



aditya billava

# portfolio.

selected  
works

# BIO

I am Aditya Billava, a BA(Hons) Architecture graduate from Northumbria University, Newcastle.

With **3 years of professional experience as an Architectural Designer** at Merit Group Services Ltd, I excel in 3D modeling, 2D drawing, and user-centric design.

Proficient in Revit, AutoCAD, Adobe InDesign, and Figma, I have a proven track record in creating innovative, efficient solutions. **Passionate about UX design**, I have attended numerous graphic design and UI/UX workshops, showcasing my dedication to merging functionality with aesthetics in digital experiences.

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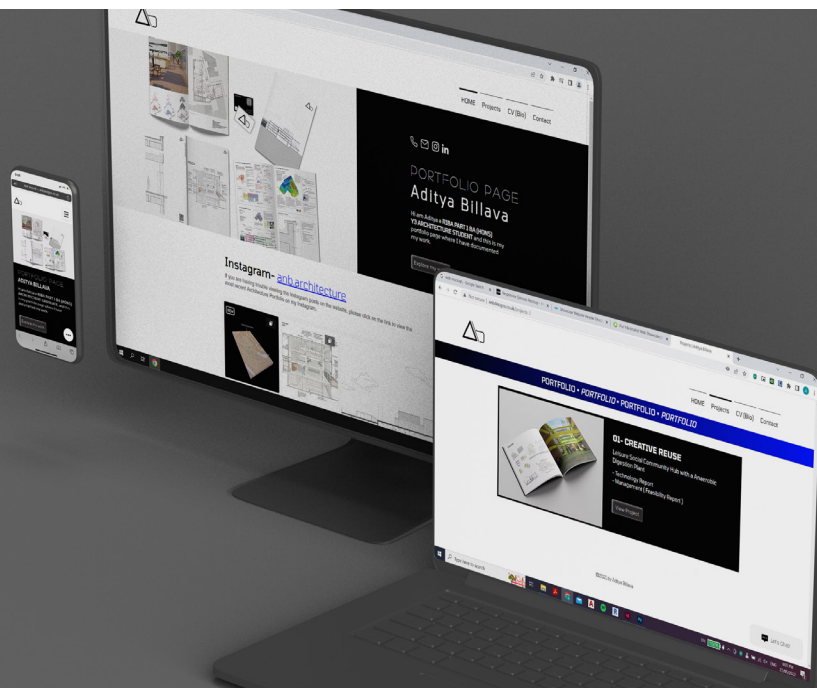
## GET IN TOUCH

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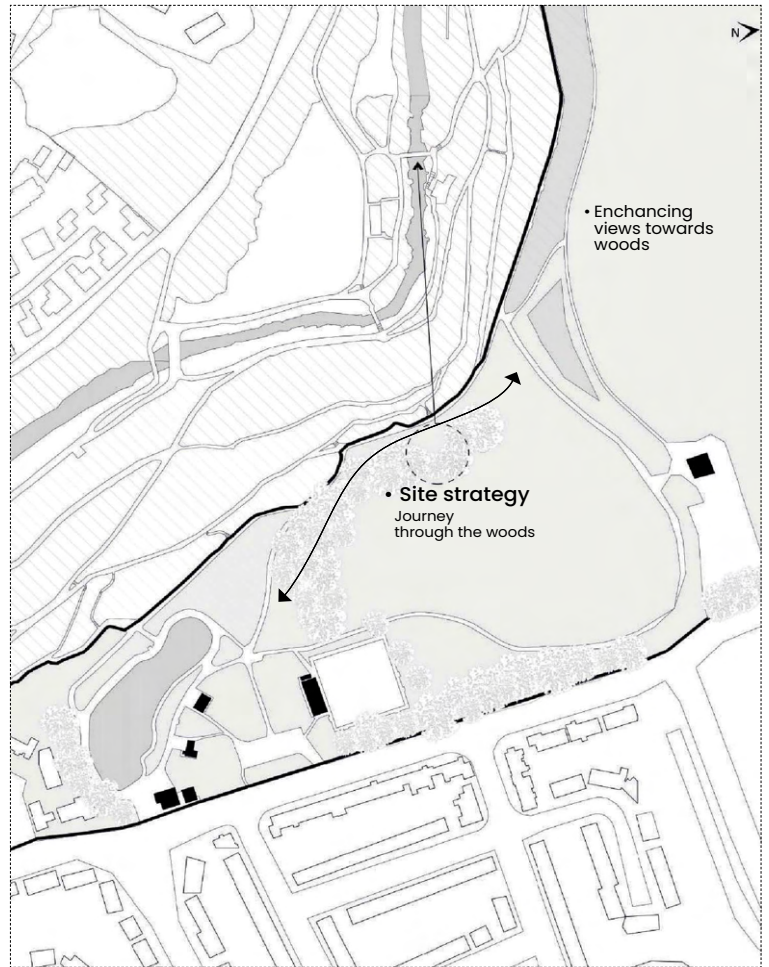


# 01: COMMUNITY MUSIC AND ART THERAPY CENTRE (LANDSCAPE DESIGN)

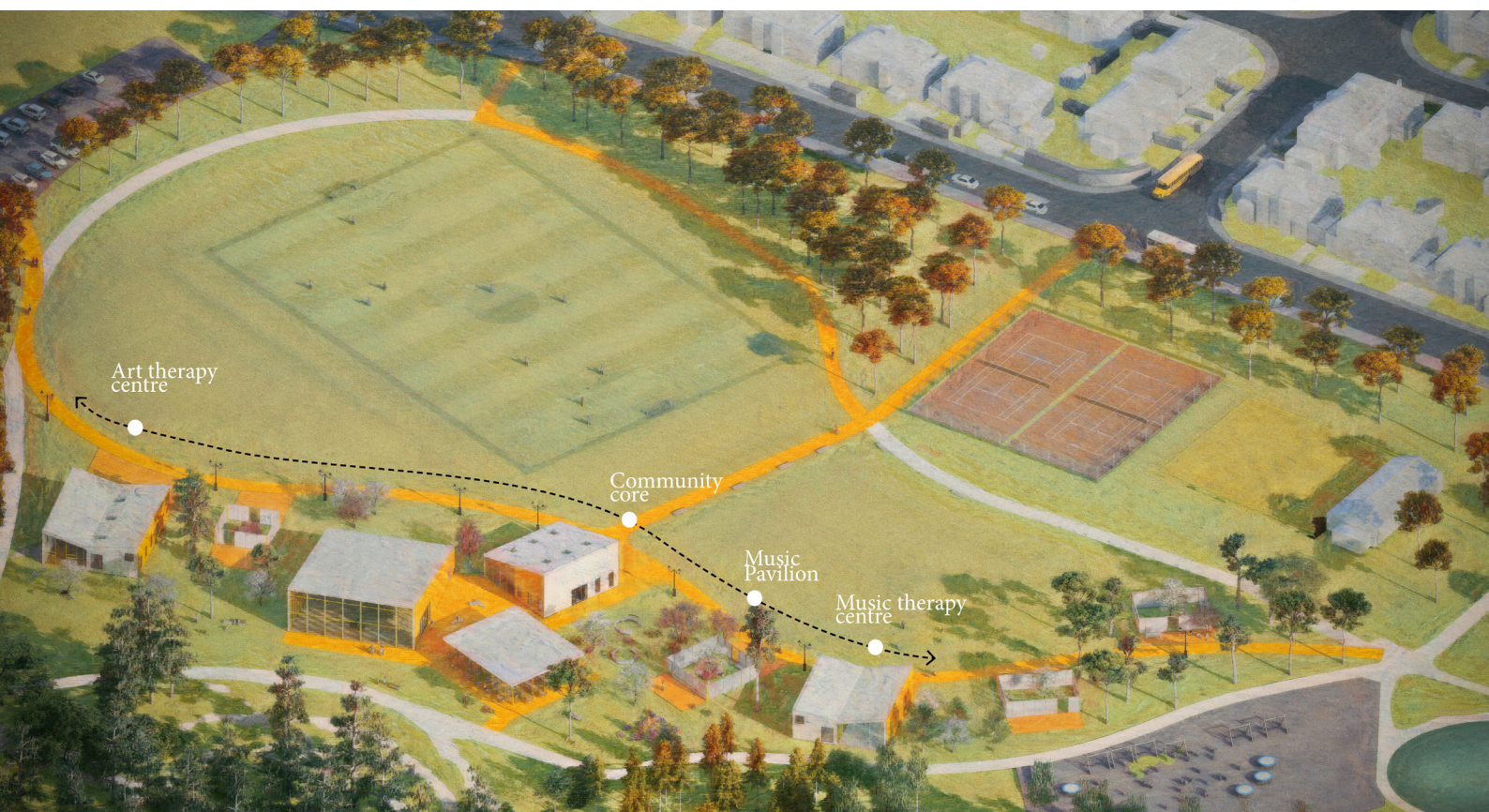
- **Notional Client:** Jesmond community  
**Location:** Jesmond Dene Park in Newcastle upon Tyne

**Mental health** has become a significant concern following the COVID-19 pandemic, and this project aims to aid in the rehabilitation of individuals through innovative architectural design. These spaces are envisioned as communal areas where people can engage in open dialogues and support each other. By incorporating art and music therapies, the project addresses issues such as depression, anxiety, and stress, offering a therapeutic environment that promotes healing and well-being.

