RPE

REPARAMETRIZE

ENGINEERING

LEBANON - SYRIA - PAKISTAN - GERMANY

ABOUT US

Reparametrize Ateliers represents a strategic metamorphosis from its initial moniker, Reparametrize. This transformation signifies a substantial expansion of our capabilities and a refined vision for the future of architecture. We are now a multinational company with offices in Lebanon, Syria, Pakistan, and Germany, fostering a diverse and dynamic team with a global perspective.

The genesis of Reparametrize lay in the spirit of exploration. We harnessed the power of parametric tools and processes to unlock innovative design possibilities. Our name itself served as a testament to this pioneering spirit, reflecting an unwavering commitment to pushing boundaries and redefining architectural parameters.

COMPANY STRUCTURE

Our latest Transformation, Reparametrize LACED, represents a further commitment to this collaborative approach. This acronym encompasses Reparametrize Living, Ateliers, Community, Engineering, and Décor – a powerful network of in-house expertise fostering a multifaceted perspective on design.

The collective strength of our individual talents ignites a collective creative genius. The incremental contributions of each member coalesce to form the transformative force that is Reparametrize LACED.

L

Reparametrize Living fosters exceptional residential experiences through a collaborative design process. We prioritize open communication to translate your vision into a bespoke living space, meticulously crafted with sustainable luxury principles and an unwavering commitment to detail and quality. The result is a residence that embodies your individuality, minimizes environmental impact, and stands as a testament to enduring design excellence.

A

Reparametrize Ateliers, we envision architecture as a transformative force for a more sustainable and inspiring future. We transcend the limitations of conventional practice, rejecting the false dichotomy between impractical, purely expressive designs and solely functional, yet uninspiring solutions. Our design philosophy, “Sustainable Innovation,” embraces a dynamic nexus where cutting-edge parametric design principles converge with unwavering environmental responsibility.

C

Reparametrize Community fosters a more equitable and inclusive future for architecture by empowering the next generation of design leaders from diverse backgrounds. We achieve this through a comprehensive suite of programs, including workshops, courses, and acclaimed internship opportunities. These initiatives equip students with the necessary skills and knowledge to flourish within the architectural industry.

E

Reparametrize Engineering transcends traditional engineering boundaries by offering a comprehensive suite of services encompassing structural, mechanical, electrical, and environmental engineering disciplines. This integrated approach fosters unparalleled project efficiency and a holistic understanding of each project's long-term social and environmental impact.

D

Reparametrize Decor understands that exceptional architecture extends beyond the blueprint. It's a meticulously woven tapestry of design elements that create a seamless and enduring user experience. This philosophy transcends the physical boundaries of a space, influencing the very objects that inhabit it. Reparametrize Décor, our dedicated design studio specializing in bespoke furniture, lighting, and fixtures, embodies this holistic approach.

Bilal Beghdadi

Founder

Bilal founded Reparametrize in 2016, drawing from his experience in multinational architecture firms. His vision centers around seamlessly integrating cities and buildings with the evolving human experience. He emphasizes local cultures, climate patterns, and contemporary life as cornerstones of his design philosophy. His commitment to “information-driven design” ensures that each project reflects a deep understanding of its context and purpose.Sustainable Approach: Bilal champions cutting-edge solutions such as renewable energy integration and sustainable materials. These aren’t mere options but integral to his design process. His dedication has led to a portfolio of impactful projects recognized globally for their elegance and positive environmental impact. Accolades: Reparametrize’s work has garnered attention. The studio was shortlisted for The Tamayouz Award Excellence and the Mohamed Makiya Prize for Architecture in 2020. Additionally, it was recognized as one of the 300 World Best Practices on Sustainability and Innovation by the Global Entreps Awards and 5Gcitizens International Congress. Exhibition and Outreach: Reparametrize’s projects have been showcased at prestigious events like the Bi-City Biennale of Urbanism/Architecture, Design for Peace Architectural Exhibition in New York, and London Design Biennale. Bilal’s engagement extends beyond practice he’s actively involved in lectures, workshops, and seminars at universities worldwide.

OUR TEAM

Our team comprises architects, designers, and sustainability specialists with a collective wealth of experience and a unifying passion for design excellence. Their diverse skillsets, combined with a collaborative spirit, ensure the delivery of exceptional results on every project.

OUR SERVICES.

CONSTRUCTION SUPERVISION

Our team of on-site supervisors acts as a vital bridge between design and execution and guarantees Quality assuring strict adherence to the highest technical standards and Agile Problem-Solving Anticipating and resolving real-world construction challenges is paramount. Our team provides clear and immediate solutions for unforeseen site conditions, guaranteeing the integrity of your design vision construction with full adherence to relevant regulations.

URBAN DESIGN

Our team seamlessly integrates civic design, landscape architecture, and infrastructure engineering, fostering vibrant and functional spaces at every scale – from intimate plazas to bustling city centers. Amenities are meticulously planned to prioritize user needs, sustainability, and optimal functionality.

MASTER PLANNING

Our Team elevate master planning beyond mere site allocation. We meticulously craft comprehensive visions that seamlessly integrate with the surrounding environment, fostering vibrant and sustainable communities for generations to come.

ENGINEERING & STRUCTURAL DESIGN

Our team leverages their expertise in sustainable design principles to craft cost-effective solutions that minimize material usage. Structural integrity is paramount; our engineers possess unparalleled proficiency in earthquake engineering, ensuring structures can withstand even the most formidable seismic challenges. We embrace a technologically advanced approach, utilizing Parametric Design software and cutting-edge design tools to deliver engineering solutions with exceptional precision and efficiency.

PLANNING

Our planning services extend beyond ensuring regulatory compliance. We employ a holistic approach, meticulously analyzing all facets critical to project success. This includes conducting in-depth location studies to identify optimal sites based on feasibility, infrastructure, and long-term impact.

EXTERIOR & INTERIOR ARCHITECTURE

Our commitment to meticulous attention to detail guarantees the highest quality finished product, translating your vision into a tangible reality that surpasses expectations. This collaborative approach fosters a strong partnership, ensuring that our expertise is seamlessly integrated to bring your unique design needs to life in the final execution.

CONTENTS.

IN CONSTRUCTION

HOUSE

Cliff House

Nathia Galik , Pakistan

Responsibility: Turnkey

Client: Mr Imran Khan

Size: 2000m^2/ 2140sqf

Status: In Construction

Typology: House

Year: 2023

Cliff House showcases cutting-edge architectural innovation with its elegant longitudinal design. The fully glazed façade spanning the entire front floods the interior with natural light and provides breathtaking panoramic views, seamlessly connecting residents with nature.

It’s a technological marvel, leveraging the latest advancements in materials and construction techniques. Meticulously crafted details ensure comfort, convenience, and aesthetic pleasure, making it a symbol of modernity and sustainability.

The external facade reflects the midrib and veins of the leaf, gracefully twisting and rotating as it ascends, influencing the corresponding rotation of the floors within. This organic design is more than an aesthetic choice; it's a structural intelligent supporting system.

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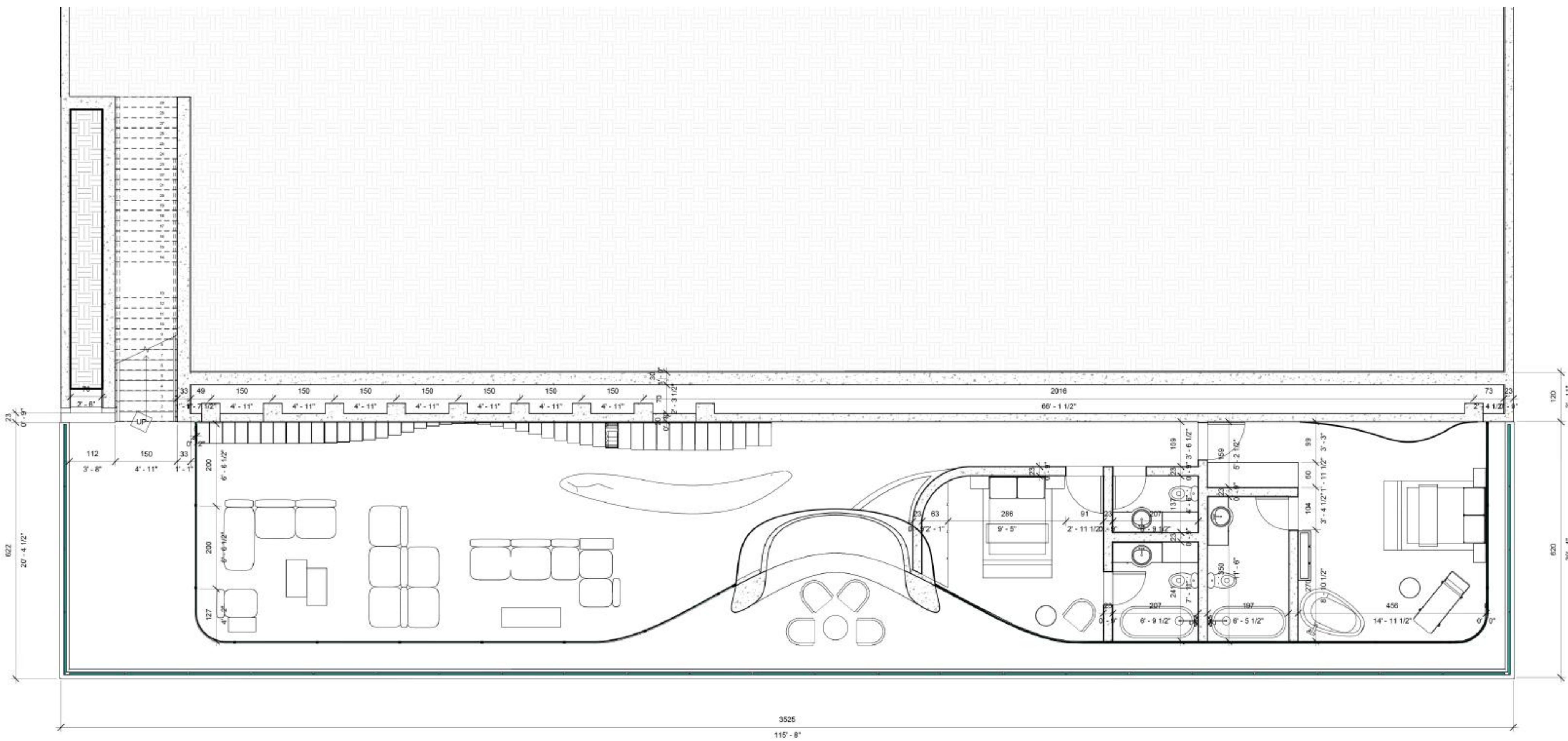
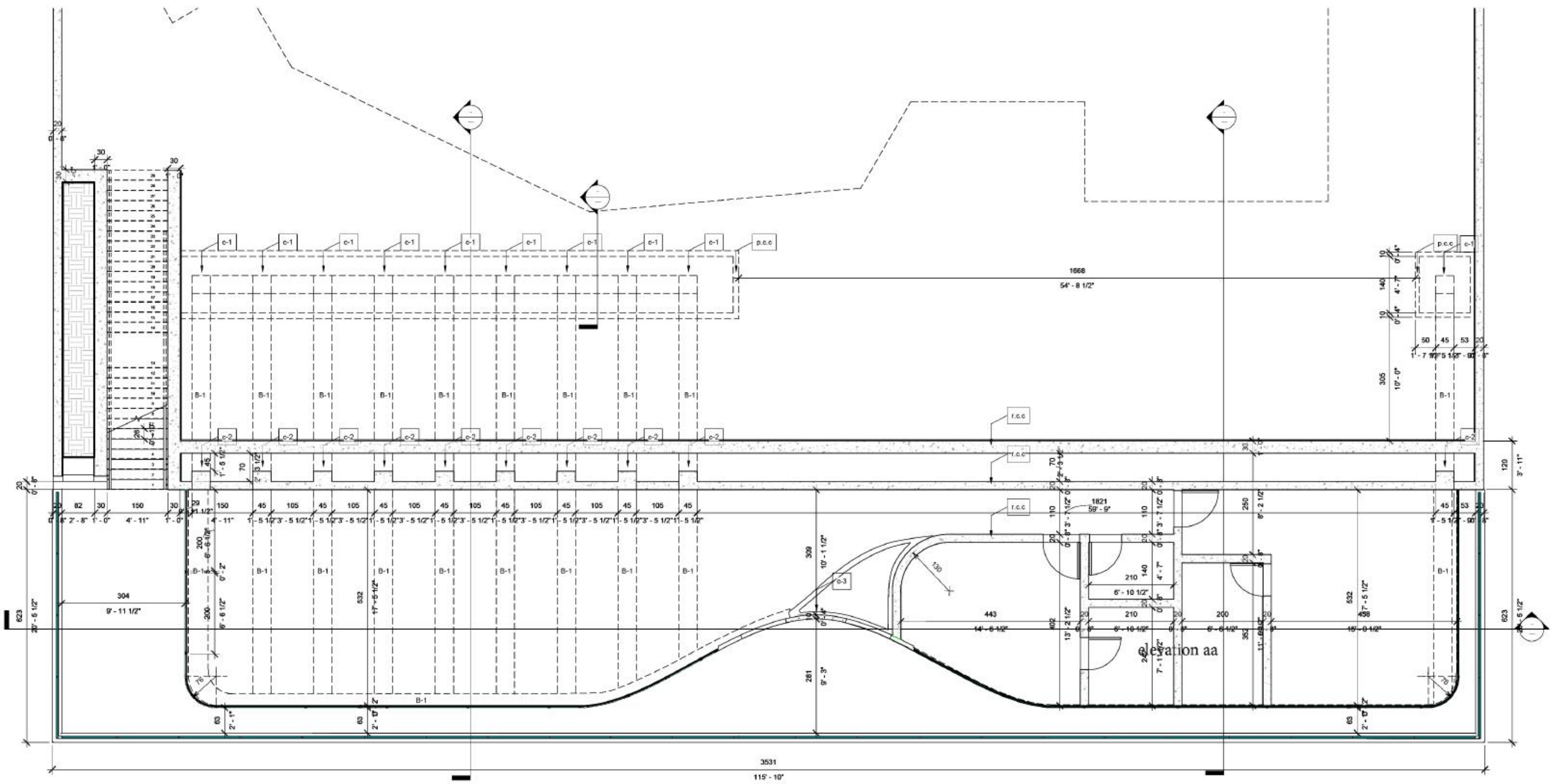
Architecture And Structure Drawing



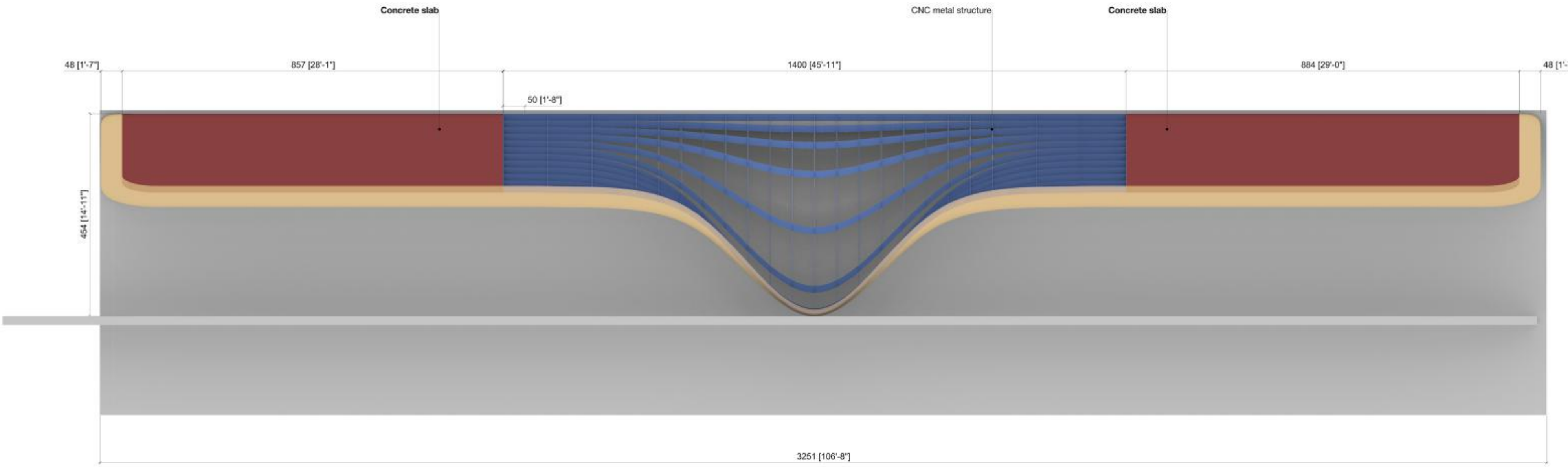
Architecture Plan

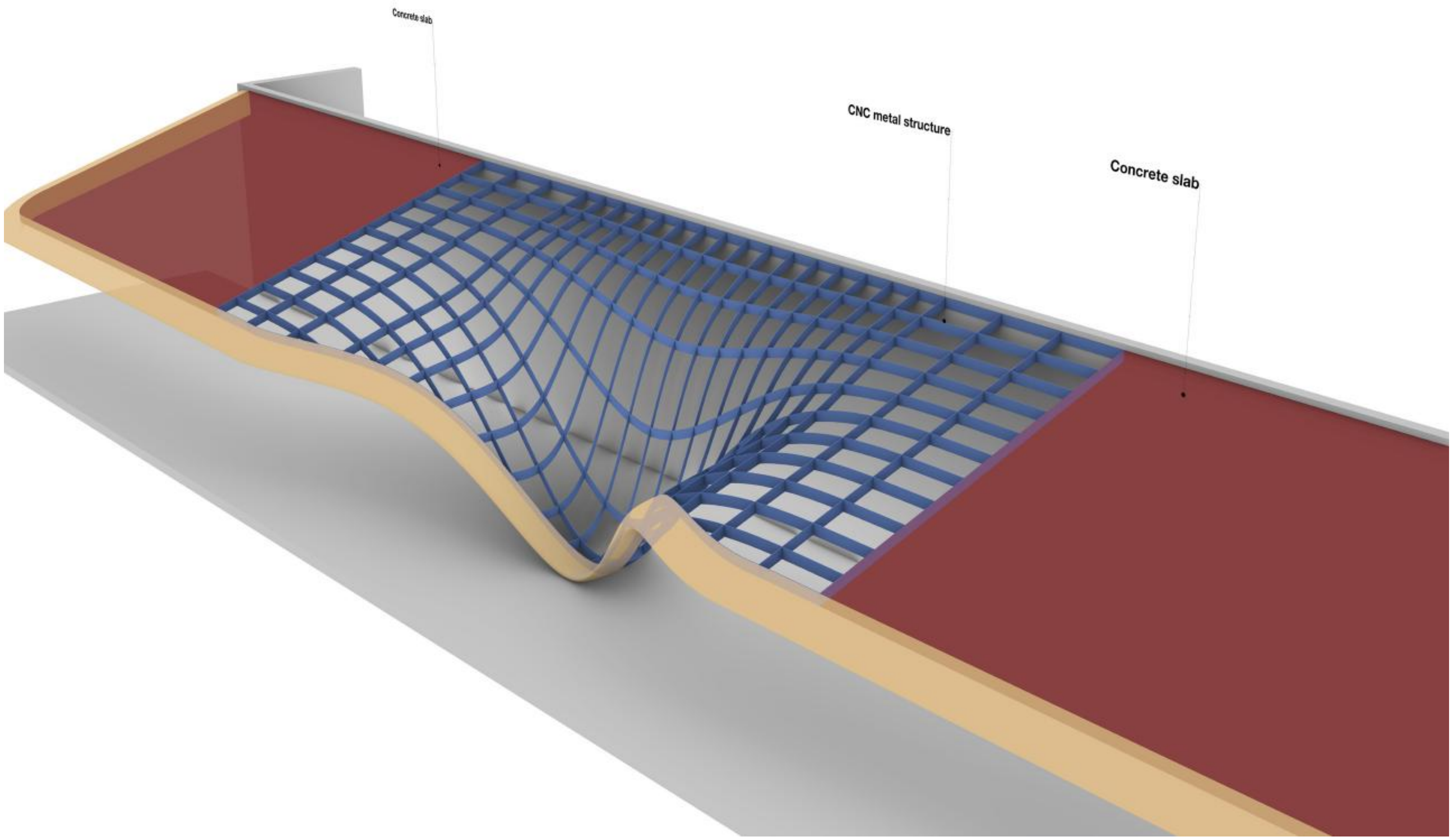


Structure Plan

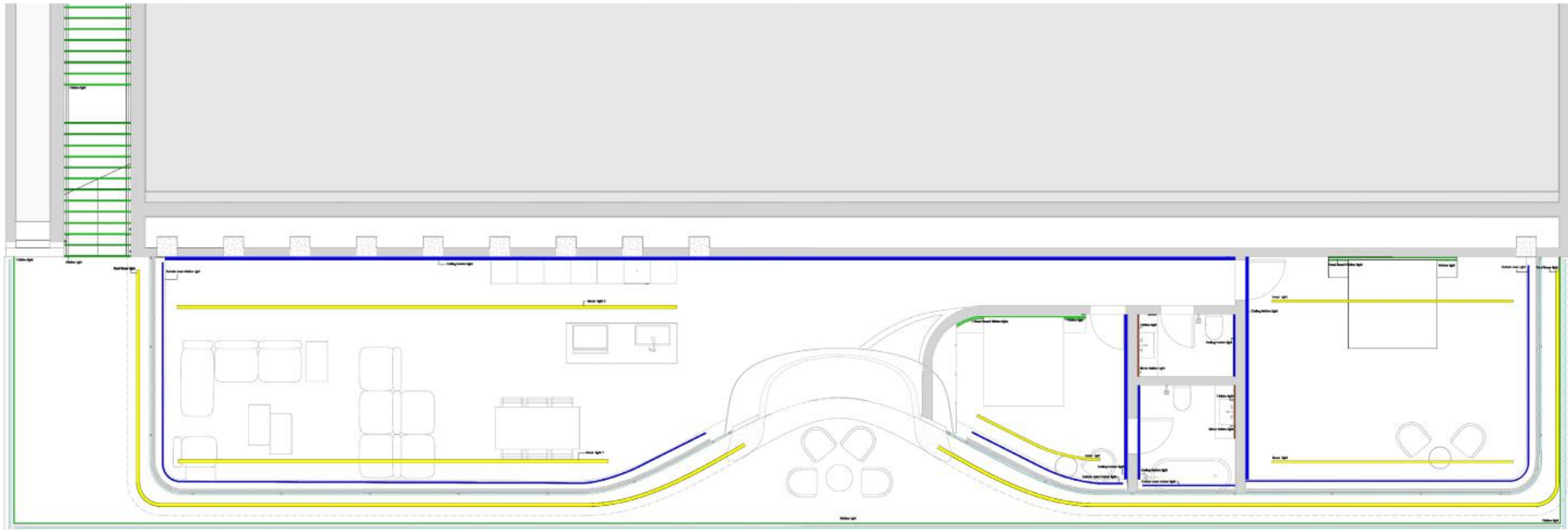
The rooftop of the building is conceived as a welcoming space that embodies hospitality. Featuring a pool, cafe, and restaurant, it serves as a multifunctional oasis in the sky. The pool provides a refreshing escape, while the cafe and restaurant offer diverse culinary experiences.

The strategic placement and design of these amenities maximize panoramic views, creating a captivating atmosphere for residents and visitors. This communal space fosters a sense of community, relaxation, and conviviality, elevating the overall living experience and reflecting the building's commitment to hospitality and social engagement.

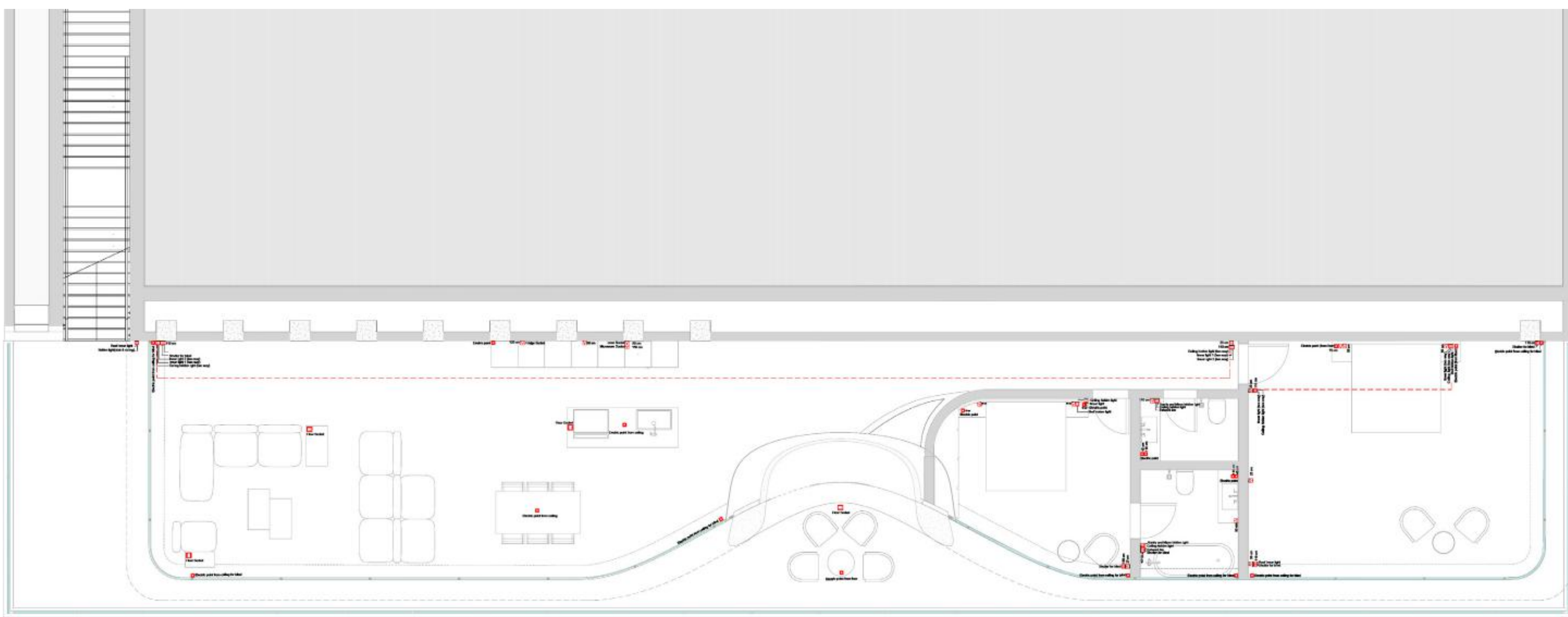

Concrete slab
CNC metal structure
Concrete slab
48 [1'-7"]
857 [28'-1"]
1400 [45'-11"]
884 [29'-0"]
48 [1'-7"]
50 [1'-8"]
454 [14'-11"]
3251 [106'-8"]


Concrete slab
CNC metal structure
Concrete slab

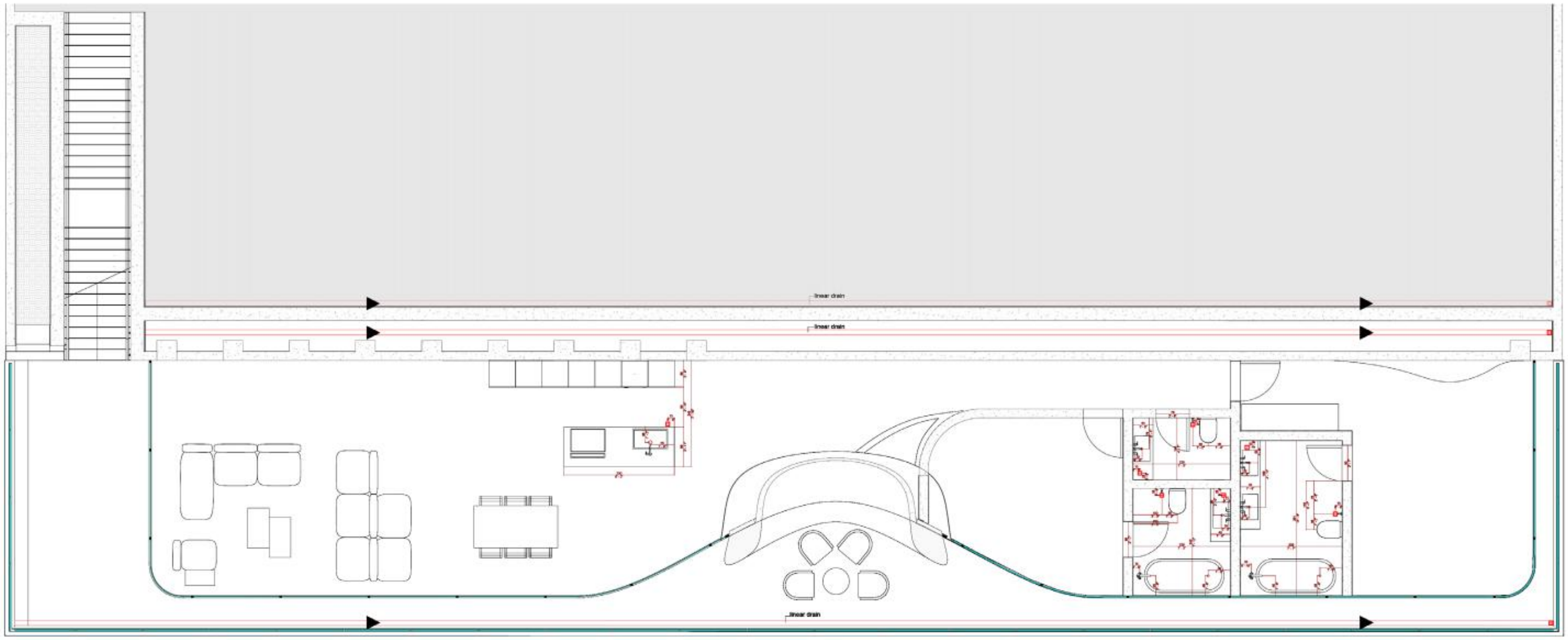
MEP Drawing



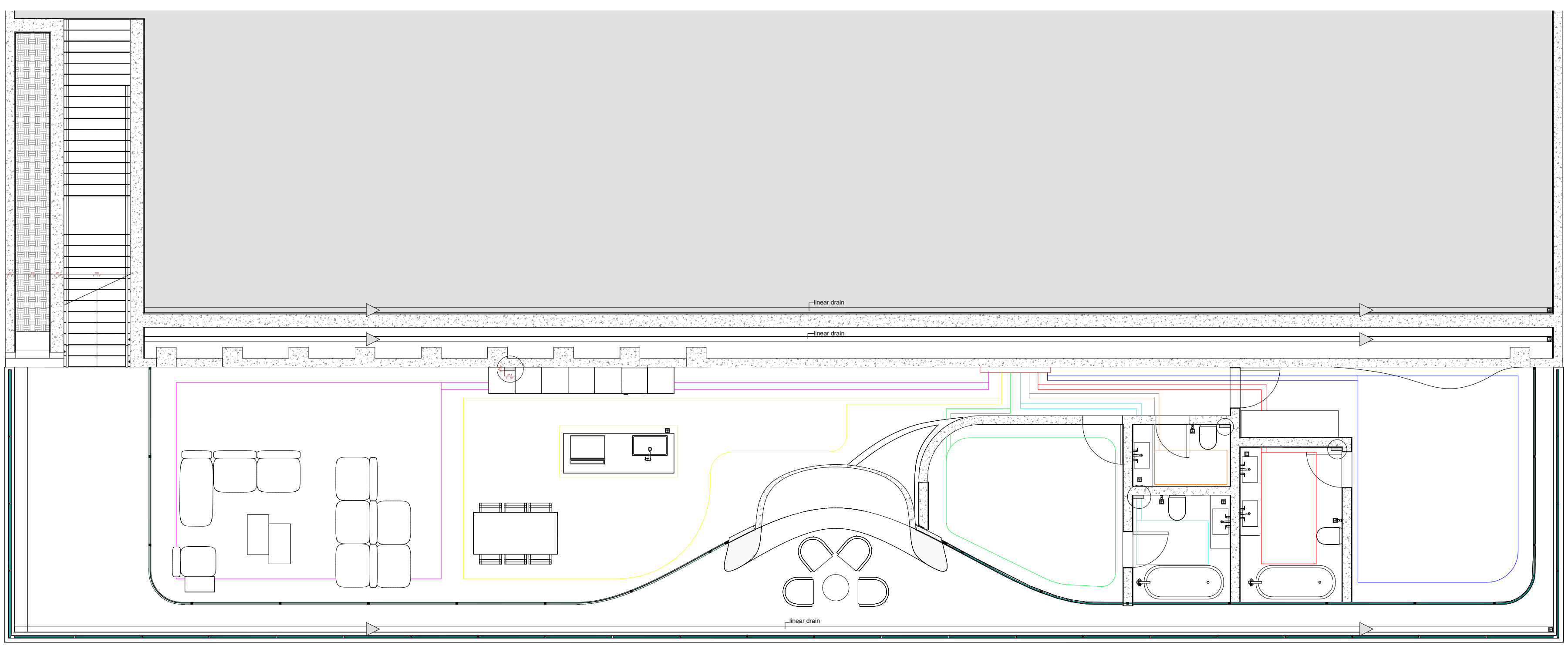
Lighting Plan



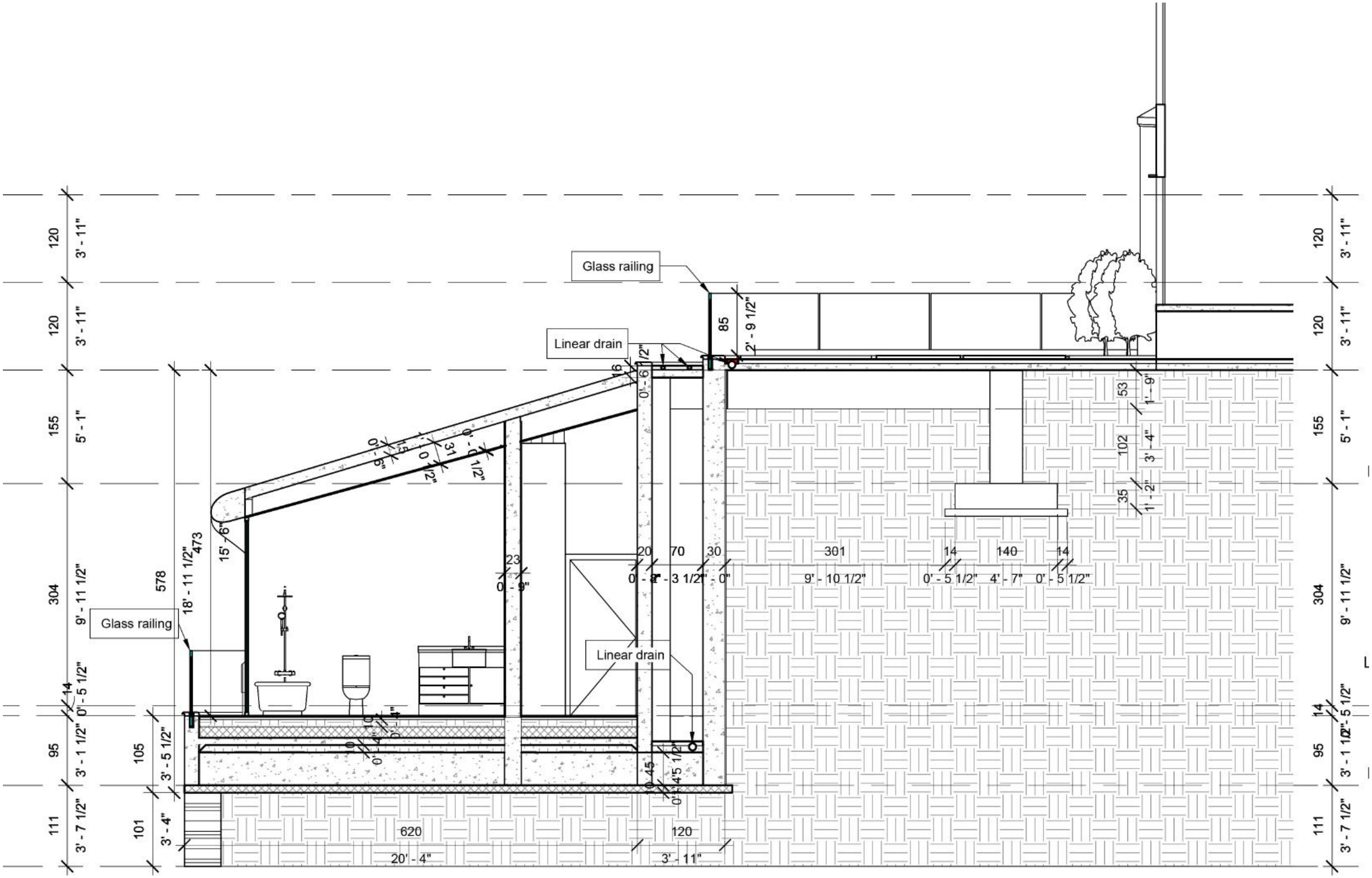
Electric Plan



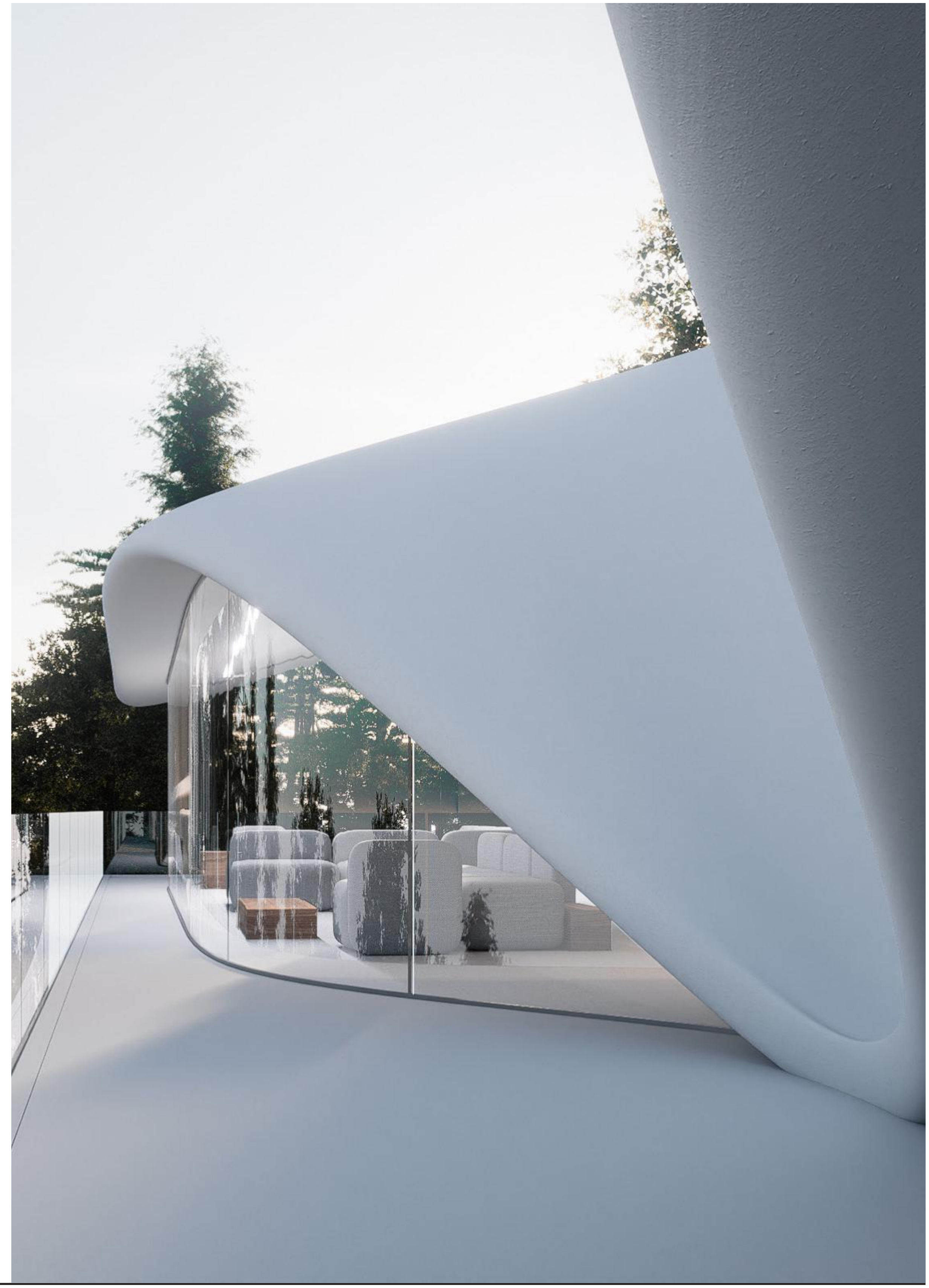
Plumping Plan



Heating Plan


Glass railing
Linear drain
Glass railing
Linear drain
120
3' - 11"
155
5' - 1"
304
9' - 11 1/2"
95
3' - 1 1/2"
111
3' - 7 1/2"
578
18' - 11 1/2"
473
15' - 6"
85
2' - 9 1/2"
301
9' - 10 1/2"
140
4' - 7"
620
20' - 4"
3' - 11"

Section



MA House

Lahore , Pakistan

Responsibility: Turnkey

Client: Ma Development

Size: 1000m^2/ 10,000sqf

Status: In Construction

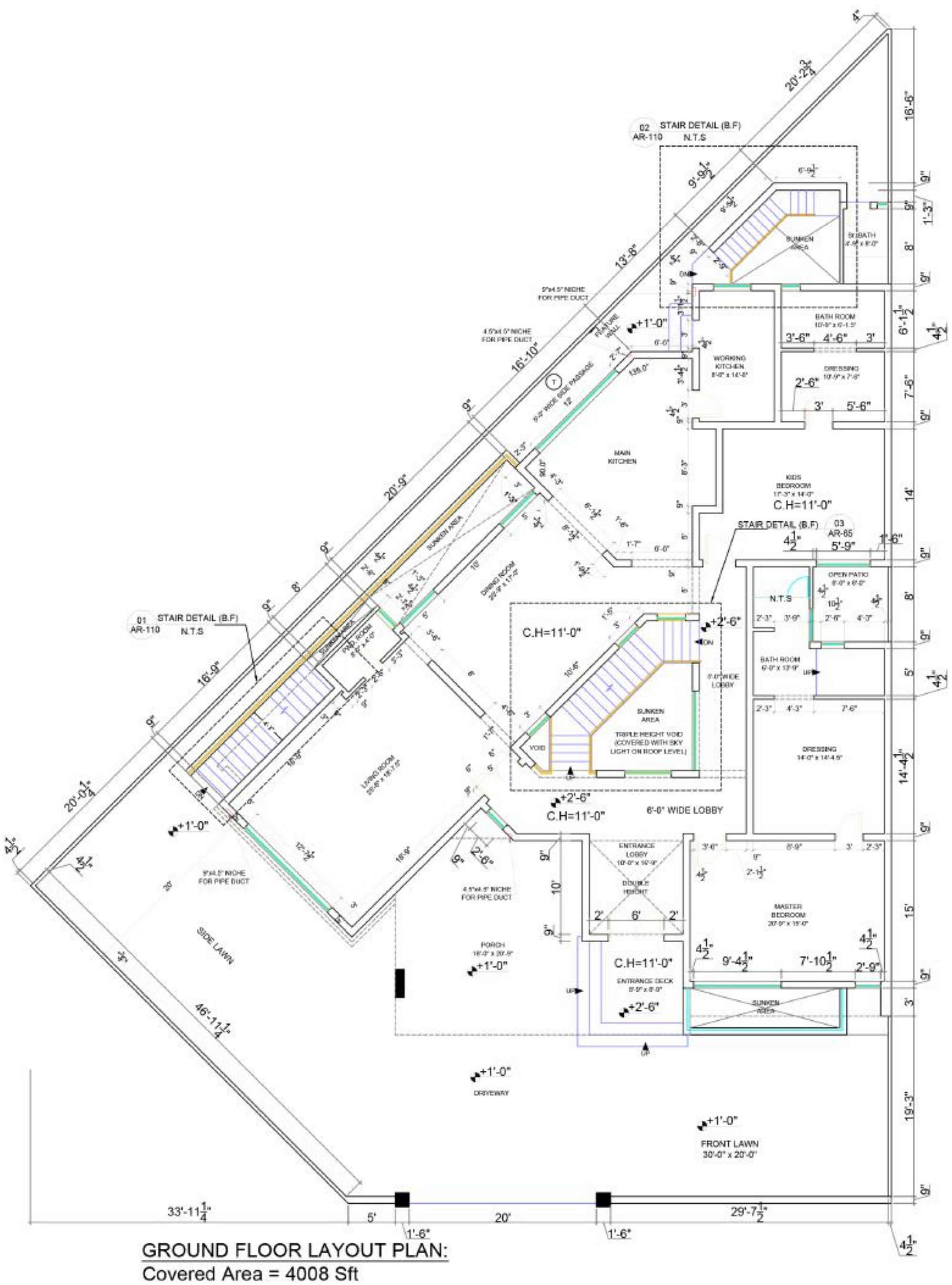
Typology: House

Year: 2022

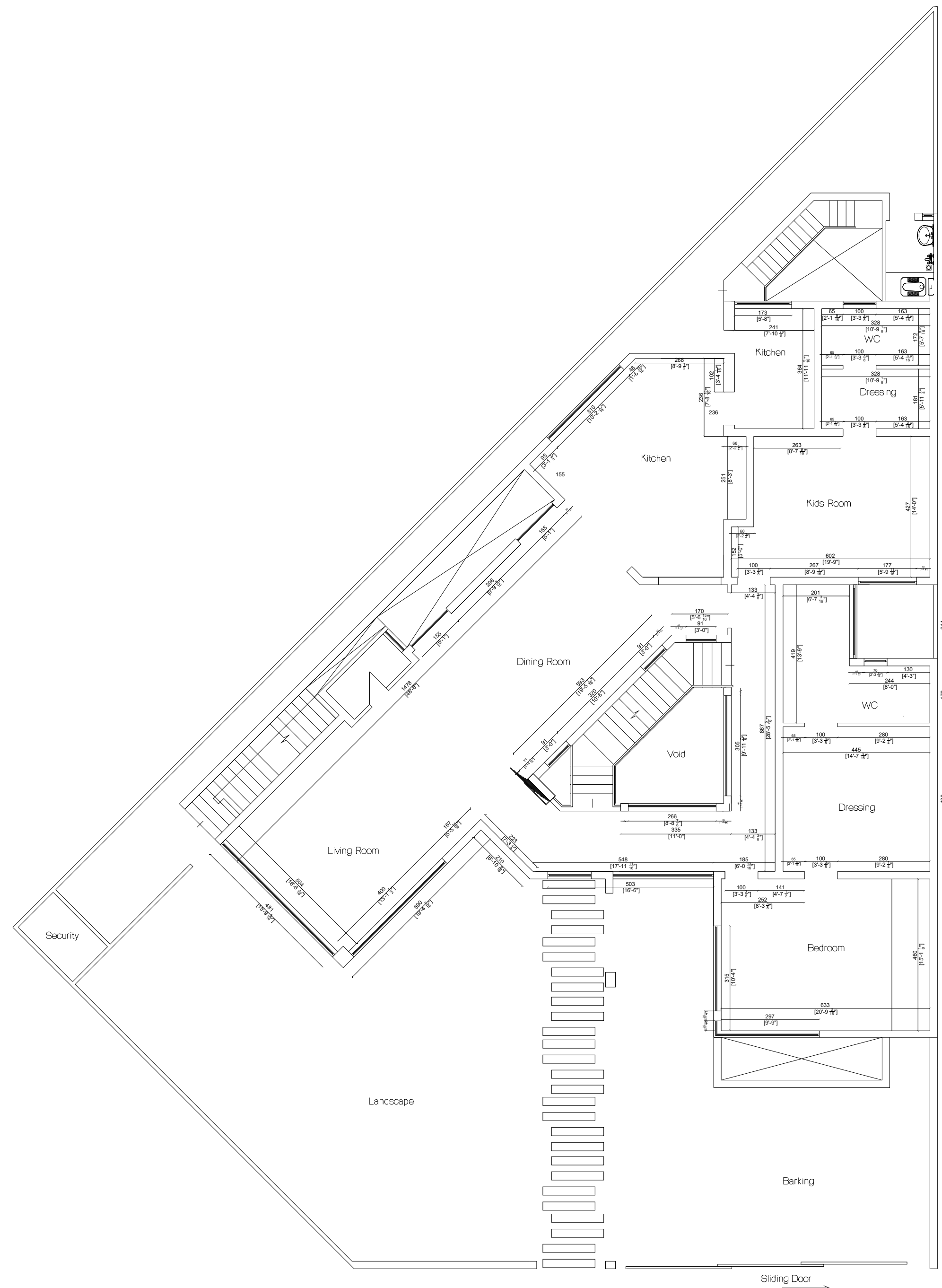
Cliff House showcases cutting-edge architectural innovation with its elegant longitudinal design. The fully glazed façade spanning the entire front floods the interior with natural light and provides breathtaking panoramic views, seamlessly connecting residents with nature.

It's a technological marvel, leveraging the latest advancements in materials and construction techniques. Meticulously crafted details ensure comfort, convenience, and aesthetic pleasure, making it a symbol of modernity and sustainability.

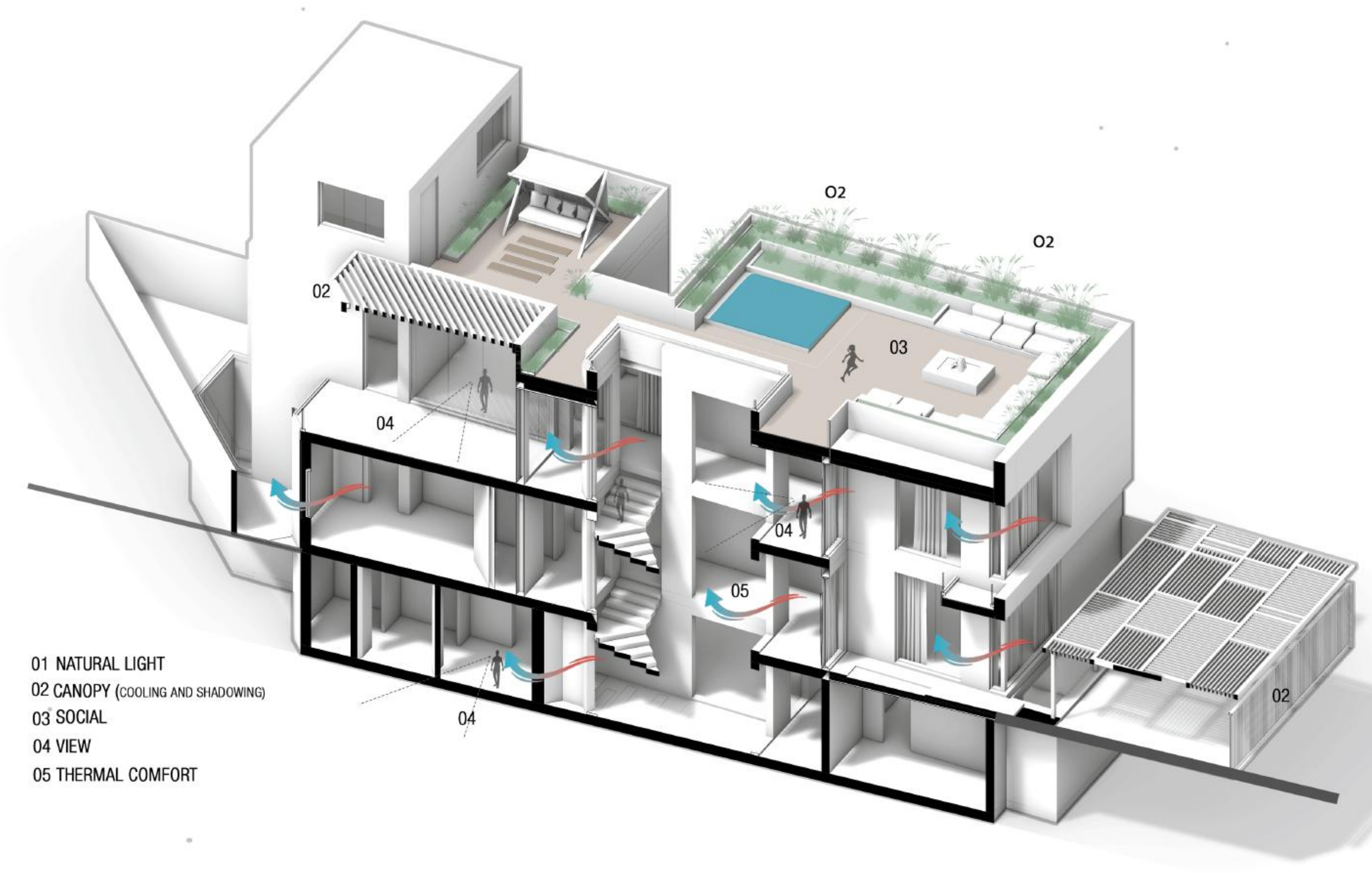
Architecture And Structure Drawing



Structure Plan



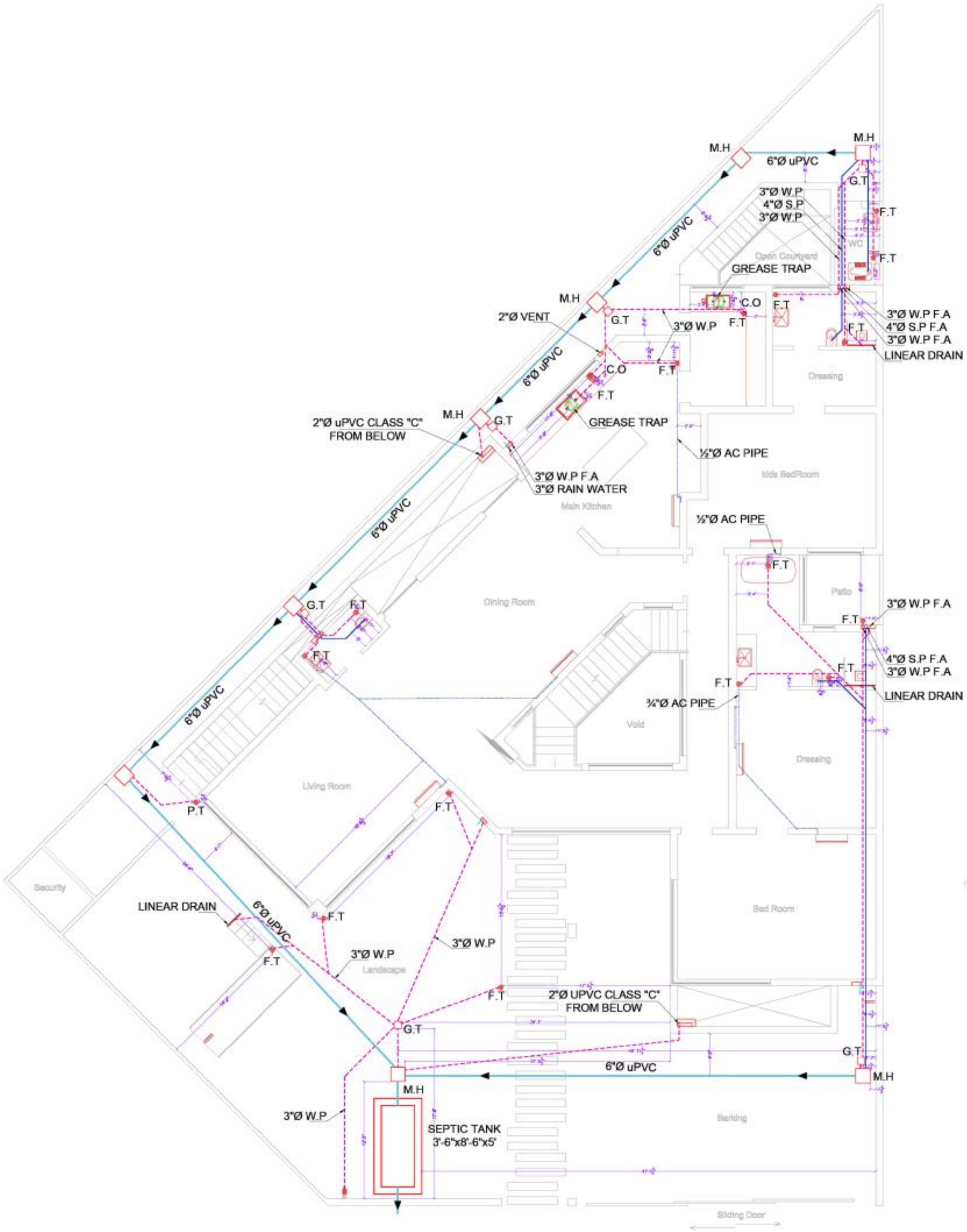
Architecture Plan



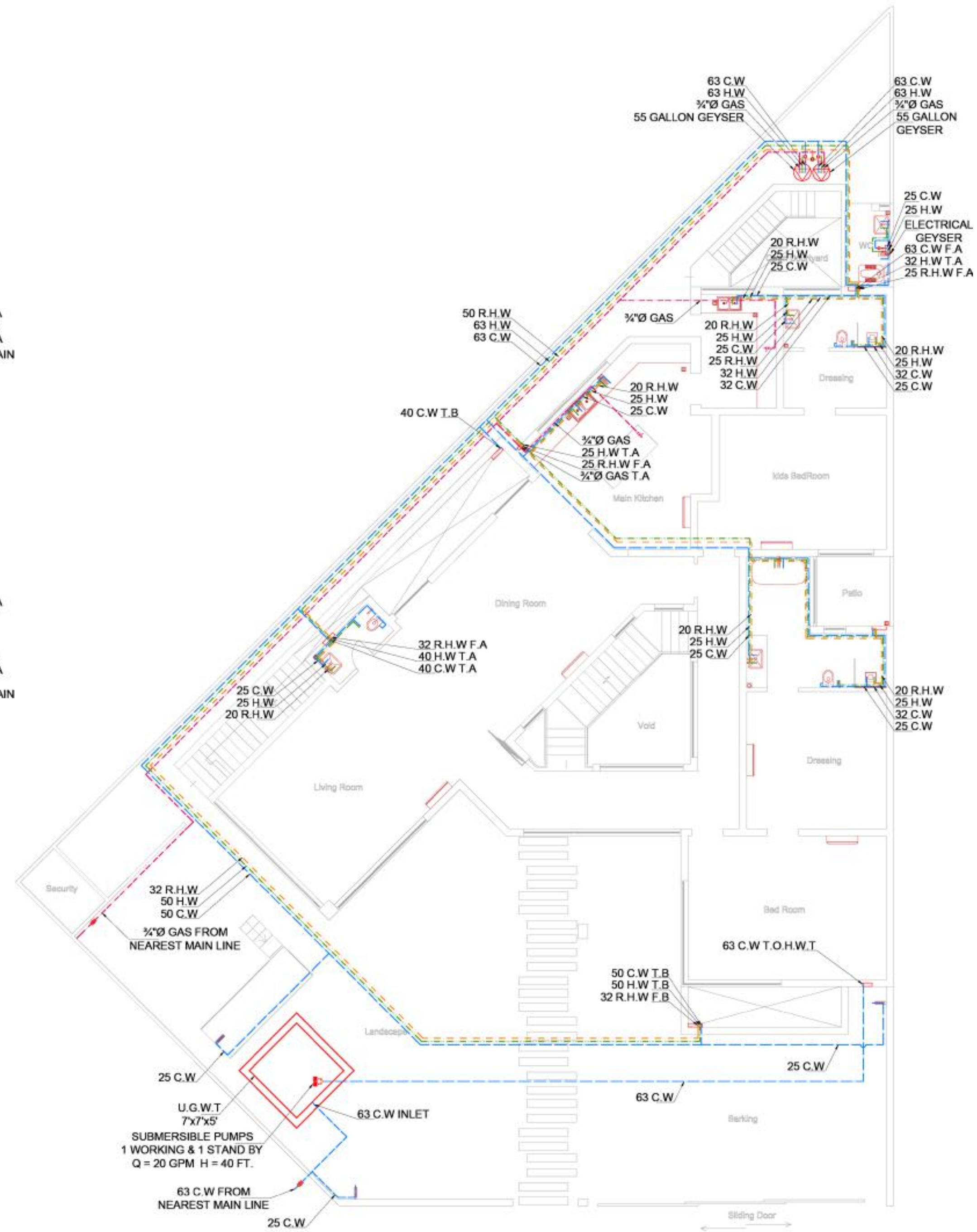
NATURAL LIGHT AND VENTILATION

NATURAL LIGHT AND CROSS VENTILATION ARE ENSURED THROUGH PATIO AND LARGE OPENINGS FRAMED BY SLIDING ALUMINUM FRAMES AND LAMINATED GLASS WITH TRANSPARENT UV-RESISTANT FILM. THE LARGE OPENING ALLOW FOR VENTILATION OF THE .SPACES AND FILTER EXCESS SOLAR RADIATION INTO THE RESIDENCE'S INTERIOR

MEP Drawing



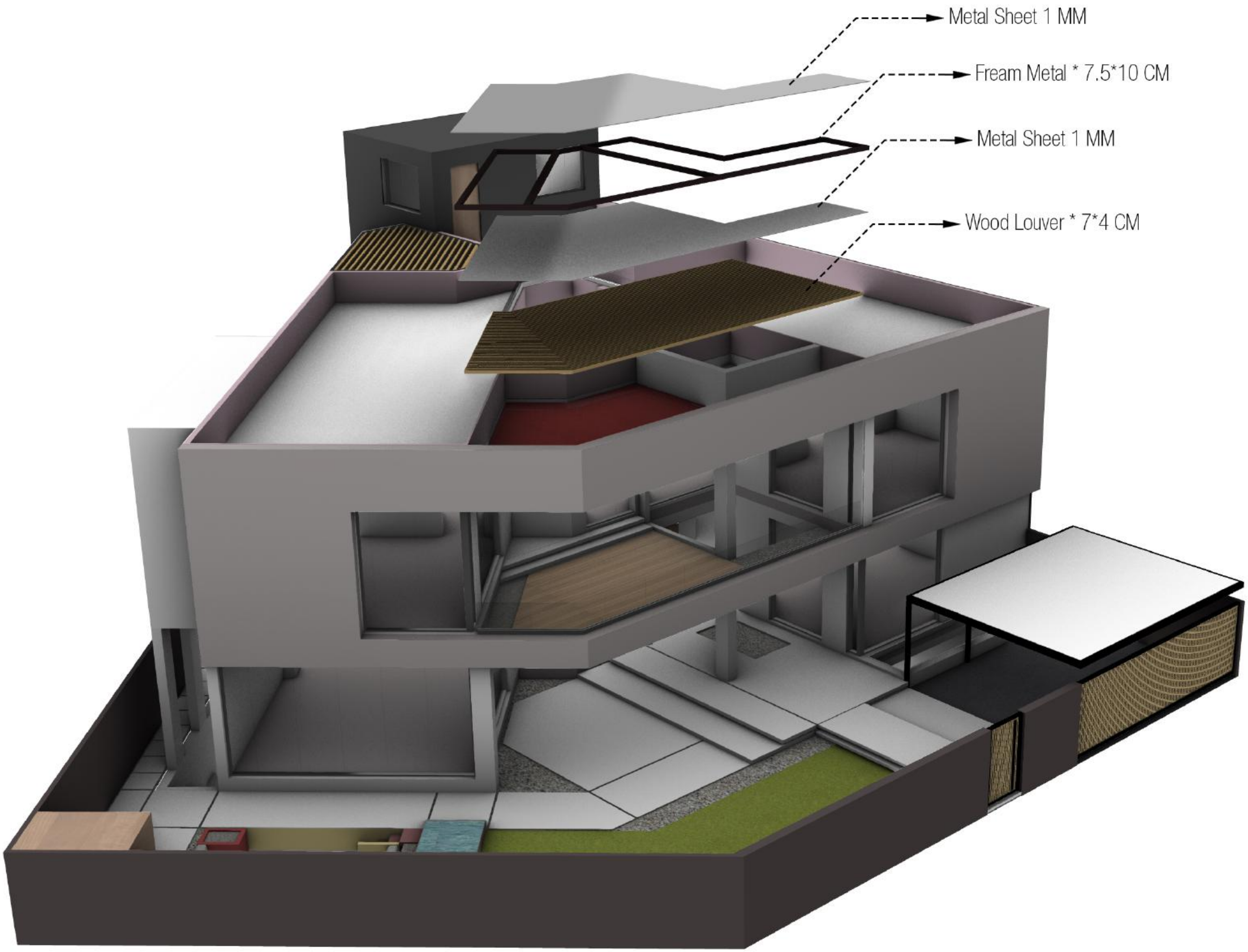
Plumping Plan (Sewerage)



Plumping Plan (Water Supply)

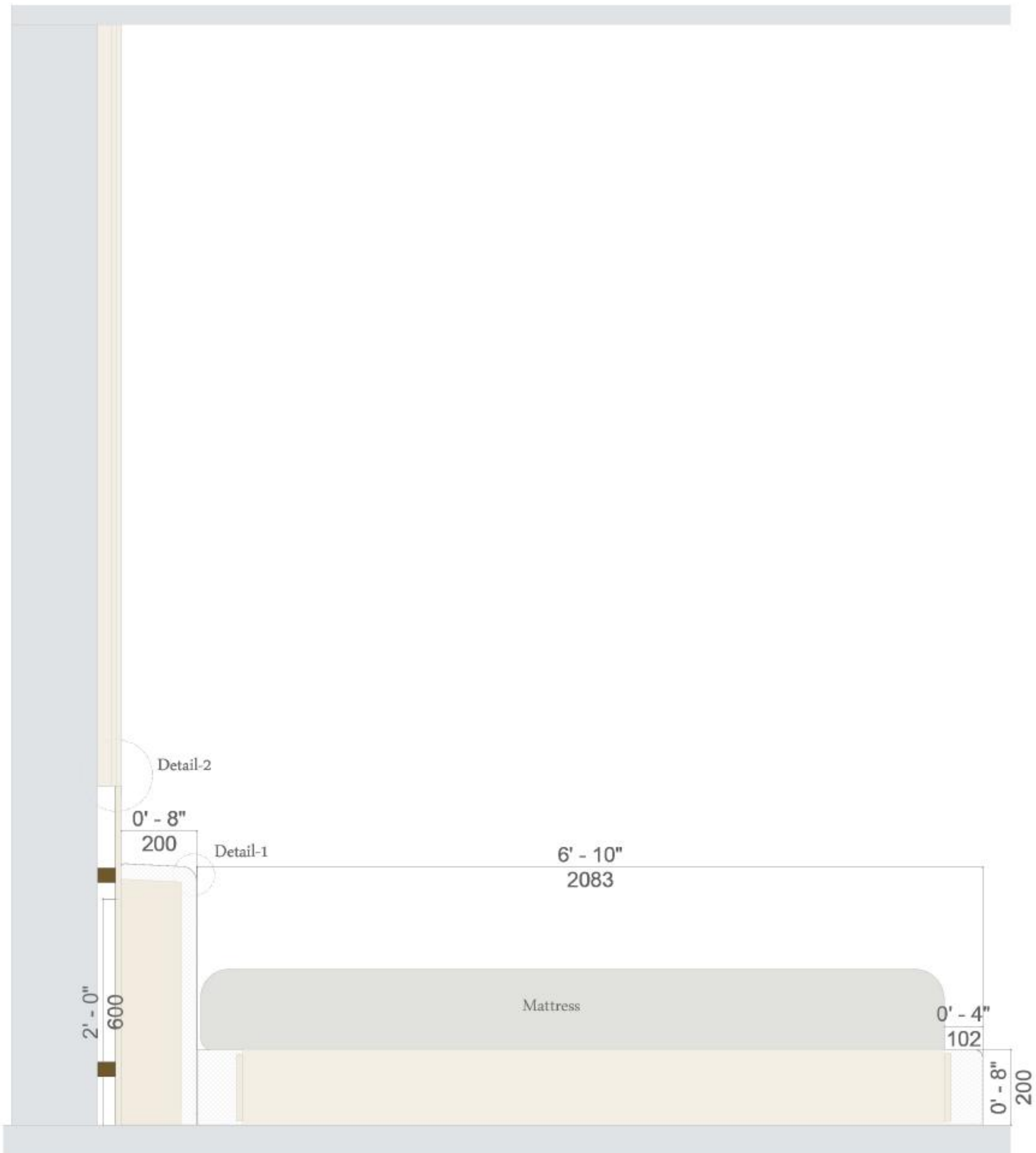
Lighting Plan

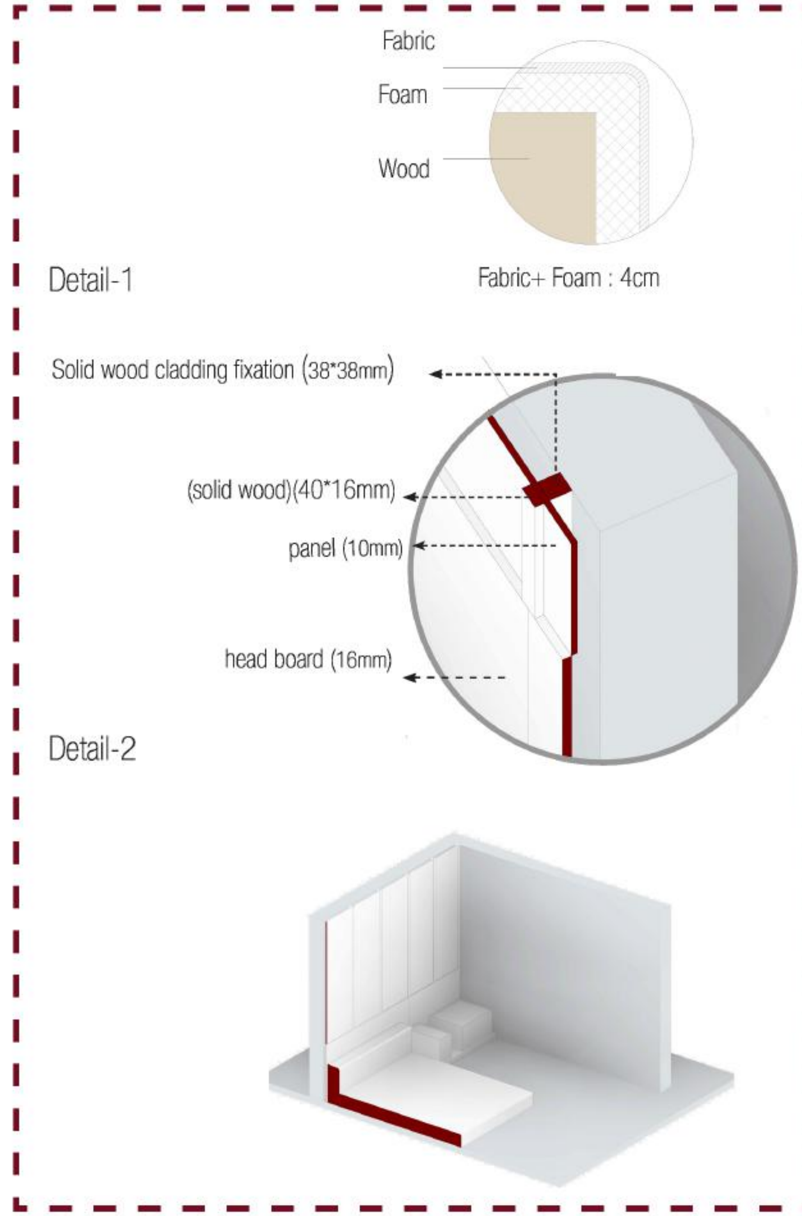
Electric Plan



Canopy Diagram

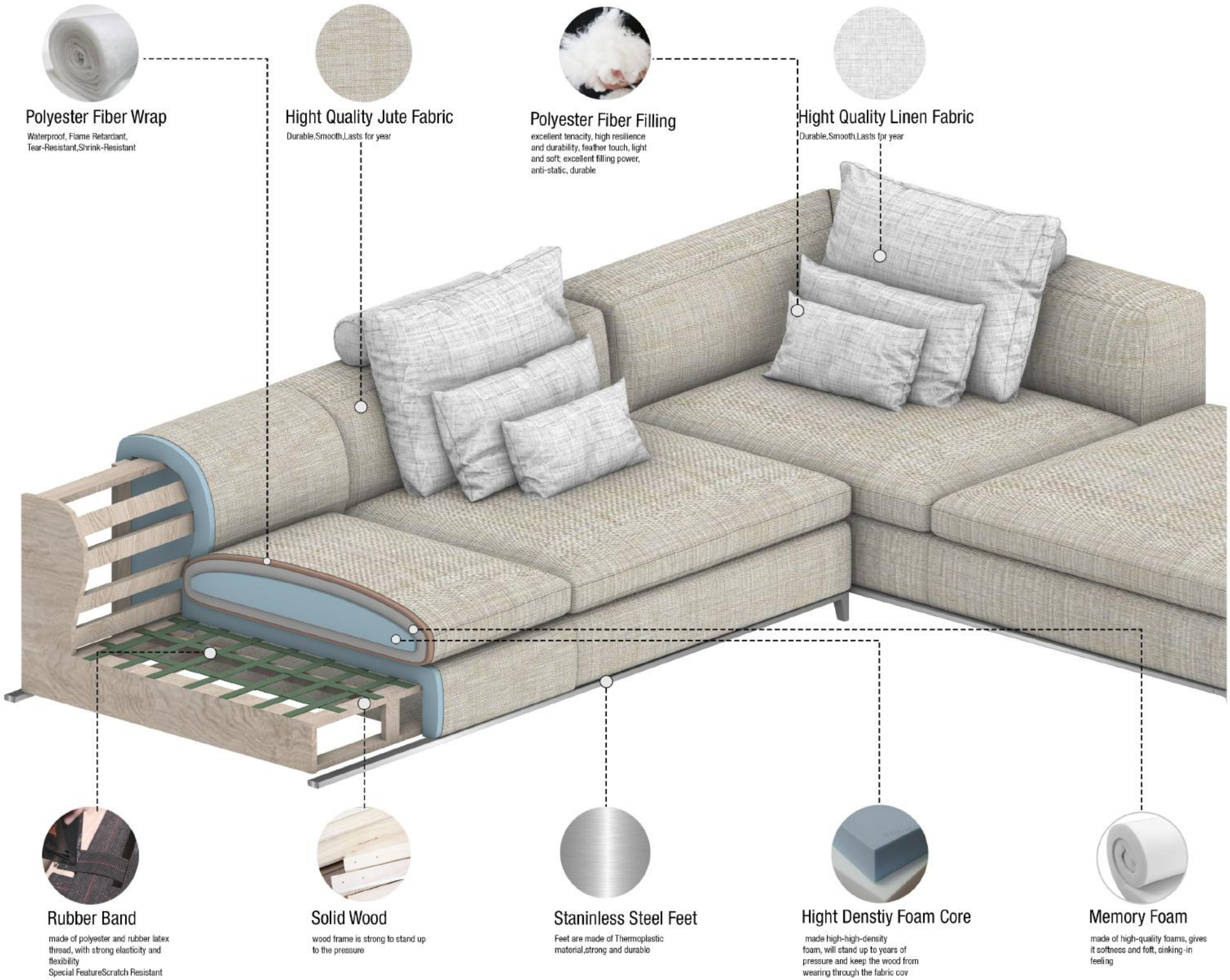
Interior And Furniture Drawings



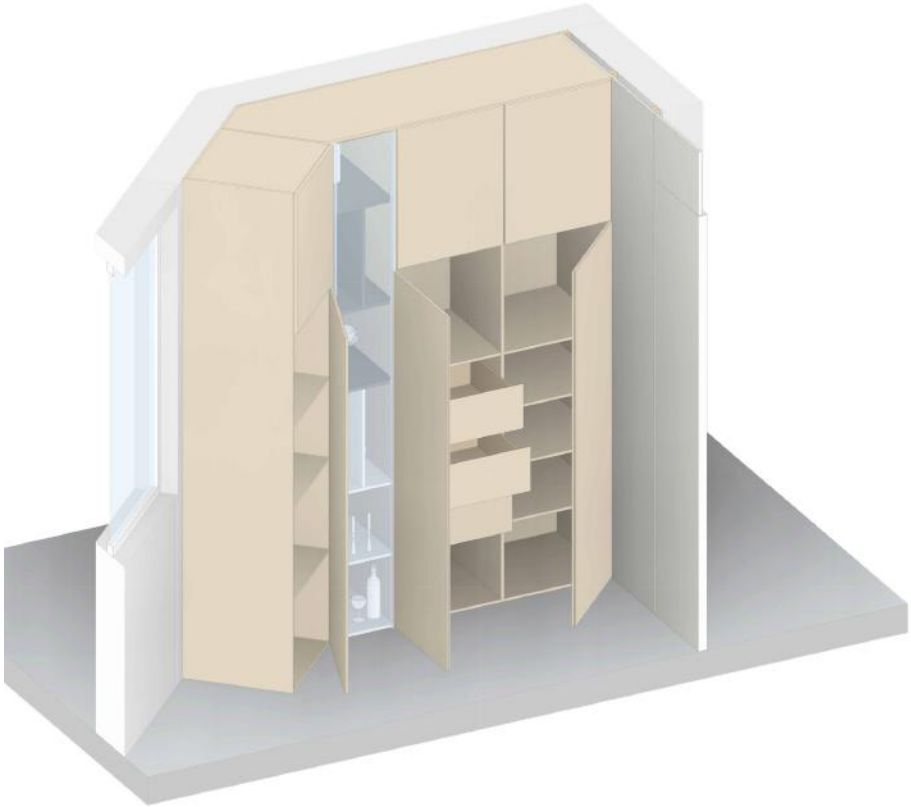


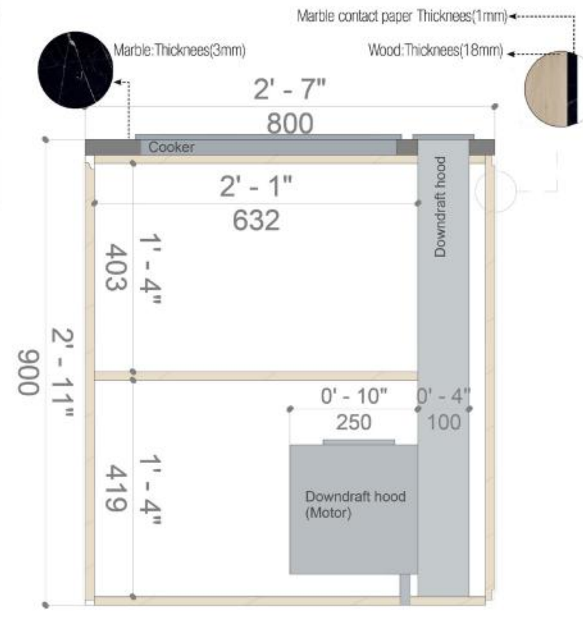
Feature Wall Drawing

Sofa Material Diagram

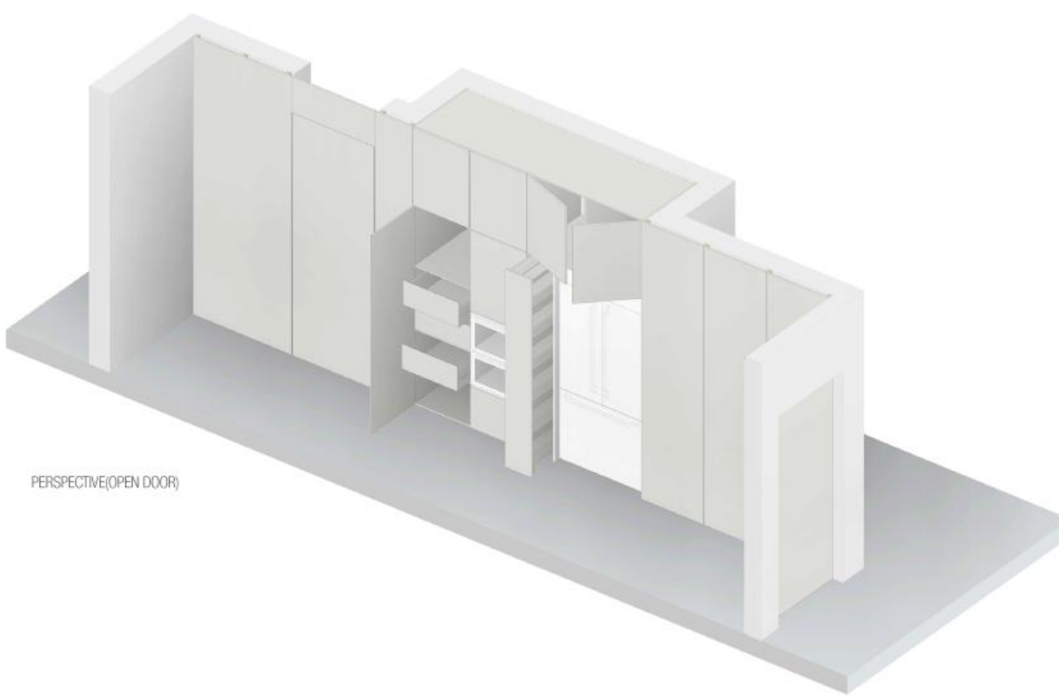


Kitchen Cabinets Drawings

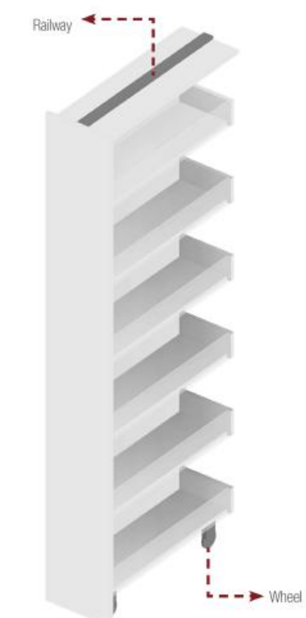




SECTION AA'



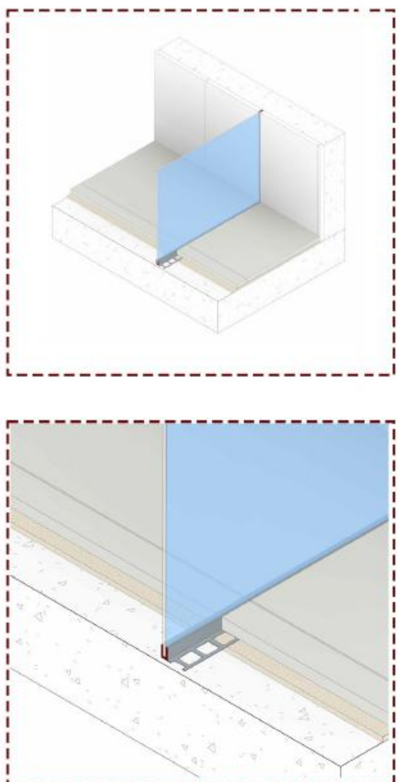
PERSPECTIVE(OPEN DOOR)



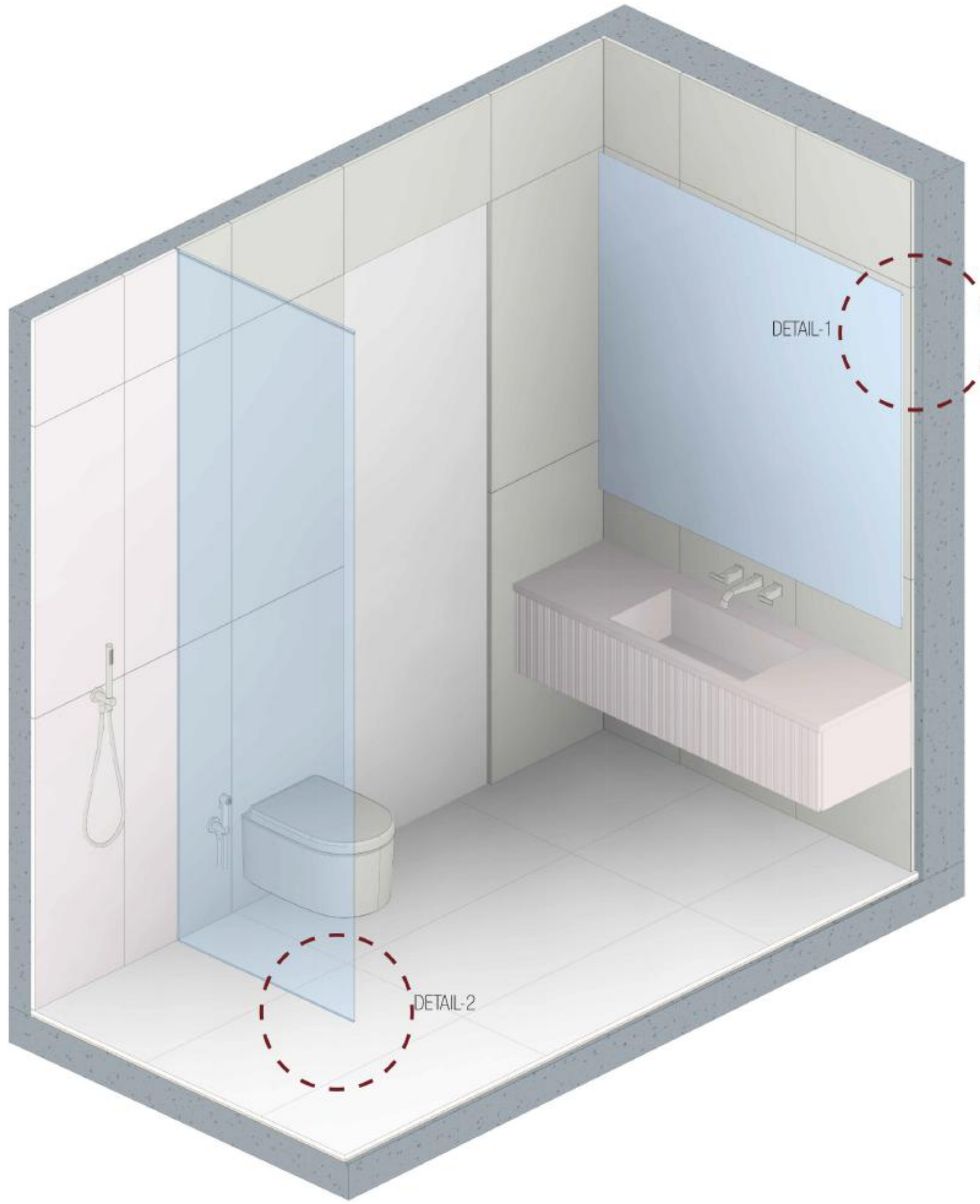
Slide Out Pantry

Tiles Drawing

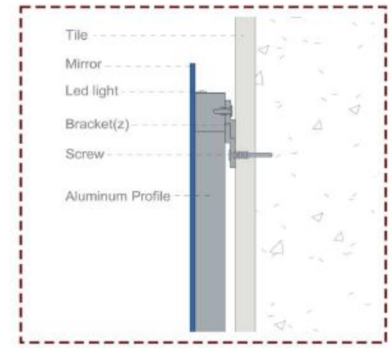
DETAIL-2 (Glass fixing)



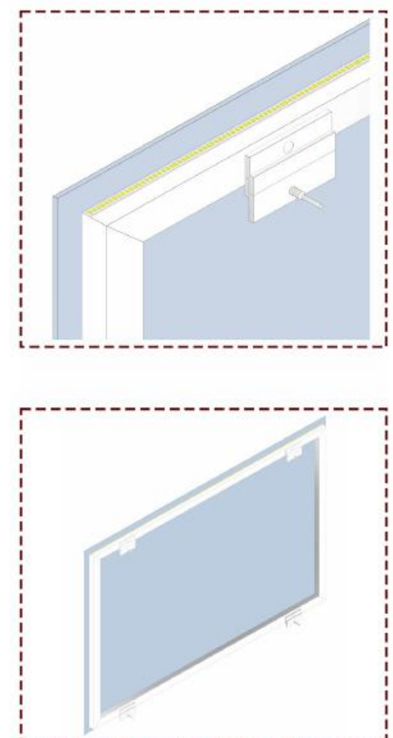
Shower aluminum tiles edge



DETAIL-1 (Mirror Detail)

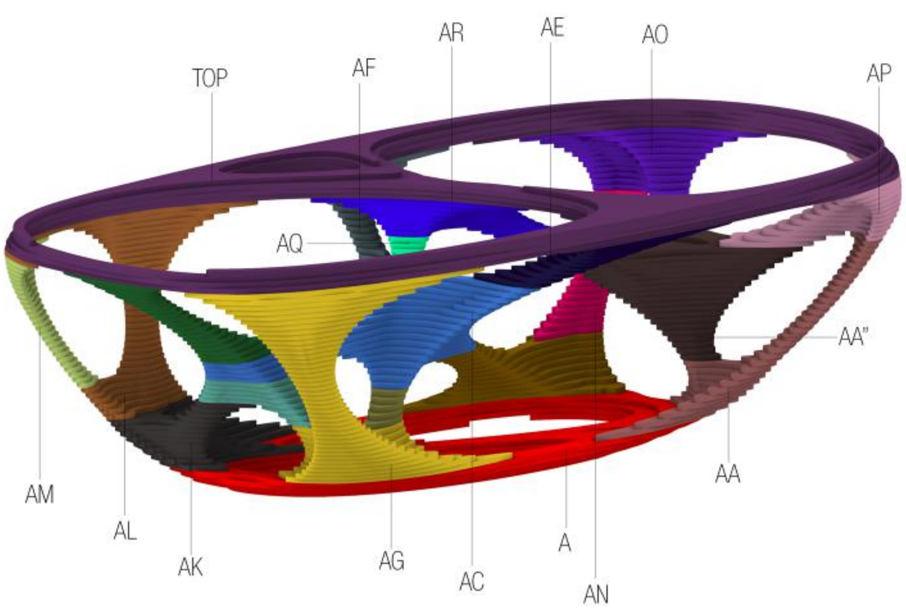


Section



Perspective From Behind

Dining Table Drawing



IK House

Lahore , Pakistan

Responsibility: Turnkey

Client: Mr Imran Khan

Size: 2000m²/ 21.700sqf

Status: In Construction

Typology: House

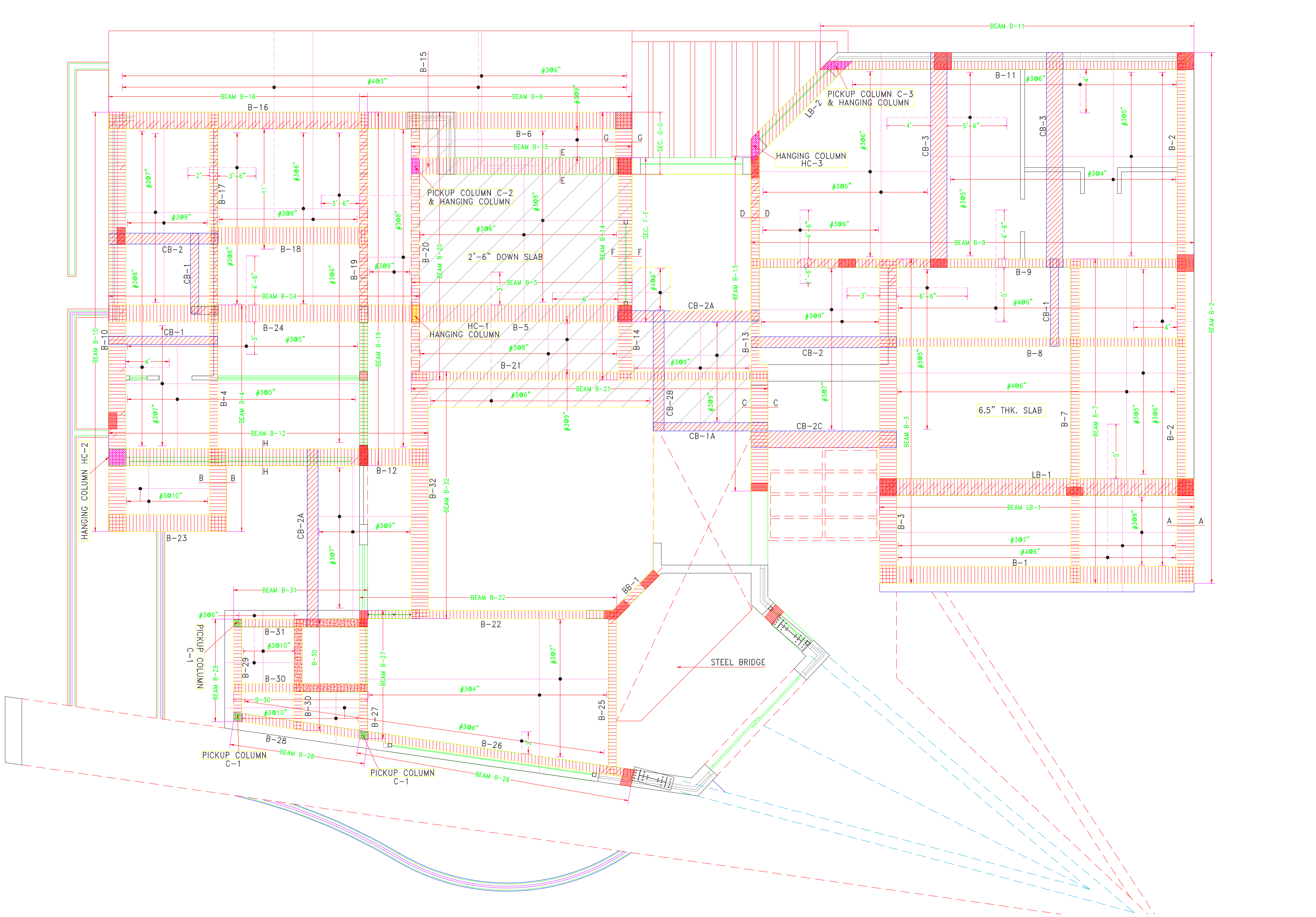
Year: 2023

The basement of ik house beneath this house is an architectural marvel, integrating a gym, spa, indoor pool, and living area.Muted tones, natural materials, and strategic lighting create a harmonious design, offering a versatile subterranean space for relaxation and recreation.

