THERE IS NO SUCH THING AS IMPOSSIBLE!

Together We Can Achieve More

Karakusevic Carson and Einszueins are leading architects who help enable communities to deliver the housing they need. We encourage collaboration and strive to **empower diverse** people to influence decisions about their environment. Building homes is a social task: the interface between people and the city, and the starting point for our architectural work.

Experts in engagement and co-production through a collaborative design approach, Karakusevic Carson Architects have unparalleled experience working successfully and innovatively with communities and local stakeholders in complex public sector, mixed tenure projects. A viable and sustainable development of the Mackie's site, which meets the expectation of the Take Back the City coalition, and is also accepted by the public authority, is going to be a challenge. Our proposal draws a picture for the beginning of a strong and long-lasting partnership with the coalition and wider local communities to plan together the city of the future at Mackie's.

Through their work in co-operative housing, **<u>Einszueins</u>** specialise in fostering a democratic way of working, supporting self-organisation such as community assemblies, which increase **collective agency** through the wisdom and power of the group supporting participation and cooperative urban planning, combining their experience, interests and strengths. At Mackie's, we believe that communities can be empowered by creating processes that contribute to a sustainable change in the city of Belfast and enable local people to take responsibility for a better future. The ecological, social and economic challenges of our time require new approaches and solutions off the beaten track.

URBAN ACTIONS Together gardens, cultural and educational build connections

Evolving database of citizens' ideas, from participative brainstorming sessions

neighbours initiate



Technical training in sustainable construction, green retrofitting, maintenance and landscape

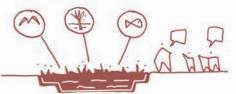
A pop up office for workshops, exhibitions, and knowledge sharing about green construction techniques and materials.

SHARING HEALTHY LIFESTYLES



Community work to promoté healthy habits on food, mobility, recycling, and more.

CULTURAL RUCKSACK

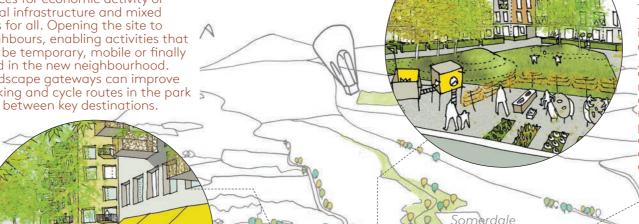


Facilitating tours for children to explore the landscape and share their visions



MACKIE'S SEEDS 1. GATEWAYS A mix of uses located at key points

on the edges of the site can encourage activity and interaction. Spaces for economic activity or social infrastructure and mixed uses for all. Opening the site to neighbours, enabling activities that can be temporary, mobile or finally fixed in the new neighbourhood. Landscape gateways can improve walking and cycle routes in the park and between key destinations.



SKETCH BOOK: SEEDS FOR CHANGE AT MACKIE'S

Landscape is the inspiration for the sense of belonging at Mackie's, there can be inclusive spaces that support active lifestyles, improve health and wellbeing, offer opportunities for training and green jobs. A carbon and water neutral approach can improve climate -and community stakeholders can help build strong community connections around nature.

resilience, a restorative approach can increase bio-diversity. Comanagement of the new greenway project and involving local schools

MACKIE'S SEEDS 2. NATURE

housing and are instigating new homes at Mackie's. They recognise that good housing can create communities. We can maximise opportunities for social value, self-build and training through construction. The collective can manage resource production, generation of energy, recycling

Local people want truly affordable

MACKIE'S SEEDS 3. HOMES

materials and exchange experiences

with other groups.

00000 00

METHODS OF COLLABORATION:

PROJECT IDEAS NETWORK



LOCAL PROJECT LAB



projects to engage with the site and

Toolboxes

Design Method

Participation and network design process aimed to design the homes, landscape, community facilities and public spaces of the new Mackie's site.

Children's interactive play workshop, Ledbury Estate, Karakusevic Carson Architects.





Workshop with community stakeholders at the Selby Centre, Karakusevic Carson Architects.

