



# ECD Architects | New-Build Homes

 ECD Architects  
ENERGY CONSCIOUS DESIGN

[ecda.co.uk](http://ecda.co.uk)

# Introduction

ECD Architects, with its strapline of energy conscious design, specialise in designing residential-led developments which provide low energy, low environmental impact homes, cost effectively and to the highest quality standards. We are delivering new-build housing projects across the UK from our studios in London, Preston and Glasgow. We are natural collaborators and build strong working relationships with our clients, consultants and industry partners, evidenced by a high proportion of repeat clients and established framework relationships.

Our housing clients encompass local authorities and government departments, housing associations and developers, charitable trusts as well as public and private companies. Our commissions cover the full range of architectural services from initial capacity and feasibility studies right through into the detailed design and construction stages and beyond to include post-occupancy evaluation.

We are committed to working responsibly, professionally and ethically and we are keen to work with clients who share our ethos. Our four company values define our principles and priorities as an organisation: We Care; We Achieve as a Team; We Improve; We Deliver.

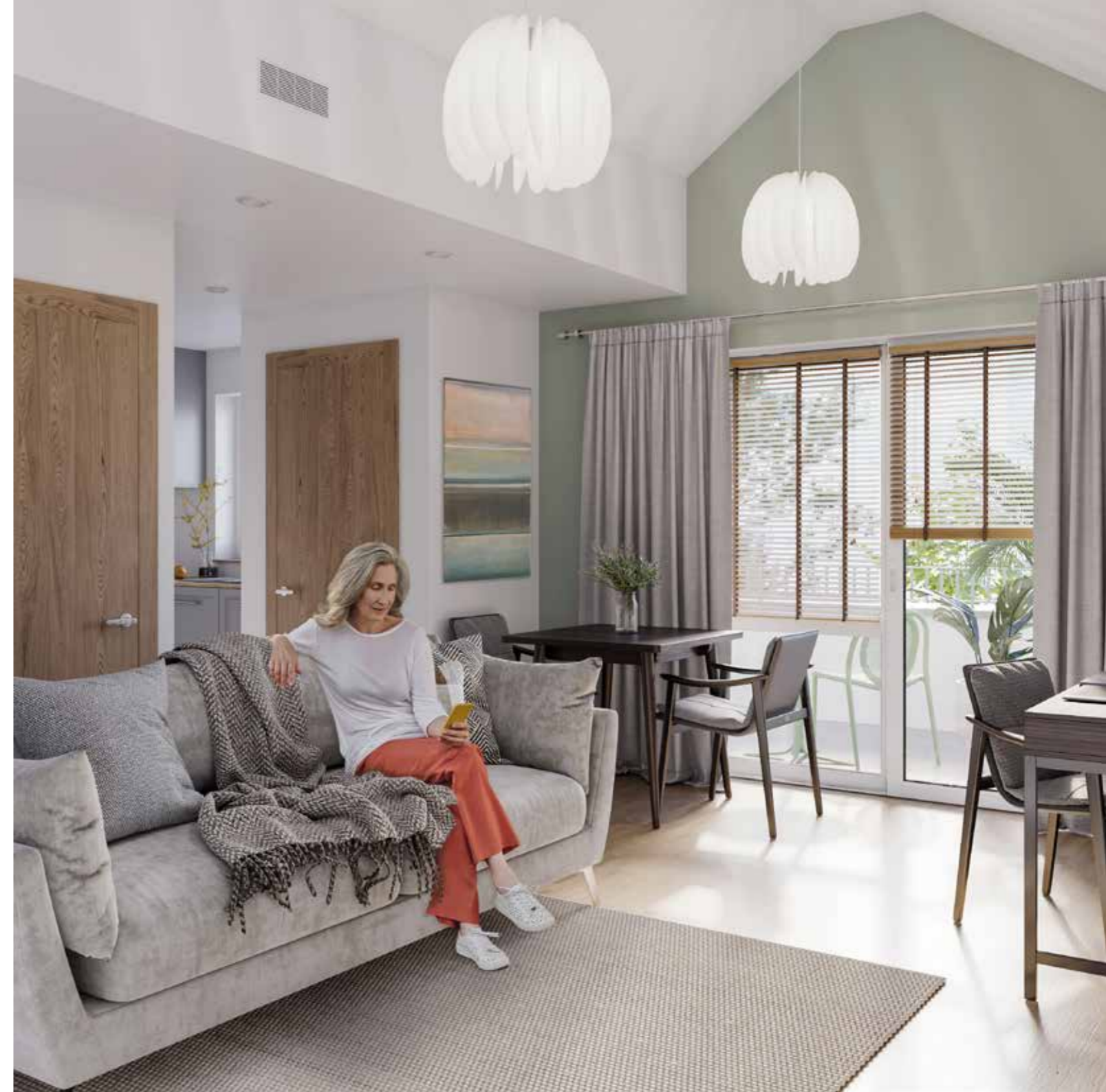
Our Mission is to promote high quality design to provide sustainable homes that exceed client expectations. We add value and achieve excellence through our pro-active approach to people and performance management and by sharing our sector-leading knowledge and expertise with our clients and collaborators.

We work closely with our clients to develop commercially viable options for development by carrying out detailed site studies to establish the constraints and opportunities of a site. Our designs use space, materials and resources with imagination and efficiency - respecting and enhancing the immediate locations, communities and environments within which our projects are located. We focus on designing versatile homes with simple, robust and well-integrated services that meet current needs and allow for future adaptation and resilience.

The projects described in this brochure give an overview of our New-Build housing design across the country. We have delivered housing projects at a variety of scales ranging from garage and infill sites through to large-scale estate regeneration and we have grouped the projects in this brochure by type to illustrate the common themes that apply to each.

As well as describing the projects themselves, we have taken some time to reflect on the challenges we have faced and the lessons we have learned throughout this journey. We have included our thoughts on sustainable design, passivhaus and community engagement as well as future trends. We look forward to putting these lessons into practice in our ongoing portfolio of residential work for existing and future clients.

