



Proposed Visitor Centre and Learning Centre at Northern Roots Urban Farm and Eco Park, Oldham



Karbon Homes' proposed 107 home development at Pelton.



'FABRIC FIRST' APPROACH FOR NEW HOMES APPLICATION AT PELTON

Hedley Planning Services have applied to Durham County Council for planning permission on behalf of Karbon Homes for a 107 homes housing scheme on the site of the former Roseberry Sports Community College at Pelton, near Chester-le-Street.

Our scheme is located just off Pelton Lane and proposes a wide mix of property types to provide affordable homes for the different ages of the local community, including dedicated accommodation of eight, two-bedroom bungalows and 31, two-bedroom apartments specifically designed for residents aged over 55. The remaining 68 properties are a mix of two-, three- and four-bedroom family homes which will be available on a rent-to-buy basis.

Lea Smith, Karbon Homes' Development Manager, commented, "There's a real need for more affordable housing in the area and we're delighted to have worked with JDDK Architects to design



a development that meets the needs of the local community with a mix of property types and sizes to provide options for residents at varying stages of life."

"This includes apartments and bungalows for rent, to help combat the shortage of accessible homes for older residents in the area, alongside family homes to help those who might otherwise struggle to get on to the property ladder."

JDDK Director, Mura Mullan, added, "We have designed the layout of the development to include a central green area around the apartments which will contain the retained mature trees and a SuDS (Sustainable urban Drainage System) feature which will act as a focal point of the scheme."

The bungalows and apartments are situated closest to the existing local shops and facilities just outside the new development, whilst the properties on the Northern boundary overlook the existing playing fields wherever possible."

"In line with our brief from Karbon Homes, the properties have also been designed with a 'fabric first' approach which aims to maximise the energy

performance of the components and materials that make up the building fabric itself, before considering the installation of heating systems and other building services to achieve ambitious energy efficiency levels. By this, we can reduce both the construction cost and the heating costs of the homes, improving energy efficiency and reducing carbon emissions and maintenance costs."

"Both the bungalows and apartments for over 55 residents have also been designed to be not only fully accessible but also adaptable to changing lifetime requirements. The apartment building itself provides generous circulation spaces with ample passing places for wheelchair users. Windows at corridor ends avoid any sense of confinement, in line with current dementia care guidance, and helps wayfinding. In addition to each apartment's private outdoor balcony, a shared roof terrace is provided at the second floor, whilst the design also includes a shared communal lounge."

If the plans are approved, building work could begin in the Autumn, with properties available from Spring next year.



PLANNING APPLICATION FOR NORTHERN ROOTS VISITOR CENTRE

In April, the hybrid planning application for Northern Roots was submitted by Arup to Oldham Council, which along with outline proposals, includes detailed proposals for a Visitor Centre and Learning Centre.

When complete, Northern Roots will be the UK's largest urban farm and eco-park. Set in the heart of Oldham, the project will create a unique new community asset and visitor destination, offering a range of new facilities and activities whilst also creating jobs, training and business opportunities for local people. In addition to protecting and enhancing the habitat, biodiversity and environmental value of the 160-acre site, the project will also support the health and wellbeing of local residents and communities.

An integral part of the design process were the four consultation events we held between July and December last year not only on the actual site of the proposed development but also at Oldham College, Mahdlo Youth Zone, the Alexandra Park Depot and at the Spindles Shopping Centre.

The resultant application covers the wider vision for the northern third of the 160 acre site in outline, along with detailed applications for the Visitor Centre, Events Buildings, Forestry Depot, Learning Centre, Solar Array and associated landscaping, carpark and access roads.

The Visitor Centre has been designed to blend with the surrounding natural environment and nestles into the woodland edge combining elements of the initial two proposals presented to public consultations as JDDK Principal Architect, Alison Thornton-Sykes, explained, "One option was based on the transformation of a caterpillar from the cocoon stage to the emerging butterfly whilst the second option arose from the modelling workshops

which showed a preference for a circular building and influences of spiral beehives and so we combined the two ideas."

"The transformation journey remains, symbolic of the wider transformation of the site from an industrial past to a green masterplan with the butterfly roof rising from an elliptical shaped building surrounding a welcoming courtyard."