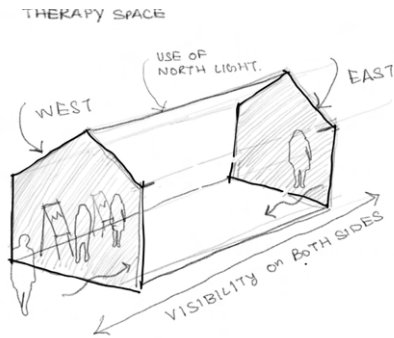
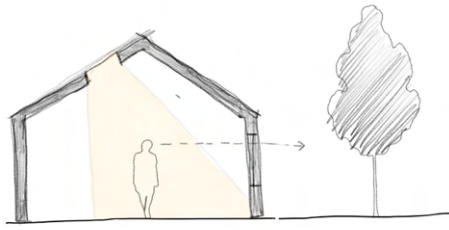
**Site Concept:** The site is designed with a harmonious integration of the natural environment and built spaces. Buildings are strategically positioned around the existing trees, enhancing the views and creating a serene atmosphere that promotes natural healing and calmness for visitors. This thoughtful arrangement guides visitors on a journey from the art center to the music center, emphasizing a strong connection between indoor and outdoor spaces through transparent façades. The existing amenities are preserved and incorporated to support the concept of mental well-being through physical activity, ensuring a holistic experience that nurtures both mind and body.



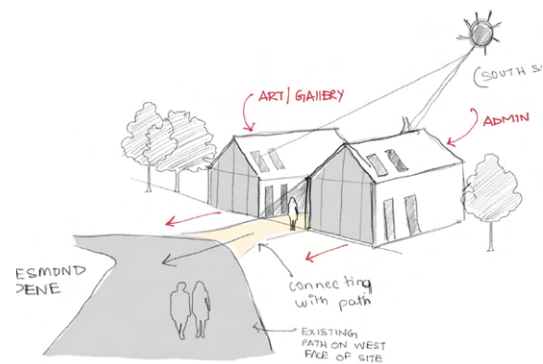
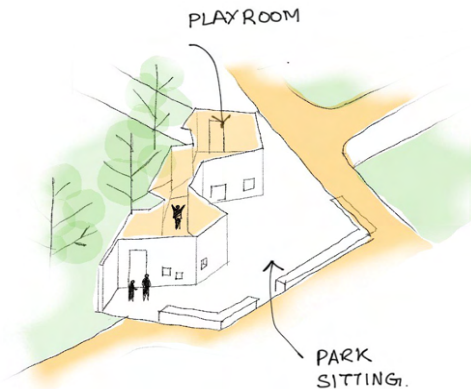
**Site:** Recreational Park



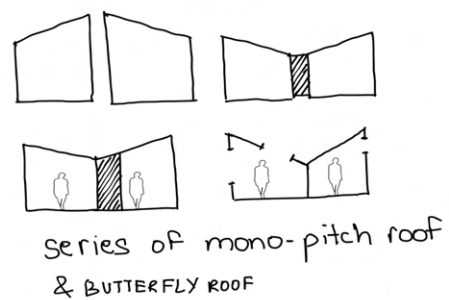
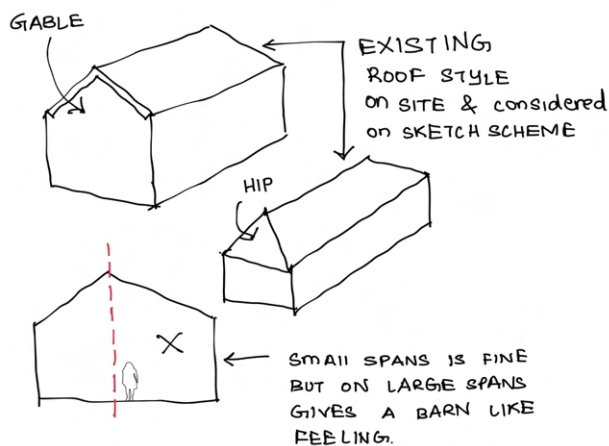
## Feeling of being in nature

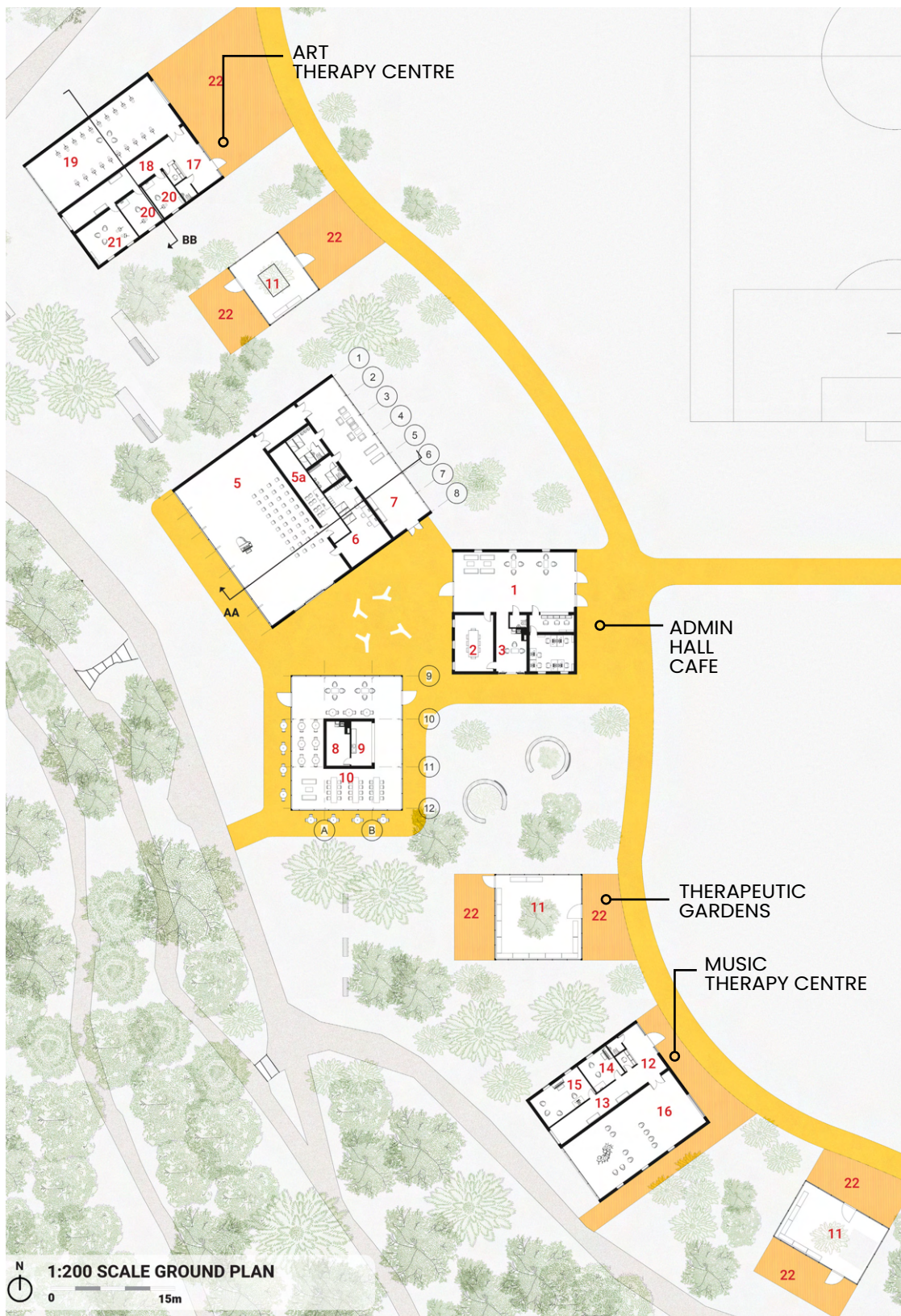


## Vibrant routes connecting the spaces



## Form derived from surrounding context





#### ADMIN

1. Lobby with reception
2. Community meeting room
3. Kitchen and seating space
4. Therapist office

#### TOWN HALL

5. Town hall
- 5a. Storage
6. Changing room
7. Intermission space

#### CAFE

8. Servant space (kitchen for cafe)
9. Cafe counter
10. Served space

#### 11. MUSIC PAVILION

#### MUSIC THERAPY

12. Music therapy Entrance with reception
13. Waiting space
14. Music Individual therapy space
15. Closed Group Therapy space
16. Open Group therapy space

#### ART THERAPY

17. Art therapy entrance with reception
18. Waiting space
19. Open group therapy space
20. Individual art therapy space
21. Closed group therapy space

22. DECK

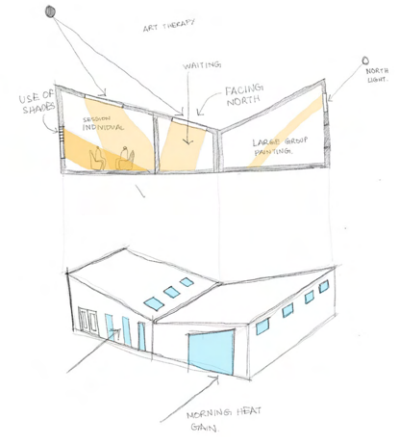


EAST ELEVATION



**Art Therapy**

**A**rt Therapy is effective because creating art influences brain wave patterns and the substances released by the brain. It aids in the expression of suppressed emotions as well as relieves stress, anxiety, and fear.

