

ELIZABETH CARNEY PORTFOLIO

MSc ARCHITECTURE APPLICATION



URBAN OASIS

BUILDING TYPE: Mixed Use

BUILDING LOCATION:
Ballycastle, Causeway Coast
and Glens Borough Council,
Northern Ireland.

**ROLE WITHIN THE PROCESS
AND EXACT CONTRIBUTION
TO THE PROJECT:**

With an ambitious goal to combine permanent and fleeting architecture to highlight climate change and sustainability, the building will strengthen Ballycastle as a travel destination. The proposal has been designed with leading integrated technological systems in response to 2050 climate change goals.



**Finished Proposal 3D
Render**

Author: Elizabeth Carney

*Developed in Sketchup then
rendered in V-Ray and
adapted in Photoshop.*

PROJECT LEVEL: 3rd Academic Year/ 2nd Semester / Final Project

DATE PROJECT WAS CARRIED OUT: May 2023

2023 / Academic Project

CREATING IRREPLACEABLE SPACES

MINIMIZING MATERIAL USE AND MAXIMISING SPACE

Objective behind the Proposal:

On the north coast of Northern Ireland, a small town is located amid a dramatic landscape near the Causeway Coast. Surrounded by various breathtaking and jagged landscapes. The proposed building aims to mimic the story of the environment by utilising local materials throughout.

The façade follows the streetscape offering vaguely familiar scale, form and materials respecting the characteristics of buildings in the area. The proposal has a parabolic ramp, effectively creating circulation space that is coherent with Ballycastle's demographic. The main parabolic feature dictates the form of the building.

The proposal has two separate roofs, one at level 6.4m and another at 8m. Both roofs are covered with natural, unworked stones from the area and grass to mimic the surrounding cliffs. The roof becomes viewpoints that visitors and locals are invited to walk on. From here, you can overlook the ocean, cliffs and surrounding hills. The view creates a direct visual connection between the surroundings and the proposal.

The proposal has long spans, minimising material use, resulting in an economical and sustainable design. The building has a low surface area compared to floor area and volume, which is favourable for both material and energy consumption.

The proposal will curate a meeting space for locals and visitors. The building will house a café, meeting rooms, a central meeting hall, a library and viewpoints to highlight the landscape. The external envelope consisting of permanent materials such as basalt conveys an enduring message, in contrast to the timber and cork elements of the internal walls which portray fleeting elements.

With an ambitious goal to combine permanent and fleeting architecture to highlight climate change and sustainability, the building will strengthen Ballycastle as a travel destination. The proposal has been designed with leading integrated technological systems in response to 2050 climate change goals

Finished Proposal 3D Render

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ACCOMMODATION SCHEDULE

Central Meeting Hall	341.5 sqm
Hospitality	12 sqm
Café / Foyer	161.9 sqm
Kitchen	37 sqm
Display / Counter	4 sqm
Enclosed Civic Space	537.5 sqm
Art Studios	49.7 sqm
Meeting Rooms	26.6 sqm 63.9 sqm 66.3 sqm 61.8 sqm
Library	78 sqm
Micro Studios	12.8 sqm 3.7 sqm 7.6 sqm 8.9 sqm 15 sqm
Electrical plant room / Heat pump Water Storage	16.7 sqm
Sub Total	1504.9 sqm
Circulation	105.1 sqm
Total	1610 sqm

USING NORTHERN IRISH LANDSCAPE TO SHAPE TOWN CENTRES TO CREATE A DIRECT VISUAL CONNECTION

The building mimics, the journey along the coastline using the same shapes and materials within the town centre to create an accessible experience of the Northern Irish landscape for all.

The proposal was inspired by the surrounding rugged yet elegant landscape. This shape inspired the structure of the ramp.

Following the town's streetscape and elevating the building above the standard height of the streetscape, you can access views of the beach, cliff edges and surrounding town.



MEETING HALL

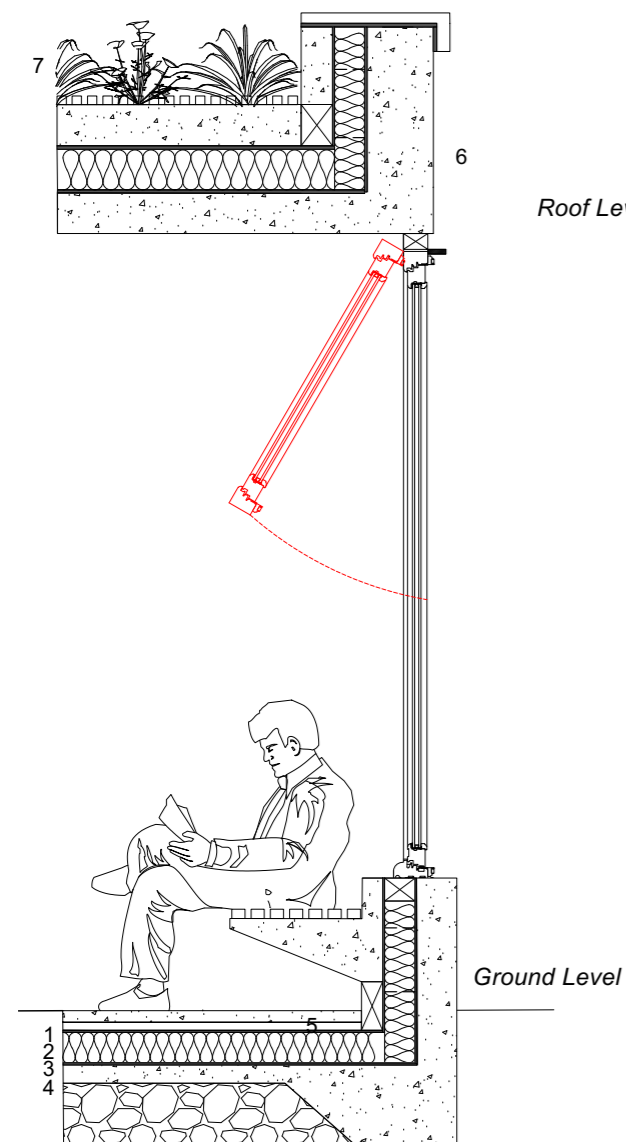


MATERIALITY WITHIN SPACES USING LIGHT

Scale 1:30

Proposed Library Seat

1. 50mm Screed
2. 50mm Underfloor Heating
3. 150mm Insulation
4. Damp Proof Membrane
5. Thermal bloc to reduce cold bridging
6. Cavity Topper
7. SUDS



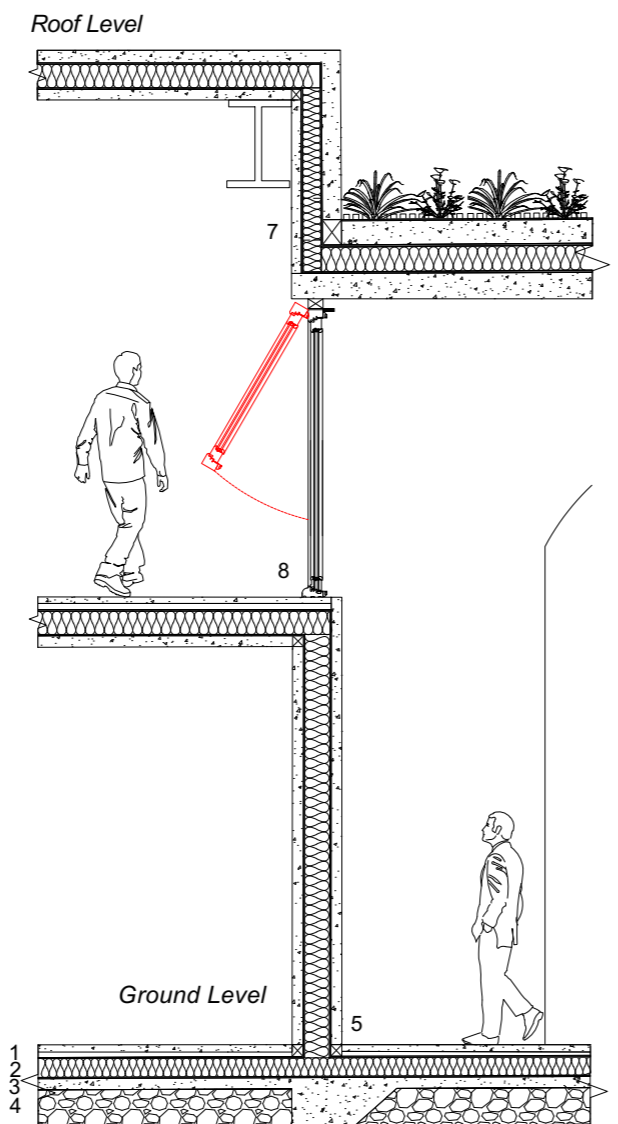
Orthographic Sectional Detail
Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator.

2023 / Academic Project

Proposed Hall and Café Connection Floor Section

1. 50mm Screed
2. 50mm Underfloor Heating
3. 150mm Insulation
4. Damp Proof Membrane
5. Thermal bloc to reduce cold bridging
6. SUDS
7. Structural Steel T- Bar
8. Openable Window



Orthographic Sectional Detail
Author: Elizabeth Carney

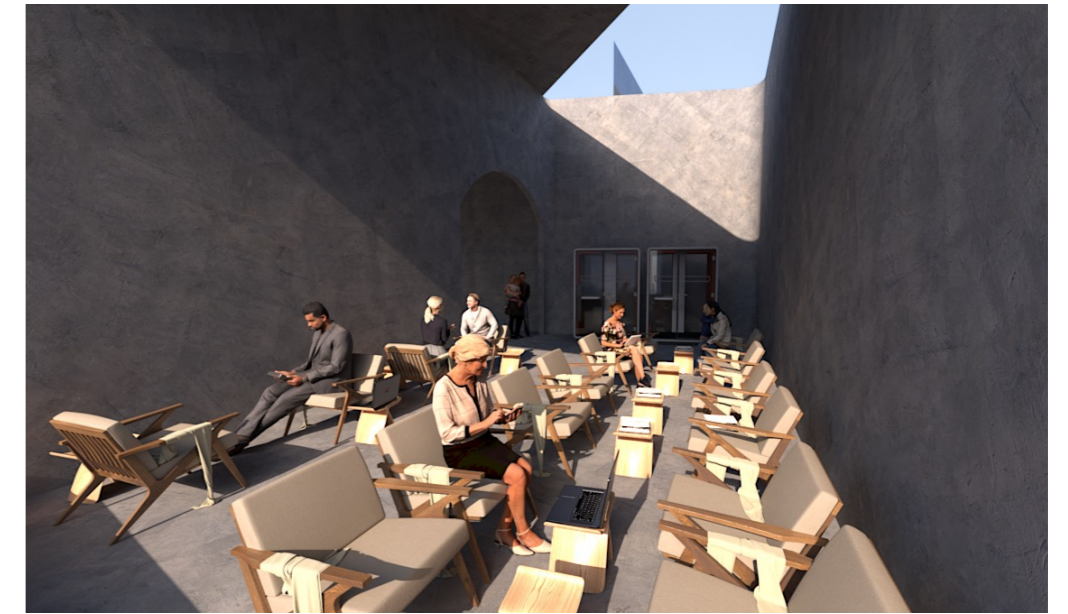
Drawn in Autocad and adapted in Adobe Illustrator.

LIBRARY

Finished Proposal 3D Render

Author: Elizabeth Carney

Developed in Sketchup then rendered in V-Ray and adapted in Photoshop.



CIRCULATION

Finished Proposal 3D Render

Author: Elizabeth Carney

Developed in Sketchup then rendered in V-Ray and adapted in Photoshop.



CAFE

Finished Proposal 3D Render

Author: Elizabeth Carney

Developed in Sketchup then rendered in V-Ray and adapted in Photoshop.