"The layout of the Visitor Centre is based around a central elliptical cloister leading into the reception area which flows into the retail space and also provides access to staff areas and a multi faith meditation and prayer space. The cloister continues to provide access to toilets including a changing places facility, multi-use/learning space and interpretation space. From the reception the staircase and lift lead up to the café on the first floor which has elevated south facing views across the meadow and to the landscape beyond. The café opens onto a south facing terrace which connects to steps and footpath leading down to the amphitheatre which provides additional seating."

The Learning Centre site sits within a woodland area to the south west of the hybrid application boundary and consists of a series of linked timber framed buildings on stilts to minimise impact on the ground and tree roots and well screened by the surrounding trees. The Learning Centre will house a reception, teaching kitchen and breakout space, staff facilities, multi faith prayer and meditation space, classrooms, toilets and a bunkhouse. There will also be communal outdoor space for outdoor

learning. Only the smaller end elevations of the reception and bunkhouse buildings will pop out through the trees to signpost the location of the Learning Centre, while the remaining buildings will be settled in amongst the trees.

Alison Thornton-Sykes continued, "The buildings have been arranged amongst the trees to form a central outdoor classroom space with a series of accessible ramps connecting the various buildings as they work with existing rising topography across the site."

"A ramp links the reception building to the staff facilities, teaching kitchen and breakout space which open out onto an open deck to act as an outdoor kitchen. The classrooms also open out onto this deck so that the spaces can all flow and work together."

The ramp leads to the entrance to the classroom building which has two classrooms with large south facing glazed doors which open out onto the shared deck. A further ramp from the classrooms then leads up to the bunkhouse for 32 pupils and 8 staff plus an accessible bedroom, store, laundry and drying room.

Anna da Silva, Project Director, Northern Roots, added,

"Actively involving communities in Oldham in the design and co-creation of the proposed Visitor Centre and Learning Centre at Northern Roots, has been really important. Not only has the process been dynamic, iterative and allowed for meaningful involvement in shaping the final proposals, it will foster a sense of ownership in the community in the long term; these are buildings that have been shaped by people in Oldham for people in Oldham, and that is key to the overall ethos of Northern Roots."

Visitor Centre Cafe Frontage View





Visitor Centre Amphitheatre View



Visitor Centre Boardwalk View

NORTHERN ROOTS PLANNING PROPOSAL

In addition to the illustrations on the previous page and featured on the front cover, our Planning proposal for Northern Roots featured some additional stunning CGI's of the proposed development.



Learning Centre Green Roofs View



Learning Centre Outdoor Classroom View

RESPONDING TO THE RETROFIT CHALLENGE

Our work for Wates Property Services in Worcestershire involves retrofits on 90 properties.



The UK government has committed to reaching net zero greenhouse gas emissions by 2050. If this ambitious target is to be met, it will require the almost total elimination of emissions from the UK's housing stock which currently accounts for around 16% of emissions – some 77 million tonnes of CO2 every year in England alone. Whilst new homes are usually built to be energy efficient, the vast majority of the UK's existing housing stock requires an enormous investment to retrofit energy efficient heating, insulation and ventilation systems.

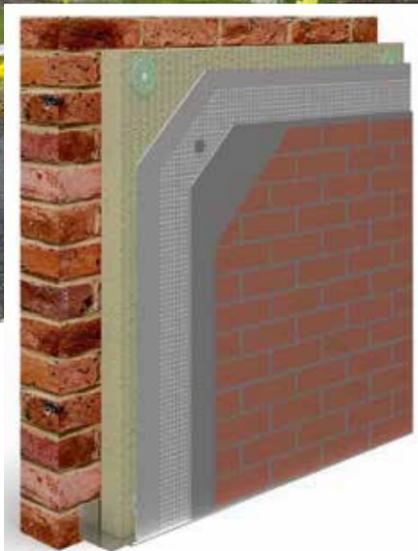
'Waves' as funds are released to RSLs and local authorities who meet the criteria based on a fabric first principle to maximise the dwelling's suitability for low carbon heating either now or in the future.

We are currently undertaking three major retrofit projects for clients across the country. Locally, the first of these is a pilot project which will bring 25 solid walled properties up to EPC (Energy Performance Certificate) Level C.

In another Demonstrator project, we are working as part of the Design and Build team for Wates Property Services in Worcestershire, and are the Retrofit Designer for 90 properties, installing a range of fabric first measures and also some Air Source Heat Pumps to a sample of dwellings who are off the gas grid.

Our third current retrofit project is for Your Homes Newcastle and Newcastle City Council whom we assisted in preparing their successful Wave 1 bid for £6m funding to be spent on 275 properties in Walker. Here we are acting as both Retrofit Designer and Retrofit Coordinator.

