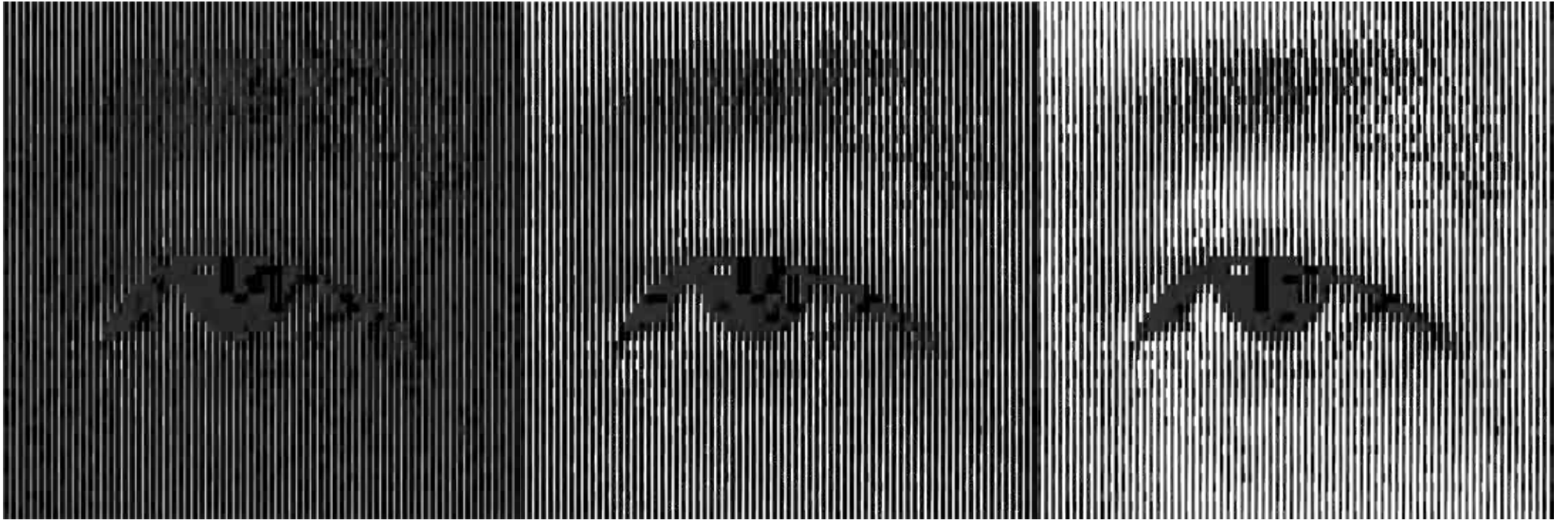


# PORTFOLIO



# RESUME CURRICULUM VITAE PORTFOLIO

ABOUT ME



## **KARNPONG LAPTIKULSARN**

Architectural Designer, Drafter & Bim Modeler,  
Computational Designer

Hello!!!!

My name is Karnpong, I'm an architecture graduate from Rangsit University, Pathumthani, Thailand

I'm glad to submit my portfolio for your consideration. This portfolio Captures several selected projects that reflect my experience of The last ten years in the field of architecture

Architectural designer with 6 years of experience in a full-time role and 10 years of experience as a freelancer in developing architectural designs, drafting for construction drawings, and Architecture visualization. Committed to great interpersonal skills, punctual, and able to work as a team.

## INFO


















125 Buesifai Street  
Mueang District, Phichit  
Thailand  
+66 91 805 5918  
imager9090@gmail.com

## EXPERIENCE

- 2018 - Present **Freelancer at Prynaa Architect**  
Bangkok, Thailand
- **Assistant Designer** : Planning, Urban Design, etc.
  - **3D Visualizer** : 3d Modeler, Rendering
  - **Drafter** : Construction Drawing
- 2018 - Present **Freelancer at Archiplusi**  
Bangkok, Thailand
- **3D Visualizer** : 3d Modeler, Rendering
- 2021 **Freelancer at 4B Architect**  
Bangkok, Thailand
- **3D Visualizer** : 3d Modeler, Rendering
- 2012 - 2018 **Full time at Raktawan Design & Built**  
Prachuap Khiri Khan, Thailand
- **Assistant Designer** : Developing, Functional, Facade design, etc.
  - **3D Visualizer** : 3d Modeler, Rendering
  - **Drafter** : Construction Drawing
- Oct - Dec 2018 **Assistant Reseacher to PH.D. Student**  
Bangkok, Thailand
- **Computational Designer** : Analysis Modeler
- 2013 - 2015 **Freelancer at Creative Great Design**  
Bangkok, Thailand
- **3D Visualizer** : 3d Modeler, Rendering
- May - Jul 2010 **Intership Student at P.M.Design**  
Songkhla, Thailand
- **Asistant Designer** : Planning, Functional, Facade design, etc.
  - **3D Visualizer** : 3d Modeler, Rendering
  - **Drafter** : Construction Drawing
- May - Jul 2008 **Intership Student at 350 Architect**  
Songkhla, Thailand
- **3D Visualizer** : 3d Modeler, Rendering
  - **Drafter** : Construction Drawing

## SKILLS

### Software Skills

- Rhinoceros 
- Grasshopper & Other plug in 
- 3d studio max 
- Sketch Up 
- Autodesk Autocad 
- Autodesk Revit 
- Dynamo 
- Graphic Soft Archicad 
- Lumion, Rendering & Animation 
- Vray, Rendering 
- Corona, Rendering 
- Adobe Photoshop 
- Adobe Illustrator 
- Adobe Indesign 
- Ecotect, Analysis 
- Microsoft Word, Excel, Point 
- Blender 

### Soft Skills

- Hard working
- Passionate
- Positive Thinking
- Mindfulness
- Interpersonal

### Beginner<----->Proficiency

### Personal Skills

- Architectural Rendering
- Computational Designer
- Drawing & Sketching
- Design & Develop
- Musical
- Sport( Football, other )
- Driver's License( Local )

## LANGUAGES

- Thai** - Native
- English** - Basic conversation

## CERTIFICATIONS & AWARDS

- 2014 : Garage Life Competition / 13 final teams**  
Audi Garage
- 2013 : New Faculty of Architecture Rangsit University/ 3rd Prize**  
Concept Design
- 2013 : Library Competition Rangsit university / 3rd Prize**  
Rom Yen Library
- 2012 : Thailand House Steel Contest / 3rd Prize**  
Coexist House
- 2011 : B1 Green Innovative House / 10 final teams**  
Build Return World
- 2010 : Thaksin ASA Competition / 5th Mention Prize**  
Lovely Natural House

## EDUCATIONS

- 2011 - 2019 : Rangsit University in Thailand (worked during the study)  
**Bachelor of Architecture Degree ( 5 years )**
- 2008 - 2011 : Songkhla Technology College in Thailand  
**Architecture Diploma Certificate ( 2 years )**

## VOLUNTEER

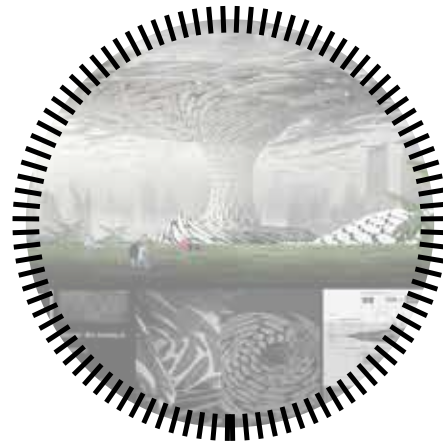
- Dec 14 2015 **volunteer**  
Chiang Rai, Thailand
- **Learning** : Adobe Brick
- **Making** : Making adobe brick
- **Community** : Contributed to the local people of the village

## ACADEMICS



05

## COMPETITIONS



20

## PROFESSIONALS



32

# **ACADEMICS**

## 01

**ALTERNATOPIA HOUSING,  
THESIS 5TH YEARS****Faculty of Architecture Rangsit  
University**Advisor : **Mr.Paiboon Kittikul**Year : **2019**Location : **Chatuchak , Bangkok ,  
Thailand**Programme : **Housing , Residence**

The alterna topia housing project began with the question of people in Thailand. Can we have a better quality of life? The term quality of life from research. There are two things: humans and the environment. Currently, research has shown that humans. There are 3 types:

1. Extroverts are people who like to socialize
2. Introverts are people with a high personal world
3. Ambiverts are collectors

The current residence is not able to meet these behavior enough.

Most will choose to live in the existing real estate market.

While supporting the housing of the household extension for beginners

Come to live in Bangkok, for example, come to find work,  
Still not live able to meet the size of the space sufficiently from the

Survey results worldwide, homes per 1 person must have 40 - 50  
Square meters or more referenced in The housing market for beginners

Or middle income in Bangkok is 24 - 30 square meters.

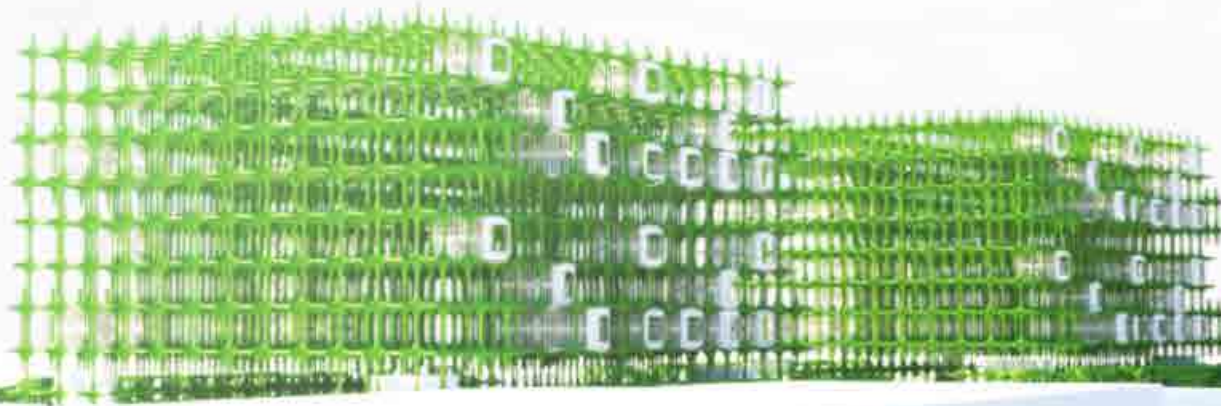
That is the current environment. Major cities such as carbondioxi

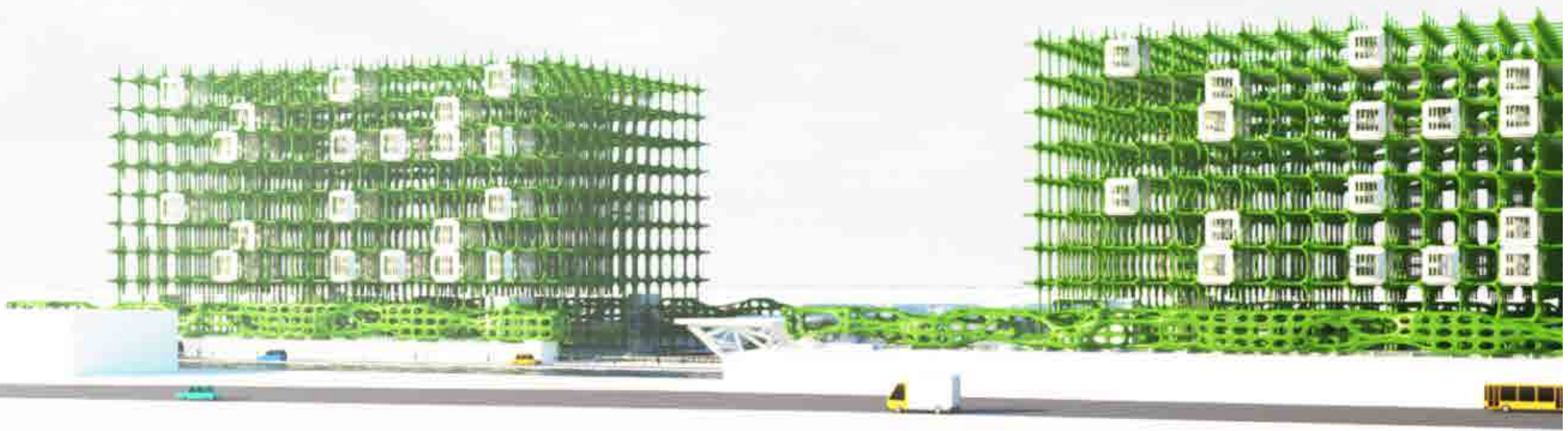
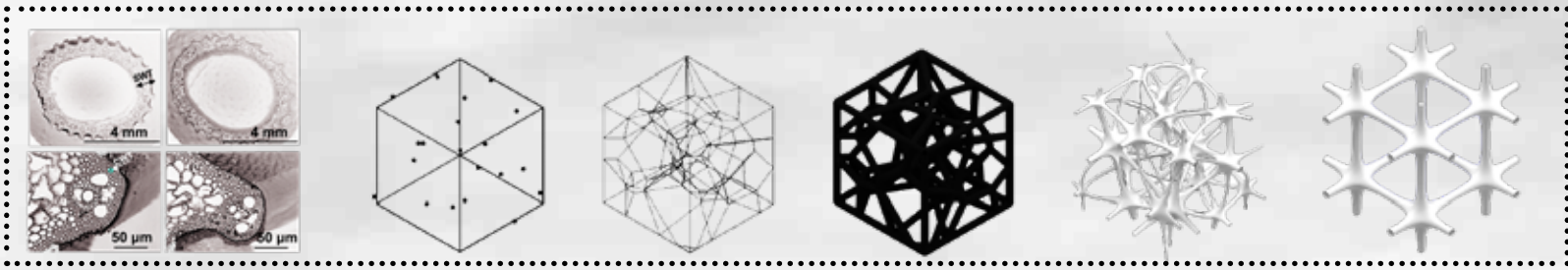
And 2.5 PM mainly come from construction and road cars, one of