ECD Architects are certified to ISO 9001 and ISO 14001 Quality and Environmental Standards.



# Large Scale Estate Regeneration

Park East  
Bellsmyre  
Grahame Park



# Park East

<b>Client</b>	Wates / Orbit Housing Association
<b>Location</b>	Erith, Bexley, London
<b>No. of homes</b>	320
<b>Housing Mix</b>	88 x 1-bed flats 208 x 2-bed flats 24 x 3-bed flats 10% of homes wheelchair accessible
<b>Tenure Mix</b>	80% Affordable Rent or Shared Ownership 20% Market Sale
<b>Status</b>	Complete



ECD Architects took on this regeneration project at the start of RIBA Stage 4 and led the design team to achieve the detailed design and construction of the regeneration of what was a run-down estate. The new development provides 320 new homes in 5-blocks, ranging from 3 to 8-storeys in height. 80% of these homes will be for London Living rent, London Affordable rent or shared ownership. The need to redevelop the estate was an opportunity to create a more community-focussed layout and warmer homes. We worked collaboratively with Wates to develop the project designs through workshops and design reviews. We developed federated building information models to ensure our designs were coordinated with the engineers, and we developed a Hazard Identifiers script within the BIM software Revit, which we used to represent the risk register in 3D.

In line with our commitment to support the communities in which we work, we ran a 3-day workshop with construction students at London South East Colleges. Having explained how the balconies fitted into the overall construction, the students developed designs for perforated balconies and visited the factory where they are made.



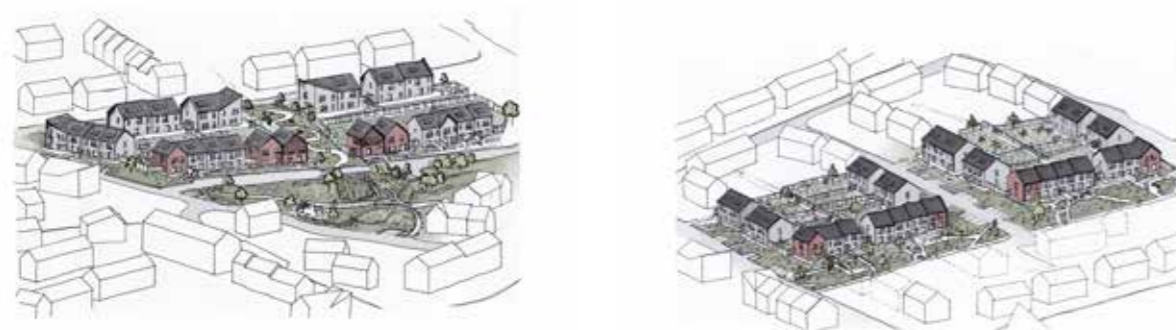
# Bellsmyre

<b>Client</b>	Caledonia Housing Association
<b>Location</b>	Dumbarton
<b>No. of homes</b>	240
<b>Housing Mix</b>	5 x 1-bed flats 9 x 2-bed flats 36 x 1-bed cottage flats 28 x 2-bed cottage flats 71 x 2-bed houses 49 x 3-bed houses 8 x 4-bed houses
<b>Tenure Mix</b>	100% affordable homes
<b>Status</b>	Phase 1 complete



Bellsmyre provides 240 new affordable homes built to high quality standards with open spaces in an existing residential context. With our extensive knowledge of sustainability, ECD designed the development to the Passivhaus standard with many homes also achieving net-zero. The proposal replaces a large number of ageing blocks which could not be upgraded to pass the Scottish Government EESSH standard. We worked closely with Caledonia Housing Association to establish the principles for the overall masterplan for the area, addressing many site constraints, particularly the steep gradients across the site. A number of community consultation events were held, as well as design reviews with the Planning department and local councillors to ensure full integration of stakeholder comments.

The development consists of a mix of 1-4 bedroom semi-detached and terraced houses, as well as 1 & 2 bedroom cottage flats all to the Passivhaus standard. Central to the masterplan layout was the urban design strategy to ensure good place-making. The development provides pedestrian and cycle routes through the site which connect to the wider context. Along these routes are a series of open spaces, all varying in size, treatment and use, which contribute to and extend the wider green network of the Bellsmyre area. Green infrastructure has been integrated within the landscaping of the proposal which encourages biodiversity, improving the environment not only for the residents but also the local wildlife.



## Awards

Shortlisted: The Planning Awards – Award for best Housing Scheme (fewer than 500 homes)  
Shortlisted: The Planning Awards – Award for Regeneration



“  
*A big well done from Caledonia Housing Association for all your efforts pulling this application over the line.*”