Whilst each property has its own challenges, the fabric first approach generally looks at insulation first as relatively small investments here deliver highly cost-effective results whether it be loft, external wall or cavity wall insulation. Similarly, the installation of new windows and doors with new ventilation and airtightness measures can make a vast difference with other measures including smart thermostats.



Typical build up for retrofit wall insulation.

JDDK Director, Adam Vaughan, commented,
"The retrofit challenge is enormous for the whole sector but we have geared up to meet this with new technology (see Page 8) and personnel training which places the practice in a good position to respond to our clients' needs."

The proposed Magdalene Court development at Spital Tongues.



PLANNING PERMISSION FOR SUSTAINABLE HOUSING FOR OLDER PEOPLE



A CGI of the proposed apartments at Magdalene Court.

In March we received planning permission from Newcastle City Council on behalf of Meldrum Construction and the St Mary Magdalene & Holy Jesus Trust for an ambitious sustainable housing scheme aimed at people with a disability at Magdalene Court in Spital Tongues, Newcastle.

The scheme will mainly provide housing targeted at older people but will also include a limited number of family houses. This is the first time the Trust has provided housing for families.

The Trust is one of the oldest providers of housing in the UK providing housing since the two charities amalgamated in 1959, although the original St Mary Magdalene Hospital was in existence by about 1250. Originally set up to look after relatives of the City's Freeman, the Trust continues to provide housing for older Freeman who are in need and also now provides housing for other mainly older people who are in need.

Meldrum Construction have been working in partnership with St Mary Magdalene trust on an innovative framework of continuous improvement and upgrades to its existing homes over the last two years and are looking forward to delivering further value for the trust on this unique development.

The application proposes the demolition of the existing three blocks of 1960's apartments at the top of Richardson Road, which are deemed no longer fit for purpose, and their replacement by three two storey, three bedroom homes for

families and one block of 15 accessible one bedroom apartments for older people who live an independent lifestyle.

JDDK Director, Kevin Turnbull, explained, "The proposal, which was developed and amended after community consultations in August and September, is for a highly sustainable development using a 'fabric first' approach which will create highly insulated homes with heating by air source heat pumps powering LST (Low Surface Temperature) radiators. Mechanical ventilation with heat recovery ensures no heat is wasted and a steady supply of fresh air internally."

"Internally, the apartments are designed for lifetime occupation with the open plan living, dining and kitchen creating a less claustrophobic feel by allowing light from the living space windows and balcony through to the kitchen. The bathroom is

also flexible for a bath or shower with wet room design with future adaptability. The ground floor units will have a private patios and gardens while the upper units will have balconies to create connection with the nature and outdoor green spaces."

"The three family homes enjoy south facing gardens with a patio and shed for cycle storage provision with rear access for added convenience of circulation. The layout also features future adaptability through Lifetime Homes Standards with accessible WC for future shower adaptability, an aperture for a future through-floor lift, stair lift and temporary bedspace in the ground floor living space."

The building materials palette has been carefully chosen to blend with the existing surrounding properties whilst externally, existing trees will be retained and a new communal garden for residents will be created.

John Lee, Chairman of the St Mary Magdalene & Holy Jesus Trust, stated, "The Magdalene Court scheme is an exciting development for the Trust. It both builds on what we have done successfully in the past in providing accommodation for older people, but also widens our scope to include providing accommodation for families. We consulted extensively on this scheme with partners and stakeholders and providing the mix of accommodation that we are doing will ensure that the Trust is using its assets effectively and efficiently to deliver benefit in the City."



A CGI of the proposed family houses at Magdalene Court.

NORTH SHIELDS EXTRA CARE HOUSING



Following a period of public consultation, North Tyneside Council have granted planning permission to Sea Island Developments Ltd for the construction of our design for a 51 bed supported living development for older people to be built on brownfield land off Hawkey's Lane in North Shields.

The new £6.5m development will be built next to the new Aldi store and car park and behind the Grade II listed North Shields Ambulance Station. The vacant site was originally the site of the former Tynemouth Victoria Jubilee Infirmary and, more recently, the location of a previous care home.

JDDK Director, Kevin Turnbull, commented, "We have designed the home specifically to meet the needs of typically older residents who enjoy independent living at present but whose needs may change requiring greater levels of personal care and support services. The home includes on-site catering, communal facilities such as a shared activity room, laundry, external terraces and a break-out space in addition to facilities for the 24 hour support staff."

