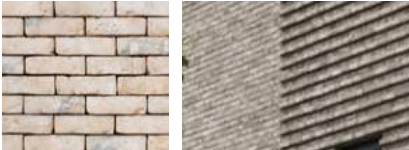


6.11 Materiality – Proposal

Brick has been selected as the primary material for the development and will be used across all of our new homes and extensively in the landscape to ensure that the public realm feels fully integrated into the scheme. Brick offers substantial life cycle value with excellent durability ensuring that the houses continue to look good for longer without the maintenance concerns. Building on the tones seen in the local stone, which we know sits well in the landscape, we have selected 4no. high quality stock bricks to offer tonal variation across the site - shown below.

These will be used in horizontal bands across the site to reflect the banding within the landscape and the beds of the local stone.

A Brick Type A Vandersanden Facing Brickwork.
Colour: Sexton Fiesta



B Brick Type B Vandersanden Facing Brickwork.
Colour: Polar



C Brick Type C Vandersanden Facing Brickwork.
Colour: Oakdust



D Brick Type D Vandersanden Facing Brickwork.
Colour: Majestic



6.12 Supplementary Materials

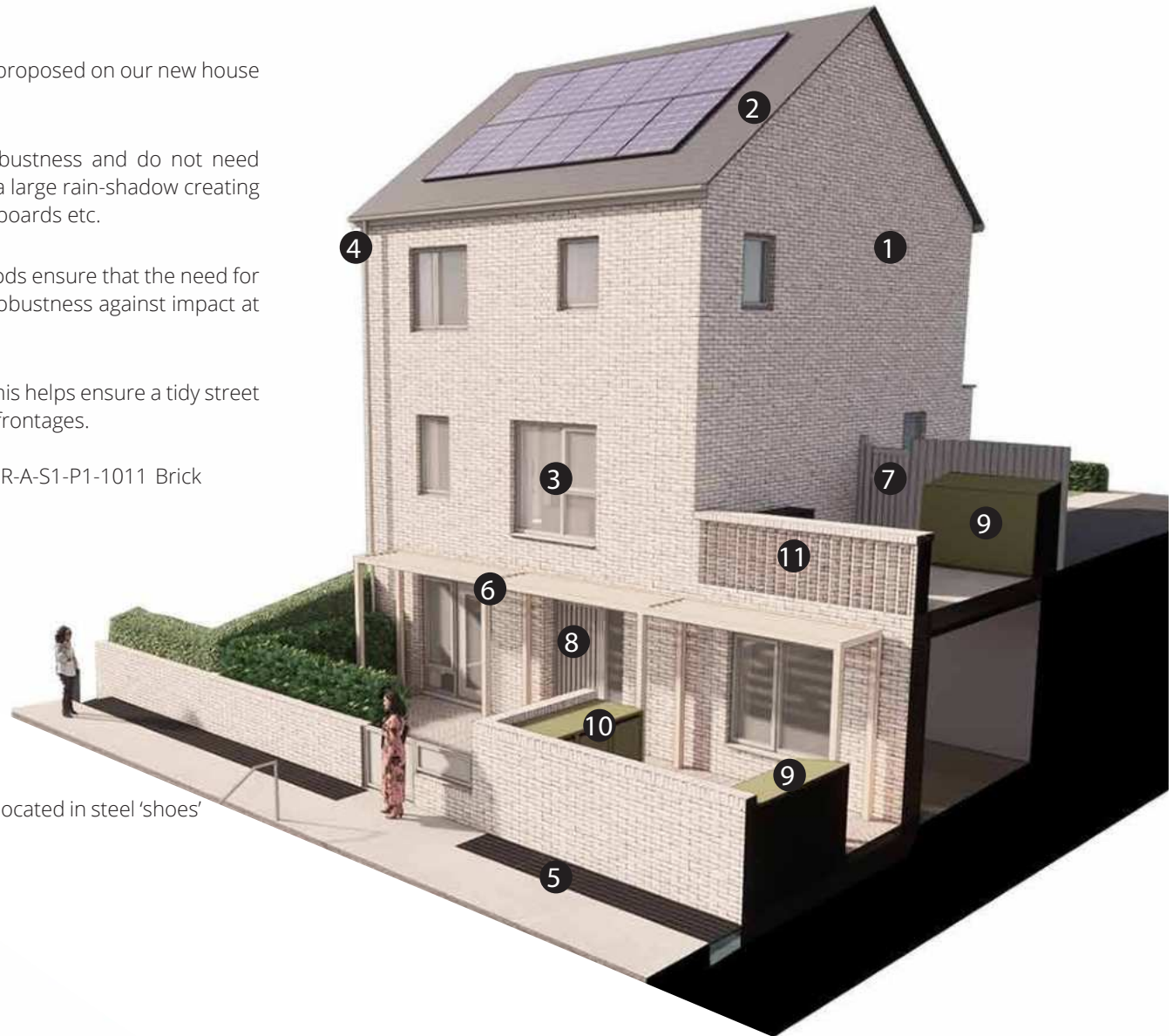
The example (right) illustrates a number of the other key materials proposed on our new house types.