David Leaf, Development Officer,  
Caledonia Housing Association



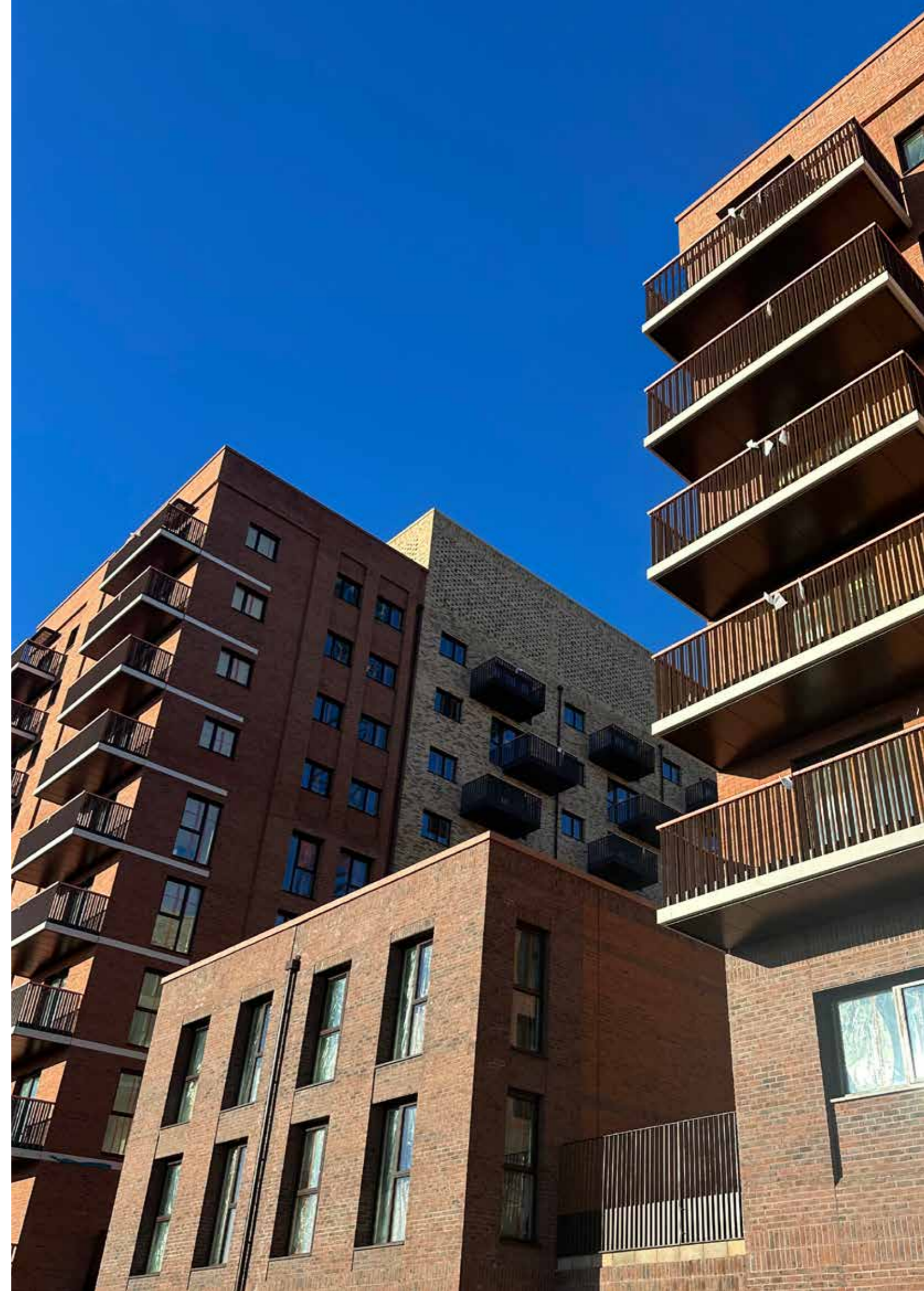
# Grahame Park

<b>Client</b>	Wates Residential / Notting Hill Genesis and Barnet Council
<b>Location</b>	Colindale, Barnet, London
<b>No. of homes</b>	209
<b>Housing Mix</b>	109 x 1-bed flats 89 x 2-bed flats 4 x 3-bed flats 3 x 4-bed flats 4 x 5-bed townhouses
<b>Tenure Mix</b>	29 % Social Rent Homes 71 % Shared Ownership Homes
<b>Status</b>	Complete



ECD worked with Wates Group on the redevelopment project which is providing 209 affordable homes across three tower blocks ranging from 7 to 10 storeys with retail space at ground floor and large communal amenity provision at podium level, as well as a series of 3-storey townhouses. The site aims to improve the wellbeing of its residents through providing lots of greenery, with walking and cycling spaces as well as bio-diverse rooftops on all blocks. The development will be served by improved local bus connections as well as charging points for electric cars to encourage greener transportation.

The buildings are east-west oriented, with all flats having a balcony or a terrace and the majority having full height windows in the bedrooms to admit more sunlight into the apartments. The homes are fitted with MVHR (Mechanical Ventilation with Heat Recovery) which will improve indoor air quality and contribute to better health and wellbeing. The design addresses many of the RIBA sustainable development outcomes, adhering to the London Plan 2020. It addresses net zero operational carbon with an operational energy target of 90 kWh/m<sup>2</sup>/yr and has a sustainable water cycle, with water saving fittings and rain water collected and used for irrigation of the podium courtyard. The expected embodied carbon is 73 KgCO<sub>2</sub>e/m<sup>2</sup> for a two-bed flat.



# Reflections | Design

## Sustainable Housing Design

This brochure gives an overview of ECD's new-build housing design output covering large-scale estate regeneration, urban infill housing development and suburban infill and garage sites.

All housing design needs to start from the inside-out, to really consider what makes a good home and how the changing needs of residents over time can be met with intelligent design of the living spaces and their private amenity. To build sustainably is a key aspiration for ECD Architects. We set out to design housing that will be loved by its residents and that has the potential to improve over time. The best affordable housing design of the past achieved this and has endured – for example some of the original Peabody Estates and pre- and inter-war LCC housing which is still loved several generations later. By contrast the success of post-war public housing has been a much more hit-and-miss affair and many of our projects are involved with the retrofit and redevelopment of existing public housing.

## Energy Conscious Design

ECD Architects deliver energy efficient housing to a range of measurable performance standards. Our in-house team of Passivhaus Designers ensure that a good understanding of building physics and the energy balance of buildings permeates all of projects.

Our design approach focusses on ensuring appropriate building orientation and form factor at an early stage so that we design inherently efficient buildings that therefore cost less to deliver and to operate.

We adopt simple passive design strategies such as:

- Grouping unheated spaces together to minimise the form factor of the thermal envelope.
- Maximising residential areas to the southern façade of buildings and ensuring an efficient sizing and placing of windows.
- Using balconies and deck access areas to provide shading to windows below, minimising overheating risk.

- Integrating the landscaping strategy with the energy efficiency strategy, for example by placing deciduous trees to the south of new homes to provide natural shading from the summer sun while allowing beneficial solar gains during the winter.