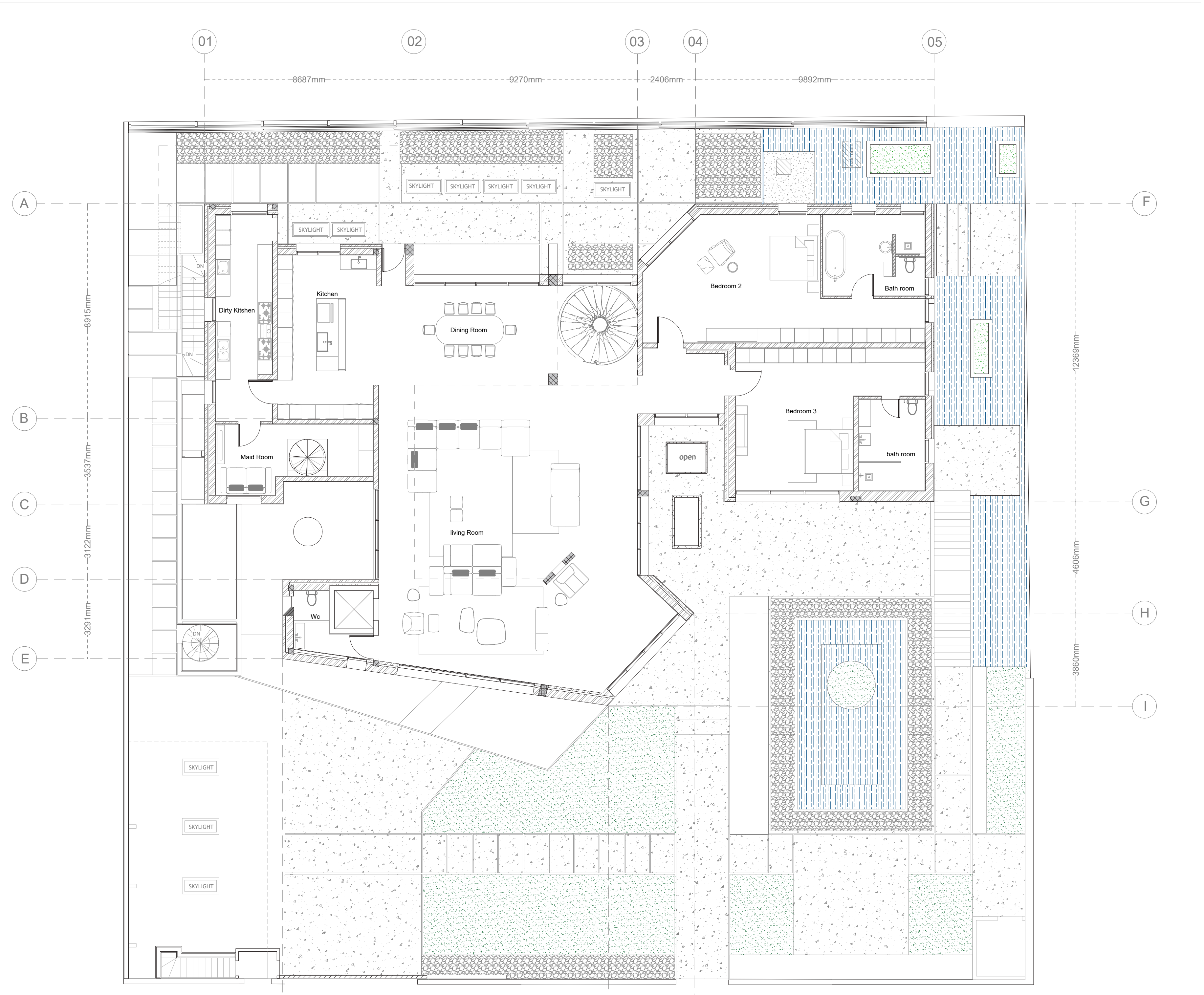
The design of the basement embodies the Japanese style design, incorporating traditional materials like wood and stone. Furniture reflects simplicity and functionality, while bonsai trees and water elements in the landscape such as a carefully crafted outdoor pond further enhance the Japanese-inspired ambience, creating a traditional and balanced subterranean sanctuary. -custom-made pieces showcase a blend of craftsmanship, ensuring each item is tailored to the space's unique requirements.

This fusion of our vision with timeless Japanese design creates a distinctive and harmonious furniture ensemble, enhancing the overall appeal.

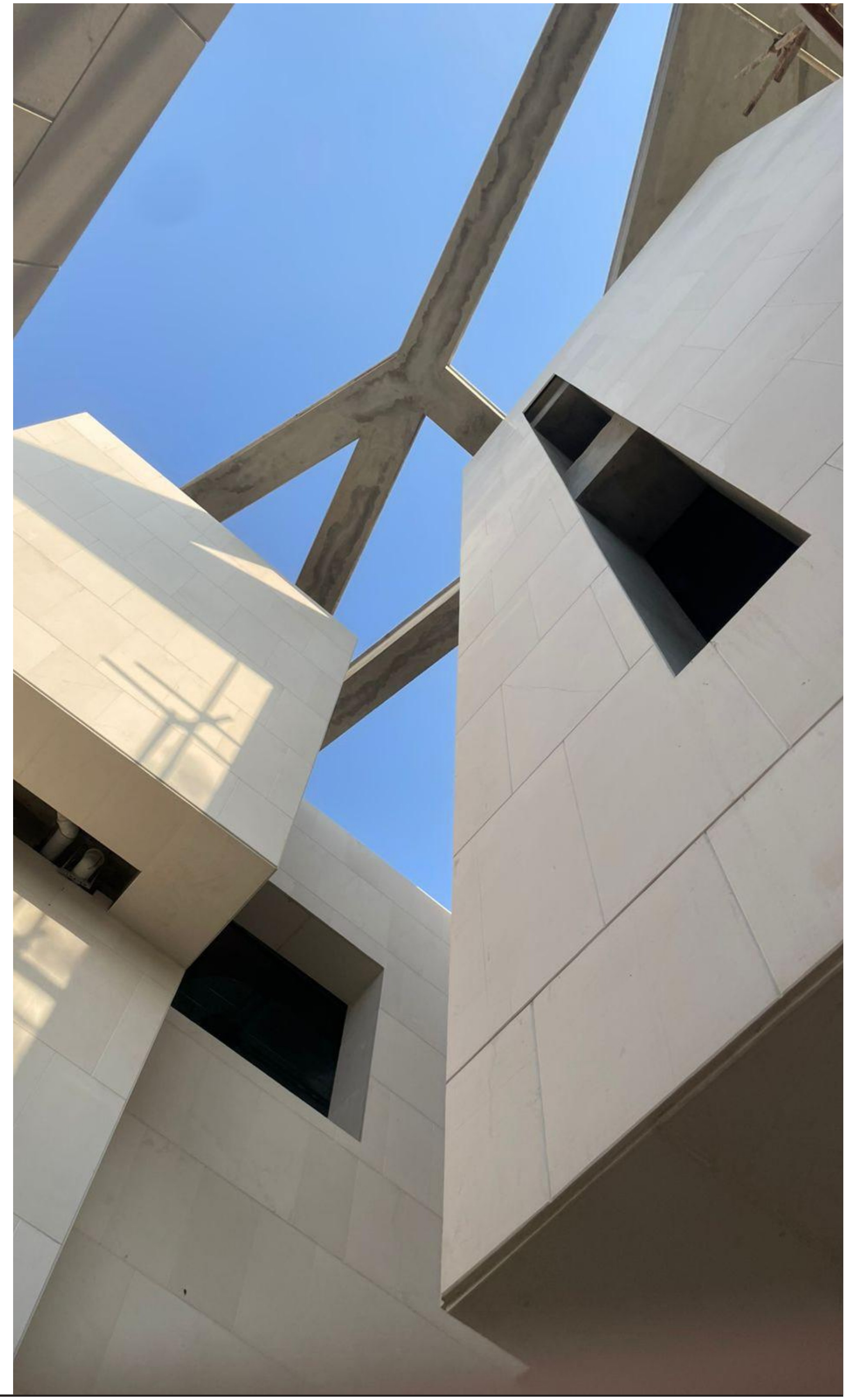
Architecture And Structure Drawing

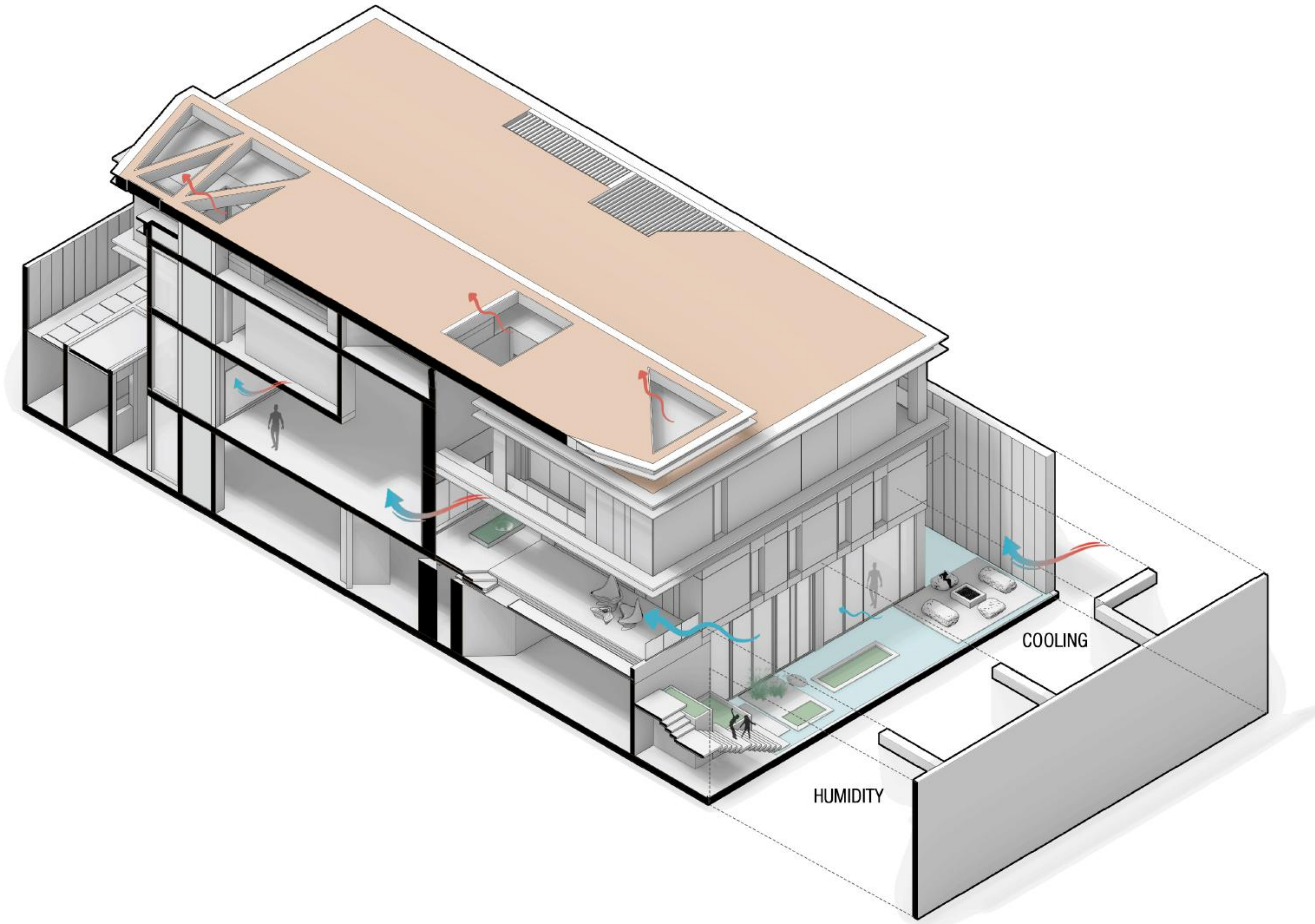


Stracture Plan



Architecture Plan

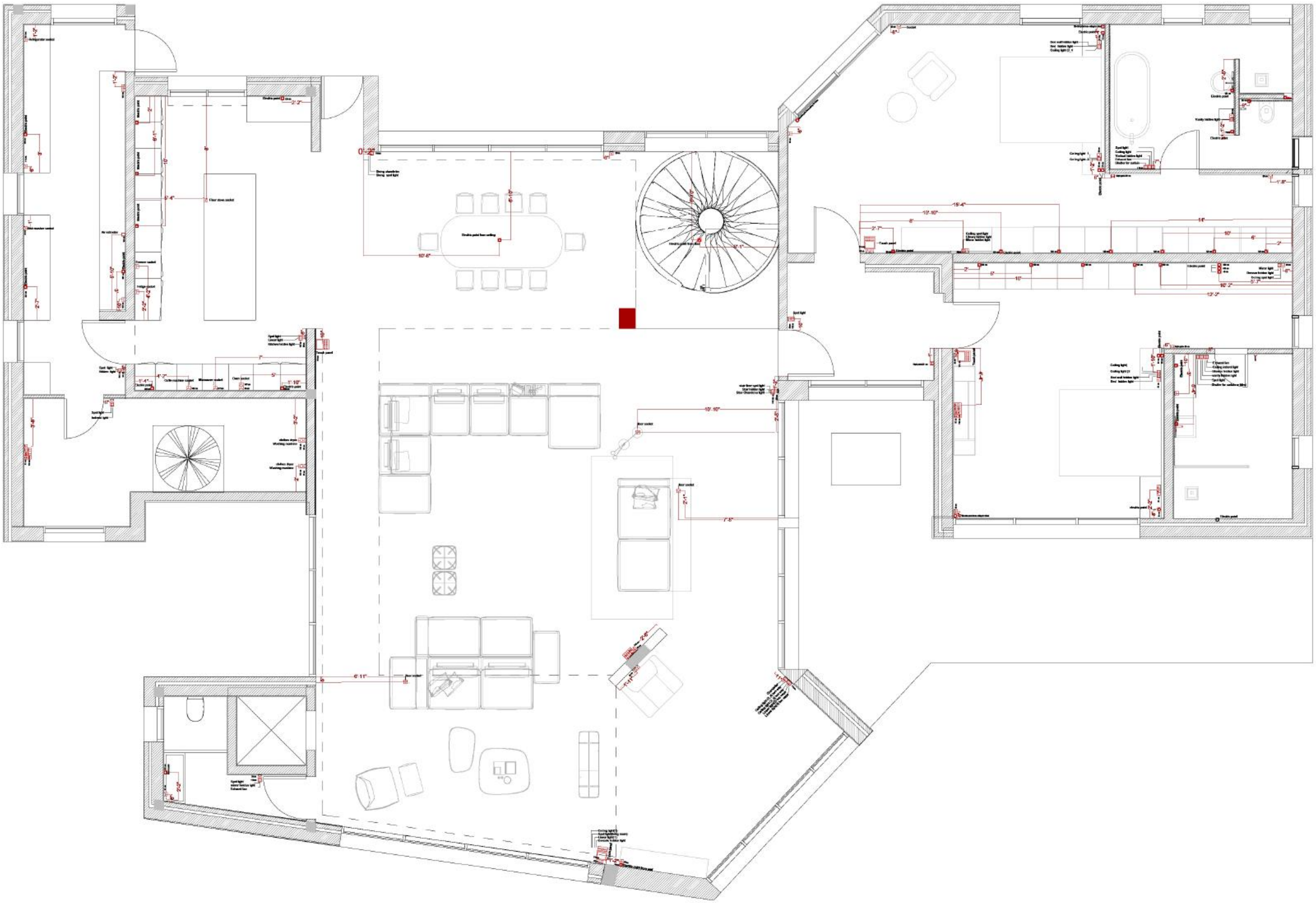





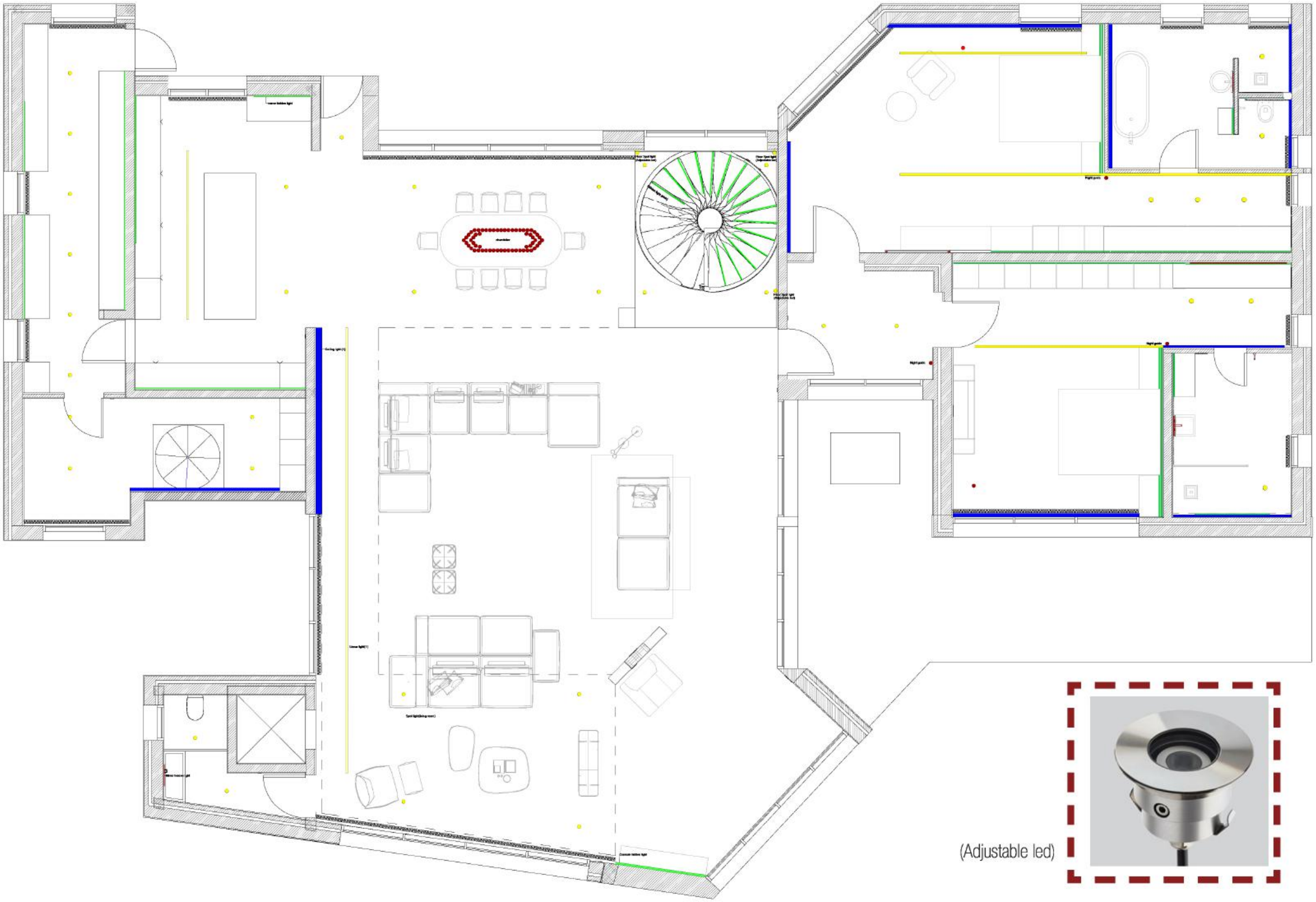
NATURAL LIGHT AND VENTILATION

NATURAL LIGHT AND CROSS VENTILATION ARE ENSURED THROUGH GARDEN AND WATER, THE GARDEN MAKE SENSE WITH . COOLING AND HUMIDITY

MEP Drawing

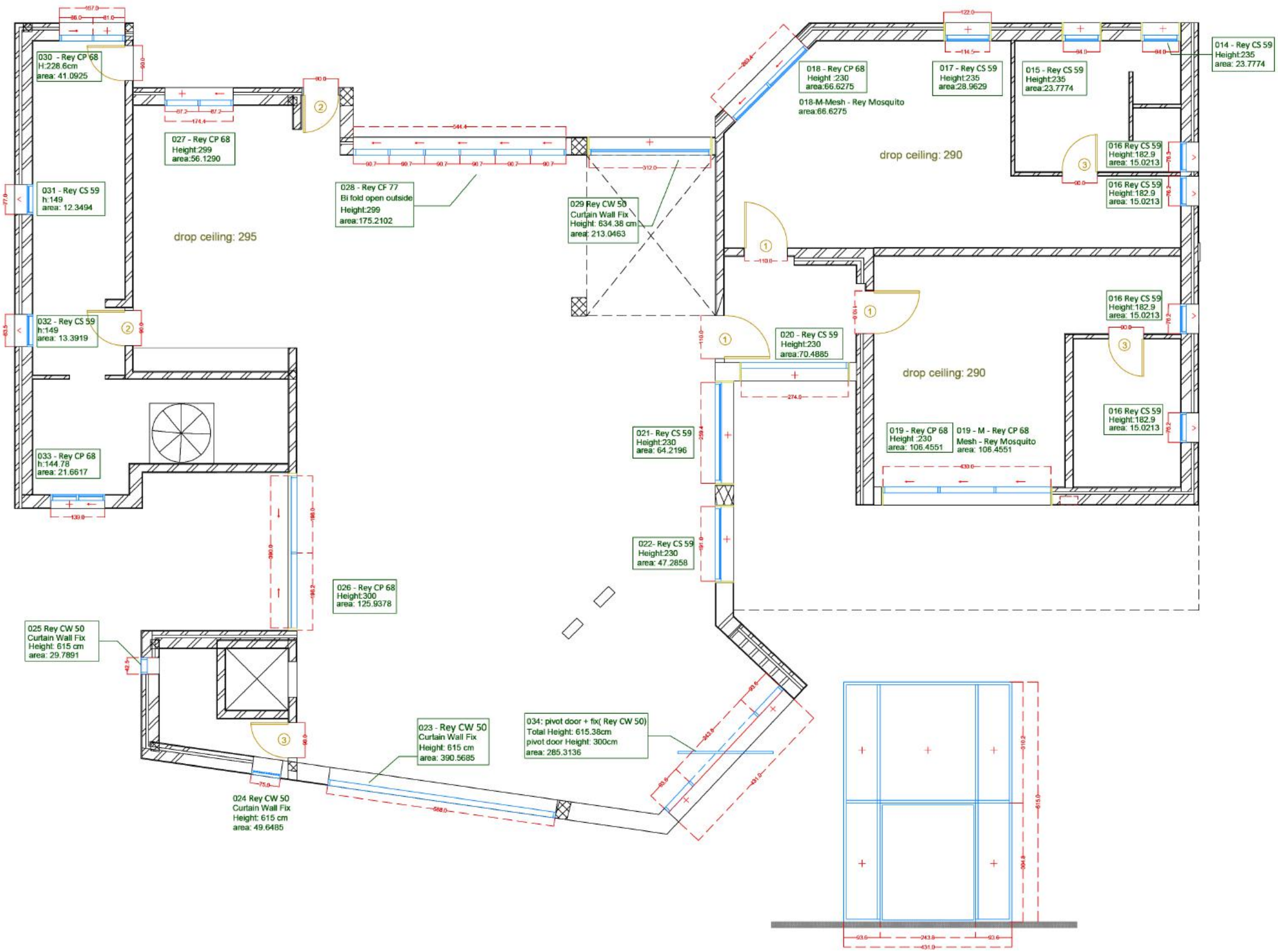


Electric Plan

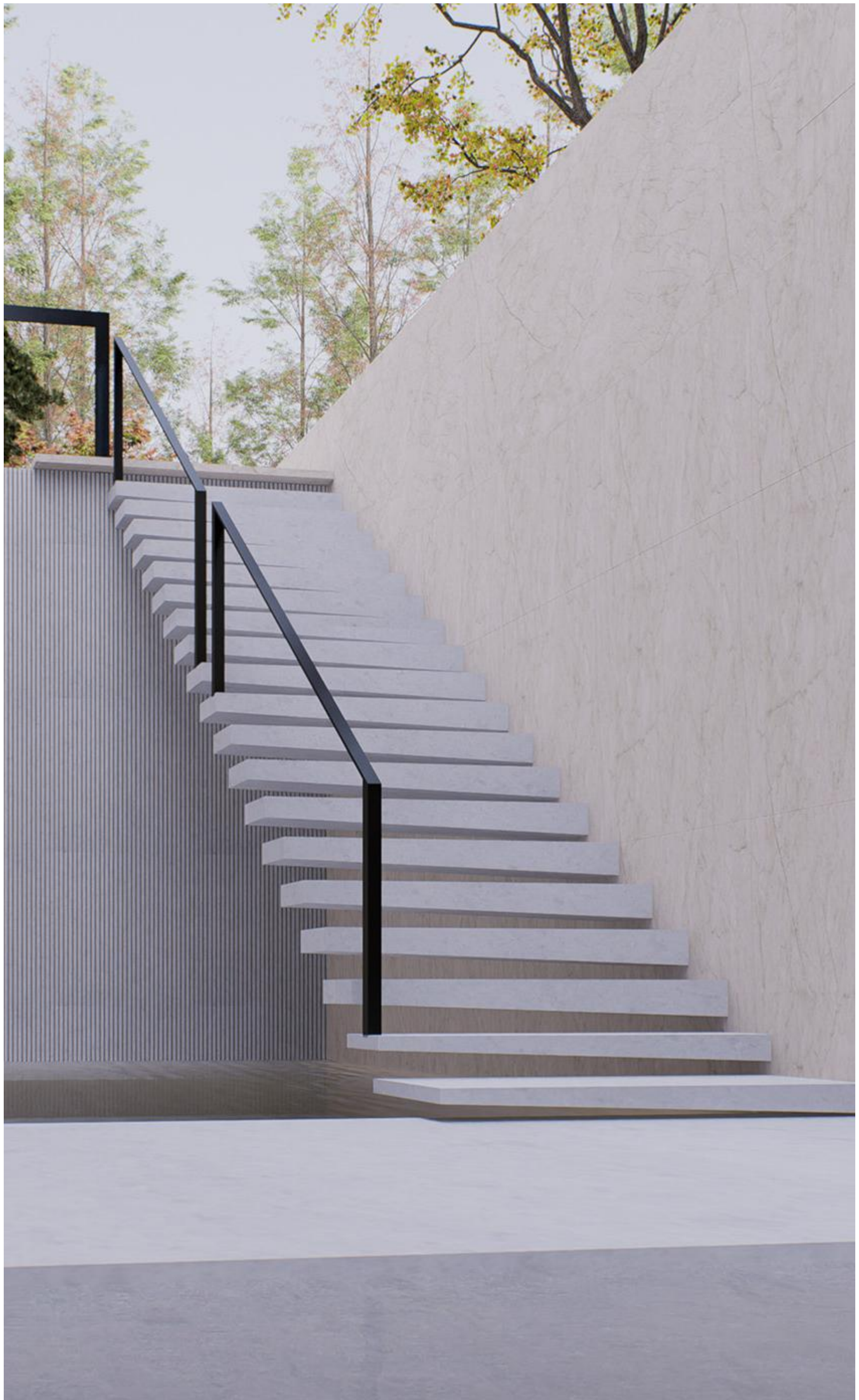


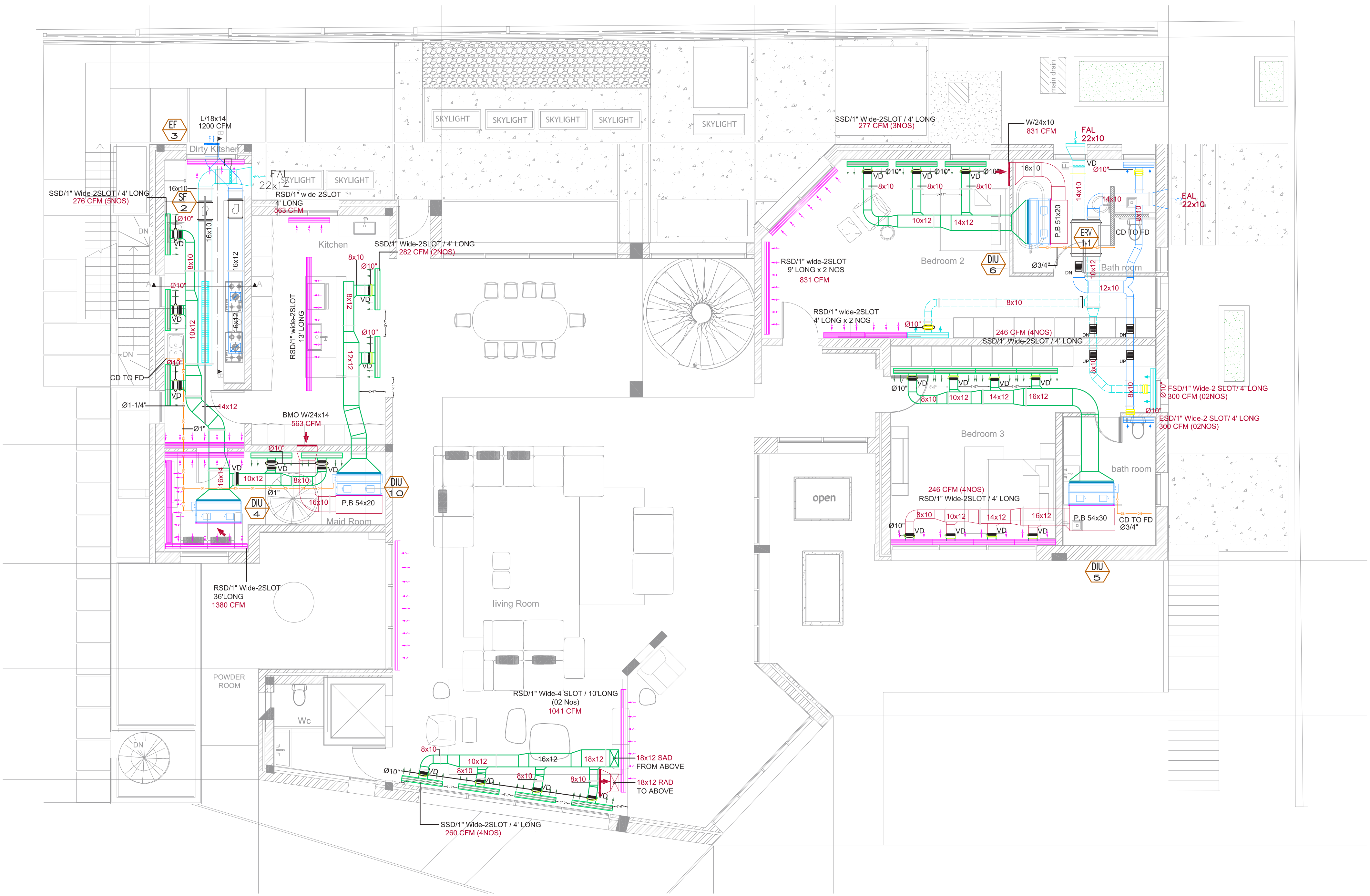
(Adjustable led)

Lighting Plan

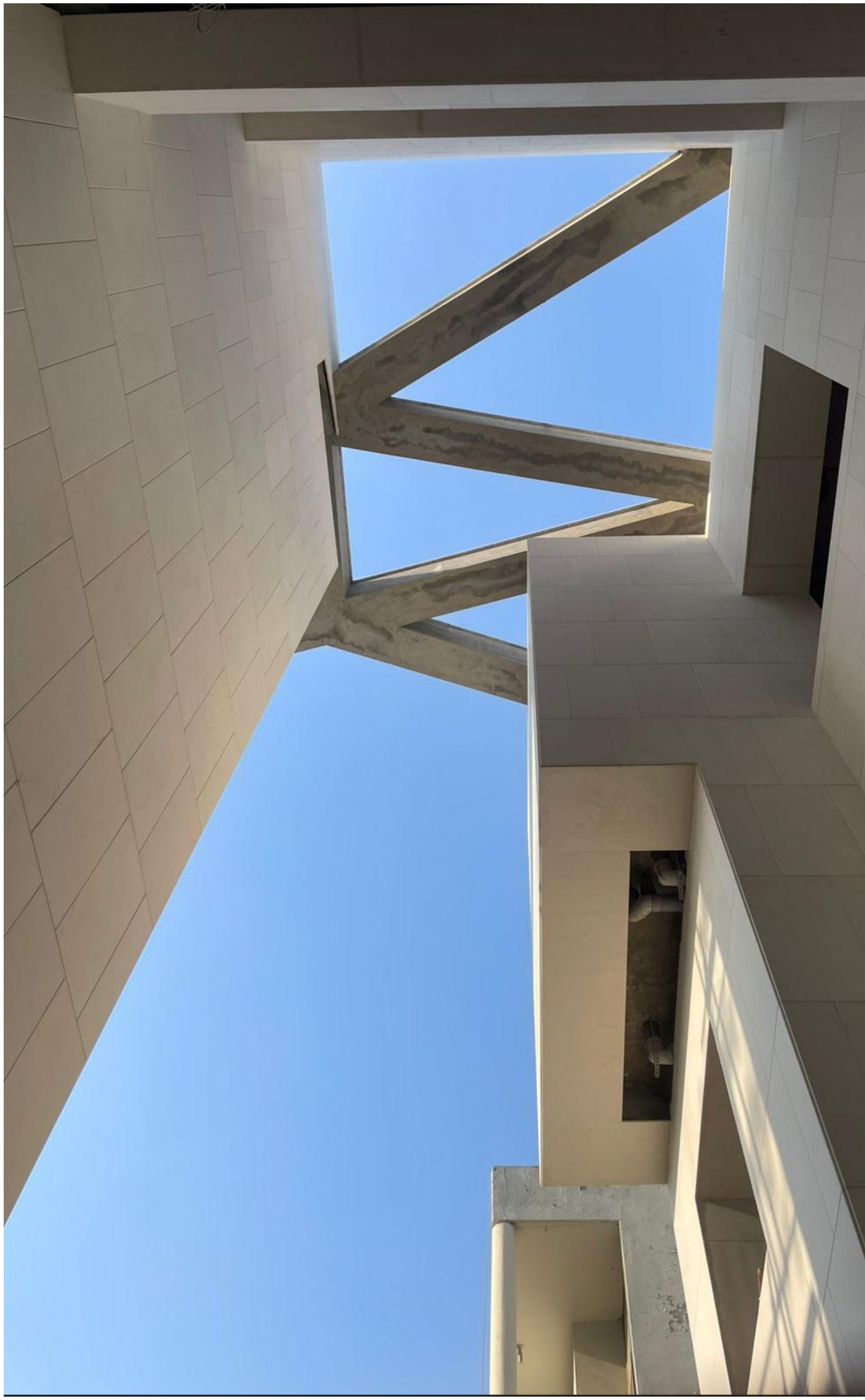


Doors And Windows Plan

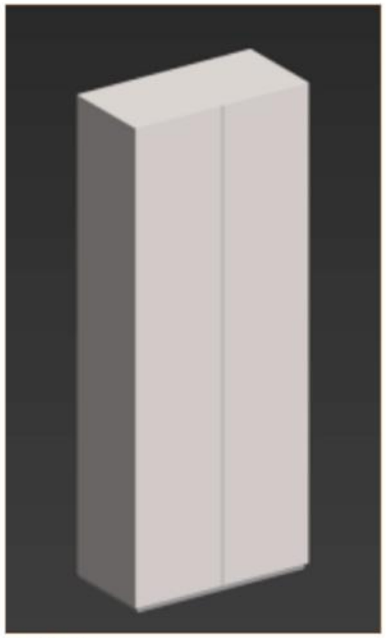



EF 3
L/18x14
1200 CFM
Dirty Kitchen
FAL 22x14
SKYLIGHT
SSD/1" Wide-2SLOT / 4' LONG
276 CFM (5NOS)
SF 2
16x10
RSD/1" wide-2SLOT
4' LONG
563 CFM
Kitchen
SSD/1" Wide-2SLOT / 4' LONG
282 CFM (2NOS)
RSD/1" wide-2SLOT
13' LONG
CD TO FD
Ø1-1/4"
14x12
Ø1"
BMO W/24x14
563 CFM
DIU 4
DIU 10
P.B 54x20
Maid Room
RSD/1" Wide-2SLOT
36'LONG
1380 CFM
POWDER ROOM
Wc
living Room
RSD/1" Wide-4 SLOT / 10'LONG
(02 Nos)
1041 CFM
18x12 SAD
FROM ABOVE
18x12 RAD
TO ABOVE
SSD/1" Wide-2SLOT / 4' LONG
260 CFM (4NOS)
SSD/1" Wide-2SLOT / 4' LONG
277 CFM (3NOS)
W/24x10
831 CFM
FAL
22x10
EAL
22x10
ERV 1-1
CD TO FD
P.B 51x20
Bedroom 2
DIU 6
Ø3/4"
Bath room
RSD/1" wide-2SLOT
9' LONG x 2 NOS
831 CFM
RSD/1" wide-2SLOT
4' LONG x 2 NOS
246 CFM (4NOS)
SSD/1" Wide-2SLOT / 4' LONG
FSD/1" Wide-2 SLOT/ 4' LONG
300 CFM (02NOS)
ESD/1" Wide-2 SLOT/ 4' LONG
300 CFM (02NOS)
Bedroom 3
bath room
246 CFM (4NOS)
RSD/1" Wide-2SLOT / 4' LONG
P.B 54x30
CD TO FD
Ø3/4"
DIU 5
open

HVAC Plan




Interior And Furniture Drawings

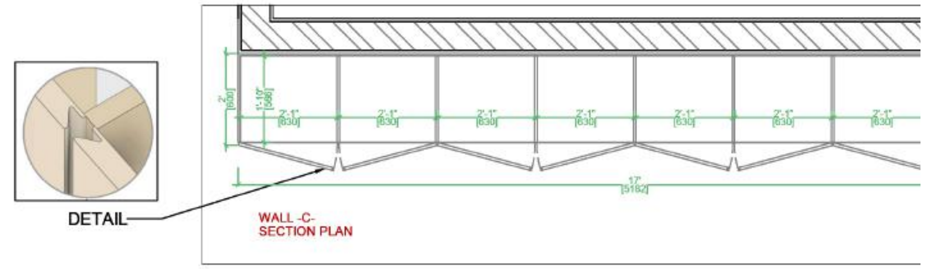


3D VIEW

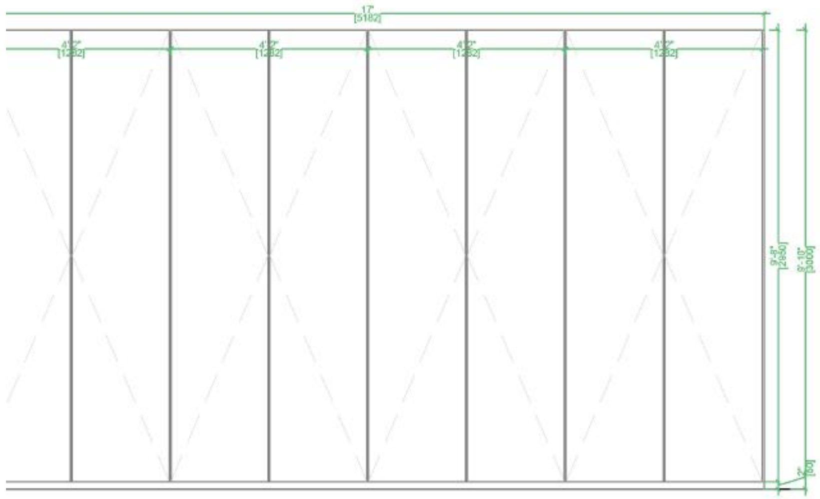
GROUND FLOOR
KITCHEN
CABINET

-The thickness of the internal wood used is 16 mm

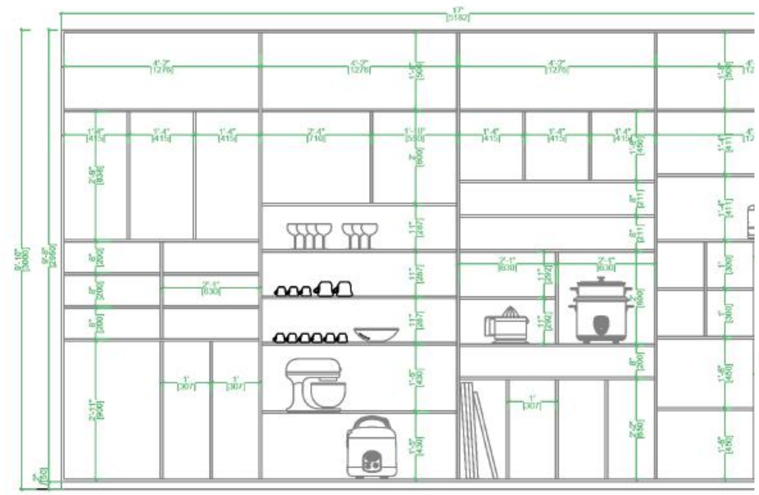
-The thickness of the wood used for the doors is 18 mm



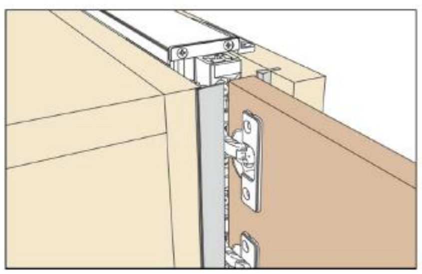
WALL -C-
SECTION PLAN

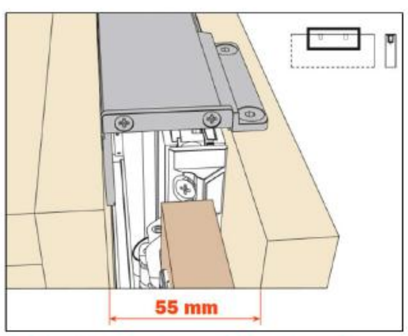


LL -C-
H DOORS



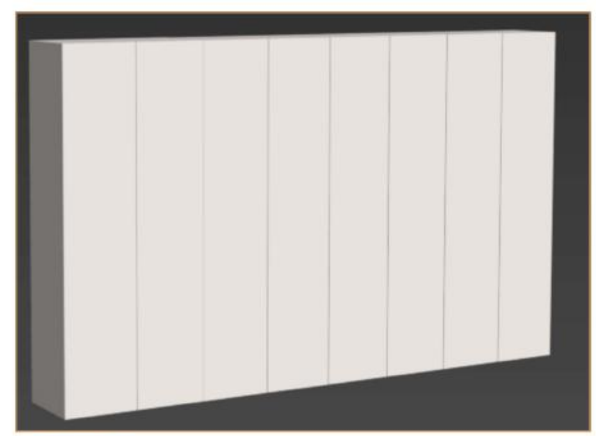
WALL -C-
WITHOUT DOORS





POCKET DOOR VERTICAL SYSTEM

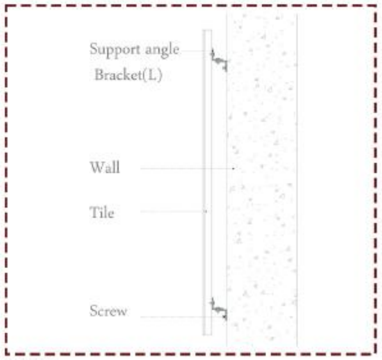
RENDER IMAGE



PRECPECTIVE

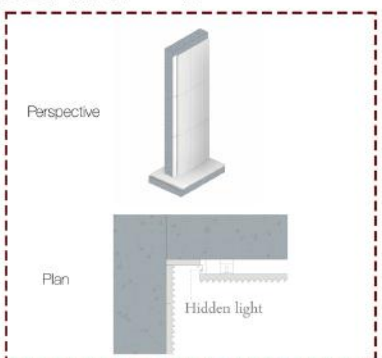
Cabinets Drawings

DETAIL-2 (Tiles fixing)

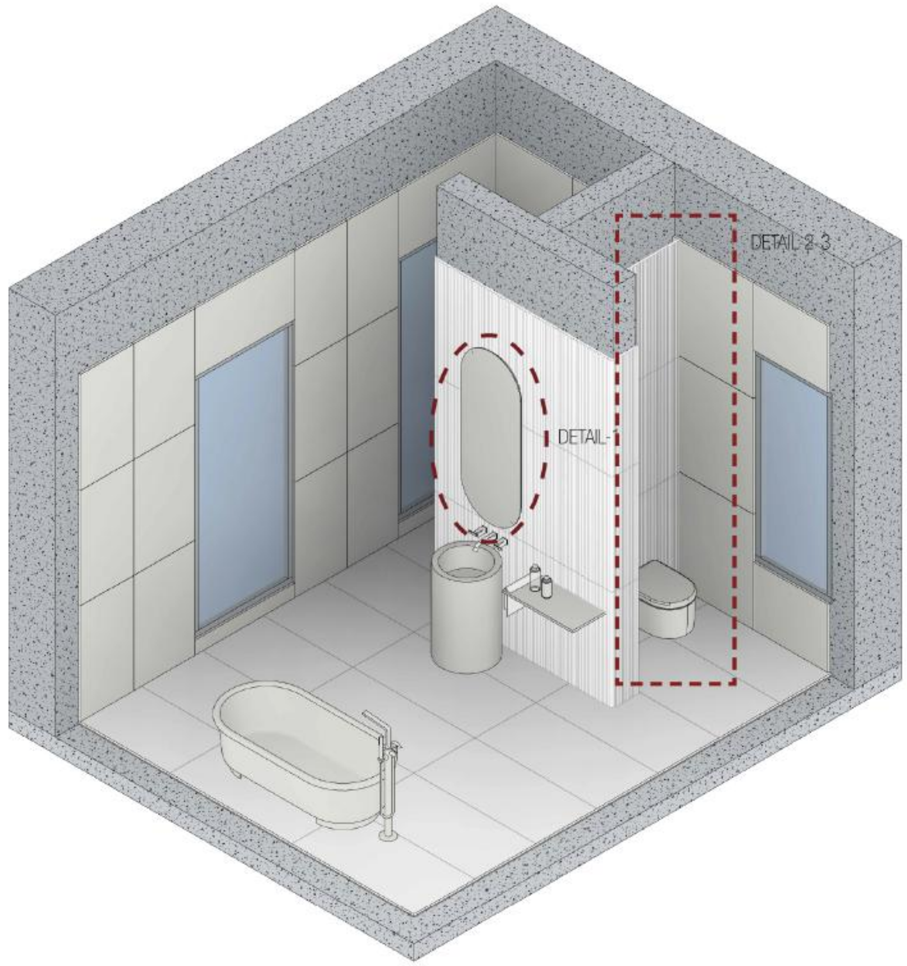


Section

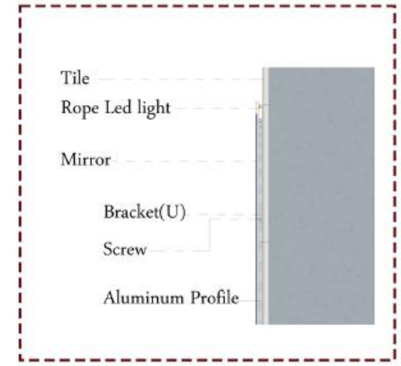
DETAIL-3 (Hidden light)



Perspective



DETAIL-1 (Mirror Detail)



Section

Perspective From Behind

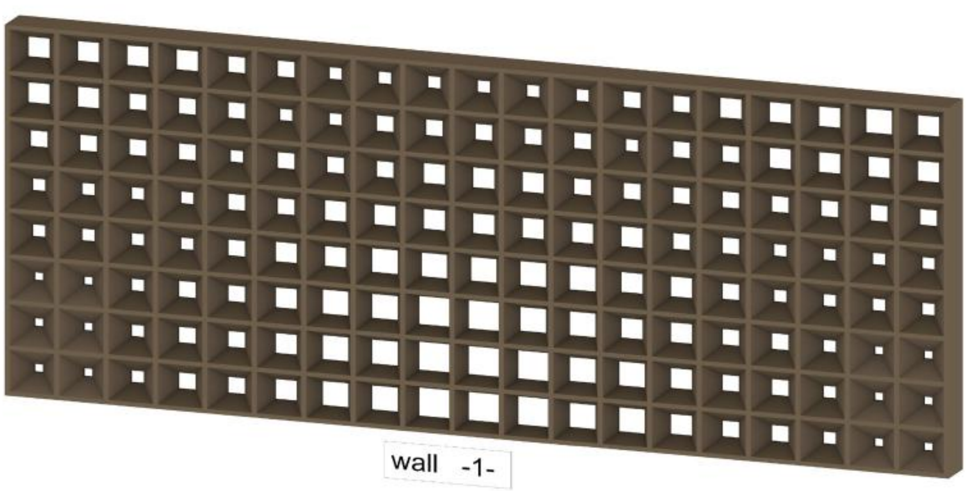
Tiles Diagrams

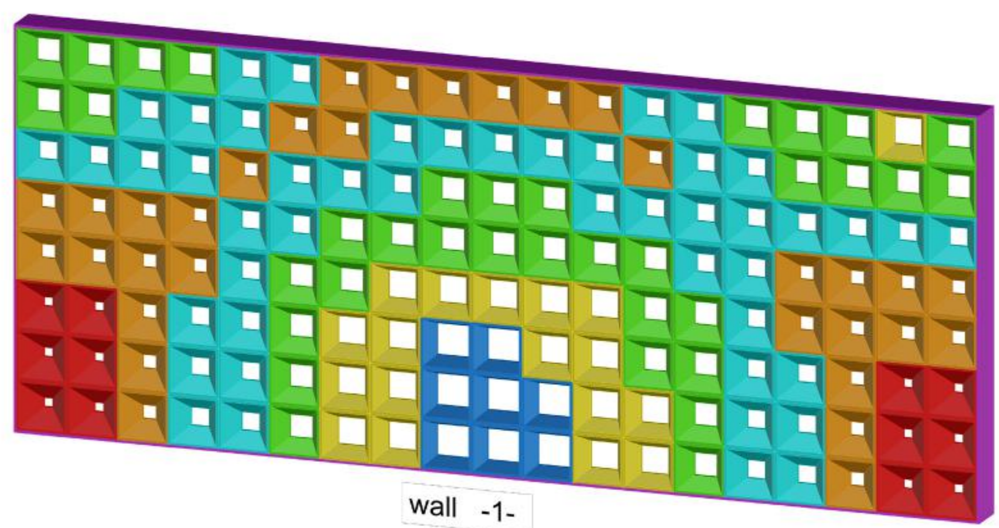
Ground Floor _ Mother bathroom				
N.	Qty	Height	Width	Description
1	12	4'-0"	2'-0"	Marble-floor
2	3	4'-0"	0'-10 ¾"	Marble-floor
3	2	3'-4 ¼"	3'-3 ¼"	Marble-wall
4	1	3'-4 ¼"	2'-11 ½"	Marble-wall
5	2	3'-3 ¼"	2'-7"	Marble-wall
6	1	2'-11 ½"	2'-7"	Marble-wall
7	8	3'-3 ¼"	1'-10 ¾"	Marble-wall
8	4	2'-11 ½"	1'-10 ¾"	Marble-wall
9	4	3'-3 ¼"	2'-0"	Marble-wall
10	2	2'-11 ½"	2'-0"	Marble-wall

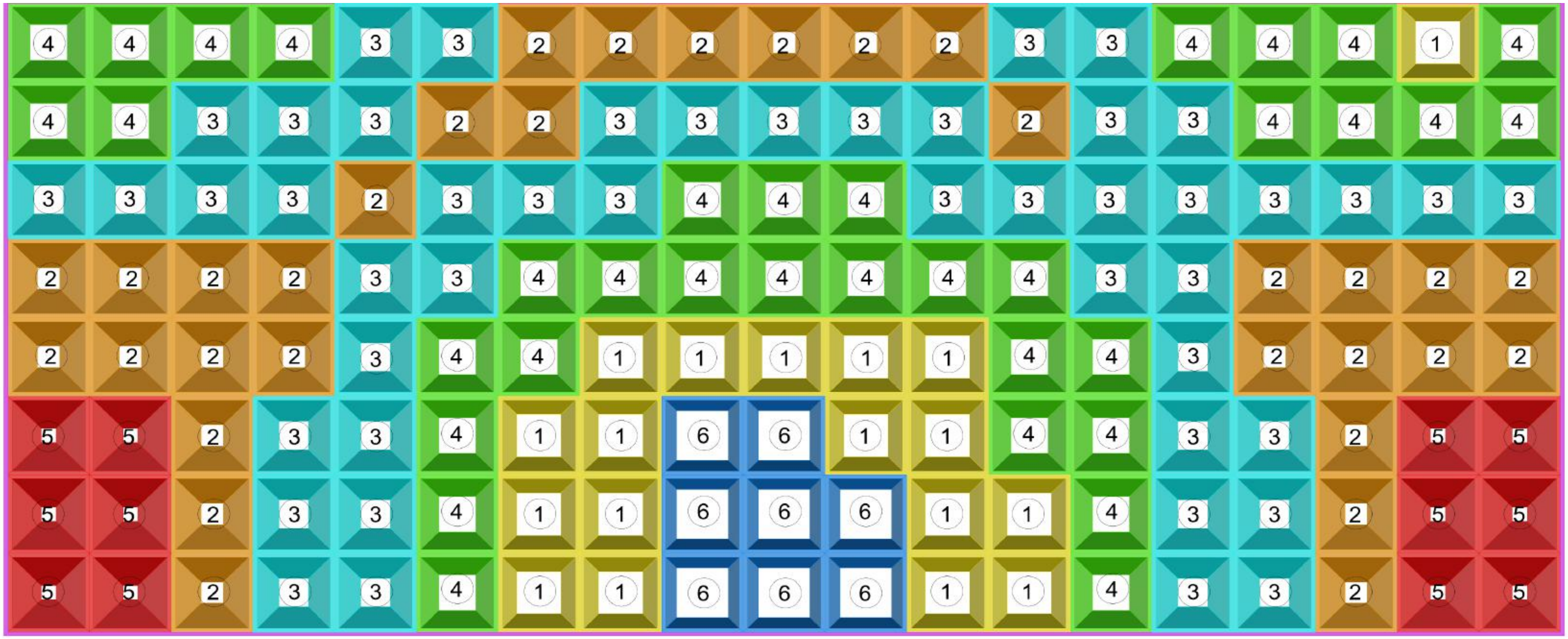

GRADE 53

Fence Drawings

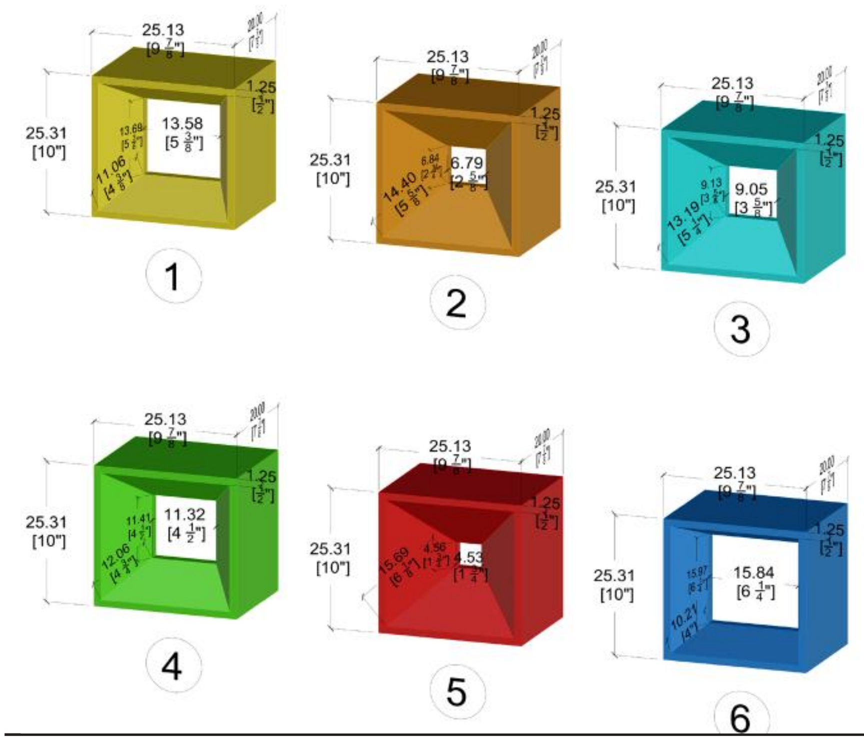
Color number	Quantity
1 (Yellow)	18
2 (Orange)	32
3 (Light blue)	47
4 (Green)	35
5 (Red)	12
6 (Blue)	8
Total	152

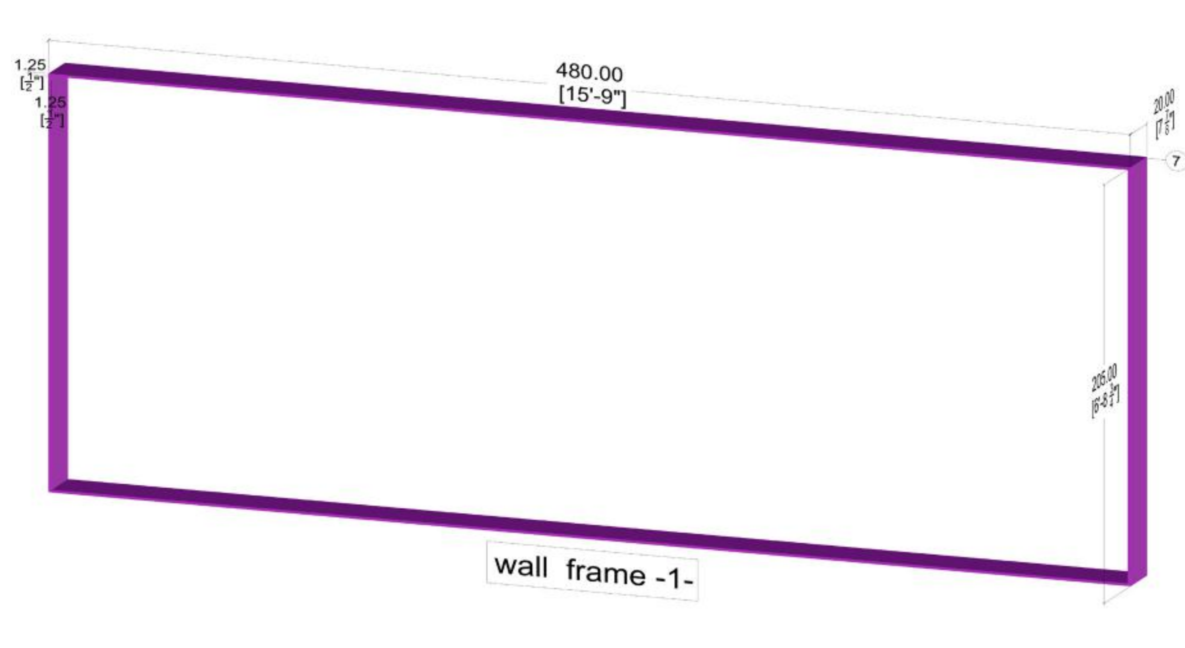






wall -1-





wall frame -1-

House of Shadow

Lahore , Pakistan

Responsibility: Turnkey

Client: Mr Rashed

Size: 140.000m^2/ 1,500,000sqf

Status: Proposal

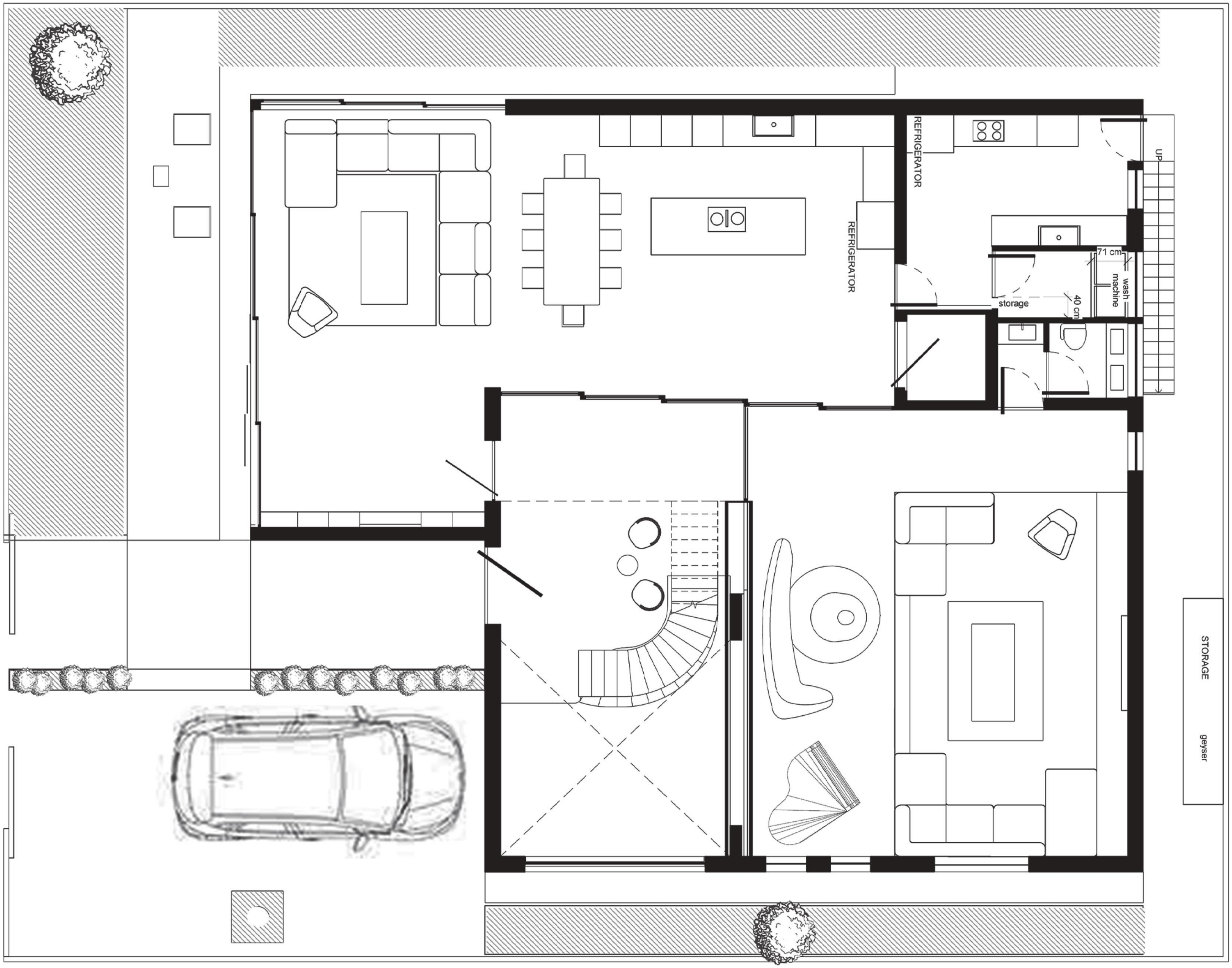
Typology: House

Year: 2020

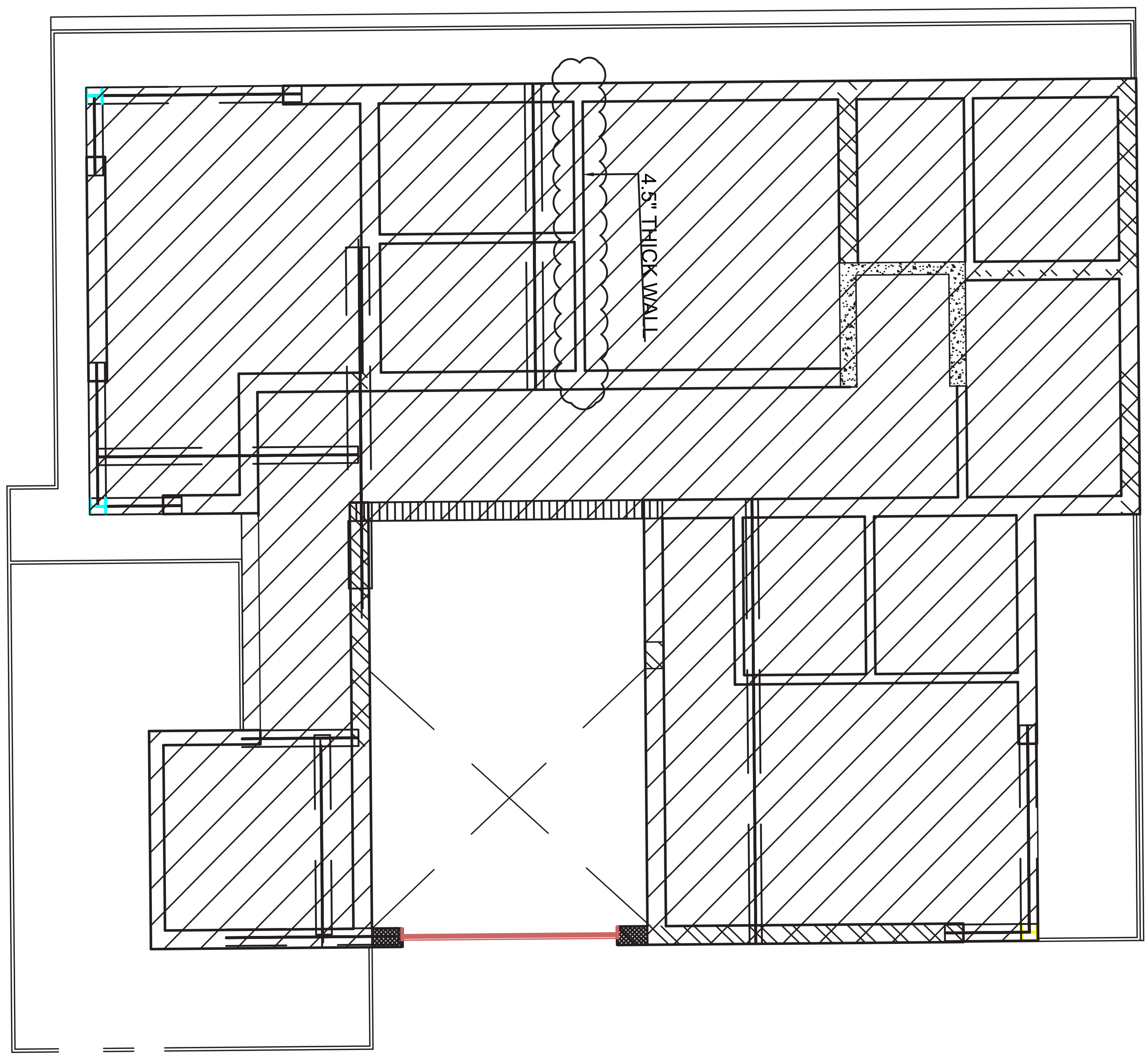
This innovative architectural project in Ghana utilizes bamboo, a locally abundant material, inspired by the Baobab tree's branching design. Incorporating traditional techniques such as wood shutters, cob walls, and earth bricks, the structures blend natural materials for both cultural resonance and structural integrity.

The interior design prioritizes natural light through strategically placed openings and wood shutters, creating a warm and inviting atmosphere. Additionally, the bamboo's unique branching design enhances the play of light and shadow. The project emphasizes eco-friendly practices and local identity, integrating natural ventilation for a sustainable and comfortable living environment.

Architecture And Structure Drawing

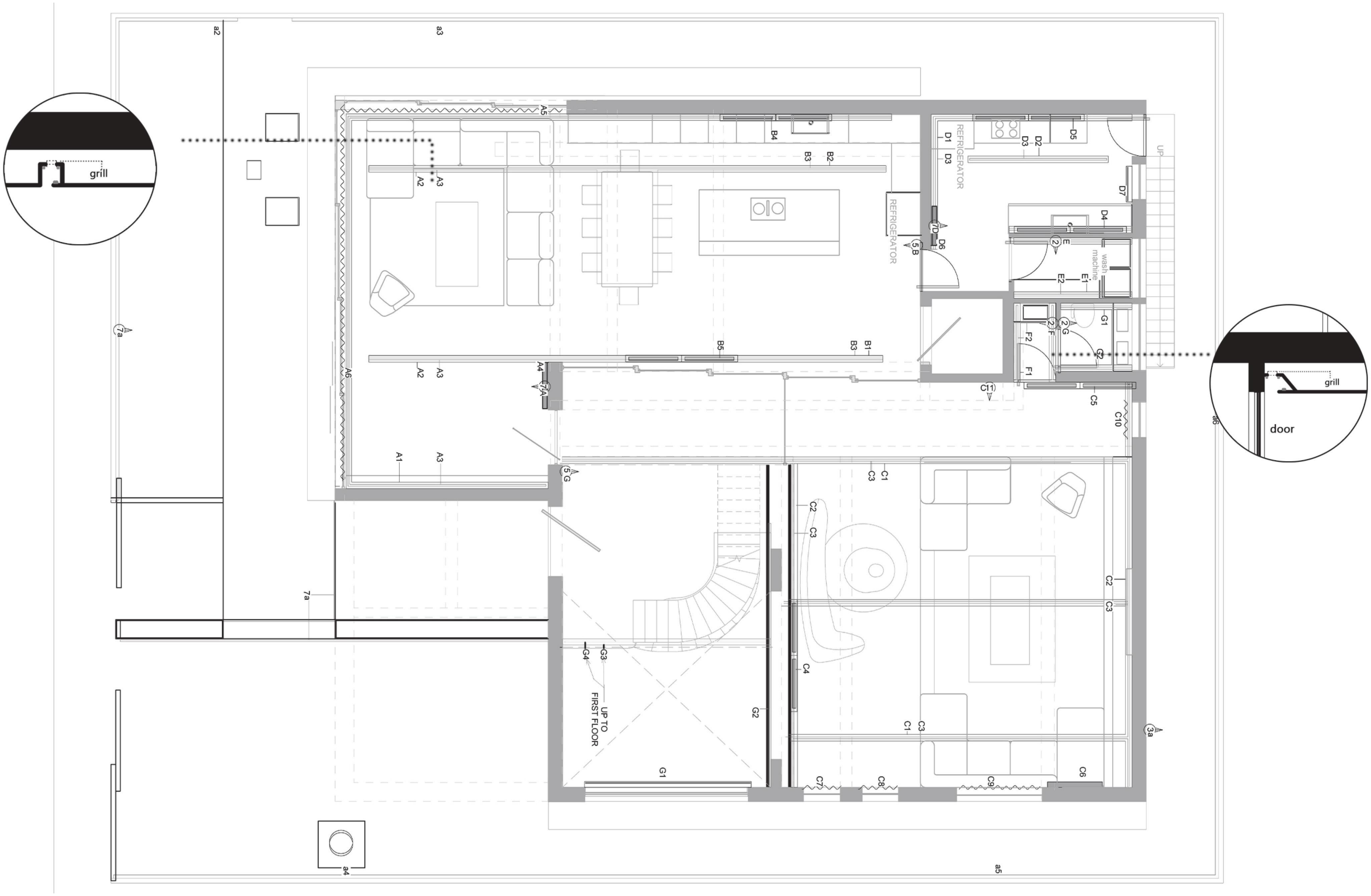


Architecture Plan

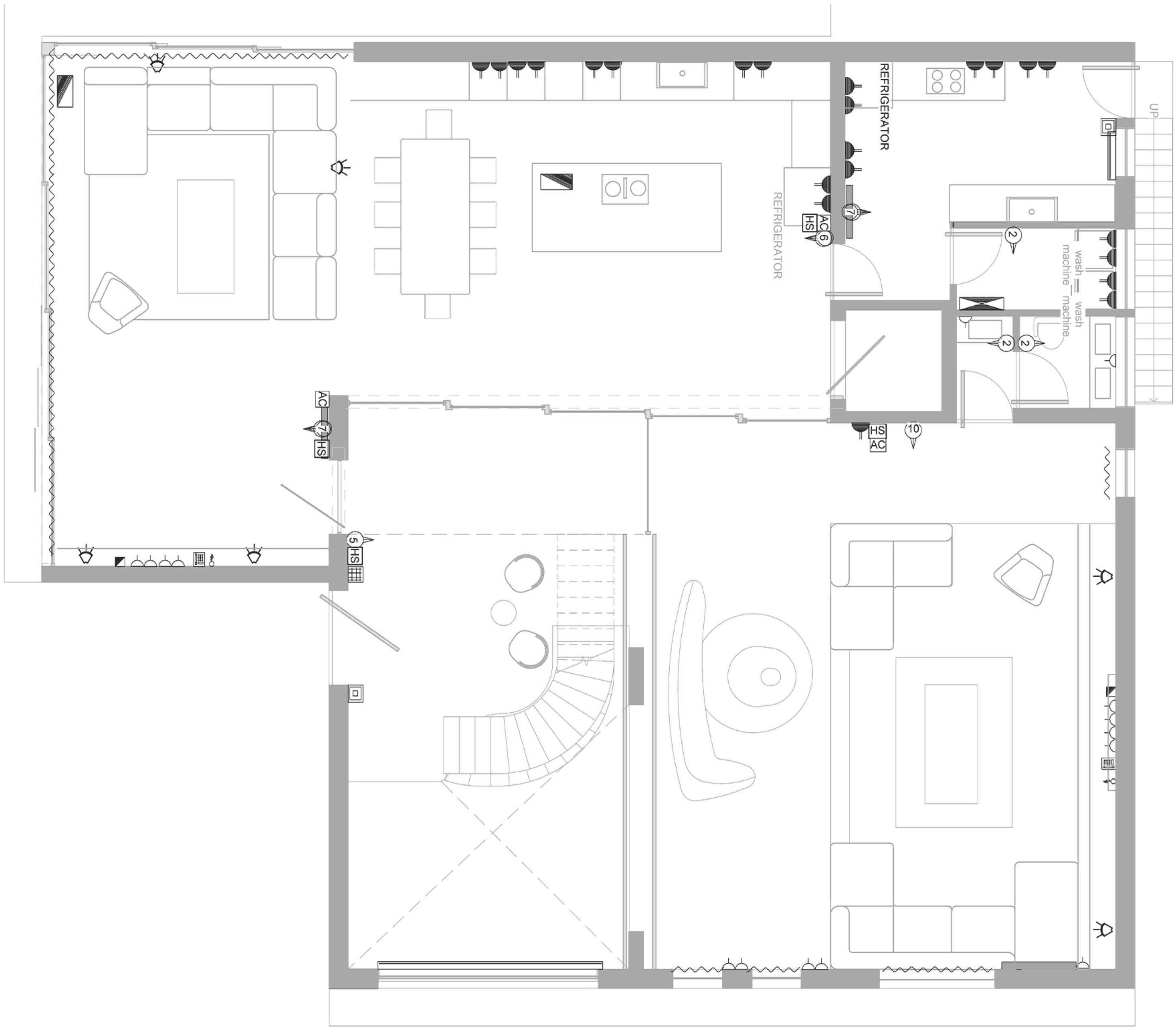


Structural Plan

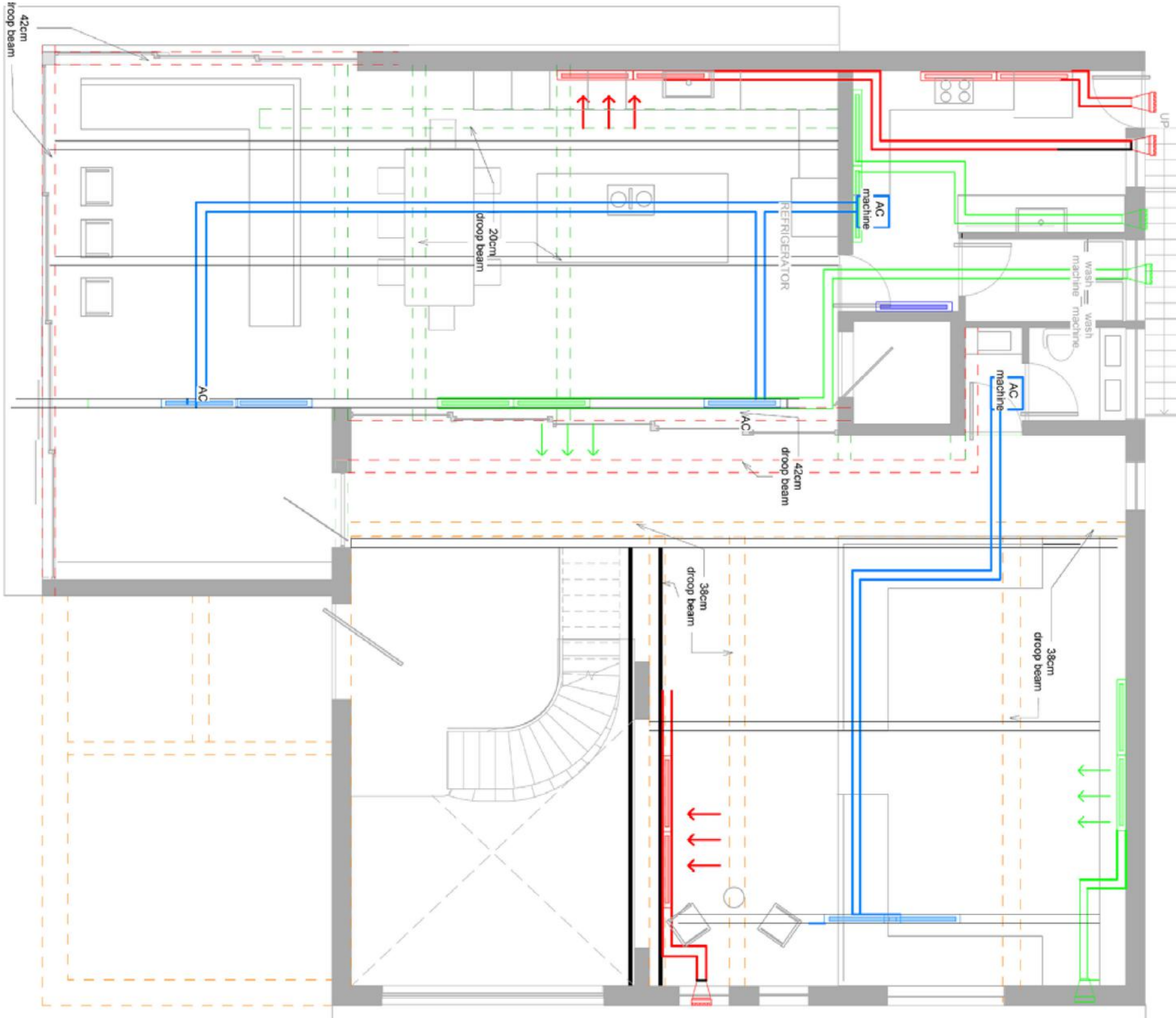
MEP Drawings



Lighting Plan



Electric Plan

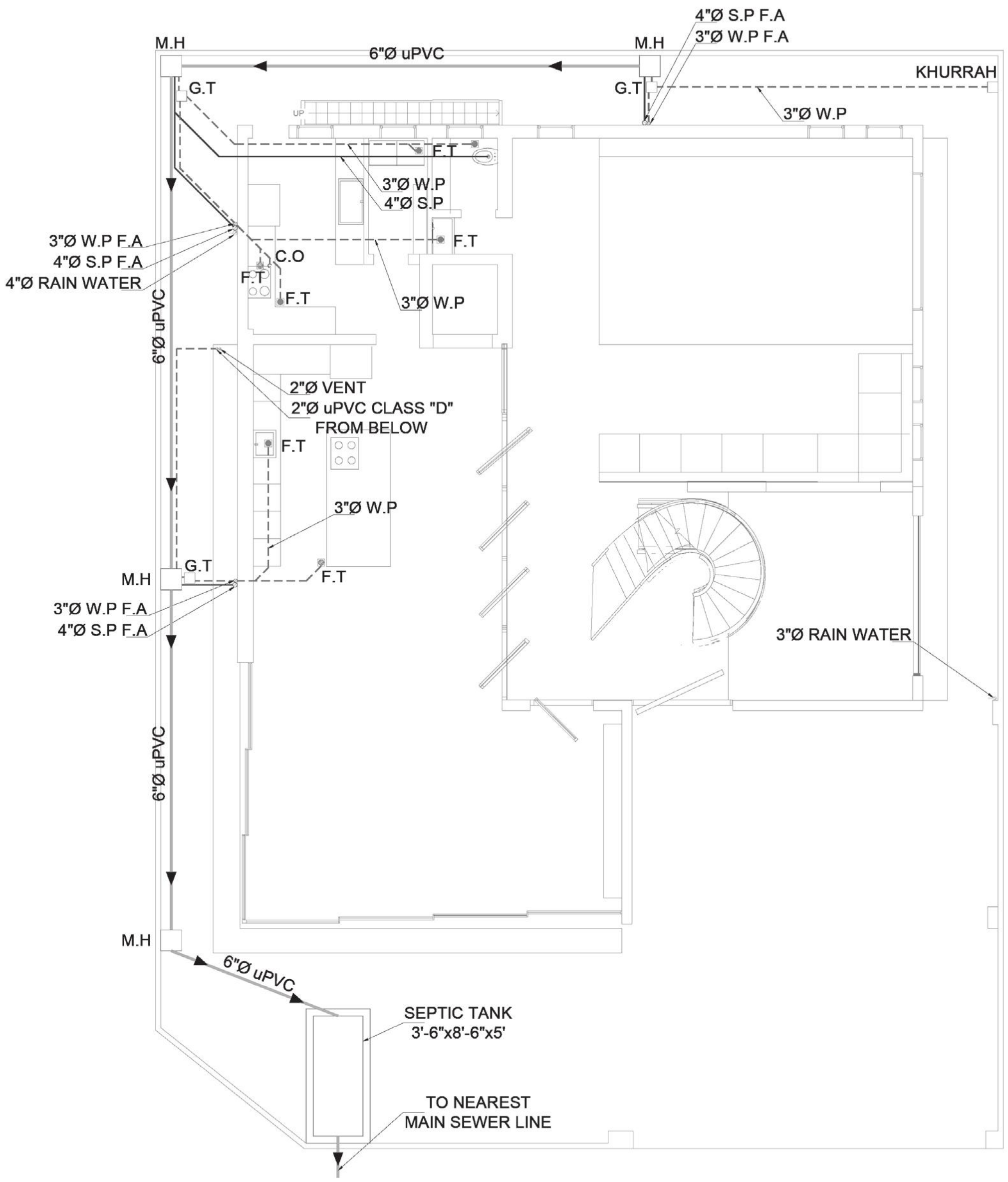

42cm
droop beam
20cm
droop beam
REFRIGERATOR
AC
machine
AC
AC
wash
machine
wash
machine
42cm
droop beam
38cm
droop beam
38cm
droop beam
UP

