

REPLACEMENT DWELLING

BRYNGWYN

PENUWCH
CEREDIGION



DESIGN AND ACCESS STATEMENT

NRV ARCHITECTURAL DESIGN

AUG 2019

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SUMMARY

This statement is to accompany a full planning application for the demolition of a sub standard dwelling and the building of a sustainable replacement. The site is located to the west of Penuwch, being accessed via an unclassified road from the B4577. A planning application has already been approved for works to improve the access (ref A180953), which previously had a very narrow entrance resulting in poor visibility and a gate immediately adjacent to the road.

VISION

To create a stunning and environmentally friendly dwelling on the site of an existing dilapidated farmhouse and outbuildings overlooking a lake. The brief is to design a house with 4 guest bedrooms, a master suite, large open plan living / dining / kitchen space, TV/games room and a swimming pool at a lower level. The house is to be sustainable in both energy use and materials, with high levels of insulation, energy being generated on site and natural, local and recycled building materials being used where possible.

The dwelling has been designed to be traditional in shape, to be simple yet elegant; the roof pitch is to be the same as on the existing buildings, the roof will be slated and stone from the existing buildings will be used to clad the new property.

SITE AND CONTEXT ANALYSIS

The site is a rural farm with mature trees and a collection of buildings forming a horseshoe shaped footprint facing the lake. The buildings have been joined together with an awkward link extension, built at the same time that the farmhouse was 'modernised' probably in the 1970s. Unfortunately the work was wholly unsympathetic to the building – hipped roofs, concrete roof tiles, a spiral staircase to the main house and a dangerous ladder arrangement to the barn conversion, modern window styles with fake leadwork and cementitious render / pointing which has led to extensive damp problems. If the existing buildings were to be repaired and the current layout improved it would be a major undertaking and the cost would be the same as building a new house, yet the building would not be very energy efficient and nowhere near as aesthetically pleasing or accessible as a carefully designed replacement.

The plot is idyllic and secluded; from the road only the rear of the building is partly visible and this is surrounded by mature trees. The site is sloping, with a height above sea level of 281m at the lake rising to 301 to 305m along the track behind the house. Access is via a single track road off the B4577, leading to the drive which is enclosed by a stone wall to one side and is tree lined for the last section. At the end of the drive is a parking area in front of the house which overlooks the lake. This area is secluded and is not visible from any public highway or land. All trees and natural features will be preserved.

DESIGN DEVELOPMENT

The proposed house has been designed to largely follow the footprint of the existing buildings, being reduced in width and repositioned slightly forward to avoid damaging the roots of the surrounding trees. The lake is the predominant feature and the new house has been planned around this view; fortunately the lake is to the south so having plenty of glazing to this elevation enhances the sustainability aspect of the design by maximising 'solar gain' in the winter.

As the best views will be from the upper floor the living quarters will be upstairs and the guest bedrooms and entertainment room will be on the ground floor, as these rooms do not need copious amounts of daylight, being more functional in nature. This will also allow maximum daylight from rooflights to provide a light, airy main living space with a fantastic view. The functional rooms such as the boot and boiler rooms will be located on the ground floor at the north of the building, as sunlight and views are not necessary for utilitarian spaces.

A traditional roof pitch will be used to replicate the one on the present house, and from the road the building will appear as a traditional stone building with timber flush casement windows. The west elevation facing the approach from the drive will replicate the existing barn – stone with a slate roof and minimal openings and slate fascias to match the existing. The opposite wing will have larger eaves overhangs to protect the oak frame and render infill panels, and to provide visual interest. This also allows the line of the eaves to be continuous despite the East wing being larger than the West wing.

As the site is sloping, it was decided to utilize this by going down a level to allow for a swimming pool at basement level to the front of the house. The pool room will have fully opening doors to the south which will allow easy access to the outdoors when weather permits, this arrangement will be more practical than an outdoor pool in the Welsh climate. The pool will be 'natural' having no chemicals in the water, which will be supplied from the lake and have a living filtration system which will be professionally designed. Despite this addition the building will be no taller than the top of the existing farmhouse chimney and will be unobtrusive where visible from the road.

INTERPRETATION



The existing farmhouse, which appears in better condition externally than it actually is.