The components that make the quality of life get worse

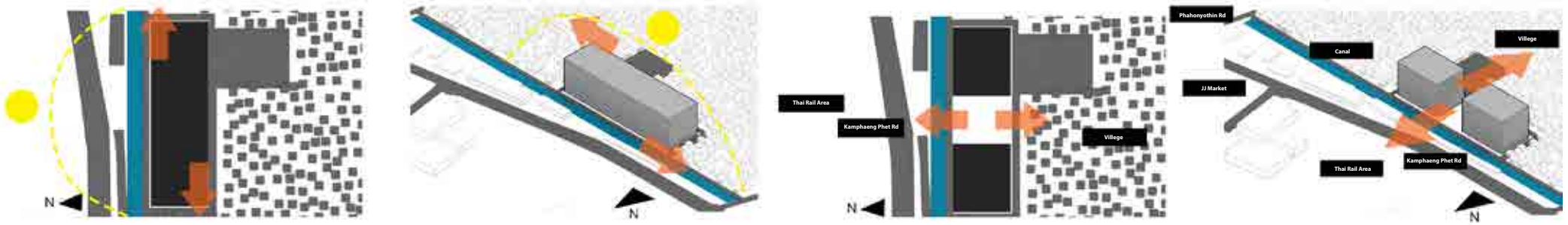
Residential Alternatopia has more choices and is suitable for the closest

Persian architecture will help to absorb pollution and change to energy and  
creates oxygen back to the environment as well



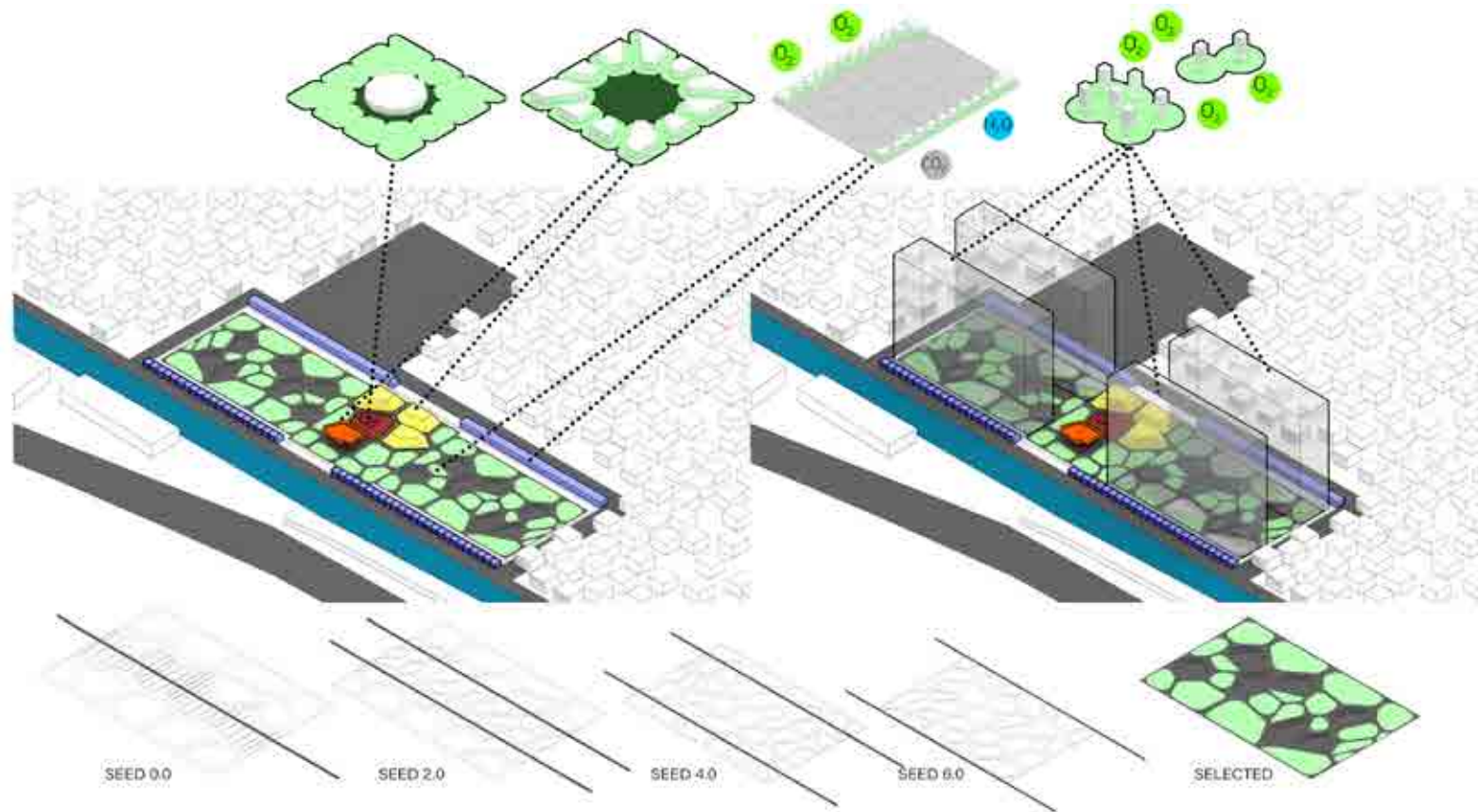






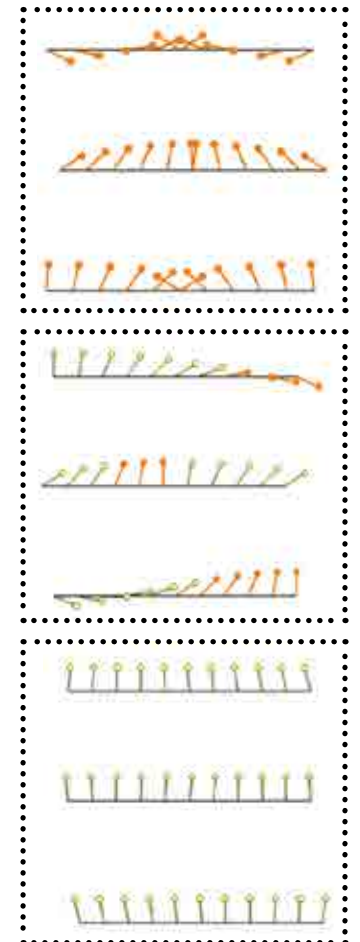
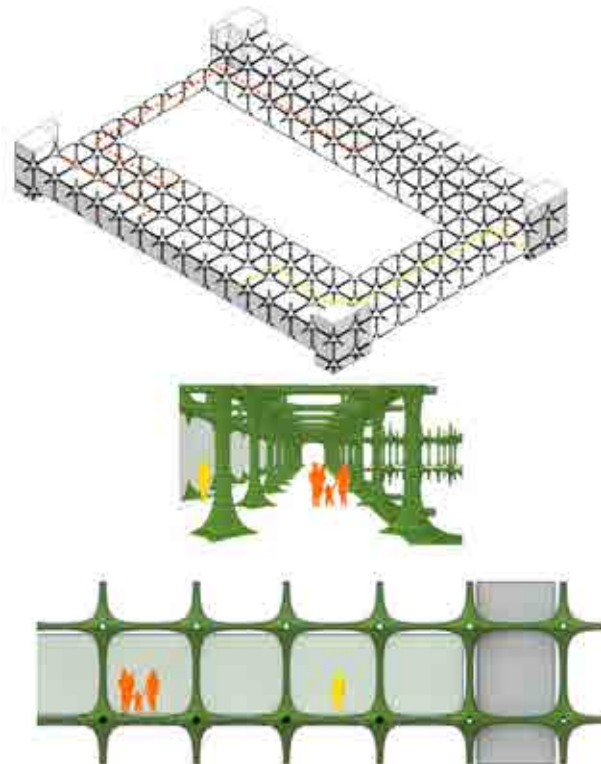
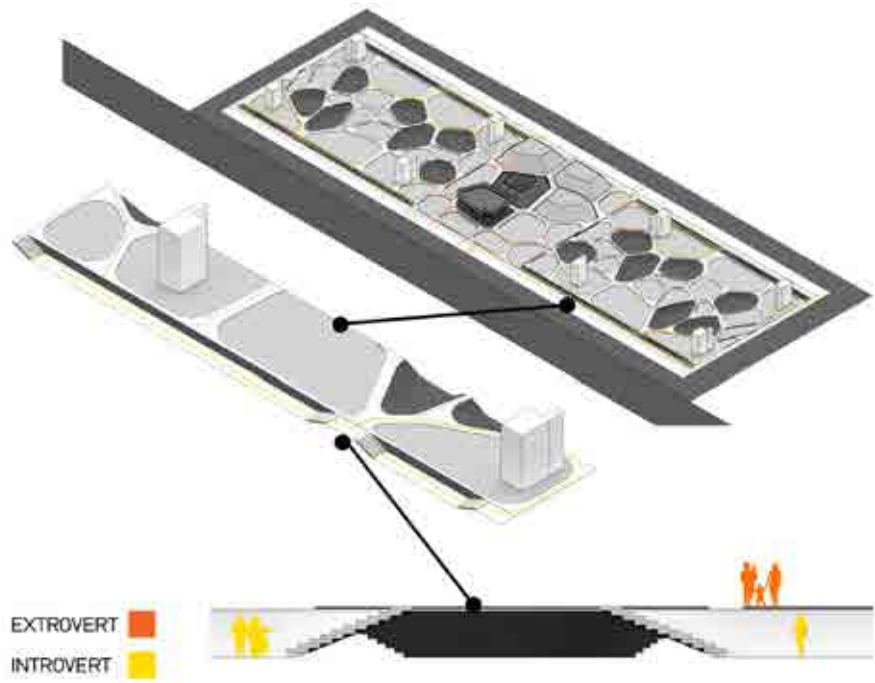
The building orientation & Connect between the 2 neighborhoods

ALTERNA TOPIA HOUSE : FORMS FINDING

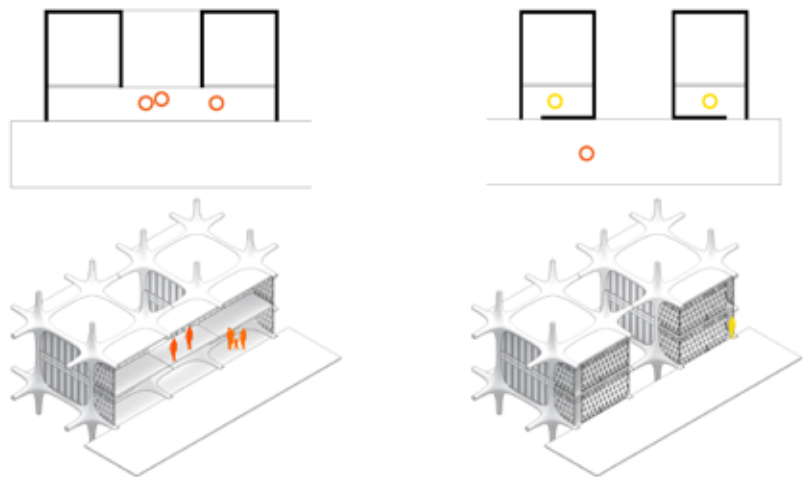


Finding the master plan with algorithm modeling

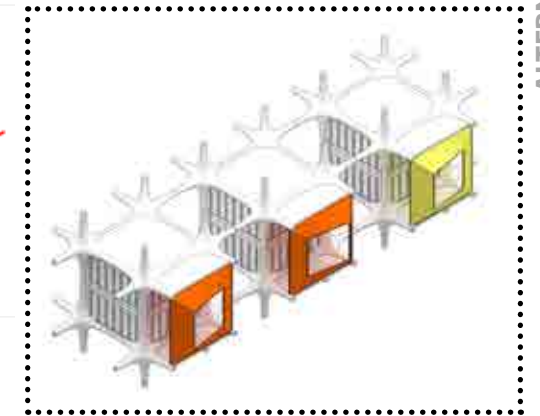
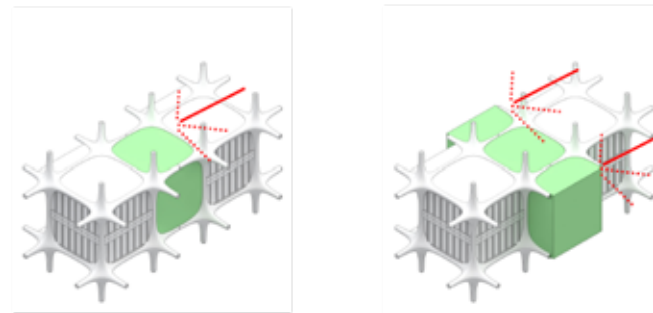