HVAC Plan

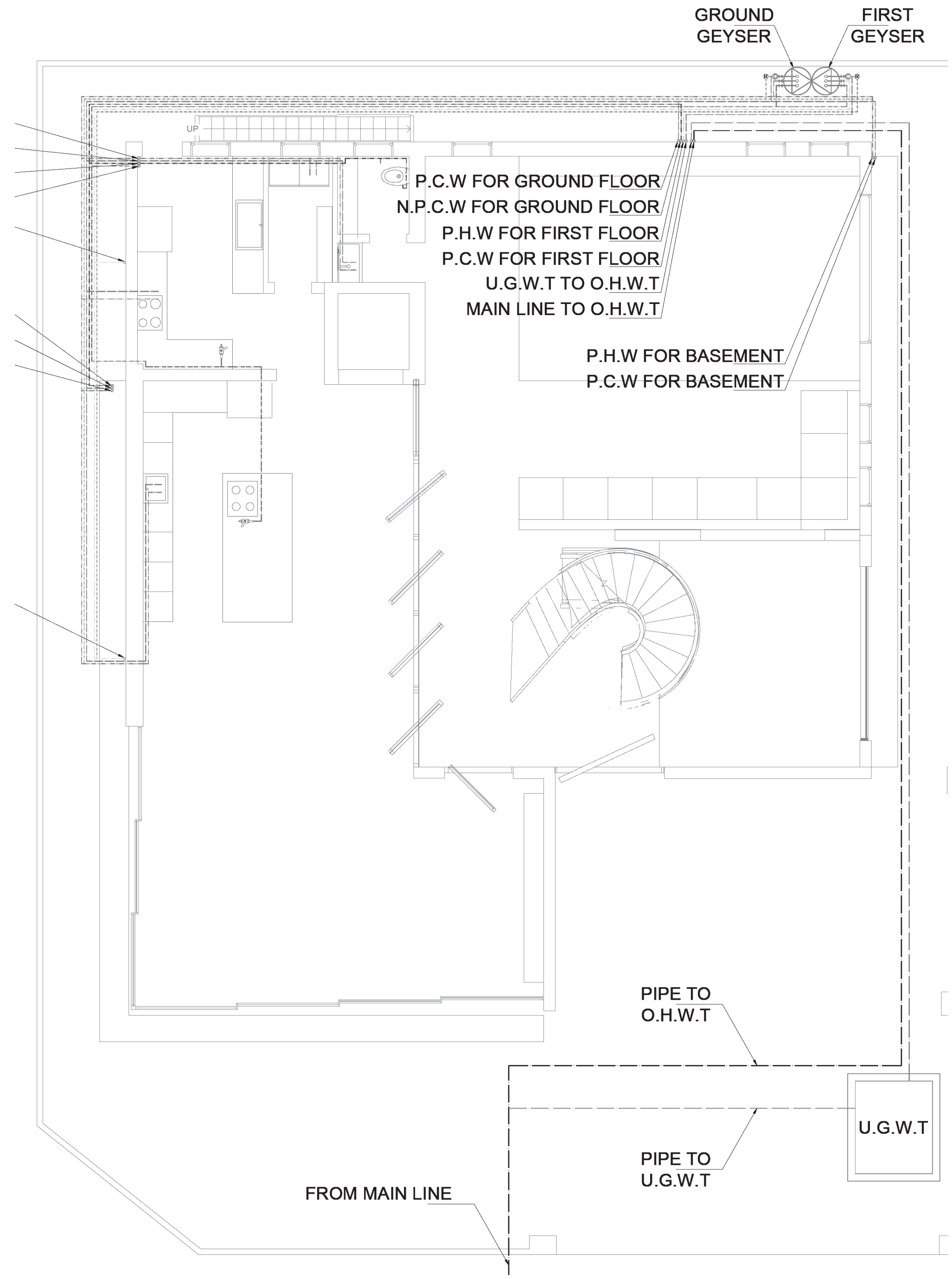
	GROUND FLOOR DOORS			
	No.	HIGHT	WIDTH	DISCRAPTION
1	1	300cm	220	axis
2	1	300cm	80cm	portal
3	1	300cm	92cm	portal
4	3	300cm	155 cm	axis
5	1	300cm	138cm	axis
7	1	300cm	824cm	zero slide
8	1	300cm	564cm	zero slide
9	3	300cm	75cm	-
10	1	300cm	80cm	

	GROUND FLOOR WINDOWS		
	No.	HIGHT	WIDTH
1	4	300cm	80cm
2	1	300cm	300cm
3	2	9cm	80cm

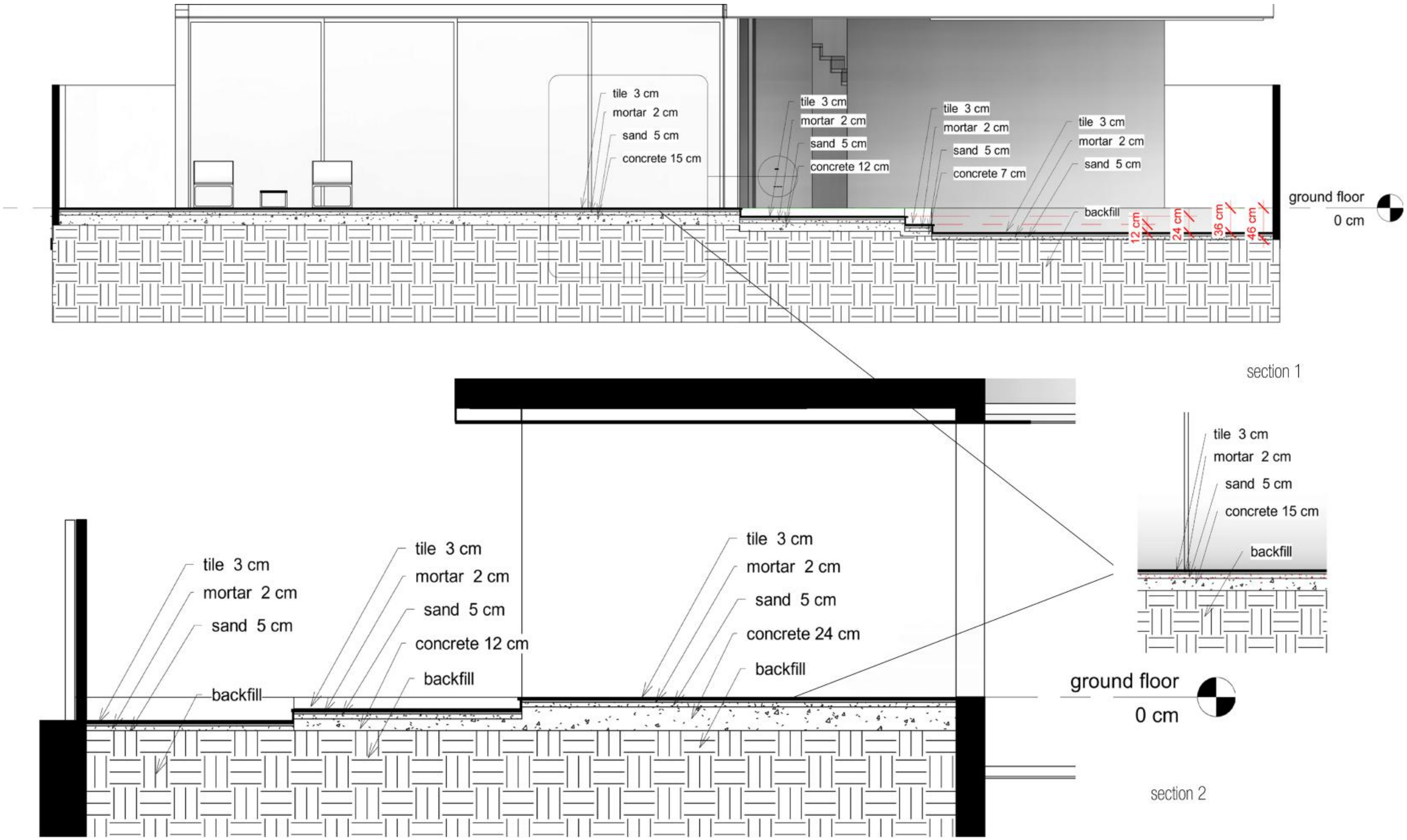
Doors And Windows Plan



Plumping Plan (Sewerage)

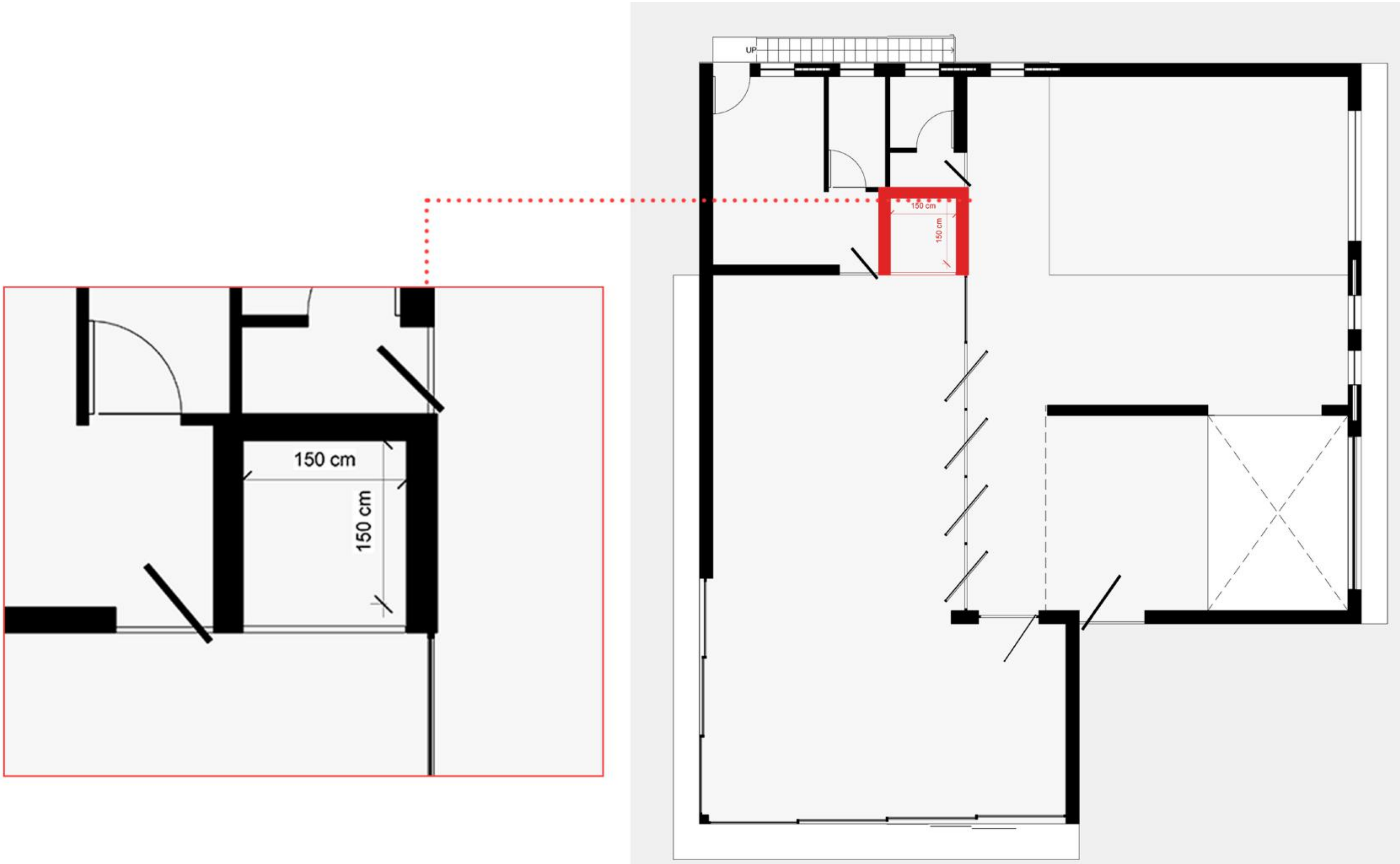


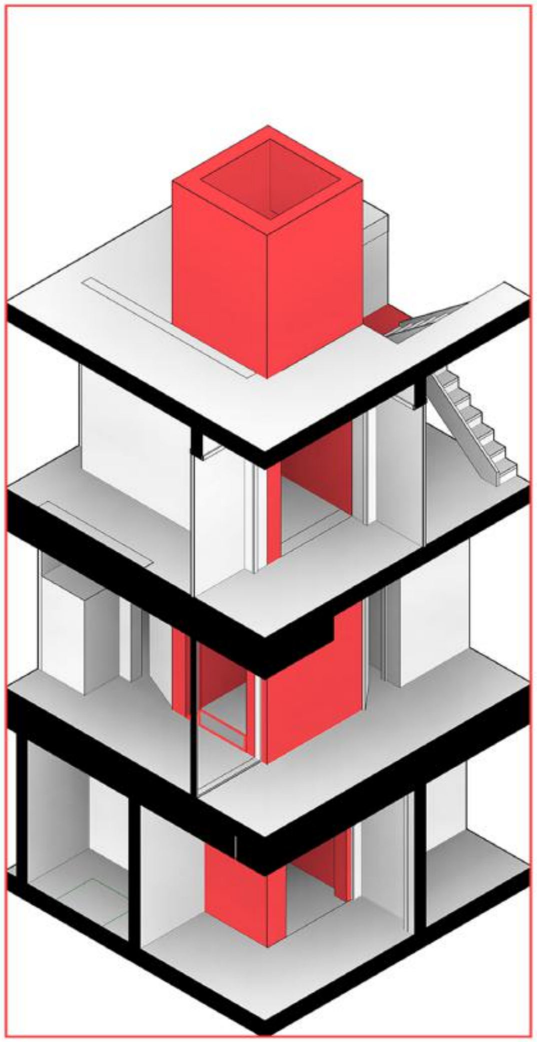
Plumping Plan (Water Supply)

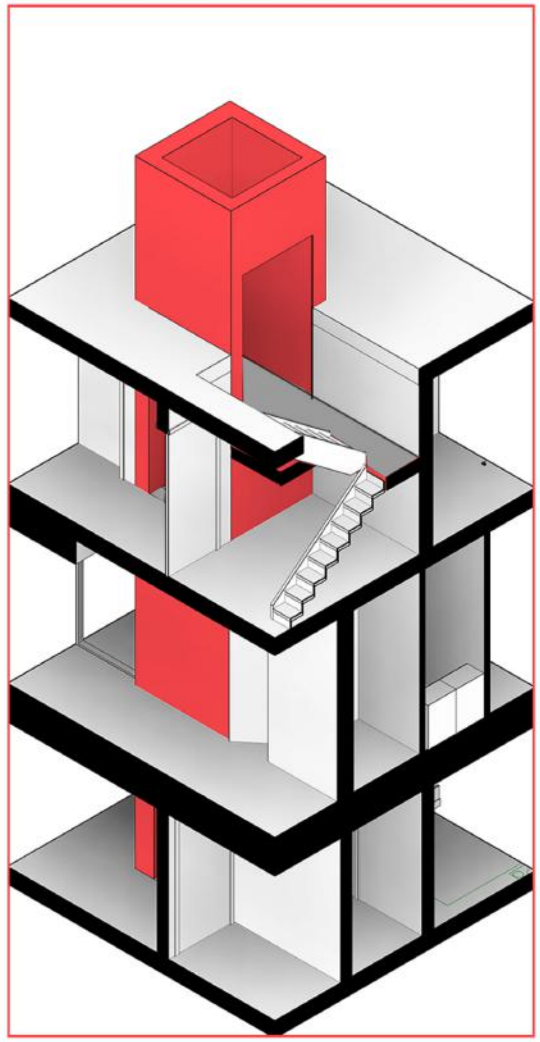


Landscape Section

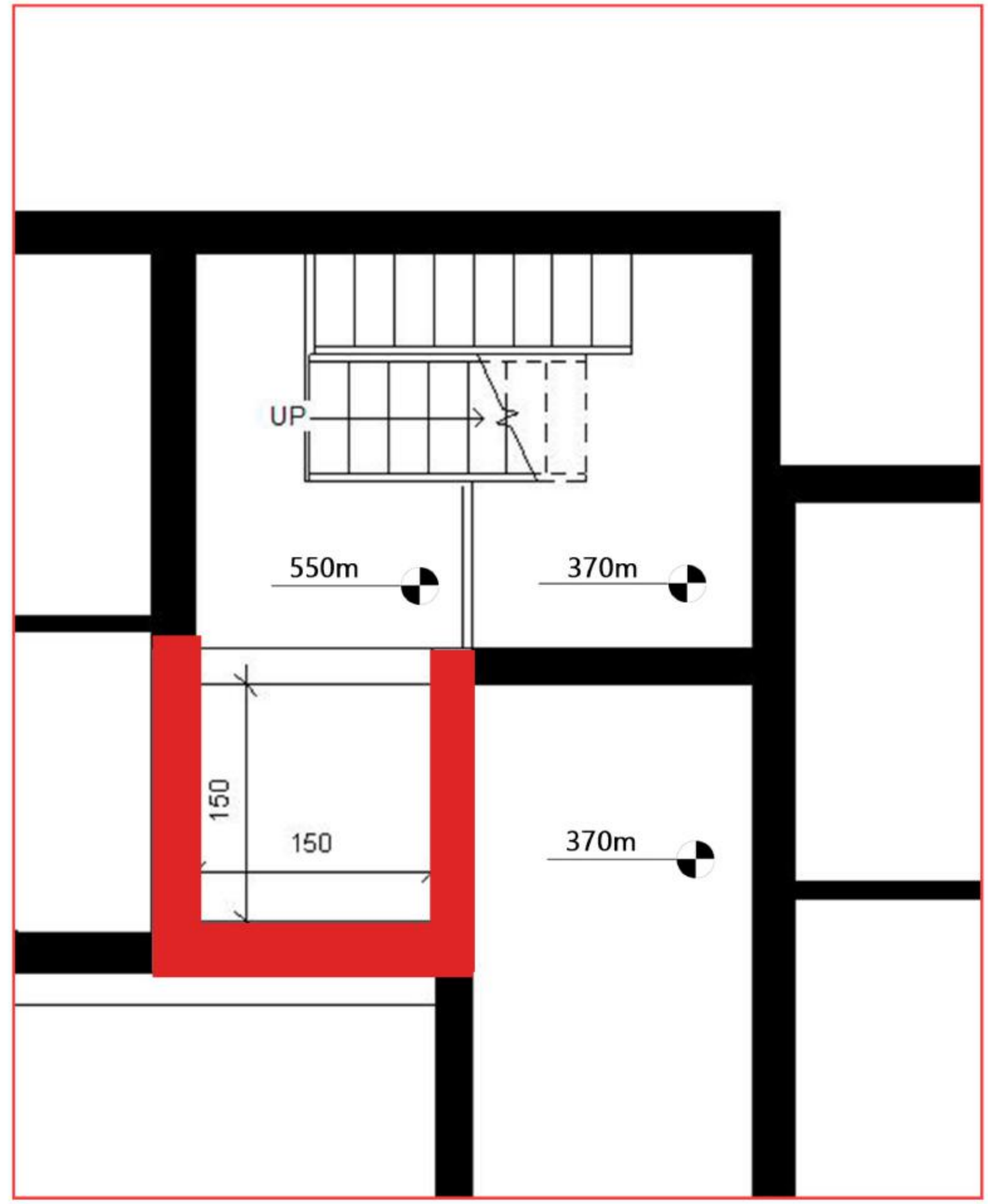
Elevator Drawing

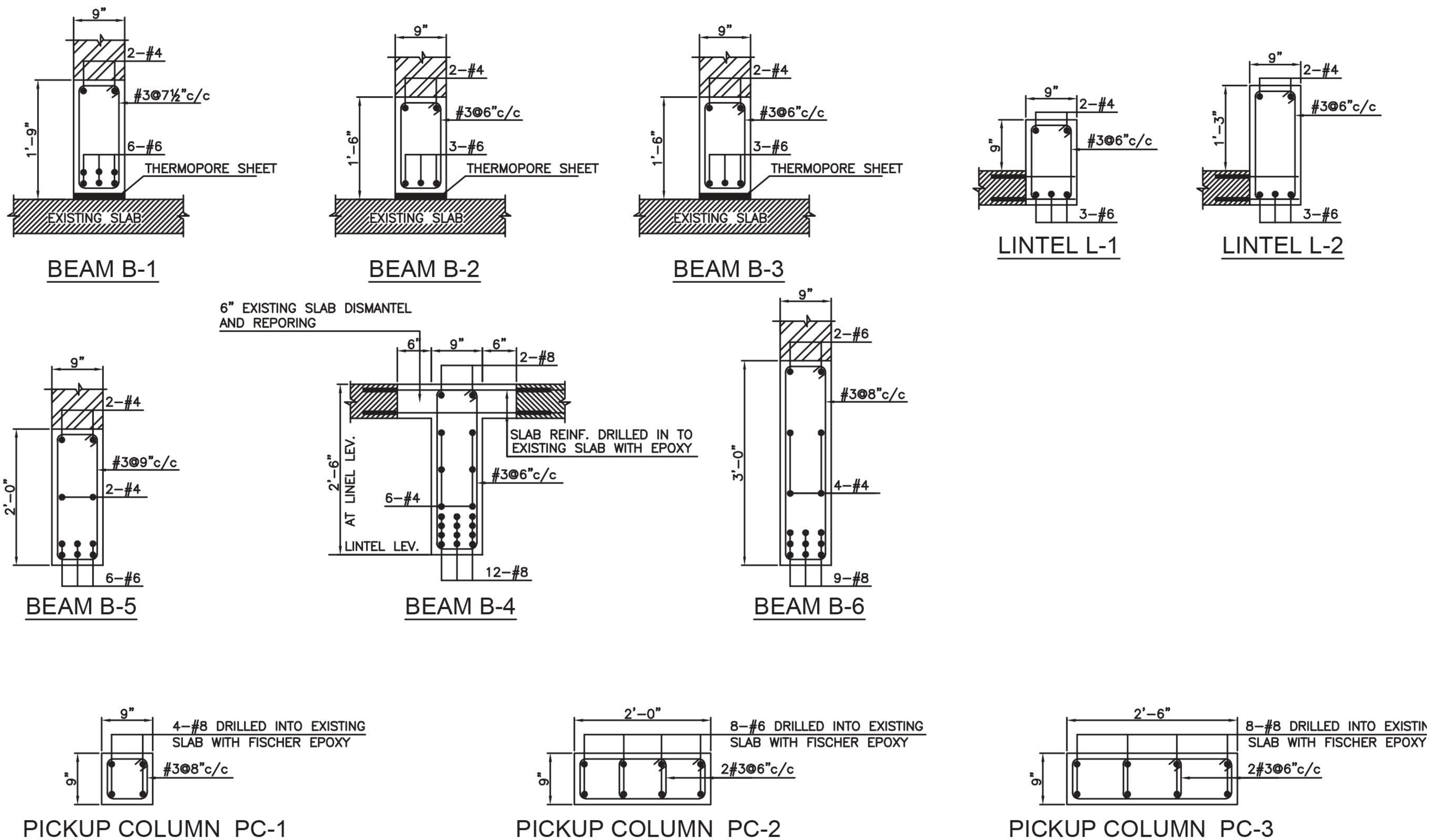






3D





BEAM B-1
9"
2-#4
#3@7½"c/c
1'-9"
6-#6
THERMOPORE SHEET
EXISTING SLAB
BEAM B-2
9"
2-#4
#3@6"c/c
1'-6"
3-#6
THERMOPORE SHEET
EXISTING SLAB
BEAM B-3
9"
2-#4
#3@6"c/c
1'-6"
3-#6
THERMOPORE SHEET
EXISTING SLAB
LINTEL L-1
9"
2-#4
#3@6"c/c
9"
3-#6
LINTEL L-2
9"
2-#4
#3@6"c/c
1'-3"
3-#6
BEAM B-5
9"
2-#4
#3@9"c/c
2-#4
2'-0"
6-#6
BEAM B-4
6" EXISTING SLAB DISMANTEL AND REPORING
6" 9" 6"
2-#8
SLAB REINF. DRILLED IN TO EXISTING SLAB WITH EPOXY
#3@6"c/c
2'-6" AT LINEL LEV.
6-#4
LINTEL LEV.
12-#8
BEAM B-6
9"
2-#6
#3@8"c/c
3'-0"
4-#4
9-#8
PICKUP COLUMN PC-1
9"
4-#8 DRILLED INTO EXISTING SLAB WITH FISCHER EPOXY
#3@8"c/c
9"
PICKUP COLUMN PC-2
2'-0"
8-#6 DRILLED INTO EXISTING SLAB WITH FISCHER EPOXY
2#3@6"c/c
9"
PICKUP COLUMN PC-3
2'-6"
8-#8 DRILLED INTO EXISTIN
SLAB WITH FISCHER EPOXY
2#3@6"c/c
9"

Girder Plan

House of Silence

Lahore , Pakistan

Responsibility: Turnkey

Client: Mr Zeshan Haider

Size: 1000m²/ 10,000sqf

Status: Complete

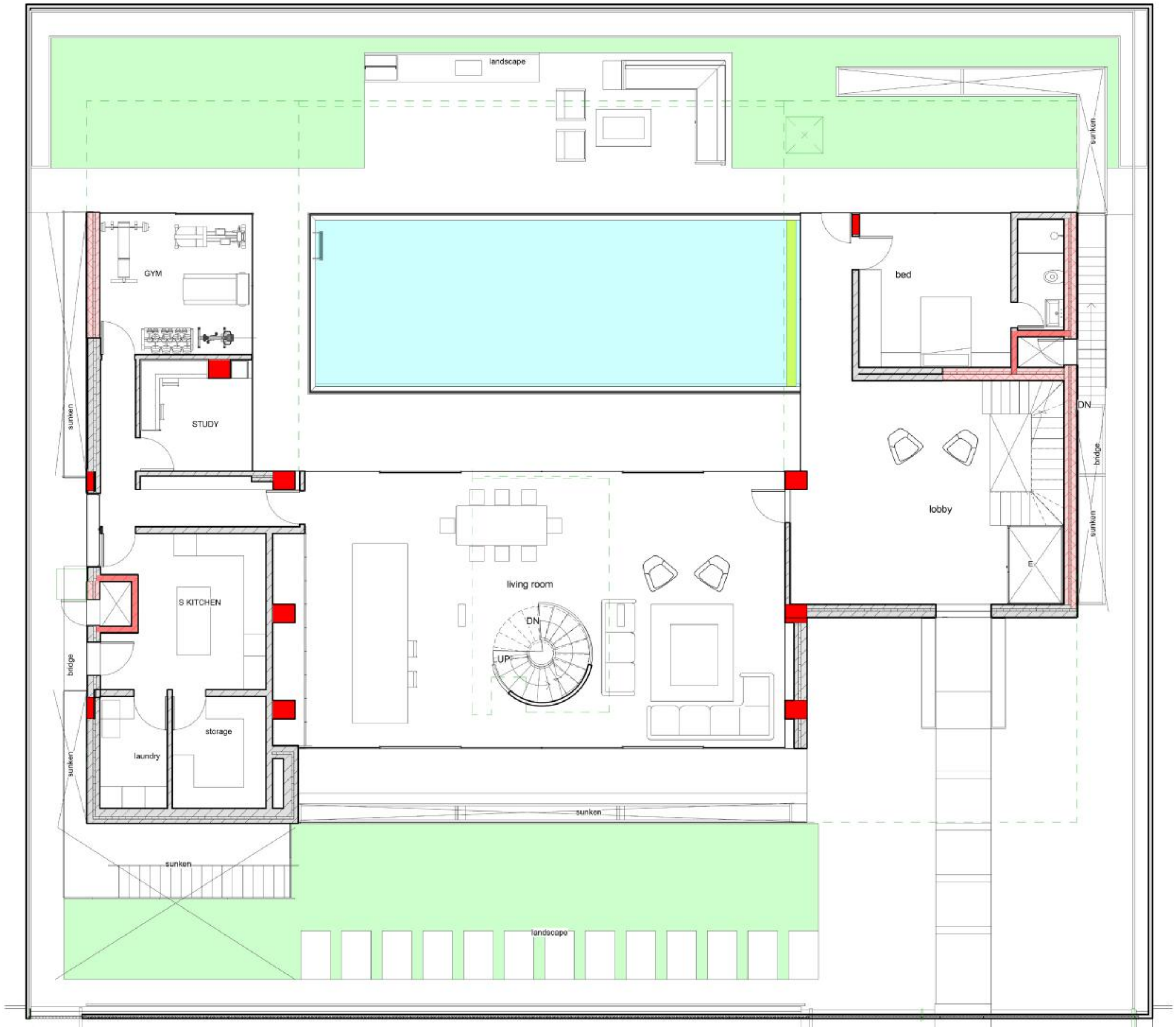
Typology: House

Year: 2021

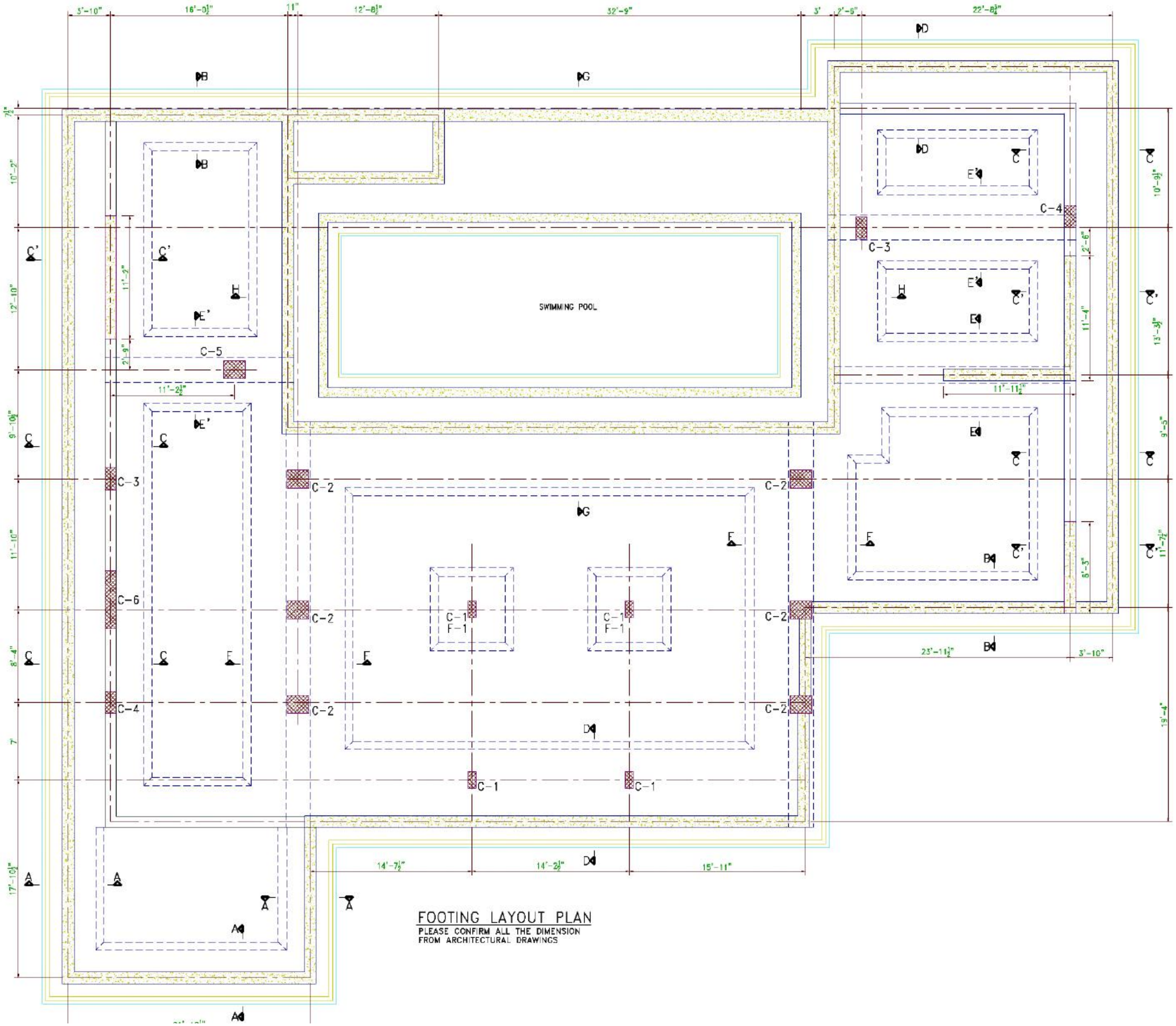
This innovative architectural project in Ghana utilizes bamboo, a locally abundant material, inspired by the Baobab tree's branching design. Incorporating traditional techniques such as wood shutters, cob walls, and earth bricks, the structures blend natural materials for both cultural resonance and structural integrity.

The interior design prioritizes natural light through strategically placed openings and wood shutters, creating a warm and inviting atmosphere. Additionally, the bamboo's unique branching design enhances the play of light and shadow. The project emphasizes eco-friendly practices and local identity, integrating natural ventilation for a sustainable and comfortable living environment.

Architecture And Structure Drawing

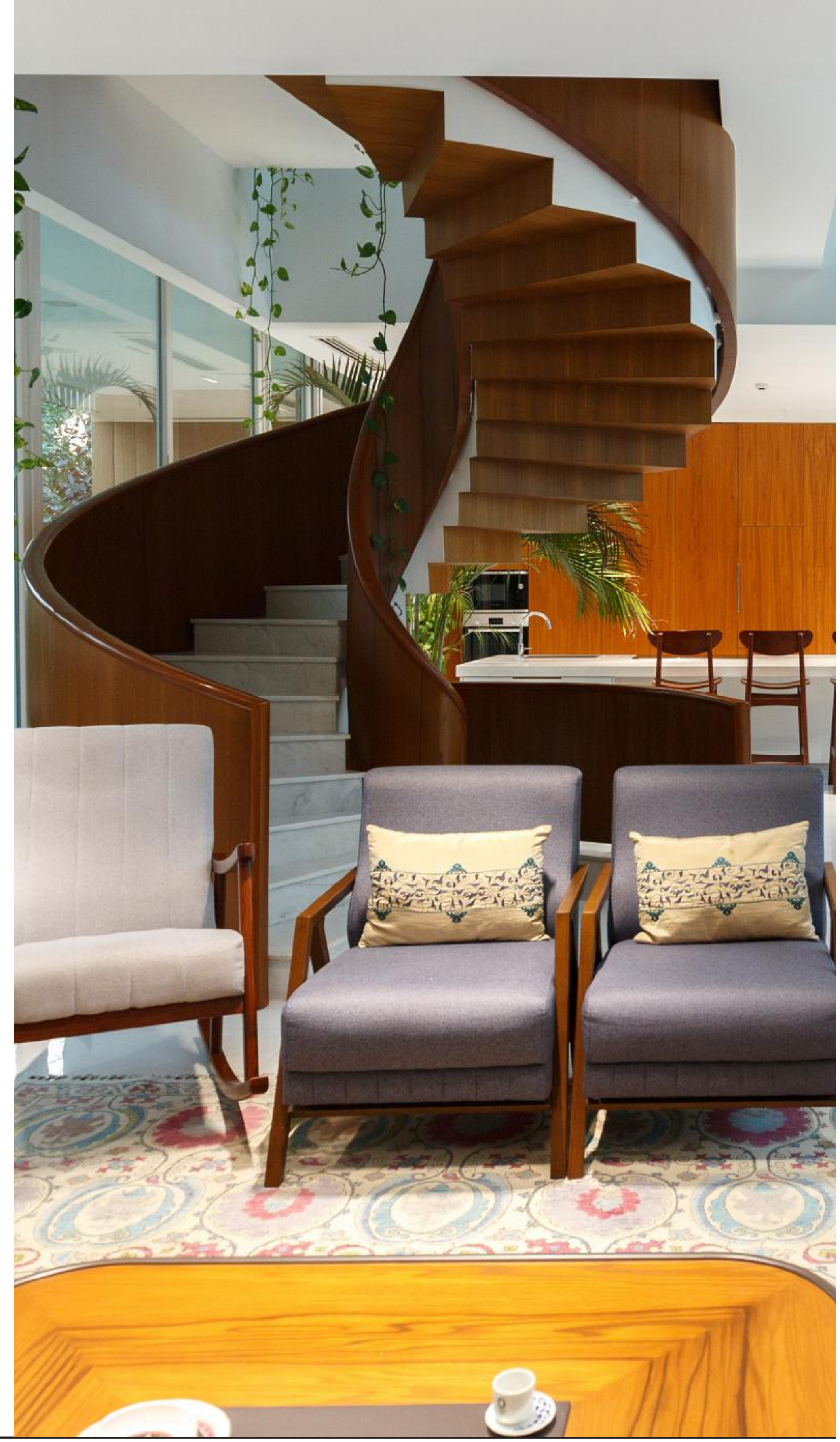


Architecture Plan



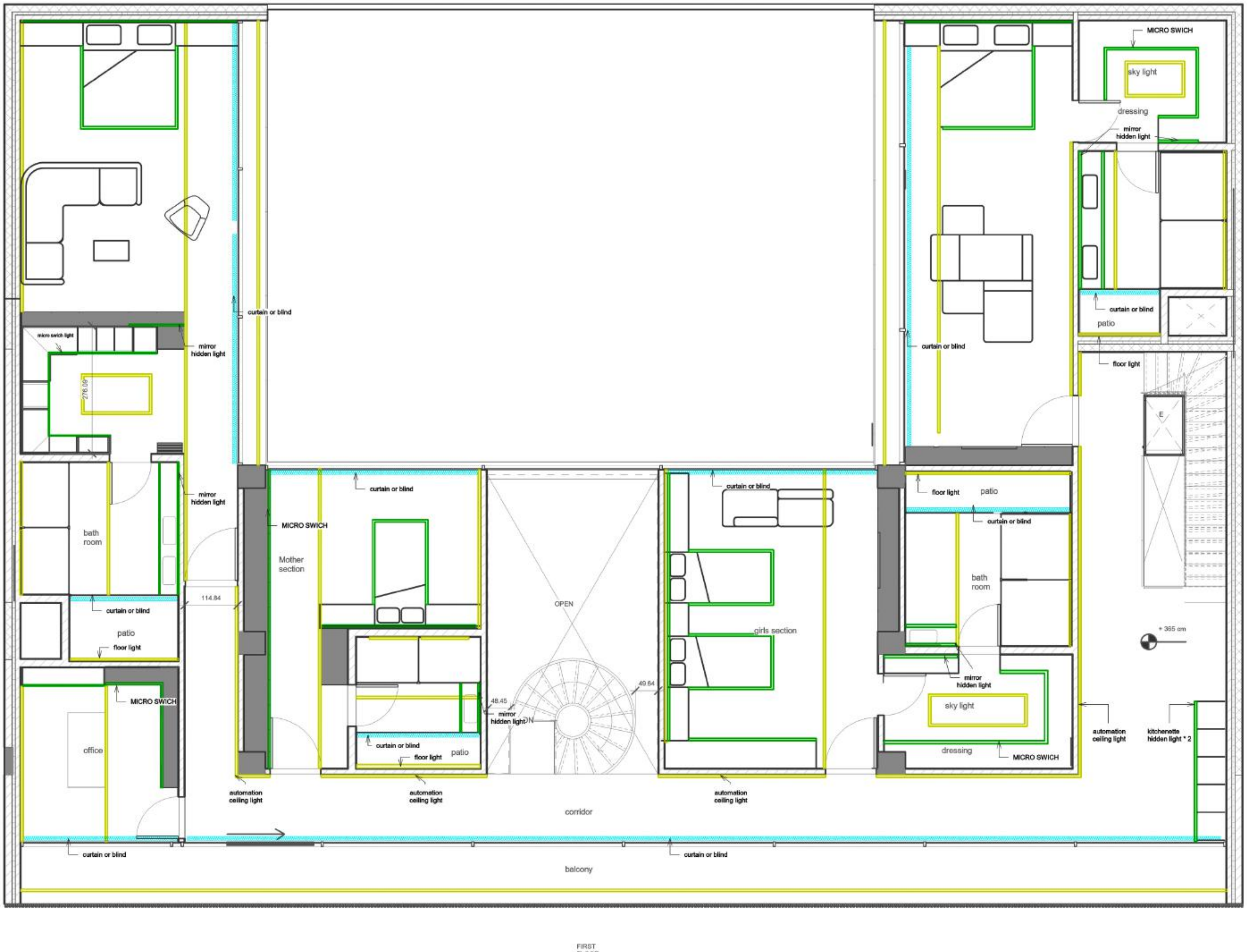
Structure Plan


FUJIHD

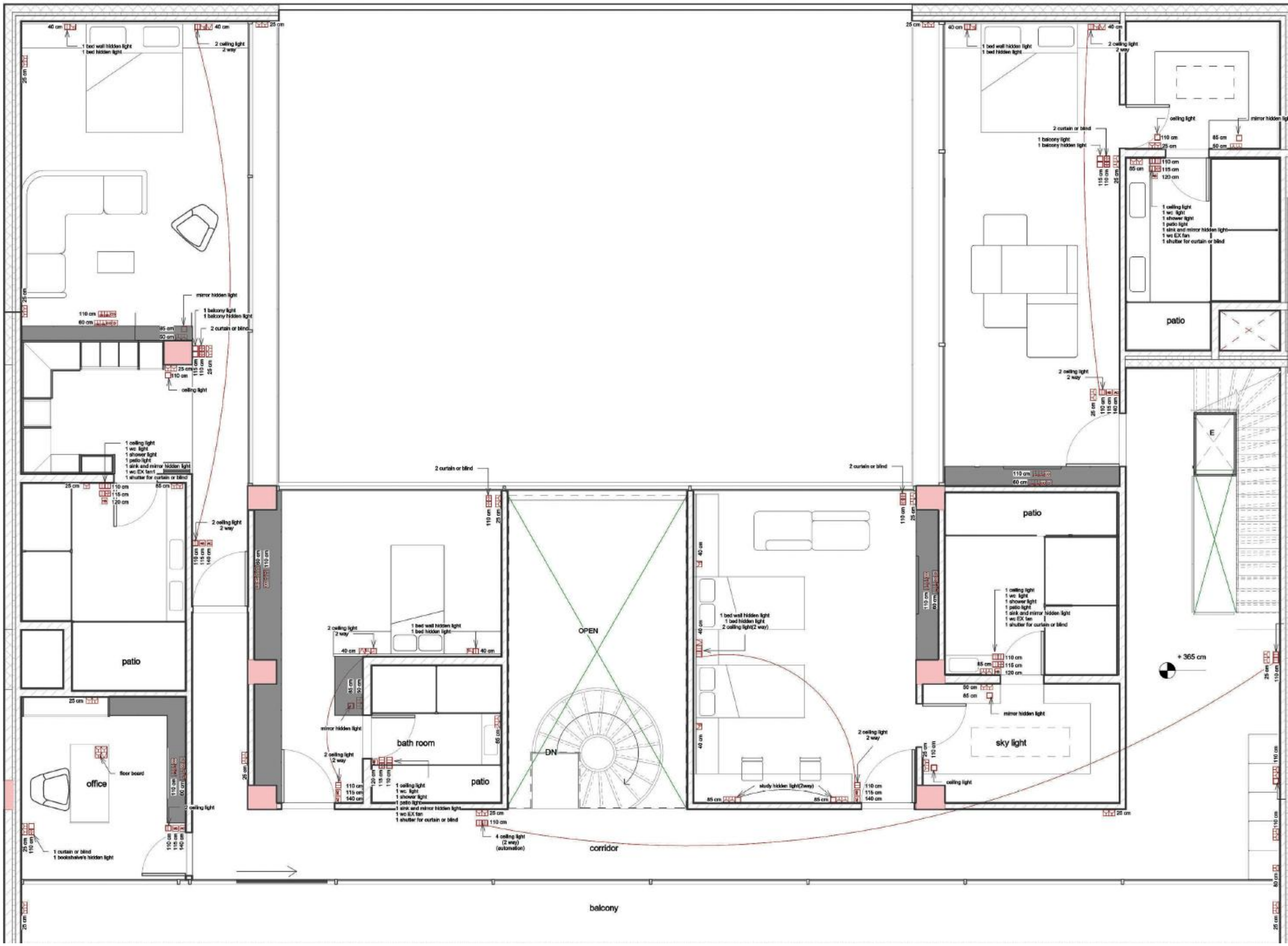



FUJIHD
FUJIHD

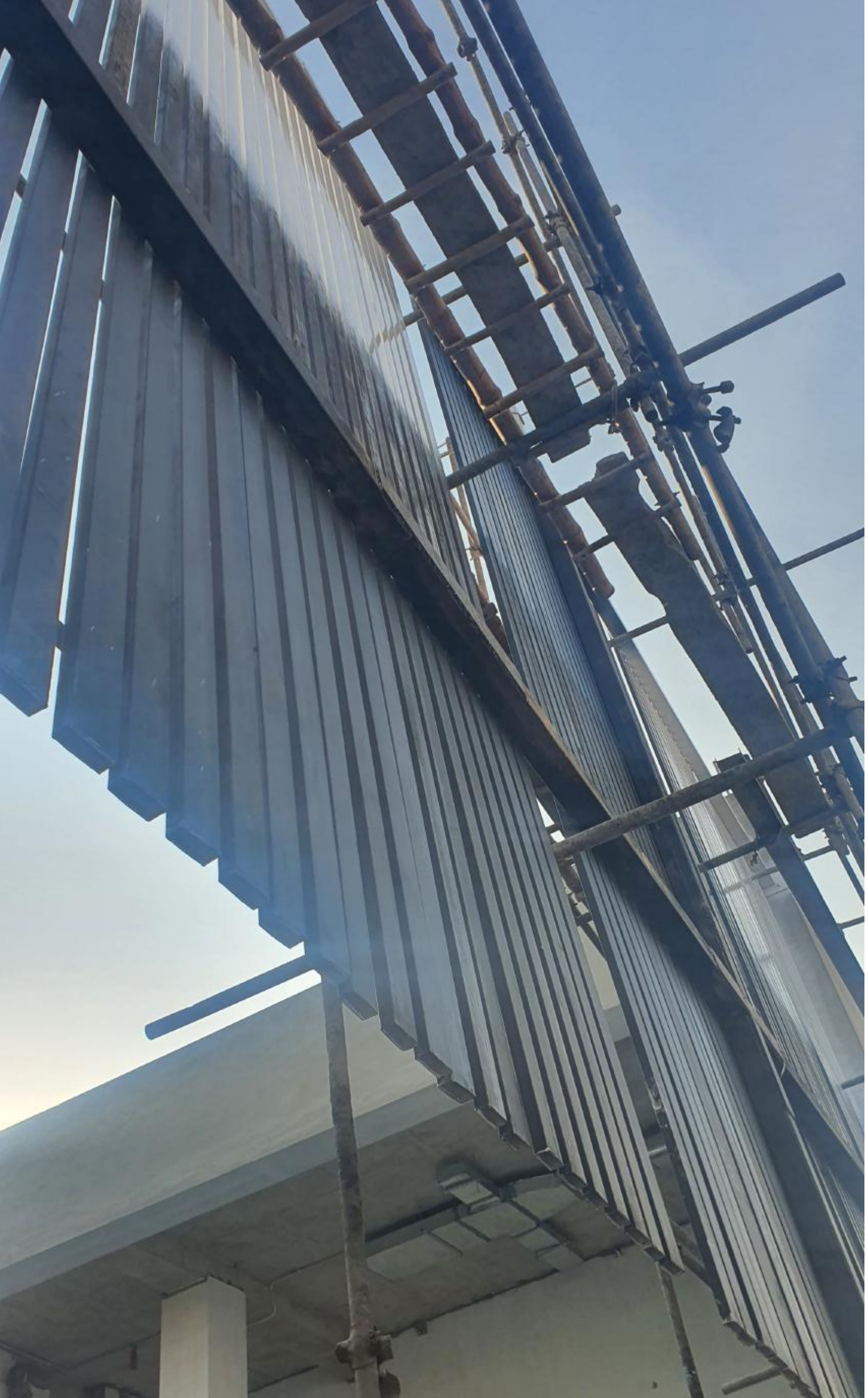
MEP Drawing

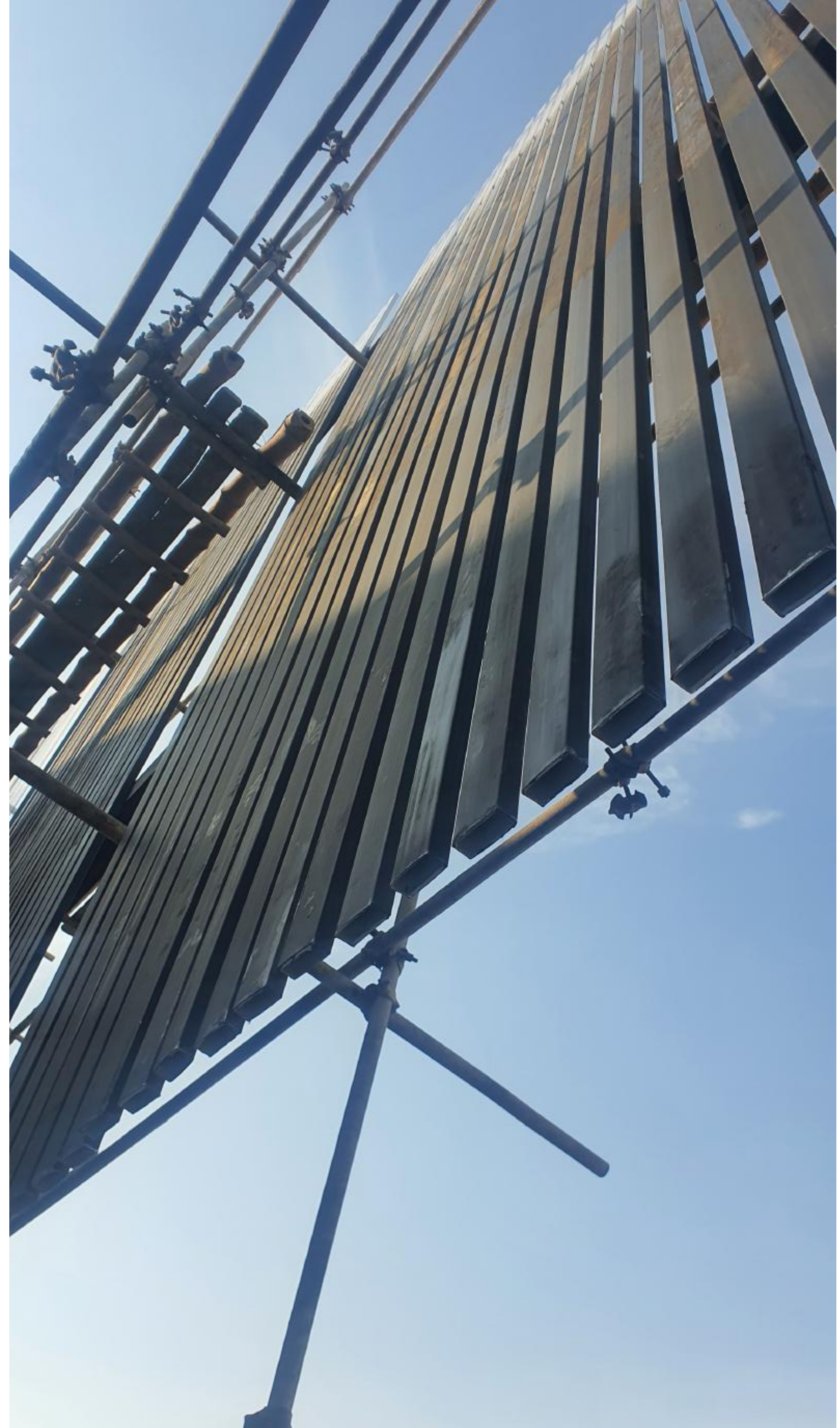


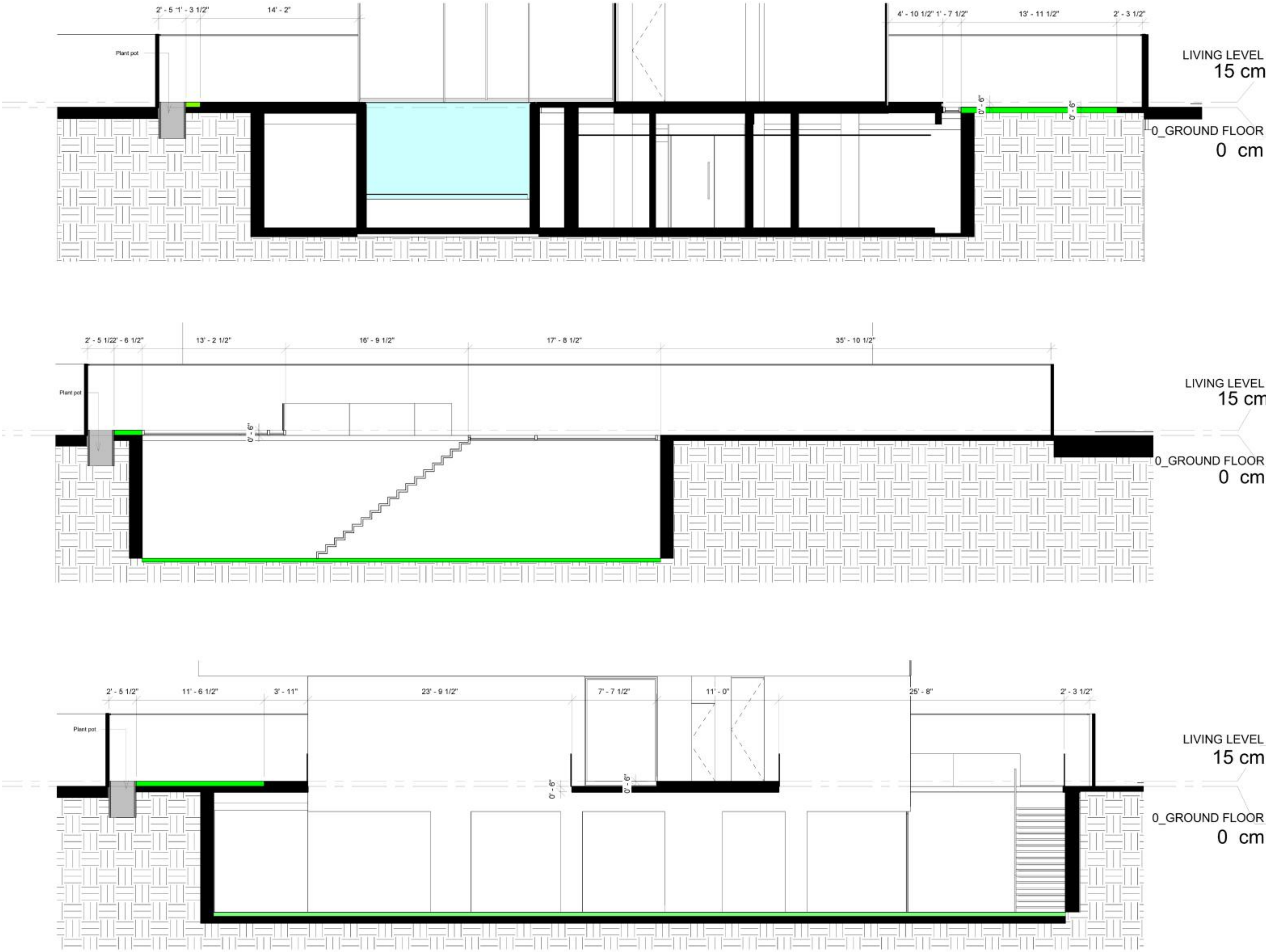
Lighting Plan



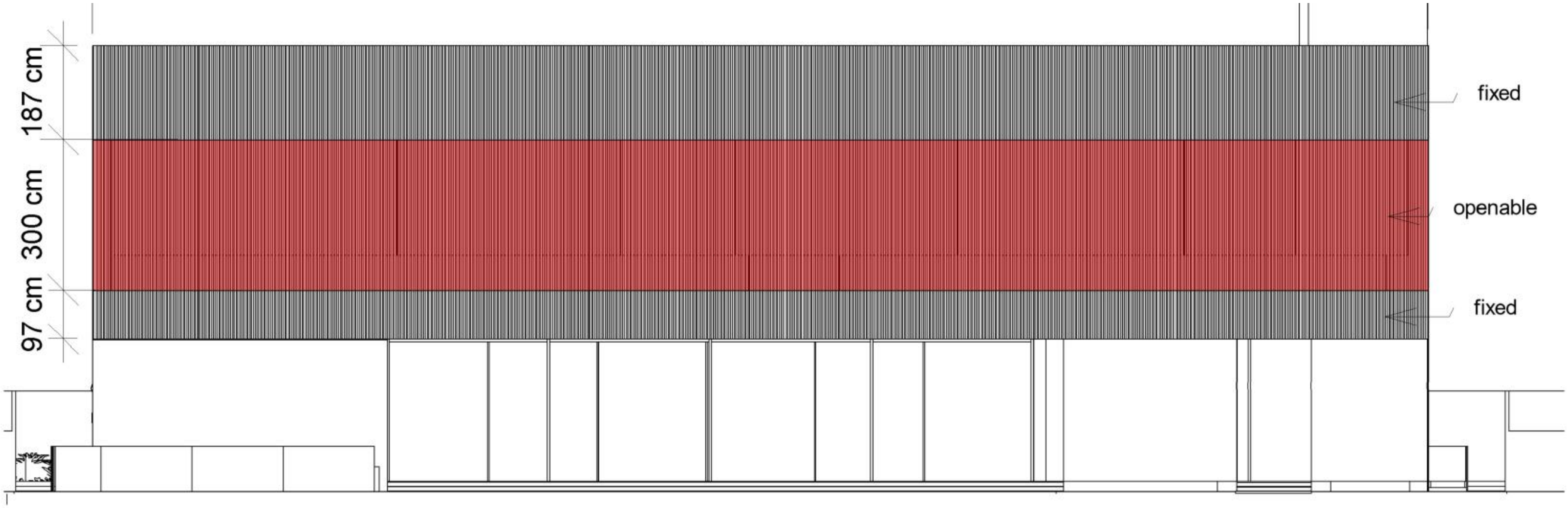
Electric Plan

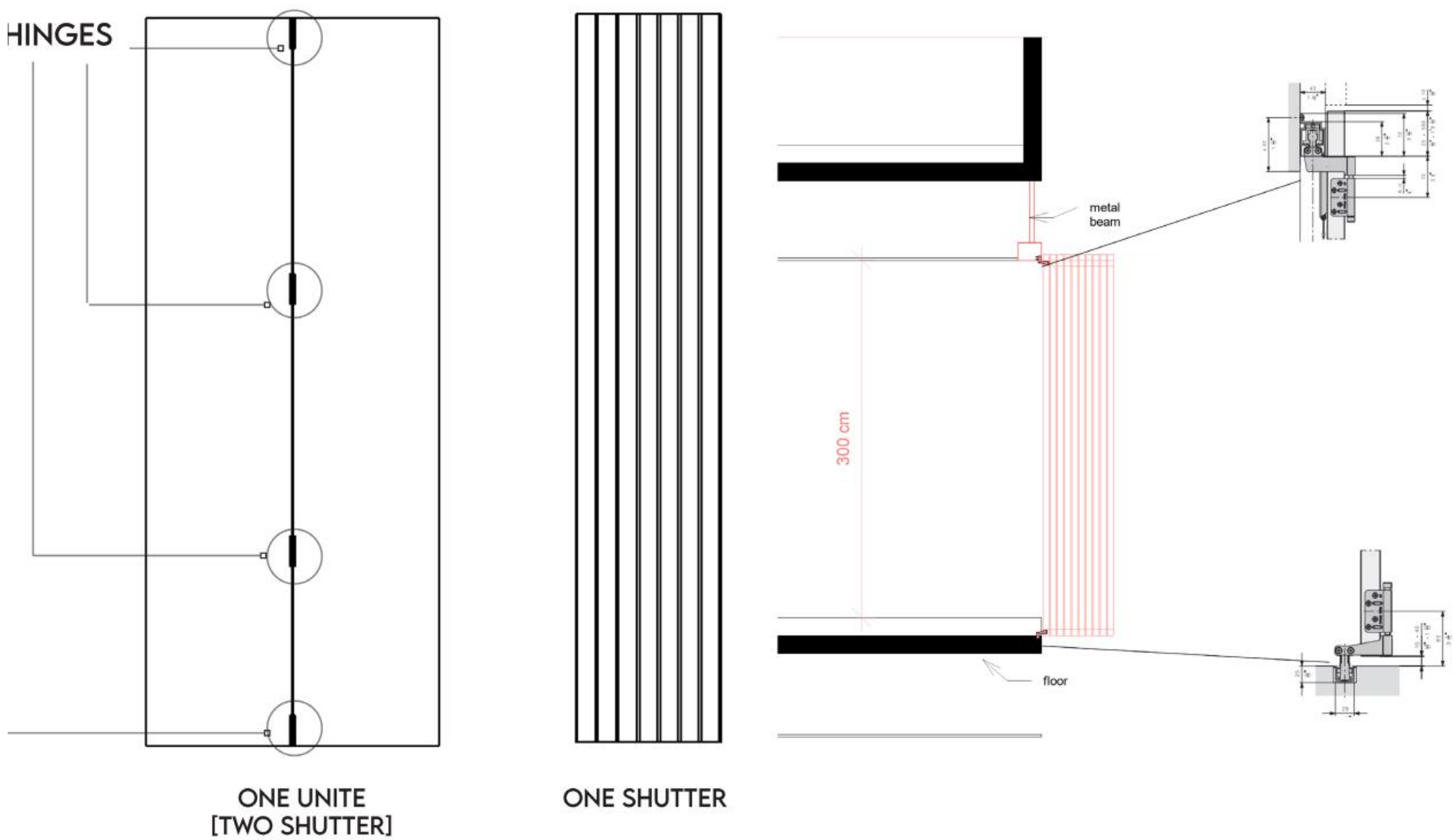






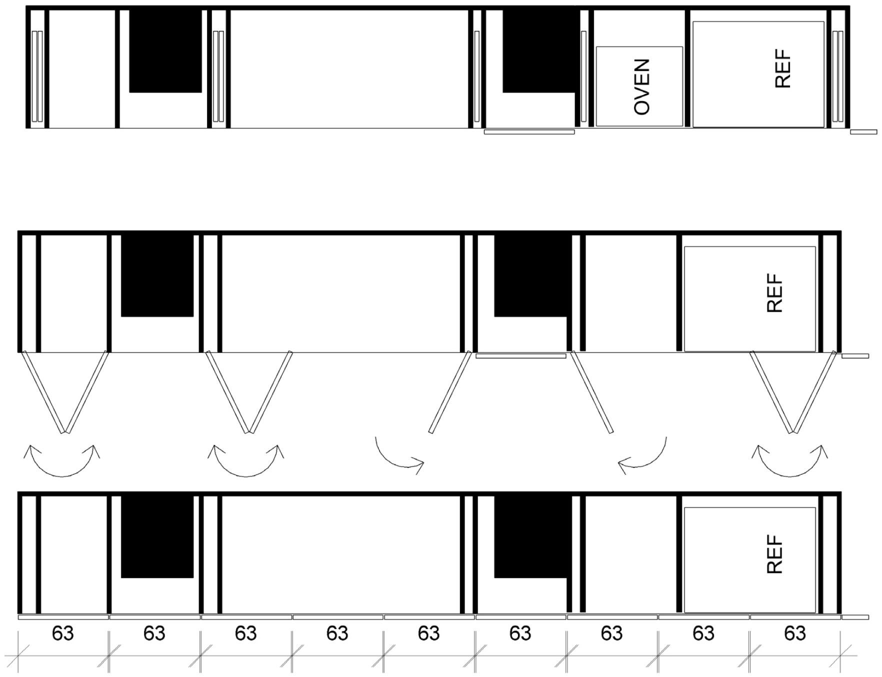
Landscape Sections

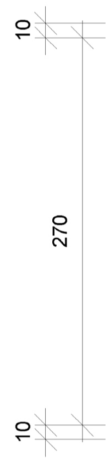


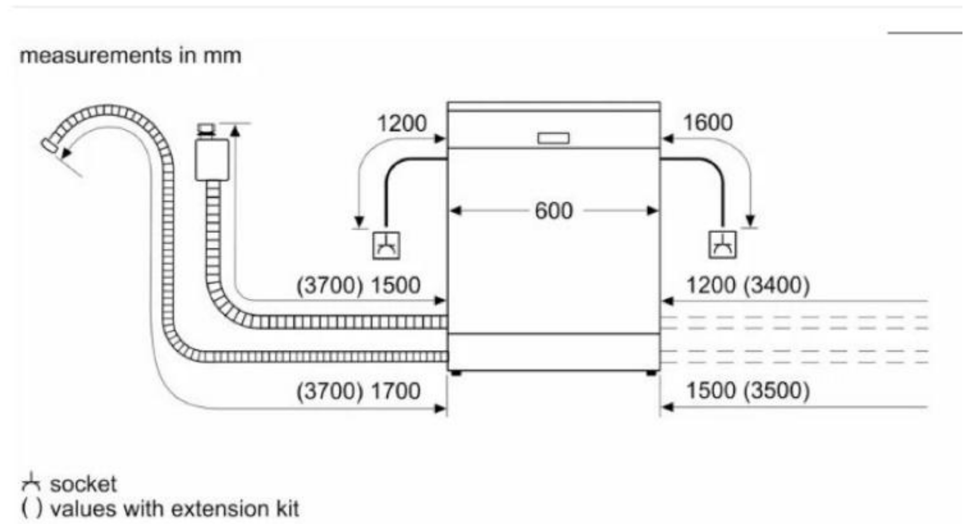


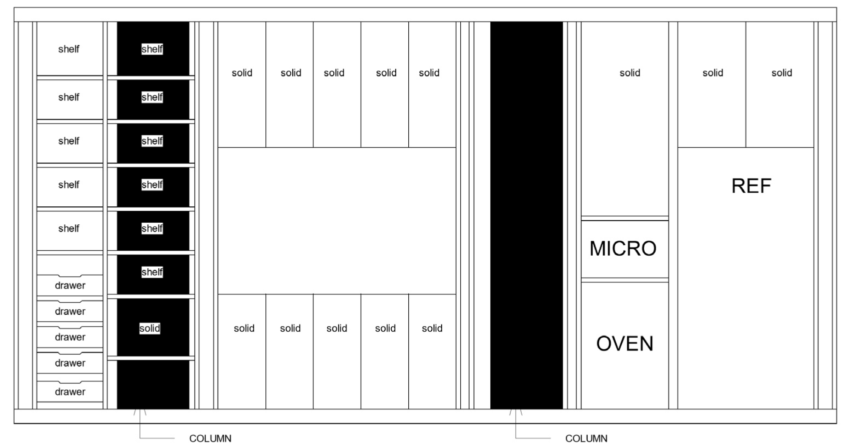
Louver Drawing

Interior And Furniture Drawing

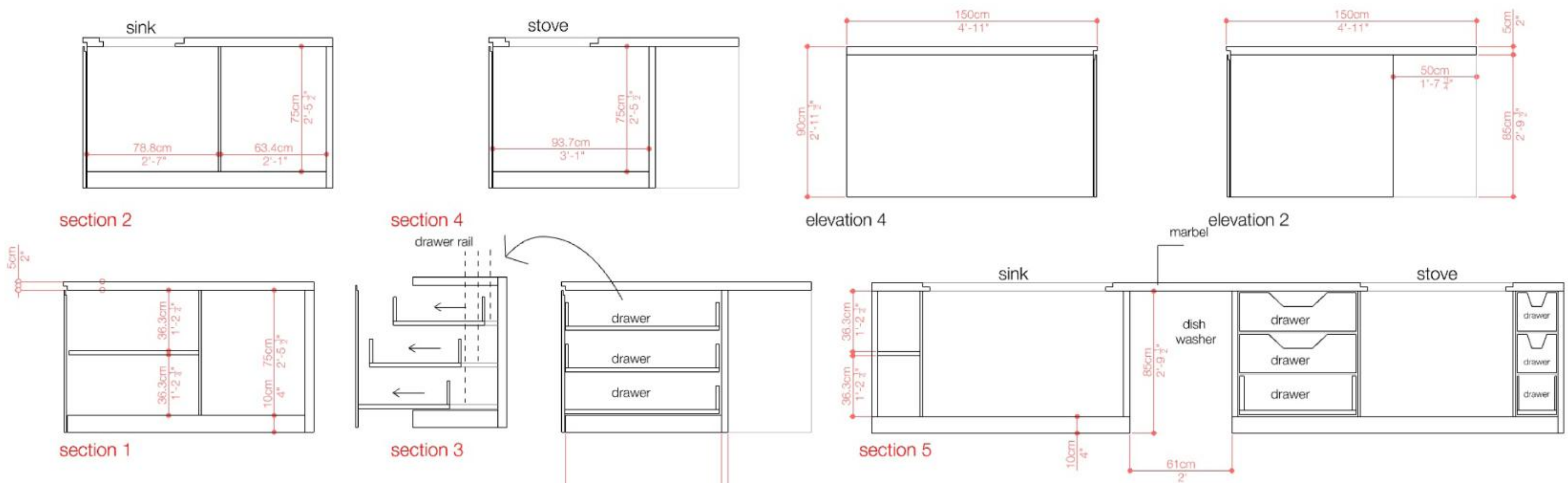








QUANTITY	HIGHT	WIDTH	WEIGHT
9	270	63	25—50 kg



H House

Lahore , Pakistan

Responsibility: Turnkey

Client: Mr Haroon

Size: 40.46m²/ 43,560sqf

Status: Under Construction

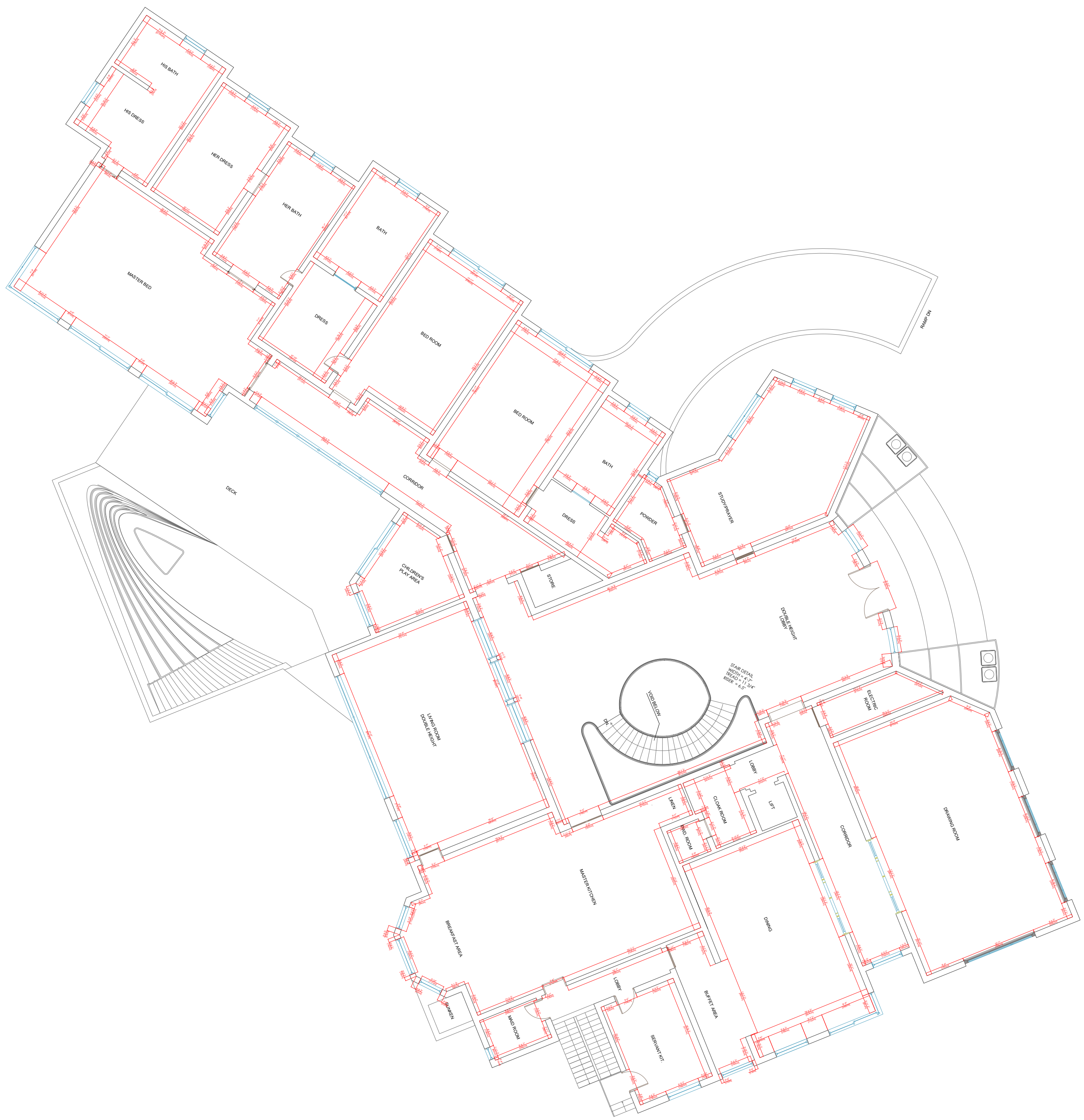
Typology: House

Year: 2024

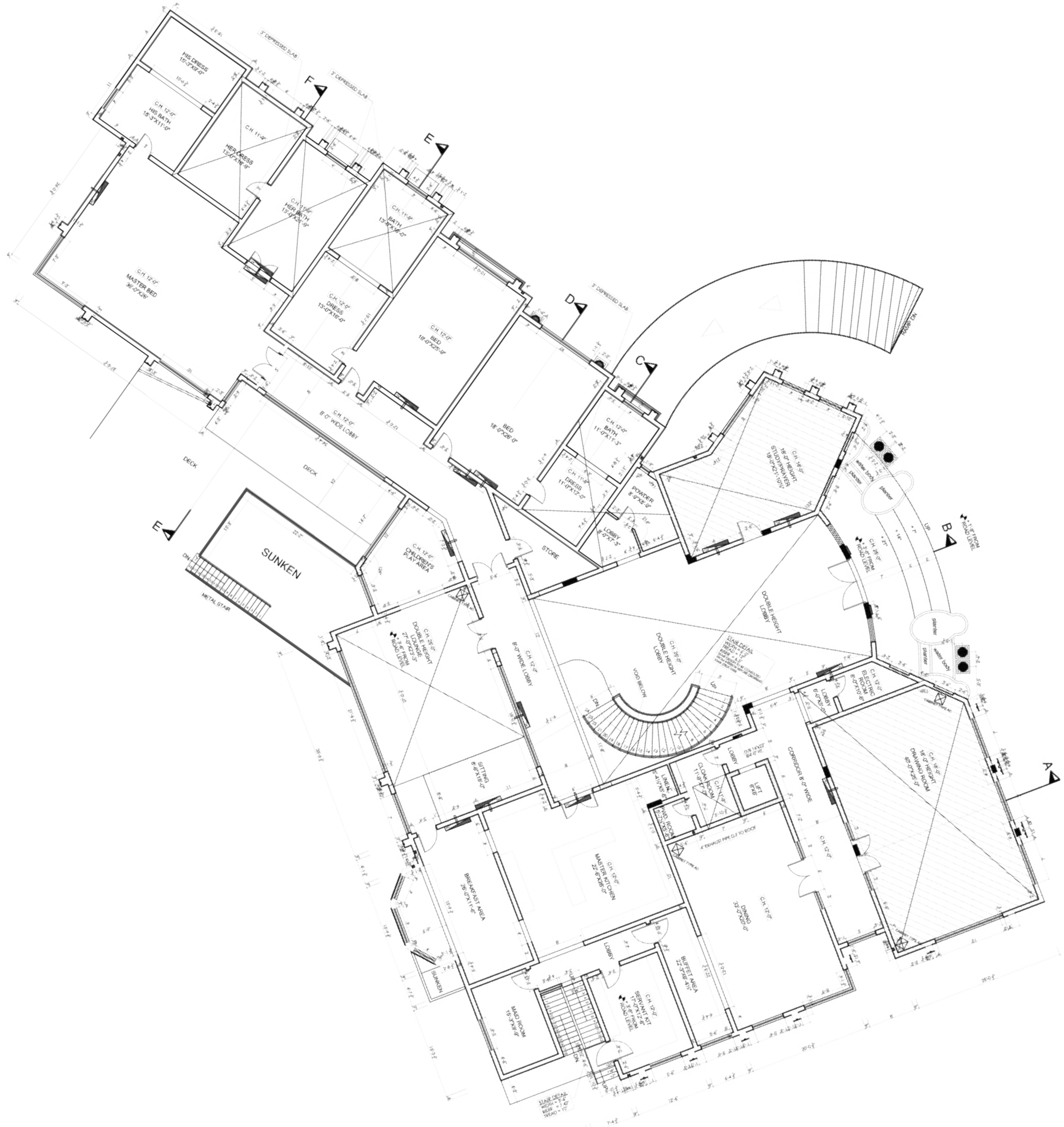
This innovative architectural project in Ghana utilizes bamboo, a locally abundant material, inspired by the Baobab tree's branching design. Incorporating traditional techniques such as wood shutters, cob walls, and earth bricks, the structures blend natural materials for both cultural resonance and structural integrity.

The interior design prioritizes natural light through strategically placed openings and wood shutters, creating a warm and inviting atmosphere. Additionally, the bamboo's unique branching design enhances the play of light and shadow. The project emphasizes eco-friendly practices and local identity, integrating natural ventilation for a sustainable and comfortable living environment.

