



Goitre Coed Fach Farm | Barn Conversion
Design Statement

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INTRODUCTION

Goitre Coed Fach Farm is situated in Treharris within the borough of Merthyr Tydfil.

Access is from Goitre Coed Road to the South via a private lane that links to a yard where vehicles can turn. From here 4 main structures face onto the approach, these being:

1. The main farm house which is directly aligned with the approach and sits to the north. This is a traditionally built 2 storey house with a steep pitched roof and a small garden to the front. The house sits highest on the site as the site slopes upwards to the north.
2. The most southern building is the most humble being a single storey masonry built stable block. This orientated east-west in length with doors opening on the northern elevation.
3. A large storage building open on to the yard on its western elevation.
4. Finally sitting to the north of the agricultural grouping of buildings is a stone built barn with a courtyard and annexe to the rear. This is a single storey with a pitched corrugated roof that is a recent replacement for the original roof



BRIEF

The client has asked us to produce a scheme for a new dwelling house within the site of the stone barn and rear annexe. This would be a family home within the boundary of the family farm to keep close ties with an eye to the future relationships and responsibilities to the land.

Design of the dwelling is to be sensitive but contemporary with ground floor living space and first floor sleeping accommodation and a strong orientation towards the east is preferred to make the most of this aspect.

It is considered that the stone portion of the barn is well built and of solid and sound construction. There are areas of repair that will form part of the proposals and the replacement of the roof structure will allow a steeper pitch to form new accommodation at first floor level.





DESIGN APPROACH

The approach to the initial stages of the design has centred upon how we can efficiently and sensitively accommodate a family home within the existing barn and built structure that is available to us. In this respect we have 3 parts of the existing structures that can be regarded as conversion. They are:

1. The stone barn
2. A single storey structure to the rear that is part retaining and opens on to the courtyard (rear annexe)
3. Miscellaneous lean to structures that are new or part demolished (side annexe)

First of all the stone barn is of a traditional construction as a building for livestock which would seem to have stood on the site for some time. There is evidence of openings being inserted and blocked up at different periods of time as the use of the barn changed. Additionally there is approximately 500mm of fill within the walls of the structure which may be associated with its use being primarily from the eastern elevation where originally it may have been more closely used with the courtyard to the rear. The roof of the structure is also a relatively new change. Where a post truss with purlins, and a far steeper roof pitch would be expected, a new low pitched engineered timber truss is in place with a corrugated roof covering. This gives us the opportunity to reinstate some of the traditional character to the building through conversion.

The rear annexed building is a single storey monopitch that retains ground on two sides. This extension of the main barn would, again, have been used for livestock and opens on to a courtyard area which is walled and opens onto fields to the east. The structure has a metal roof and is walled with stone.

Finally, there are additional miscellaneous structures attached to the northern elevation that are partially demolished as well as a modern concrete blockwork addition. These were dry stores for grains, timber and coal at various stages through the lifetime of the barn. It is considered that this area should be included within the original footprint of the building.

ELEMENTAL APPROACH

The proposals can be divided in to the 3 elements that are identified in the design approach. With each element is a differing strategy defined as CONSERVE, REINSTATE & REBUILD.

CONSERVE relates to the existing built footprint which we aim to retain. It also has relevance to the existing materials that would have been original ie the stone walls.

REINSTATE the original roof pitch and form to the barn with a steeper pitched roof. Materials that are true to age of the barn are proposed such as a new slate roof coverings.

REBUILD new extensions to the north of the barn to replace historical form and also the annexe to the east that is in need of repair.