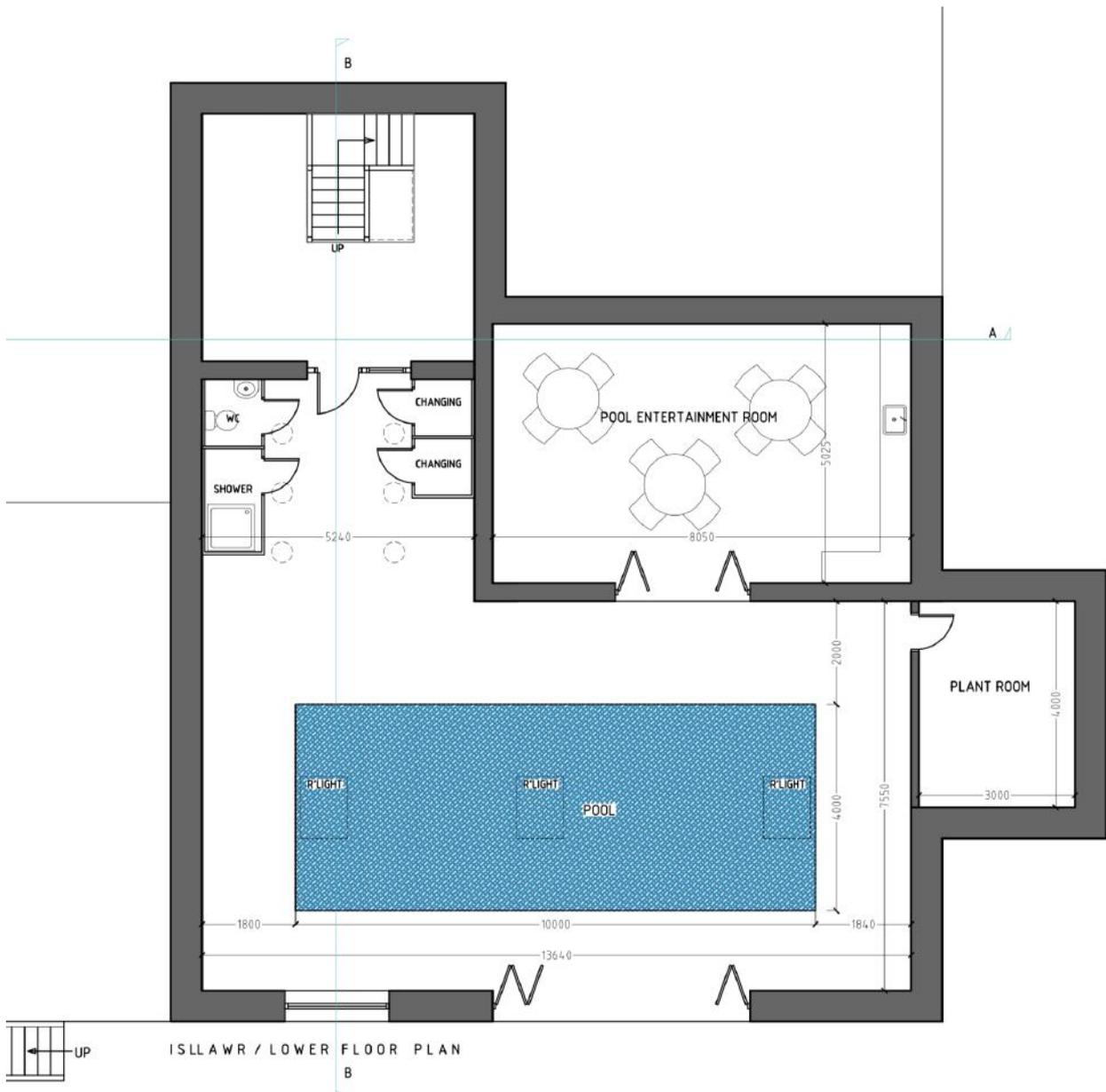
The lake

