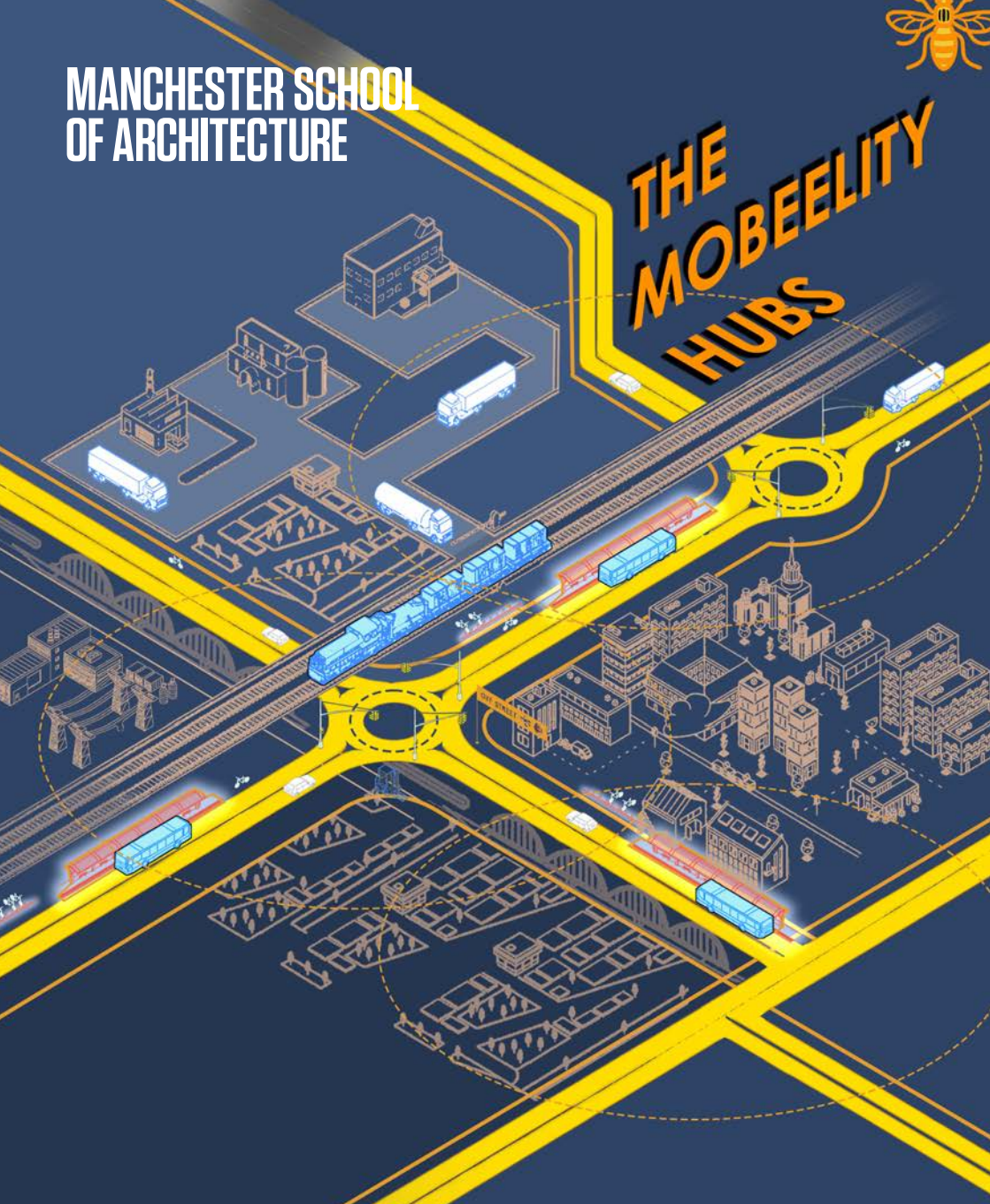
MANCHESTER SCHOOL OF ARCHITECTURE

THE MOBEELITY HUBS



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MSA LIVE 26

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Collaborators

Group 33 collaborated closely with Eleanor Collins, the EV Charging Infrastructure Project Manager at Manchester City Council. Throughout the project, regular meetings, workshops and ongoing communication helped shape the development of the proposals at each stage of the design process. Eleanor's guidance provided valuable insight into the practical and environmental considerations surrounding sustainable transport infrastructure across Manchester.

We also worked alongside Robert Scott, Transport Strategy Lead for Manchester City Council, whose input supported wider discussions around mobility, accessibility and the future of integrated public transport within the city.

Working through the Council's Infrastructure and Environment Team, the collaboration explored how transport infrastructure can support healthier lifestyles, improve air quality and encourage more sustainable travel habits across the city. The project considered how Mobility Hubs could strengthen relationships between people and place, transforming everyday movement through Manchester into a more connected and socially engaging experience.