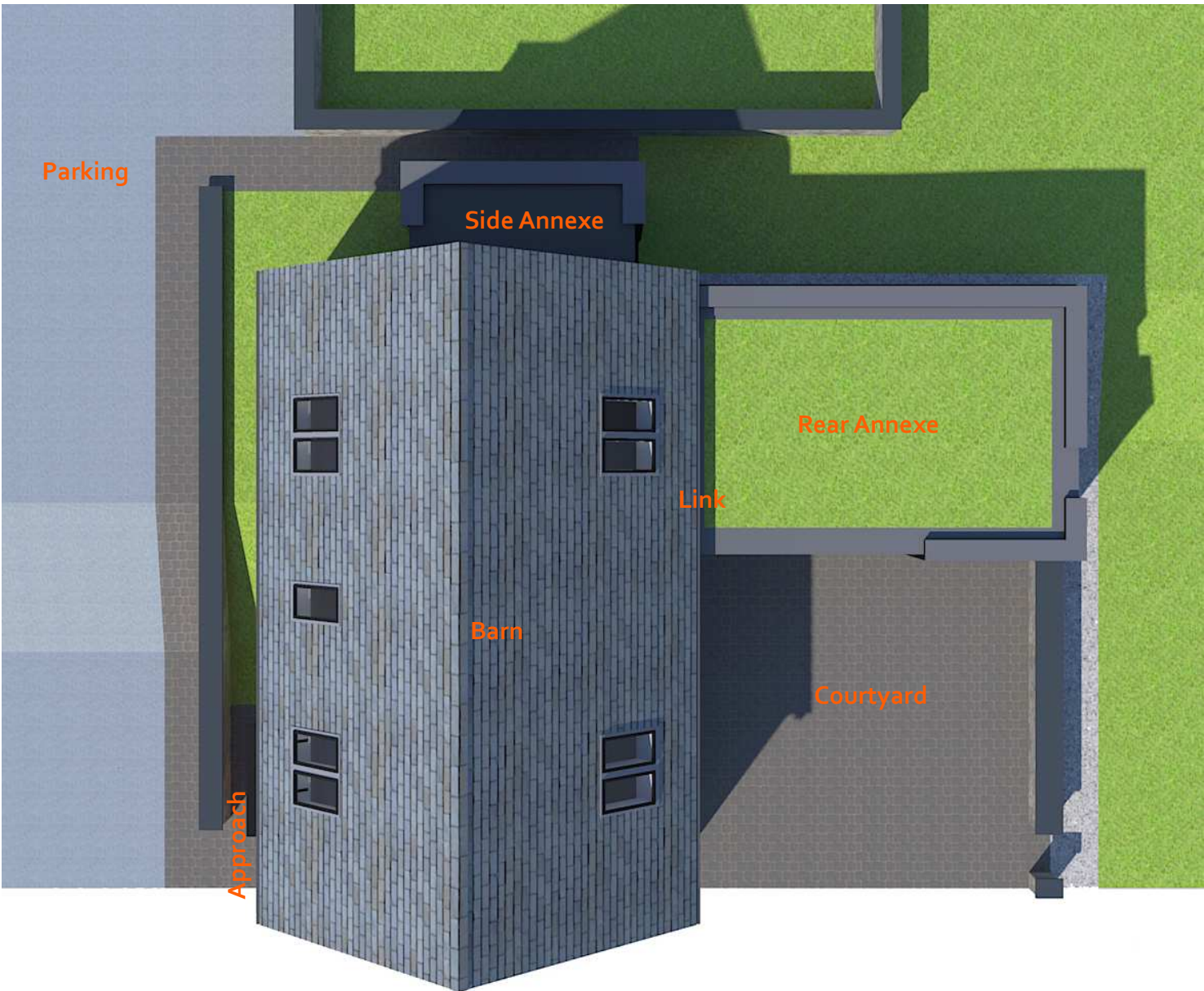
ADDITION to the rear of the barn and over the annexe to create a 2nd storey that looks on to the fields beyond. This also applies to a small porch at the front of the barn.

PROPOSED SITE STRATEGY

Simply, the site strategy is to enhance the existing built form. The approach and parking arrangement will be kept to the yard area in front of the barn and this will form the new approach. Some careful landscaping will allow for building users to approach from the west and enter at a new lower level following the excavation of fill within the barn itself. To the east, the courtyard will be reinstated and enhanced with the majority of new rooms looking on to it.

