



SUSTAINABILITY STATEMENT

14th November 2018

PROPOSED NEW DWELLING

INTRODUCTION

Sustainability is fundamental to the ethos of The Planning Service and Aaron James Architecture. It underpins all of our decisions, designs and strategies.

We take a holistic view of the three elements of sustainability outlined in the NPPF social, economic and ecological – ensuring that all three aspects are considered equally and in balance.

The proposed dwelling have been designed primarily with a *'fabric first'* approach- to fundamentally achieve exceptional energy efficiencies (reducing the reliance on fossil fuels), reduce carbon dioxide/carbon emission, implement water efficiency, sustainable, natural materials, enhance diversity and also provide a high quality built environment.

All other aspects have been considered in detail with regards to improving sustainability and delivering exceptional, innovative and low impact properties.

The Planning Service and Aaron James Architecture are recognised for the use of their sustainable construction methods, pioneering and producing some of the most sustainable and ecological homes available. Some of the main sustainability considerations represented by this application are outlined below.

SUSTAINABLE DESIGN

The Planning Service and Aaron James Architecture have adopted a detailed and bespoke design approach to sustainable construction, shared by our clients. The proposals are site specific.

The proposed dwellings will be prefabricated locally, minimising transport miles and the importation of goods. It will be constructed utilising traditional methods and partnered with high specification engineering and industry leading technological advances and materials.

TIMBER

In terms of transport of the material timber is relatively lightweight in comparison with other structural materials and can be close stocked for more efficient use of space.

It is a natural, toxin free material with a net carbon store, exceptional longevity and supports a blood bio system during its growing period. It can be recycled, reused and is crafted with minimal waste production.

Timber (oak and other softwoods as proposed) is a naturally occurring construction resource, capable of replenishment without abusing finite natural resources.

Sustainably managed timber has numerous environmental benefits as it grows, providing a food source and habitat for a wide variety of wildlife and interconnected ecosystems, absorbing and

converting carbon dioxide, (the principal "greenhouse" gas) to oxygen. Atmospheric carbon is extracted and then stored within timber providing carbon reduction. Well managed forests provide soil stability, maintain nutrient cycles and has a proven ability to reduce the impact offloading. Well managed forests and oak forms rely heavily on the creation of a desirable 'end product'- in this instance oak framed houses - to prosper.

The energy required to convert raw timber into a structural building component is minimal - especially as timber materials are made by hand - meaning timber materials are inherently low in embodied energy.

All timber materials are to be fully FSC® & PEFC certified. Suppliers are audited annually by FSC and PEFC to ensure the timber and timber products are sourced ecologically and ethically and that a continuous chain of provenance can be demonstrated at every stage.

Insulation

The proposed house will have exceptionally high levels of thermal insulation and heat retention - predominantly using Kingspon & Celotex - supported by an energy efficient heating system. The house will meet and exceed current Building Regulations Part L standards.

The dwelling will have a 'fabric first' approach and will achieve thermal U-values which are considerably better than current building regulation standards.

The insulation products specified in the proposed scheme include recycled waste product wood boarding and recycled glass spun fibre treated with a unique plant based eco binder.

The high levels of thermal retention of the proposed dwelling home(s) reduces the demand on natural finite resources, with the property only requiring minimal heating if only.

Airtightness and Thermal Bridging

All The Planning Service and Aaron James Architecture homes are designed and constructed with minimal thermal bridging and are virtually airtight, with significant investment in high technology products and innovative design detailing to eradicate both air leakage and thermal bridging above required standards. This further enhances the thermal retention of the building and the low energy demands for heating.

MATERIALS

Natural, recycled, low toxin, reusable/biodegradable and low embodied energy products are proposed on all The Planning Service and Aaron James Architecture homes projects. Typical materials include: slate, timber, bricks, lime mortars and lime renders, natural organic paints (made locally), oak floors and hand made high specification timber joinery (made locally). Other items are handmade locally by blacksmiths, carpenters and craftsmen with many reclaimed products incorporated where possible.

All external windows and doors will be 'A' rated using energy efficient glazing. All glazed units to be gas filled and double rebated. Window and door joinery to be draft stripped. Energy efficient LED lighting will be incorporated in all areas. Dual flush toilets. Flow Reducing/Aerating taps throughout. Surface water from roofs to replenish ground water aquifer with the use of soak-away(s). The use of the energy efficient measures is compliant with NPPF and local planning code for sustainable homes.

