

Design statement for Ael-y-Bryn, Dowlais



Introduction

This Design and Access Statement accompanies an outline planning application for the development of a new dwelling set within a garden area of Ael-y-Bryn North, Dowlais. The site sits within a mature landscape that due to its nature and levels, has been left wild, with wildlife-friendly plants and trees for habitats. Ael-Y-Bryn North, Walter Street is a freehold semi-detached house with a hipped roof over. The land proposed is a sloping site that falls from east (Walters Street) to west (Balaclava Road) and is also raised above Regent Street which is to the north of the site. The finished floor (292.5) of the site is at the similar level as the ridges of Balaclava Road (293), while it is 10 meters above the lowest level of the site to the west.

This application relates to an irregular shaped area of land measuring approximately 0.2 hectares located on the southern edge of Abercanaid. The site is characterised as an area of vacant grassland with overgrown vegetation along its boundaries including a number of trees and unmanaged hedgerows. The land within the site slopes down from west to east. The outline planning permission is sought for the erection of a detached dwelling located within a north position of the site. The proposed dwelling is conceived as an 'L' shaped with a single pitched roof. The dwelling would be constructed using straw bale walls with sheet cladding applied to the external elevations. The windows and doors would also be of a timber framed construction.

The landscape is an important feature on this site and we propose a sensitive design that looks to enhance and protect the landscape along with the biodiversity that are included within the sloping topography. Due to the sloping nature of the site, the dwelling would be supported above the ground by timber posts. The project is part of a research project that has been developed with Swansea School of Architecture and WISE in an attempt to design; a set of design/construction principles for housing developments for self builders, which consider the topographical, landscape, climate, character and cultural characteristics of the County.

This piece of work was seeking to also respond to the challenges of the housing crisis and growing issues around energy cost and affordability, lack of labour, climate emergency and need for whole life carbon reduction, together with aspirations of the Placemaking Wales Charter. As the design development process continued, on-going research into other recognised design precedents within the UK emerged. A number of workshops and presentations were held with WISE discussing systems of builds and looking at designing construction waste out. A response to the 'B&Q' standard of building.

Purpose

TAN 12 defines a Design Statement as 'a communication tool which outlines how the design of the proposal has been considered from the outset of the development process and how the objectives of good design have been used to inform this.' The purpose of this document is to analyse the context of the site in respect of planning policy and the local character of the area, whilst having regard to each of Welsh Government's five objectives of good design.

The unique features and opportunities of a location, including heritage, culture, language, built and natural physical attributes, are identified and responded to." (Design Commission for Wales, 2020) Planning policy TAN12 states that "understanding the site and its immediate and wider context is the basis for a meaningful and sustainable design response, and is the responsibility of all those involved in the design process".

There is a clear need throughout Wales for more housing, and for homes that perform better. Planning Policy Wales Edition 10 (December 2018) cites the importance of adhering to WFGA principles, if we are to develop a "vision of the Wales we want" (p.2). The document connects 'good' design with placemaking and positive development. However, there are remarkably few examples in Wales (or elsewhere in the UK) of 'good' housing that meet the holistic goals established by the WFGA. Successive economic recessions and a determined focus on technical compliance and cost over quality have taken their toll on new housing. Expectations around capital cost have been driven so low that it is no longer possible to deliver 'good' housing for established notions of capital cost. Consistently poor quality has led to low expectations and a lack of aspiration, and self-reinforcing cycle of mediocrity.

"The UK is heavily dependent on a handful of volume house builders motivated by short-term profitability. This model has served us badly. It has, of course, failed to create more than about half the new homes that the country needs. But more fundamentally, it has failed us in the quality of design and placemaking. As well as poor workmanship, abysmal space standards and an absence of investment in innovation and building skills, the major house builders have let us down by reneging on promises to include affordable homes."

Richard Best, foreword to The Housing Design Handbook (Levitt et. al., 2019) The most recent edition of the Welsh Development Quality Requirement: Creating Beautiful Homes and Places establishes that "housing quality is as much about the value of the external spaces created as it is about the design of the homes. Homes and their environs should therefore focus on the role of placemaking," (WG, 2021) At this time, capital cost remains critical in determining whether a project is delivered or not, and severely constrains the potential for quality in the holistic sense.

Aim

The aim of this document is to:

- Provide an overview of the site context, which has aided in shaping the proposals.
 - Demonstrate the steps taken to appraise the context of the development and how the design of the development takes that context into account.
 - Explain the design principles and concepts that have been applied to the development.
 - Explain the policy or approach adopted for access and how policies relating to access in the development have been considered;
- and

- Explain how specific issues which might affect access to the development have been addressed.

Strategic brief

The project involves preparation of design proposals for a family home and have the intention to be a blueprint for a design that is carbon zero as possible, that self-builders can physically build, rather than precure through a building contractor as normal 'self-build' projects are built. This proposal will be a two-bed young family or a home for someone to downsize into. However, principles designed and learnt through this process will be taken onto developers of larger scale.

Our office inherited a project for a new dwelling in Dowlais, a village in Merthyr Tydfil. The project was for a new three bed, two storey dwelling, refused at planning and appeal.

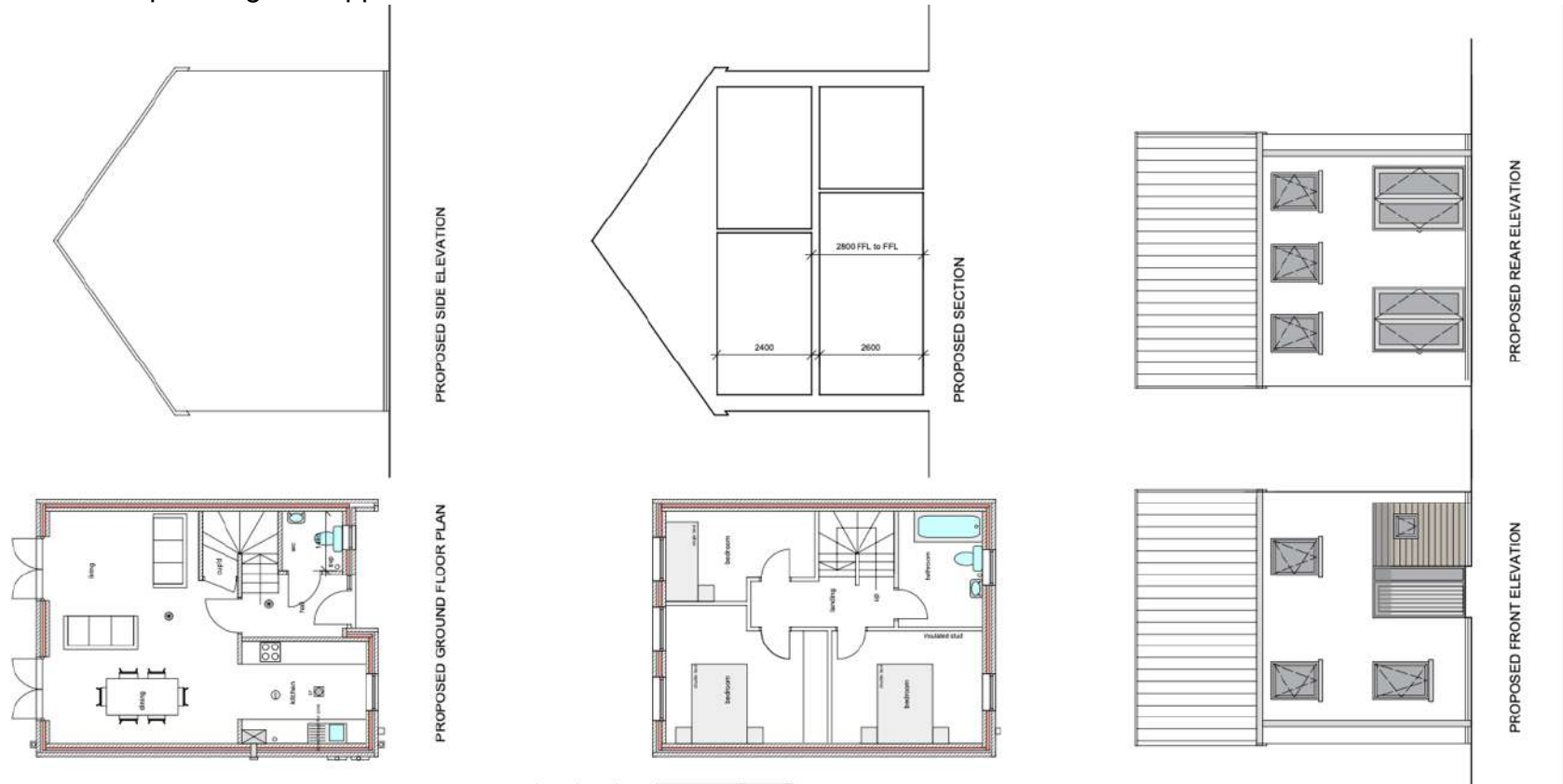
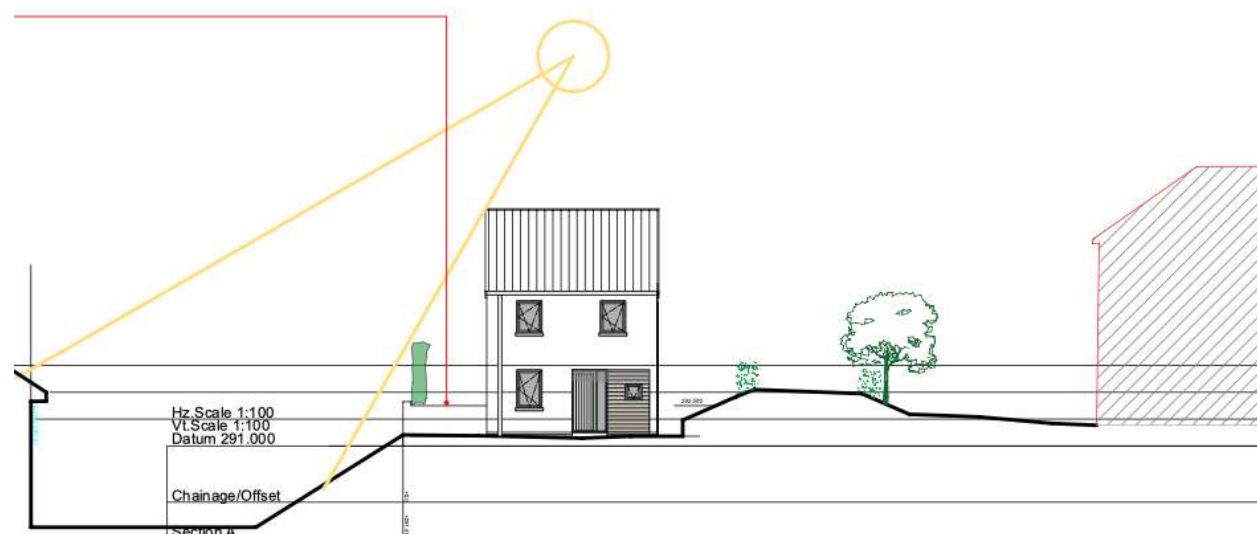


Image 01 REFUSED proposed plans



PROPOSED SECTION



PROPOSED SECTION

Image 02 refused proposed section



Image 03 refused proposed site plan

The planning departments view was that it would:

- Impact on the privacy of the neighbouring properties.
- Overshadow the gardens to the north.
- Impact on the ecology of the site.
- Detrimental in mass.

Appeal decision below in appendix A

The appeal notes that there would be no unacceptable overlooking of both Regent Street and Balaclava Road.

The appeal notes that the existing trees would reduce any sunlight to the neighbouring houses at Regent Street.

The scale would not have an impact on Balaclava Road.

The two storey house would be seen from the rear bedrooms of Regent Street.

The two storey house would be dominant in the rear gardens.

SW11 requires the proposal be appropriate to its context in scale massing and height.

The appeal scheme would not have an impact on protected species.

The appeal noted safe access in and out of the site.

An additional dwelling in an existing residential area through the use of previously developed land provides weight in the favour of development.

Challenge: Topography

By its very nature and location in Dowlais, topography is a key challenge for development in Merthyr. Many of the sites that have been allocated for housing but lie undeveloped are compromised by steep slopes, which make access difficult and construction expensive. The refused proposal talked of a scheme that would be constructed via a cut and fill exercise and a lot of retaining walls and stripping the existing vegetation of the site damaging the landscape. However, with these constraints come opportunities. Sloping sites provide opportunities for views and visual links to the wider landscape. Initial discussions in the office worked around the difficulties of the build, typical of the South Wales Valleys, with considerable sub-terranean works and retaining walls, all a reflection of a traditional valleys sloping site.