The intention is to include the majority of the accommodation within the original barn and then add a new simple form to the rear which is contemporary, echoes the agricultural aesthetic and enhances the building group.

The hierarchy of elements is also very important and from the approach to the principal elevation the barn is prominent and hides the volume to the rear. The new storey to the rear is lower at ridge and its massing is smaller than the barn. Material use also helps to break up the mass.



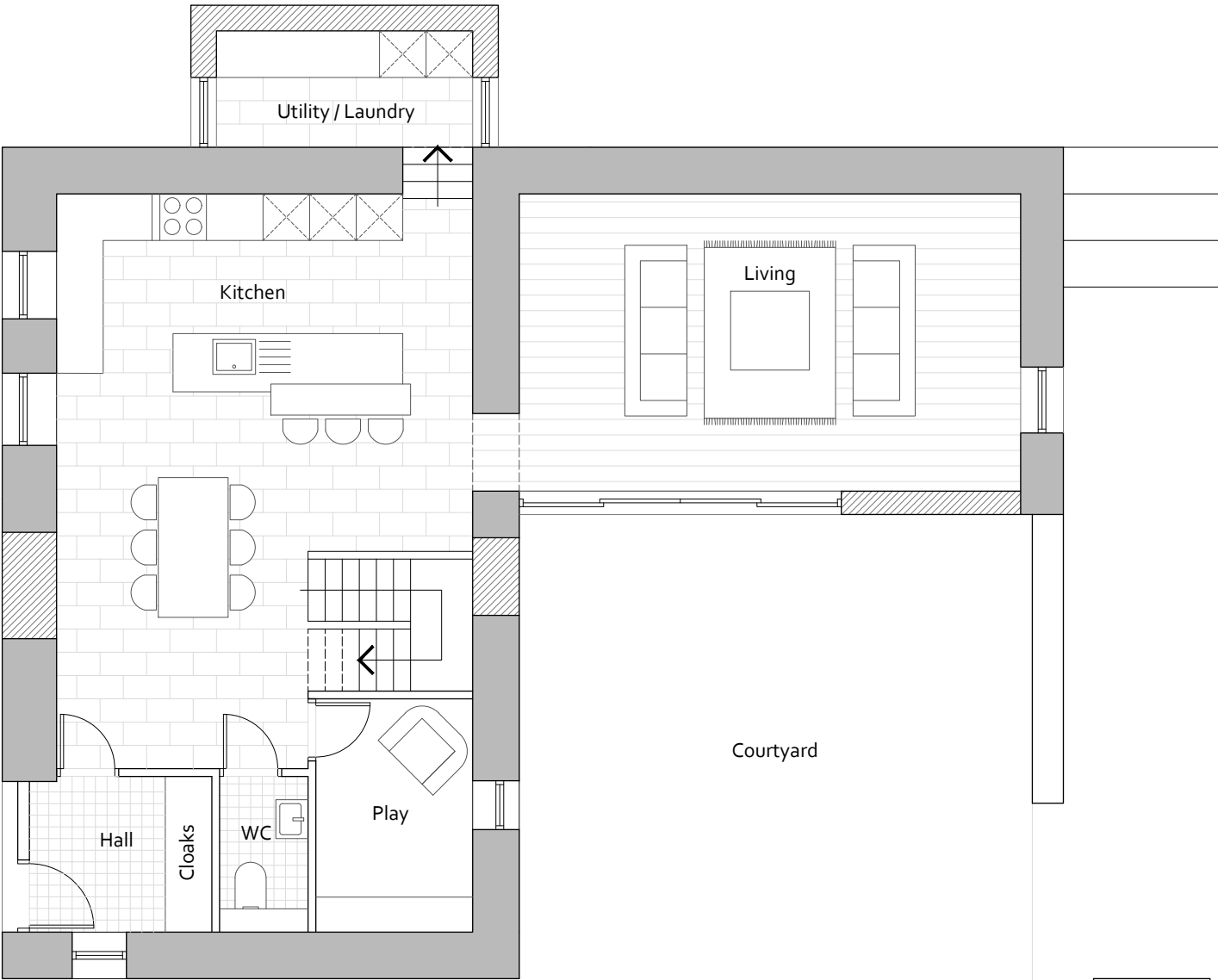
PROPOSED FLOOR PLANS

The floor plans represent the same footprint as the existing barn, rear annexe, and dilapidated extensions along the northern elevation.