Transport for Greater Manchester further supported the project through wider conversations around transport networks and future ambitions across Greater Manchester. Together, the collaboration encouraged an interdisciplinary approach linking transport, architecture and public space, exploring how collective design thinking can contribute to more inclusive, accessible and sustainable urban futures.

Introduction

The MoBeelity Hubs

Working collaboratively with Manchester City Council and Transport for Greater Manchester, this project explores how Mobility Hubs could help shape a healthier, more connected and socially inclusive future for Manchester. Bringing together architecture, transport and public space, the collaboration investigates how everyday movement through the city can become more accessible, sustainable and community focused.

Mobility Hubs are designed to combine different forms of transport within one accessible location, alongside seating, planting and shared civic space. Rather than functioning solely as transport infrastructure, the hubs have the potential to become active public spaces that encourage social interaction, strengthen local identity and improve people's relationships with both their communities and the wider city. By supporting more sustainable travel habits and reducing reliance on private vehicles, the project also responds to wider environmental challenges including air quality, accessibility and urban wellbeing.

Through 3d models, drawings and visualisations, our team developed a series of conceptual proposals exploring how Mobility Hubs could be implemented across Manchester in ways that create meaningful social impact. The project encouraged us to consider how collaborative and people-focused design can influence long-term environmental change while fostering stronger connections between people, movement and place.

Sites Typology

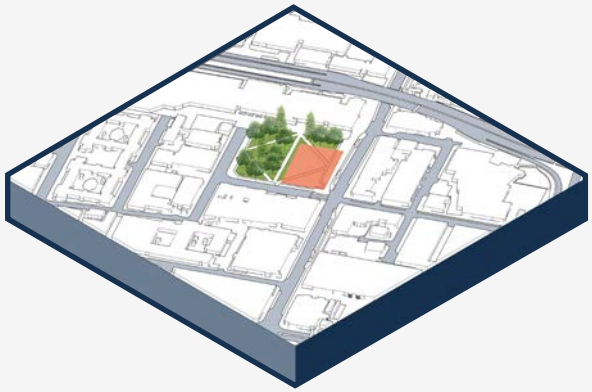
Tier 1: Starters

These sites serve a narrow and specific user base. Demand is low volume, limited in variety, and concentrated around defined journey types and times. Neither site sits on a major movement corridor. People arrive because the site is the destination, not because they are passing through. That sets a clear ceiling on what the intervention should try to be.

Alison Street, Manchester

Tier 2: Anchors

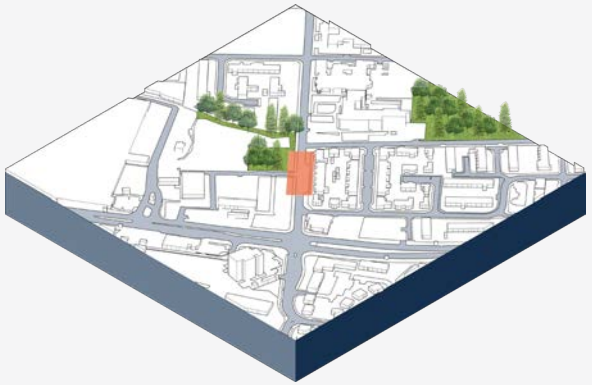
These sites serve users beyond the immediate neighbourhood. Not all users are local, and they are not coming for the same reason. Residents, commuters, students, and hospital staff each have a different relationship with the site. An informal version of the mobility hub already exists here. That combination of range and readiness is what separates Anchors from every other tier.