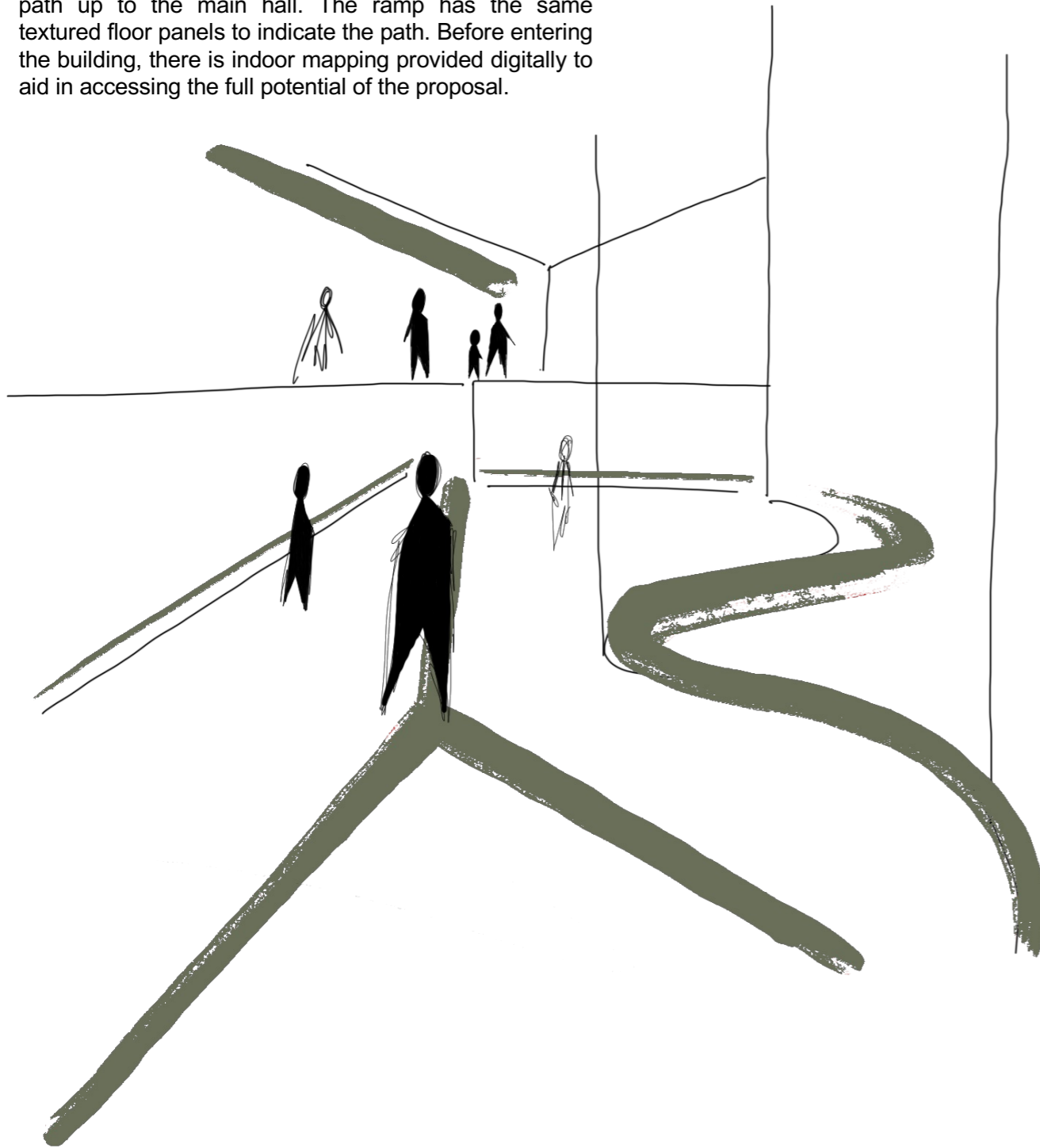
CORE PRINCIPLE: ACCESSIBILITY

Inside the building, there are skylights to indicate the journey through the building. Directly below the skylights are textured floor panels to show the journey to different spaces within the proposal. There are no stairs, instead a ramp which has sections of glass to naturally light a path up to the main hall. The ramp has the same textured floor panels to indicate the path. Before entering the building, there is indoor mapping provided digitally to aid in accessing the full potential of the proposal.

Preliminary Visual Sketch

Author: Elizabeth Carney

Drawn in Adobe Illustrator.



SPATIAL ARRANGEMENT

PROPOSED GROUND FLOOR PLAN

Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.

FORM

INTERNAL ARRANGEMENT

EXISTING ELEVATIONS

Scale 1:500



Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.

PROPOSED ELEVATIONS

Scale 1:500



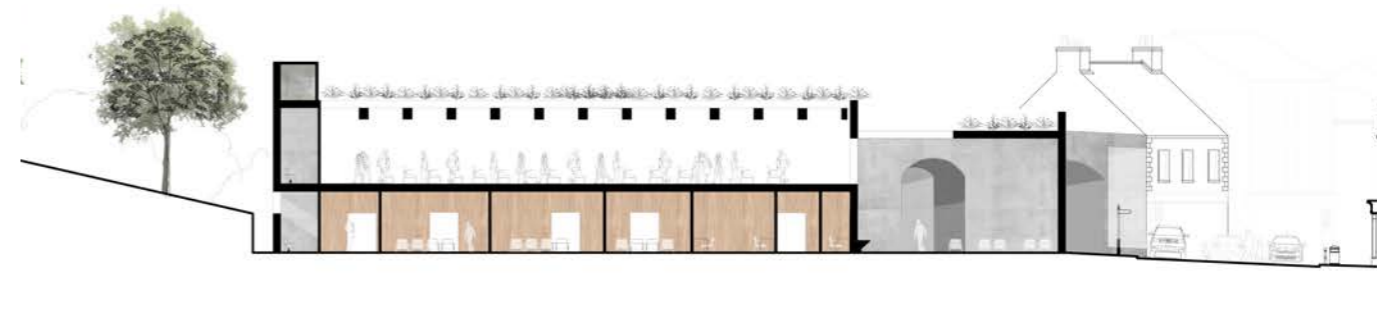
Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.

2023 / Academic Project

PROPOSED SITE SECTION THROUGH CAFÉ, HALL AND STUDIOS

Scale 1:500

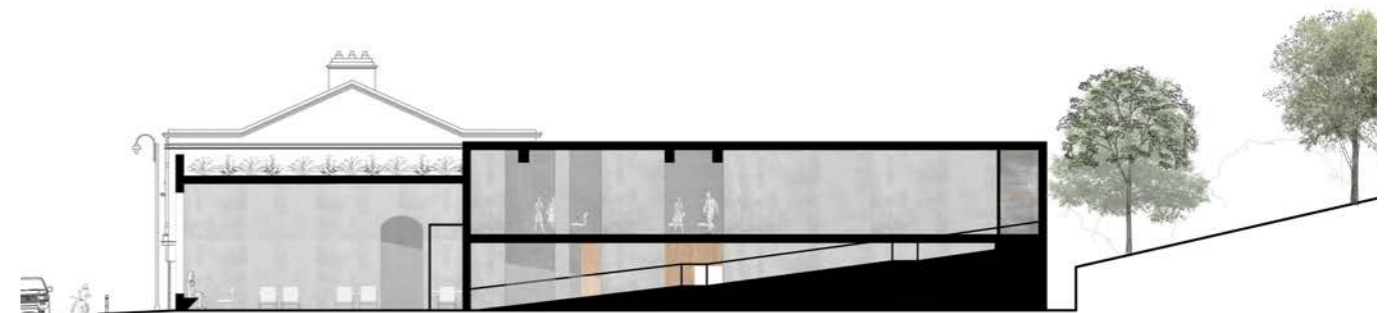


Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.

PROPOSED SITE SECTION THROUGH LIBRARY, STUDY PODS AND RAMP

Scale 1:500



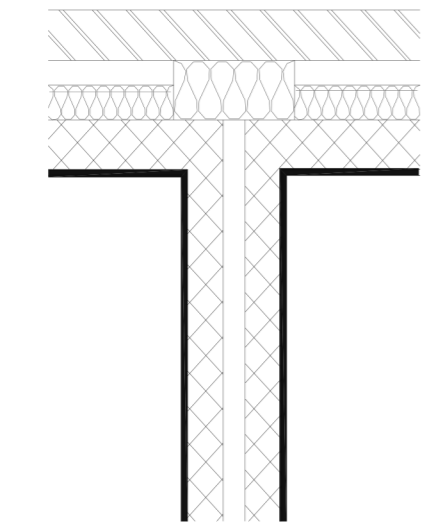
Employing Passive Haus principles in this proposal increases energy efficiency and sustainability. Natural light, ventilation, high thermal mass, maximising winter solar gain by positioning a higher percentage of glazing at the south-facing windows, using large skylights to facilitate natural warmth. The roofs are covered with moss and greenery absorbs excess moisture ingress/egress. Moss and greenery provide extra thermal insulation. There are no thermal bridges which limit the weak points in the building envelope.

STRUCTURAL CONSIDERATIONS

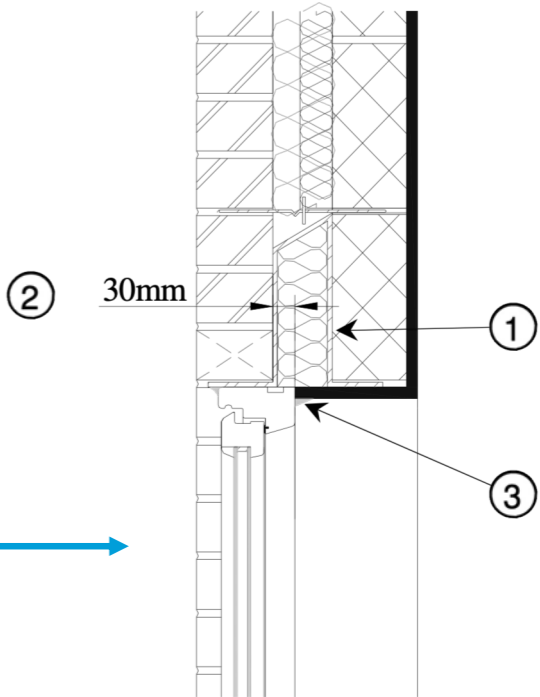
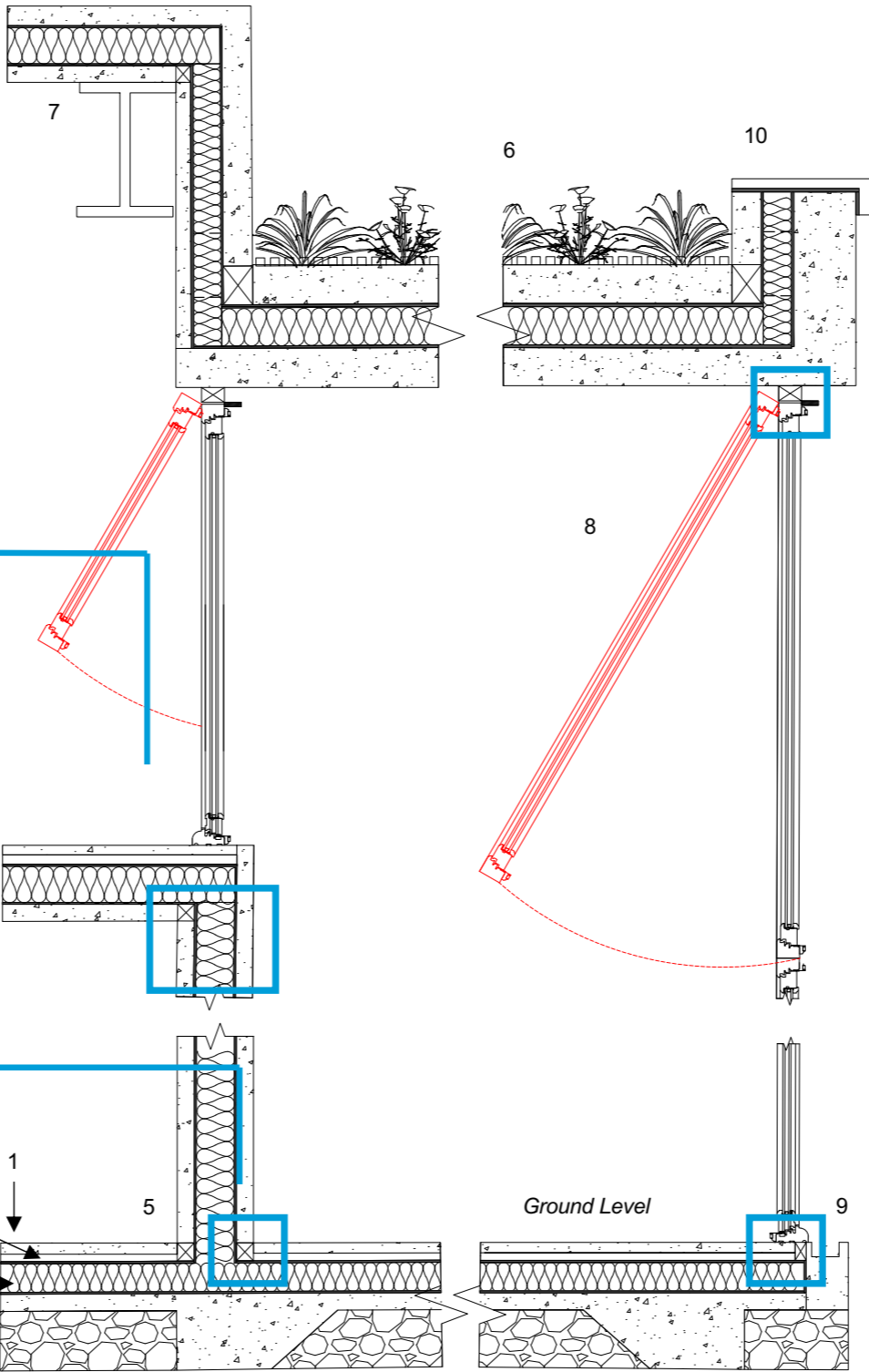
ACCREDITED CONSTRUCTION DETAILS

