Our Ref: 2923

Your Ref: 23/0832/FUL

Wednesday 22 November 2023

Wyre Forest District Council Contact: Mr. Michael M Singh

Wyre Forest House T: 0121 389 4676

Finepoint Way E: Michael@lapwortharchitects.com

Kidderminster

DY11 7WF

**SENT BY EMAIL ONLY**

Dear Sirs,

**Re: Demolition of bungalow and replacement with dormer bungalow and associated works**

**At: Lowood , Belbroughton Road, Hackmans Gate, Clent, Worcestershire,**

**DY9 0EW (the site”)**

I refer to the application described above.

We are informed that as the development is proposed to be over 100 square metres gross,

Policy SP.37, requires carbon emissions and secure sustainable energy solutions, all new developments over 100 square metres gross.

The policy requires energy from renewable or low carbon sources equivalent to at least 10% of predicted energy requirements, unless it has been demonstrated that this would make development unviable. Applications will be required to include an Energy Assessment demonstrating how these requirements will be met.

This document intends to discharge this obligation.

**Policy Compliance**

SWDP1 of the South Worcestershire Development Plan 2031 seeks to ensure all new

developments minimise waste and pollution, improve biodiversity, protecting green

infrastructure, mitigating and adapting to climate change whilst safeguarding and enhancing

the landscape character.

For the purpose of this report we will be looking at aspects of the following policies

contained within the SWDP;

* SWDP 18 – Replacement dwellings in the open countryside
* SWDP 22 – Biodiversity & Geodiversity
* SWDP 27 – Renewable and Low Carbon Technology
* SWDP 28 – Flood Risk
* SWDP 30 – Water Resources, Efficiency & Treatment
* SWDP 33 – Waste

In particular SWDP 27 to assess the use of the decentralised energy networks and generating

renewable energy on site according to Policy A.

**Core Strategy**

Malvern Hills District, Worcester City, and Wychavon District Councils have collaborated to create a Development Plan with the goal of effectively managing and planning future development in South Worcestershire. The plan aims to have a positive impact on the environment while ensuring that development is well-planned.

The city council has set a target of reducing CO2 emissions in the city by 80% by 2050, based on 1990's figures, as part of The Climate Change Act 2008.

Local planning policies play a crucial role in achieving this goal. The Planning and Energy Act (2008) allows local planning authorities to place reasonable requirements on the proportion of energy used in developments to come from renewable and low-carbon sources in the area surrounding the development.

**Planning Guidance**

The policies SWDP 27 stipulate that residential developments should strive to source at least 10% of their predicted energy requirements from low carbon or renewable sources. However, this 10% minimum should not be treated as a maximum. Even if a development achieves at least a 10% reduction in carbon emissions, it does not mean that Policy SWDP27 is waived.

In line with the policy, the Council still expects developments to incorporate low and zero-carbon energy generation or connect to low and zero-carbon energy networks wherever possible, unless it is proven that the cost of doing so would make the proposed development unfeasible.

As the development in question is a single residential unit, it may not be practical to connect to a district heating network.

**POLICY CONTEXT**

The SWDP provides further guidance on reducing carbon emissions within the reasoned

justifications 9-11. Within these sections it is stated that

1. Whilst the SWC will rely on the national timetable for introducing standards in carbon dioxide emission reductions from residential and non-residential development, to secure sustainable energy solutions all new development (over 100 square metres or one or more dwellings) will be required to incorporate the generation of energy from renewable or low carbon sources equivalent to at least 10% of predicted energy requirements.
2. The use of on-site sources, off-site sources or a combination of both, can be considered in meeting this requirement. To demonstrate that the renewable and low carbon energy target will be met, planning applications must be accompanied by an energy assessment.
3. All developments to which SWDP27 A applies will be expected to meet the renewable and low carbon energy targets unless it can be demonstrated that:
4. a variety of renewable energy sources and generation methods have been assessed and costed; and
5. achievement of the target would make the proposal unviable (through submission of an independently assessed financial viability appraisal).