New homes that adopt these early-stage strategic design decisions will lose heat less quickly in winter and be more comfortable in summer. At the later technical design stages performance can be further refined by good specification and detailing, but starting with an inherently efficient building form means the same overall efficiency can be achieved with less being spent on excessively high-performance building fabric.

## Right from the Start

We prepare feasibility studies to include options based on energy standards and carbon targets, both for operational and embodied carbon. We work closely with cost consultants to ensure our designs are fully costed and within budget at every design stage.

Our process starts with the definition of a clear brief and set of targets covering:

- Net Zero Operational Carbon
- Low embodied carbon – using LETI 2030 carbon targets
- Water use
- Ecology and biodiversity
- Health and Wellbeing
- Sustainable communities and social value
- Life cycle cost
- Design for a Circular economy

## Delivery Expertise

Our in-depth expertise in building physics allows us to fine-tune the detailed design and specification of really low-energy buildings to ensure the intended performance is delivered at handover. We are able to model energy performance and thermal bridges in-house, allowing us to evaluate details as we are designing and to assess contractor-proposed changes so that we can advise the client team accordingly.



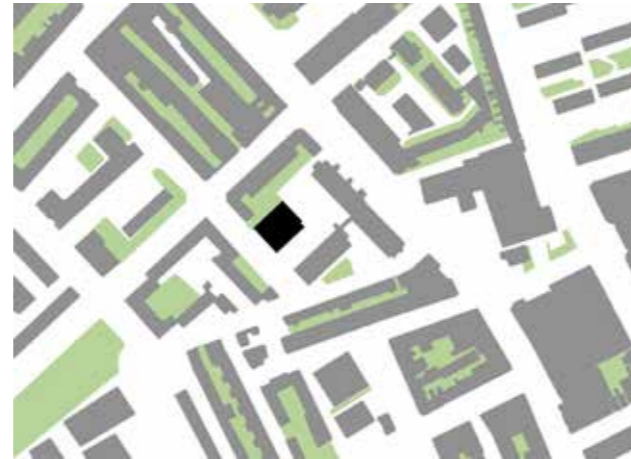
# Infill Development

Ashbridge Street  
Alma Court  
Conic Way & Montrose Way



# Ashbridge Street

<b>Client</b>	City West Homes / Westminster City Council
<b>Location</b>	Westminster, London
<b>No. of homes</b>	26
<b>Housing Mix</b>	5 x 1-bed flats 1 x 1-bed wheelchair accessible flats 8 x 2-bed flats 1 x 2-bed wheelchair accessible flats 10 x 3-bed flats 1 x 3-bed wheelchair accessible flat
<b>Tenure Mix</b>	100% Social Rent Homes
<b>Status</b>	Complete



Ashbridge Street provides 26 affordable new-build homes as 1, 2 and 3-bedroom flats over 5 storeys to meet the local housing need and to complement a development of private homes for sale on the next street. This was a challenging project as the site includes a telecommunications facility, ramp access to underground parking and is surrounded on all sides by further existing housing. Our designs therefore cantilever the new homes over the existing telecoms facility, and re-locate the parking ramp within the site to create an improved external environment.

To maximise internal floor area, the building is set on the back of the pavement and the balconies on this façade have been recessed. Together with the retained telecoms facility, this creates an interesting stepped façade to the street. The homes are designed with excellent building fabric and MVHR (Mechanical Ventilation with Heat Recovery) units which, together with photovoltaic panels on the roof, reduce the building's carbon emissions. Wires for climbing plants have been fixed to the walls and the revitalised courtyard has been designed to have mature trees planted in the pit left by the relocated vehicle ramp.



## Awards:

Winner: Constructing Excellence Awards – Digital Construction Award

Shortlisted: London Construction Awards – Excellence in BIM / Digital Construction Award

# Alma Court

Client	Thurrock Council
Location	Thurrock, Essex
No. of homes	29
Housing Mix	8 x 1-bed flats 15 x 2-bed flats 6 x 3-bed maisonettes
Tenure Mix	100% Affordable Homes
Status	Complete



Alma Court's curved façade exploits its corner location to create an eye-catching building that defines a distinct aesthetic while drawing on local references. The dark brick of the main structural elements was chosen to pick up the area's heritage of dockland buildings while fitting into the varied materiality of housing that surrounds it. The top storey of the maisonettes is stepped back to provide generous terraces, and its light-coloured rainscreen cladding further reduces the apparent mass. Brick splays and careful detailing add character and a modern appearance in this area of less remarkable housing. Windows are grouped between vertical recesses in the brickwork, creating a rhythm along the street and helping to integrate the building with the rest of the street frontage.

Alma Court consists of homes which are 100% affordable, with three main elements: a 5-storey block of flats with community space at ground floor, a 4-storey block of maisonettes and flats, and an 800m<sup>2</sup> public playground. Providing a variety of housing types and sizes, the new development supports the local housing need, and is designed to create a community of inter-generational families which in turn will support the sustainability of the community as residents do not need to move away from the neighbourhood as their lives evolve and their needs change.

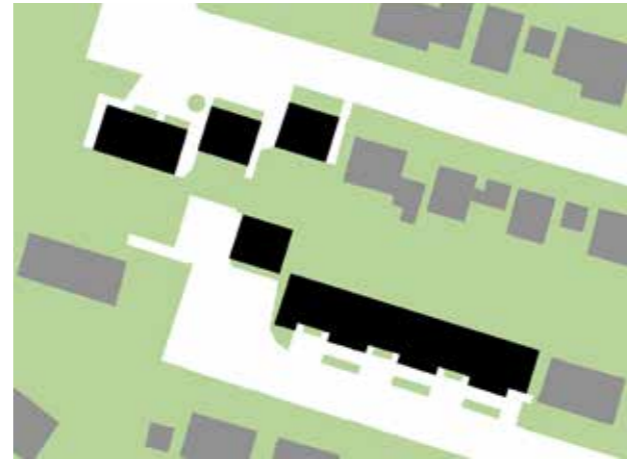


“ The site [for Alma Court] provided challenging constraints in terms of access, relocating an existing playground, ground conditions, boundaries and in a high-risk flood zone. ECD successfully addressed these issues and produced a comprehensive set of tender documents. In addition to architectural services, ECD provided BIM information manager services as Alma Court was Thurrock Council's first BIM Level 2 project and needed BIM support. ECD have always responded well to our requirements as a client and I am happy to recommend them to others. ”