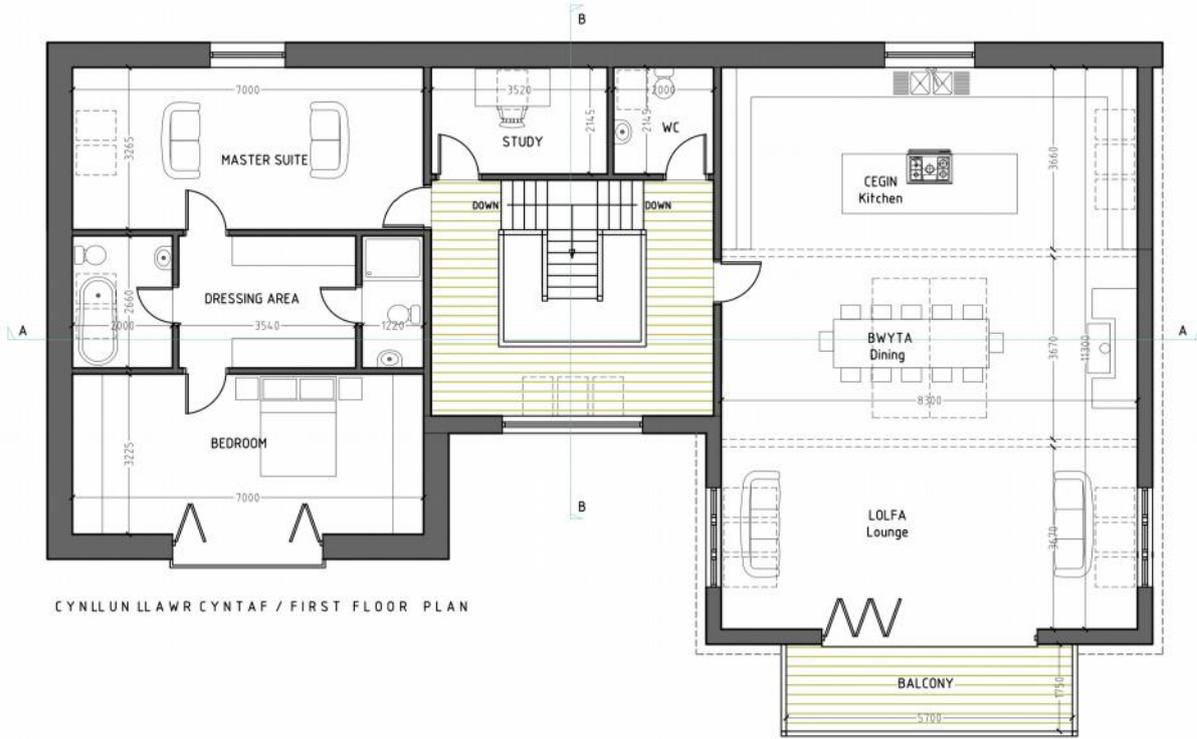
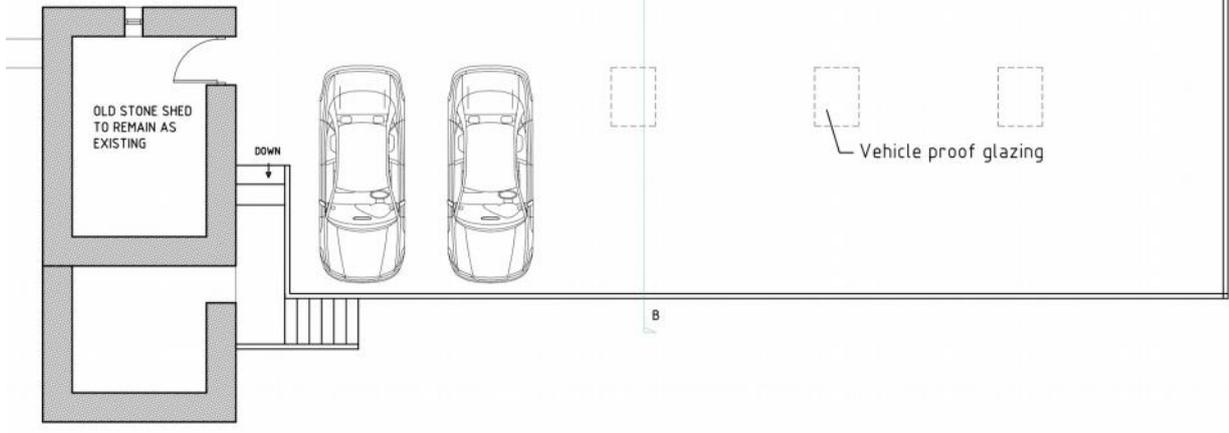