Scale 1:20

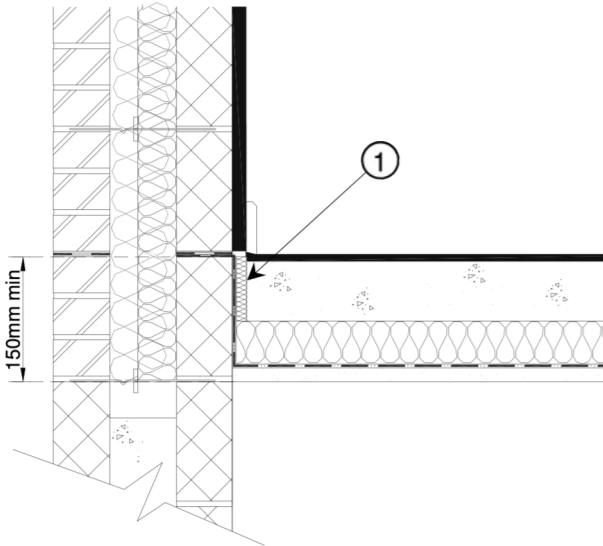
- 1. 50mm Screed
- 2. 50mm Underfloor Heating
- 3. 150mm Insulation
- 4. Damp Proof Membrane
- 5. Thermal bloc to reduce cold bridging
- 6. SUDS
- 7. Structural Steel T- Bar
- 8. Openable Window
- 9. Front Drainage System
- 10. Cavity Topper



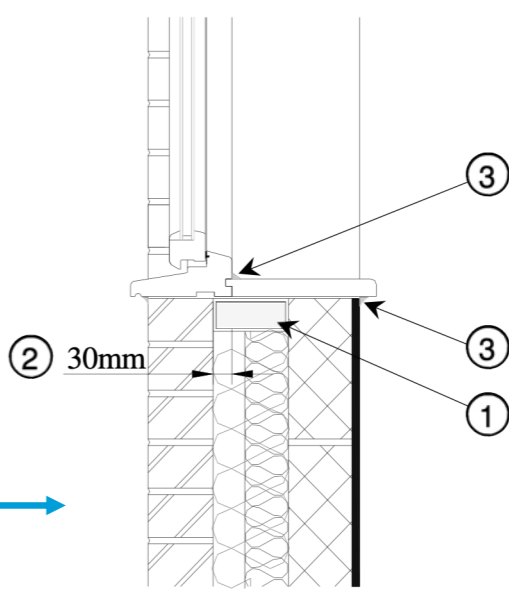
Cavity Wall Detail
Accredited detail number: MCI-IW-01



Window Detail
Accredited detail number: MCI-WD-03



Floor Detail
Accredited detail number: MCI-GF-02



Window Detail
Accredited detail number: MCI-WD-04

ENVIRONMENTAL STRATEGY

The proposal uses a ramp as its only walkable circulation to accommodate the older demographic. The ramp has a width of 3m which follows UK accessibility regulations with seating along the walkway. To aid accessibility within my proposal, there are two lifts.

The roof is insulated, according to legislation, with a u-value of 0.15w/m2K

The library is under the criteria for public areas; therefore, the temperature must remain between 19-21 degrees. The maintained illuminance must remain at 300 lux, according to CIBSE Environmental design regulations.

The café is under the criteria for kitchen and public areas; therefore, the temperature must remain between 17-21 degrees. The maintained illuminance must remain at 150-300 lux, according to CIBSE Environmental design regulations.

To ensure the proposal is in accordance with UK fire regulations, it is made from concrete, which does not need any fire protection. And nonstructural elements are treated to ensure fire protection.

Cross ventilation is used as the primary ventilation strategy. Cross ventilation is used to achieve a high air change rate. Aided by Building management systems.

The proposal uses limited artificial lighting; however, the LED lights that are used separately will follow the requirement of 75 lumens per circuit watt.

There are several skylights in the proposal to inject natural light into the plan.

There are no thermal bridges which limit the weak points in the building envelope.

The continuous airtightness layer will achieve an air test result of 0.75 m3/m2.hr @ 50pa or 0.59 air changes per hour @ 50pa

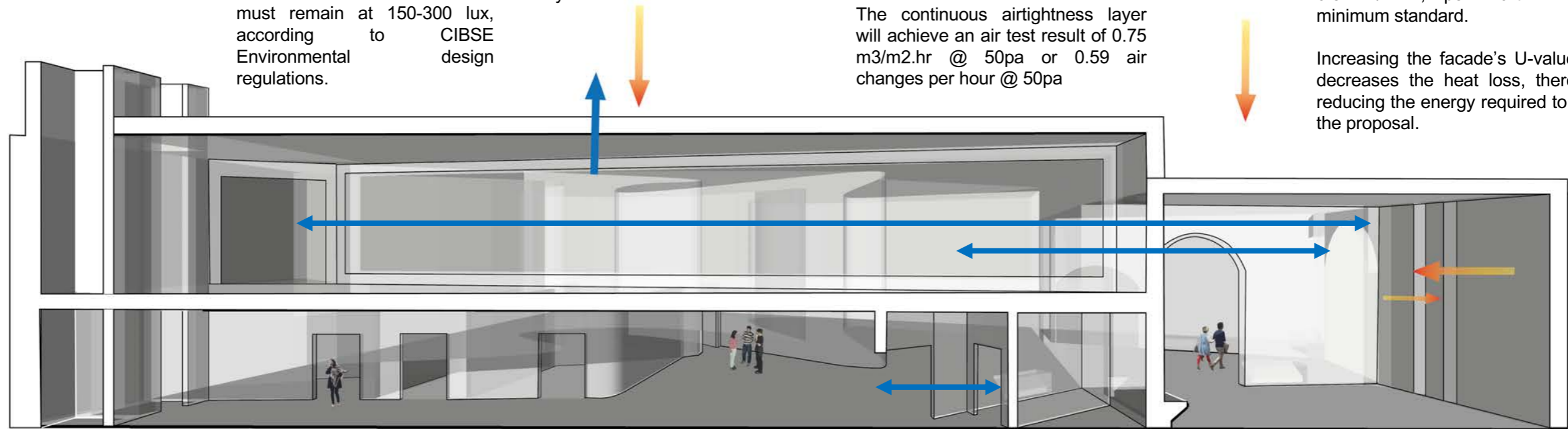
The total area of the building = 1610 square meters
The total area of windows = 435.82 square meters

Therefore, the proposal follows approved document L, as windows are 27.07 % of the proposal.

The roofs are covered with moss and Greenery absorb excess moisture ingress/egress. Moss and Greenery provide extra thermal insulation

The proposal is expected to have windows with U-values lower than 0.8 W/m2.k, per Part L 2010 minimum standard.

Increasing the facade's U-values, it decreases the heat loss, therefore reducing the energy required to heat the proposal.



To accommodate smaller and larger groups within the proposal, the internal walls within the meeting rooms are moveable; this ensures thermal and acoustic comfort.

3D Section

Author: Elizabeth Carney

Drawn in Autocad, 3D modelled in Sketchup and adapted in Adobe Illustrator.

Creating an environmental strategy enabled me to consider how to increase efficiency, consider operating profits and consider how to reduce emissions and pollution that the proposal could produce.

2023 / Academic Project

Employing Passive Haus principles in this proposal increases energy efficiency and sustainability. Natural light, ventilation, high thermal mass, maximising winter solar gain by positioning a higher percentage of glazing at the south-facing windows, using large skylights to facilitate natural warmth.

The proposal has concrete flooring, which possesses high thermal mass. The proposal has cooling pipework in the concrete slab, combined with chilled beams, maximising light into the building as a suspended ceiling obstructs the sunlight.

The proposal has underfloor heating controlled by Building Management Systems (BMS) to aid with energy efficiency. This monitors the fire systems, security, electrical equipment, lighting and heating within the proposal

BMS controls the opening of the windows in the proposal to accommodate for hours during high sun elevation. The building has strategically placed windows that ensure that the building has no windows that sustain high solar glare for extremely long periods of time.

Pathways within the building are made from rubber to help with accessibility. Rubber slows down electrons, making it an efficient insulator within the proposal

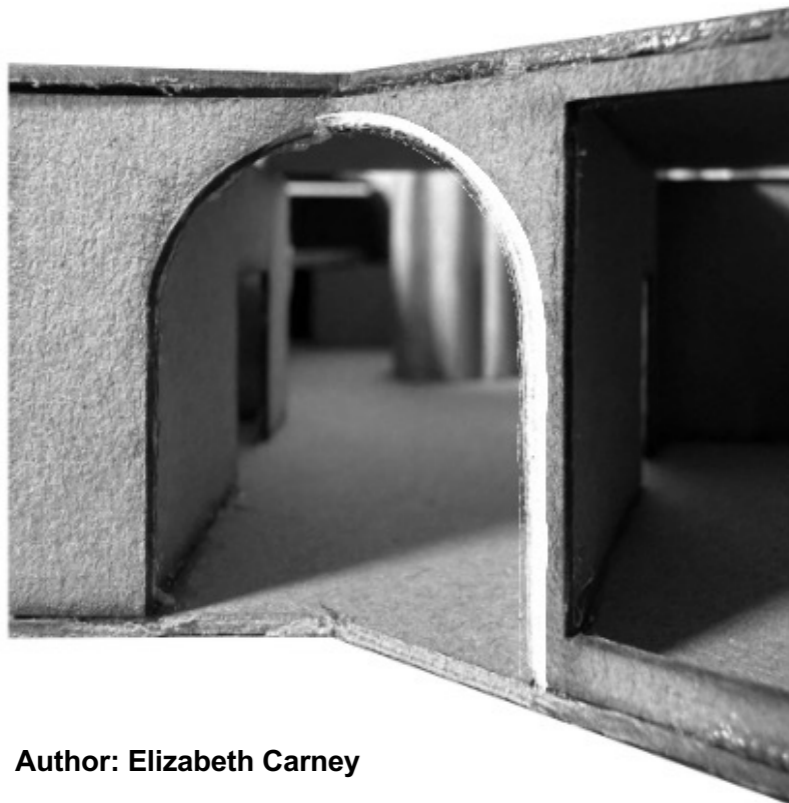
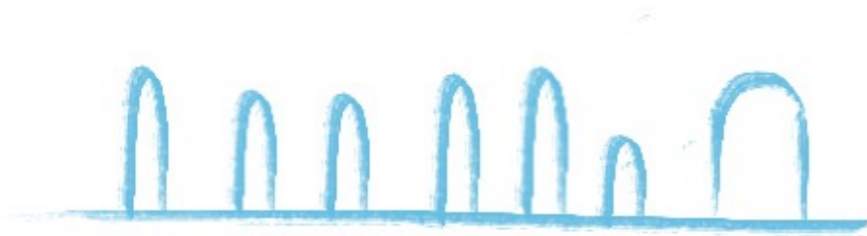
The structure is an integrated steel and concrete frame, with an insulated envelope value of 0.0 W/m2K, per CIBSE regulations.

To achieve Passive Haus standards, a depth of 300 mm is required in the roof and external walls. The proposal has an insulation depth of 400 mm.

The external wall and roof are kept to a minimum, resulting in less exposed surface area for heat to be lost outside.

