

# Kentish Town Neighbourhood Space: Design and Sustainability Report



January 2026

# Contents

## Purpose of this Report

This Design and Sustainability Report sets out the strategic approach for the deep retrofit of 2 Prince of Wales Road, a prominent but underutilised building in Kentish Town, to become the Kentish Town Neighbourhood Space.

It provides a comprehensive overview of the building's current condition, design proposals, and sustainability objectives, including whole-life carbon assessments and alignment with the UK Net Zero Carbon Buildings Standard. The report demonstrates how the retrofit will transform the building into a flexible, energy-efficient, and community-focused space, while preserving heritage and embedding local identity.

This report evidences the necessity of intervention, the feasibility of the proposed works, and the alignment with Camden's climate and We Make Camden strategic priorities. It highlights how the retrofit will maximise the building's potential, reduce carbon emissions, and create affordable workspace and civic facilities that respond to local needs. This report concludes the design process, in anticipation of the next stage of delivery, moving from design development to construction phase.

## Building Design

3	Site and Condition
8	Development Options Appraisal
10	Building Aims and Use
15	Interior and Exterior Design

## Sustainability

16	Retrofit Approach
18	Operational Carbon
20	Embodied Carbon and Material Reuse

# **Building Design**

## Site Location

2 Prince of Wales Road (2 PoW) is located in the heart of Kentish Town, occupying a prominent corner position within a block bounded by Grafton Yard to the West, Prince of Wales Road to the South, and Kentish Town Road to the East.

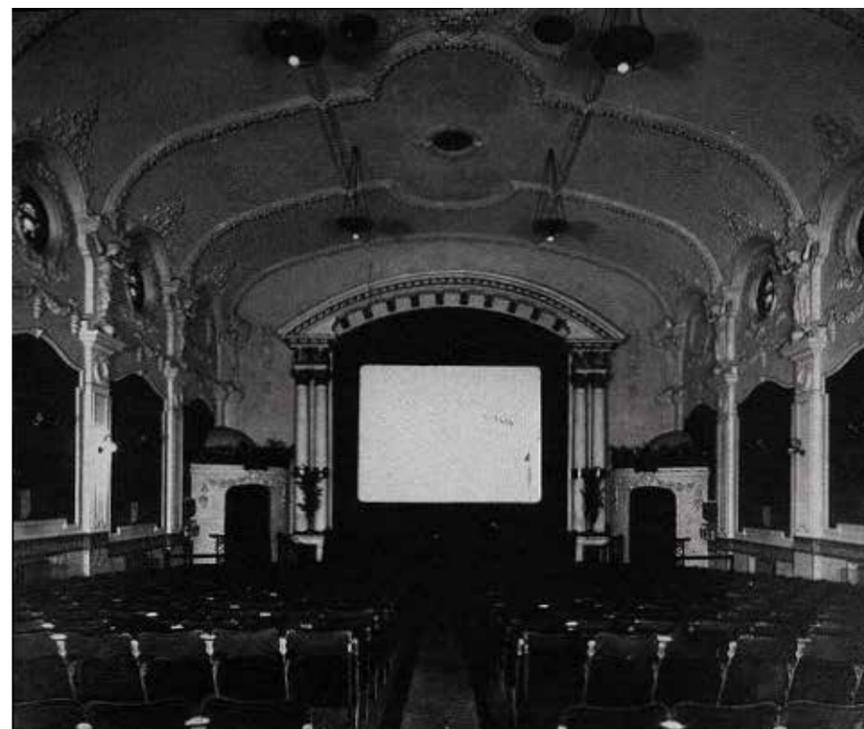


# Building History

The building was built originally as a cinema in 1913. Designed by John Stanley Beard, and initially was operated by Palatial Cinemas Ltd, and its first screening was 'The House of Temperley' by Arthur Conan Doyle.

The cinema building was taken over by the Gaumont British Cinemas in 1929 – renamed then 'The Gaumont'. The Gaumont closed its doors in 1959, with the building adapted into a retail unit, until a later 1989 planning permission for the building to become a community asset used as Camden Community Law Centre and Housing Aid Centre.

The original building was designed with its main entrance and cinema foyer located at no. 197 Kentish Town Road, this section of the building was demolished and rebuilt circa 1960's and is now under a separate demise.



TOP LEFT: View from Prince of Wales Road  
BOTTOM LEFT: View of original cinema main auditorium  
RIGHT: Original main elevation to Kentish Town Road (since demolished)

# Site Photographs - Building Exterior



*TOP LEFT AND RIGHT: View from Prince of Wales Road and its locally listed facade.  
BOTTOMLEFT: View from Prince of Wales Road into Grafton Yard elevation.  
BOTTOM RIGHT: View from Grafton Yard toward south and the secondary elevation relationship with adjacent housing.*

# Building Condition

There are a number of systemic issues with the building that have led to its vacancy and it is no longer a viable commercial or community asset because of long-term disrepair and lack of coherent repair/refurbishment. These issues include:

## Roof

The current roof is the original slate roof installed in 1913. A roof of this era and type have a life-span of approx 120 years. There is evidence of slate thinning, water ingress and damage to the roof. Although repair is possible, this would only extend the life-span by c.20 years, a complete overhaul is required to reduce future maintenance requirements.

## Fibrous Plaster Ceiling

The original cinema auditorium ceiling remains in situ within the building. The ceiling is made from fibrous plaster, a material prone to cracking and requires frequent inspection. The ceiling has significantly degraded due to poor maintenance, poor previous alterations to the building prior to Council ownership, invasive asbestos removal and damp/water ingress. The ceiling cannot be repaired and requires complete removal.

## Heating and insulation

The building's previous gas boiler system has been decommissioned due to reaching the end of its life-span and requires complete overhaul. In addition, the building lacks any insulation and fails to retain heat. Temporary electric heating has been installed to critical areas within the building, these will be reused in the final refurbishment.

## Water ingress/damp

There is evidence of water ingress through the eastern facade (facing onto enclosed neighbouring courtyard) likely due to be caused by lack of maintenance to guttering. Damp could also be caused due to lack of heating and insulation.

## Ventilation System

No ventilation system is currently in place and internal air-quality is low reliant on windows to Grafton Yard that only penetrate some parts of the ground floor.

## Natural Light

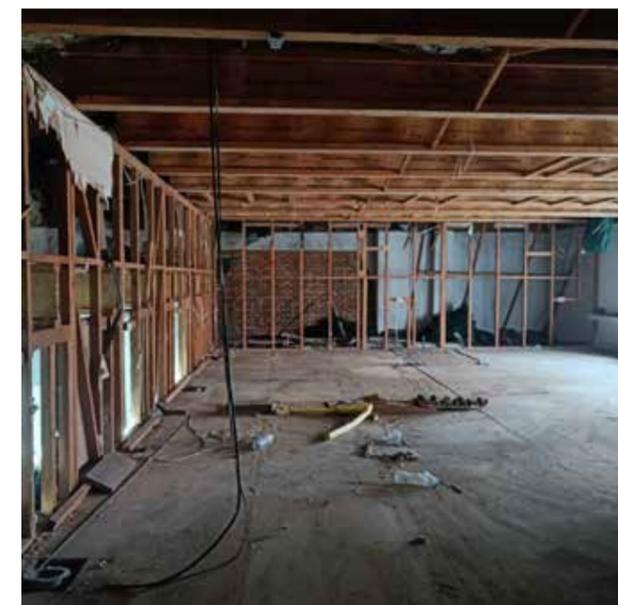
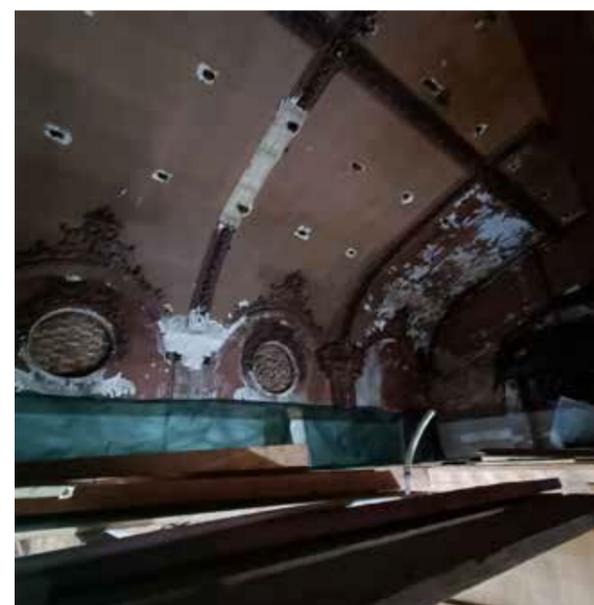
There is poor natural light throughout the building due to poor configuration of spaces and small opening sizes. In addition, under-utilised areas have no provision for natural light.

## Glazing systems

All glazing and windows are single glazed with low air-tightness, adjacent rooms can be very draughty. Some have been damaged due to attempts to break into the building

## Accessibility

The ground floor does not meet current building regulations and



LEFT: Narrow ground floor corridors connecting front to rear of building  
TOP MIDDLE: View of original auditorium ceiling, significant damage from previous alterations to the building  
TOP RIGHT: 1st Floor mezzanine has been partially demolished following invasive asbestos removal works  
BOTTOM MIDDLE: Ground floor cellular office  
BOTTOM RIGHT: Former reception area featuring disrepair

best practice in relation to accessibility. Narrow corridors make it difficult to pass and are particularly challenging for people in wheelchairs and with pushchairs. There are also steep ramps in the ground floor that suitable landing provision.

## Cosmetic damage

Since becoming vacant, the building has been squatted on two occasions that has led to cosmetic damage across the building. Meanwhile works have addressed issues to ground floor however other areas of the building require refurbishment.

