

First Floor Plan

Rooms:

1.Warehouse 2.Shaded courtyard community dinning area 3.Community Kitchen 4.Open courtyard 5.Community dinning area 6.Kitchen Storage 7.Washing area

The main entrance for the community zone, is designed as large court yard area, reflecting on the history of al fresco. It has accessibility to kitchen and

eating areas.

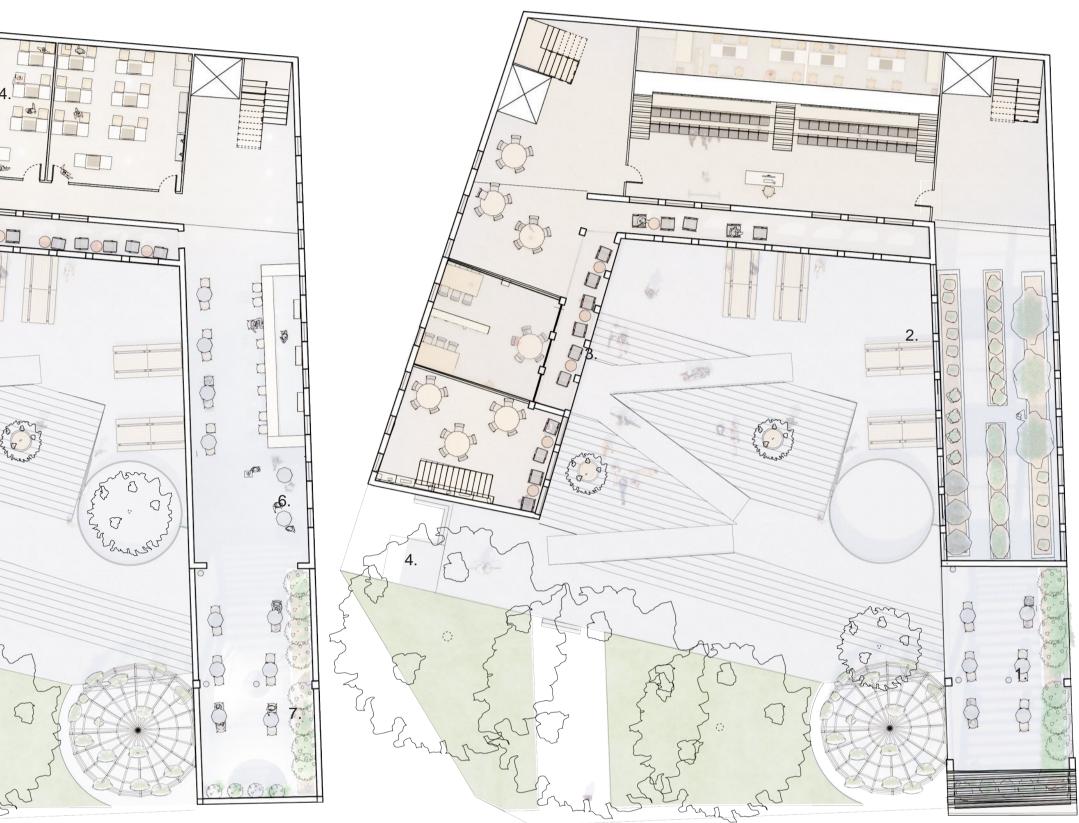
Summary:

The court yard is surrounded by the building, it creates a peaceful area for the community together to share food.

Second Floor Plan

Rooms:

- 1.Library 2.Study cubbies 3.Bathrooms 5.Kitchen cleaning area 6.Cafe/bar 7.Community garden and
- area



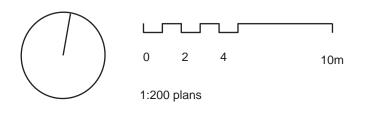
Third Floor Plan

Rooms:

1.Green House 2.Lecture Hall 3.Study Area 4.Silent Study Zones

Summary:

The top floor has a spatially designed lecture hall, quite study room, and lush green area to enable culture study agriculture eduction. Large glass windows let the part of the build act as a green house letting in lots of light.



Summary:

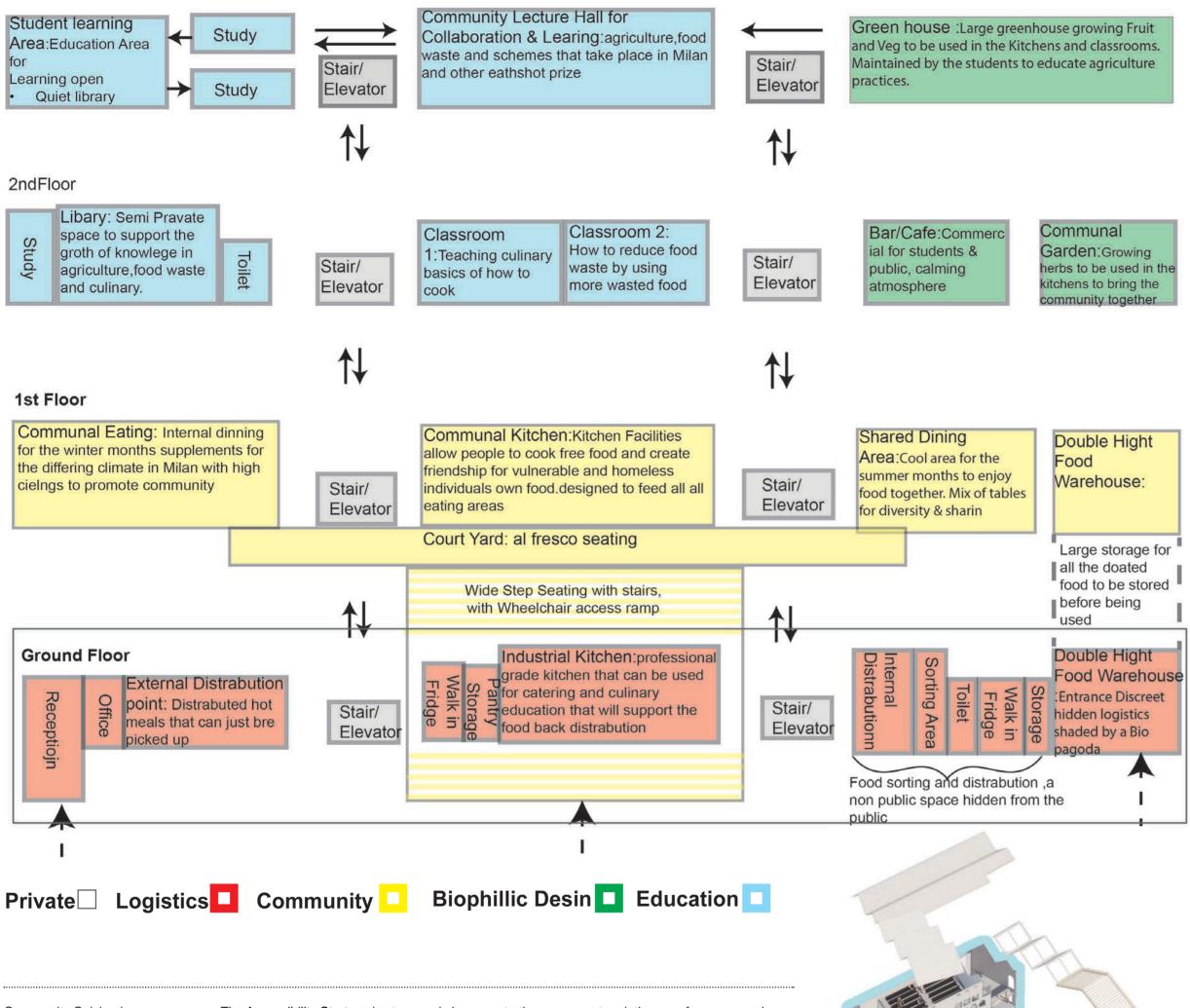
4.Classrooms eating drinking

This floor is the beginning of the education area, classrooms are in the centre acting as a divide between

A community garden is a project that offers usable produce, which also will counterbalance the carbon footprint.

the community and learning.