Materials and details have been carefully selected to ensure robustness and do not need extensive maintenance regimes. Eaves are tightly clipped to avoid a large rain-shadow creating differential weathering and to minimise the use of plastic on soffit boards etc.

With some buildings 3 storey in height the galvanised rainwater goods ensure that the need for replacement at height is reduced (beyond that of UPVC) and the robustness against impact at lower level is increased.

Gates to property frontages are a PPC 'mesh' in a steel surround - this helps ensure a tidy street scene is maintained - stopping material blowing in and out of plot frontages.

- ① Facing Brickwork - See Materials Key - '4134-PEN-ZZ-ZZ-DR-A-S1-P1-1011 Brick Type Key Plan
- ② Cedral Thrutone Fibre Cement Slates in 'Heather'
- ③ PVC windows in RAL7032 'Pebble Grey'.
- ④ Galvanised steel rainwater goods.
- ⑤ SuDS attenuation channel metal grating
- ⑥ Weather treated Siberian Larch brise soleil 'pergola' - posts located in steel 'shoes'
- ⑦ Weather treated Siberian Larch fence and gate
- ⑧ Aluminium composite front doors in range of RAL finishes
- ⑨ Proprietary PPC steel bike storage unit (SBD approved)
- ⑩ Proprietary PPC steel bins storage unit
- ⑪ Brickwork detailing to terrace wall



6.12 Supplementary Materials

Below are some additional material swatches to illustrate the palette we are proposing



Galvanised steel rainwater goods



PPC Aluminium pressings around feature windows



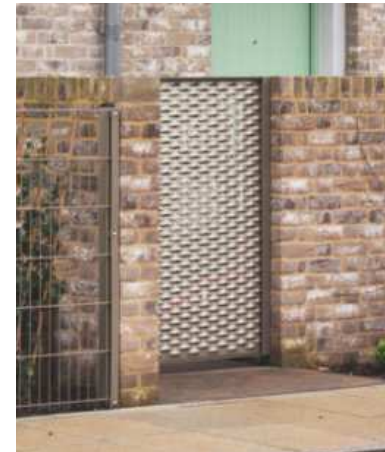
Siberian Larch Fencing & Brise Soleil



Cedral Thrutone Fibre Cement Slates - 'Heather'



Brickwork detailing to terraces (see 11, on previous page)



Example of metalwork to front gardens



RAL 7032 - standard window frame colour



The image, left, illustrates how our new homes (2B4P houses stacked over 1B2P apartments on left of image, walk-up apartments on the right) overlook the new public green space providing lots of 'eyes on the street', good natural surveillance and chance for neighbours to interact.

This generosity in the public realm compensates for the slightly reduced private amenity spaces which some of the houses are provided with.

west(ish) ridge lines and a good deal of south facing roofscape for the location of PV panels, should they form part of the future

7.0 Landscape – Overview

The landscape and public open space proposals at Hillcrest aim to create a simple hierarchy of spaces focused around green infrastructure and the movement of water around the site.