**Targets**

The following statement outlines the targets and commitments of Lapworth Architects with regards to the proposed new development. It also describes the measures that the owner and contractor will take to fulfill these commitments. The statement is based on existing policy frameworks at national, regional, and local levels, all of which prioritize sustainable development. Below is an overview of the policy documents that serve as the foundation for the principles, targets, and measures.

**National Policy:**

In 2003, the UK Government released a White Paper titled 'Our Energy Future - Creating a Low Carbon Economy'. This marked a significant shift in energy policy as it brought environmental concerns to the forefront and defined a long-term strategic vision for energy policy that combined environmental, security of supply, competitiveness, and social goals.

One of the government's aims is to lead by example in the public sector by improving energy efficiency in buildings and procurement. National energy reduction targets have been set out in various documents, including The UK Fuel Poverty Strategy (2001) by the Department of Trade and Industry, the Energy White Paper (2003) by the Department for Environment, Food and Rural Affairs, and the Government's Strategy (2004) for combined Heat and Power.

* 2050 60% reduction in CO2
* 2020 To increase renewable generation by 20%
* 2018 Eradicate fuel poverty in vulnerable households
* 2010 Reduce domestic energy consumption by 30%
* 2010 10% of electricity generation from renewables
* 2010 Good quality Combined Heat and Power generation of 10,000 MW

The aforementioned subject areas are embedded in Government Planning Policy Statements

(PPS) and Planning Policy Guidance (PPG) which set out national policy on land use planning.

These policies complement but do not replace other national planning policies. All PPS’s and

PPG’s are embedded in Regional Spatial Strategies (RSS’s) and local planning authorities in

the preparation of local development documents. They may also be material to decisions on

individual planning applications.

* PPS 1: Delivering Sustainable Development: (February 2005) sets out the relationship between planning, land use and sustainable development. It places an emphasis on community involvement in the process of building a high quality environment. Inclusive and accessible design, as well as health and safety are also prioritised.
* PPS 1: A Supplement - Planning and Climate Change: (December 2007) strengthens the emphasis on sustainable development and sets out guidelines for local planning authorities in relation to regional mitigation and adaptation measures for current and future climate change.
* PPS 3: Housing: (June 2010) sets out the Governments strategic housing policy. Objectives aim to ensure that everyone has the opportunity to live in a decent home, which they can afford in a community where they want to live. This policy seeks to improve housing choice, widen access to affordable homes; develop more opportunities for home ownership and create sustainable and inclusive mixed communities.
* PPS 10: Planning for Sustainable Waste Management: (May 2006) identifies the production of less waste and its use as a resource wherever possible as the key objective. Disposing of waste is only to be considered as a last resort. The Government seeks to break the link between economic growth and the environmental impact of waste. This policy also specifies the decision making responsibilities, to the extent appropriate, of regional planning bodies and all planning authorities in waste management.
* PPS 22: Renewable Energy: (August 2004) calls for regional strategies and local authorities to actively encourage renewable energy development through local planning policies. Technologies such as combined heat and power systems (CHP), wind turbines, photo voltaic cells and biomass heating should be considered in all new developments.
* PPS 25: Development and Flood Risk: (March 2005) aims to ensure that flood risk is taken into account at all stages of the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas of highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe, without increasing flood risk elsewhere, and, where possible, reducing flood risk overall. It advises that developments on sites in excess of 1 hectare should be accompanied by a Flood Risk Assessment in order to evaluate the risks and order that they are appropriately mitigated or minimised.

**Regional policy**

The current South Worcestershire Development Plan was adopted in February 2016 with

strengthened policies emphasising energy efficient design and decentralised energy supply

are introduced promoting adaptation as well as mitigation in sustainable building design.

* SWDP 18 – Replacement dwellings in the open countryside
* SWDP 22 – Biodiversity & Geodiversity
* SWDP 27 – Renewable and Low Carbon Technology
* SWDP 28 – Flood Risk
* SWDP 30 – Water Resources, Efficiency & Treatment
* SWDP 33 – Waste
* SWDP 18

The text discusses various criteria for replacing dwellings in the countryside. However, the use of existing housing stock goes against SWDP 1 C vii and does not help achieve the goals of the Climate Change Act laid out in SWDP27.

