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**SUSTAINABILITY STATEMENT.**  
**PROPOSED REPLACEMENT DWELLING.**  
**4 CHERWELL ROAD,**  
**EMMER GREEN,**  
**READING,**  
**BERKSHIRE.**  
**RG4 8QH.**

Land Re-Use.

A sustainable approach favors the use of "brownfield" sites. The site is deemed as "brownfield" and as such the development does not occupy previously undeveloped land.

Energy.

The project intends to incorporate renewable energy sources in the form of a Samsung air source heat pump system, to operate the heating and hot water systems. This operates by pulling its heat in from the outside air.

The use of materials with good thermal properties are to be incorporated into the design to minimize energy loss.

The building design makes excellent use of natural light, thus keeping energy consumption low, for lighting during daylight hours.

The project is to benefit from the following:

- Achieve "U Values" higher than stated within the Building Regulations, and ensure good continuity of insulation throughout the building.
- Use Low energy lighting throughout the entire building.
- Low heat loss from air flow
- General adherence to / above guidance given in BREEAM and the Building Regulations with regards to energy efficiency.

Cont'd.

### Materials.

Sustainably sourced materials are to be used where possible, for example FSC wood to be used in the construction process.

### Water.

Water saving devices are to be incorporated into the project to include:

- Delayed inlet valves prevent water entering the WC cistern until it has completely emptied, enabling a precise volume of water to be discharged independent of water pressure.
- Flow restrictors contain precision-made holes or filters to restrict water flow and reduce the outlet flow and pressure. They are typically fitted within the console of the tap or shower heads, in pipework or at the mains inlet to the dwelling.
- Ion exchange water softeners remove the agents causing hard water by passing water from the mains through a resin. The resin must be regenerated regularly. Regeneration may occur either at set time intervals, or when a given volume of water has passed through the resin. The water consumed during regeneration depends on the hardness of the water (this varies geographically,) and the efficiency of the water softener.
- Low flush WCs are specifically designed to reduce the volume of water consumed during flushing. There are various systems that can be specified to achieve a reduction in flush volume, such as low single flush cisterns, delayed action water inlet valves, and dual-flush cisterns which provide a part flush for liquids and a full flush for solids. Such systems must be matched to suitable WC pans and must pass the discharge performance requirements of BS EN 997:2003 for Class 2 WC suites.

### Flood Risk.

In order to minimize the impact on surface water drainage in the area, the project is to include for soak-aways for roof born rainwater and shall have a permeable finish to parking areas to allow rainwater to naturally percolate through into the natural ground.

The Environment Agency flood map for planning indicates that the dwelling is in flood zone 1 (lowest zone,) and therefore has a low probability of flooding. As such a flood risk assessment is not required.

### Community Impact.

As the project is a replacement like for like dwelling, then there would be no additional adverse impact on the community.

Cont'd.

### Transport Impact.

As the project is a replacement like for like dwelling, then there would be no additional adverse impact on Transport.

### Ecology Impact.

A bat survey has been previously undertaken, and a tree survey has now been completed. Therefore it is understood that the proposals will not have any adverse impact on the local ecology.

### Summary.

In Conclusion therefore, it is considered that the proposal would adhere to the current requirements of BREEAM and the Building Regulations in respect of both conservation of fuel and power and energy efficiency. Therefore being not only more beneficial to the applicants, but also to the environment.

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