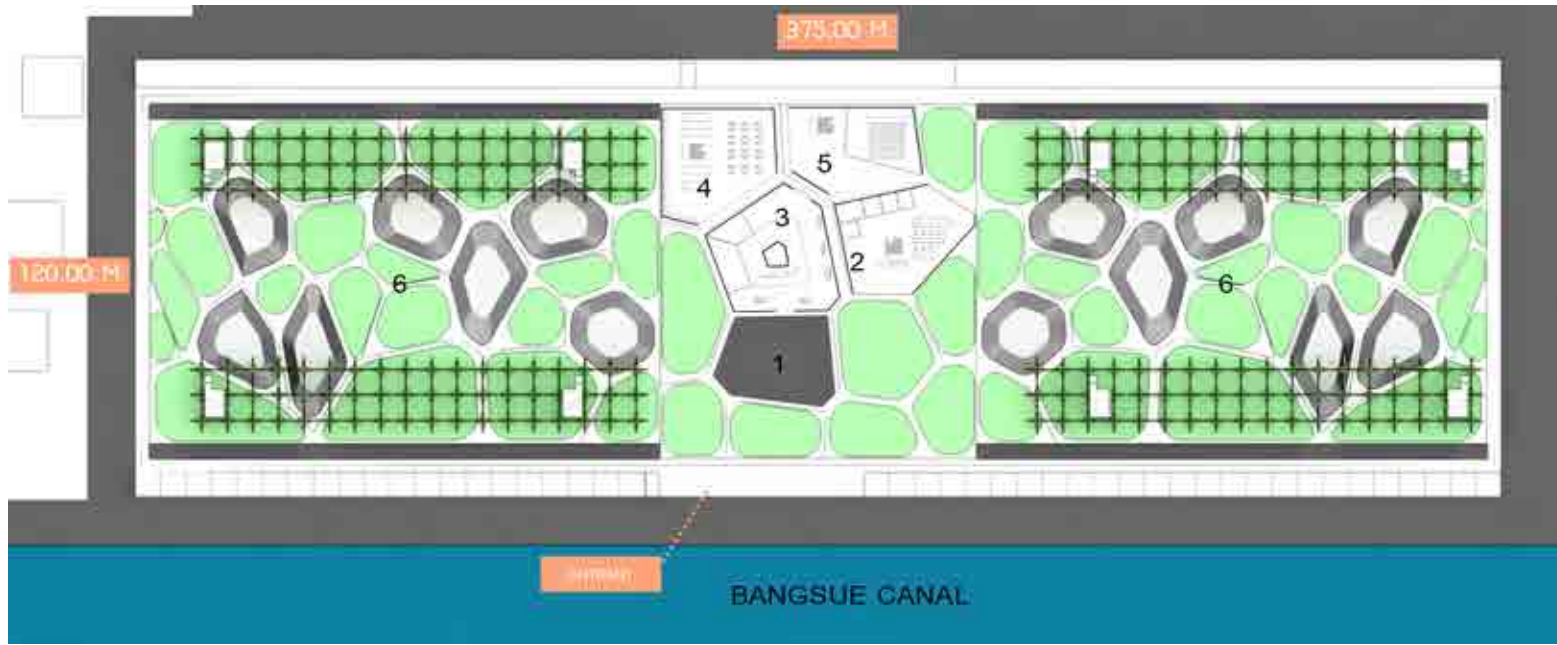
The circulations & Access to be destinations



Coexistence solution for whole behavior types

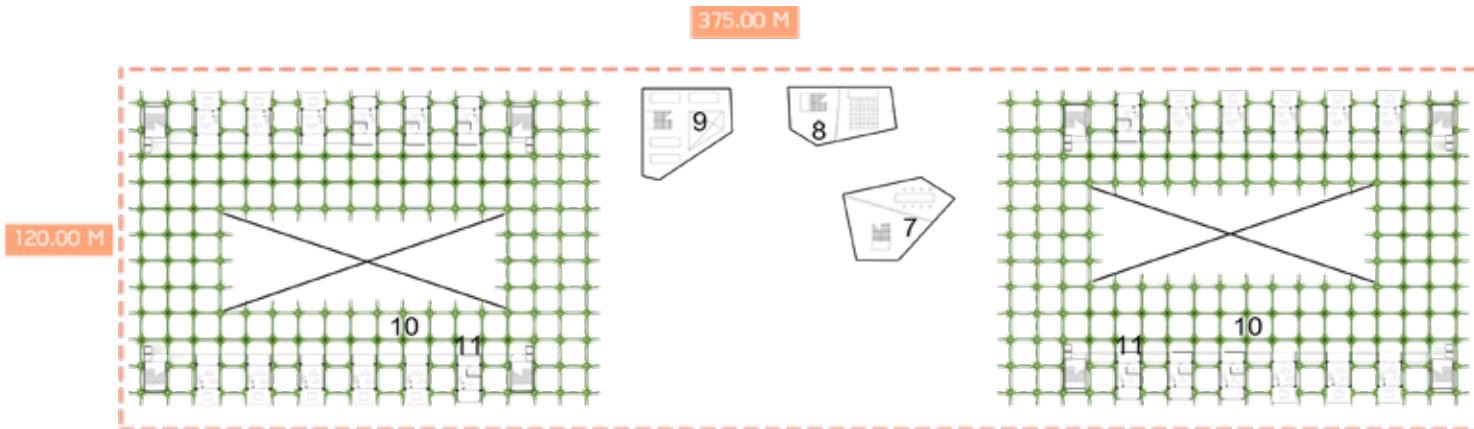


Morphed design with algorithm modeling



### GROUND FLOOR PLAN

1. Sunken Space
2. 1st Floors of School & Workshop
3. Reception & Lobby
4. 1st Floors of Library
5. 1st Floors of Meeting Room
6. Gardens



### 2ND - 12TH FLOOR PLAN

7. 2nd Floors of school & Workshop
8. 2nd Floors of meeting Room
9. 2nd Floors of library
10. Room units

**TYPE OF INTROVERT**

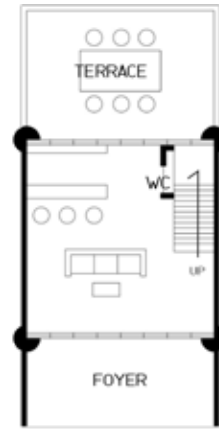


1st Floor Plan

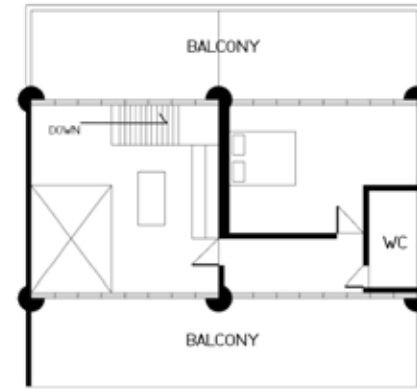


2nd Floor Plan

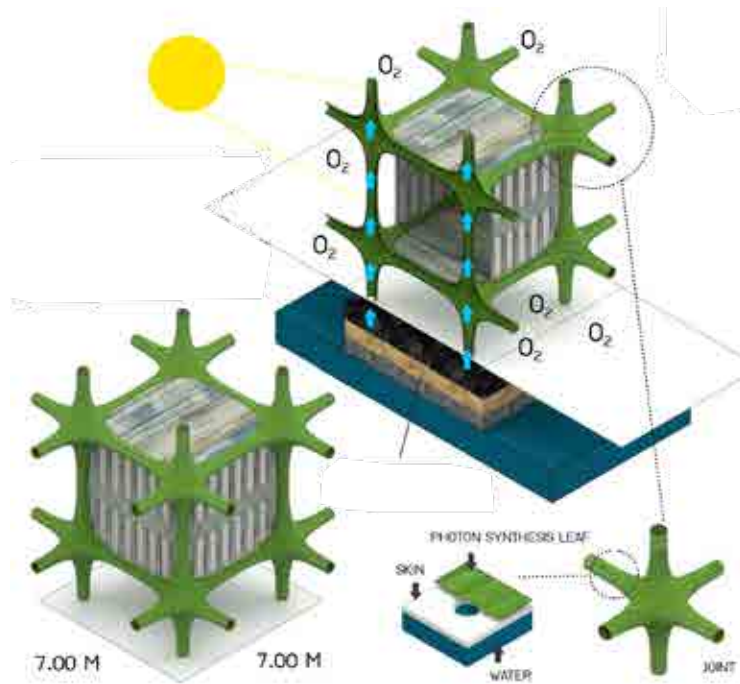
**TYPE OF EXTROVERT**



1st Floor Plan



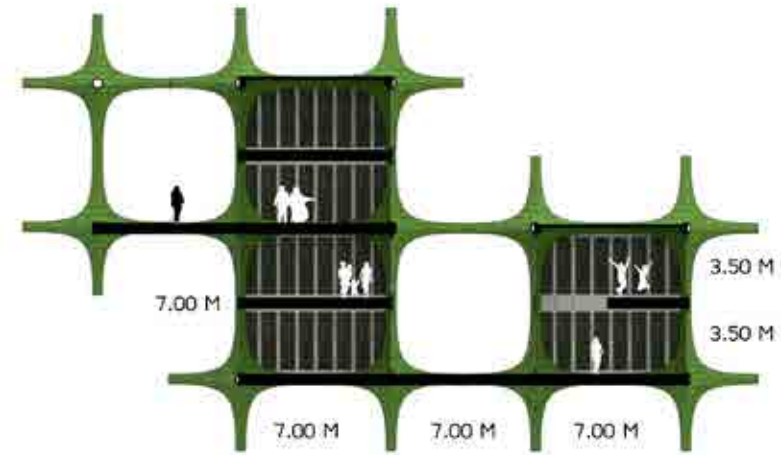
2nd Floor Plan



Process of systems

**PHOTON SYNTHESIS OF LEAF**

The building structure is a special material that can photosynthesize and produce oxygen like a tree. The process is to use water from natural sources to produce things. This allows the structure to perform other functions as well, such as facade, water pipes and other systems.