Quickly the discussions looked at a low-slung house that would reduce its impact on the surrounding, especially to the northern boundary, and how do we build this in such a difficult site with tight restraints. To give a bit of context to the site, it was part of a mature garden of Ael-y-Bryn, a steep site that was heavily wooded to the west. An existing garage on the western boundary and a narrow entrance drive that needed to be maintained and not disturbed during construction.

How do we build a home that would fit through the entrance gates and does not have an impact of the daily routine of Mrs Price in Ael-y-Bryn?

Land use The application site is located within the settlement boundary as defined by the LDP. As such, the development of the site is generally supported by policy in the LDP. Furthermore, the site is located adjacent to existing residential properties. Therefore the principle of the development is considered to be acceptable.

Challenge : Affordability

Continuing design team discussions looked at the impact first on the neighbour to the north (Regent Street) and decisions were made resulting in agreement that a simple single storey home would accommodate everything the brief demanded, in terms of living, dining and sleeping. We kept the layout and materiality simple as this was intended to be a self-build project on a tight budget. The plan developed into an L-shape dwelling, as the site context alluded to a side elevation to Regent Street being as slim as possible. The simplicity of the design was realised in the form of a series of sheds. Sheds that are typical architectural vernacular in Welsh valley gardens, that would be easy to construct and offer the site a modest solution.

More contemporary efforts over the last decade have included micro-housing solutions with diminished space standards, and the relatively recent success of collaborative housing models such as co-housing schemes, with opportunities for future residents to reduce the cost of construction through 'sweat equity'. However, 'sweat equity' is only as good as the skills that the self builder has. Many self builders relied on builders and trades people. Our thoughts was to design a project that reduces the need for skills like plastering, rendering and brick laying, these are called 'wet trades'. All the wet trades that have been expensive to procure. There has also been a drive to increase levels of self-build housing across the UK, which is historically very low compared to elsewhere in Europe (and particularly low throughout Wales). For future housing to be viable in Merthyr, affordability is a clear challenge that must be addressed. Through careful design and specification, homes must be affordable to build, even when other challenges such as sloping topography make construction more expensive. The same homes must also be affordable to maintain, a challenge compounded by the exposed climate. And finally, they must be affordable to occupy, if they are to avoid worsening the already high levels of fuel poverty that exist in the area.

Design Principles

This started the conversation about light weight construction and materials that could be carried to site and erected without the use of heavy plant and machinery due to the narrow gates at the top of the drive. Also, so that the construction doesn't effect Mrs Price in Ael-y-Bryn.

The appeal makes light on how that the refused project would not have any unacceptable overlooking of both Regent Street and Balaclava Road, but does make reference on the scale of the gable on the boundary and the impact a two storey house would have on the bedroom windows and rear gardens in terms of visual rather than shadow impact.

The principles also looks at the context of the site under SW11 and takes into account historical references and scale, massing and height. The site once had an Avery on site and it's only other building within its context is a garage with a pitched roof. Even though the appeal suggested that there would not have an impact on protected species, we are still mindful that the site is a mature garden and full of opportunities to encourage habitats. To this, our design principles is to design something lightweight and touches the land softly.

A single storey house was investigated and one that was designed around a L-shape courtyard, as to reduce the mass on the north of the site. The view from the street below, if any would only see a slim mono pitched gable that would look like garden shed. A courtyard laid out from east to west was also conceived to allow the roof profile to take full advantage of the sun path for solar gain, but also for all the living spaces to bathe in afternoon sun light and constant north light. The mono pitch was employed to have more roof profile for solar panels. Given the tight footprint, corridors were eliminated to maximise space. The entrance is at the heart of the home and the living area, kitchen, dining and bathroom are bookended by two bedrooms facing the courtyard garden. The roof form is mono-pitched towards the courtyard, with high-level windows framing views of the tree's foliage and preventing overlooking. The two-bed house is designed to blend into its surroundings with minimise attention, with garden references.

A skylight looks up to the trees in the bathroom



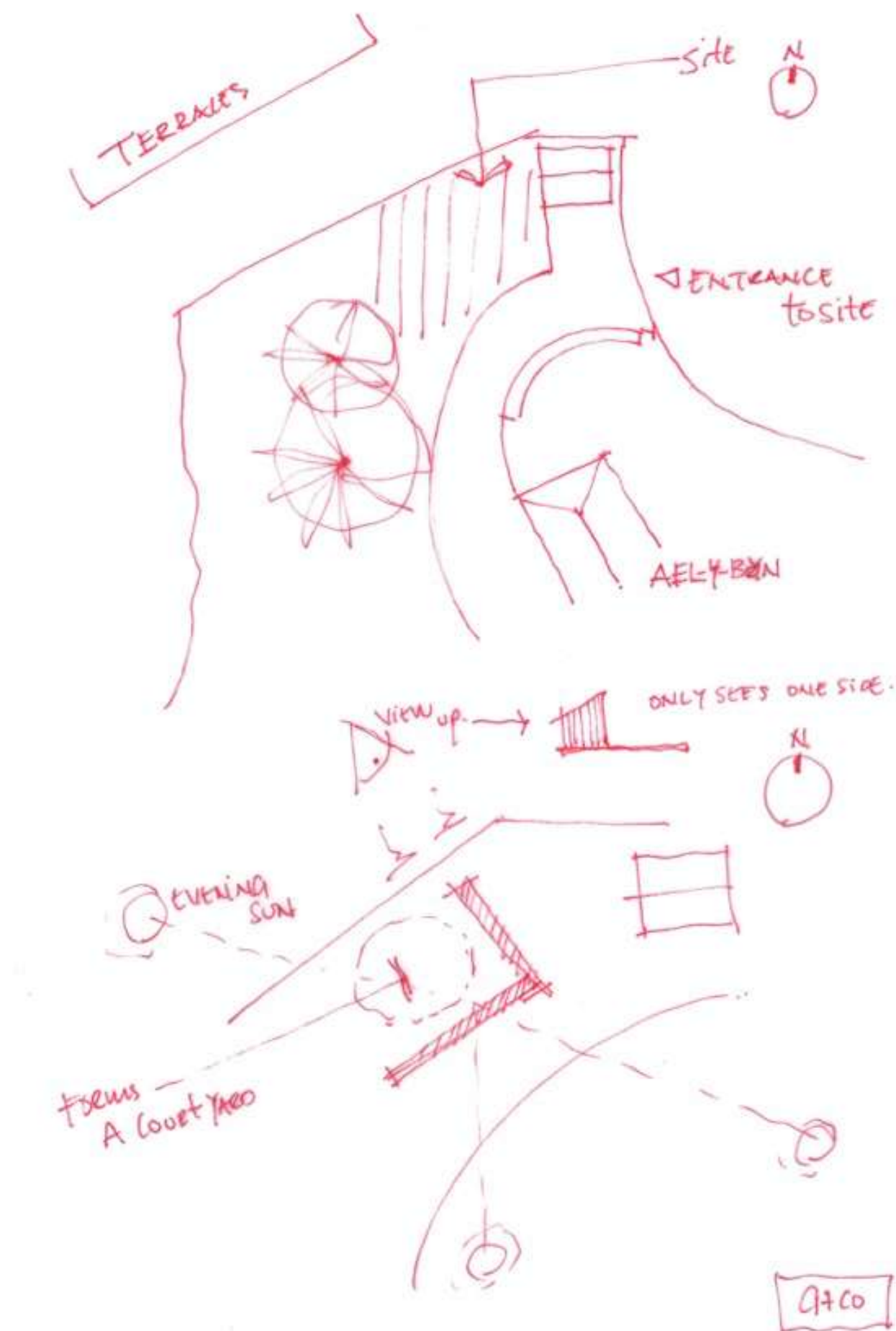


Image 04 proposed sketches showing thoughts on how to reduce mass to terrace houses to the north plan

The site would be located in an area that is somewhat isolated from the existing properties in the area, given its siting to the north of Aly-y-Bryn on land that is largely enclosed by existing vegetation. The retention of the existing trees and hedgerows would also screen the majority of the development. As such, it is considered that the proposal would have a limited relationship with the more traditional properties in the area. The general scale and design of the dwelling with cladding on the external elevations is considered to be appropriate for the site, given its close proximity to a plot that would be considered open countryside due to the size and quality of the site.

In this respect the appearance of the dwelling would not be dissimilar to an agricultural building in the countryside and would not have an adverse impact on the surrounding area. The general design of the development, which incorporates sustainable building techniques and materials, would not have an adverse impact on the character and appearance of the area. Considering the single storey nature of the proposed dwelling, its west to east orientation and the separation distance from the existing terrace, it is considered that the development would not give rise to adverse overlooking or overbearing concerns.

Testing construction

This lightness idea reminded us of Tŷ Unnos, this is the custom of tŷ unnos, which translates into English as *house in one night*, a commonly-held folklore across Wales between the 17th and 19th centuries. It held that, if a squatter could build a house on common land between dusk and dawn, then the occupier could lay claim to the legal freehold of the property. A quick and light weight structure was investigated. *It would be interesting to know what the modern day planning officer would think of such a proposal.*

The following construction solutions were considered and rated them for ease, cost and ranked them accordingly.

	Matrix drivers	Cost	Strength	Ease of Construction	Amount of units able to build	Environmental	Rank
System	Post + beam frame	1	3	1	1	1	1
	Brettstaple	3	1	3	3	2	3
	I beams + lattice structures	2	2	2	2	3	2

Conclusion

As tradition states, the Ty Unnos needs to be erecting within a day, with a lit fire, to claim it as a home. So speed of construction is the fundamental driver for the structural system. Also, as this project is for the homeless, we must assume that the majority of people are semi-skilled or less, so easy of construction will be another driver. With this in mind, we would stay with the post and beam system. However, we would look into I beams and lattice structures for larger span buildings, possibly for D6.2

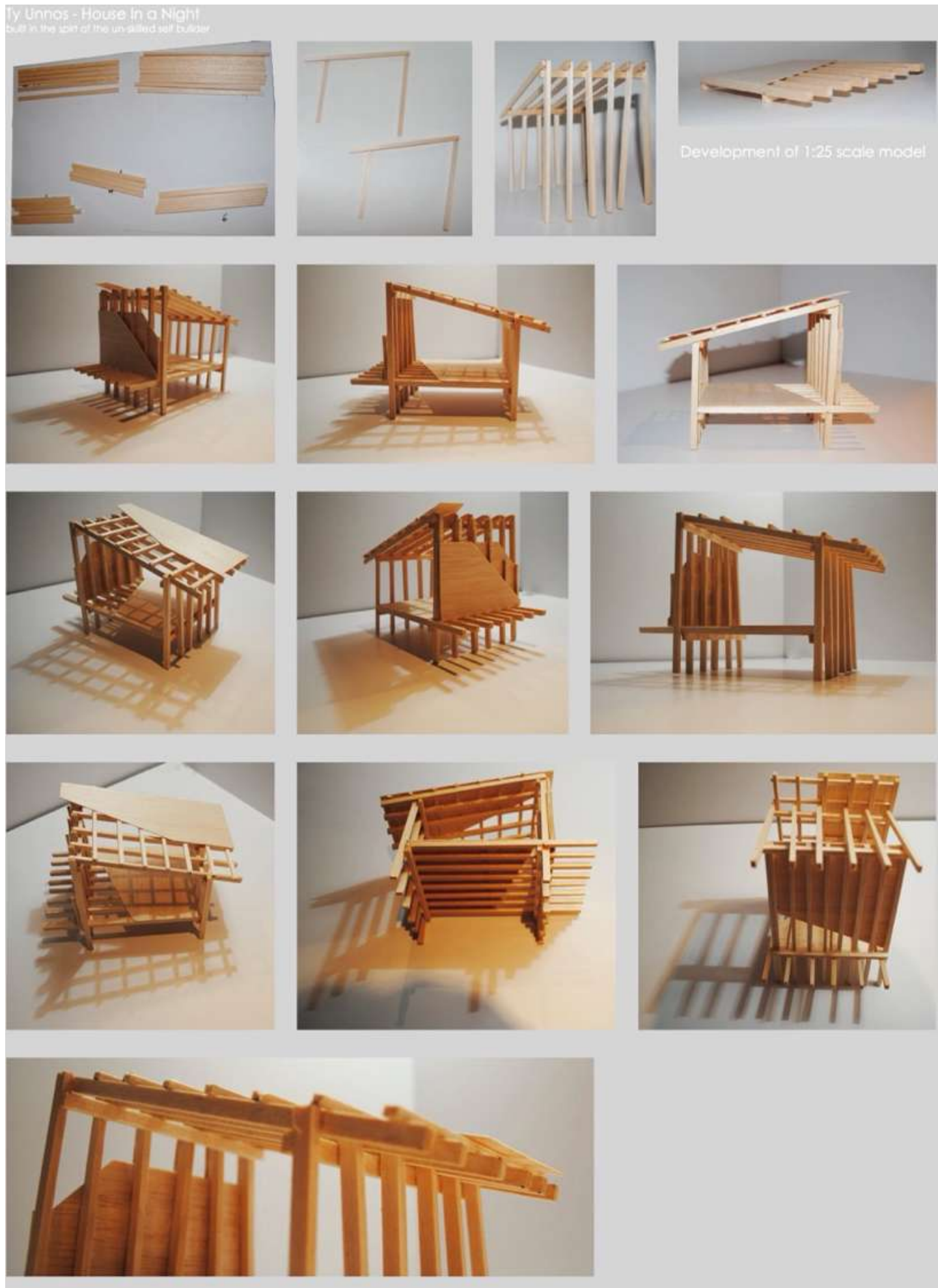


Image 05 test model

The next move was discussing the ecology of the site. How do we impact the landscape the least, but also reduce the amount of retaining walls and cut and fill needed on such a steep site.