Architecture And Structure Drawing

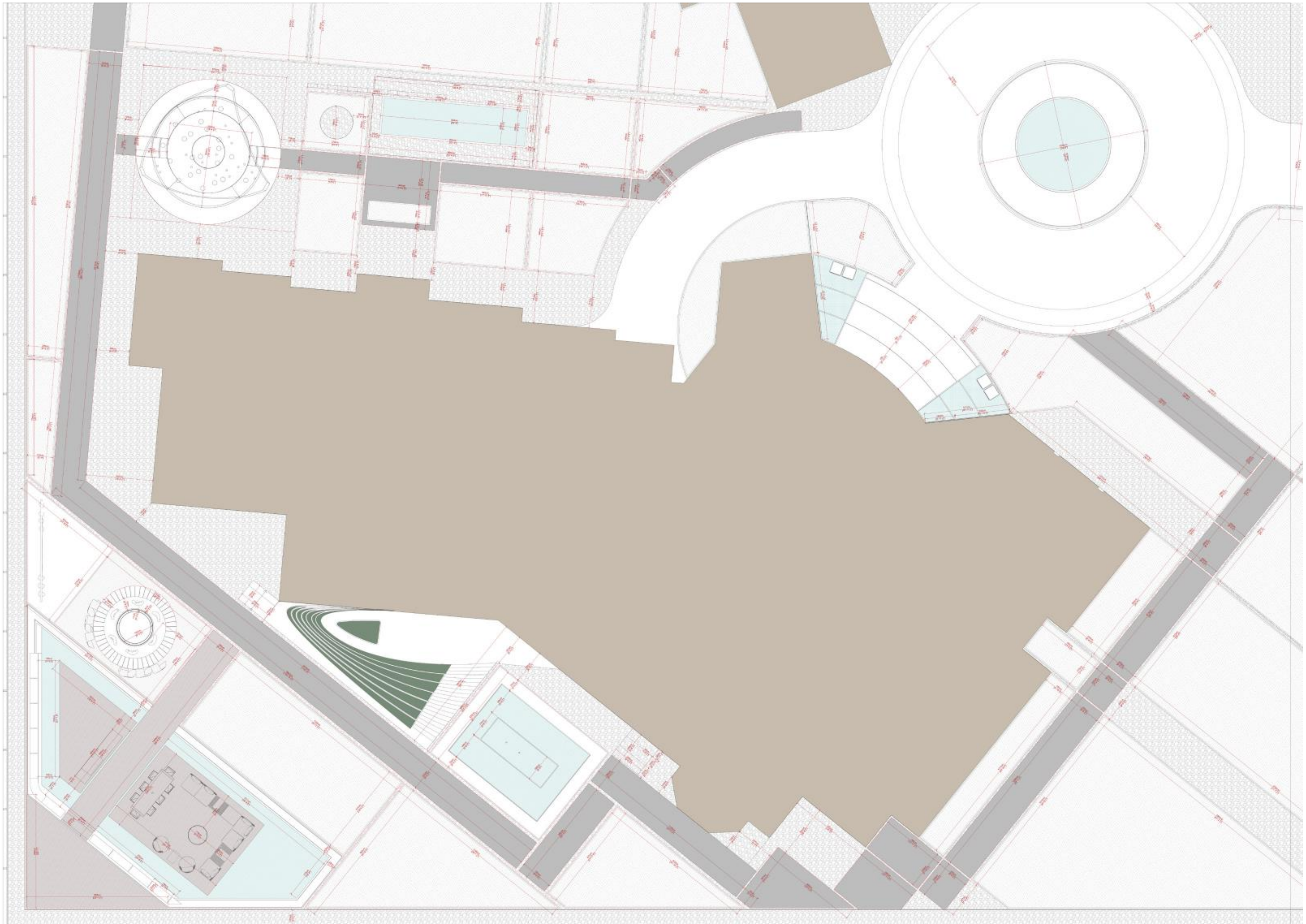


Architecture Plan

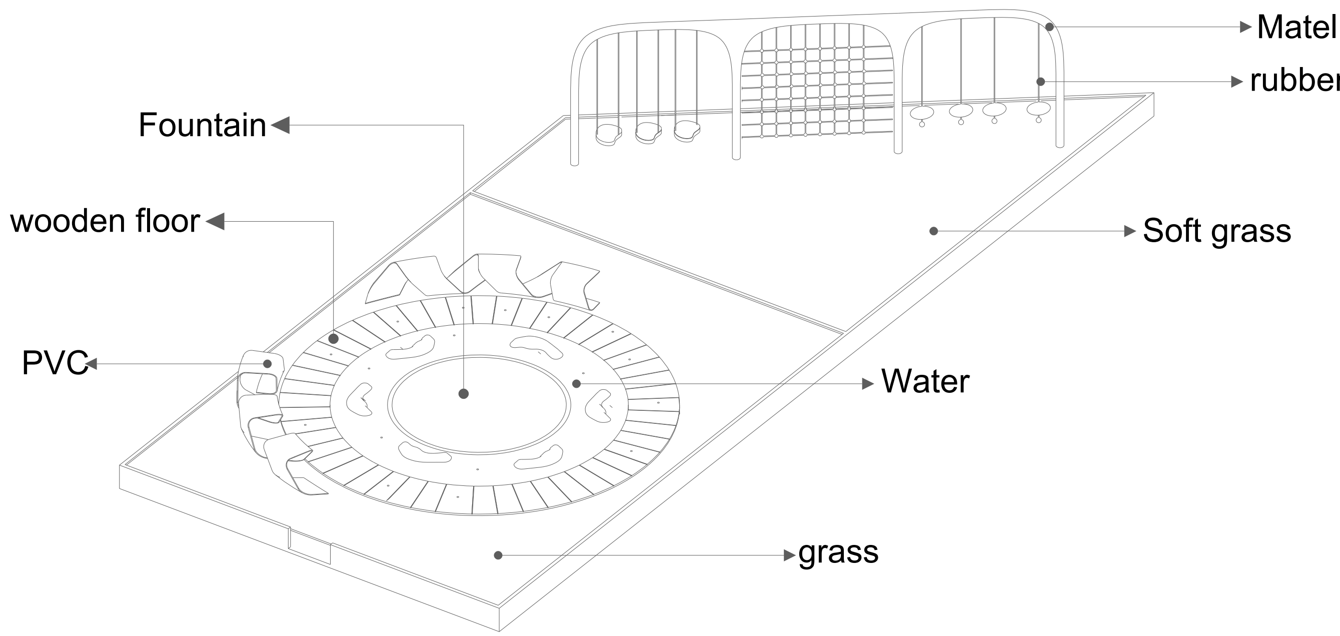


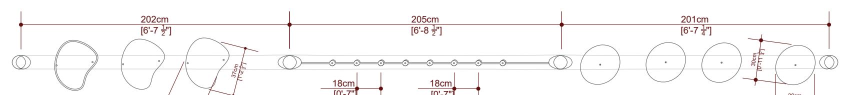
Structural Plan

Landscape Desing

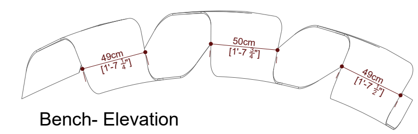


Kids Play Area

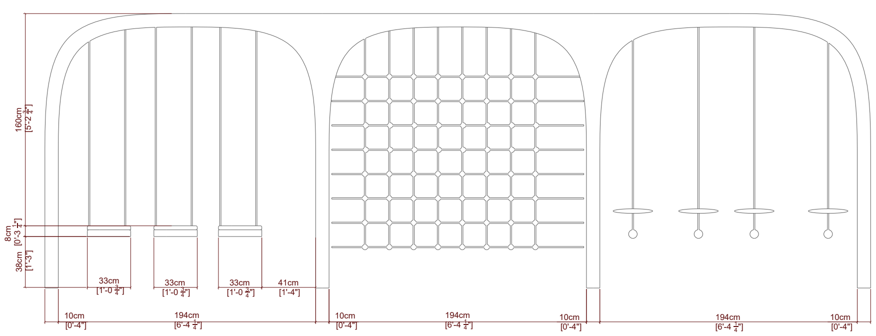




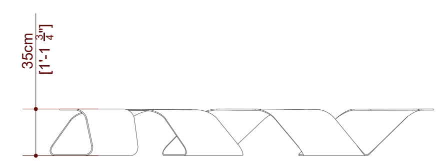
Swing- Plan



Bench- Elevation

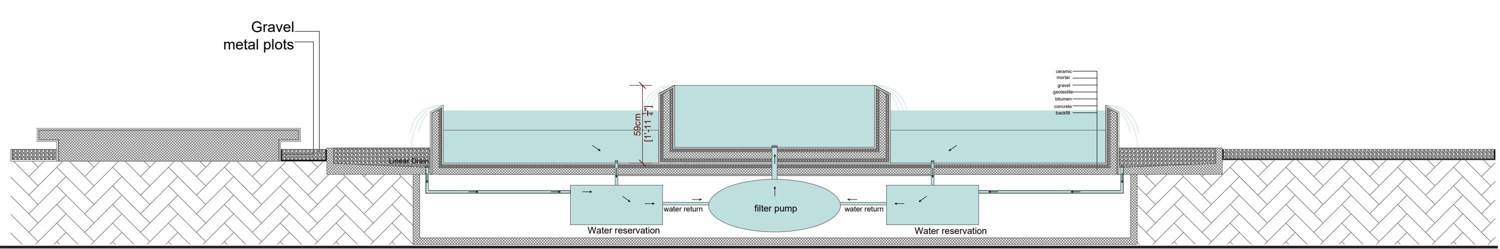


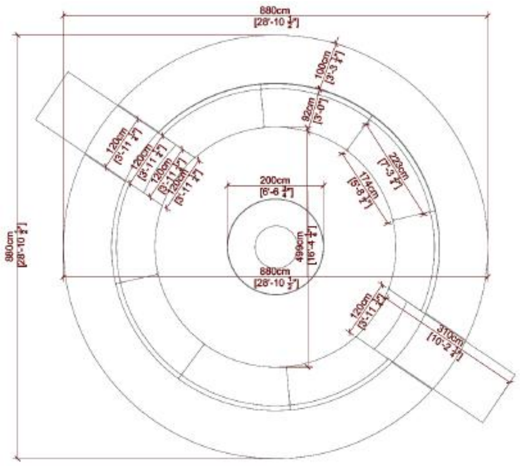
Swing- Elevation

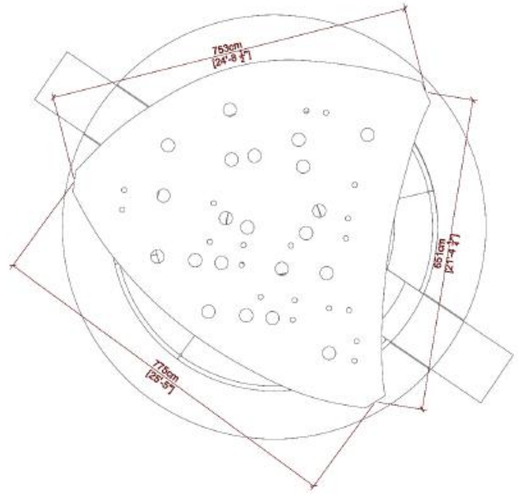


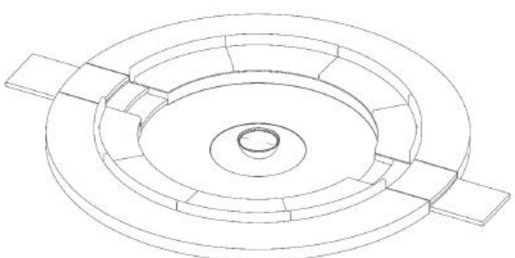
Bench- Elevation

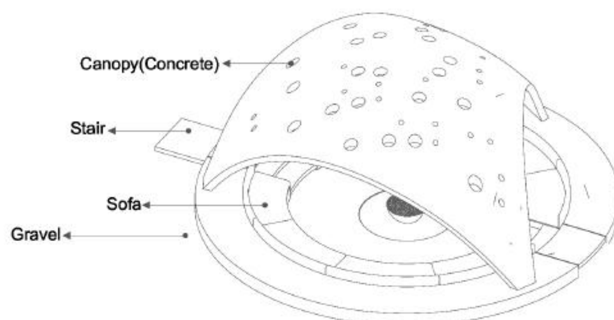
Fountain Details

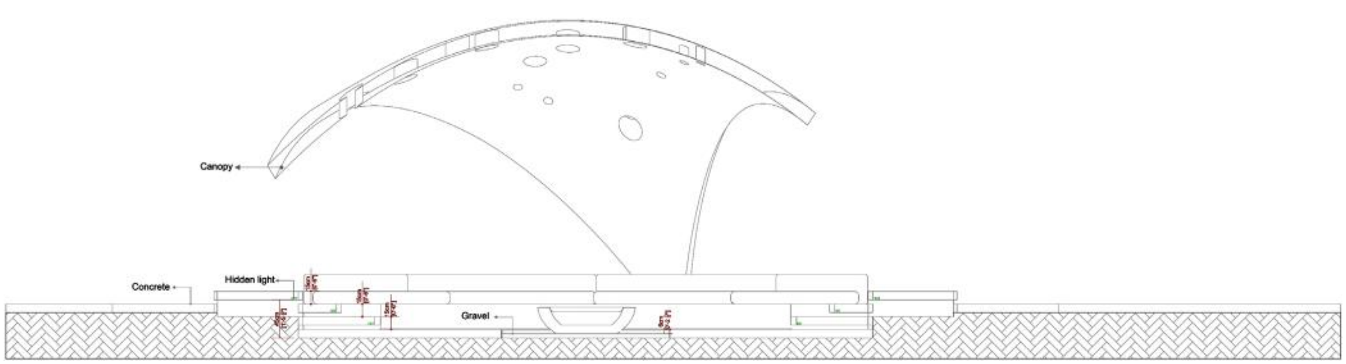


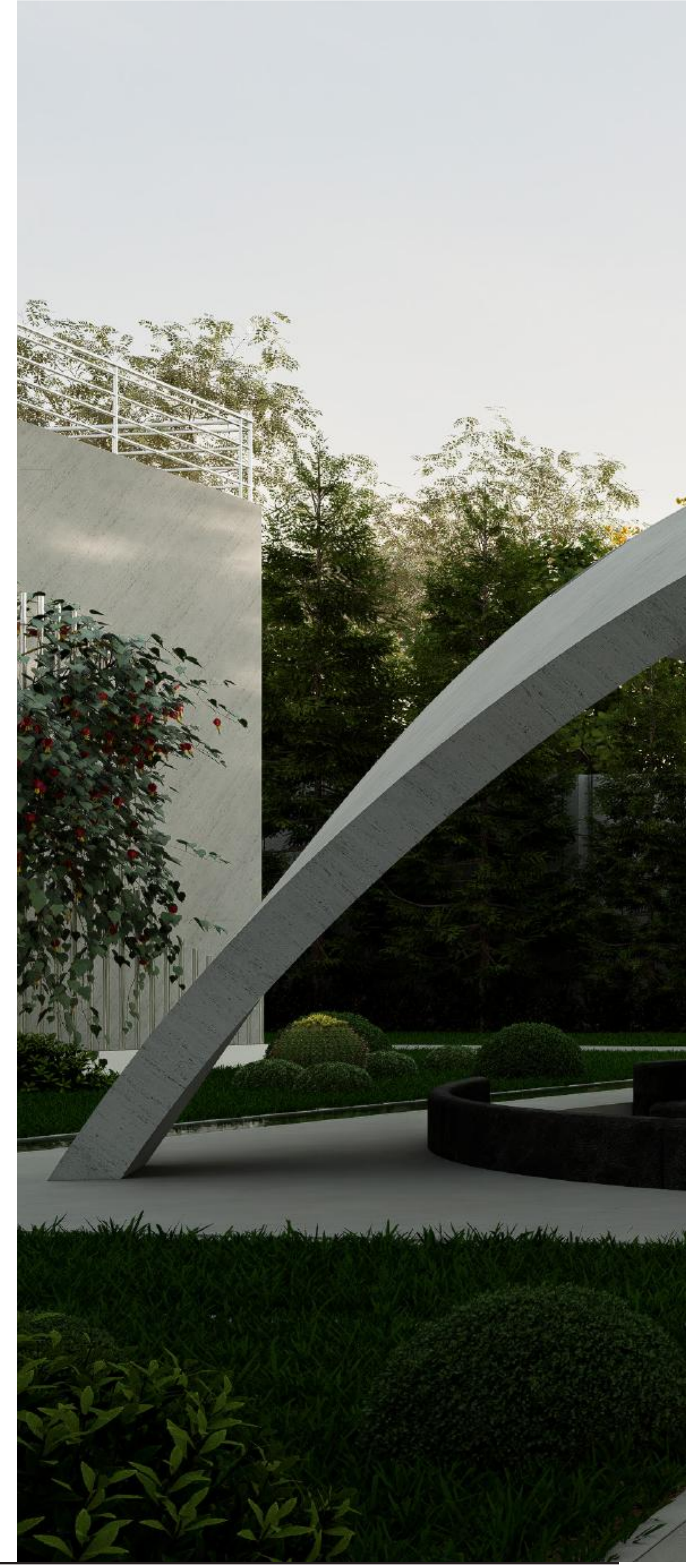




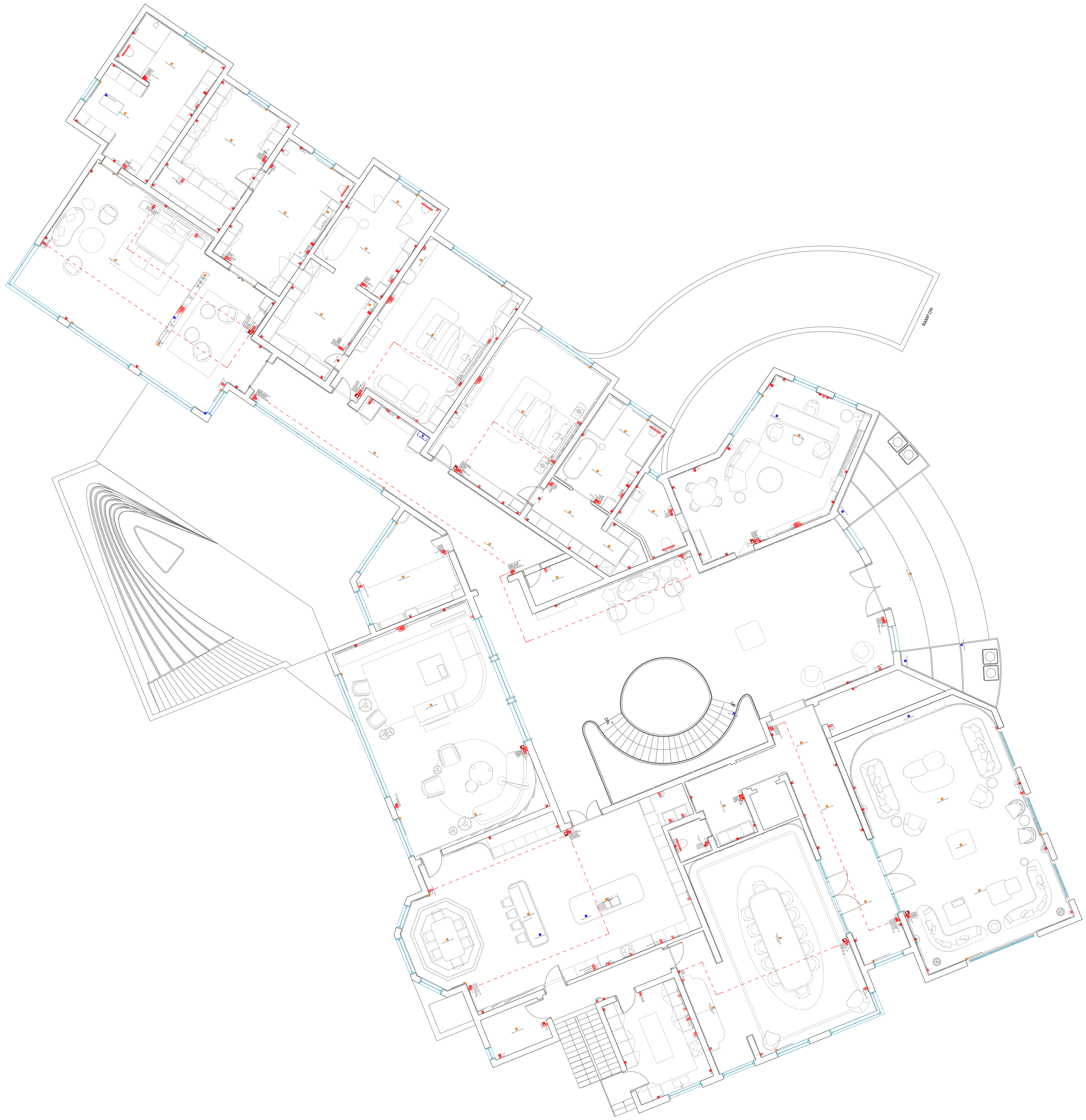



Canopy(Concrete)
Stair
Sofa
Gravel

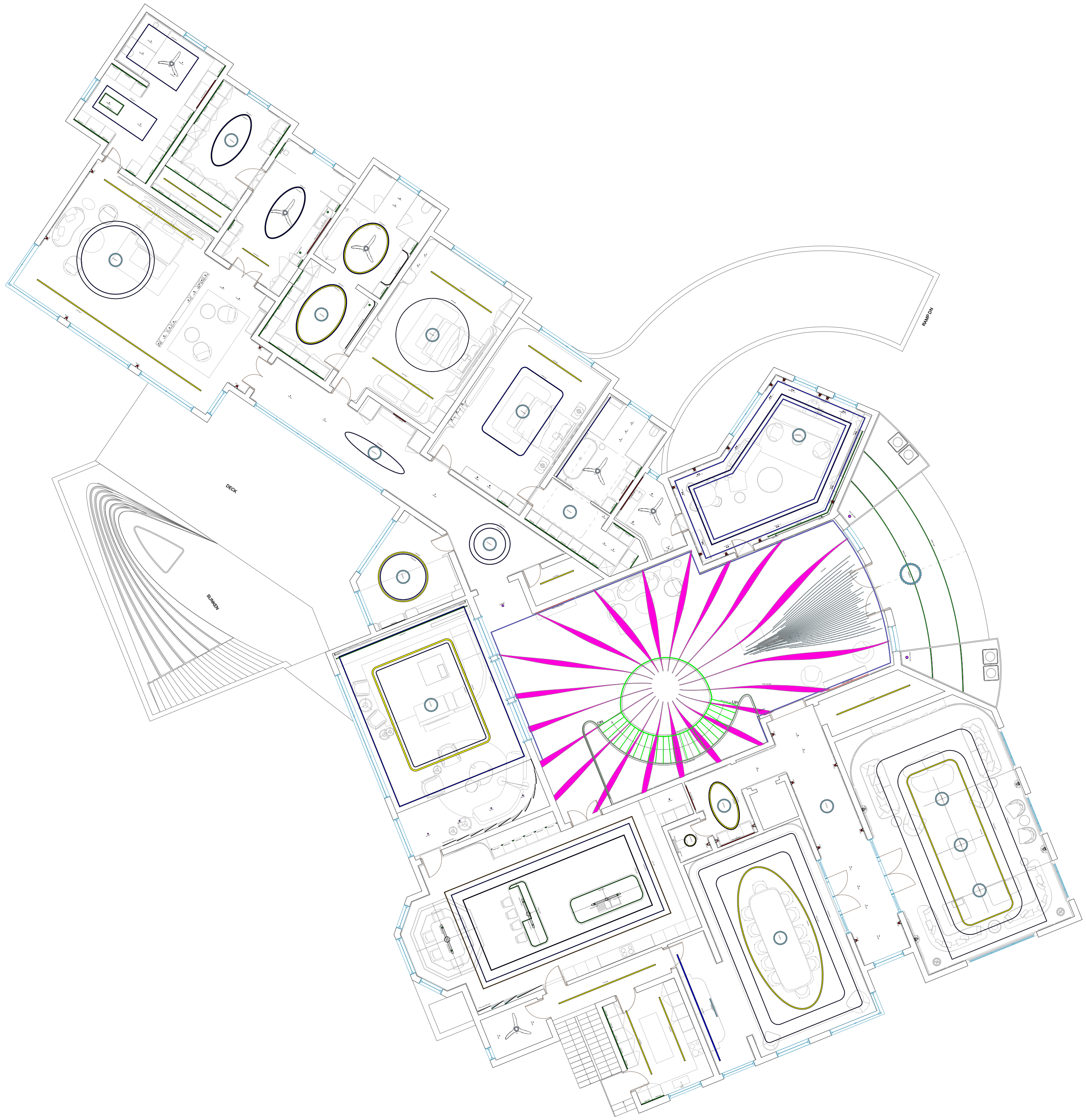

Canopy
Concrete
Hidden light
Gravel



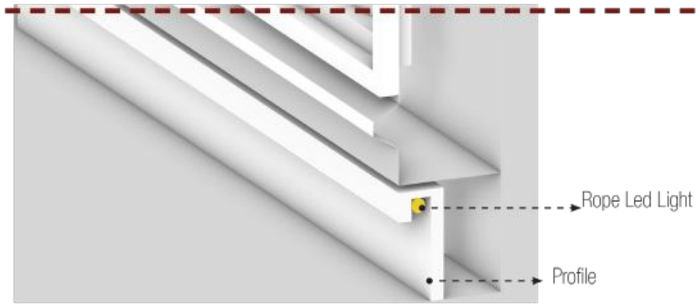
MEP Drawings



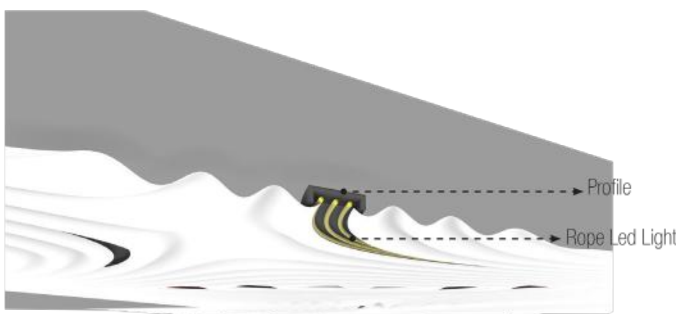
Electric Plan



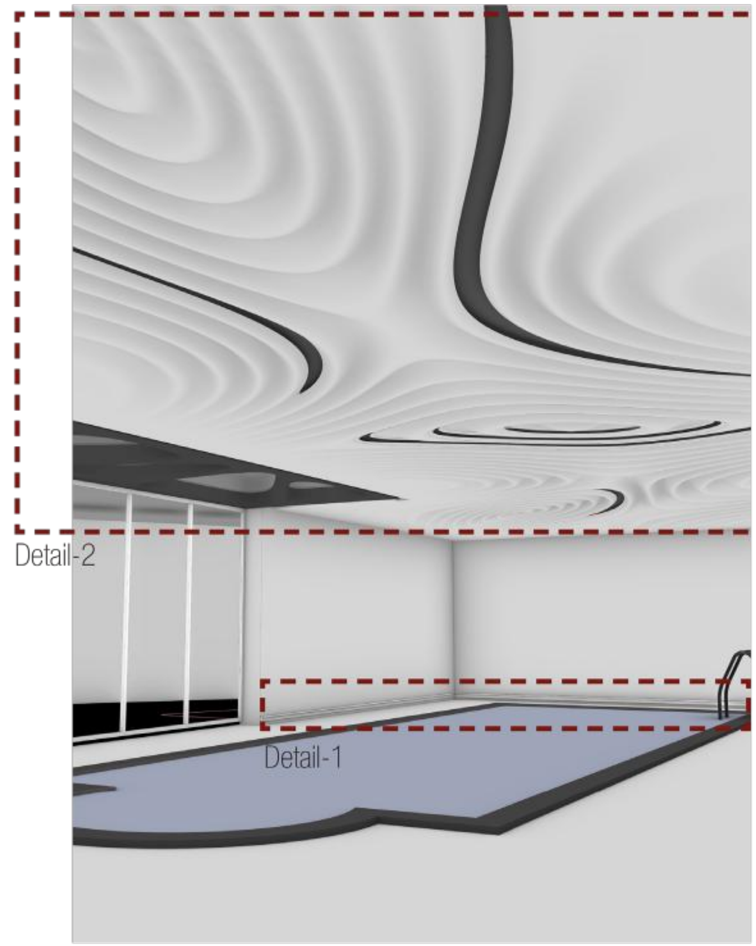
Lighting Plan



Detail-1_sill_Hidden Light

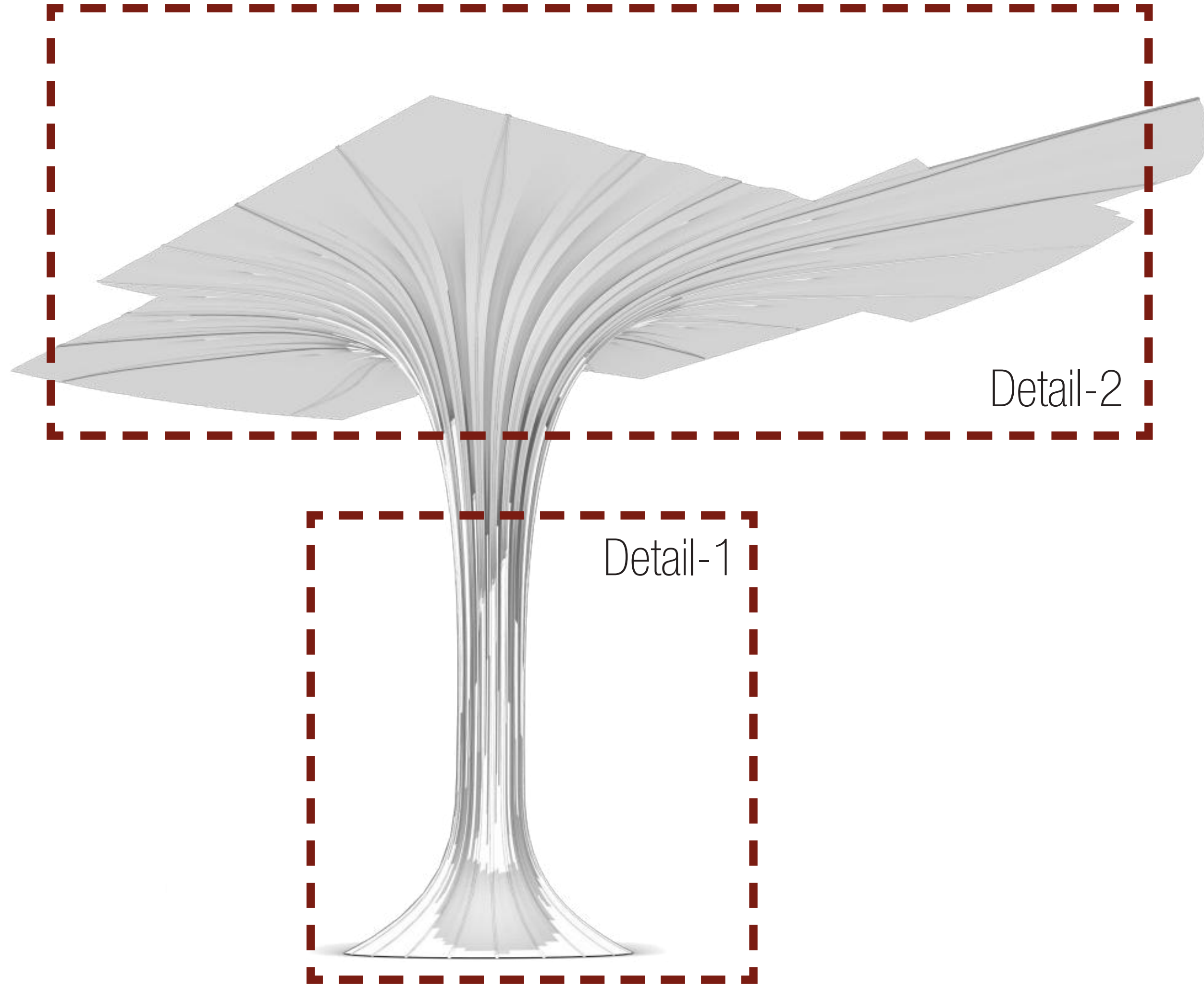


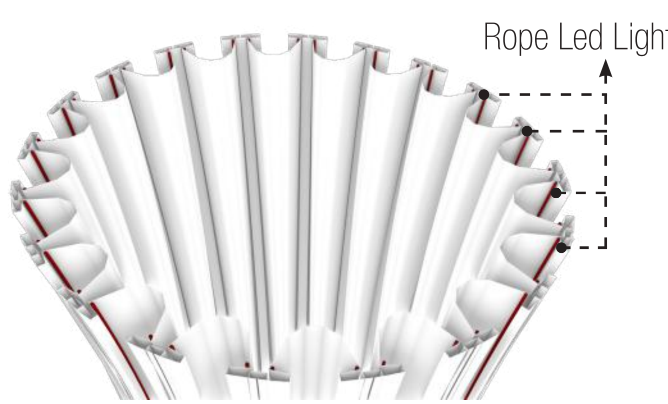
Detail-2_Lobby Ceiling_linear Sky Light



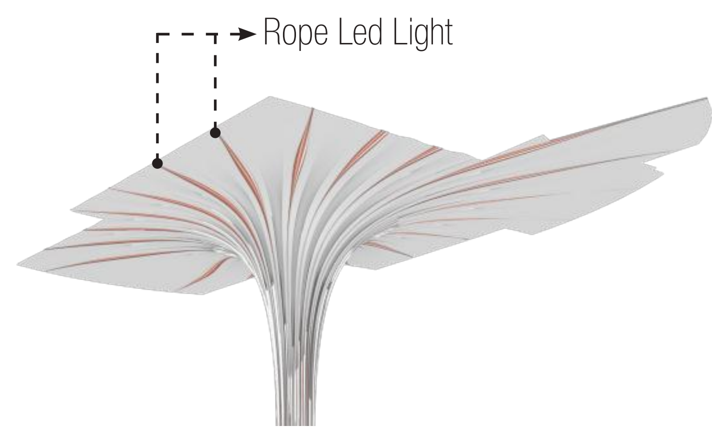
The interior design prioritizes natural light through strategically placed openings and wood shutters, creating a warm and inviting atmosphere. Additionally, the bamboo's unique branching design enhances the play of light and shadow. The project emphasizes eco-friendly practices and local identity, integrating natural ventilation for a sustainable and comfortable living environment.

Interior Desing

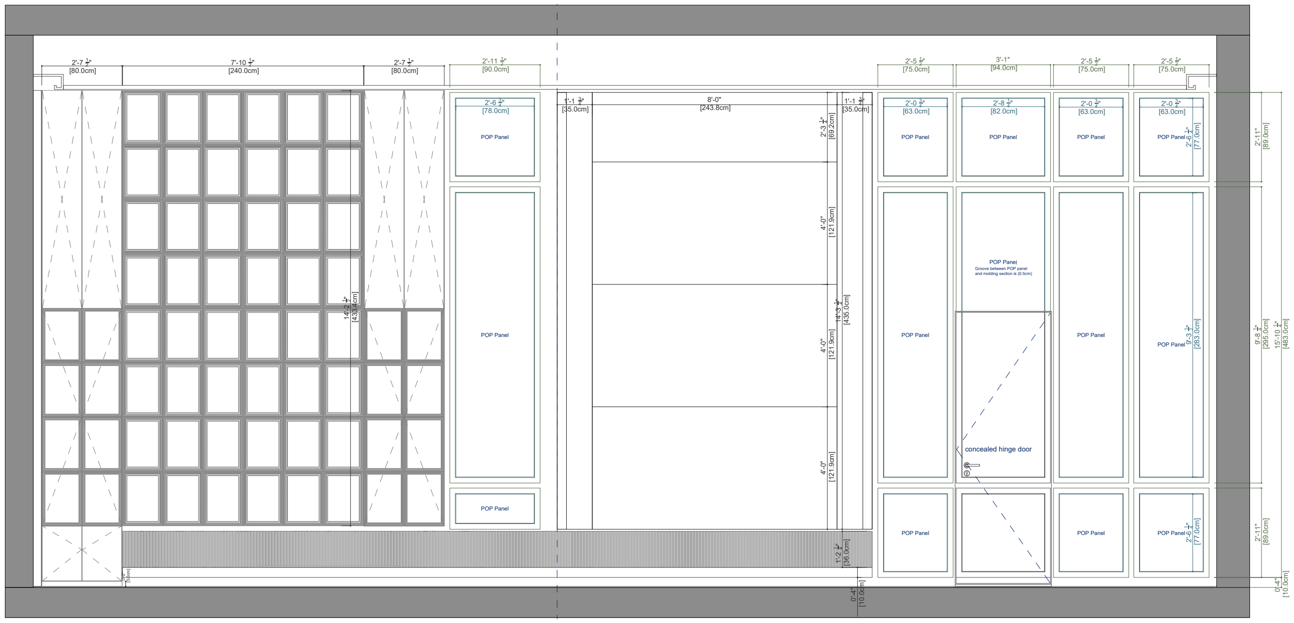


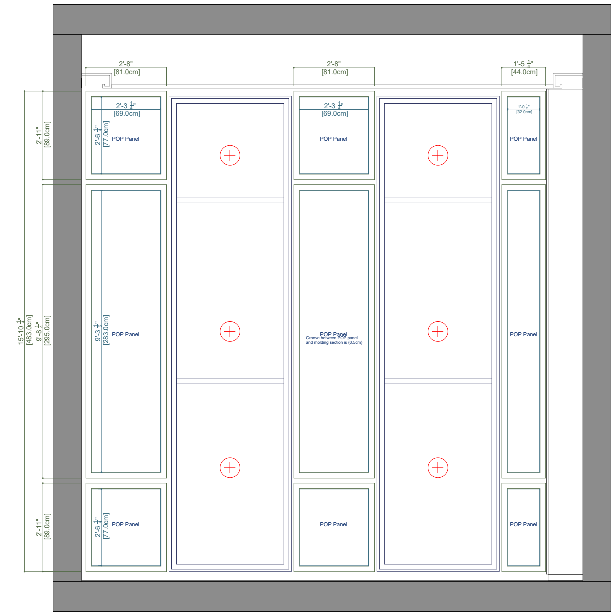


Detail-1:Column Hidden Light



Detail-2: Lobby Ceiling linear Sky Light


POP Panel
concealed hinge door


POP Panel

Farm House

Nathia Galik , Pakistan

Responsibility: Turnkey

Client: Mr Imran Khan

Size: $2000m^2$/ 2140sqf

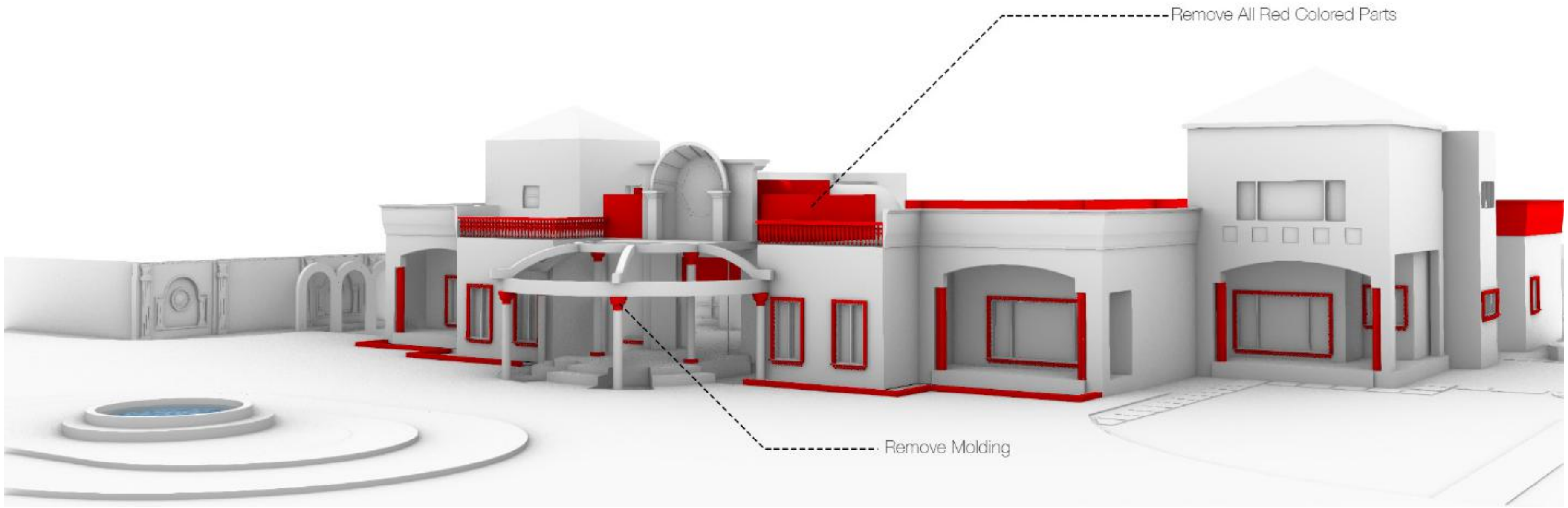
Status: In Construction

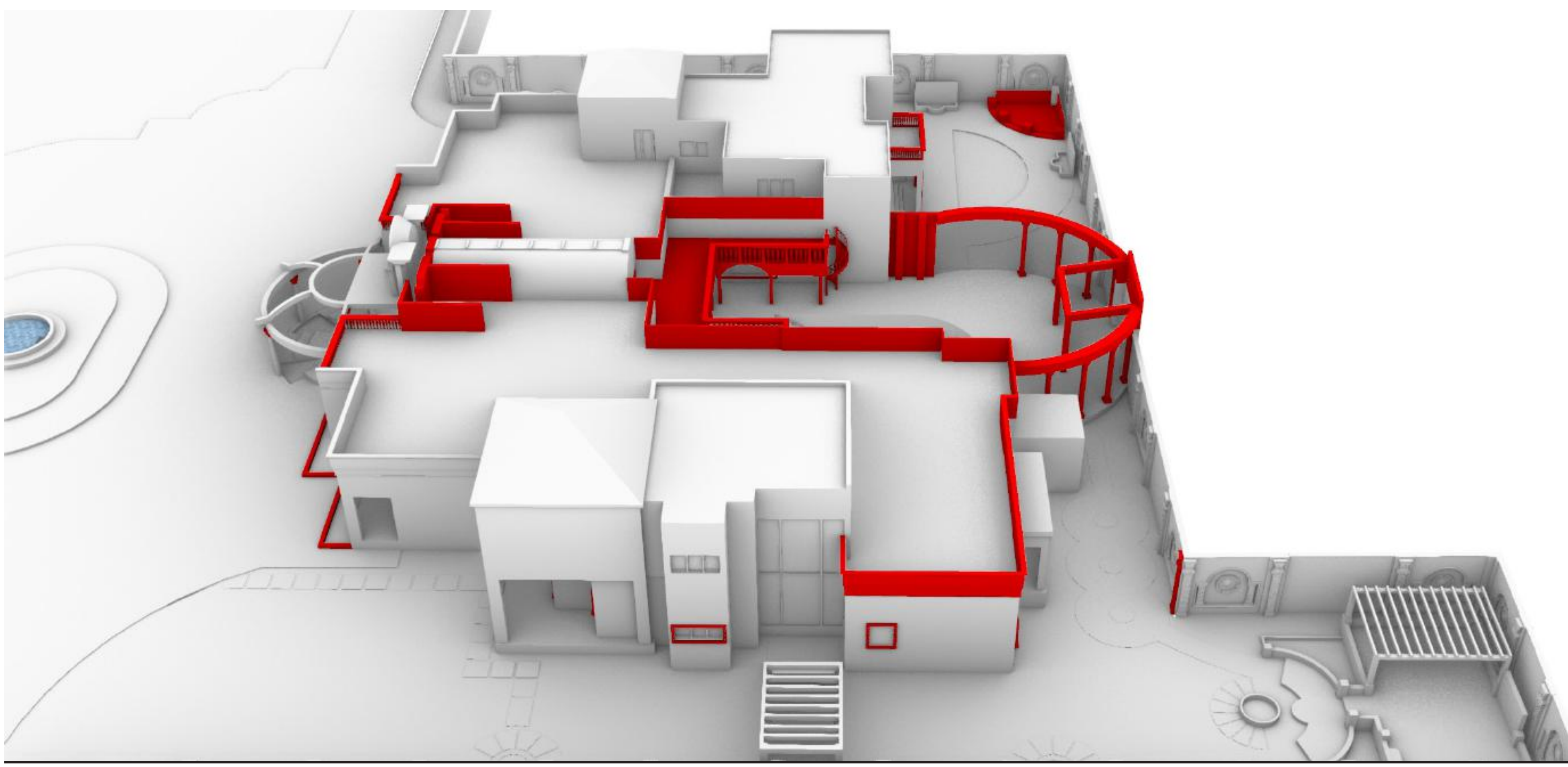
Typology: House

Year: 2023

Cliff House showcases cutting-edge architectural innovation with its elegant longitudinal design. The fully glazed façade spanning the entire front floods the interior with natural light and provides breathtaking panoramic views, seamlessly connecting residents with nature.

It's a technological marvel, leveraging the latest advancements in materials and construction techniques. Meticulously crafted details ensure comfort, convenience, and aesthetic pleasure, making it a symbol of modernity and sustainability.

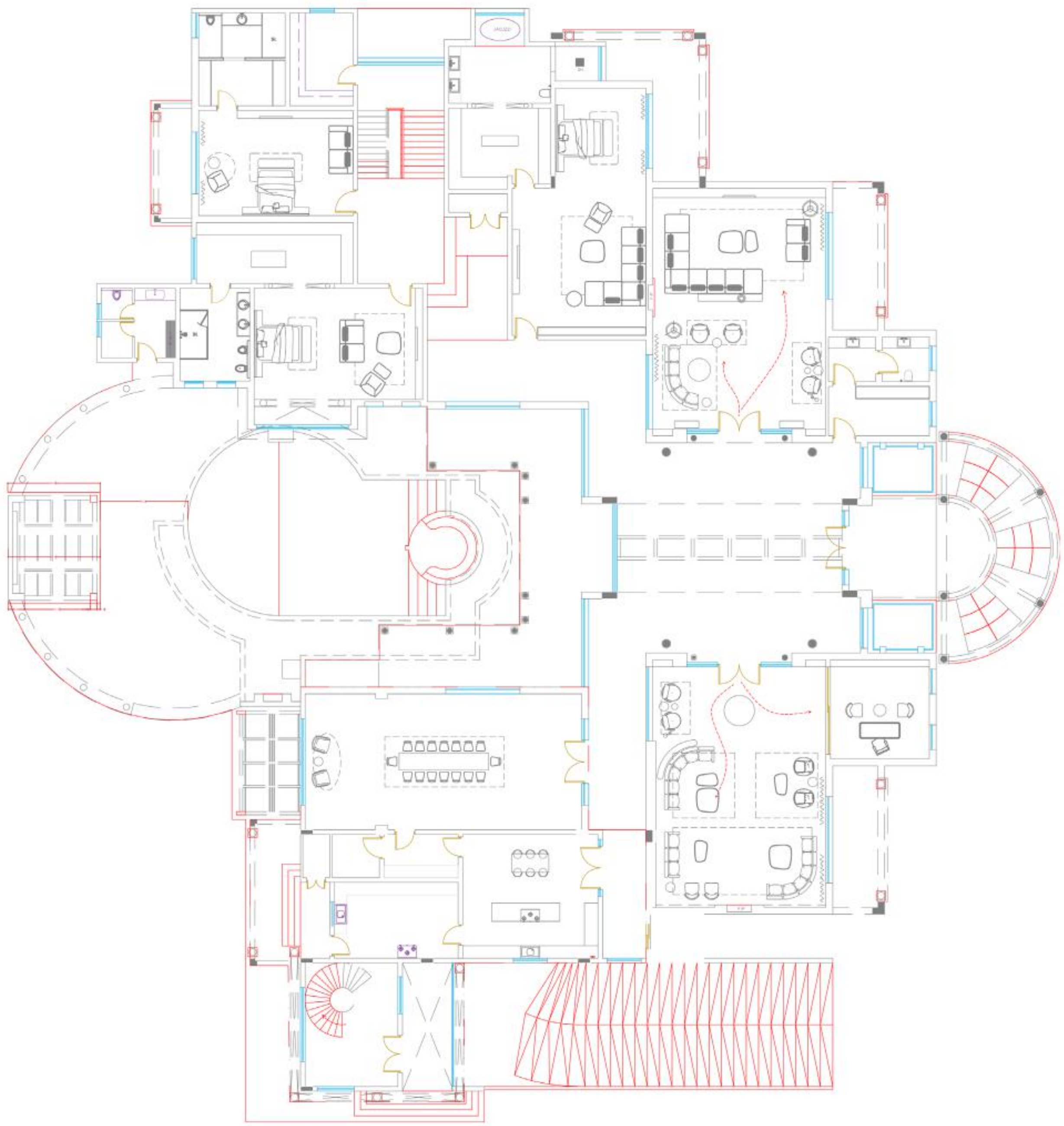

Remove All Red Colored Parts
Remove Molding



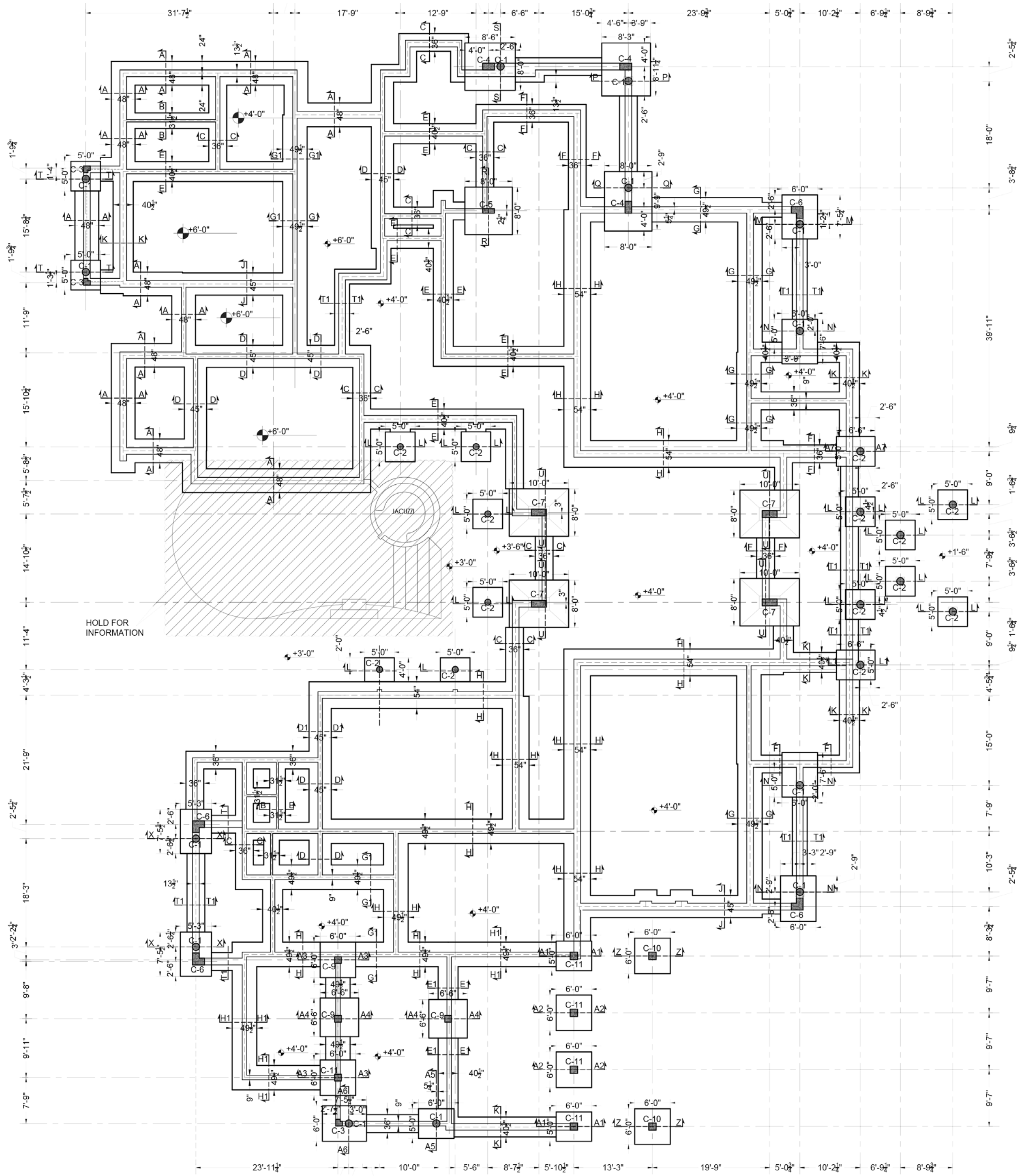
The external facade reflects the midrib and veins of the leaf, gracefully twisting and rotating as it ascends, influencing the corresponding rotation of the floors within. This organic design is more than an aesthetic choice; it's a structural intelligent supporting system.

The external facade reflects the midrib and veins of the leaf, gracefully twisting and rotating as it ascends, influencing the corresponding rotation of the floors within. This organic design is more than an aesthetic choice; it's a structural intelligent supporting system.

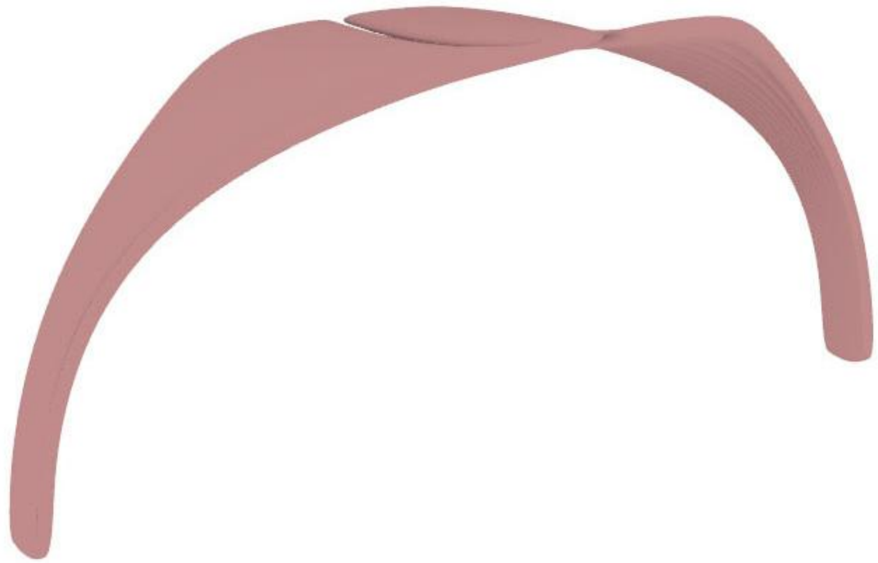
Architecture And Structure Drawing

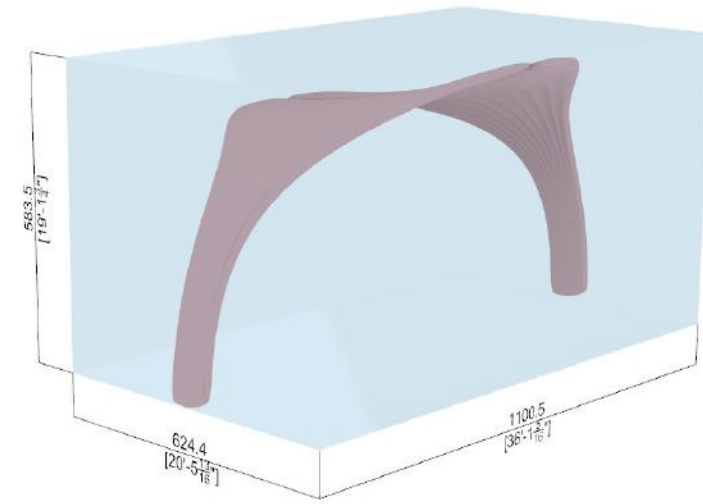


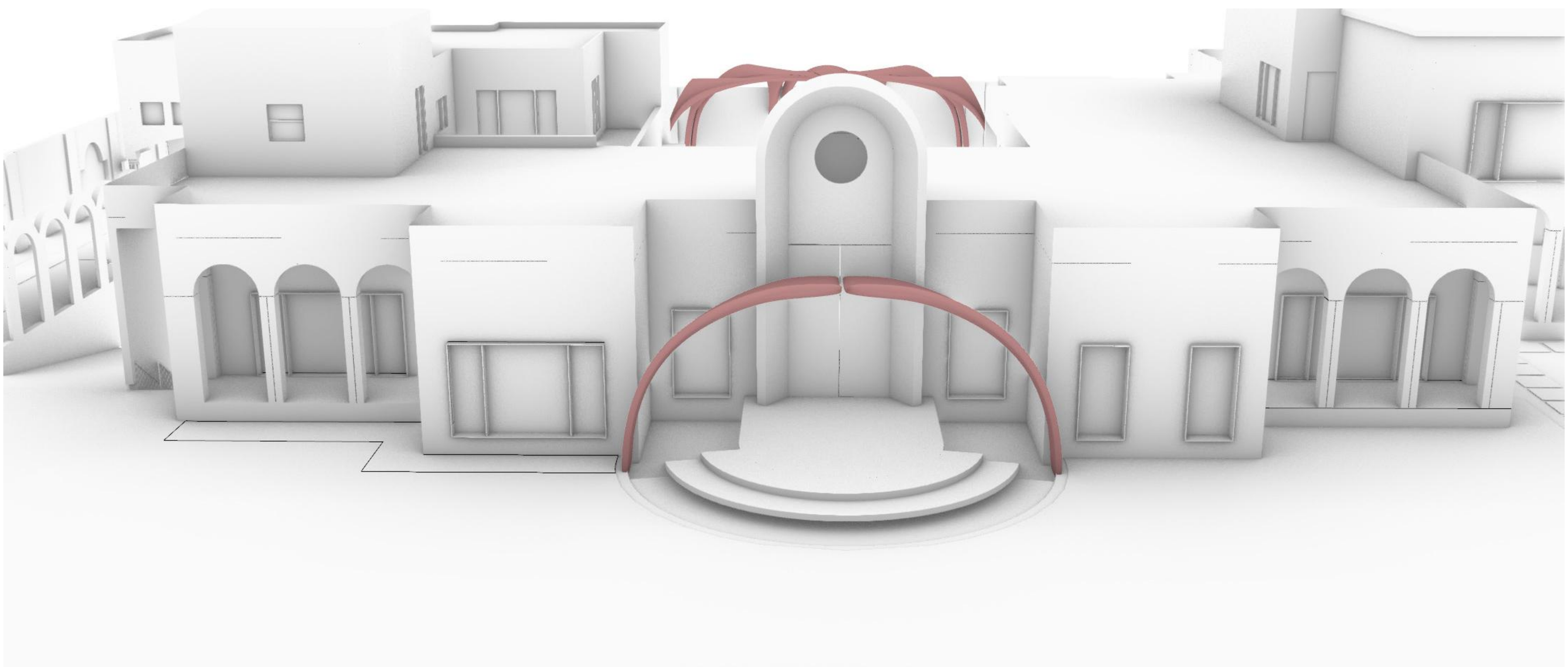
Architecture Plan

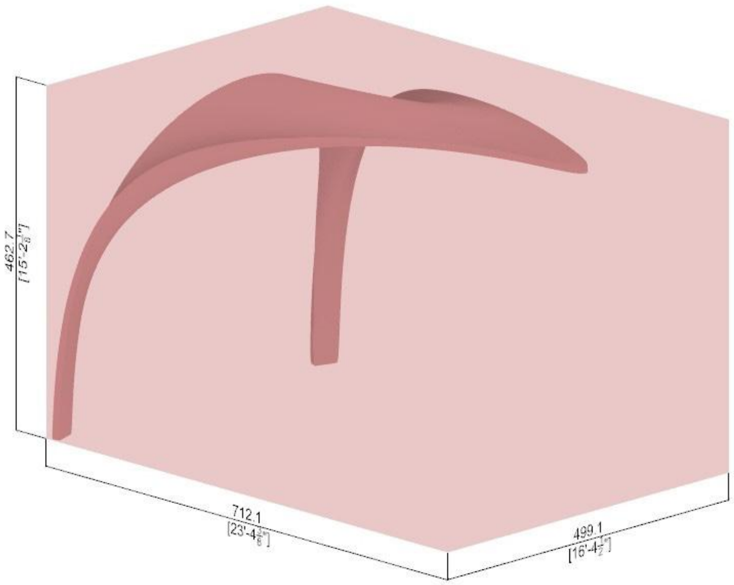


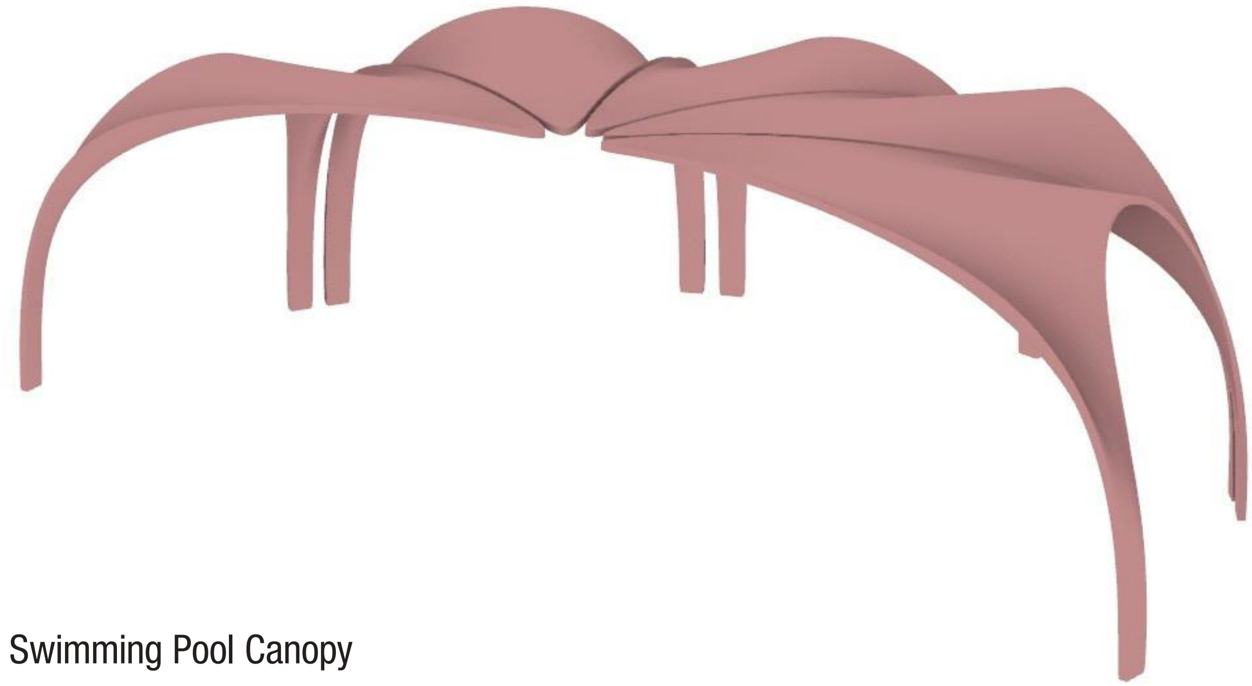
Structure Plan



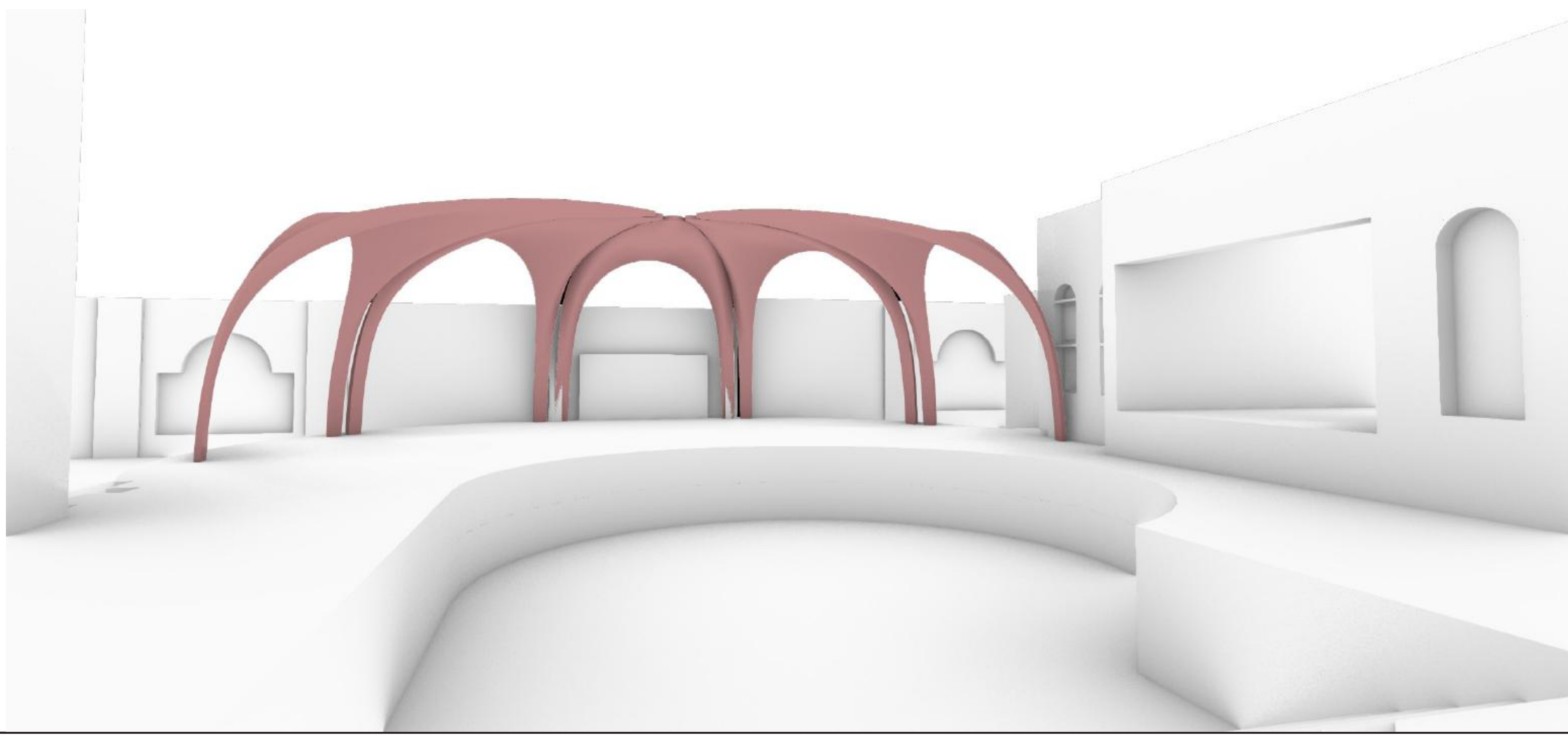

583.5
[19'-1 3/4"]
624.4
[20'-5 13/16"]
1100.5
[36'-1 5/16"]







Swimming Pool Canopy



IN CONSTRUCTION

INTERIOR

Morphic Design

Lahore ,Pakistan

Responsibility: Turnkey

Client: STOND Company

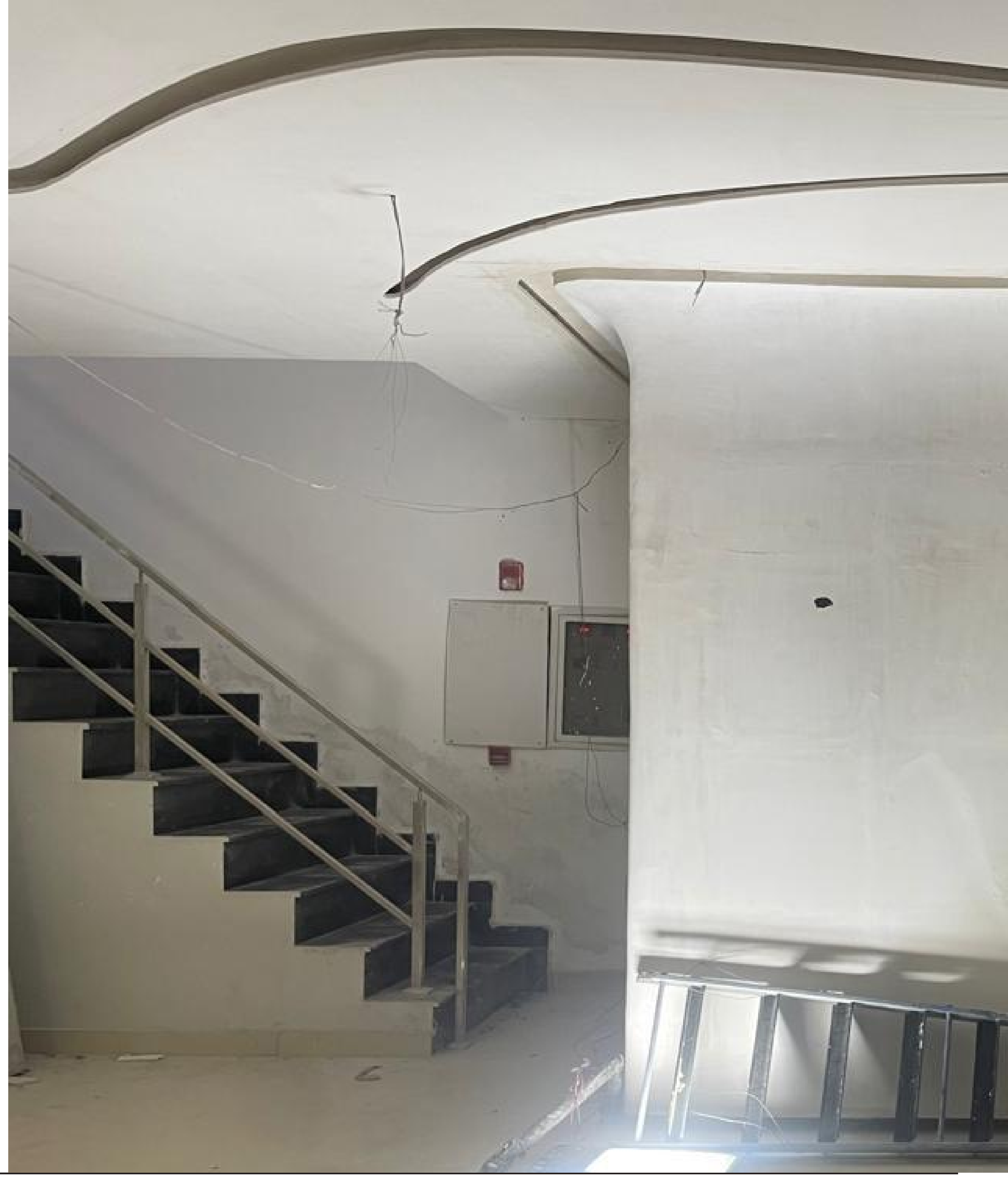
Size: 202m² / 2,178sqf

Status: In Construction

Typology: Retail

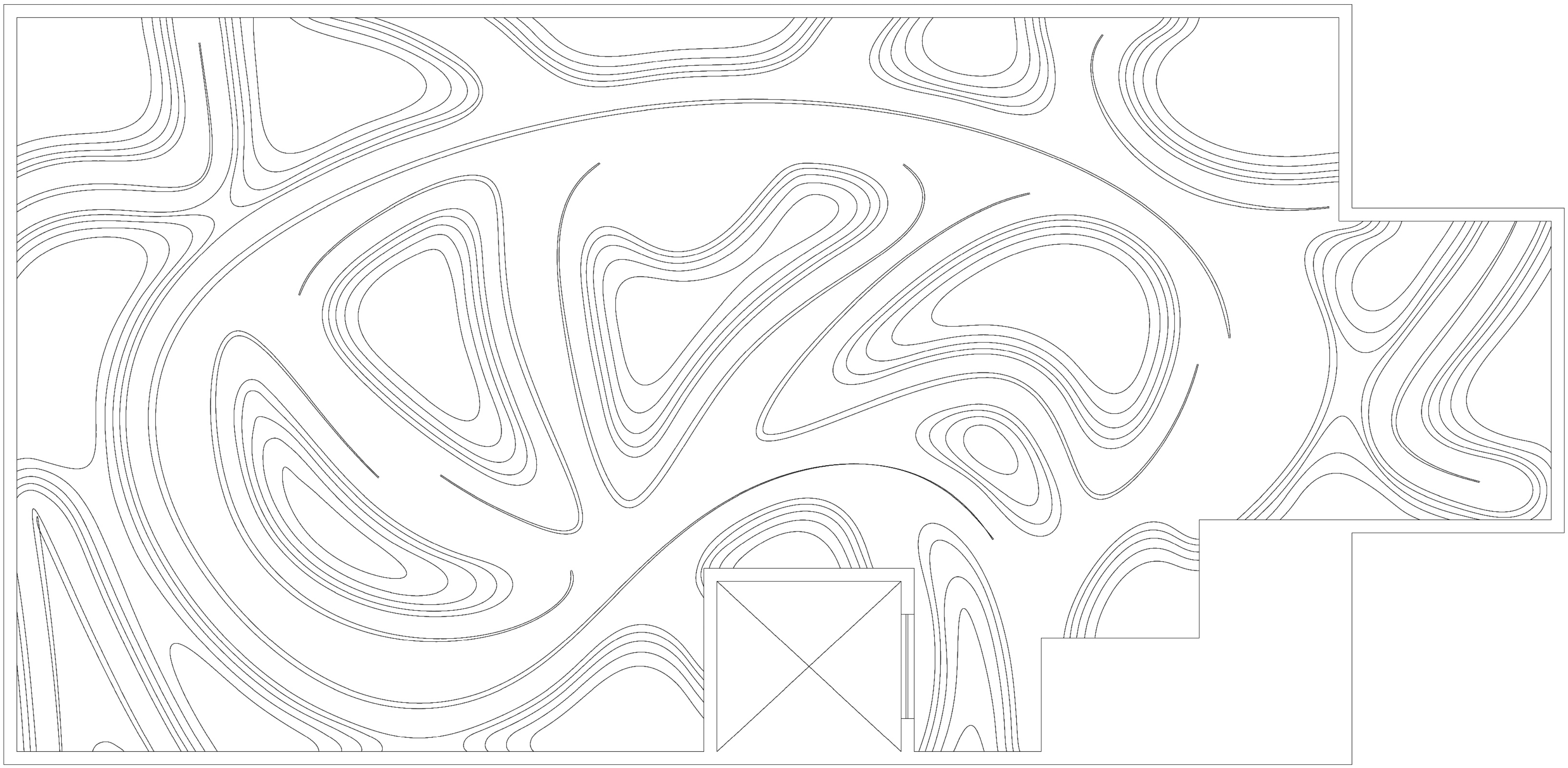
Year: 2024

This innovative architectural project in Ghana utilizes bamboo, a locally abundant material, inspired by the Baobab tree's branching design. Incorporating traditional techniques such as wood shutters, cob walls, and earth bricks, the structures blend natural materials for both cultural resonance and structural integrity.

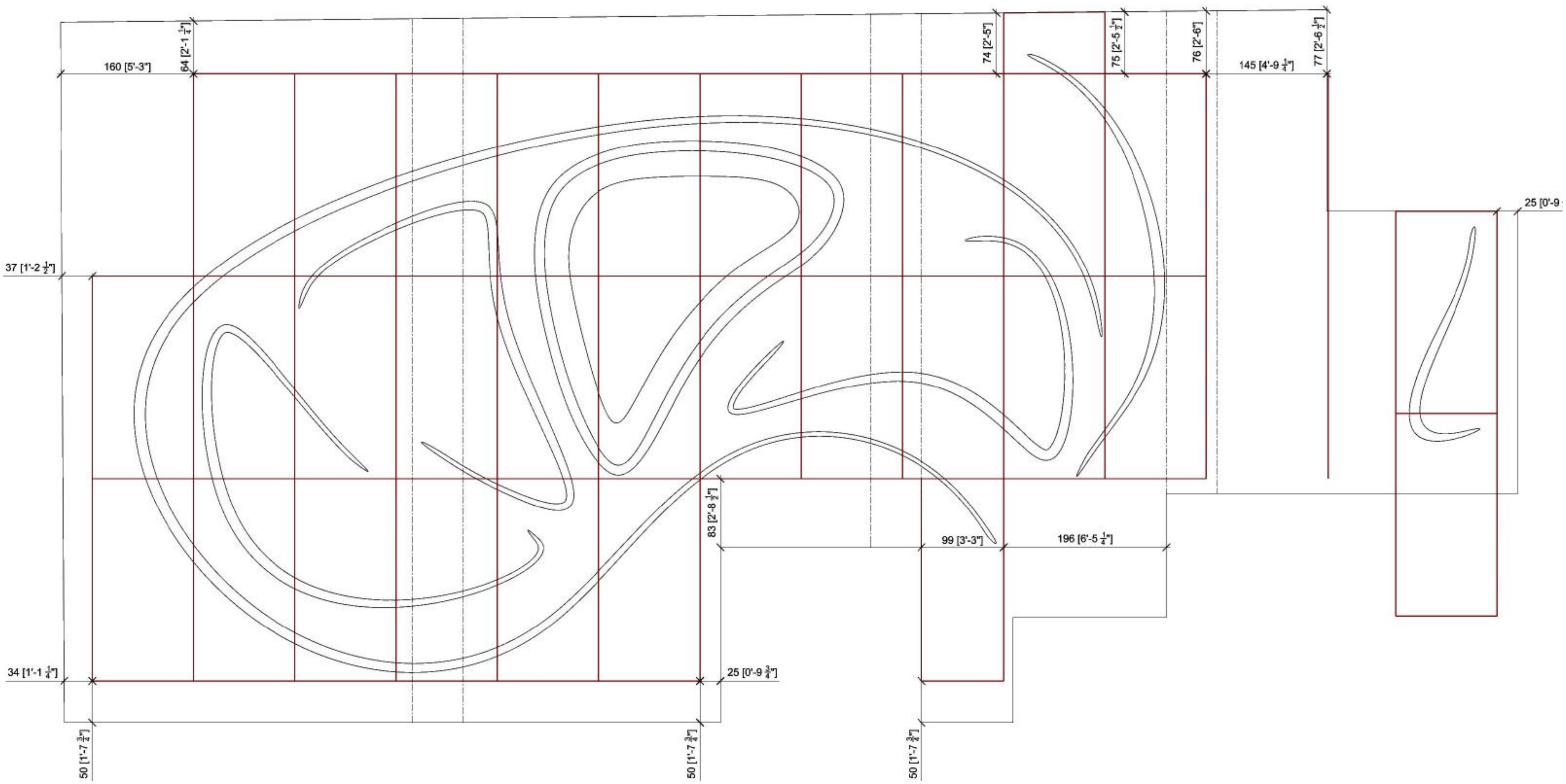


The interior design prioritizes natural light through strategically placed openings and wood shutters, creating a warm and inviting atmosphere. Additionally, the bamboo's unique branching design enhances the play of light and shadow. The project emphasizes eco-friendly practices and local identity, integrating natural ventilation for a sustainable and comfortable living environment.

Architecture And Structure Drawing

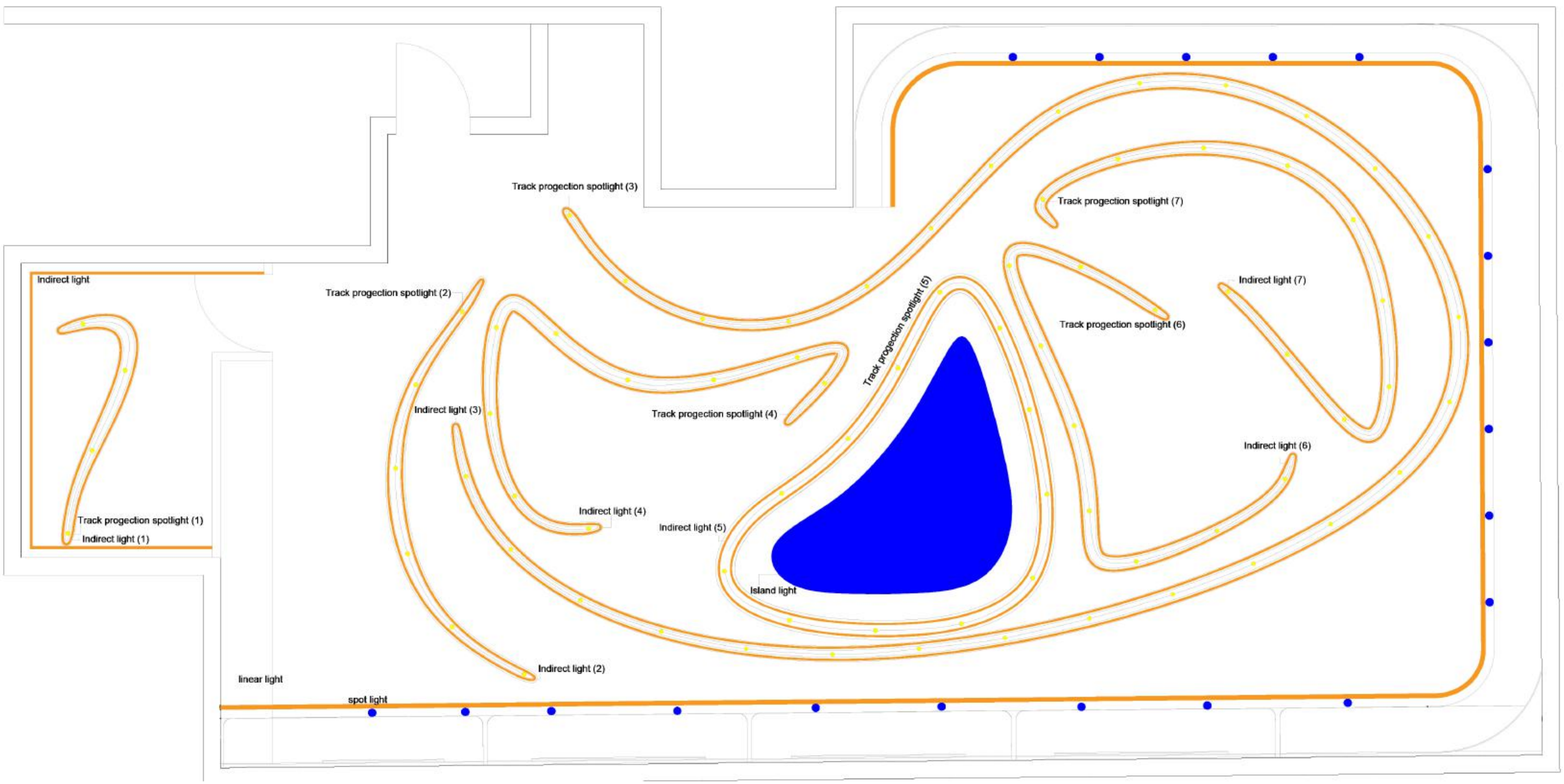


Floor Plan

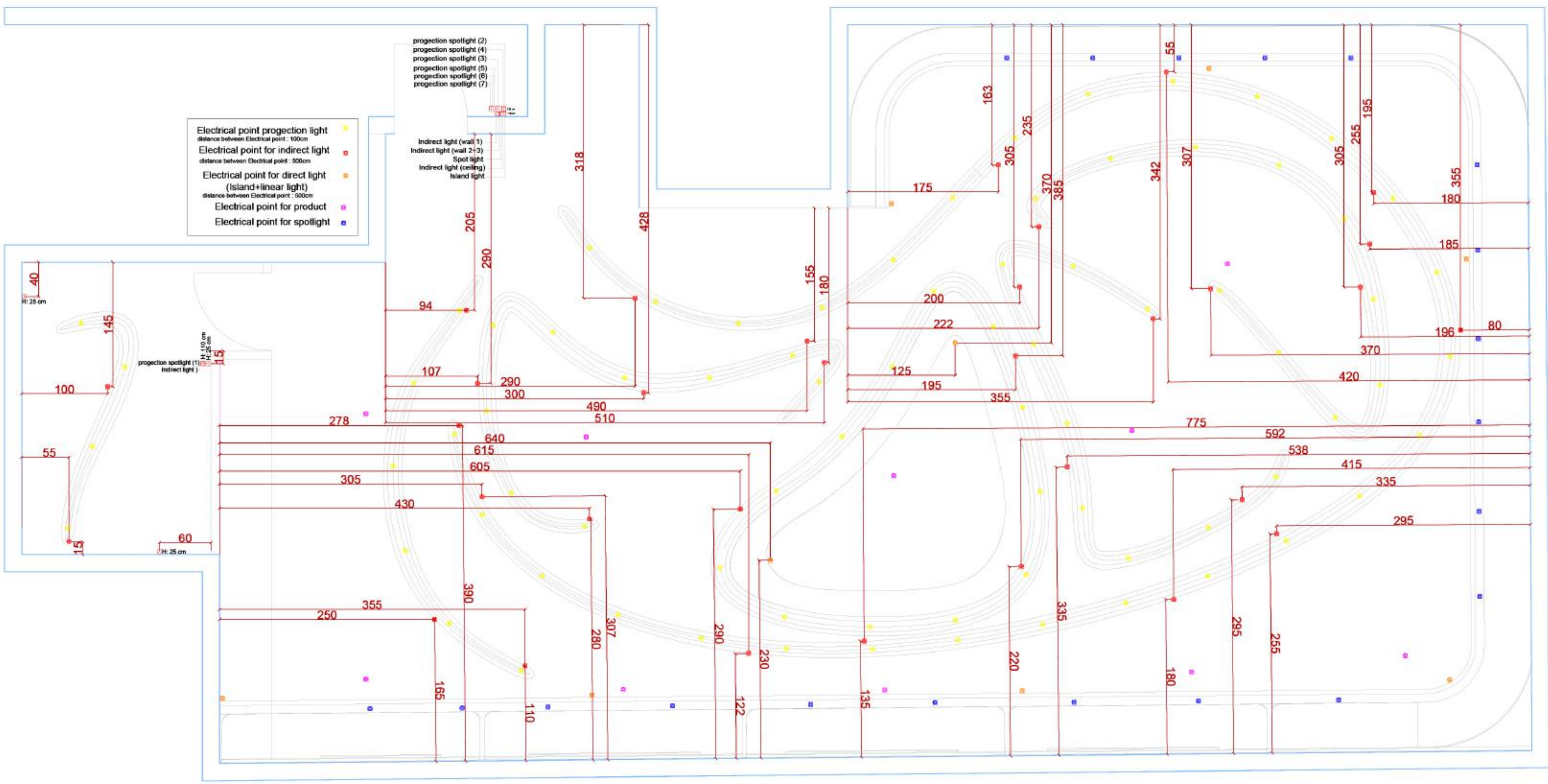


Ceiling Plan

MEP Drawing

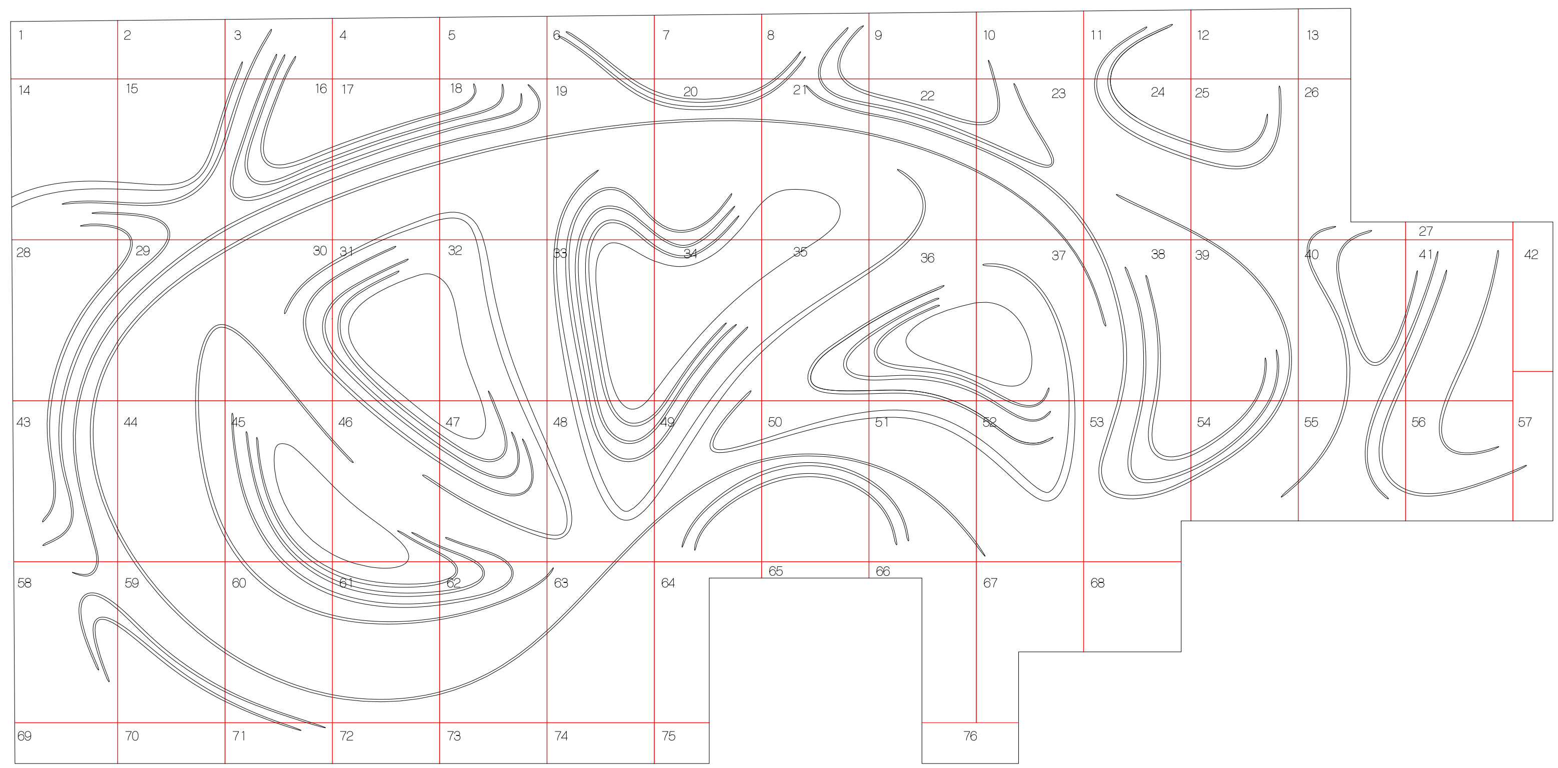


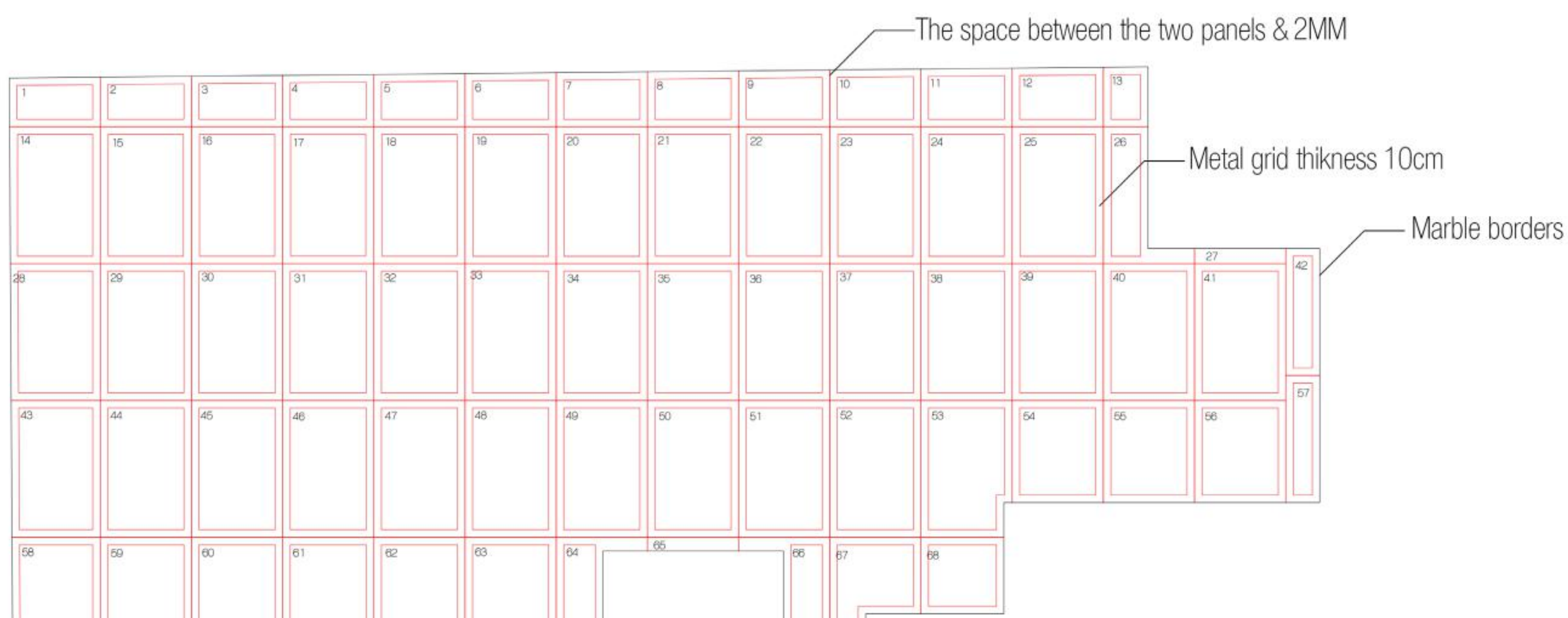
Lighting Plan



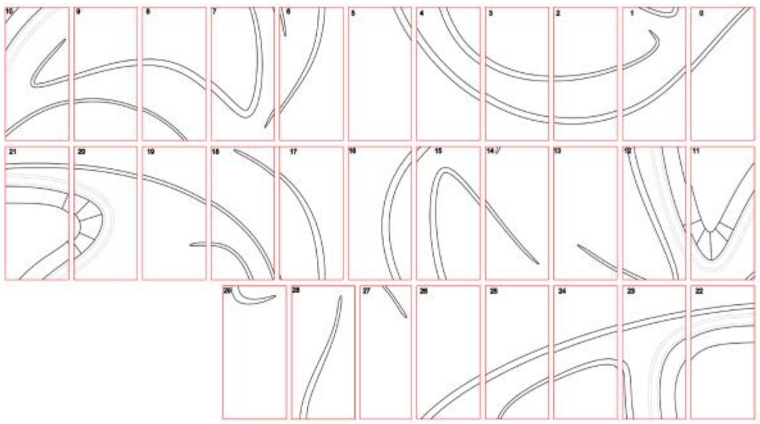
Electric Plan

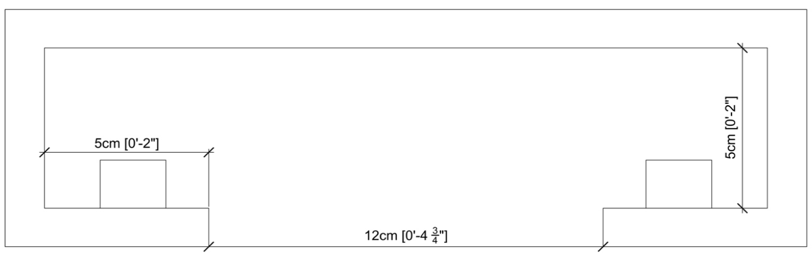
Ceiling And Floor Drawing

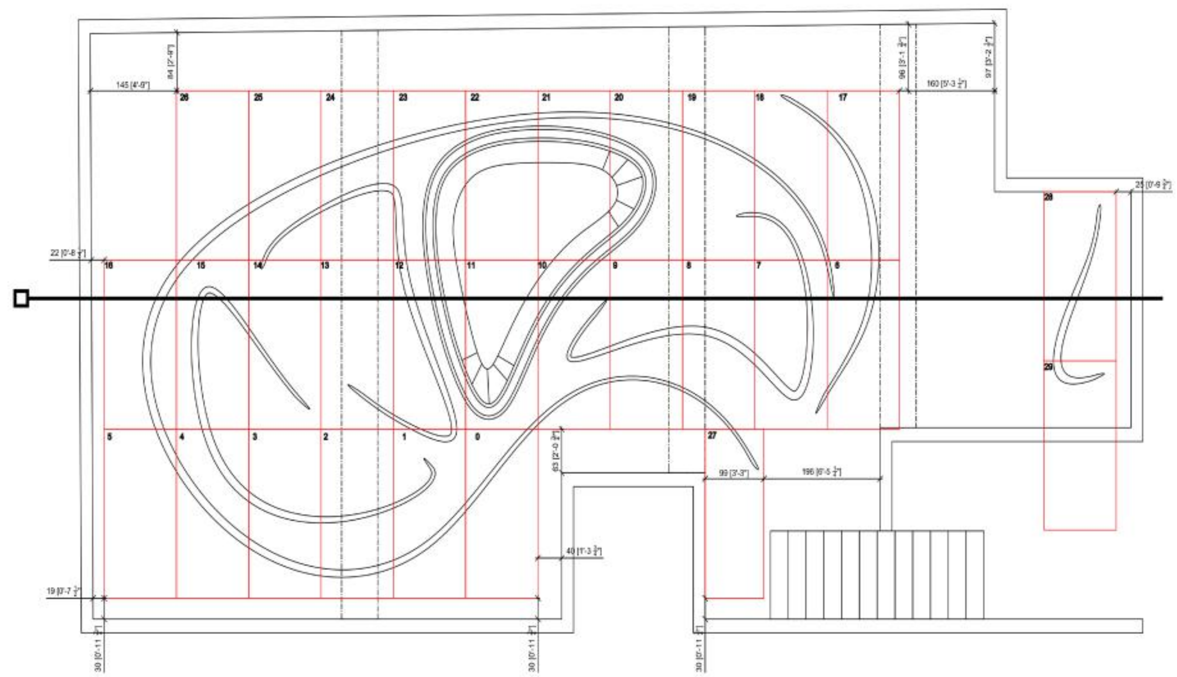




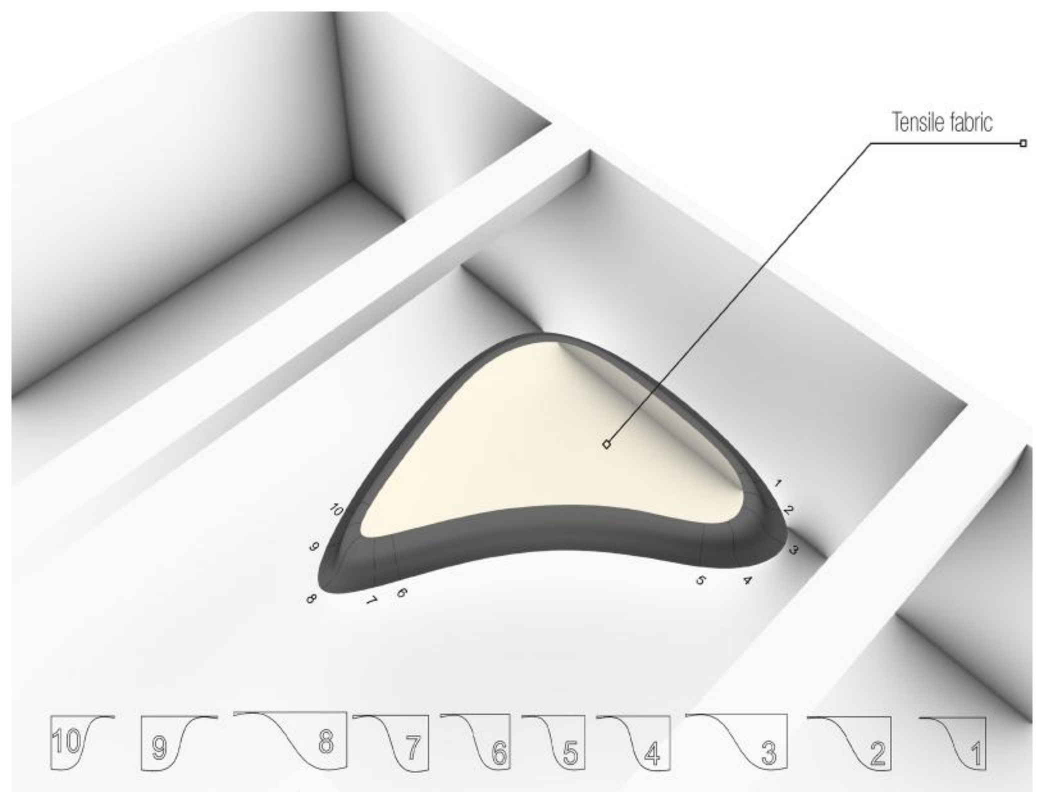
Floor Diagram







Ceiling Diagram



DK Restaurant

Lahore ,Pakistan

Responsibility: Turnkey

Client: Swiss Royal Hotels

Size: 800m² / 8611sqf

Status: In Construction

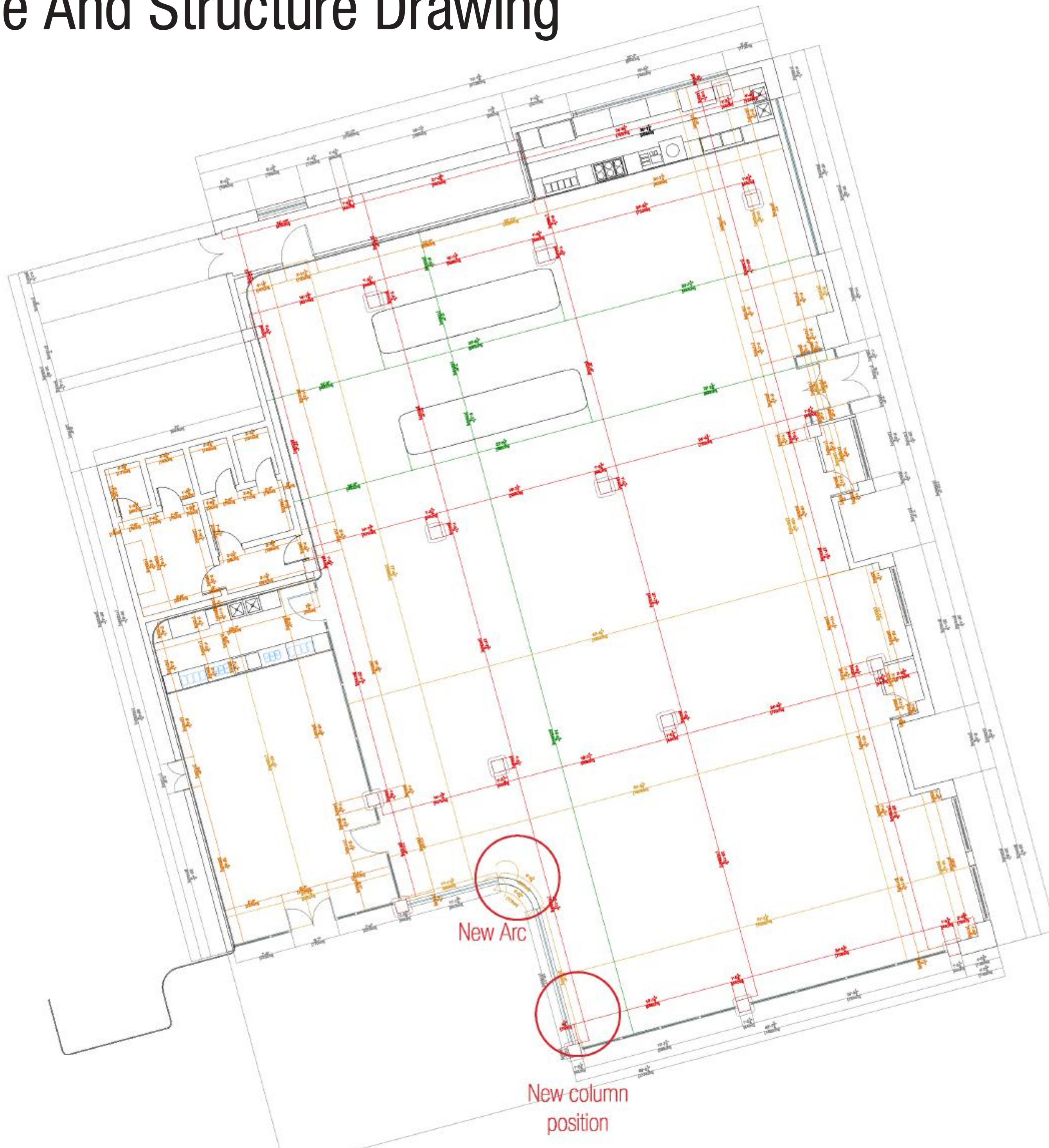
Typology: Interior

Year: 2024

This innovative architectural project in Ghana utilizes bamboo, a locally abundant material, inspired by the Baobab tree's branching design. Incorporating traditional techniques such as wood shutters, cob walls, and earth bricks, the structures blend natural materials for both cultural resonance and structural integrity.

