



the green house

a framework for social, cultural and ecological agency in everyday life

Set in 2086, *The Green House* explores a design philosophy in which social cohesion and environmental stewardship are fundamental drivers of living and architectural ethos. In a future where urban densification seems inevitable, the project speculates that architecture, especially housing, must actively foster community life and biodiversity, enabling daily interactions between people, nature and seasonal rhythms.

Drawing on the social typology of the Italian piazza, the proposal re-imagines a space where people of all ages and backgrounds can gather, socialise, exchange and feel present amongst nature within an interior condition – one that mediates between inside and outside across the year and adapts to the milder British climate. Following biophilic principles, interior spaces imitate the light, material tactility, and sensory qualities of natural environments, promoting well-being and collective experience even when being outdoors is not weather-permitted.

In a world of increasing social isolation and environmental disconnect, *The Green House* positions interior architecture as a fundamental actor in creating a more equitable, liveable future - one grounded in local communities, local identity, and local culture.



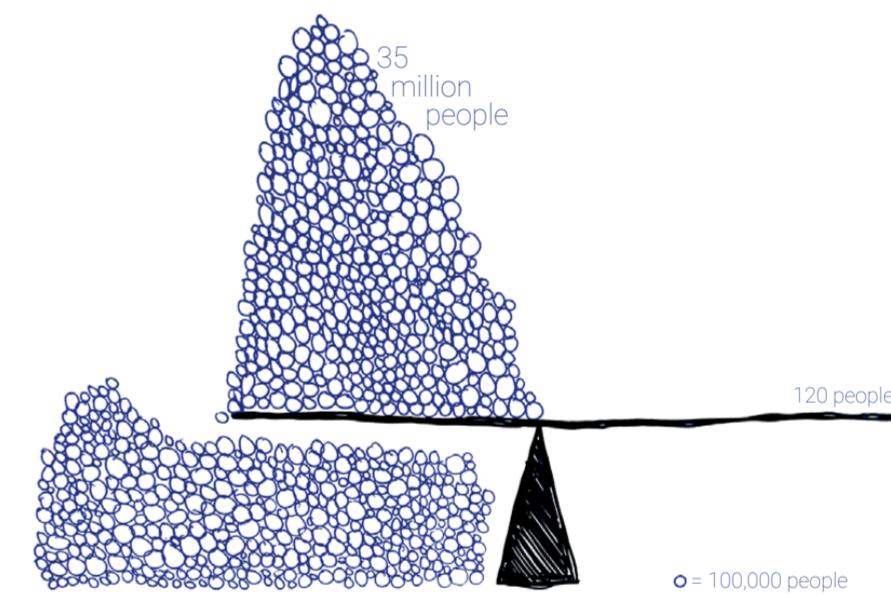
// IS THIS EVOLUTION? IS THIS GOOD FOR US?

//WHAT DOES THIS SAY ABOUT OUR CULTURAL VALUES?

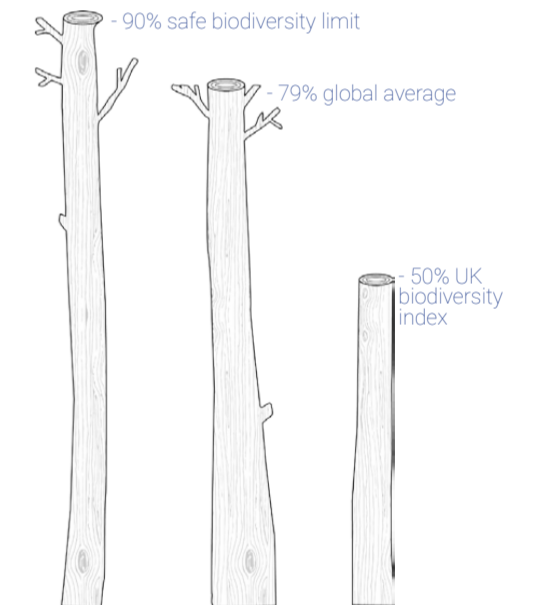
the eco-social dilemma: context for change

The UK is one of the most unequal economies in the developed world (OECD), whilst nominal GDP is higher than ever. LSE reports that wealth inequality is one of the biggest threats to the future of the UK, and the Centre for Social Justice warns that we are on track to return to the 'two nations' disparity of the Victorian era. With economic precarity comes social dislocation, as individuals are forced to compete against each other for increasingly limited resources. This can be seen in the cost of living crisis, the housing crisis, closure of social institutions such as community centres, where people are being outbid on for the things they need to survive. At the same time, the UK is one of the most nature-depleted and urbanised countries in the world.

Society and the environment are interdependent upon one another. We rely on a healthy environment for food, water, air and mental well-being, whilst the environment is dependent on how we value nature in our society. Urban activity is responsible for 70% of greenhouse gas emissions, and yet we're constantly expanding our urban environments to meet the needs of the housing crisis. The more we urbanise, the more damage we do to environmental well-being. Consequently, the more we distance ourselves from nature, the more damage we do to societal well-being. We need to fundamentally re-shift our values to a system that can address both environmental and social well-being as a bottom line, as opposed to profit - one that is reinforced and nurtured by our architecture and design.

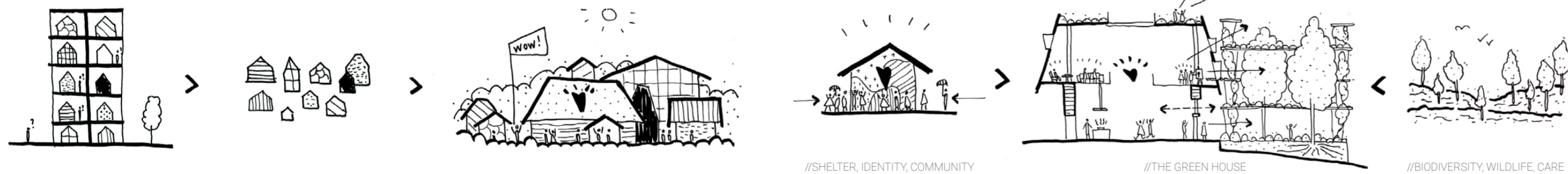


//WEALTH INEQUALITY: TODAY ~120 PEOPLE OWN THE SAME AMOUNT OF WEALTH AS HALF OF THE UK POPULATION



//ONE OF THE MOST NATURE-DEPLETED COUNTRIES IN THE WORLD

(Left) The ground floor market hall is designed to feel 'underground' or 'within'. Inspired by warrens and dens, a long sight-line and overhead lighting guides users through the space, forming a central 'street' that connects intimate pockets of activity. The rammed earth facade contributes to the tactile stimuli of feeling amongst nature, blending the relationship between interior and exterior.