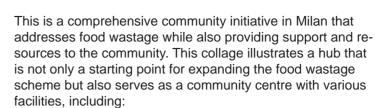
3rd Floor



Community Cuisine is a purposefully designed modern building, infrastructure of the surrounding and large glass windows, offers delightful community areas to share time and the love of food.

The Accessibility Strategy is steps and slopes up to the open courtyard, the area for communal sharing food 'Al fresco', with benches and wide steps for lounging, is the magnificent welcoming maintaining the charm of vernacular entrance to this thoughtful caring building with elevators inside for other purposeful floors. This Community Cuisine project is designed to improve lives by supporting culinary development, its area of Milan. The open plan areas multiple kitchen facilities, not only feed the homeless, but creates engagement and encourages community collaboration.





The Programme:

- Community Kitchen: A space for community members to use, which could be beneficial for those who don't have access to kitchen facilities.
- Food Bank Donation Centre: A place where people can donate food, which is then distributed to those in need, including the homeless and low-income families.



- Food Preparation Learning and Lessons: Educational programs that teach meal preparation skills, which can be especially helpful for asylum seekers and others affected by the cost of living crisis.
- Industrial Standard Kitchen: A professional-grade kitch en that can be used for catering and culinary education.
- Community Allotment and Herb Garden: An area that produces fresh produce for the catering needs and also serves as a wellness space for the community.
- Accessibility: The building and gardens are designed to be fully accessible to ensure that everyone can benefit from the facilities.

Conclusion: This initiative is a holistic approach to tackling food waste and supporting community welfare through education, resource sharing, and incivility.

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Brief Collage



Slate Roof Correlative to the Vernacular pitched roofs. It uses a series of gables roof lines..



Stone Block Locally and sustainably sourced. Good for insulation and longevity.



Wooden Skylights South facing skylights are angled for maximum solar advantage to enable plant growth for consumption/

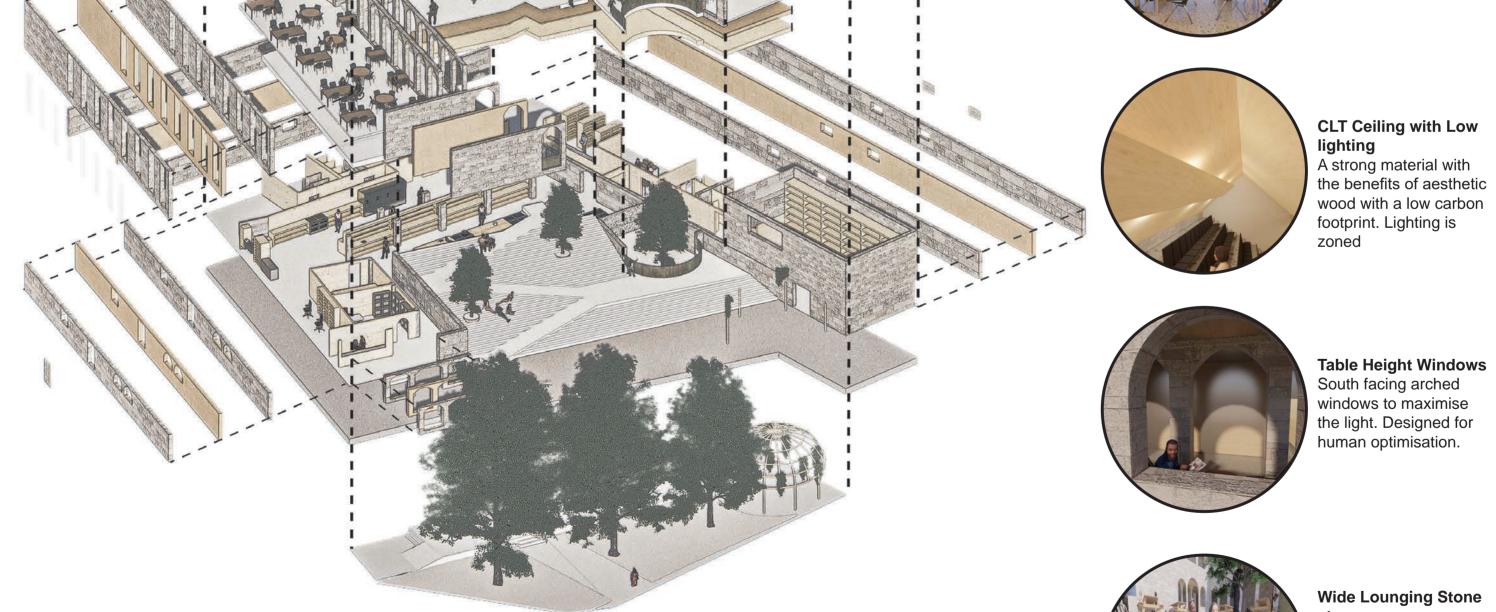


Wooden Trellis Pagoda A feature to enable the growth of fruit trees and

growth of fruit trees and vegetables. The rain is recycled into the water tank to re-water the plants.



Large Windows Double height windows to let in natural light for optimum reading capability and welfare.



11

Wide Lounging Stone steps Offering a practical entrance to the building and seating functionality for community connections.