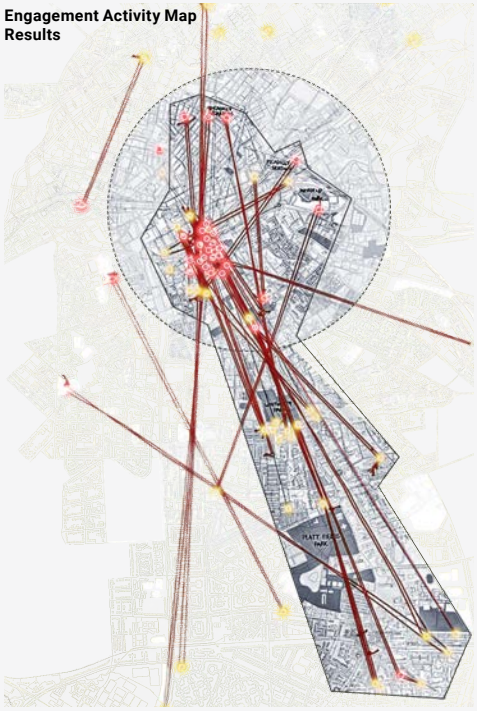
Oxford Road, Manchester

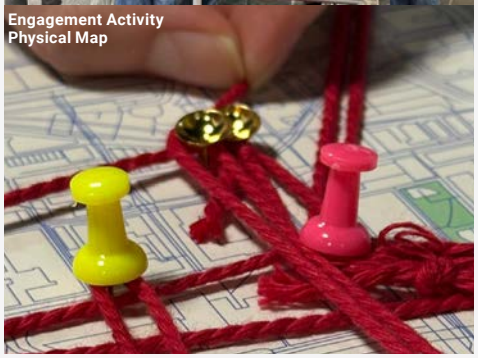
Tier 3: Growers

Infrastructure is absent or fragmented. A bus stop without cycle parking, a wide road with no safe crossing, a community that relies on sustainable travel with nothing in place to support it. Sites are in isolation, work needed to develop a functional proposal is greater than any other tier and connect what exists through the addition of mobility hubs.



Livesey Street, Manchester



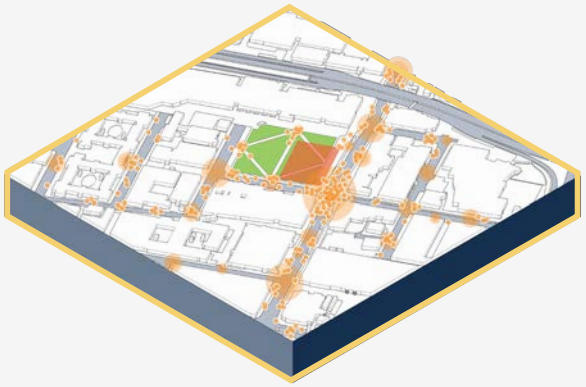


Oxford Road as the Chosen Site

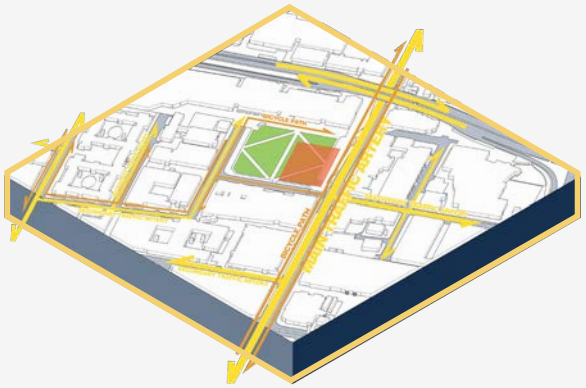
Oxford Road is the most complex site in the set — and that is precisely why it comes first. It serves the widest range of users, at the highest intensity, across the longest span of hours**. A design that holds together under those conditions has proven itself against almost every demand it will face elsewhere.**

The varied audience is not a complication to manage. It is what makes the feedback meaningful. Conclusions drawn here generalise. What works for a hospital shift worker at 7am, a student at midday, and a leisure cyclist on a Sunday afternoon is a design that works for the city. Every other site is a simpler version of the same problem. **Oxford Road is where the framework gets built.**

To engage directly with the community and encourage public involvement within the design process, we created an **interactive engagement activity** centred around movement and everyday travel across Manchester. Using a large-scale map of the city, participants were invited to plot their most frequently used routes with pins and coloured string, visually revealing patterns of movement, connectivity and areas of high activity throughout Manchester. The mapping exercise revealed that **many routes naturally intersected around the area, placing the site as key point of movement within the city.**



Oxford Road
'Hot' activity spots analysis



Oxford Road
transport links traffic flow analysis

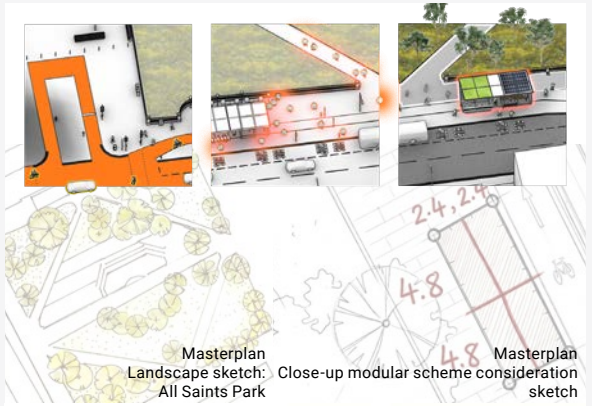
Oxford Road
programmatic site analysis

Design & Collaboration Process

The project is driven by three core pillars: Curating the Journey, integrating diverse transport modes into a user-focused hub; Merging Communities, transforming infrastructure into an inclusive social space; Promoting Sustainability, establishing a low-carbon mobility framework.