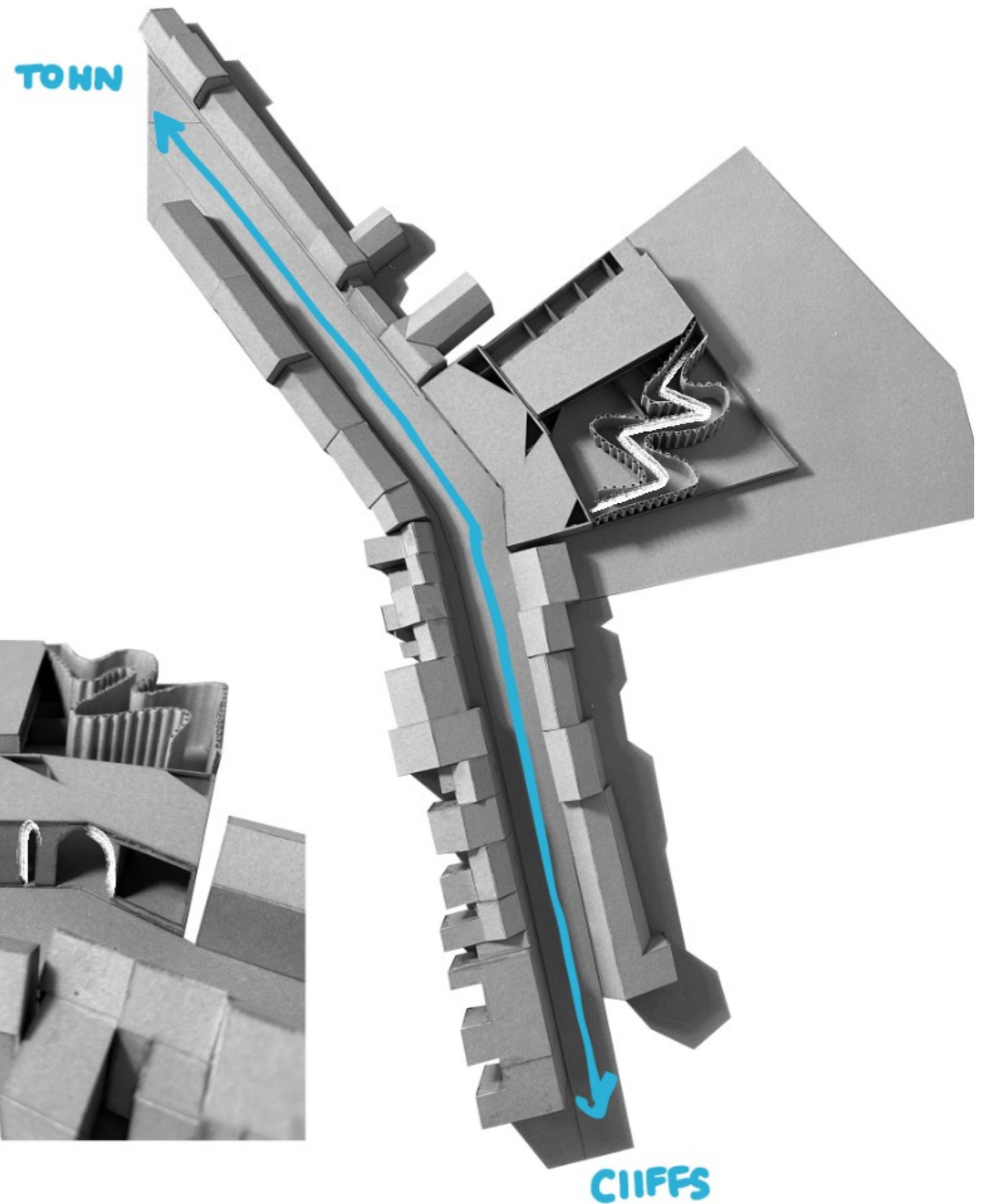
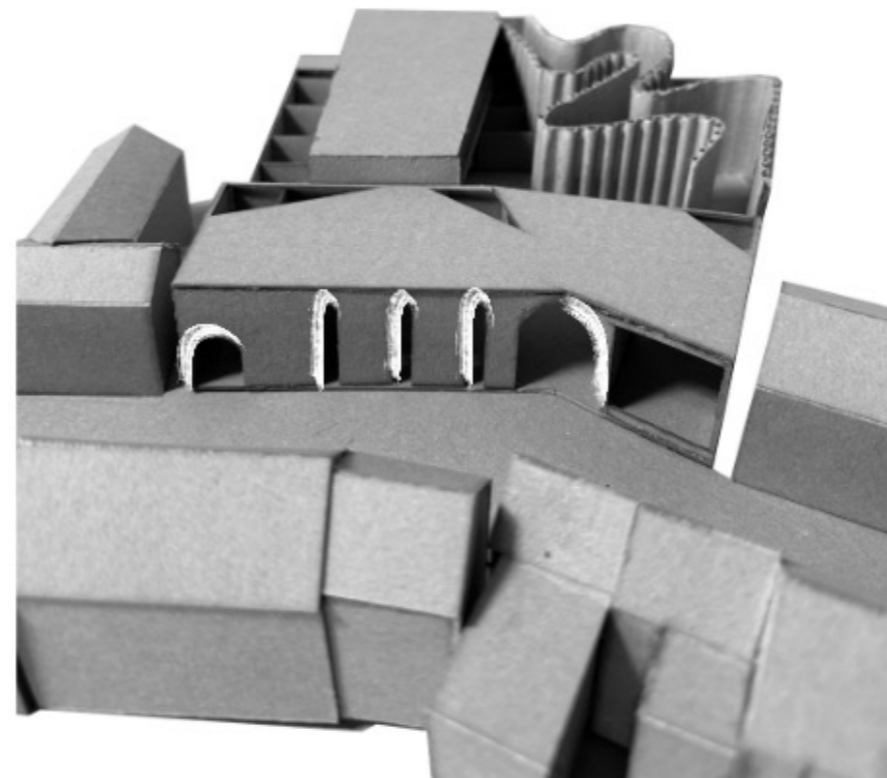
MODEL

USING MINOR CHARACTERISTICS ACROSS THE TOWN TO CREATE A CORE CHARACTERISTIC IN THE BUILDING.



Author: Elizabeth Carney

Constructing a model enables the model to be seen in context and how it will interact with other buildings along the streetscape.



BUILDING BLOCKS

BUILDING TYPE: Education and Workspace

BUILDING LOCATION: Queen's University Belfast, Northern Ireland

ROLE WITHIN THE PROCESS AND EXACT CONTRIBUTION TO THE PROJECT:

This project is my own, and shown below are the listed design qualities; adaptability, creativity, analytical skills, attention to detail, problem-solving, detail orientated and innovation.



Finished Proposal 3D Render

Author: Elizabeth Carney

Developed in Sketchup then rendered in V-Ray and adapted in Photoshop.

PROJECT LEVEL: 3rd Academic Year/ 1st Semester

DATE PROJECT WAS CARRIED OUT: December 2022

2022 / Academic Project

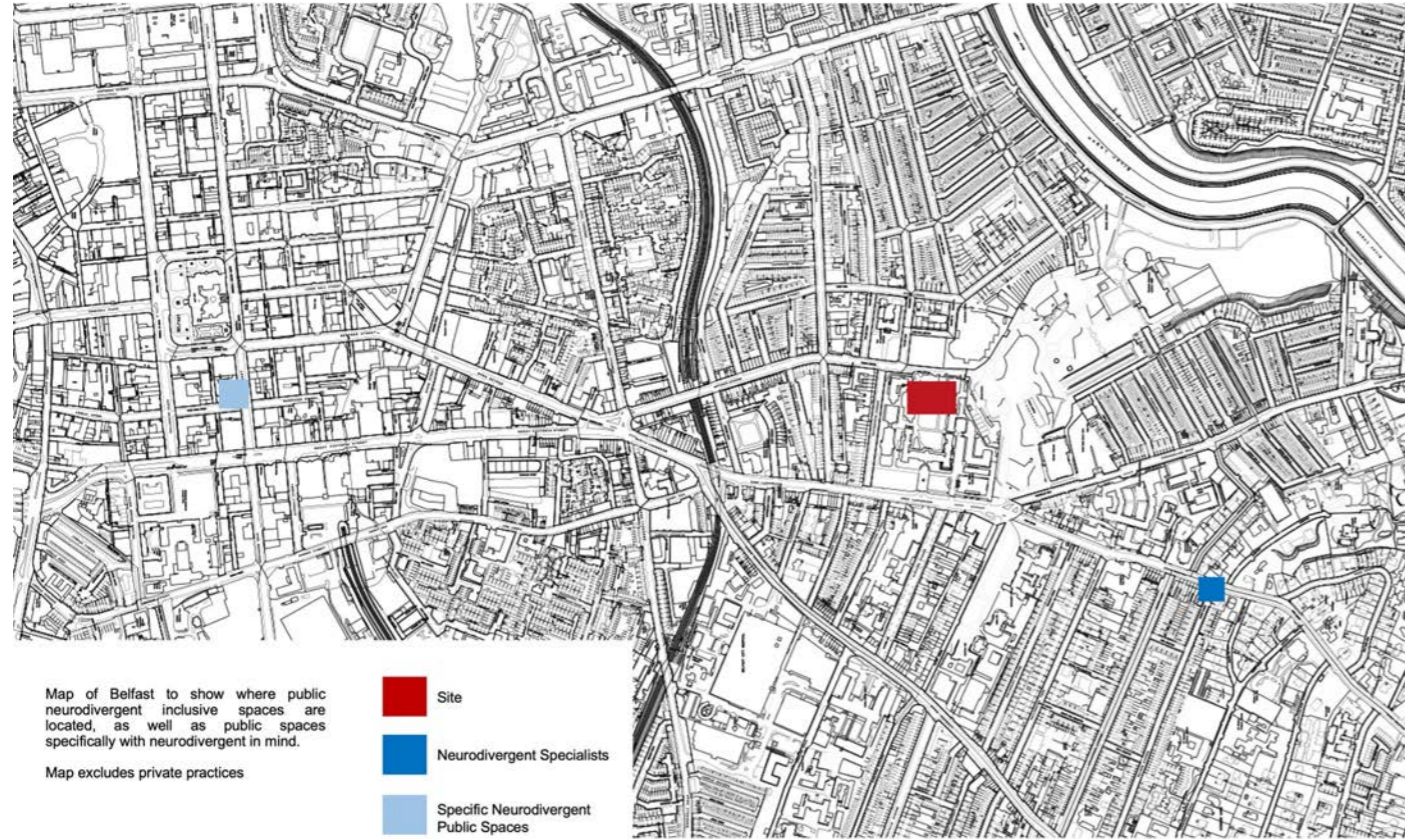
Building blocks is a retrofit of an existing Queen's University Belfast campus building. The proposal is an opportunity to create an environment with neurodiverse/accessible sensory spaces at the forefront of the design. To articulate the form of building blocks, the proposal is divided into 4 main buildings done through a mathematically defined rational system that was applied to all masses.

By designing for inclusivity, everyone can benefit through the removal of barriers that create undue effort and separation. It enables everyone to participate equally, confidently and independently. The proposal conveys an inclusive architectural identity and provides a frame to inspire and motivate the next generation of academics in Belfast. The proposal has both a presence beyond campus and is accessible to all through uninterrupted pedestrian flow from the main university buildings to student areas.

The overall design comprises of reclaimed brick construction to mimic the surrounding university buildings that were built in 1849. The building has a unique identity, both resilient and reliable, with reuse and regeneration at the forefront. Common areas, meeting rooms and private spaces are naturally connected in a hierarchy with spaces suitable for neurodivergent individuals less sensitive to louder environments being placed at the centre. And more private spaces with a shorter reverberation time being placed at the peripheral.

WHY?

The proposal is in Belfast, Northern Ireland. It is an initiative for incorporating inclusivity into the existing local network in Belfast.



Accommodation Schedule

Meeting Rooms	74.97 sqm
Office / Study Spaces	394.24 sqm
Dining Hall / Lecture Theatres	300.3 sqm
Nursery	172.48 sqm
Total	941.99 sqm

Concept Development

Author: Elizabeth Carney

Developed in Autocad and adapted in Photoshop.

2022 / Academic Project

By adopting principles in the building to make the building as energy efficient and sustainable as possible such as; natural light, natural ventilation, high thermal mass, maximizing winter solar gain by positioning a higher % of glazing on the south, southeast and southwest with larger windows to facilitate natural warmth. Additionally minimizing summer solar gain and overheating.

Implementing Passivhaus from RIBA Work Stage 0 enables energy efficiency in the building whilst reducing the building's ecological footprint.

Cooling Pipework is integrated into the concrete floor slabs, combined with chilled beans, creating the possibility to maximize light into the building as it isn't obstructed by a suspended ceiling.

Increasing the U-values of the façade it decreases the heat loss in the colder months, therefore, reducing the energy required to heat the project.

The project is anticipated to have windows with U-Values of 2.0 W/m².K to be in line with Part L 2010 minimum standard.

Within the building, Building Management Systems (BMS), will be installed to control and monitor the building's electrical equipment including ventilation, lighting, fire systems and security.

Heat recovery ventilation units allow for filtered air to be transferred back into the project from units that extract stale air inside the building.

Total area of building = 941,506 m²

Total area of windows = 199,449 m²

This means the windows are around 21% of the building which is compliant the with approved document.

SPATIAL ARRANGEMENT

EXISTING GROUND FLOOR

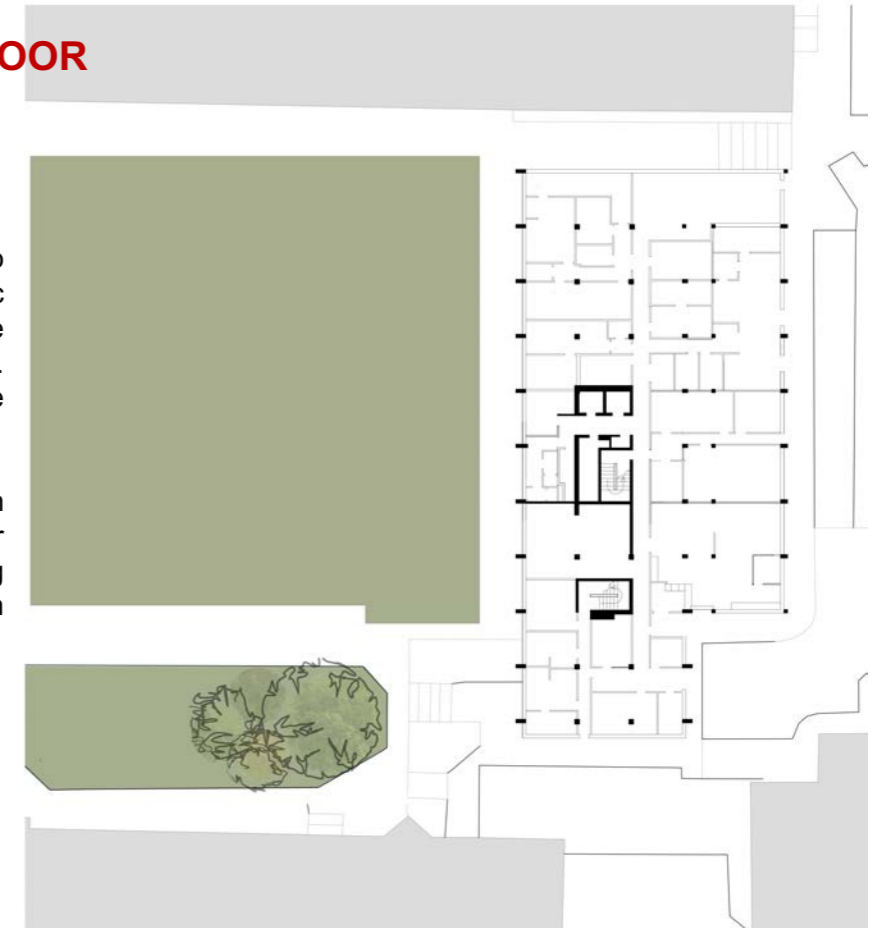
Scale 1:200

The connection between studio areas, meeting rooms and public spaces flows to strengthen the knowledge sharing between them. All floors are based on the same core principle.