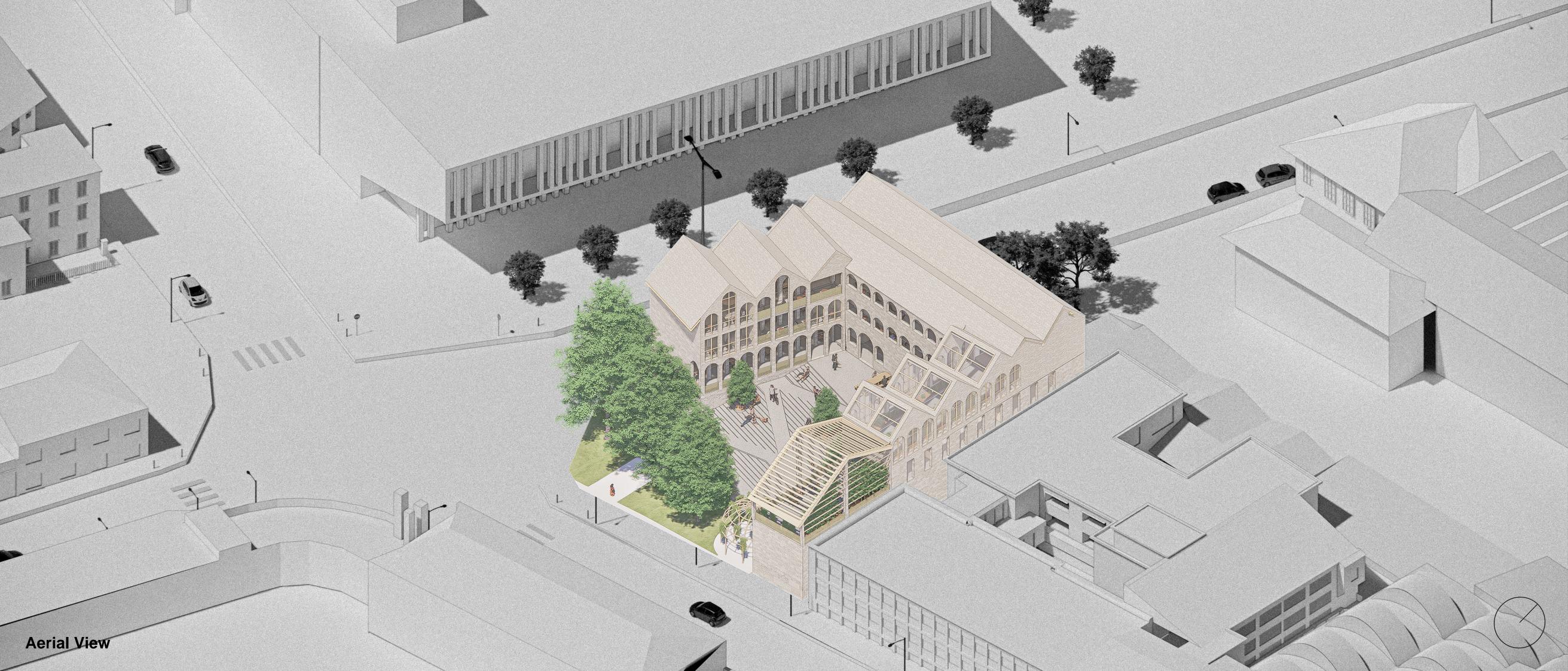


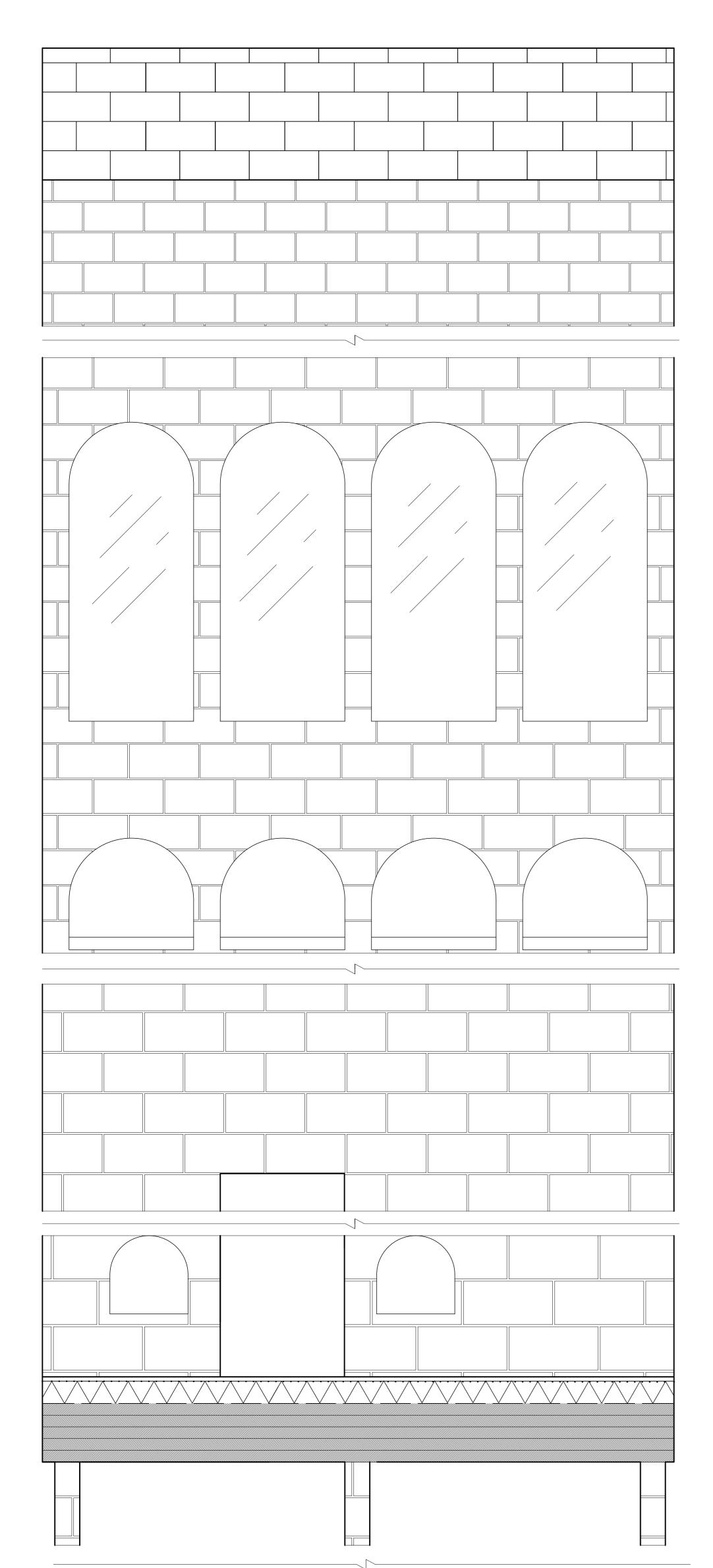
Wheelchair Access Offering a gradual sloping entrance for wheelchairs and prams. Allowing inclusivity and diversity..

