

# ARCHITECTURE PORTFOLIO

Joelle Khalil



## CONTACT

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Welcome to my Portfolio

My name is Joelle Khalil, and I am excited to present a curated collection of my individual projects and works completed during my studies at the Académie Libanaise des Beaux-Arts, where I earned both my Bachelor's and Master's degrees. I am proud to showcase the culmination of my hard work and dedication in this portfolio.

It is a pleasure to share my creative journey with you, and I truly appreciate the time and interest you have taken in exploring my work.

P.S. Please note that the projects included in this portfolio have been summarized to maintain a manageable length. If you would like to know more about any specific project, I would be more than happy to provide additional details.

Thank you!

## EDUCATION

- **Master of Science in Architecture**  
University of Balamand - ALBA 2022 - 2024
- **Bachelor of Science in Architecture**  
University of Balamand - ALBA 2018 - 2022
- **Lebanese Baccalaureate in Life Sciences**  
College des Saints Coeur Byblos (KG1 – Graduating Class)

## LANGUAGE PROFICIENCY

- **Arabic** Native
- **English** Fluent
- **French** Fully Proficient

## INTERNSHIPS AND PERSONAL ACHIEVEMENTS

- **Internship at Ouayjan Architects, Amioun - Lebanon**  
(February 10th, 2022 – June 25th, 2022)
- **Free Lance Design**  
Fully designed a camper for a Unimog (to be executed in the USA)
- **Winner of "Restoring Tripoli Gates" competition**  
Launched by The Ministry of Culture in partnership with The Civil Action Heritage and Tourism (Group)
- **Volunteer**  
Rehabilitation efforts for the "Offre Joie" Community Center in Mar Mikhael, Beirut
- **Kaira Looro Maternity Center Competition 2024**  
Participant (Group)
- **Dean's Honor List**
  - Spring 2019 - 2020
  - Spring 2020 - 2021
  - Fall 2021 - 2022
  - Fall 2022 - 2023
  - Spring 2023 – 2024
- **@Joellery\_**  
Founder of a small business for handcrafted accessories

## SKILLS

- Ability to conceptualize and develop architectural designs from initial concept to detailed drawings.
- Proficiency in architectural design software such as AutoCAD, Lumion, and Photoshop.
- Ability to create detailed architectural drawings, 3D models, renderings, walkthroughs and presentations.
- Ability to conduct research and deliver presentations.

## SOFTWARES

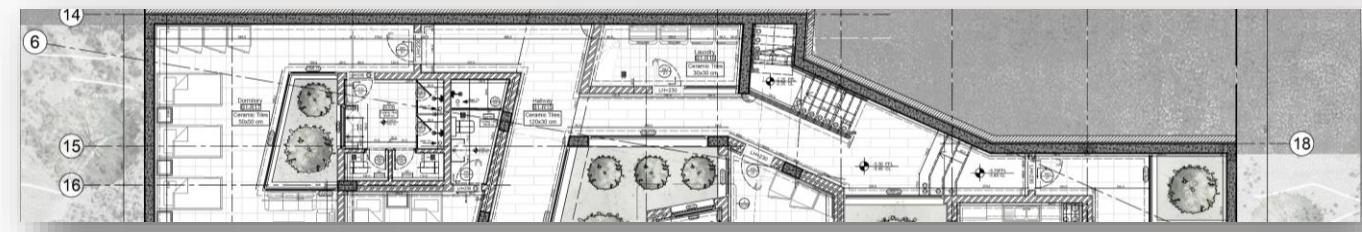
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Autodesk AutoCAD	● ● ● ● ● ●
Lumion	● ● ● ● ● ●
Adobe Photoshop	● ● ● ○ ○ ○

# SE N T U C O N S

Project  
HIKERS REFUGE

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Project  
REBUILD THE ORCHARD

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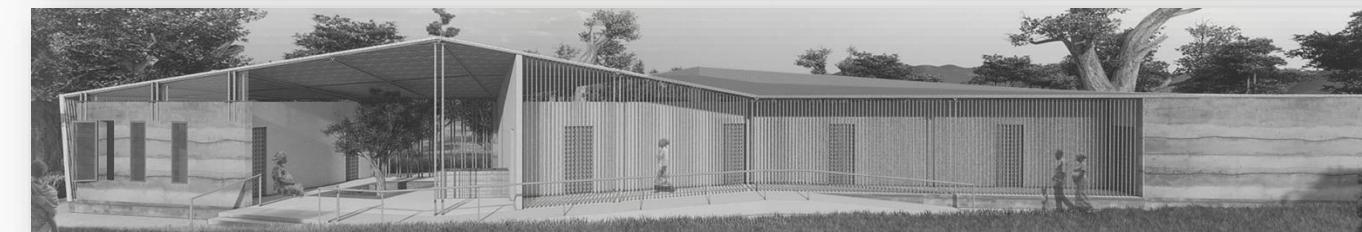
02



Project  
MATERNITY CENTER

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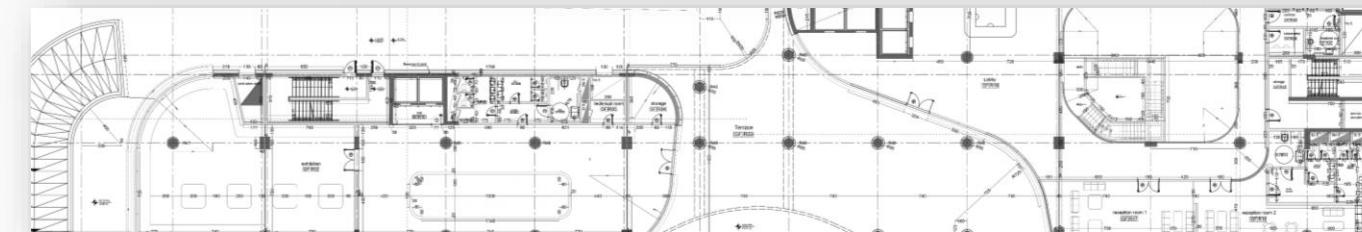
03



Project  
MINISTRY OF ENVIRONMENT

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Project  
A CYBER SPACE

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Graduation Project  
THE RAHBANY BROTHERS  
PERFORMING ARTS CENTER

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# Project 01

## HIKERS REFUGE

Location: Mzaar, Baskinta Lebanon

A



Ps



# Project 01

## HIKERS REFUGE

Location: Mzaar, Baskinta Lebanon



Baskinta is a Lebanese mountainous village situated at an altitude ranging from 1250 meters above sea level and climbs up to 1800 meters of height approximately. It is known for its natural environment. It is a village where hikers, mountain biking amateurs and ski lovers visit to practice their hobbies.

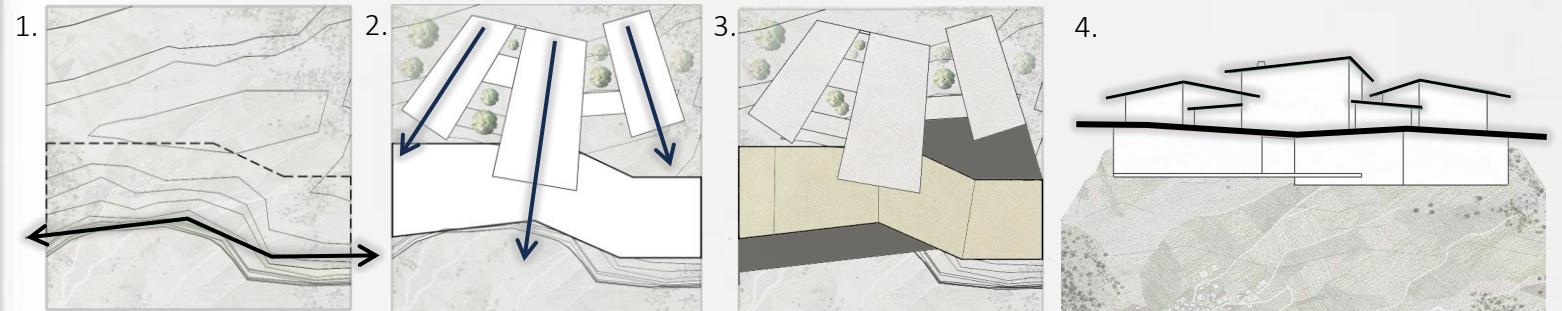
The site is located on the peaks of Mzaar, Baskinta, about 6 kilometers south of Ayoun El Siman. The site is characterized by its **bumpy topography and a cliff to the south**.



The project was designed as an architectural reaction to the mountainous typology of the village. The roof of the Refuge is composed of irregular slopes that resembles the irregularity of the clustered mountains around it, this design **helps to diminish the snow load during winter season**.

1. Basement plan designed to follow the mountain's cliff axis.
2. Ground Floor consists of 3 volumes linked by bridges. Each volume rotated to different direction, to create different experiences and integration into the nature.
3. The **terraces** and the **basement roof** give the visitors a sense of conviviality and communion with nature.
4. The basement's roof can be accessed. It is designed to have shallow slopes in order for the hikers to experience the adventure while admiring the view.

## CONCEPT



The refuge offer visitors a comfortable and generous shelter with different marvelous views of the mountains and valleys outside.