//SHELTER, IDENTITY, COMMUNITY

//THE GREEN HOUSE

//BIODIVERSITY, WILDLIFE, CARE

'our place': how can design change the way we live?

The responsibility of architecture must be re-examined to meet the needs of the future. Under capitalism, the built environment is positioned in opposition to the natural world, prioritising efficiency, extraction and private ownership over collective or ecological well-being. If the 20th century was the era of modernism, then the 21st century must become the era of humanism - one in which human and environmental needs are no longer treated as separate or competing concerns, but as deeply interconnected and mutually dependent.

The concept of 'our place' responds to a future of urban density by redistributing domestic life across shared spaces of varying intimacy, instead of cramming people into soulless tower units. Instead of isolating daily life within private apartments, the home is reconfigured as collective infrastructure. Living rooms foster communal activities and

social exchange, the kitchen, dining areas and pantry become critical environments for local cohesion and cultural development; and the private dwelling is reduced to a space of rest and hibernation.

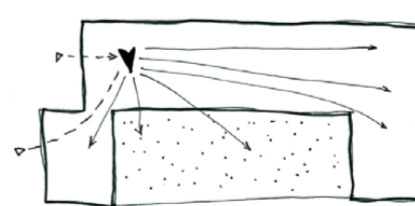
Crucially, shared ecological spaces are deliberately integrated throughout, recognising environmental health as fundamental to urban life. Through this framework, the city is experienced not as a collection of private, isolated objects, but as a shared, inhabitable landscape shaped by local community, culture and identity - one in which nature and architecture coexist as an essential component of everyday life.

the green house: a fusion of piazza and forest:

The Green House situates that architecture has a responsibility to create the spatial, material and social frameworks through which community and nature can coexist within dense urban environments, supporting one another through care. Socially, architecture provides shelter, belonging, identity and shared culture. Environmentally, it operates as biodiversity infrastructure, reconnecting urban living with natural systems. Rather than being treated as parallel agendas, they become an intertwined driver of design - 'Green - House'. The design facilitates this framework by splitting the programme between dedicated community and green spaces, improving the availability of both within the city centre context. Following the concept of 'our place', the ground floor is seen as an extension of the street, forming the kitchen, pantry and lunch space for residents and members of the local community to convene. This takes the form of a market hall, inspired by the piazza, as an interior space that can mediate

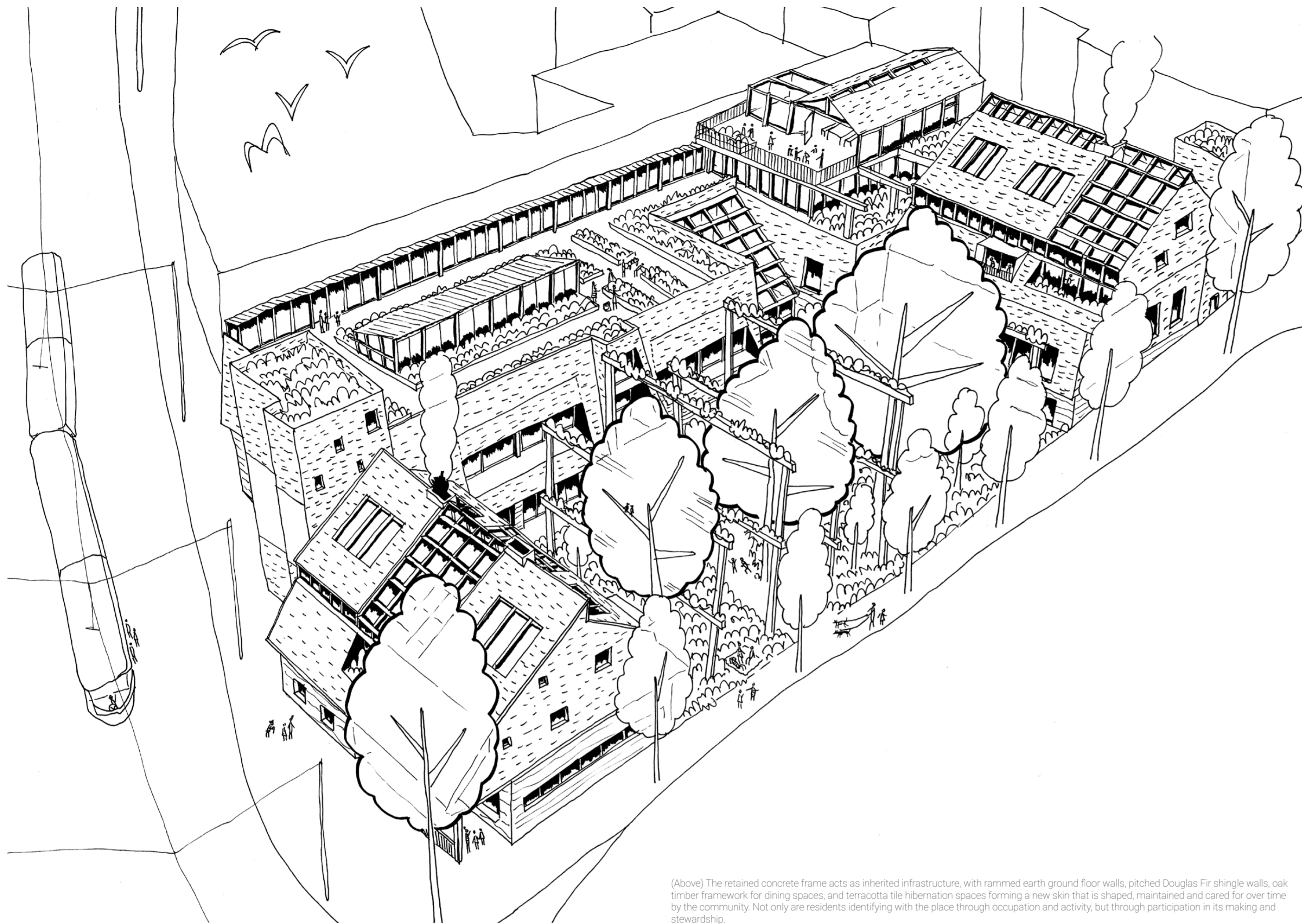
between social and ecological life as a place for exchange, learning and informal gathering. The first floor is the building's 'living room', with shared book exchange, games areas, lounge seating, art space and a small cinema room, as well as the 'hibernation' bedrooms for residents.

Retained columns and beams within the green area are utilised for vegetation to grow on and wildlife to nest amongst, allowing biodiversity to integrate across all levels of the site and move from street level to the rooftop farm - forming a 'green ladder'. The proposal adapts seasonally and across the day, shifting community life away from artificial, work-based rhythms to natural, meridian cycles of living. Proximity to nature and an architecture that facilitates natural cycles thus positions the proposal as an active agent in improving social, cultural and ecological well-being, as a model for future urban living.