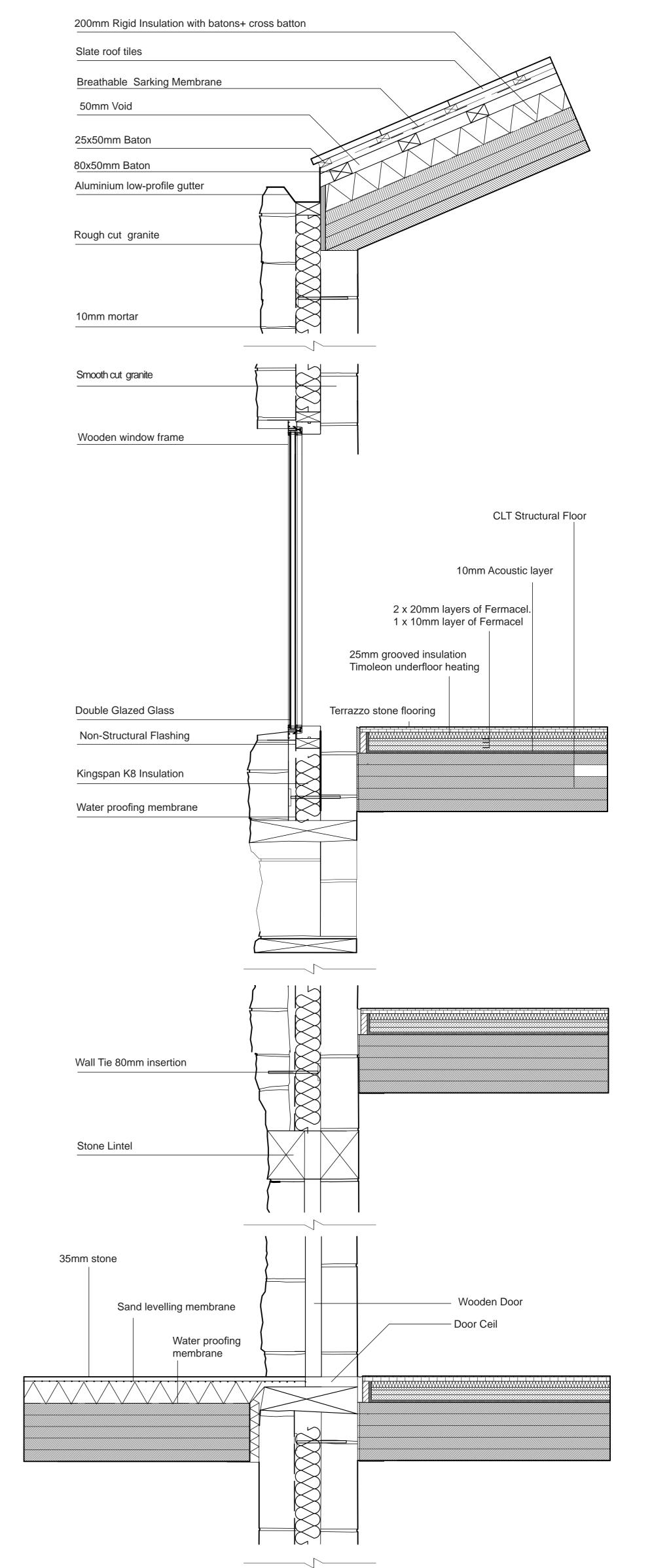
Structural Strategy

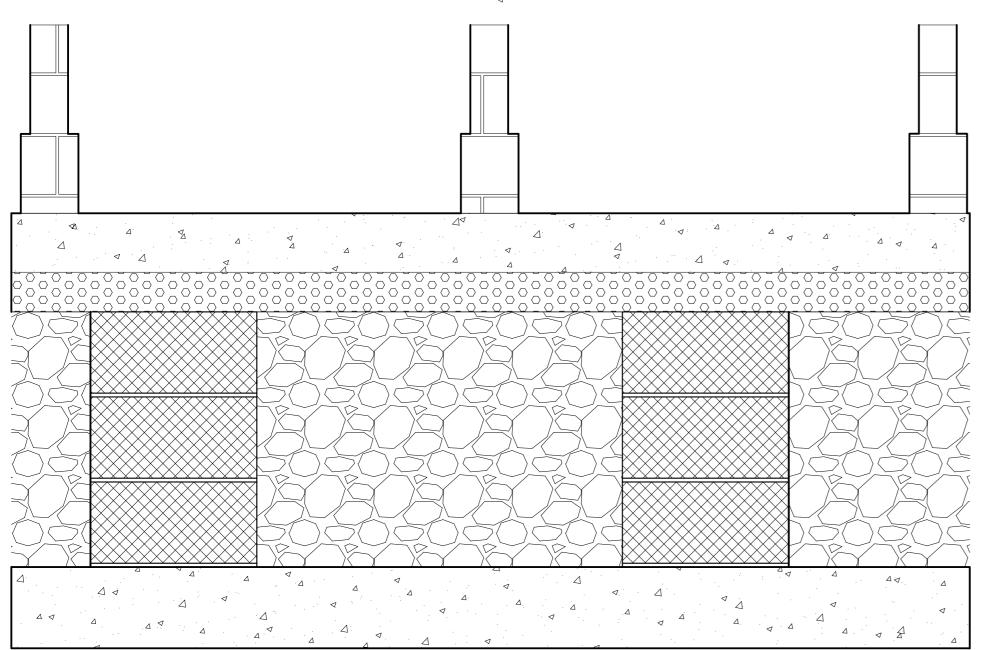
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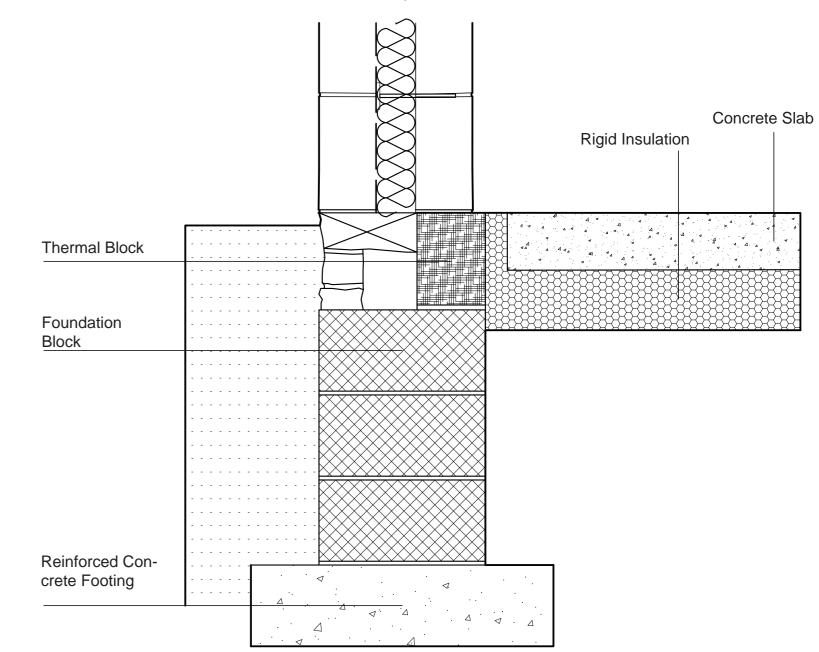
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1:20 Bay Study



Ground floor:

Industrial Kitchen and Green Area The ground floor houses an industrial kitchen, cleverly tucked away under the stairs. This private kitchen serves the community by providing healthy meals, especially for those in need. It's a great initiative to reduce food waste and support those who are less fortunate.

Outside, there's a natural green area where peo-ple can sit, surrounded by nature and shade. It's a lovely spot for relaxation and community interaction.

2rd floor: Education on Healthy Cooking and Safety The second floor is dedicated to educating peo-ple on cooking healthily and safely. It's a crucial aspect of community well-being. A substanable ap-rivate 'thy
 Imagine the aroma of freshly cooked meals filling this space, bringing people together over food and conversation.
 A conversation.

1Pantry

- 2.Industrial kitchen
- 3.Communal Kitchen 4.Classroom kitchen
- 5.Lecture Hall
- 6.Study Cubbies
- 7.Courtyard
- 8.Natural shading and Bio diversity

Embodied Carbon Calculation (Global Standard EN15978) (Stages A1-A5)

Meterial description	Density	Embodied carbon A+C	Volume of material Used	TOTAL
Material description	Density	KgCO2e/m3	m3	Embodied Carbon Materials
Aluminium (polyester powder coated)	2700	36484	0	0
Aluminium (virgin)	2700	31540	0	0
Aluminium (general)	2700	22814	0	0
Brass	8700	22306	0	0
Glavinised structural steel	7850	17276	0	0
Aluminium (bar and rod)	2700	16636	0	0
Glass fibre Reinforced plastic (GFRP)	1500	14315	0	0
Glass fibre	2500	13327	0	0
Hot rolled structural steel	7850	11176	0	0
Intumescent paint for steel	50	5653	0	0
PVC	1380	2814	0	0
Flat glass	2500	2823	28.02	79103
Clay Bricks	2400	1271	0	0
Viroc® Cement Bonded Particle Board	1350	948	0	0
Granite/Basalt/Marble	2600	541	0	0
Concrete 40 Mpa (unreinforced)	2400	495	180	89118
Concrete Blocks 7.3MPa	2050	372	0	0
Bitumen Elastomer	1000	343	0	0
Light concrete (autoclaved aerated)	1000	338	0	0
Plasterboard	720	298	0	0
Limestone	2500	176	0	0
Natural Stone	2500	176	349.32	61347
Sandstone	2400	171	0	0
lcyene (polyurethane)	30	142	0	0
Vapour barrier (polyethylene)	900	128	0	0
Fiber Felt	25	118	0	0
Rockwool	45	35	0	0
Thermacork Insulation	115	-133	310.2	-41226
Sustainably sourced MDF	700	-299	0	0
Laminated Bamboo	750	-349	0	0
Sustainably sourced plywood	620	-377	0	0
Sustainably sourced CLT (spruce)	470	-484	890.98	-431379
Sustainably sourced pine	420	-489	0	0
Sustainably sourced Douglas Fir	530	-549	0	0
Sustainably sourced Oak	770	-782	0	0

-243,038	1,759	
kgCO2e TOTAL	TOTAL m2	ŀ

kgCO2e/m2 TOTAL

-138

The structure sits in a carbon negative making it a carbon retaining building, that will continue in this direction with green spaces



Materials:

•Rough/smooth large stone blocks •Stone flooring •Stone tiles •Terrazzo stone Flooring •Bricks Concrete panels

Site Vernacular Analysis

Earthshot prize: Milan

Milan's Waste to Welfare Scheme launched in 2019, The city of Milan's Food Waste Hubs aim to halve waste by 2030. Unused produced is redistributed by neighbourhood organisations (NGOs) for the disadvantaged citizens

Food Waste Hubs are strategically placed centres where surplus food collected from supermarkets and companies' canteens around the cit/ They disperse to the most vulnerable individuals and families living in that neighbourhood.