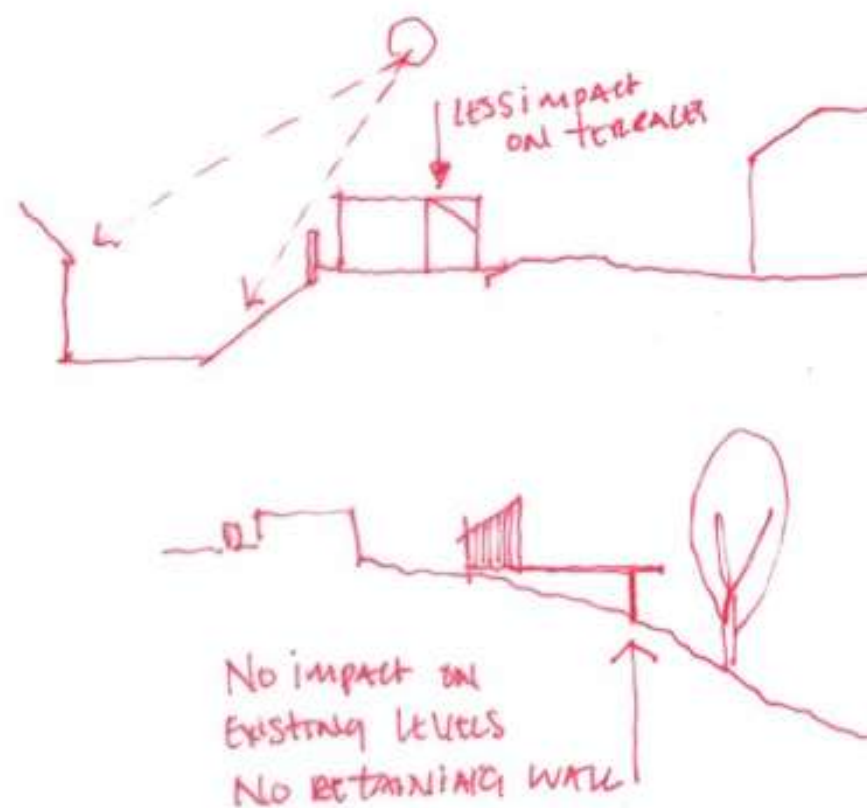
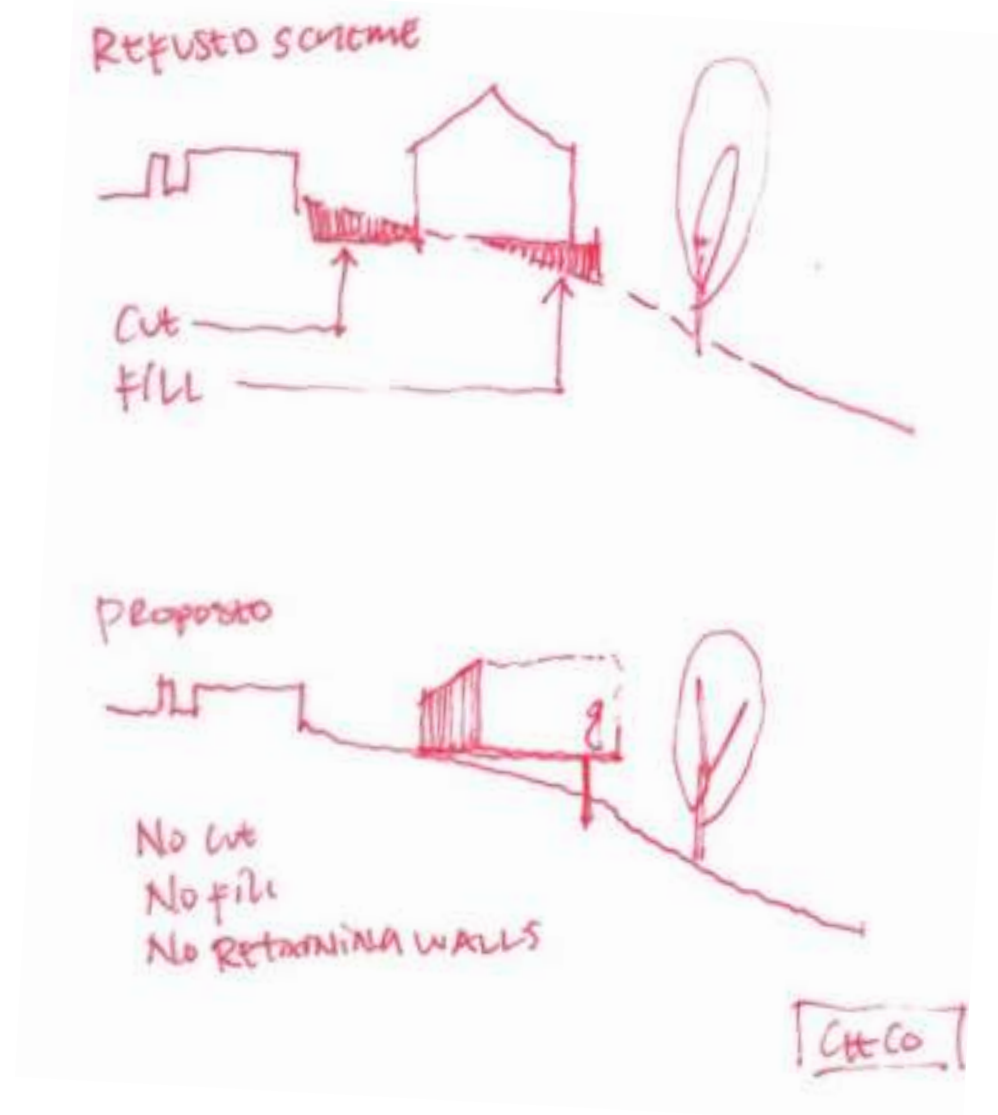


Image 06 proposed sketches showing thoughts on how to reduce the impact on terrace houses to the north plan

This diagram reminded us some much of Margam discovery centre, in Port Talbot, Wales.

Designed by the Welsh school of architecture and Lyon and Co, for Neath port talbot council.

The website describes the site as:

'Sited within a Grade 1 registered Historic Garden and Landscape of Special Historic Value the architectural objectives guiding the design of the Environmental Discovery Centre at Margam Country Park were framed within the conservation and management plan adopted by Neath and Port Talbot County Borough Council. This was to: create a sustainable flagship facility that celebrates the synergy between heritage, the built and natural environments; to create a stimulating fusion of education, entertainment and

awareness; to create high quality educational, cultural and leisure facilities that are vibrant and attractive; to promote sustainable building and demonstrate renewable energy use, heat, power and water management to as wide an audience as possible.

The scheme takes on the form of a series of pavilions linked by open walkways, to create a route through the site. This is a building that sits sensitively within its landscape and the surrounding treescape. The pavilions sit on columns above the ground, touching the site lightly and sitting within the trees for visitors to explore. The timber structure is clad in UK grown sweet chestnut boarding. The steel frame structure is finished in natural copper cladding. Major sections of the scheme were prefabricated, complete with interior finishes and craned into position.'

<https://loyn.co.uk/work/margam-park-discovery-centre>



Image 07 Photo from Paul Durrell in NPTCBC

Foundations

Healthy soils can act as a carbon sink absorbing carbon and storing it. Up to 20% of the world's CO₂ emissions come from the release of carbon due to ground disturbance; an estimated 133 billion tonnes of carbon have been released from soil since measurements began. The fact that this is mainly due to tilling and ploughing for agriculture does not let construction off the hook. Site strips and excavations in construction contribute to the release of carbon as they disturb the ground. This increases the rate of decomposition of dead plants and animals, roots and soil organisms and so speeds the release of carbon into the atmosphere. And the existing biodiversity of soil has a critical role to play, contributing to the function of all ecosystems.

'It isn't just topsoil disturbance that needs consideration, it also matters where that soil goes,' says James Gilroy, lecturer in ecology at the University of East Anglia. 'If soil is left exposed to the air or water on the surface carbon emissions will be much higher. If the soil is immediately buried again somewhere else the carbon may remain stored although that depends on whether the soil organisms survive. So an important question is what you do with the material you dig up.'

But even after a detailed site investigation, foundation designs are often conservative. The greater the foundations and the more the site is stripped, the more the soil's structure is destroyed and sequestered carbon released into the atmosphere – not to mention costs and the embodied carbon of the materials used. Conservative engineering of foundations isn't the way to create a more robust foundations; costly mistakes are more often the result of misunderstanding ground conditions. Ensuring a building is designed to suit its specific ground conditions allows the best foundation solutions to be chosen.

The project employs a low rise, single storey projects with lightweight superstructures which employ materials with a degree of malleability will permit the use of a number of low-impact, no- concrete and even no-dig techniques.

Designers should not be afraid to pursue innovative techniques or suggest alterations to the building design to reduce impact and ground disruption. Various suitable alternatives include steel screw piles, vibro stone columns, timber piles, jack pads and stone trench footings. A comparison of embodied carbon in foundations suitable for low to medium rise construction by the Institution of

Structural Engineers shows that significant carbon reductions (in the materials) can be made by using vibro stone columns – at the bottom of the list at 5-10kgCO₂e/m² – rather than concrete strip footings at 100-125kgCO₂e/m².

We've looked at cascading set of carbon choices. Why do footings need to be continuous? Much of this habit derived from the need to support brick cladding. Intermittent footings with beams between (pier and beam construction) will knock out 75% of the foundation concrete. We look to omit a concrete slab and it's totally feasible to build a suspended timber floor. Not only is it lighter and quicker, but if properly detailed it will last as long as all the Victorian timber ground floors we are sat on right now.

As a team, there was a sharp resolution and understanding that the scheme would be building off a base that lightly touched the site with a low-tech post and frame construction method. As a team, excitement grew as work was carried out to consider high-performance strategies for such a low-tech construction methodology, but this was the challenge, and a worthy pursuit.

With conversation entrenched in garden shed typology, we progressed developing the dwelling with similar ideology. Sheds, by their very nature, are simple structures, clad in cheap metal cladding, easy to erect, durable and easy to repair and maintain. This was justification enough behind the chosen cladding system.

Cladding the building offered its own challenges, and the initial consideration of timber clad in vertical sections was overruled by metal sheet cladding systems, due to easy and skill. Testing and prior knowledge suggested that the larger cladding panels, similar in scale to plasterboards and also easily transportable meant that the building could be watertight and clad earlier in the program, and also saving on skilled labour.



Image 08 see appendix 2 for further examples in and around Merthyr Tydfil of garden shed typology.