## Partial demolition

The first floor has been partially demolished to enable asbestos removal works and to carry out essential works to secure the auditorium ceiling.

## Under-utilisation of building envelope

Since the Council purchased the building, less than 35% of the building's volume has been utilised (c. 600m<sup>2</sup>), with use restricted to the ground floor and part of the 1st floor. The site is being under-utilised and has the potential to accommodate 3 floors (c.1800m<sup>2</sup>) of usable space.

## Lack of Civic Presence

The building has a prominent position just off Kentish Town Road and is situated on key walking routes to transport infrastructure, sports and leisure facilities and green spaces. A building of this size, in a prime position, has the capacity to occupy a greater civic presence in Kentish Town and act as a focal point for commercial, cultural or community uses and catalyse positive change for the neighbourhood.

# Options Appraisal

As outlined in the main Cabinet report, a number of options were considered for the redevelopment of this site. These options sought to balance the need for improvement works and repairs to the building, alongside Neighbourhood Spaces programme aims and outcomes, including the ambition to create a financially self-sustaining community asset.

The four options are:

1. The full redevelopment of the building to create a Neighbourhood Space
2. Revert to a previous scope of works to partially redevelop the site and value engineer the design to within the existing project budget.
3. Abandon the creation of a Neighbourhood Space and continue with existing meanwhile arrangements and address critical repairs only.

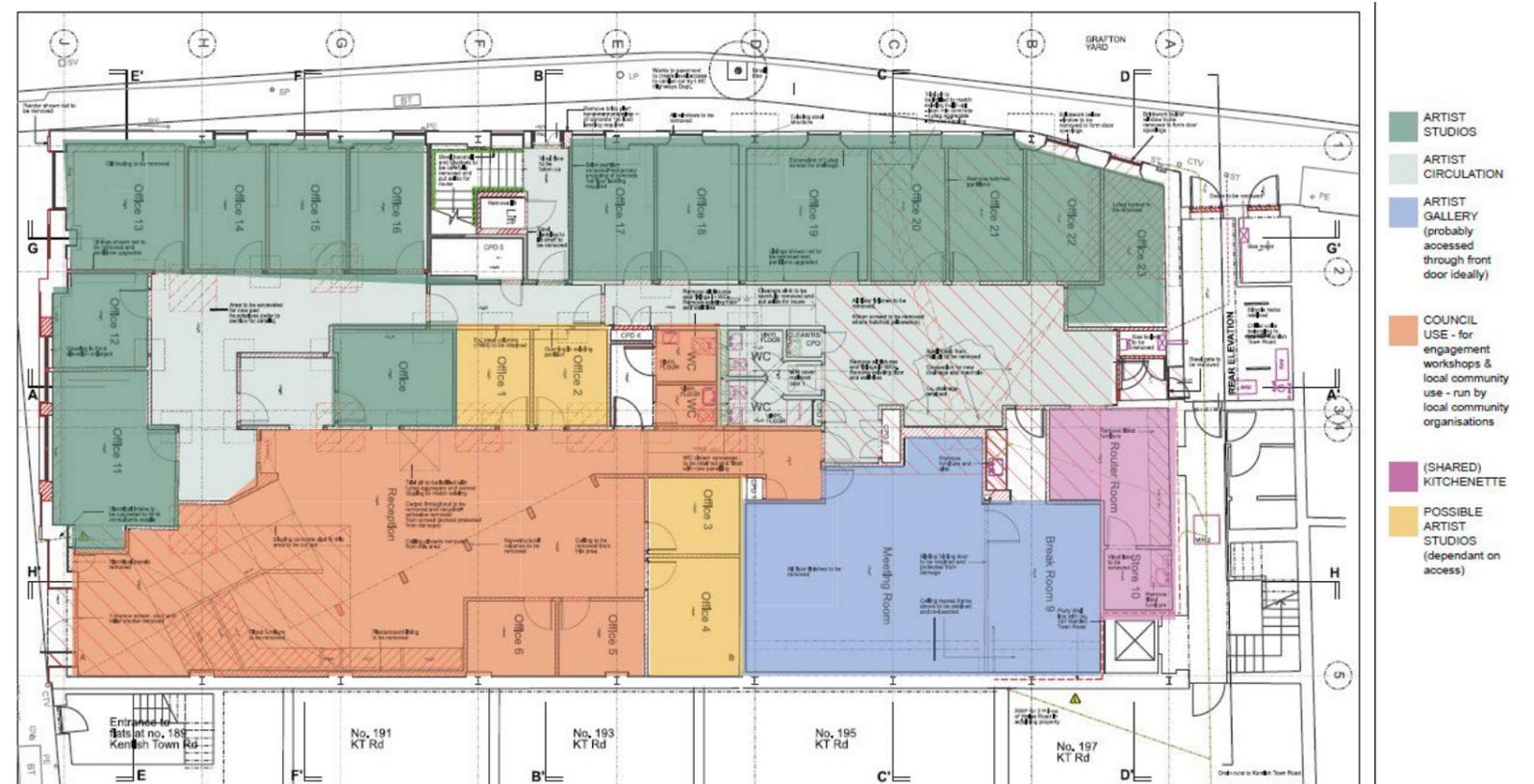
The table opposite outlines the key programme and spatial outcomes and the capital works delivered by each option.

	Option 1 (recommended)	Option 2	Option 3
	<b>Full redevelopment</b>	<b>Partial redevelopment</b>	<b>Continuation of existing meanwhile arrangement</b>
	<i>Building run by third party external operator</i>	<i>Building run by third party external operator</i>	<i>Hypha Studios as tenants prevents squatter risk through site occupation</i>
<b>Programme Outcomes</b>			
Affordable workspace for VCS organisations and small businesses	✓	✓	✗
Incubator spaces to support new businesses to grow	✓	✗	✗
Space to deliver missions focussed workshops, projects and initiatives	✓	✓	✗
Community stewardship or governance of the building	✓	✓	✗
Accessible design that creates a central hub in the neighbourhood	✓	✗	✗
Local identity embedded into the design through art commissions	✓	✗	✗
Self-sustaining business model with interest from potential operators	✓	✗	✗
Net zero design with low operational and embodied carbon	✓	✗	✗
Low running costs	✓	✓	✗
Fully addresses all repairs and improvements	✓	✗	✗
<b>Key Spatial Outcomes</b>			
Gross Internal Floor Area (Sq Ft)	13,130	9145	5360
Lettable Affordable Workspace (Sq ft)	5,800	3,315	1,500
Affordable workspace capacity (number of people)	130	80	18
Number of cellular workspaces	27	8	18
Number of bookable meeting rooms	3	2	0
Community Event Space (Sq ft)	700	400	0
Community Workshop and Missions Space (Sq ft)	1200	1200	0
Other community amenities (i.e. community launderette)	✓	✓	✗
<b>Capital Improvements</b>			
New low energy central heating system	✓	✓	✓
New low energy ventilation system	✓	✓	✗
Structural alterations to create three floors of space	✓	✗	✗
Replacement of roof	✓	✗	repairs only
Removal of fragile ceiling	✓	stabilisation only	stabilisation only
Wall insulation	✓	✗	✗
Roof insulation	✓	✗	✓
New windows and doors	✓	✓	✗
Solar panels	✓	✗	✗
Carbon sequestering timber structure	✓	✗	✗
Security upgrades	✓	✓	✓
Acoustic upgrades	✓	✓	✗
Accessibility upgrades	✓	compliant but not best practice	✗
Art commissions to create artwork for building exterior/interior	✓	✓	✗

# Meanwhile Use - Civic Action Lab

To allay high security costs as a result of the building being squatted on two occasions, the Council carried out light-touch refurbishment works to the ground floor of the building. The works were to enable the building to be used temporarily to remove need for on-site security.

The building is currently occupied by arts charity Hypha Studios, a Euston based charity, to activate the site with a meanwhile use. The building is offering free creative studio space, a gallery and a community space. The community space, the Civic Action Lab is being run by the Council as an engagement hub for the project and as a temporary community event space to test future uses of the building.



# Retrofit Aims

## MAXIMISE THE BUILDING

Making better use of the building by occupying the full volume of the existing building. This will deliver more affordable workspace and ensure the operational model is financially sustainable. The building layout will be flexible to respond to future changes to use and market demands.

## ENERGY EFFICIENT AND EASY TO USE

Replace defunct and inefficient systems with low-emission, easy to use systems, keeping operating and maintenance costs low. Wrap the building in breathable insulation to make a warm, healthy building, resilient to damp and reducing heat-loss.