Milan is the first major city to enforce a citywide food waste policy. The Milan Urban Food Policy Pact encompasses public agencies, food banks, charities, NGOs, universities and private businesses. Today the city has four Food Waste Hubs, each recovering about



Main Points:

.....

- Redistribution of the surplus. •
- Supermarkets join scheme •
- Neighbourhood organisation
- Collected food in morning • from shops
- Taken to hubs in afternoon and sorted
- Volunteers sort the food into boxes for redistribution

Milan's Waste to Welfare Scheme

Benefits:

The beneficiaries were approximately 27.000 vulnerable people, equivalent to approximately 1.230.000 meals.

- Reduce Land Waste
- Reduce Methane Gas emissions •
- Feed the homeless and reduces povertv
- In 2022 400 tonnes of collected
- In 2023 over 615 tons of food, of which 574 tons from the five Neighborhood Hubs currently active in Milan.

Conclusion:

Milan's Waste to Welfare Scheme has been the backbone to the Community Cuisine Project. Milans Earthshot prize has highlighted the benefits to the local community by using the waste which would have normally gone to landfill. The generosity of time and thoughtfulness, where local volunteers collect unwanted food from supermarkets that have joined the scheme, help to redistribute 'Waste to Welfare' at predesignated hubs is so beneficial to the people.

Super Markets

Culinary Cuisine is an expansion

of this policy, with an ethos to

welfare.

reducing waste, connecting the

community and improving overall

Site

Food Hubs

Slate Stone Tile

This is a stone slate tile would be utilised as an alternative to the less durable clay tile known in the immediate vernacular. It has historical use, it is has longevity, fire proof, water resistant, mould fungus and pest resistance, easy to lay and aesthetically pleasing. Used over all roofing areas.

Rough/Smooth Stone Block

The large strong igneous granite rock is mined from nearby quarries. It is a local stone stone to the vernacular, and has been used in stone buildings throughout the area, such as churches and the Duomo Di Milano cathedral, in the centre of Milan .The stone is extremely durable, and fire resistant. It is energy efficient. A natural insulator and thermal mass. They are good for sound proofing (non-disturbance for the surrounding neighbourhood). They are sustainable and have a low carbon footprint. With a lower carbon figure for rough-cut stone, suitable for the exterior of the building. The interior utilises the smoother flat stone for both safety and aesthetic purposes.Used for Internal and external walls.

Cross Laminated Timber

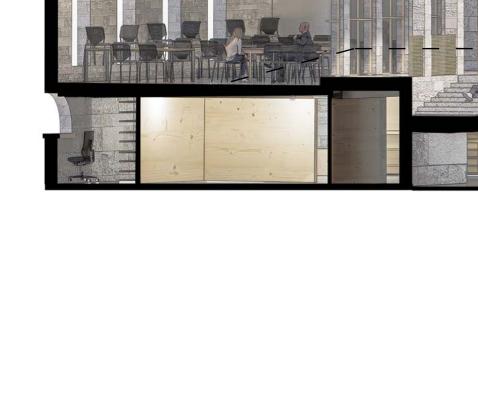
The CLT, is made from wood and has a negative carbon footprint. The wood forms its strength through layers of cross lamination. It is sustainable, and fire resistant due to the outside charring slowing down the flames. It is a thermal insulator. It is very strong and durable, able to take a heavy load, but it also has design flexibility. It actually improves airs quality by removing pollutants in the air and reduces waste as pieces of wood can be used. This is very relevant to the overall strategy of Community Cuisine, reducing wastage. It is used for the primary infrastructure, as flooring and arches.

Glass

Glass made for centuries from 70% silicone dioxide (sand), limestone and soda ash. It is heated and poured to produce clear transparent sheets of useful materials. It is durable and mailable and aesthetically please. Keeps the building cool in the summer and warm in the winter, it allows natural light in the building reducing lighting costs. It is easily available, made to measure and will be double or triple glazed. It will be used in all the windows and roof lights allowing plants to grow.

Terrazzo

 \mathcal{T} Terrazzo is used throughout Italy for commercial flooring. It is made from composite material using chips of stone with a cementitious binder. The advantages include hard wearing under footfall, It is heat resistant and already used in kitchens, as it was invented in Italy, the Terrazzo used today originates from Venice 500 years ago. It is slip resistant and perfect for wet areas, and is cost efficient material. Following the Quality Cuisine ethos of using up materials used throughout the building...



Summary Ethos of Material Use

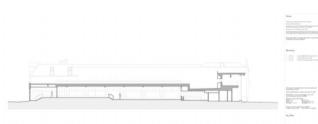
- Using local stones of the vernacular area Helping the local community economically
- Historical usage Integrate into Society Using up waste materials
- Durability as Increase in Footfall facilitating Community connections and communications
- Sustainability Recyclable glass/Natural Wood

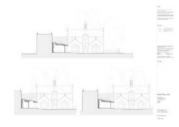
Material Strategy











University of Warwick

University of Warwick received a RIBA 2023 accolade prize (by Feilden Clegg Bradley Studios) - Runner up for its Faculty of Arts building, bringing the community together and providing open spaces.

Their simple mission became the driving principle behind the entire scheme, to create a vehicle for collaboration and cross-pollination of the arts, whilst drawing inspiration from the site's unique parkland context. Here the architects have woven these two agendas into one cohesive design concept that has been executed with skill and craft.

The floor plan - showing the interconnection of buildings- inspiring the link to three wings (Community Cuisine : Library building; kitchen building & logistics with garden areas) and use of trees to reduce carbon footprint.

The internal Space - showing the openness (dimensions) - inspiring the open community kitchen space.

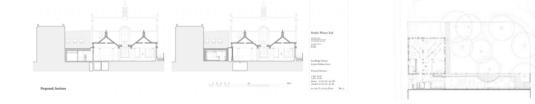




Lea Bridge Library Pavilion

by Studio Weave

This was a contender in the RIBA 2023 achievement awards. Client London Borough of Waltham Forest



Award RIBA London Award 2023 and RIBA National Award 2023 (sponsored by Forterra)

Built in the London Borough of Waltham Forest, this was a multi-function extension community facility and historic garden at the back of the library. Lea Bridge End - 'Bring in the outside in'

INSPIRATION : Effected design decisions:

The elevations show the use of the minimal space that was available adjacent to the original library building which has now been incorporated as a new cafe, utilised for collaboration of the community. This allowed the consideration of good use of space with purpose. Community Cuisine has many zoned areas for the community to share, including a library, lecture space, internal gardens, cafe, cubbies for study as well as the important kitchens, one being commercial (feeding the community) and one where anyone can utilise to cook their own food and enjoy eating together in designated eating areas.

Community Cuisine building uses space well and is a harmonious purposeful building to improve social welfare. This inspired the traditional arches and courtyard coexistent to Milan vernacular building, with a modern interior. This inspired the courtyard, used for sharing and the gardens areas incorporated internally in the building.

Precedents:Community Building



Courtyard Design: Facing south, the courtyard welcomes visitors with open arms. The main stairway entrance serves as a warm invitation, drawing people into the heart of Culinary Cuisine.

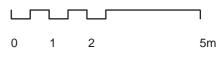
The wide steps: ingeniously incorporate a ramp, ensuring wheelchair accessibility. But beyond mere functionality, the gentle slope also encourages people to pause, sit, and rest - a space for both movement and contemplation.