# Project 01

## HIKERS REFUGE

Location: Mzaar, Baskinta Lebanon

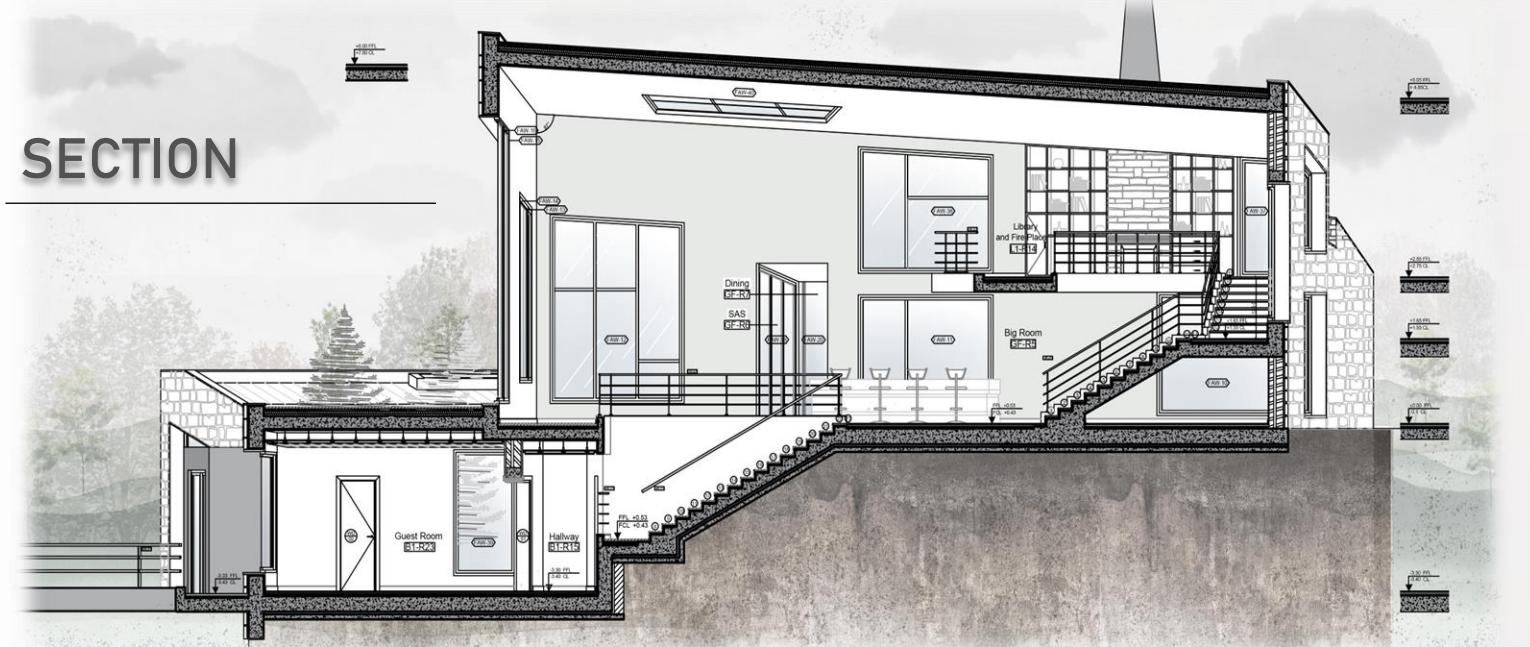


Library Level 1



Southern Façade

## SECTION



Dormitory View

# Project 01

## HIKERS REFUGE

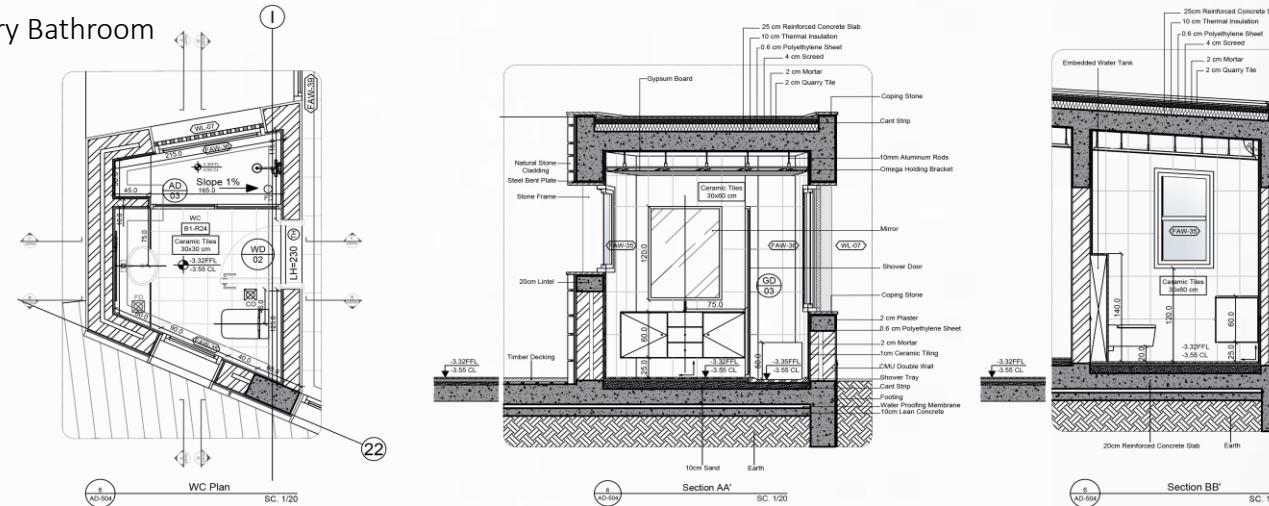
Location: Mzaar, Baskinta Lebanon



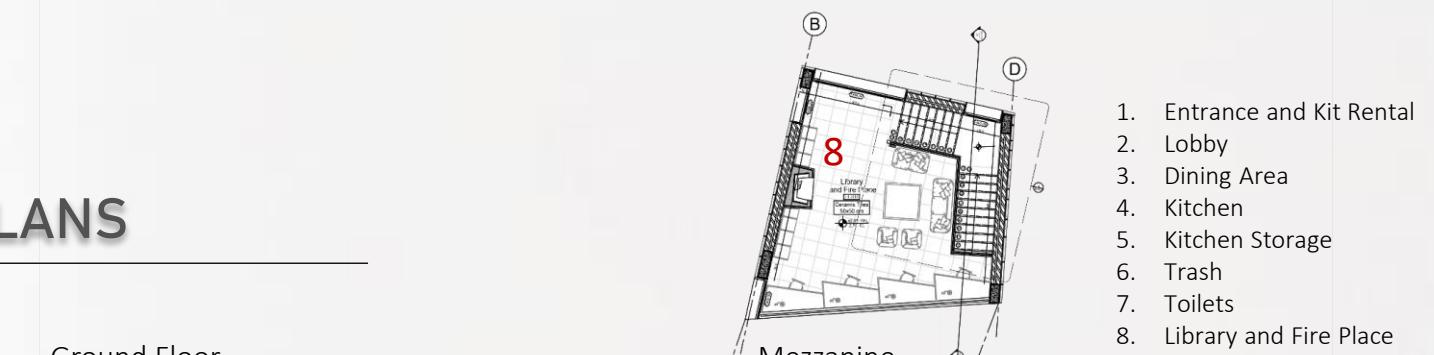
Dining Room



Dormitory Bathroom Details



## PLANS



Ground Floor



# Project 01

## HIKERS REFUGE

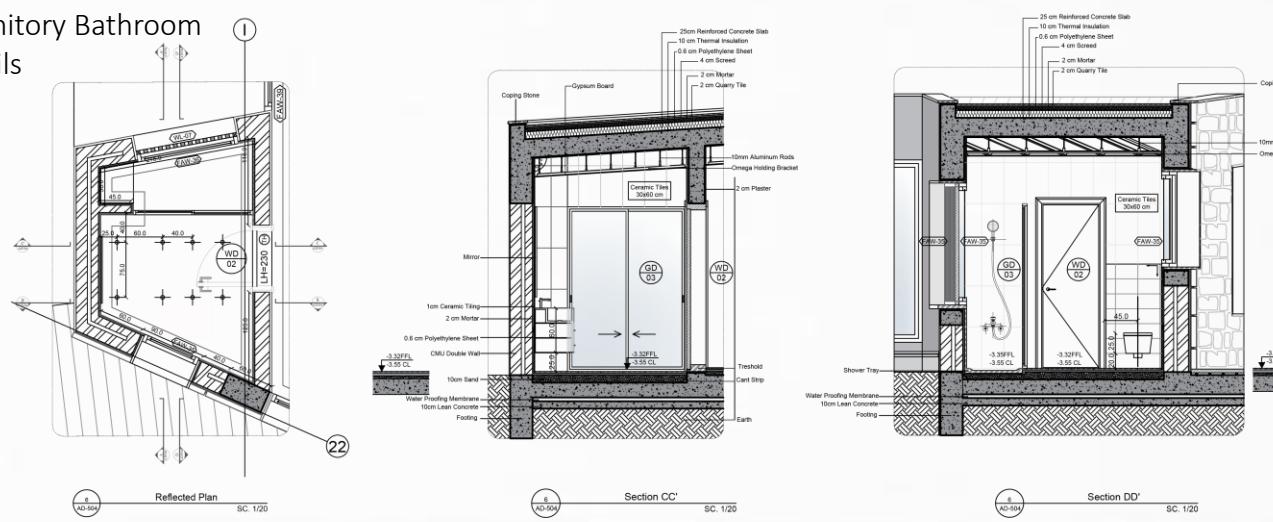
Location: Mzaar, Baskinta Lebanon



Dormitory View

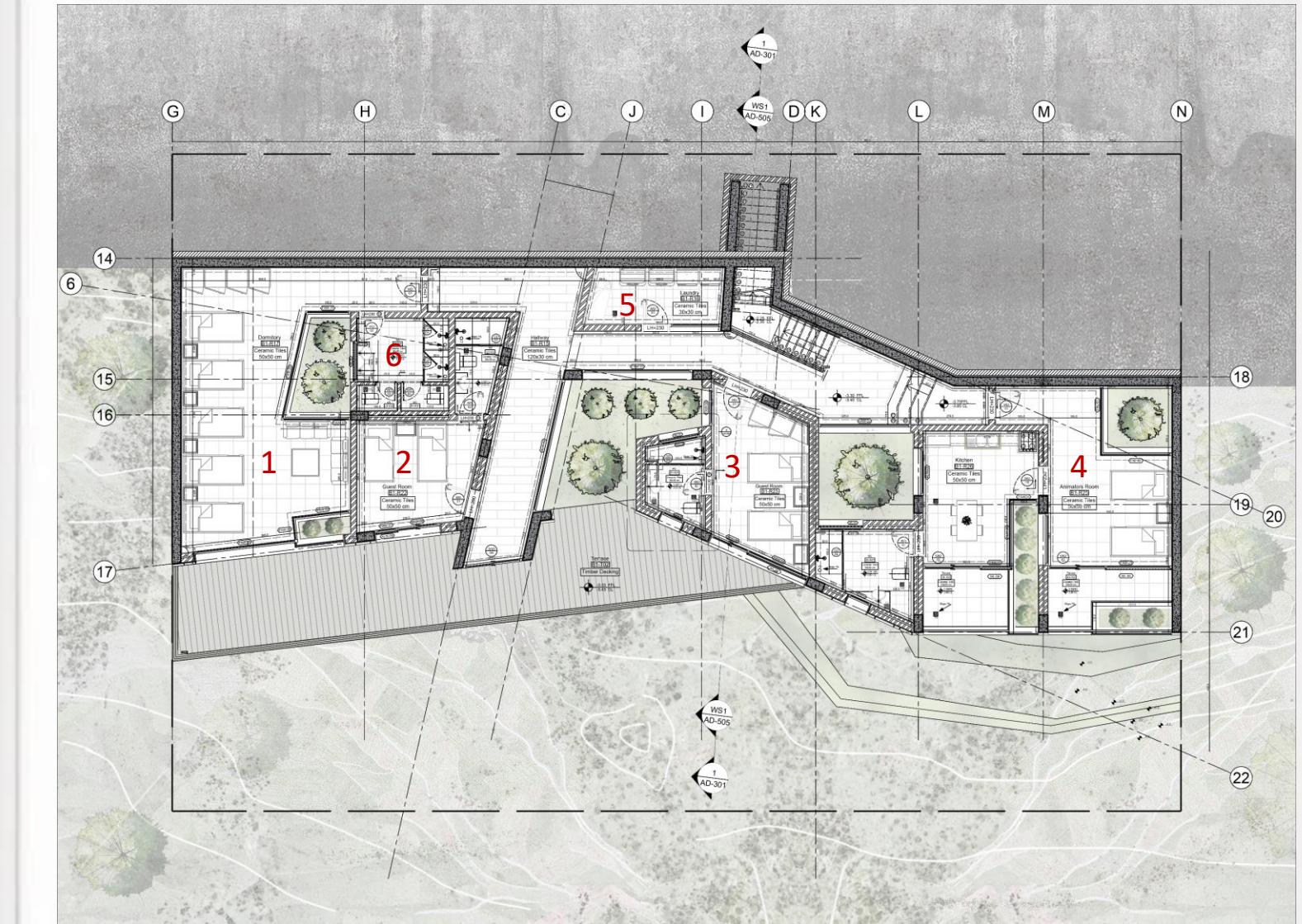


Dormitory Bathroom Details



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## PLANS



Basement 1

1. Dormitory
2. Guest Room 1
3. Guest Room 2
4. Animators Room
5. Laundry Room
6. Dormitory Bathrooms

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# Project 02

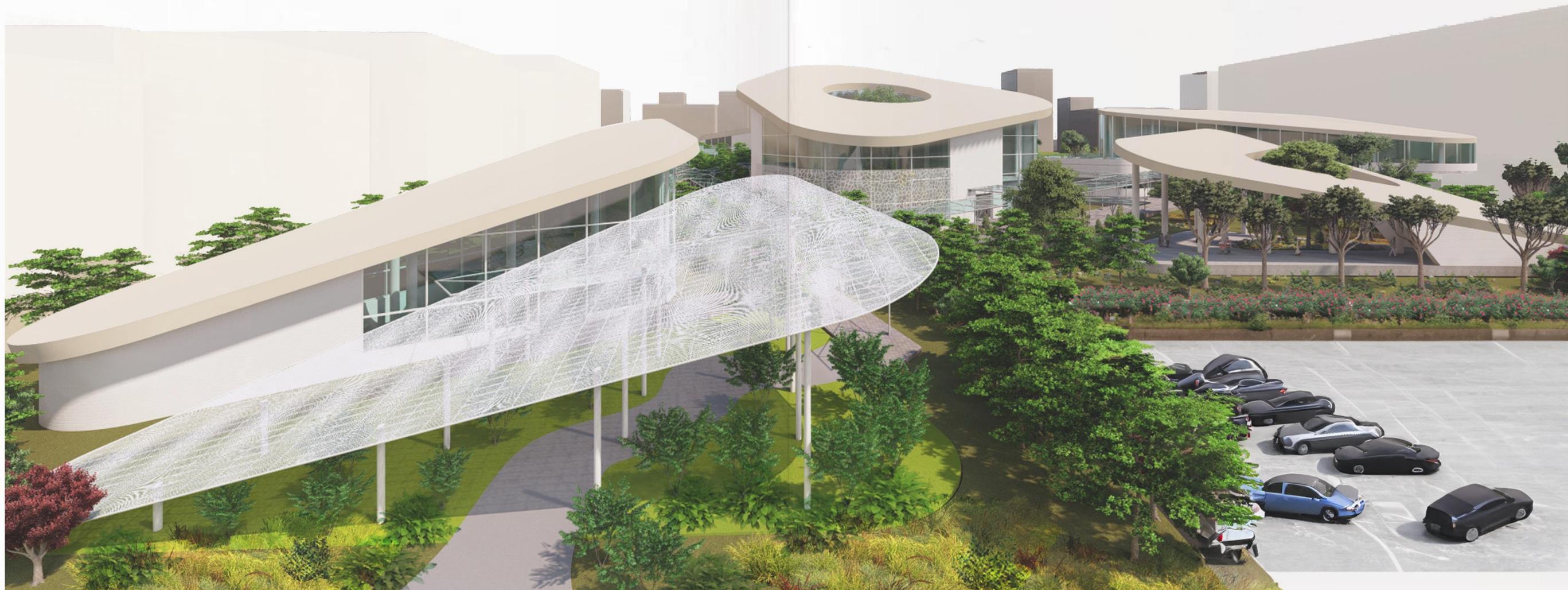
## REBUILD THE ORCHARD

Location: Dbayeh, Lebanon

A



Ps



# Project 02

## REBUILD THE ORCHARD

Location: Dbayeh, Lebanon

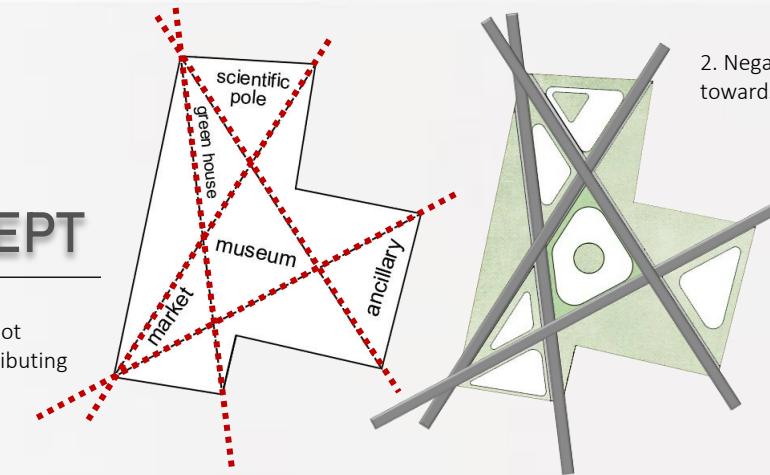


The plan integrates a wide array of public functions focused on agriculture, landscape design, and sustainability.

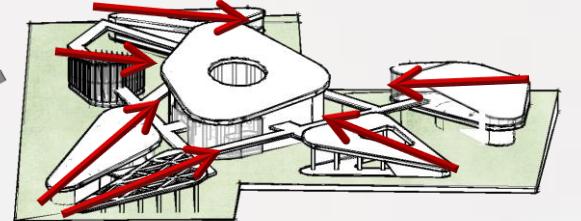
It is designed to serve as a green lung for the region, promoting **diverse spaces for work, research, leisure, and community engagement**, while addressing long-term economic and environmental sustainability. The project challenges traditional architectural and planning methods, seeking innovative and optimized space use.

### CONCEPT

1. Finding the plot center and distributing functions



2. Negative spaces used to plant, forming a buffer zone towards the surroundings



3. Roof pitched towards the museum to create an introverted effect blocking out views to the urban surrounding



Section BB'



Mass Plan



Scientific Pole View

# Project 02

## REBUILD THE ORCHARD

Location: Dbayeh, Lebanon



Southern Elevation



Green House View



Outdoors View



Restaurant View

# Project 02

## REBUILD THE ORCHARD

Location: Dbayeh, Lebanon

A LUMION Ps



Section AA'



Outdoor View



Botanical Museum Interior

### Level 1

1. Administration
2. Sanitary
3. Offices
4. Multipurpose
5. Library
6. Market's First Floor
7. Restaurant
8. Terrace Extension



Outdoor View



Green House

# Project 03

## MATERNITY CENTER - COMPETITION BY KAIRA LOORO

A LUMION Ps

Location: Baghere, Senegal

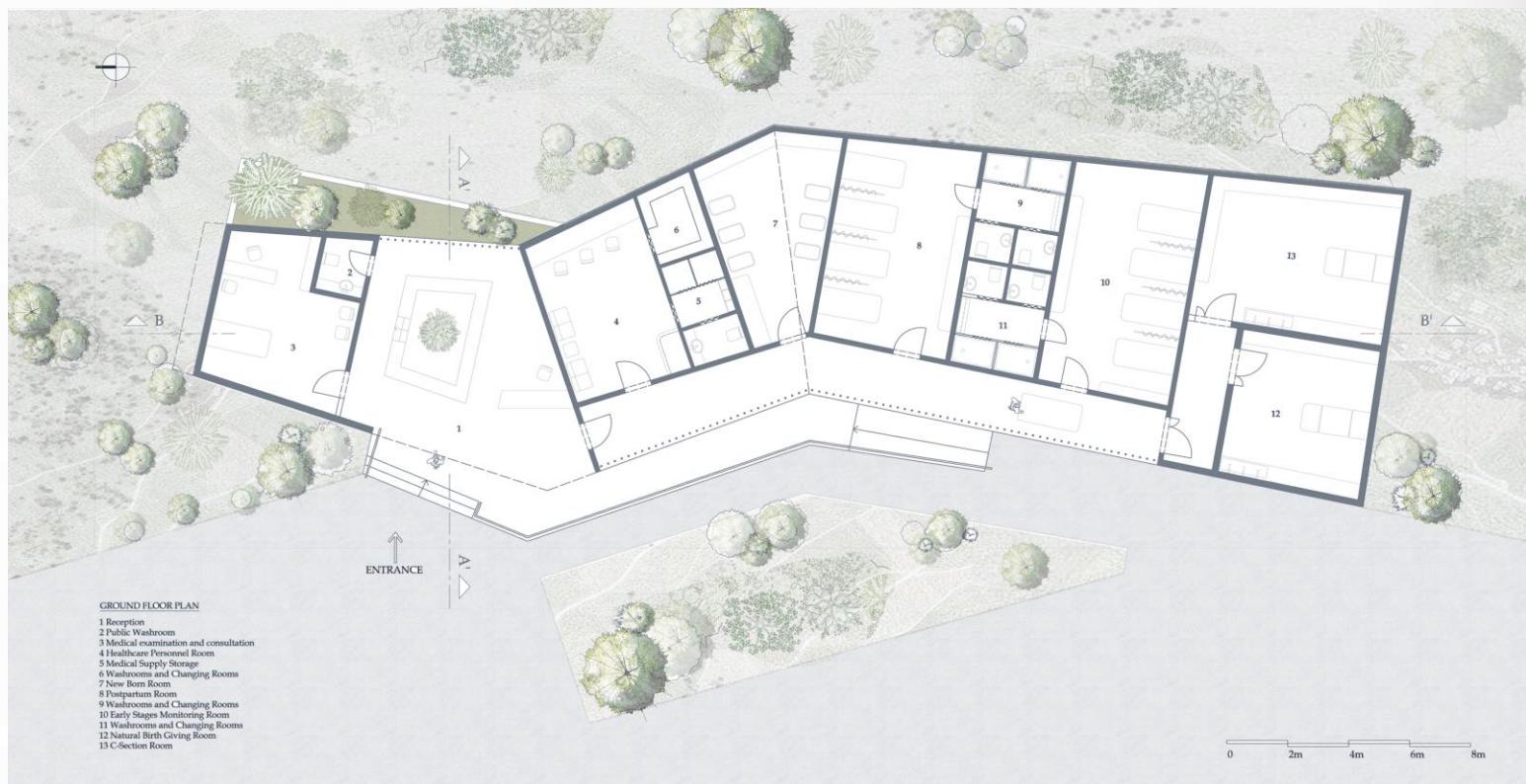
Group Project  
of 3 members



# Project 03

## MATERNITY CENTER

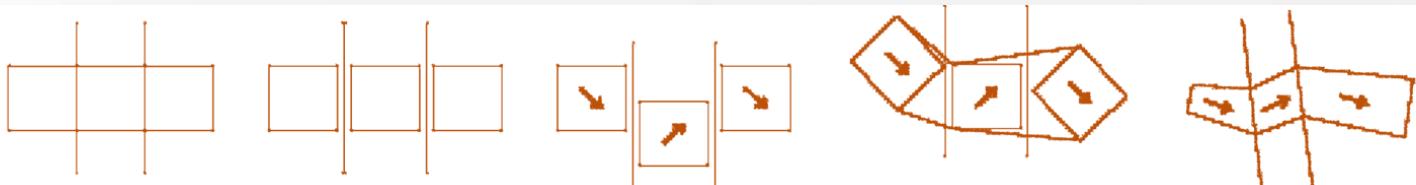
Location: Baghere, Senegal



Plan View

These modules are connected by a large, unifying roof, symbolizing the stages of labor while offering shelter. The courtyard serves as a waiting area for mothers and families.