## LOW EMBODIED CARBON

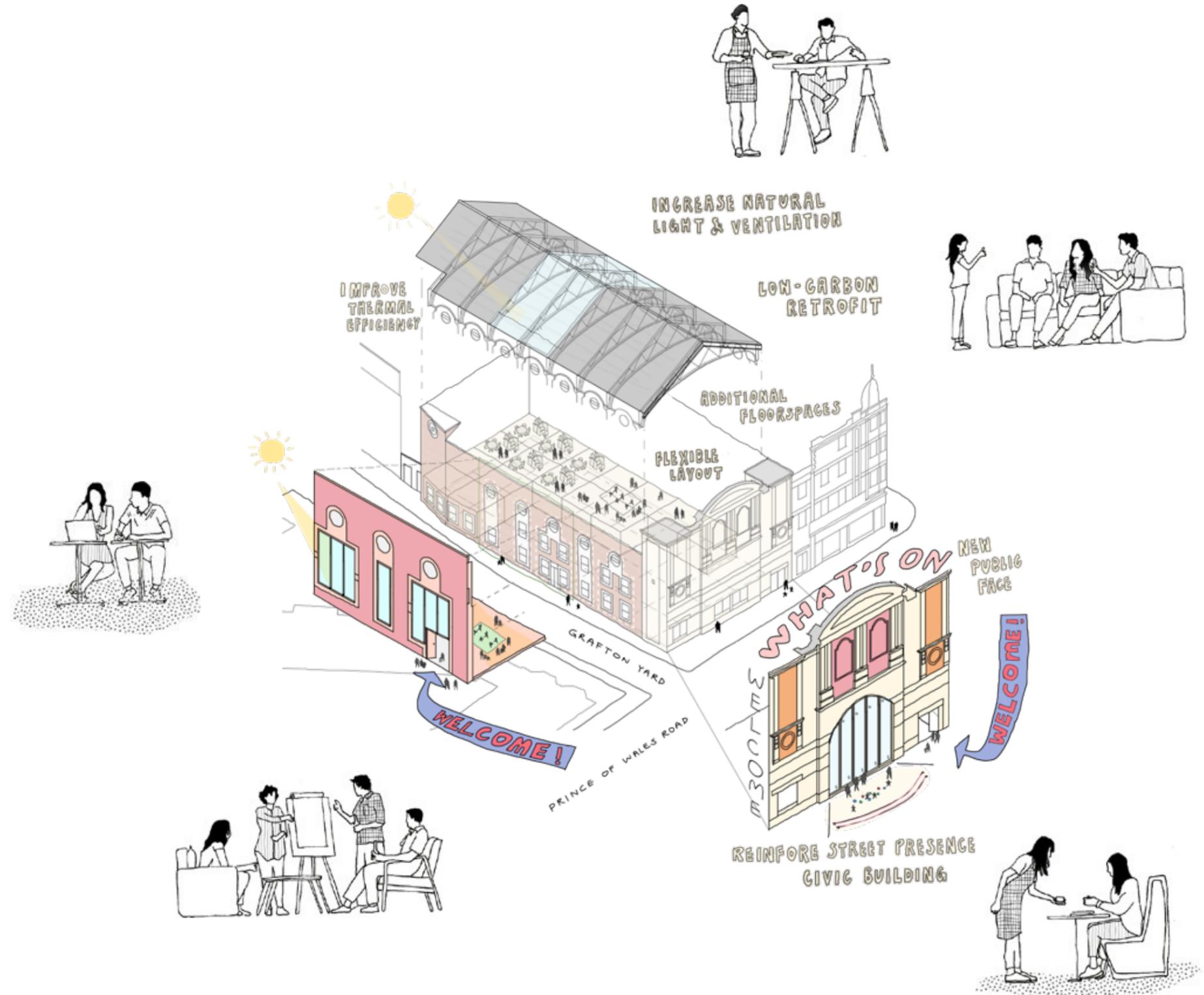
Embrace regenerative materials like cross-laminated timber structural components and wood-fibre insulation to demonstrate low-carbon design.

## RE-USE

Taking a cradle to cradle approach to building materials by retaining and reusing as much of the existing building as possible. Consider re-use or re-configuration of future building components.

## CIVIC PRIDE

Re-establish the building's identity by creating a prominent and accessible street frontage. Utilise local artists and makers to commission new artwork and furniture for the building, re-establishing civic pride and connection to Kentish Town



# Building Design - Use

## **A WELCOMING AND INVITING ENTRANCE**

Realigning the entrance to the centre of Prince of Wales creates a generous, welcoming and inviting entrance with opportunities for small art exhibitions, pop-up retail or cafe kiosk.

## **FLEXIBLE EVENT SPACES**

At the heart of the building there is a flexible event space with tiered seating reflecting the building's historic cinema use, able to host talks, public forums, film nights and small scale performances.

## **CIVIC ACTION LABS**

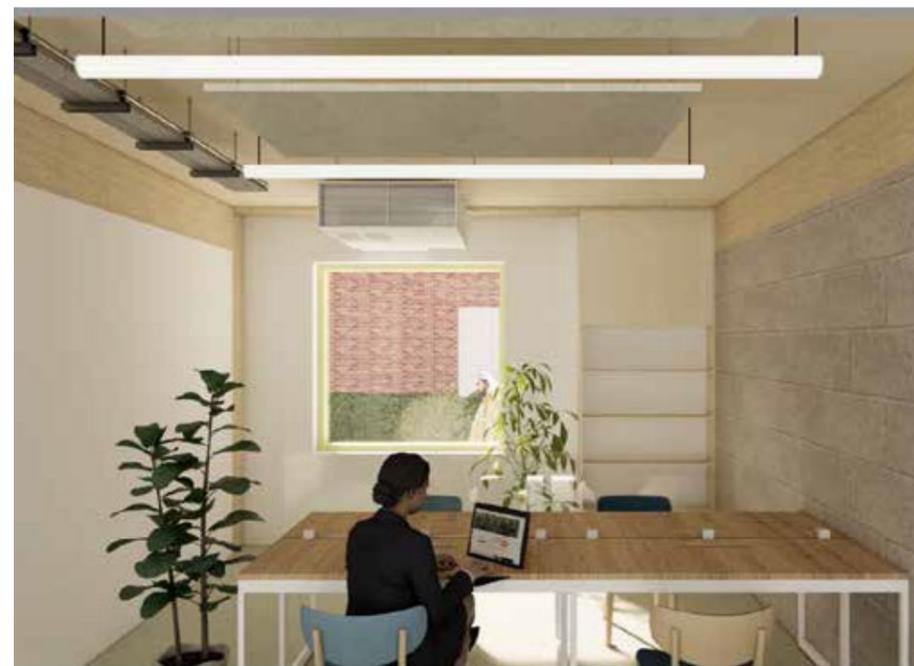
There are two spaces, dedicated for use as Civic Action Labs, one opens to the event space and can host open public workshops, sharing events or activities. The other is more private and designed to host private workshops and activities that require more sensitivity.

## **WORKSPACE TO INCUBATE AND ACCELERATE**

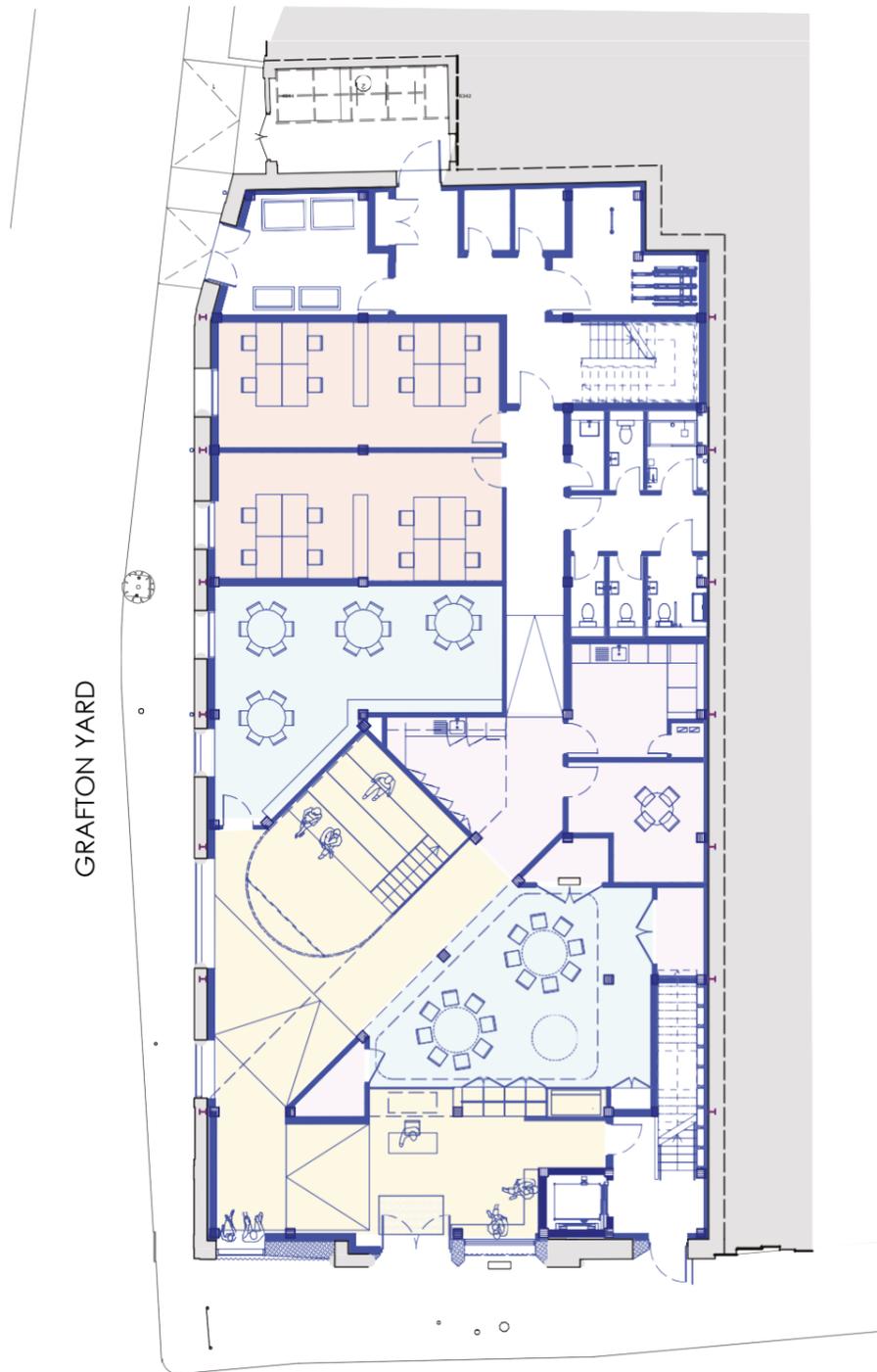
A range of workspaces from 1-2 person sized to upto 20 people, providing space for new and established businesses, social enterprises and VCS organisations to grow within the building.