Internally, each apartment is self-contained with an open plan kitchen, living space and hallway along with a double bedroom and a bathroom. They also have built-in storage and enjoy a private balcony, allowing additional light and ventilation, whilst there is a communal ground floor buggy storage area. The apartments are designed to be flexible to increasing levels of care which residents may require with plenty of space for wheelchair turning and other aids, whilst the layout is designed in line with the latest thinking on dementia care.

Externally, the three storey building reduces in height to two storeys at each end of the linear format to reduce both mass and the potential to overshadow adjacent dwellings whilst the pitched roof has been embellished with the use of feature gables. In addition, elevations have been broken up visually through the use of contrasting materials, which also helps the building sit in sensitively with its setting.

The design includes a 'living wall' on the terrace as a landscaping and biodiversity feature, and the

facade and fencing have been acoustically designed to minimise any noise impacts from the ambulance station and car park. There is also garden space around the building through lawns and shrub planting with multiple opportunities to sit and enjoy the environment in addition to provision for an 'allotment' area for residents, with a greenhouse and storage shed.

Sea Island Developments' Managing Director, Mark Walton, added, "We're really pleased that planning permission has been granted for this development, as it has the potential to massively improve quality of life, and that is ultimately why we do what we do. "Working closely with North Tyneside Council's social care commissioners to specify and design the building has produced a collaborative approach which gives confidence to everyone involved, that the scheme will provide a genuine alternative to residential care and that people will want to live here for years to come."

BROWNFIELD TO HOUSING

Our scheme for YHN Repairs & Construction Services at Felton Avenue in Fawdon gained planning permission for the construction of four semi-detached three bedroom homes on a highly constrained and challenging site and shows how brownfield land can be brought back into use with creative design.

Overlooking the Fawdon to Wansbeck Road Metro line to the north, residential streets to the south and school grounds and allotments to the east, the site was formally occupied by garages but had good access to Felton Avenue.

The proposed homes respond to the scale and massing of the surrounding residential properties and are split into two plots to maximize southern light. Set away from both the Metro line and existing properties, the four new homes will enjoy privacy and new landscaping. The pedestrian link leading to the underpass between Felton Avenue and Aln Crescent is also poised to benefit from design.

Improvements include a formal footpath separating vehicles and pedestrians; visually opening up the landscape and enhanced natural surveillance to the north of the neighborhood.



The four new YHN homes off Felton Avenue at Fawdon.

ON SITE...

We currently have a range of interesting projects at various stages of completion. Here's a few...

Bellmen Green, Silksworth

Manners Construction are on site for this Gentoo project which will be creating 13 two storey 3, 4 and 5 bedroom affordable homes with enhanced thermal performance specifications which includes the use of Air Source Heat pumps. Other measures include triple glazing, improved insulation, improvements in thermal bridging and integrated electrical car charging points together with enhanced landscaping.

CGI of the scheme



Construction underway at Silksworth



The Old Coach House, Bamburgh

Works are progressing well on this extensive refurbishment in the heart of the Northumberland coastal village of Bamburgh. The house was formally the Coach House of the adjacent property and once works are complete will be a charming and characterful family home.



Bamburgh Interior

DWR Veterinary Hospital, Newmarket

At Newmarket, contractors Meldrum Construction Services, are on site with the internal fit-out to a major extension to the Dick White Referrals veterinary hospital, now part of the Linnaeus Group.

DWR Vet Hospital



Northeast Disabilities Resource Centre (NDRC)

Tolent construction are shortly to hand over this innovative development of a specialist Day Centre at Hendon in Sunderland which provides personal support packages to enable disabled people, many of whom are diagnosed with Cerebral Palsy and allied conditions such as a physical disability and/or a learning disability, to get the most from life. The project also includes the construction 17 new bungalows, 16 of which will be specifically for disabled residents, on the adjacent unused land.



NDRC

Barn Conversion, Sandhoe

We are halfway through the refurbishment and small extension to a 1970's barn conversion in Northumberland. The focus of the works has been upgrading the thermal performance of the building fabric whilst making alterations that make the most of its unique character and stunning rural setting.