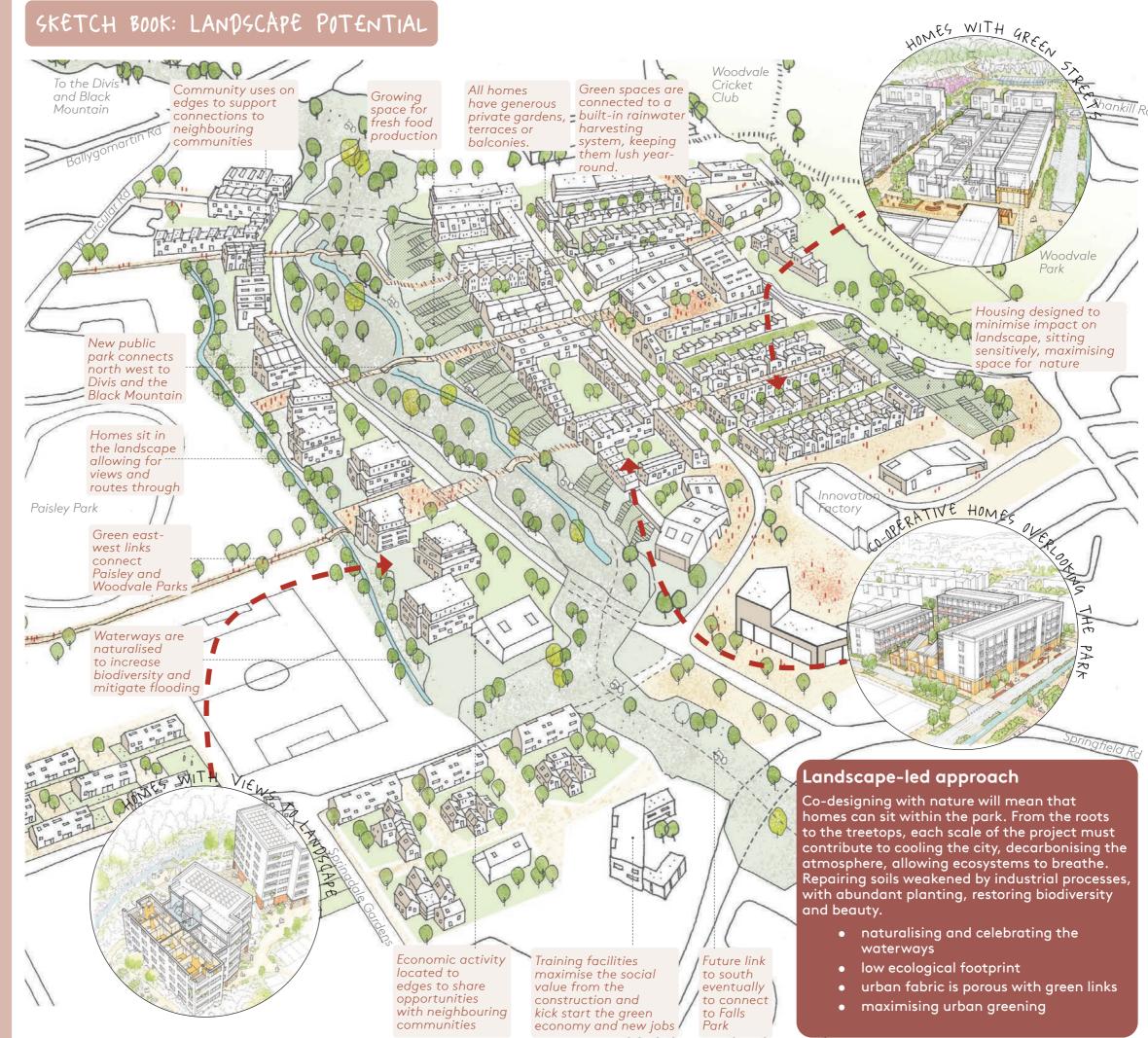
Co-Designing a Masterplan Vision

The Take Back the City coalition has identified the site and set up this competition with incredible will power and energy: this momentum, passion and commitment has to be maintained throughout the development of a masterplan that can transform Mackie's into a model of affordable housing delivery for Belfast. Our role would focus on bringing our expertise and experience to the table as tools to turn many great ideas about the site into one common vision, and into an inclusive masterplan that delivers the homes needed, is sustainable, regenerative, affordable and deliverable.

The space outside the homes will be as important as the homes themselves; the landscape quality of the Mackie's site offers a wonderful setting and sense of place in which to create inclusive communities supporting healthier lives.

Maximising green and planted areas has myriad benefits, from improved biodiversity, to creating resilient and thriving neighbourhoods that can adapt to challenges including the climate crisis.

By planning for spaces that enable tangible, practical resource sharing, such as items, services, or support, the project will unlock the less tangible yet essential aspects of new neighbourhoods: **a sense of togetherness** and belonging, and a desire for involvement within the community.



Neighbourhood One A Co-op Community

Creating a strong sense of neighbourliness, with a mediumrise community focused building activating streets on all sides.

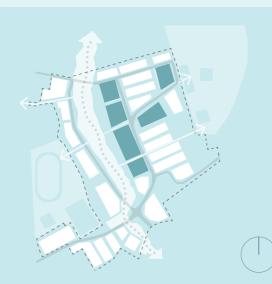
Placemaking Toolbox

Along main streets, ground floor spaces house community and commercial spaces such as workshops, co-working areas and a community nursery. The community centre has a **common** kitchen and living room, and small common

A variety of floor plans for homes create **space** for different lifestyles. No two homes are identical but all homes are flexible and adaptable within an efficient and simple structural system.

Co-operative delivery

Co-operative as a form of organisation, have been rediscovered in recent years for groups oriented towards the common good: an ideal instrument for involving people in a common cause such as building new homes. It is democratic and stable for the long term, but can remain agile and open. Cooperatives can access alternative funding, avoiding developer profit, and locking in affordability in the long term. They offer opportunities to initiate **financial solidarity**, such as loan guarantees by the co-operative for those who would otherwise not be able to participate, for example recent migrants. A Community Land Trust can ensure residents enjoy the benefits for years to come.



SKETCH BOOK: CO-OPERATIVELY ORGANISED COMMUNITIES

Integrating commons assets into a community focused project:



Individual homes, communal halls and entrance lobbies activate the nearby streets, making them safe and more lively. Increasing neighbourly interactions.







We helped found a co-op at Mackie's. Residents were at the heart of the design process, it is made for vs!

Our grandkids live downstairs and love playing with the other kids in the community courtyard where everyone can keep an eye on them.