## **INSPIRING COLLABORATIVE SPACE**

Maximising the volume of the building, the 2nd floor hosts open breakout spaces for impromptu conversations, group working and collaboration.



# Building Design - Use



Ground Floor

PRINCE OF WALES ROAD



First Floor



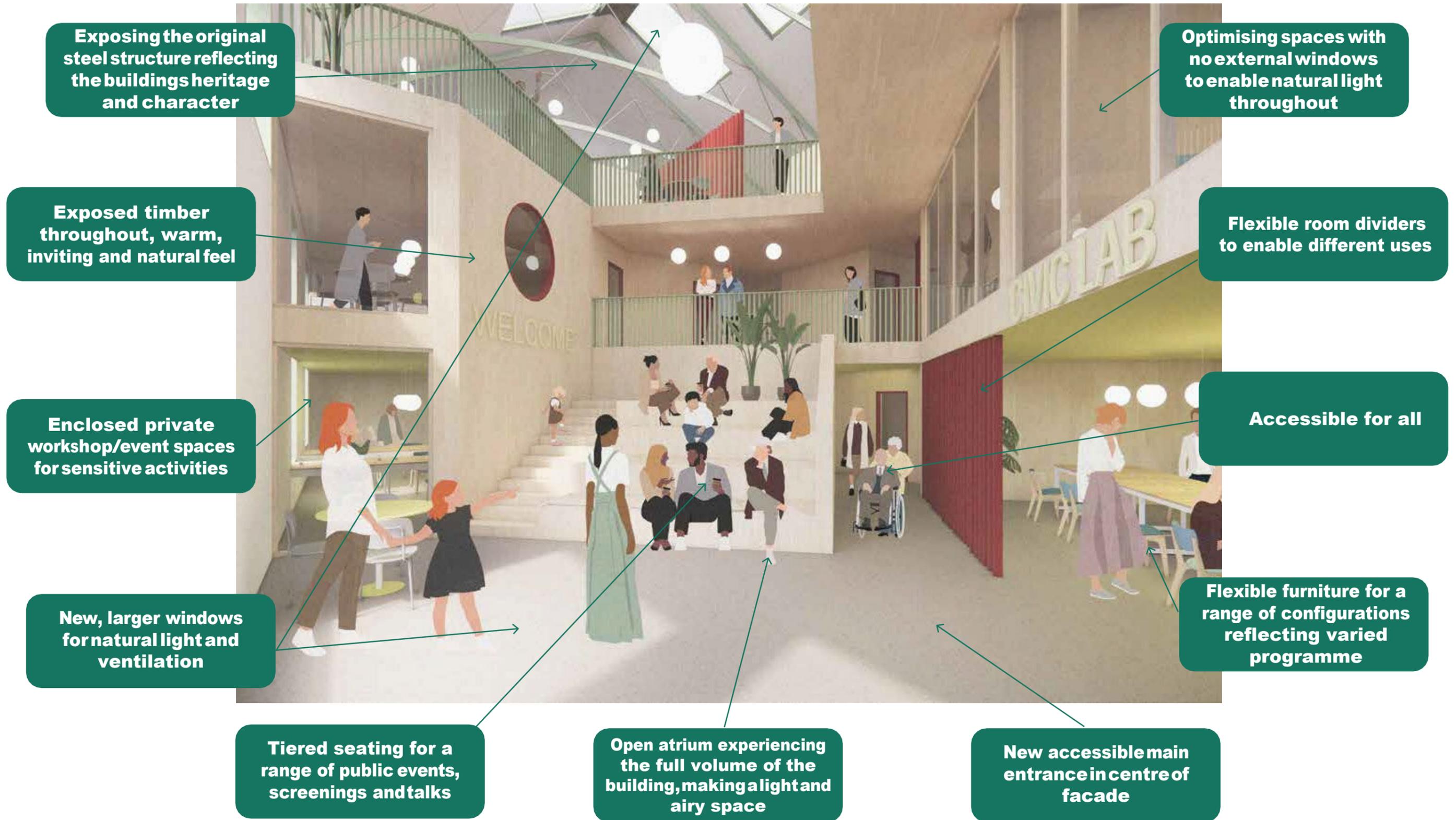
Second Floor

- |   |  |  |  |  |
|---|--|--|--|--|
| <p><b>Flexible Community Space</b></p> <ul style="list-style-type: none"> <li>• Talks/screenings/performances</li> <li>• Small craft or reuse markets</li> <li>• Exhibitions</li> <li>• Warm spaces</li> <li>• Community meetings</li> <li>• VCS roadshows</li> </ul> | <p><b>Civic Action Lab</b></p> <ul style="list-style-type: none"> <li>• Workshops</li> <li>• Short-term project space</li> <li>• Urban room</li> <li>• Artists in residence</li> <li>• Group wellbeing activities</li> </ul> | <p><b>Amenities</b></p> <ul style="list-style-type: none"> <li>• Meeting room</li> <li>• Community launderette</li> <li>• Community storage</li> <li>• Food co-op/babybank</li> <li>• Collaboration areas</li> </ul> | <p><b>Workspace</b></p> <ul style="list-style-type: none"> <li>• VCS organisations</li> <li>• Business start ups</li> <li>• Incubator space</li> <li>• Social enterprises</li> <li>• Meeting rooms</li> <li>• Creative studio space</li> </ul> | <p><b>Back of house</b></p> <ul style="list-style-type: none"> <li>• WCs</li> <li>• Bike storage</li> <li>• Kitchenettes</li> <li>• General storage</li> <li>• Plantequipment</li> </ul> |
|---|--|--|--|--|

# Building Design - Exterior



# Building Design - Interior



# **Sustainability**

# Sustainability Overview

## WHOLE LIFE CARBON APPROACH

A **Whole Life Carbon Assessment (WLCA)** in the context of building retrofit is a structured method for measuring the total carbon emissions associated with a building over its entire life cycle, not just the emissions from its operation, but also those produced in creating, refurbishing, maintaining, and ultimately disposing of the building and its components. For retrofit projects, WLCA helps determine whether upgrading an existing building delivers a lower carbon impact than demolishing and rebuilding, and it highlights where the biggest savings can be made.

In a retrofit, WLCA looks closely at **embodied carbon**, the emissions linked to materials, manufacturing, transport, and construction processes. Retrofitting often reuses significant portions of the building's existing structure, which can dramatically reduce embodied carbon compared to new-build projects. The assessment quantifies the carbon associated with new materials required for the upgrade (such as insulation, windows, heating systems) and helps project teams choose lower-carbon alternatives or design solutions that minimise waste and resource use.

WLCA also includes the building's **operational carbon**, meaning the emissions produced during its use through heating, cooling, lighting, ventilation, and occupant activities. Retrofit projects typically aim to improve energy efficiency and integrate low-carbon technologies, so the assessment estimates long-term operational carbon savings and the point at which the carbon invested in the retrofit is "paid back".

Finally, WLCA considers **end-of-life** impacts and potential benefits from reusing materials in future cycles. This whole-system view supports more informed decision-making, helping clients, designers and local authorities compare retrofit options, justify investment, and demonstrate carbon savings in line with climate-neutrality goals.

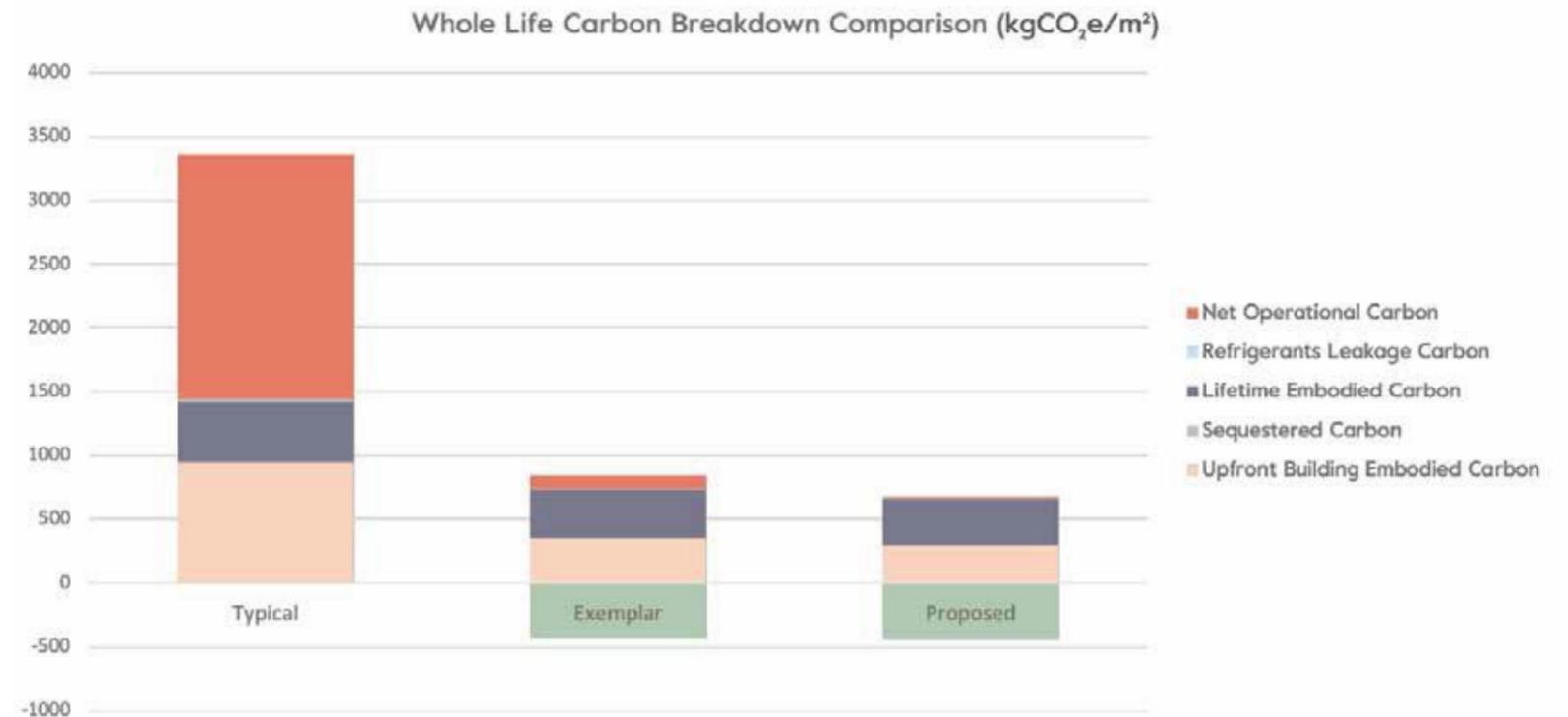
At 2 Prince of Wales Road, this has enabled the design team to make more informed design decisions, that balance carbon, cost and design, to target the holistically most sustainable options.