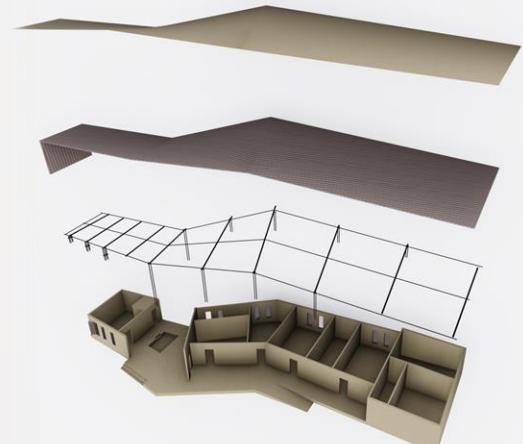
## CONCEPT



Built with simple, locally sourced materials, the center features rammed earth walls and a bamboo roof, blending harmoniously with the rural landscape. The primary goal is to ensure safety and comfort for women during labor.



## EXPLODED DIAGRAM



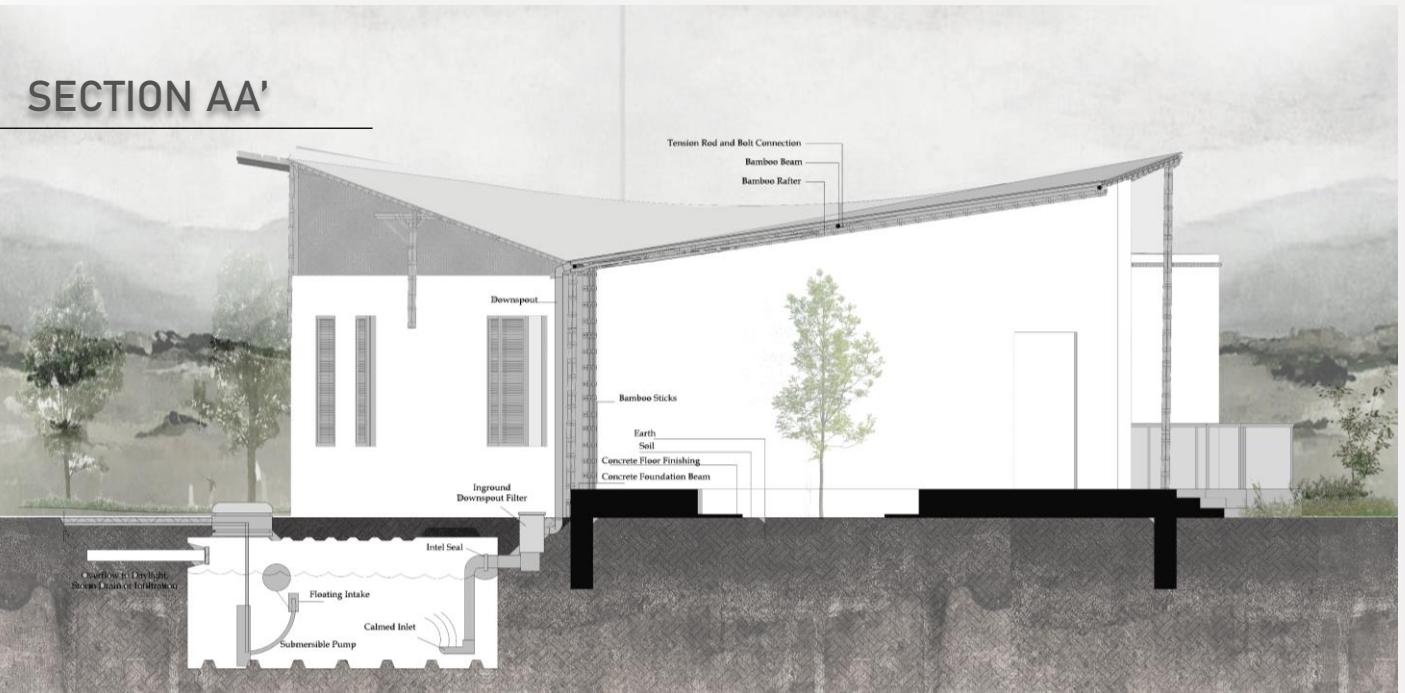
- Corrugated metal sheet for water proofing and collection.
- Bamboo woven for thermal insulation.
- Bamboo structural frames
- Rammed earth walls and concrete elevated floor.

Interior View

# Project 03

## MATERNITY CENTER

Location: Dbayeh, Lebanon

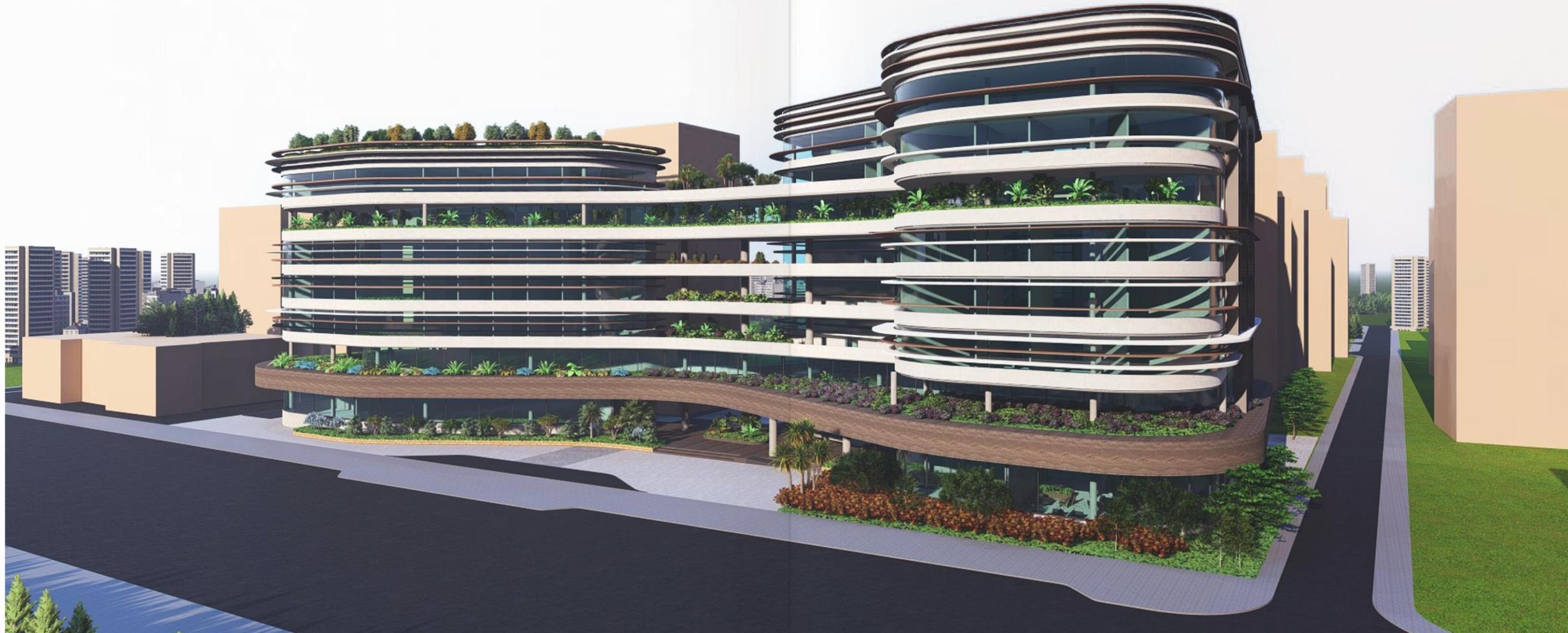


# Project 04

## MINISTRY OF ENVIRONMENT

Location: Beirut, Lebanon

A LUMION Ps



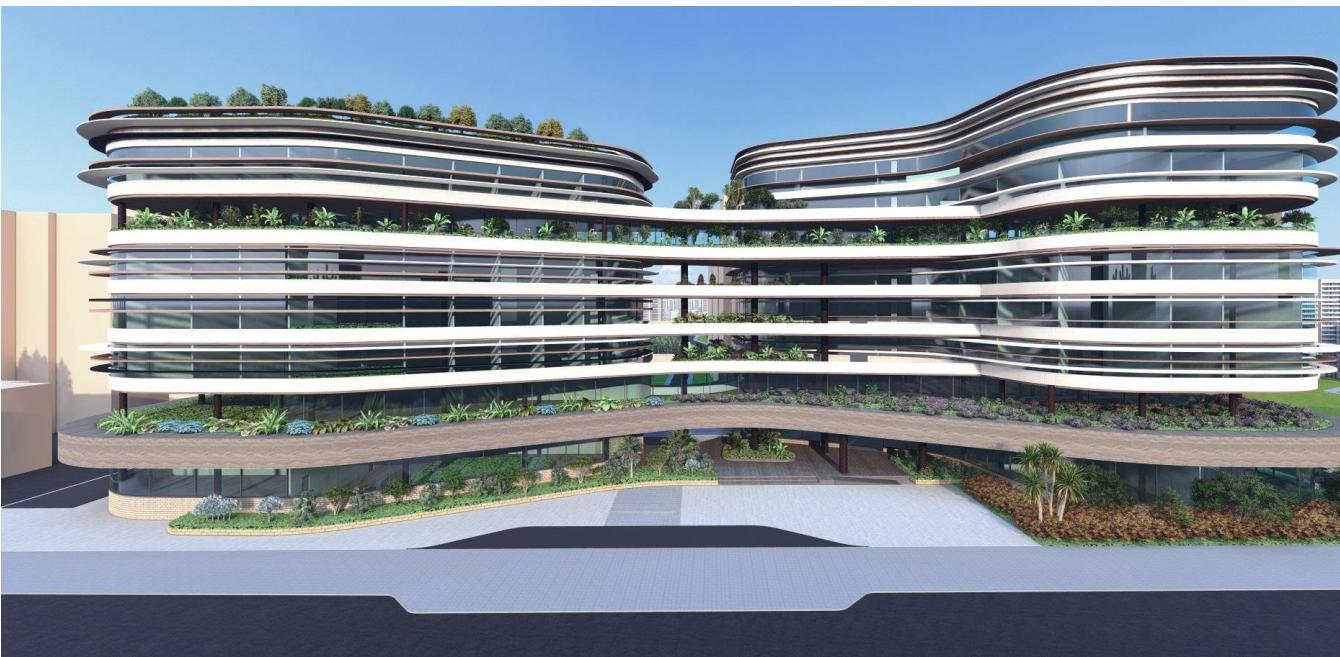
# Project 04

## MINISTRY OF ENVIRONMENT

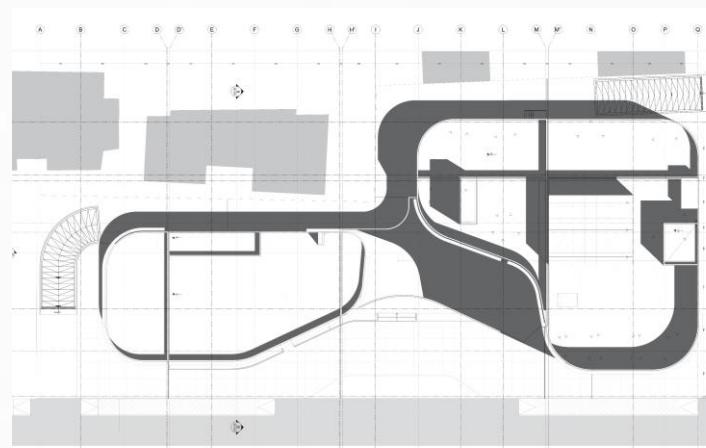
Location: Beirut, Lebanon



The environment is crucial for the well-being of people and ecosystems. As Lebanon's leading environmental decision-maker, the Ministry of Environment plays a key role in shaping policies. Designing a building for this ministry must address three main aspects: **political, social, and most importantly, environmental**. With growing issues like climate change and pollution, adopting **sustainable practices** is more important than ever. To set an example, the Ministry's building should reflect these values.

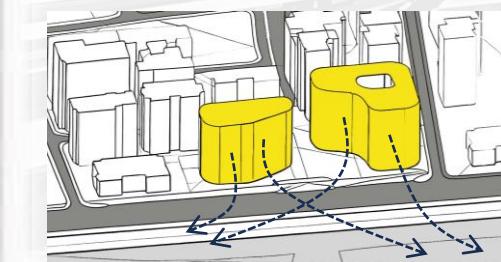


Close Up

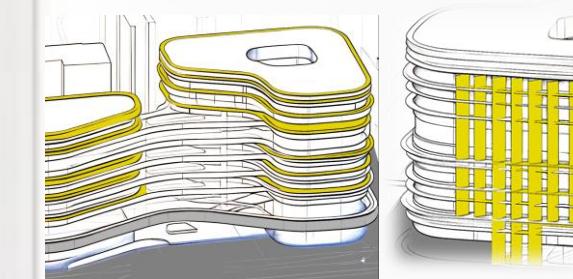


Mass Plan

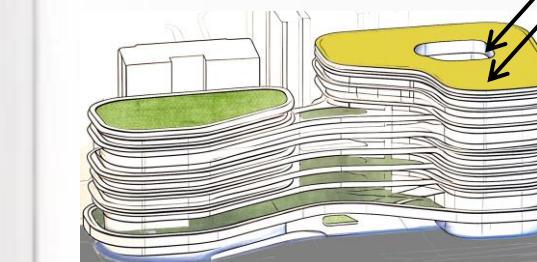
## CONCEPT



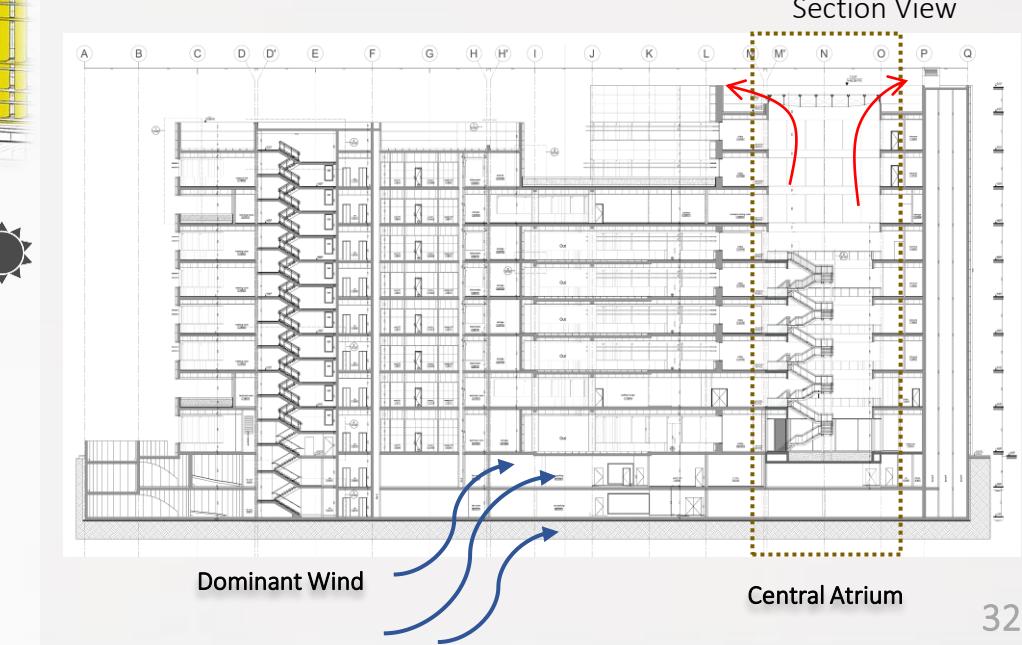
Oriented to maximize **view** and **natural ventilation**.