Adding greenery, alleviates urban environmental problems, further improving the benefits of the cooling effect, energy-saving 1and carbon emission reduction.

Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.

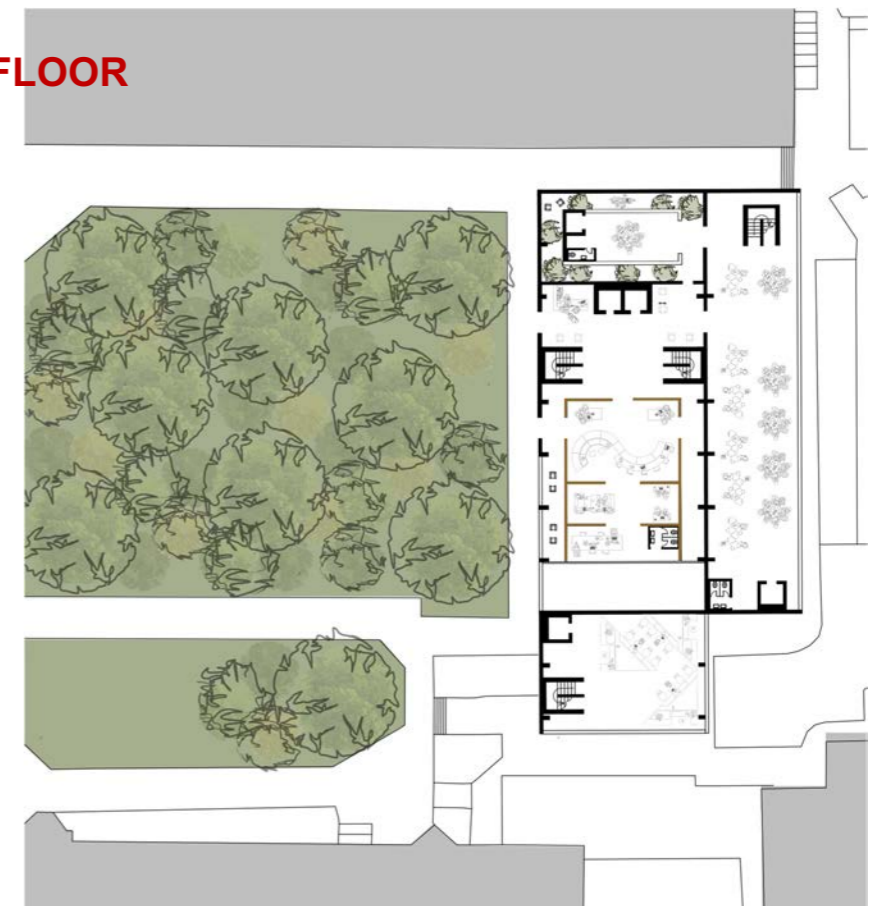


PROPOSED GROUND FLOOR

Scale 1:200

Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.



NORTH ELEVATION

EAST ELEVATION

Finished Proposal 3D Render

Author: Elizabeth Carney

Developed in Sketchup then rendered in V-Ray and adapted in Photoshop.

The proposal anchors into the campus creating a break from the surrounding urban landscape, with internal green spaces to allow students to decompress before attending lectures.

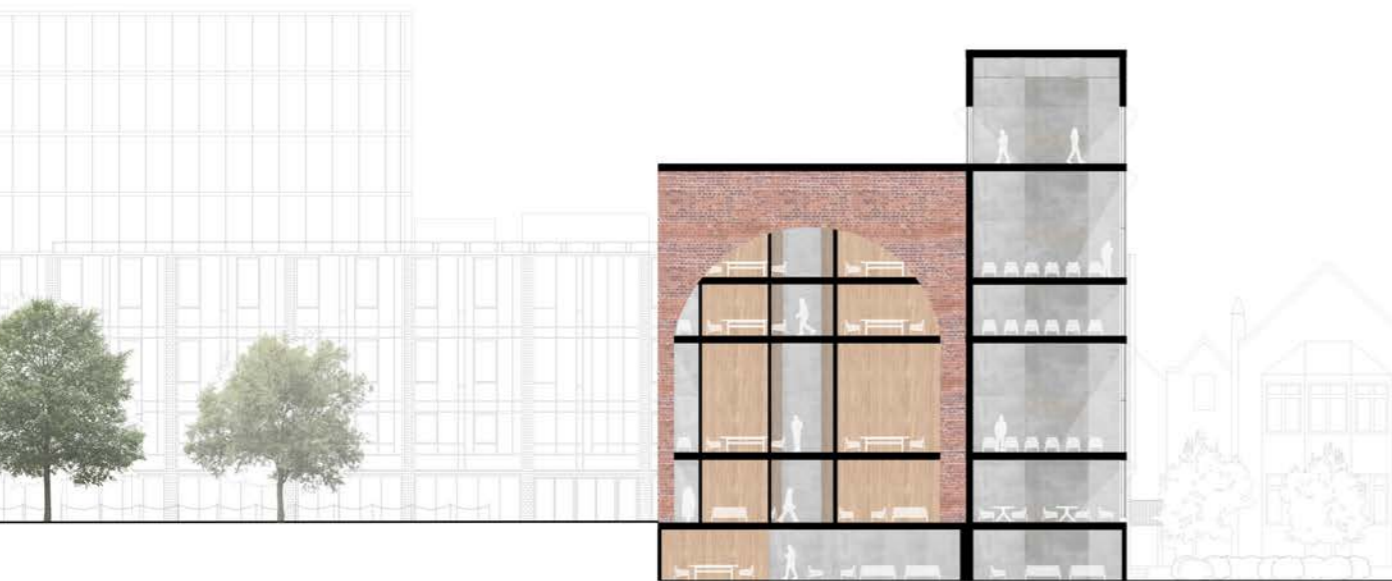


Proposed Site Section BB

Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.

Scale 1:200

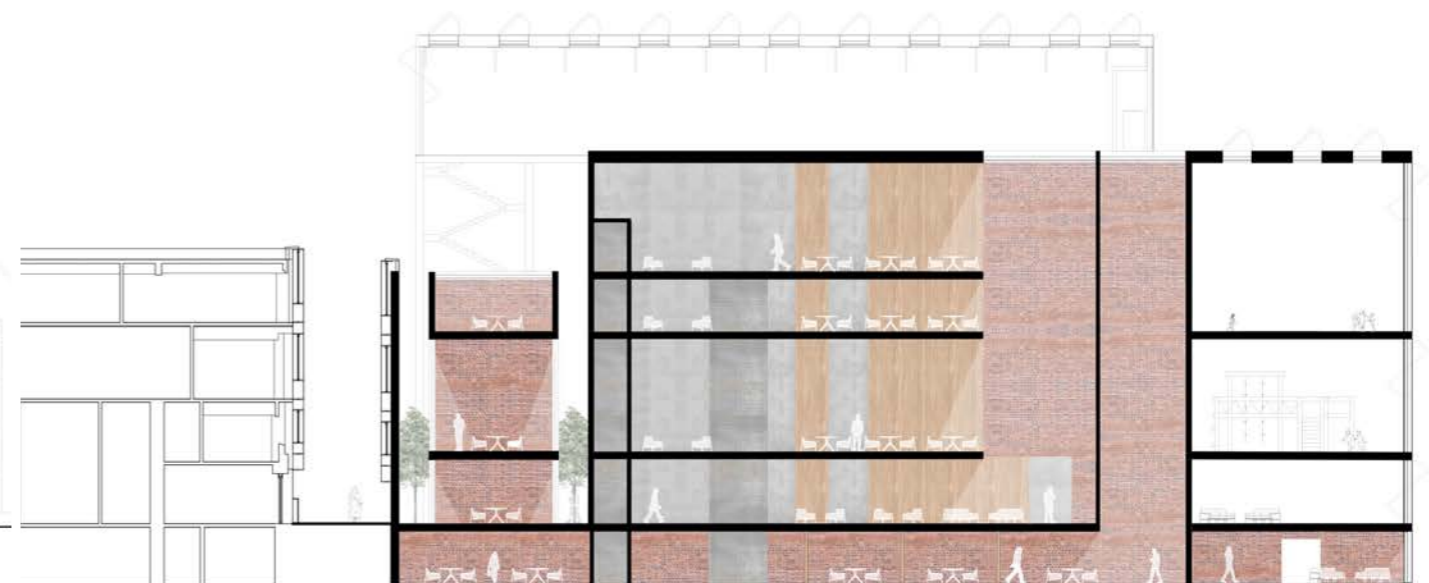


Proposed Site Section AA

Author: Elizabeth Carney

Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.

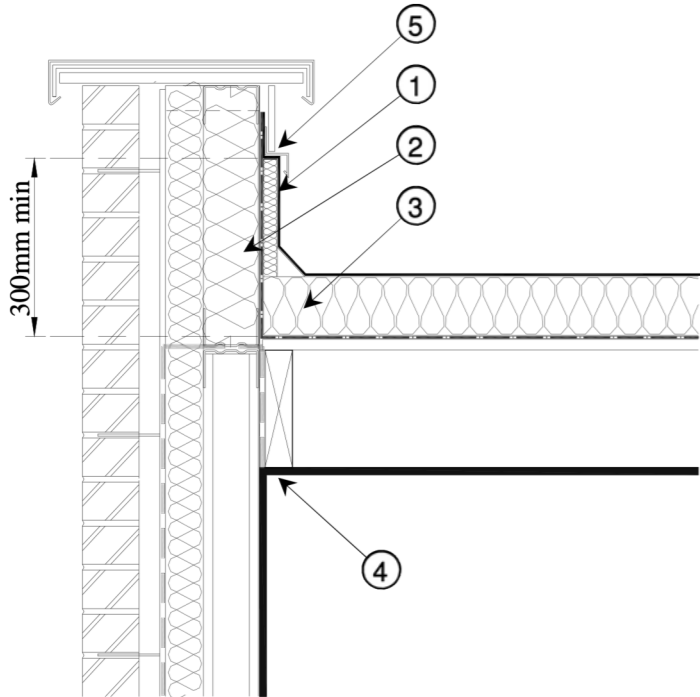
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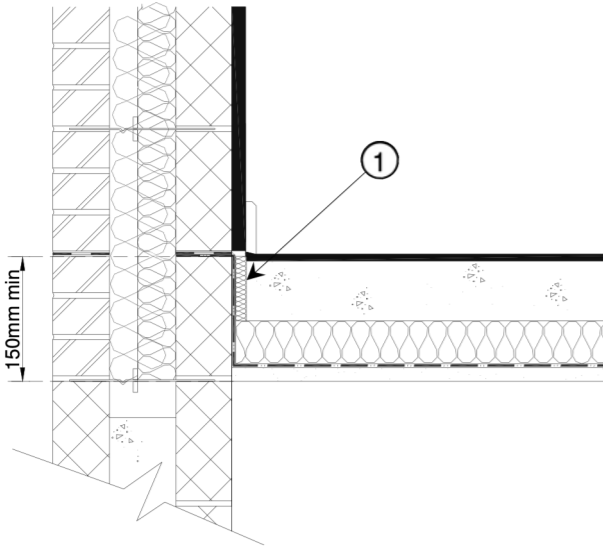
STRUCTURAL CONSIDERATIONS