Naturalistic green spaces beyond the site boundary provide a setting for the development with an active travel route and landscape- based play spaces in the wider grasses area of the site.

Pedestrian connections across the site are designed to ensure the 'landscape journey' is interesting and varied, enlivened by integrated SuDS features, well-overlooked, safe and secure. The public realm aims to provide a range of spaces which vary from 'hard' to 'soft' and across the scales from simple benches in the streetscape outside peoples homes to larger green spaces for more community wide gathering and recreation.

In addition to the main linear route from West to East through the centre of the site, there are green infrastructure elements along streets to provide space for sustainable drainage and street tree planting. There is also the large communal green space to the South West of the site which can be used for community events and gatherings (see image on previous page).

The streets successfully integrate parking and access with space for nature, tree planting and social opportunities. Views from proposed houses include street trees and other green infrastructure elements to create connections to nature and seasonal changes in the landscape. The design of the green streets creates an attractive public realm, with planting to increase biodiversity and filter intervisibility between dwellings. Tree planting will include native fruiting and flowering species.

Rain gardens integrate sustainable water management into the streets and create places for planting flowering pollinator species to provide a source of nectar for bees and other insects.



Image, right, an example of the approach to the new pedestrian connection in the northernmost corner of the site where our site meets Mitchell Crescent - providing a valuable new connection) and the 'undeveloped' landscape to the north, retained for its ecology benefit. This approach provides a soft transition into the more formal spaces within the site

Image, left, Marmalade Lane, Cambs, Mole Architects. Hard landscape features which encourage play and socialisation around the home - features we will utilise in our shared surface courtyard mid-way along the new vehicular 'loop' through the site.



Image, left, is an example of public realm that provides community gathering space at the foot of our SuDS route through the site before transitioning to the less formal, undeveloped area of site beyond the built edge of our development.

Image, right, an example of simple landscape elements that sit within the wider landscape for play and socialisation.



7.1 Landscape - Concept

From the concept stages of the scheme the public realm and landscape strategy has been key to the schemes success. These areas have to work hard, making up for modest reductions in private amenity space for each home to deliver a better community and a development that deals with this difficult, sloping site successfully. The diagram, right, was created to illustrate to stakeholders, WG, and the wider design team the variety of landscape spaces that could be delivered on site from the gentle enhancements to the 'undeveloped' land to the south east to the shared surface streets and range of SuDS features which bring amenity value across the scales throughout the site.



7.2 Landscape Character

Southern Undeveloped Area - The soft landscape proposals have been carefully designed to retain and enhance existing green infrastructure assets wherever possible. Existing open space to the south is retained and enhanced with new native hedgerows, trees and wildflower habitat. This new green infrastructure softens the edges of the development and integrates the development with the surrounding landscape. An informal footpath snakes through this wild space, linking existing residential areas to the north and south.

POS - The main public open space has been designed as a large natural play area with banks and slopes for informal play. Three landmark specimen trees act signposts to the space.

On-Plot Landscape - The on-plot landscaping has been designed to complement the layout and soften the harder elements of the development.

The shrub planting is predominantly evergreen with varying flowering seasons for year-round interest. A mix of native and non-native plants for pollinator species has been chosen to maximise biodiversity value. Avenue trees are used to provide visual focal points and a strong landscape character to the scheme. They clearly identify different areas of the development, improving legibility and understanding of the layout. The scheme has been designed so that, on reaching maturity, plants will require minimal maintenance/management and will not become too big for their location. Generally, small, low growing shrubs have been used adjacent to footpaths with larger shrubs located at the backs of shrub beds away from pedestrian routes.



SUDS landscape - The sustainable urban drainage proposals for the site form an integral part of the wider amenity and landscape strategy for the development. The most prominent components of the system, from a resident's perspective, will be the rain gardens. Rain gardens line the main access road and will be experienced by residents on a daily basis.

