Design Statement

600-666 Bungalow Extension

24 Church Lane

BD9 4QQ

www.2dioarchitecture.co.uk | Contact : 07965422895

1.0 Introduction

This Document sets out the design strategy for the

Project Description

- Single storey extension and new rear dormer with alterations to existing roof

This document sets out information regarding the proposal, the site and the surrounding area.

This Design and Access Statement is to be used in conjunction with plans, elevations and any other relevant documents associated.

2.0 Proposal

- Single storey rear extension
- Rear dormer
- New roof to existing porch
- Alterations to existing roof

3.0 Site Context

The site is situated within and surrounded by residential dwellinghouses. The site is set lower than its neighbouring dwelling.

4.0 Design statement

Single Storey Rear Extension – The proposed 3m extension is a modest addition designed to enhance the existing dwelling by creating a more comfortable living space, improving the use of the garden, and introducing additional natural light into the home. The extension falls within Permitted Development rights and retains ample garden space for the continued enjoyment of residents.

Roof Alterations & Dormer – The roof alterations have been carefully considered to complement the original design, incorporating a modest dormer that does not overwhelm or dominate the rear roofscape. The design ensures that the original roof form remains clearly legible and in harmony with the rest of the dwelling.

Site Levels – As the dwelling sits at a lower level than the neighbouring property, the proposals will not result in overshadowing or an overbearing impact.

Materiality – All proposed materials will match those of the existing dwelling, ensuring a coherent and seamless relationship between old and new elements.

5.0 Sustainability Statement

Q1: What measures have been/will be taken to reduce the energy demand associated with your proposed development beyond the minimum required in Building Regulations? (See section 2)
Significant steps have been taken to ensure consideration of energy demand in both the renovation of the existing property and the design of the extension. The property will be installed with a new energy efficient boiler system linked to radiators in that can be temperature controlled in each room, allowing for zoned heating control. Smart electrical wiring system that visually displays energy consumption and cost linked to energy conserving appliances and LED lighting systems. The design of the roof has been optimised in a manner to benefit from the natural energy resources. Maintenance of the sloped south facing roof does allow for the installation of solar panels. Equally, the roof windows help maximise the natural light to the interior, to help minimise energy use from artificial lighting. Not only has the need to reduce artificial lighting been considered but the layout of the glazing helps temperature regulation and reduce the need for mechanical ventilation. The entirety of the house will benefit from double glazing to help maximise air tightness and high U-values to reduce thermal loss. Additionally, measures have been taken in the proposed plans to ensure future proofing of the structure. As mentioned, the shape of the roof has been designed to allow use of solar panels, we have also maintained storage space next to the electric switch board to allow the future installation of a battery storge system allowing the accommodation of future upgrades to low-carbon technologies such as electric vehicles.
Q2: What measures have been/will be taken to limit the carbon consumed through the implementation and construction processes, e.g. by reusing existing on-site materials or sourcing materials locally? (See section 3)
The current roofing structure will be reused on the extension including the tilling and the timbers from the framing of the roof. The repurpose prevents both energy loss to dispose material and the energy loss to source new material. Where new material is sourced it will be from local sources to limit the carbon spend and ensure material with high U values are used to maximise long term benefits. Also, the new slanting roof allows for off-site construction to help use lower energy consuming prefabricated methods of construction.

Q3: What measures have been/will be taken to utilise renewable or low carbon energy sources?
As noted above measures have been taken in the design to allow the use of low carbon energy sources, from the shape of the roof allowing solar to the future planning to allow storage of batteries or heat pumps.
Q4: What measures have been/will be taken to ensure the building design and layout has been optimised to energy efficiency beyond the minimum requirements in Part L of the Building Regulations ?
The restructure of the roof allows installation of roof windows to allow entrance of natural light as well as maximising energy efficiency by the installation insulation. This would not be possible with the current south facing aspect of the roof without the significant expenditure of energy as it has internally inaccessible aspects. Insulation will be applied to all aspects of the house including the northern aspect alongside energy efficient double glazing. No building changes are to be made to the northern aspect of the house that is visible to the roadside, this maintains the original character of the house and prevent excessive energy use. The restructure of the layout provided has been done with consideration of maximising the primary habitable aspects to the south aspects of the house. The maintained trees and shrubbery that run across all borders of the property allow for shading to the house from excess sun during the summer. They also save from strong winds but equally promote an environment for natural ventilation, whilst offsetting carbon emission. Further conifer plants have been planted to the aspects of the roadside to maximise this net gain.
Q5: What measures have been/will be taken to reduce potential impacts of flooding associated with your proposed development? (See section 6)
The property benefits from a gradient site with significant green landscaping to maximise water drainage.
Q6: What measures have been/will be taken to reduce water stress associated with your proposed development? (e.g. Water retention and minimisation measures)
Use of measures to conserve water use, including installation of both low flush and dual setting flush toilets to the ensure water volume is conserved. The use of spray water outputs in the taps and shower fittings.

The property already benefits from the installation of a water meter that allows the visual awareness of water use. The proposed south facing dormer with the single gradient roof also allows for rain water run-off to be collected and harvested for multiple uses – including the installation of a water butt to provide hydration to the plentiful greenery onsite.
Q7: What measures have been/will be taken to provide biodiversity net gains?
The site maintains a significant garden to the rear post extension and untouched garden to all other border, the current trees and other green infrastructure will remain untouched on site and additional planting helps limit water run off as well as long term carbon offset, maximising climate resilience.
Q8: What measures have been/will be taken to reduce air pollution associated with your proposed development? (See section 9)
As mentioned, the new roof will incorporate reused material from the current site and the use of locally sourced materials combined help reduce transport emission. With the instillation of the windows surrounded by the plants in the garden it allows optimum ventilation and long-term efforts to reduce air pollution As reviewed in Q1, significant long-term plans that allow adaptability to low carbon technologies including the use of electric vehicle, with the installation of EV charging point.

8.0 Summary

The proposal is a modest and sustainable extension with roof alterations that respect the character of the dwelling and surrounding area. It safeguards neighbour amenity, avoids overshadowing, and uses matching materials. Energy-efficient measures and future-proofing further ensure a positive, low-impact development.