## NET ZERO CARBON BUILDING STANDARD

The UK Net Zero Carbon Buildings Standard (UKNZCBS), launched in September 2024, is an industry-led framework that provides a single, science-based definition of what constitutes a net-zero-aligned building in the UK. It sets clear limits on upfront carbon, operational energy use and fossil-fuel-free heating, and requires reporting based on actual in-use performance rather than predictions. By replacing previously fragmented methodologies with a unified, evidence-based approach, the Standard ensures that buildings claiming compliance genuinely align with the UK's carbon budgets and a 1.5°C pathway. It also establishes consistent targets, verification processes and minimum renewable energy expectations to guide designers, clients and operators across both new builds and retrofit projects.

At 2 Prince of Wales Road, the Council is aiming to deliver its first UKNZCBS aligned building, using the Standard as the basis for key design decisions. The UKNZCBS sets specific targets for retrofit projects. Sustainability consultants, Webb Yates, have calculated how the proposed scheme meets and exceeds these targets, confidently achieving the UKNZCBS:

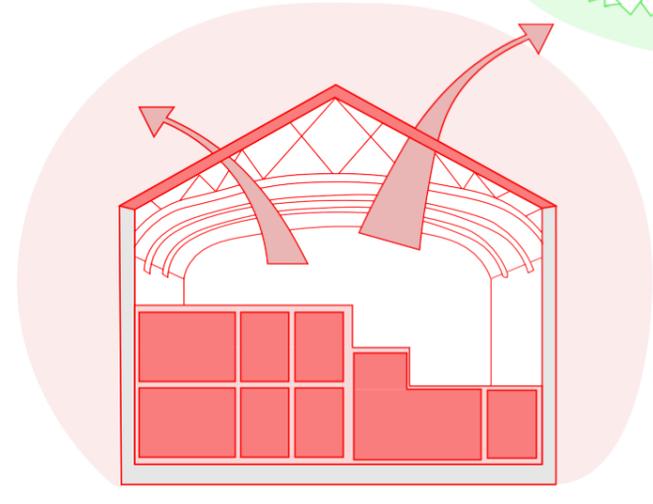
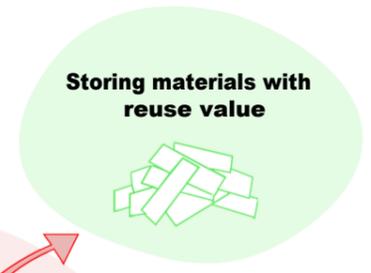
	Baseline	UKNZCBS	Proposed Scheme
<b>Operational Energy</b>	Current usage 130 kWh/m <sup>2</sup> /yr	97 kWh/m <sup>2</sup> /yr	70.3 kWh/m <sup>2</sup> /yr
<b>Upfront Embodied Carbon</b>	New build 1000 kgCO <sub>2</sub> e/m <sup>2</sup>	475 kgCO <sub>2</sub> e/m <sup>2</sup>	282 kgCO <sub>2</sub> e/m <sup>2</sup>
<b>Solar Panel Provision</b>	None	45kWh/m <sup>2</sup> /yr	52.7 kWh/m <sup>2</sup> /yr
<b>Whole Life Carbon</b>	New Build 1400 kgCO <sub>2</sub> e/m <sup>2</sup>	none given	450kgCO <sub>2</sub> e/m <sup>2</sup>



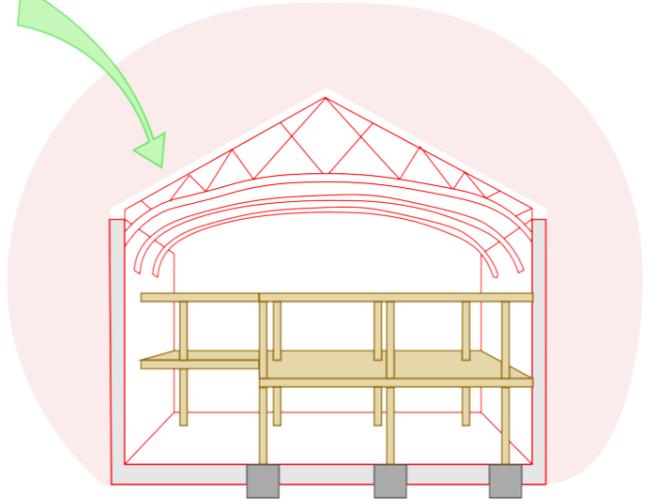
The table above shows that the proposed retrofit of 2 Prince of Wales will significantly reduce operational and embodied carbon compared to traditional retrofit approaches. It also highlights the amount of carbon sequestered through use of timber within the structural design, will significantly reduce net carbon emissions.

# Retrofit Approach

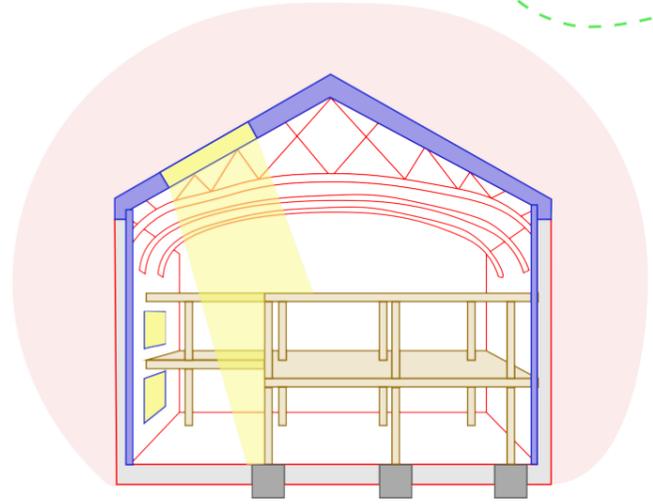
The diagram below outlines the key steps required to retrofit the building.



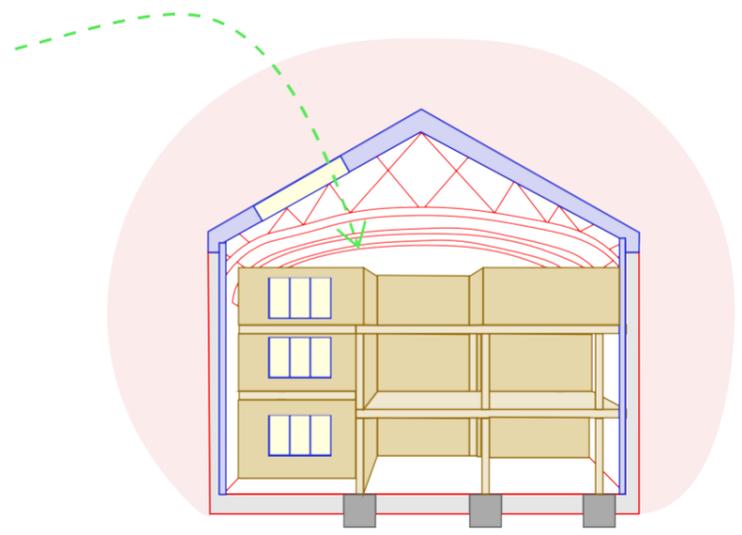
**1. Remove existing fit out and roof**



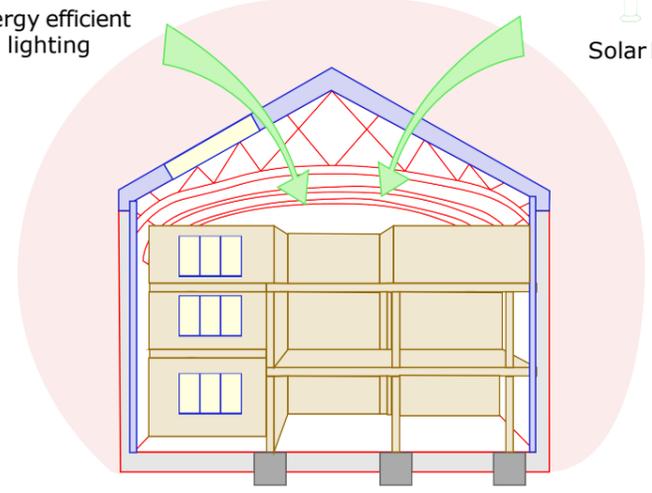
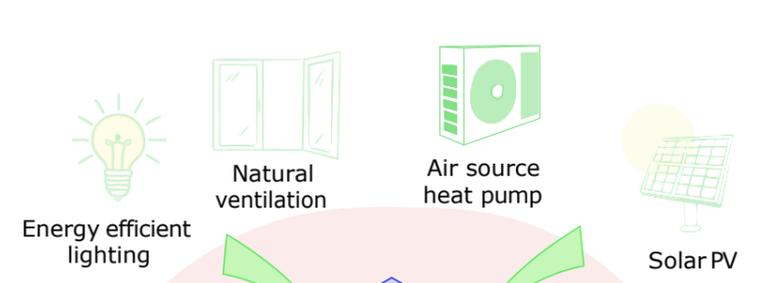
**2. Install new timber structure, floors and foundations**