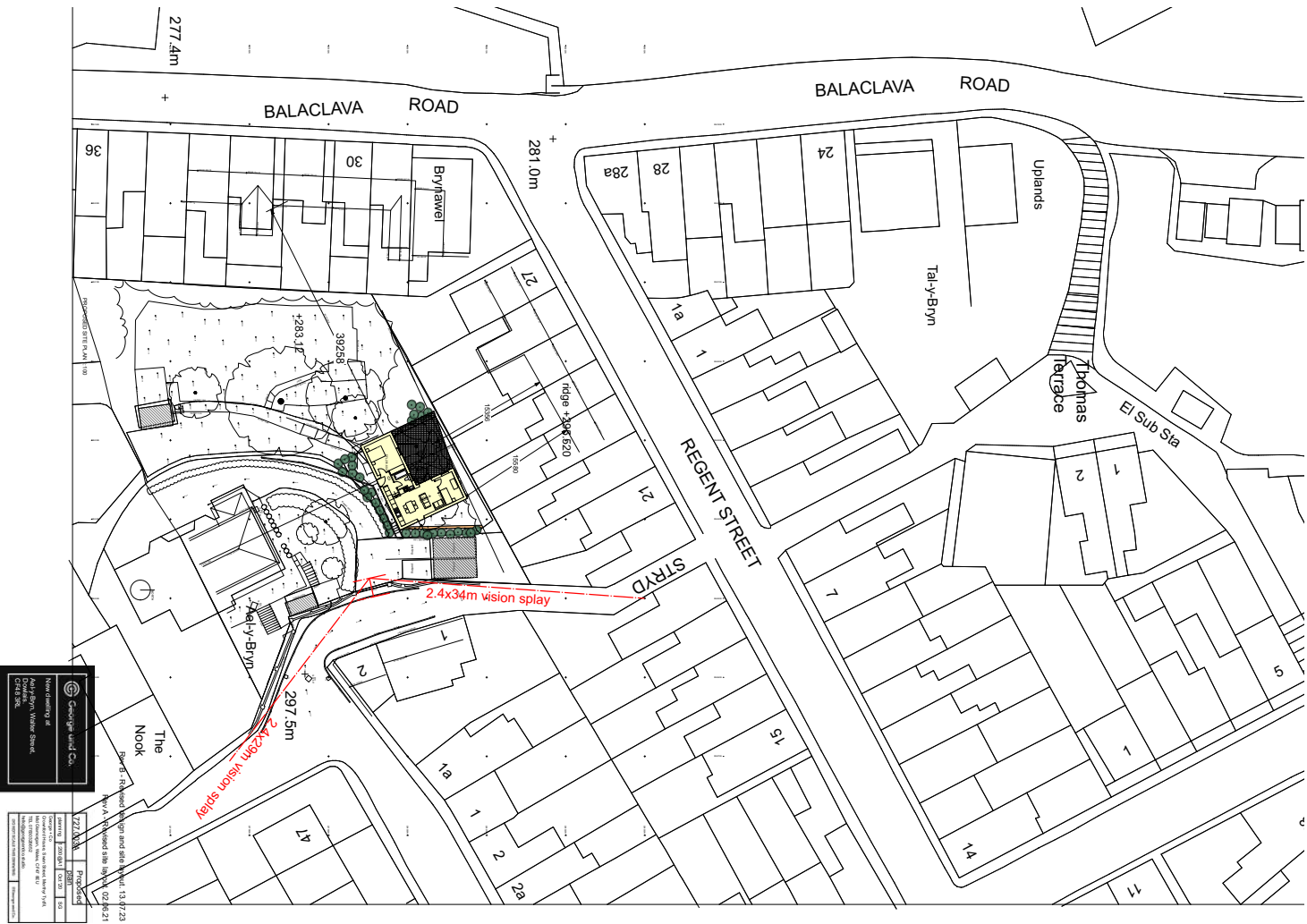


Image 09

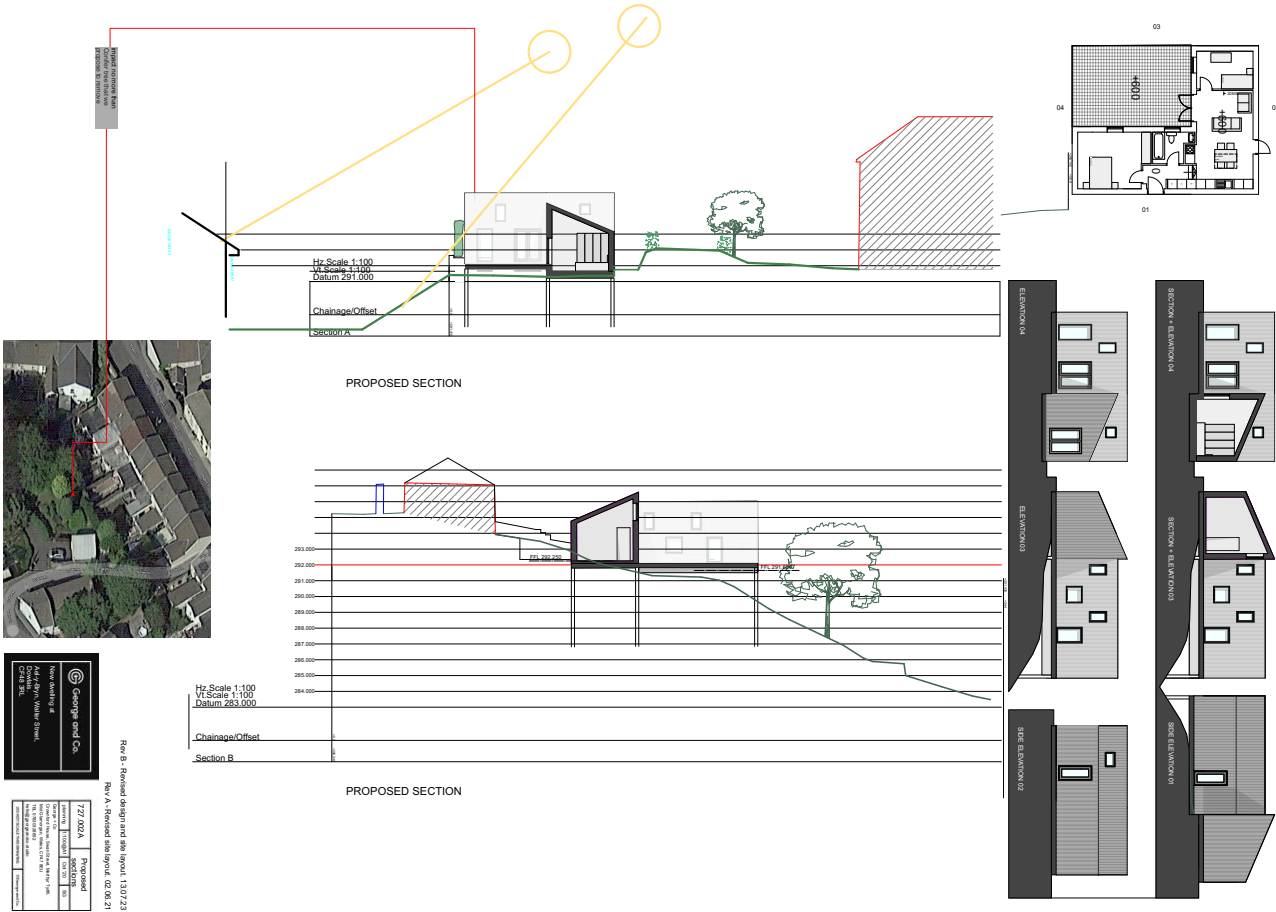


Image 10



Image 11 proposed visuals

Image 09 shows the proposal in place on site, this is in the garden area and we believe it was the place for a pigeon shelter that Mr Price had many years ago.

The British have a particular affinity with their sheds. From the Anglo-Saxon word “scead”, meaning shelter but also “a place of quiet, obscurity and seriousness”, the workaday storage structure has ensconced itself on British soils (in relatively unchanged form) for centuries. Maybe it reflects a fondness for insularity; perhaps a love of the utilitarian. For some, the shed’s appeal is its sheer bog-standardness. The humble assemblage of brick, stone, shiplapped timber or crinkly tin is our closest living relation to the “primitive hut” – the ideal form from which all architecture derives according to 18th-century architectural theorist Marc-Antoine Laugier.

Traditional; many terraces in Wales had outhouses typically like Image 08 and others in APENDIX 02

Our proposal looks on a compact building that resembles a contemporary version of a classic garden shed from the outside, yet inside is a warm and cosy retreat. Nestling the home on a small site within an almost forest setting. The design approach was grounded in paying homage to this typology, while considered interventions were added to ensure the space is functional and connected to the outdoors.

Similarly, windows did not need to follow the rigidity of lining thought, but was carefully arranged to frame unique views of the mountains and trees beyond. Each window opening in the structure was designed with



a specific view and orientation to allow day light in the right places at the right times. This allows the fenestration of the building to be kept to a minimum whilst bringing ample light to the interior of a structure that feels like a solid volume placed gently into the landscape.

In line with the fibre cement or metal cladding elevations used for the exterior, the house is muted in colour, robust materiality. The window and door openings are a simple nod to shed architecture. This sits in contrast to the interior, which is mostly ply wood sheets that are easily fixed and require no 'wet trades' such as plasterers and painters, warm timber floors and railings, and natural tones bring a fairly minimalist approach, placing the focus on the lush, stunning wooded surroundings and the simple rituals of daily living. While compact and efficient, the home feels generous and comfortable, an oasis in the middle of the woods.

The structure or the house will form a simple mono pitched post and frame system as discussed previously with Image 05 test model. A timber frame mono-pitch (or lean-to) post and frame structure uses vertical posts supporting horizontal beams (girts/plates) with a single-sloping roof, ideal for modern sheds, barns, or extensions, offering cost-effectiveness, simplicity for self-builds, good drainage, and versatile space for machinery or storage, often employing glulam or oak for strength, with key components like half-trusses or rafters connecting the higher and lower walls

Advantages

- **Cost-Effective:** Simple design makes them cheaper than complex frames, especially with braced frames.
- **Versatile:** Suitable for agricultural (barns, sheds), residential (extensions, carports), or commercial uses.
- **Space Efficiency:** High clearance on the tall side for tall machinery or storage.
- **Aesthetic:** Modern, clean look.
- **Ease of Build:** Simple structure allows for faster assembly, even for self-build

It can be built on the deck and picked up into place, much like the project below.



Image 12 invisible studio office post and frame construction

<https://www.invisiblestudio.org/architecture/project-one-ephnc-8tpsk>

To satisfy the thermal requirements of the build, we wanted something that allowed us to fill within the post and frame system, without adding more timber framework within. Previous experience had informed the team that the standard proprietary insulation fabric route offered by the large market leaders like Celotex and Kingspan would require us stud out between the posts, so that the insulation boards didn't fall out and twist. Also, this choice of brand didn't align with the teams sustainability credentials and strive for a carbon neutral construction process. In a recent project, the team had been working on a hempcrete build with Invisible Studio in Bruton and while it appealed to us for breather ability, Damp-free, Chemical-free and extraordinary thermal performance of hempcrete, it was a concern that it wouldn't be something we could undertake quickly.

The process of insulating with hempcrete involved tamping in between a ply sheet formwork, which turns out to be very labour intensive. Hempcrete Cymru are working on the project in Bruton, and they were able to offer a costing for this option on our project and we were able to rule it out on the grounds of cost and time efficiency.

<https://www.hempcretecymru.com/>

On an alternative project in Abercanaid, Merthyr Tydfil (P/15/0433) Land To The Rear (south) Of No. 9-15 Newton Street Abercanaid Merthyr Tydfil), The late Professor Pat Borer from The Centre for Alternative Technology Charity (CAT) was able to advise us on the processes involved in the use of a strawbale system in preformed bail and frame construction.