Responding to the priorities:

AUTONOMY



Residents co-design apartment layouts. If they choose they can also fit-out their flats overtime to suit their needs + minimise initial costs





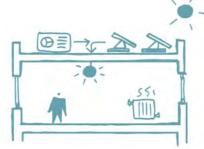
The co-operative is an opportunity for residents to develop skills and gain knowledge. Working for the co-op can also be an income stream

COMMUNITY LIFE



At the heart of the block is a flexible community room that supports neighbourliness, wellbeing, and counteracts loneliness

MINIMISING ENERGY USE



The building integrates energy production, with air or ground source heat pumps and rooftop

NATURE / BIOPHILIC DESIGN



Urban greening maximised in courtyard space and roofs, minimising heat build up, mitigating water run off, bridging the ecology of the park.



Neighbourhood One A Co-op Community

Adaptable <u>homes</u> set within generous common spaces, commissioned, co-designed and managed by residents.

Design

Assemblies and participatory planning

We offer planning participation from urban development to the socket. With innovative methods, we enable comprehensive and goal-oriented decision making. In individual discussions and group settings, we design the design processes in such a way that everyone's experiences, needs and wishes **grow into the vision of the project and wisdom of the group**. Blocks are sized to be a maximum of 40 households to allow for democratic horizontal and self organised management.

Build

Homes will achieve zero carbon by the implementation of highly efficient, site specific solutions, maximising the performance of the building fabric by form and material. Timber frames will be a primary component of the structure to make the building light, quick to build and reduce its carbon footprint. PassivHaus performance will be targeted. Houses will be completed, without excessive finishes, fittings or partitions. They will be delivered as shells to create affordable and adaptable spaces that allow for the individualisation of homes through internal self-build projects.

Live

In the housing project there are spaces for individual retreats and personal living areas as well as shared spaces. To **conserve resources** things are shared.

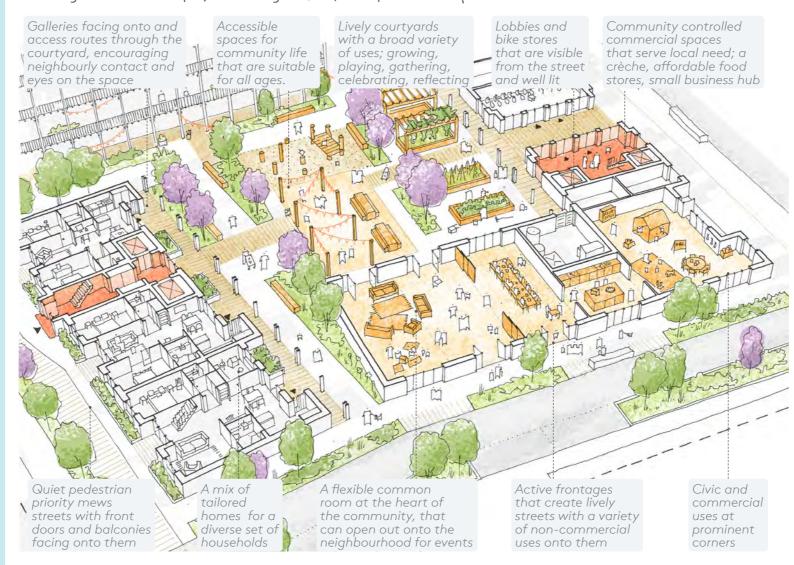
Respectful, appreciative communication among each other is just as important as solidarity and mutual support in different phases of life.

Central to this is the desire for a **lifestyle** that is as **simple and self-determined** as possible, in harmony with fellow human beings and with nature.

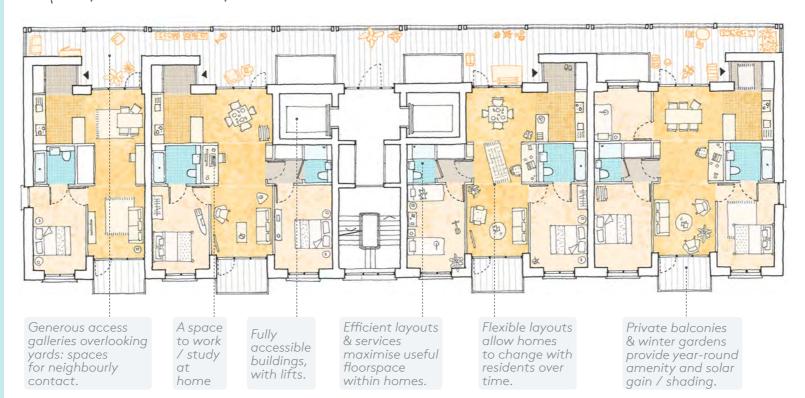
Karakusevic Carson Architects

SKETCH BOOK: A NEIGHBOURHOOD WITHIN A PLOT

Sharing based lifestyles, creating high-quality common spaces:



Adaptable, climate resilient, and flexible lifetime nomes:



Flexible homes with generous private open space that extends the living area outdoors.

Right: Karakusevic Carson Architects, Clarendale Street, London



Left: Karakusevic Carson Architects & Muf Art+Architecture, Kings

Crescent, London

growing spaces.

Courtyards with community

Access galleries as shared common space: a space for neighbourly contact.

Right: Einszueins Architects, Vienna





The common room facing onto the yard is a wonderful social space.