Traditional bench seating fosters integration and communal communication. It's a place where stories are shared, laughter echoes, and connections are forged. **Sunlight and Coolness:**

The design maximizes sunlight, allowing it to flood the courtyard and spill into the internal buildings. Natural light dances on the stone surfaces, creating a sense of warmth and vitality. The layout of building offering protection from wind.

Igneous stone: not only adds to the aesthetic appeal but also serves a practical purpose. It retains coolness, providing respite from the sun's heat during warmer days. **Magnificence in Architecture:** The facing arches—majestic and timeless—stand as guardians of beauty. They frame the courtyard, emphasizing its grandeur. As visitors step into this space, they can't help but appreciate the harmonious blend of form and function—the very essence of great architecture.

South Elevation





Rectangular Windows:The deliberate use of rectangular windows aligns with the surrounding architectural context. Rectangular shapes are common in many building designs and can create a harmonious visual language. These windows likely provide a balance between aesthetics and functionality.

The wide and tall windows serve dual purposes:

Natural Light: They allow ample natural light to enter the interior spaces. Well-lit spaces enhance occupant comfort and reduce the need for artificial lighting during the day.

Heat Ventilation: By strategically placing large windows, you're allowing heat to escape during warmer periods. Proper ventilation helps maintain a comfortable indoor environment.

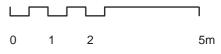
Ground Level Windows for Food Distribution:

The specific design of the two ground-level windows indicates a thoughtful consideration for practical needs.

These windows likely facilitate food distribution accessibility. Whether it's a commercial kitchen, a café, or a community space, having accessible windows at ground level makes sense for efficient food service. The West side elevation design purposely incorporates rectangular windows only. This blends into surrounding architectural context of the buildings in the local area. The wide and tall widows let in light and let out as much heat as possible.

The two ground level windows are specifically designed to provide distribution accessibility for food provision.

West Elevation





This is the west side of my building:

Ground floor: This is the food bank and preparation areas. This includes an entrance and reception, but primarily it includes the large industrial kitchen that prepares the donated food. These culinary creations are then distributed at point 2, through the wall to the people with low income.

First floor: The first floor accessed by the courtyard, lifts or stairs flows to the internal eating area. Consuming the food which has been cooked or supplied by the community kitchen. This floor has additionally with high ceiling for airflow which creates a comfortable environment. A step in floor level differentiates the space. Zoning without the need of walls maintaining spacial atmosphere.

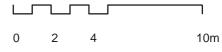
Second floor: This is the start of the education area. It has a double ceiling height within the grand library and adjacent class rooms for study. The design allows the flooding of natural light, offering a conducive environment for learning. Considerations for improving welfare in the winter months.

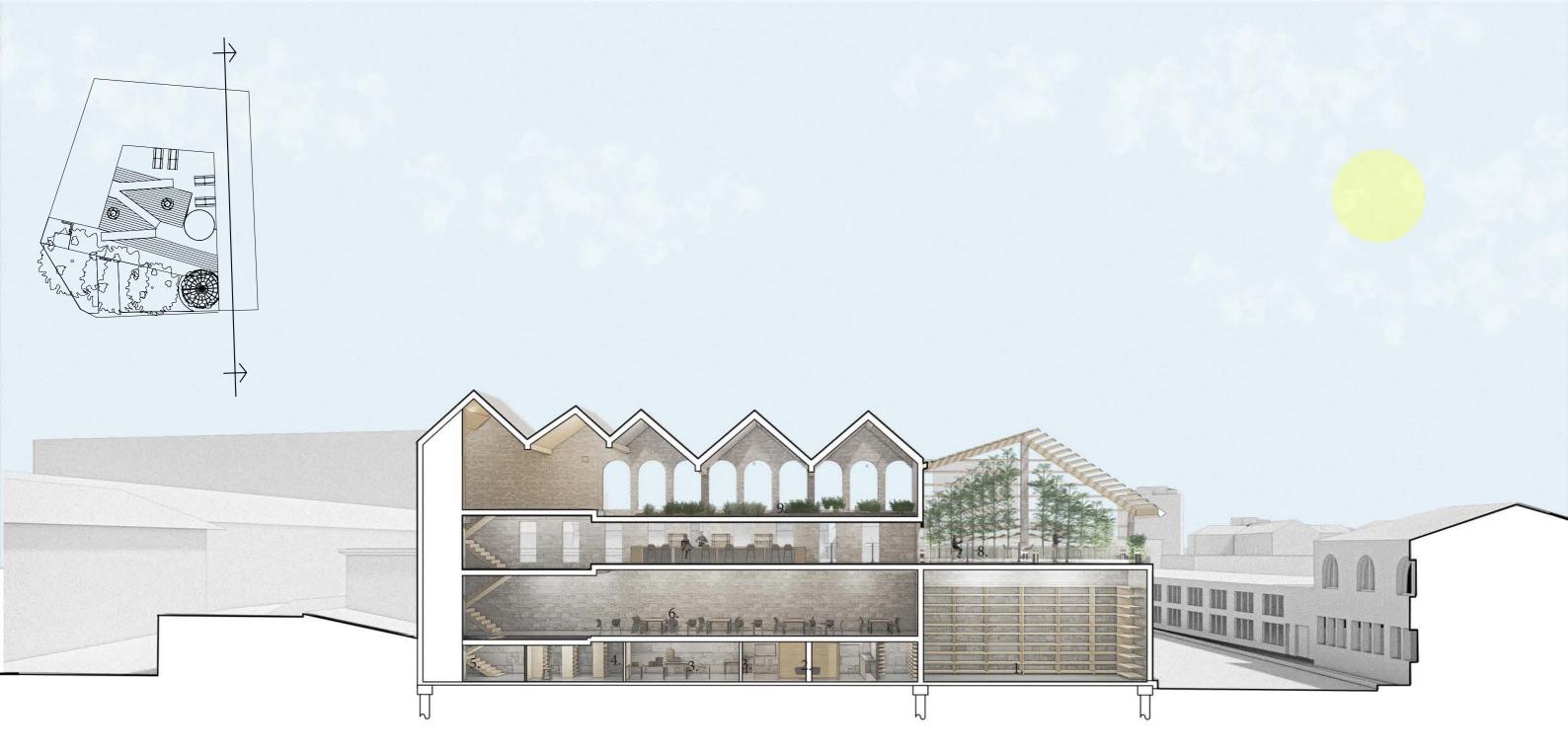
Third Floor: Lecture hall aiming to teach about essential topics such as 'reducing food waste'. There are multiple study areas for different noise levels, accommodating differing learning preferences.

Section A

Rooms

- 1.Reception
- 2.Distrbuton Point
- 3.Industiral Kitchen
- 4.Comunal Kitchen
- 5.Community Dinning Area
- 6.Library
- 7.Lecture Hall
- 8.Study Cubbies
- 9. Quiet study Area
- 10.Toilet Facilities





Summary: This the east side of my building:

Ground floor: This is the food logistic area, located on the bottom (ground) floor for convenience and coolness. Temporary or portable fridges may be used during the hotter months. It incorporates storage to the internal distribution points. The large tall storage warehouse, allows effective organisation of incoming produce and commodities.

First floor: This floor open to the public for dining in shaded areas, for consuming the cooked food. It is half open to the atmosphere giving a place to eat, shaded from the summer heat of the Mediterranean region.

Third floor: This shows the commercial bar/cafe. It was placed above the communal kitchen and dining areas in order to segregate the usage. Aesthetically, it is located adjacent to the community garden with growing fruit trees and vegetables under the pagoda, (used for culinary supplies). Tables and chairs are arranged to aid communication.