Placing the 'heart'. The ground floor is conceived as an extension of the street outside, whilst the green ladder provides key infrastructure for biodiversity to thrive - improving urban heat conditions, absorbing rainfall, benefiting mental and physical well-being and providing home for wildlife. The market hall mediates between these two factors, at the heart of the programme across all floors.





(Above) The retained concrete frame acts as inherited infrastructure, with rammed earth ground floor walls, pitched Douglas Fir shingle walls, oak timber framework for dining spaces, and terracotta tile hibernation spaces forming a new skin that is shaped, maintained and cared for over time by the community. Not only are residents identifying with the place through occupation and activity, but through participation in its making and stewardship.



// DINING AS A DAILY ANCHOR FOR COMMUNITY, WITH INTENTIONAL SPACES ACTIVATED ACROSS THE DAY BY NATURAL LIGHT.

architecture as a living sundial

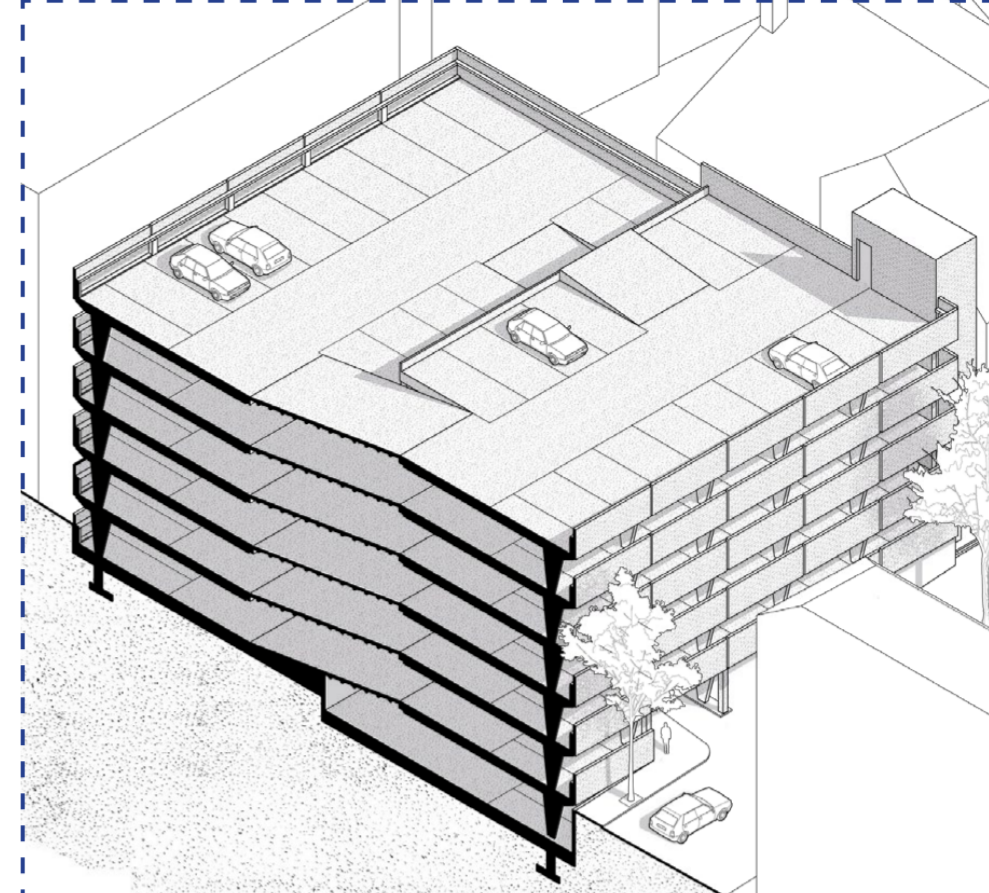
Extending the symbolic meaning of the sundial as a timekeeping object, this concept translates solar movement into daily ritual, where breakfast, lunch and dinner become spatially and temporally anchored to communal rituals. Meals act as daily anchors that structure collective life, reinforcing rest, activity, and social connection in response to changing daylight. The building itself becomes a 'living sundial', with intentional dining spaces oriented according to the path of the sun, so that different areas of the building are activated at specific times of the day. Dining and gathering spaces shift in character throughout light, shadow, and warmth, embedding time into spatial experience. This plays into the 'our place' concept, where the apartment becomes a place for hibernation. Instead of waking up consistently across the year to digital alarms, bedrooms have east-facing openings to be woken up by sunlight, adapting our schedules to be more intertwined with seasonal and meridian rhythms.

Through this, architecture can act as both an instrument and an environment in the way we live. Solar movement is transformed into lived structure of communal rituals that reconnect people with natural cycles and shared time.

(Left) In the depths of winter, nature is still central to life - seasonal vegetation is grown and cared for, and the community continue to engage with daily dining cycles following the path of the sun. A figure walks across the roof farm towards the dinner space, the building has closed up to the elements, but community life thrives within.

site: lace market car park

Located within the historic core of Nottingham city centre, the site was constructed in the 1960's to accommodate for the rise of private motor ownership, at a time where cities were being reshaped for vehicle efficiency. The decline of Nottingham's lace industry shifted its status from a working class cultural hub to a problem area requiring functional development. As a result, the car park was designed without sensitivity to historic fabric, introducing a large concrete mass and severing pedestrian routes to make way for cars. After its construction, the area was designated a conservation zone, stating, 'some parts of the Lace Market have been subject to destructive change through road widening or intensive redevelopment in the past. In these, the re-creation of the historic urban form is a priority'. Adjacent to the site is the Broadmarsh shopping centre, which is currently being redeveloped into public green, civic, domestic and cultural spaces. The development is positioned as a green / civic corridor, highlighting socio-political planning and precedent for reprogramming infrastructure, pedestrian-first design, and willingness by the council and residents to invest in place-making. As well as reorienting movement and urban flows towards the site, Broadmarsh represents a future planning ideology of adaptive reuse design with eco-social well-being as a baseline.



// SPLIT FLOOR PLATES CONNECTED BY RAMPS. DESIGNED AS INFRASTRUCTURE FOR MOTOR EFFICIENCY, NOT HUMAN OR ENVIRONMENTAL WELL-BEING.



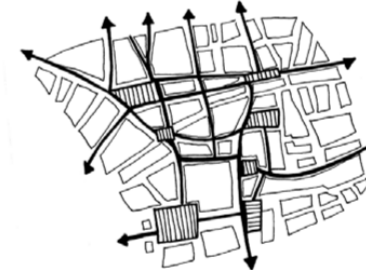
// BRICK SLIP FACADE HELPS BLEND EXISTING SITE INTO INDUSTRIAL CITY CENTRE CONTEXT, BUT RETAINS AN IMPOSING, MONOLITHIC MASS



// REINFORCED CONCRETE JOIST SLABS, BEAMS AND COLUMNS PROVIDE DURABLE STRUCTURE, BUT ARE HOSTILE TO ECO-SOCIAL LIVEABILITY.