In summer we open it up and have gatherings. In evenings some of the parents host a homework club where the kids study together and help each other with their school work.



Neighbourhood Two Park Homes

Housing Association flats set in a natural landscape, that connect local playing fields and neighbourhoods along a parkside street.

Place making Toolbox

Ground floors host **communal spaces** such as a communal kitchen, bicycle repair shop, workshop, co-working space, seminar room, guest room or library of things (a place where rarely needed items can be borrowed). Between buildings, communal paths lead to the **growing spaces** where residents can cultivate vegetables by the stream along Paisley Park. Communal gardens and doorstep play areas fronting the main street are defined by small level changes, benches and planting balancing openness and security whilst maintaining **visual link with the greenway**.

Housing Associations & Partners

This more traditional delivery model can deliver affordable, high-quality and secure-tenure homes for those unable to afford self-funded models. These beautiful but efficient buildings, can be managed as truly affordable, long term rented homes. To deliver this model, experienced partners such as a **community housing provider** or a housing association should be involved. Some apartments could be reserved to key workers for the nearby schools, hospitals and caring facilities.



Karakusevic Carson Architects

SKETCH BOOK: BUILDINGS WITHIN A LIVING LANDSCAPE

Space for nature, promoting biodiversity and access to high-quality outdoor spaces:



Housing in natural settings

Right Einszueins Architects, Auenweide,





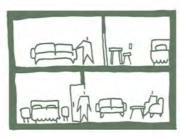
At Mackie's we have nature at our doorsteps, and the residents in our building plant the gardens ourselves!

My wintergarden is a fantastic place for seeds to get a start before we plant them in the shared gardens.



Responding to the priorities:

AUTONOMY



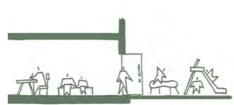
A regular structural grid for simple, fully accessible flat layouts that can be adapted and refined by individual residents.

SKILLS / TRAINING



A community company is established to maintain the buildings and park, providing jobs for local people and ensuring community ownership

COMMUNITY LIFE



Ground floor lobbies are generous resident communal spaces for home working, meetings, shared meals or celebrations

MINIMISING ENERGY USE



Highly insulated homes minimise energy use and fuel poverty...

NATURE / BIOPHILIC DESIGN



Naturalisation of the brook to maximise biodiversity and mitigate against flooding. Also forms a quiet route for pedestrians.

Neighbourhood Two Park Homes

Homes with generous private and shared amenity, looking out to the park and naturalised stream.

Design

Flat layouts will be designed to allow for **maximum flexibility** whilst ensuring they respond to basic residents' requirements. A modular, regular grid will maximise pre-fabrication to improve quality and reduce waste and costs. Design requirements will be formulated in collaboration with future residents and **inclusive design experts** can ensure the project is truly inclusive: for example, suitability for older people, peoples with disabilities or families. The compact form of the building will facilitate dual aspect, highly efficient low energy **performance** while minimising the land taken for construction, maximising green space.

Build

Highly insulated **prefabricated elements** such as panels for walls and floors will optimise the construction process, minimise waste in the nearby areas, and ensure quality control. **Regionally** sourced bio-based materials will be used to reduce the carbon cost of transport and construction. Structural elements will be optimised to minimise the concrete and steel used. The construction will be naturally embedded within the terrain, making the **built form work** together with the landscape, maximising views to the park and hills, co-designing with nature.

Live

As generous windows and balconies frame views outwards, the park homes offer the opportunity to inhabit a light, comfortable space and to **enjoy** views to the adjacent park, and a range of spaces for outdoor activities collected around the common areas at the ground floor support neighbourliness.

Buildings maximise solar gain and are highly insulated, so energy bills to heat and power homes will be low. The buildings and landscape are well looked after, managed by local residents who will take ownership of the exterior finishes, communal spaces and general maintenance.

that can change with

residents evolving needs

growing, gathering,

and reflecting

SKETCH BOOK: CREATING GENEROUS APARTMENT HOMES



recessed balconies to

mitigate overheating

Growing space in between buildings

Right: Einszueins Architects, Gleis 21, Vienna





Cross-laminated timber for structural elements that are carbon neutral, prefabricated and quick to install.

Left: Karakusevic Carson Architects, Great Eastern Building, London

Generous shared amenity spaces and common rooms for residents to gather and inhabit.

Right: Einszueins Architects, Gleis 21, Vienna





skilled job in construction.

the street and

leading to homes and

common amenities

Neighbourhood Three

Green Terraces

Reinterpreting the traditional Belfast streets, low-rise, mediumdensity homes forming safe, pedestrian-first <u>streets</u>.

Place Making Toolbox

A regular grid and design framework will regulate the individual plots, to **create consistent**neighbourhood character and efficient layouts whilst leaving flexibility for residents to design and build their own homes. Design will slow traffic, some streets will be **traffic-free** to provide linear communal spaces with playable elements and growing spaces, streets become connections and destinations for the community. **Sharing hubs** are placed at street corners to provide community facilities such as a tool shed or library of things.