This vision was realized through a multidisciplinary collaboration between Bachelors Year 1, Masters Adaptive Reuse, Landscape Architecture, and Masters Year 1 Architecture students. By synthesizing these diverse academic stages, the project benefited from a unique spectrum of skills. Bachelors students provided fresh, foundational perspectives on user experience, while Masters Architecture students contributed technical rigor and spatial complexity. The Landscape Architecture peer integrated the hub into the wider ecological and urban fabric, and the Adaptive Reuse specialists ensured the project remained grounded in heritage and sustainable repurposing.

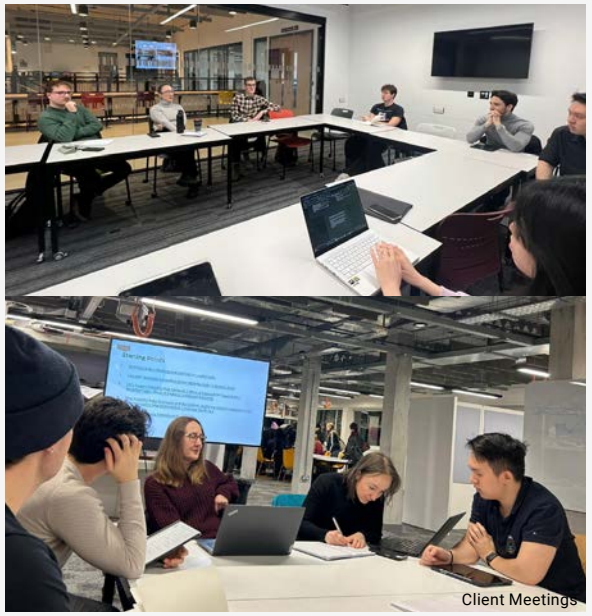
Together, these varied experiences built a holistic, future-ready proposal presented to Manchester City Council. This collective effort demonstrates how cross-year collaboration can address complex urban challenges, blending innovative design with civic responsibility to create a transformative vision for the city.



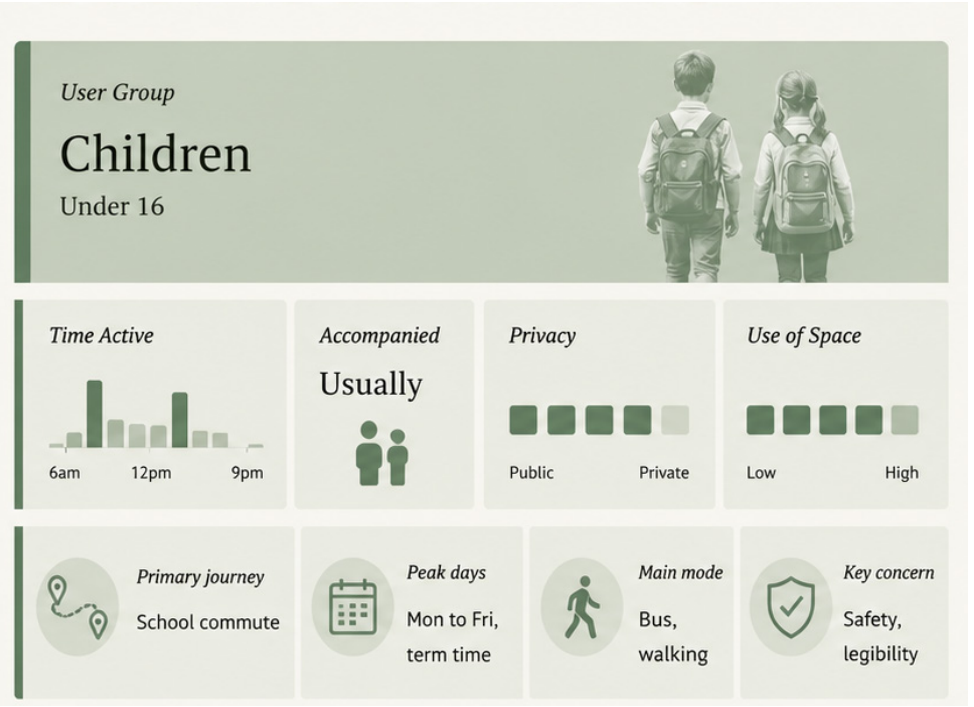
Masterplan Landscape sketch: All Saints Park