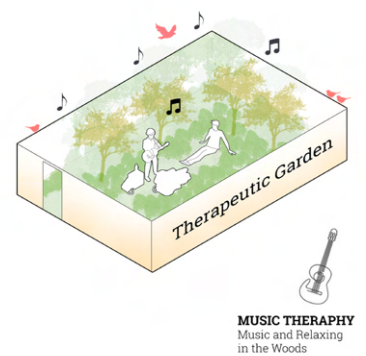


**Environmental considerations**



**Music Therapy**

**O**n the other hand, can support communication and expression, help in the exploration of thoughts and feelings, as well as improve mood and concentration.



**Therapeutic Garden**



**P**eople enjoying open session music therapy

# 1:20 CONSTRUCTION PART SECTION (ADMIN BUILDING)

1: Modular roof light system thermal glazing module size 1800/1000mm

## 2: ROOF

20mm White stained **Russelwood** Siberian larch cladding with 5mm gaps fixed to exterior 50x50 battens with stainless steel fixing  
60mm continuous air gap  
50x50 counter battens on breather membrane  
2x90mm **Kingspan** mineral wool insulation  
200mm Spruce CLT structure  
Exposed CLT birch wood finish on the inside

3: Pre formed aluminium concealed gutter

## 4: FACADE CONSTRUCTION

20mm Pickled white stained Siberian larch cladding with 5mm gaps fixed to exterior 50x50 treated battens with stainless steel fixing  
60mm continuous air gap  
50x50 counter battens on breather membrane  
90mm Kingspan Rigid foam insulation  
200mm Spruce CLT structure  
Exposed CLT birch wood finish on the inside

5. Fixed yellow stained wood frame window unit size 2800x1000

6: Hollow mould EPS filled with reinforced concrete

## 7: Floor

30mm granolithic concrete separating layer  
80mm reinforced concrete; underfloor heating pipes  
2x150mm XPS thermal insulation  
300mm sand bed

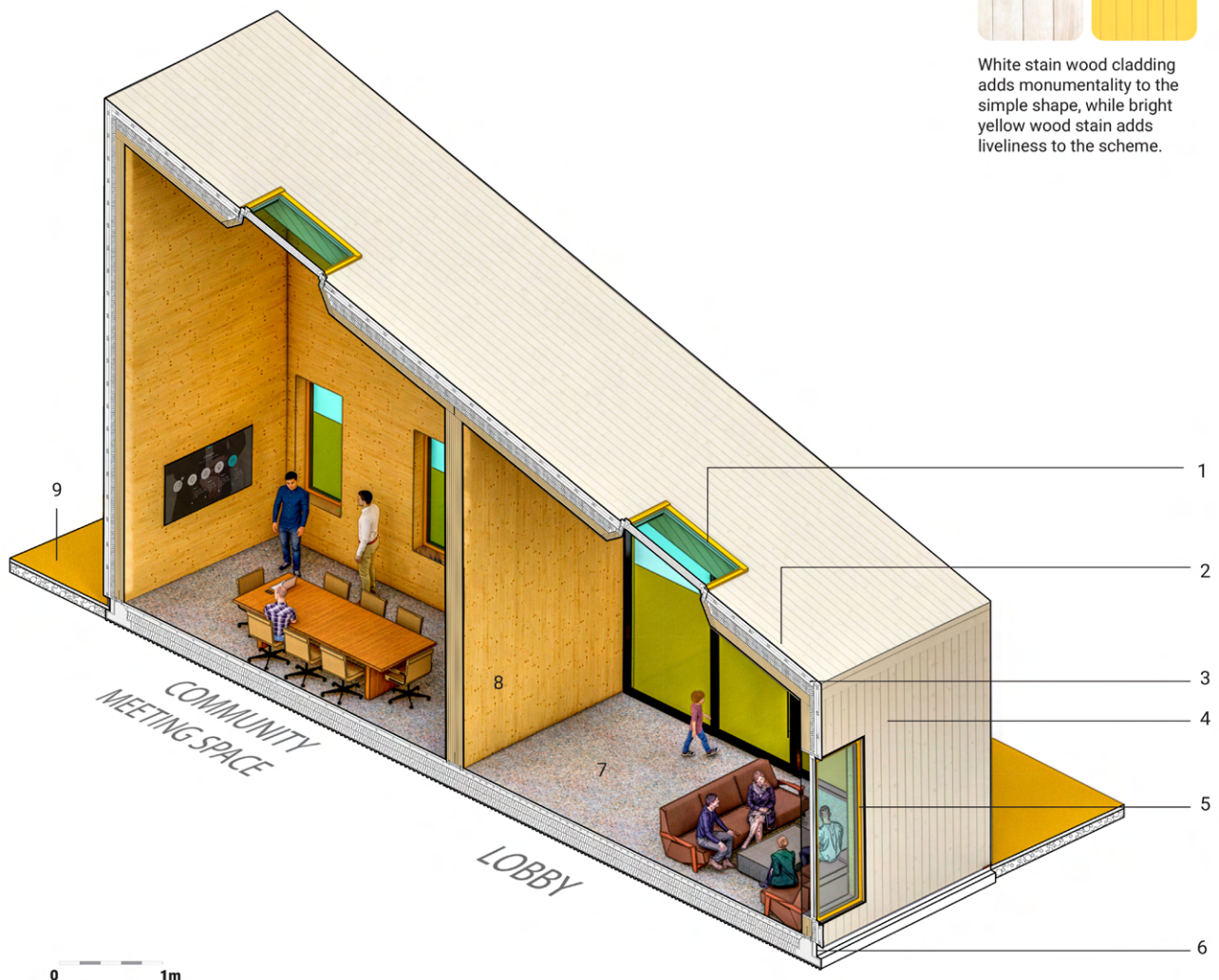
8. CLT Structural wall on the interior supporting the solid CLT roof

## 9. Pavement

Yellow painted Asphalt Layer  
Aggregate Base layer  
Sand bed



White stain wood cladding adds monumentality to the simple shape, while bright yellow wood stain adds liveliness to the scheme.



# CONSTRUCTION TOWN HALL AND CAFE

## 1. Town Hall

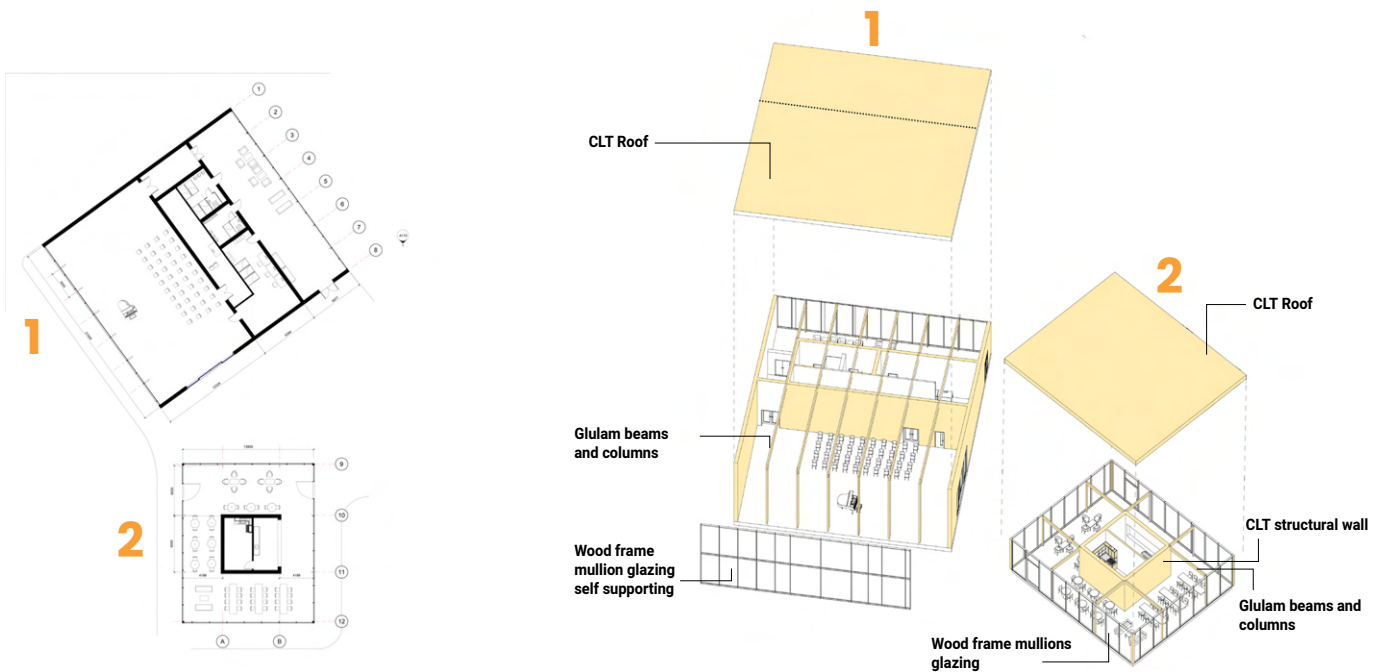
Depth of a beam: 20th of it's span

- 12m span in town hall will have a beam depth of 600mm
- Diameter of a Column: Height divided by 20,
- 8m height in town hall will have a column diameter 400mm but I have chosen to keep it 600mm as the roof is slanting and might need extra support from the columns

## 2. Cafe

In case of cafe the servant space in the centre is a structural CLT wall 400mm thick and acts as a supporting beam.

