

Changing Plans

Reversing outward migration

There is no doubting the fundamental appeal of establishing a life in the Lake District, but there are major barriers at present that prevent young people from doing so.

Without matching the **opportunity** to establish a career, as provided in cities, it is fundamentally not possible.

Without an adequate supply of appropriate and **affordable** homes, it is not practical.

And without the **flexibility** to accommodate the inevitable change over a lifetime, it is not viable.

Our proposal addresses each of these issues in an innovative, yet achievable way, to help establish a sustainable, resilient community that can help ensure the culture and economy of this unique part of the world can continue to thrive.

We start by creating a podium of workspace as the base of the scheme. Everyone has the opportunity to work from home, set up a business or run a small workshop or studio. A fulfilling career has a major influence on well-being and nobody should have to sacrifice their ambitions to move to a rural community.

Above the podium we propose a series of compact, efficient, yet considered dwellings; utilising innovative and sustainable construction methods to make homes that are both affordable to purchase and cheap to run.

Finally, we have designed in the flexibility that affords every owner the opportunity to easily extend their home and grow their business without ever having to move anywhere. Because let's face it, once you're settled in the stunning landscape of the Lake District, we don't think you would ever want to move again.

Making the most of the site

To achieve these ambitious aims, the site needs to work really hard. By utilising innovative approaches to vehicle management and amenity space we maximise the potential of the small plot.

A typical rural development follows a consistent model; small terraces of housing set behind driveways with private gardens to both the front and rear. The result is inward-looking and inefficient, creating low-density settlements that contribute little to the broader community.

By promoting work within the village, we hope to reduce car dependency and contain vehicles to the perimeter of the site. A small fleet of shared electric vehicles aims to reduce car ownership entirely.

Similarly, private outdoor space is essential, but for busy, working families we believe we can eliminate the burden of extensive gardens and replace with thoughtfully designed terraces integrated vertically throughout each dwelling.

These moves allow us to accommodate forty houses on the site, interspersed with generous shared spaces, that replicate the density and vibrancy that is loved about traditional village life.

Not only is this applicable for this project; we believe these form sound principles that can be adapted to similar challenges, in other areas, with other delivery methods.

A Contemporary Village

This site layout draws upon local tradition to create a 21st-Century vision of a modern village.

Every home benefits from both workspace and a residential entrance at ground level. These are oriented to create an alternating arrangement of mews streets and shared gardens; the high-street and the village green, a hard and soft canvas for daily life. Work-life is encouraged to spill out one side, family life the other.

Rather than monotonous terraces, we create a patchwork of townhouse-style typologies. Separated by raised gardens, each house is individually identifiable yet part of a collective composition, stitched together by the ever-present backdrop of the nearby fells.

A meandering 'high-street' bisects the site. The terraces either side are flared to create both generous public spaces and intimate social spaces. The dwellings are offset in relation to one-another affording every house a view through the site to the stunning landscape beyond.

This balance of spaces allows life to flourish at family, street and community level.

The flexibility provided by the dwellings allows residents to project into the future, establish roots and invest themselves into the local area. There are opportunities created in the landscape in the form of shared gardens and allotments to encourage collaboration between residents. By distributing workspace across the site, opportunities are created for chance encounters, re-creating the dynamism of life in the city.

The balance between work and family, community and privacy is designed to help create a happy and healthy environment.

A Sense of Place

This is not a village within a village, however, but a project for the whole community. We recognise the importance of this development as a catalyst for the transformation of the whole of Burneside, and seek to integrate culturally, physically and socially.

The architecture takes formal cues from the vernacular and re-interprets in a contemporary yet restrained manner. The material palette is drawn from the local context to anchor within the place.

The network of streets, squares and gardens are stitched into the village fabric, making connections, routes and spaces that are accessible for use by all.

The opportunities created are extended to the wider village. There is space to support new and established businesses, to provide an outlet for local craftsmen and makers, a public face for the mill, a cluster of amenities that can draw tourists passing on foot or on bike into the village. The shared spaces are scaled to hold village events. The development becomes a place to establish and anchor local pride.

And this is only the beginning. We believe we can only really begin to get under the skin of the local area by developing the project further through a genuinely collaborative design process.

Regardless of form, the development will bring tangible benefits to the local economy. It is estimated that construction would generate approximately 55 jobs, with scope for local apprenticeships, along with the equivalent of up to 100 full time jobs created once completed. The village would also benefit from an additional household expenditure of £1.2m annually, with the increase in local services creating more opportunity for this to be spent locally.

A Home for Life

Within this scenario, living arrangements will not conform to established types; there are too many variables. Rather than constrain to established models, we have sought to create a simple framework which can accommodate many complex scenarios.

Every terrace follows the same modular grid and every dwelling consists of two bays. Whilst the living space is all at upper levels, we do not lose the qualities of a house. To retain a connection to the exterior, every home is designed around a large, private external terrace. This occupies a full bay, overlooking both the mews and the garden, and forms the primary outlook of the triple-aspect dwellings. This allows for narrower, more dynamic streets without sacrificing privacy or daylight.

In its most stripped-back form, there is a double-bedroom and bathroom on first and living/kitchen/dining space on second: efficient but without sacrificing good quality space standards. The first floor terrace can then be incrementally filled in, whilst always re-providing a terrace at second floor. This allows for an appropriate mix on day one, whilst supporting a simple, affordable, evolution every time life necessitates.