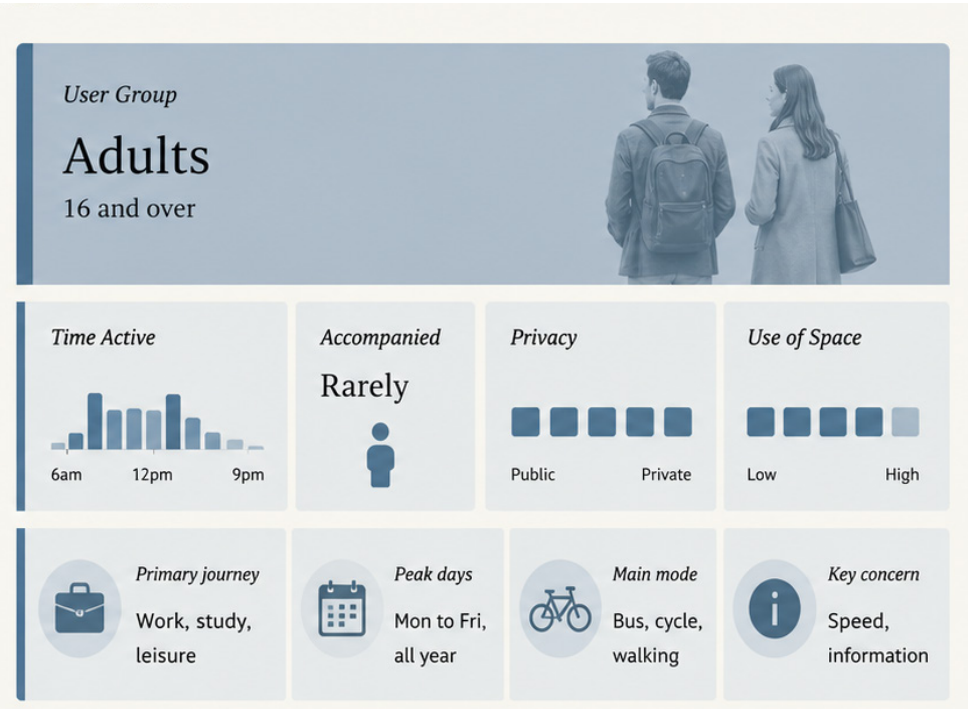
Masterplan Close-up modular scheme consideration sketch

Aerial sketch view of Oxford Road: Landscape



Client Meetings

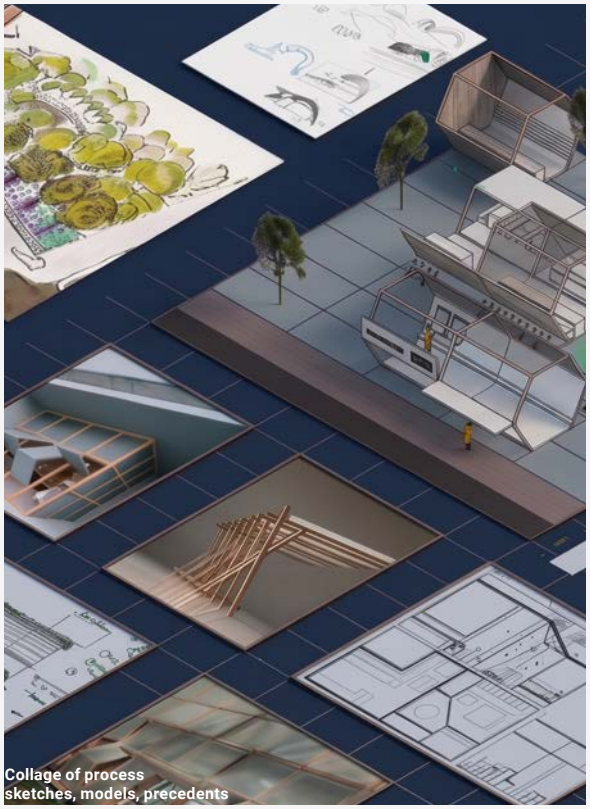




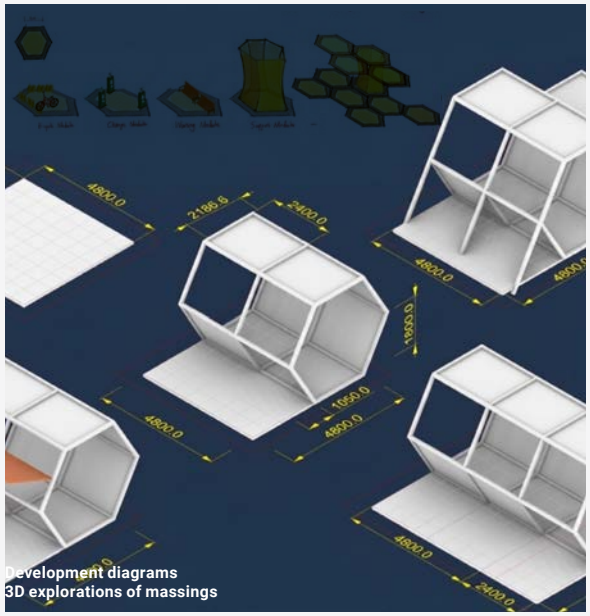
Design Resolution

The design process for this mobility hub began with establishing an appropriate scale for the proposal. Since the hub is intended to function within an urban streetscape, we decided that the size should fit within two standard car parking spaces, and it can ensure that the structure remains compact, adaptable, and suitable for public infrastructure. During the early stages, we explored a range of design concepts through precedent studies, sketch models, and spatial experiments to understand how mobility hubs can create both functional and social value within the city. From this exploration, we were particularly **inspired by the honeycomb geometry,** which relates strongly to Manchester's well-known bee symbol and identity. Using this concept as the foundation of the project, we developed a **modular hexagonal form that informed both the structure and spatial organisation of the hub.**