**Horizontal shading devices** in the southern façade and vertical devices on the east and west.



The lower roof is a **green roof** while the higher roof on the right will be for **solar panels**.



Dominant Wind

Central Atrium

In response to the global warming and environmental crisis

facing the world, our main purpose was to design an efficient sustainable building.

Beside having the dominant wind coming from the south west, we have "Horsh Beirut" (an important environmental landmark in Lebanon) located on the south west area facing the ministry.

The shading devices on the facade are efficient to shade direct sunlight during different time of the day.

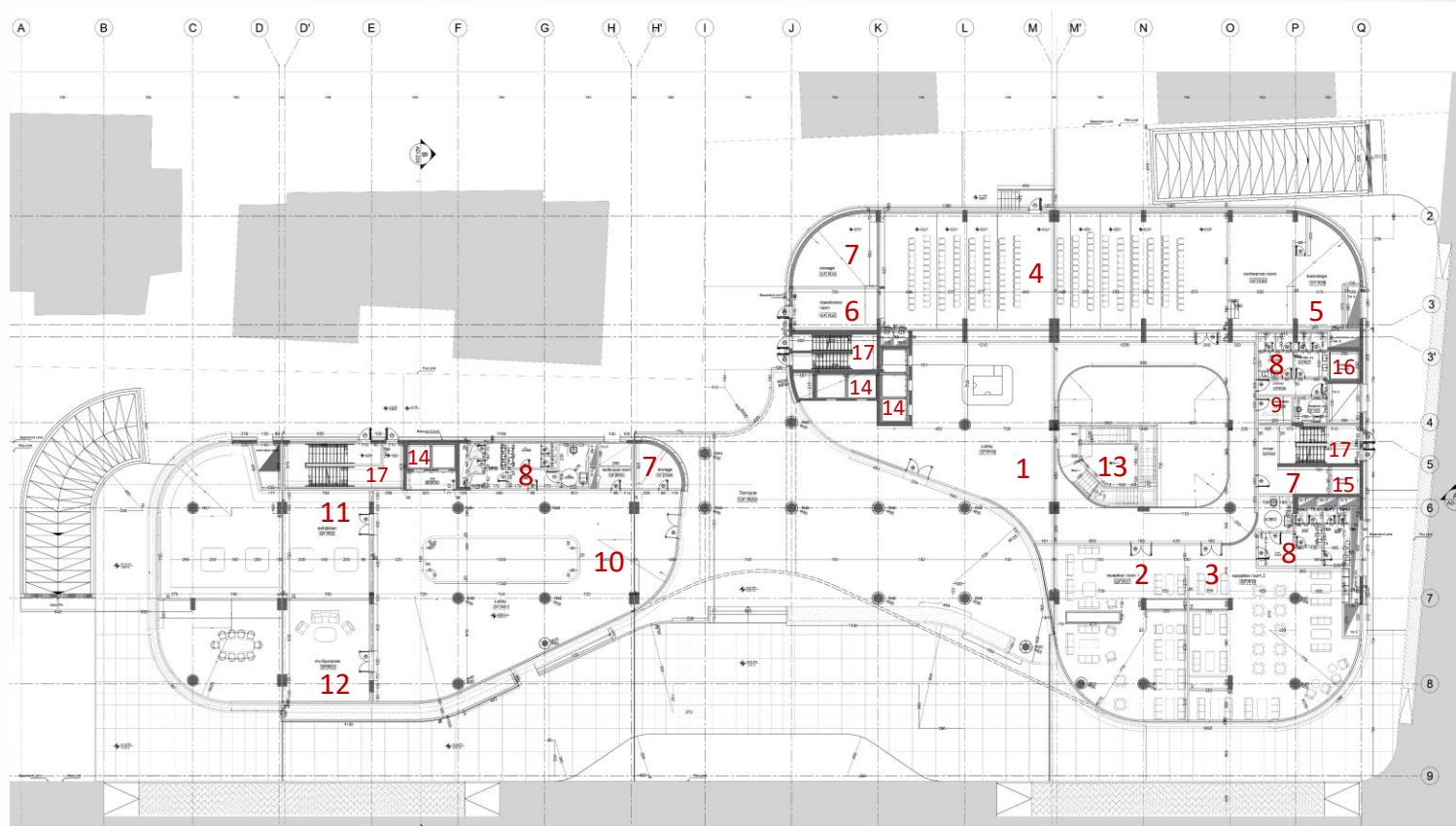
The two roofs accommodate different functions the lower roof on the right is a green roof while the higher roof on the right will be for solar panels.

A central atrium is used for passive cooling during summer and serve as a light well all year long.

# Project 04

## MINISTRY OF ENVIRONMENT

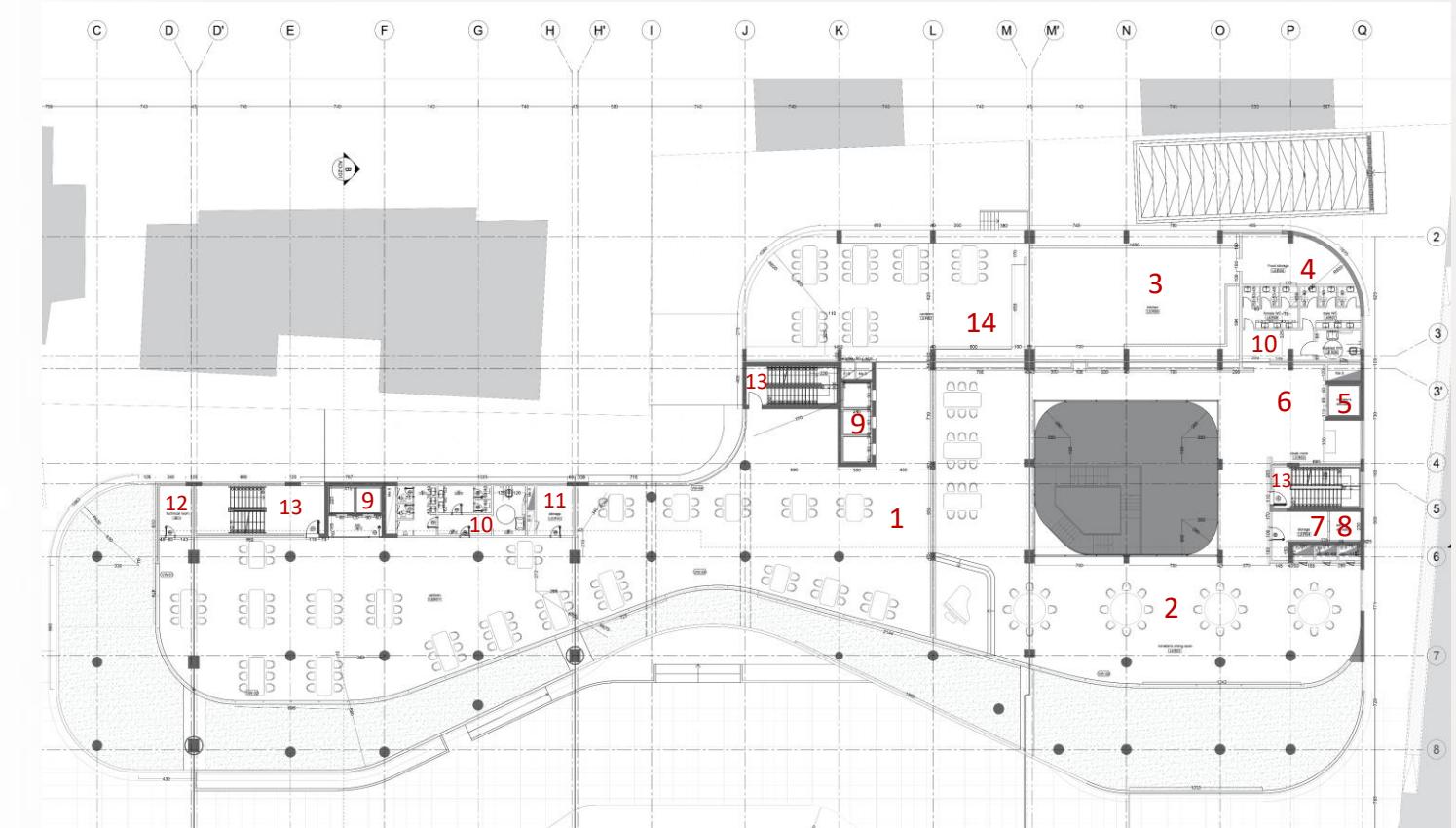
Location: Beirut, Lebanon



### Ground Floor

- 1. Entrance Lobby
- 2. Reception Room 1
- 3. Reception Room 2
- 4. Conference Room
- 5. Conference Backstage
- 6. Transformer Room
- 7. Storage Room
- 8. Sanitary
- 9. Kitchenette
- 10. Entrance Lobby 2
- 11. Exhibition Room
- 12. Multipurpose Room
- 13. Vertical Circulation Stairs
- 14. Public Elevators
- 15. Service Elevators
- 16. Minister's Elevator
- 17. Emergency Exists

### PLANS TECHNICAL DRAWINGS



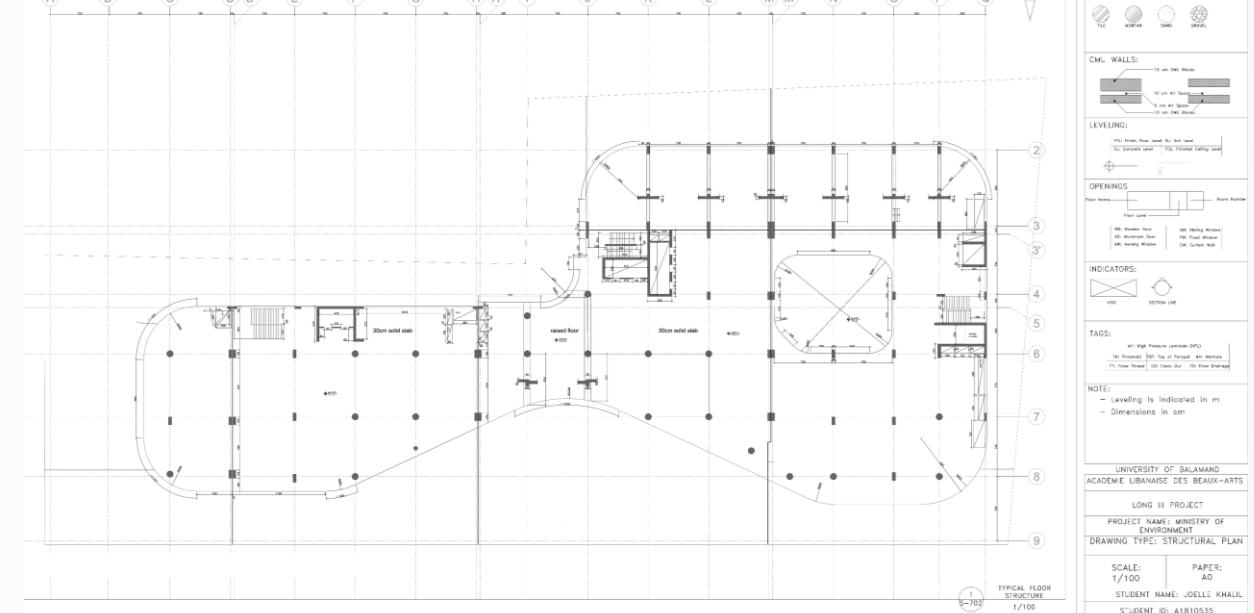
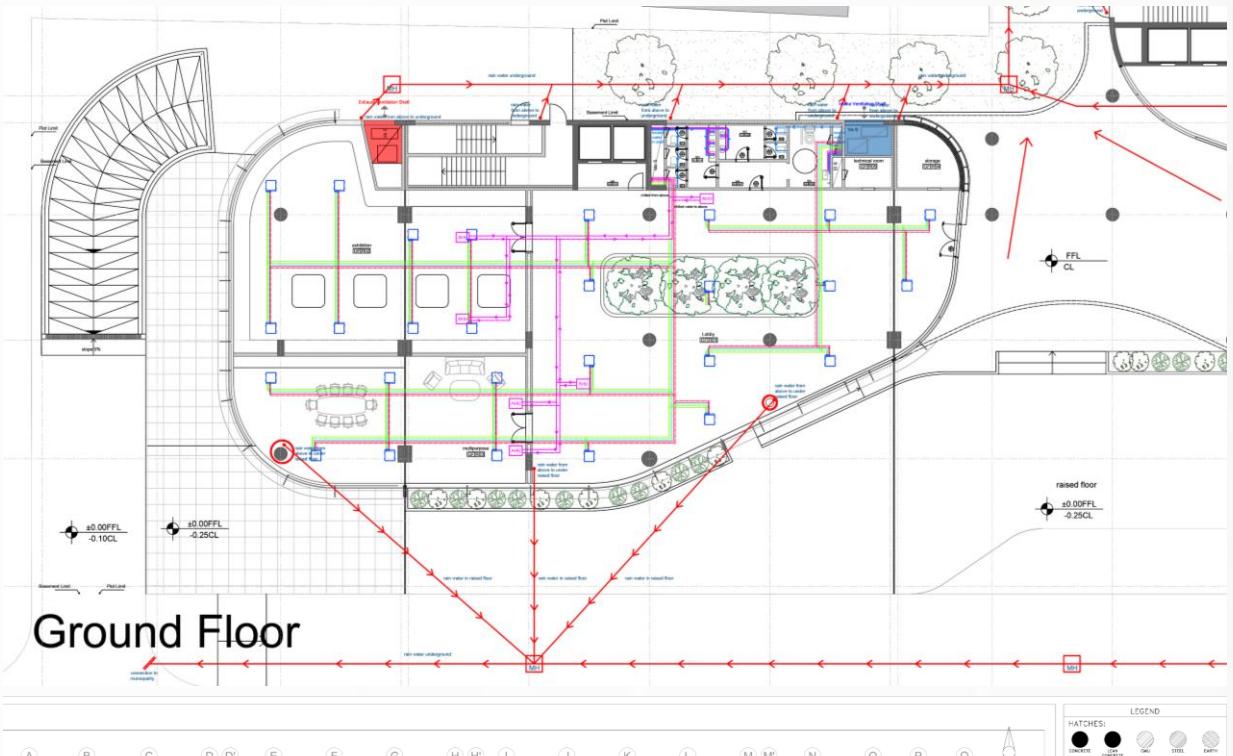
### Level 6

- 1. Staff Canteen
- 2. Minister's Dining Area
- 3. Kitchen
- 4. Food Storage
- 5. Minister's Elevator
- 6. Cloak Room
- 7. Storage Room
- 8. Service Elevator
- 9. Public Elevators
- 10. Sanitary
- 11. Storage
- 12. Technical Room
- 13. Emergency Exit Stairs
- 14. Canteen Buffet Area