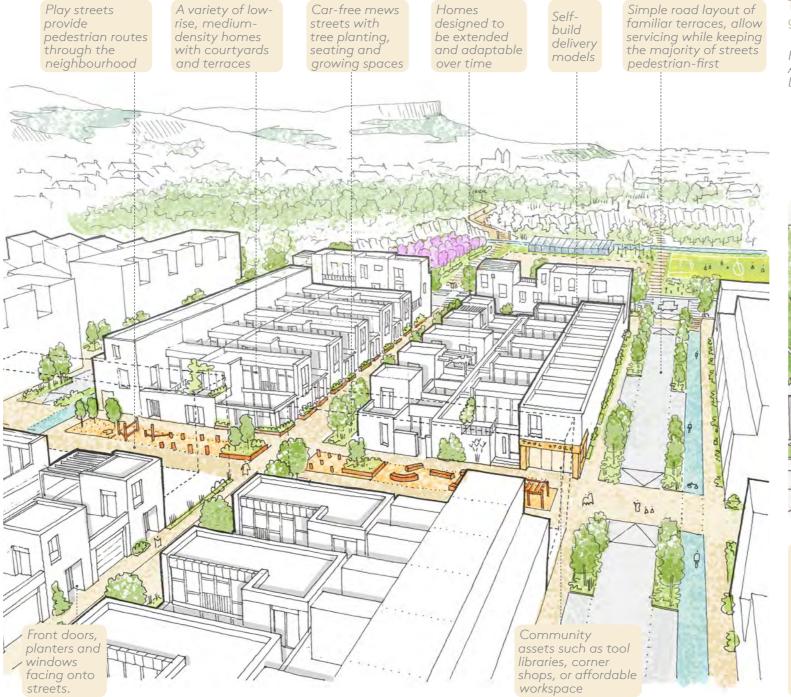
Self-Build Communities

Individual households can **plan**, **design and build** their own home by appointing a local builder or carrying out some of the work themselves.
Initiatives to build individual homes will be supported by **knowledge sharing** which will take place in the **project lab** based on site. Zero carbon construction principles and green initiatives will be promoted. Timber frame structures are affordable and simple to build, the project lab will coordinate opportunities to register for bulk orders to lower the cost of material supply. This will not only make the homes more affordable, but **initiate an environment of collaboration** between neighbours that will be key for the success of the project in the long term.



Karakusevic Carson Architects

SKETCH BOOK: SELF BUILD TERRACED STREETS



Traffic free street for play, gathering and relax

Right: Karakusevic Carson Architects, Kings Crescent, London





We were looking for the right house for ages before Mackie's.

The streets are carfree, which means we can let the kids play outside.

Everyone has their own little courtyard, which is nice and quiet.



Responding to the priorities:

AUTONOMY



A variety of house types in each building with adapted homes for disabled residents. All homes are adaptable SKILLS / TRAINING



Self-build is an opportunity for residents to learn new green construction, prototyping affordable bio-based materials



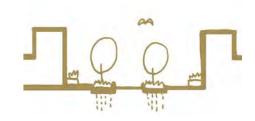
COMMUNITY LIFE

The yard space is transformed into a shared mews for community life, with a communal tool shed that houses a library of things



MINIMISING ENERGY USE

Connecting to a district energy system and producing energy on site, minimises carbon and energy insecurity



Streets with regular front doors are familiar locally but are combined with SuDS, community growing, biodiverse planting and street trees

Neighbourhood Three Green terraces

Varied, adaptable self-build <u>homes</u>, a contemporary reinterpretation of the terraced streets, with courtyards + roof terraces to maximise light + outdoor space.

Design

Certain rules will apply to keep a **consistent character across the area**, for example having regular front doors as in traditional terraced street. Homes may include space for home working, a small office or a study. Each dwelling features **different private outdoor spaces**, including a ground floor courtyard or a roof terrace.

Bespoke designs can respond to the household needs, integrating homes working, multigenerational households, open plan or more traditional layouts, the possibilities are endless.

Build

Circular economy principles are embedded in the construction strategy: an Excess Materials Exchange platform is established to **make surplus and demounted materials available** from other building sites in nearby areas.

High energy efficiency can be achieved using **passivhaus principles**, elevations should be designed to balance heat gain /loss and daylight.

A **construction skills hub** is established on site as a permanent resource to provide advice on using low carbon materials such as timber structures and incorporating recycled / secondary content in construction processes.