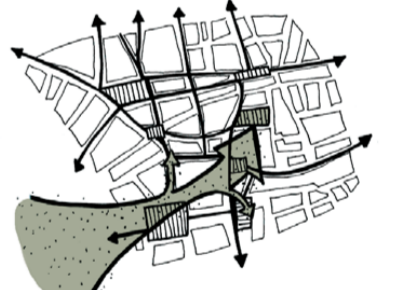
// URBAN STRATEGY



01. Site as a new community hub within the city centre pedestrian network

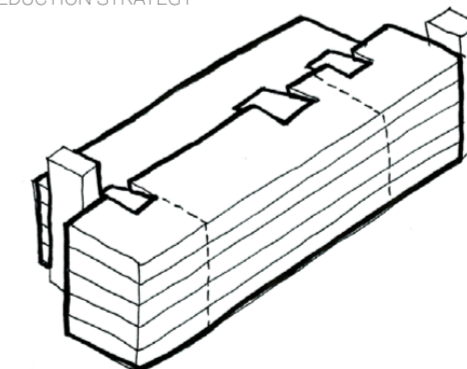


02. Connect onto the Broadmarsh development's 'green corridor'

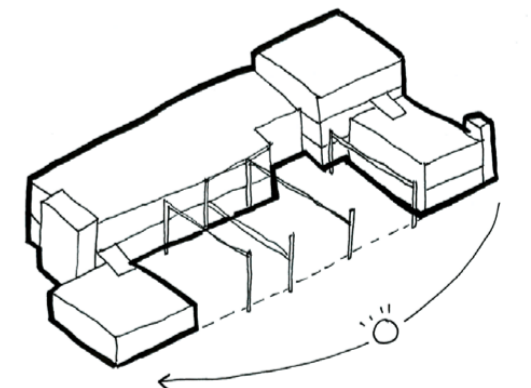


03. Proposal as a fusion of forest and piazza

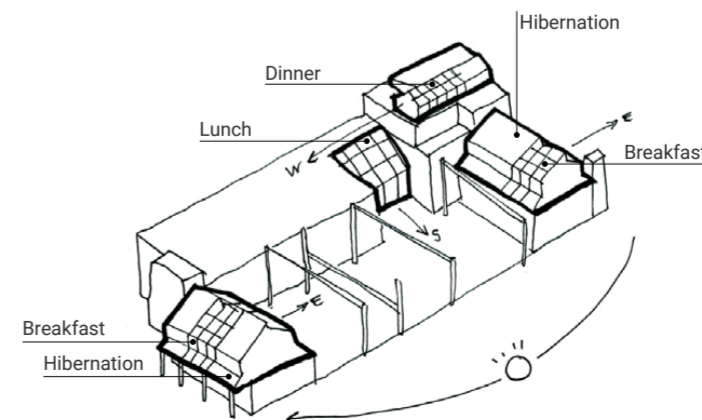
// SITE REDUCTION STRATEGY



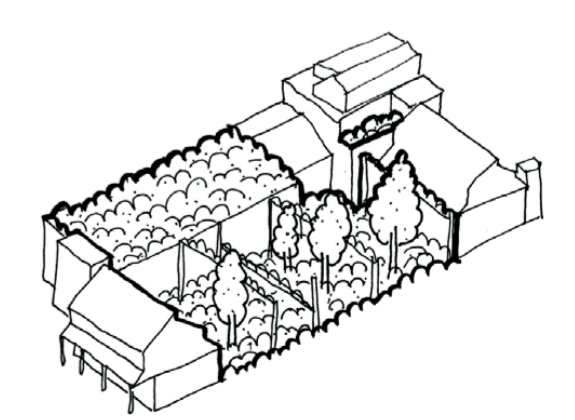
Existing structure is inhabitable as community / living space: limited natural light, low ceilings, open facade, dense concrete mass, etc.



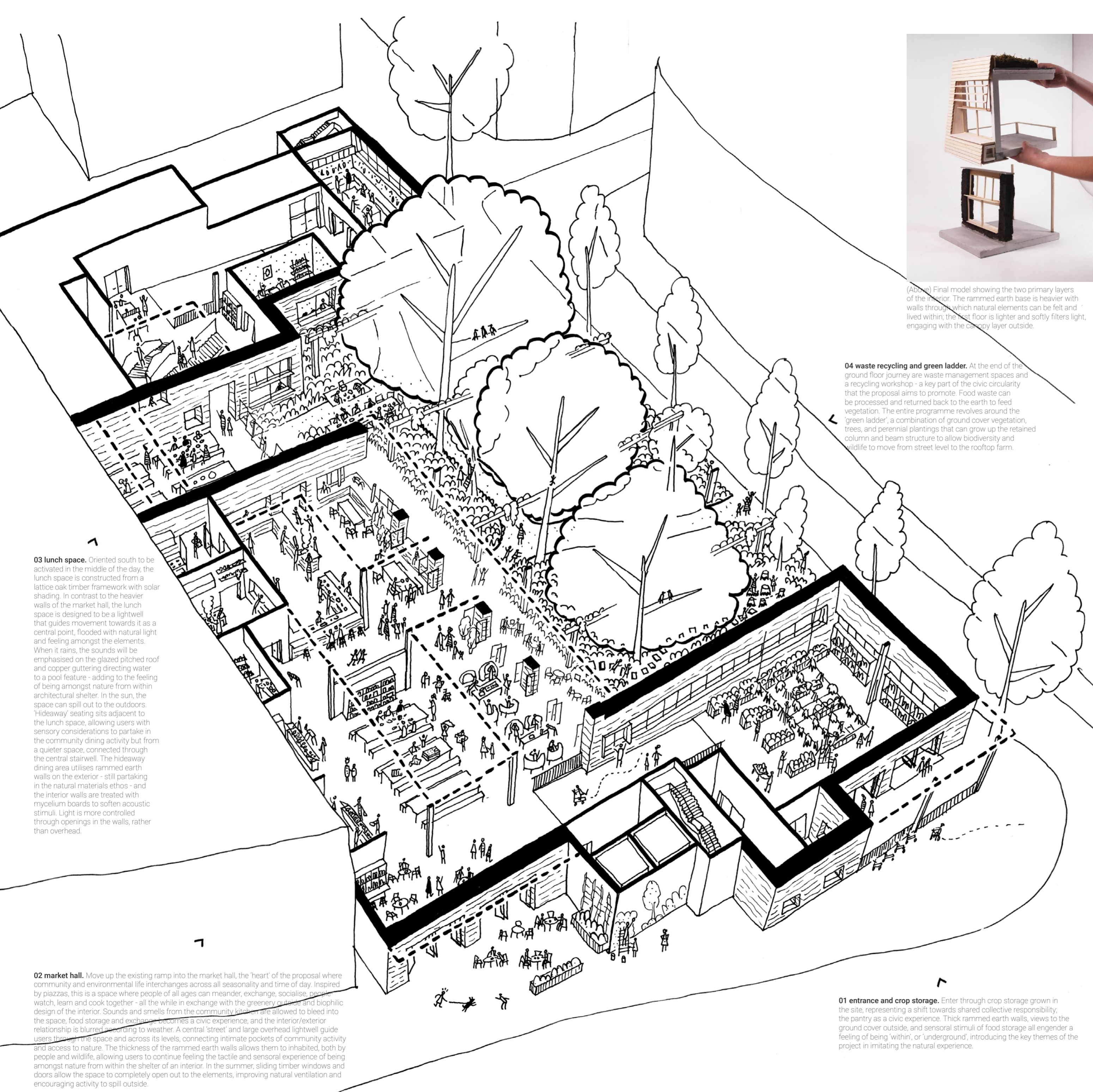
01. Selectively remove floor plates to open the site up for sunlight access, green space and new ritual dining spaces