ACCREDITED CONSTRUCTION DETAILS

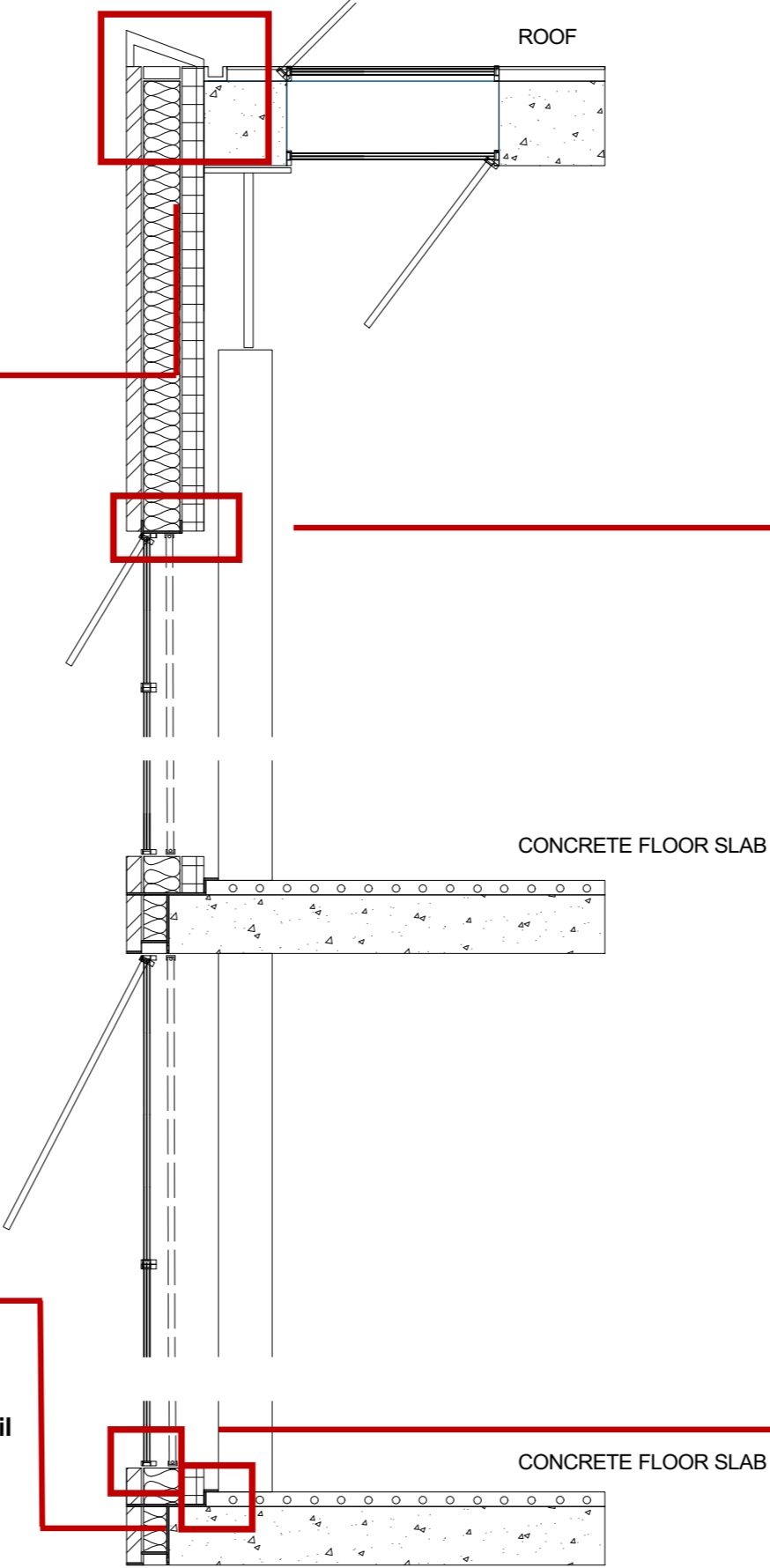
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Cavity Topped Roof Detail
Accredited detail number: MCI-IW-01



Floor Detail
Accredited detail number: MCI-GF-02

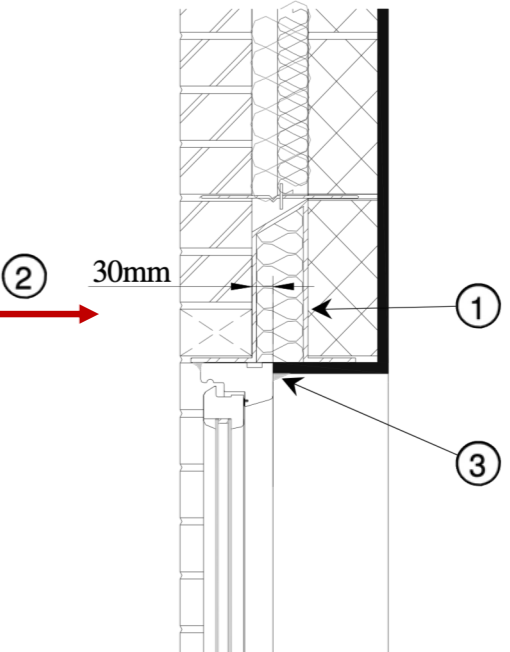


Orthographic Sectional Detail

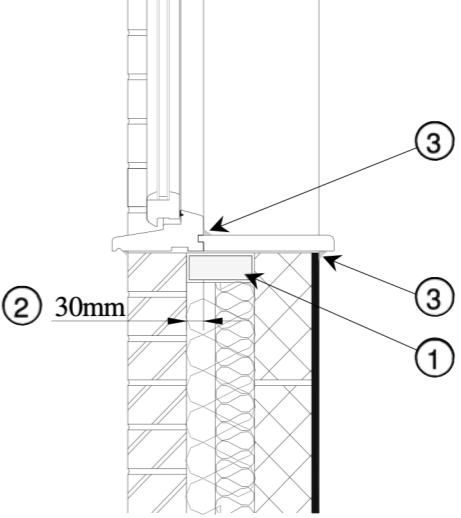
Author: Elizabeth Carney
Drawn in Autocad and adapted in Adobe Illustrator and Adobe photoshop.

The section shows BMS-controlled ventilation and internal blinds to optimise solar gain.

The reclaimed brick shell is supported by reused steel beams and columns, to allow for a glass façade to flow into the building's interior.



Window Detail
Accredited detail number: MCI-WD-03

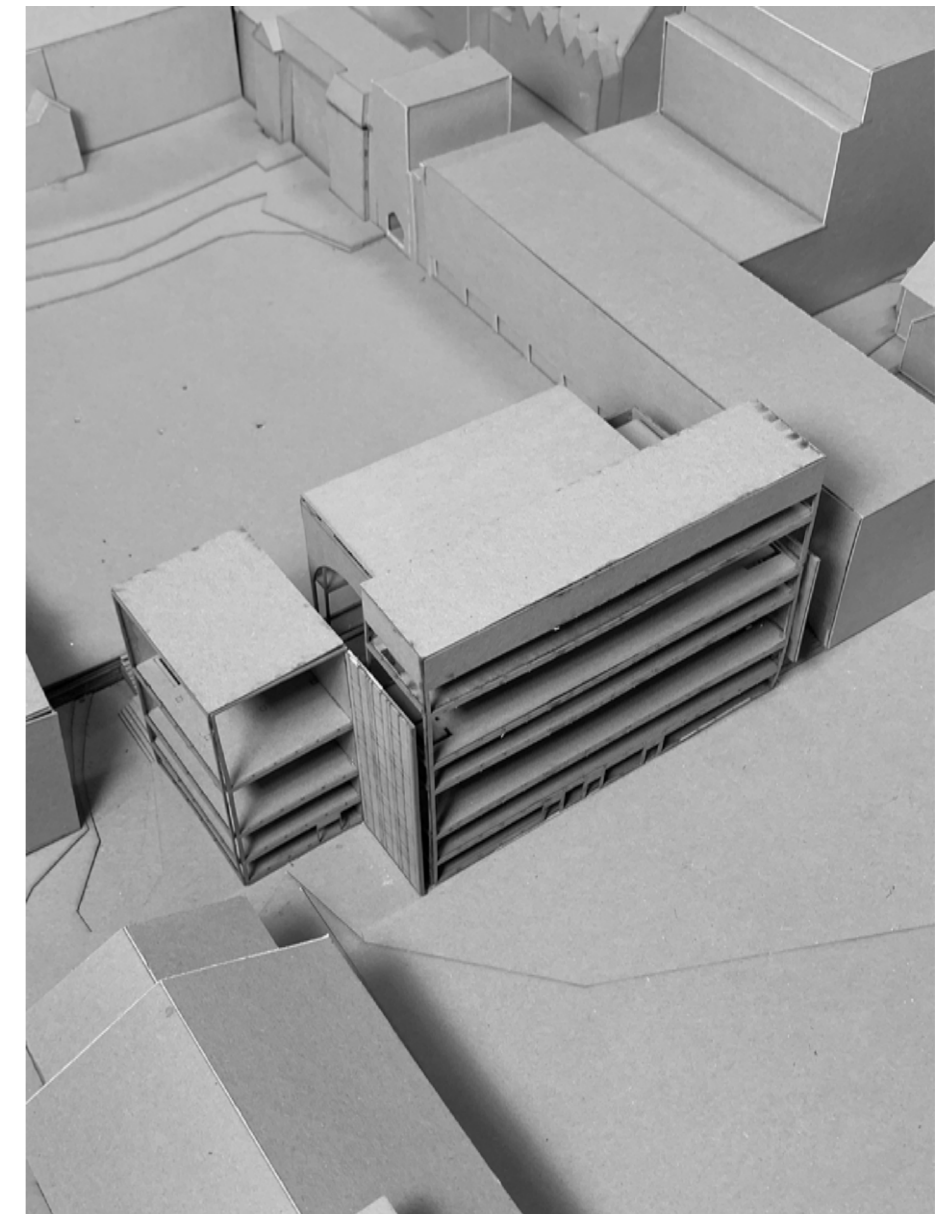


Window Detail
Accredited detail number: MCI-WD-04

MODEL

BIRD'S EYE VIEW TO ILLUSTRATE SPATIAL ARRANGEMENT.

THE SENSE AND REASON FOR THE SPATIAL ARRANGEMENT ALLOW FOR THE EXPRESSION OF CREATIVITY AND THE EMBRACE OF DIVERSITY.



Author: Elizabeth Carney

Constructing a model enables the model to be seen in context and how it will interact with other buildings along the streetscape.

2022 / Academic Project

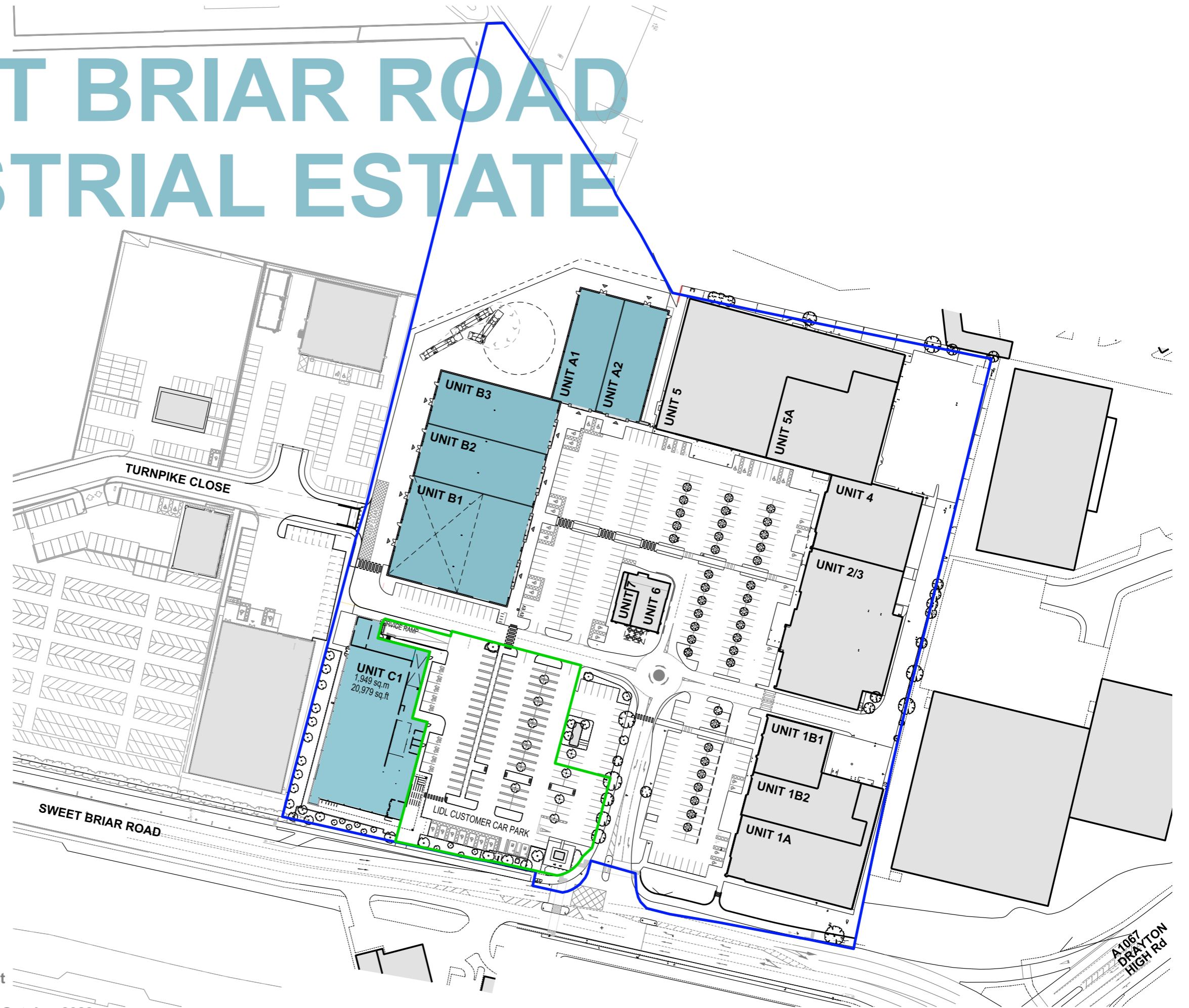
SWEET BRIAR ROAD INDUSTRIAL ESTATE

BUILDING TYPE: Commercial

BUILDING LOCATION: Norwich, United Kingdom

ROLE WITHIN THE PROCESS AND EXACT CONTRIBUTION TO THE PROJECT:

Environmentally, retail has a large carbon footprint, with bricks and mortar emitting significant operational and embodied carbon emissions. The design of the new generation retail parks should aim to minimise the environmental impact of the building, through energy and water efficiency methods, use of sustainable materials and landscaping. This project was a joint project. I had a role from the concept phase to the construction phase, delivering CAD drawings to cross-functional teams.