The interior design prioritizes natural light through strategically placed openings and wood shutters, creating a warm and inviting atmosphere. Additionally, the bamboo's unique branching design enhances the play of light and shadow. The project emphasizes eco-friendly practices and local identity, integrating natural ventilation for a sustainable and comfortable living environment.

Architecture And Structure Drawing



Architecture Plan

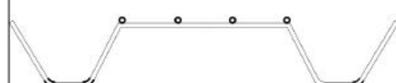
HVAC Plan


ROYAL SWISS
Run, Sweat, Smile:
ROYAL SWISS

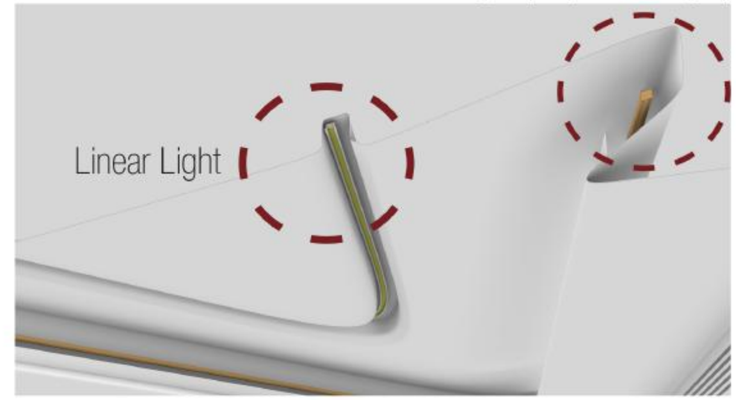
MEP Plan

Lighting Plan

Electric Plan

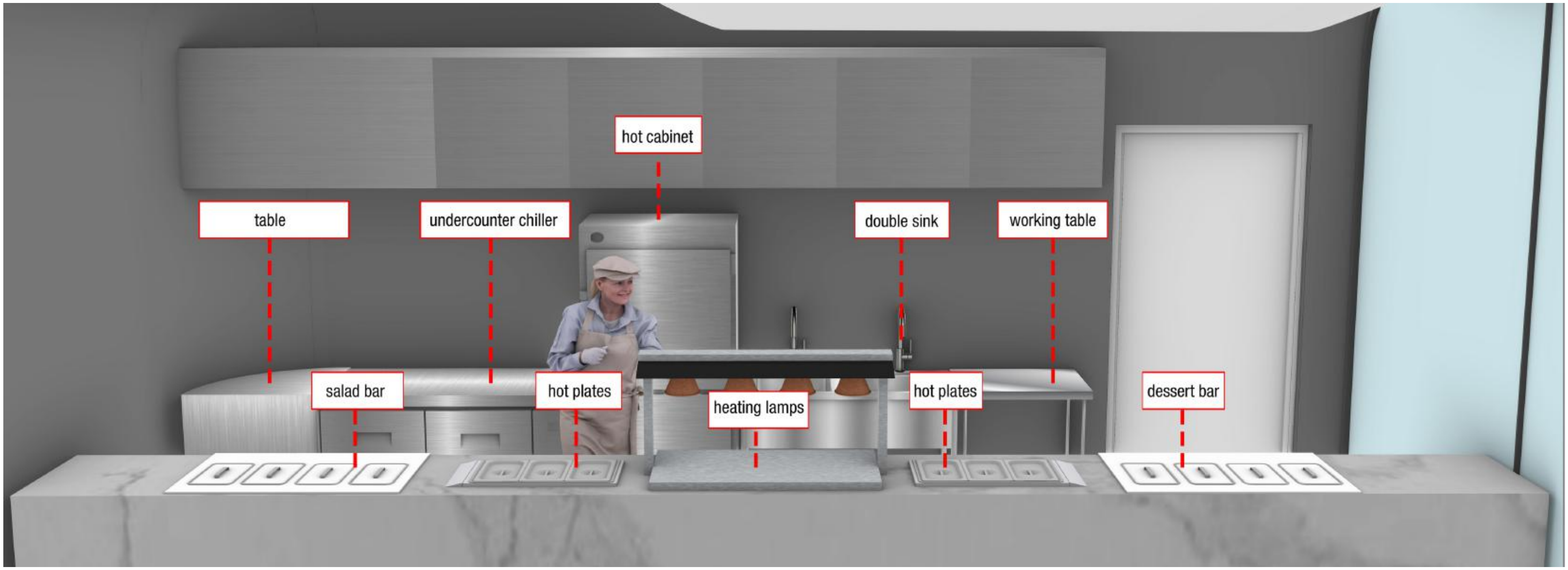
Ceiling Linear light BOQ			
	length	Area	Section
Linear light	464' _4.5"	–	
Hidden light	1,795' 1.25"	–	
Sky light	105' _7.25"	77.45 Sq. f	

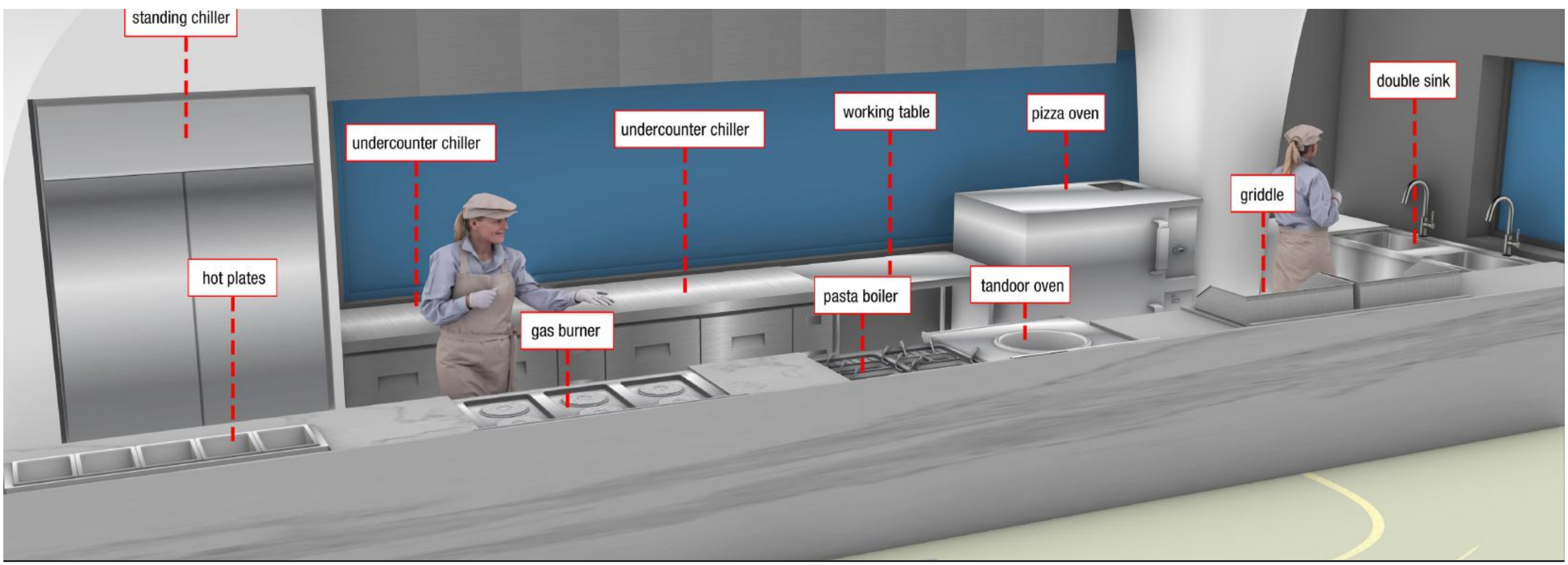
Hidden Light (Rope Led Light)

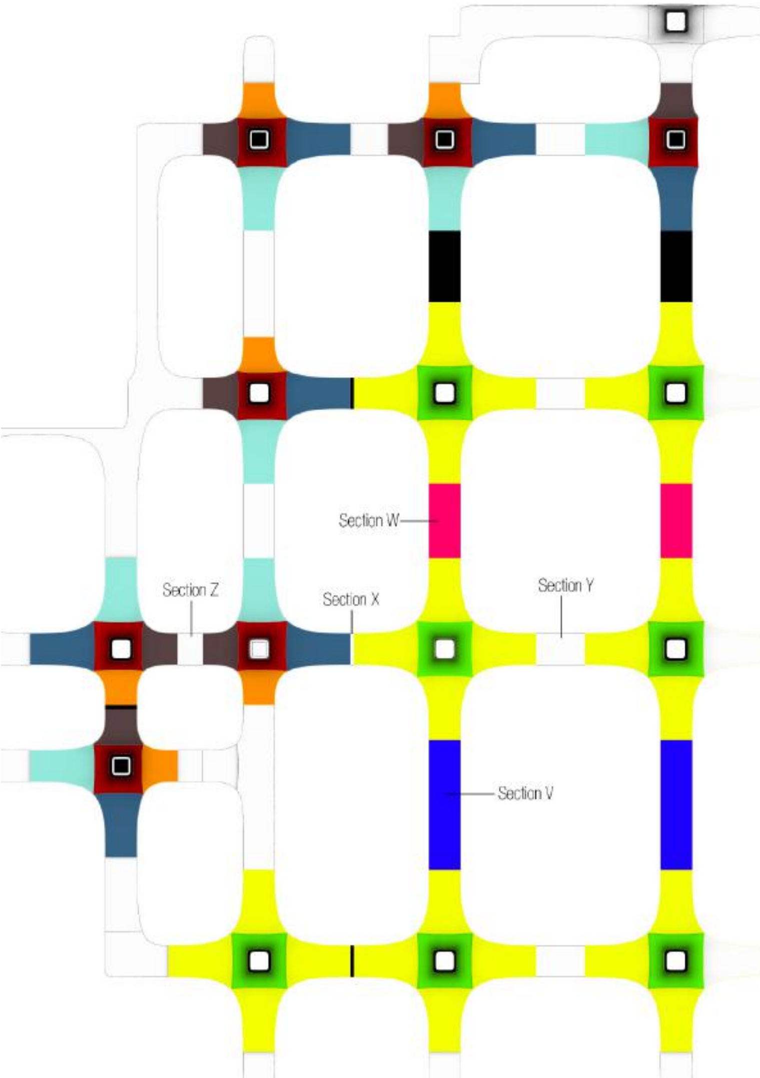


Ceiling Light Diagram

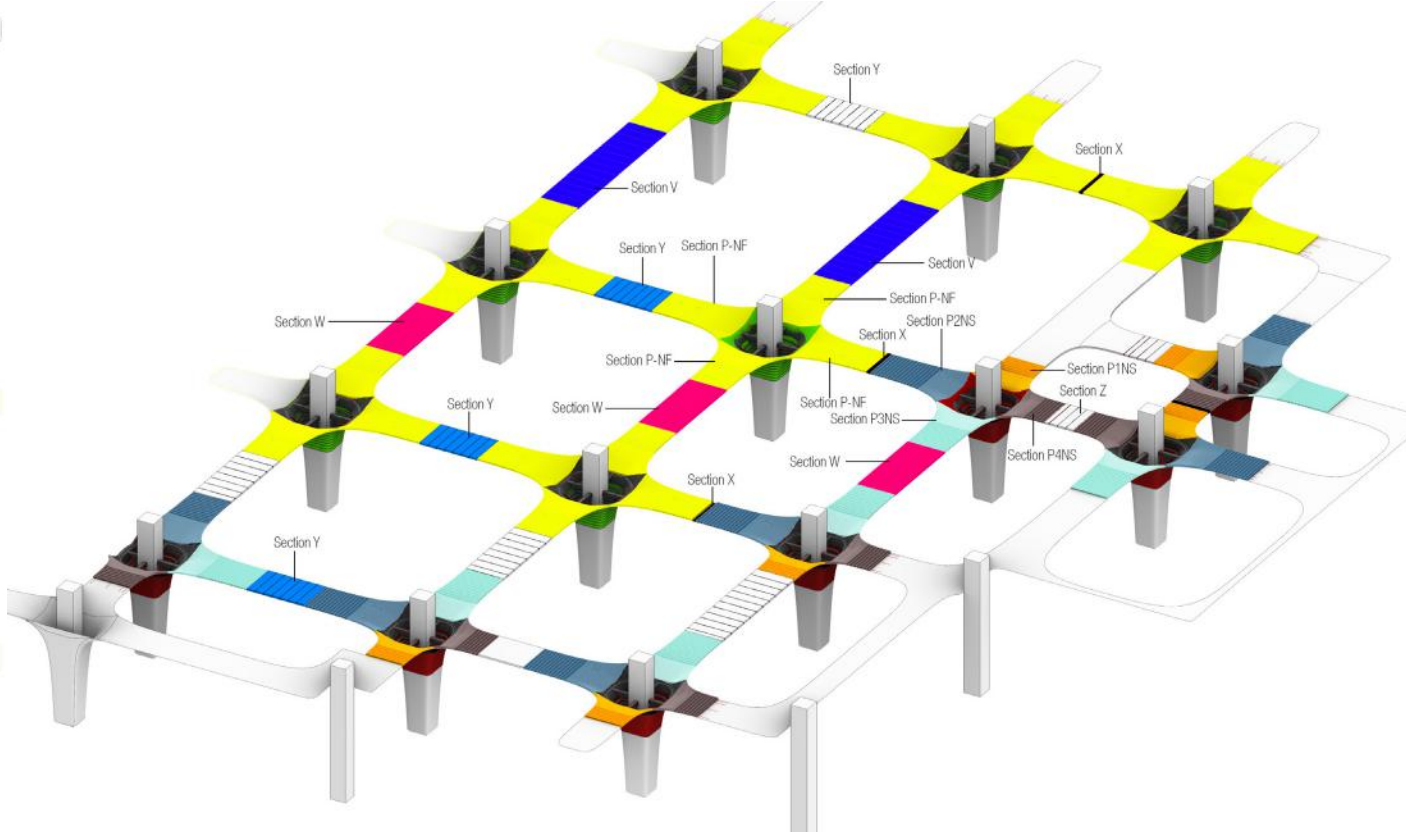
Live Bar And Extention Bar Diagrams



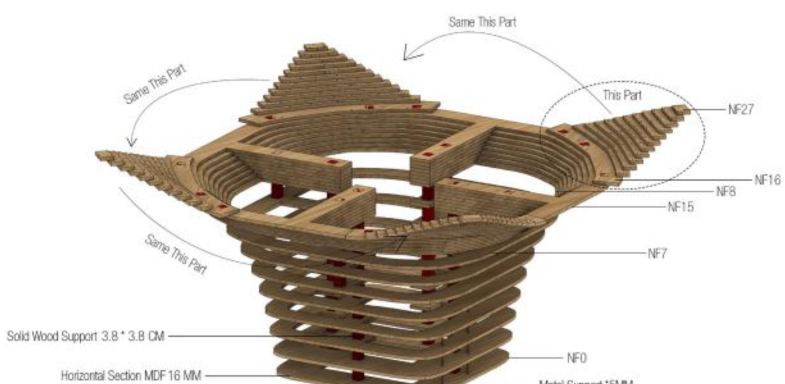




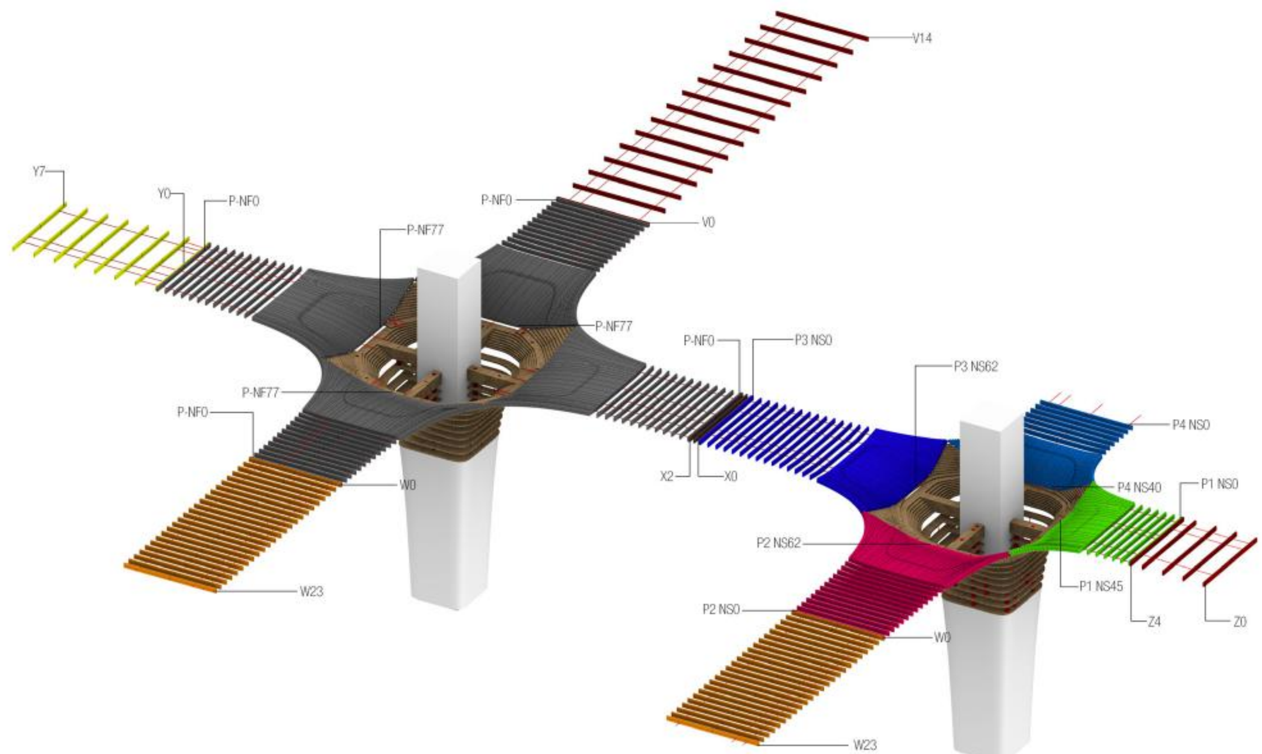
Section W
Section Z
Section X
Section Y
Section V



Section Y
Section X
Section V
Section Y
Section P-NF
Section V
Section P-NF
Section W
Section P2NS
Section X
Section P-NF
Section P1NS
Section Z
Section Y
Section W
Section P-NF
Section P3NS
Section P4NS
Section W
Section X
Section Y



Same This Part
Same This Part
This Part
NF27
NF16
NF8
NF15
Same This Part
NF7
Solid Wood Support 3.8 * 3.8 CM
NF0
Horizontal Section MDF 16 MM
Metal Support *5MM



V14
Y7
Y0
P-NF0
P-NF0
V0
P-NF77
P-NF77
P-NF0
P3 NS0
P3 NS62
P-NF77
P-NF0
P4 NS0
X2
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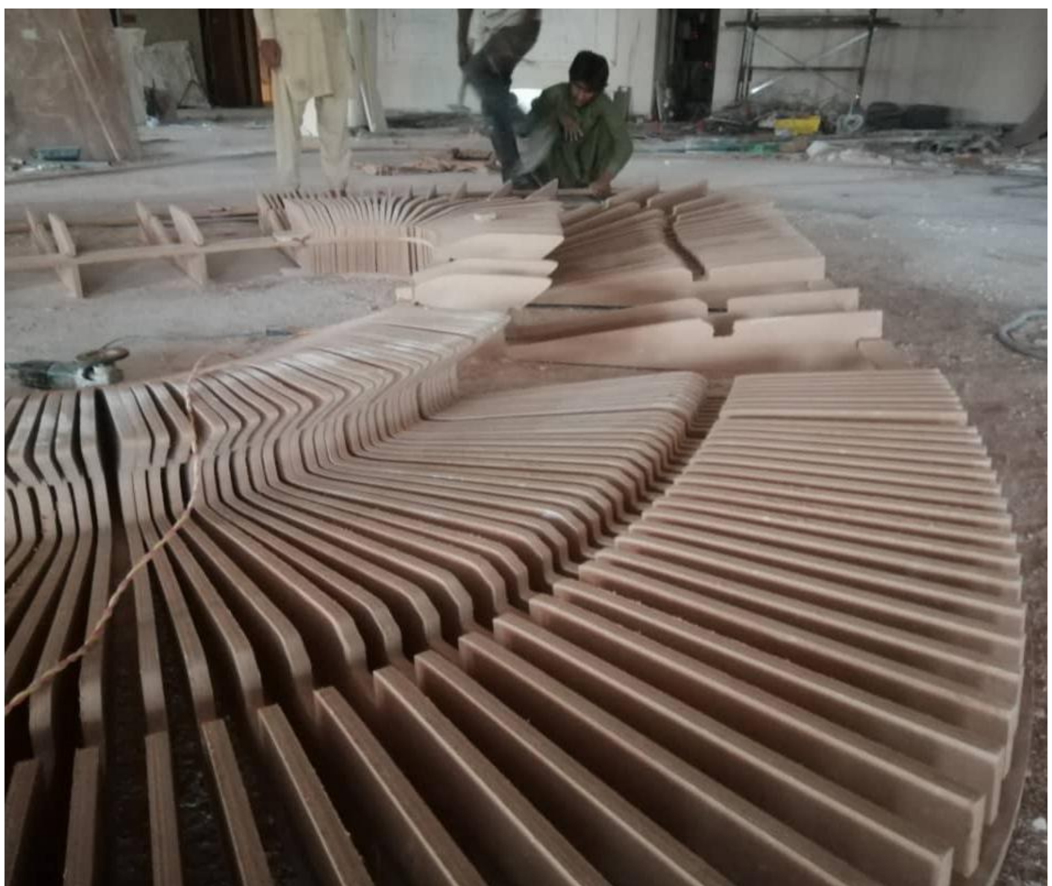
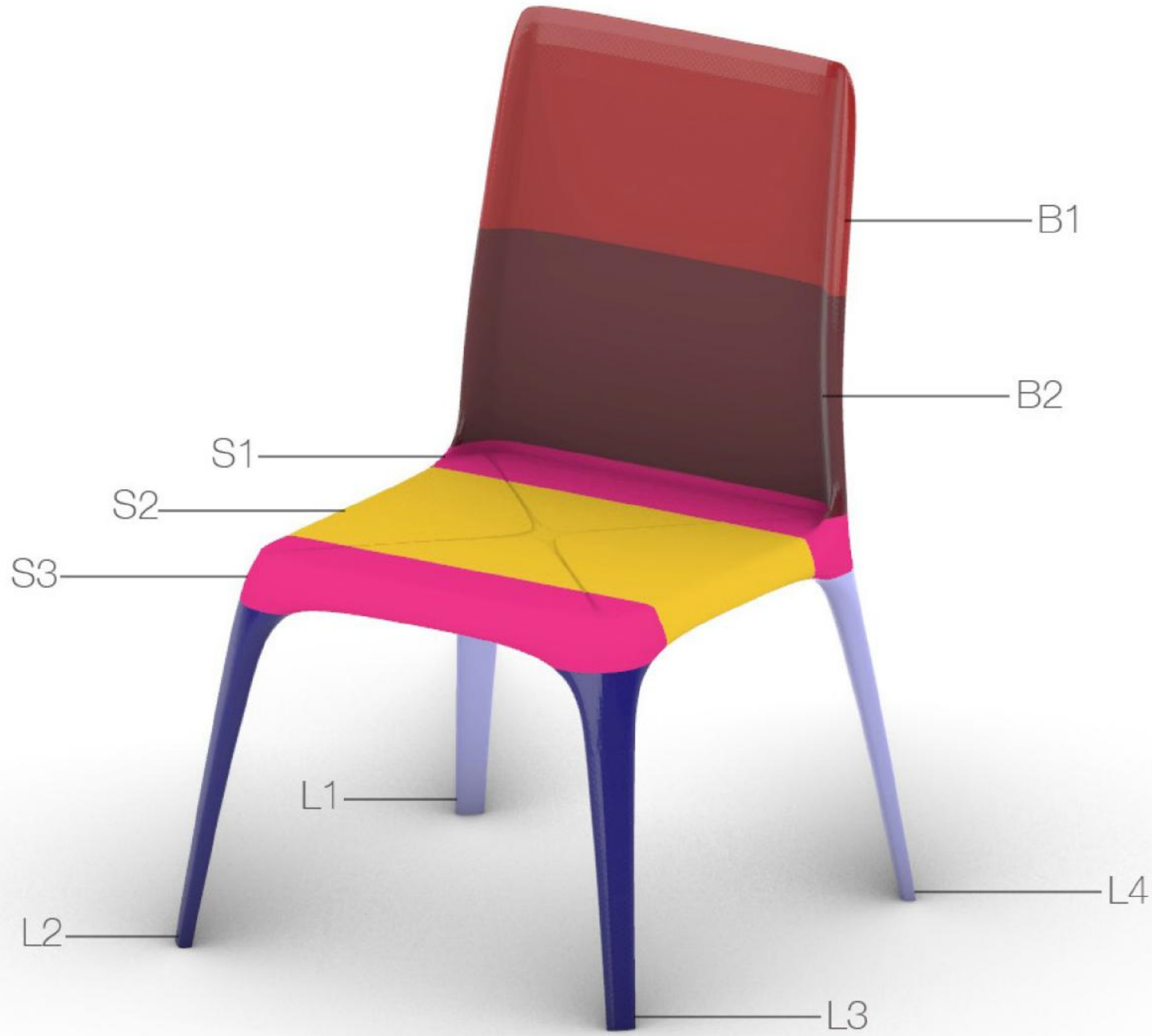
Z4
Z0
W0
W23



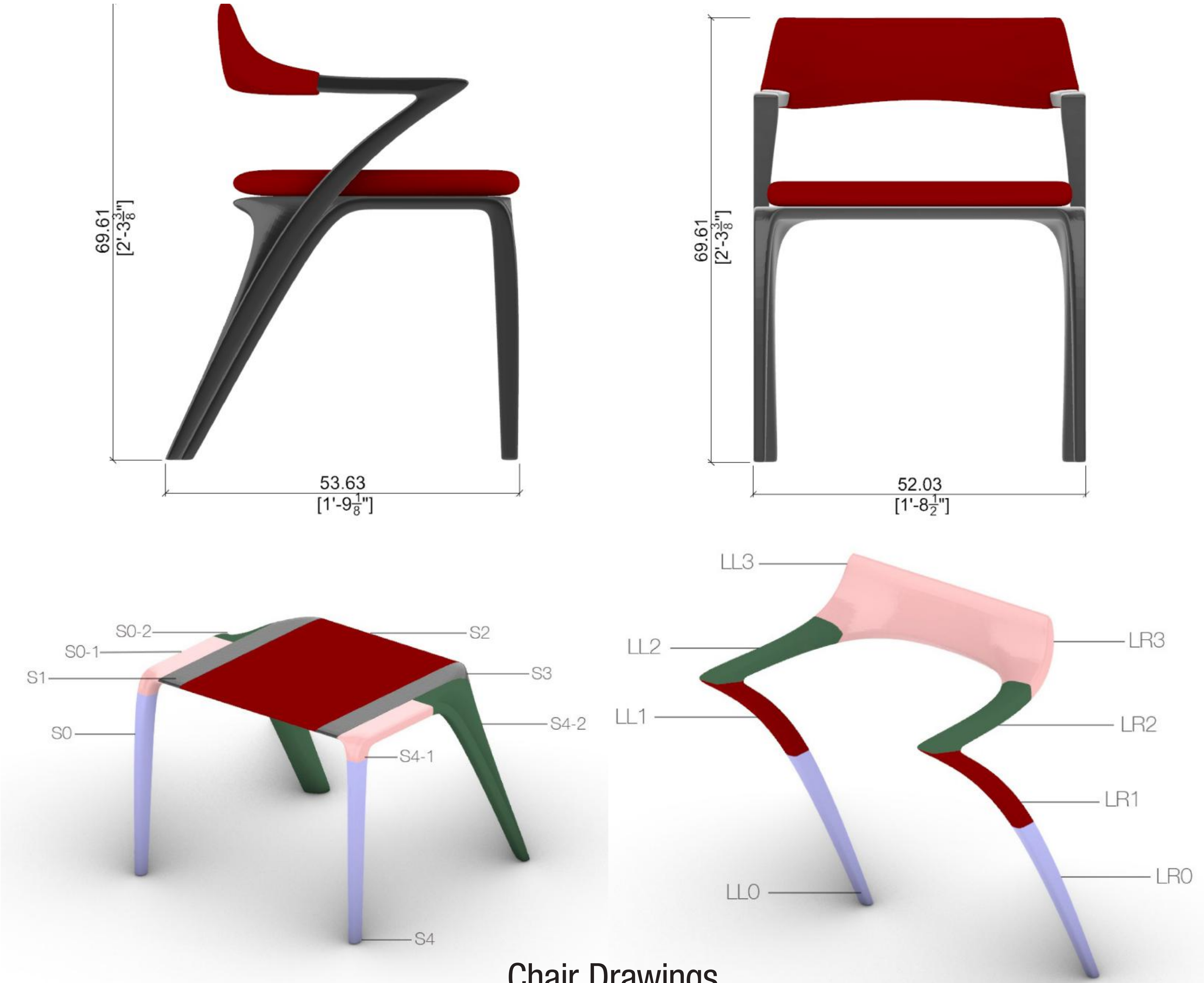

Run,
Sweat,
Smile:
ROYAL SWISS


Sweat,
Smile:
Experience the Thrill of the Marathon!
ROYAL SWISS
2024
Marathon

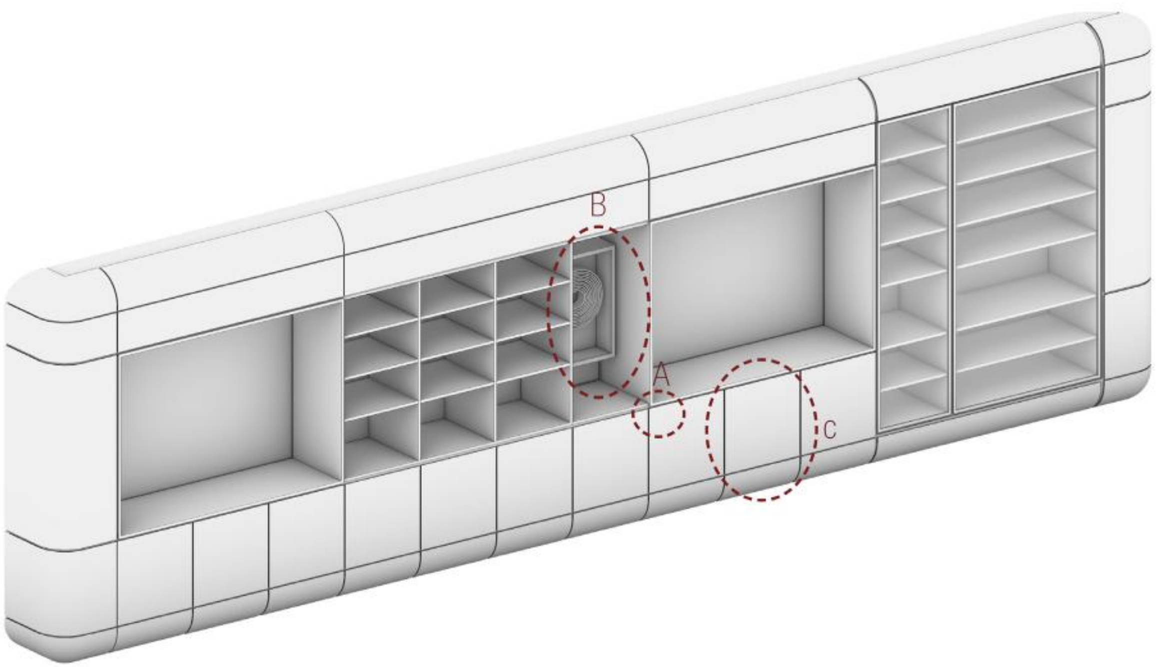
Interior And Furniture Drawings



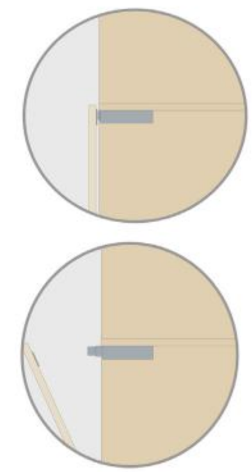
Chair Drawings



Chair Drawings



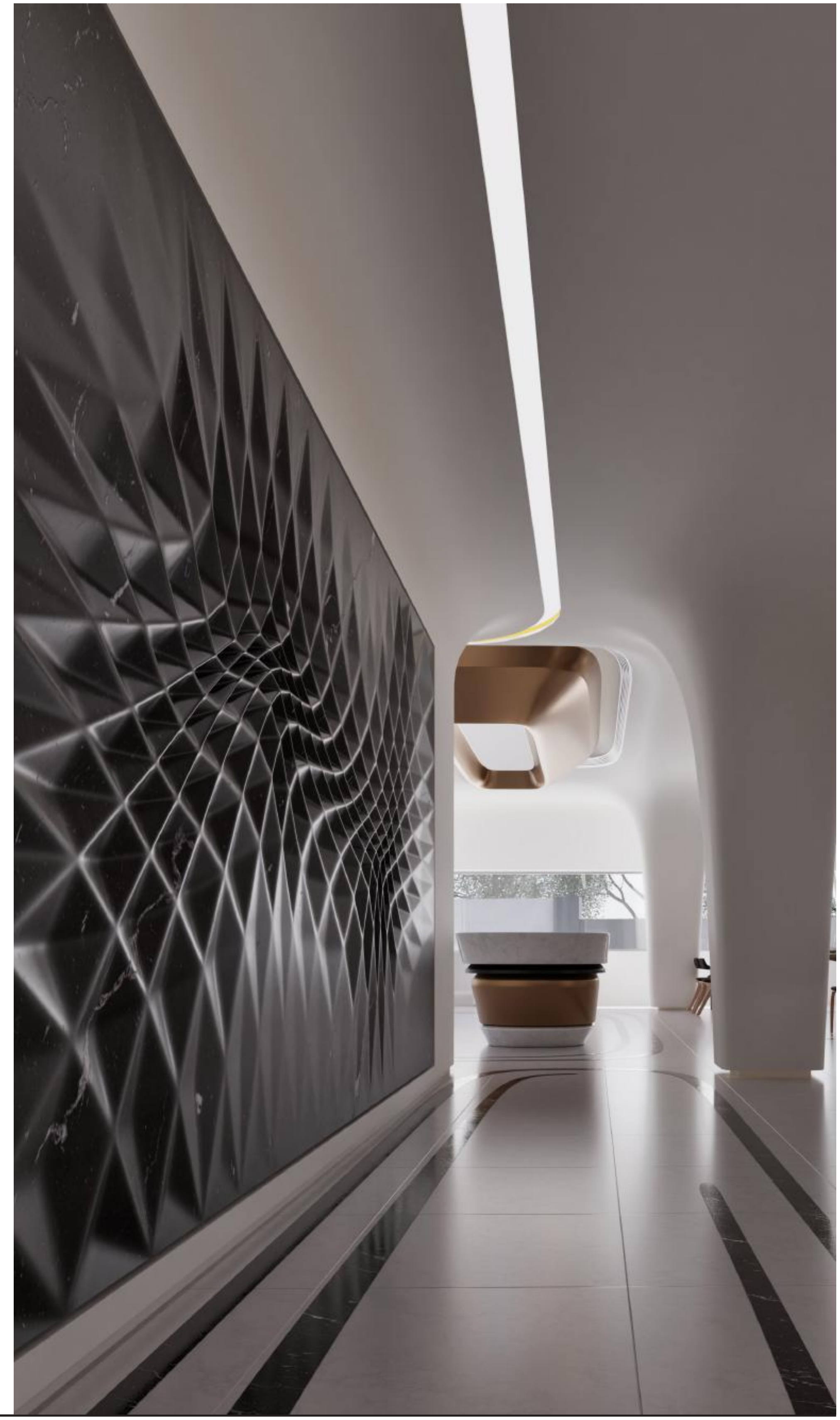
A_(PUCH TO OPEN)



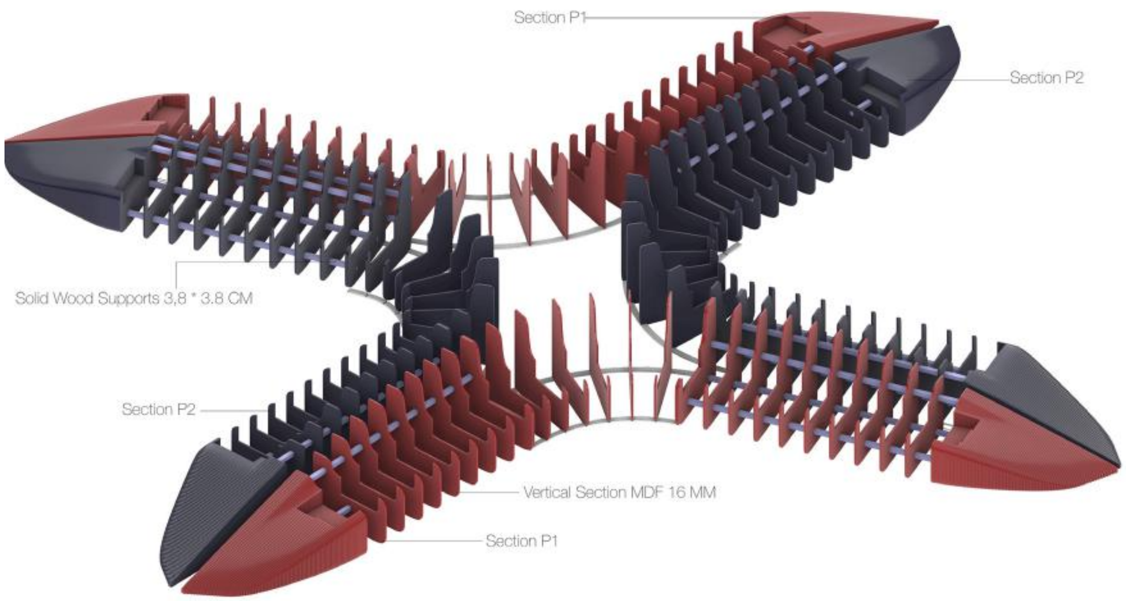
B_ Fire protection system (Hose Reel)

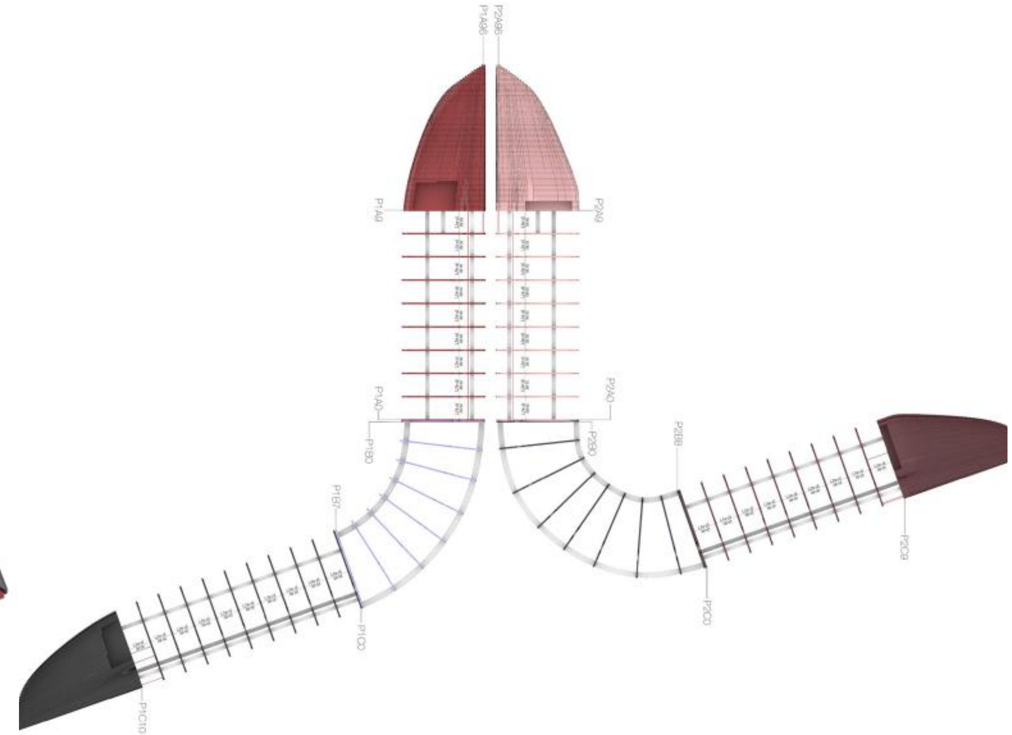
C_Drawer detail

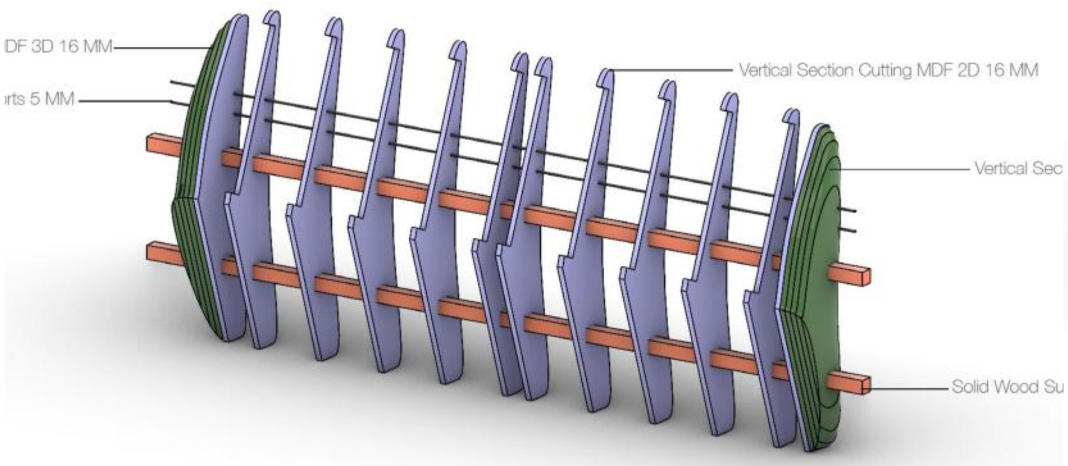
Baverage Wall Drawing

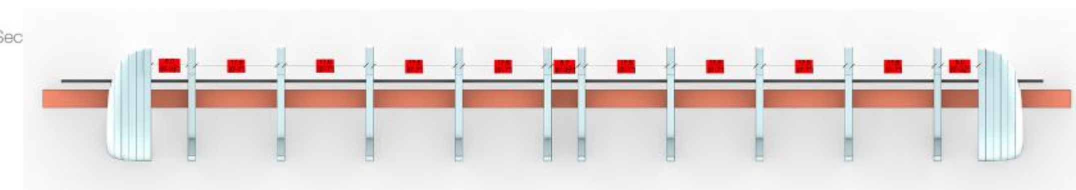



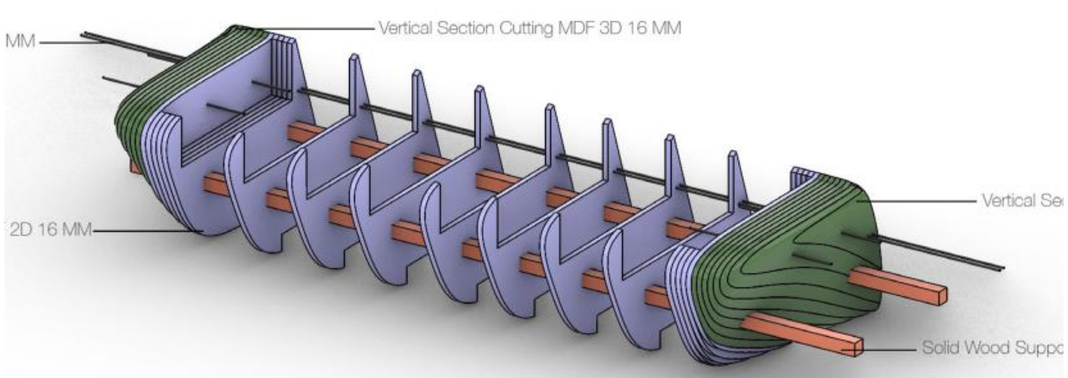
Couch Drawings

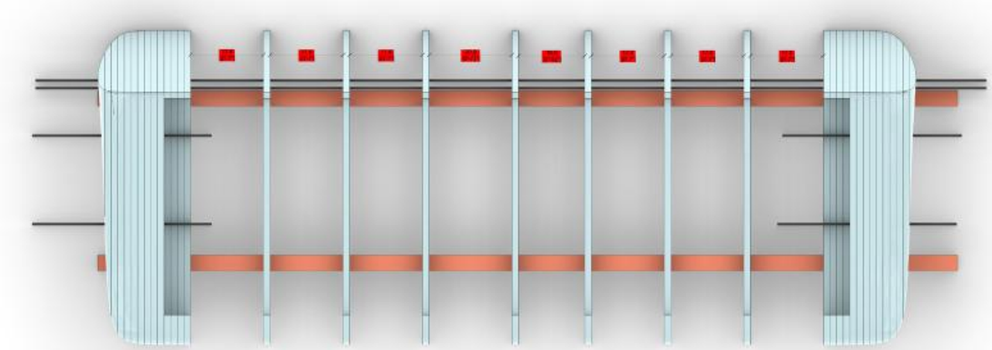












Sofa Drawings

IN CONSTRUCTION

RESIDENTAL

01

Al Hafeez Square
P_222

02

Alhafeez Square

Lahore ,Pakistan

Responsibility: Turnkey

Client: Alhafez Group

Size: 1,000m²/ 10,700f²

Status: In Construction

Typology: Residential, Retail

Year: 2024

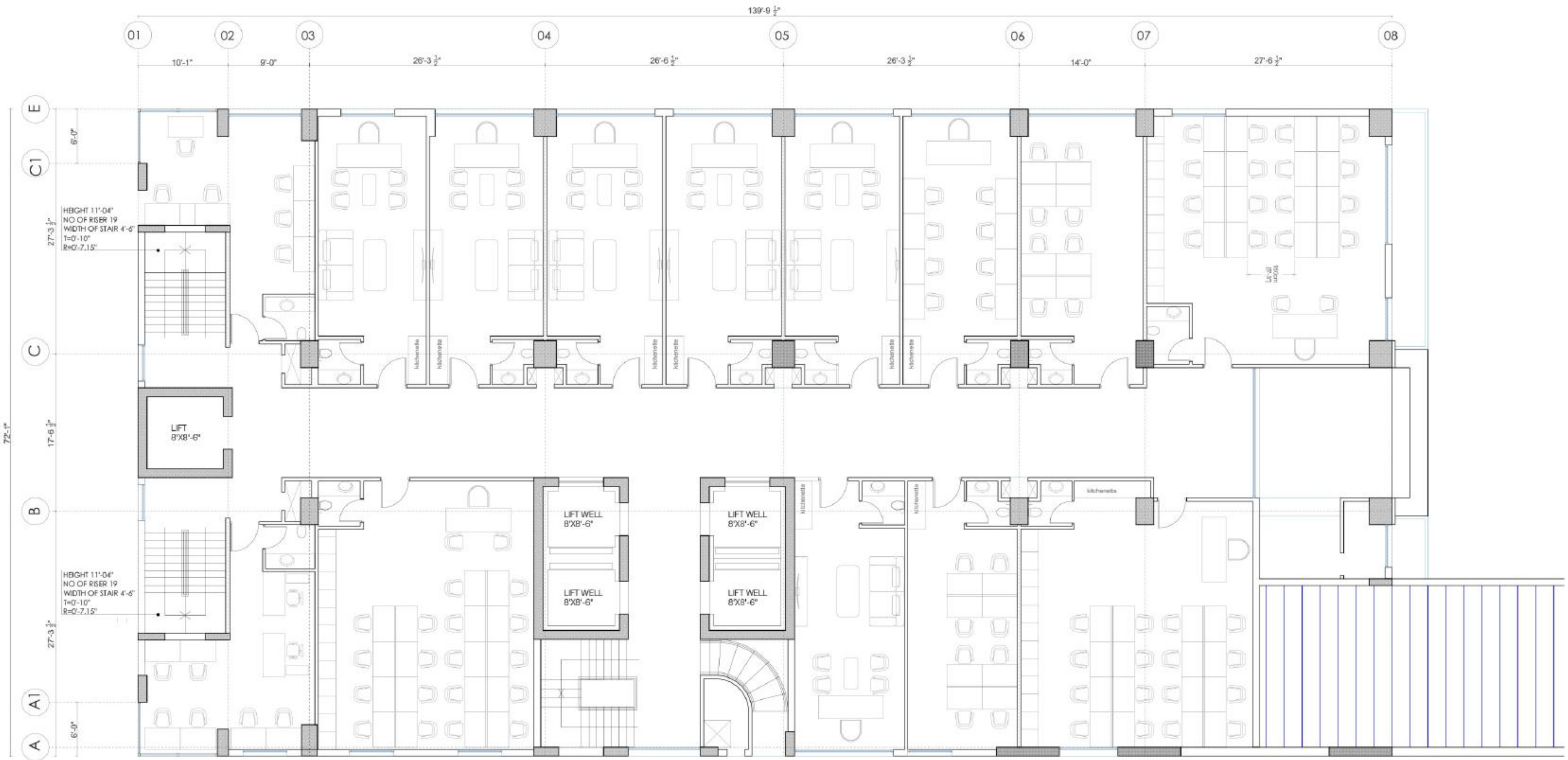

TXT
4 UR
NXT
BUS

Cactus Tower, an elegant 12-story apartment building in Mezzeh, Damascus, stands as a striking testament to thoughtful design and integration into the urban context. Comprising 64 apartments, this 60-meter-tall structure seamlessly blends with the surrounding urban fabric while commanding attention with its distinctive spiky outline, earning it the fitting name "Cactus."

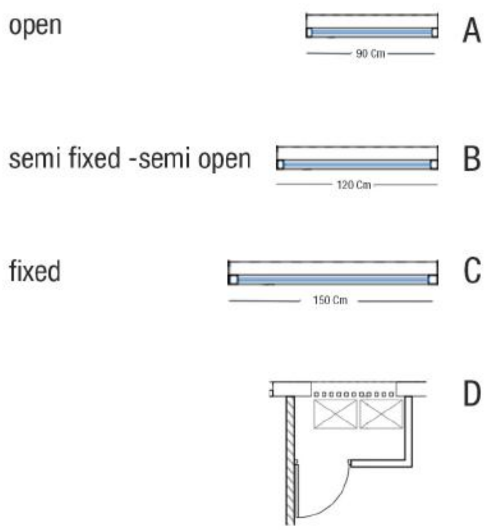
The north-facing facade, adorned with balconies inspired by the cactus's form, not only adds a touch of uniqueness but also serves functional and aesthetic purposes. Overlooking a vibrant plaza, the building creates a sense of community engagement. The contemporary design, marked by clean lines, simplicity, and modern aesthetics, ensures Cactus Tower's visual identity is both timeless and captivating, contributing to the architectural richness of Mezzeh.

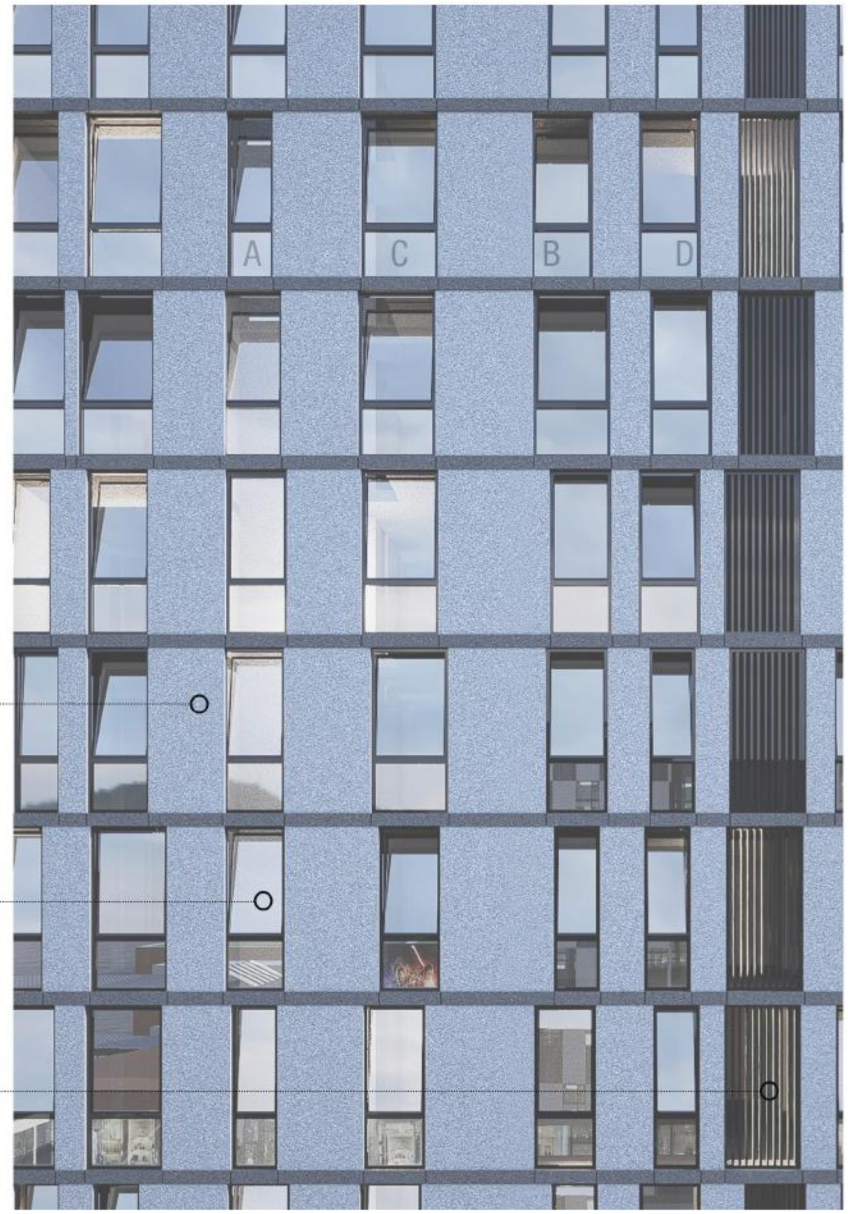
Architecture And Structure Drawing

Architecture Plan


139'-9 1/2"
01
02
03
04
05
06
07
08
10'-1"
9'-0"
26'-3 1/2"
26'-6 1/2"
26'-3 1/2"
14'-0"
27'-6 1/2"
E
C1
C
B
A1
A
6'-0"
27'-3 1/2"
17'-6 1/2"
27'-3 1/2"
6'-0"
72'-1"
HEIGHT 11'-04"
NO OF RISER 19
WIDTH OF STAIR 4'-6"
T=0'-10"
R=0'-7.15"
LIFT
8'X8'-6"
HEIGHT 11'-04"
NO OF RISER 19
WIDTH OF STAIR 4'-6"
T=0'-10"
R=0'-7.15"
LIFT WELL
8'X8'-6"
LIFT WELL
8'X8'-6"
LIFT WELL
8'X8'-6"
LIFT WELL
8'X8'-6"


AL-HAFEEZ SQUARE





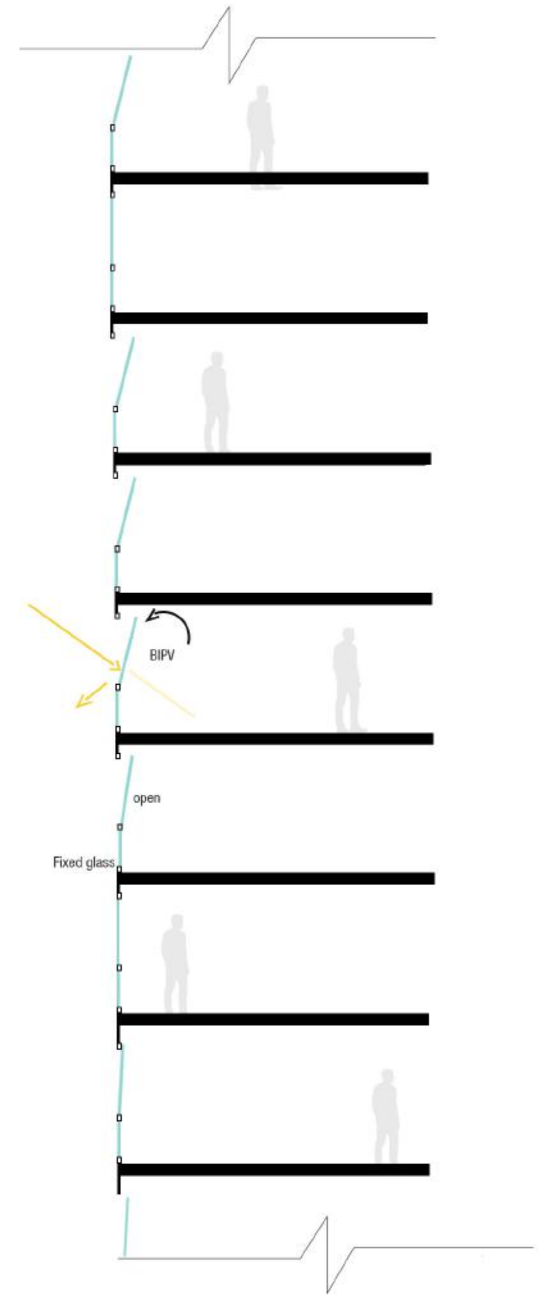
HIGH-TECH CONCRETE

LOCAL DEVELOPMENT
CONCRETE FOR SUSTAINABLE
high-performance concrete

SOLAR GLASS

Building-Integrated Photovoltaics (BIPV):*
Photovoltaic glass, which generates electricity, can be integrated into building facades or windows. When combined with regular glass layers, it allows for natural light to enter while simultaneously generating renewable energy.

LOUVERS



IN CONSTRUCTION

MASTER PLAN

01

Marhaba Garden
P_232

02

Marhaba Garden

Sialkot ,Pakistan

Responsibility: Turnkey

Client: Gondal Developers

Size: 20 Hectare

Status: In Construction

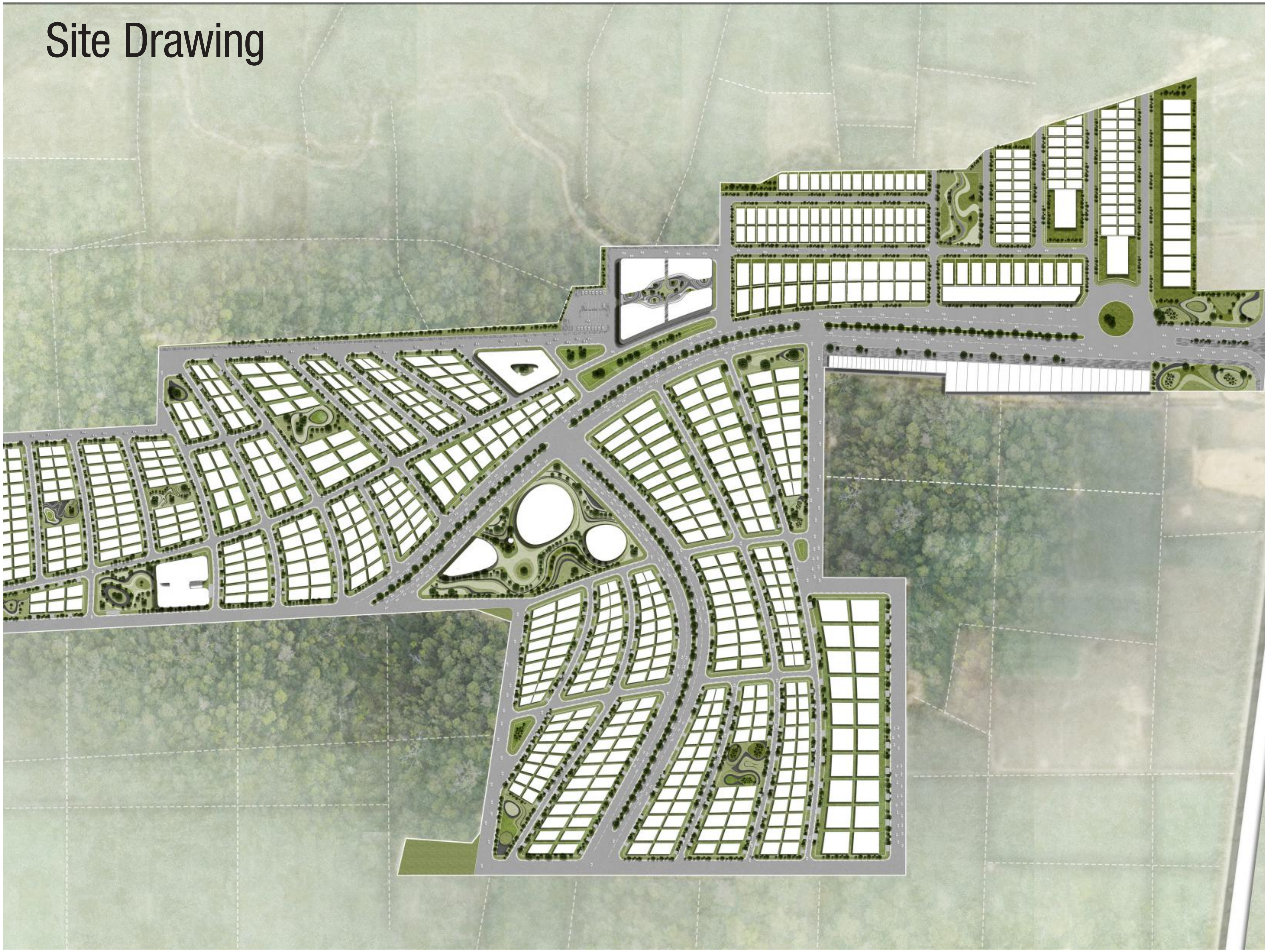
Typology: Residential , Retail

Year: 2024

This innovative architectural project in Ghana utilizes bamboo, a locally abundant material, inspired by the Baobab tree's branching design. Incorporating traditional techniques such as wood shutters, cob walls, and earth bricks, the structures blend natural materials for both cultural resonance and structural integrity.

The interior design prioritizes natural light through strategically placed openings and wood shutters, creating a warm and inviting atmosphere. Additionally, the bamboo's unique branching design enhances the play of light and shadow. The project emphasizes eco-friendly practices and local identity, integrating natural ventilation for a sustainable and comfortable living environment.

Site Drawing



Site Plan

Blocks Function Plan


DYNAPAC
DYNAPAC

SUSTAINABILITY

OFFICE

01

Feroze Tower

P_254

02

Al Sham Bank

P_260

Feroze Tower

Lahore ,Pakistan

Client: IAN Contracting

Size: 4.148m^2/44,649f^2

Status: In Design

Typology: Office , Retail

Year: 2022

Adopting the forefront of technological innovation, this project incorporates an array of smart technologies, seamlessly blending physical and digital components to enhance user experience, efficiency, and sustainability. Intelligent building systems are integrated to optimize energy usage, dynamically adjusting lighting and climate control based on occupancy and external conditions.

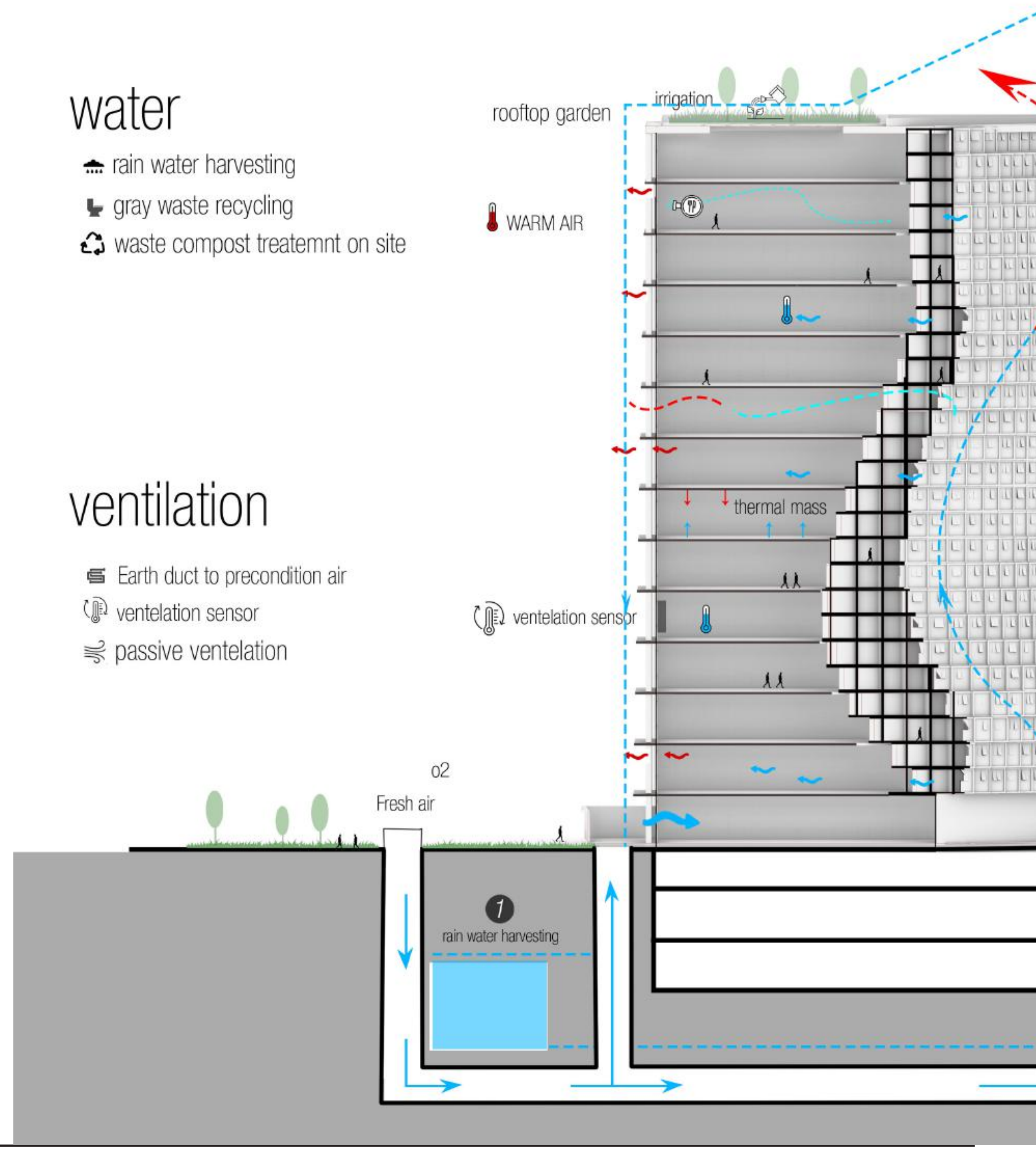
Sustinibilty Strategy

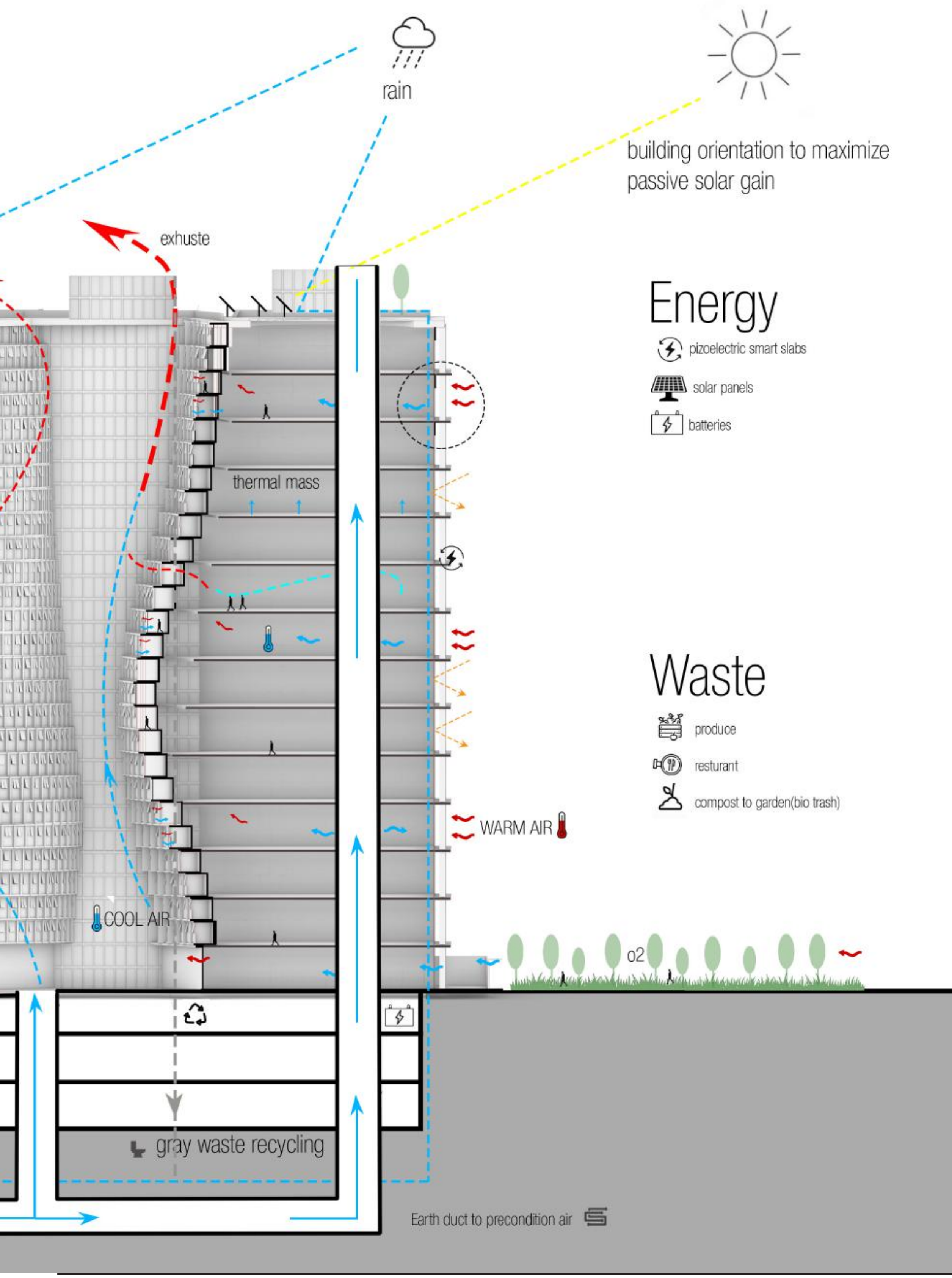
water

- rain water harvesting
- gray waste recycling
- waste compost treatemnt on site

ventilation

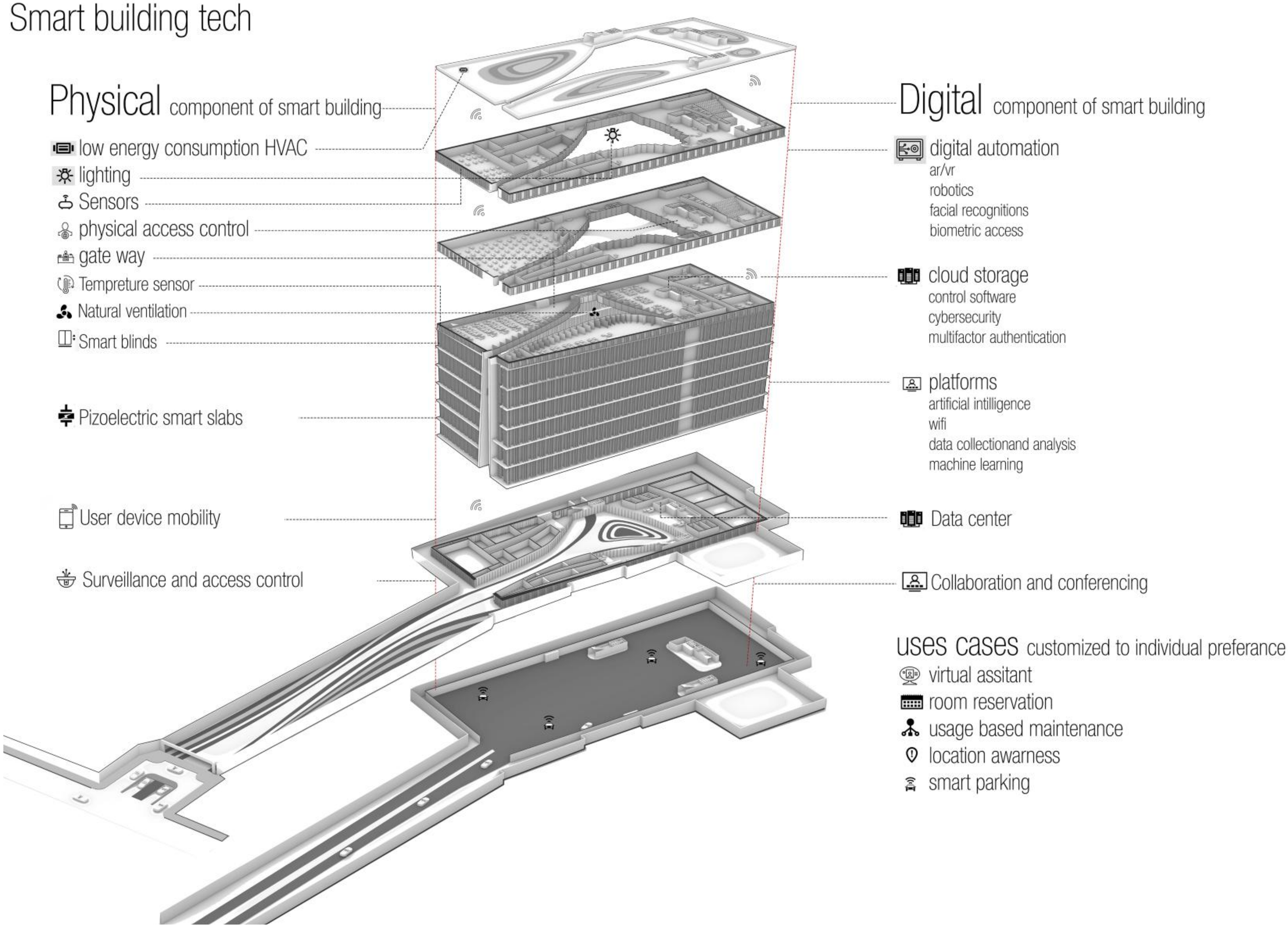
- Earth duct to precondition air
- ventelation sensor
- passive ventelation



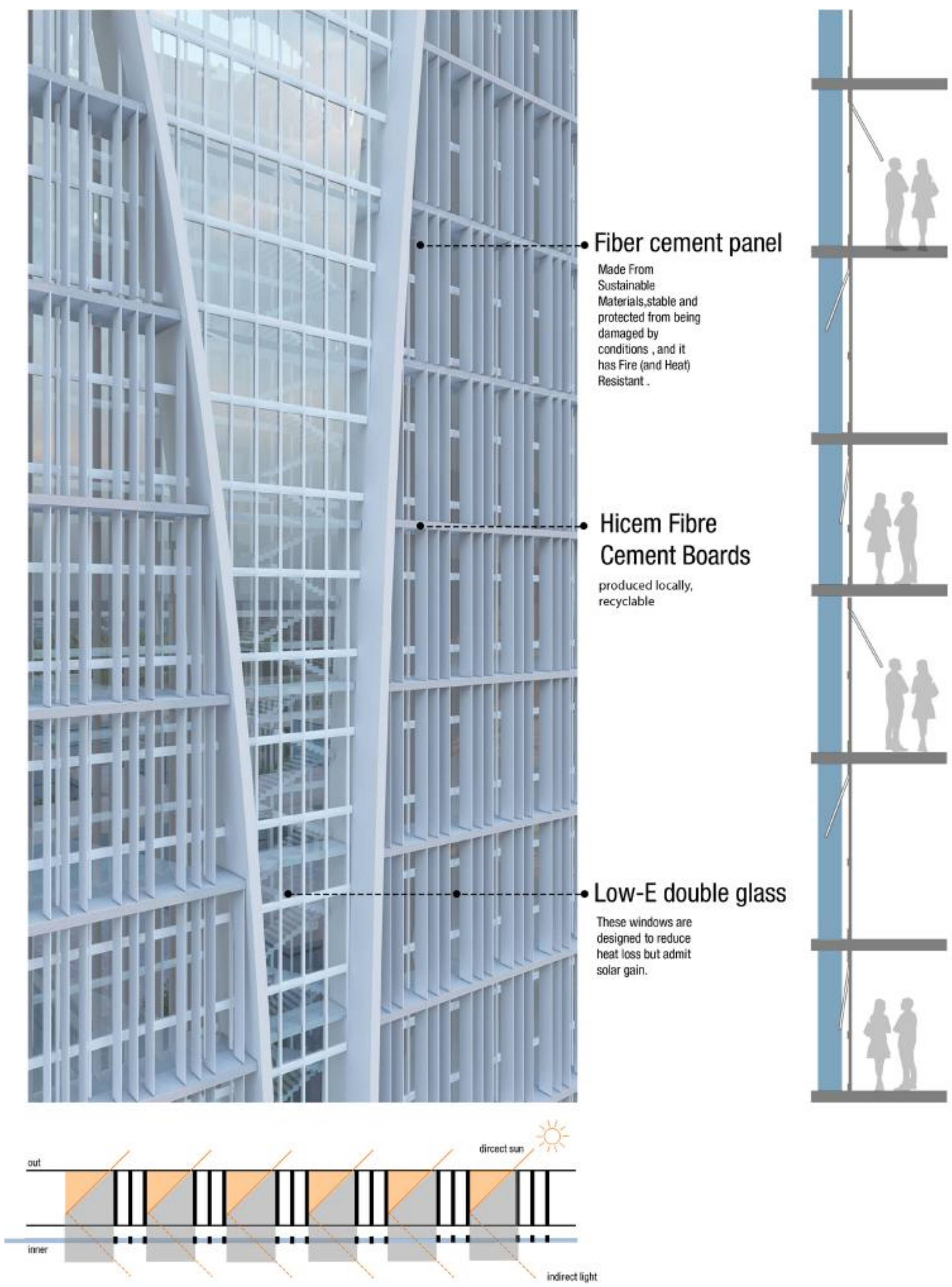


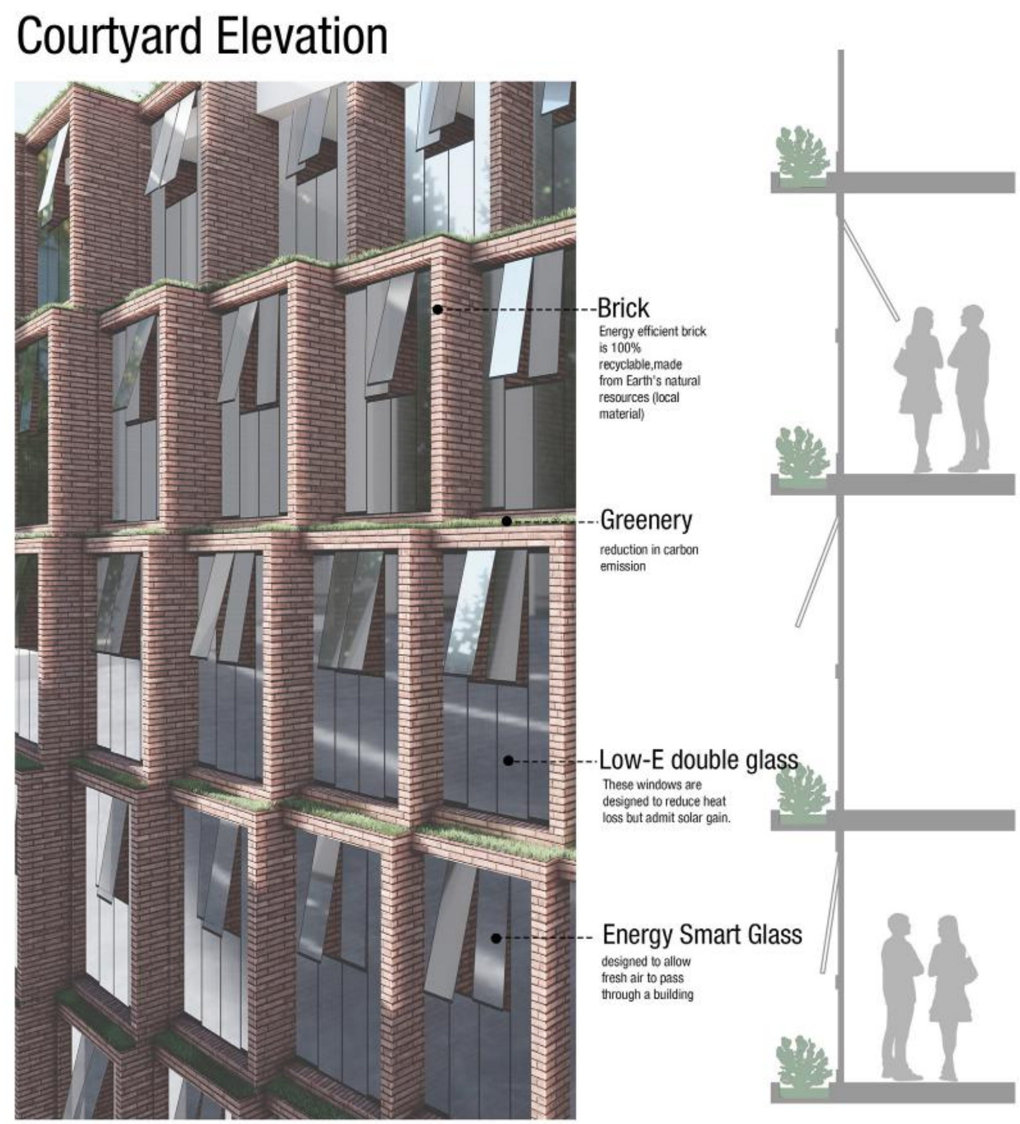
In addition, a robust building management system enables real-time monitoring and control of various parameters, promoting operational efficiency and predictive maintenance. Furthermore, the building incorporates smart features for occupants, such as smart lighting, automated blinds, and integrated digital interfaces for personalized control.

Smart building tech



External facades boast a fusion of modernity and eco-consciousness, with fiber cement panels and hicem fiber cement boards contributing durability and a low environmen tal footprint. Completing the ensemble, low E-double glass on the external facade not only adds to energy efficiency but also establishes a seamless integration of sustainability into the architectural narrative.