02. Identify ritual dining spaces based around daily sunlight paths and access to nature. Dormer roof motif separates ritual spaces.



03. Allow biodiversity to integrate across the site by retaining existing column/beam structure as a 'green ladder'



03 lunch space. Oriented south to be activated in the middle of the day, the lunch space is constructed from a lattice oak timber framework with solar shading. In contrast to the heavier walls of the market hall, the lunch space is designed to be a lightwell that guides movement towards it as a central point, flooded with natural light and feeling amongst the elements. When it rains, the sounds will be emphasised on the glazed pitched roof and copper gutters directing water to a pool feature - adding to the feeling of being amongst nature from within architectural shelter. In the sun, the space can spill out to the outdoors. 'Hideaway' seating sits adjacent to the lunch space, allowing users with sensory considerations to partake in the community dining activity but from a quieter space, connected through the central stairwell. The hideaway dining area utilises rammed earth walls on the exterior - still partaking in the natural materials ethos - and the interior walls are treated with mycelium boards to soften acoustic stimuli. Light is more controlled through openings in the walls, rather than overhead.

02 market hall. Move up the existing ramp into the market hall, the 'heart' of the proposal where community and environmental life interchanges across all seasonality and time of day. Inspired by piazzas, this is a space where people of all ages can meander, exchange, socialise, people watch, learn and cook together - all the while in exchange with the greenery outside and biophilic design of the interior. Sounds and smells from the community kitchen are allowed to bleed into the space, food storage and exchange becomes a civic experience, and the interior/ exterior relationship is blurred according to weather. A central 'street' and large overhead lightwell guide users through the space and across its levels, connecting intimate pockets of community activity and access to nature. The thickness of the rammed earth walls allows them to be inhabited, both by people and wildlife, allowing users to continue feeling the tactile and sensorial experience of being amongst nature from within the shelter of an interior. In the summer, sliding timber windows and doors allow the space to completely open out to the elements, improving natural ventilation and encouraging activity to spill outside.

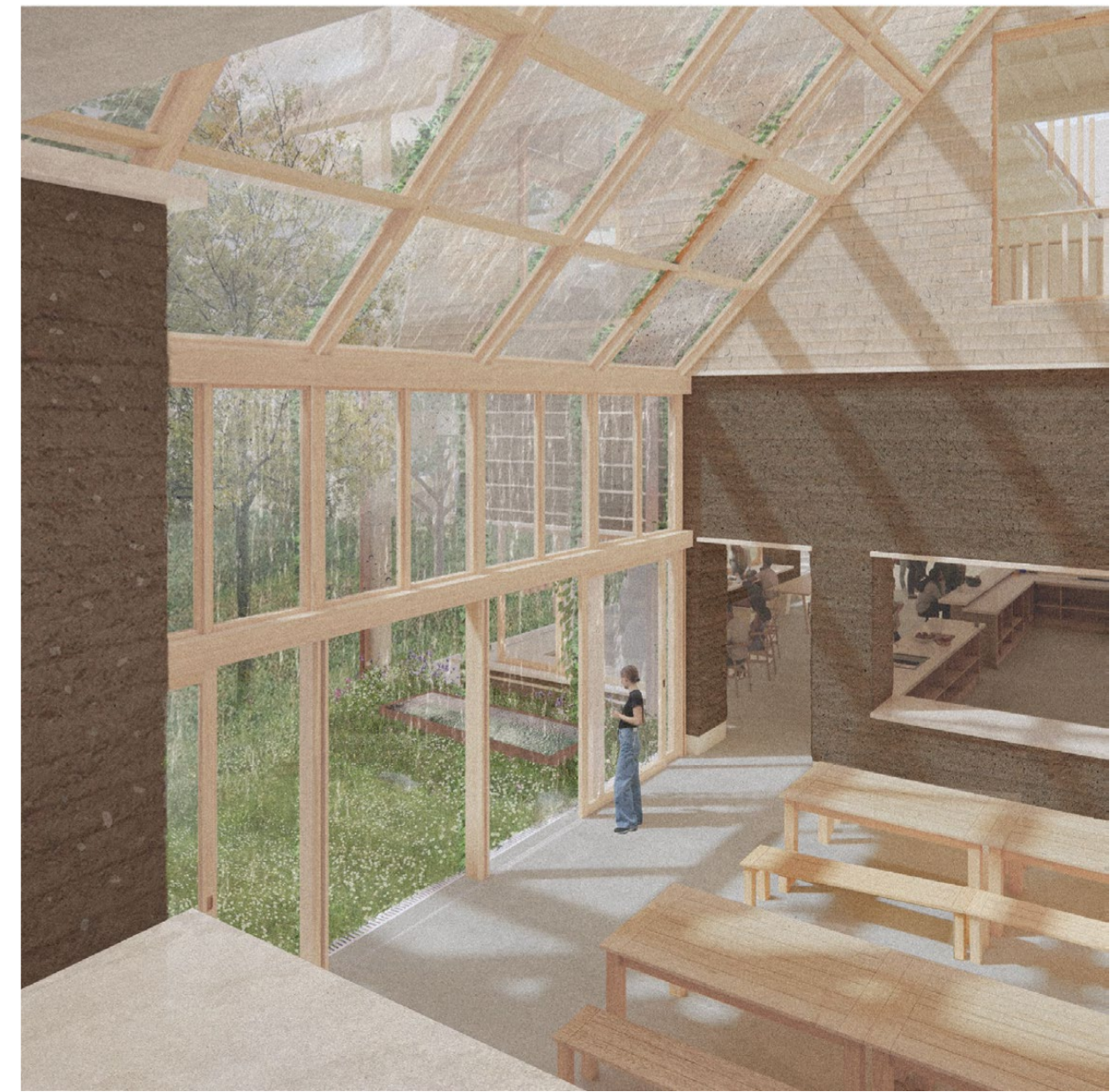


(Above) Final model showing the two primary layers of the interior. The rammed earth base is heavier with walls through which natural elements can be felt and lived within; the first floor is lighter and softly filters light, engaging with the canopy layer outside.