Sectional space

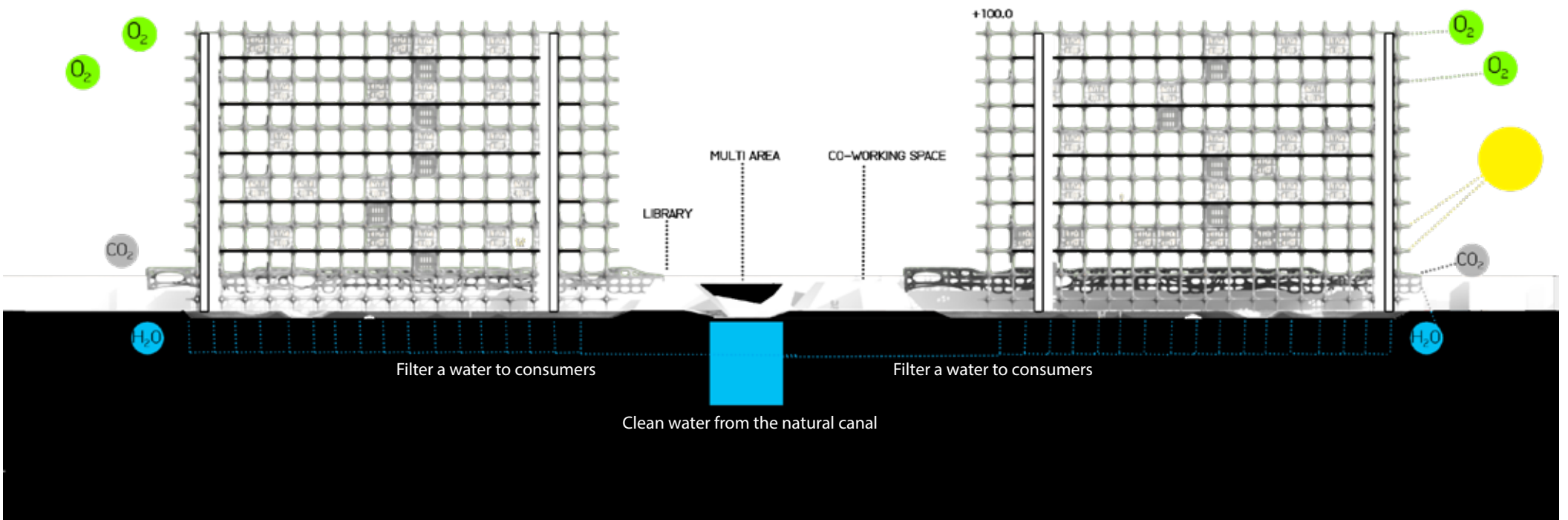




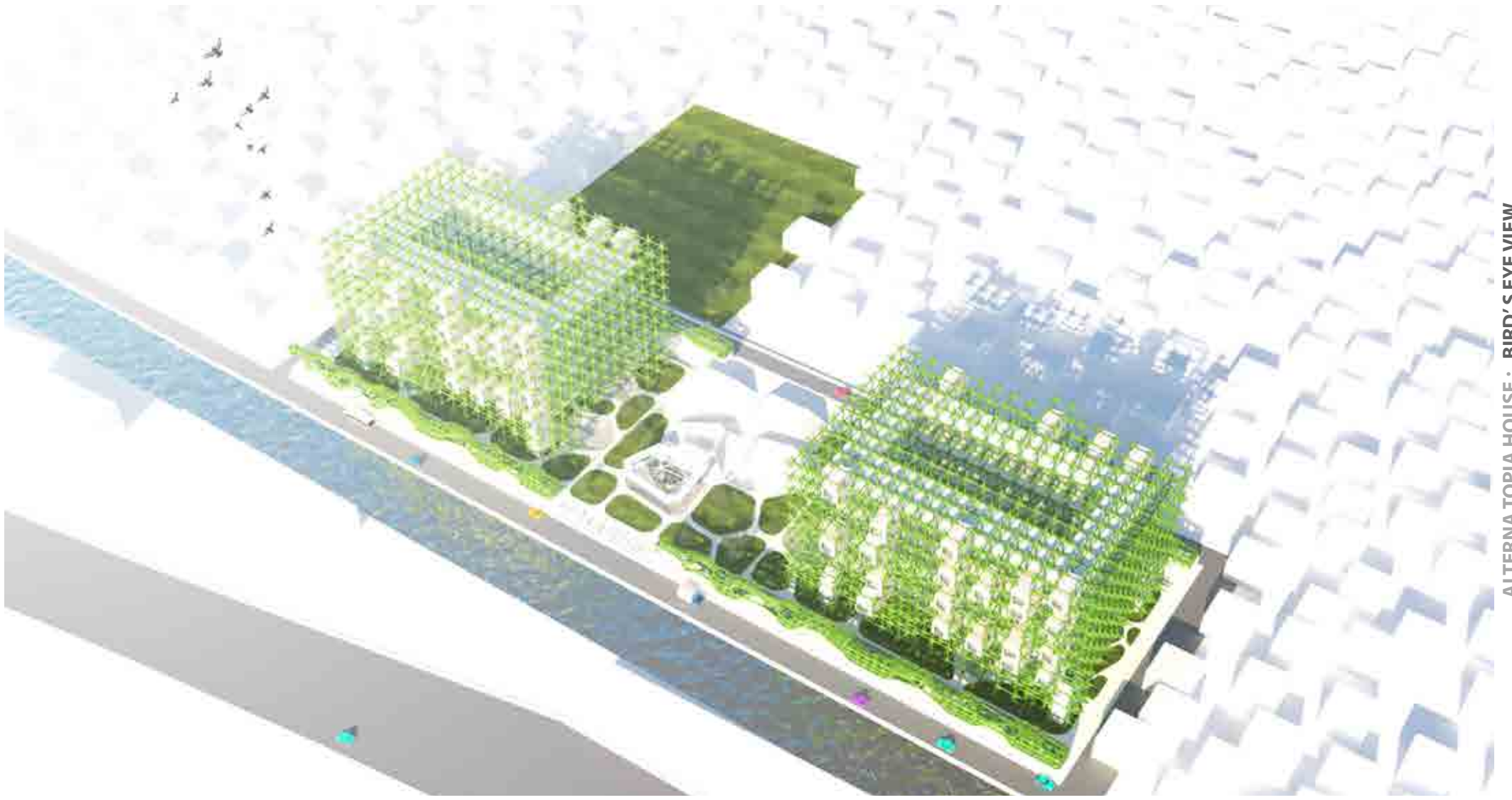
Sunken in the garden



Waterfront

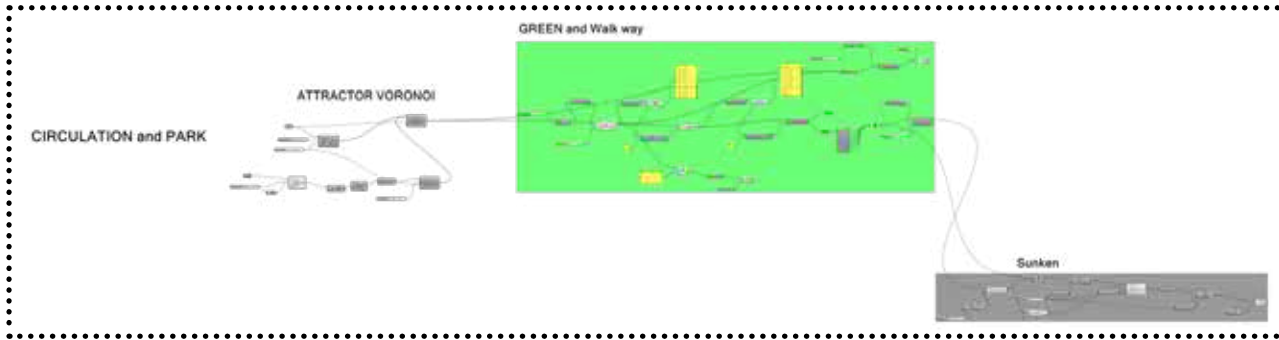


Long Section

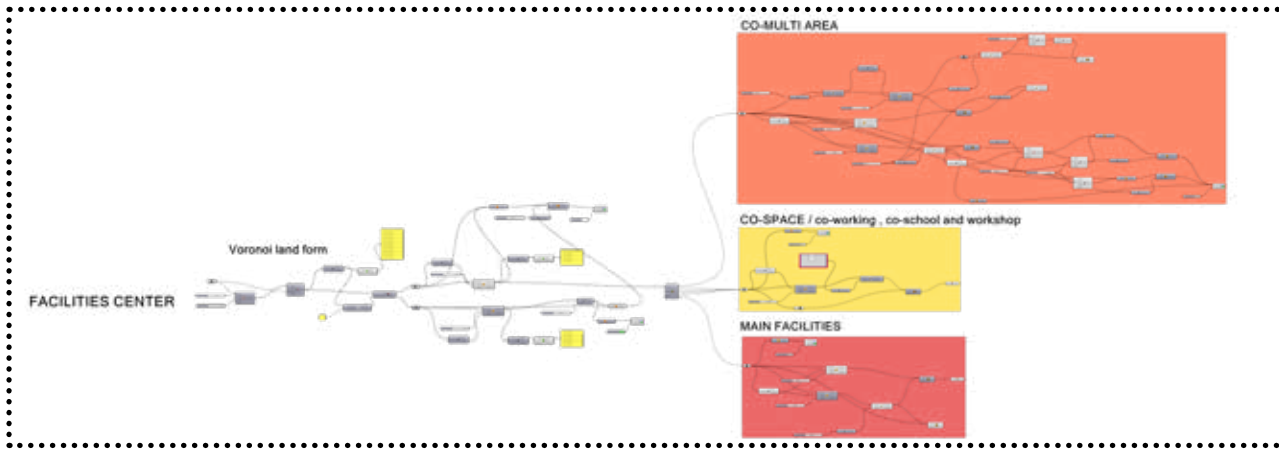


ALTERNA TOPIA HOUSE : BIRD'S EYE VIEW

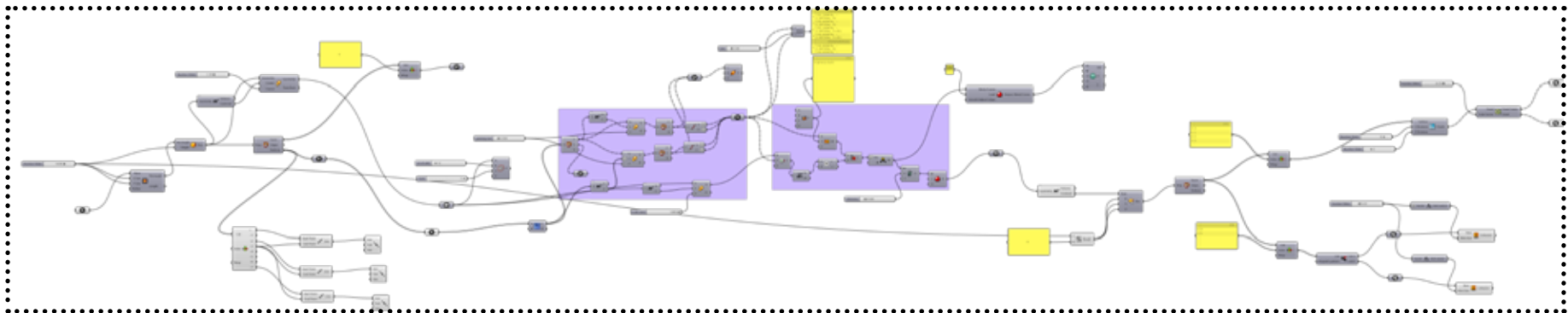




DEFINITION OF AREA



DEFINITION OF PROGRAM



DEFINITION OF STRUCTURAL DESIGN

# 02

## THE BALANCE ZEN, ARCHITECTURAL DESIGN

**Hadyai Technical College**

Year : **2007**

Location : **Hadyai , Songkhla ,  
Thailand**

Programme : **Housing , Residence**

Currently living in the city Quite limited in many aspects such as repetitive use of space, no privacy, Lack of green spaces, places to relax, etc. Finding a suitable family home is quite rare to some extent. When you find one, there will be no other facilities as well.

This housing project has the problem that The building is located in the southern capital, Hat Yai. Which is a city with 8 months of rain and 4 months of sunshine During hot weather, there are high temperatures. The residence, therefore, needs to have a living space to support it. These family groups of users enjoy recreation and relaxation at the same time. His wife is a Japanese language teacher and has a passion for culture, tradition, and the aura of Japan.

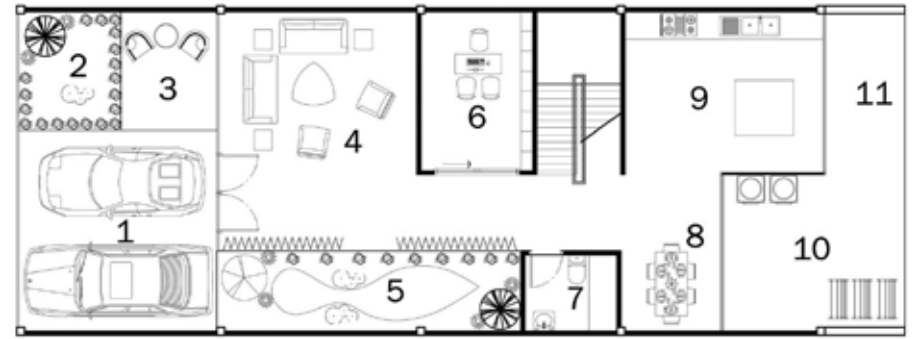
The design of this project starts from the type of residential houses that people of the middle class can touch, namely row houses or Townhouses where land and construction costs are too high to occupy. The next step is to bring the problem to design a usable space. And exterior and interior forms in accordance with usability The highlight of this house is the idea of bringing natural light into the court where it can shine down to the ground floor zen garden. This zen garden has a length to reach the middle of the house to support the relaxation of home users is sufficient As for the usable area, the highlight of a multi-story townhouse can be extra space and a roof deck that can be extended in the future. So this house is called The balance zen.







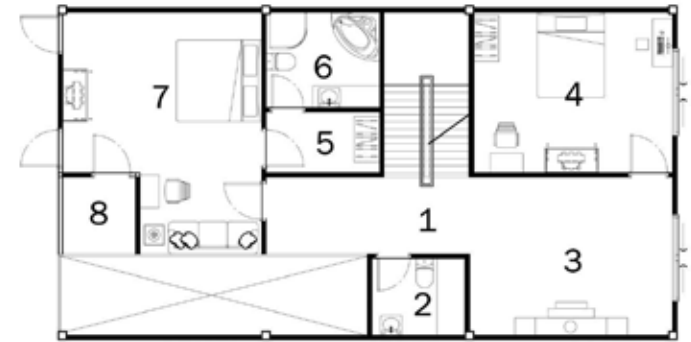
1. Cars-parking
2. Garden
3. Terrace
4. Living Room
5. Zen garden
6. Working Room
7. WC
8. Dining Room
9. Klitchen
10. Washing Area
11. Balcony



**GROUND FLOOR PLAN**



1. Hall of stair
2. WC
3. Religion Room
4. Bedroom
5. Walk in closet
6. WC for master
7. Master Bedroom
8. Balcony



**2ND FLOOR PLAN**

1. Hall of stair
2. WC
3. Multipurpose Room
4. Relaxing Room
5. Deck Area



**3RD FLOOR PLAN**



This is the oldest building of Rangsit University. So many things have deteriorated over time. The lighting system is one of the things that need to be improved, such as insufficient lighting, Etc.