Al-Sham Bank

Damascus ,Syria

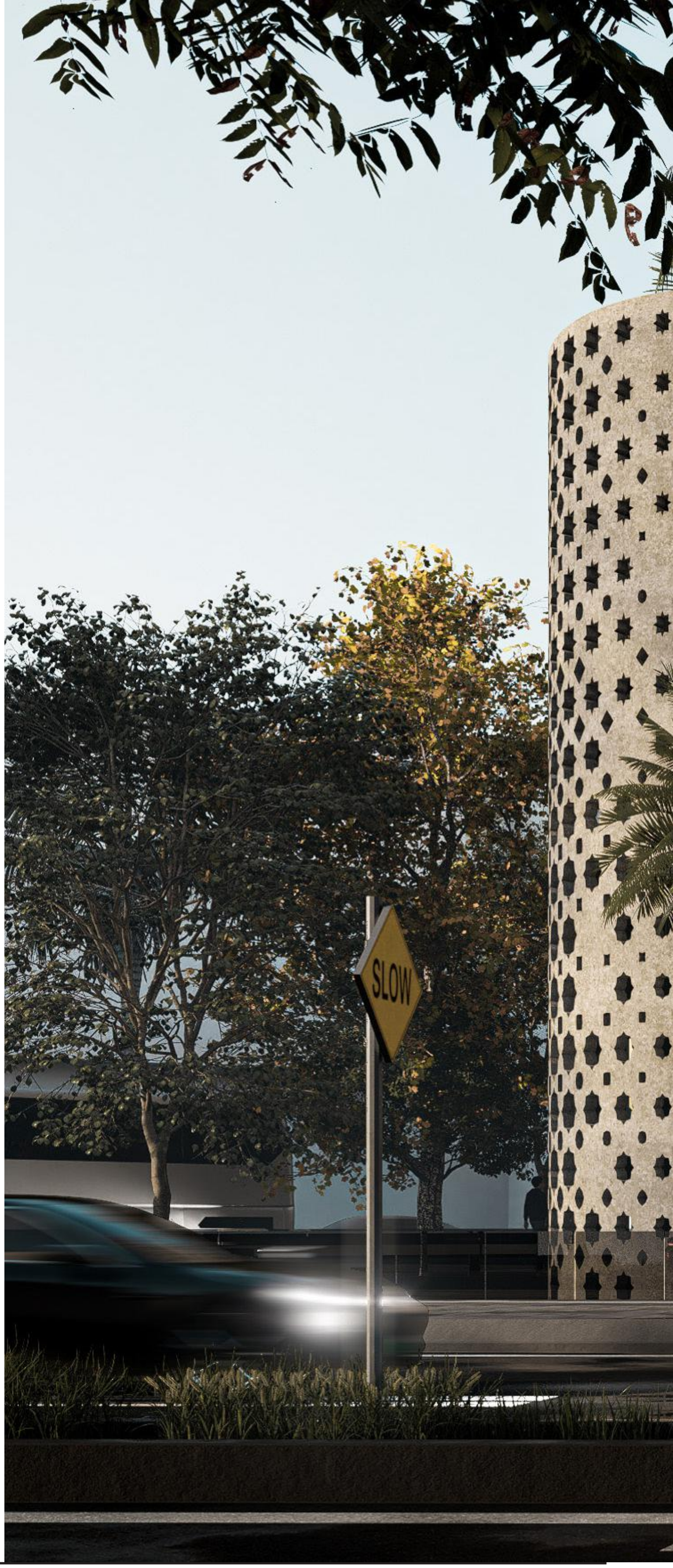
Client: Al Sham Bank

Size: 510m² / 5,489f²

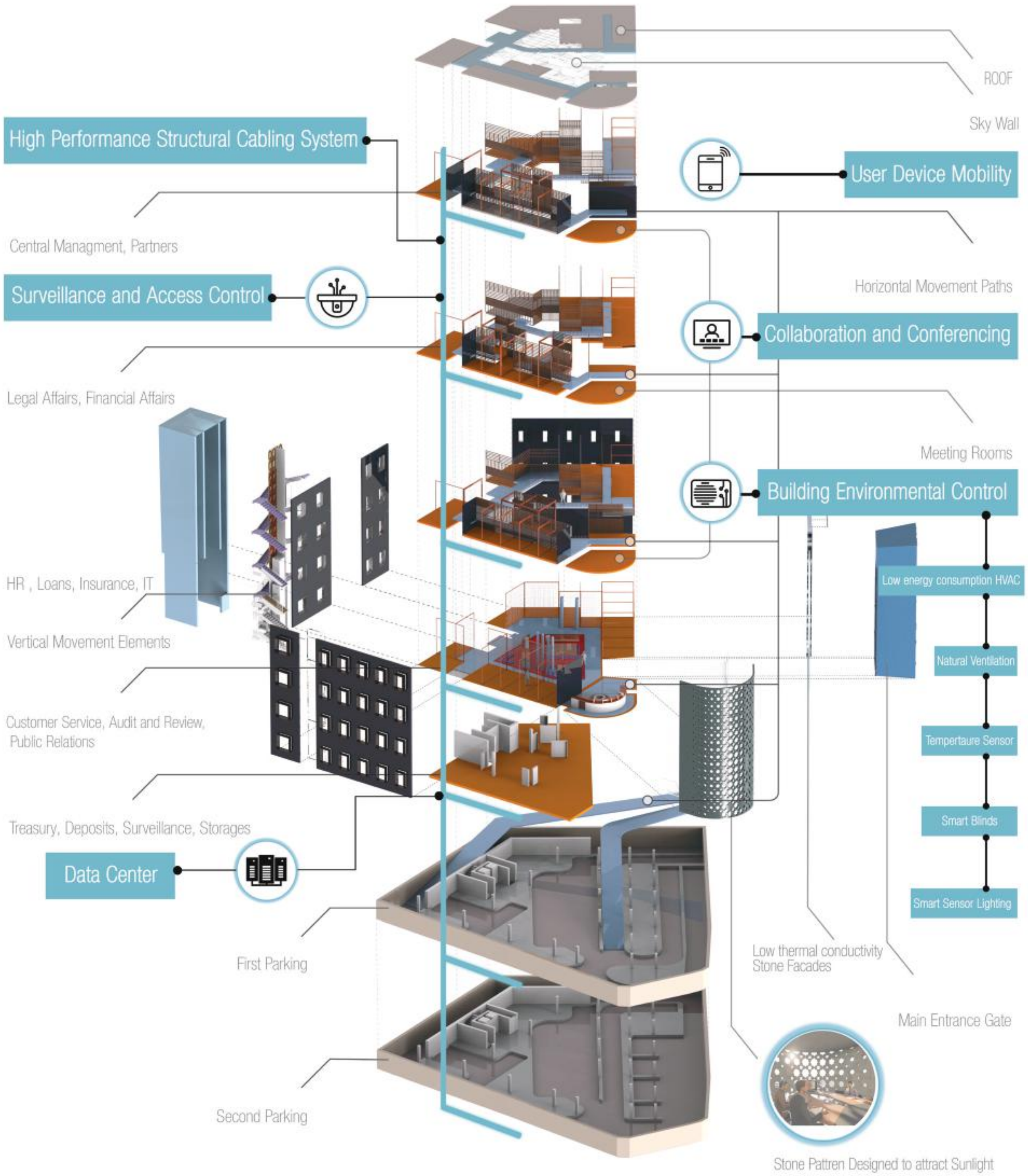
Status: Proposal

Typology: Office

Year: 2018

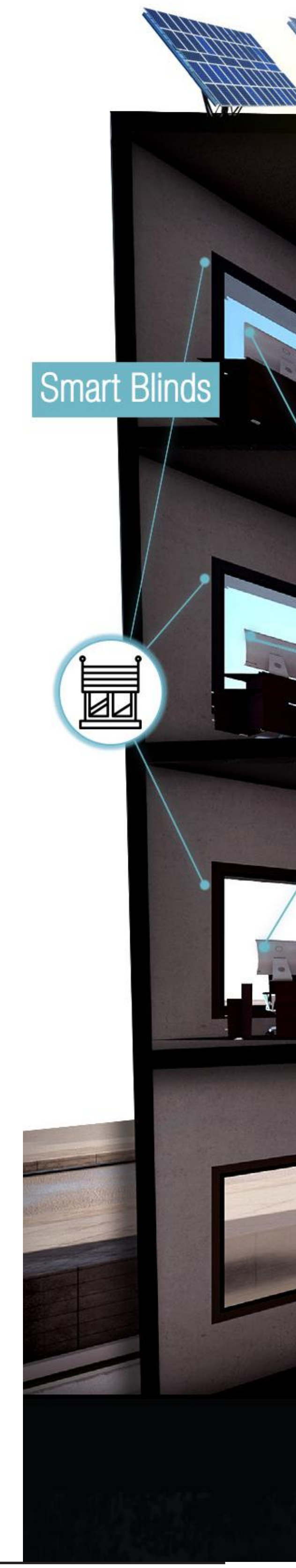


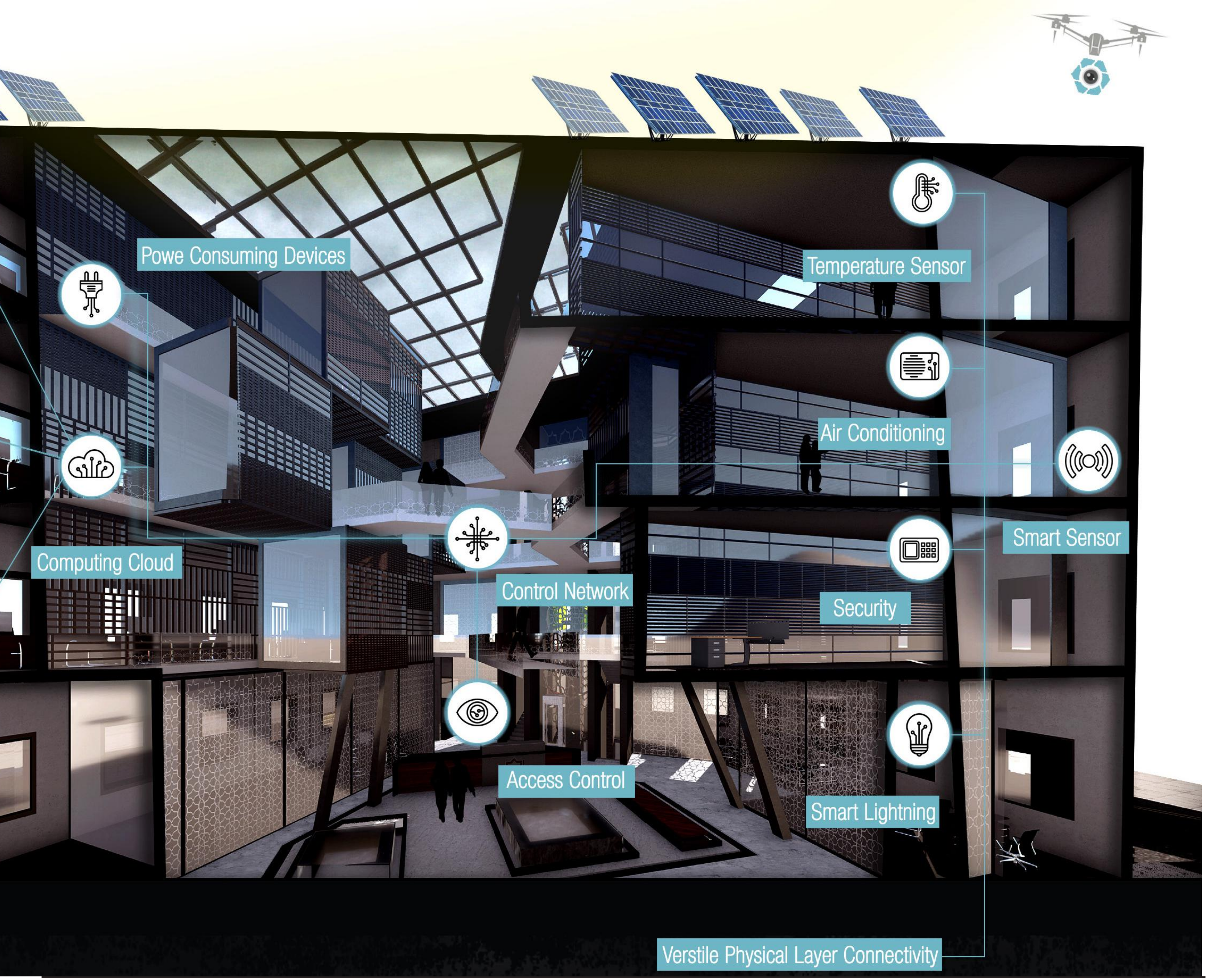
Exploded Smart Analysis

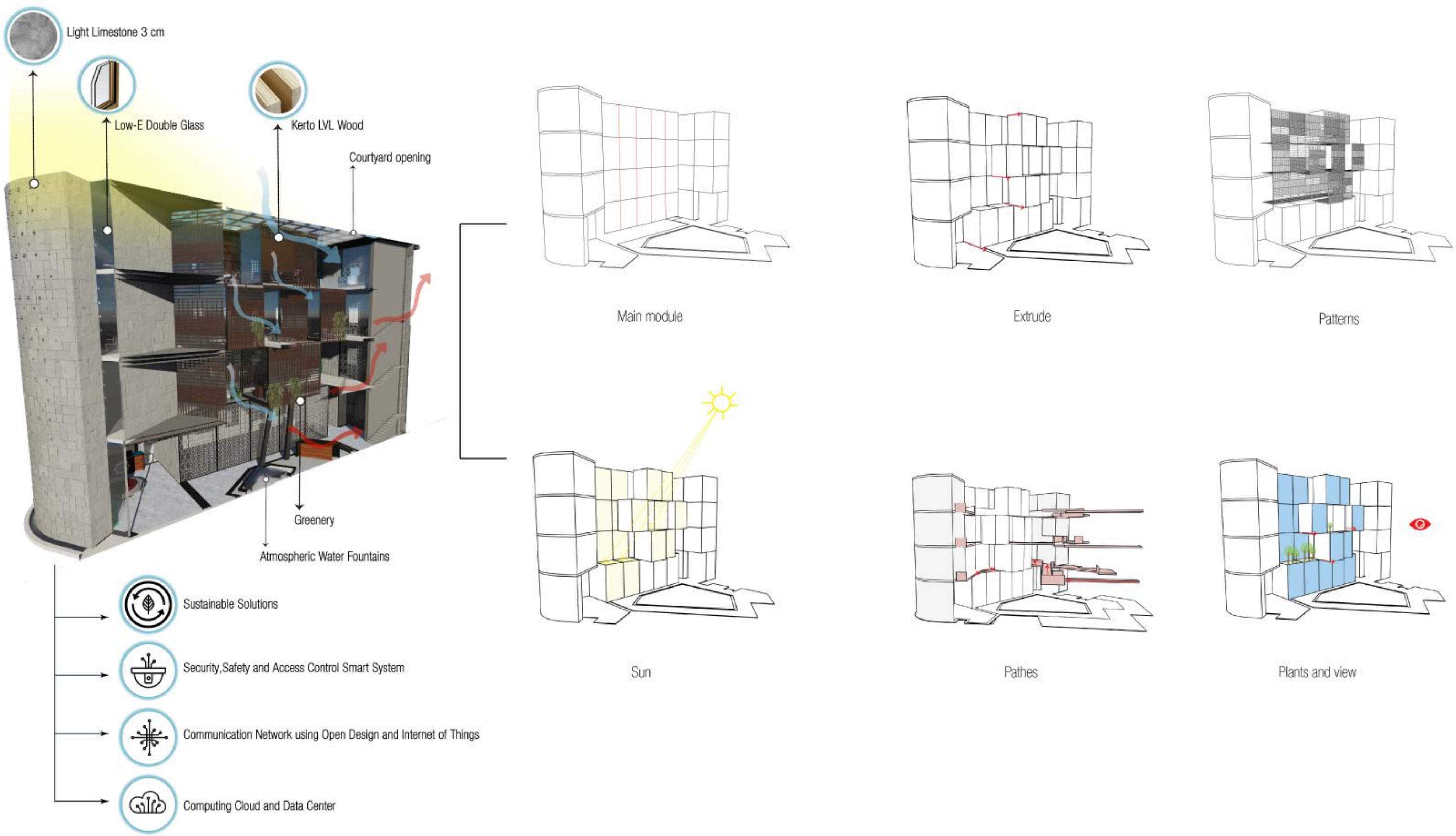


Our design seamlessly integrates high-performance structural systems, surveillance, access control, and open-space communication for enhanced adaptability and security. Sustainability is a core focus, utilizing smart technologies such as a computing cloud, power-efficient devices, and environmental controls to ensure efficient building management and reduced energy consumption.

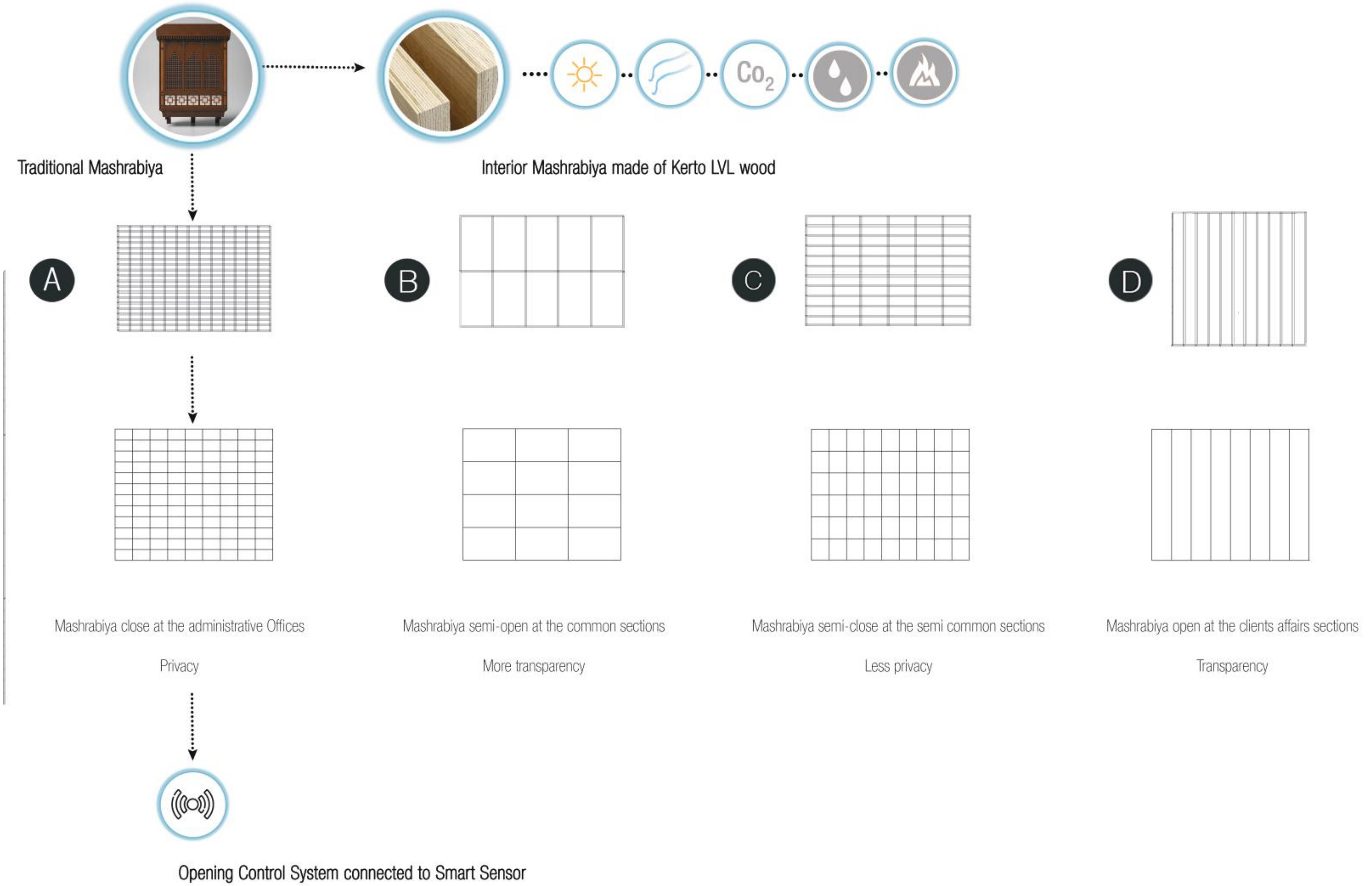
The project's essence lies in creating adaptable and eco-friendly spaces, exemplified by an inner courtyard promoting a dynamic environment with geothermal heating, solar panels, and water-based climate solautions. This commitment to cultural preservation, sustainable practices, and cutting-edge technologies reflects a transformative approach, transcending traditional spaces into modern marvels that prioritize decreased energy consumption, heightened space efficiency, and elevated resident comfort.




Powe Consuming Devices
Temperature Sensor
Air Conditioning
Computing Cloud
Control Network
Smart Sensor
Security
Access Control
Smart Lightning
Verstile Physical Layer Connectivity


Light Limestone 3 cm
Low-E Double Glass
Kerto LVL Wood
Courtyard opening
Greenery
Atmospheric Water Fountains
Sustainable Solutions
Security,Safety and Access Control Smart System
Communication Network using Open Design and Internet of Things
Computing Cloud and Data Center
Main module
Extrude
Patterns
Sun
Pathes
Plants and view

The facades conditions of Al-Cham Bank allowed for preservation, resulting in a reduction of approximately 30% in the CO2 footprint compared to constructing a new building. Sustainable practices in both demolition and construction lay the groundwork for an environmentally conscious development, addressing the challenges posed by the previously inaccessible structure and creating a unified workspace for the evolving workforce.



SUSTAINABILITY

HOSPITALITY

Al-Jalaa Hotel

Damascus ,Syria

Client: Daaem Group

Size: 840m² / 8,826f²

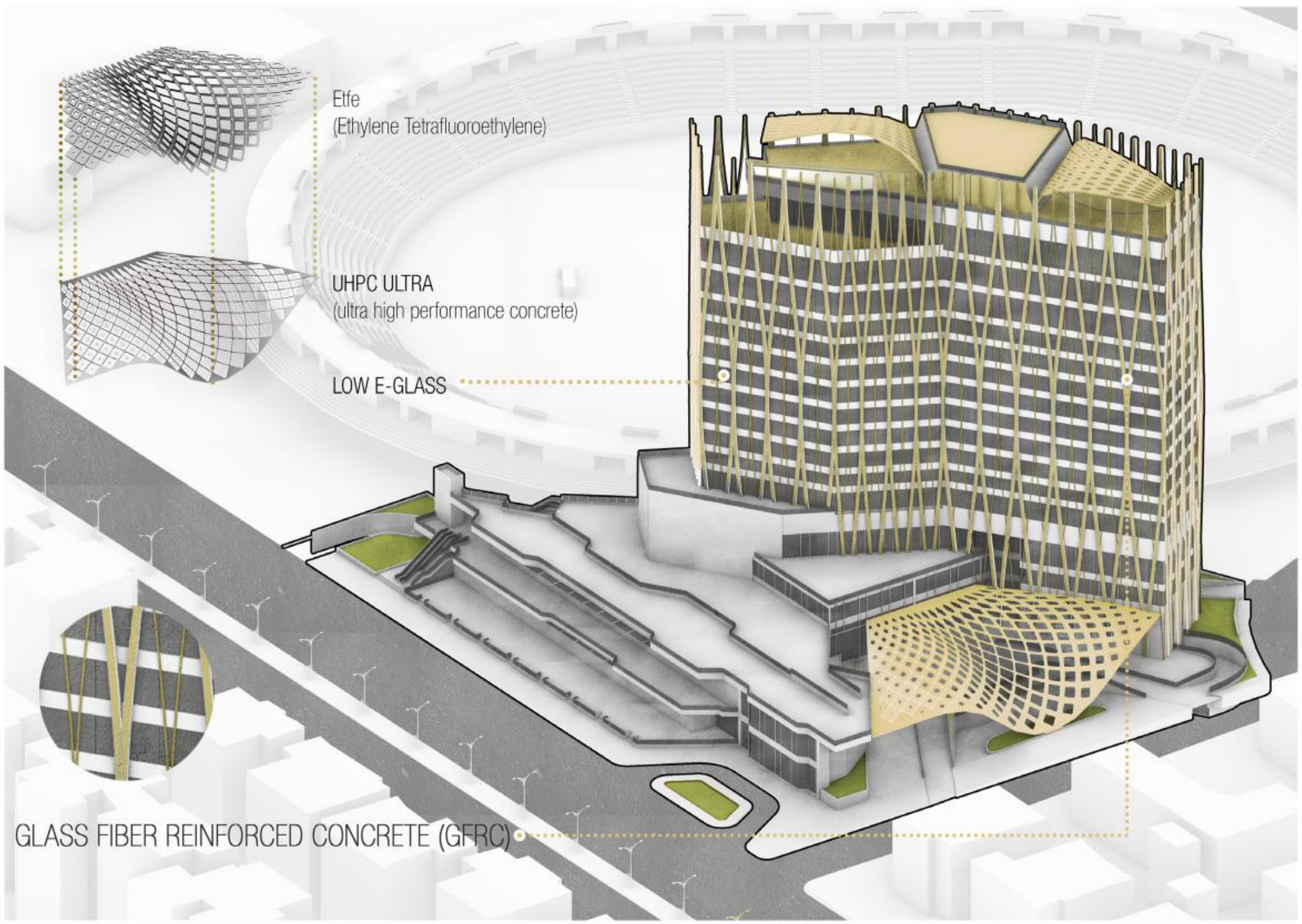
Status: Proposal

Typology: Hotel

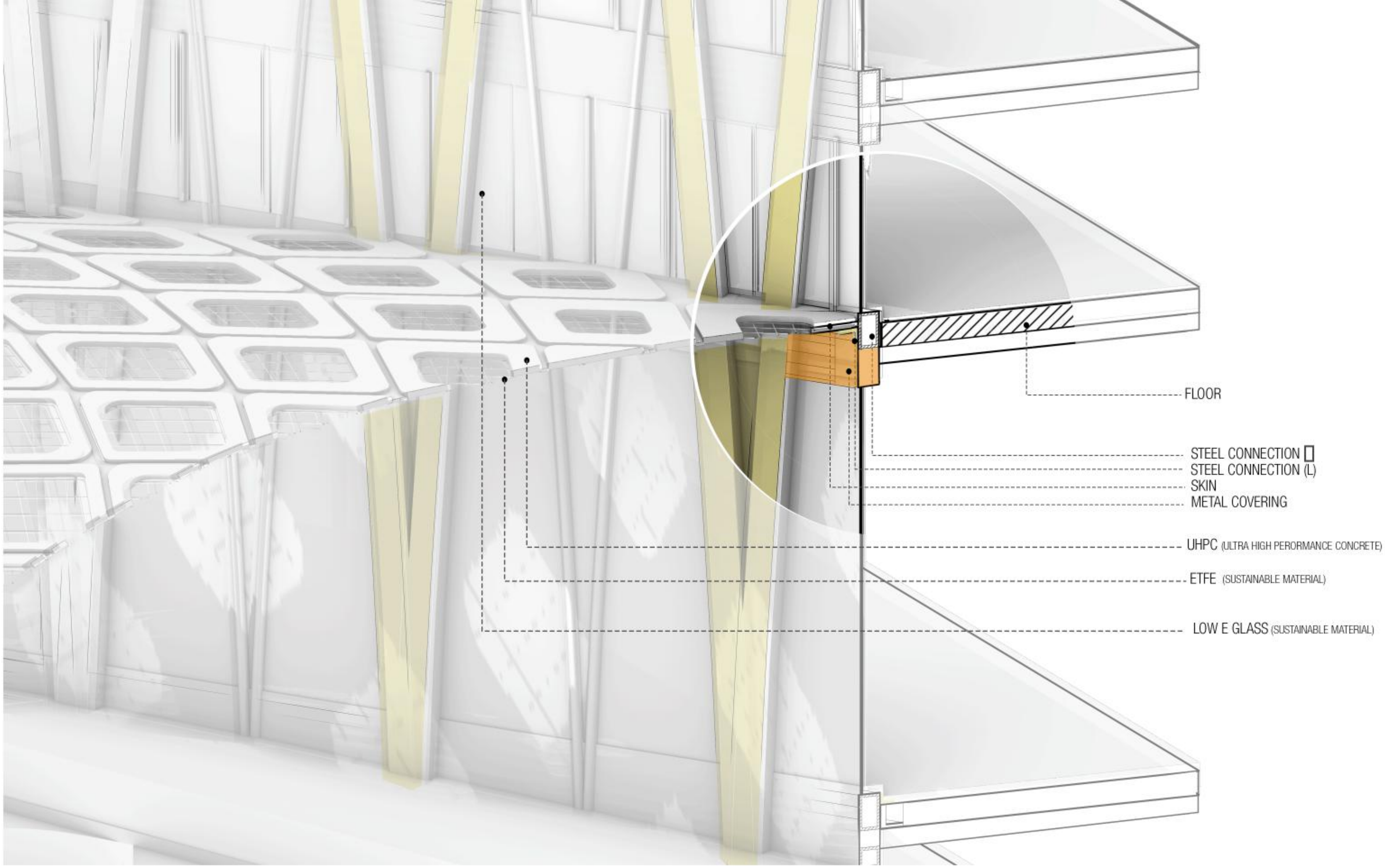
Year: 2019


40
SLOW

This skin design emphasizes sustainability with a composition of low-E glass and Glass Fiber Reinforced Concrete (GFRC). Low-E glass enhances energy efficiency by minimizing heat transfer, while GFRC provides durability and flexibility with its lightweight properties, offering a sustainable alternative to traditional concrete. It also facilitates intricate detailing, allowing for the seamless incorporation of the geometric patterns inspired by the Umayyad Mosque's ornamental elements. The entrance pavilion seamlessly combines Ultra High Performance Concrete (UHPC) for robust structural elements with Ethylene Tetrafluoroethylene (ETFE) panels, ensuring durability and transparency. UHPC provides strength and sleek profiles, while ETFE allows natural light transmission, creating an inviting atmosphere. This material synergy not only enhances the pavilion's modern aesthetic but also underscores a commitment to both durability and sustainability in the design.



Skin Structure



Skin Cladding And Details

The skin of the hotel is ingeniously structured using a diagrid framework, demonstrating a sophisticated architectural approach. The diagrid, a diagonal grid of interconnected elements, imparts both strength and flexibility to the building envelope. This design enhances the structural integrity of the facade and allows for an open and visually dynamic appearance. Inspired by the efficiency of natural systems, the diagrid framework minimizes material usage while optimizing load distribution, resulting in a lightweight and sustainable structure.

Squares Showroom

Dammam City ,Saudi Arabia

Client: S Squares

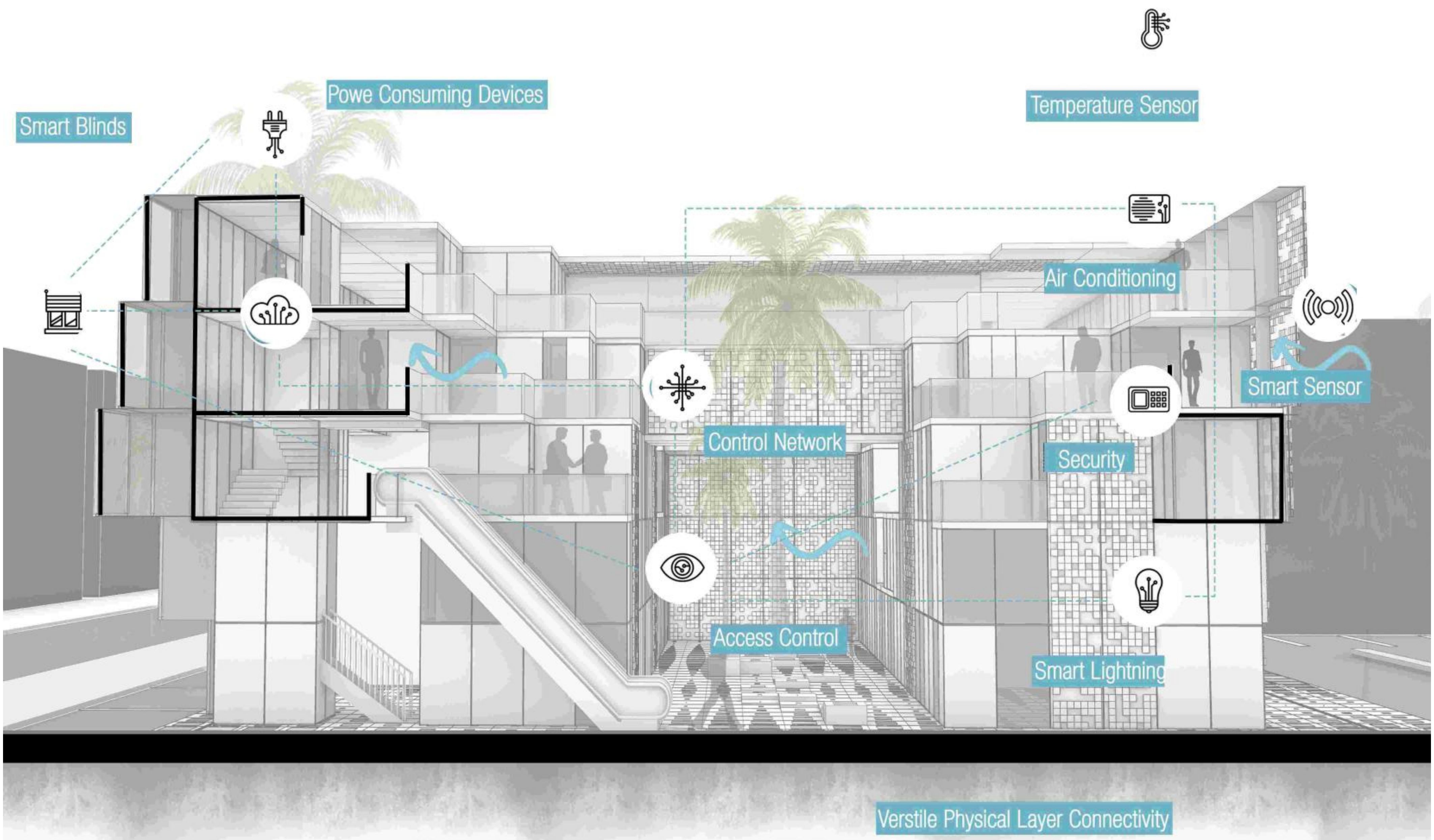
Size: 2,100m² / 22,604f²

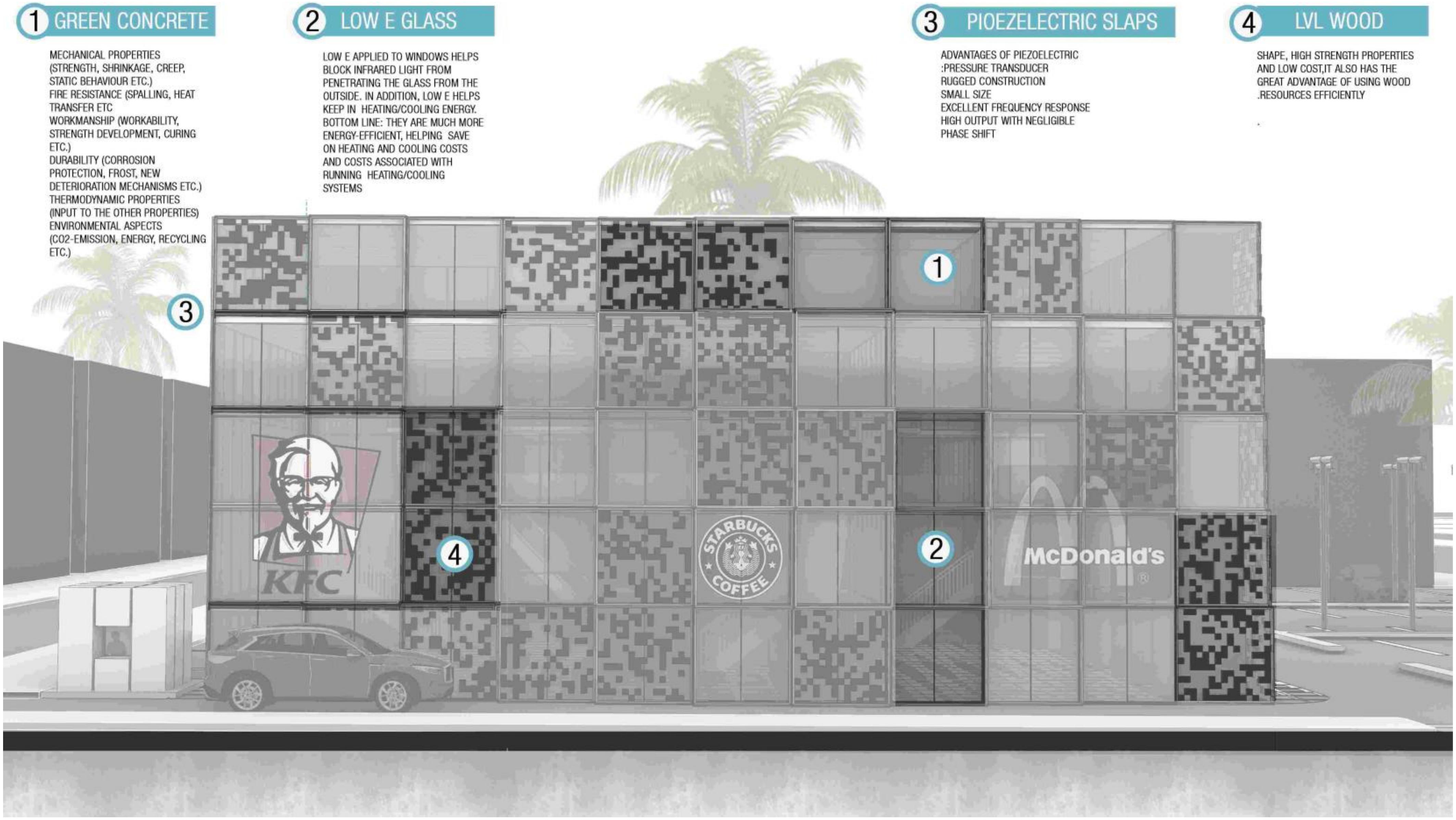
Status: Proposal

Typology: Office , Retail

Year: 2020

Square Oasis Showroom embraces smart building technologies for enhanced efficiency and user experience. Smart blinds, temperature sensors, and intelligent lighting systems contribute to energy optimization. These technologies not only align with modern architectural trends but also ensure a comfortable and responsive environment within the building. The integration of such smart systems underscores the commitment to staying at the forefront of technological advancements in the realm of commercial architecture.





Commitment to sustainability is ingrained in Square Oasis Showroom's design. Perforated metal sheets adorn the facade, not just enhancing aesthetics but also serving practical purposes such as solar shading and noise reduction. Solar studies influenced the density of aluminum panels, contributing to effective solar shading. The central oasis aids natural ventilation, complemented by the use of green concrete for its mechanical and thermodynamic properties. Additional sustainable features include low-e glass, laminated veneer lumber (LVL wood), and piezoelectric slabs, collectively minimizing

DHA Food Court

Lahore ,Pakistan

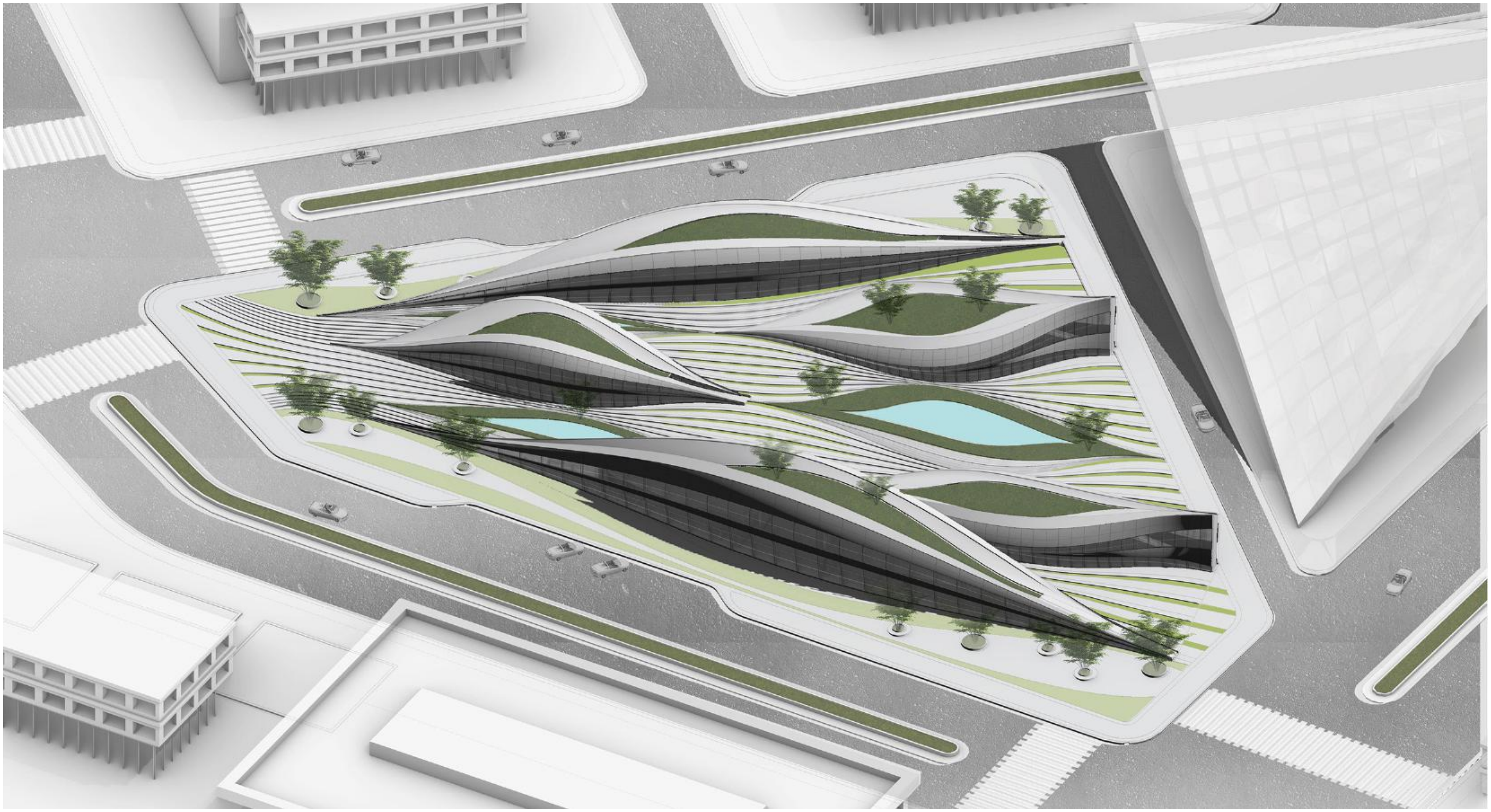
Client: Swiss Group

Size: 10,117m² / 108,899f²

Status: Proposal

Typology: Hospitality

Year: 2021



Furthermore, we have embraced design principles by harnessing natural light, integrating greenery, and implementing meticulous ventilation strategies. Strengthening our commitment to environmental responsibility, we deliberately selected building materials such as ETFE for its exceptional light-transmitting properties, lightweight nature, and resilience to environmental conditions, thereby minimizing reliance on artificial lighting. Our dedication to sustainability is evident in the choice of eco pact concrete, incorporating recycled materials and adhering to eco-friendly production practices. Additionally, the utilization of Hydro media concrete not only addresses water runoff concerns but actively contributes to rainwater harvesting initiatives.

1 ETFE

100% ETFE TRANSPARENCY PROVIDES REDUCED USE OF ARTIFICIAL LIGHTING WHICH LOWERS AREA COSTS. INNOVATIVE PLASTIC CUSHIONS ALSO TRANSFORM THE PATIO INTO A LIGHT AND AIRY SPACE.

2 FIBER CEEMENT BOARD

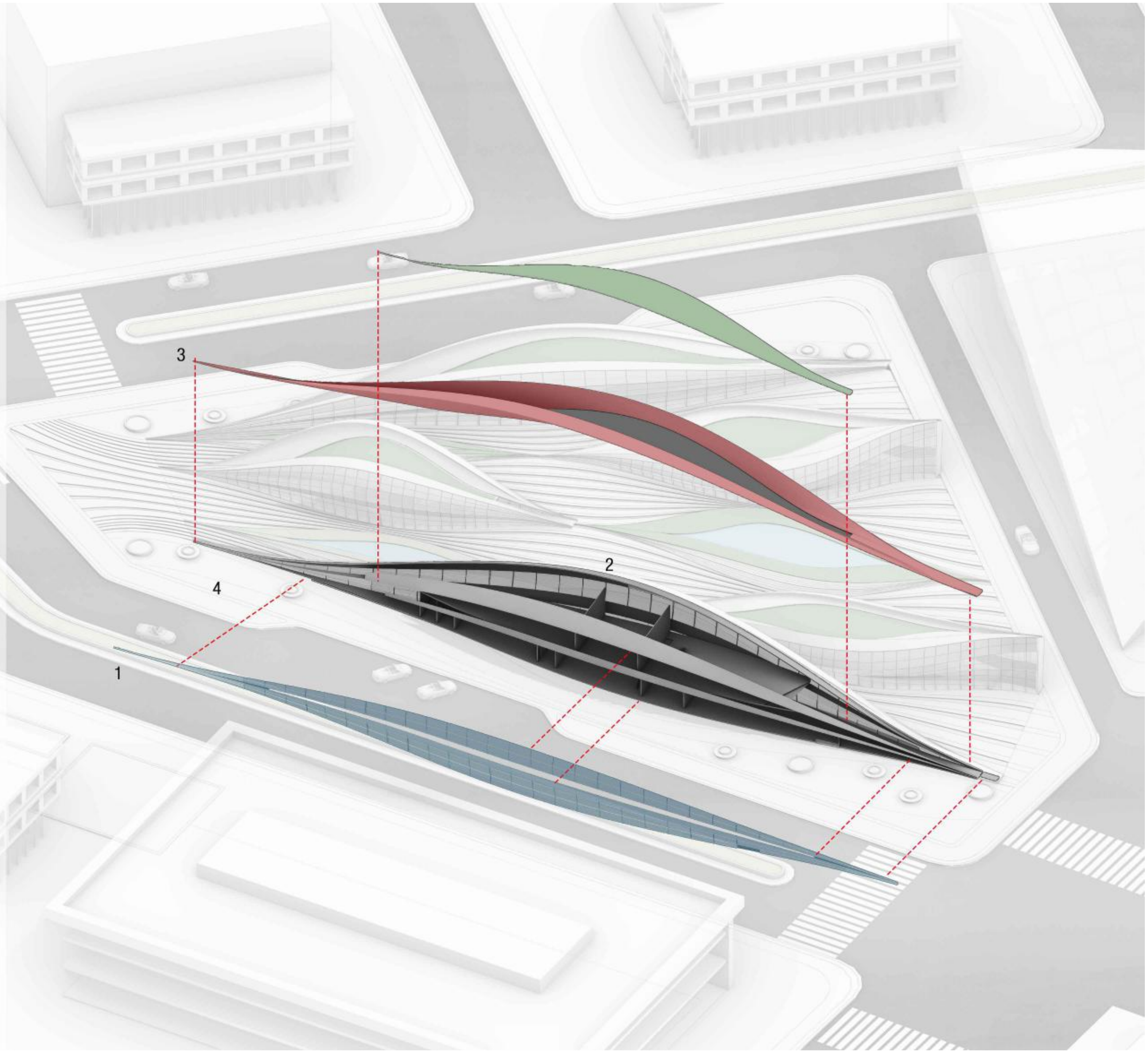
A MULTI-PURPOSE BOARD THAT OUTPERFORMS OTHER MATERIALS IN TERMS OF FLEXURAL STRENGTH, IMPACT STRENGTH AND DURABILITY. HICEM BOARDS ARE A1 NON-COMBUSTIBLE, WATER RESISTANT AND ARE NOT AFFECTED BY PESTS OR INSECTS.
MANUFACTURED WITH CEMENT, CELLULOSE FIBRES AND PERFORMANCE ENHANCING ADDITIVES

3 ECO PACT CONCREATE

ECOPACT IS A LOW-CARBON CONCRETE PRODUCT RANGE WHICH CAN REDUCE THE EMBODIED CARBON OF BUILDINGS, INFRASTRUCTURE AND HOMES BY AT LEAST 30% WITHOUT OFFSETS.

4 HYPERMEDIA CONCREATE

MORE THAN A PRODUCT, HYDROMEDIA IS A WATER MANAGEMENT SYSTEM THAT RAPIDLY ABSORBS RAIN WATER OFF STREETS, PARKING SURFACES, DRIVEWAYS, AND WALKWAYS – REDUCING THE RISK OF FLOODING.OLUTION COMBINES THE PROPERTIES OF CONCRETE AND ADVANCED DRAINAGE TECHNOLOGY



SUSTAINABILITY

EDUCATION

01

Quran Memorizing Institute

P_282

02

Timeabu Kindergarten

P_286

03

04

Quran Memorizing Institute

Al Ladhiqiyah ,Syria

Client: Quran Govt. of Damascus

Size: 250 SQM./ 2,691 SFT.

Status: Proposal

Typology: Education, Culture

Year: 2017

● ECOPACT CONCRETE

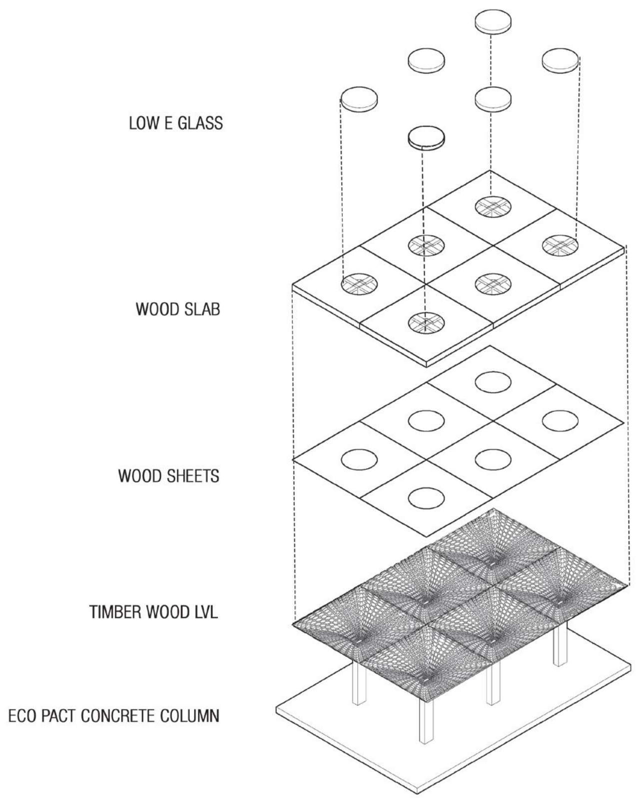
ECOPACT IS A LOW-CARBON CONCRETE PRODUCT RANGE WHICH CAN REDUCE THE EMBODIED CARBON OF BUILDINGS, INFRASTRUCTURE AND HOMES BY AT LEAST 30% WITHOUT OFFSETS.

● LOW E GLASS

LOW E APPLIED TO WINDOWS HELPS BLOCK INFRARED LIGHT FROM PENETRATING THE GLASS FROM THE OUTSIDE. IN ADDITION, LOW E HELPS KEEP .IN YOUR HEATING/COOLING ENERGY

● TIMBER WOOD

T HAS UNIFORM COLOUR. ITS LIGHT COLOUR USUALLY INDICATES TIMBER WITH LOW STRENGTH. IT IS DURABLE..IT IS CAPABLE OF RETAINING ITS SHAPE DURING .CONVERSION OR SEASONING
IT PROVIDES GOOD INSULATION FROM THE COLD..A GOOD TIMBER IS FREE FROM SERIOUS DEFECTS LIKE KNOTS, SHAKES, FLAWS AND CRACKS.I



PRAY HALL STRUCTURE

SUSTAINABLE MATERIAL

PRAYER HALL

THE PRAYER HALL HAS BEEN CREATED AS A GREAT UNIFIED SPACE WITH NATURAL LIGHT COMING FROM THE ROOF, MADE OF A SHAPE OF TIMBER COLUMNS AND MAKES THE LIGHT COME INTO THE .PRAYER HALL IN A DRAMATIC WAY INVITING TO THE MEDITATION

Timeabu Kindergarten

Ashanti ,Ghana

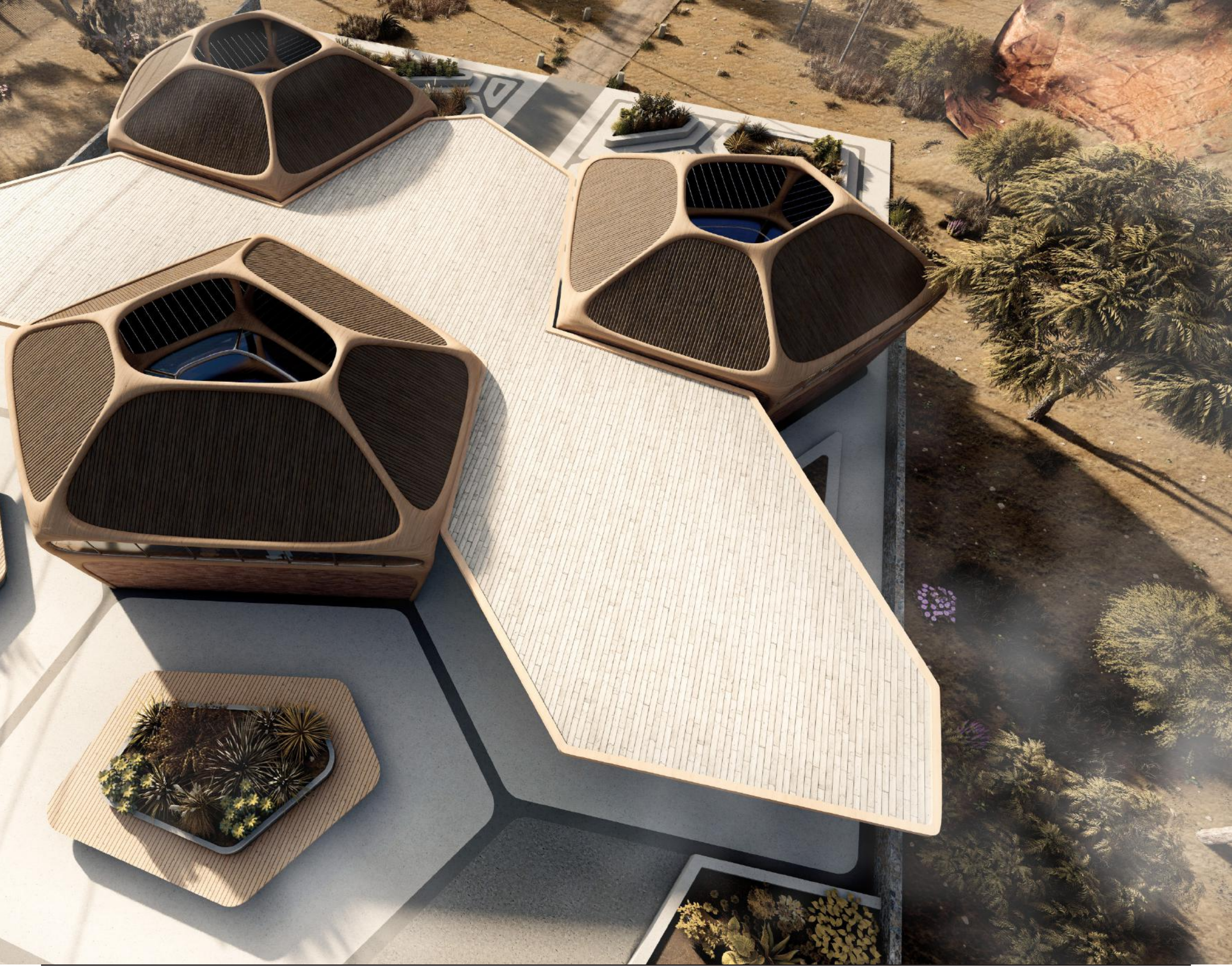
Client: Radefoundation And Madanfo

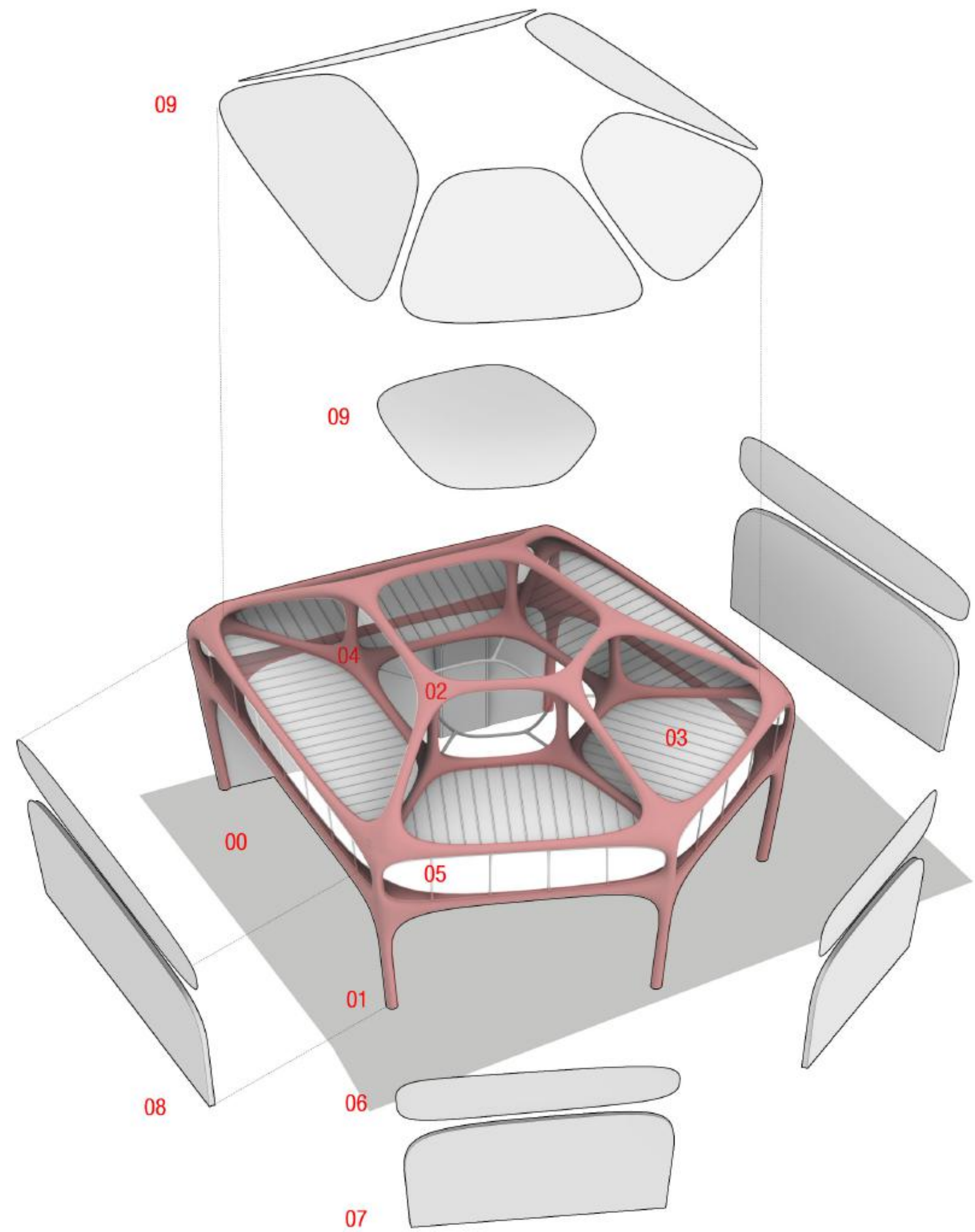
Size: 1,185m²/ 12,755f²

Status: Proposal

Typology: Education

Year: 2019





00 FOUNDATION CASTING
01 BAMBOO COLUMN
02 BMBOO STRUCTURE
03 BAMBOO JOIST
04 BAMBOO STUD
05 WOOD SHUTTERS
06 GLASS
07 COP WALLS
08 EARTH BRICK
09 COURGGATED METAL SHEETS

STRUCTURAL ANALYSIS

AFRICAN TRADITION, ESPECIALLY THE PRACTICE OF "COMMUNING UNDER A SACRED TREE TO EXCHANGE IDEAS, NARRATE STORIES, CELEBRATE AND ASSEMBLE"A STRUCTURE THAT TAKES ITS SHAPE FROM A TREE, WITH A DETACHED ROOF AND DISCONNECTED YET CURVED WALLS FORMED BY HEXAGON MODULES, THE COLOR REPRESENTING STRENGTH IN HIS CULTURE , BY USING NATURAL AND TRADITIONAL MATERIALS WITH MORE QUALITY AND QUALIIED STYLE

Proposal adopts sustainable approaches, incorporating elements like green spaces, eco-friendly architecture, and employing strategies for sustainability such as the use of locally sourced materials such as bamboo wood, corrugated metal sheets, and compressed earth brick. Additionally, passive ventilation, achieved through the implementation of stack effect ventilation across all three units, is a key feature. The overarching goal of these initiatives is to advance environmental, social, and economic well-being, with a commitment to diminishing resource depletion and nurturing a more robust environment for present and future generations.

DAY LIGHT HARVESTING

RAYS OF SUN FILTER INTO CLASSROOM, COURTYARDS, AND INTERMEDIARY SPACES OVERCOMING HARSH MIDDAY CONDITIONS TO OFFER PLACES OF SERENITY OR GATHERING"

PASSIVE VENTILATION

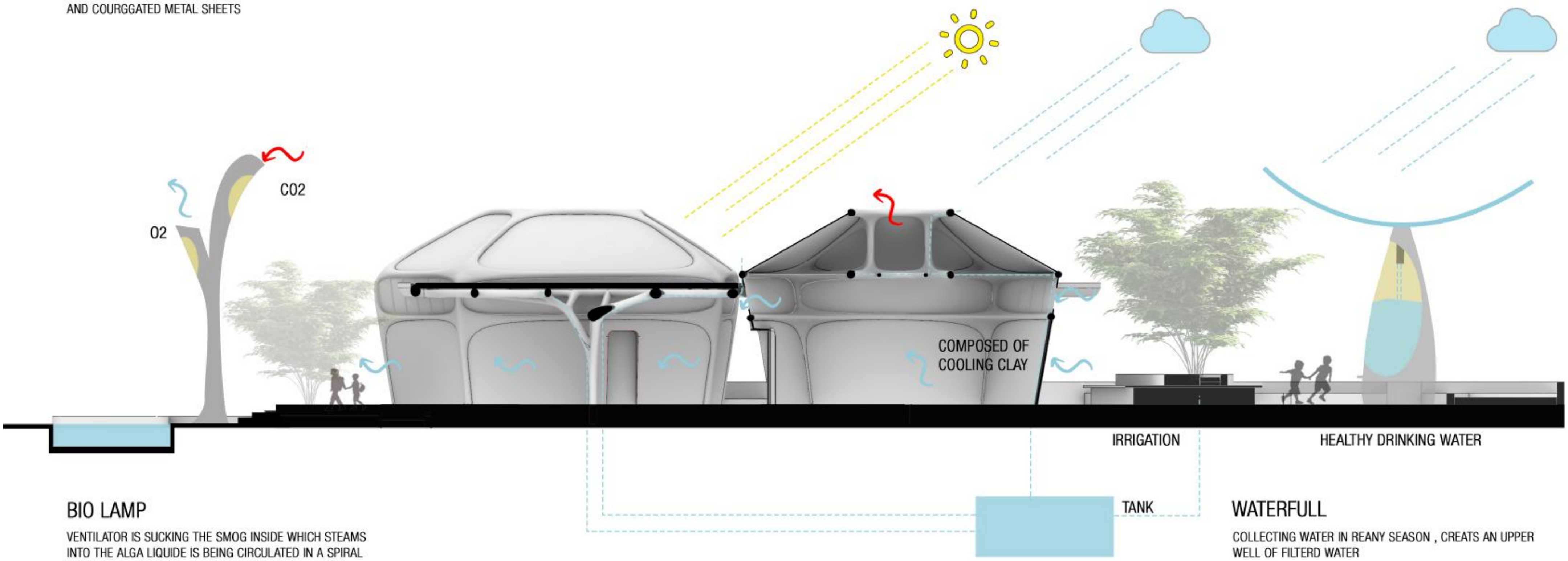
NATURAL VENTILATION
TURNING POLLUTED AIR INTO CLEAN AIR
NATURAL LIGHT
BIO LAMP

RAIN WATER HARVESTING

USING THE CENTER OF CLASSROOM UNIT AS ARING FOR RAIN COLLECTION BY USING COURGGATED METAL SHEETS IN SLOPE TO GATHER THE RAIN AND THEN GOING THROUGH CHANNELS TO BE STORED IN UNDERGROUND TANKS MODERN GREEN PRACTICES THAT MANAGE RAINWATER USING AN ECOLOGICAL AND NATURAL PROCESS TO CREATE HEALTHY URBAN ENVIRONMENTS

LOCAL MATERIALS

COOLING CLAY , EARCH BRICK , BAMBOO WOOD AND COURGGATED METAL SHEETS



BIO LAMP

VENTILATOR IS SUCKING THE SMOG INSIDE WHICH STEAMS INTO THE ALGA LIQUIDE IS BEING CIRCULATED IN A SPIRAL SYSTEM SO HELS ALGA ABSORBING THE CO2 BETTERS OTHER PIPE THE PROGRESS OGF O2 STOPPED

WATERFULL

COLLECTING WATER IN REANY SEASON , CREATS AN UPPER WELL OF FILTERD WATER

SUSTAINABILITY

RESIDENTIAL

Jasmin Tower

Dubai ,United Arab Emirates

City: Dubai ,United Arab Emirates

Client: Bank Albaraka

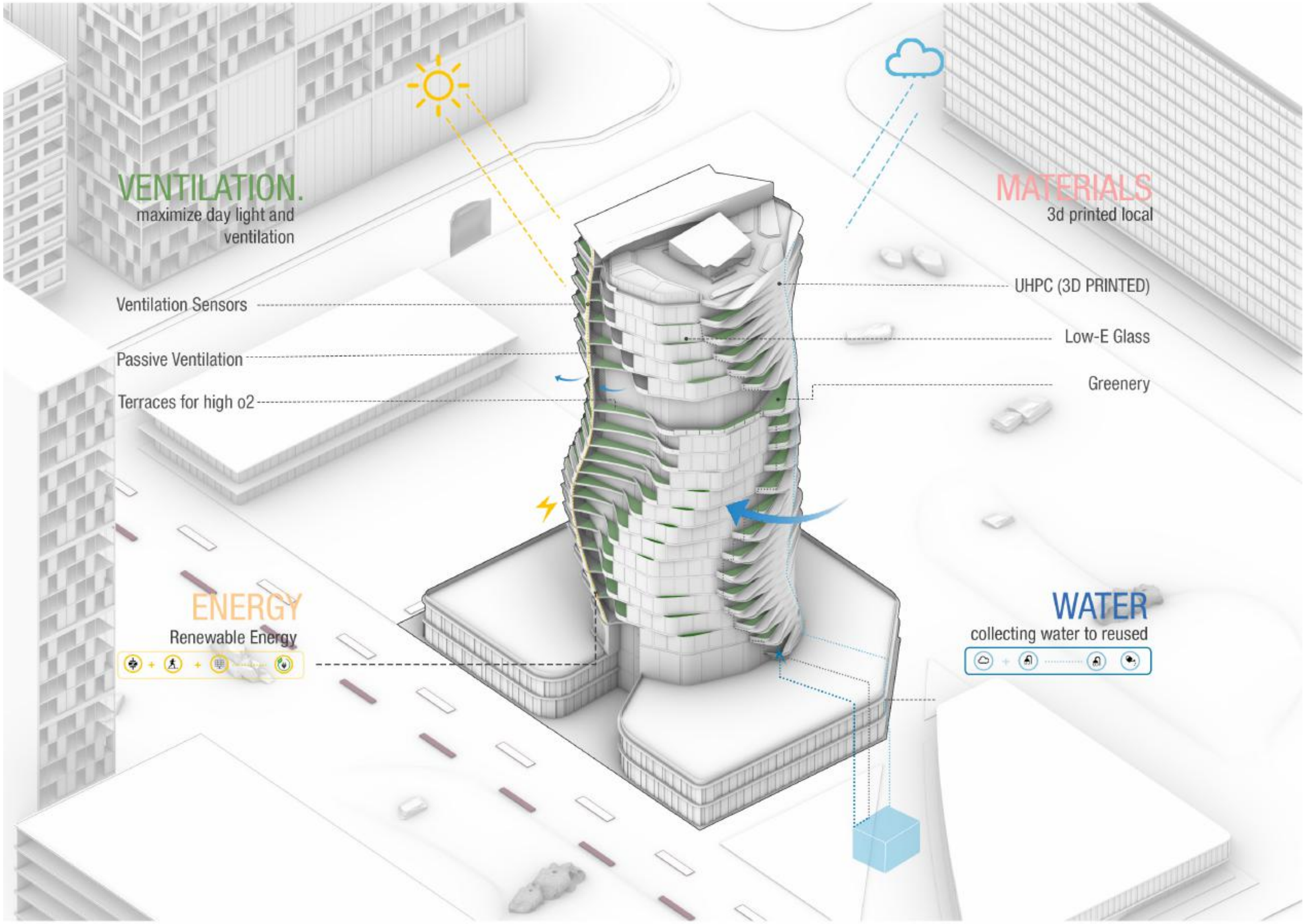
Size: 25,000m²/ 269,000f²

Status: Proposal

Typology: Residential, Retail

Year: 2017

The tower integrates piezoelectric technology within its floor slabs, transforming vibrations caused by foot traffic and structural movements into electrical energy. This not only contributes to energy efficiency but also monitors the structural health of the building. The use of low-emissivity (low-e) double glass enhances insulation, and smart solar panels are strategically incorporated to harness renewable energy. The AI-driven optimization system further reduces resource consumption and waste, fostering eco-friendly practices.



The tower prioritizes sustainability through various features. Rainwater harvesting systems are integrated to promote water conservation. The twisting design enhances natural lighting and ventilation, reducing reliance on artificial sources and energy consumption. Green terraces aesthetically enhance the surroundings and contribute to environmental well-being, acting as green spaces that absorb carbon dioxide and support biodiversity. Overall, the design seeks to minimize the environmental footprint, creating a harmonious balance between modern architecture and ecological responsibility.

Alhafeez Square

Lahore ,Pakistan

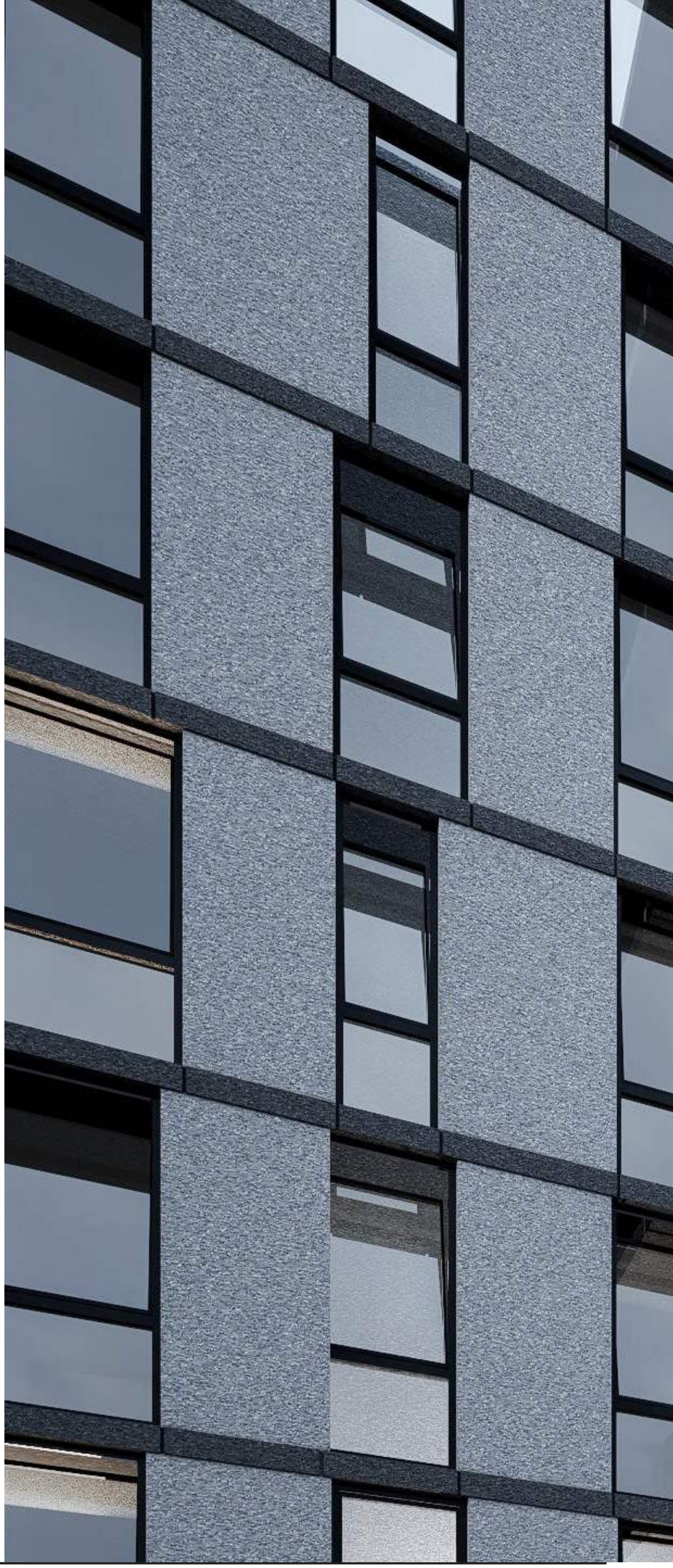
Client: Alhafez Group

Size: 1,000m²/ 10,700f²

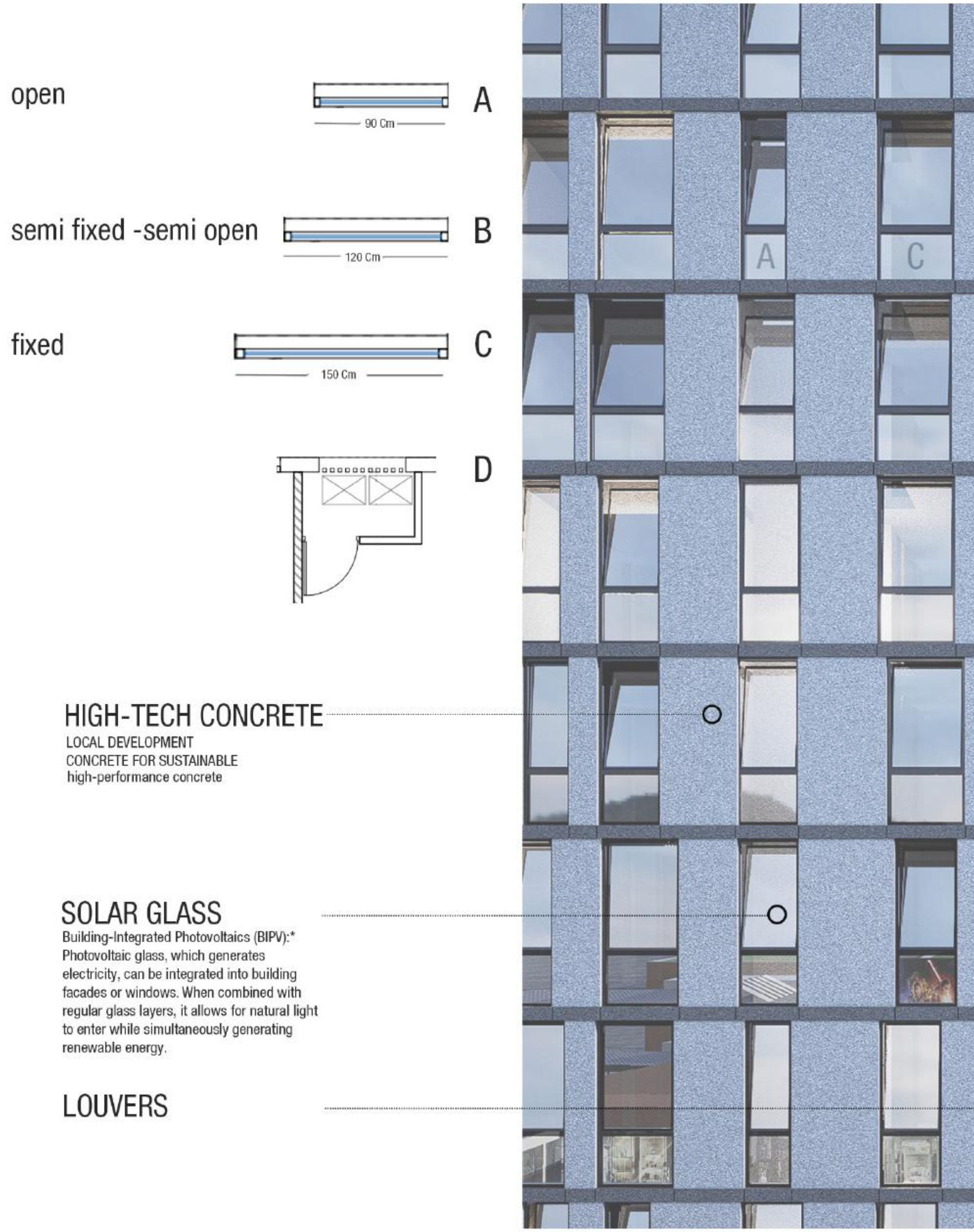
Status: In Construction

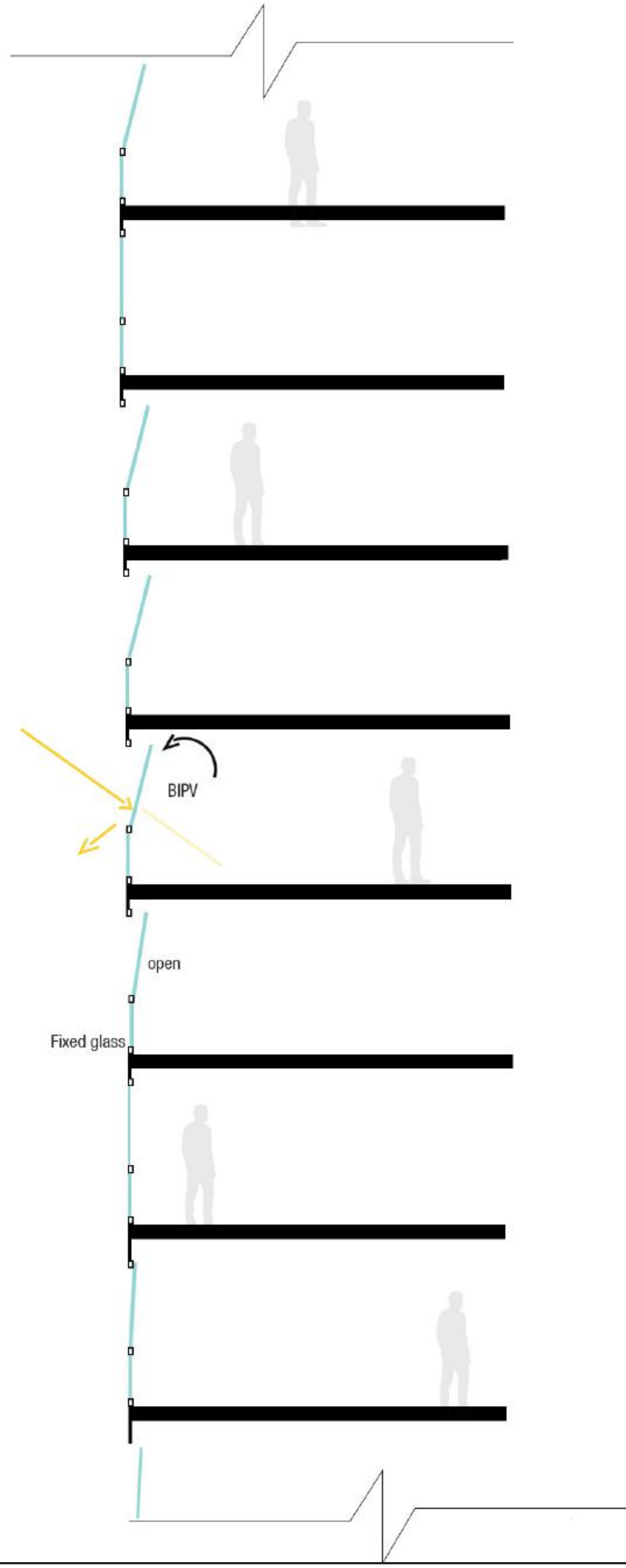
Typology: Residential, Retail

Year: 2024



As for the material selection for the façade, factors like durability, weather resistance, maintenance, and sustainability were taken into consideration. Therefore, double-glazed windows that combine both photovoltaic glass and regular glass were chosen for their ability to allow natural light to enter while simultaneously generating renewable energy.





High-tech concrete was chosen for the façade panels due to its high strength, durability, self-healing properties, sustainability, and the possibility of incorporating sensors or embedded technologies to monitor structural health.