Keith Andrews, Housing Development Manager,  
Place, Thurrock Council

# Conic Way & Montrose Way

<b>Client</b>	Hanover (Scotland) Housing Association
<b>Location</b>	Drymen, Loch Lomond & the Trossachs National Park
<b>No. of homes</b>	15
<b>Housing Mix</b>	7 x 1-bed bungalows 8 x 2-bed houses
<b>Tenure Mix</b>	100% Affordable Homes
<b>Status</b>	Complete Passivhaus Standard Homes



These new-build homes replace the existing failing residences on Conic Way and Montrose Way with affordable homes designed to the Passivhaus standard in a series of terraced bungalows (providing amenity housing for returning residents) and two-storey semi-detached general needs housing. As a small development in the wider village setting within Loch Lomond and The Trossachs National Park, the new development responds carefully to the local context both in terms of scale and in terms of materiality.

The homes have been designed with an enhanced timber kit solution which could have made achieving the required wall fabric U-values challenging. However, by targeting the key foundation perimeter details, we were able to significantly improve the heat demand figures and achieve the standard. We ascertained during the design process that by targeting the Passivhaus standard and utilising air-source heat pumps as a renewable source of heating, we did not require the installation of photovoltaic roof panels on the project to meet our sustainability criteria under the building regulations. This resulted in a significant cost saving and helped to offset the additional costs in fabric insulation.



## Awards:

Winner: Scottish Home Awards – Affordable Housing Category

Shortlisted: Inside Housing Development Awards – Best Healthy Homes Development category

Shortlisted: Inside Housing Development Awards – Best Affordable Housing Development category



# Reflections | Passivhaus

## Founding Principles

ECD Architects was founded in 1980 to promote 'Energy Conscious Design'. Our vision is for ECD to be a sector-leading architectural practice delivering low-energy buildings of outstanding design quality to clients in the public and private sectors.

The concerns that prompted the foundation of the practice haven't always been fashionable, but in the last decade they have become mainstream, prompted both by increasing recognition of the climate emergency that we face and the need to actively address it; and more recently by the increasingly high costs associated with the energy use of buildings which provide a financial driver for improved building performance.

ECD Architects are founding members of the Passivhaus Trust and many of our staff are active participants in voluntary organisations such as ACAN and LETI. We are ISO 14001 accredited, providing us with a framework to improve our own operational emissions and environmental impact. As part of our response to the climate emergency and our ongoing commitment to sustainability we have signed up to 'Architect's Declare', the AJ RetroFirst Campaign and the RIBA 2030 Climate Challenge.

ECD Architects offer the following sustainability services to complement our architectural offer:

- Integrated Passivhaus Design
- Passivhaus Certification
- Environmental Consultancy and Sustainability Statements
- Embodied Carbon Analysis/Lifecycle Assessments
- Post-Occupancy Evaluation and Building Performance Monitoring
- Soft Landings Services

## A Passion for Passivhaus Design

Our team of Certified European Passivhaus (CEPHD) Designers have in-depth experience of designing ultra-low-energy housing that is responsive to context,

economical to run and that provides healthy indoor spaces. We follow a 'fabric-first' approach to energy efficiency and work with site orientation, building shape, form factor, shading and other contextual variables to ensure the most energy efficiency development for any given setting.

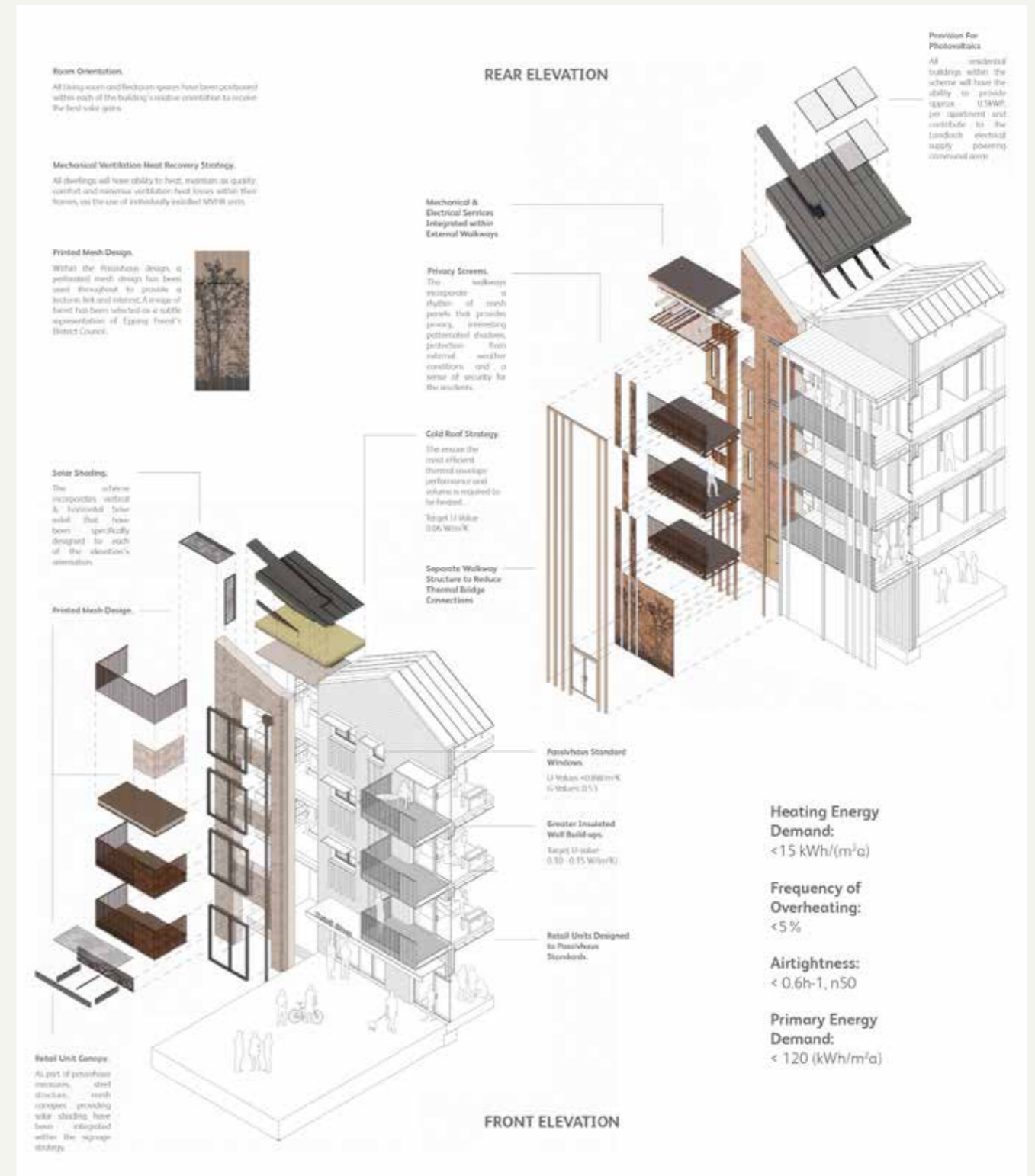
ECD promote Passivhaus because it is a comfort standard as well as an energy performance standard. Passivhaus Homes provide high standards of indoor air quality and thermal comfort with very low costs-in-use for residents and avoid the problems of poor ventilation, condensation and mould that unfortunately have surfaced in much new-build housing that has been designed without an adequate understanding of building physics.