This building is an optional course in lighting or environment design to study the feasibility of building renovations. The new design and experimentation focus on the physical aspects such as adding and adjusting the lights to suit the application, designing the facade panels, redesigning some ceilings, etc. All methods were modeled by 3d modeling experiments. Rendering with lights to show results for further study

# 03

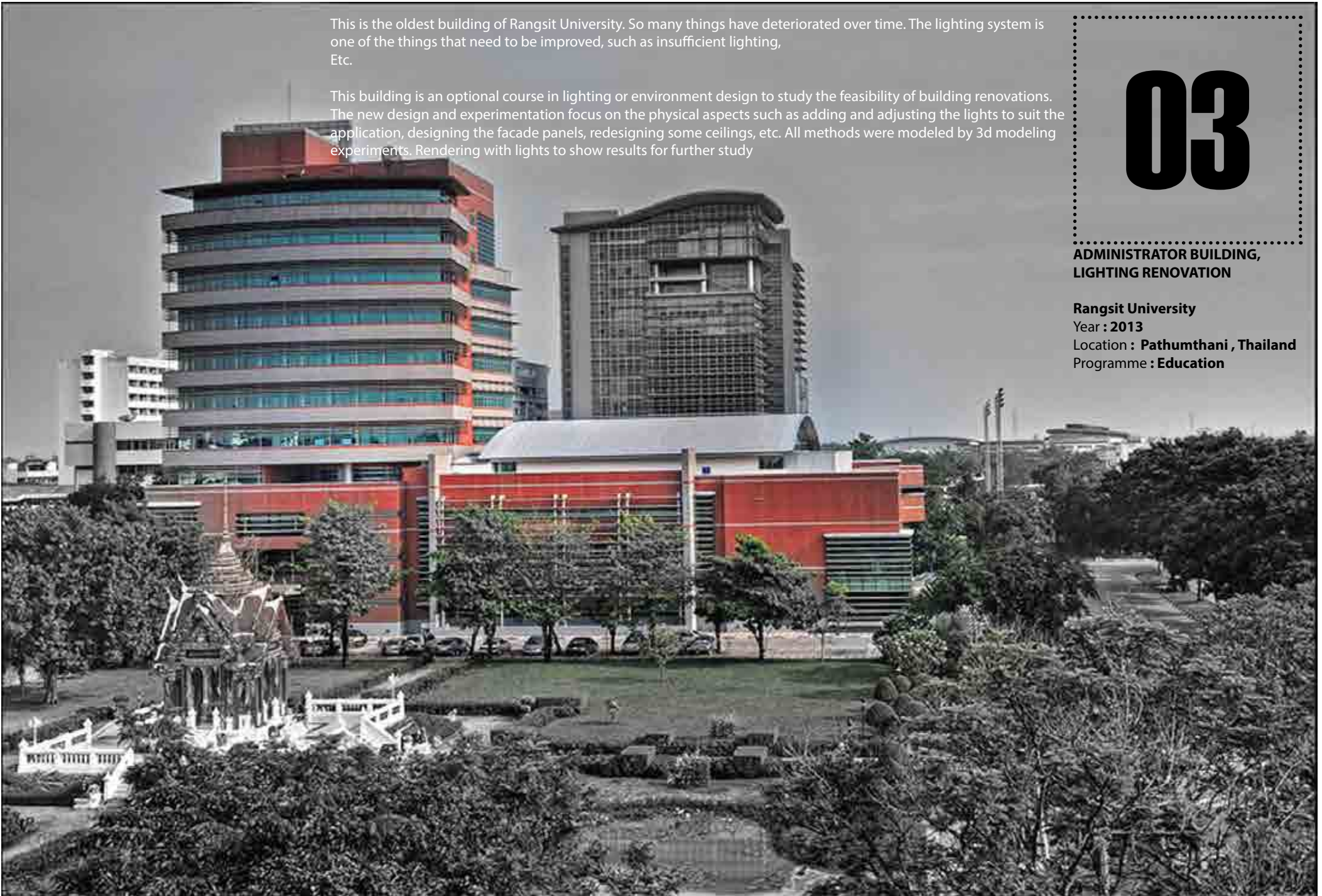
## ADMINISTRATOR BUILDING, LIGHTING RENOVATION

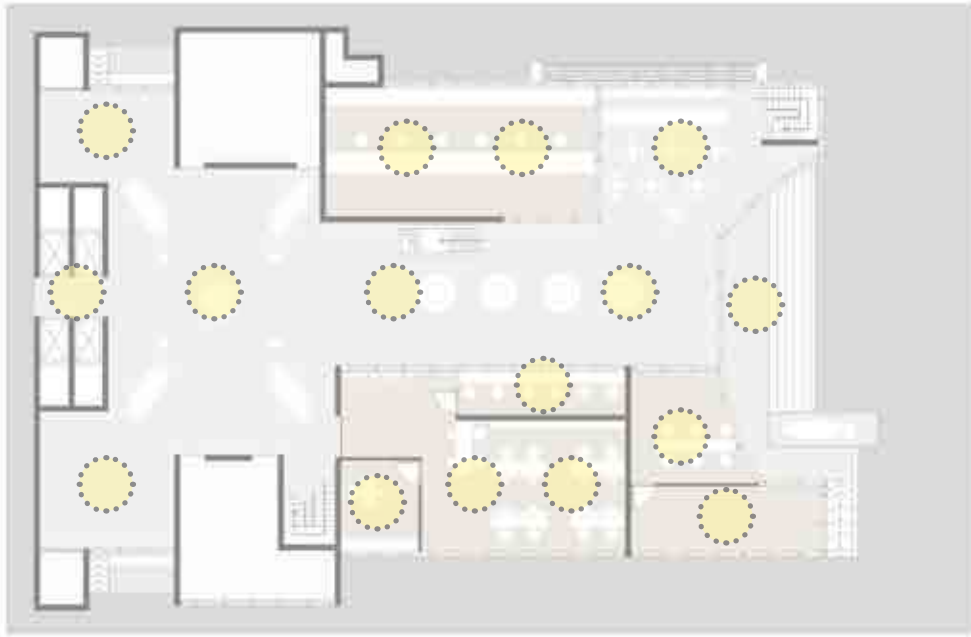
**Rangsit University**

**Year : 2013**

**Location : Pathumthani , Thailand**

**Programme : Education**





 Old Lights
  New Lights

**BEFORE FLOOR PLAN**

 Old Lights
  New Lights

**AFTER FLOOR PLAN**



- 

**DOWN LIGHTS**  
 - LED at ceilings  
 - 1k to 3k SQM.  
 - 300 to 500 Luxes
- 

**HIDING LIGHTS**  
 - LED at cornices  
 - 100 to 500 SQM.  
 - 100 to 500 Luxes
- 

**WALL LIGHTS**  
 - LED at walls  
 - 50 to 100 SQM.  
 - 100 to 500 Lux



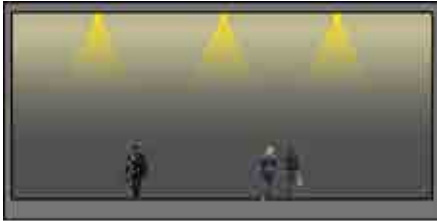
**IMPROVEMENT PROCEDURES**



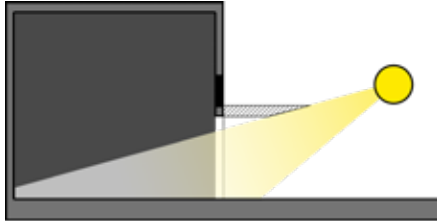
Lights were too less



The tone colours was too dark



Lights were too high



Day lights were too less



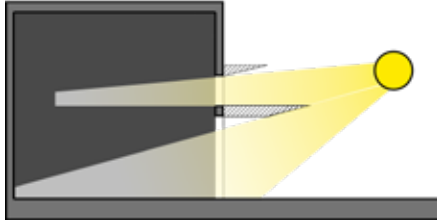
Addition lights



Change tone colour was lighter



Ceiling design to be enough lights



Add canopies for be brighter

**BEFORE & AFTER**



Foyer & Main hall



Double space of Main hall



Coffee Shop



Main Approach



Foyer & Main hall



Double space of Main hall



Coffee Shop



Main Approach

# **COMPETITIONS**

# 04

## AUDI INSPIRATION GARAGE, GARAGE LIFE COMPETITION

Rangsit University

Year : 2014

Location : Pathumthani , Thailand

Programme : Special Typology

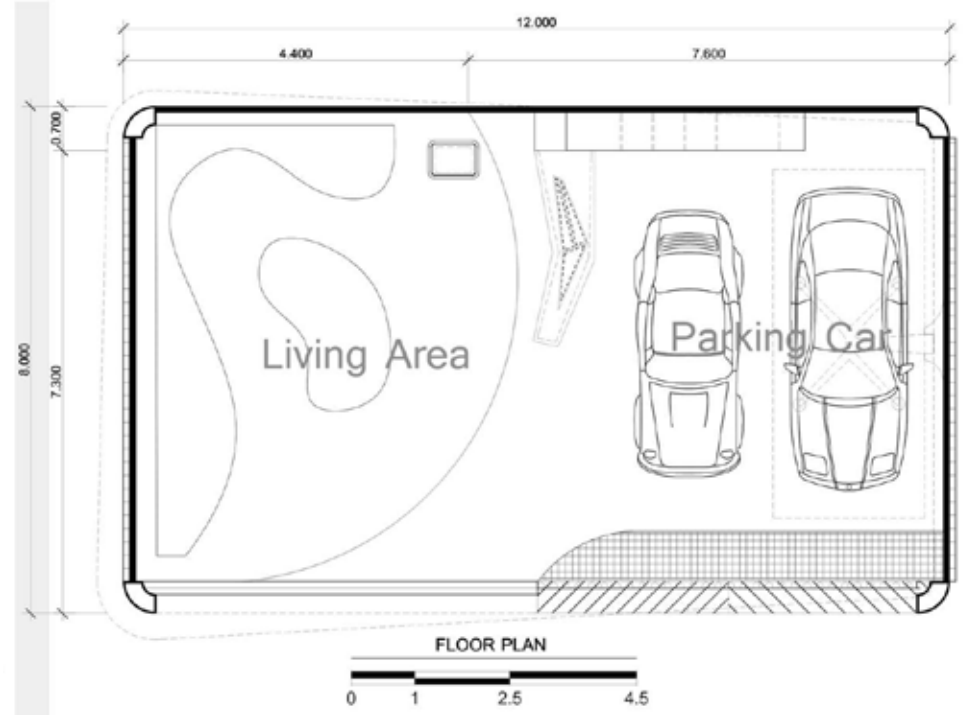
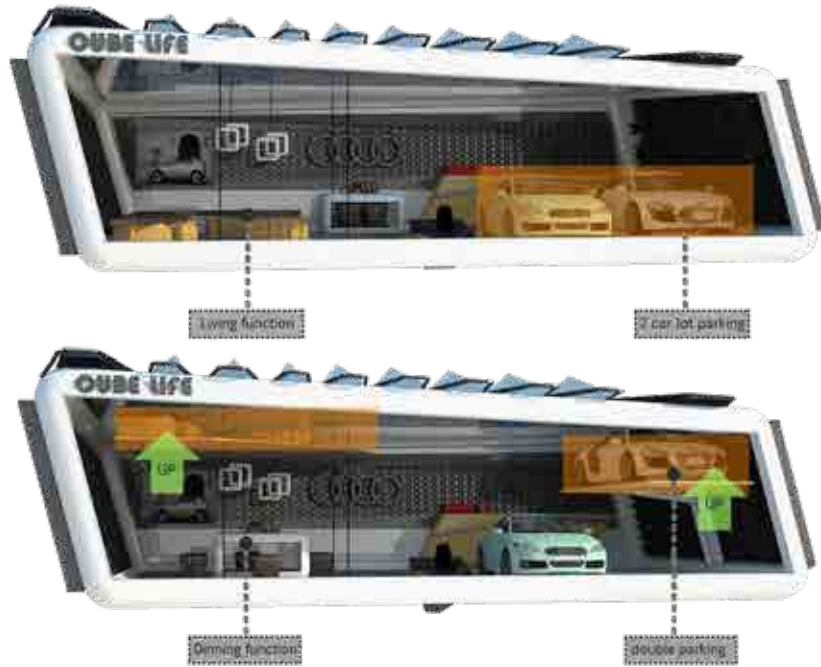
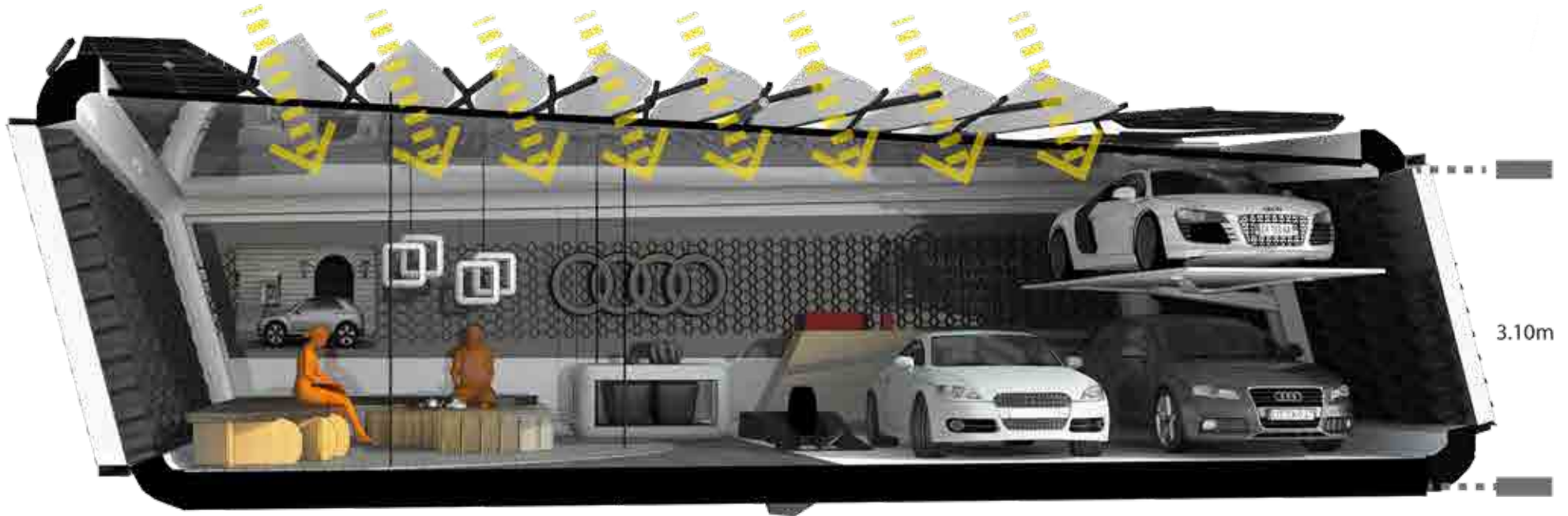
In 2014, there was a dream garage contest that allowed designers to fully imagine. The contest form is organized by a real estate company in Thailand. The organization has an idea that the garage design and real estate business will have new directions in what direction in the future.