Recoding Smart Building

Zamalka ,Syria

Client: Hybrid City Challenge

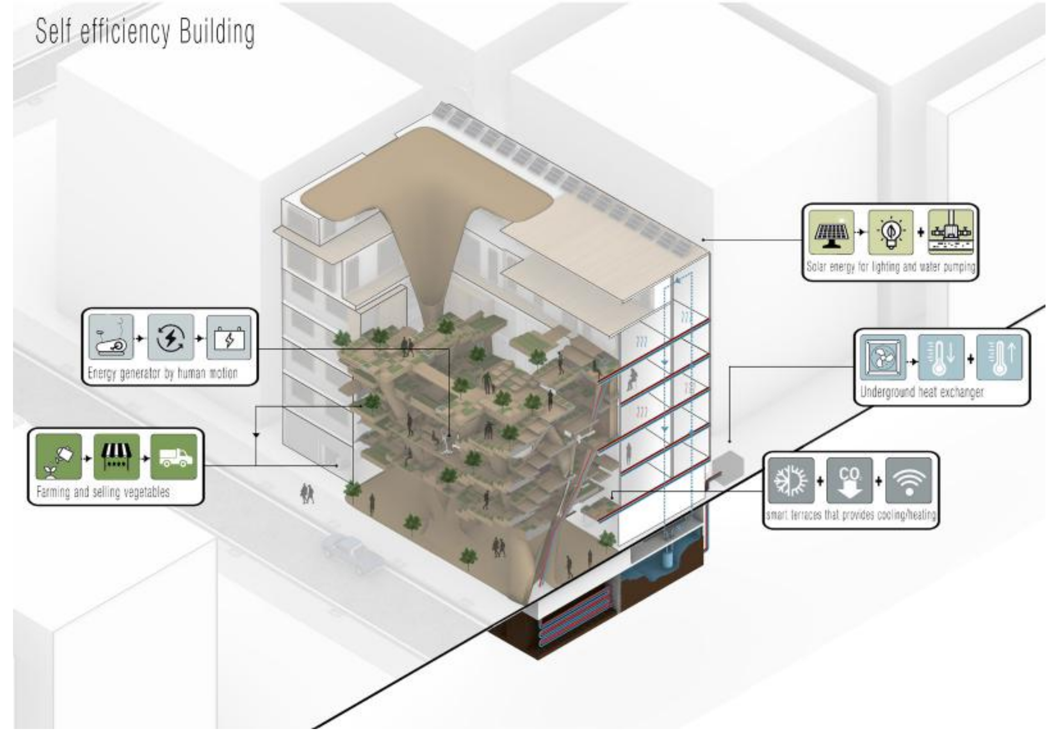
Size: 510m² / 5489sqf

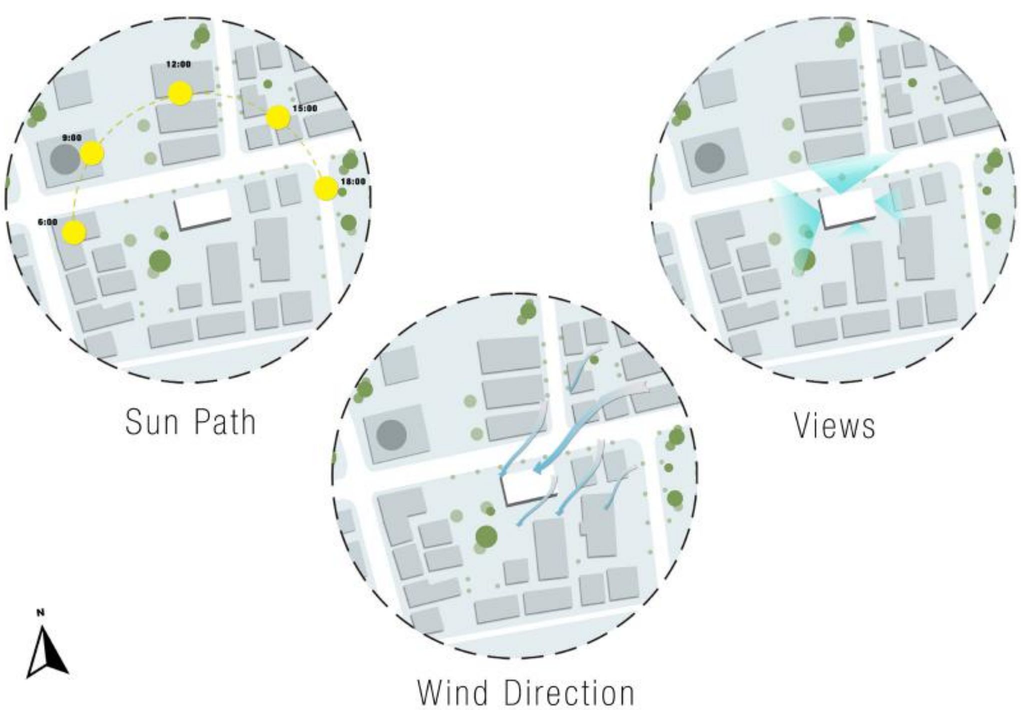
Status: Proposal

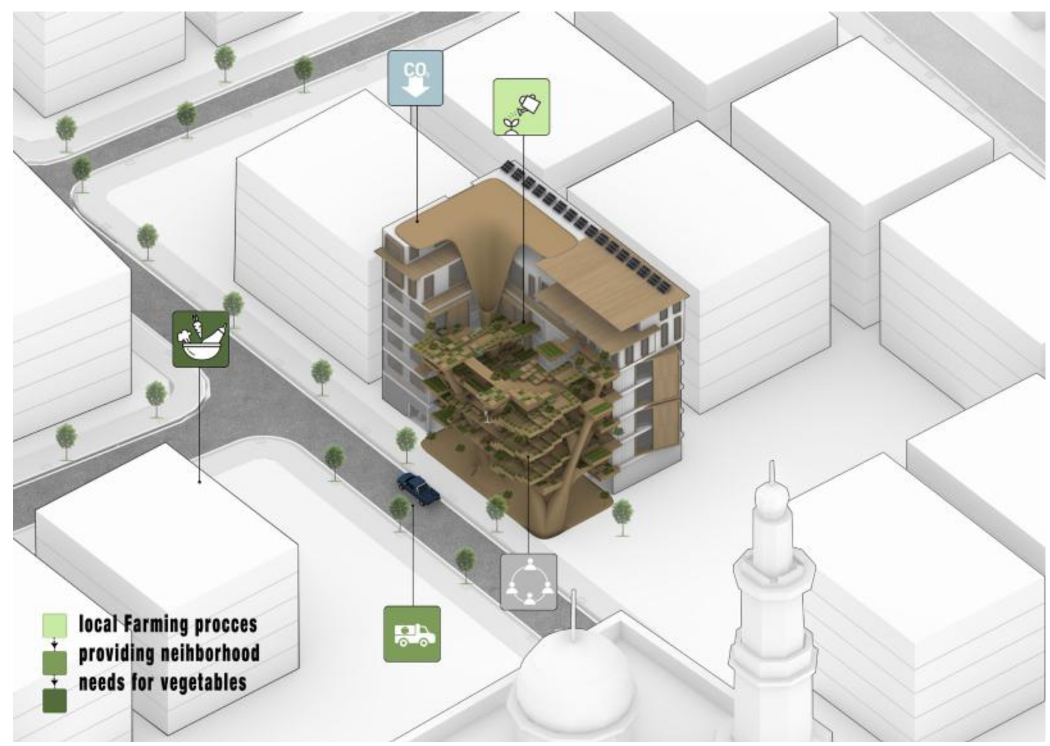
Typology: Competition

Year: 2020

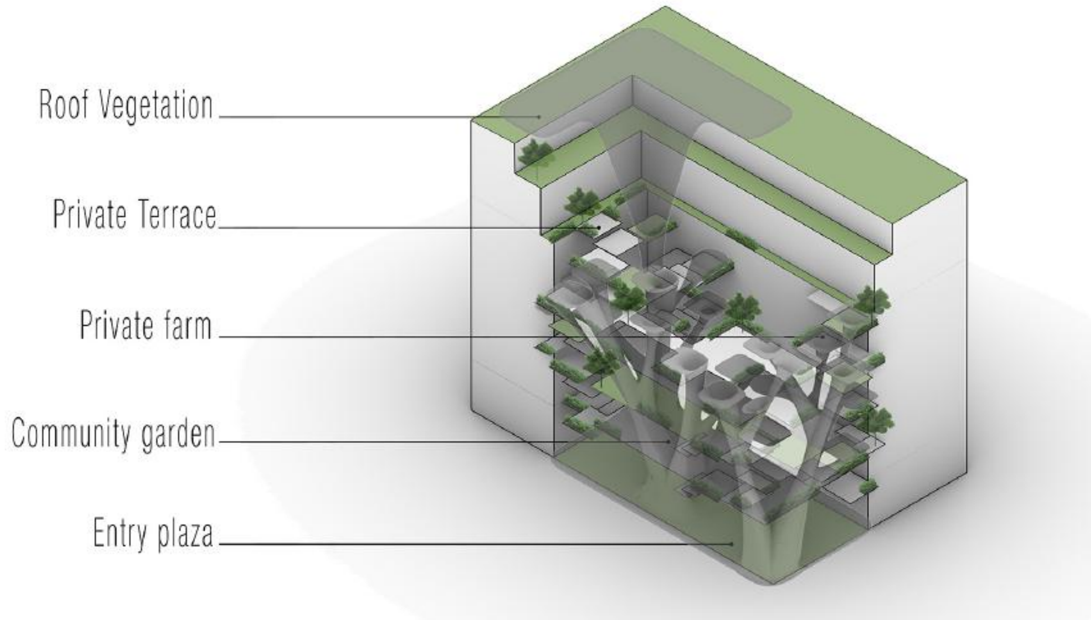

Grand mosque
Roman Bathroom
Main Plaza
Mud Houses
Sorrunding Area
Paths
Physical status
N


Self efficiency Building
Solar energy for lighting and water pumping
Energy generator by human motion
Underground heat exchanger
Farming and selling vegetables
smart terraces that provides cooling/heating

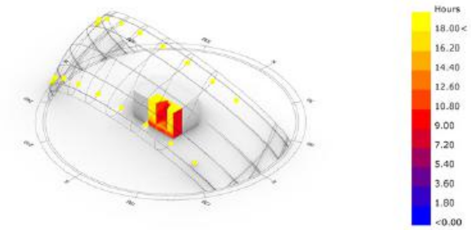

12:00
15:00
9:00
18:00
6:00
Sun Path
Views
Wind Direction
N


local Farming procces
providing neihborhood
needs for vegetables

Green Areas:



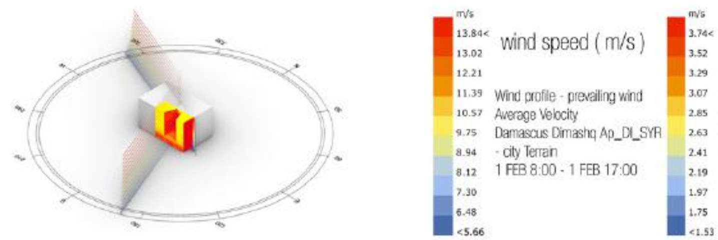
Site Analysis



Sun profile -
Average
Damascus Dimashq Ap_DI_SYR
- city Terrain
1 FEB 8:00 - 1 FEB 17:00
1 AUG 8:00 - 1 AUG 17:00

Open View

An open view from the west and northwest

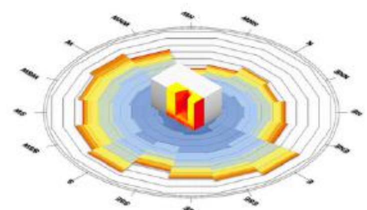


wind speed (m/s)

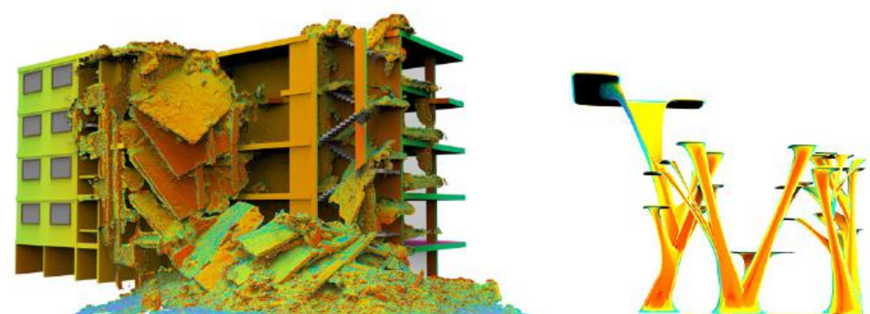
Wind profile - prevailing wind
Average Velocity
Damascus Dimashq Ap_DI_SYR
- city Terrain
1 FEB 8:00 - 1 FEB 17:00

wind speed (m/s)

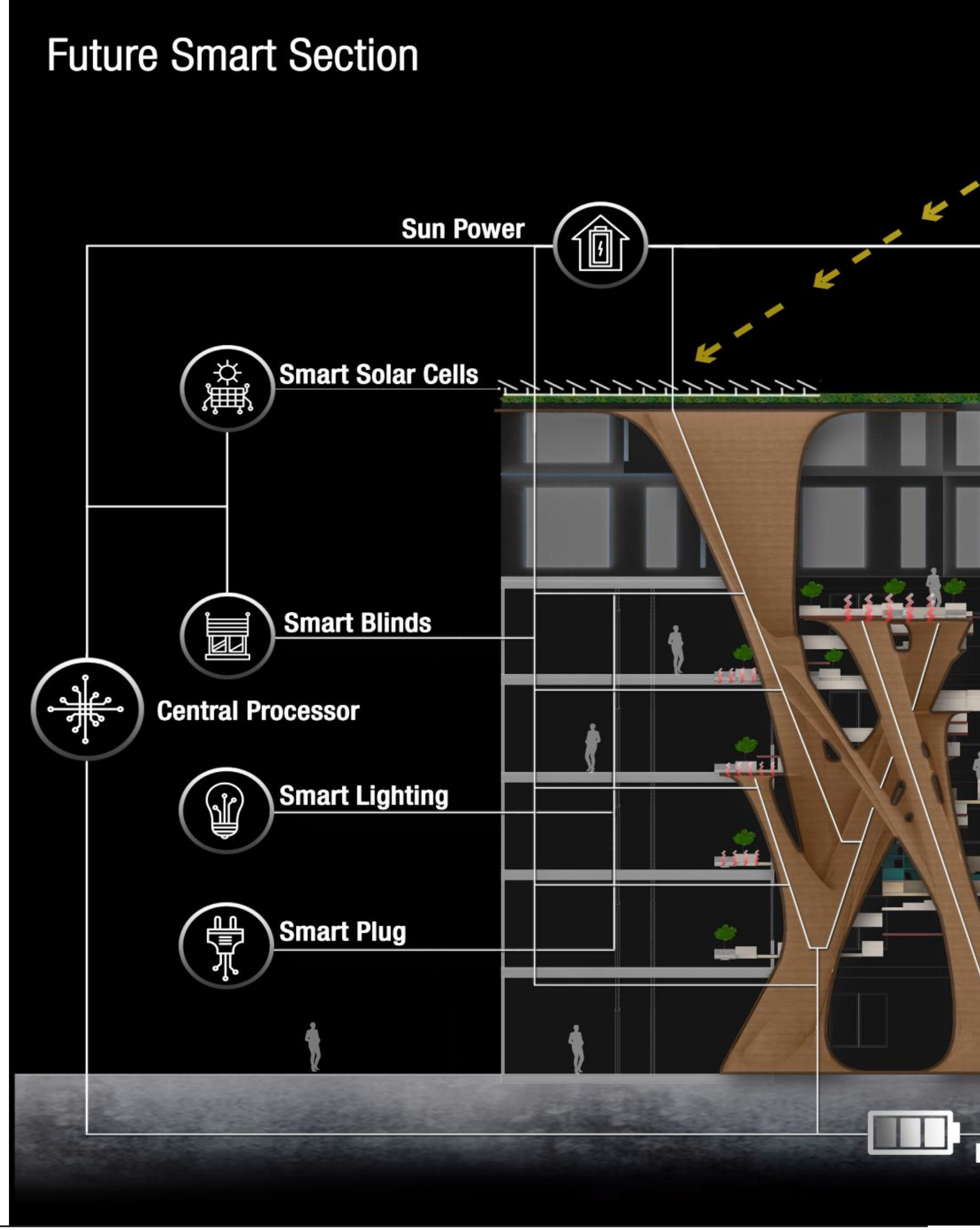
Wind profile - prevailing wind
Average Velocity
Damascus Dimashq Ap_DI_SYR
- city Terrain
1 AUG 8:00 - 1 AUG 17:00

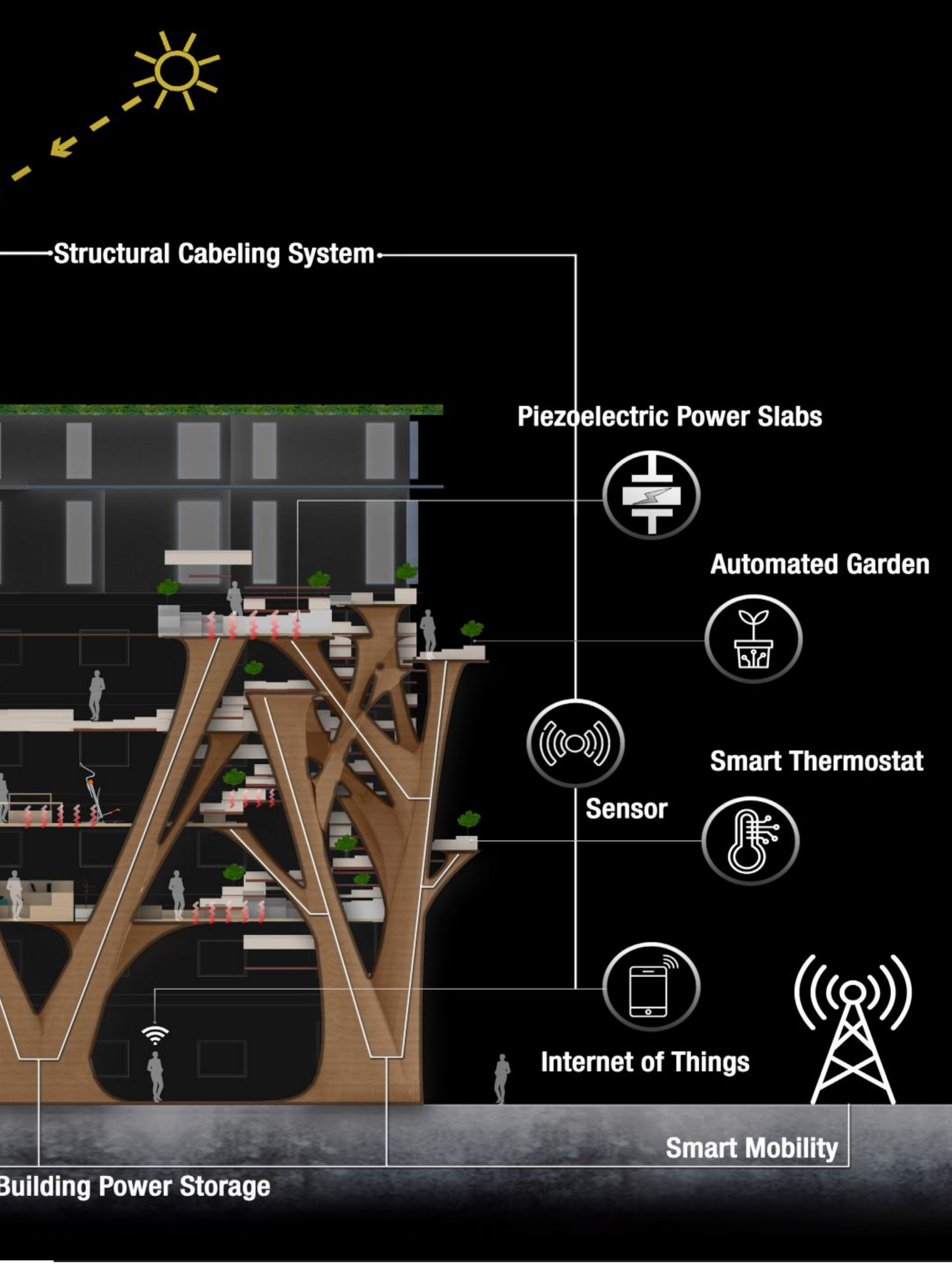


Wind-Rose
Damascus Dimashq AP_DI_SYR
1 JAN 8:00 - 1 OCT 19:00
Hourly Data : Wind speed (m/s)
Clam for 6.11% of the time = 401 Hours
Each closed polyline shows frequency of 0.3% = 22 Hours



Transcending its physical form, the Smart Tree Building emerges as a champion of ecological responsibility. By meticulously integrating low-energy building techniques and utilizing Kerto LVL, a sustainable wood product with demonstrably lower embodied carbon emissions, the project significantly reduces its environmental footprint.





This unwavering commitment to environmental stewardship minimizes the building's impact on the surrounding ecosystem. Furthermore, the Smart Tree Building prioritizes the well-being of its residents through the incorporation of a meticulously designed outdoor ecological system. This innovative strategy fosters a healthy indoor environment, ensuring a harmonious connection with the natural world and enhancing the overall well-being of the building's inhabitants.

House Recoding

Damascus ,Syria

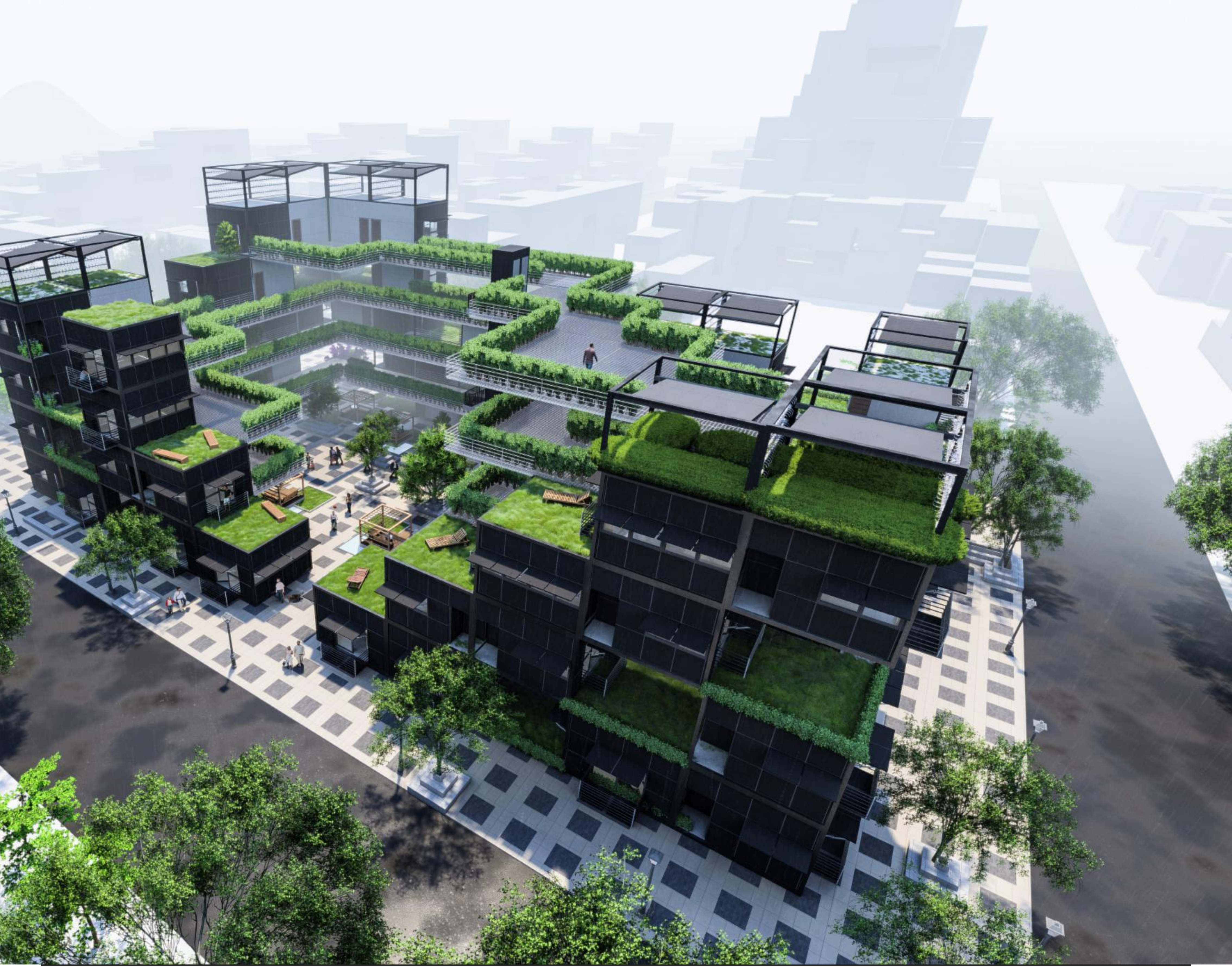
Client: Sky City

Size: 43055.64 SQM./ 4000 SFT.

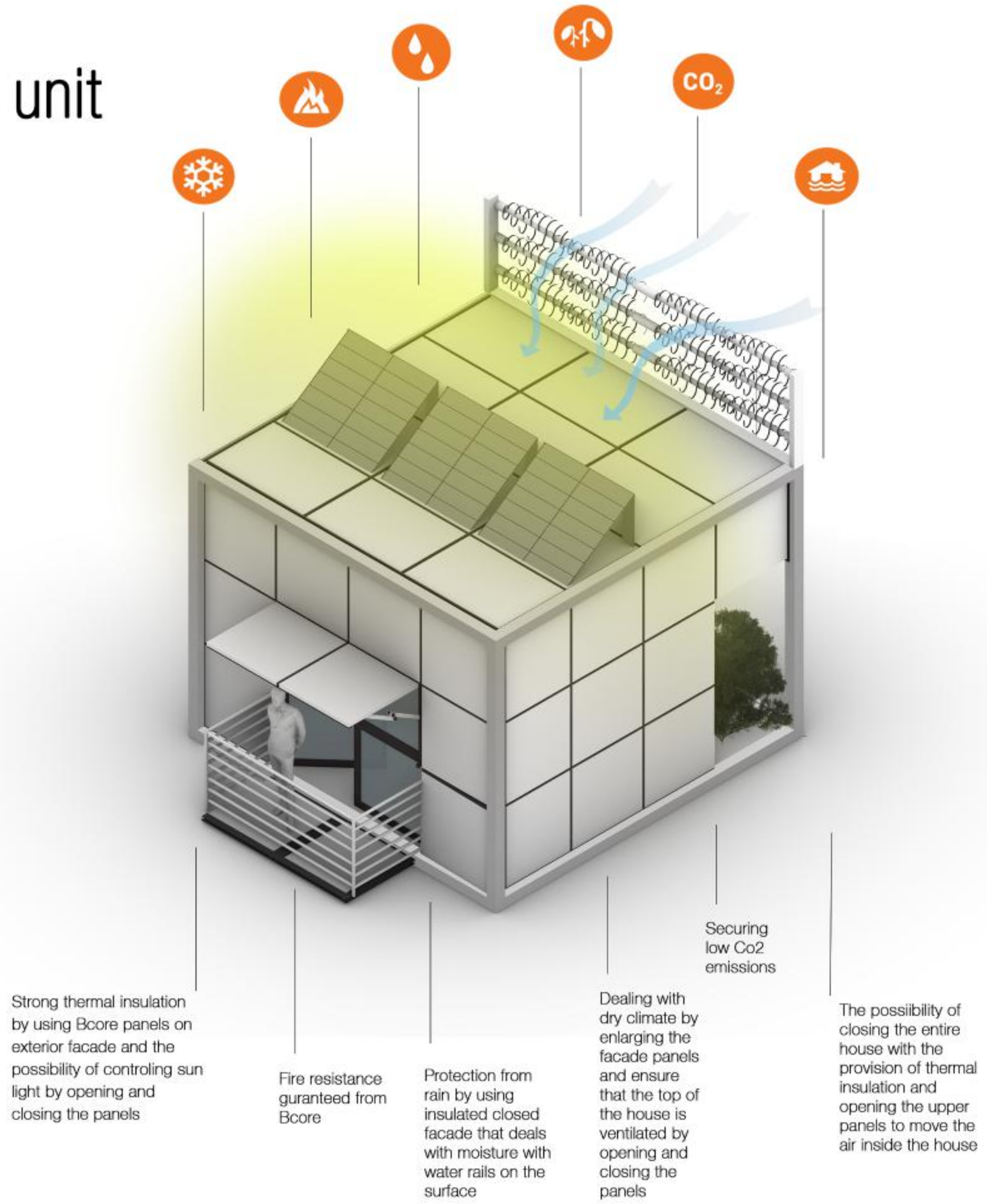
Status: Proposal

Typology: Residential

Year: 2019

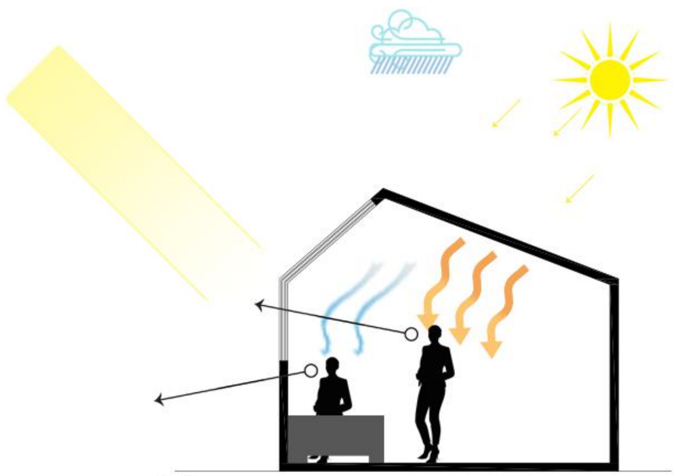


Sustainable unit

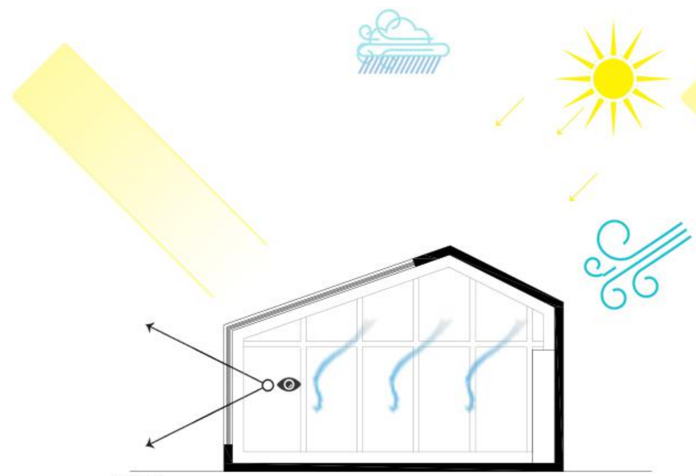


Sky City extends beyond basic sheltering, pioneering a fully integrated live-work system. Engineered for global applicability and functionality, it effectively addresses housing challenges in diverse climates and locations, functioning seamlessly as both a standalone unit and within a thriving community.

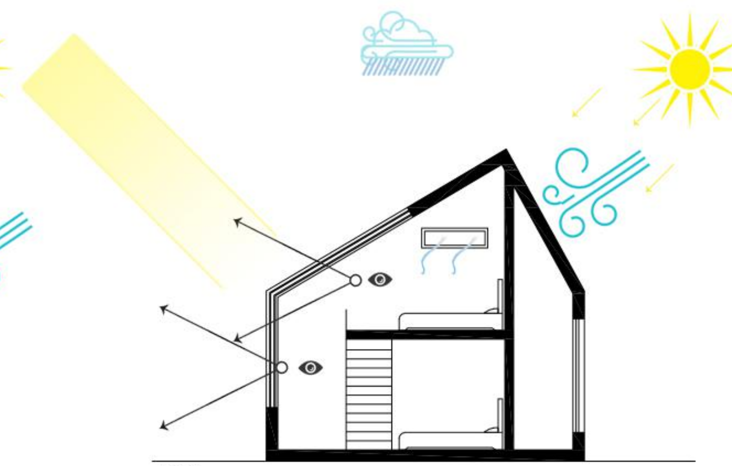
The design prioritizes resident well-being by fostering a strong sense of community. Strategic integration of green spaces and plantings enriches both the interior and exterior environments, creating a harmonious and restorative living experience.



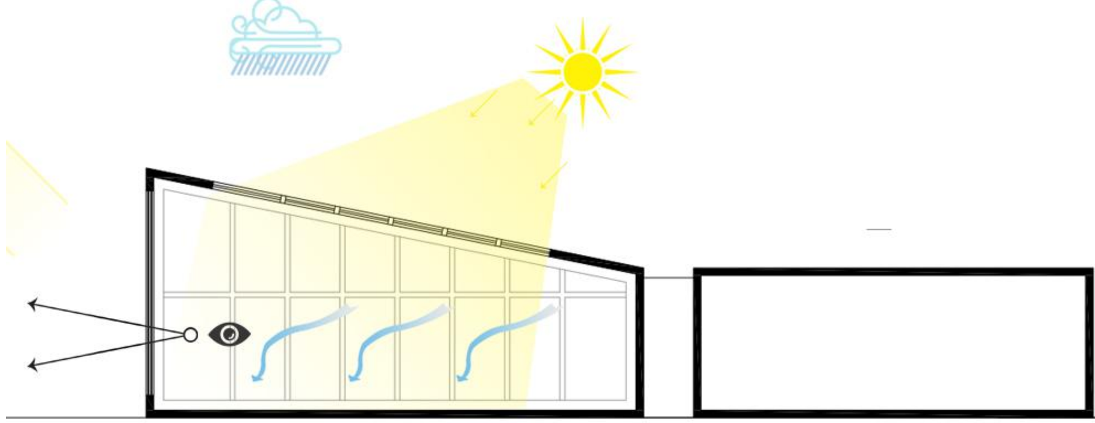
ClassRooms:
A lower roof directed to make a wider connection with the direct sun light to make the classes warmer. And to lower the southern slope angle to enter indirect light to the class. High windows to create more focused atmosphere to the students and welcome indirect light to the left of the students.



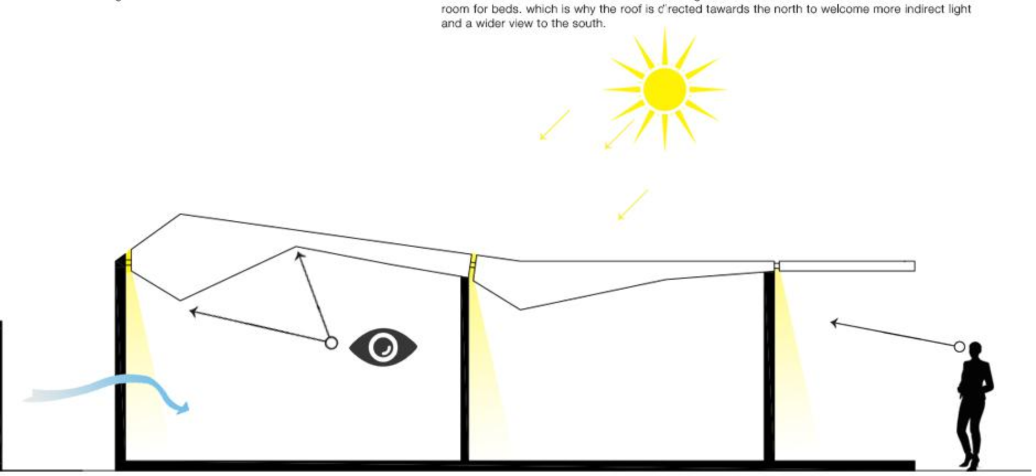
LIBRARY:
The Library is one floor with open on the west to make a better ventilation and a connection with the plaza. The window and skylight to the south to welcome indrect light for the readers and a view to the site and the lacke.



HOSTEL:
The sloped roof is designed and directed to block the cold air in the winter and welcom the west breeze of the summer to insure vintilation. a high roof to create an addittional level and more room for beds. which is why the roof is d'rected tawards the north to welcome more indirect light and a wider view to the south.

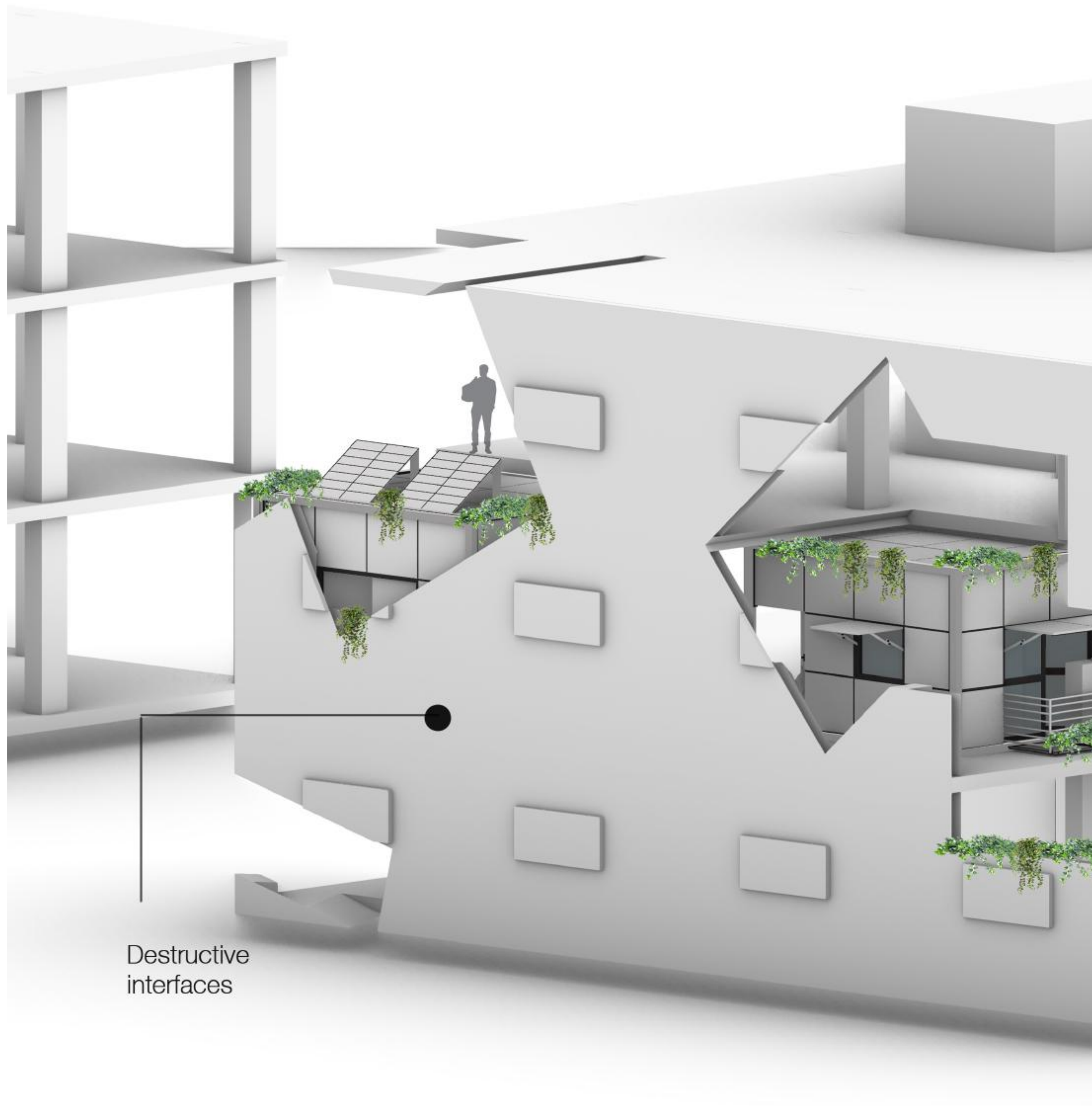


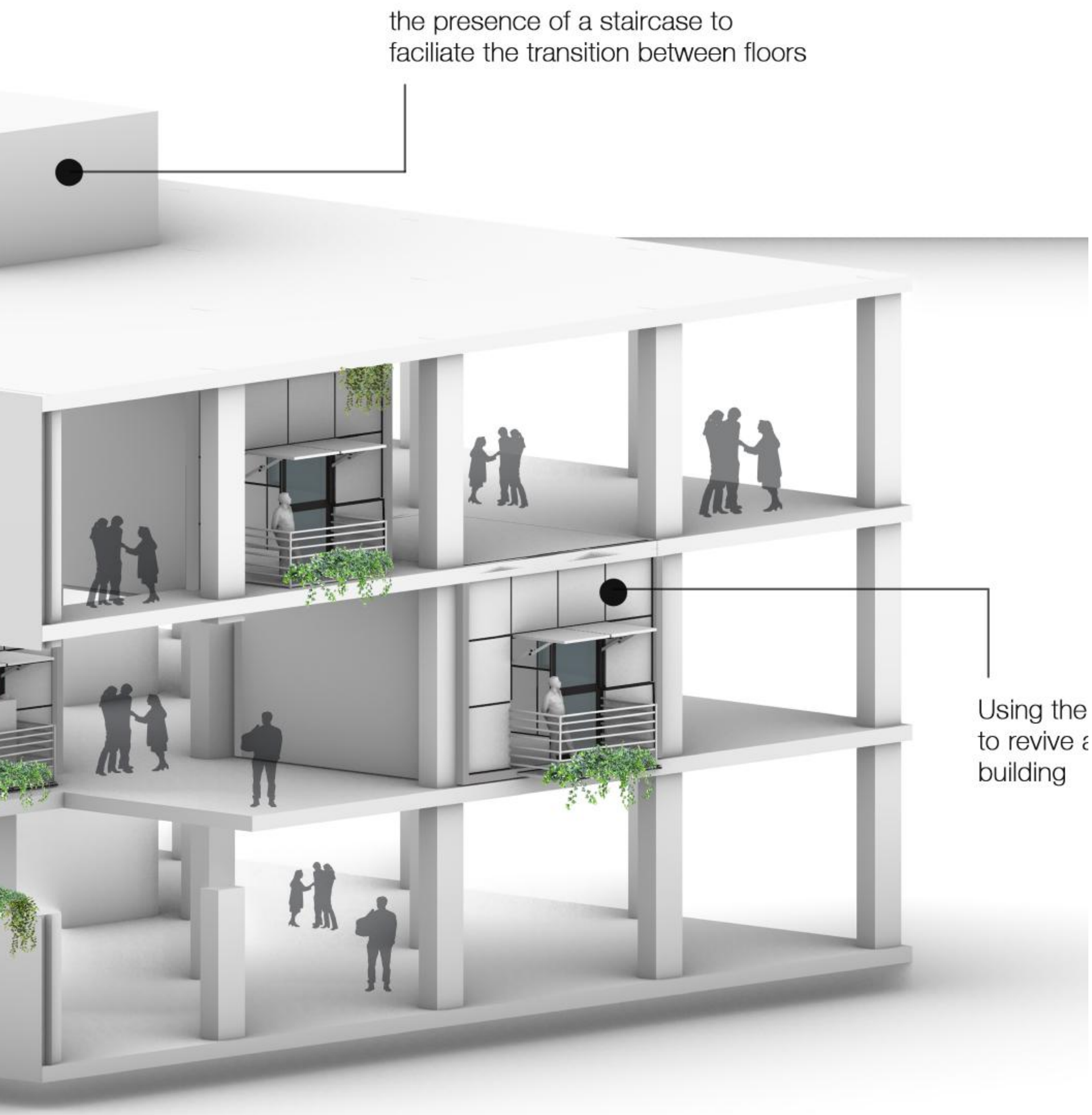
DInning Hall:
View directed to the lacke and the Social Plaza to impower the connection between the Dinning hall and the plaza. the building will be direted with the sun and a sloped glass roof has beem interdused to welcom sun light.



Mosque:
the mosque is designed to create a holic atmosphere by light and shadow and to direct the users tawards the Qubla by openening the roof and the walls to project light on the walls where the emam will stand. the same was used to highlight the entrance and the path way.

Emergency Alternative Accommodation




the presence of a staircase to
faciliate the transition between floors
Using the
to revive
building

SUSTAINABILITY

INFRASTRUCTURE

01

Ecoscape Station
P_314

02

Ecoscape Station

Sheikhupura ,Pakistan

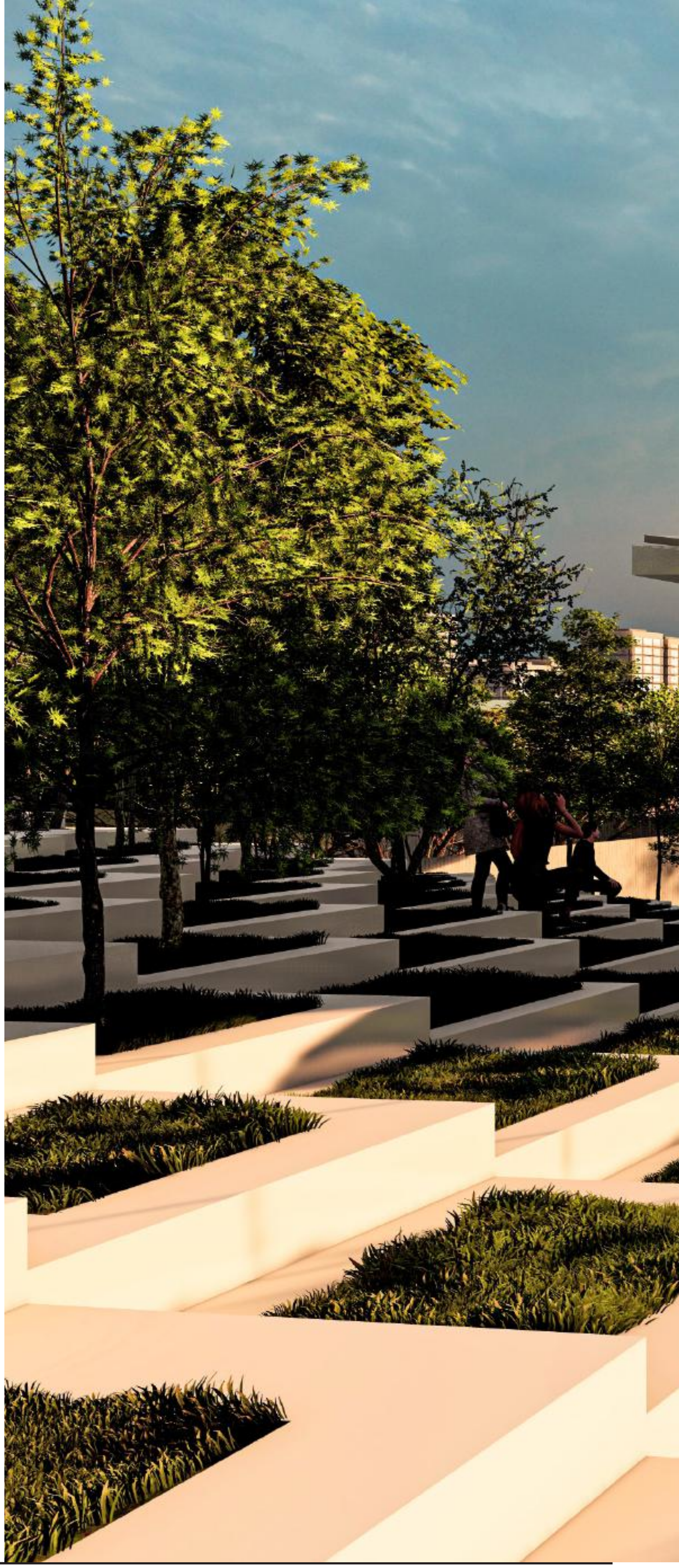
Client: Mr. IK

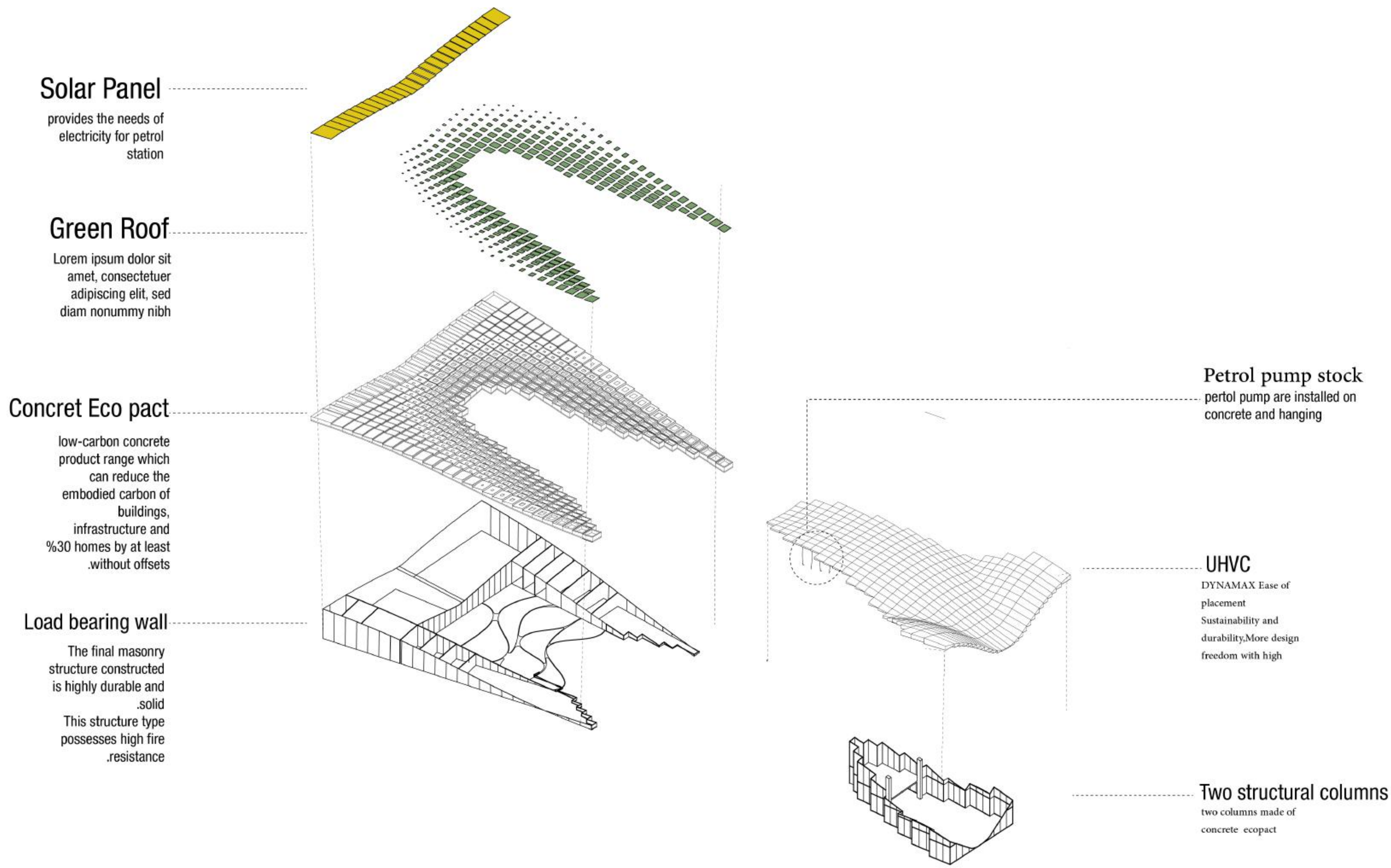
Size: 2,023m² / 21,780f²

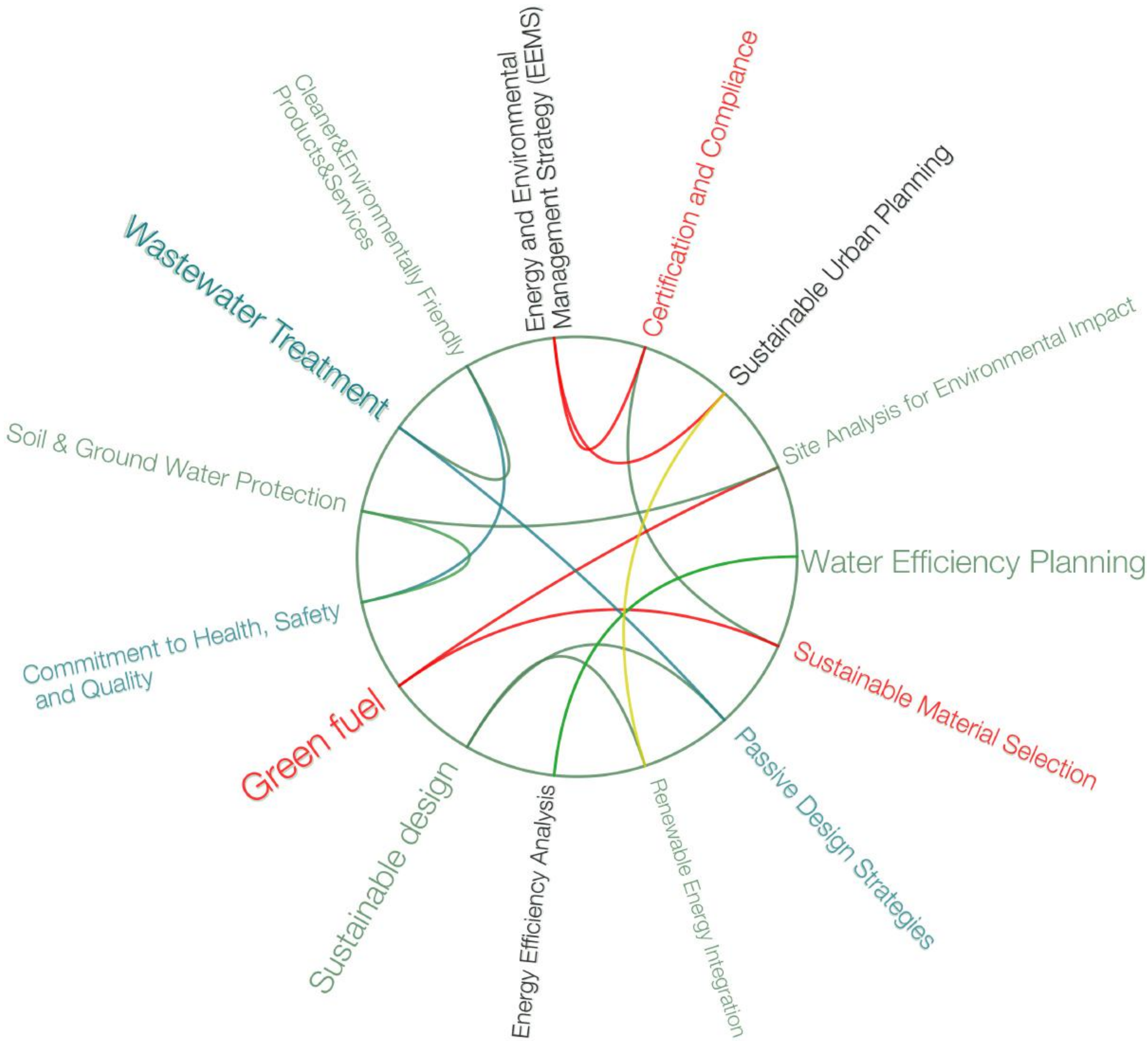
Status: In Design

Typology: Infrastructure

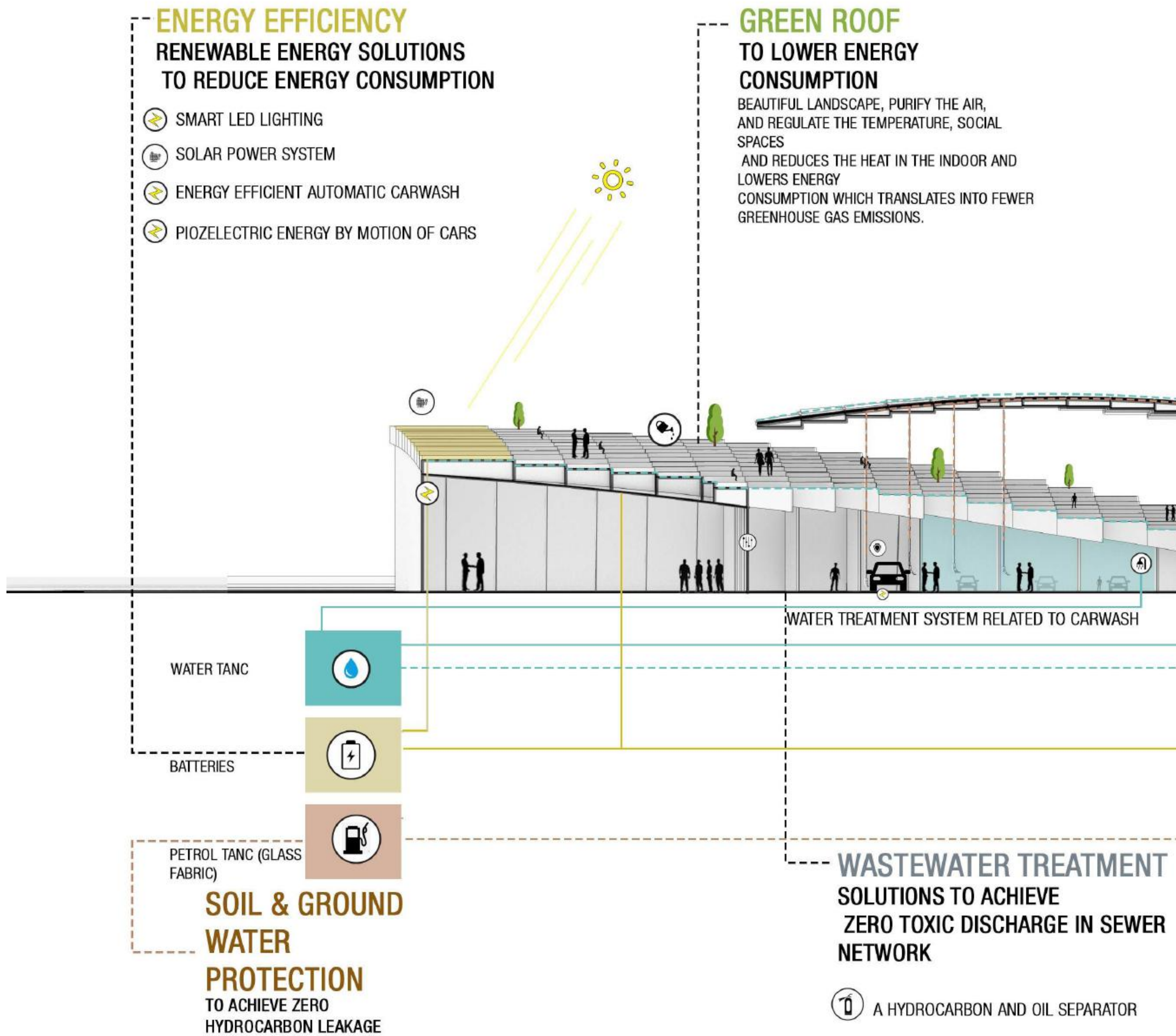
Year: 2023




Solar Panel
provides the needs of electricity for petrol station
Green Roof
Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh
Concret Eco pact
low-carbon concrete product range which can reduce the embodied carbon of buildings, infrastructure and %30 homes by at least .without offsets
Load bearing wall
The final masonry structure constructed is highly durable and .solid
This structure type possesses high fire .resistance
Petrol pump stock
pertol pump are installed on concrete and hanging
UHVC
DYNAMAX Ease of placement
Sustainability and durability,More design freedom with high
Two structural columns
two columns made of concrete ecopact



SUSTAINABLE DESIGN PRINCIPLES



ENERGY EFFICIENCY
RENEWABLE ENERGY SOLUTIONS
TO REDUCE ENERGY CONSUMPTION
SMART LED LIGHTING
SOLAR POWER SYSTEM
ENERGY EFFICIENT AUTOMATIC CARWASH
PIOZELECTRIC ENERGY BY MOTION OF CARS
GREEN ROOF
TO LOWER ENERGY
CONSUMPTION
BEAUTIFUL LANDSCAPE, PURIFY THE AIR,
AND REGULATE THE TEMPERATURE, SOCIAL
SPACES
AND REDUCES THE HEAT IN THE INDOOR AND
LOWERS ENERGY
CONSUMPTION WHICH TRANSLATES INTO FEWER
GREENHOUSE GAS EMISSIONS.
WATER TREATMENT SYSTEM RELATED TO CARWASH
WATER TANC
BATTERIES
PETROL TANC (GLASS
FABRIC)
SOIL & GROUND
WATER
PROTECTION
TO ACHIEVE ZERO
HYDROCARBON LEAKAGE
WASTEWATER TREATMENT
SOLUTIONS TO ACHIEVE
ZERO TOXIC DISCHARGE IN SEWER
NETWORK
A HYDROCARBON AND OIL SEPARATOR

GREEN FUEL CLEANER & ENVIRONMENTALLY FRIENDLY PRODUCTS & SERVICES

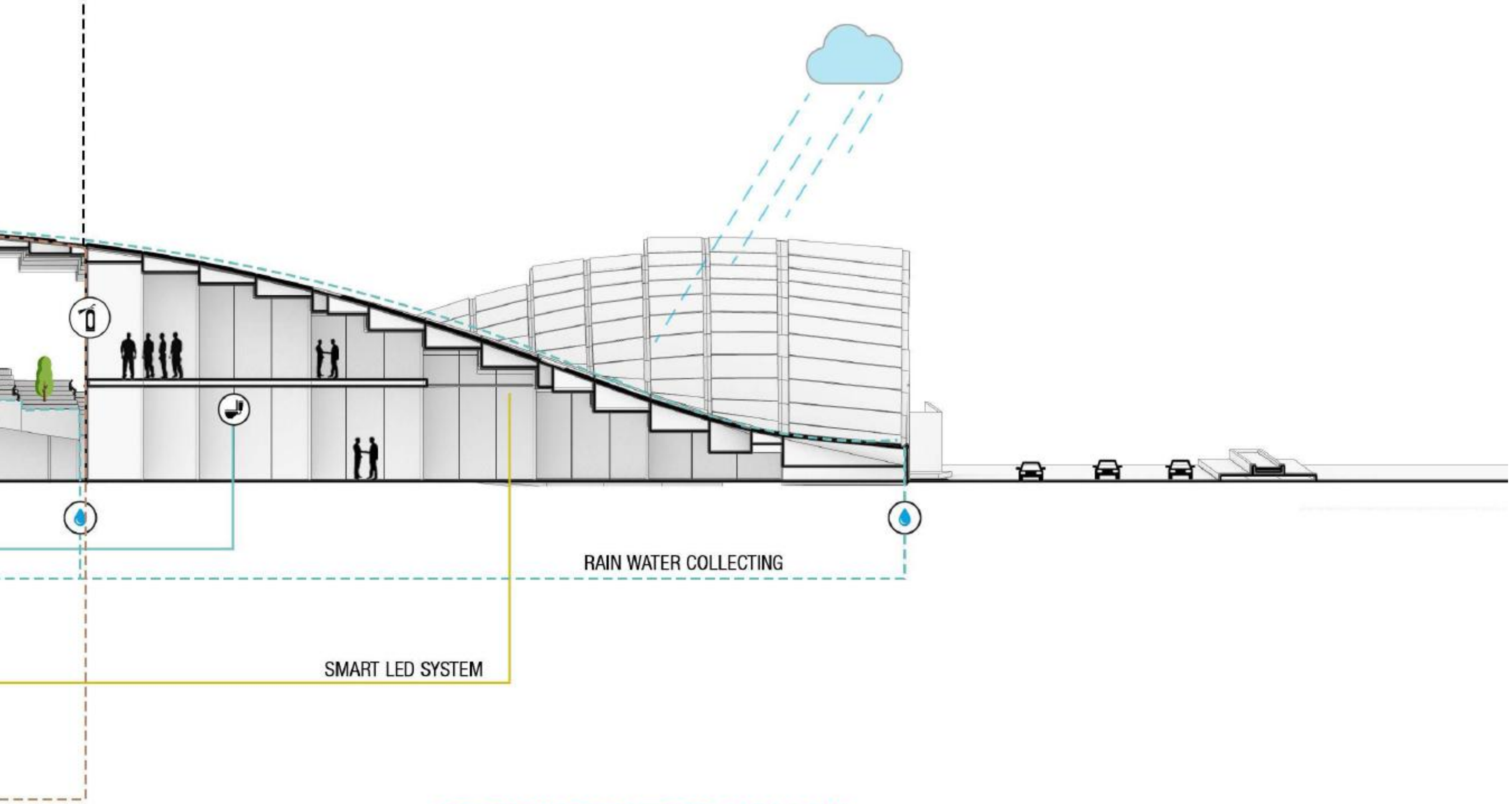
- BIODIESEL PRODUCED FROM WASTE COOKING OIL
- QUANTUM, THE CLEAN FUEL FROM IPT
- SOLAR POWERED ELECTRIC VEHICLE CHARGER
- NITROGEN TIRES INFLATOR

WATER CONSERVATION

SOLUTIONS TO REDUCE WATER CONSUMPTION

RAINWATER COLLECTION

TYPICALLY, 60% TO 85% OF THE USED WATER CAN BE RECLAIMED AND RE-USED IN CAR WASH.



COMMITMENT TO HEALTH, SAFETY AND QUALITY

FIRE EXTINGUISHERS, SANDBOX AND SAFETY

SIGNS EMERGENCY PUSH BUTTON WHICH IS A SAFE CONTROL SWITCH TO IMMEDIATELY STOP A MACHINE IN CASE OF EMERGENCY.

CENTRAL MONITORING AND CONTROL SYSTEM

AUTOMATIC VEHICLE RECOGNITION SYSTEM

SUSTAINABILITY

MASTER PLANNING

01

Future City

P_322

02

Marhaba Garden

P_336

Future City

Lahore ,Pakistan

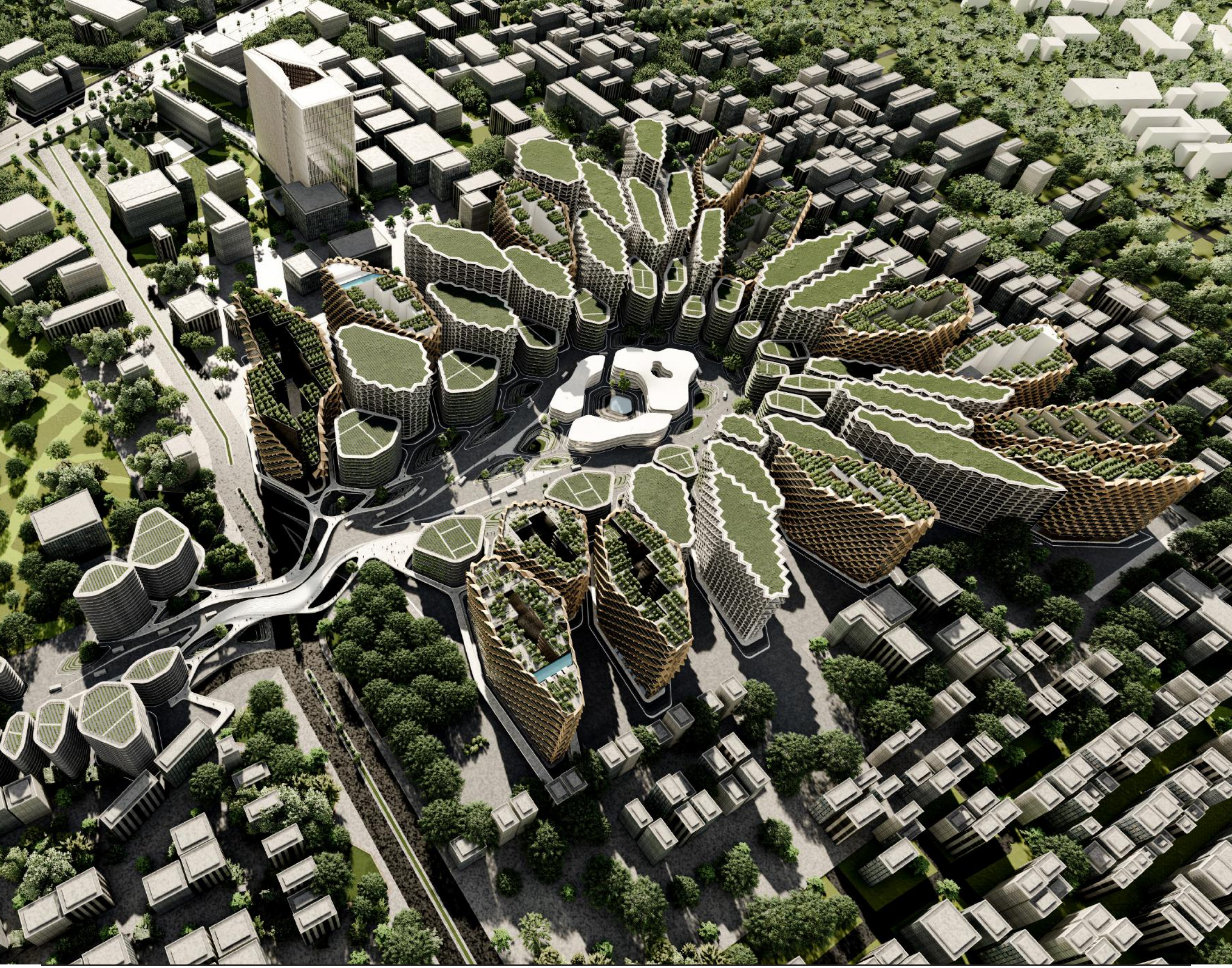
Client: IAN Contracting

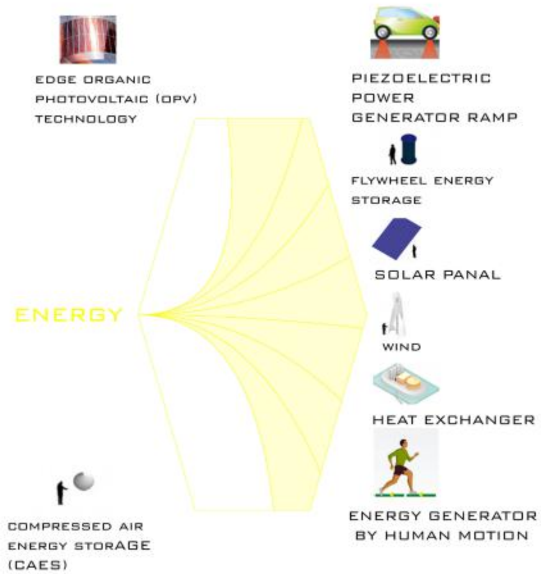
Size: 22 Hectares

Status: Proposal

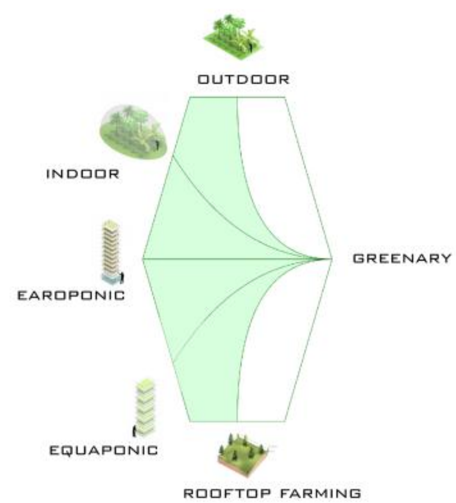
Typology: Office , Residential , Retail

Year: 2022

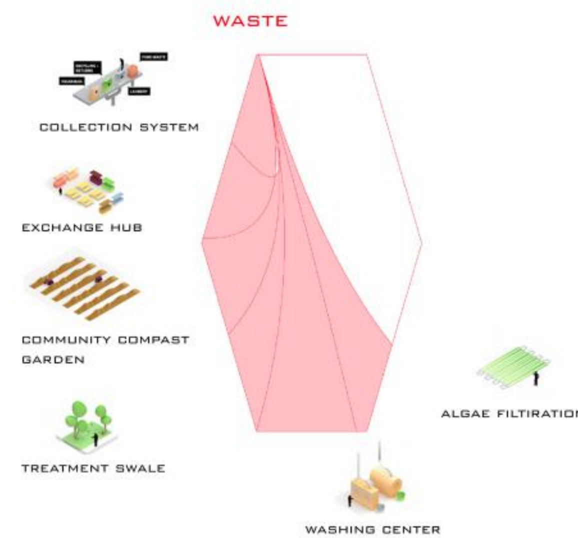




ENERGY KIT OF PARTS



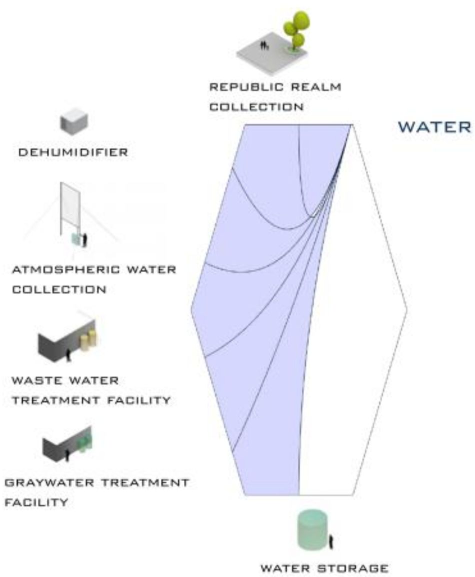
FOOD KIT OF PARTS



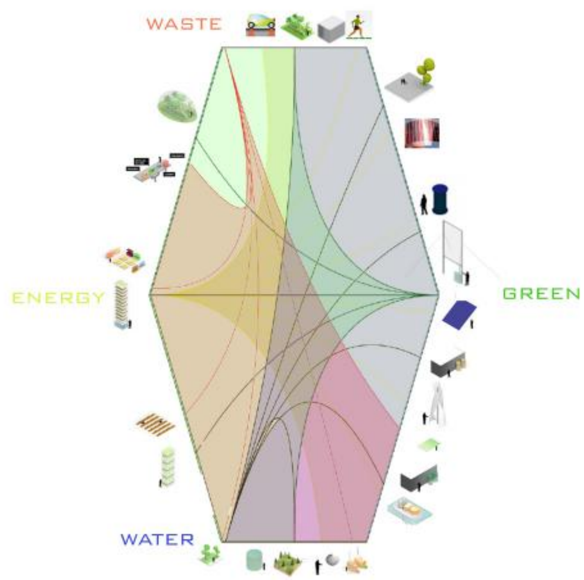
WASTE KIT OF PARTS

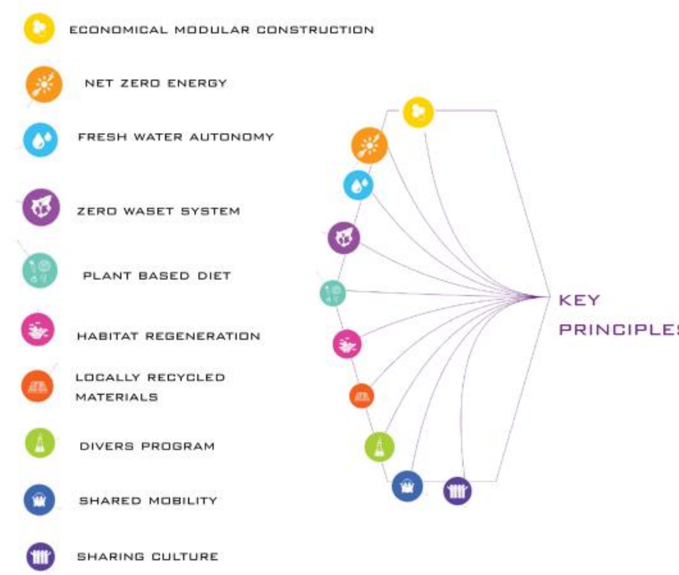
Future City embodies a commitment to sustainable urban development. Aligned with UN-Habitat's New Urban Agenda, the project actively supports the UN's 17 Sustainable Development Goals. This focus translates into a meticulous design that prioritizes long-term sustainability, fostering a model city for the futur

Future City embodies a commitment to sustainable urban development. Aligned with UN-Habitat's New Urban Agenda, the project actively supports the UN's 17 Sustainable Development Goals. This focus translates into a meticulous design that prioritizes long-term sustainability, fostering a model city for the futur

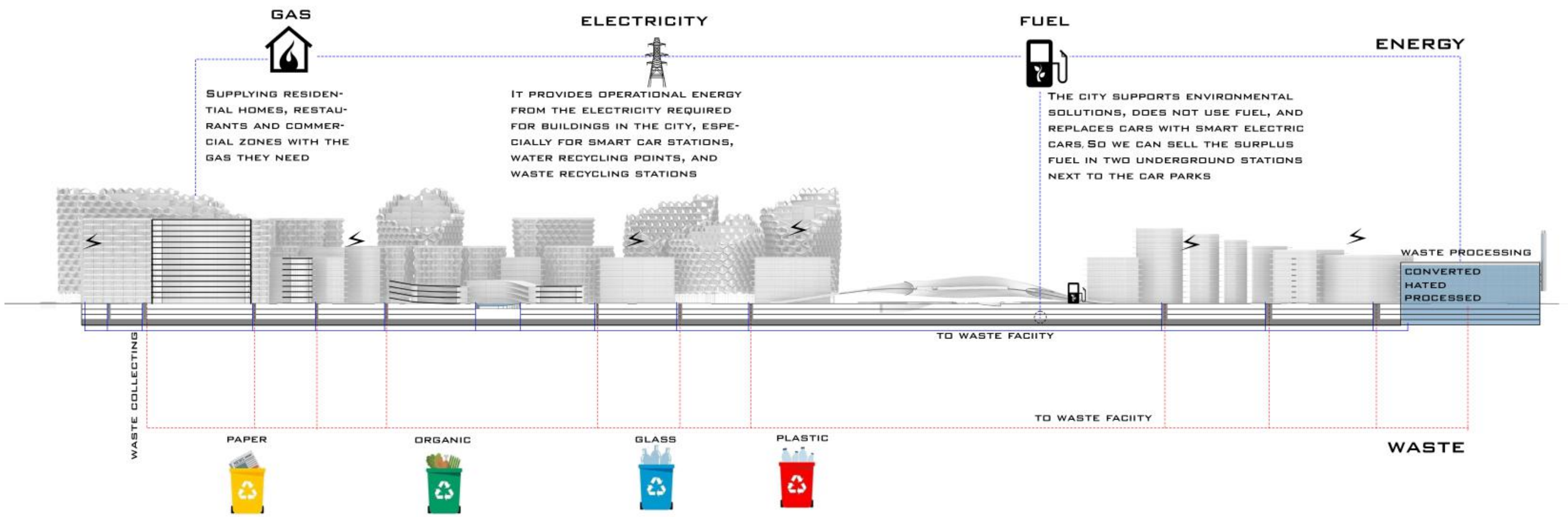


WATER KIT OF PARTS



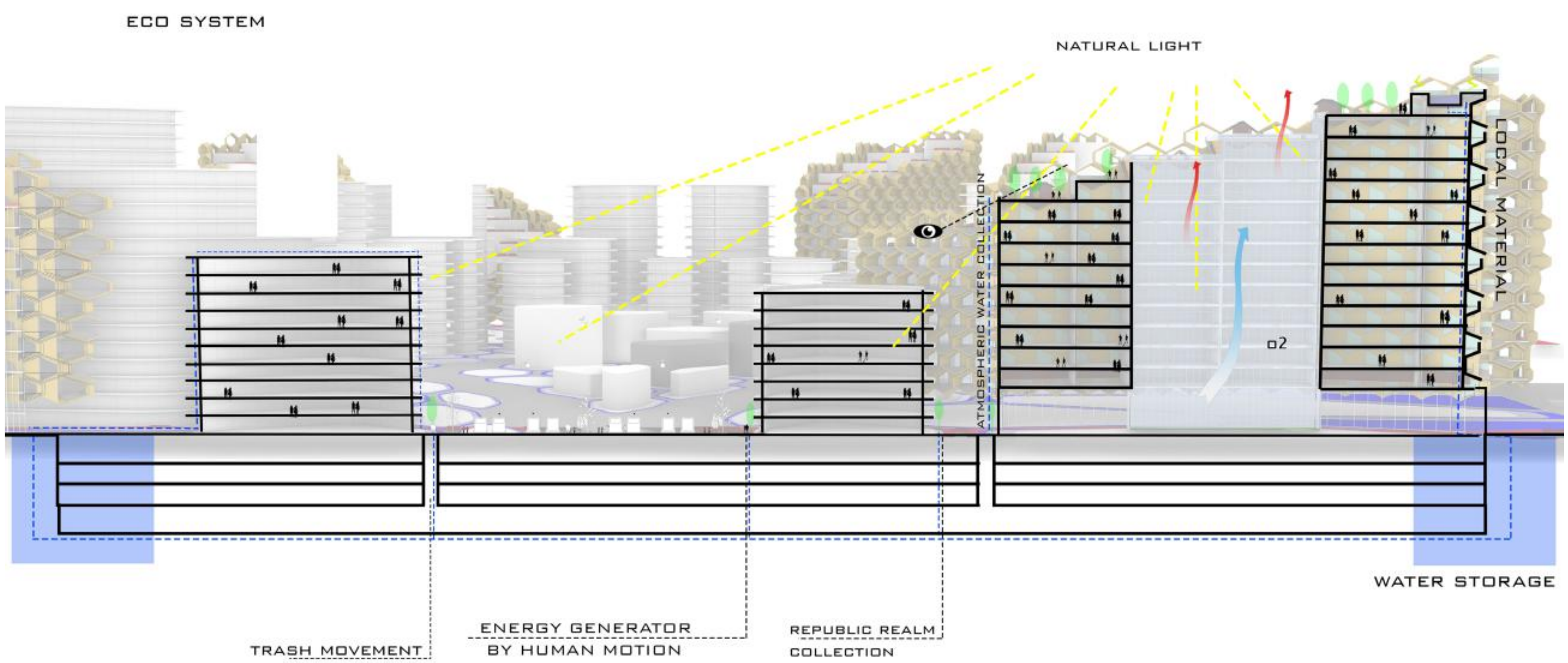


KEY PRINCIPLES

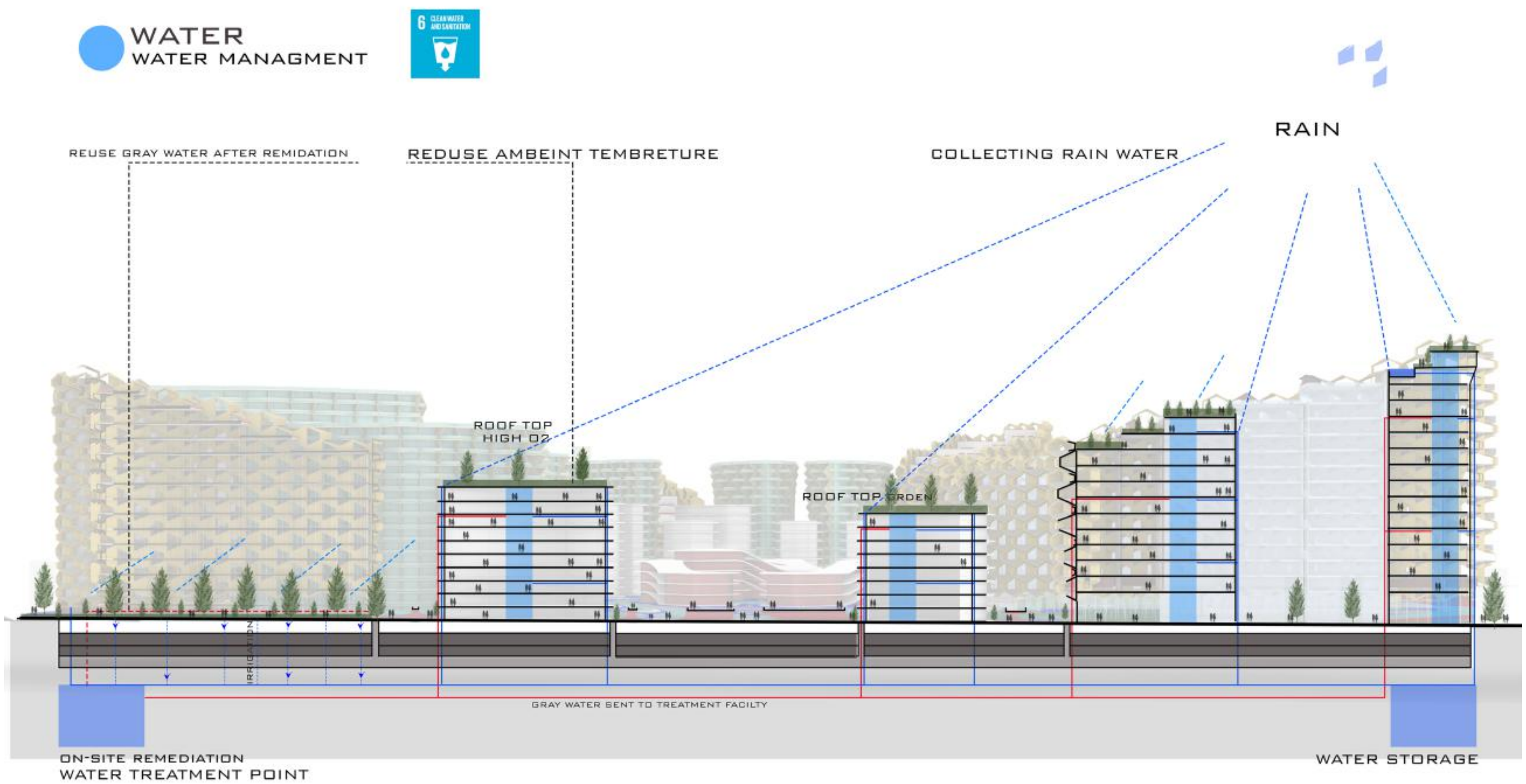


FROM WASTE TO ENERGY

THERE IS ASYSTEM TO TRANSPORT THE TRASHES TO THE GARBAGE MECHANICALLY THROUGH RAILS, COLLECTED UNDERGROUND, AND TRANSFERRED TO A STATION TO CONVERT IT INTO CLEAN ENERGY AND MAKE THE CITY SELF-SUFFICIENT IN ELECTRICITY, GAS AND FUEL.