The Grid is decided in a way that all beams connect to the central CLT wall and have a depth of 200mm according to span that is 4m from all sides. The columns are also 200mm in dia. as the height is 4m, according to the rule of thumb

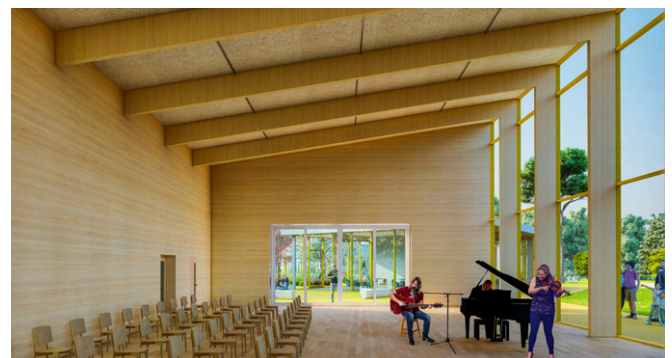


1. Town Hall



2. Cafe

0 5m





## 0.2 UI/UX Development

I attended an intensive two-day UI/UX design workshop where I explored the principles of UX/UI, focusing on user-centric design and usability.

During the workshop, I researched and designed an fuel payment application, applying key concepts such as **user flow**, **information architecture** and **prototyping**.

This hands-on experience allowed me to understand the importance of intuitive navigation, responsive design, and seamless user experience.

I'm enthusiastic about furthering my skills in UX/UI design and am eager to continue exploring how thoughtful design can enhance user satisfaction and engagement.



## Fuellet



Fuellet is an RFID-based fuel payment app that offers a cardless, cashless, contactless, and paperless payment solution. It is designed for both individual vehicle owners and fleet operators, providing a hassle-free fueling experience. By eliminating long queues, Fuellet saves users valuable time and simplifies their fueling process.



Most people struggle to keep track of fuel expenses. Fuellet offers a user-friendly and efficient way to track fuel expenses and consumption per vehicle, helping users better manage their fuel expenses and fuel usage.

What I did?

UX Research   User journey map  
Information architecture  
UI design   prototyping

## Challenges

**Long Queues.** Users, both individual vehicle owners and fleet operators, often face long waiting times at fuel stations due to the current payment methods.

**Complex Payments.** The existing payment methods - cash, card, and UPI - can be complicated and time-consuming, adding to the frustration of users.

**Expense Tracking.** For fleet operators, tracking fuel expenses for multiple vehicles is a significant challenge.

## Hypothesis

**Efficient Fueling.** Streamlining payments could reduce fueling time.

**Simplified Payments.** Prepaid digital solutions could simplify payments.

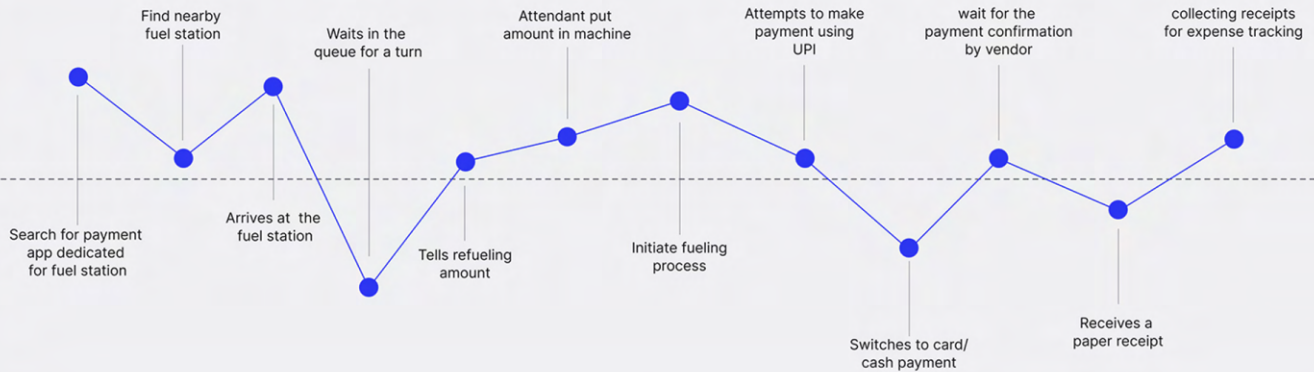
**Expense Management.** A system for tracking fuel expenses could ease expense management.

**User Acceptance.** If these challenges are addressed, the solution is likely to be adopted by users.

## Pre fuelling

## Fuelling

## Post fuelling



Action &amp; feelings

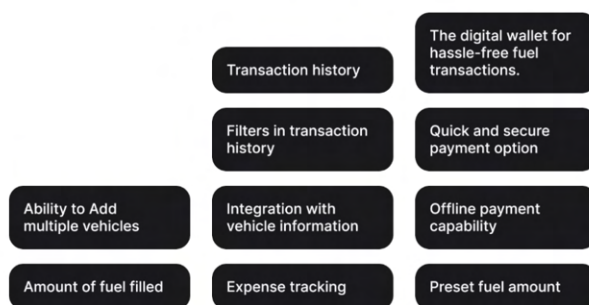
Frustrations

- **Struggle to find** a payment app dedicated to fuel station.
- **Inconvenience** in using separate apps for locating nearby fuel stations and making fuel payments.
- **Long queues** at the fuel station causing waiting times.
- Had to **try several payment methods** because of a poor network connection.
- Uncertainty about **network connectivity** for digital payments.
- Have to **request fuel receipts** every time can be quite bothersome.
- **Hassle** to gather **paper receipts** to keep track of fuel expenses.

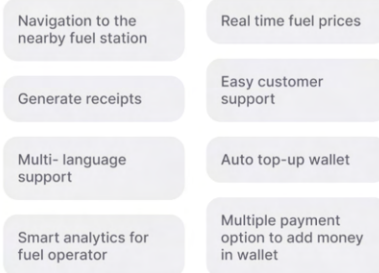
Opportunities

- **All-in-one app** that combines locating nearby fuel stations, facilitating fuel payments, and tracking fuel expenses.
- **Frictionless payment option** that requires no human-device interaction, eliminates the need for cash or cards, and operates **contactlessly** ensures **seamless transactions**.
- **Digital receipts** for easy and accurate expense tracking.
- **Integration of expense tracking** for automated record-keeping.