The prominent treatment of water at surface level, directly outside homes, maximises legibility of the wider drainage system, enables residents to follow and understand the stages of water treatment across the site and provides a visually attractive element to the roadway that breaks up hard surfacing with green borders along the street frontage. The visibility of water as it travels through the landscape, and the personal-scale ecosystems created will provide a resource for local environmental education and opportunities for social cohesion.



7.3 Hard Landscaping & Public Realm

Where we have introduced areas of shared surface and across the extensive areas of public realm materials such as those outlined below will be employed to ensure that vehicle users are aware of pedestrian priority areas through changing materiality, scale, colour and texture.

Smaller scale setts and slabs will be utilised around the home - more domestic in scale - as shown in the image on the right.



1 Conservation X Setts Paving



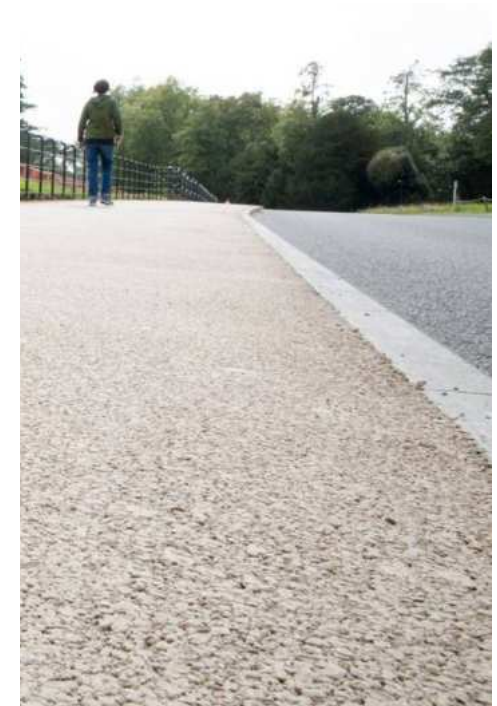
2 Conservation x block textured riven - silver grey



3 Charnwood Paving Slabs- charnwood textured - French grey



4 Tarmac in Light Buff



7.4 SuDS

The proposed drainage strategy for this residential social housing development has been developed in accordance with the Welsh Government's statutory SuDS (Sustainable Drainage Systems) Standards. The scheme incorporates a series of surface water management features designed to mimic natural hydrology while providing both water quality and attenuation benefits.

Surface water from adoptable highways is managed through linear bioretention features, which offer first flush treatment and reduce runoff volumes. Flow is conveyed via controlled structures into reens that manage plot drainage, reflecting a catchment-sensitive design.

To accommodate extreme rainfall events and achieve greenfield runoff rates, surface water is directed into a series of cascading bioretention zones that lead into below ground attenuation tanks located in the lower part of the site. Whilst we would have liked our series of open spaces to culminate in an area of above ground attenuation - a swale - storage has to be managed below ground due to site investigation results.

The strategy aims to secure SAB approval and ensure long-term resilience, while contributing positively to site biodiversity, amenity and placemaking objectives through its integration with the landscape.

The central public space provides the opportunity for cascading water fall features, maintaining surface water runoff at the surface and providing amenity benefits. Multiple flow controls will be used through the site controlling the water at source and spreading the attenuation provisions throughout the site.

Images, right, illustrate a number of the strategies we will be employing on the Hillcrest site from small scale features and raingardens at the building edge to elements of play within the public realm and much less formal and sporadic features around the swale to the south eastern edge of the site.



7.5 Ecology

A suite of ecological survey work has been undertaken to inform the development proposals for site.

A Preliminary Ecological Assessment (PEA) of the development site was undertaken in January 2021. The survey found the site to contain semi improved grassland, tall ruderal vegetation, stands of bramble, woody and gorse scrub, scattered scrub, scattered trees and a small number of garage buildings. Due to the passage of time the PEA has been updated and an updated site visit was conducted on the 20th May 2024. The habitats were found to remain broadly the same within the site boundary during the 2024 visit.

