well as educating themselves and their children on the more general measures that can be taken such as reducing the length of a shower, washing clothes at lower temperatures etc.