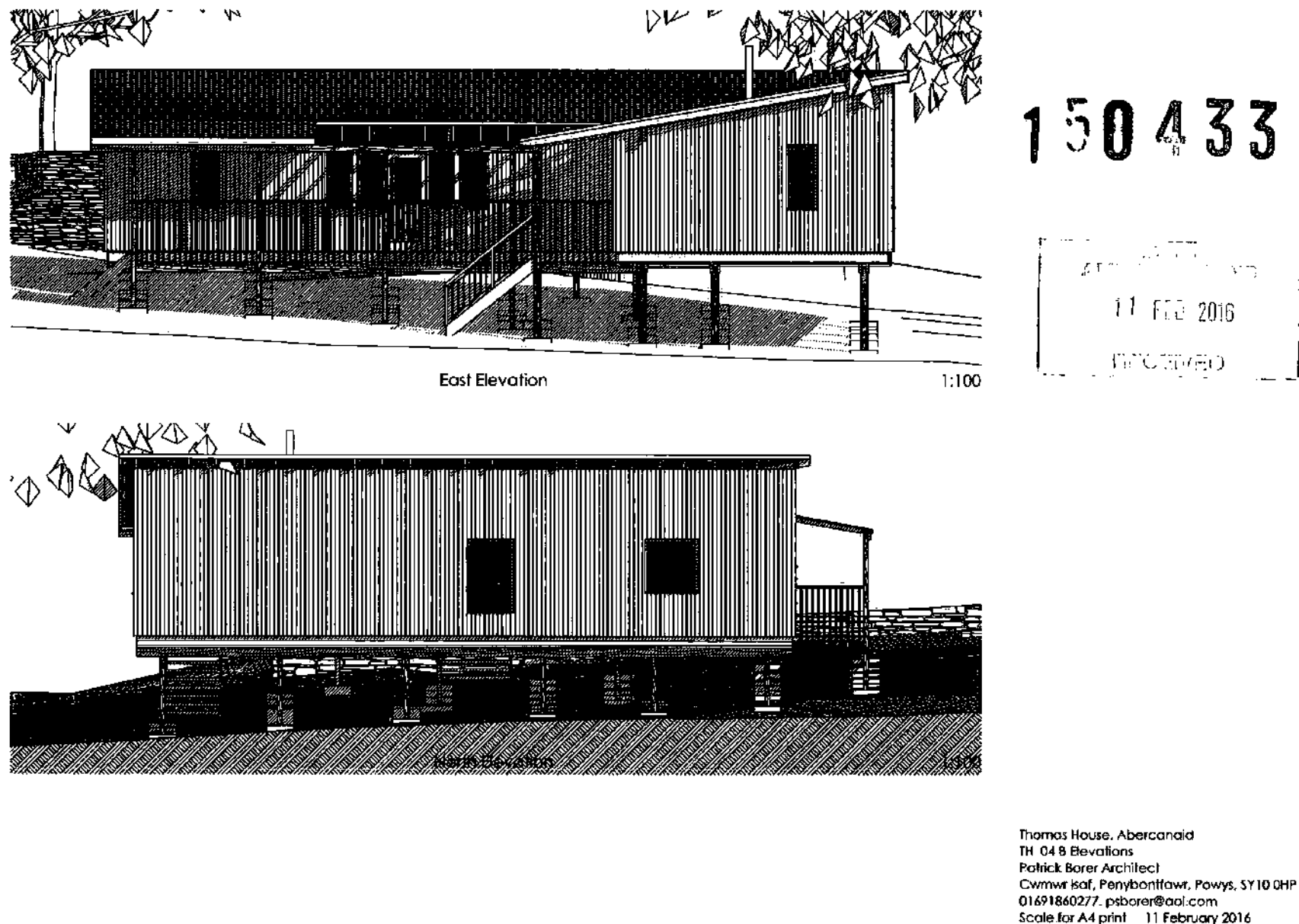


Image 13 approved scheme see appendix 3 for pre-app

It seemed that this was such an easy system to use. In general, we likened it to Lego block building. Research showed us that the advantages of Straw Bale Construction are:

1. **Environmental Sustainability:** Utilising straw, a renewable agricultural resource, reduces the reliance on non-renewable materials. This minimizes the carbon footprint associated with construction and helps mitigate climate change. Made up with 98% natural renewable materials, it can sequester tons of CO2 for each project.
2. **Energy Efficiency:** Straw bale walls provide superior insulation, effectively regulating indoor temperatures and reducing the need for heating and cooling. This leads to lower energy consumption and decreased utility bills over the building's lifespan.
3. **Cost-Effectiveness:** In many regions, straw bales are abundant and inexpensive compared to conventional building materials. Additionally, the simplicity of construction can lower labour costs, making it an affordable option for both residential and commercial projects.
4. **Health and Comfort:** The natural properties of straw contribute to healthier indoor environments by allowing moisture regulation and preventing the buildup of mould and toxins. Additionally, the thick walls offer excellent sound insulation, enhancing occupants' comfort and well-being.
5. **Enhanced Performance:** Panels are designed for optimal insulation performance, surpassing conventional building materials. The panels' air tightness and thermal mass contribute to superior energy efficiency, creating comfortable indoor environments year-round.
6. **Design Flexibility:** Despite misconceptions, straw bale construction offers versatile design possibilities. With proper planning and engineering, it can create aesthetically pleasing structures ranging from traditional to contemporary styles.
7. **Precision Engineering:** The panels are precision-engineered to ensure consistency and structural integrity. This guarantees that each panel meets stringent quality standards, simplifying the construction process and reducing on-site errors.
8. **Time and Labour Efficiency:** Utilizing prefabricated panels such as EcoCocon can significantly accelerate the construction timeline. Builders can assemble structures quickly and efficiently, saving time and labour costs.

<https://www.planningdesign.co.uk/exploring-straw-bale-construction/#:~:text=Environmental%20Sustainability%3A%20Utilising%20straw%2C%20a,and%20helps%20mitigate%20climate%20change.>

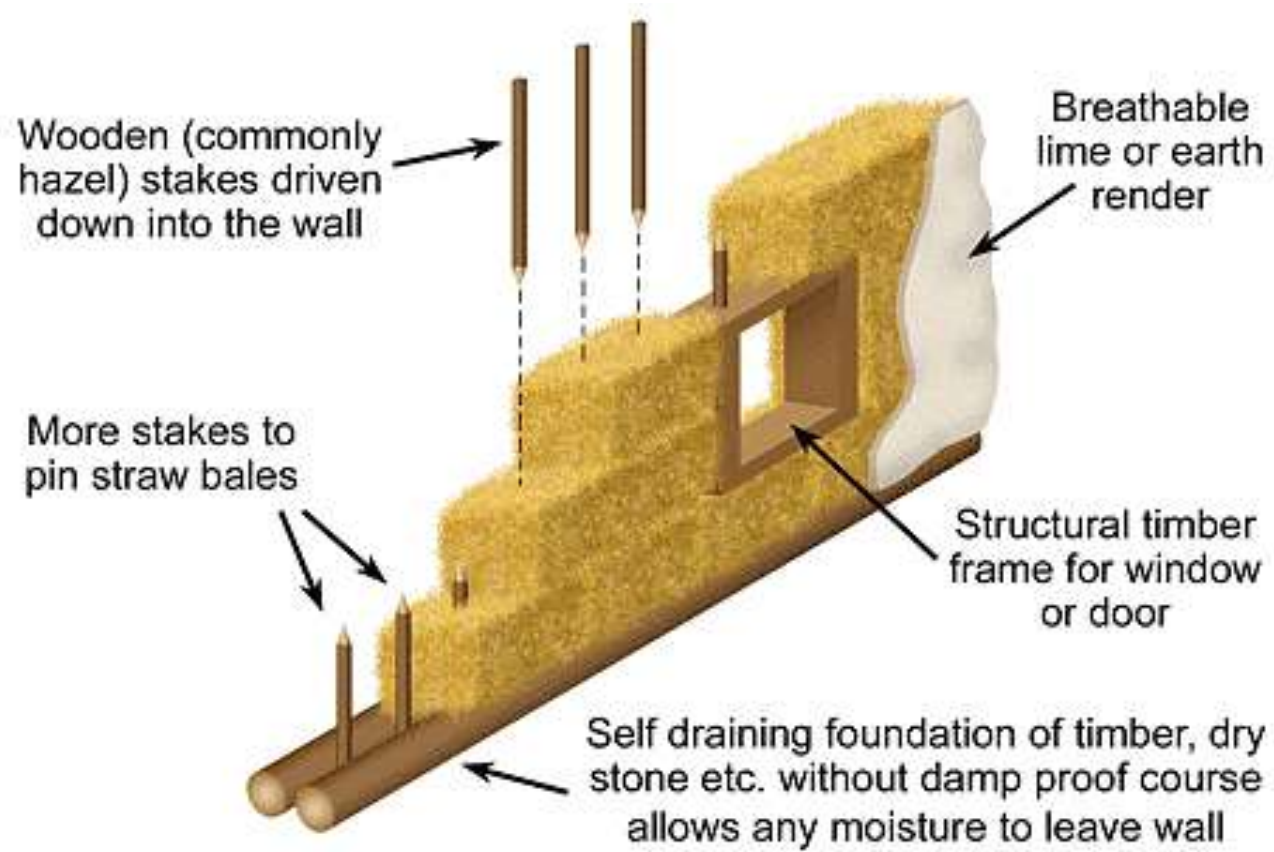


Image 14 Straw bale construction

This Norfolk straw-bale cottage aims for passive and provided a lot of data

<https://passivehouseplus.co.uk/magazine/new-build/norfolk-straw-bale-cottage-aims-for-passive>

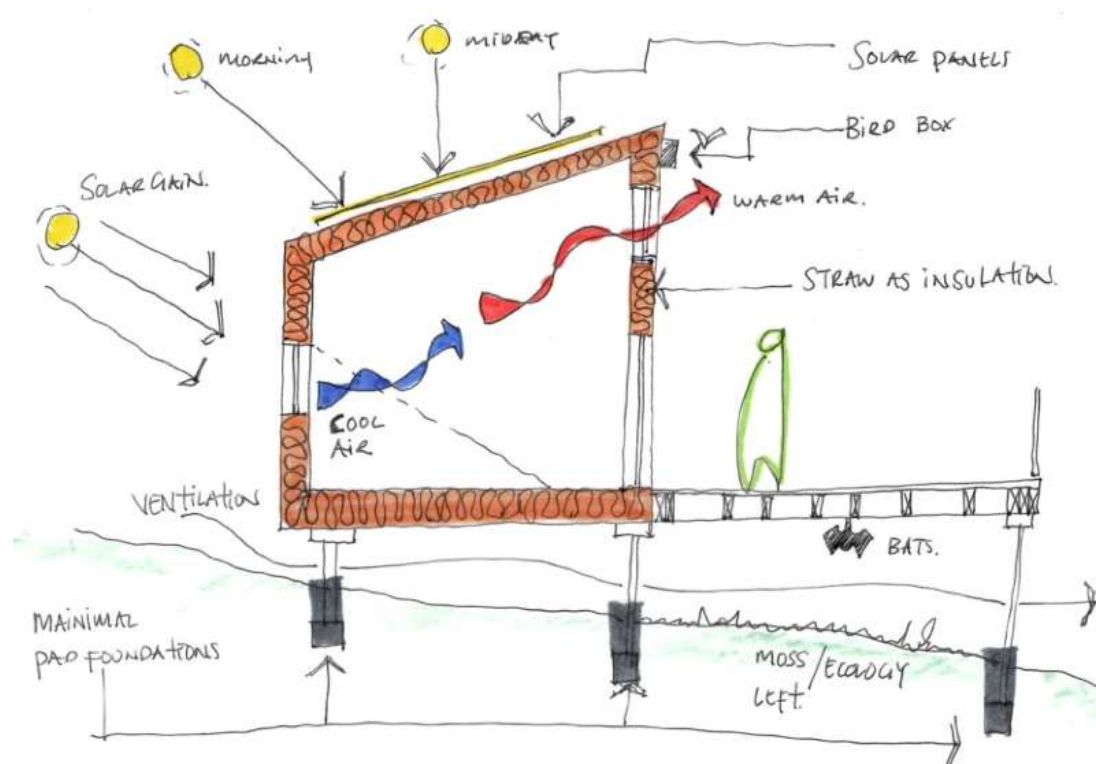


Image 15 George and co illustration for active and passive systems



Image 16 effectively, the project becomes one big tea cosy

The internal walls will be lined with plywood, offering a contemporary interior feel and again to remove the need for wet trades in plasterwork and painting. There will be a functional service zone between the straw and ply for pipework and electrics.

Generally speaking, plywood can be called a sustainable building and construction material for three key reasons:

1. **It's made from sustainably sourced local timber materials.**
2. **It's constructed using sustainable manufacturing processes.**
3. **It's treated using sustainable treatment processes.**

However, we are still researching the glues that are needed to bond the process

Traditional build would include

- **Cut and fill on site**
- **Retaining walls**
- **Concrete foundations**
- **Suspended concrete floor**
- **cavity construction, including blockwork, PIR, blockwork, wet trades in render and plasterwork**

The project costs for the previously refused proposal would be approximately £3500/4000sqm due to the complicated needs onsite, as previously outlined. We are still estimating costs for our proposal, but conversations with Tim Phillips QS indicate that our system would cost £1250/1350sqm.

<https://www.homebuilding.co.uk/author/tim-phillips>

We are preparing a schedule of works that will allow us to review the cost control mechanisms that operate during the development of a project, however EcoCocon has offered a system build for £29,000.00 which works out at £305 per square meter. This includes the straw bail insulation. Compare this to a traditional timber frame at a cost of £300 per square meter, excluding insulation.

<https://ecococon.eu/gb/>

The project is currently in the planning system, but once we pass this phase we will be going along the self build route. This would require a full plan submission to the Local Authority Building control department that will look at the project to ensure that the detail complies with Building Regulations. One of the chapters in the Building control documents, Part L, looks at the thermal performance of the building. Normally we would work through SAP ratings, but this project will borrow Passivhaus principles.

The Criteria for Buildings Passive House – EnerPHit – PHI Low Energy Building are

Passivhaus standards (general):

- **High Insulation**
- **Airtightness**
- **Ventilation**
- **Thermal Comfort**
- **Energy Performance**

https://passiv.de/downloads/03_building_criteria_en.pdf

We will be self building the project and under the Construction (Design and Management) Regulations 2015 (CDM 2015) now become responsible for our own safety when working on the project. This will mean the following:

- Plan, manage, monitor and coordinate health and safety in the construction phase of a project. This includes:
 - liaising with the client and principal designer;
 - preparing the construction phase plan;
 - organising cooperation between contractors and coordinating their work.
- Ensure:
 - suitable site inductions are provided;
 - reasonable steps are taken to prevent unauthorised access;
 - workers are consulted and engaged in securing their health and safety; and,
 - welfare facilities are provided.