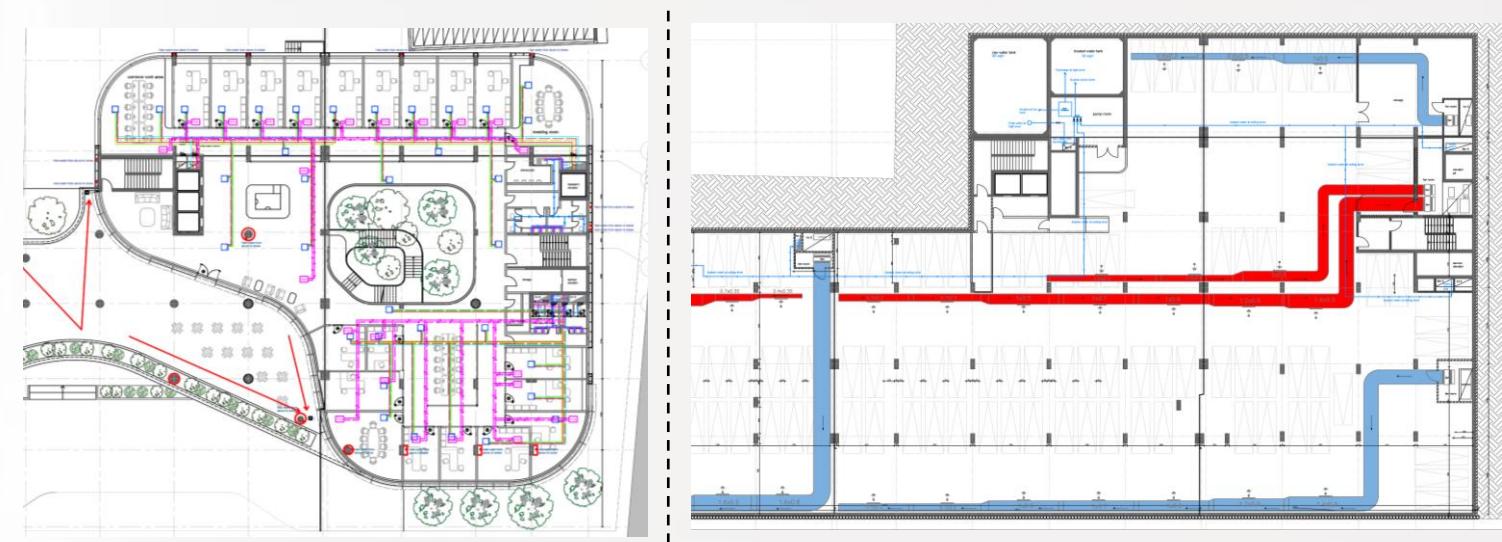
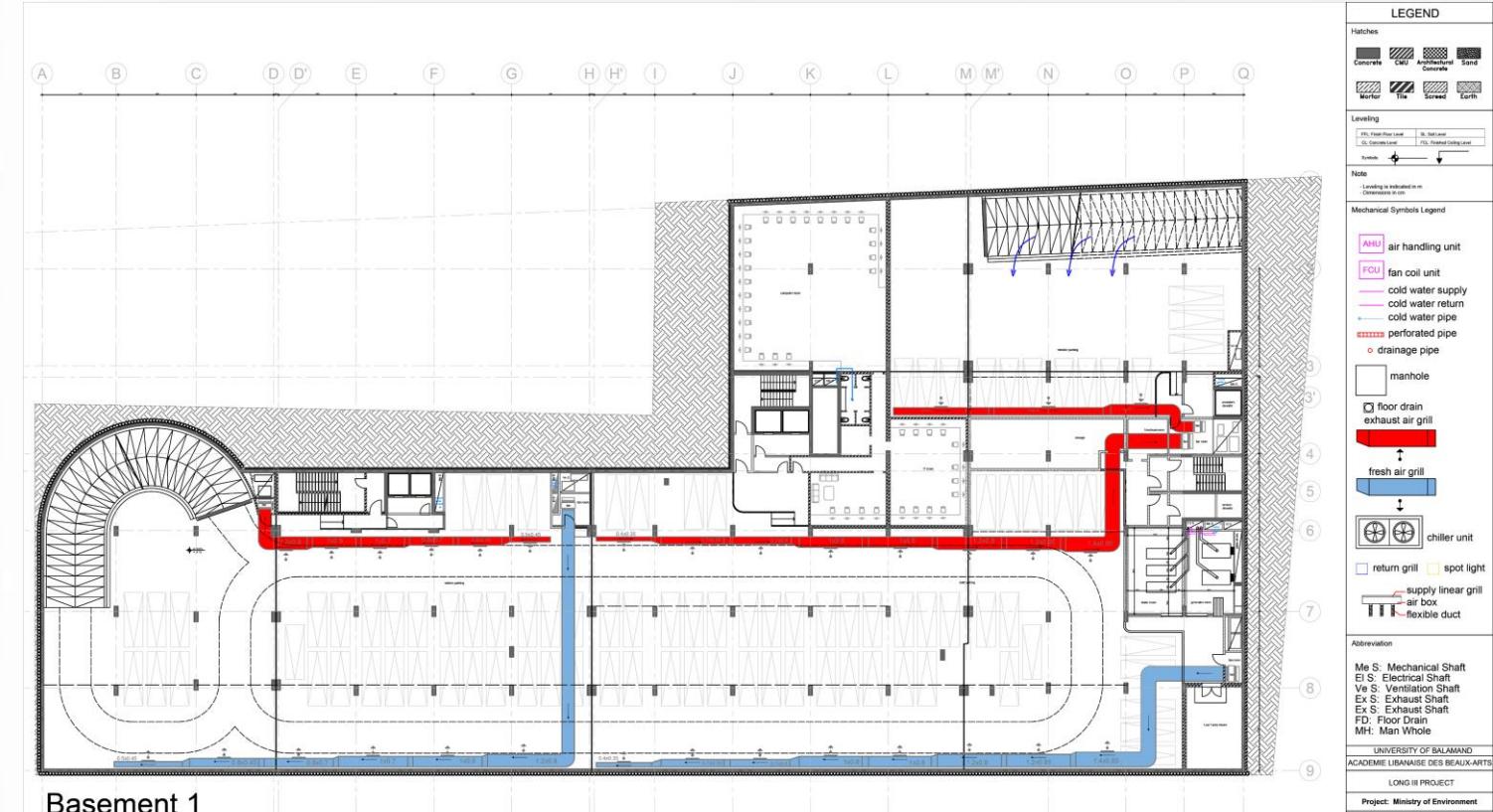
# Project 04

## MINISTRY OF ENVIRONMENT

Location: Beirut, Lebanon



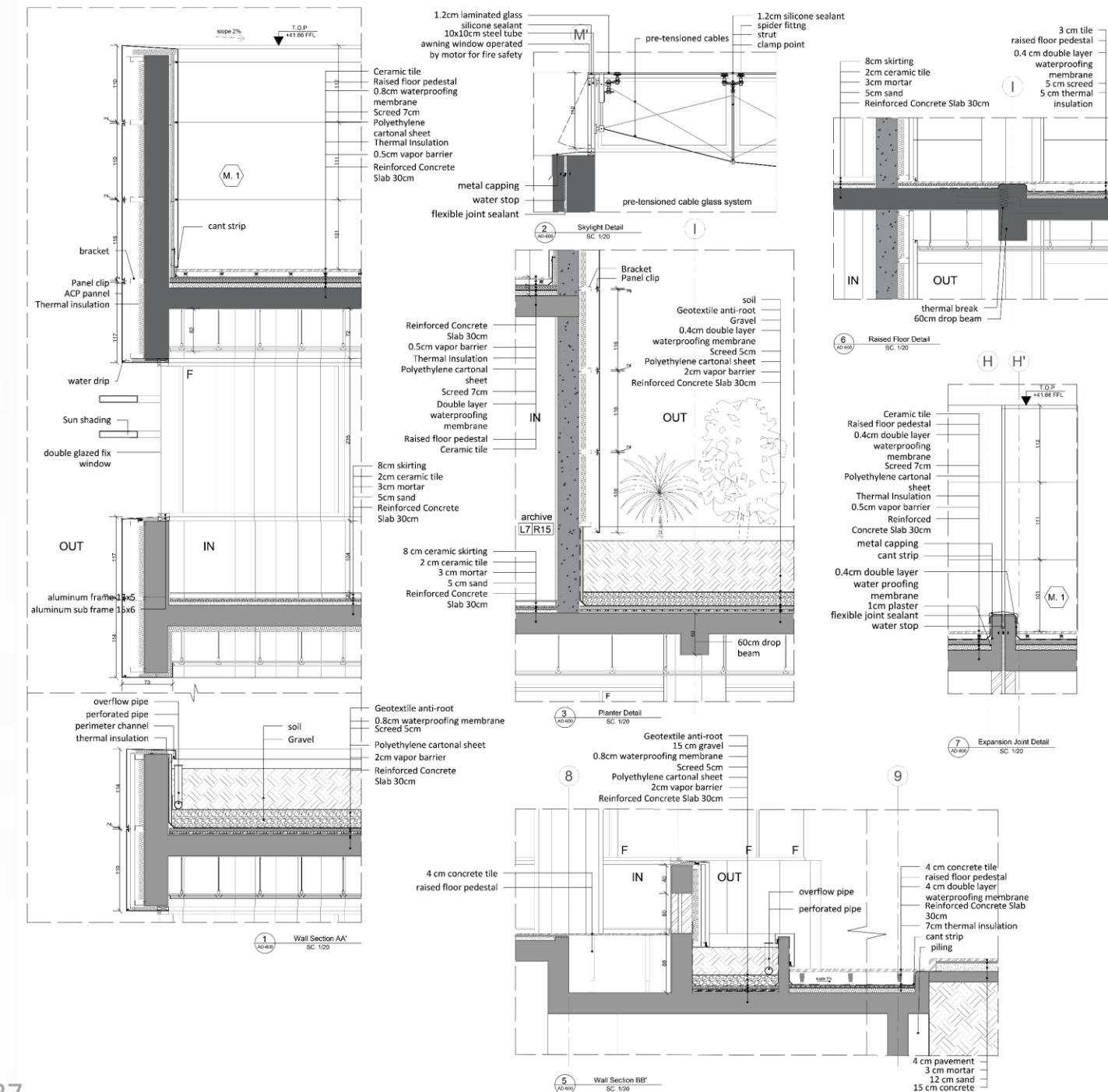
## MECHANICAL/ STRUCTURAL DRAWINGS



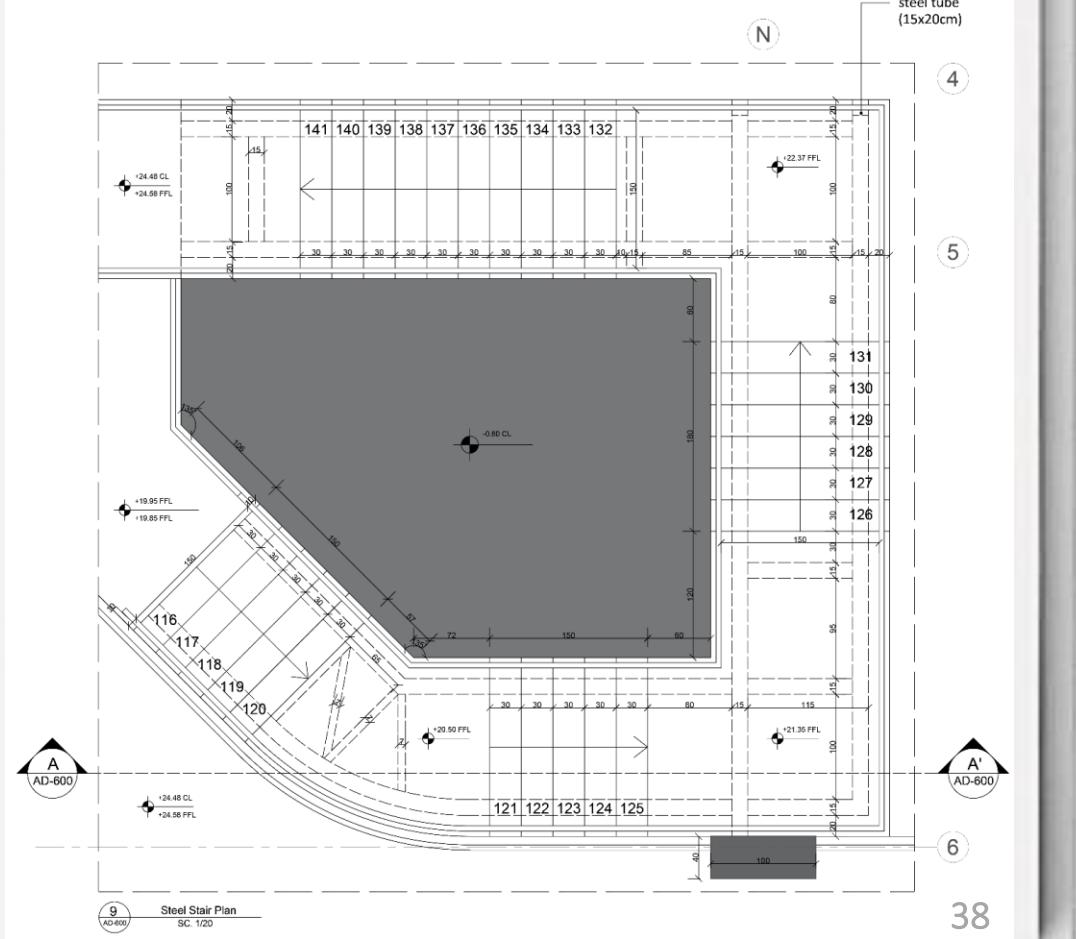
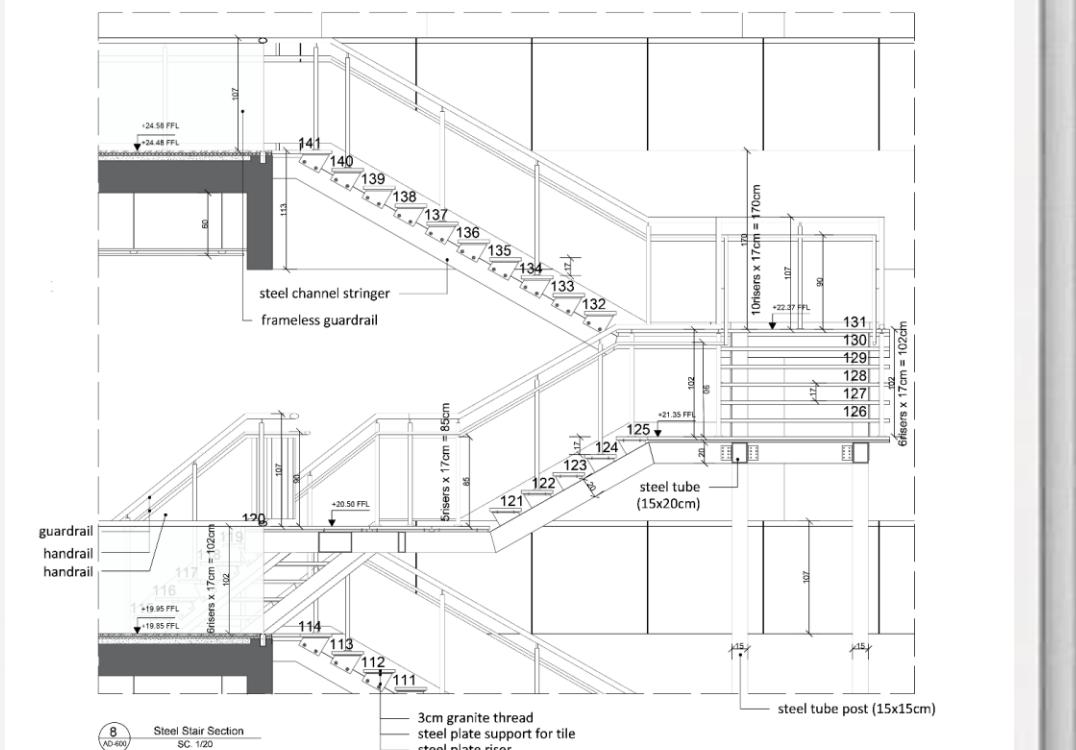
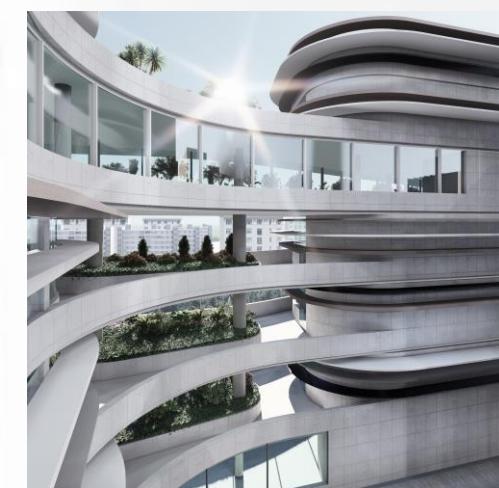
# Project 04