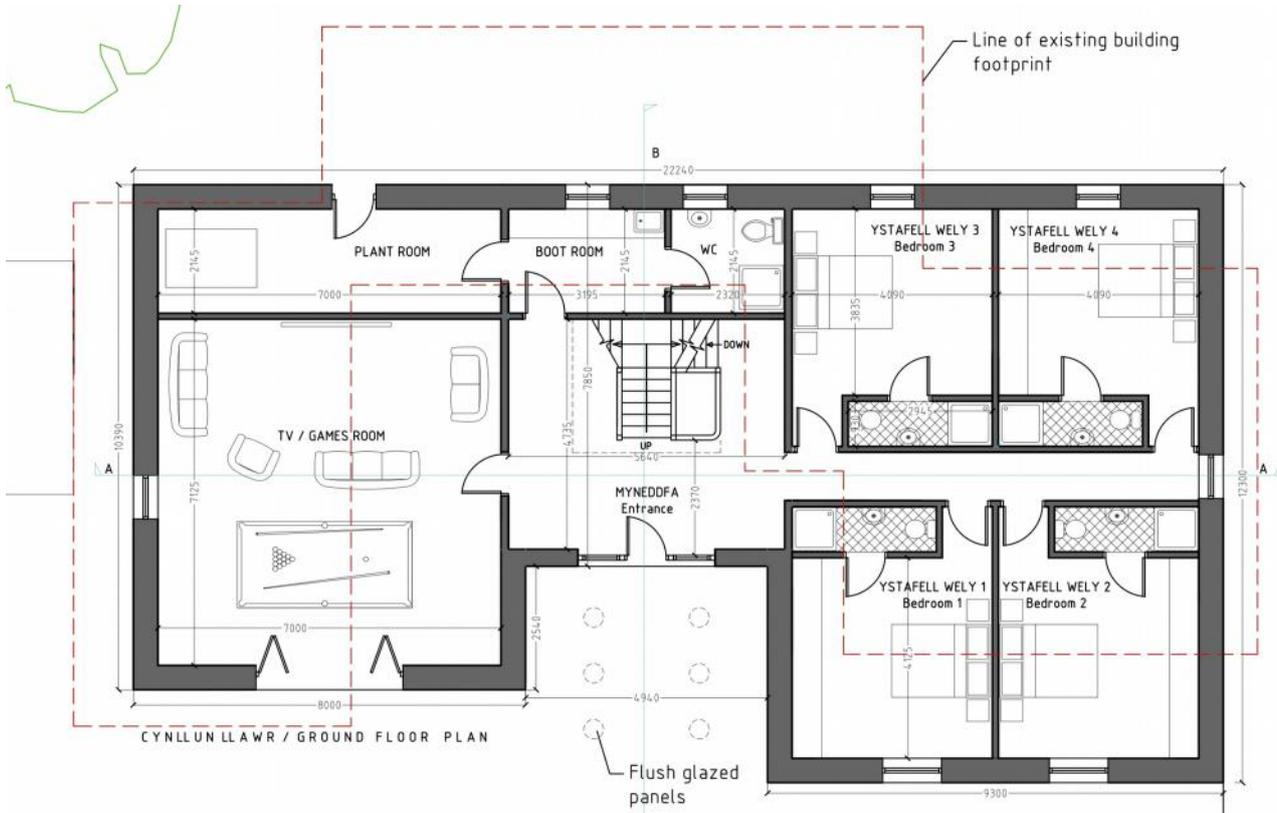