<https://selfbuildportal.org.uk/healthandsafety/>

Architecture fees will be absorbed by George and Co. However we have budgeted £20k to include engineers fees, Passive House calculations, planning and building control fees, along with SuD's drainage design. Everything else will be undertaken in house.

Reflection:

From its inception, the project was always an attempt to develop a building system that would give opportunities to those who wish to get 'hands-on' with a truly self-build project, all the while, contesting local planning policy, especially that of materiality and

environmental context. Its also essential to break the pre-conceptions peddled by the volume housebuilder, who by their very nature, still produce housing for the 'nuclear family'.

By removing the wet trades from the process and simplifying the material choices, the construction process can be seen as fabrication of a kit of parts and reduce the involvement of skilled labour.

As a practice, the general experience is of a client who would like to get involved with the process at all stages, but there is often elements of the planning system that holds them back. We are then often left wondering why, what are deemed to be traditional materials, namely stone, slate and render, are even relevant and what generated the contextualisation of such materials in the first place. The answer is, of course, necessity. Construction in the South Wales valleys is still process of necessity, but the game has changed. The drivers to modern living are no longer the same as its historical industrial past.

The project is yet to be realised, but with gentle persuasion of the planning system, the house could be a test bed for development of housing that can give the occupier a freedom without the constraints of pre-conceived ideology.

It is hoped that with further iterations and modest investment, the process can be refined and greater emphasis on locally sourced, carbon neutral materials can be considered.

LPA CONSULTANTION

It has been suggested by the planning department that the building takes the form of a flat roof rectangle rather than a mono pitched roof.

Whilst we understand the comment, we would like to offer the following, by way of testing the design through our design Principles:

A timber frame mono-pitch (or lean-to) post and frame structure uses vertical posts supporting horizontal beams (girts/plates) with a single-sloping roof, ideal for modern sheds, barns, or extensions, offering cost-effectiveness, simplicity for self-builds. A square frame needs a lot more bracing to stop the building racking. There will be a lot more timber involved in construction, as you'll need joists at every 400mm centre across the width of the build, where as a post on frame pitched roof would only need three frames per bay.

More "furring strips" would be needed on the roof, to ensure water runoff, the roof requires a minimum fall, often achieved using tapered timber on top of the joists or by using tapered insulation boards. Solid bridging or noggins (strutting) are required for lateral stability. A deck would have to be used, commonly 18mm plywood or OSB, is fixed over the joists and furring strips. A flat roof would involve in a rubber coating EPDM (rubber) or TPO (thermoplastic polyolefin) membranes, proving to be a speciality way of construction and not something as easy to fix, as say the metal cladding sheeting that we propose.

Also, a flat roof a up to three times as thick as a warm roof construction needs the insulation on the cold side of the construction to prevent condensation, while "cold roof" places it between joists, this would mean that the ceiling height would be a lot higher to compensate for placing insulation under the joists, as you will not get all the insulation between the joists. Cold roofs usually fails within ten years, as they are poorly built and detailed.

Due to the nature of the roof, the eaves on the flat roof would be a lot higher than the sloping eaves. We predicted that the parapet would be almost 3.9m off the ground floor and only 3m on the sloping roof. Solar panels would also have to be mounted on legs which would take the top of the panel over the height of the ridge of the sloping roof.

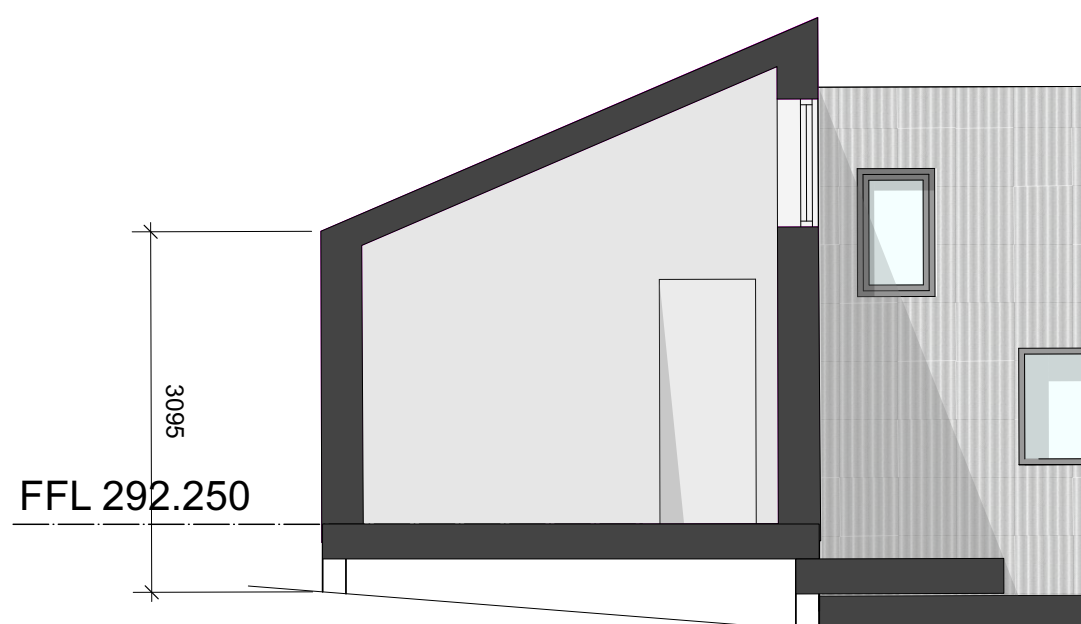
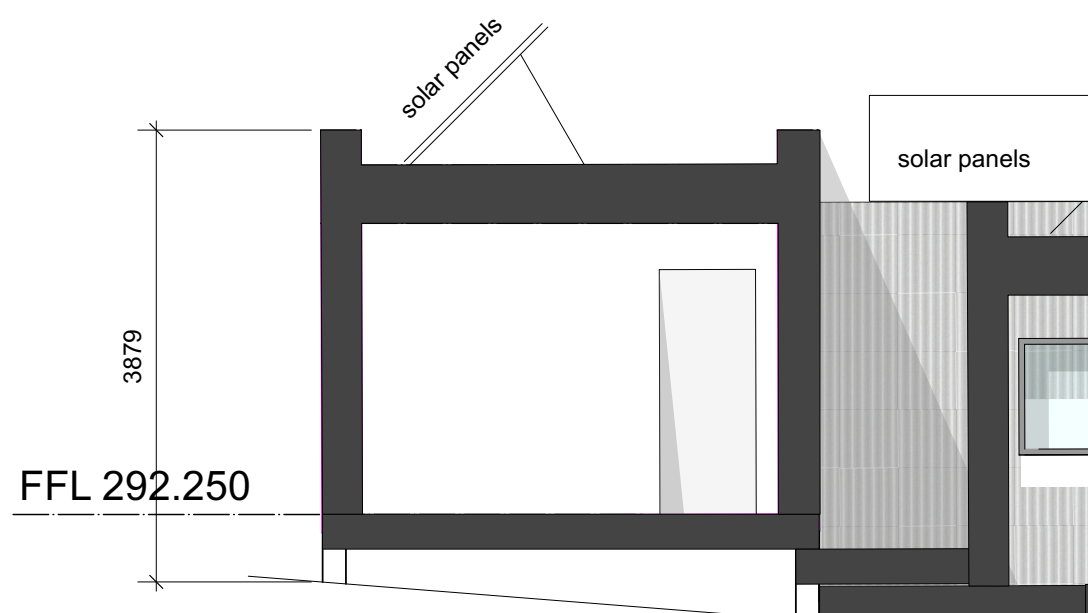


Image 17 height comparison

It's also noted that straw bale would not work in a flat roof.