The current detached bungalow has an Energy Performance Rating of 48 E, making it unsuitable for adaptation to modern living. Improving the existing structure would not be as efficient as building a new dwelling from scratch, designed with a fabric-first approach to minimize energy demand before any renewable systems are installed.

According to the recommendations of the existing EPC, even if all 9 measures were installed, the dwelling would still emit an estimated 2.0 tonnes of CO2 per year. Currently, it emits around 5.5 tonnes of CO2 per year. In comparison, the proposed dwelling is estimated to produce only 1.02 tonnes of CO2 per year, an 81% reduction from the existing dwelling and nearly a 50% improvement if approximately £24,700 were spent on the recommended measures.

The client has therefore requested that the existing building is carefully deconstructed and

replaced with a new build dwelling.

SWDP 22

Please see section 4.5

SWDP 27

Please see section 5.0

SWDP 28 & 30

Please see section 4.4

SWDP 33

Any waste bins installed as part of the development are to be segregated into general and

recyclable waste and clearly labelled to encourage ease of recycling for future occupants

such as those shown below;

Local Policy

The project is located within the boundary of Wychavon District Council and thus

governed by South Worcestershire Development Plan and no further local/borough

council policies apply to the application.

4.0 SUSTAINABILITY PRINCIPLES SUMMARY

The Climate Change Act (November 2008) was the first Bill of its kind to set out a framework for moving the UK to a low-carbon economy. The Act sets legally binding targets for the reduction of targeted greenhouse gas emission for the year 2050 through the following

framework:

* The UK net carbon account for the year 2050 will be at least 80% lower than the 1990 baseline with the interim target of 2020 at 34%
* The establishment of a new Committee on Climate Change, to provide independent expert advice and guidance to Government on achieving targets and carbon budgets
* Greater energy efficiency, with more consumers becoming "producers" of their own energy at home
* A change in the way energy supply companies operate, so that they focus on reducing demand, rather than just supplying as much energy as possible, investment in low-carbon fuels and technologies, such as wind, wave, solar power and carbon capture and storage.

**Transport**

Establishes the integration of planning and transport at the national, regional, strategic and

local level and promotion of more sustainable transport choices both for carrying people and

for moving freight as the key objective. This will be achieved through promoting accessibility

to jobs, shopping, leisure facilities and services by public transport, walking and cycling, and

through reducing the need to travel, especially by car.

To facilitate and promote the use of bicycle transport a cycle store is proposed with the

provision to allow the storage of 6 bicycles, i.e. one for each expected body in the dwelling.

**Air Quality, Noise and Pollution**

The term “sustainable development” has various definitions which are under constant

criticism both globally and locally. As such, the 2005 UK Government publication ‘Securing

the Future: delivering UK sustainable development strategy’ replaced the previous strategy

for sustainable development, ‘A better quality of life: A strategy for sustainable

development’ which was published in 1999. ‘Securing the Future’ has agreed four priorities

for the UK and its devolved administrations. These priorities are:

1. Sustainable consumption and production,

2. Climate change and energy,

3. Protecting our natural resources and enhancing the environment

4. Creating sustainable communities and a fairer world

All priorities are incorporated into policy at the regional and local level.

**Materials and Waste Management**

The plan for the existing building involves careful deconstruction and reusing all usable materials on site as fill or recycling at local facilities. The contractor must present a site waste management plan that shows the following: a) target benchmarks for resource efficiency; b) procedures and commitments to minimize non-hazardous construction waste at the design stage; c) procedures for minimizing hazardous waste; and d) monitoring, measuring, and reporting of hazardous and non-hazardous site waste. The plan must include procedures and commitments to sort and divert waste from landfill, using methods such as reusing on site or other sites, salvage and reclaim for reuse, returning to suppliers, and using approved waste management contractors. All timber used must have FSC certification to show responsible sourcing. The contractor must prepare and operate an Environmental Management System that includes communicating these requirements to their subcontractors and suppliers.

For water consumption, the dwelling will incorporate measures to reduce the use of potable water, including aerated and low-flow taps, showers, and dual flush toilet cisterns, as well as water-efficient white goods appliances. It must not exceed 110L/PP/Day. The design calculation has achieved 106.2L/PP/Day for the dwelling and 83.07 L/PP/Day for the annex. The precise specification of water fittings and fixtures will be made at the detailed design stage.