The principle is to create generous additional rooms, on a long-life loose-fit basis, that can accommodate standard scenarios, such as family expansion, or any other use the occupant can dream up.

The ground floor space is equally flexible, comprising simple, open-plan spaces that can be sub-divided or inter-connected to suit the scale required. The façade is equally flexible, and can be reconfigured to suit office, studio, workshop, retail, leisure or community use. And where necessary, the space can be integrated into the houses above or converted to wheelchair-accessible flats.

Innovative yet practical

Through the clever application of modern building methods, these proposals are innovative but equally practical.

The strategic approach is to create a robust and cost-effective podium upon which the housing can be placed. This would be framed by the use mass timber, such as glulam, and steelwork where appropriate, to allow for a genuinely flexible arrangement of spaces without precluding certain business types. The roof construction would comprise panelised, pre-cast concrete with recycled aggregate and sustainable cement replacement. This provides sufficient durability with regards to temperature and moisture and sufficient fire and acoustic separation for the residential units above.

Various forms of off-site, panelised components are well-suited for the residential accommodation. These include structure-only solutions such as Tufeco and CLT, to more complete SIPs and timber cassettes. This flexibility allows several options to be explored and tested for cost and suitability.

Components are manufactured off-site in factory conditions, driven by the BIM model produced by the design team. This allows for a sufficient range of variations to create the opportunity for customisation, whilst realising the cost and programme benefits of repetition. The off-site approach can even be extended to kitchens and bathrooms.

The extensions to the residential units are deliberately designed to be simple to create. Pre-fabricated timber or Tufeco cassettes can be ordered from standardised designs and supplied as panels. Alternatively, local builders, or residents themselves, can construct using simple timber frame construction. The mixing of systems does not create any problems.

Regardless of structural system, a cladding will be applied for either structural or aesthetic purposes. Given the local climate, durability is vital. Whilst we propose to develop the final material palette with local residents and prospective occupiers, it is likely this will draw upon hard-wearing contextual materials such as Cumbrian slate, concrete hanging tiles, corrugated cement board, sheet metal or even Richlite panels formed from resin-infused, recycled paper.

Embracing Sustainability

Sustainability, in all forms, is inherent to the approach taken within our proposal. This approach aligns with the principles set out within the Igloo sustainable development approach - Footprint. Through an understanding of the local context, key sustainability issues have been established which can be addressed through the design. As a result we can ensure that the proposals deliver a scheme which benefits investors, occupiers and the community.

We share the aspiration for a zero-carbon development and do not underestimate the challenges in achieving this. It comprises numerous disciplines and successful implementation relies on a motivated and coherent strategy from all stakeholders, with substantial thought from project conception. The team we have assembled have the experience to deliver this aim.

A modular approach to tackling net-zero will be taken, driving improvement in the three areas that impact on the overall energy performance of the development.

Firstly, the design will be optimised, utilising passive design principles to balance daylighting, energy and overheating. A fabric-first approach will also be applied in order to minimise energy demands and create a comfortable environment for residents.

The community of Burneside has made great efforts to provide low or zero carbon energy to the local area. The development proposals will firstly attempt to minimise the requirement for energy, but then look to source renewable energy from the local generators. This will encourage uptake and increased renewable energy generation from the local network. Additionally on-site renewables will be investigated and maximised where possible within the budget. The balance of workplace and residential space may also make CHP appropriate and reclaimed waste material from the paper mill could potentially be utilised as fuel.

As the operational energy is minimised, the energy embodied in the other life-stages of the development becomes more significant. Low energy principles adopted in the materials, construction, ongoing maintenance, and the deconstruction have already been considered

during the conceptual design of the site. Both timber and Tufeco construction have good sustainable credentials and can be sourced locally to the site. Off-site fabrication helps minimise waste, which can often be re-used in the case of CLT, and re-processed into raw material in the case of Tufeco. Embedding circular economy principles in the design rationale has also been prioritised, through developing flexible and adaptable spaces with modularity allowing simple construction, adaption and deconstruction for the buildings.

Living in Nature

A closer connection to nature and its effect on health and well-being is one of the primary draws to rural areas. As nature is so abundant for leisure in the surrounding area, the landscape on the site is designed in a functional manner to work every bit as hard as the architecture. The strategy is to adopt a nature-based design to bring the wildlife that is so abundant in the surrounding landscape onto the doorsteps of residents in a manner which is mutually beneficial.

Structure will be created through the provision of a diverse range of planting typologies, mirroring the patchwork of habitats found throughout the local area. In the same way, this structure will provide myriad functions for the community.

Whilst stands of trees will offer nesting opportunities for birds and create edge habitat for foraging bats, they also providing shaded areas and a place of contemplation. Rain gardens and swales will provide value for amphibians whilst helping to reduce surface flood risk. Open areas will be fringed with diverse wildflowers, providing a nectar source for bees, whilst acting as recreational space. Allotments will encourage hedgehogs and invertebrates to feed and shelter, whilst providing space for food growing creates opportunity for positive mental well-being.

Bird and bat boxes will be integrated within all new buildings with living roofs provided where suitable. These moves bring wildlife into the centre of the community, rather than it remaining on the periphery, allowing residents to forge a deep and genuine connection to nature every day.