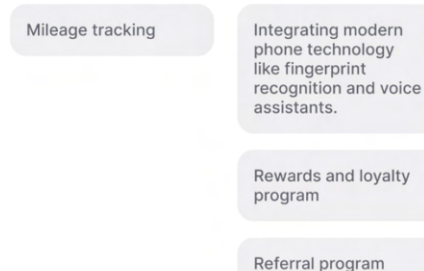
## Must Have



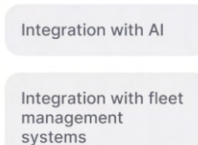
## Should have



## Could have



## Won't have



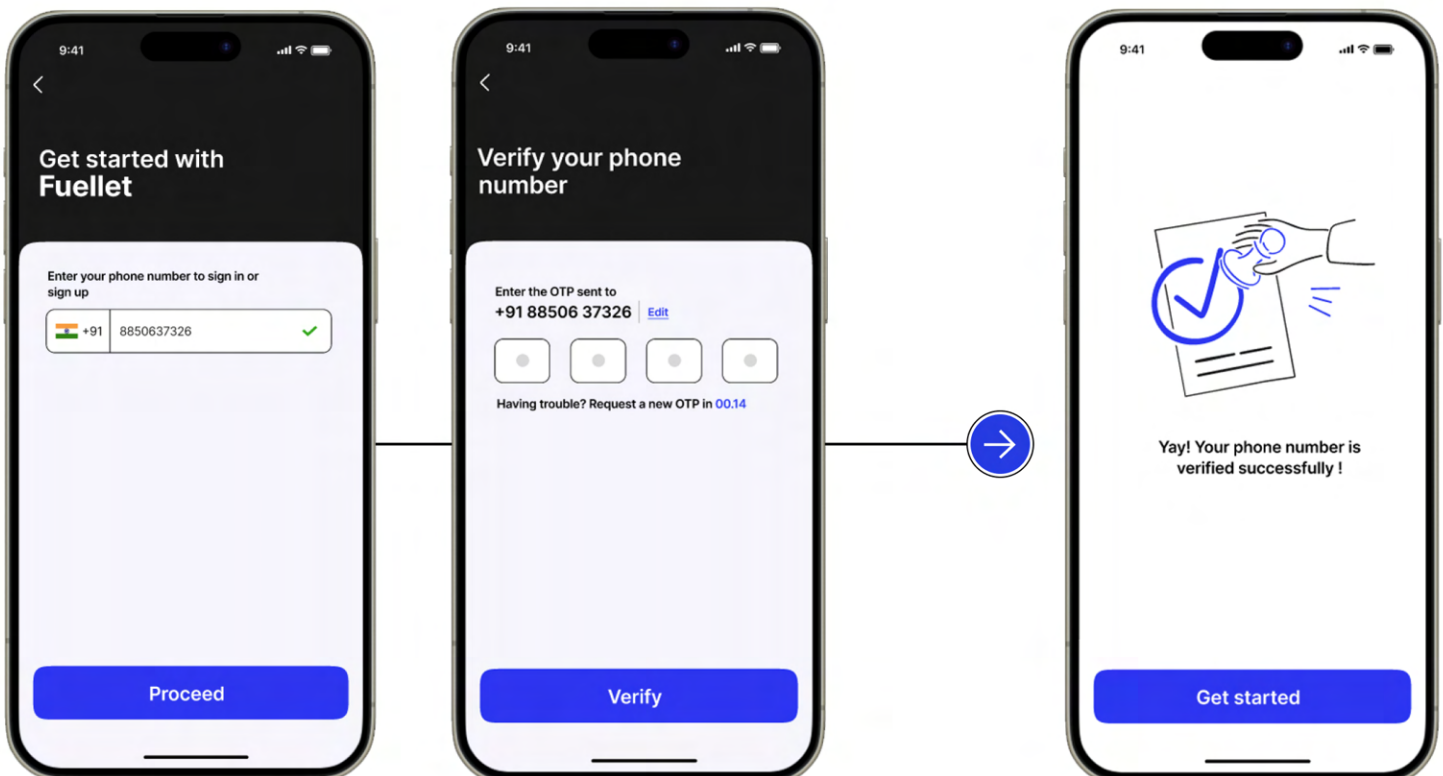
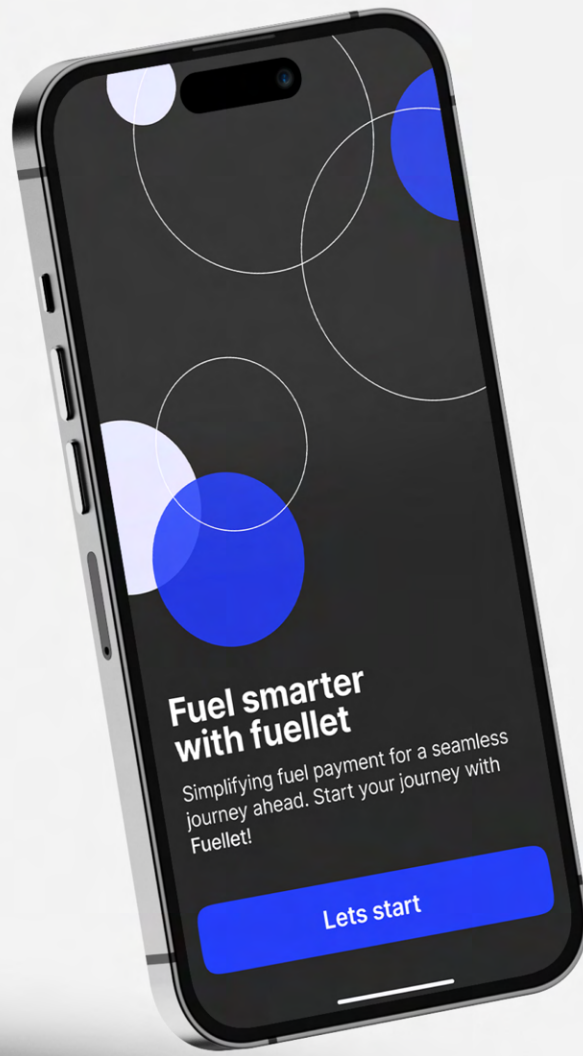
# UI Interface Development

## Onboarding & sign up

The onboarding process for the app is **straightforward**, requiring only a mobile number for **sign-up** or **sign-in**.

The **mobile number** acts as a unique identifier for each user, facilitating easy communication, **quick verification**, and secure transactions.

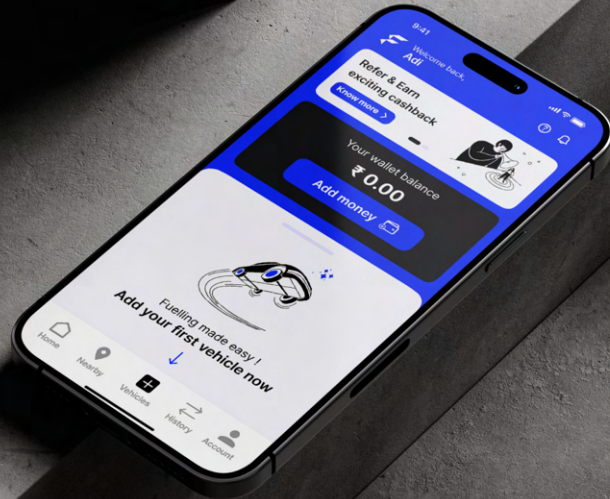
To **enhance security**, new users must complete a **two-step authentication process**.



# Home page UI

Having **wallet balance and vehicle cards** on the home screen provides users with immediate access to essential information, enhancing user convenience and making fuel management easier.

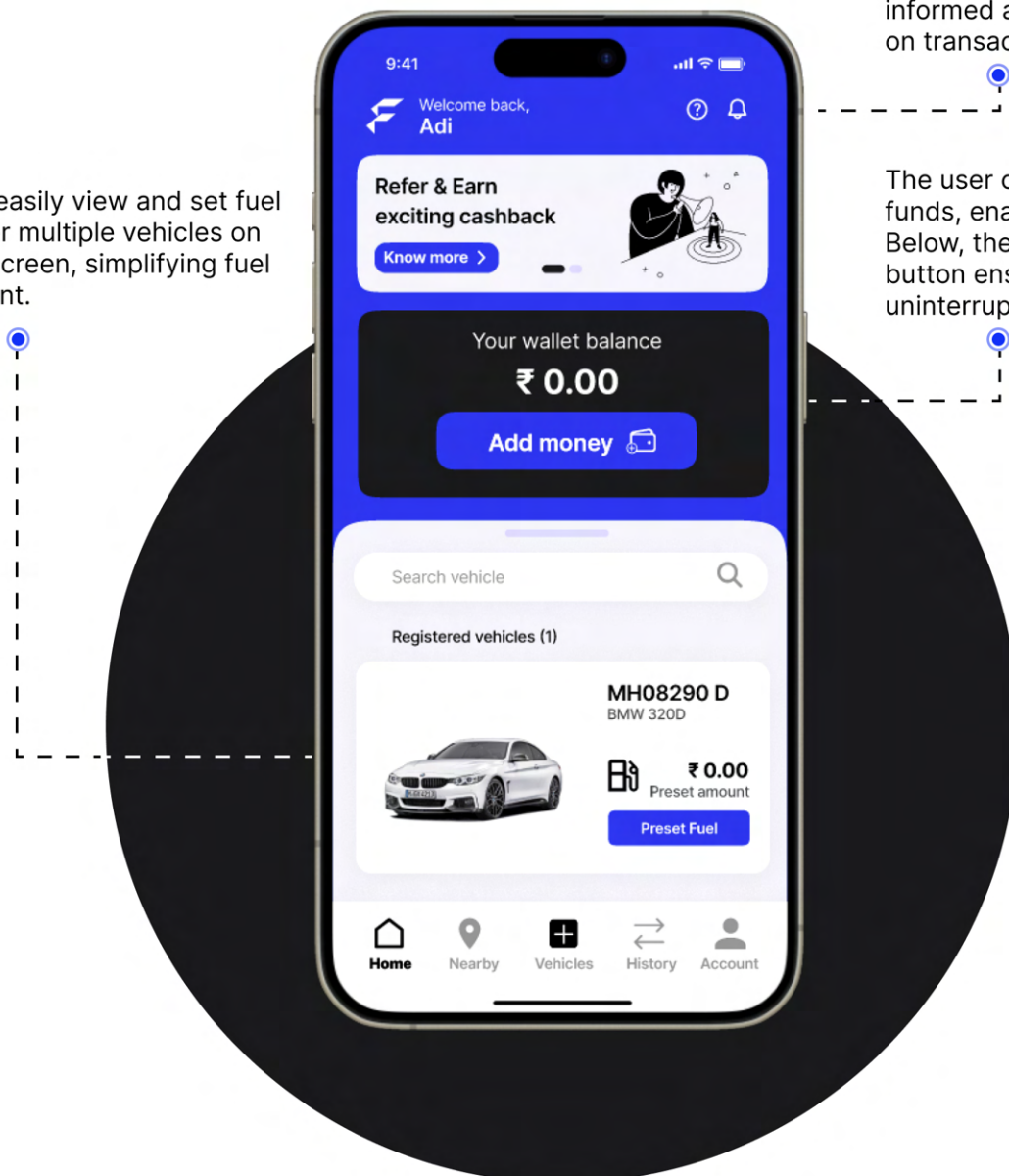
The **bottom navigation bar** ensures easy navigation to key features, optimizing user experience and encouraging app use.