The new development embodies multiple passive environmental techniques regarding sustainable drainage systems, such as increasing site permeability for drainage, designing the drainage systems to not impact the existing sewer system, creating a reed bed filtration system for foul drainage, and creating a stormwater balancing pond to manage run-off into the watercourse.

The site location is within flood zone 1, which has a low probability of flooding. The development is smaller than one hectare and therefore does not require a flood risk assessment. **Biodiversity and Ecology**

As per Policy SWDP22 ( F ) with this development, there is also a proportion of the land

being utilized for grass and soft landscaping with native wild flowers to encourage

biodiversity and replace lost habitat for local flora and fauna. The installation of logs, small

rocks and sanded areas encourage invertebrates, birds and even lizards to use the space.

Initially the areas will look no better than a rough, stony, weed-infested area but in time will

develop; constantly changing as different species come to the fore or take up residence.

During the growing and flowering seasons a matured vegetation area can resemble

something akin to an English meadow. Many people think they look messy and unkept but in

fact these areas do far more for the environment than a perfectly kept lawn.

We would also recommend the consideration for the installation of bird nesting boxes within

the development to encourage and enhance the site ecology. Examples are indicated in

Figure’s 8 and 9 below:

Any proposed boundary fencing it is recommended that hedgehog access points are

included in the fencing gravel boards design so that hedgehogs can traverse the local

landscape and neighbouring gardens freely.

Figure 5 & 6: Hedgehog Passageways

The gardens already provide a good selection of nectar rich plants providing a source of

food for a range of species including, bees, butterflies and moths. These should be

maintained where possible. New proposed hedging could include; wild privet,

Ligustrum vulgare the flowers of which are particularly favoured by bees.

A range of nectar producing flowering plants and shrubs should be included within

planters surrounding the site where possible these could include lavender or

honeysuckle for example.

GREEN AND BROWN ROOFS

1) An Intensive Roof

Intensive living roofs are very much intended for human use and as such take on a more

‘landscaped’ feel with deeper substrates (at least 150mm up to a meter and beyond)

catering for a wide variety of grasses, shrubs and trees. Maintenance is both essential and

regular as lawns need mowing and shrubs pruning – an irrigation system should also be

installed.

2) An Extensive Roof

Living roofs are primarily designed for ecological reasons, rather than human use. The most common type is extensive, which is relatively inexpensive to install, has lower weight loadings and requires minimal maintenance. Typically, plants are grown in a light-weight growing medium or substrate, with a depth ranging from 20mm to 150mm. Ground-hugging species, such as sedum, that are highly resistant to drought are usually used.

The principles behind these types of roofs are driven by ecological concerns. The Swiss pioneered this concept, and it is now becoming more popular as policy makers seek to replace lost habitats for local flora and fauna.

The installation of logs, small rocks, and sanded areas encourage invertebrates, birds, and even lizards to use the roof. Although initially the roof will look rough, stony, and weed-infested, it will develop over time, constantly changing as different species come to the fore or take up residence. During the growing and flowering seasons, a mature roof can resemble something akin to an English meadow. Although some people believe they look messy and unkempt, these roofs do more for the environment than sedum-based and intensive roofs.

Re-greening impermeable surfaces, such as roofs, allows us to readjust the imbalance. Plants store carbon, and if we have more plants, we can store more carbon. While living roofs won't save the world, they serve as a fundamental tool to address the problem.

Although a flat roof is proposed, proposed roof lanterns take a majority of the proposed area, with only a small portion intended for use as a balcony, making a green or brown roof unsuitable for the proposed dwelling.

**Collaborative working**

On this particular occasion, we can confirm that all queries/questions should be directed to Mr Singh on DD: 0121 389 4676

Yours Faithfully

A picture containing clipart

Description automatically generated

Michael M S Kalam

For Lapworth Architects Limited

Encs: Drawing 01 Site location as existing,

Drawing 02 floor plans and elevations as proposed

Drawing 03E floor plans and elevations as proposed