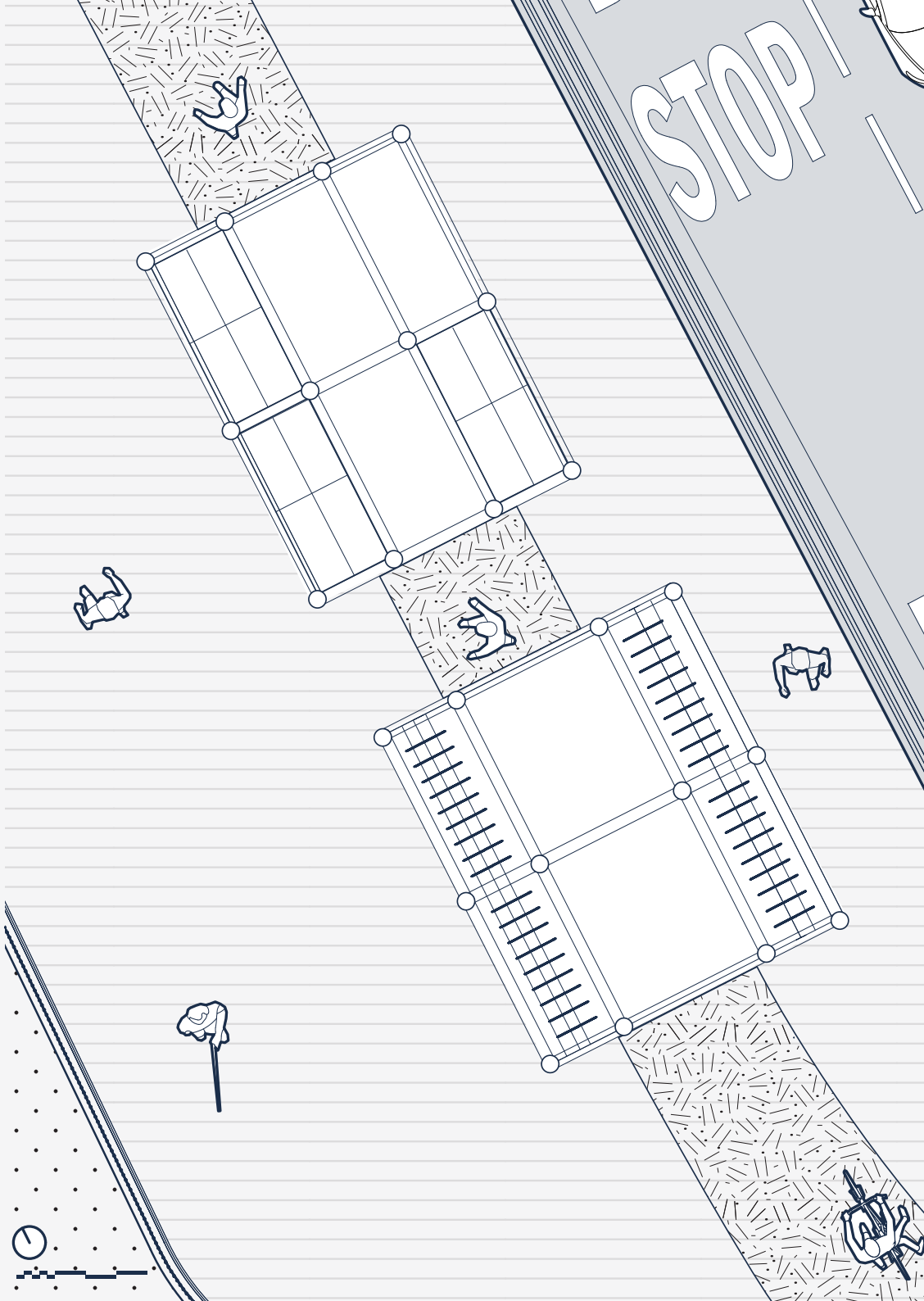
Following the initial form development, we carried out further research into user engagement and the potential programme of activities within the space, considering how the hub could encourage interaction, waiting, resting, and community use. At the same time, we reviewed Manchester City Council guidelines regarding the use of materials and public infrastructure requirements to ensure the proposal responds appropriately to the local context.