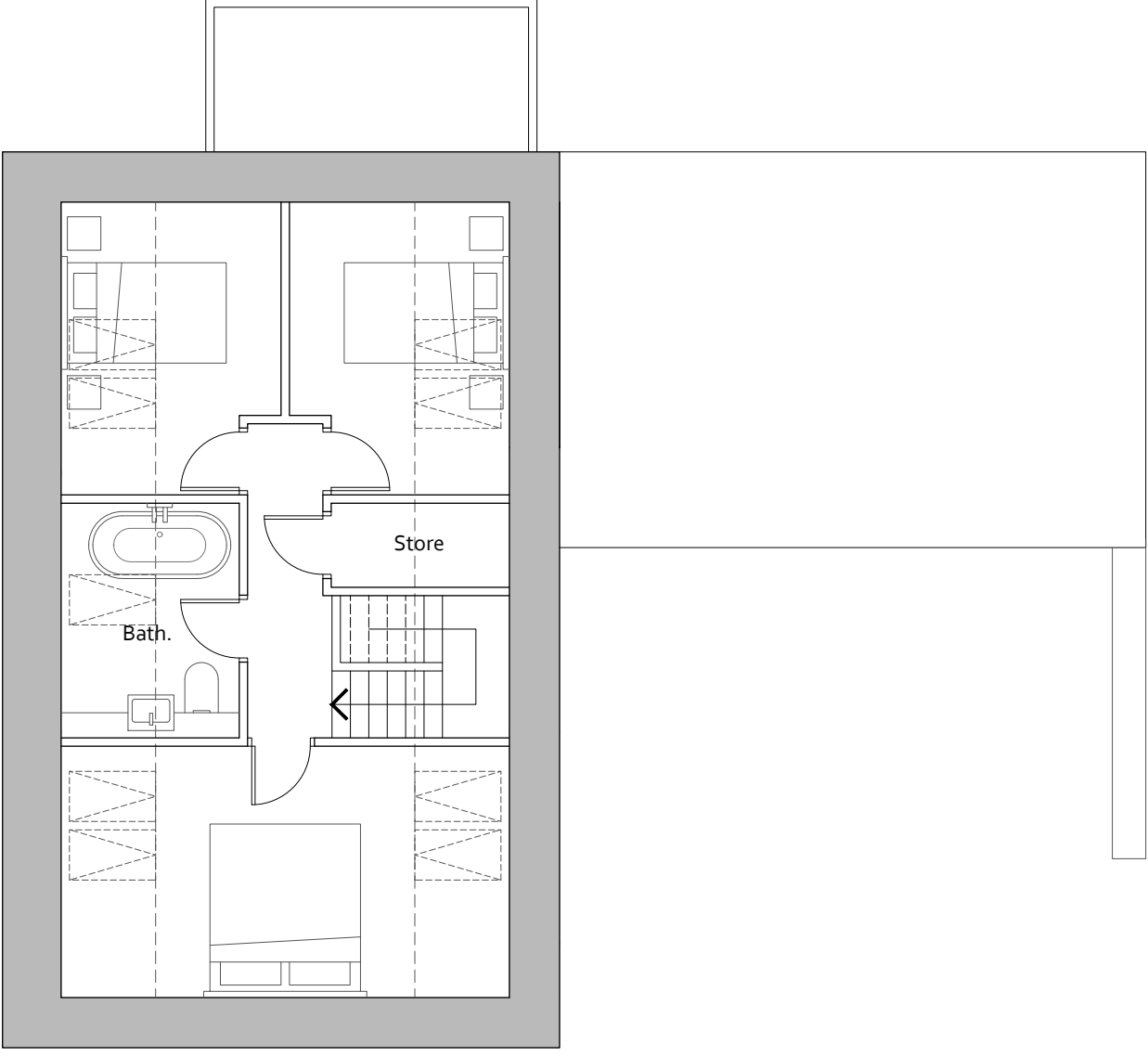
Entering the building through a new porch that connects to the existing door, a large multi purpose space has been created within the barn. Adjacent are the back of house and complimentary uses for the house which include a ground floor WC, utility and laundry room and a cloak space and a small play room. At the rear of the ground floor is a large family living room.