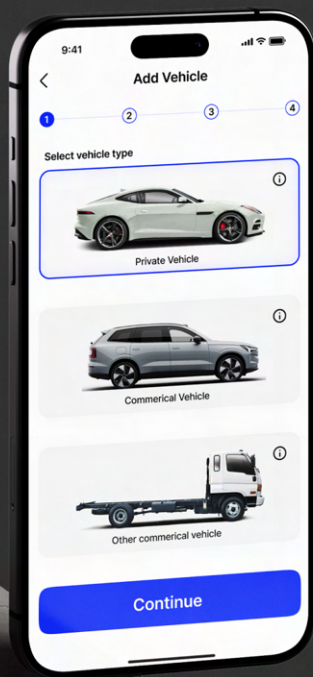


Users can easily view and set fuel amounts for multiple vehicles on the home screen, simplifying fuel management.

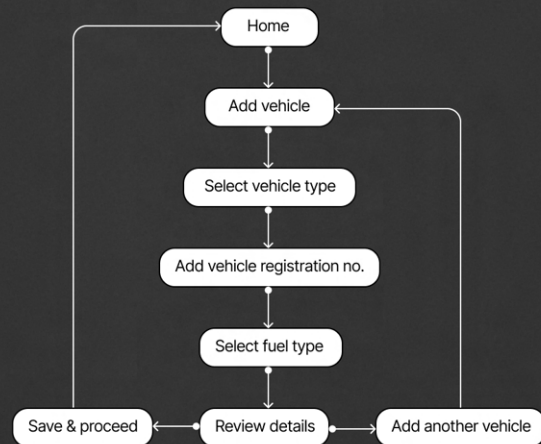
The notification icon keeps users informed about important updates on transactions, recent fueling etc.

The user can easily see available funds, enabling easy monitoring. Below, the "Add Money to Wallet" button ensures quick top-ups for uninterrupted fuel payments.

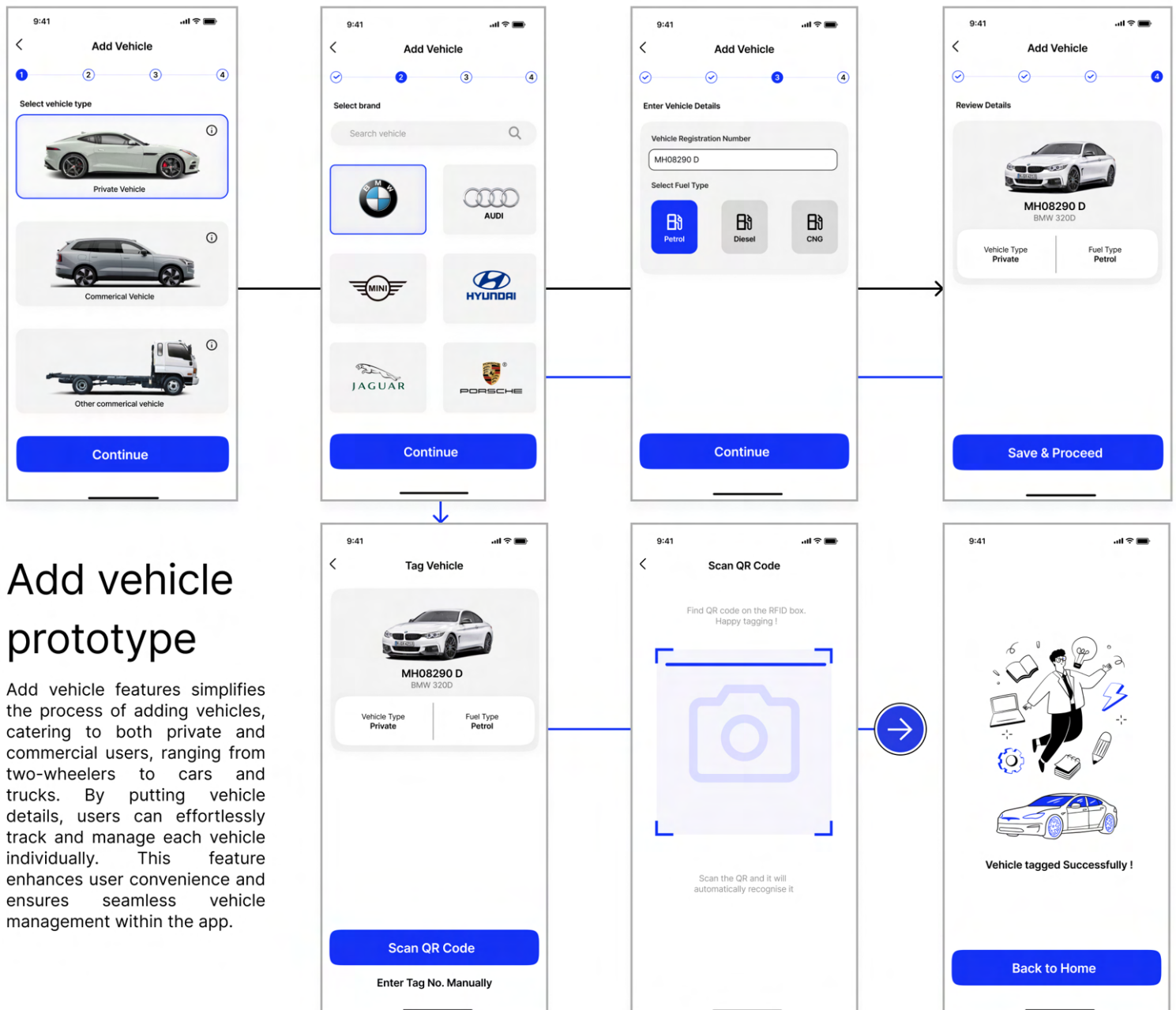




## Add vehicle Task flow



**Figma prototype link:** [https://www.figma.com/proto/K9ykjUPQEliK2TPdKmYdrZ/Fuellet-\(RFID-BASED\)-Fuel-payment-App?t=rx9Bpwm5kxHO0aSy-1&scaling=scale-down&page-id=0%3A1&node-id=66-243&starting-point-node-id=66%3A243](https://www.figma.com/proto/K9ykjUPQEliK2TPdKmYdrZ/Fuellet-(RFID-BASED)-Fuel-payment-App?t=rx9Bpwm5kxHO0aSy-1&scaling=scale-down&page-id=0%3A1&node-id=66-243&starting-point-node-id=66%3A243)



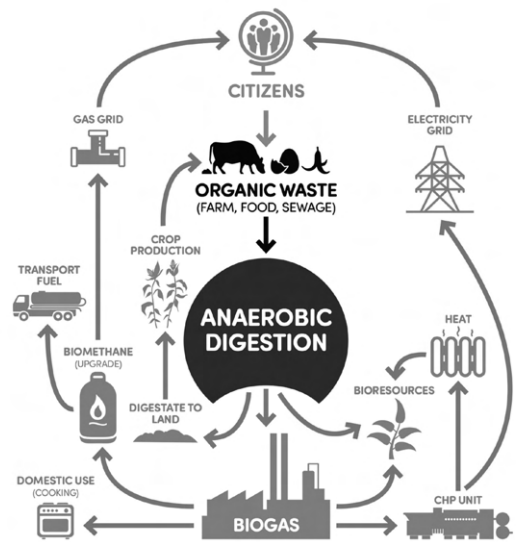
## Add vehicle prototype

Add vehicle features simplifies the process of adding vehicles, catering to both private and commercial users, ranging from two-wheelers to cars and trucks. By putting vehicle details, users can effortlessly track and manage each vehicle individually. This feature enhances user convenience and ensures seamless vehicle management within the app.

## 05: ANAEROBIC DIGESTION PLANT WITH COMMUNITY HUB (CREATIVE RE-USE)

- **Notional Client:** Newcastle City Council
- **Location:** Newcastle Upon Tyne, UK
- **Estimated Budget:** £3,112,998.17

The task was to design a **Recycling facility with a public space**. The recycling centre (**Anaerobic Digestion facility**) will be located in the heart of Newcastle Upon Tyne, UK and will specialise in recycling food waste (**organic waste**). The **recycled product (Renewable Energy)** will be reintroduced into the public venue and will interact with the local community through redistributing, educational, and cultural amenities, and change the way people think about food waste.