Collage of process
sketches, models, precedents

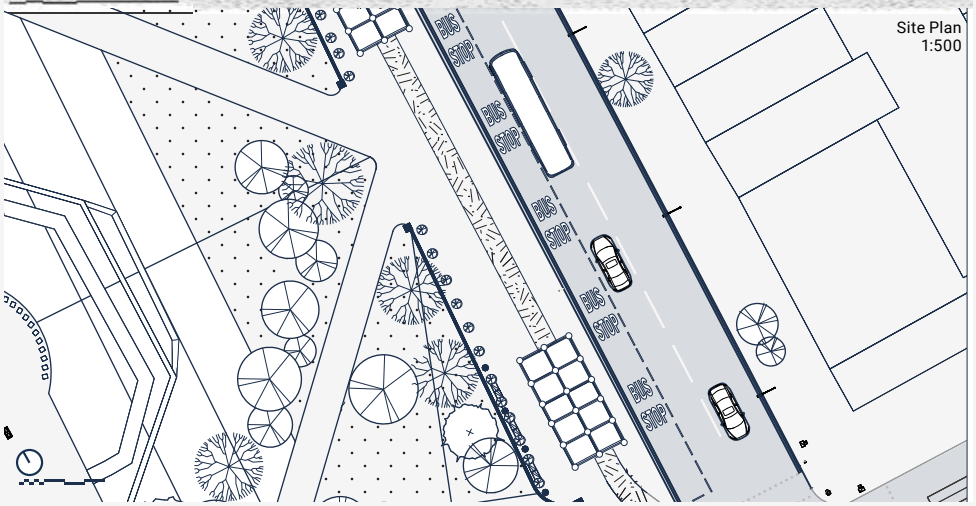


Development diagrams
3D explorations of massings



Section
1:100

Section
1:500



Site Plan
1:500

Structural and Landscape Strategy

This proposal introduces a modular mobility hub designed for rapid assembly and full circularity. By utilizing a prefabricated skeletal frame, the system allows for easy disassembly and relocation, that can easily be adapted/ replicated accross different scales. The material palette prioritizes sustainability, integrating living green roofs and vertical planters that mitigate the urban heat island effect and enhance local biodiversity.

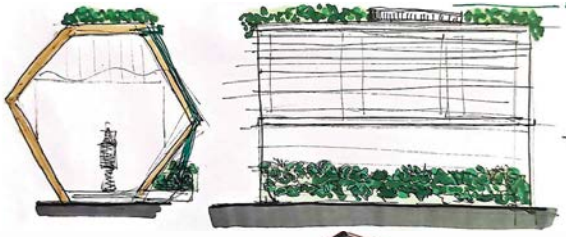
Central to the scheme is the implementation of energy-kinetic flooring. Positioned strategically within the high-traffic zones of the hub, these tiles harvest ambient energy from pedestrian footsteps converting mechanical pressure into clean electricity to power the hub's integrated lighting and digital displays, creating a self-sustaining feedback loop where the community's movement directly fuels the infrastructure.

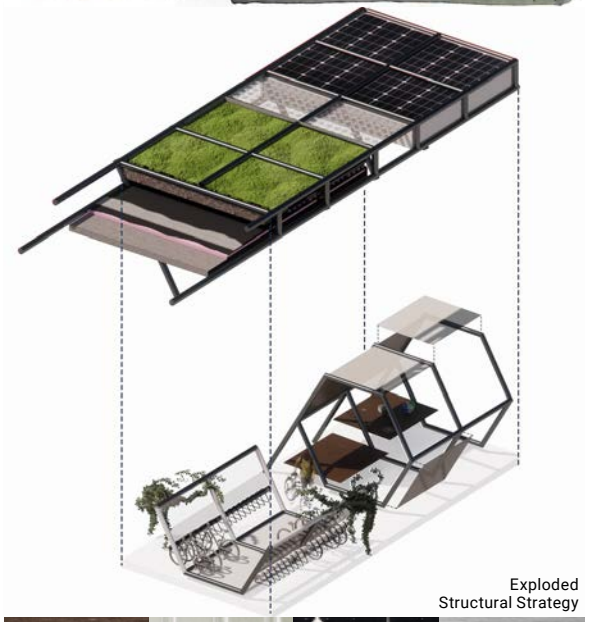
Masterplan and Site Context

The positioning of the two structures is a direct response to the existing site flow. To maximize efficiency, the existing bike lane has been passes directly through the heart of the hub. This reconfiguration serves two purposes: energy capture, with the kinetic flooring,and wayfinding- establishes a clear, intuitive path increasing visibility and recognition of the mobility hub as an urban landmark.