The main spaces open on to the reinstated and refurbished courtyard with views beyond to the fields.

At first floor all of the bedroom spaces are included which utilise the volume created by the new roof. Bedrooms are in the eaves space with a small amount of sloping ceiling and this allows 3 good sized double bedrooms with a family bathroom and store room in addition.



Proposed Ground Floor Plan 1:100



Proposed First Floor Plan 1:100



Front Elevation (West)



Side Elevation (South)



Rear Elevation (East)



Side Elevation (North)

MATERIALS & ELEVATIONS

Materiality is extremely important in distinguishing between the old and new. The existing building is refurbished with a new slate roof, new oak lintels over openings and refurbished and re pointed stonework.

In contrast the new elements pick up on agricultural architecture with simple form and simple materials used in a contemporary way.

Blackened timber with black framed windows provide a crisp silhouette, whilst the roof to the refurbished annexe is designed as a flat roof. This modern form provides a contrast to the original barn which is a sympathetic refurbishment in comparison to this contemporary and agricultural response to the brief.

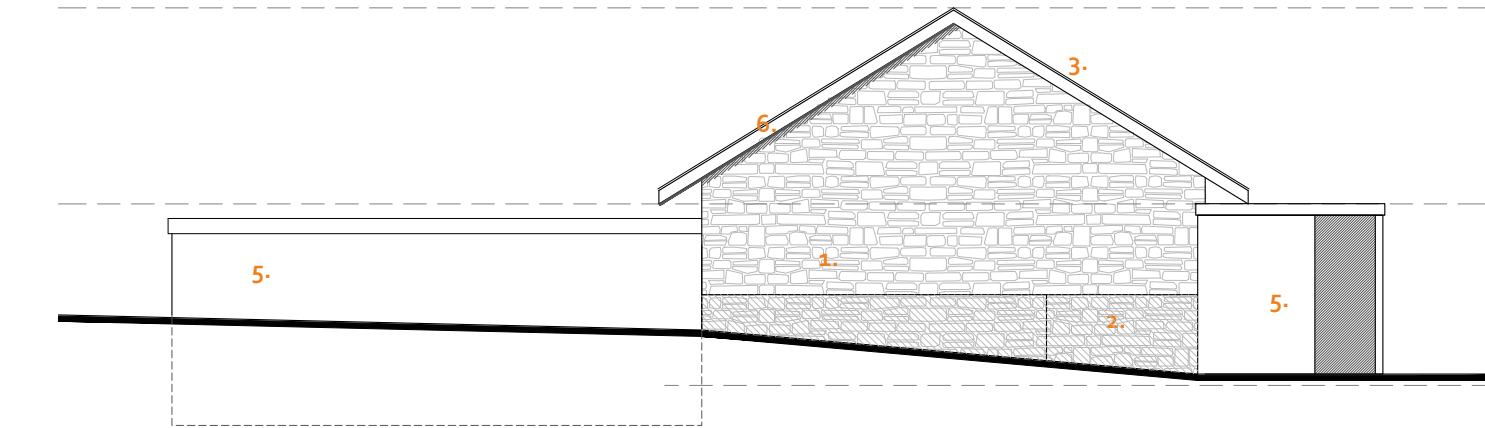




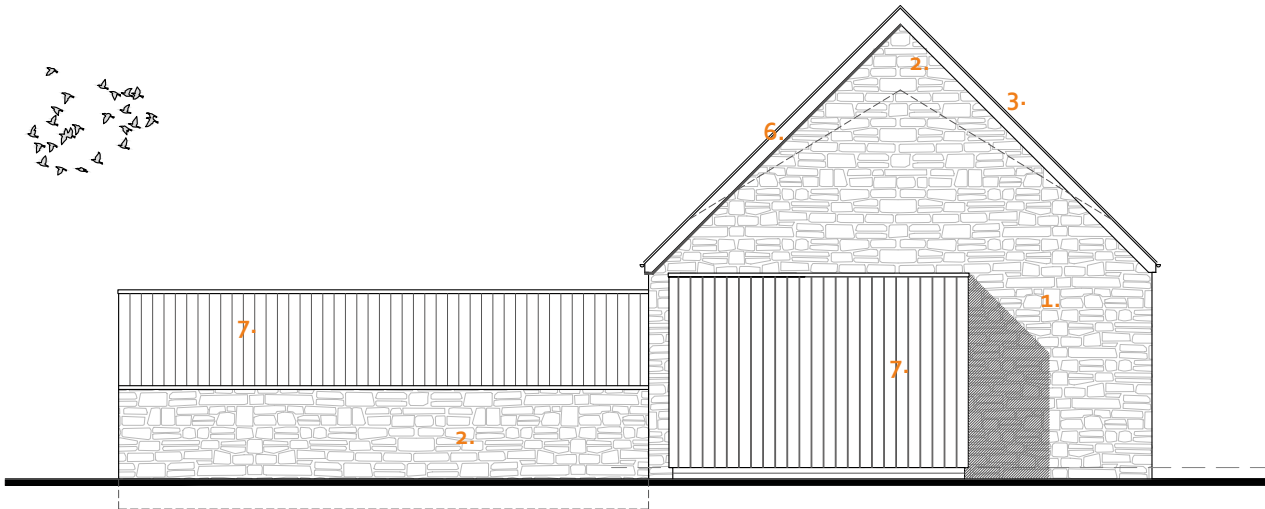
View to the front of the proposed Barn Conversion



View into the rear courtyard with the rebuilt annexe to the right of image



Existing Side Elevation (North)



Proposed Side Elevation (North)

MASSING & VOLUME

Due to the limited floor area offered by the existing buildings, the proposals seek to utilise every last opportunity for space using the topography and reinstatement of historic features to create a successful family home.

The barn uses the space within the roof to utilise area whilst reducing the appearance of scale. This allows a more efficient relationship between usable floorspace and the volume created by the development.

The appearance of the massing is reduced further by breaking down the design in to manageable elements but maintaining a coherent form, this being a traditional courtyard arrangement.

- Historic features that have been incorporated as new or renovated volume are:
- the storage / coal sheds attached to the northern elevation
 - a steeper pitch to the barn roof
 - excavating the floor level down to its original datum

In raw numbers the existing and proposed buildings are:

Existing Barn and attached structures:

Building Footprint = 112 m²
Volume = 411.5 m³
Ridge Level (above external datum) = 5.85 m

Proposed Barn and attached structures:

Building Footprint = 112 m²
Volume = 476.0 m³
Ridge Level (above external datum) = 6.80 m



View to the rear of the proposed barn conversion with the rebuilt annexe in the foreground and small utility room extension to the right

SUMMARY

The design suggests an elegant solution for a conversion project. By accommodating the majority of the spaces within the barn and its reconfigured roof, the design has remained simple in form with a modern intervention to the rear.

A re-imagined courtyard space has become an organising device for the rooms to look out onto and share a common focus.

In terms of appearance, there is a clear distinction between the conservation elements and the new interventions.



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