ECO SYSTEM
NATURAL LIGHT
ATMOSPHERIC WATER COLLECTION
LOCAL MATERIAL
o2
WATER STORAGE
TRASH MOVEMENT
ENERGY GENERATOR
BY HUMAN MOTION
REPUBLIC REALM
COLLECTION

SELF SEFFICIENT CITY



SIRVECES

SMART SCHOOL

HOSPITAL

REACREATIONAL AREA

COMMERCIAL

RETAILS

MARKET

CO-WORKING

ENERGY

SOLAR PANALS

WATER FACILITY

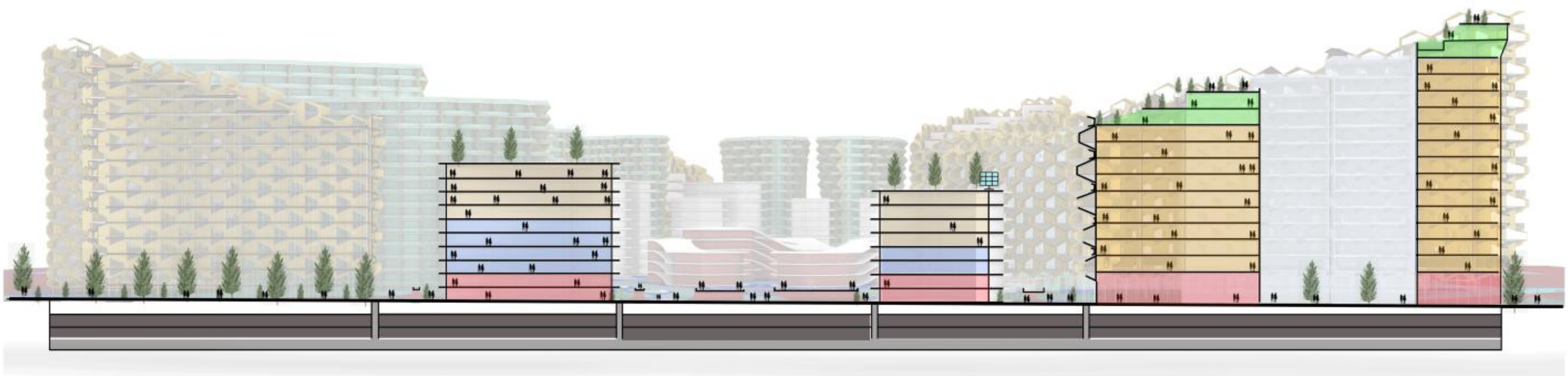
WASTE FACILITY

RESEDINTIAL

ROOF GARDEN FARM

APPARTMENTS

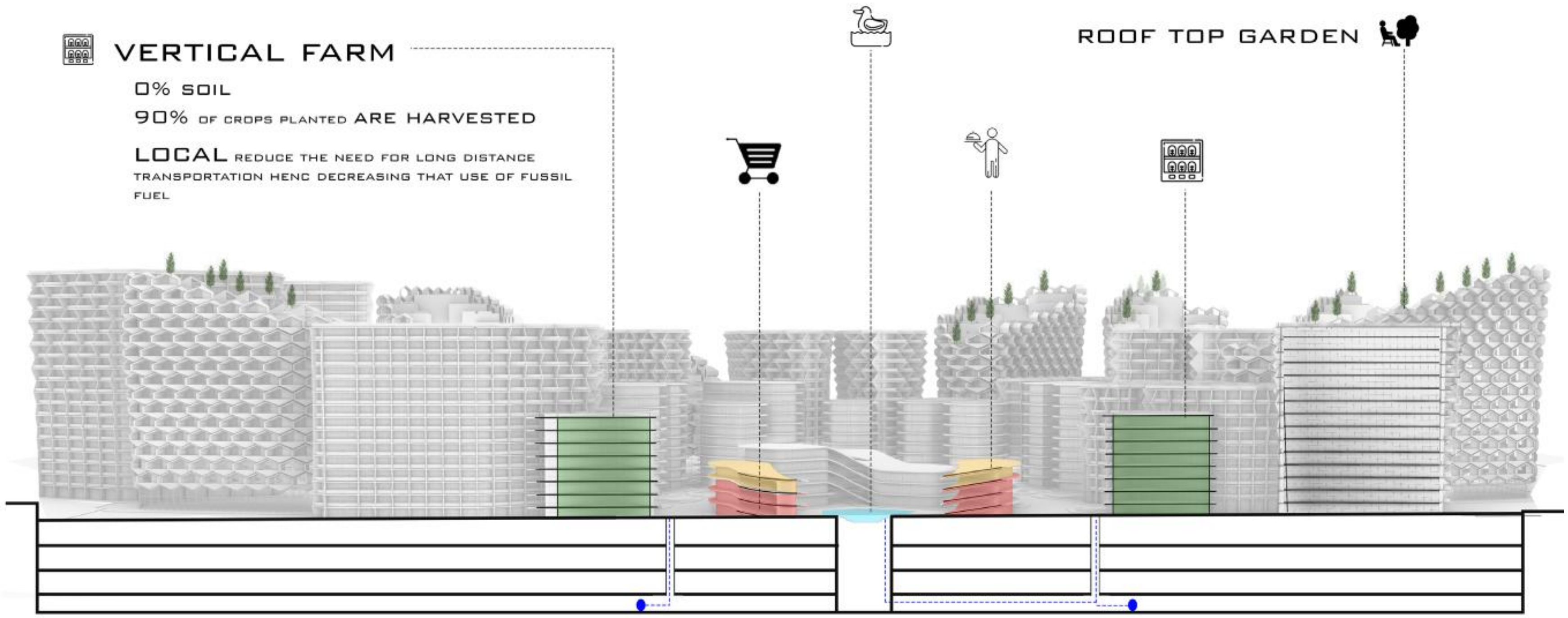
COMMUNITY SPACES

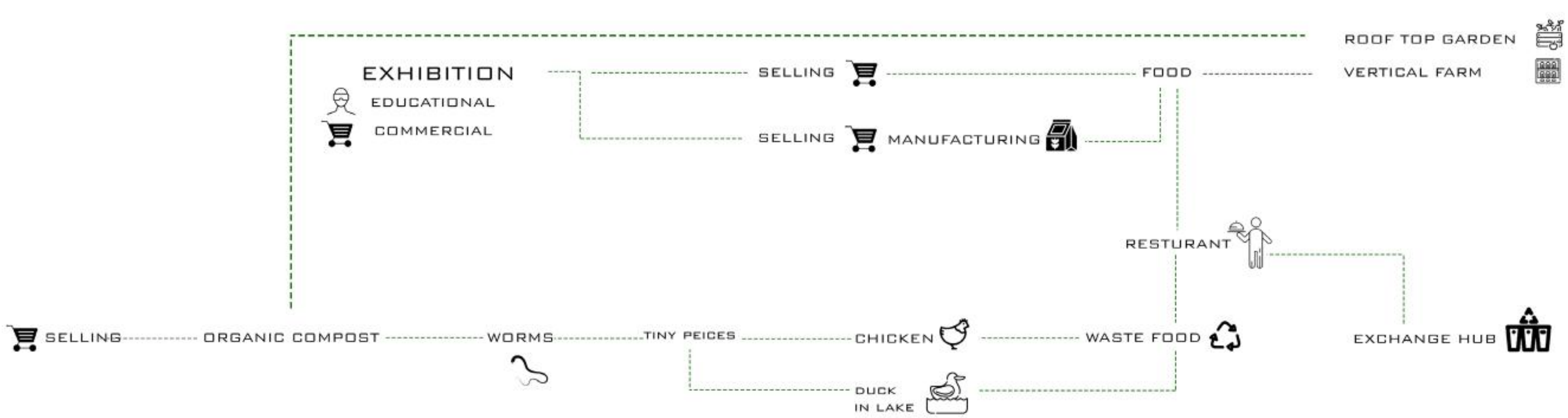


PROGRAM DIVERSITY

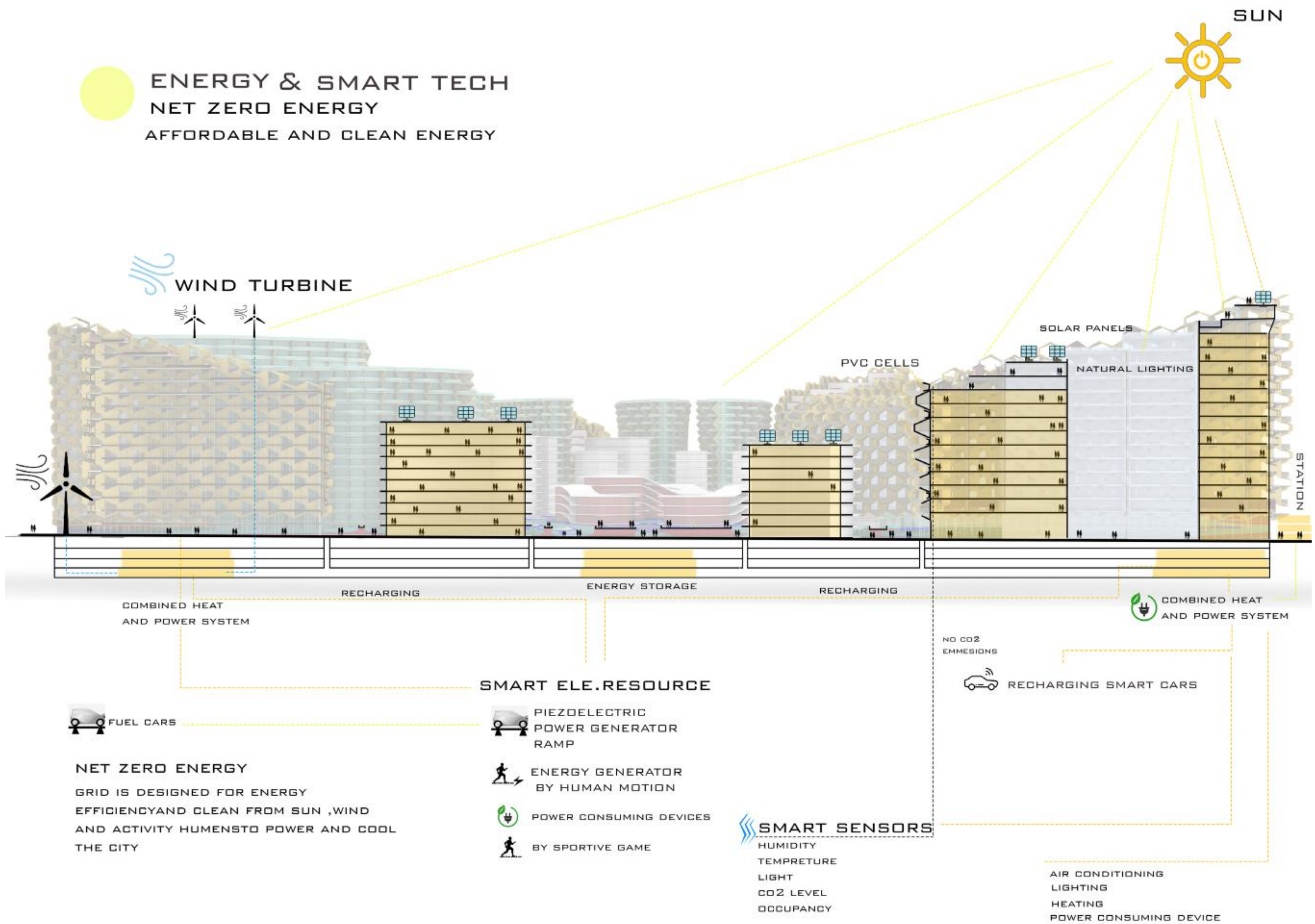
MIXED USED SPACES FOR LIVING,WORKING,GATHERING AND HIGH INVESTMENT

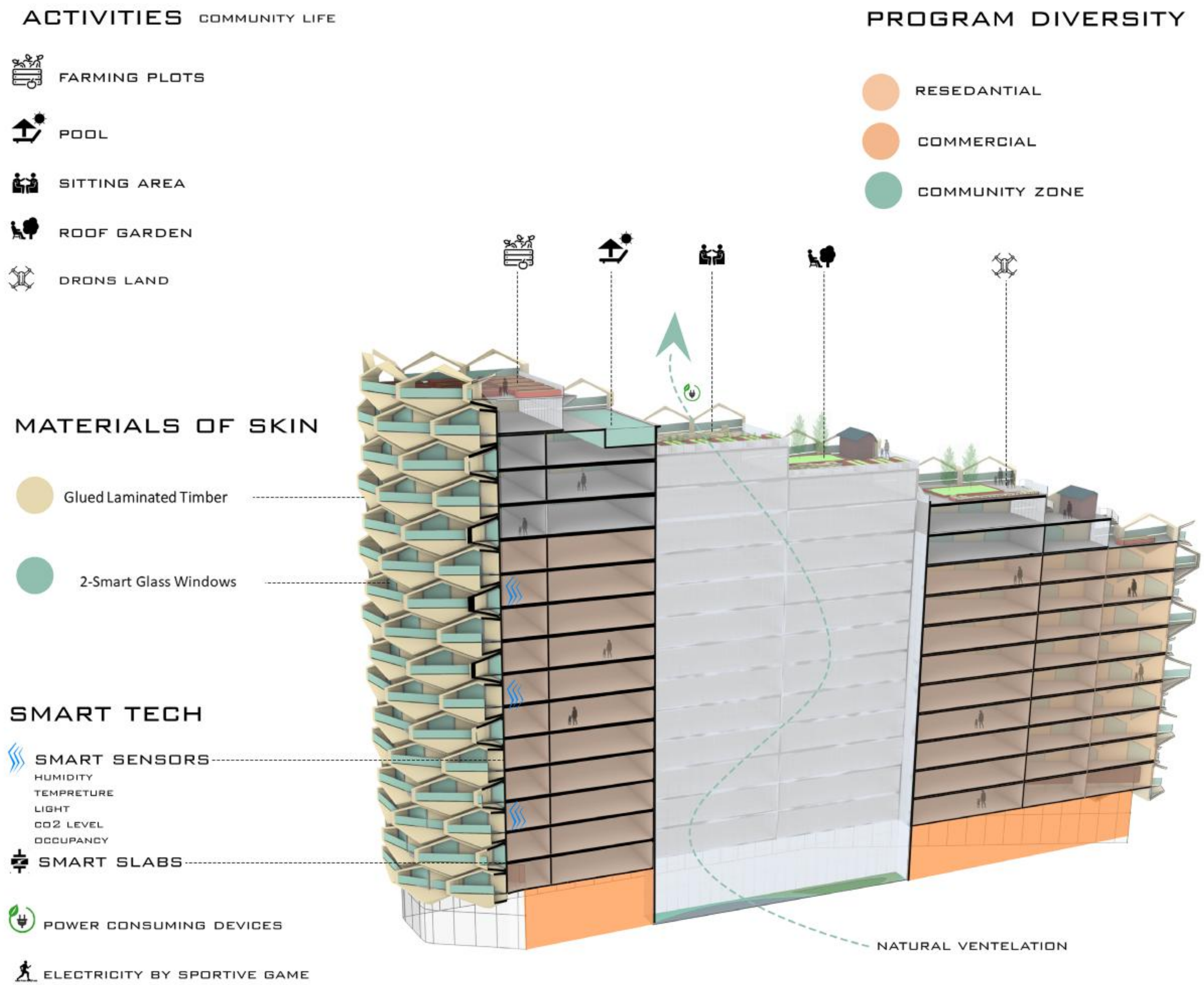
ZERO WASTE PROCESS



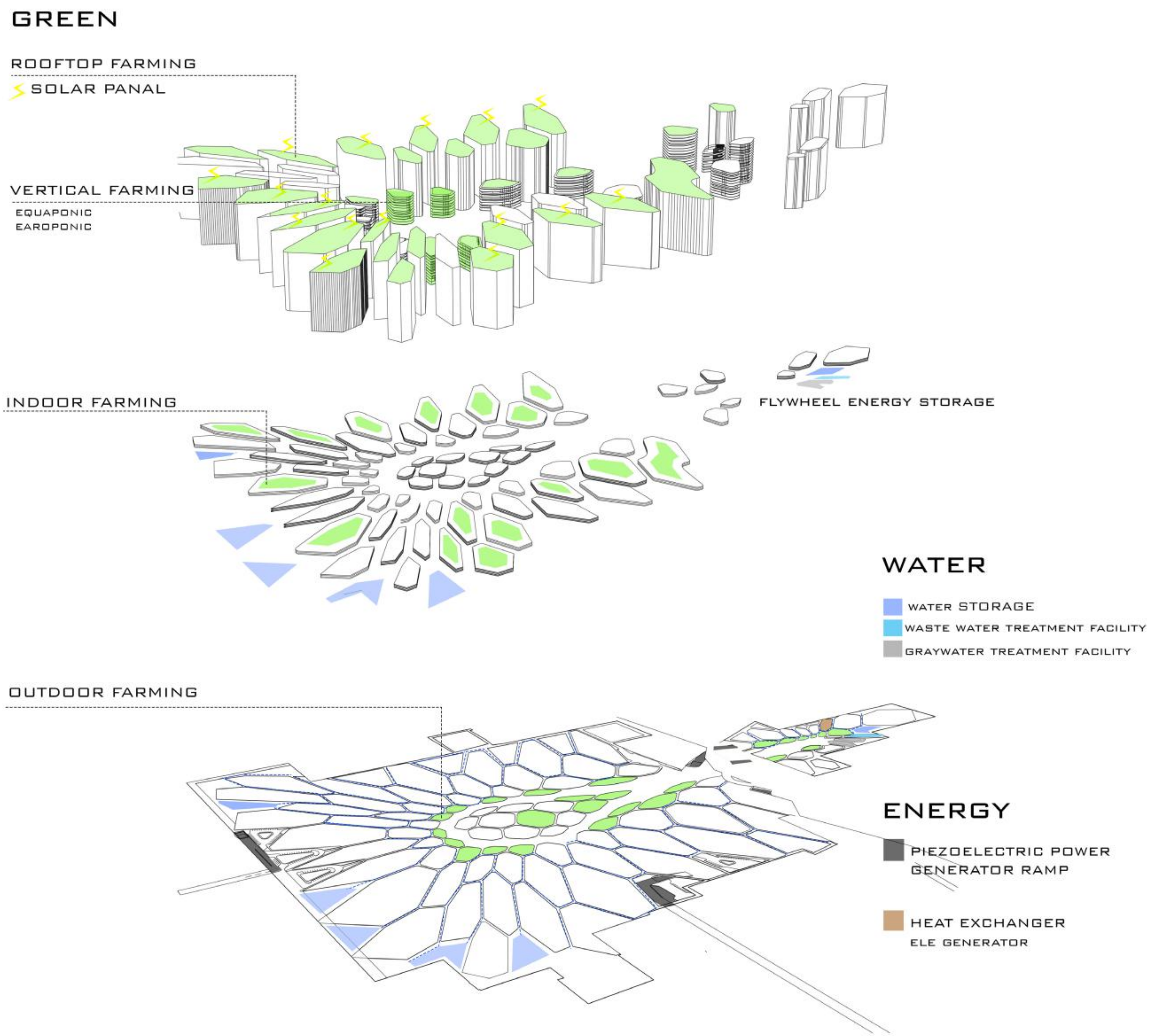


SELF SEFFICIENT CITY





ACTIVITIES COMMUNITY LIFE
FARMING PLOTS
POOL
SITTING AREA
ROOF GARDEN
DRONS LAND
PROGRAM DIVERSITY
RESEDANTIAL
COMMERCIAL
COMMUNITY ZONE
MATERIALS OF SKIN
Glued Laminated Timber
2-Smart Glass Windows
SMART TECH
SMART SENSORS
HUMIDITY
TEMPRETURE
LIGHT
CO2 LEVEL
OCCUPANCY
SMART SLABS
POWER CONSUMING DEVICES
ELECTRICITY BY SPORTIVE GAME
NATURAL VENTELATION


GREEN
ROOFTOP FARMING
SOLAR PANAL
VERTICAL FARMING
EQUAPONIC
EAROPONIC
INDOOR FARMING
FLYWHEEL ENERGY STORAGE
WATER
WATER STORAGE
WASTE WATER TREATMENT FACILITY
GRAYWATER TREATMENT FACILITY
OUTDOOR FARMING
ENERGY
PIEZOELECTRIC POWER
GENERATOR RAMP
HEAT EXCHANGER
ELE GENERATOR

CONNECTIVITY

CONFERANCE SPACE
AS ABEACON OF INTERNATIONAL CONNECTIONS

PUBLIC PARK
AS ABEACON OF LOCAL CONNECTIONS

MEETING SPACES
PROVIDING LOADS OF OPPERTUNITIES FOR PEOPLE TO CNNECT THROUGH PROGRAMS AND SPACES

OPEN-AIR MARKET
JSTNG LOCAL ARTISTS AND OTHER LOCAL OR EVEN REGION-AL EVENTS

FARM-TO-TABLE RESTURANTS
BRINGING IN THE RICH LOCAL FOOD CULTURE INVOLVING ALSO LOCAL FARMERS

URBAN COMFORT

THE GARDENS
A BREK INT THE URBAN FARBIC THAT PROVIDES RELIEF FROM HEAT STRESS

CANOPIES
FUNCTIONAL THROUGH PASSIVE COOLING AS WELL AS SOUND BARRIER

GREEN ROOFS
REDUCING THE HEAT ISLAND EFFECT THROUGH LESS EX-POSED GREY

SOUND BREAKERS
(PLANTED) STRUCTURES WHICH PRVIDE NOISE REDUCTION

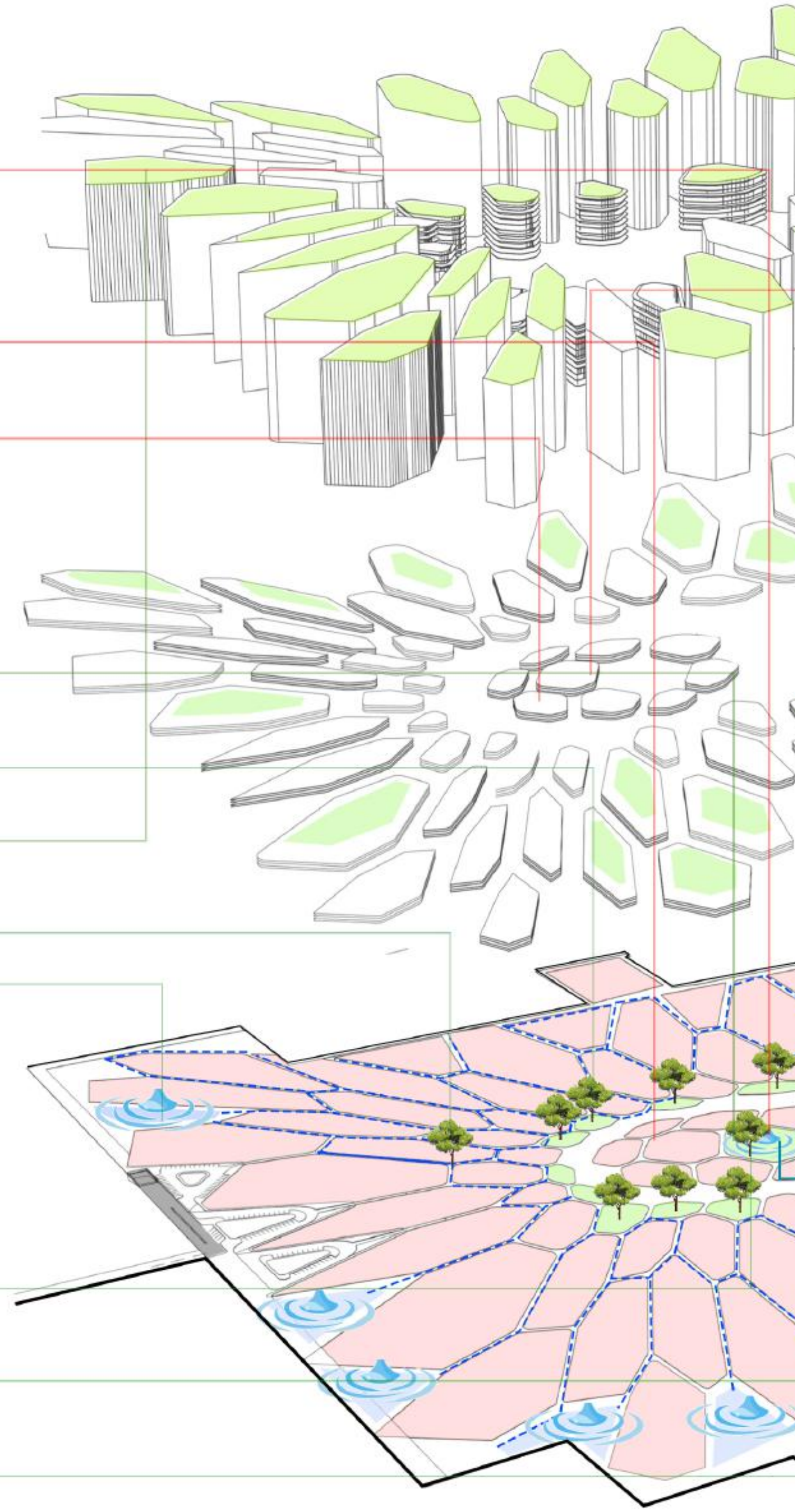
SURFACE WATER FEATUR
PROVIDING PASSIVE COLING

RECREATION

PUBLIC PARK
PROVIDES UTDOR SPACE FOR CITIZENS TO USE FOR LEISURE OR ACTIVITIES

WALKING ROUTES &DISCOVERY PATHS
PROVIDING CONVENIENT WAY TO EXPLORE AND ENJOY THE PARK AND FOREST

PLAY AREA & SPORT FACILITIES
FLEXIBLE SPACES THAT CAN BE USED IN MULTI-PLE WAYS WHEN THERE ARE NO EXHIBITIONS



LOCAL OWNERSHIP

"MY T13F" PLANT A TREE PROGRAM AND WATCH IT GROW

ACTIVELY ENGAGE CITIZENS TO ENGAGE COOPERATIVELY WHILE CREATING A SENSE OF OWNERSHIP

THE FOREST GARDENS

SHOWING THE SERVICES NATURE CAN PROVIDE IN THE RIGHT CNTEXT

EXPO+

FLEXIBLE SPACES THAT CAN BE USED IN MULTIPLE WAYS WHEN THERE ARE NO EXHIBITIONS

BLUE INFRASTRUCTURE

AS INFORMAL MEETING SPACES ,BOOSTING SOCIAL INTERAC-TION/INFORMAL PLAY

ENERGY-TECH

SOLAR PANAL

Solar panels capture sunlight as a source of radi-ant energy, which is converted into electric energy

KIT ENERGY OF PECIES

PIEZOELECTRIC POWER GENERATOR RAMP AND HUMAN MOTION

FROM WASTE TO ENERGY

CLEAN ENERGY AND MAKE THE CITY SELF-SUFFICIENT IN ELECTRICI-TY, GAS AND FUEL.

COMPRESSED AIR ENERGY STORAGE

Contrasted with traditional batteries, systems can store energy for longer periods of time and have less upkeep.

WATER MANAGEMENT

WATER RESILLIENT PARK

INCREASING WATER INFILLTRATION AND STORAGE ,DECREAS-ING FLOODING RISK AND DAMAGE

WATER RETENTION ELEMENTS

CREATING AMORE STABLE WATER TABLE AND PRESENCE THROUGHOUT THE SEASONS

WATER TREATMENT FACILITY

Gray water treatment, purification and conversion into potable water

Marhaba Garden

Sialkot ,Pakistan

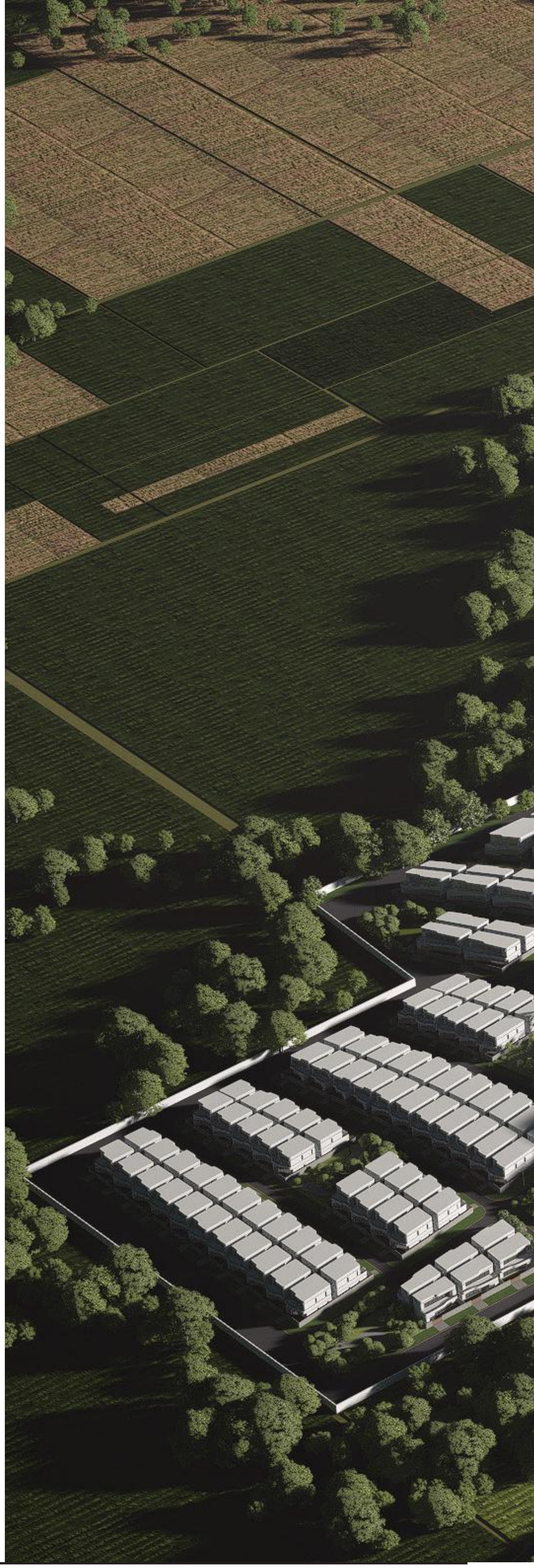
Client: Gondal Developers

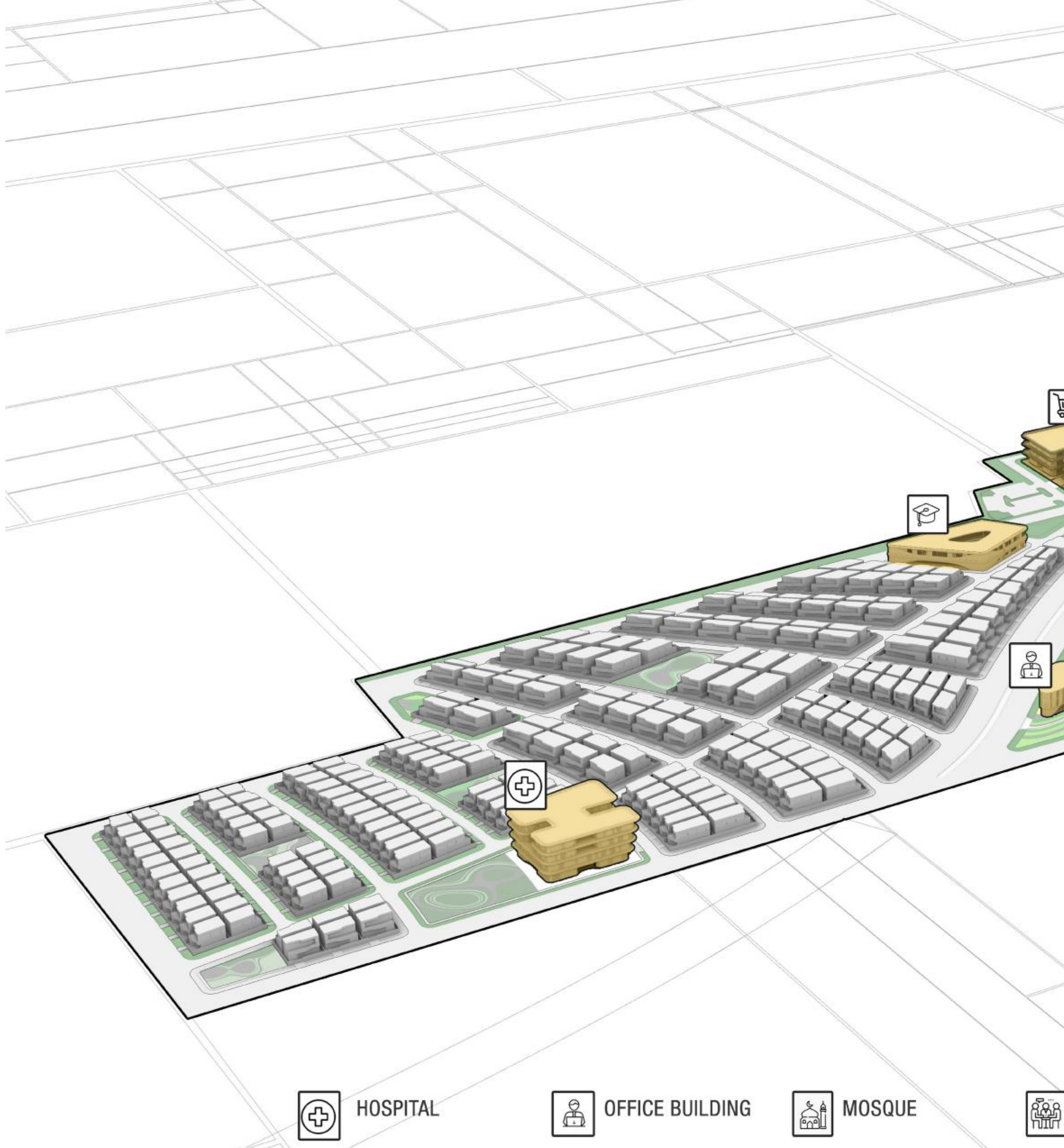
Size: 20 Hectare

Status: In Construction

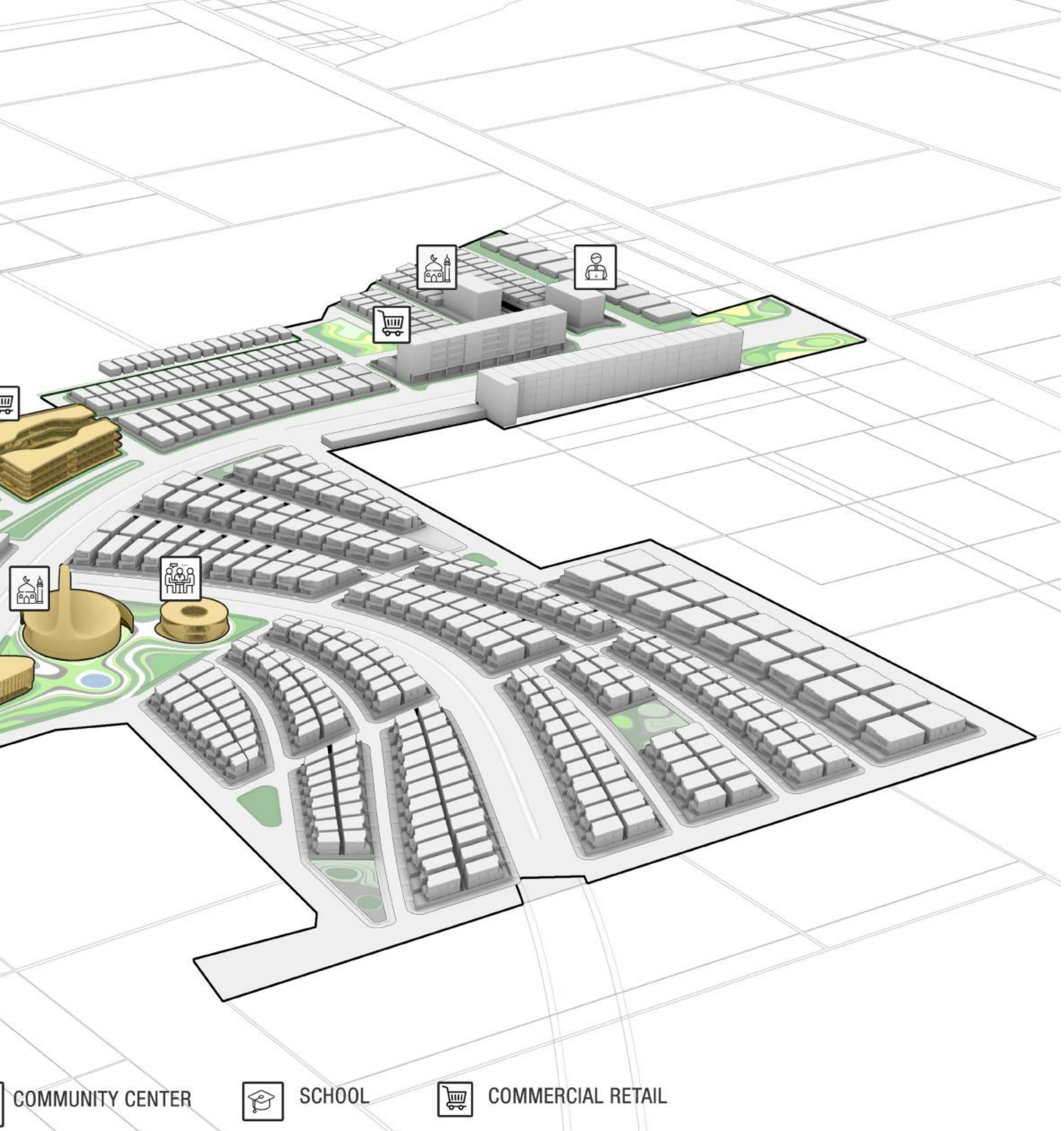
Typology: Residential , Retail

Year: 2024



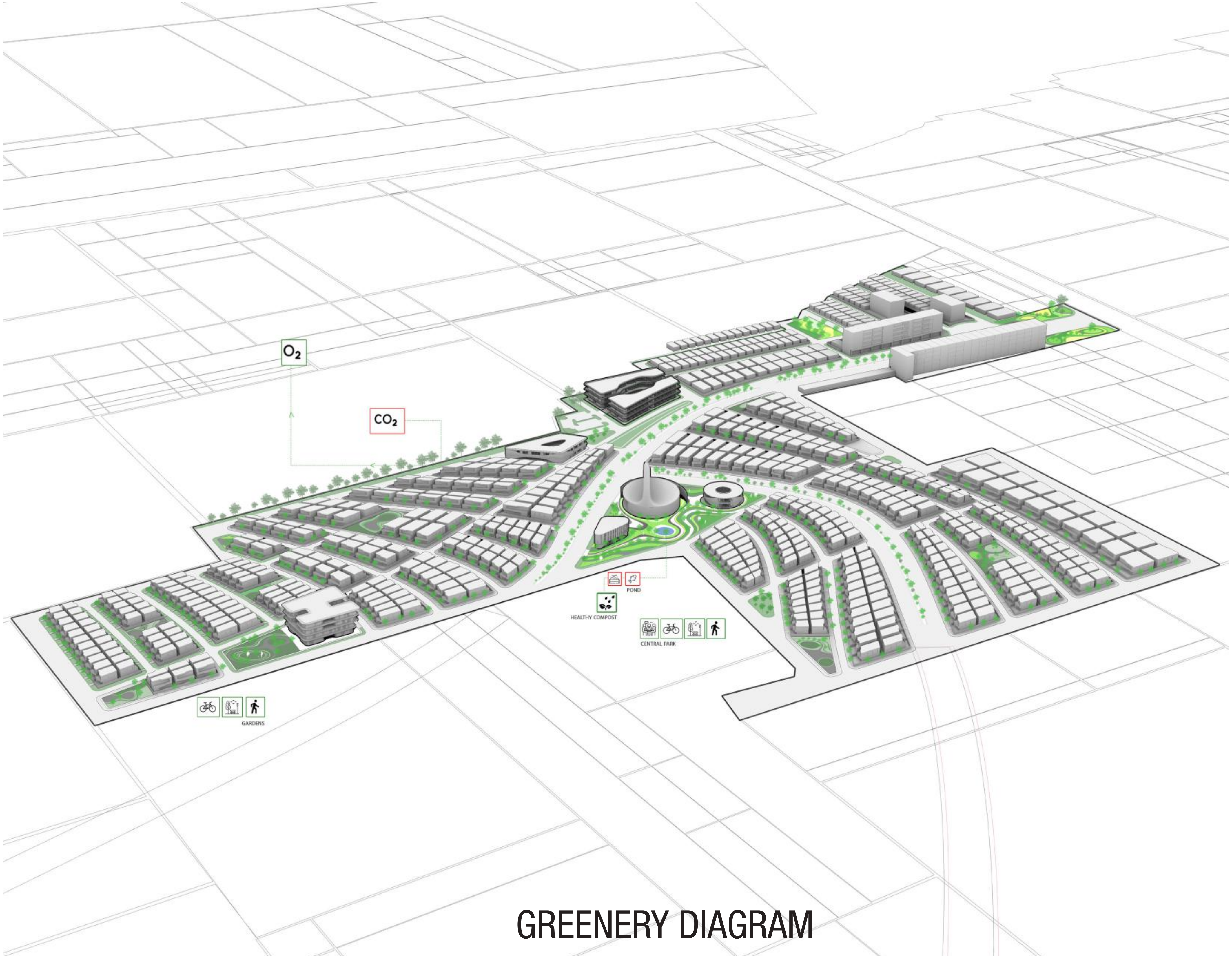


PROGRAM

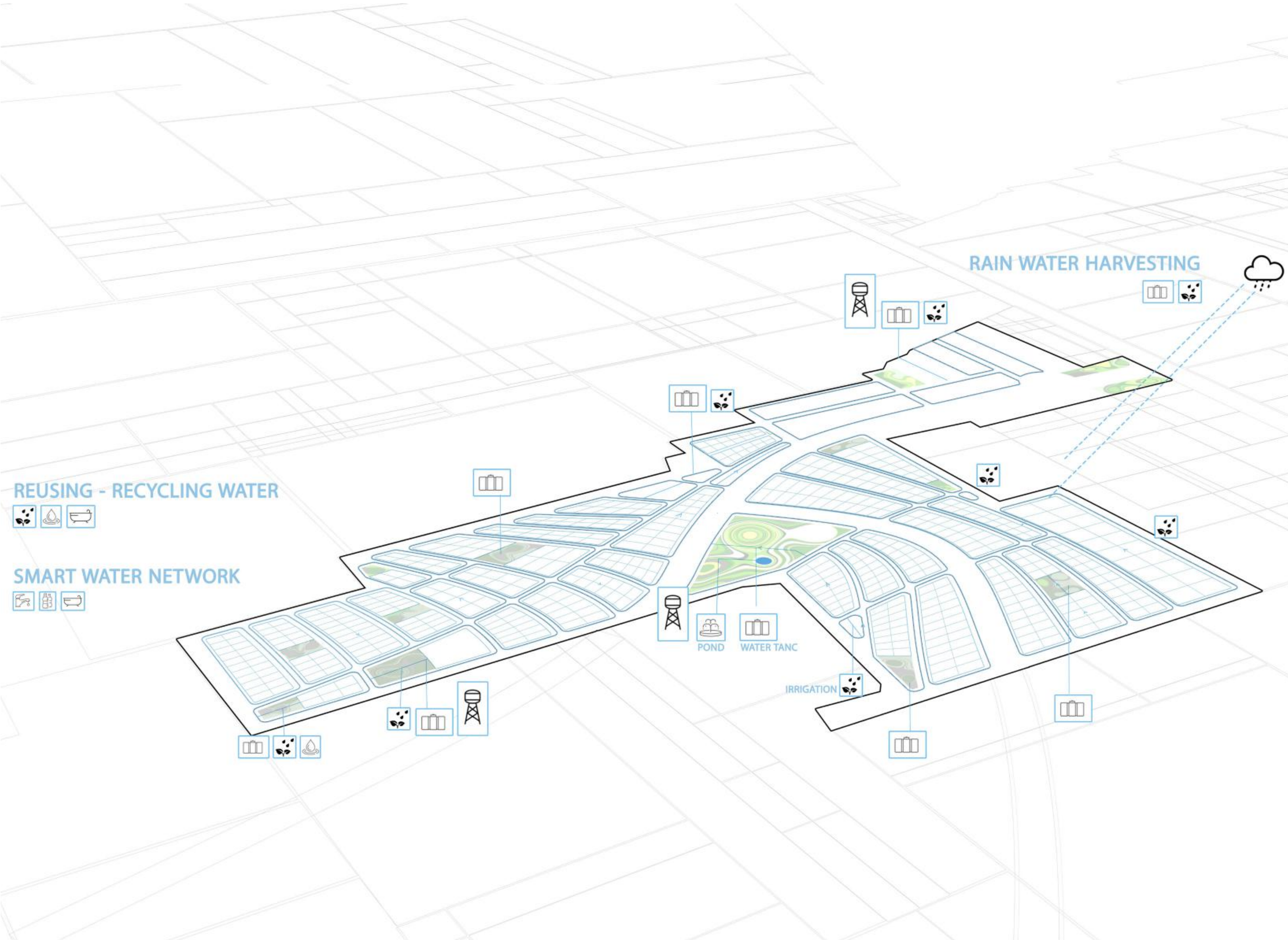


DIAGRAM

ENERGY DIAGRAM



GREENERY DIAGRAM



WATER DIAGRAM

STREET DIAGRAM

SUSTAINABILITY

MASTER PLANNING

01

Eco Urban Oasis

P_346

02

Recoding Smart Oasis

P_352

03

04

Eco-Urban Oasis

Khushab ,Pakistan

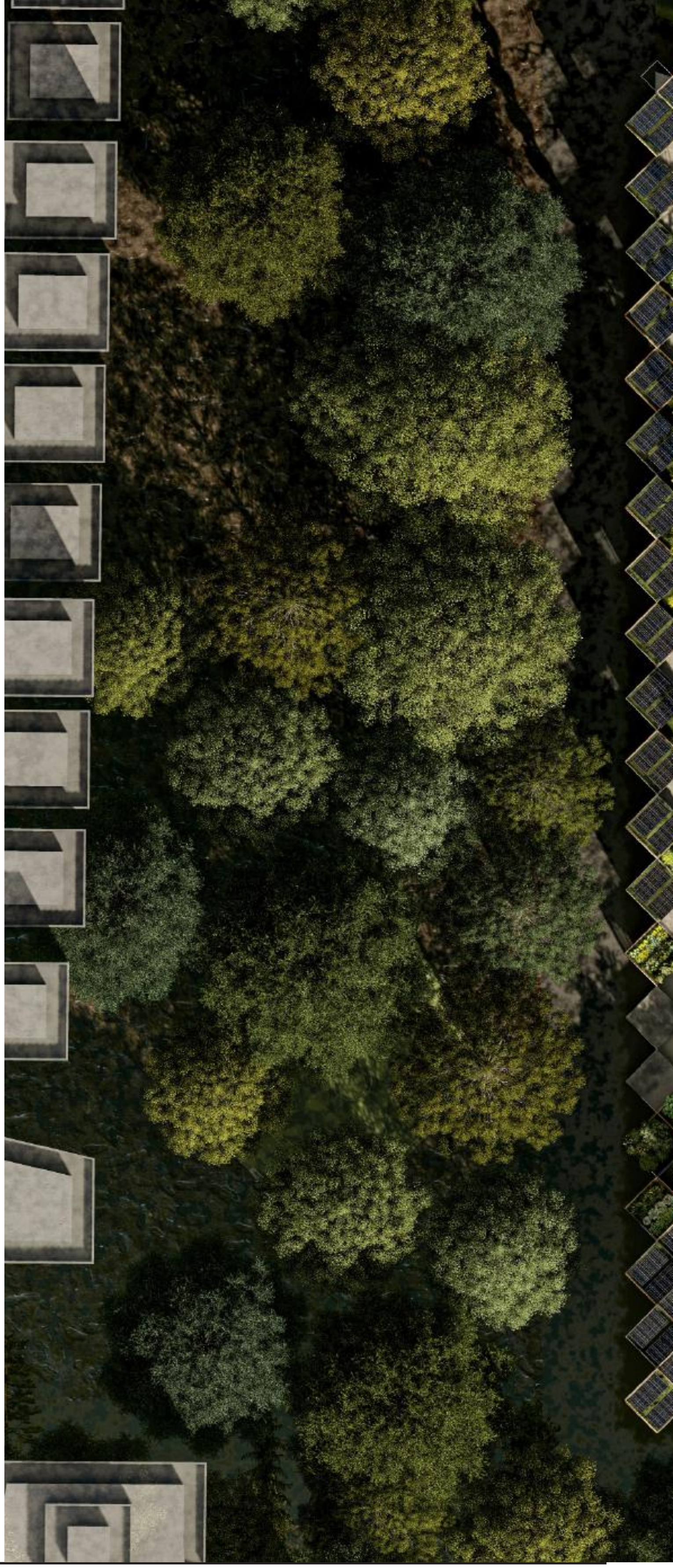
Client: MA Development

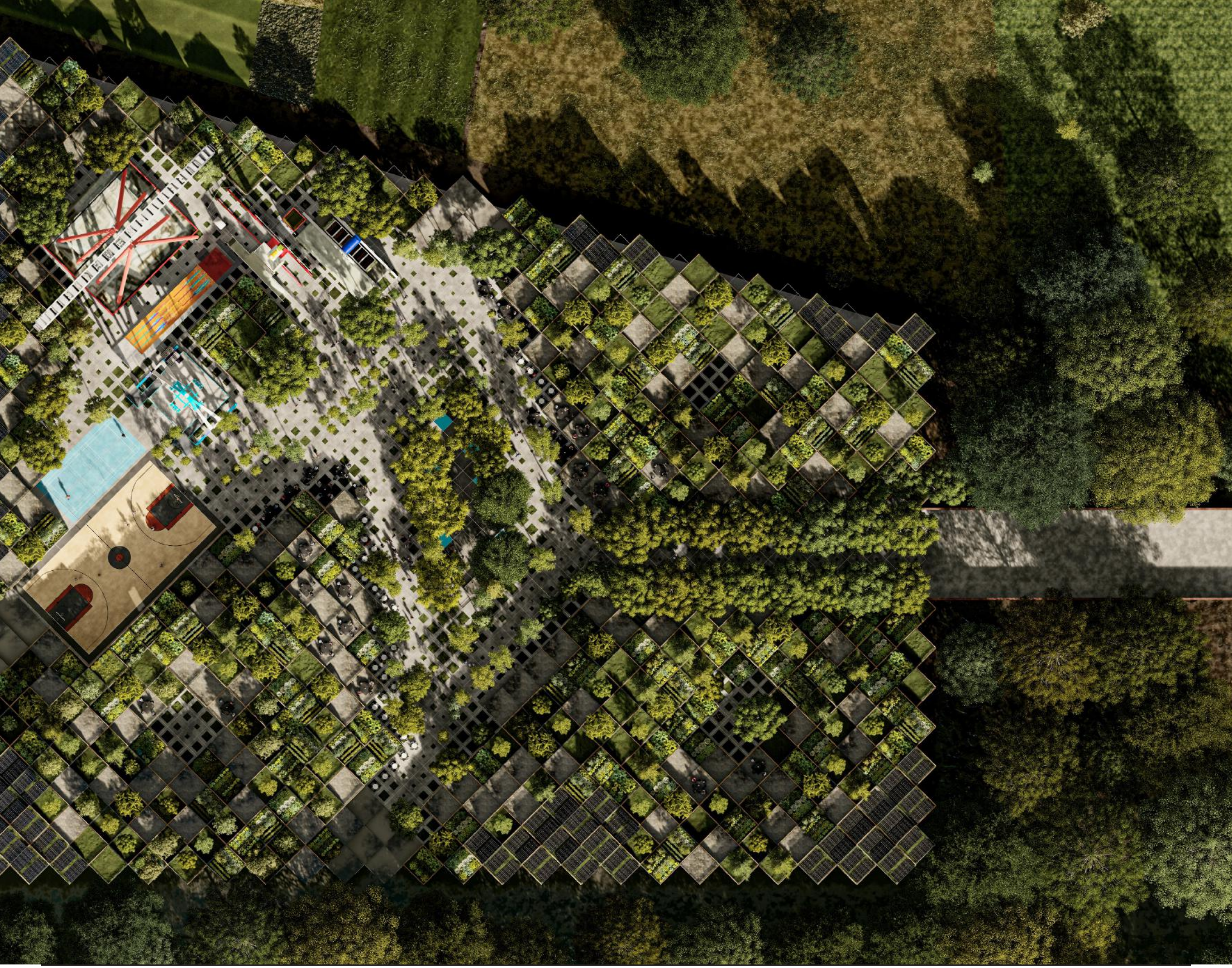
Size: 4,000m²/43,055f²

Status: In Design

Typology: Culture

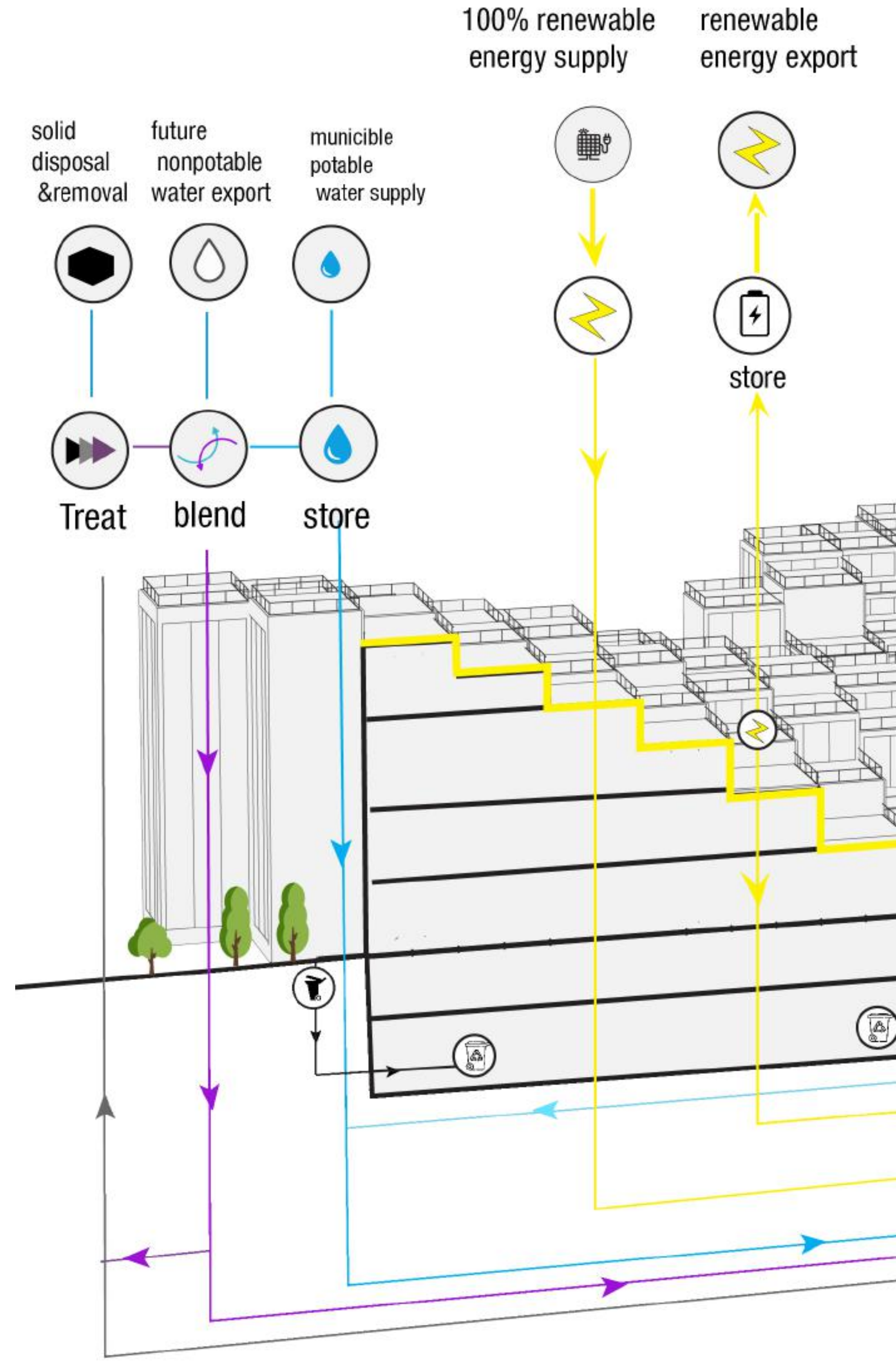
Year: 2022

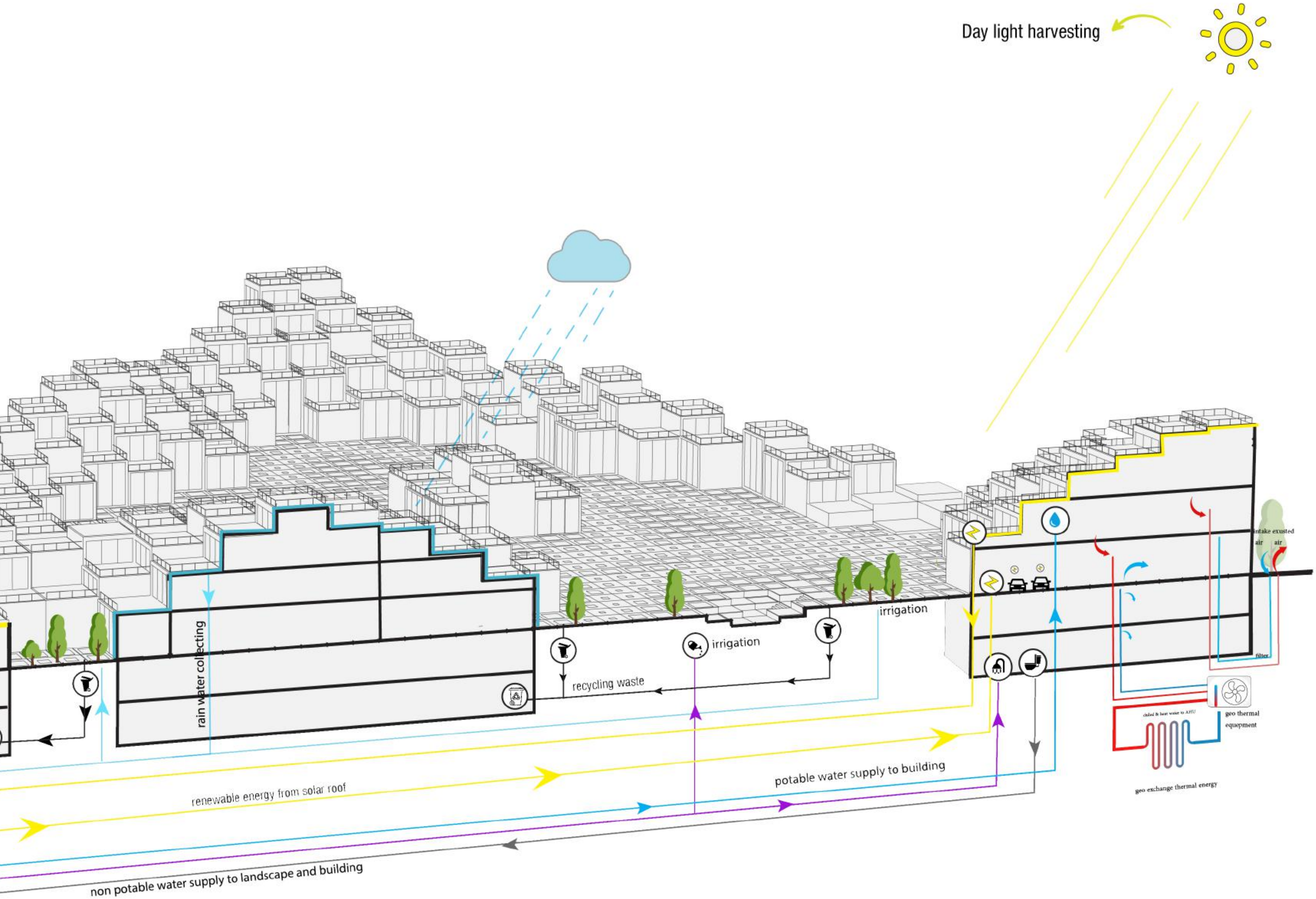




Sustainability is at the core :

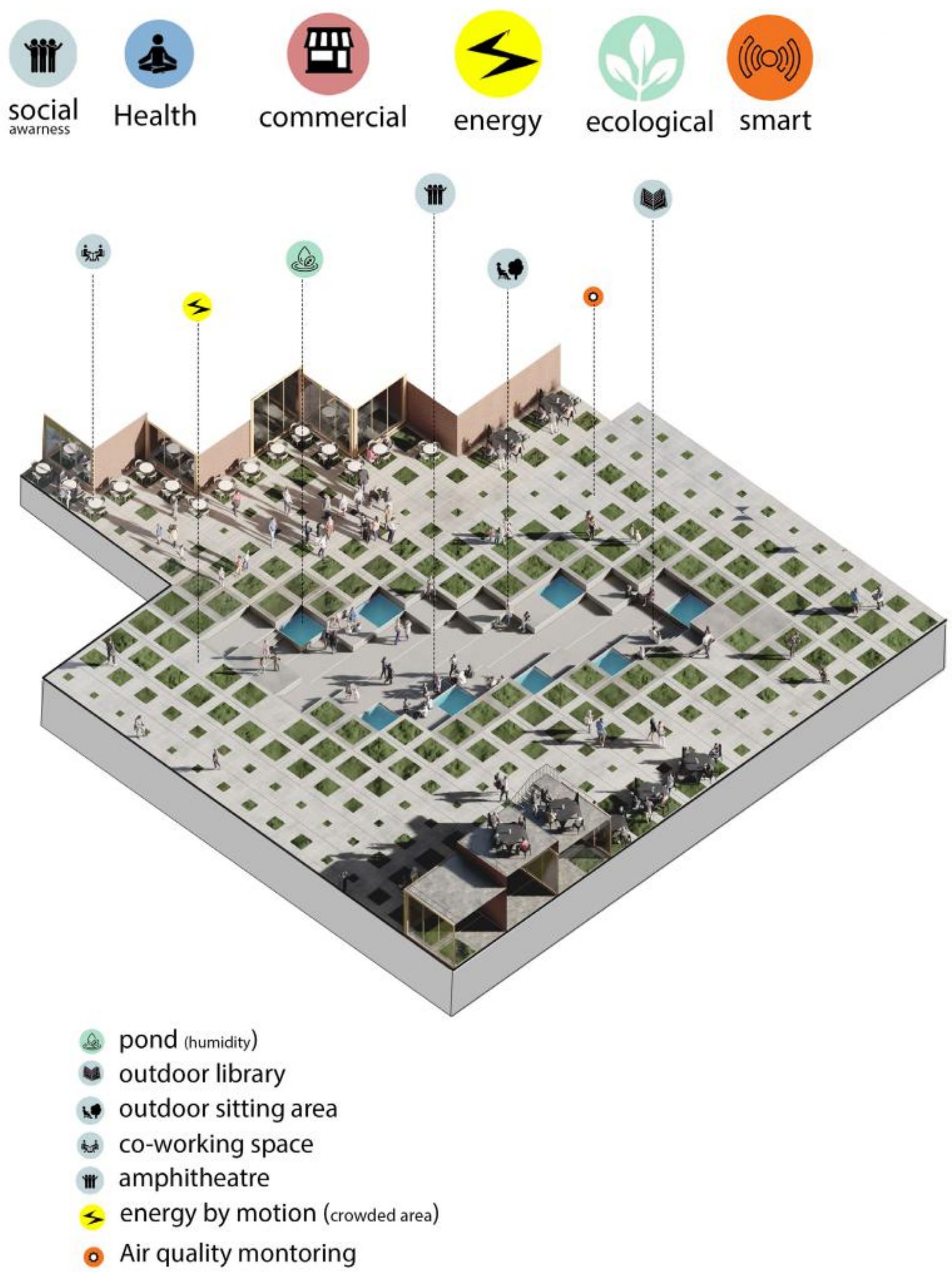
Central to our design philosophy is a profound commitment to sustainability, evidenced by a meticulous emphasis on integrating green spaces, deploying energy-efficient infrastructure, and utilizing eco-friendly materials. This ethos ensures a harmonious blend of functionality and environmental responsibility within our architectural endeavors.

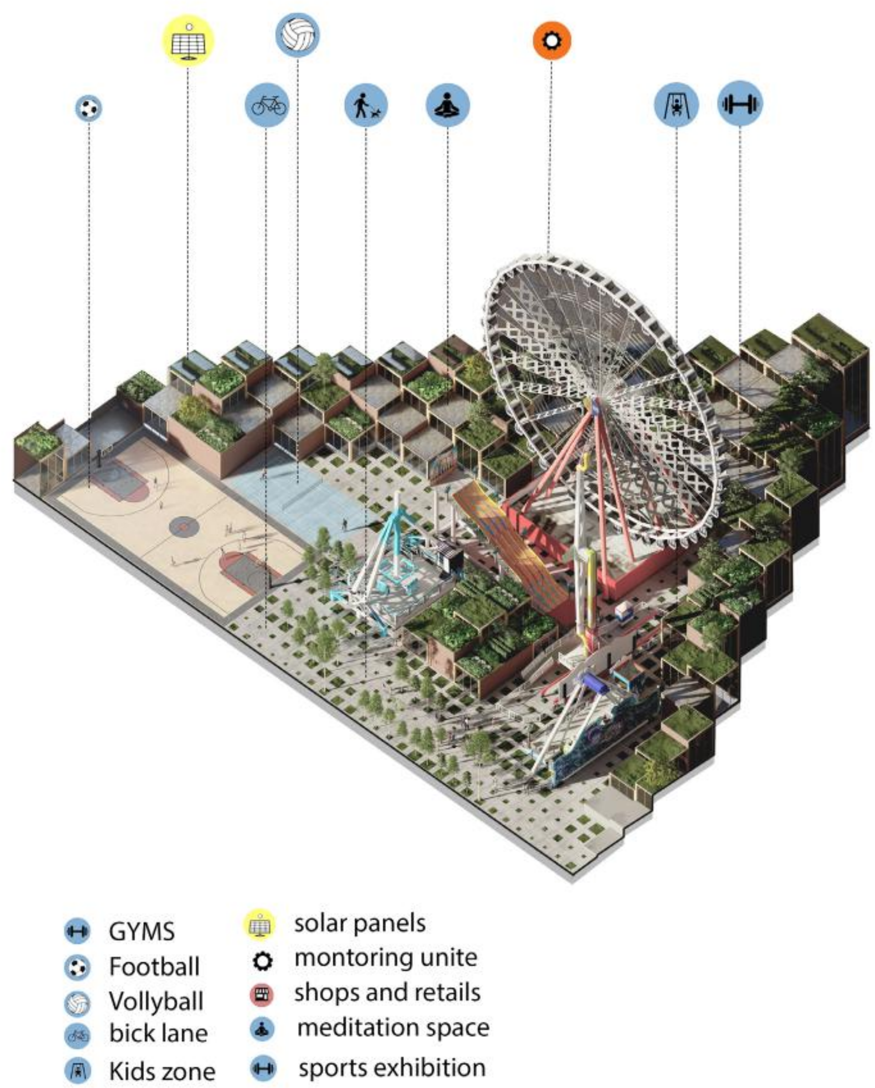




Day light harvesting
rain water collecting
irrigation
irrigation
recycling waste
intake air
exusted air
filter
chilled & heat water to AHU
geo thermal equepment
geo exchange thermal energy
potable water supply to building
renewable energy from solar roof
non potable water supply to landscape and building

These initiatives collectively contribute to an intelligent, sustainable, and technologically advanced urban environment. Moreover, our design incorporates advanced sun and wind simulation techniques, ensuring optimal use of natural resources and creating comfortable, well-ventilated spaces.These collective measures underscore a commitment to minimizing the project's carbon footprint





This project incorporates smart urban principles through cutting-edge technologies. It employs air quality monitoring systems, harnesses energy through motion, integrates solar panels for sustainable power generation, features an indoor aquaponic system for efficient agriculture, and utilizes smart trash systems for optimized waste management.

- Security Cameras and Monitoring
- Food Court
- Semi privet Food Court
- Restaurant
- Cafe
- Rooftop garden

- festival market
- Urban farming
- Vertical farming education
- Aquaponic system Show case
- Shops for equaponic products
- Organic Restaurant

- solar panels
- Urban farming
- shops for urban farming
- Indoor Aquaponic system (water treatment and fish waste reuse)
- equaponic products
- pond (fish waste)
- shade

- walk way
- Bick lane
- Drons land
- Urban farming
- indicater plants test (monitor water quality)
- smart trash

Recoding Smart Oasis

Abu Dhabi ,UAE

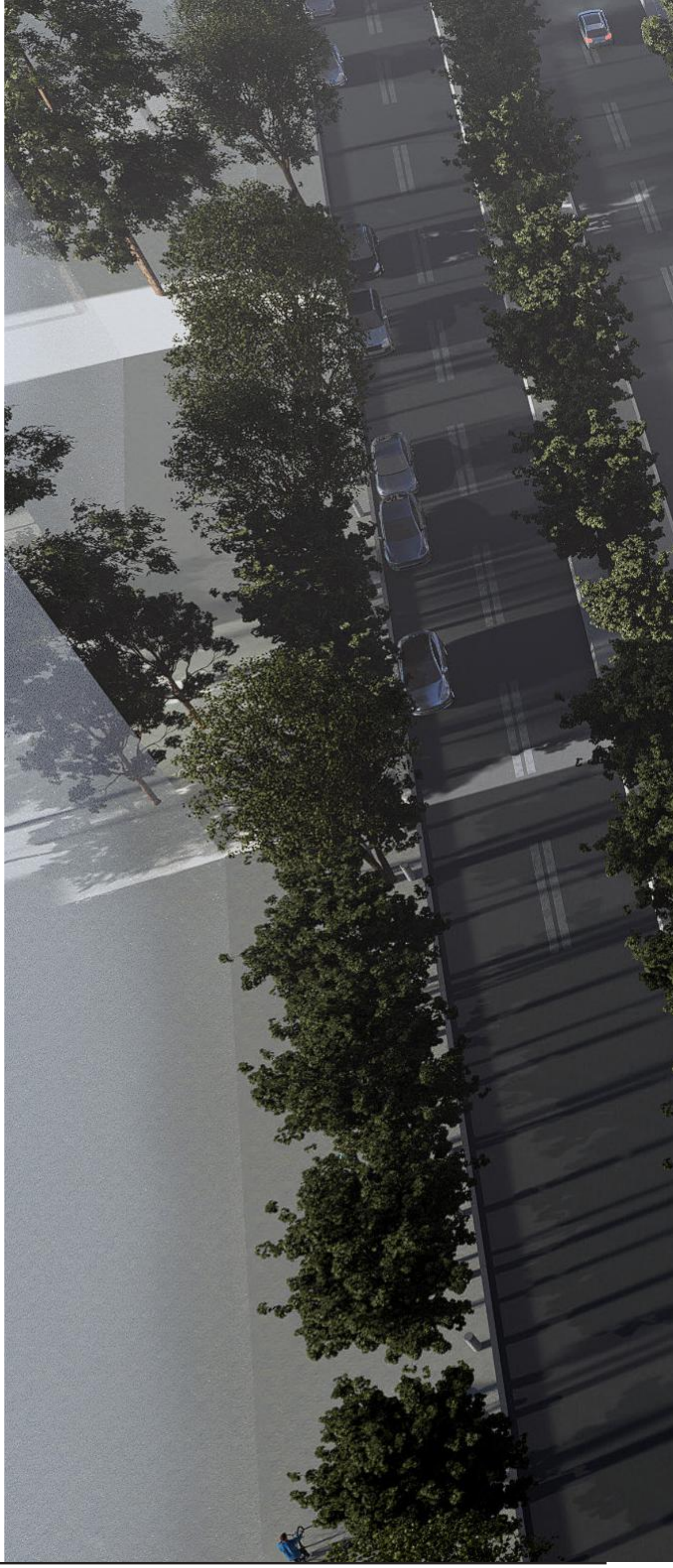
Client: Dept. of Municiplaty & Transport

Size: 1,000m² / 10,000 SFT.

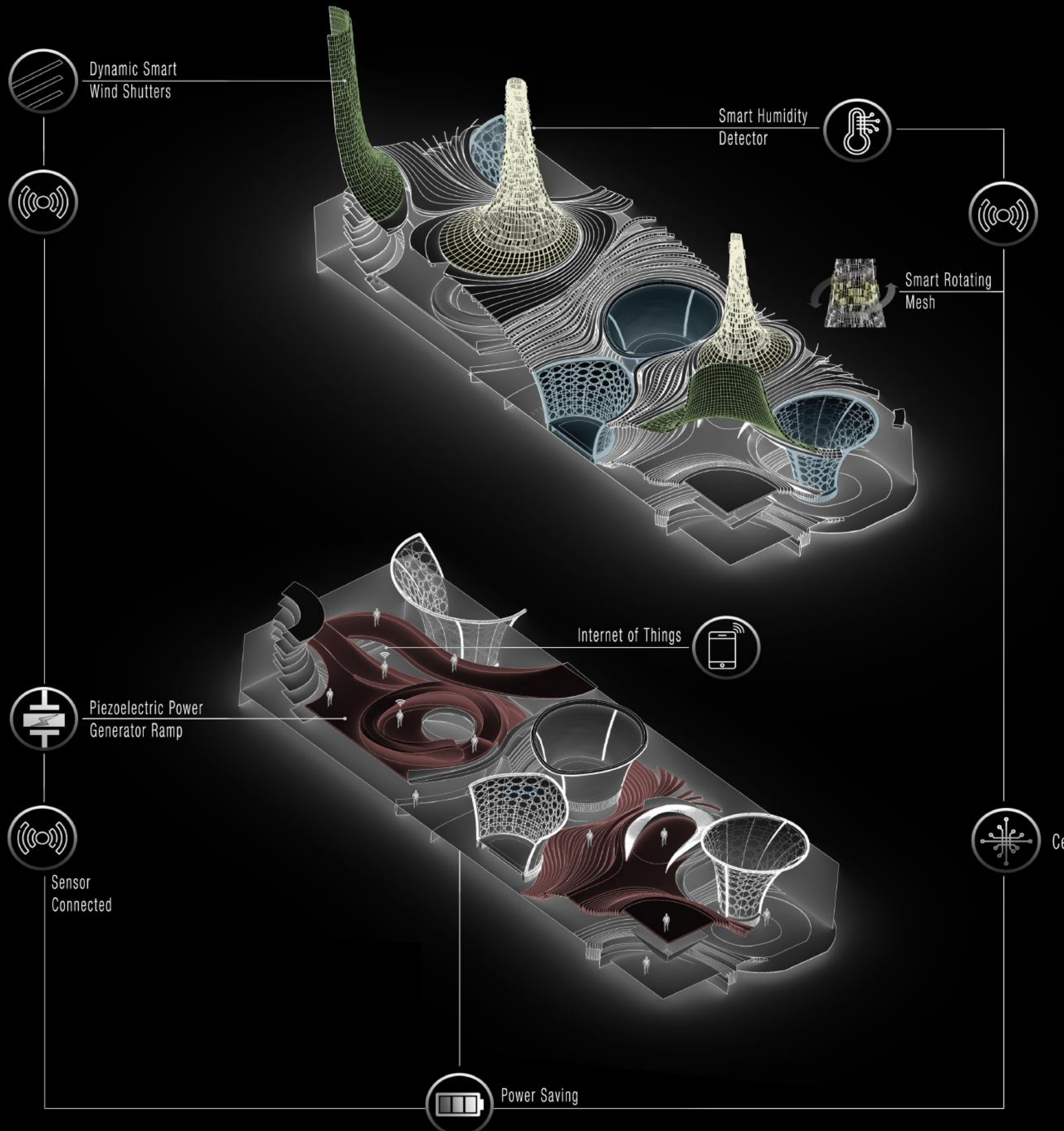
Status: Proposal

Typology: Urbanizm

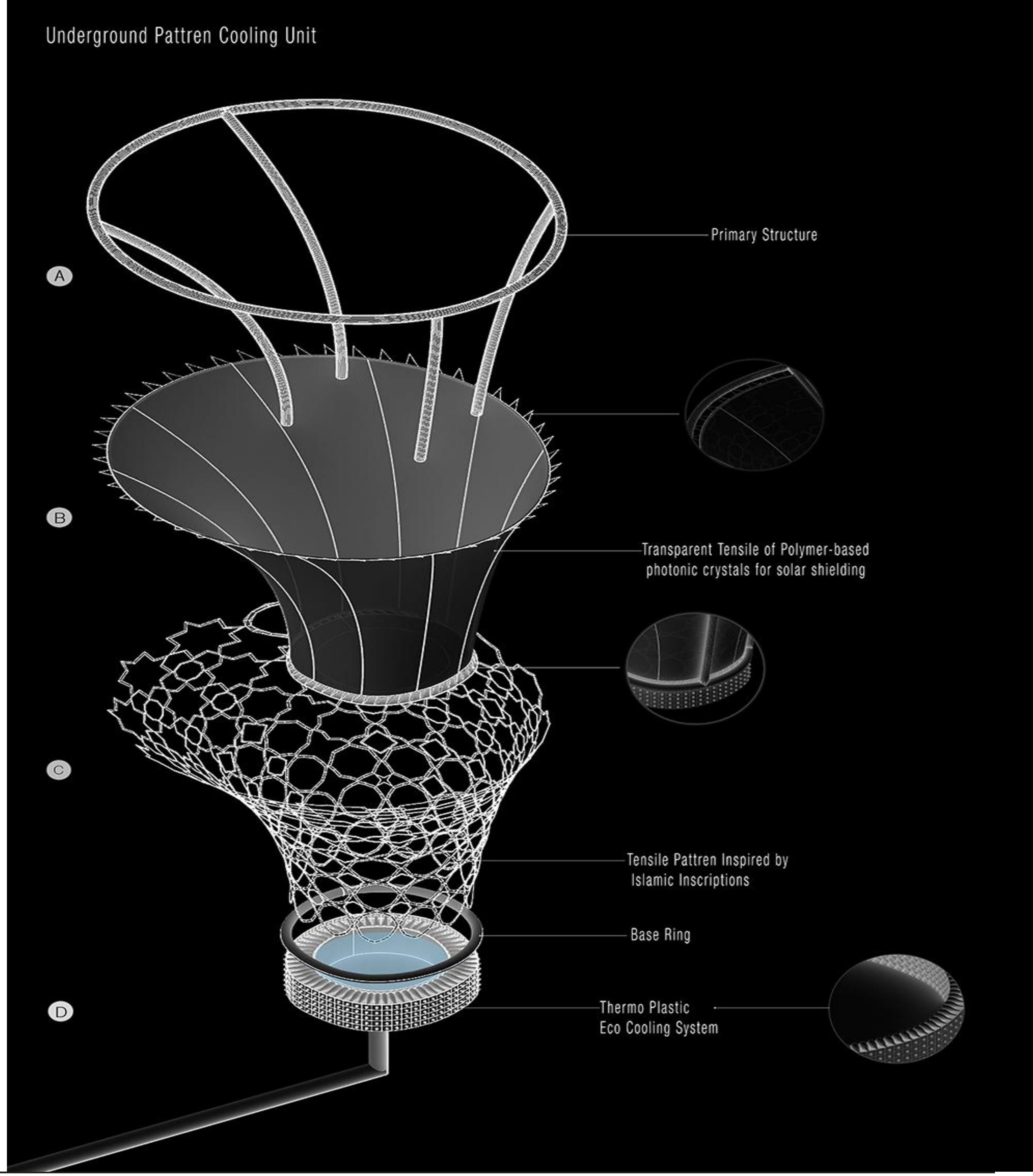
Year: 2020



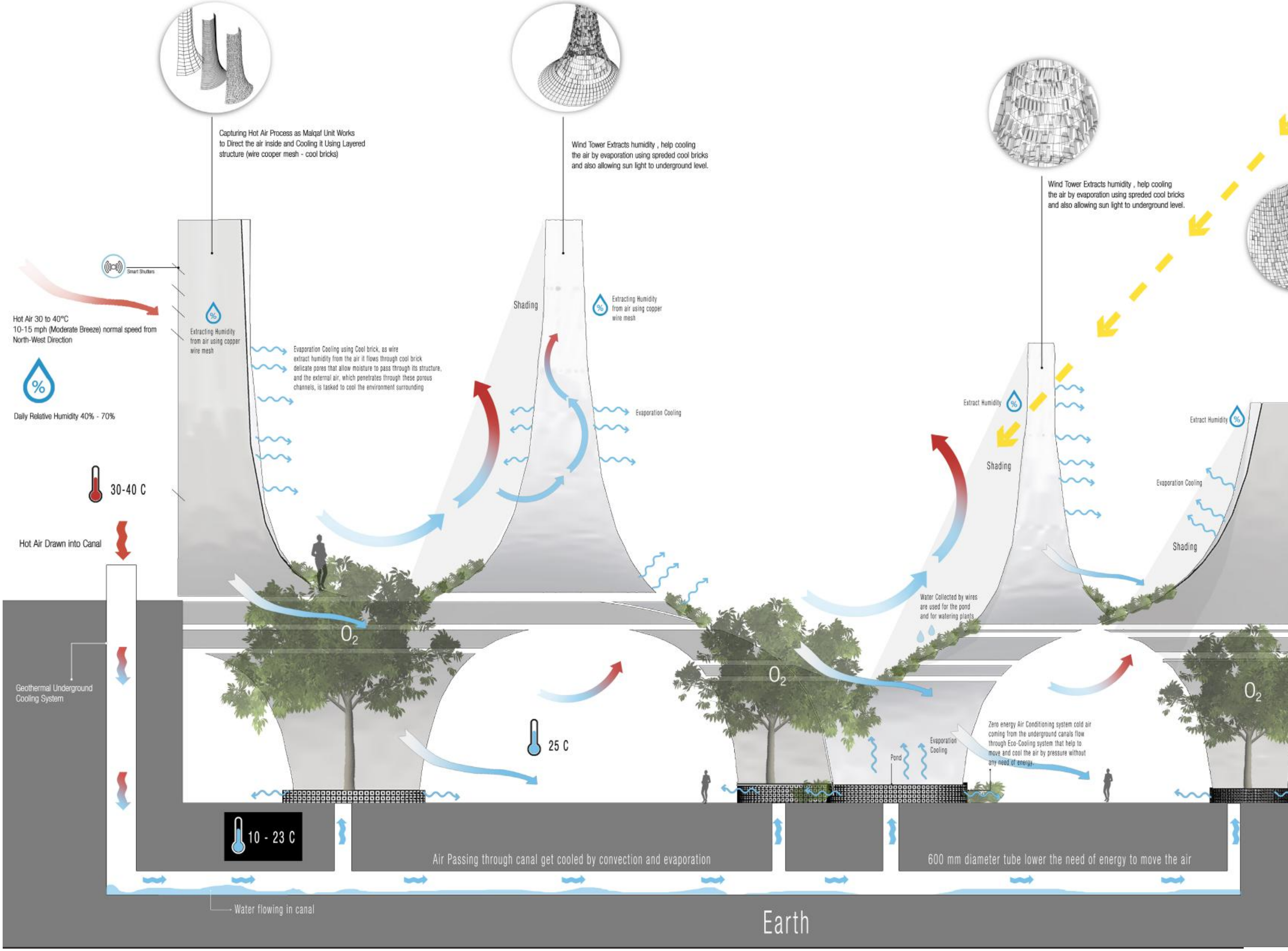

20

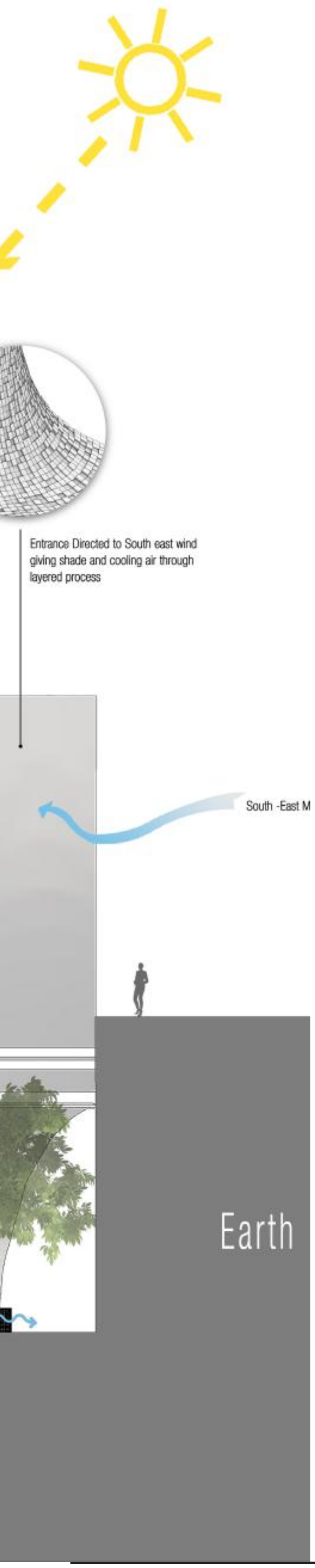

Dynamic Smart
Wind Shutters
Smart Humidity
Detector
Smart Rotating
Mesh
Internet of Things
Piezoelectric Power
Generator Ramp
Sensor
Connected
Power Saving

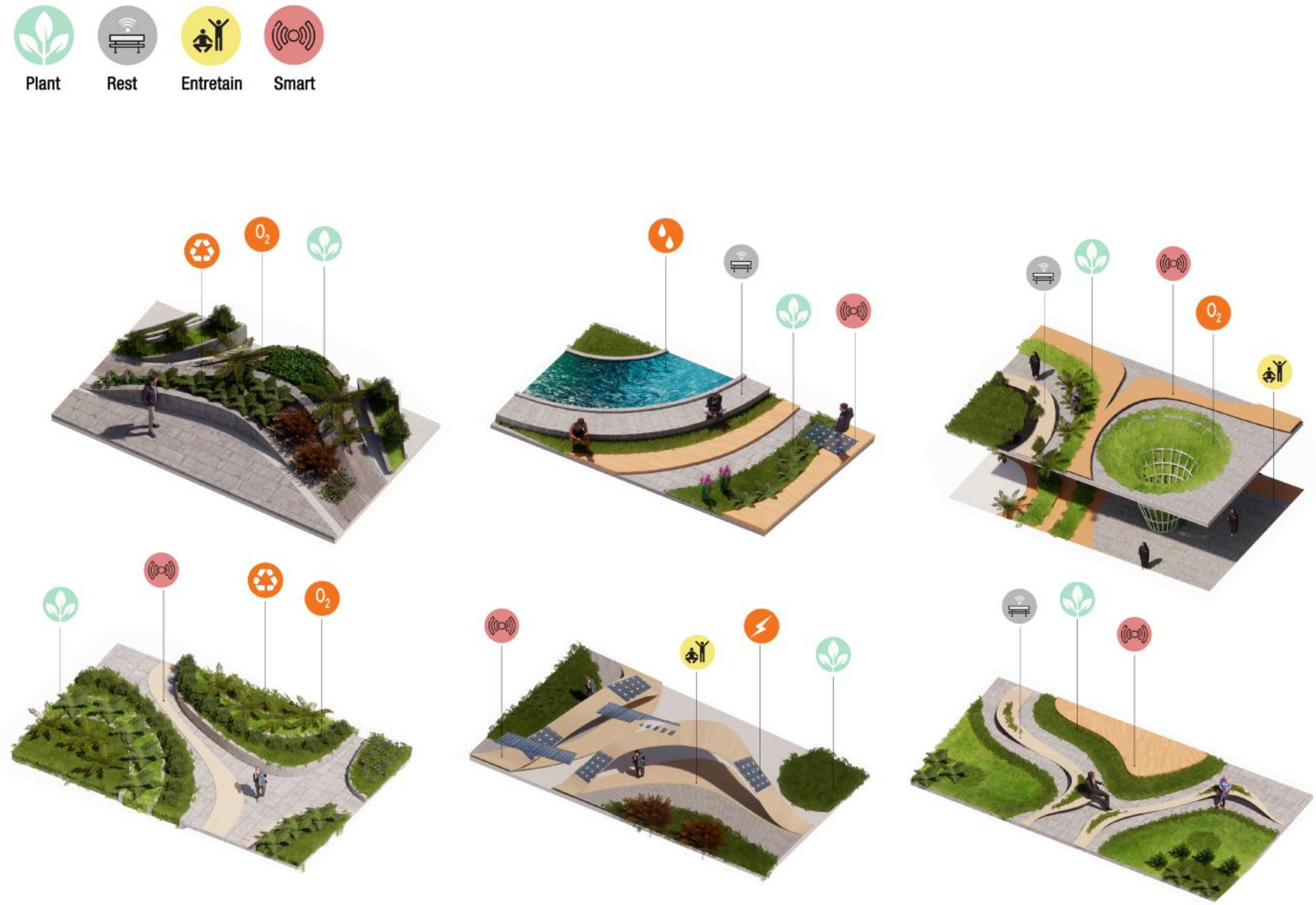

entral Processor


Underground Pattren Cooling Unit
A
B
C
D
Primary Structure
Transparent Tensile of Polymer-based photonic crystals for solar shielding
Tensile Pattren Inspired by Islamic Inscriptions
Base Ring
Thermo Plastic Eco Cooling System

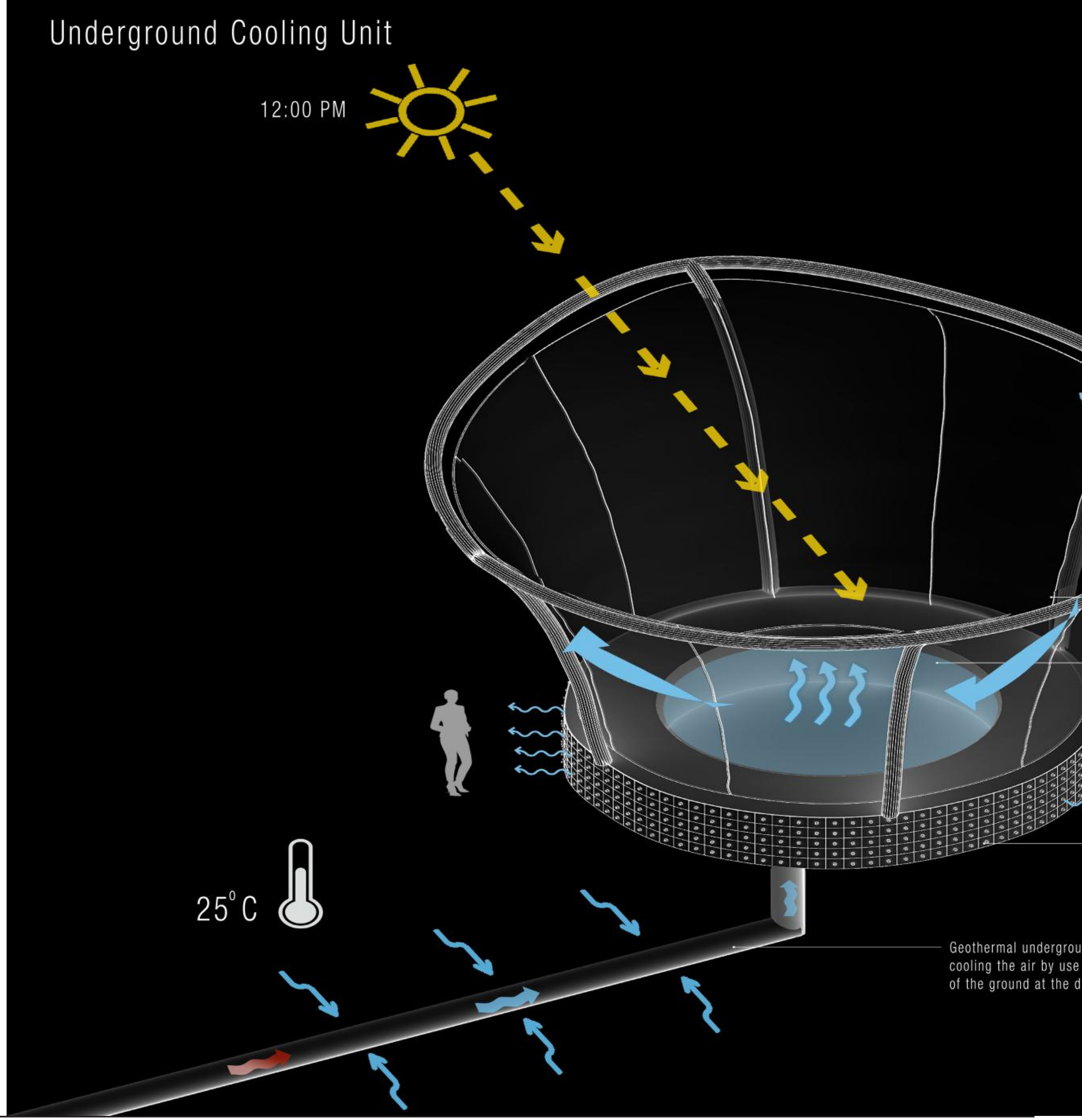
System Section

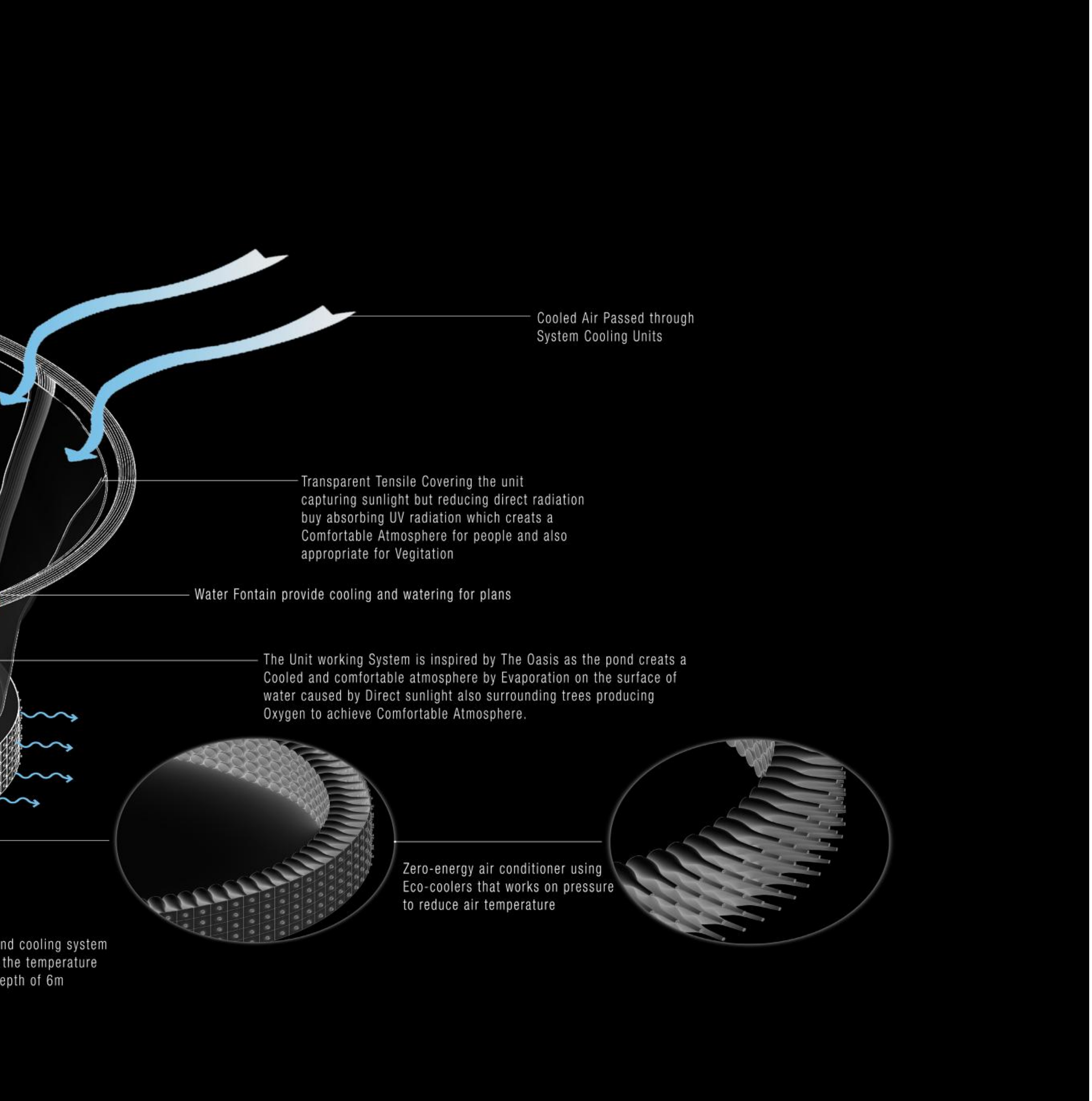






Re-Coding Smart Oasis Rely on Smart Technology to keep the system responding and working under control, benefiting from the movement of people to generate power from pressure. The Piezoelectric transducers used as an alternative energy systems to the site's service. Moreover, Sensation's sensor solutions provide detailed and reliable data on key environmental parameters such as humidity, temperature, volatile organic compounds (VOCs), particulate matter (PM2.5), and CO2. Environmental Sensing opens up new possibilities to create smarter devices that improve human thermal comfort and well-being as well as increase energy efficiency in a wide variety of applications. RPA studio aim to exploit the possibilities of using this smart technique for sustainable approaches, also by studying a new ways to get rid of trash containers which have bad emissions on the environment. In this technique Containers are divided according to the type of waste stored automatically under the ground, which facilitates the recycling process.


Underground Cooling Unit
12:00 PM
25°C
Geothermal undergrou
cooling the air by use
of the ground at the d


Cooled Air Passed through
System Cooling Units
Transparent Tensile Covering the unit
capturing sunlight but reducing direct radiation
buy absorbing UV radiation which creats a
Comfortable Atmosphere for people and also
appropriate for Vegitation
Water Fontain provide cooling and watering for plans
The Unit working System is inspired by The Oasis as the pond creats a
Cooled and comfortable atmosphere by Evaporation on the surface of
water caused by Direct sunlight also surrounding trees producing
Oxygen to achieve Comfortable Atmosphere.
Zero-energy air conditioner using
Eco-coolers that works on pressure
to reduce air temperature
nd cooling system
the temperature
epth of 6m

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