## MINISTRY OF ENVIRONMENT

Location: Beirut, Lebanon



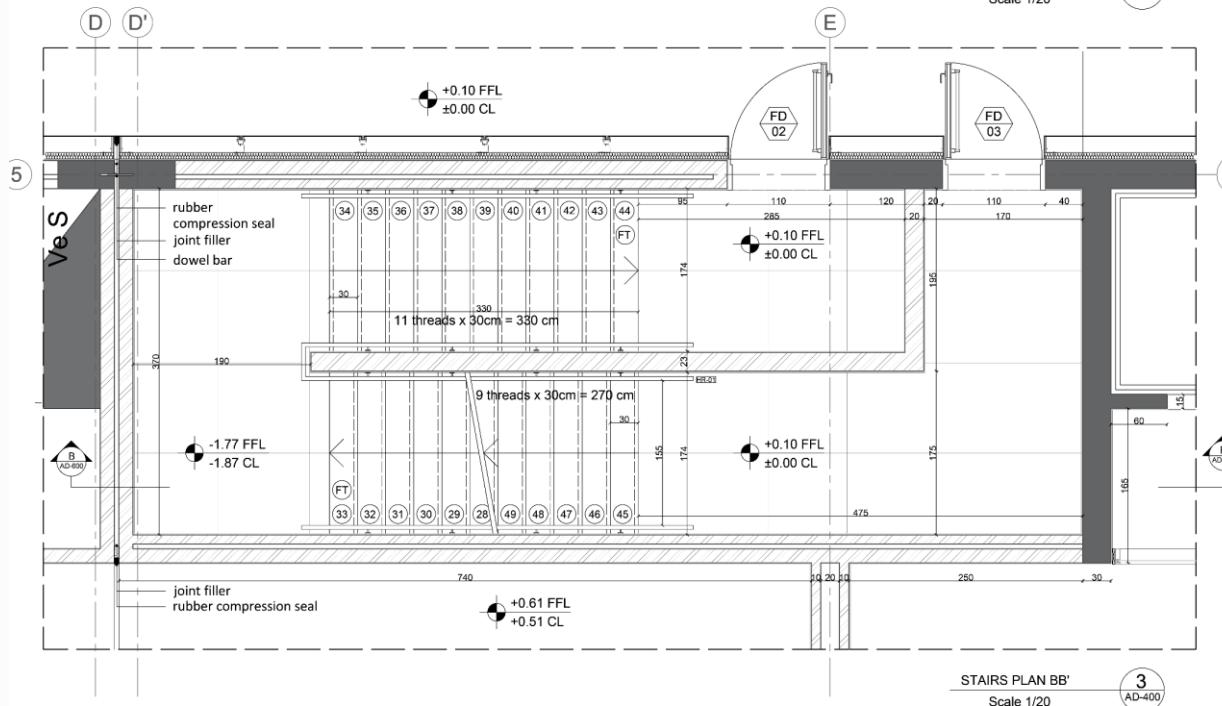
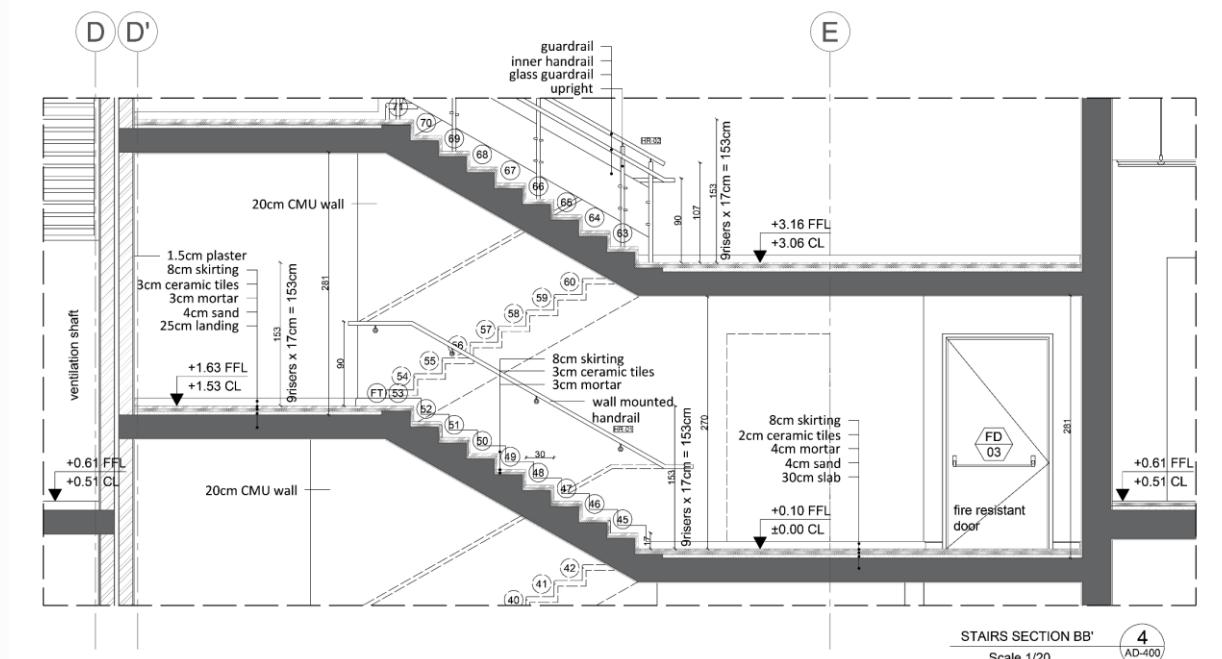
## WALL SECTION DETAILS



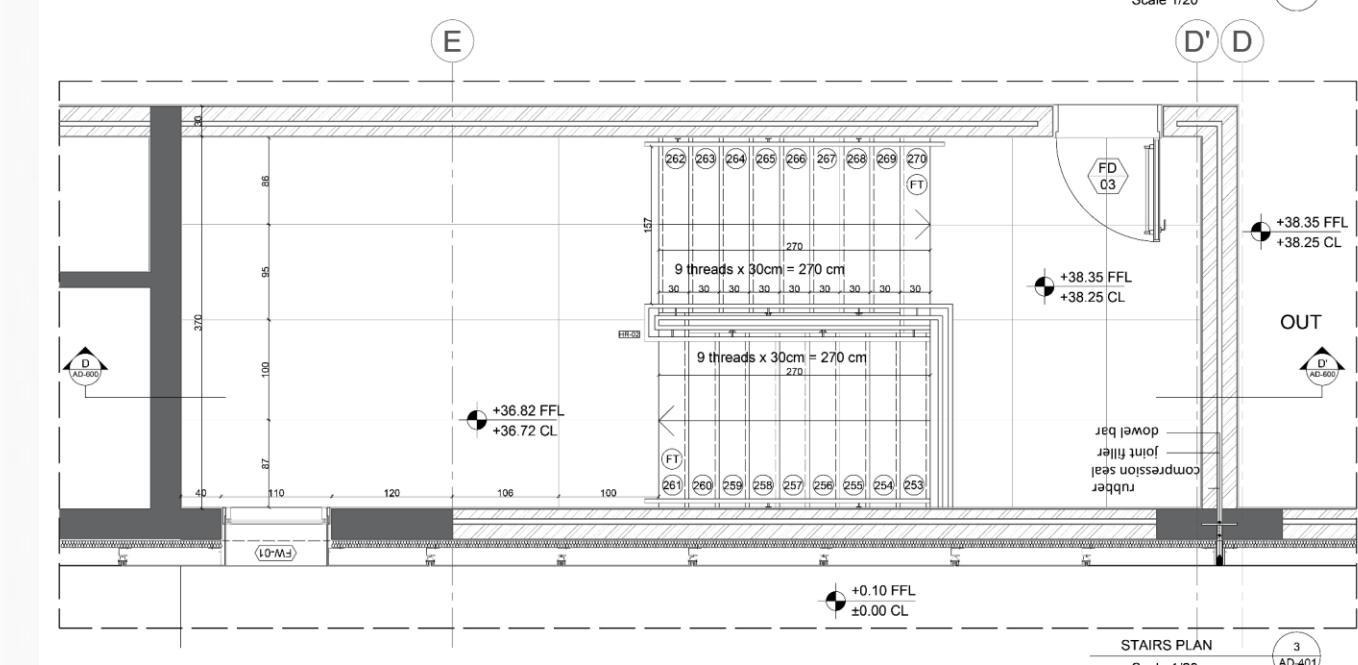
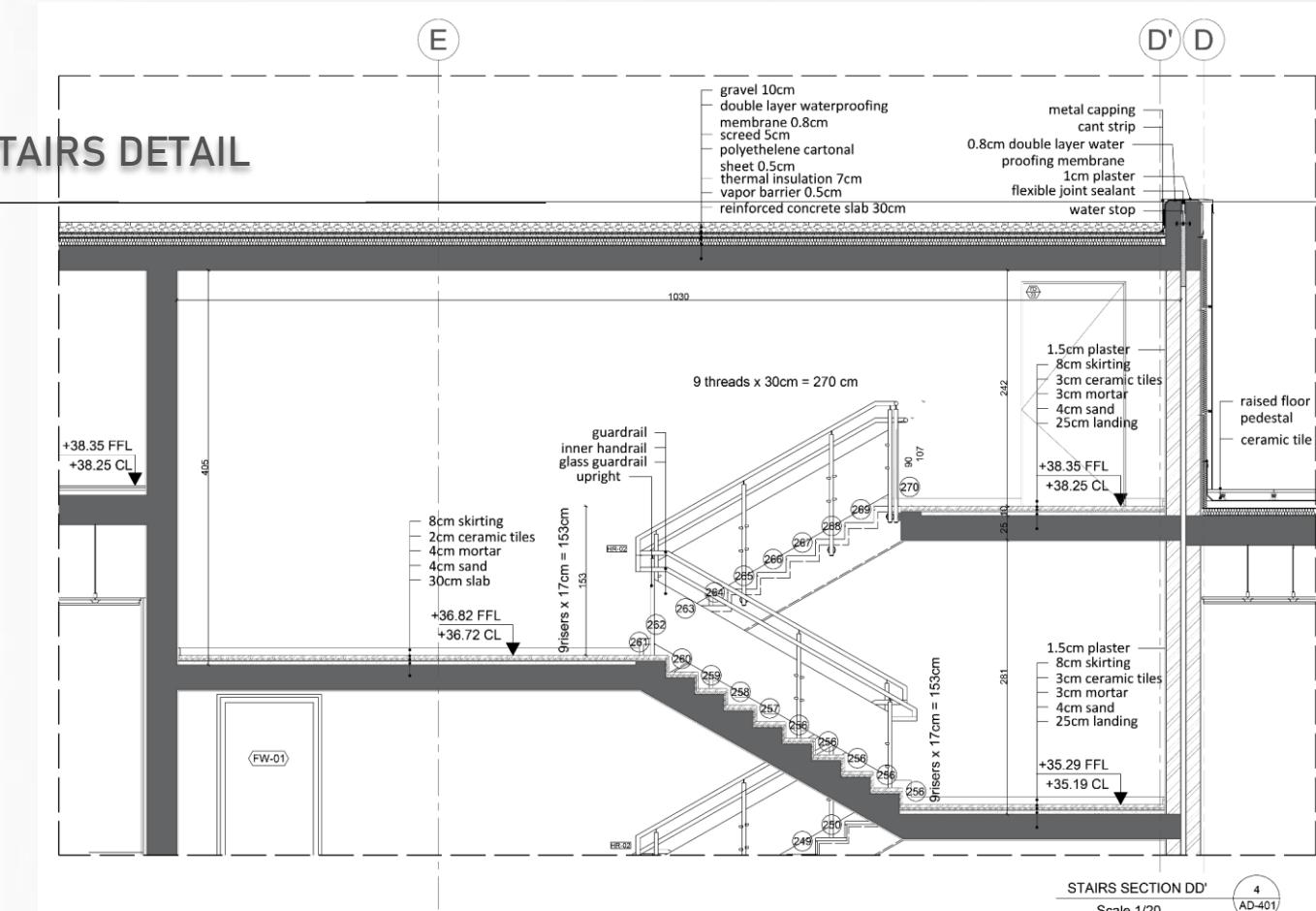
# Project 04