The 2021 PEA survey visit highlighted that the habitats on site were suitable for species including common reptile species. A reptile refugia survey was undertaken across the site in spring of 2022. A maximum count of 3 slow worm (*Anguis fragilis*) were recorded. The refugia laid out on site were unfortunately tampered with and removed during the survey effort. As the habitats on site remain suitable for reptiles and the presence of reptile species within the site has been confirmed, reptile species will need to be considered within the site design and during construction.

The site design has evolved to provide suitable green infrastructure features and create an overall biodiversity enhancement. Habitat to the south east and north of the development site will be retained during construction works unaffected to provide refuge for wildlife. Green space will be retained along the eastern and northern boundary of the site to create habitat connectivity. The soft landscape proposals will utilise native planting wherever it can be sensibly employed across the site along with long term management obligations to benefit wildlife.



8.0 Access

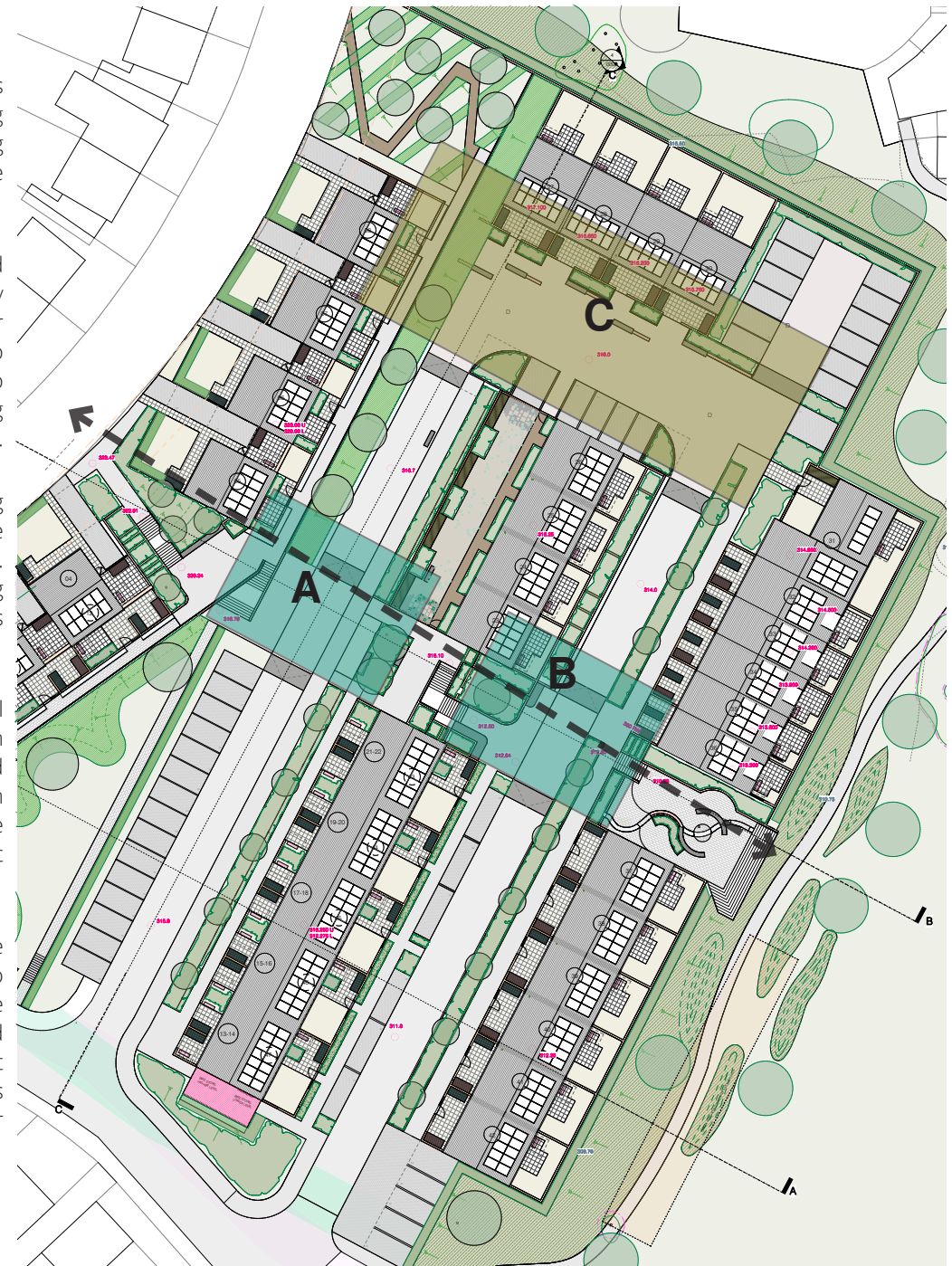
The vehicular movements proposed on the Hillcrest site are intended to be as limited as possible whilst delivering safe and equitable access for all abilities. On sites with such challenging topography the tighter the approach to vehicle movements and the strategy of delivering parking provision as close to or directly off of the highway all assists in keeping infrastructure costs to a minimum and the visual impact of engineering solutions to a minimum.