Underfloor heating installation at Sandhoe

Barn conversion at Sandhoe



Petit Forestier

Petit Forestier is the UK's leader in refrigerated transport rental - their new vehicle maintenance workshop at New Dartford is being delivered by Meldrum Civil Engineering. The provision of the works include the construction of a state of the art five bay workshop set out to service a fleet of rented refrigerated vehicles operating throughout the UK. The building will comprise of three storey offices, a customer reception, a workshop, welfare facilities and other ancillary spaces to service the building users.



Petit Forestier

Changing Lives' Bentinck Terrace hostel.



The project restored the original internal details.



which has allowed the hospice to not only grow, but also to adapt to changing needs and technology within healthcare. The building has been designed to be as flexible as possible to accommodate multiple functions; the main one allowing families to visit patients in a pleasant environment and although we obviously had no knowledge of the impending pandemic when we designed the building in 2019, it's been in constant use as a Covid-safe environment throughout."

The accompanying Garden refurbishment, undertaken with Glenkemp as landscape architects, which won the Landscape Category, plays a key part in the overall design. The key aim was to restore the garden to provide an accessible 'break-out' space for patients, families and staff, offering opportunities to walk around the pond, sit and observe the wildlife or simply meet-up and chat with loved ones. As well as being the central focus with its marginal planting, the refurbished pond continues to function as a SuDS attenuator, collecting rain water from the surrounding roof. The garden refurbishment was designed to have minimal adverse impact on the existing TPO tree roots to the Western perimeter. Shrubs and herbaceous species and wild flower lawns were provided to promote both local biodiversity and seasonal interest.

Jane Hamblin, Facilities Manager at St Oswald's, added, "The transformation has been amazing. In truth, the previous quiet room was a little underused and we now have a fantastic and very much appreciated addition to our facilities for what was a relatively modest budget. Stuart and the whole team were able to deliver this under the very difficult circumstances as Covid swept the country and the

response from patients, families and staff has been overwhelmingly positive – the new room is light and airy with a well thought out design and beautiful finishing."

The practice's refurbishment of Changing Lives' Elliott House hostel on Bentinck Terrace won the Lord Mayor's Special Award, singled out by the judges as an "...excellent example of historic building conservation whilst also providing social benefits."

JDDK's Project Architect, Samantha Dixon, who is listed on the RIBA Conservation register, commented, "We've been involved with Bentinck Terrace since 1999 during which time JDDK have designed a number of extensions to house a reception area and additional hostel accommodation which have enhanced the facility. We were then appointed by the Changing Lives charity for the refurbishment and reconfiguration of the facility to provide 36 one-bedroom self-contained units, in a move away from hostel type accommodation which required historic understanding of the building in order to sensitively plan the redevelopment."

With no records of the original building plans at the City Archives, extensive research was required to determine the original internal layout of what was four large terraced homes when originally built in 1855 when the West End of Newcastle was home to the city's most prosperous residents – the merchants and professionals who, in essence, ran the city at that time."

The project then restored the internal layout to create the new one-bedroom apartments, removing relatively recent partitions and interventions and restoring the proportions of the original rooms and allowed ornate plaster ceilings and decorative features to be restored. Externally, the project restored the north gable of the original terrace and created a single storey terrace of five one-bedroom apartments, set at the existing lower garden level and a further 2-unit terrace of similar character was also created in the lower north east garden.

Nicky Watson, JDDK Director, added,

"We're absolutely delighted that these projects, right on our doorstep, have won these prestigious awards that really celebrate their social impact – we believe strongly in the social value of architecture and that great architecture is about positive outcomes for the people inhabiting it."

NEW TECHNOLOGY KEEPS US AHEAD

We've invested in two new software packages to keep the practice ahead of the game and deliver the best value to our clients.

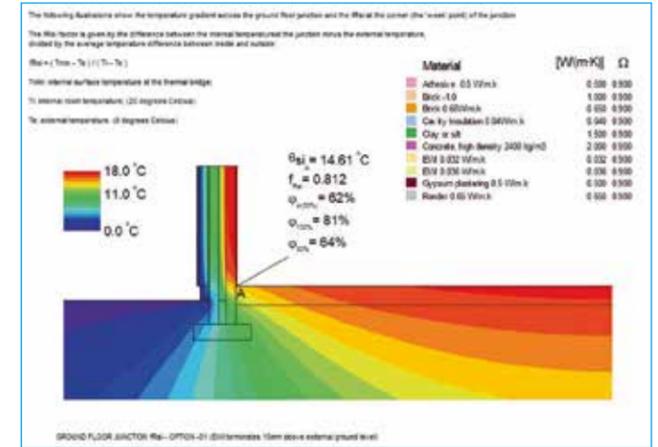
The 'Flixo' package enables thermal modelling to show heat transfer through junctions and produce a Psi value. A junction is where any two thermal elements meet one another – for example, where the wall meets the roof and the floors, window frames, corners or any other point where the insulation layer stops or changes. Such junctions are known collectively as thermal bridging.