The requirement for independent certification of the standard results in much higher levels of construction quality, closing the performance gap between 'as designed' and 'as built' performance and resulting in longer-life and lower-maintenance housing that is loved by residents.

## Circular Economy Principles

We adopt a Circular Economy ethos to design for the future. This means using durable components, planning for future climate adaptation and putting the health and wellbeing of the residents at the heart of our housing designs. Our approach includes:

- Design for deconstruction and disassembly to ensure core building components can be re-used at the end of the building's life
- Reuse and Recycling of existing building materials or site-based materials on redevelopment projects
- Designing out waste – creating simplified designs based on standard modular and off-site components where possible
- Designing for longevity and robustness – using natural or exposed finishes where possible to avoid the need for recurring decoration and maintenance
- Designing for health and wellbeing – maximising natural light and natural solar gains.



# Urban Infill & Garage Sites

Basildon  
Epping  
Gosport



# Ryedene

<b>Client</b>	Basildon Borough Council
<b>Location</b>	Basildon, Essex
<b>No. of homes</b>	9
<b>Housing Mix</b>	3 x 1-bed flats 6 x 2-bed flats
<b>Tenure Mix</b>	100% Affordable Homes
<b>Status</b>	Tender stage Passivhaus Standard Homes



Ryedene provides much needed social housing to the area and provides a regenerated landscape that enhances the public realm to the benefit of the wider community. The development's orientation creates frontage to Ryedene roadway with the green space maintaining the existing pedestrian connections, seamlessly integrating the building into the open space. Additional trees and soft landscaping improve the landscape and form a protective buffer to the building curtilage. The internal layout has been designed to enhance winter solar gains, whilst preventing overheating in summer and complying with Part O of the Building Regulations. The roof design maximises the opportunity for photo-voltaic panels, providing the site with renewable energy sources that can contribute to each properties energy demand.

Structural Insulated Panels maximise the airtightness of the building, limit construction defects and reduce the delivery programme by using factory-made elements more accurate than on-site cut timber frames. Demand for heat, ventilation and domestic hot water is supplied by Exhaust Air Heat Pumps, with minimal addition of electric radiators, simplifying service layouts to allow for easy operation by the residents. The combination of these systems with the low energy demand of the building avoids the need for gas provision and promotes the use of renewable energy. These design features contribute to achieving the Passivhaus standard, in addition to a 'fabric first' approach based on the specification of high levels of insulation, triple-glazed windows, and minimising thermal bridges in the construction.



## Awards:

Shortlisted: Essex Housing Awards – Climate Action – Low / Zero Carbon in New Homes

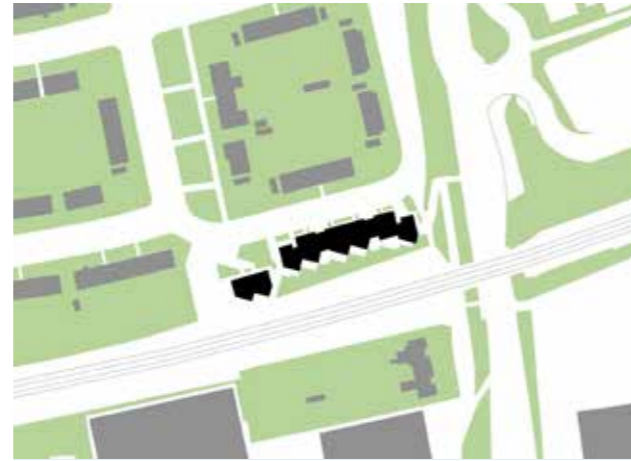


“*Basildon Council were extremely satisfied with how ECD ran the project from inception through to completion of the Stage 3+ tender pack. In particular, we appreciated the support provided in relation to the requirements to achieve our objective of a highly sustainable scheme. As a client, the supplementary advice provided by ECD in the form of training sessions and regular catch up meetings was invaluable.*”