# MINISTRY OF ENVIRONMENT

Location: Beirut, Lebanon



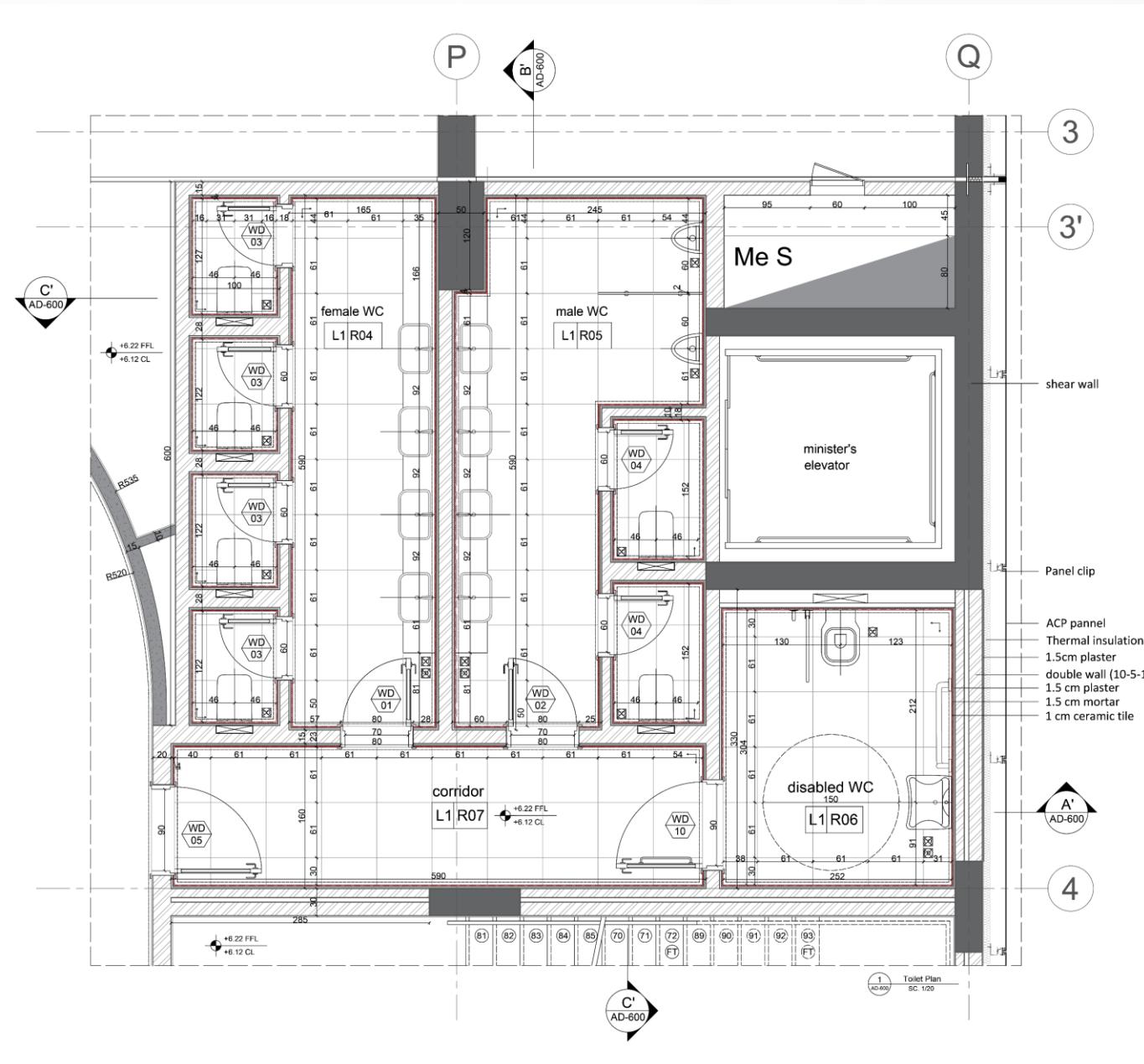
## STAIRS DETAIL



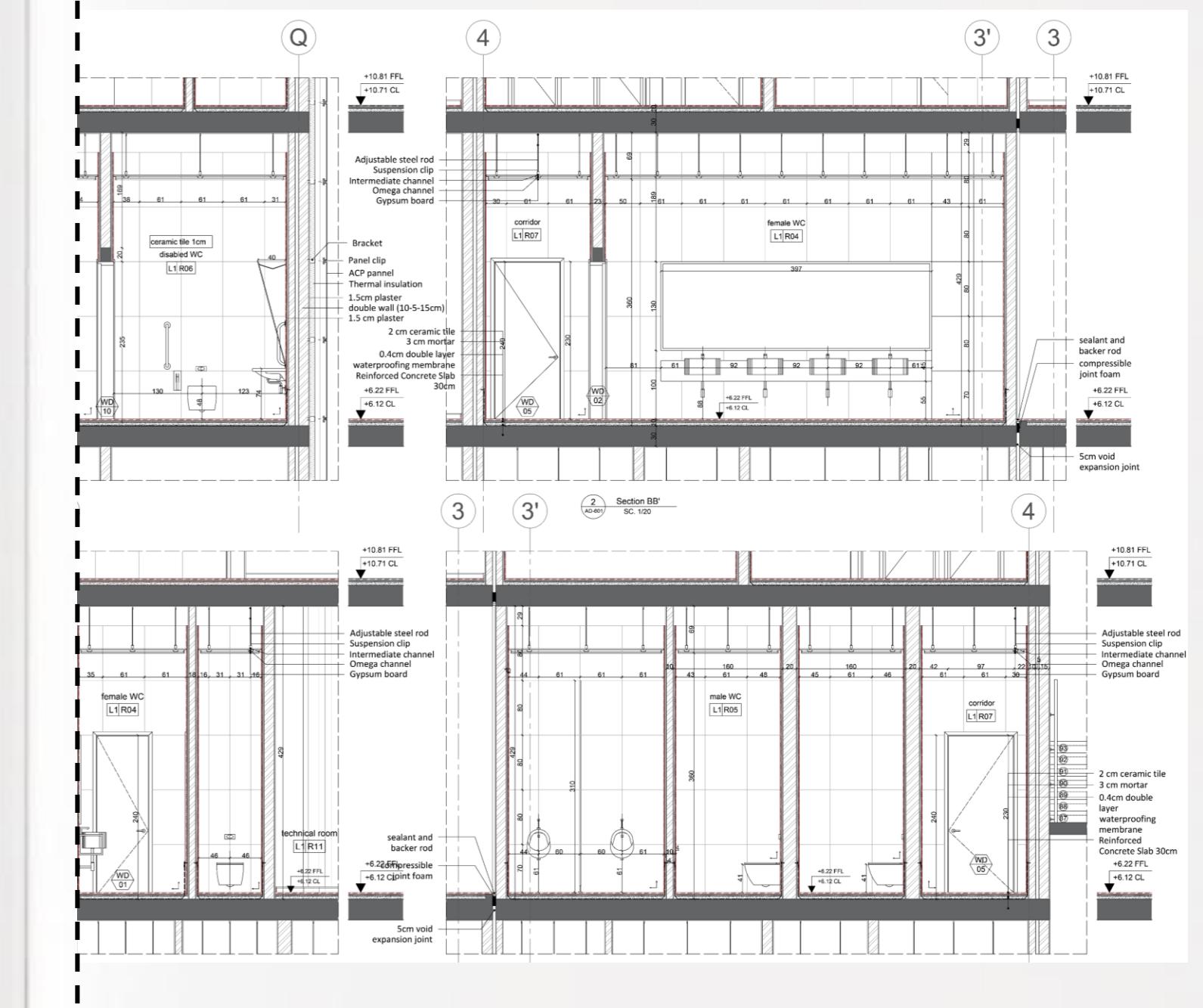
# Project 04

## MINISTRY OF ENVIRONMENT

Location: Beirut, Lebanon



## WC DETAILS

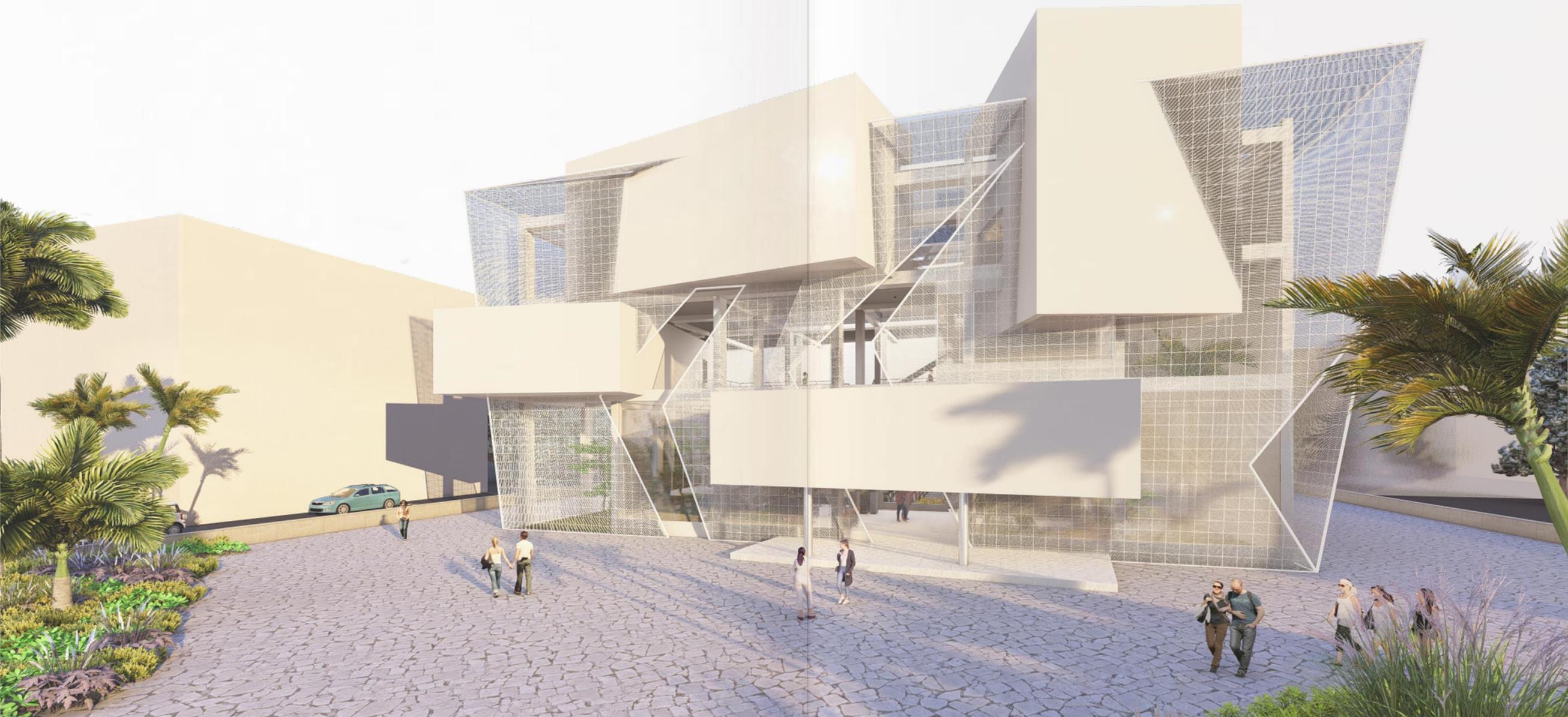


# Project 05

## A CYBER SPACE

Location: Beirut, Lebanon

A LUMION Ps



# Project 05

## A CYBER SPACE

Location: Beirut, Lebanon



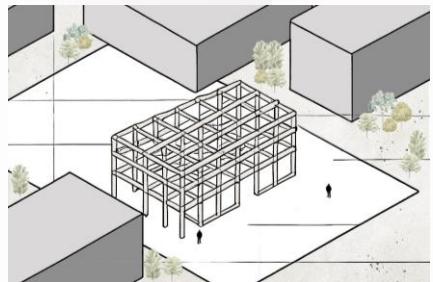
Ground Floor Lobby

Technology affects almost every aspect of the 21st century life. Despite the evolution and its positive aspects on our daily lives, digital technology poses the risk of dehumanization and loneliness especially for computer based jobs.

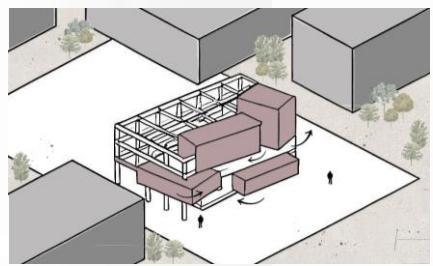
Awareness of the prominent destructive role of technology on our day to day lives is the first step to prevent isolation while keeping us digitally connected and updated.

Hence the concept of the "Cyber Space" project. **The main objective of this architecture is to create a space that combines virtual and reality.**

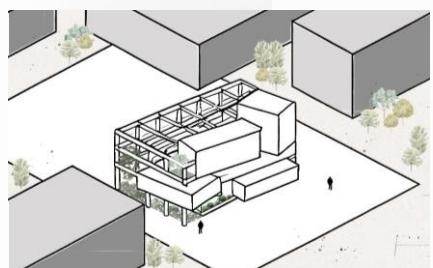
## CONCEPT



1. Original volume composed of beams and columns.



2. Rotated boxes added to the structure. Coated with white reflective paint inspired from screens.



3. Green spaces to promote both sustainability and integration with nature.



4. Wire mesh envelope, intentionally disrupted to contrast the digital framework with the natural surroundings.



South Elevation



Ground Floor

1. Entrance Lobby
2. Bar
3. Administrative Office
4. Manager Office

Transparency is a key point in this design. In order not to get lost in the screen, it is beneficial to remember and feel the space around us. Almost everywhere in the center, visitors are able to observe the dynamism and greenery which create in them a sense of grounding and maintains the circadian rhythm alive.

# Project 05

## A CYBER SPACE

Location: Beirut, Lebanon



The building is enveloped by a wire mesh inspired by the processor chips found in all technological devices. This mesh provides shade to the space without blocking the view to the outside.

Planted trees inside the envelope combine the elements of nature with the cyber architecture.



Exterior View



Section AA'

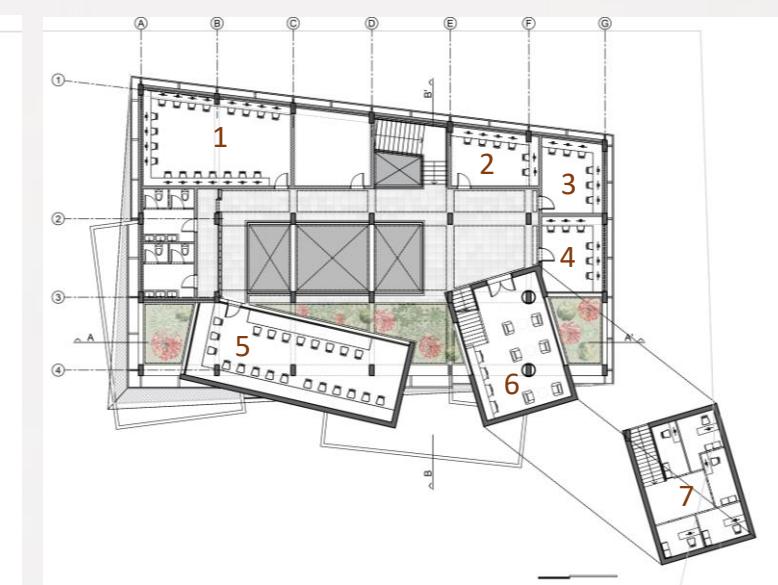


Level 3 Interior View



Level 1

1. Digital Warehouse
2. Virtual Reality Room 1
3. Virtual Reality Room 2



Level 3

1. Computer Room
2. IT Workshop 1
3. IT Workshop 2
4. IT Workshop 3
5. Maker space
6. Coffee Lounge
7. 5 Boxes Capsules

# Project 06

## THE RAHBANY BROTHERS PERFORMING ARTS CENTER

Graduation Project

Location: Antelias, Lebanon



# Project 06

## THE RAHBANY BROTHERS PERFORMING ARTS CENTER

Location: Antelias, Lebanon



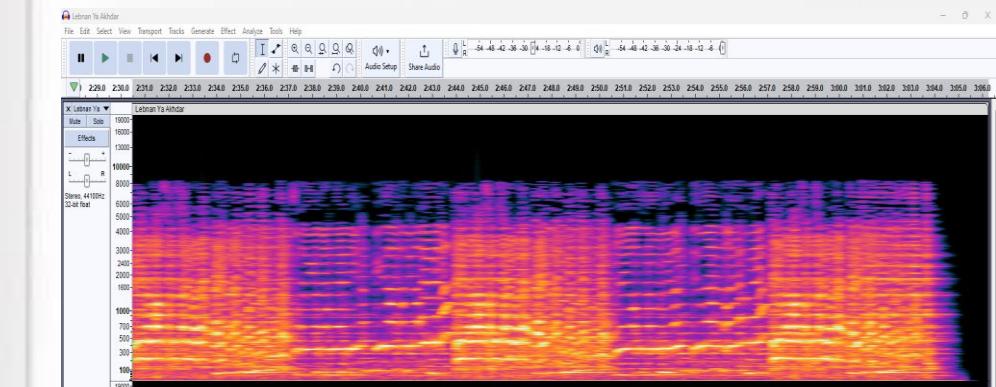
Assi and Mansour Rahbani were Lebanese sibling-musicians, composers and playwrights. The Rahbani Brothers, collaborated with the famous Fairuz, Assi's wife and created masterpieces. Their work transcended entertainment and became a reflection of the nation's emotions and aspirations. Today, as time moves forward, it is important to safeguard this cultural heritage for future generations.

Which inspired me to design “**A Hub for Music, Dance and Theater Education and Performances**” in tribute to the Rahbani brothers.

The brothers and fairouz introduced the Baalbeck festivals with their song “Leban ya akhdar helo 3a tlal” people got amazed and the festival was a big success.

## CONCEPT

The Rahbani brothers' works, including plays, poems, films, and songs, reveal that music is central to their creative output. They used music to enhance poems, musical plays, and movies. This focus on music influenced my design approach, especially the song "Leban ya akhdar helo 3a tlal," which marked a pivotal moment in their career and in Lebanese performing arts.



Spectrogram of “Leban ya akhdar helo” showing the songs data: Amplitude and Frequency at each point in time.

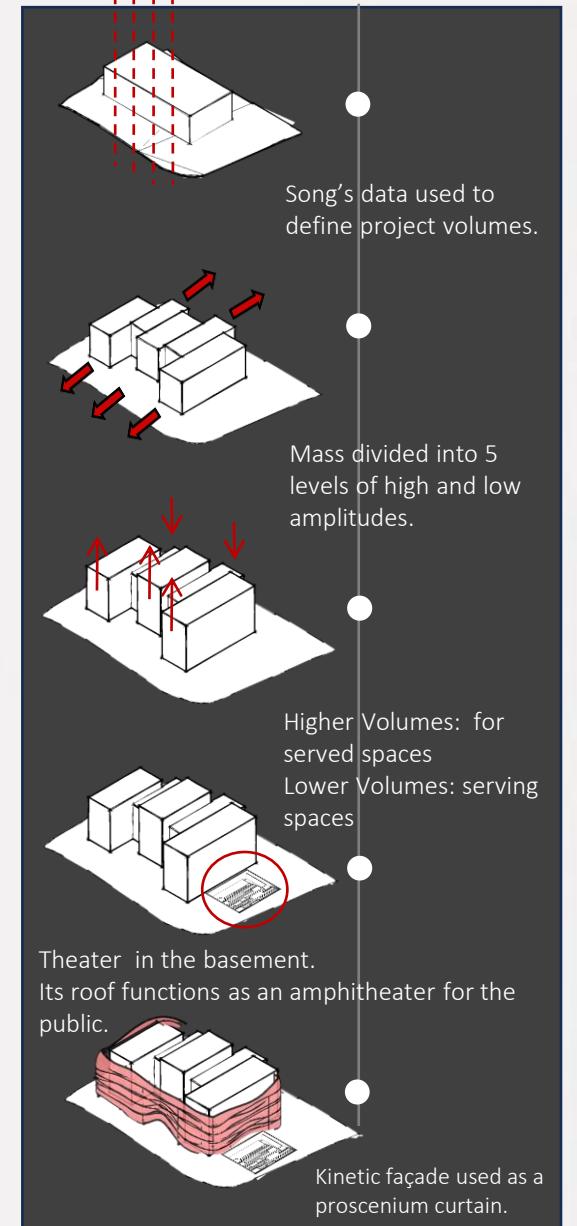
The project will be located in Antelias being the hometown of the Rahbani brothers and a strategic location for students and spectators.