PROJECT LEVEL: Professional Project

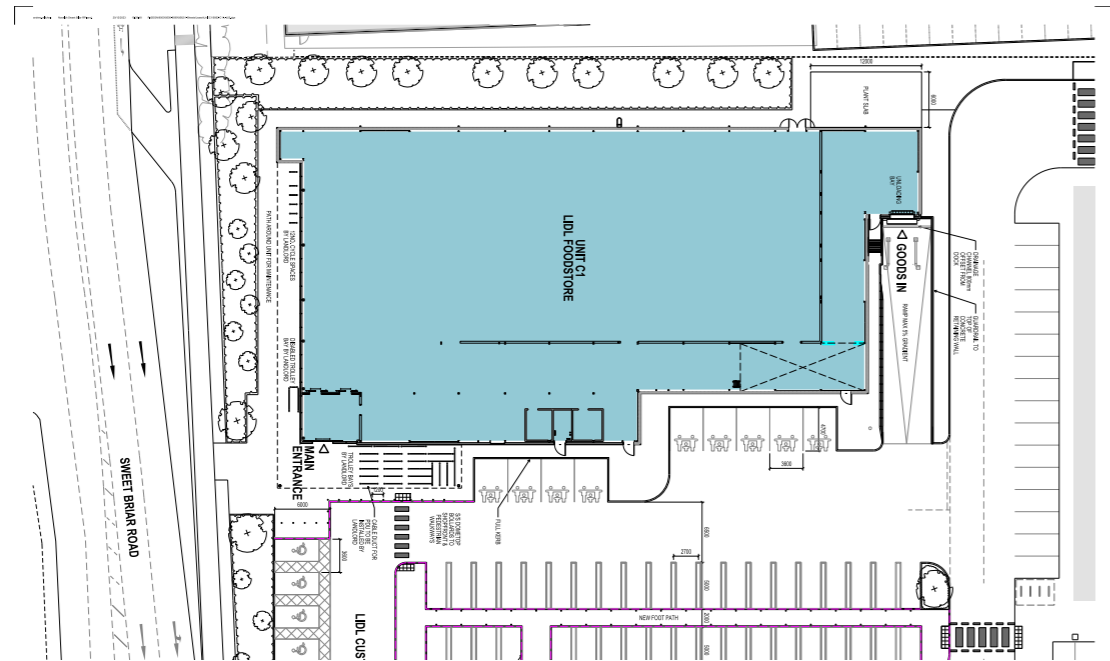
DATE PROJECT WAS CARRIED OUT: October 2023

Drawn in Microstation.

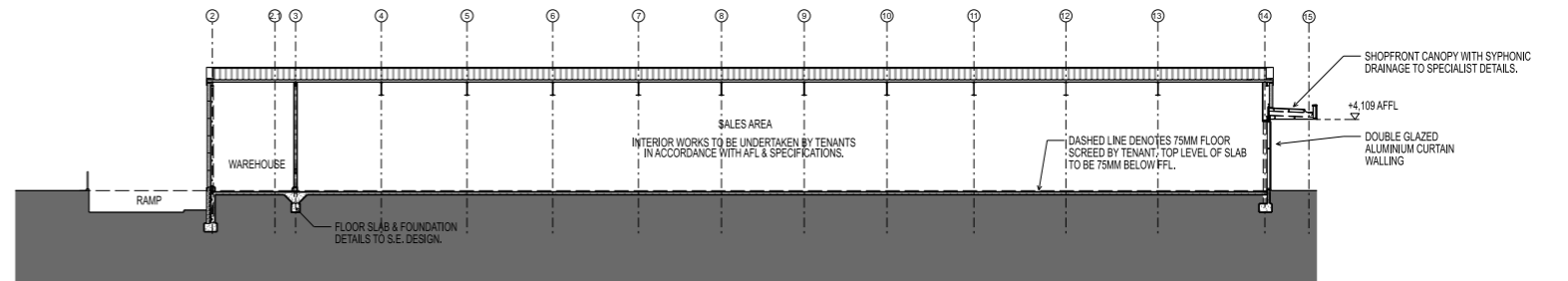
2023 / Professional Project

PROPOSED UNIT

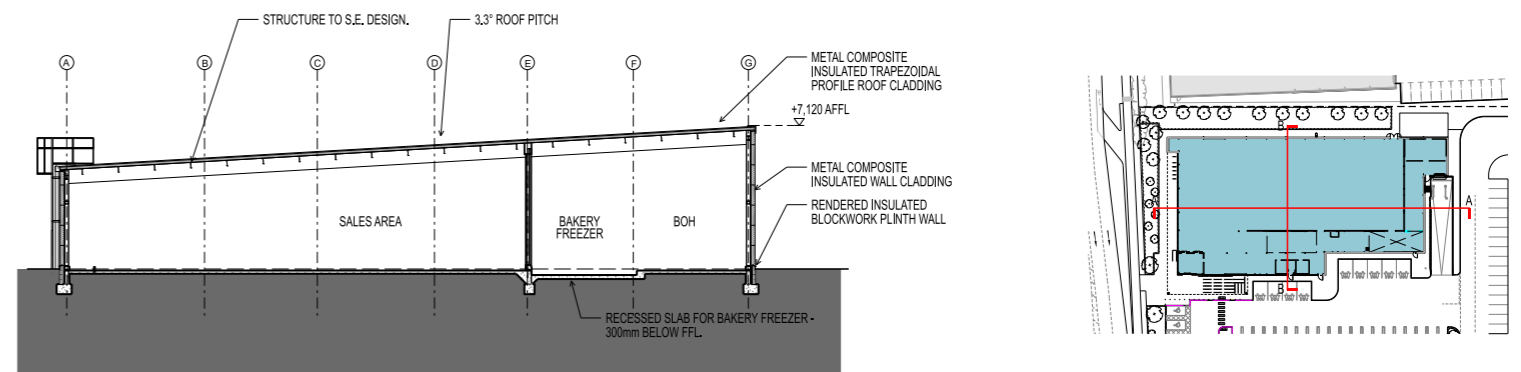
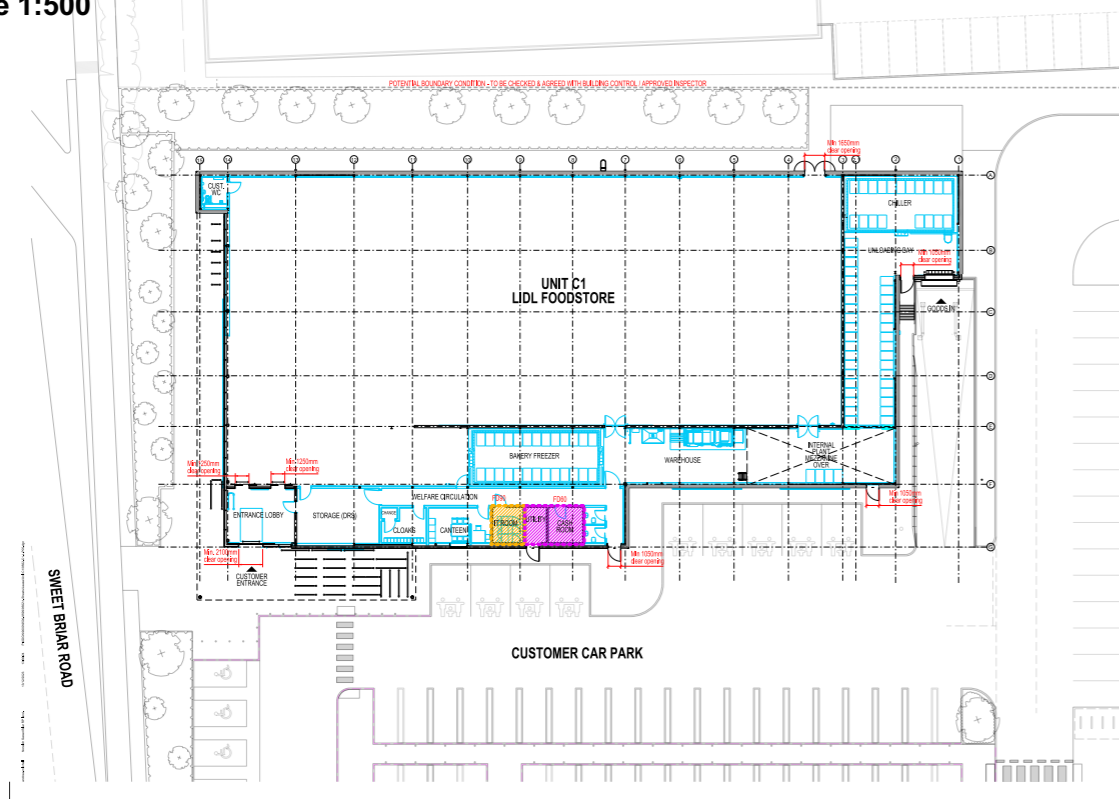
Scale 1:500



Scale 1:500



Scale 1:500



This proposed orthographic site plan shows the entire location plan working around existing client needs and lease agreements made over parking counts.

Working on unit C1, I amended the immediate car parking count, along with placing the new unit on the site. Being aware of the site constraints, I tried to maximise the unit's meter per square to allow for maximum profits for the client.

This proposed orthographic unit plan shows the building technology within the unit and the internal store configuration.

Orthographic Unit Plan

Author: Elizabeth Carney

Drawn in Microstation.

2023 / Professional Project

DUKE STREET RESIDENTIAL

**BUILDING
RESIDENTIAL**

TYPE:

**BUILDING
LIVERPOOL,
KINGDOM**

**LOCATION:
UNITED**

**ROLE WITHIN THE
PROCESS AND EXACT
CONTRIBUTION TO THE
PROJECT:**

This project is a joint project. As part of the design team, I helped develop the overall form and concept which meets strict conservation and heritage requirements. I worked on the delivery phase of the concept, and fine-tuning of the planning application. The renderings were done by Infinity 3D.

Finished Proposal 3D Render

Author: Elizabeth Carney

*Developed in Sketchup then
rendered in Enscape and
adapted in Photoshop.*



PROJECT LEVEL: Professional Project

DATE PROJECT WAS CARRIED OUT: March 2024

2024 / Professional Project

PROPOSED STREET ELEVATION



Finished Proposal 3D Render

Author: Elizabeth Carney

*Developed in Sketchup then
rendered in Enscape and
adapted in Photoshop.*

2023 / Professional Project

PROPOSED INTERNAL ARRANGEMENT SECTION

Scale 1:200



This orthographic section shows the internal structural layout including floor levels and how this relates to user.