Bradley Tollon, Senior Development Manager,  
Altair / Basildon Borough Council

# Ladyfields

<b>Client</b>	Epping Forest District Council
<b>Location</b>	Loughton, Epping Forest
<b>No. of homes</b>	16
<b>Housing Mix</b>	12 x 1-bed flats 2 x 2-bed houses 2 x 3-bed houses
<b>Tenure Mix</b>	100% Affordable Homes
<b>Status</b>	Awaiting planning consent Passivhaus Standard Homes



Ladyfields is a new-build development providing 16 passivhaus homes on an under-utilised garage site. Set on a tight urban site, the development is bounded by a railway line and a short terrace of 2-storey homes. The site has a significant incline and contains 8 mature trees and two telephone poles. Our designs for the new homes use the tiered ground levels to shield the new development from the train tracks and take advantage of the South-West facing rear facade. To achieve the Passivhaus Standard, the backs of the homes are rotated to maximise solar gain and windows to the North are kept to minimum. High levels of insulation and triple-glazed windows further assist the achievement of the Passivhaus Standard whilst providing the residents with reduced external noise.

Heat, ventilation and hot water within each home is provided by a single modular compact unit. By using this system we were able to simplify the services within each home whilst maximising living space. The top flats and houses including end terraces and semi-detached houses have been provided with photo-voltaic panels. The homes are heated through air and occasional electric radiators, removing them from the gas grid and promoting sources of energy that can be decarbonised.



# Gosport

<b>Client</b>	Gosport Borough Council
<b>Location</b>	Gosport, Hampshire
<b>No. of homes</b>	15
<b>Housing Mix</b>	3 x 1-bed wheelchair accessible houses 5 x 2-bed houses 2 x 3-bed houses 5 x 4-bed houses
<b>Tenure Mix</b>	100% Affordable Homes
<b>Status</b>	Under Construction Passivhaus Standard Homes



These new developments for Gosport Borough Council provide 15 affordable Passivhaus homes as bungalows and 2 and 3-storey terraced housing. Designed to the Passivhaus Standard, these homes are set across three sites and united by their modern architecture which provides an interpretation of a traditional home. The material strategy for these homes was informed by the local architecture in Gosport. The traditional pitched roof form and use of brick and clay was contemporised with hidden gutters, feature brick detailing, standing seam zinc roofs and projecting aluminium canopies. The asymmetric pitch of the roofs, whilst adding creativity to the site, also allows for a larger surface area for photovoltaic panels and skylights.

The fabric-first approach to each of the site developments has made the homes very energy efficient, drastically reducing their energy demand to minimise future running costs for residents. The energy efficiency of the homes on each of the sites has been achieved through their form factor and orientation, maintaining airtightness, optimising solar gains, continuous thermal envelopes, high performance windows and doors, renewables (PVs), minimising thermal bridging and the use of compact units offering energy-efficient heating, hot water and ventilation.



# Reflections | Community

## Sustainable Communities – the role of the client

Sustainable Housing Development must address the social and economic realities around housing supply and affordability alongside the environmental impact of new building. Local Authorities, Housing Associations and Registered Social Landlords occupy a unique position as housing clients, having an enduring long-term interest in creating successful places with diverse and sustainable communities. With their experience as large-scale social landlords they are often able to go further than speculative housing clients in anticipating the needs of future residents and placing their interests at the heart of the brief.

ECD's housing projects seek to address longer term issues affecting tenants and residents such as

minimising energy costs to address fuel poverty and efficiently designing communal spaces to minimise ongoing service charges.

Building on publicly owned sites raises political questions about land use and value and sometimes conflicting priorities for use. Often these questions – about the pressure that increasing the population in a specific place will put on local services and infrastructure – cannot be answered directly within the 'red-line' boundary of an individual project. Achieving support for development relies on the community having trust that there is a wider vision and strategy at play.

On estate-based projects there are usually well-established Tenants and Residents Associations that form the core membership of project consultation

groups. On smaller garage and infill sites there may be no existing residents but a local community surrounding each site with legitimate concerns about the impact of new development. General these concerns will be pragmatic – to do with direct impacts on daylight, sunlight, parking and amenity.

## Working with Communities

ECD Architects are committed to placing communities at the heart of what we do. We are experienced in working with multi-cultural communities, supporting them to address change and engage in the renewal of their homes and neighbourhoods, working together and involving stakeholders throughout all the RIBA stages - from the brief, through design, to construction and then handover of new homes and public realm.

Our engagement approach is friendly and inviting, using clear and accessible language, avoiding technical jargon, and using drawings and diagrams appropriate to the intended audience. We use physical models to clearly communicate larger or complex schemes where residents may have difficulty understanding the scheme in order to develop local community support.

ECD Architects will bring our considerable experience of balancing the often-competing aspirations of residents and key stakeholders to each of our projects. We will help clients and communities to establish a collective vision and to arrive at equitable and elegant solutions that can positively transform places and neighbourhoods.



# Reflections | Future Trends

## Housing for a Better Tomorrow

The central challenge of sustainable design is how we can meet the needs of the current generation without compromising the ability of future generations to meet their own needs in turn.

We need to shift the focus on how projects are procured, delivered, operated and managed and change the timescale of decision making. Instead of focussing on initial capital cost projects really do need to be conceived with an understanding of the whole life-cycle, the whole life-costs of ownership, operation, maintenance, demolition or adaptation in the future.

We need to design homes for a much longer life cycle in which they may undergo multiple adaptations to suit different uses. This would affect structural and servicing strategies and things such as bay dimensions, floor to floor heights etc. We need to develop the idea of buildings as carbon stores/materials stores or resources for future projects and how this information can be managed and stored.

We need to anticipate climate resilience and adaptation when designing for a longer timescale. For example in the UK warmer summer temperatures will increase the potential for overheating – how can our homes adapt to a warmer climate without requiring expensive cooling systems to be retrofitted?

‘Constructing’ a better tomorrow also needs to include Retrofitting and Adapting for a better tomorrow – most of the building stock that will inhabit the future landscape is already with us. Most of our current work in the residential sector is on the Retrofit and upgrade of the existing housing stock and we expect this to continue. The best building in carbon terms is one that already exists so we need a new approach to estate regeneration and housing redevelopment, working with Housing Association and Local Authority clients at the pre-project stage to really question whether redevelopment is actually the right answer to deliver the housing that is needed.