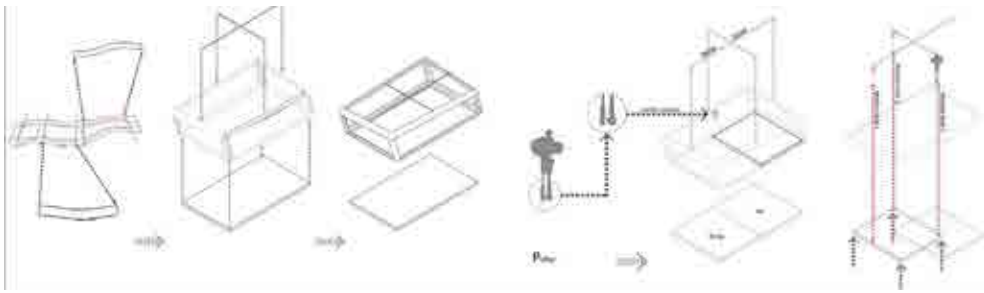
The garage in this project is inspired by the Audi car brand which is one of the interesting brands because of its uniqueness. Each element has been applied in several design points, such as the grille pattern, curved section, etc. In addition, automotive innovations, algorithm modeling, and recycling were also used in this project. This is going to be the perfect garage for an Audi fan.





AUDI INSPIRATION GARAGE : SECTION & FLOOR PLAN

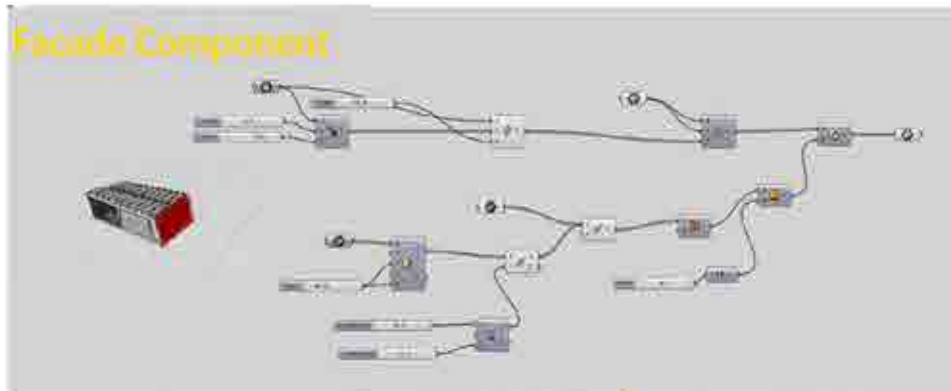
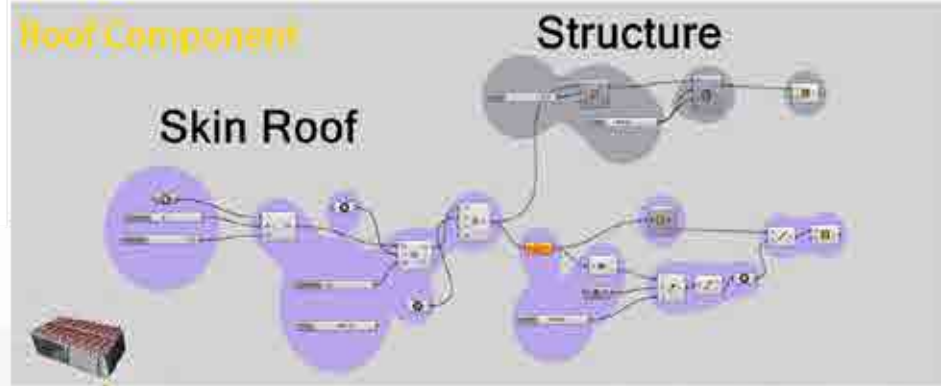




MAKING OF GARAGE



PROCEDURE RECYCLE





# 05

**SKY EY PARA,  
D3 HOUSING TOMORROW  
COMPETITION , UK**

**Rangsit University**

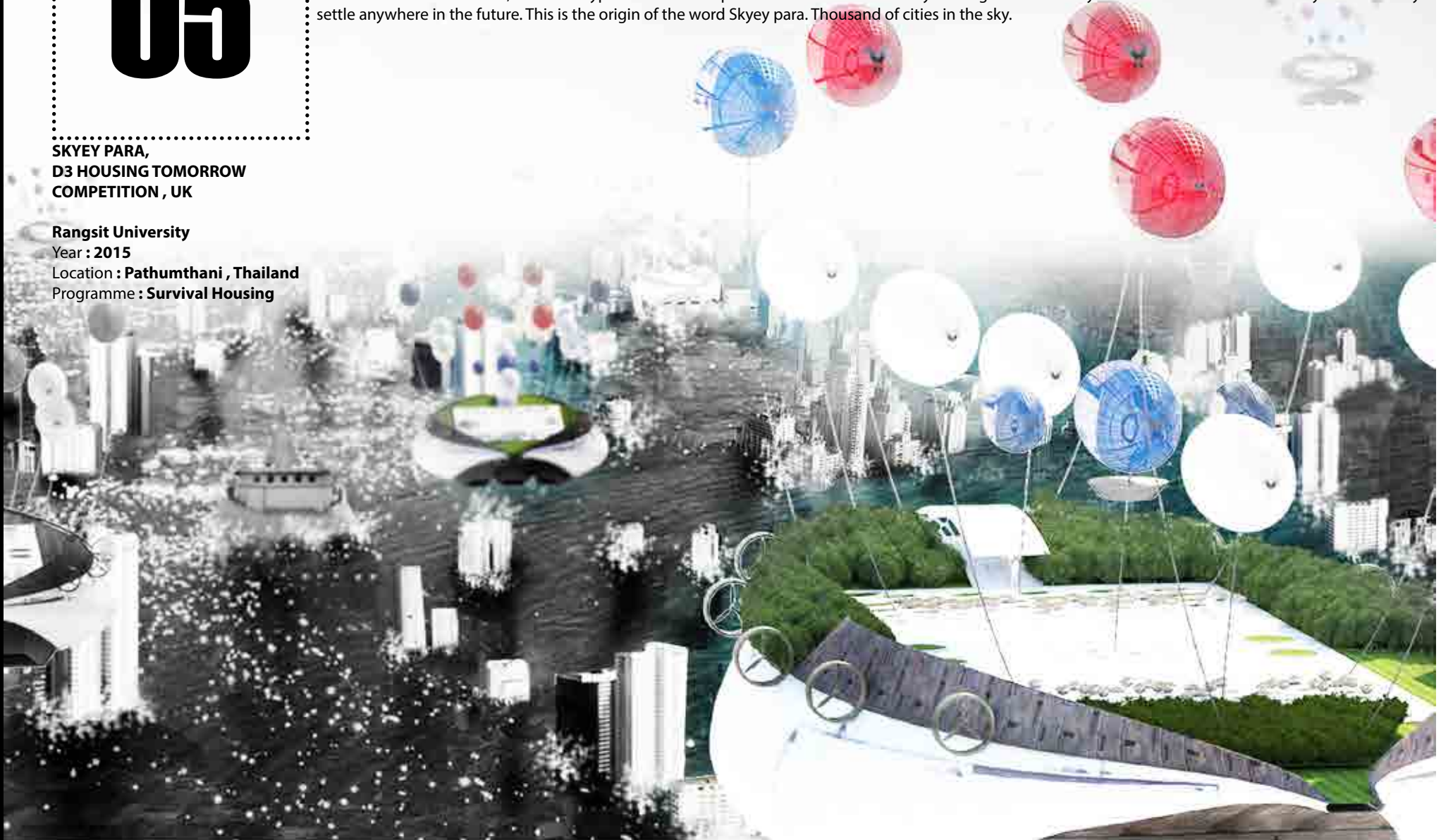
Year : **2015**

Location : **Pathumthani , Thailand**

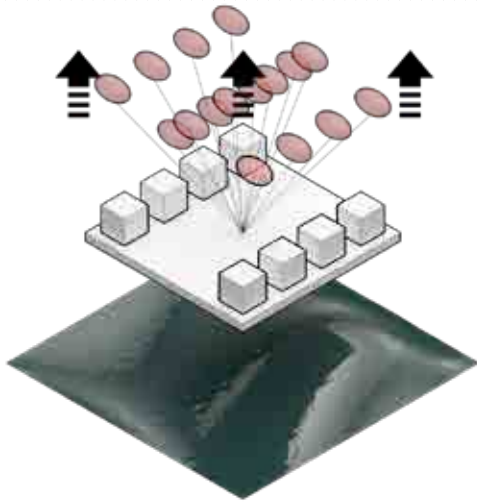
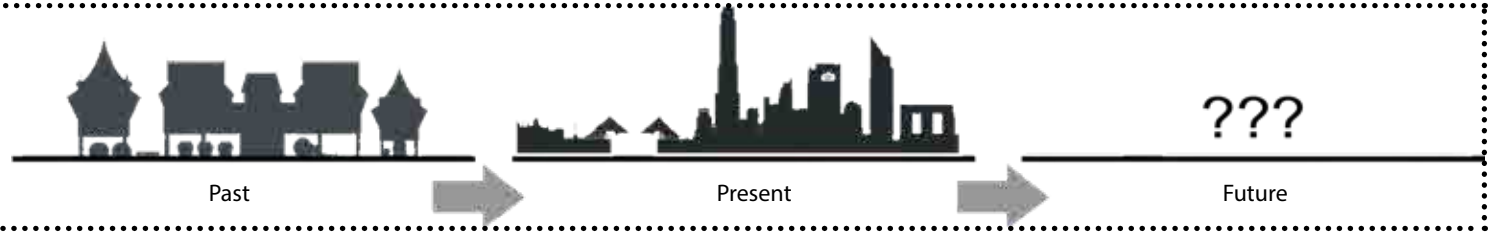
Programme : **Survival Housing**

In the past, people in Thailand used to live with the Chao Phraya River for a long time. Whether it's living, trading, and interacting, etc., housing in Thailand has evolved, especially in Bangkok, until it becomes the current form, which may not meet the climate and Flood disasters that occur frequently in Thailand and has a tendency to become more severe every year

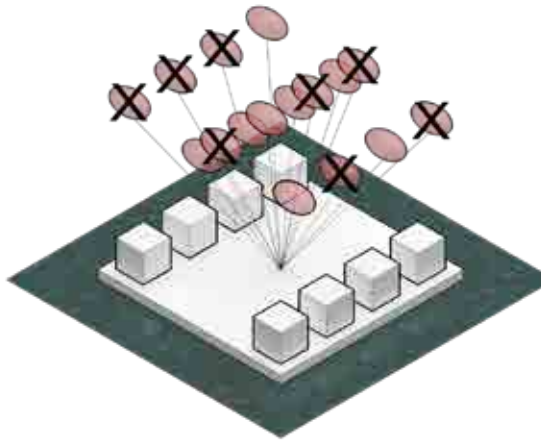
This project raises the question of what kind of housing in Thailand should look like, and in the worst-case scenario, according to researchers, Bangkok will sink in a few decades. Therefore, there is a hypothesis that the problem will be eliminated by making it a mobile city so that it will have the flexibility to live in. May settle anywhere in the future. This is the origin of the word Skyey para. Thousand of cities in the sky.