The lot is facing O night club and surrounded by commercial and residential buildings.

- Land Area: 7,505 square meters
- Surface Exploitation: 40% equal to 3,000 square meters
- Total Exploitation: 2.4 equal to 18,000 square meters.



LOCATION



# Project 06

THE RAHBANY BROTHERS PERFORMING ARTS CENTER

Location: Antelias, Lebanon



## Kinetic Façade System

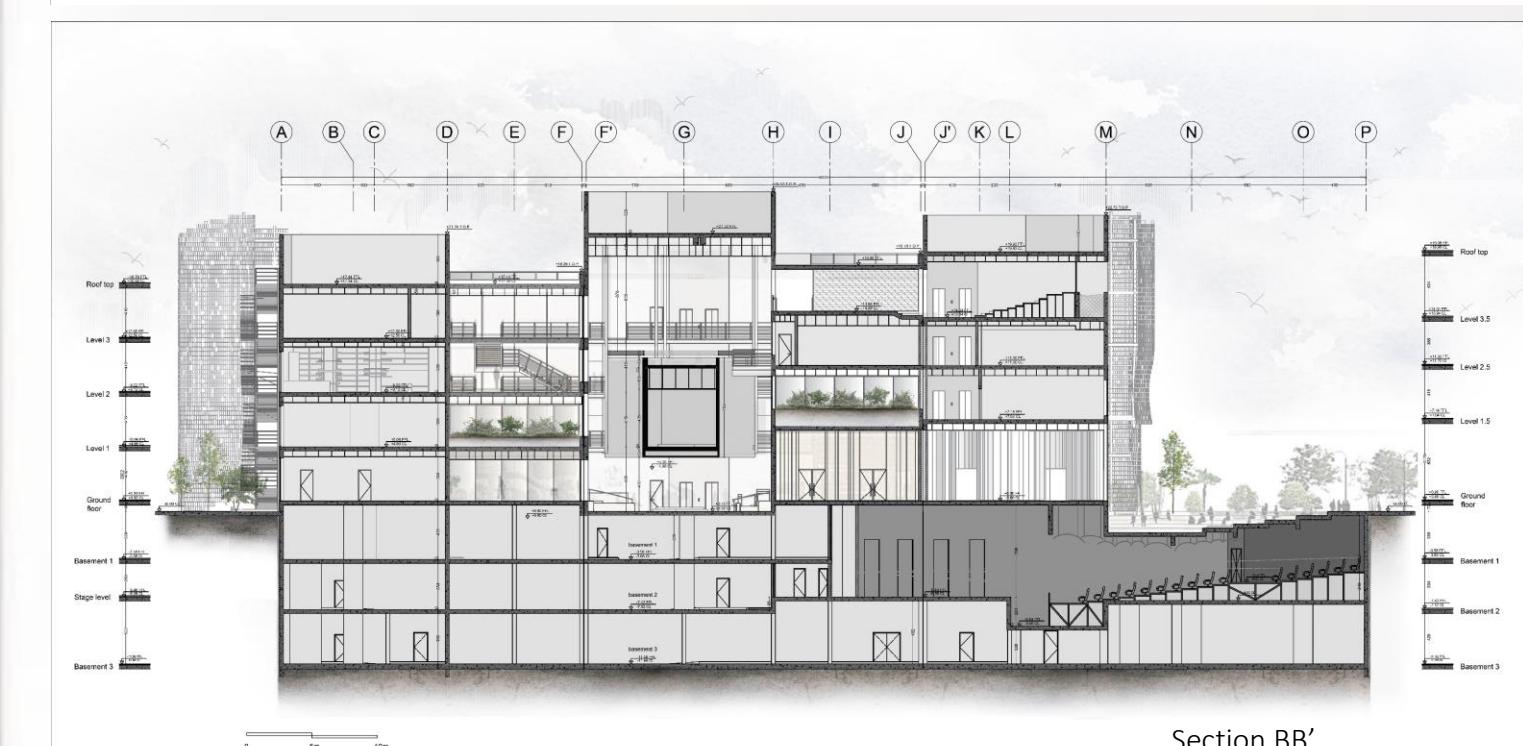
A kinetic wind driven skin revolves around the building to reflect the city and surroundings dynamically.



The movement of the kinetic flappers generated by wind will show the reflection of the city dancing on the façades



3 different types of pin mount flappers are used in this performing façade. Perforated, reflective and matte aluminum flappers.



**Suspended Black Box Theater:** A black box theater is an empty black room with movable chairs and stage that can be adapted to various types of performances.

# Project 06

THE RAHBANY BROTHERS PERFORMING ARTS CENTER

Location: Antelias, Lebanon



Theater



Library



## INTERIOR RENDERS



Theater Lobby

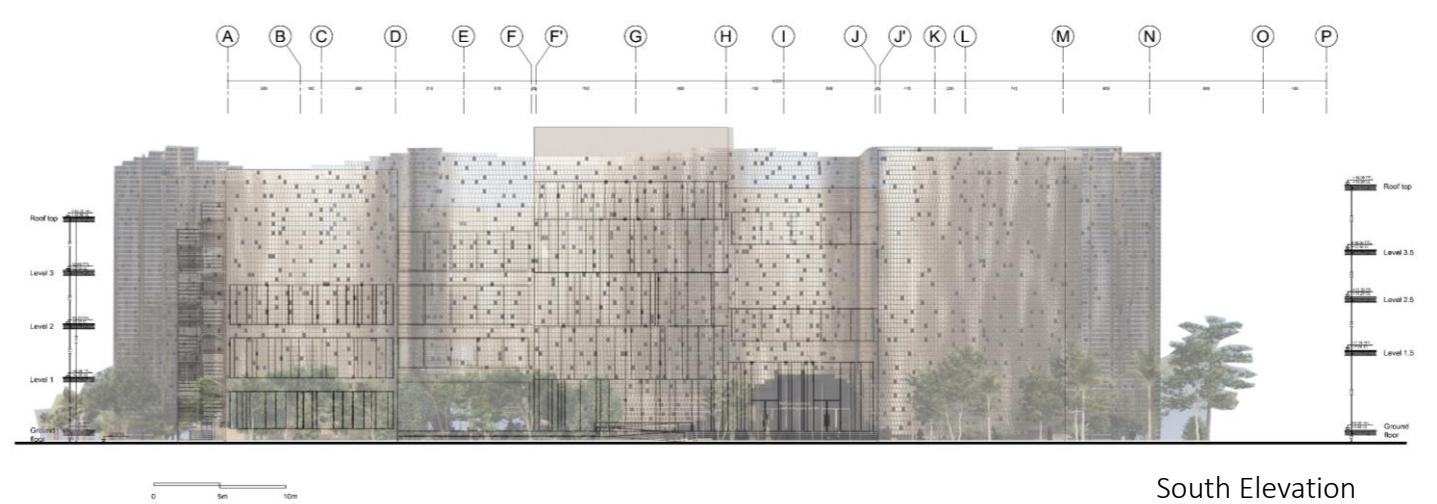
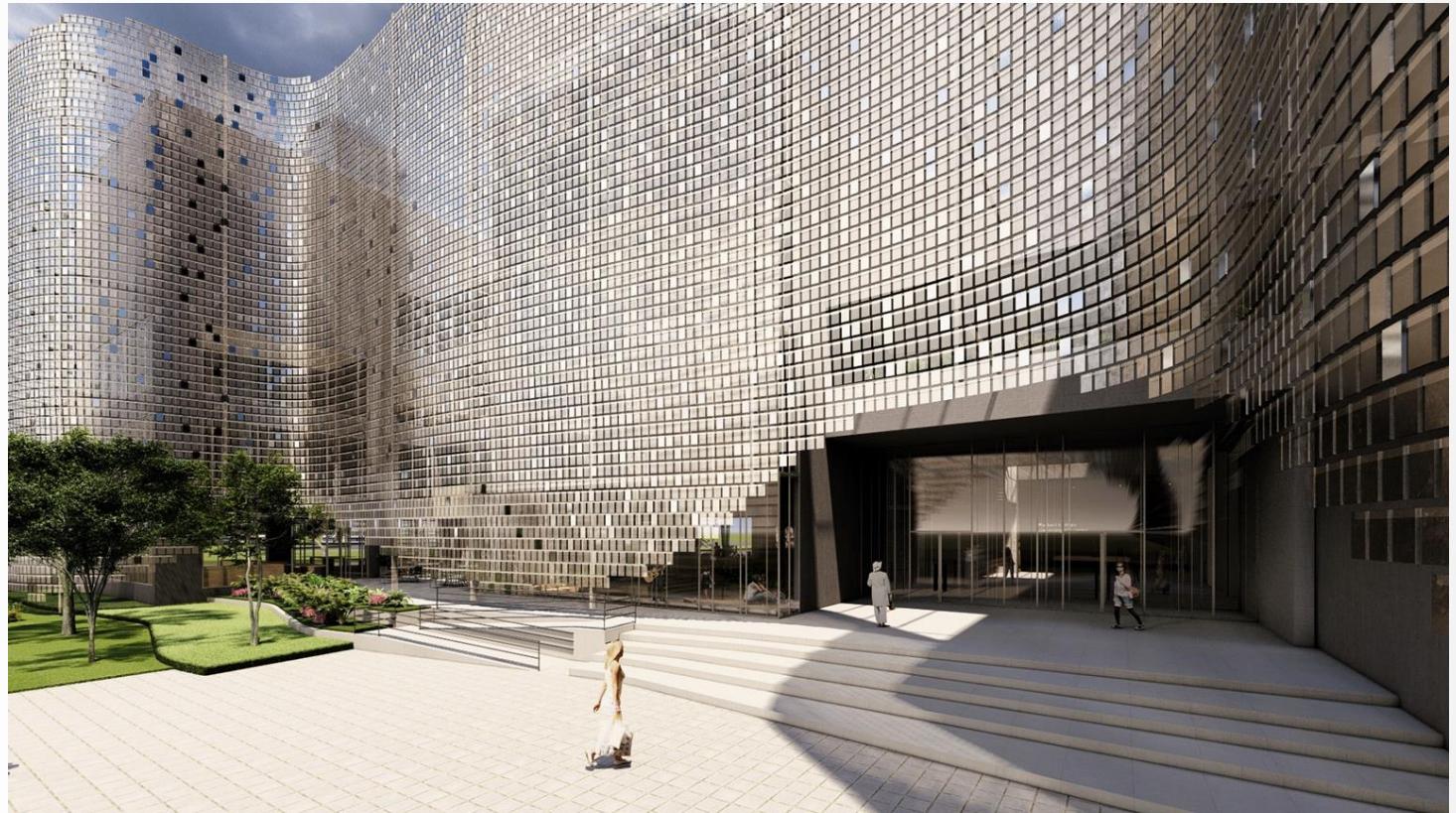


Dance Studio

# Project 06

THE RAHBANY BROTHERS PERFORMING ARTS CENTER

Location: Antelias, Lebanon



## Ground Floor Plan

1. Entrance Lobby
2. Students' Pit
3. Memorabilia
4. Stairs to Theater's Lobby
5. 2 Cinema Room
6. Cafeteria
7. Cafeteria's Outdoor Extension
8. Kitchen
9. Vertical Circulation Stairs
10. Outdoor Amphitheater
11. Monte Charge
12. Public Elevators
13. Emergency Exit Stairs



# Project 06

THE RAHBANY BROTHERS PERFORMING ARTS CENTER

Location: Antelias, Lebanon



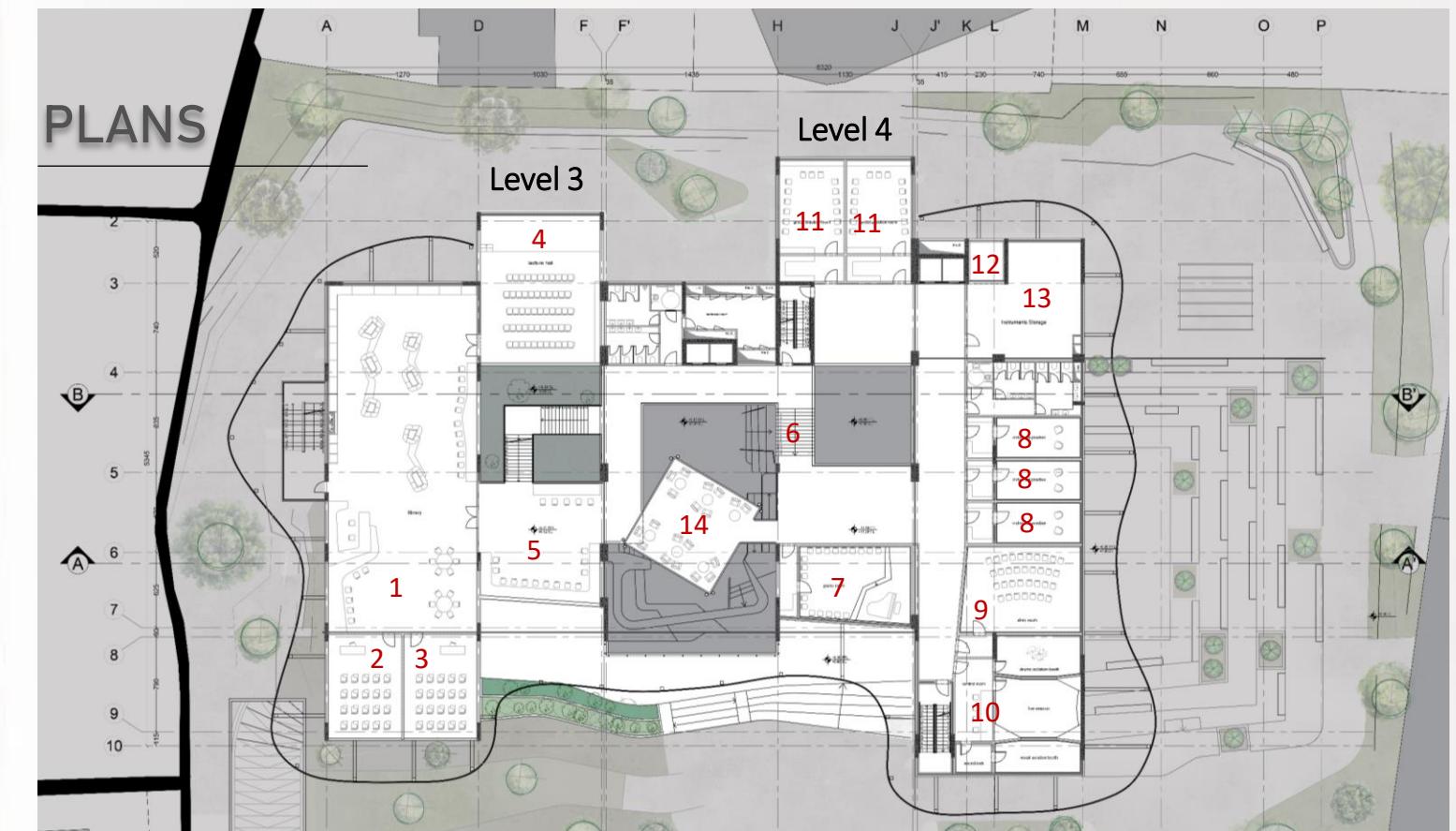
Black Box Theater's Top (Serves as a student's seating area)



West Elevation



Black Box Interior



## Level 3

1. Library
2. Classroom 1
3. Classroom 2
4. Lecture Hall
5. Library Extension
6. Stairs to Level 4

## Level 4

7. Piano Room
8. One on One Practice Rooms
9. Studio Recording Room
10. Recording Studio
11. Group Practice Studio
12. Monte Charge
13. Instruments Storage
14. Black Box Top



Memorabilia Interior

# Project 06

THE RAHBANY BROTHERS PERFORMING ARTS CENTER

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Entrance Lobby

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THANK YOU!!