## ‘Modern’ Methods of Construction?

This discussion often focusses on technologies or systems but we don’t think these are the limiting factors. There are a lot of process and mindset changes that the construction industry needs to embrace to deliver more sustainable construction in the long term:

- Changing the mindset towards a Retrofit first approach
- Changing the design culture so that we think about what happens to buildings during their lifetime and at the end of their practical use
- ‘Materials passports’ and using buildings themselves as a future materials resource
- Design for dis-assembly and re-use of components
- The once outdated mantra of ‘Long-Life, Loose-Fit, Low-energy’ applies now more than ever. The most loved and enduring housing of the past has been that which has proved most adaptable to changing lifestyles over time.
- We need to really consider how highly specialised and difficult to adapt systems such as modular

homes that suit one set of highly specialised uses could be modified should patterns of occupation and use change in the future. These approaches may not be sustainable in the longer term if future change and climate resilience is not anticipated.

## Future Homes Standard

The Future Homes Standard aims to decarbonise new homes by focusing on improving heating and hot water systems and reducing heat waste. This will be achieved in part by replacing current technologies with low-carbon alternatives, for example, very high-quality building fabric, triple-glazed windows and low-carbon heating.

Although the standard is still in the consultation phase, ECD’s adoption of the Passivhaus methodology, combined with low-carbon heating and renewable sources of electricity, allows us to be confident that we can future-proof our housing designs against the anticipated requirements of the Future Homes Standard due to be adopted in 2025.



# Frameworks

ECD is on numerous Frameworks and Dynamic Purchasing System (DPS) agreements through which we can be appointed. If the selection below does not work for you, let us know and we can provide others.

## Frameworks

### City of Edinburgh

CT2675 Professional Services Framework  
Lot 12 Passive House Designer (Architect) Services

### Fusion21

Consultants Framework  
Lot 3 - BIM  
Lot 11 - Zero Carbon and Sustainability

### Greener Future Partnership (Abri Group)

Greener Futures Partnerships (GFP)  
Decarbonisation Delivery Framework - Scotland  
Lot 3f: Consultancy Work

### Hub East Central

East Central Scotland Hub  
Tier 2 Supply Chain  
Architectural Design Services

### Hub West Scotland (hws)

Tier 2 Supply Chain - Design Services: New build, Refurbishment and Remodelling - D&B projects.  
Architectural Design Services

### London Housing Corporation (LHC)

Multi-Disciplinary Consultancy Services (MDC1)  
CPC and London & SE  
Lot 12 - Multi-disciplinary Services

### London Housing Corporation (LHC)

Consultancy Services (CS1)  
Lot 3b - Retrofit Consultancy 2035 / 2038 - Scotland, England and Wales  
Lot 3c - Digital Coordination - Scotland, England and Wales

### Procurement for Housing (PFH)

Technical Support and Associated Services Framework  
Lot 3 - General Consultancy - Architectural & Design Services

### Prosper

Design and Consultancy Services Framework  
Lot 2 - Architect Services

### Scotland Excel

Energy Efficiency Contractors  
Reference number: 1320  
Lot 1 - Professional Services  
Sub-lot 1.1 Energy Efficiency Designer  
Sub-lot 1.2 Energy Efficiency Coordinator  
Sub-lot 1.3 Energy Efficiency Assessor  
Sub-lot 1.4 Managing Agent

### Scotland Excel

Building Construction Consultancy Framework (BCCF)  
Lot 1 - Architecture  
Lot 6 - Architect Led Multi Disciplinary

### SEC (South East Consortium)

Consultancy Services Framework  
Lot 6 Architects

### Pretium / Echelon

Rooftop Development Framework  
Lot 3.1 - Professional Services: Architect  
Lot 6 - Architect

## DPS Frameworks

### Bloom

NEPRO's Neutral Vendor Provider of Specialist Professional Services  
Multidisciplinary Services

### Brighton & Hove City Council

Consultancy services  
Lot 1. Architectural Services

### CHIC

Communities & Housing Investment Consortium  
Development DPS  
Lot 1 / Category 1: Consultants (Architects)

### Crescent Purchasing Consortium

Estates and Facilities Professional Services & Consultancy  
Reference: CA11274  
Lot 6 Architects  
Lot 12 Sustainability and Decarbonation Consultants

### En Procure

Green Consultants DPS  
Lot 1 - Retrofit Strategy Advisor Services  
Lot 3 - Retrofit Coordinator Services  
Lot 4 - Retrofit Designer Services

### London Borough of Haringey

London Construction Programme (LCP)  
Multidisciplinary Services

### Northumberland CC

Retrofit Services for SHDF

### Nottingham City Council / the Midlands Net Zero Hub

Energy Efficient Retrofit Professional Services DPS  
Category 1: Retrofit Coordinator  
Category 3: Retrofit Designer  
Category 4: All Retrofit Coordination Steps  
Category 5: EPC Assessment  
Category 6: Retrofit Programme Management

### Procure Plus

Local Energy Hub North West  
DPS for Retrofit Programme Delivery Services  
Lot 4 - Retrofit Assessment and surveying, PAS2035 compliance and retrofit project management services

### Procurement Assist

Zero Carbon Consultancy DPS  
Consultancy

### Procurement Assist

Development and Modular Build - Consultant Support  
New Build Developments

### Procurement for All

Consultant Support DPS  
Category 1 - consultants  
Architecture

### Tower Hamlets

Construction Consultancy Services  
P5645  
Lot A: Architecture and Design  
Lot O: Multi-Disciplinary

### Westworks Procurement


Construction Management Services  
Cat1B Architects  
Cat1Z Construction Management Services

# How to Contact Us


If you would like further information on our residential portfolio, our other services or any of the projects illustrated here, please contact one of the following:

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
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