Live

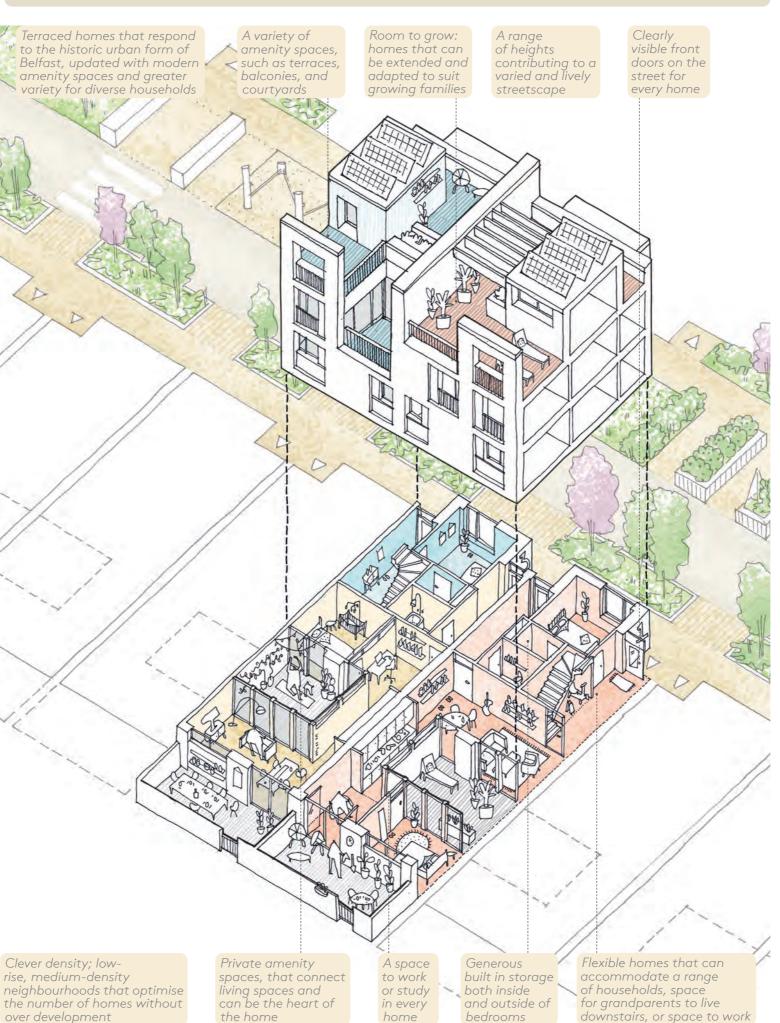
Dwelling can be used as **live and work spaces**, with options to have working space at ground floor to connect homes with the exterior.

Traffic free play streets and **green spaces are tended and managed by residents** whose homes are fronting the space with opportunities to spill out some gardening activities.

Participants will not only have a new home as a result of the process but they will improve their knowledge and skills in green construction, with **potential new job opportunities**.

Karakusevic Carson Architects

SKETCH BOOK: LIFELONG COURTYARD HOMES



A private inner courtyard creating a peaceful outdoor space and light filled ground floor.

Right: Karakusevic Carson Architects, Dujardin Mews, London



Individual homes creating safe streets, with carefully integrated private amenity spaces.

Left: Karakusevic Carson Architects, Dujardin Mews, London



Right: An existing 2-up-2down street in Belfast





We built our own house, the neighbours were really helpful in guiding us through the process.

We're planning on building a new bedroom upstairs next year, the Mackie's tools library has a lot of the equipment we'll need.



In the Development

We work with community groups to design lively places for encounters and exchange, with a focus on public and common spaces that promote togetherness and diversity.

Zero carbon

The primary objective for Mackie's is to build a new neighbourhood that is socially, financially and environmentally sustainable. We will embrace a holistic approach to sustainability, following **passive design** principles and optimising material use from early stages; in this way, the sustainable value of the project will be less at risk of budget cuts, supply chain shortages or expensive technology. To achieve a whole life zero carbon two main factors need to be addressed: the embodied carbon, which is associated with construction, maintenance and demolition; and operational carbon, which is associated with the power needed to use all homes appliances, and keep the building warm in winter and cool in summer.

Embodied Carbon

The address the climate crisis we will rationalise and innovate construction methods to **preserve resources** and limit carbon emissions. In the local project lab **bio-based components** can be promoted, as well as green local supply chains to support community economic development and limit transport. The materials exchange will enable the circular economy.

Building Zero carbon homes does not mean building expensive homes; it is a matter of focusing on the right priorities, reserving money for things that are important to create healthy, comfortable homes, like triple glazing, excellent insulation and robust details that will require little maintenance and age gracefully.

Operational carbon

Residents will be able to experience first hand **living in a zero carbon home** means: their energy bills will be low and predictable thanks to efficient building fabric, good quality construction and the connection to a collectively owned, embedded energy **network** that will transform the buildings into energy suppliers and not consumers, making the most of the resources offered by the site, these may include solar power, geothermal, ground or air source pumps. Homes can be powered and heated without the use of gas. The lack of a gas connection not only reduces greenhouse gases but also eliminates a utility bill.



principle of development at Mackie's To facilitate **altruism and**

collaboration in the housing areas, the site is conceived as a network of smaller units in close proximity. Buildings are designed so to not require professional labour for maintenance so residents can **look after their homes** themselves.



Participation in the co-design will offer opportunities for everyone's experiences, to grow

into the vision of the project

and wisdom of the group. **Construction and delivery** mechanism will be planned on a local an regional basis so the wider community will directly benefit from the project proposed.



Co-design workshop for St Rapahel's Estate: Karakusevic Carson Architects

Co-Design



A successful engagement programme must **empower** local people, build capacity and community networks, and contributes to the local economy through jobs and skill-share. Our approach to collaborative design is simple, we will building on the foundation of local **knowledge and experience** we will work closely and without intermediaries with members of the community, adopting a **codesign participatory process** to create a shared vision that is deliverable. Our iterative process of testing ideas and accessible activities feeds directly

into design development.

The following illustrates how an engagement programme would look like, but it will need to be adapted to the specifics of the projects:

- We will first do walkabouts on site with members of the coalition and different stakeholders, learning what **main priorities and concerns** are and refining how the design process could work.
- We will then gather all your ideas and **sketch out some initial design ideas**, and present them in an exhibition to get feedback to further develop our
- We will then hold a series of **targeted workshops** open to the whole community, focussing on things that are of particular concern.