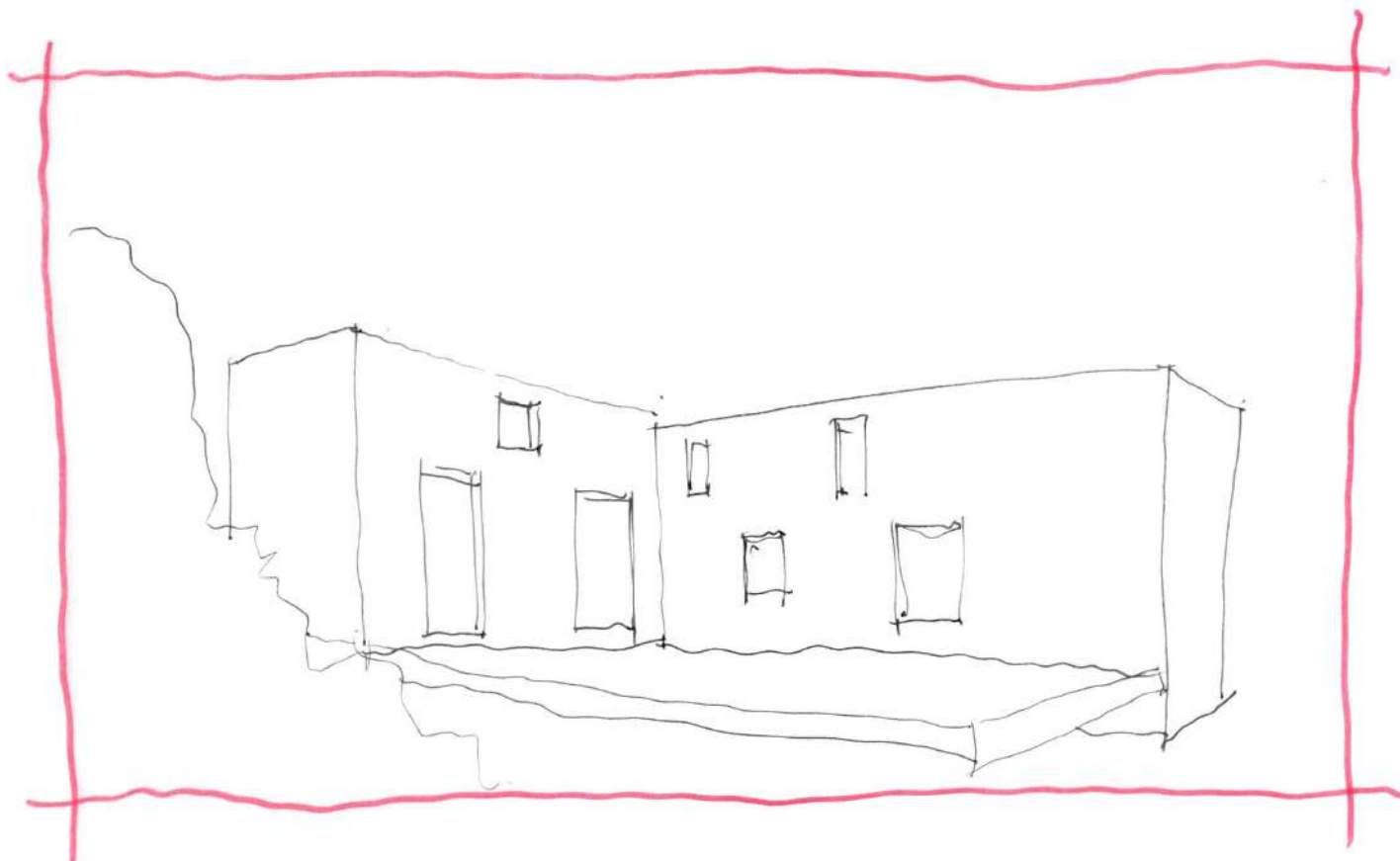


Image 18 flat roof proving to be modular and bulky in form

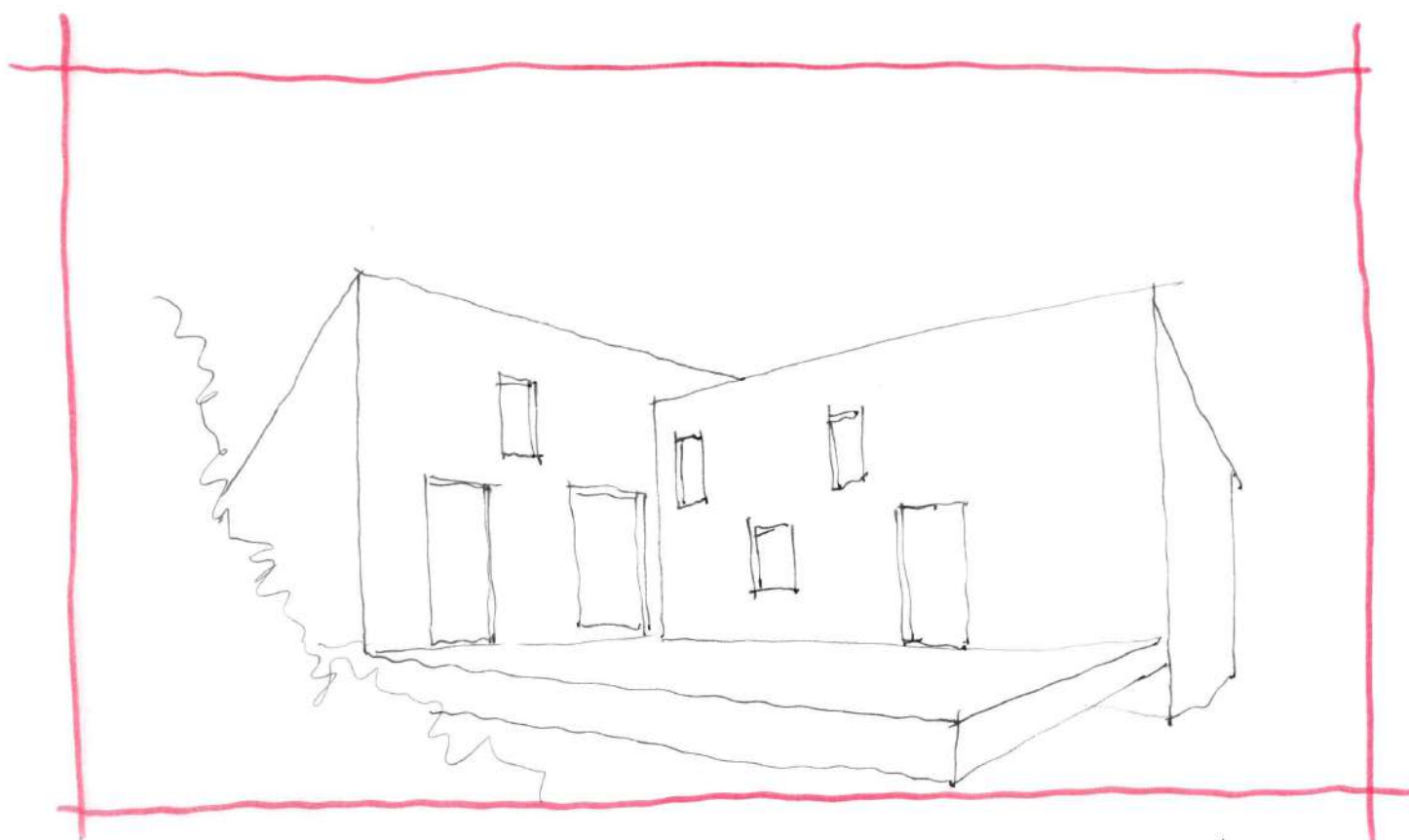


Image 19 lower eaves and a less dominating elevation

A flat room project would have a greater impact on Balaclava Road, as the eaves would be almost a meter higher than a sloping roof. The internal environment would also be a lot different, as you will not get the sense of volume that you would have for the sloping roof. We would also miss out on the passive cooling due to the loss of high-level windows. See the illustration for active and passive systems above. The loss of the high-level windows loses the connection to views of the trees beyond and allowing north and west light penetrating deep into the floor plan.

CONCLUSION

Our scheme looks to challenge climatic conditions, the relationship to vernacular architecture and a tight budget : ‘All these things make it an exemplary home, which will have much to contribute to future debates around domestic architecture in valley contexts. This self-built home will be hand-built by the architect-founders themselves as a test bed for future work, it stands as a rare example of deep-rooted, site-responsive design, conceived with care and executed with remarkable craft and restraint.

The building blends effortlessly into the valleys landscape, with a material palette that honours the typology that surrounding it in valley shed architecture. Budget and skill constraints led to a creative redesign: the final timber-framed house and is clad in large sheets to reduce on labour and fixing detailing.

Inside, the house is compact but will feel generous as the ceilings will be vaulted with interior materiality is restrained but richly textured through larch ply ceilings and finely crafted beech joinery. Every room has a distinct character and a strong relationship to the wider context with views out to the landscape and to the sky – whether through the living room’s expansive, the bedroom’s seasonal light alignment, or the kitchen window that maintains privacy while encouraging neighbourhood connection to view people entering the site. Executed on a very modest budget, this quietly poetic building is a testament to what can be achieved through patience, skill and profound respect for place. It is a richly personal and beautifully crafted work that shows the strength of emerging architectural voices.

The proposed dwelling would be located in an area that is somewhat isolated from the existing properties in the area, given its siting to the north of Aly-y-Bryn, on land that is largely enclosed by existing vegetation. The dwelling would be setback from the main road and behind an existing garage which helps to minimise any visual intrusion. Additionally, the dwelling would be single storey in nature with the ground floor level being constructed at a lower level to the main road.

The retention of the existing trees and hedgerows would also screen the majority of the development. As such, it is considered that the proposal would have a limited relationship with the more traditional properties in the area. The general scale and design of the dwelling with cladding on the external elevations and roof is considered to be appropriate for the site, given its close proximity to what feels like the open countryside in such an expanse of garden. In this respect the appearance of the dwelling would not be dissimilar to an agricultural building or garden shed in the countryside.

The general design of the development, which incorporates sustainable building techniques and materials, would not have an adverse impact on the character and appearance of the area.

Appeal Decision

by Clive Sproule BSc MSc MSc MRTPI MEnvSci CEnv

an Inspector appointed by the Welsh Ministers

Decision date: 10/03/2023

Appeal reference: CAS-01970-G9F1T9

Site address: Ael Y Bryn North, Walter Street, Dowlais, Merthyr Tydfil CF48 3AP

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant outline planning permission.
 - The appeal is made by Mrs Helen Foley against the decision of Merthyr Tydfil County Borough Council.
 - The application Ref P/20/0305, dated 28/11/2020, was refused by notice dated 29/11/2021.
 - The development proposed is proposed dwelling (outline with some matters reserved).
 - A site visit was made on 29/11/2022.
-

Decision

1. The appeal is dismissed.

Procedural Matters

2. The description of the development proposed used in the header of this decision letter is taken from the descriptions included on the Council's decision notice and the appeal form.
3. The application was made in outline with matters regarding access and scale proposed at this stage, and those in relation to appearance, landscaping and layout reserved for determination at a later date. Details supplied in relation to the scale of the proposed house, provide its height and lower floor level, along with the length and width of the dwelling.

Main Issues

4. These are the effect of the development proposed on: a) the living conditions of local residents in relation to overlooking, availability of daylight and visual impact; and b) biodiversity.

Reasons

Living conditions

5. The appeal site is a garden area between Ael-y-Bryn North and the rear of terraced housing on Regent Street immediately to the north of the property boundary. The terraced houses on Regent Street were constructed to step down the steeply sloping

gradient of the street toward the junction with Balaclava Road. Land levels on the appeal site reflect the steep slope on Regent Street by falling towards Balaclava Road, but land levels also fall sharply between the appeal site and the houses on Regent Street. Consequently, the appeal site is in elevated position close to and above the nearest houses in Regent Street, while also being near to and further above the rear of the terraced dwellings on Balaclava Road.

Overlooking

6. The existing garden area that forms the appeal site provides elevated views, through vegetation, to the rear amenity spaces and rear elevation windows of dwellings on Regent Street and Balaclava Road. Developing a new dwelling on this existing garden area has the potential to significantly increase the levels of actual and perceived overlooking from it. However, the appellant's Statement of Case notes the elevational details provided on application drawings to be "illustrative". These illustrative details show no windows or doors in the elevation next the rear amenity spaces of the houses on Regent Street and indeed, it is likely that a dwelling design would seek to take advantage of the views across Balaclava Road. The scope for the design of such a dwelling and its positioning within the appeal site, along with the steepness of the terrain, could reduce the potential for there to be significant levels of overlooking toward the houses and amenity spaces on Balaclava Road. Therefore, whilst the design and location of window and door openings have yet to be confirmed, I am satisfied that details determined at the reserved matters stage could ensure that no unacceptably harmful levels of overlooking occur from this outline proposal.

Availability of daylight

7. The proposed dwelling would have a footprint of up to 8.6m by 6.5m, and would be up to 8.5m in height. At certain times of the year, existing trees on and around the appeal site may reduce direct sunlight to neighbouring houses on Regent Street. This also could occur with the appeal scheme given the scale of the building proposed and its possible locations within the appeal site. However, it has not been shown that any potential reduction in direct sunlight or available daylight to the rear windows or amenity spaces of the dwellings on Regent Street likely would be sufficient for it to be unacceptably harmful to the occupiers of these properties.

Visual impact

8. This is an area where housing can be expected to occur, and be seen in elevated positions due to steeply changing land levels. The dwellings on Balaclava Road have significant separation distances from the appeal site. Consequently, the presence on the appeal site of a building with the dimensions sought, would be unlikely to have an unacceptably harmful visual impact due to the space remaining around the dwellings on Balaclava Road.
9. However, when the dimensions of the proposed building's footprint are set within the area of the appeal site, it confirms the proposed dwelling would inevitably be much closer to the rear amenity spaces and windows of the dwellings on Regent Street, than those on Balaclava Road. It is apparent from the evidence in this case, and as viewed on-site, that the proposed dwelling would be seen from the rear amenity spaces and windows of houses on Regent Street.
10. Due to its scale, elevated position and close proximity to the rear windows and amenity spaces of dwellings on Regent Street, the proposed dwelling would be likely to appear as a dominant and overbearing structure in views from them. This visual impact would be unacceptably harmful to the living conditions of occupiers of these houses on Regent Street and the associated rear amenity spaces. Any landscaping or planting along this

Ref: CAS-01970-G9F1T9

northern appeal site boundary could not be relied upon to be permanent and to provide effective mitigation for the proposal.

11. Policy SW11 of the Council's Replacement Local Development Plan ("RLDP") requires development proposals to be appropriate to its local context in terms of, amongst other things, its scale, height and massing. For the reasons given above, the unacceptable harm that would occur to local living conditions through the visual impact of the proposed development conflicts with RLDP Policy SW11.

Biodiversity

12. Existing ground conditions and vegetation on the appeal site have the potential to support a variety of habitats and species. At the appeal stage, the appellant submitted a "Technical Note" on ecological matters, which sought to address the preliminary ecological appraisal requested by the Council's Ecologist on 15/10/2021, and the Council's appeal statement responded to it.
13. The Technical Note found it unlikely that the appeal scheme would have any impact on protected species; and it is apparent that the bat and bird boxes and an insect tower referred to within the Technical Note could be provided through a planning condition. It is also evident that the appeal scheme would be unlikely to have an adverse impact on Regionally Important Geological Sites, Sites of Importance for Nature Conservation, Local Nature Reserves, or Priority Habitats and Species to conflict with LDP Policy EnW3; and by maintaining and enhancing biodiversity the proposal would comply with LDP Policy EnW1 which requires development proposals to promote the resilience of ecosystems.

Other Matters

14. Access to the proposed dwelling would be through the existing entrance to Ael Y Bryn North. It would provide an appropriate level of visibility to ensure safe access and egress for traffic associated with the development proposed. As such, the appeal scheme complies with LDP Policy SW11 criterion 5.
15. The appeal scheme would provide an additional dwelling, in an existing residential area through the use of previously developed land, and this provides moderate weight in favour of the proposal.

Conclusion

16. All matters raised in this case have been taken into account and none, including the scope of possible planning conditions, have been found to outweigh the identified harm and resulting conflict with development plan policy. Accordingly, the appeal should be dismissed.
17. In reaching my decision, I have taken into account the requirements of sections 3 and 5 of the Well-Being of Future Generations (Wales) Act 2015. I consider that this decision is in accordance with the Act's sustainable development principle through its contribution towards the Welsh Ministers' well-being objective of making our cities, towns and villages even better places in which to live and work.

Clive Sproule

INSPECTOR

Photos from Aberfan, Merthyr Tydfil





Photos from St Fagans National Museum of History



Photos from Banwen, South Wales



APPENDIX 1

Ellis Cooper BSc. (Hons)
Corporate Director Place and Transformation
Cyfarwyddwr Corfforaethol Lleodd a Gweddnewid

Mr & Mrs Thomas

(Sent via email baldywhiskers@yahoo.co.uk)

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MERTHYR TYDFIL
County Borough Council
Cyngor Bwrdeistref Sirol
MERTHYR TUDFUL

Date/Dyddiad: 20th November 2015

Our ref./Ein Cyf.: Ref PA/15/0098
Your ref./Eich Cyf.: Ref

Please ask for/Gofynnwch am: David Cross
Direct Line/Llinell Uniongyrchol: 01685 724632
e-mail/e-bost: david.cross@merthyr.gov.uk

Dear Mr & Mrs Thomas

RE: Proposed dwelling on land adjacent to Newton Street, Abercanaid

I write in response to your email request for pre-application advice with supporting information received on the 12th October 2015. I have now had the opportunity to consider your proposal, which I have discussed with my colleagues in Planning Policy and Implementation, Engineering and Highways. Planning permission is required for the proposed dwelling, barn and car shelter, of which I understand you intend to submit a detailed application.