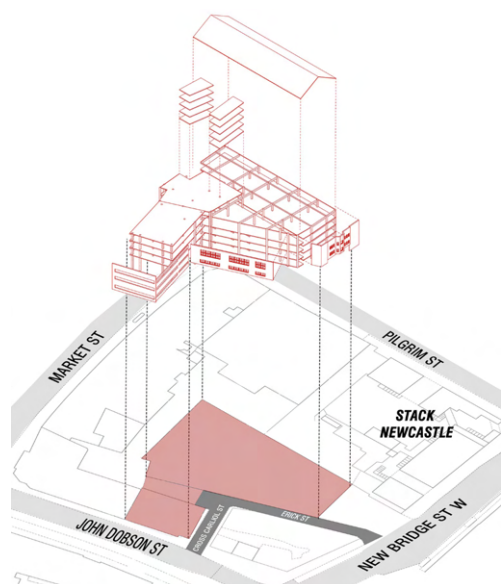
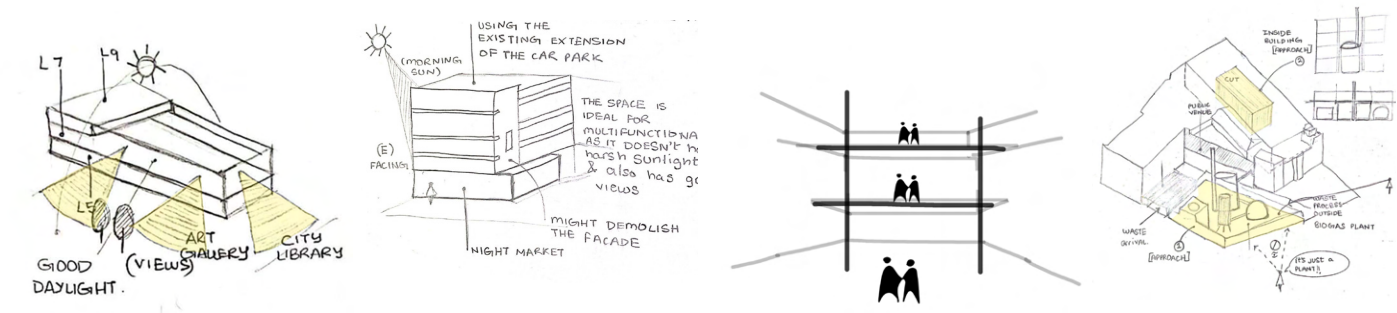


FOOD RECYCLING PROCESS

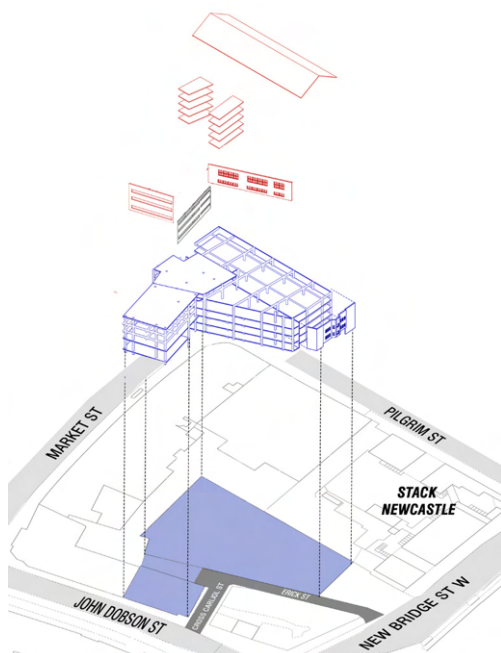


**ENTRANCE-** The public will be able to see the vibrant yellow painted pre-existing columns and the energy plant activities upon entering the building. The purpose of painting the existing columns yellow is to give a sense of enthusiasm while also making the location memorable because of it's colour.

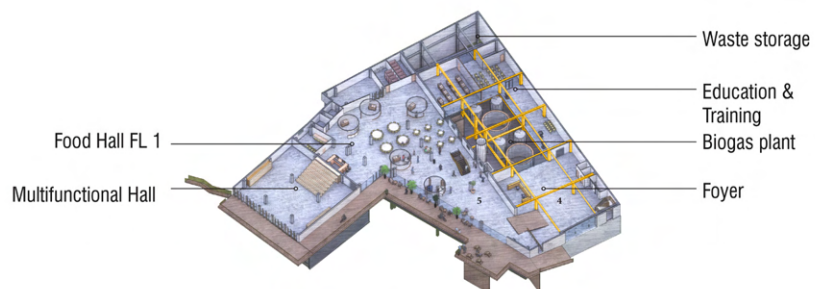
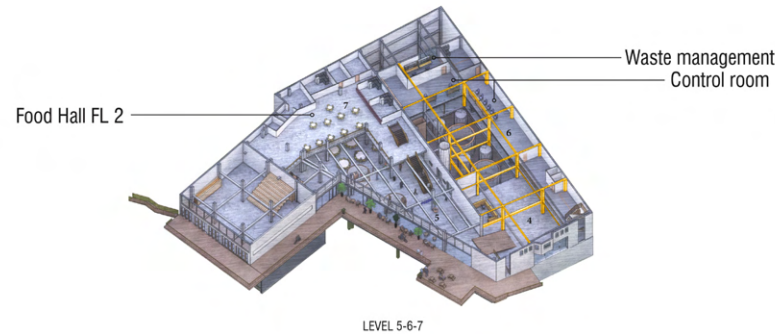
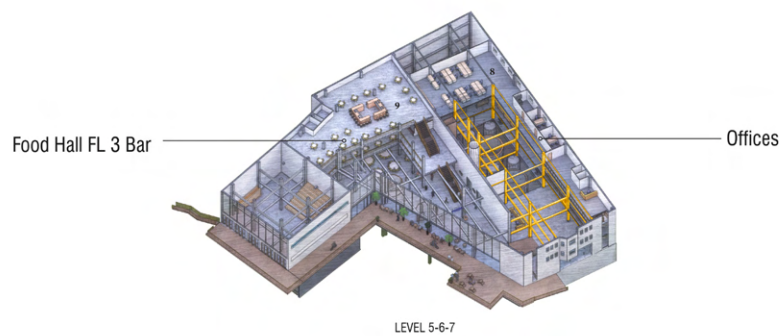
# EARLIER CONCEPT DIAGRAMS



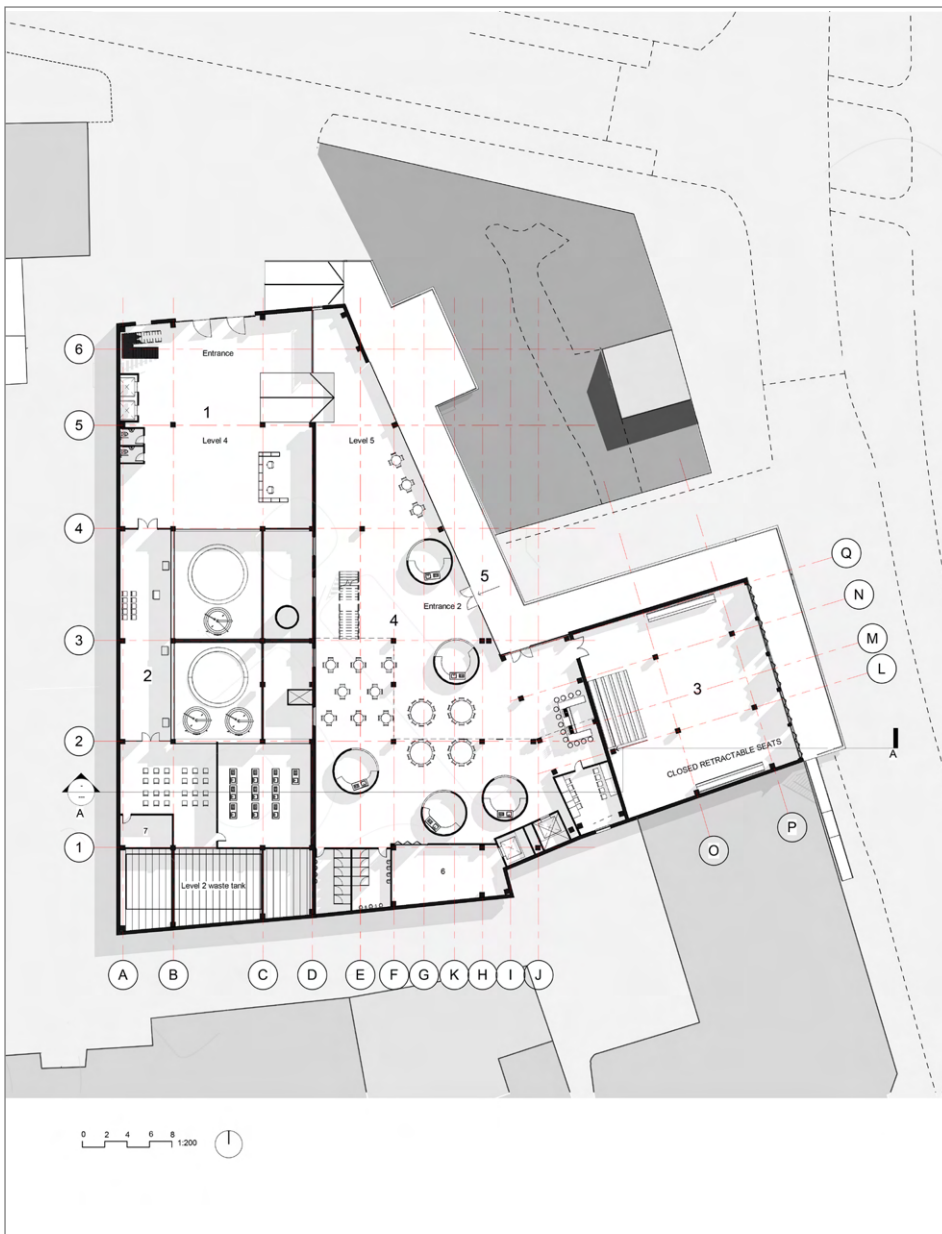
EXISTING CONDITION



- DEMOLISHED
- RETAINED



PROPOSED



1. FOYER
2. EDUCATION AND TRAINING SPACE
3. Multifunctional Auditorium
4. Food Hall with flexible food stalls
5. External wooden Platform linked to Food Hall and Auditorium space
6. Storage for temporary stalls and auditorium equipments
7. Storage for education and training space
8. Green room

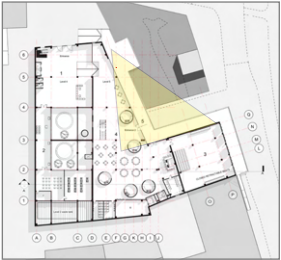


The temporary stalls will be composed of wood frames and encased in thin semi-transparent polycarbonate. The stalls will also be able to be moved and clamped in different places within the area, making them more customizable and offering a new appearance of the venue each time the public enters.





