



DESIGN STATEMENT

for

PROPOSED NEW HOUSE

at

Site Adjacent to the Old Manor Inn, Lanton, Jedburgh, TD8 6SU



SITE DESCRIPTION

This fully enclosed site lies to the NE of the Old Manor Inn within the hamlet of Lanton. Sitting to the north of Jedburgh Lanton has a wide mix of house styles ranging from a tower house to modern bungalows .

Boundaries:

North West: There are a number of trees and an old dry stone wall between the site and fields beyond.

South West: Consists again of dry stone walls along with buildings belonging to The Old Manor Inn.

East: The eastern boundary is defined by the burn which lies at the bottom of a shallow banking planted with mixed hardwoods and pines. To the top of the banking is an unkempt hedge. To the bottom of the banking is a dilapidated fence

The main part of the site consists of grassed areas interspersed with a few apple trees. An electric pole with overhead cables is located centrally location on the site.

BUILDING BRIEF

The brief for the new house is for a modest home on one level to provide the following accommodation:

2 bedrooms with ensuite and separate bathroom

Open Plan Kitchen, Dining and Living Areas

Large Utility space, with space for drying and storage.

Study

TV/living/snug

Space for large fish tank

External covered sitting areas

Separate garage with space for workshop

Soft and hard landscaping with ponds, veg garden, wood storage, green house garden shed

House where inside links directly to external spaces

The house should also be:

Simple in form

Warm and draught free

Make the most of the views from the site.

Orientation and location of the glazed areas to achieve passive solar gains but with shading to reduce potential overheating in the summer months

Future proofed to allow access throughout in later life

DESIGN SOLUTION

Location of Building

The site presented several limiting factors when considering the location of a new house. These include:

Existing trees and root protection areas

Electricity cable and post

Orientation for views (to the NW and NE) and orientation for solar gains (SE and SW)

Sloping site from a high point at the SW of the site to low at NE end

With the above limitations the house has been placed centrally in an area that avoids tree root protection areas whilst still enabling views and solar gains. The positioning also ensures that the building is entirely screened from the public road.

Building Form

The house is single storey with a free flowing rectilinear form topped with pitched roofs. These roof are allowed to overhang provide not only protection to external sitting areas but also shading to south and west facing glazed area. The detached garage is linked to the house via a continuation of the garage roof to form a covered parking area which in turn provides directed covered access to the main entrance door.



The internal layout of spaces ensure the principal rooms benefit from views outwards to the external soft and hard landscaped areas and the wider landscape beyond to the north and west whilst also enabling solar gains to the south and west.

Site Access

There is only one point of access to the site and this is located in the southern most corner of the site. and has a shared access to the public road with The Old Manor Inn.

From this entry point it will be necessary to form a new drive to the house, garage and parking area. A large Norway Maple tree (which is to be retained) stands between the entrance and the house therefore the new drive will inevitably pass over part the roots to this tree.

To mitigate against any damage to the tree and roots the drive will be formed using Terram Geocell system as per detail drawings provided and manufacturers literature. This system is a “no dig” process and is laid over the existing topsoil leaving the roots undisturbed.



Sustainability, Thermal and Energy Efficiency

The House will be constructed using many of the principals of Passive House Design. Specific features will include:

Very high levels of insulation to walls, floor and roofs which will exceed the requirements of Part 6 of the Building Regulations. Expected U values are 0.1 W/m²K at ground floor, 0.13 W/m²K to walls and 0.13 W/m²K at the roof.

The use of timber triple glazed windows and doors with u values averaging less than 1.0W/m²K.

Careful detailing to achieve air tightness levels less than 0.6m³/m² air changes an hour at 50 pascals (current building regulations norm is between 5 and 7m³/m²)

Construction detailing to minimise or eliminate cold bridging at the external envelope. This will include the use of an insulated ground floor slab system which not only achieves high levels of thermal insulation to the floor but also significantly reduces cold bridging at the ground floor to wall junctions (<https://www.isoquick.co.uk>).

Use of PassiveHaus detailing and principals (<http://www.passivhaus.org.uk/>) along with monitoring during construction to ensure the building performance as designed is achieved when built.

Maximising passive solar gains by orienting most glazing to the south and minimising glazing to the north elevation.

Use of roof overhangs to reduce excessive gains in the summer months.

The insulated slab system listed above minimises excavation of the ground and materials used (reduced use of concrete and no blockwork required below ground.

Installation of Photovoltaic Solar panels. The system to be used will ensure that virtually all electricity generated will be used directly by the house or to provide hot water when excess generation is identified.

The use of a mechanical ventilation with heat recovery system to minimise losses otherwise lost through mechanical ventilation (extract fans).

Fitting 100% very low energy LED lights both internally and externally.

External Materials, Appearance and Landscaping

The external appearance of the building is simple with a clean and contemporary aesthetic.

Walls are be finished with a combination of timber cladding (either painted or untreated) and thin coat rendered surfaces..

Roofs shall be finished using standing seam metal sheeting.

Rainwater pipes and gutters, these shall be Lindab steel powder coated to match finished appearance of roof and windows.

Windows and doors, although timber in construction, shall be aluminium clad and powder coated to provide a long life and maintenance free finish.

Base Course, a simple dark grey cast stone or render will be provided to give protection to wall finishes and separation between the ground and wall.

Hard Landscaping. The drive and parking areas will be finished with gravel surface and be naturally free draining providing a SUDS. Paving will provide access from the garage and parking area to the front and side entrance doors. External sitting areas will also be paved

The remaining areas of the ground will be landscaped as shown and described at the site plan.

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All existing trees will be retained with the exception of holly bush, dead apple tree and apple tree, all of which are in a poor condition having been neglected and partially strangled by under and overgrowth (now removed)

The remnants of a hedge between the house and bank of trees to the east is to be pruned to encourage regrowth. The southern section of this hedge which extends over the proposed drive and parking area is to be removed



Boundary treatments: Existing drystone dykes to the NW and SW boundaries are to be repaired/re-built as necessary. Adjacent to the burn at the eastern side the existing post and wire fence will be re-instated

SERVICES:

Water: Mains water supply is available at the boundary to the site. Rainwater harvesting will be used for garden watering

Waste Water Drainage: The main sewer passes through the site and a new connection will be made at the location shown on the site plan .

Surface Water: Surface water will first flow a new wildlife pond and from there be collected via a harvesting system for use within the garden, any excess will be discharged via soakaways and attenuation trenches before discharging into the water course to the east of the site.

SUMMARY

The siting and design of the proposed new house will provide a modest modern home which is sustainable, thermally and energy efficient.

Orientation of the house and glazing provides views to the south and west whilst avoiding any overlooking of neighbouring properties..

The scale, setting, design and landscaping proposals ensure that this new home is appropriate in scale and form for the location.