**3. Install new roof, wall insulation, windows and roof lights**



**4. Build flexible internal layout**

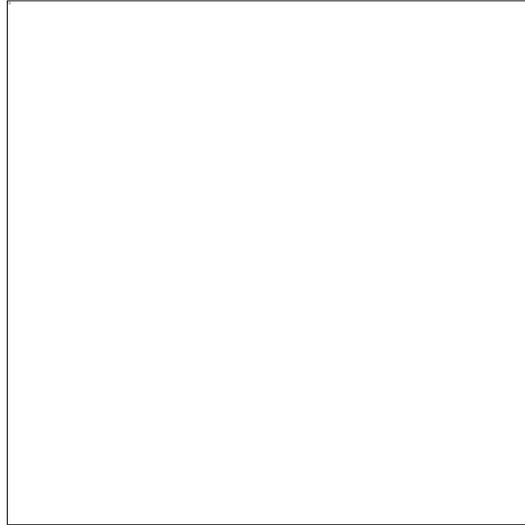


**5. Install new services to the building**



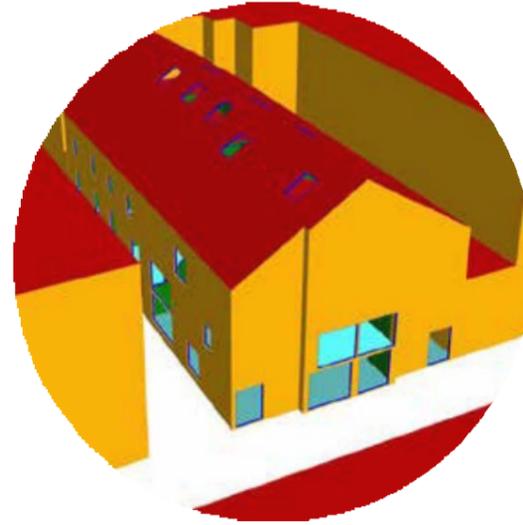
**6. Ready to handover to an operator**

# Operational Carbon - Strategy



## **1. IMPROVE THE BUILDING FABRIC**

The existing building is draughty and suffers from high heat loss. The first step is insulate and make air-tight through the installation of new internal wall and roof insulation, new windows and doors and other draught-proofing measures.



## **2. BALANCING WHOLE-LIFE CARBON**

Throughout the design development whole-life carbon assessments and energy modelling help to inform key design decisions to ensure carbon emissions are holistically measured and the building is fit for a changing climate.



## **3. INSTALL LOW ENERGY, EASY TO USE SYSTEMS**

Energy-efficient systems, including heating, ventilation, solar panels and lighting are installed as standard. They are easy to use, maintain and repair, helping the operator maximise efficiency, cut operating costs and keep emissions low.

# Operational Carbon - Energy and Sustainability

It is the intention and ambition that the Neighbourhood Space should be a leading example for good practice in sustainable regeneration and adaptive reuse within the London Borough of Camden.

Throughout the design, wherever possible, environmentally sustainable design, technology and systems will be used to maximise the potential of the building, creating a better insulated and more energy efficient building. This will help to reduce future running costs (i.e. with lower heating costs) whilst also generating power for the building (through solar panels), helping to reduce the buildings impact on climate change and its local effects (i.e. from improved air quality).

## HEATING

A fabric first approach has been applied across the design to reduce the building's heating demand. The refurbishment works provide the opportunity to upgrade the:

- External walls
- Floor
- Roof
- Windows and doors

The fabric elements will be designed to achieve the U-Value targets stated in the LETI Climate Emergency Retrofit Guide for Constrained Buildings.

The energy required for heating will be further reduced through the installation of an energy efficient heating system. The system for this building combines a mixed heat approach, utilising air source heat pumps, electric panel heaters and mechanical ventilation heat recovery units. The heating system will operate at a low temperature to reduce energy requirements. Pipework lengths will be minimised to reduce unwanted heat losses.

## COOLING AND VENTILATION

In the face of a warming climate, provision for efficient low-energy cooling of buildings is a key priority for the retrofit of this building.

Natural ventilation will be maximised where possible through the use of manual openable windows, actuated roof windows and vent panels. To serve areas without access to natural ventilation, a mix of Natural Ventilation Heat Recovery Units (NVHR) and Mechanical Ventilation Heat Recovery Units (MVHR) to ensure the whole building receives fresh, cool air.

Cooling requirements will be reduced by following the cooling hierarchy in the London Plan.

- Reduce the amount of heat entering the building: The external walls and roof will be upgraded. The new windows and glazed doors will have low G-values to reduce solar gains during the summer.
- Minimise internal heat generation through energy efficient design: Heating and hot water pipework runs will be minimised. Pipework will be fitted with enhanced insulation where required to minimise heat losses.
- Manage heat within the building through exposed internal thermal mass and high ceilings.
- Provide passive ventilation: A combination of openable windows, roof windows, roof ventilation units, and NVHR units will be used to provide ventilation.
- Provide mechanical ventilation: The NVHR units will be used in fan boost mode to provide additional fresh air to the building.
- Provide active cooling: Air conditioning systems will only be installed where required in spaces with high internal heat gains such as server/comms cupboards.

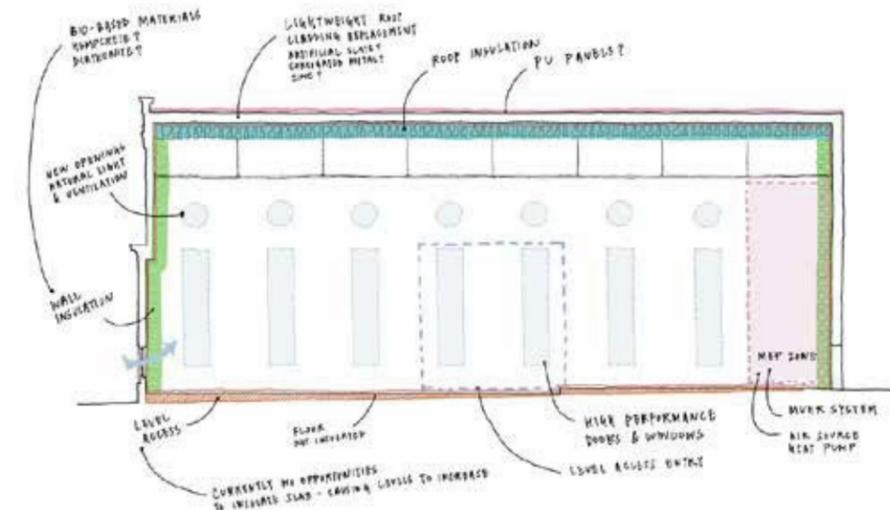
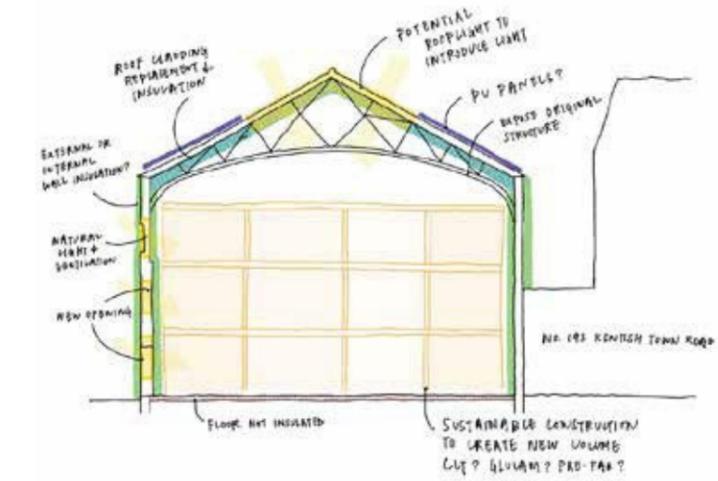
## LIGHTING

Natural lighting will be maximised via additional, larger windows and new roof windows. All new electric lighting will be energy efficient LED lighting. The lighting will have daylight dimming and presence detection controls to reduce energy usage.

## ELECTRICITY USAGE

Solar panels will be installed on each side of the pitched roof to maximise the output of the system. Based on an indicative analysis, there is space to install 72 420W peak photovoltaic panels on the roof.

Calculations carried out in accordance with BS EN 15316-4-3 indicate the system will generate 17,840 kWh per year. The system will offset 2460kg CO2 per year.



# Embodied Carbon - Strategy



## **1. UNDERSTANDING THE EXISTING FABRIC**

Auditing all materials within the existing building helps to analyse and identify materials suitable for retention in-situ or re-use elsewhere.



## **2. RETAIN, RE-USE AND RECYCLE**

Prioritising diverting all de-construction waste from landfill by re-using as much of the existing building as possible.



## **3. NATURAL AND REGENERATIVE MATERIALS**

Where new materials are required, natural and regenerative materials are prioritised to reduce embodied carbon.