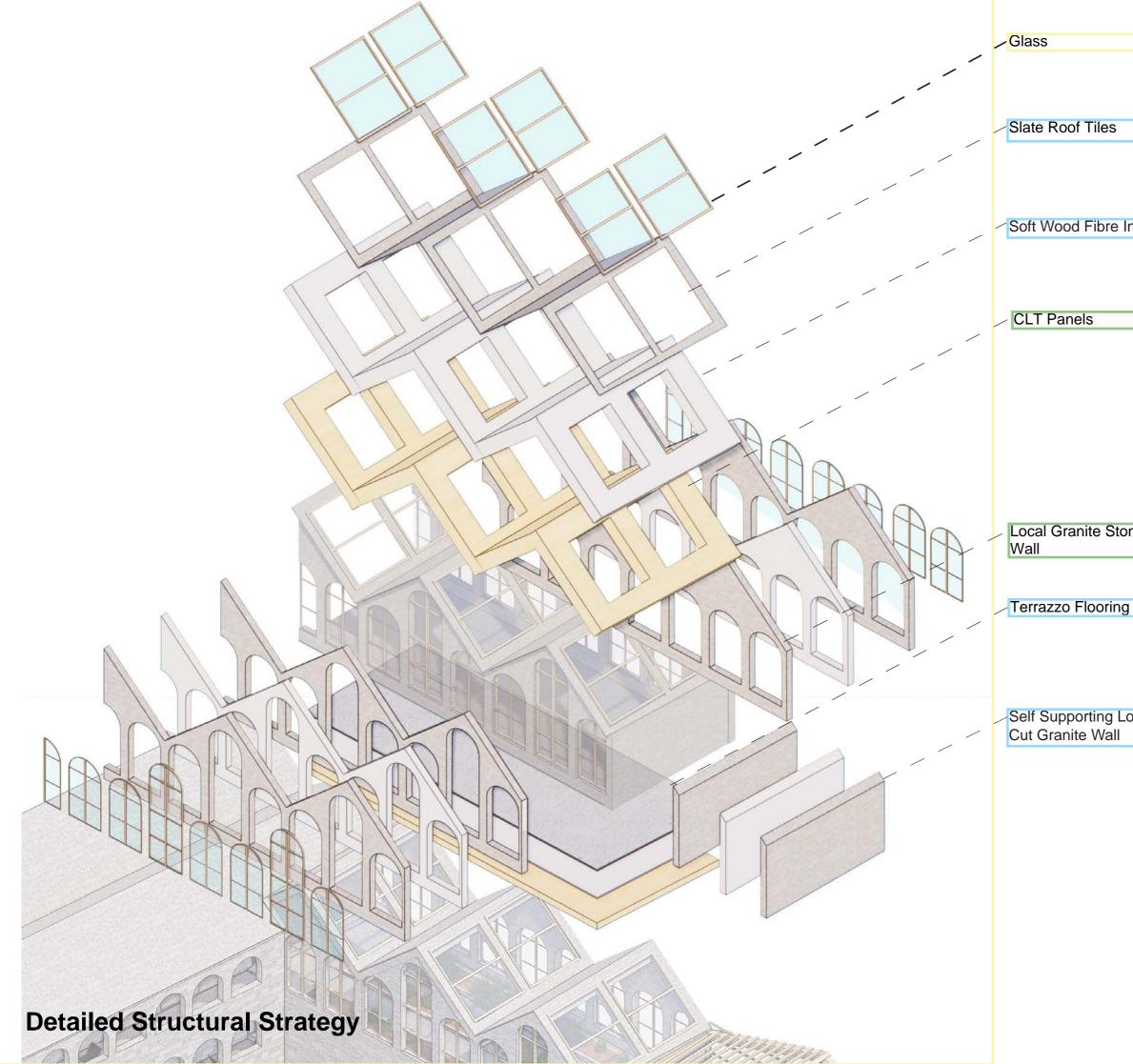
Forth Floor: Is a large greenhouse for the students to grow produce. It aids education and supplies produce for student cooking and learning.

Section B

Rooms

- 1.Warehouse
- 2. Tempory Fridge
- **3.**Toilet Facilities
- 4.Comodity Sorting Rooms
- 5.Internal Distribution Points
- 6.Shaded Community dinning area
- 7. Commercial Bar/cafe
- 8. Community Garden
- 9. Herbal Greenhouse
- 10.Classrooms
- **11.Toilet Facilities**

10m



Insulation	
one Structural	
g	
	Summary:
_ocal Rough	Materials were chosen for their low carbon emissions and their endur- ance/longevity. It integrates in to the historical vernacular appearance of Milan, based on their climate.
	Primary
	Secondary
	Tertiary
	0 2 4 10m



Summary: The building promotes inclusivity and demonstrates a commitment to accommodating diverse needs.

Wheelchair Accessibility:

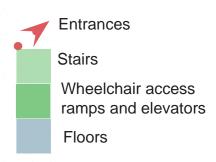
The 5-degree ramps outside provide a gradual incline, making it easier for wheelchair users to access the building.

With a width of 2 meters, these ramps allow ample space for manoeuvring wheelchairs comfortably. Lifts:

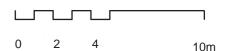
Having two sets of lifts ensures that people of all abilities can move seamlessly between floors. From the ground floor to the top floor, everyone can access the entire building without limitations.

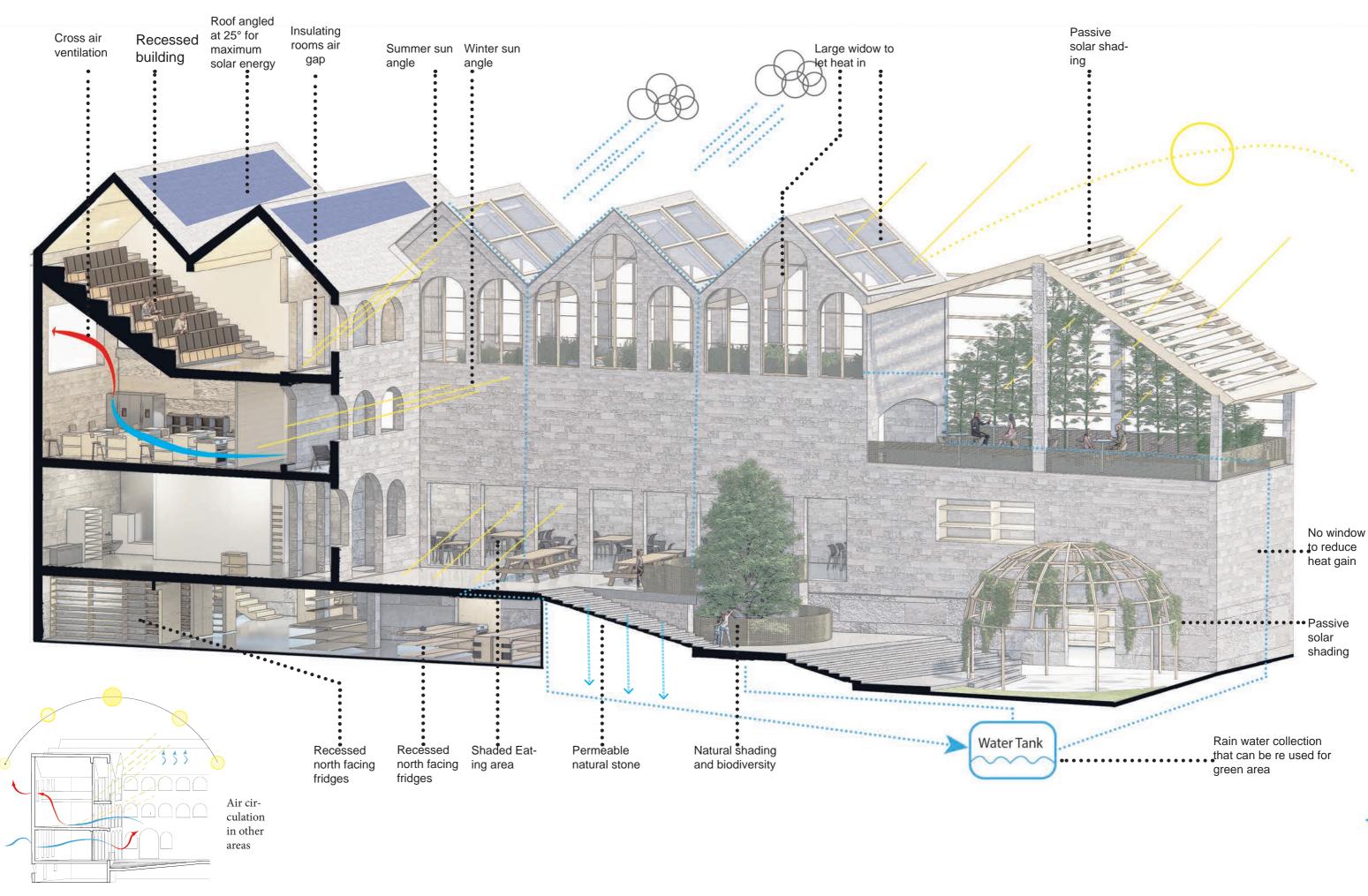
South Face Entrances:

- Reception
- Warehouse
- Community Kitchen
 Courtyard Ramps
- Dinning areas

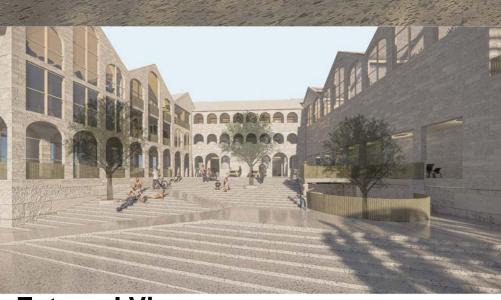


1:200 plans





Environmental Strategy



State to the second

Open Courtyard: There are many design decisions:

Wheelchair Access Ramp: The wheelchair-accessible ramp ensures inclusivity and allows people with mobility challenges to move freely. Gradient: The ramp should adhere to the recommended slope (1:20) for comfortable wheelchair use. Surface: A slip-resistant surface is textured stone.

Dual Functionality: Wide steps that double as seating. They serve both practical and social purposes. **Social Interaction:** People can gather, chat, or simply enjoy the view from these steps **Security:** Encapsulating a safe area

Lighting: Well-lit pathways and corners deter potential risks without blind spots, allows people to see and be seen Emergency Exits: Plenty of exits maintaining security.

Abundant Windows for Natural Light:: Natural daylight enhances well-being and reduces reliance on artificial lighting, reduces the need for electric lighting during the day.

Connection to Outdoors: Views of greenery or the surrounding area create a pleasant ambiance. Window Placement: Clerestory windows (high up) to bring light deeper into the space, evening internal lights, light up the courtyard. Trees for Cleaner Air: Trees absorb pollutants and release oxygen. Their presence improves air quality. Biophilic Design integrating trees aligns with biophilic principles—connecting people with nature.

External View





Community Kitchen: Maximizing Air Flow: Good ventilation is crucial for indoor spaces, especially during winter.

High Ceilings: Tall ceilings allow hot air to rise, creating natural convection currents. Warm air near the ceiling can escape, while cooler air circulates below. Windows: Placing windows strategically ensures cross-ventilation. Consider operable windows that can be opened to allow fresh air in. Natural Ventilation Paths: Design the layout so that air can flow freely from one end to the other. Avoid obstructing airflow with unnecessary partitions. Skylights: Skylights as large windows, bring in natural light and facilitate air movement.

Open Plan and Unity: The space is divided into functional zones (e.g., dining, study).

Visual Continuity: A consistent colour palette, with granite flooring and wooden ceiling material creates visual harmony. Furniture Placement: Furniture encourages interaction. Large communal tables, cozy nooks, and shared seating foster unity. Lower Floor Separation: provides a subtle transition without creating physical barriers.



Community Garden:

Outdoor Eating Area: Milan's smog can be a challenge, so having trees will clean the open-air space for dining alfresco. Designating an outdoor area for eating is a great way to encourage community engagement. People can gather, share meals, and enjoy fresh air. Organized workshops or gardening events bring people together. Learning about plants, cooking techniques, and nutrition can be both educational and fun.

Community Building: The inclusion of growing natural produce allow community members to pick herbs, fruits, or vegetables right from the 2nd floor garden and incorporate them into their meals. It promotes sustainability and a connection to nature. Allowing people of all ages to contribute to the garden creates a shared responsibility. Providing a space where people can actively participate (such as growing and harvesting), fostering a sense of ownership and community pride. It's not just a place to eat; it's a place they've helped create.

Bar/Cafe Connection: Having a bar/cafe adjacent to the outdoor area is brilliant. It serves multiple purposes including healthy snacks for students. **Night-time Activity:** The bar/cafe can transform into a cozy evening spot. Warm lighting, comfortable seating, and perhaps live music or cultural events. It aligns with Milan's nightlife habits.

Social Hub: It becomes a hub for people to meet, chat, and unwind. Whether they're students, locals, or visitors, everyone can enjoy the space. Design Considerations: Aesthetically, blending the natural foliage with the cafe's design with hanging plants, vertical gardens, and trellises. Seating arrangements would encourage interaction. Long communal tables, cozy corners. Lighting plays a crucial role. Soft, warm lighting for evenings and natural light during the day. Community spaces thrive when they're inclusive, accessible, and adaptable, enhancing Milan's urban environment and bringing people together.

Internal/External View



Culinary Library: Abundant Natural Light:

The design prioritizes natural light, which is fantastic for reading. Sunlight can enhance focus, reduce eye strain, and create a pleasant atmosphere.

Ventilation: High ceilings allow hot air to rise, promoting better airflow and ventilation. Fresh air is essential for concentration and overall well-being. Pockets of Open Areas: The library incorporates open spaces with high ceilings. These areas likely serve multiple purposes: **Communal Interaction**: Open spaces encourage people to gather, chat, and share ideas. Whether it's discussing a book or collaborating on a project, these communal areas foster socializing.

Flexibility: Open spaces can adapt to various activities; group study sessions, workshops, or simply enjoying a quiet moment with a view. Closed-Off Spaces for Privacy: Some readers prefer solitude while studying.

Closed-off space; cozy nooks or individual study rooms provide a retreat for those seeking quiet and focus.

Summary: this library is harmonious blend of functionality, aesthetics, and user needs. It's a place where both extroverts and introverts can find their ideal reading spot.





Roof Line and Shading: The intricacies of the roof line show functionality (solar panel angles) and blend with Milan vernacular. Enhance the overall appearance of the building while providing protection from the elements.

The Pagoda offers Natural shading is an interesting feature to enable sustainable plants to grow. The overhanging eaves that provide shade and are visually appealing.

Differing Floor Levels:Varying floor levels add visual interest and create dynamic spaces within the building whilst still proving a flow of direction.

Material Choices:

Layered Plywood mimicking Cross Laminated Timber (CLT) known for its strength and sustainability.

Acetate for a transparent material used to represent glass, allowing light from the large roof and arched windows.. White Foam represents walls effectively

being lightweigt. Additional Stone Printing adds texture and

realism of stone blocks. **Grey Paint** is used, representing the roof

tiles. They provide weatherproofing and contribute to the building's character.

Manufacturing Techniques:

Laser Cutting: Laser cutting allows precise and intricate shapes to be cut from various materials.

Hand Finishing: With attention to detail; sanding, painting, and assembling components by hand contribute to the model's quality.













Summary: The use of local mined granite rough-cut stone from Milan for the exterior cladding aligns with sustainable practices and aesthetic considerations. The combination of natural stone's durability and visual appeal can enhance the overall atmosphere of a building. Remember to consider insulation and other technical aspects during the design process.

Material Exploration