04 waste recycling and green ladder. At the end of the ground floor journey are waste management spaces and a recycling workshop - a key part of the civic circularity that the proposal aims to promote. Food waste can be processed and returned back to the earth to feed vegetation. The entire programme revolves around the 'green ladder', a combination of ground cover vegetation, trees, and perennial plantings that can grow up the retained column and beam structure to allow biodiversity and wildlife to move from street level to the rooftop farm.



(Above) As lunch comes to an end, people begin to disperse around the site for afternoon activities. Three generations of family are discussing the nice weather. On the first floor, someone is sat in the window seat reading a book. Douglas Fir shingles and a brise soleil detail softly filter light into the space, imitating and engaging with the canopy layer outside. Light pours in from the skylight, offering a glimpse of crops growing on the roof farm.
(Below) Looking back on the lunch space from an opening in the rammed earth walls on the stair landing. In the midst of a spring shower, someone has opened up the facade to enjoy the smells and sounds of fresh rain on blossoming vegetation.



01 entrance and crop storage. Enter through crop storage grown in the site, representing a shift towards shared collective responsibility; the pantry as a civic experience. Thick rammed earth walls, views to the ground cover outside, and sensorial stimuli of food storage all engender a feeling of being 'within', or 'underground', introducing the key themes of the project in imitating the natural experience.



Proposed Ground Floor Plan | NTS

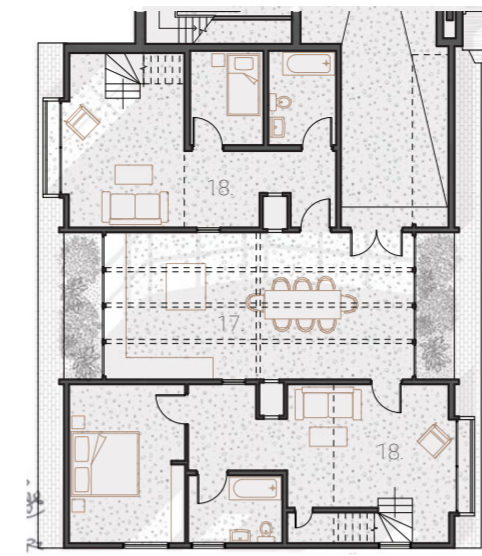
the apartment as hibernation

The bedroom becomes a place of hibernation, rather than of solitude - i.e. it is only used at night and activated in the morning. This is an aspect of the design that most resembles its contemporary function, in that it is a private space that is intended to feel intimate and familiar. The dormer roof is a motif that is embedded in local and national culture as a symbol of domesticity, shifting away from the more public-facing elements of the rest of the programme, as well as blending the proposal into its industrial context. East-facing openings in the roof create a 'funnel' effect, allowing natural light to penetrate into the bedroom during sunrise, reprogramming 'the morning' according to seasonal rhythms (i.e. longer days in summer, shorter in winter).

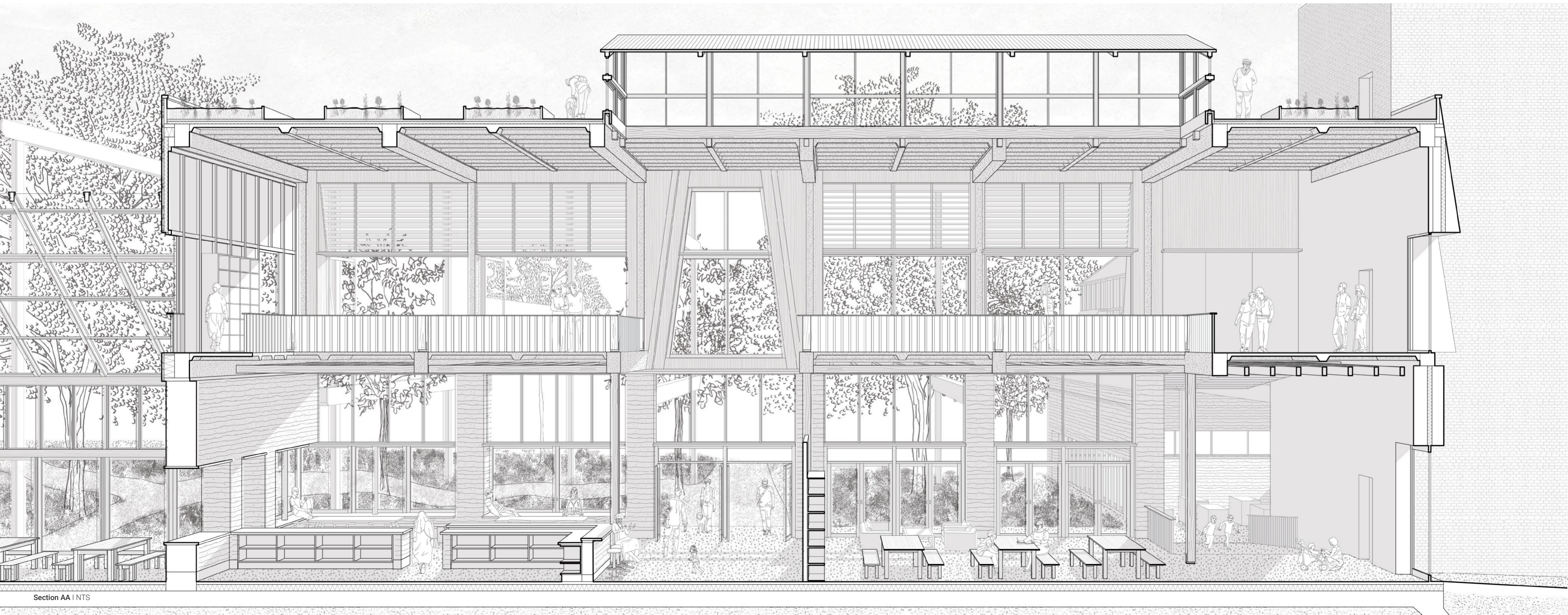
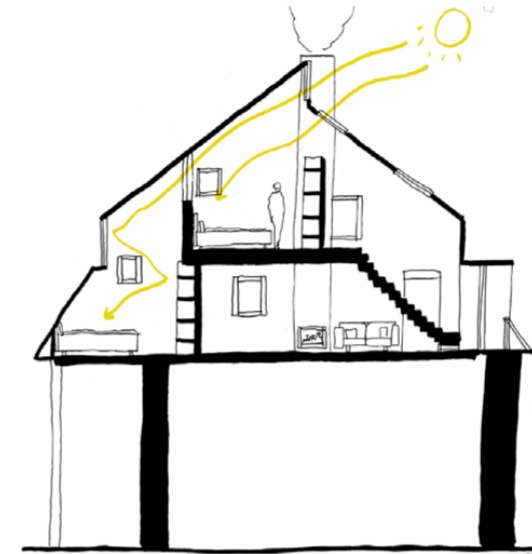
(Right) Fallen orange leaves remind us of the cyclical nature of seasonality and the natural world. Both a man and a fox are heading towards their homes, both found within the site.