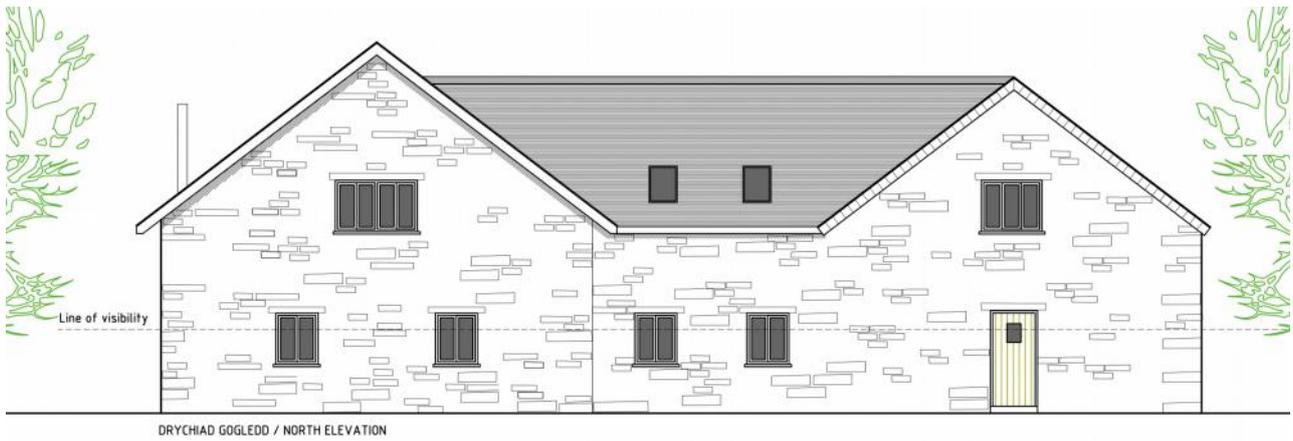
Part of the extensive damp problem



There are many accessibility issues



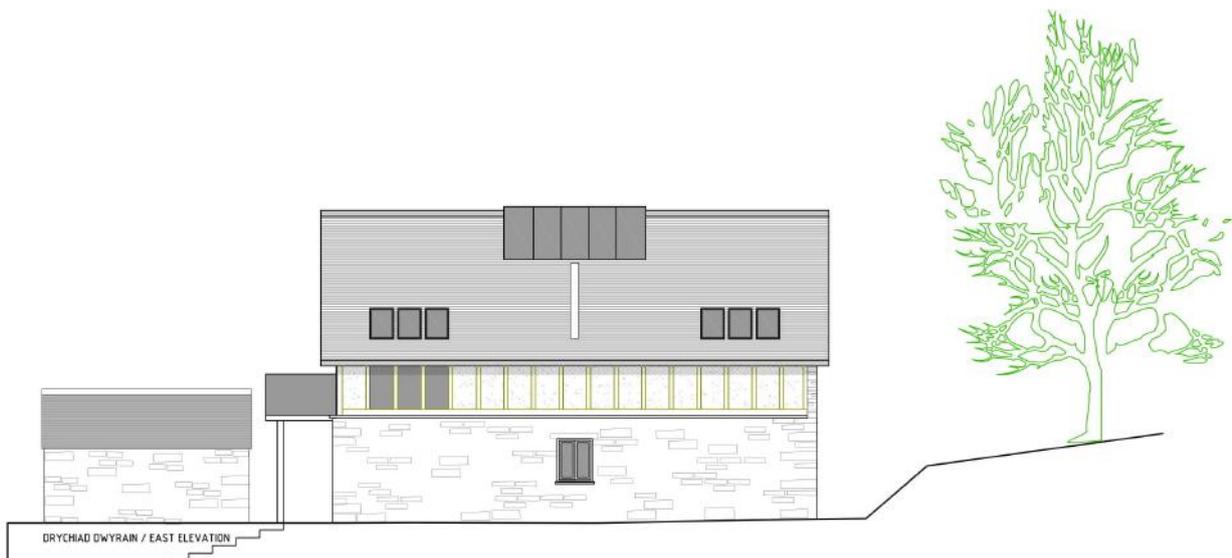




Front elevation – will mostly be obscured by trees from the road



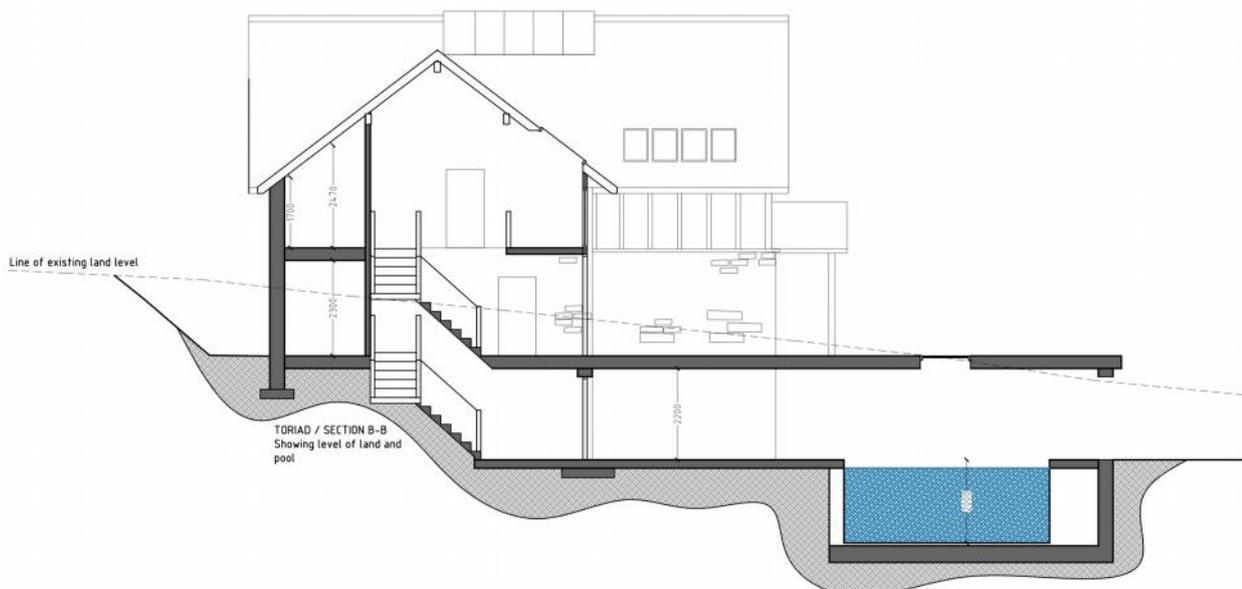
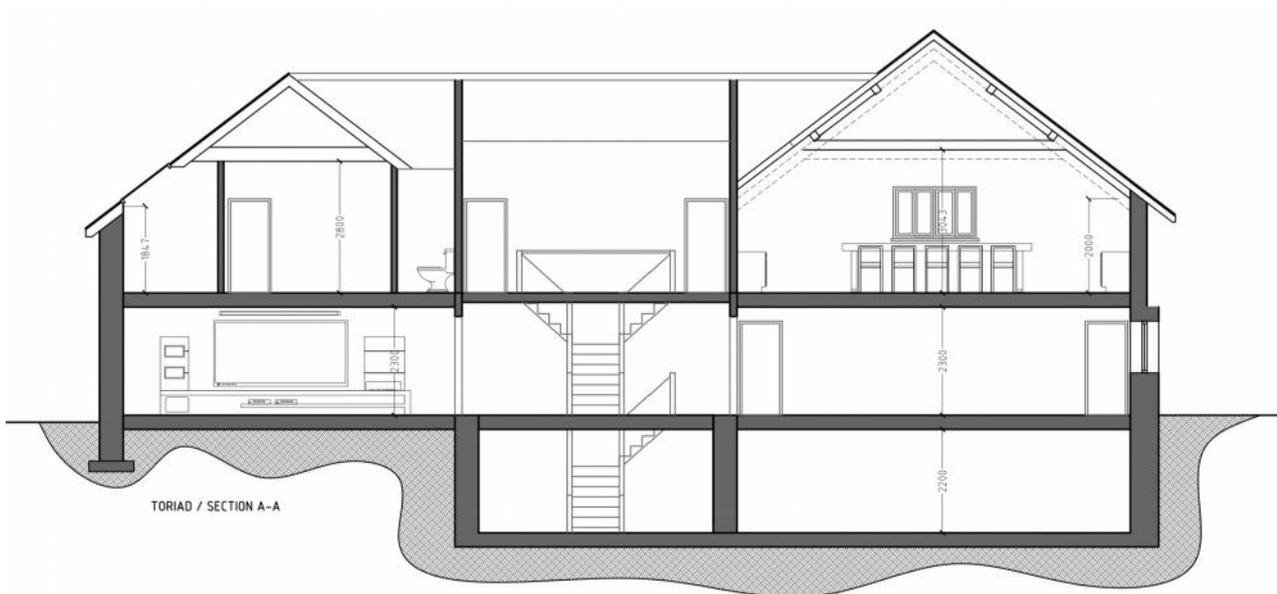
Side elevation, approached from drive



Side elevation, only visible from within the site



Proposed rear elevation overlooking the lake



THE PROPOSAL

To build a luxurious yet comfortable and sustainable family dwelling on the site of an existing farmhouse that has reached the end of its useful life. Entrance will be via a glazed atrium with a craftsman built timber split staircase ahead leading to the upper floors. There will be access to the functional rooms at the back of the house, the entertainment room to the left and the guest rooms to the right. The stairs will split in two, leading to the master suite on the left and the large, open plan living / kitchen / dining space to the right. This roof will be supported by exposed oak trusses, the end sections will have ceilings over and the central section will have a glazed atrium roof. In order to keep the building from being too tall the upper rooms are partially within the roof space, so abundant rooflights are proposed to avoid the need for dormer windows. The south end of the room will have fully opening doors leading onto a timber framed balcony with simple glass balustrade, which will provide an excellent view of the lake. The master bedroom will also have fully opening doors and a Juliet balcony. The basement will accommodate a natural swimming pool and recreation room.