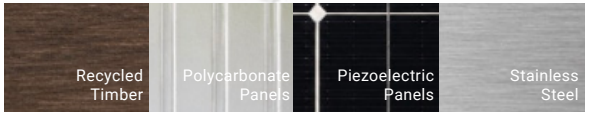
Landscape roof and planters vegetation types

Landscape strategy
Sketch and Model





Exploded
Structural Strategy

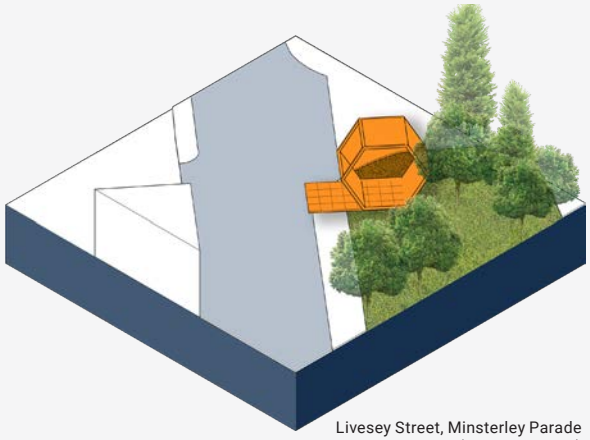


Modularity of the Scheme

Scale 01/ Micro

The Street Strarter: Narrow brief, specific users, car-dominant streets. The design works harder here because there is nothing to build on yet —only the opportunity to start.

1x1 module, 2.4m x 2.4m

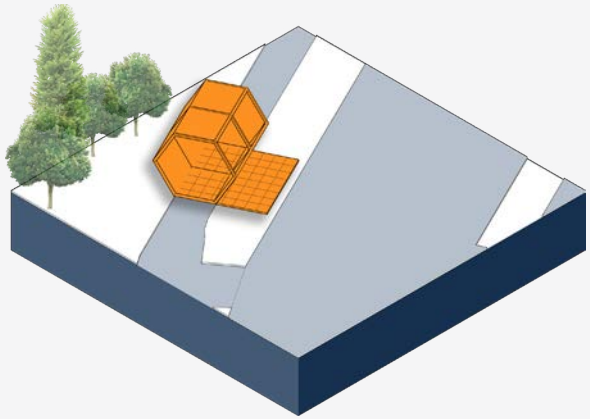


Livesey Street, Minsterley Parade
(Tier 3: Growers)

Scale 02/ Meso

The Neighbourhood Hub: The demand is realbut the infrastructure has not caught up. These sites need connecting before they can perform.

2x1 module, 2.4m x 4.8m

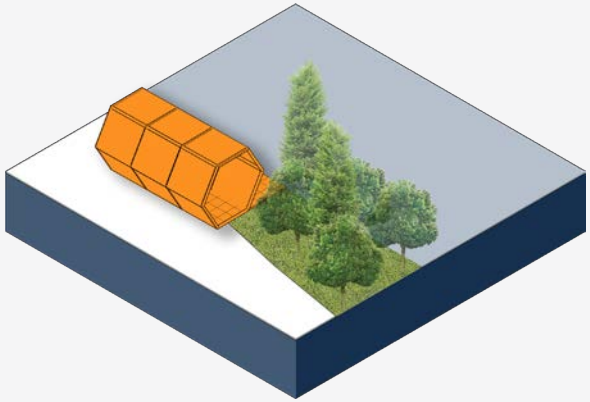


Oxford Road, Abraham Moss
(Tier 2: Anchors)

Scale 03/ Macro

The City Anchor: Informal hubs already. The infrastructure exists,the users are there. The work is to make it coherent.

2x1 module, 2.4m x 4.8m



Riverside Car Park, Cowsby
(Tier 1:Starters)

ABOUT

Each year the MSA LIVE programme unites Masters Architecture year 1, Masters of Architecture & Adaptive Resuse students, BA foundation and year 1 and Masters Landscape Architecture 1 in mixed-year teams to undertake live projects with external partners to create social impact.

LIVE PROJECTS

All MSA LIVE projects are live. A live project is where an educational organisation and an external partner develop a brief, timescale, and outcome for their mutual benefit.

SOCIAL IMPACT

All MSA LIVE projects are for community benefit or have social impact. Social impact is the effect an organization's actions have on the well-being of a community. Our agendas are set by our external collaborators.

EXTERNAL PARTNERS

MSA LIVE projects work with many organisations: charities, community groups, social enterprises, community interest companies, researchers, practitioners and educators.

STUDENT-LED

Our MSA students take the lead in the project conception, brief development, delivery and co-ordination of a small project. The projects are celebrated in presentations at the end of the academic year. .

KNOWLEDGE TRANSFER

Working in teams within and across year groups and courses; MSA students participate in peer to peer learning. In addition, collaborators, participants and students engage in the transfer of tangible and intellectual property, expertise, learning and skills.

LARGE SCALE

This year approximately 400 students from 5 cohorts in MSA have worked on 34 projects with partners.

QUESTIONS

For questions about MSA LIVE please contact the MSA LIVE team, Emily & Julie:
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