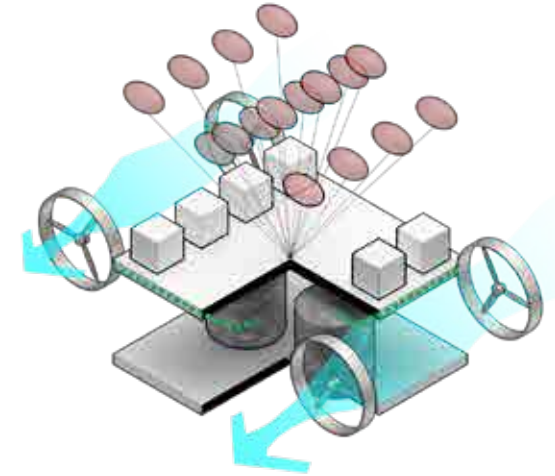
HYPOTHESIS



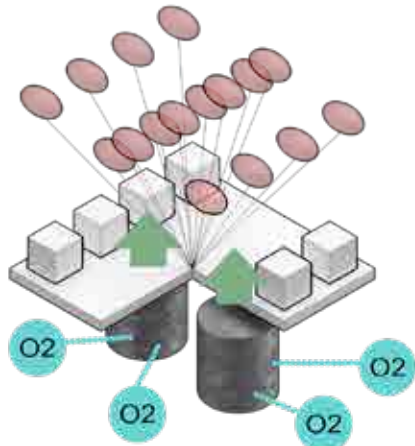
Housings can fly everywhere.



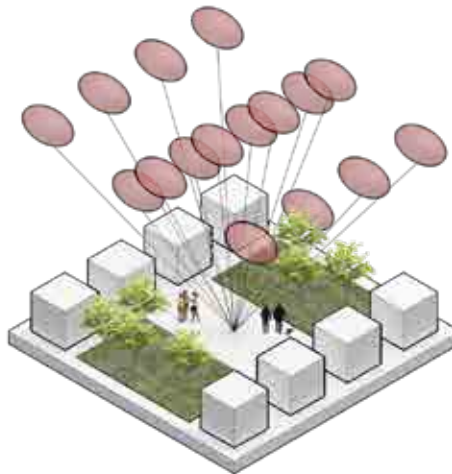
Housings can float, although balloons broke.



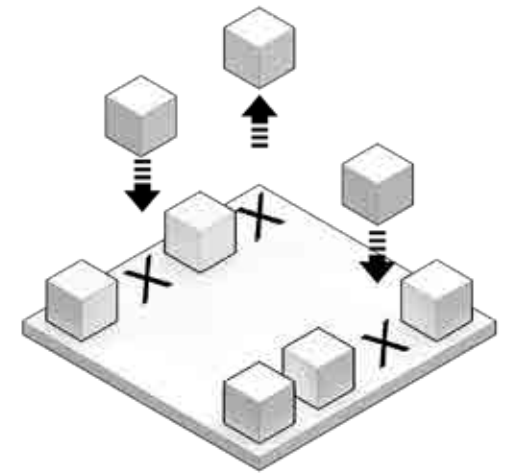
The wind can change to be energized.



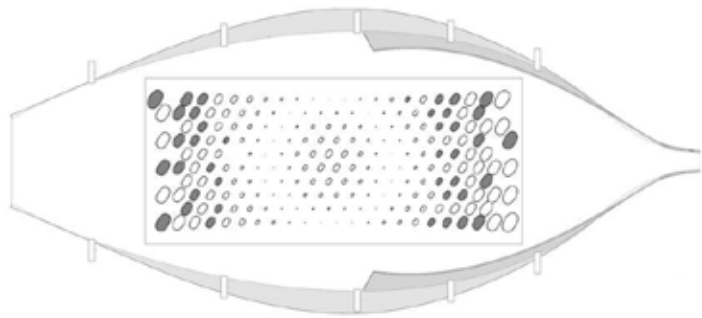
Energies can change to be some hilem.



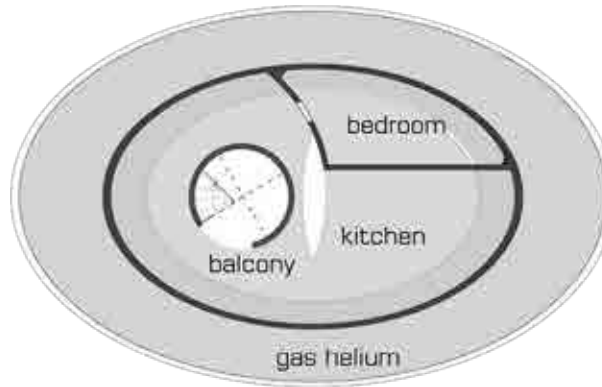
Housings have gardens and mini forests.



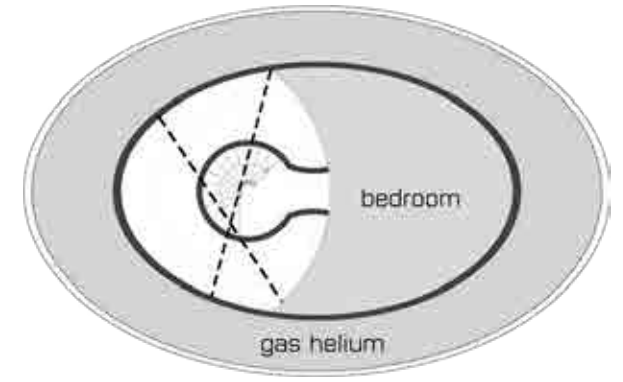
Housings can repair, fix, remove and reinstall.