The proposal will bring employment opportunities for local contractors during the build, plus ongoing regular jobs for things like maintenance and cleaning.

CHARACTER

The development has been designed to sustain and enhance the local character and promote legible development, quality, variety and innovative design. The finish of the house will complement the surroundings; the external finishes will be natural materials – stone, timber, lime render and slate, which are all traditional building materials. The form has been kept simple as the quality will be apparent in the high standard of materials and the detailing.

The surrounding land will continue to be grazed by sheep as at present and the land in front of the house will be enhanced for biodiversity by the removal of some of the coniferous trees and replacement with native deciduous ones, plus sowing of wildflowers, which will encourage pollinators and insects which in turn feed fish, bats and other wildlife. The lake has been stocked under licence from NRW and the intention is to preserve the grounds as an ecological haven. The mature trees around the house will be retained as will the small stone shed to the south. The trees will screen the house from the road, providing privacy and shelter.

ACCESS AND MOVEMENT

Access to the site is via an unclassified road off the B4577. There is a bus service, route 588, between Aberystwyth and Lampeter which passes through the village of Penuwch a short walk away, but the service is limited. Due to the rural location car travel is essential but the plans include a home office space so that travelling for work will be reduced to a minimum.

The dwelling will be accessible to guests with mobility issues; the threshold will be level and the guest rooms are on the ground floor along with the entertainment room and sanitary facilities. As the house is intended to be a home for life, if the need were ever to arise there is space for a lift to be installed next to the stairs which would make the house totally accessible.

ENVIRONMENTAL SUSTAINABILITY

Sustainability is a driving part of the proposal. The house will be highly insulated and will be constructed from natural materials, which will be recycled from the existing walls and roof where possible; the slates from the barns will be used on the north elevation facing the road to maintain the appearance of a traditional dwelling, if condition allows. The remaining masonry and concrete will be crushed and used as hardcore, unsalvageable timber will be used as firewood so very little from site will go to waste.

Doors and windows will be timber framed and the large areas of glazing will allow plenty of daylight into the building, which is good for health and circadian rhythms as well as reducing electricity demand.

Landscape / habitat.

An ecology report has been prepared by I&E Ecological Consulting Ltd, following four surveys of the property. The only bat found to use the property is a Brown Long Eared bat roosting in the stone shed to the south of the house. Following a previous survey in Autumn 2018 which found signs of bats in this location it was decided to retain this building as a wood store, to avoid causing any unnecessary disturbance. The previous preliminary survey (Brindle & Green October 2018) suspected that there may be bats also using the house and barns, but after a thorough investigation the droppings found were all confirmed to be mouse droppings, therefore a Protected Species licence will not be required.

The new house will have bat boxes as specified by the Ecologists and will also have potential to accommodate bats in the lofts, eaves and wall crevices; traditional type 1F bituminous felt will be used throughout to avoid bat entanglement which is a risk with modern 'breather' type membranes.

Energy and resource efficiency

The heating system will be powered by electric, which will be provided by unobtrusive photovoltaic roof panels on the south facing roof and a ground source heat pump system. The existing grid connection will be maintained so that energy can be exported at times of surplus and drawn back when needed. This will remove the need for a battery system which is not as efficient and not as sustainable due to the power leaks from batteries, the finite lifespan and also the precious metals required in manufacture.

Due to the complex nature of the system a renewable heating engineer will be commissioned to provide the detailed design. No fossil fuels will be used to heat the house or pool.

Water and waste management

Sanitary appliances and taps will be 'water saving', some rainwater will be collected in water butts to water plants, the rest will be directed to the lake. The swimming pool will be 'natural' and will not require mains water or chemicals and will be heated by the ground source heat pump. A new package sewage treatment plant will be fitted in place of the old septic tank.

PLANNING POLICY

Pre-planning advice has been sought (Q180228) and the response considered that the proposal is in accordance with the relevant planning policies and is likely to be supported.