JDDK Associate, Tristan Cooper, commented, "The software enables the practice to do our thermal modelling entirely in-house, rather than rely on external suppliers and work out heat transfer challenges at the very earliest stage of the design process."

"Whilst currently not mandatory, impending changes in Part L of the Building Regulations will require lower heat transfer values as we move to reduce climate change, so software packages like this enable us to fine tune the designs to maximise energy efficiency."

At the same time, our additional investment in 'One Click LCA' (Life Cycle Assessment) allows us to calculate and reduce the environmental impact of our clients' buildings. Integrating directly into our Revit design software, the package simplifies highly complicated LCA calculations to produce Building Carbon Footprint results which are required by both regulators and certification schemes and is part of our commitment to the RIBA 2030 Climate Challenge to conduct a whole life carbon analysis on each and every project.

By calculating the Building Carbon Footprint (CO2) - the total amount of greenhouse gases produced throughout the life-cycle of a building which includes emissions from energy use (operational carbon) and materials (i.e. embodied carbon, capital carbon) - designs and materials can be adjusted, if required, to meet or even surpass optimum levels.



Typical illustration of thermal transfer in a ground floor detail.

CIVIC HAT TRICK

We were triple winners at the prestigious Lord Mayor's Design Awards held on 7 April with their Family Room and Garden project at St Oswald's Hospice winning both the Small Scale Development and Landscape categories whilst the refurbishment of Bentinck Terrace for the Changing Lives charity won the Lord Mayor's Special Award.

The Family Room at St Oswald's Hospice was actually the practice's 15th project at St Oswald's, since the original design by Jane Darbyshire in 1987, for the award-winning hospice, and, with flexibility being the key to the design, has enabled families to visit loved ones throughout the pandemic in an environment that blurs the threshold between interior and exterior space and puts families and patients at ease.

JDDK Associate Director and Project Architect, Stuart Franklin, explains, "The genius of Jane Darbyshire's original design was that the hospice could grow incrementally through the years, organically adding to the asymmetric plan and series of courtyards, as funding allowed. This Family Garden Room project is just the latest phase of an ongoing programme,



St Oswald's Family Room & Garden



Newly qualified MCIAT, Chun Yuen and Tristan Cooper.

CONGRATULATIONS...

To Chun Yuen and Tristan Cooper who have both completed their Chartered Architectural Technologist courses, gaining the coveted MCIAT (Member of the Institute of Chartered Architectural Technologists) qualification.

The course involved demonstrating competence and experience through a professional framework. With both already having degrees in Architectural Technology, the framework consisted of demonstrating four key skills – Designing, Managing, Practising and Developing. Following the successful submission of evidence of these skills, the final

stage was an hour long interview by a board of CIAT examiners.

Tristan Cooper commented, "It was a lot of work but actually really interesting to re-examine your past projects and then present your work for examination by the Institute – it's self-reflection of the projects that you're most proud of. The interview was a bit nerve-racking at the start but you settle down it's all been worthwhile!"

"You can go on to become a Fellow of the Institute, and this would be something I'd be delighted to achieve one day."

BELIEVE HOUSING ASSOCIATION FRAMEWORK

We are delighted to have been appointed to the believe housing association's framework for suppliers and consultants.

believe housing officially came into being on April 1st 2019 rebranding the County Durham Housing Group which brought together Dale & Valley Homes, Durham City Homes and East Durham Homes.

Based at Seaham in County Durham, believe housing are one of the largest housing associations in the North East, managing around 18,000 homes spread across County Durham and employing some 570 staff. Their five-year 'More Homes, Better Places' Development Strategy (2021-26) aims to deliver a further 1,250 properties (250 per year) by 2026.

Mark Hopper, Future Homes Manager at believe housing, said: "We are delighted to appoint JDDK onto our Architect Framework. "We look forward to working together to help us achieve our commitment of delivering 1,250 new homes by 2026, placing an increasing importance on placemaking and striving to deliver our net zero carbon ambitions.



JDDK DISCOVER DESIGN DELIVER

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