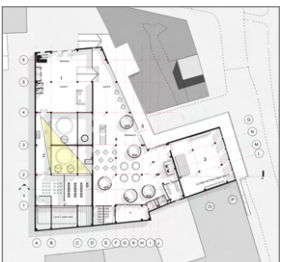
# URBAN TERRACE



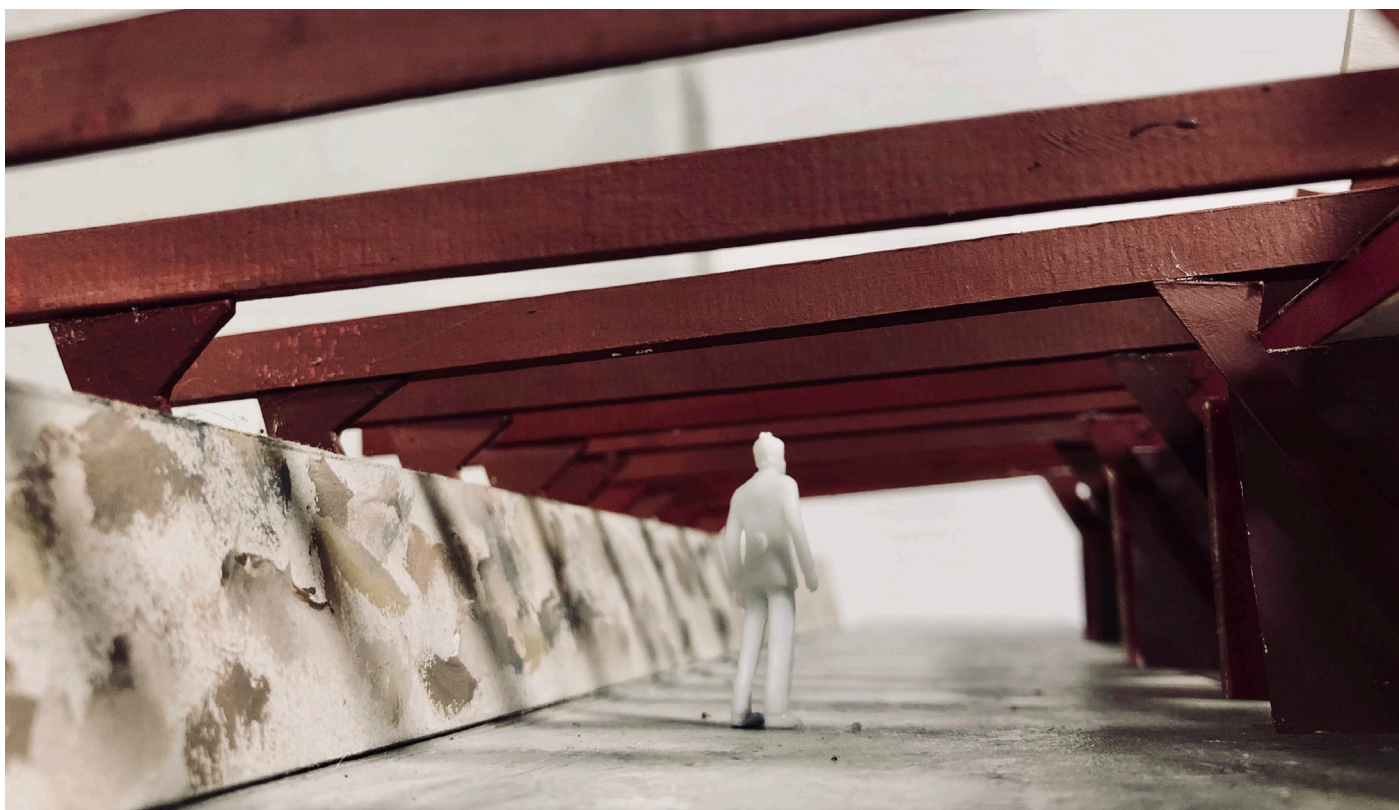
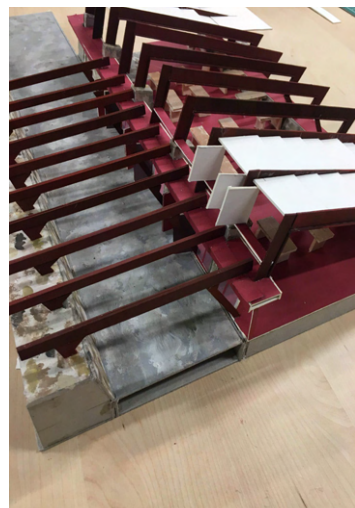
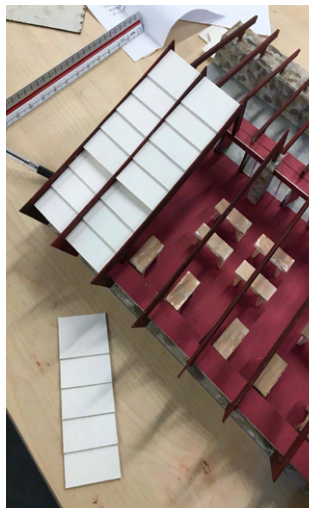
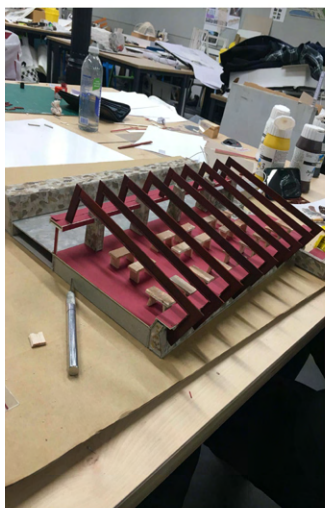
# FOOD HALL



# EDUCATION CENTRE



## 04: TALIESIN WEST MODEL



05: Graphic design workshop  
Branding, marketing collaterals,  
packaging, web & portfolio design

**Silent**  
GO GREEN GO ELECTRIC

**Silent Energy** is an electric two-wheeler startup and aims in mission electric with the goal that after 2025, no more petrol two-wheelers will be sold in India.



WEB DESIGN FIGMA LINK: <https://www.figma.com/proto/Xgg6H539mXXi0pZ1WxEFC/Silent-look?node-id=90-360&t=QREdRY3niBb-WqMwX-1&scaling=scale-down&page-id=41%3A6&starting-point-node-id=90%3A360>

# Typography

**Tomorrow**

LIGHT/ REGULAR/ MEDIUM

abcdefghijklmnopqrstuvwxyz  
ABCDEFGHIJKLMNOPQRSTUVWXYZ  
0123456789~!@#\$%&\*()

Aa

## Colors

#333333

#C4C4C4

#FFFFFF

#13D756

#0057FF  
#FED519  
#FF0000

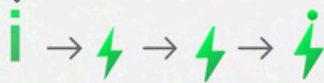
# LOGO DESIGN

Silent energy

Silent

Iteration 1

Use of green gradient so as to represent the go green theme



Combining the I with the electric symbol making it unique

Final Logo



symbol to be used to represent the brand identity for example in **application icon**

## BUSINESS CARD DESIGN



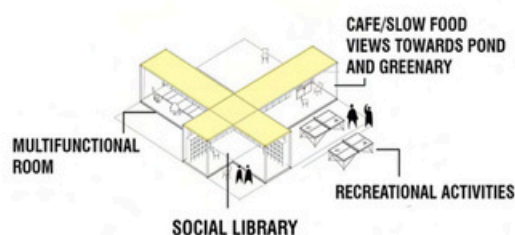
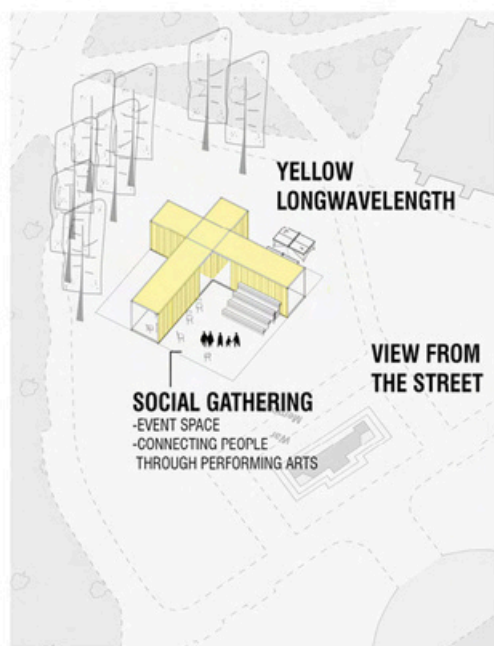
## BILLBOARD DESIGN



## SOME OTHER DESIGN WORKS



## NAS X NUAS COMPETITION



2024

## LIVE PROJECT AT NATIONAL TRUST