The use of cement, concrete and steel (high embodied energy, toxic and highly processed materials) will be avoided wherever practical.

WASTE MINIMISATION

The Planning Service and Aaron James Architecture has in place a Waste Minimisation Policy which aims to recycle and divert away waste from landfill. This proposal will benefit from our waste management and waste minimisation policy and procedures.

PROCUREMENT

The majority of products used will be made and procured locally in Hampshire, therefore reducing the transport miles, number of deliveries required to travel to site and minimising disruption during the construction phase.

PASSIVE SOLAR ORIENTATION

The Planning Service and Aaron James Architecture homes projects are designed to maximise any potential passive solar gain - for both light and heat. Many of the rooms are single depth with multi aspect glazing to capitalise on the available natural light and warmth throughout the day.

LANDSCAPING

The natural housing and landscaping materials have been chosen to weather softly into the surrounding landscape - echoing the natural palette in the vicinity and wider environs, positively contributing to the area and representing a very high standard of design and sensitivity in a location. Permeable surface materials have been specified.

SELF BUILD AND CUSTOM BUILD

Self-builders/custom builders are amongst the most ecological and sustainably minded - aiming to build homes with sustainability credentials that are not available on the conventional housing market - and it is anticipated that self-builders/occupants will opt for further ecologically sustainable systems such as under floor heating, eco boilers, water efficiency products, rainwater harvesting, air source heat pumps, ground source heat pumps, PV panels and electric car points wherever appropriate or required.

INDEPENDENT APPRAISAL

Sharp Energy - a specialist independent energy and sustainability auditor have also appraised the proposal, recommending improvements where possible which have been incorporated into the proposal. The thermal calculations should be considered alongside this Sustainability Statement and will be submitted to Building Control along with a full plan check prior to construction.

ECONOMIC SUSTAINABILITY

This proposal will support an established Hampshire company - a local employer, together with their numerous associated trades and other enterprises within Hampshire.

The proposal will create and support local highly skilled and well paid employment opportunities and will generate considerable economic revenue within the county.

It is envisaged that the required ancillary services/trades such as consultants, electricians, construction workers, retailers, plumbers, landscapers, kitchen makers, engineers, innovators and designers etc will also be locally based and will benefit significantly from the proposal - many of these are small scale enterprises.

Furthermore The Planning Service and Aaron James Architecture hope that projects such as this will provide self-build opportunities - to encourage families to stay, move to and work in local area.

It is clear that local, small scale and exemplary development projects such as this will also directly increase revenue spend in the county whilst creating innovative and needs led housing.

In light of the Council's acknowledged to supply development of land and housing, it is hoped that this proposal can offer a modest (but importantly, available, viable and deliverable) addition to the housing stock, which is still sensitive to the community wishes and surrounding landscape and infrastructure.

New homes also delivery direct revenue to the country from New Homes Bonus, Council Tax and day to day occupants spend.

SOCIAL SUSTAINABILITY

This proposal will deliver a modest, but locally appropriate, contribution to the local housing delivery.

This proposal can meet a diverse variety of housing 'needs' - not least the needs directed by the NPPF.

It is designed to be sensitively integrated within the established community and landscape.

The requirement for all LA's to identify, facilitate and support small scale & custom/self-build opportunities is clearly identified in the NPPF and reinforced through recent Govt, directives on planning guidance, together with emerging initiatives such as 'The Right to Build'. This proposal would meet these objectives in a sensitive and appropriate manner.

The new house(s) will not only solve a specific housing issue for the applicants, but will also meet the needs of others in the future looking for highly sustainable, low maintenance, attractive, inexpensive to run and adaptable family homes.

It is highly likely that the creation of these new home(s) will also positively contribute to the local community, helping protect vulnerable facilities such as schools, shops, village halls, public houses and post offices.

The proposed housing is deliberately conceived to deliver much needed family sized homes with family sized gardens in a sustainable location. The floor plans are inherently flexible to ensure the house can be adopted to all future needs - including the provision of ground floor bedroom conversion (for the disabled, elderly and infirm) and space home office and cycle storage (to encourage home working and reduce transport movements and travelling).