# Embodied Carbon - Understanding the Existing Fabric

**To gain a deeper understanding of the building's existing fabric and materials, the Council commissioned Material Index to conduct a Pre-Deconstruction Audit.**

This audit provides a detailed record of all buildings, structures, and solid surfaces within the demolition and refurbishment zone. It maps out material pathways aligned with the waste hierarchy, sustainability targets, design ambitions, and project timeline.

Every material and component in the building has been catalogued and ranked for retention, reuse, recycling, or disposal. Reuse options include direct integration on-site or redistribution to other nearby projects via Material Index's platform.

The audit revealed approximately 600 tonnes of material, with an estimated embodied carbon value of 240 tonnes CO<sub>2</sub>e. Each material has been assigned a pathway in line with the waste hierarchy.

## Current project targets (by weight):

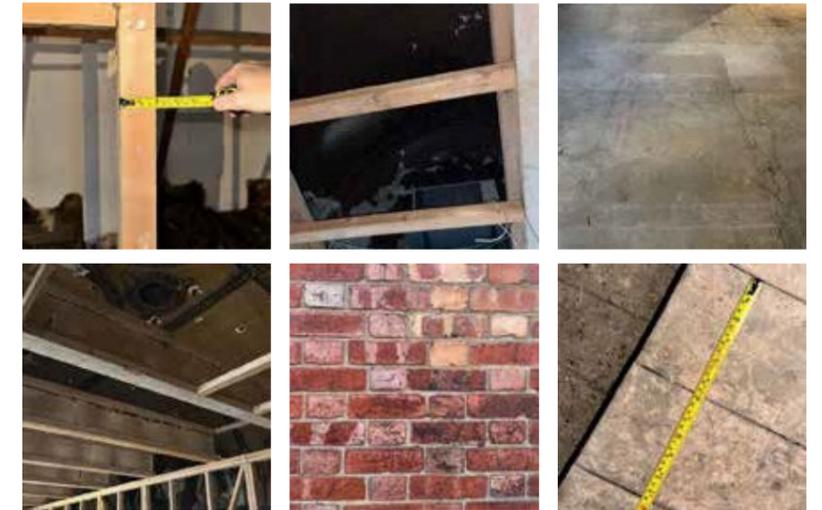
83%	499 tonnes	to be retained
3%	17 tonnes	to be recycled on site
5%	29 tonnes	designated for on-site reuse
<1%	10 tonnes	designated for off-site reuse
8%	44 tonnes	to be recycled offsite
95-98%		diversion from landfill through reuse or recycling

There are opportunities to creatively recycle and reuse materials on-site. A key embodied carbon saving would lie in the potential off and on-site reuse of slate tiles, bricks and timber. There is also opportunity for reuse of joinery, ironmongery and sanitaryware. Key items entering the recycling/waste stream are plasterboard, metal, and timber that cannot be reused.



## ON-SITE REUSE

- Timber studs from internal walls
- Timber cross-bracings
- Ceiling timber beams
- Timber I-Joists
- Metal channels
- Clay bricks
- Timber floorboards
- Plywood subfloor sheets



## OFF-SITE REUSE

- Sanitary installations, WC pans, basins, urinals
- Internal/external solid doors
- Kitchen units
- White goods



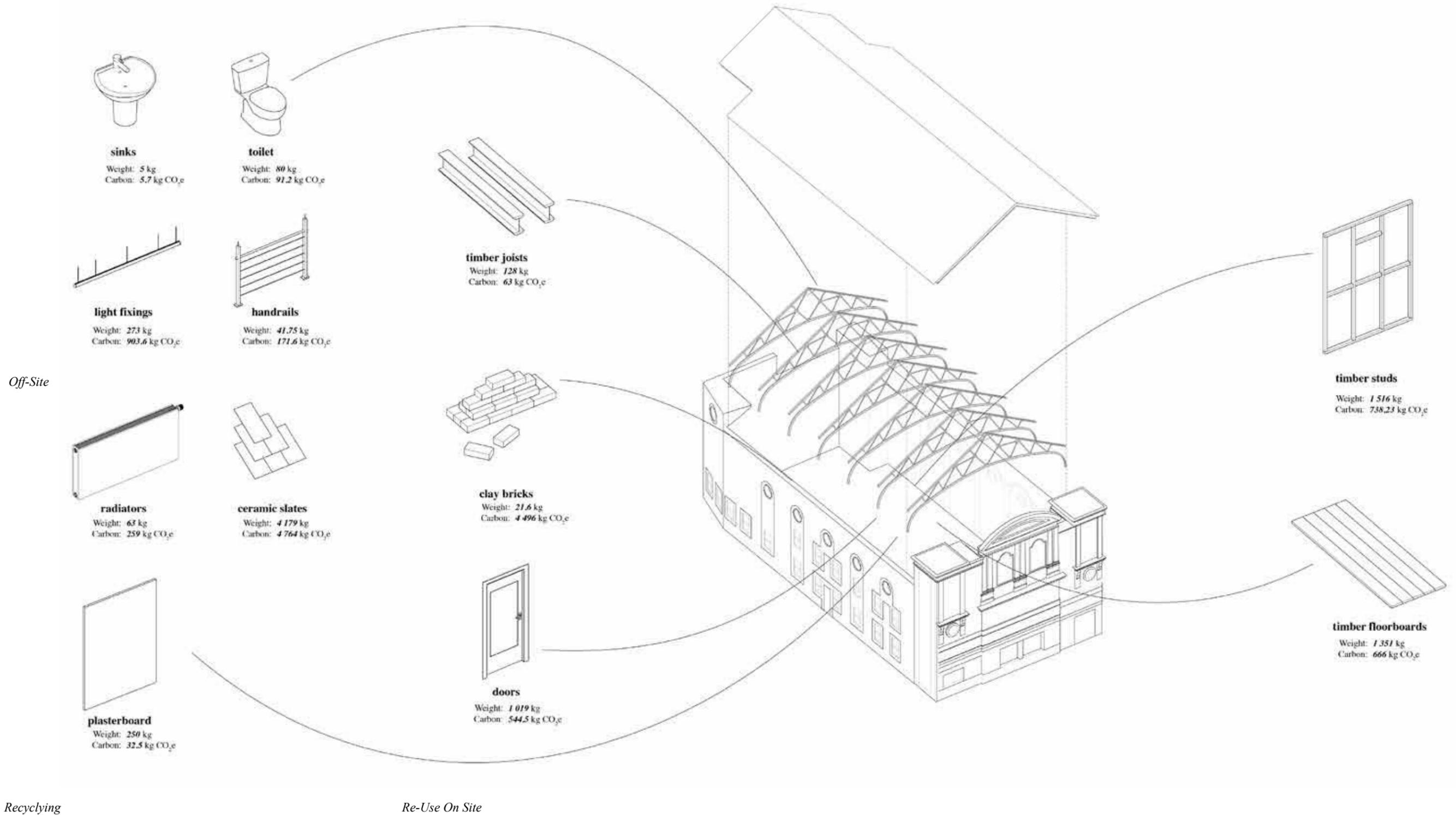
## OFF-SITE RECYCLING/WASTE

- Plasterboard
- Linoleum
- Concrete structure
- Defunct heating and water systems



# Embodied Carbon - Retain, Re-use and Recycle

The diagram below shows the different ways the design team have incorporated reuse into the proposed retrofit of 2 Prince of Wales Rad.



Recycling

Re-Use On Site

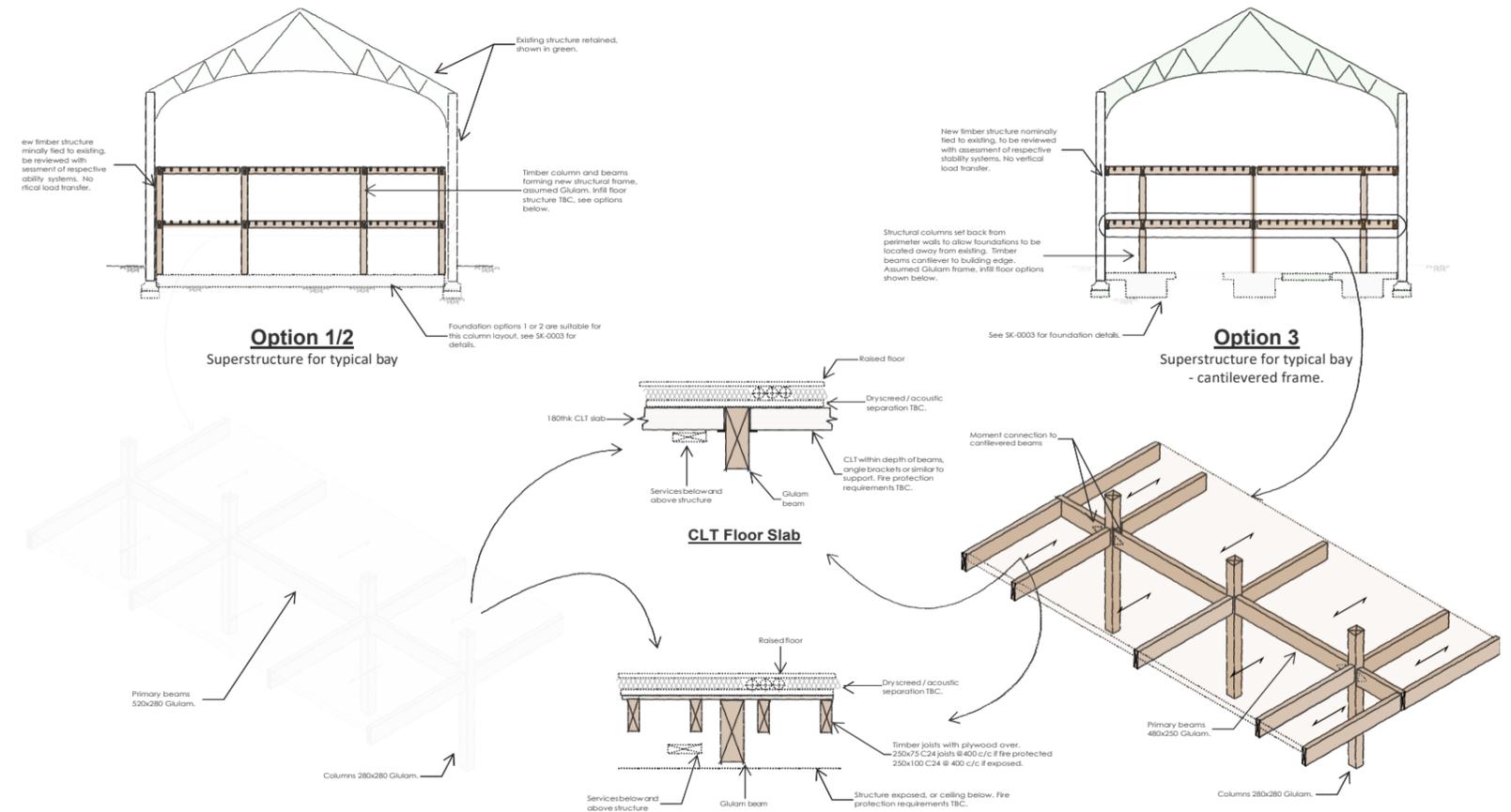
# Embodied Carbon - Timber Structural Design