Everyone will **feel close to nature** and connected to great outdoors, both private, communal and public. Opportunities to **embrace** a healthier lifestyle will be embedded in the design, so people can grow veggies, climb a staircase to their flat, hop on their bikes, and more.



Co-designing with nature will mean that **every landscape** element contributes to cooling the city, and allows ecosystems to breathe, mitigating extreme events. All homes will be zero **carbon**, use little power, and contribute to a decentralise production through **renewable** energy.



A <u>rich variety of home types</u> opens the door to a diverse group of people. The street level of buildings is **generously dedicated to community life**, with spaces of many different forms and shapes, all with a great flexibility and connection to open spaces.

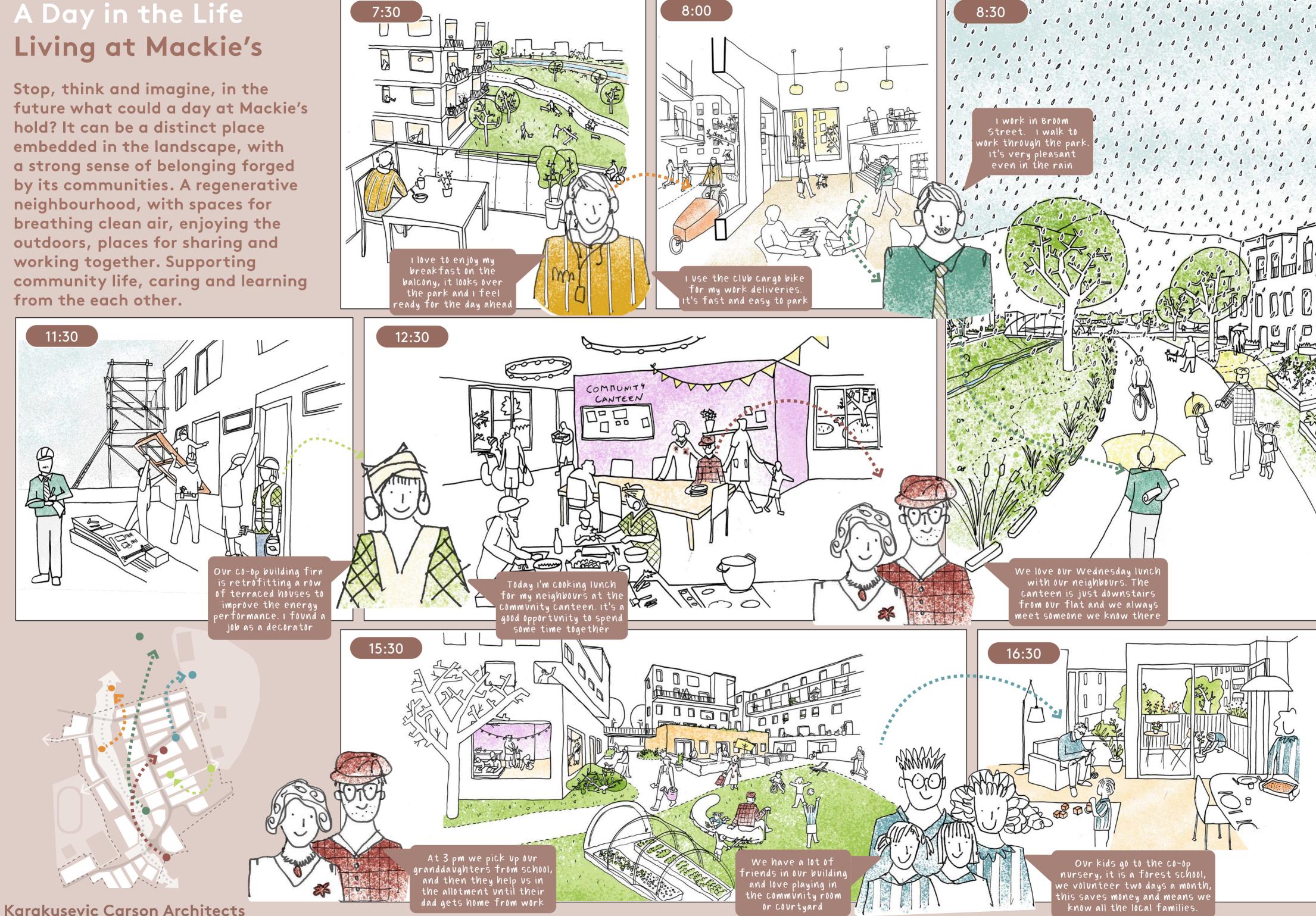
• Results of the workshops will be shared with residents and we will clearly state how and where your feedback has influenced the design proposals.

- We will work through lots of topics in fortnightly meetings, all of which will be carefully recorded and distributed for transparency and accuracy.
- We will explore options with different degrees of detail and enable a coordinated strategy that could drive the creation of a set of documents, such as a high level masterplan, character areas, strategies, design coding etc.
- During the **build stage**, workshops will be held on construction materials and energy strategy so to make sure the options adopted will be accessible to the final users and acceptable for all stakeholders.