Through consultation with the Council's Highways and Planning departments, a mix of standard highways and shared surface areas are proposed. The loop road within the site is predominantly a standard 5.5m wide carriageway with footpaths raised above the road surface. Where our northwest - southeast pedestrian (and SuDS) route crosses the site we are employing two raised tables (A & B on the image, right) to slow traffic down and give the pedestrian priority to cross. At the midpoint of the loop road a shared surface court once again slows the traffic (along with the tight turn which vehicles are required to do) but also encourages play and socialisation.

At the top of the site, parking is provided on plot, to the sides of our new homes - minimising the visual impact of the car on the street and providing generous front gardens. Within the site itself parking is then arranged in parallel bays directly off of the street or in a small courtyard. The development provides two parking spaces for the 8 detached homes to the west fronting Mitchell Crescent. Parking for the rest of the site consisting of 1 and 2 bed terraced dwellings is provided as 1 per dwelling, with 5 visitors spaces.

On this challenging site, detailed discussions have been held with Welsh Government technical scrutiny team to ensure that the vast majority of all new homes can be accessed within the lifetimes homes gradients with those very few non-compliant homes highlighted and concept stage and pre-planning stage approval has been provided. The challenge has been to adequately resolve the balance between creating 'level' access and ensuring that we are not creating significant retaining works that cause detrimental visual impact on the site and at prohibitive cost.

All bins storage is located to the fronts of plots in carefully designed enclosures providing secure storage in non-combustable steel stores further wrapped by brickwork boundary walling to help to ensure a clean and tidy street scene. The intention is that, through making the distance from where bins are stored to the footpath from which they will be collected as short and direct as possible this will encourage residents to keep them in their intended homes and not leave them on the street causing potential access issues. Access for refuse collection vehicles is simple throughout the scheme - with collections from either the existing Mitchell Terrace or the new loop road within the site.



9.0 Conclusion

The proposals for the Hillcrest site aim to set a new standard for affordable housing in Merthyr and for MTHA as an organisation. The proposals develop new house type models to deal with sites with challenging topography, using innovative approaches to the balance of private amenity versus public realm, the integration of SuDS and shared surface areas, to foster a sense of community.

The principle of the development is considered acceptable with the site being located within the settlement boundary, and in a sustainable location. Furthermore, the development proposes a scheme of 100% affordable housing, supporting key principles of both local and national policy. The development also assists in Planning Policy Wales's aim to tackle the shortage of affordable homes and assisting in promoting sustainable residential developments to enable people to live independently and safely in their own homes for longer through the provision of new homes that have been designed to WDQR, it's affiliated standards and Wheelchair Accessible Standards.

The scale, forms and massing of the new homes create streets that are 'of their place' and our innovative split level homes ensure our streets are safe, well-overlooked and pedestrian friendly places.

High-quality design which draws on the 'Merthyr' character and material choices which relate to the surrounding landscape ensures a development that sits comfortably in its setting. Robust, high quality materials will ensure this new community weathers well and still looks good for generations to come.