Principle of development

The site is located within the Primary Growth Area and settlement limits as defined by the Merthyr Tydfil Local Development Plan (LDP). As such the proposed dwelling, barn and car shelter are generally supported in principle by Policies BW1 and BW4 of the LDP. It would be useful if you can clarify as part of the application, what the intended use of the barn would be e.g. would it be for domestic use as a workshop/store area.

Design

I note that details relating to the siting of the dwelling, barn and car shelter have been illustrated on a site layout plan and elevations have been provided of the dwelling. However no elevations have been provided at this stage of the barn or car shelter. The proposed development should have regard to Policy BW7 of the LDP which encourages development to be sustainable and of a good design while taking into account the character and amenities of the surrounding area.

The general siting of the dwelling within a central position of the site and a setback of approximately 17m away from the Taff Trail is considered to be acceptable. However the position of the dwelling in close proximity to the driveway would likely cause a problem if there is a need for vehicular access to the barn. There is no particular issue with the location of the car shelter, although detailed elevations would be required as part of the planning application.

The proposed barn, which measures approximately 15m long by 7.5m deep, is considered to be too large particularly given its close proximity to the Taff Trail. There is no objection in principle to the provision of a barn within the site. However, its size and location should be reconsidered to significantly reduce its potential visual impact along the Taff Trail.

The general design of the dwelling in terms of the material finishes and elevational treatment would greatly differ to the more traditional character of the terraced properties situated to the north of the site. However, the dwelling would be located within a secluded area that has little relationship with the existing properties, in terms of street scenes, frontages and building lines. The character of the site has a more rural feel given the extensive landscape features within and surrounding the site. The proposal

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dwelling would be of a timber frame construction utilising sustainable methods, such as the use of straw bale walls with timber cladding and a planted 'green' roof. It is considered that the appearance of the dwelling would be appropriate within the context of the site and would reinforce the rural characteristics of the immediate surroundings. In this respect, the dwelling is likely to have a minimal visual impact on the Taff Trail and the adjoining countryside.

Ecology

The entire site is situated within an area designated as a Site of Importance for Nature Conservation (SINC) and adjoins land to the east which is designated as a green wedge. Policy BW5 of the LDP highlights the need to protect and enhance the County Borough's distinctive natural heritage. Policy AS6 of the LDP also has regard to local nature conservation designation and highlights the need to ensure the important features of such areas are taken into account to prevent damage to their conservation value. It is acknowledged that you have already carried out an ecological survey of the site in 2014, which concludes that the site would not adversely affect the SINC and would have potential to increase its value.

The ecological survey indicates that both bats and reptiles have been found using the site. As such appropriate mitigation / compensation measures would need to be presented as part of the application to minimise any impact on protected species. Furthermore, it is noted that strands of Japanese Knotweed have been identified in various part of the site, which will need to be appropriately treated.

My Countryside Officer has considered the merits of the proposed development and has raised no specific concerns, subject to the recommendations of the ecological survey report being carried out. Advice would need to be sought from Natural Resources Wales as part of the planning application, given the location of knotweed near the River Taff and the potential impact on protected species.

Landscape

The site is located within a Landscape of Historic Interest as defined by Policy AS4 of the LDP, which seeks to maintain and enhance the character and integrity of the landscape. It is noted that there are a number of trees and hedgerows across the site, particularly along the boundaries, which are considered to be important landscape features that provide a buffer between the main settlement of Abercarnall to the north and the open countryside to the south. These landscape features should be retained and incorporated as part of the development. Where there is a need to remove any trees or sections of hedgerows, a justification would need to be provided e.g. demonstrating that the tree is in a poor condition or is of limited amenity value. My Landscape Architect has not raised any concerns with the proposal and is of the view that the development would not have an adverse impact on the surrounding area. In this respect, the positive management of the site boundaries would likely improve the quality of the landscape.

Highways

The Engineering and Highway Manager has indicated that the access serving the site from Gethin Street is an un-adopted and privately maintained road which also forms part of the Taff Trail. Regard should be given to Policies BW12 and TB11 of the LDP which consider the potential highway implications of development in terms of traffic movements, highway safety, parking and accessibility. I note that there is an existing entrance that would need to be re-profiled to create a driveway with suitable gradients into the site. As part of a planning application full details of the driveway would need to be provided along with sections that illustrate the existing and proposed levels. There is no highway related objections to the development in principle. Further advice will need to be sought from the Rights of Way Division in respect of any works that may affect the Taff Trail and any other permissions that you may be required during the construction phase of the development.

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Amenities

The nearest residential properties are those located to the north of the site along Gethin Street and Newton Street. Given the extensive screening of the site by the existing trees and hedgerows, it is considered unlikely that the development would pose any concern in respect of overbearing impacts or loss of privacy. I should point out that a publicity exercise will be carried out as part of the planning application to enable neighbouring residents the opportunity to offer any comments on the proposed development.

Planning obligations

Regard should be given to Policies BW17 and AS22 of the LDP which consider the need to secure any necessary planning obligations and the provision of affordable housing contributions respectively. In this instance, my Policy Officer has indicated that a financial contribution towards the provision of affordable housing would not be sought as this would likely affect the viability of the scheme. However, a Community Infrastructure Levy (CIL) would be chargeable at a rate of £25 per square metre.

Application details

If you intend to submit a planning application, you will need to submit the following information:

- A fully completed application form and relevant ownership certificates (this can be found on the Council's web site www.merthyr.gov.uk)
- A site location plan (scale of 1:1250) which clearly identifies the application site (outlined in red) within surrounding area.
- A Design and Access Statement.
- Supporting information, including the ecological survey, bat/reptile mitigations, knotweed strategy.
- Detailed drawings (scale of 1:100 or 1:200) illustrating the proposed development, including existing and proposed levels of the site, elevations, sectional drawings, block plan, landscaping scheme.
- Appropriate planning fee of £380

Conclusions

In conclusion the principle of the development is acceptable. Further details would be required as part of the planning application in relation to the matters noted above to ensure the site appropriately developed. The above advice is made at an officer level and would therefore not prejudice any decision that may be made in the future by the Council. I trust the above is of assistance and self-explanatory. If you need to discuss this further please do not hesitate to contact David Cross.

Yours faithfully



MISS J JONES
HEAD OF TOWN PLANNING

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Reference list

Image 01 Andrew Ayles Planning application for Ael-y-Byrn
AJ Planning and Development
Proposed plans
MTCBC Planning portal www.merthyr.gov.uk/planning

Image 02 Andrew Ayles Planning application for Ael-y-Byrn
AJ Planning and Development
Proposed sections
MTCBC Planning portal www.merthyr.gov.uk/planning

Image 03 Andrew Ayles Planning application for Ael-y-Byrn
AJ Planning and Development
Proposed site plan
MTCBC Planning portal www.merthyr.gov.uk/planning

Image 04 Steven George Design thoughts – George and co
Proposed site plan sketches from Design and Access Statement

Image 05 Steven George Test model
George and co
Photo from Design and Access Statement

Image 06 Steven George proposed sketches showing thoughts on how to reduce the impact on terrace houses to the north plan
George and co
Photo from Design and Access Statement

Image 07 Margam Discovery centre
Photo from Paul Durrel
NPTCBC

Image 08 Garden shed, Merthyr Tydfil
Authors own photo

Image 09/10 and 11 George and Co design submitted to MTCBC Planning department
George and co

Image 12 invisible studio office post and frame construction
Pires Taylors own photo

Image 13 approved scheme see appendix 3 for pre-app
Pat Borer planning application

Image 14 Straw bail construction detail
Ashraf Mansour Habib Mansour
Sustainable youth community development in Egypt

[https://www.researchgate.net/figure/Construction-detail-for-the-straw-bale-wall fig4 303980234](https://www.researchgate.net/figure/Construction-detail-for-the-straw-bale-wall_fig4_303980234)

Image 15 Steven George illustration for active and passive systems
George and co
Photo from Design and Access Statement

Image 16 Tea Cosy
Love crafts
<https://www.lovecrafts.com/en-gb/p/cornish-tea-cosy-knitting-pattern-by-buzybee>

Image 17 height comparison
George and co

Image 18 and 19 – George and co
Proposed comparison sketches showing form

ARCHITECTURAL EXPERIENCE

Steven George BSc(hons) BA(hons) PG Cert, Arch M.Arch London School of Architecture – Partner

Steven formed the practice in 2002 and studied at Birmingham School of Architecture where he studied under international renown designer David Connor. Steven studied his part ii Masters at the London School of Architecture. He also holds a degree in Building surveying specialising in conservation and building pathology. Alongside the practice, Steven has been involved as a visiting critic at Cardiff MET, Birmingham school of Architecture and co-leads the design Unit 2, a 2nd year design studio at Swansea School of Architecture.

Steven was one of the lead designers on BBC2's House that £100k built, Tricks of the Trade and build consultant on Netflix's Your Home Made Perfect. Recently appeared on Sarah Beany's Channel 4 show Little house, big plans, for a project in Merthyr Tydfil. This project was also short listed for the Gold Medal of architecture at the Eisteddfod. Other projects have won RIBA awards, AJ awards and recently made the long list for the Dewi-Prys Thomas Award for a house in Merthyr Tydfil. Steven was involved in the Design Commission for Wales (DCfW) charrette for Cyfarthfa Castle, a Grade I listed building. Along with roles with Planning Aid Wales, CREW Regeneration Wales as Leader of the Historical Built Environment Core Steering Group and past Director of Merthyr Tydfil Heritage Trust.

Chris George BA(hons), MA – Partner

Chris has studied Surveying in University of South Wales and has also completed his degree and Masters in Graphic design at Cardiff University and went on to form a clothing brand, selling items all over the world, featuring in magazines as far afield as Australia and the US.

Chris joined George and Co in 2019 as he was becoming heavily involved in product and building design and has been project designer for some of the practice's most prestigious and demanding projects including our social, heritage and interior projects. Chris crits at UWTSD Swansea school of Architecture. He is currently working with the Urbanist on a 54 flat development and coordinating a number of low carbon dwellings developments across the UK, while having a number of projects featured in the Architects Journal.

Ryan A Stuckey B.A (hons) arch, PG Dip Arch, PG Dip (Prac), ARB, RSAW-PP, RIBA – Associate

Ryan not only a practicing architect with 23 years experience, but also has a post as lecturer in the school of architecture based in UWTSD Swansea school of Architecture, specializing in professional practice, Law & Construction Technology. Ryan is the past President of the Royal Society of Architects in Wales and has a seat at the council for the RIBA (Royal Institute of British Architects).

Ryan has worked on a mixture of commercial, private and social housing projects in a practice in London. Returning to work in the family practice in 1999 as partner at Allan Stuckey Architects (ASA). This is where Ryan first collaborated with Steven, working together on the £2m extension to Merthyr Tydfil Football club along with other high profile schemes with ASA such as the grade ii listed Alchemist, Cardiff. The Rates building, also a listed building in Aberdare, Kings Hotel and Cardiff Airport.

Aneurin James BA(hons) – Architectural Assistant

Aneurin studied at Swansea school of Architecture and gained a first degree. Not only did he win best of year in the end of year show, but was nominated for the RIBA President's Medal, the RIBA's oldest awards and are regarded as the most prestigious prizes in architectural education globally. Aneurin also featured in the student showcase in the Architects Journal of the top students in the country. Aneurin is undertaking a Masters course at Bristol School of Architecture

Nathaniel Raynes BA(hons) – Architectural Assistant

Nathaniel studied at Swansea school of Architecture and Bristol School of Architecture. Nathaniel lead the Neath office for Darkin Architects. As well as residential project, Nathaniel has commercial, industrial expertise and gained valuable experience working on Housing Association schemes on projects up to the value of £2m. Leading on a project that was awarded Best LABC Partnership of the year

Liam George – Architectural Assistant

Liam is studying and combining practical experience in an architectural practice with academic training through college.

Carys Morris – Architectural Assistant

Carys, a student of Swansea school of Architecture works with us part-time through her studies aiding in projects up to stage iii of the RIBA plan of works.

George and Co recently received RSAW Award for Reimagine Cardiff Central Square