Response to the six

A Day in the Life

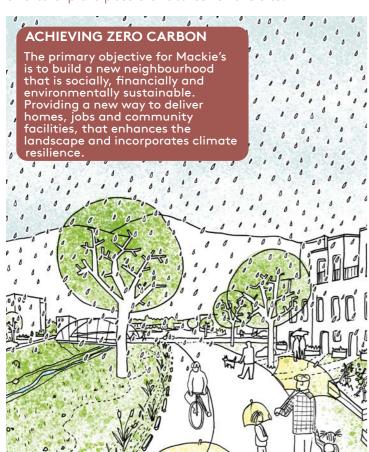


Seeds for Regenerative Change

The Take Back the City coalition has identified this site and set up this competition with incredible willpower and energy: this momentum and level of **engagement has to be maintained** throughout the development of a masterplan that can frame the evolution of Mackie's site and pave its transformation into a model of affordable housing delivery for Belfast.

Many ideas have been seeded in the activities, debates and events organised by Take Back the City; our role would focus on **helping to build a roadmap to make this new neighbourhood a reality**, and bringing our expertise and experience **to compose one common vision** for Mackie's, illustrated by an inclusive masterplan that delivers the homes needed, is sustainable, regenerative, joyful, affordable and deliverable.

Our proposal is not a static, final masterplan, but an exploration of different models of **community-led housing**, a variety of densities, characters, types of streets and public spaces that will be defined by these buildings, in order to test the brief for 1000 new homes and to explore possible futures for the site.



The new park is the heart of the

neighbourhood,

water, increasing

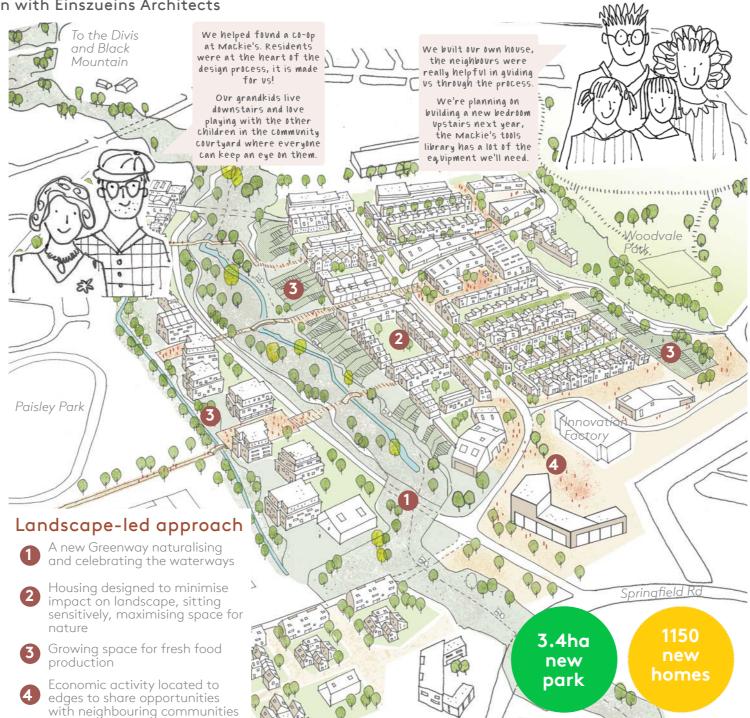
resilience, linking

north to Divis.

celebrating

biodiversity

and climate







Take Back The City _ Executive Summary

Responding to the 6 principles of development at Mackie's

1. A HEALTHY PLACE TO LIVE



Everyone will **feel close to nature** and connected to great outdoors, both private, communal and public. Opportunities to **embrace a healthier lifestyle** will be embedded in the design, so people can grow veggies, climb a staircase to their flat, hop on their bikes, and

2. ADAPTING TO THE CHALLENGES OF A CHANGING CLIMATE



Co-designing with nature will mean that every landscape element contributes to cooling the city, and allows ecosystems to breathe, mitigating extreme events. All homes will be zero carbon, use little power, and contribute to decentralised production through renewable energy.

3. AN INCLUSIVE COMMUNITY



A *rich variety of home types* opens the door to a diverse group of people. The street level of buildings is *generously dedicated to community life*, with spaces of many different forms and shapes, all with a great flexibility and connection to open spaces.

4. CO-CREATION IN DESIGN



An iterative, participatory process will be established so as to plan the work with the community across all project stages, starting from essential design and planning strategies, to home and buildings models, to construction and materials choices

5. LOCAL EMPLOYMENT AND SKILLS



Participation in the co-design will offer opportunities for everyone's experiences, to grow into the vision of the project and wisdom of the group. Construction and delivery mechanisms will be planned on a local an regional basis so the wider community will directly benefit from the project proposed.

6. SELF-MANAGEMENT AND AUTONOMY



To facilitate altruism and collaboration in the housing areas, the site is conceived as a networ of smaller units in close proximity. Buildings are designed so to not require professional labour for maintenance so residents can look after their homes themselves

Co-design participatory process

We know that delivering a successful engagement programme that can **empower local people**, build capacity and community networks, and contribute to the local economy through jobs and skill-share is critical to the future development of Mackie's site.

Our approach to collaborative design is simple: we work closely and without intermediaries with members of the community, adopting a **co-design participatory process** to create a shared vision that is deliverable.

Our iterative process of testing ideas and accessible activities feed directly into design development. We will build on the foundation of local knowledge and experience, and make sure all voices can be heard and proposals are appropriate to a diverse range of lifestyles and needs.