A new lightweight timber structure is to be built within the envelope of the existing building with existing perimeter masonry walls, steel columns and steel roof trusses retained. The new internal timber frame is intended to be independently stable and self-supporting. Exposed glulam beams and columns will support CLT floor plates, exposed on their soffit, minimising the need for additional finishes. In back-of-house spaces, timber joisted floors may be used where ceilings are required and to aid mitigation of moisture risks whilst minimising embodied carbon of the structure.

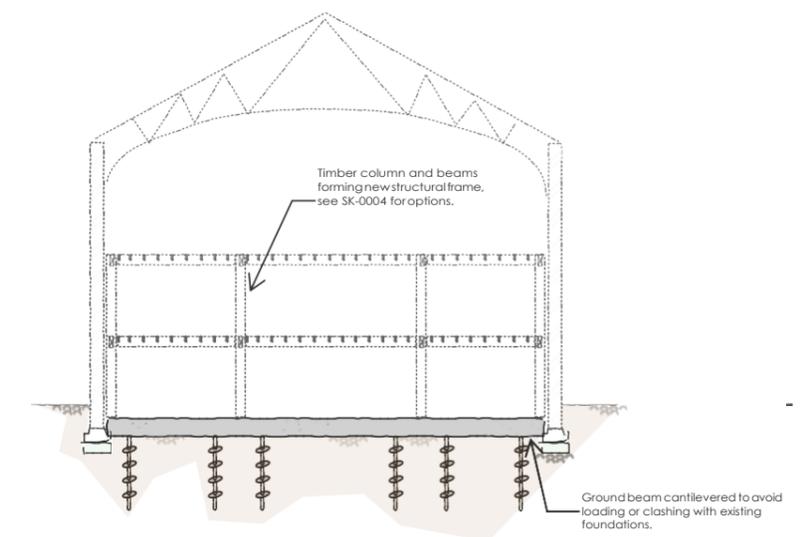
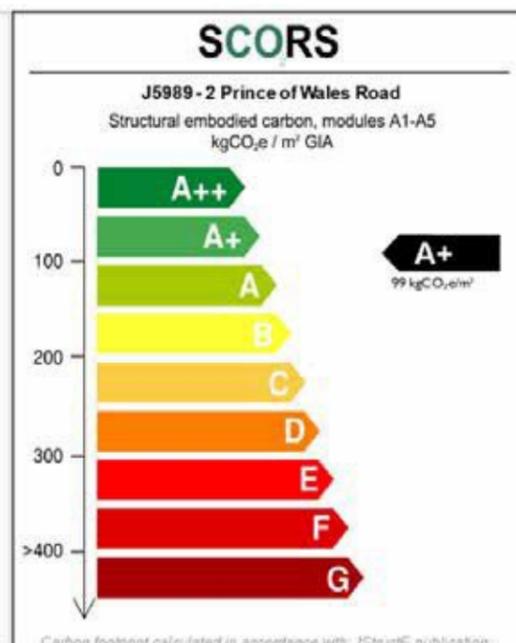
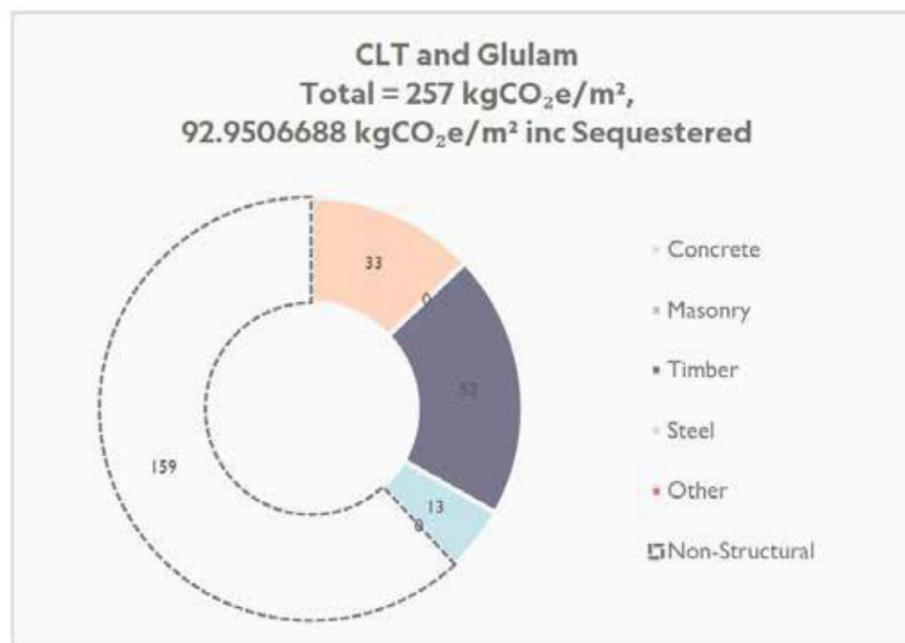
The structural scheme has been developed to align with the project's sustainability aspirations. Existing structure is retained where feasible, and timber is chosen as the primary structural material for its low carbon and regenerative properties. The lightweight nature of timber also allows new foundations to be minimised. The small spans for floor plates and beams and regular column grid will allow for efficient structural sizes to be chosen and will minimise overall material usage.

The carbon sequestering properties significantly reduce the carbon emissions of the building and support the use of regenerative materials. The timber design has also been rationalised as much as possible to enable the structure to be demounted if required and/or to enable the building to adapt to potential alternative future uses.

Concrete and steel use has been minimized and predominantly used to form new external openings within the facade, where timber would not be suitable.



Superstructure and Floor Slab Strategy Sketch



Ground Beam and Foundation Strategy Sketch

# Embodied Carbon - Natural and Regenerative Materials

Regenerative building materials are products that actively restore, renew, or enhance the natural systems they come from rather than simply minimizing harm.

Unlike conventional “sustainable” materials, which aim to reduce negative impacts, regenerative materials go further by contributing positively to ecosystems. Examples include bio-based materials like hempcrete, mycelium composites, straw bale, cork, and timber from well-managed forests. These materials rely on renewable biological cycles, often requiring low energy to produce and sequestering carbon as they grow. In many cases, they are biodegradable or fully reusable at the end of their life, supporting a circular rather than linear construction economy.

They outperform traditional alternatives, such as concrete, steel, and plastics, because they address environmental challenges at the source. Regenerative materials reduce carbon emissions by storing atmospheric carbon, improve biodiversity through responsible cultivation, and typically involve cleaner, less toxic manufacturing processes. They also support healthier indoor environments by avoiding petrochemicals and minimizing pollutants. In essence, while conventional materials often deplete resources and contribute to climate change, regenerative materials help replenish ecosystems, making them a key part of a truly future-proof built environment.

## HEMP ACOUSTIC INSULATION



Hemp is grown in farms across the UK. Hemp is traditionally grown as a “break crop” to allow fields to regain nutrients after intensive fibre. The whole stalk is used, minimising waste.



Raw hemp stalks are processed, without chemicals, to extract the fibre. The fibres are combined with other natural materials to form the insulation.



The hemp insulation panels are installed into the building to provide acoustic separation. They are breathable, keep places warm and sequester carbon through their manufacture.

## CROSS LAMINATED TIMBER



Softwoods like spruce and fir, increasingly grown in the UK, are harvested and kiln dried for manufacture.



Boards are laid perpendicular to the layer below. They are glued and pressed together using a strong adhesive. The panel is planed and cut to sized before being transported to site.



Panels are installed to the glulam frame joined using timber or metal connections. At the end of the building’s life, the structure, deconstruction and re-assembly is the most sustainable method of reducing carbon.

## **Credits**

### **Project Team**

Project Manager	IKON
Architect	IF_DO Architecture and Design
Quantity Surveyor	Alban LLP
Structural and Civil Engineer	Webb Yates
MEP Engineer	David Miles and Partners
Sustainability Consultant	Webb Yates
Acoustic Consultant	Spectrum Acoustic Consultant
Fire Engineer	Cahill Design Consultant
CDM Advisor	PIB Risk Management
Transport Consultant	WSP
Circular Economy Consultant	Material Index

**This report was prepared by Camden Council with input from the project team.**