Spatial Key

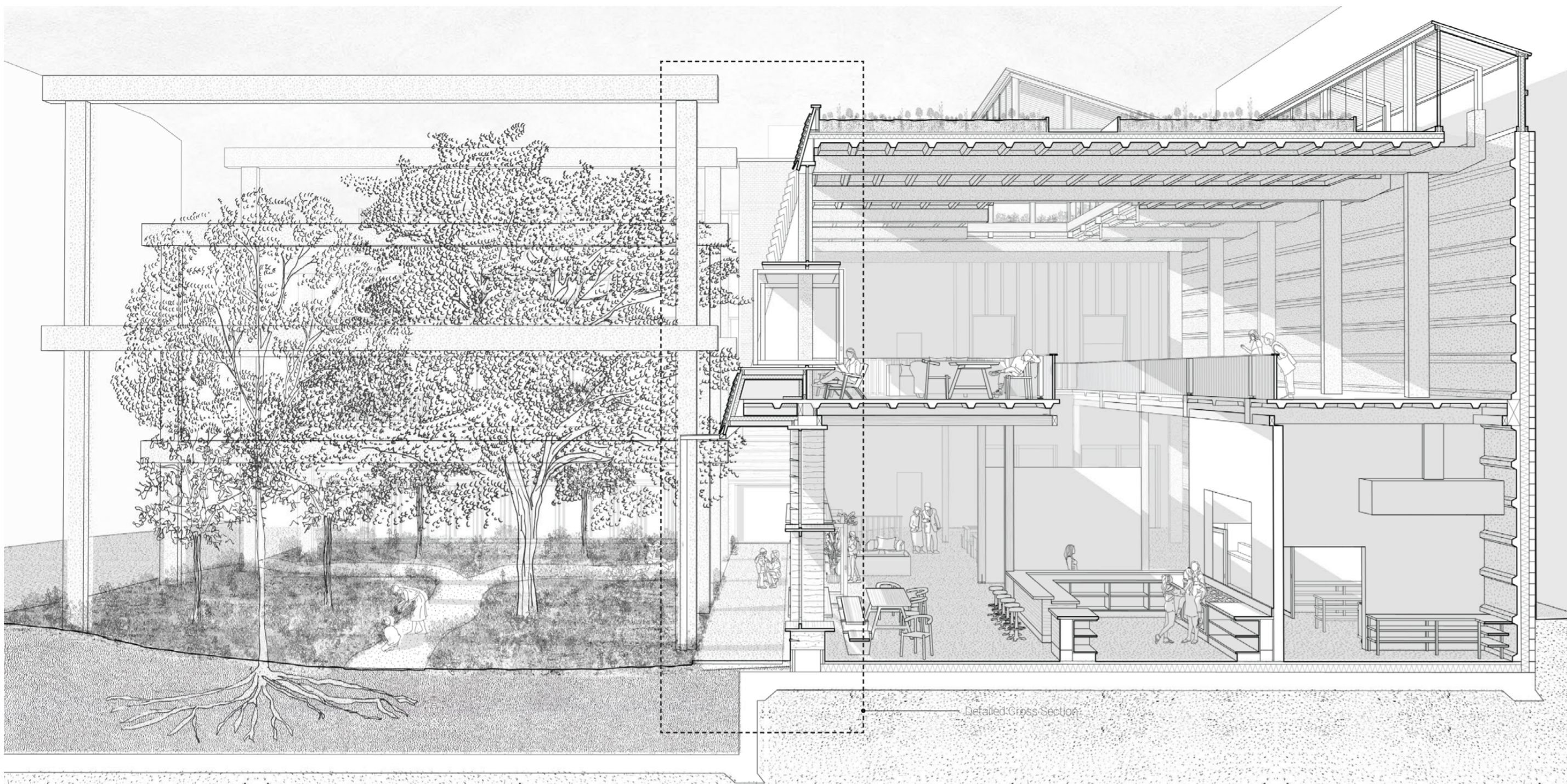
- 01 Main Entrance
- 02 Permaculture Produce
- 03 Resident Post Room
- 04 Coat Room
- 05 Markethall
- 06 Common Pantry
- 07 Community Kitchens
- 08 Ritual Dining Space - Lunch
- 09 Stairwell
- 10 WCs
- 11 Hideaway Seating
- 12 Plant Room
- 13 Recycling Hub
- 14 Farming Storage
- 15 Community Workshop
- 16 Green Ladder
- 17 Ritual Dining Space - Breakfast
- 18 Hibernation' Living Quarters