Orthographic Section and Plans

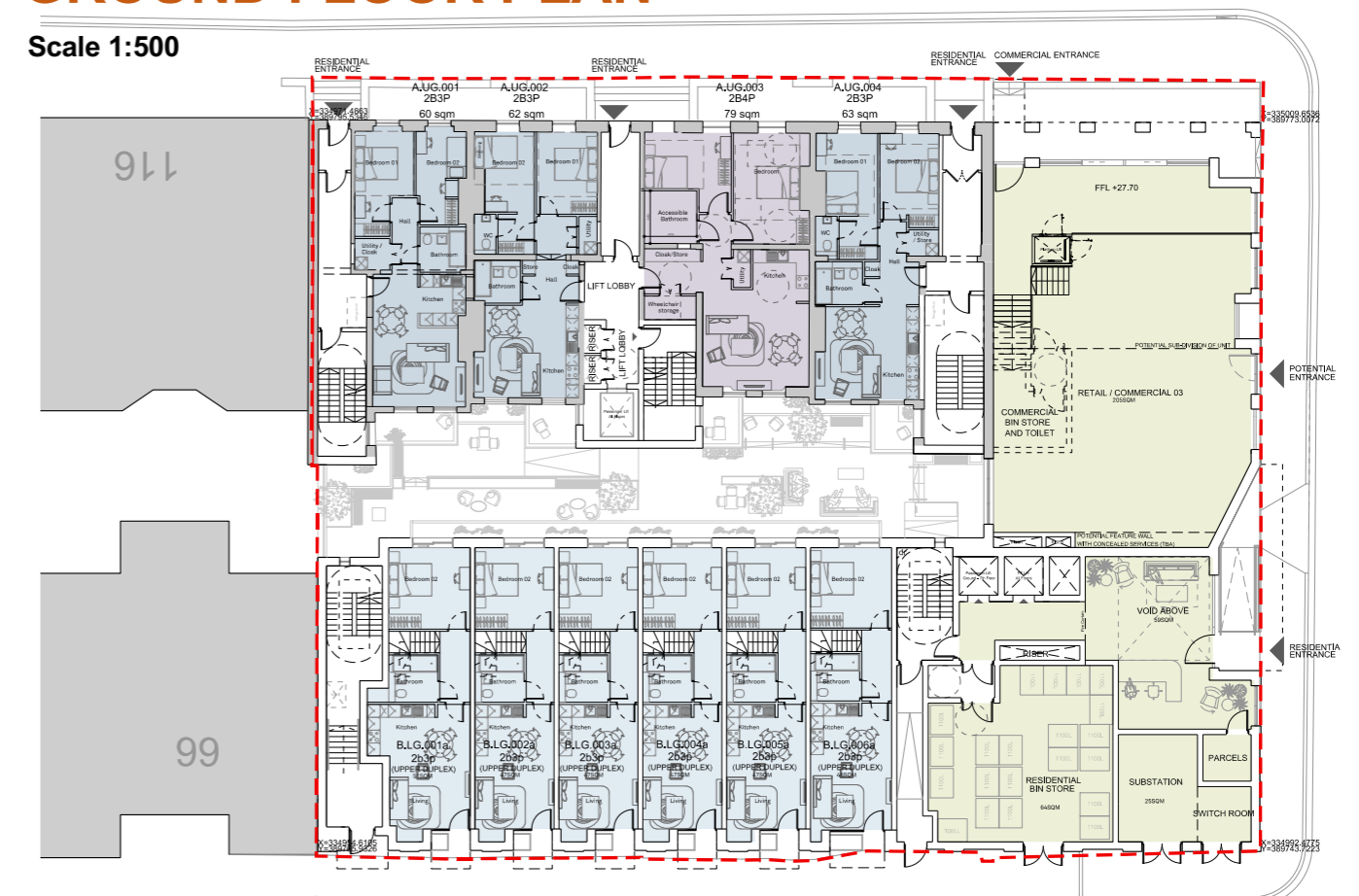
Author: Elizabeth Carney

Drawn in MicroStation V8.

2024 / Professional Project

GROUND FLOOR PLAN

Scale 1:500



FOURTH FLOOR PLAN

Scale 1:500



PROPOSED ELEVATIONS

NORTH ELEVATIONS

Scale 1:200



WEST ELEVATIONS

Scale 1:200



Orthographic Site Plan

Author: Elizabeth Carney

Drawn in MicroStation V8.

2024 / Professional Project

DEYSBROOK COMMUNITY CENTRE

BUILDING TYPE: Mixed Use

BUILDING LOCATION:
Derbyshire, United Kingdom

ROLE WITHIN THE PROCESS AND EXACT CONTRIBUTION TO THE PROJECT:

This project is a joint project. As part of the design team, I helped develop the overall form and concept which meets community requirements. I worked on the concept phase of the scheme by drawing CAD plan, and elevations, drawing final sketches of how the practice imagines the final scheme, and fine-tuning for the planning application.

Finished Proposal 3D Render

Author: Elizabeth Carney

Drawn and adapted in Photoshop.



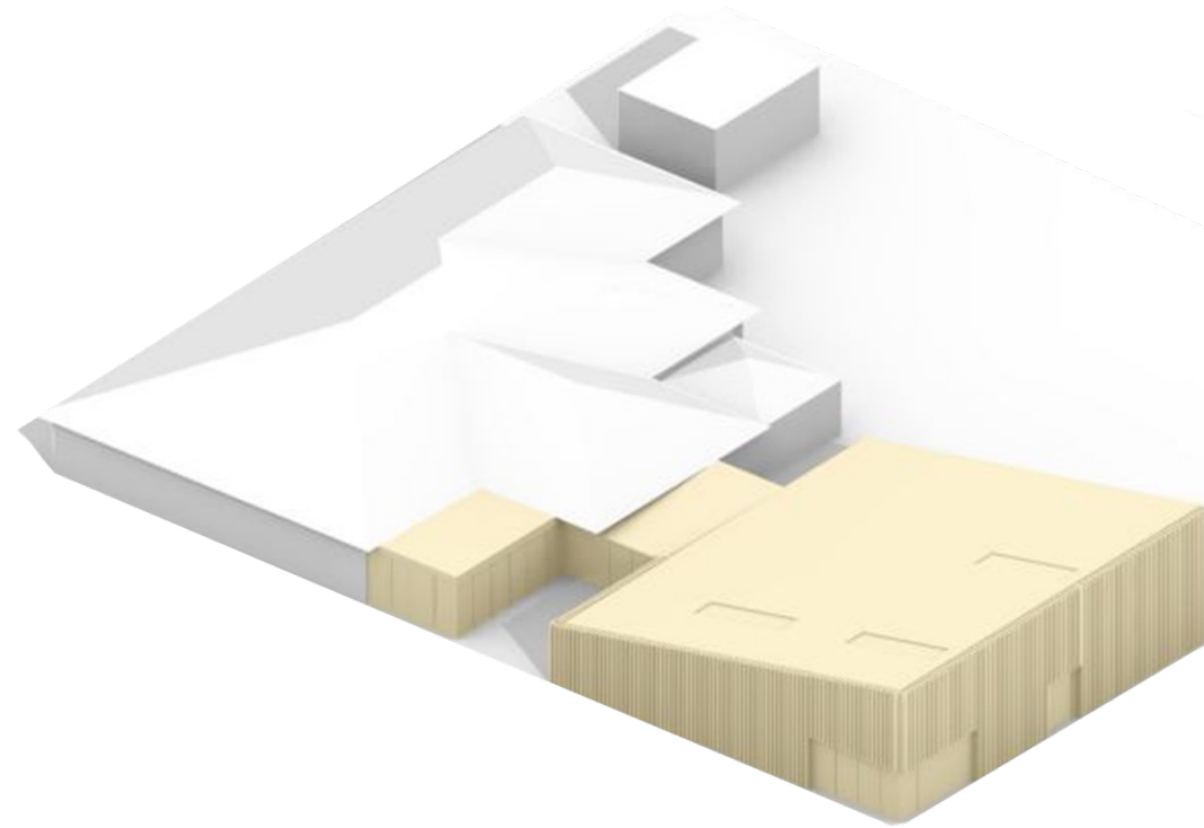
PROJECT LEVEL: Professional Project

DATE PROJECT WAS CARRIED OUT: March 2024

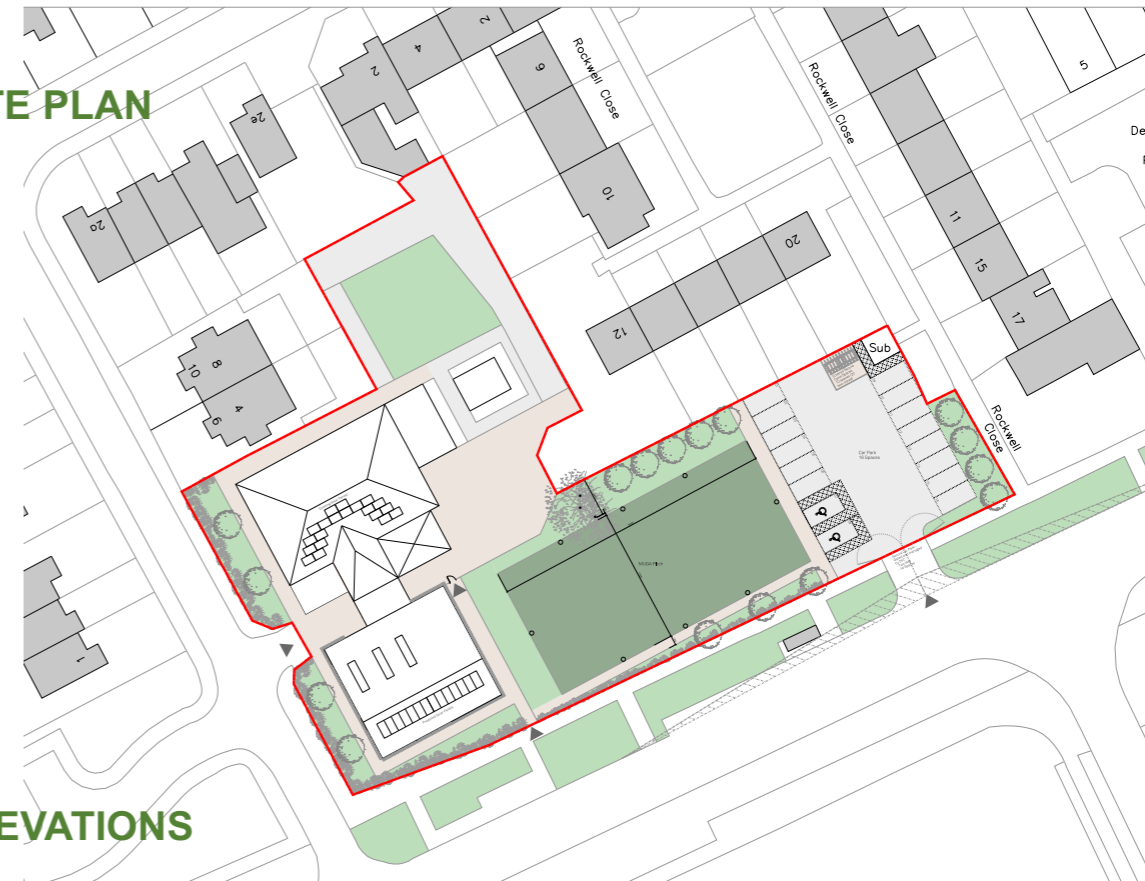
2024 / Professional Project

FORM TO MIRROR FUNCTION

BUILDING MASSING



SITE PLAN



ELEVATIONS



Author: Elizabeth Carney

Drawn in Sketchup.

2024 / Professional Project

Drawn in Microstation and then edited in Photoshop.

MICROHOME

BUILDING TYPE: Residential

BUILDING LOCATION: Adaptable

ROLE WITHIN THE PROCESS AND EXACT CONTRIBUTION TO THE PROJECT:

This project is my own, and was intended to explore my own personal interest in adaptable housing to solve an ever increasing housing problem and help to combat the cost-of-living by making these affordable and accessible. Shown below are the listed design qualities; adaptability, creativity, analytical skills, attention to detail, problem-solving, detail orientated and innovation.

CONTEXTUALLY AWARE

Finished Proposal 3D Render

Author: Elizabeth Carney

Developed in Sketchup then rendered in V-Ray and adapted in Photoshop.

PROJECT LEVEL: Personal Project

DATE PROJECT WAS CARRIED OUT: December 2023

2023 / Personal Project

The current **political sphere** is balanced delicately between economic and social dynamics and the cultural climate. Integrated with the evolving climate crisis micro homes are an **innovative** solution. Modular dwellings have less environmental impact, lower carbon footprint and are energy-efficient. The design is intended to be **flexible to both situation and use**.

The micro home is made of **prefabricated timber** which slots together to encourage users into a sustainable form of construction. An **efficient fabrication with seamless integration** was at the forefront of the renewable and recycled sustainable design.

Once the user has assembled the $25m^2$ building, the building is flooded with light from two adjacent arched windows. Designing from a **technical standpoint with contextual awareness**, the proposal aims to demonstrate spatial awareness and sensibility to apply to every environment.



NEGOTIATION WITH SPACE



1mx1m
Timber
Panels

Ribbed
Cruciform
Joints



**Rendered Orthographic
Axonometric Section**
Author: Elizabeth Carney

*Drawn in Autocad
and adapted in
Adobe Photoshop.*

FLAT - PACK DESIGN



**STUDIES SHOW
COGNITIVE BIAS IN
WHICH
CONSUMERS
PLACE
DISPROPORTIONAL
Y MORE VALUE ON
PRODUCTS THEY
PARTIALLY
CREATED.**

Orthographic Plan
Author: Elizabeth Carney

*Developed in Autocad,
adapted in Adobe Fresco*

This drawing indicates spatial awareness with the consideration of dwellers' routines. It shows within 25m² the dwellers can have individual spaces and spaces where they interact during their routines/ habits.

Combatting consumerism means constructing architecture that follows evolution, particularly human desire and choice. Studies show consumerism since the 1920s has increased, with that in mind this micro home was designed to be self-assembly to satisfy the endowment effect, in which people tend to overvalue things simply because they own them.

Nurtured knowledge of seamless integration led to the conclusion that a **cruciform joint** that functions similarly to a plug-in connection should be used. Allowing for effortless separation of components during disassembly and fast extensions during assembly.

Relying upon a plug-in assembly system, the compact residence was designed for easy disassembly and reuse and was formed from glulam timber panels and cross-shaped joints that allow the elements of the structure to slot into each other.