First Floor 'Hibernation' Plan | NTS

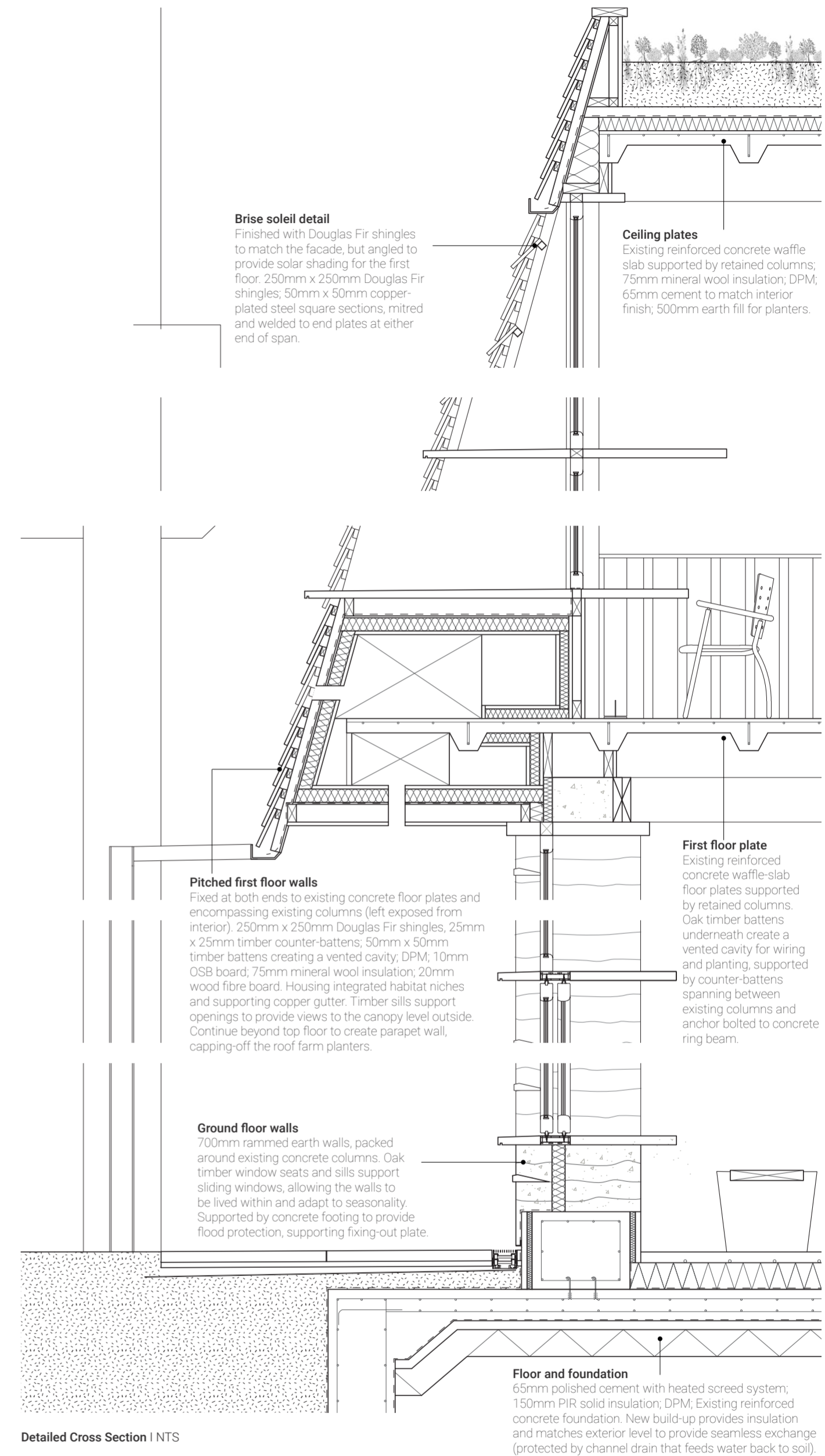


Section AA | NTS



Section BB | NTS

(Above) The existing split floor plate design allows for the lower level to be in-filled with soil without affecting the structural integrity of the foundations, providing both earth for vegetation to be planted in, and home for wildlife. Rammed earth is packed around the existing ground floor columns, supporting retained waffle-slab plates that form the floors and ceilings. By forming the new skin around the columns, a natural overhang is created from the existing floor plates that provides solar shading and weather protection for the rammed earth, as well as the pitched shingle roof motif, which continues to the top floor as a parapet wall. Engaging with the canopy layer outside, the Douglas Fir shingles and brise soleil detail softly filter light into the space, whilst openings in the roof create more direct lighting into the heart of the market hall. Removed floor plates are reused as a boundary wall on the right-hand side of the section. (Below, left) Vegetation blooms in the summer, providing a cooling shade for a family to enjoy a picnic. The facade opens out to the greenery, which can be seen growing up the retained 'green ladder', providing home to a bird's nest. (Below, right) A copper gutter directs water towards a shallow pool detail, feeding the vegetation and creating an architectural feature out of British weather. Even from within the building's shelter, this contributes to the sensory experience of feeling amongst nature by heightening the acoustic and visual stimuli of rain.



Brise soleil detail
Finished with Douglas Fir shingles to match the facade, but angled to provide solar shading for the first floor. 250mm x 250mm Douglas Fir shingles; 50mm x 50mm copper-plated steel square sections, mitred and welded to end plates at either end of span.

Ceiling plates
Existing reinforced concrete waffle slab supported by retained columns; 75mm mineral wool insulation, DPM; 65mm cement to match interior finish; 500mm earth fill for planters.

Pitched first floor walls
Fixed at both ends to existing concrete floor plates and encompassing existing columns (left exposed from interior). 250mm x 250mm Douglas Fir shingles, 25mm x 25mm timber counter-battens; 50mm x 50mm timber battens creating a vented cavity, DPM, 10mm OSB board; 75mm mineral wool insulation; 20mm wood fibre board. Housing integrated habitat niches and supporting copper gutter. Timber sills support openings to provide views to the canopy level outside. Continue beyond top floor to create parapet wall, capping-off the roof farm planters.

Ground floor walls
700mm rammed earth walls, packed around existing concrete columns. Oak timber window seats and sills support sliding windows, allowing the walls to be lived within and adapt to seasonality. Supported by concrete footing to provide flood protection, supporting fixing-out plate.

First floor plate
Existing reinforced concrete waffle-slab floor plates supported by retained columns. Oak timber battens underneath create a vented cavity for wiring and planting, supported by counter-battens spanning between existing columns and anchor bolted to concrete ring beam.

Floor and foundation
65mm polished cement with heated screed system; 150mm PIR solid insulation; DPM; Existing reinforced concrete foundation. New build-up provides insulation and matches exterior level to provide seamless exchange (protected by channel drain that feeds water back to soil).

Detailed Cross Section | NTS

sustainability and care as a social process

Where the existing structure is inherited infrastructure, the new rammed earth infill, Douglas Fir shingles, planting systems, food-growing spaces and biodiversity infrastructure are elements that are shaped, maintained and cared for over time by the community. All new additions that transform the car park into a liveable space can be made and repaired without particular skill or knowledge of construction, whilst the core reinforced concrete structure transfers the majority of structural and live loads into the earth. Where existing structure has been removed, its aggregate is reused within the rammed earth mix to improve its stability and minimise landfill waste. Instead of using cement in the mixture, which carries new embodied carbon, the walls are constructed only from a damp mixture of sand, gravel, clay and aggregate - all of which can be sourced locally and returned to the earth at the end of its lifespan. This makes it more susceptible to surface erosion from rain, mitigated through protection from the overhang, channel drainage, elevated foundations and stratifying the walls with layers of lime mortar that act as 'erosion checks' every 300mm. As well as technical resolutions however, the walls can easily be repaired and replaced by hand by residents. Douglas Fir is also widely accessible around Nottingham and easy to replace, supporting both local business and embedding connection and identity with the architecture through individual experience.

The pitched roof structure also provides home for wildlife, with integrated habitat niches allowing bats, birds and squirrels to nest within the structure. Rather than separating human occupation from ecological occupation, the proposal encourages co-existence, extending the 'green ladder' biodiversity network throughout the building fabric.