Master plan

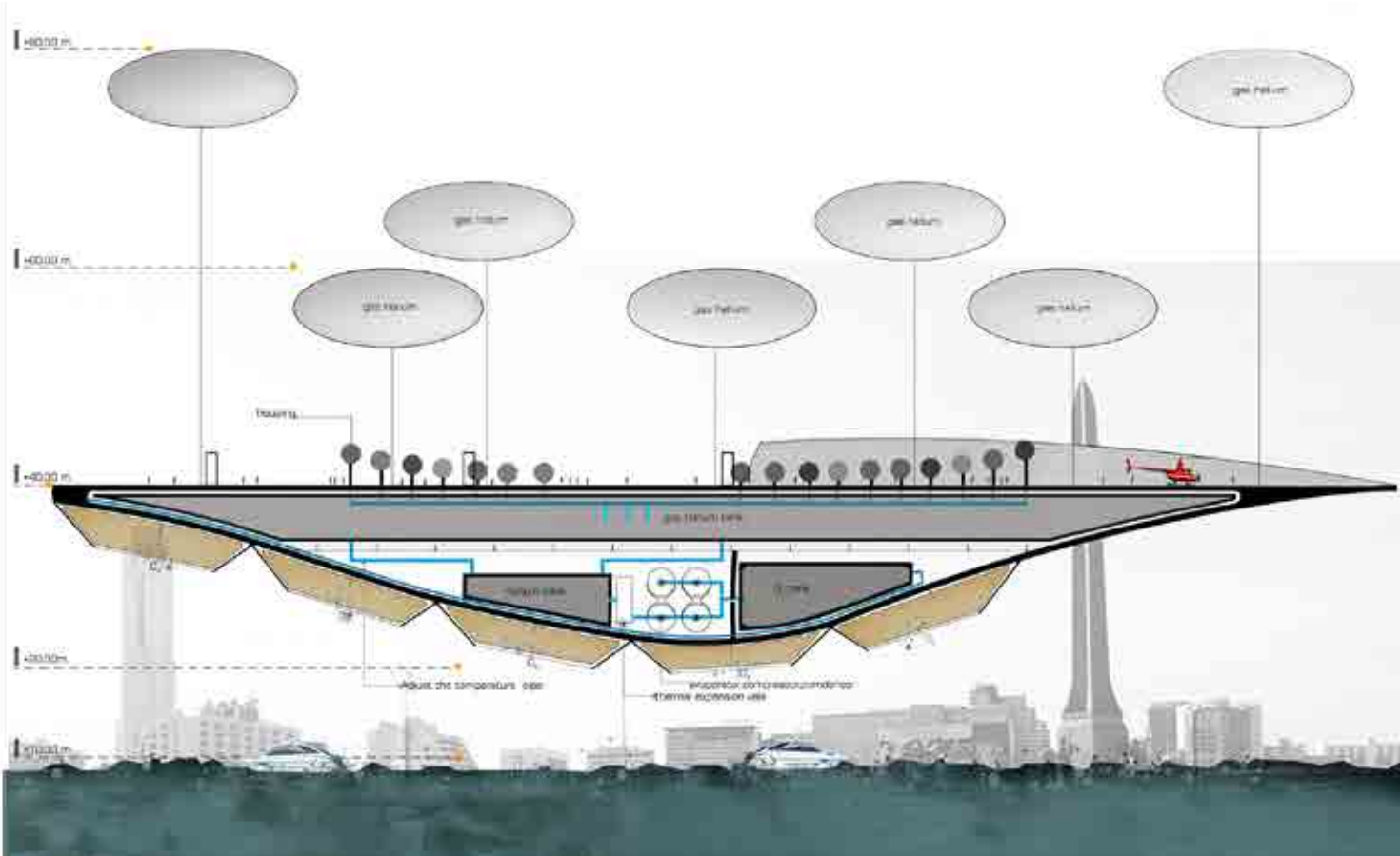


1st Floor Plan of unit

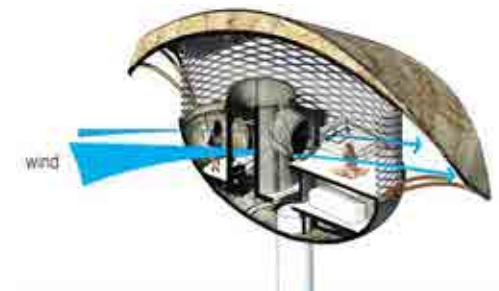


2nd Floor Plan of unit

SKYKEY PARA : FLOOR PLANS & SECTION

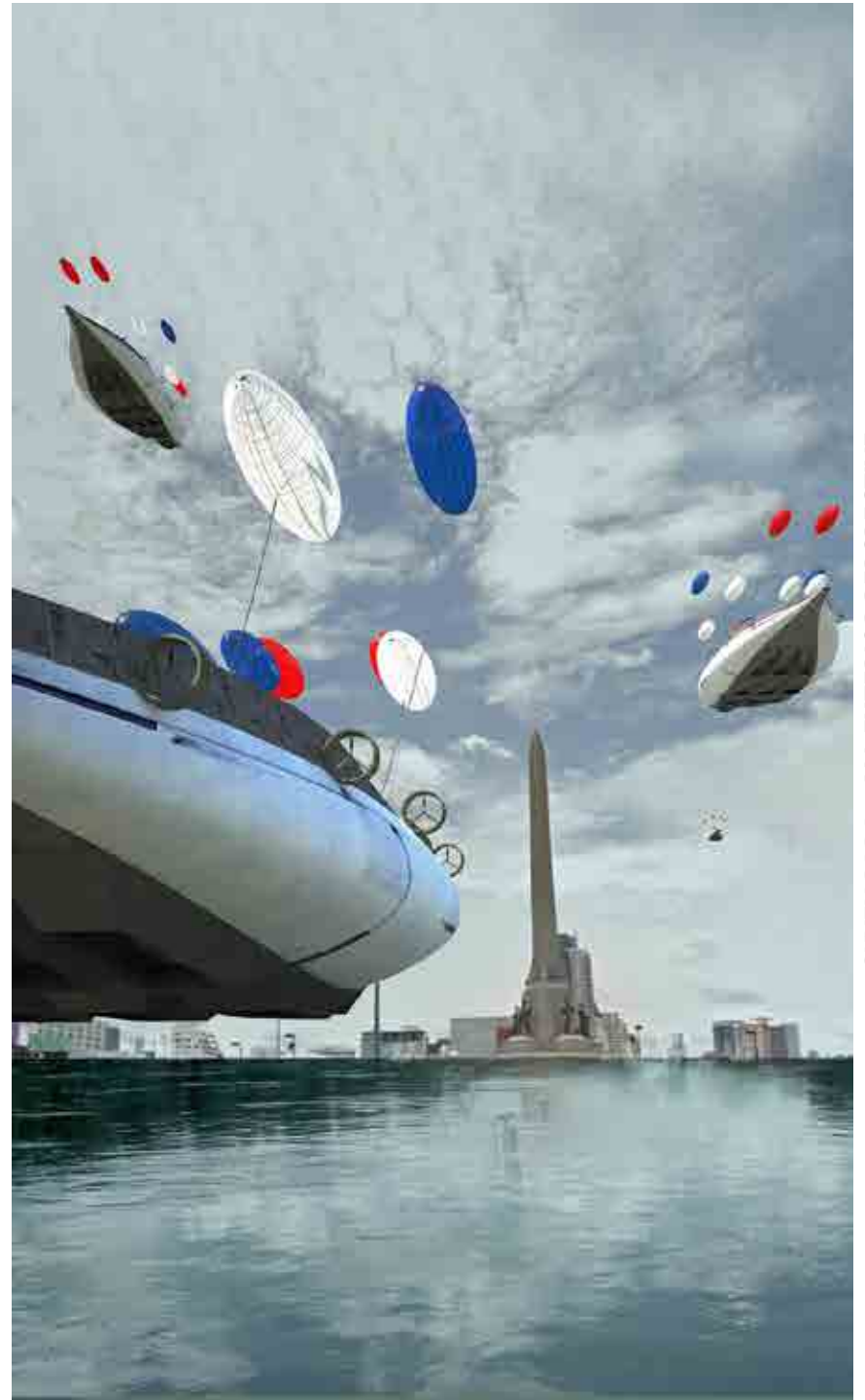
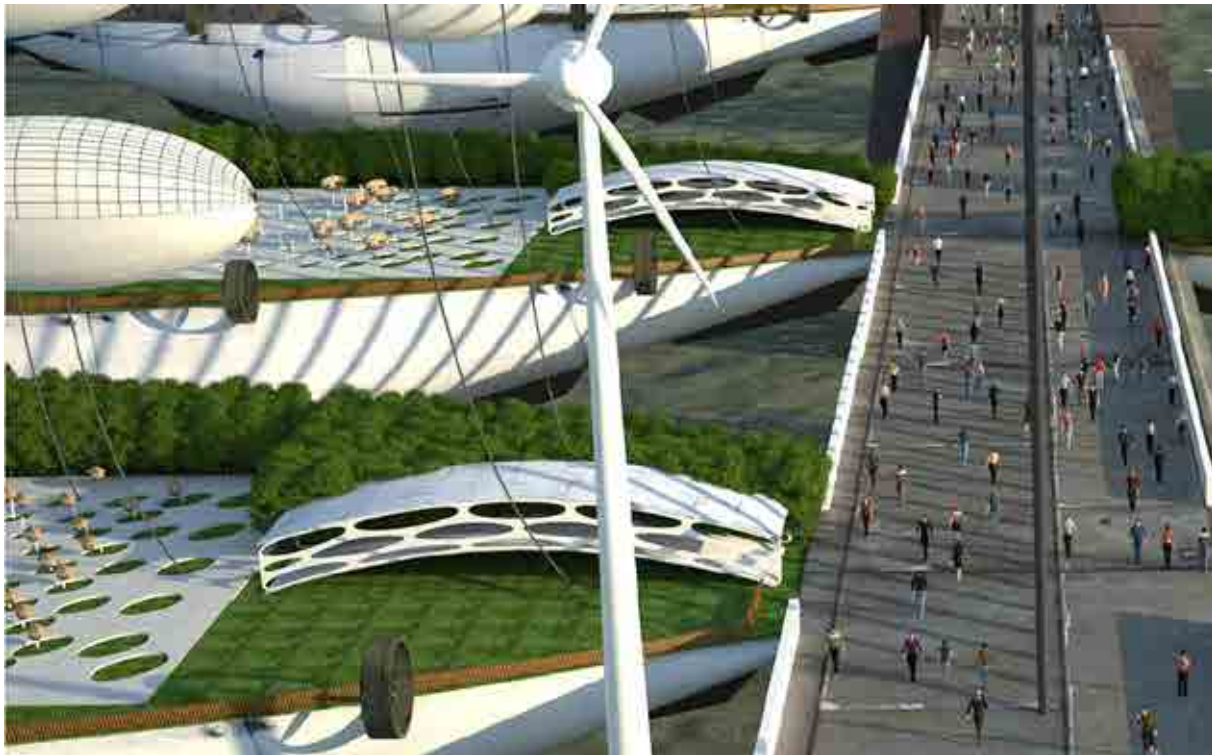
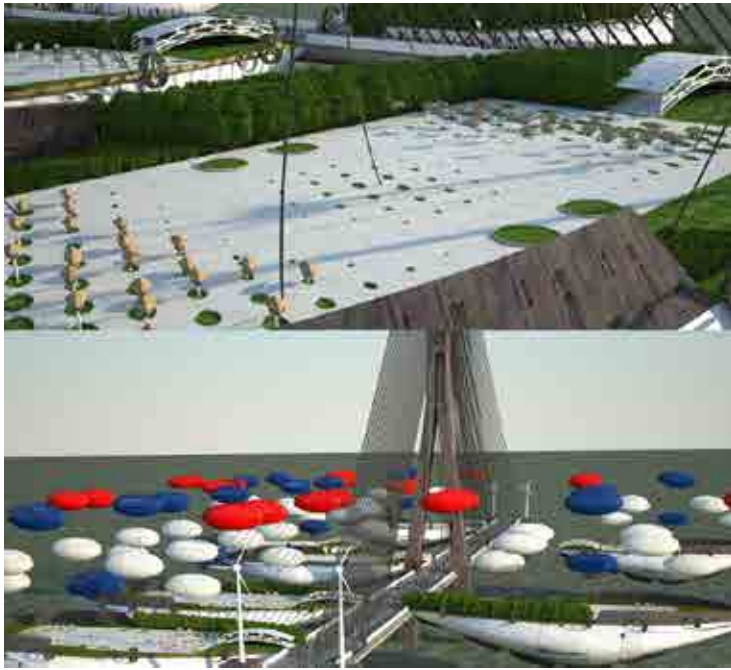


Element of unit



Iso-Section





SKYEY PARA : ALL EXTERIOR PERSPECTIVE



# 06

## CHALOM, SIAM YAMATO STEEL COMPETITION

**Rangsit University**

Year : **2014**

Location : **Pathumthani , Thailand**

Programme : **Public Area**

Currently, the BTS station In addition to being a transport for people is also a meeting place for people in the city. But there is not enough space for other activities such as waiting areas, meeting spaces to exchange things, etc. Today, tourist attractions in Thailand are known all over the world, especially in the capital city where the BTS Sky-train is the main use in the city. Therefore, it would be better if each station would be developed to be more interesting.

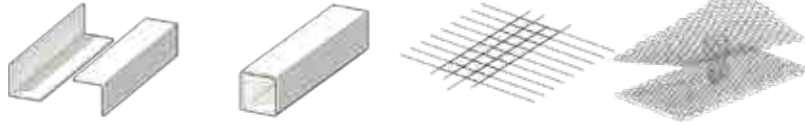
In this project, we have taken one of the products of Thailand called "Chalom" as a container that Thai people have used for a long time to use as a design idea. In this project, metal structures were used to weave a cha-lom pattern and applied to many elements of the building. The project floor has been extended from the area of the original station to increase the usable area, and convenience for users and others.



**INSPIRATION**



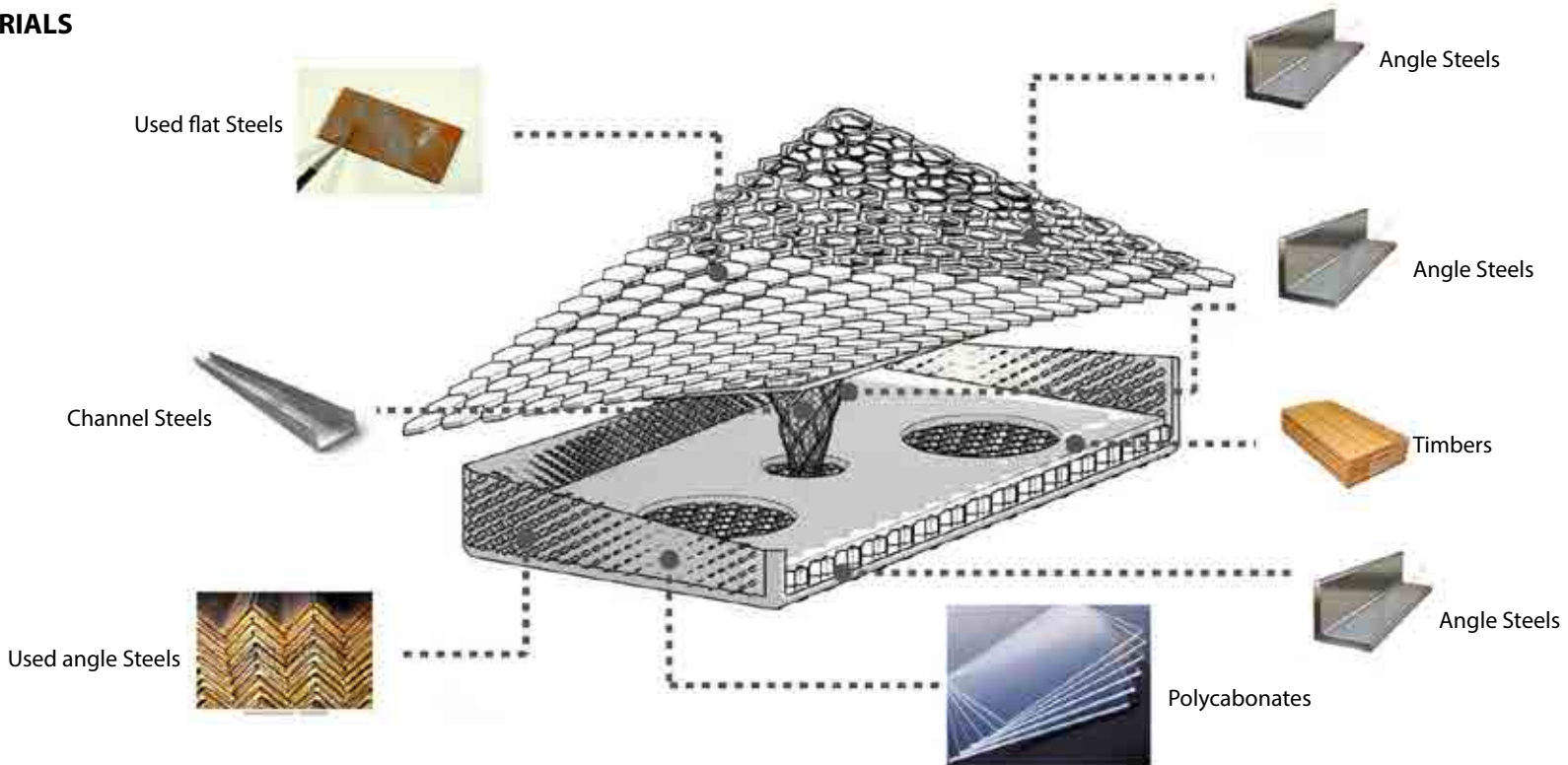
Metaphor of pattern

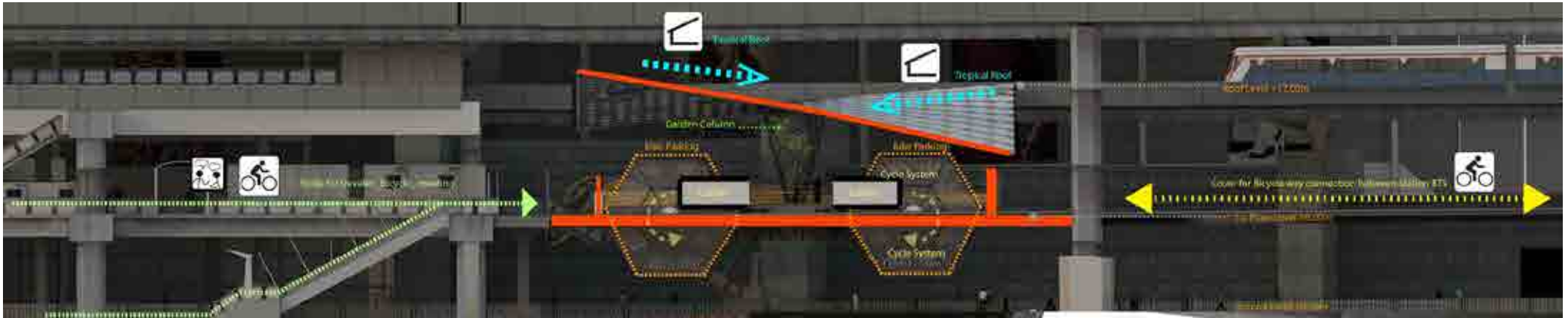


Materials from metaphor of pattern

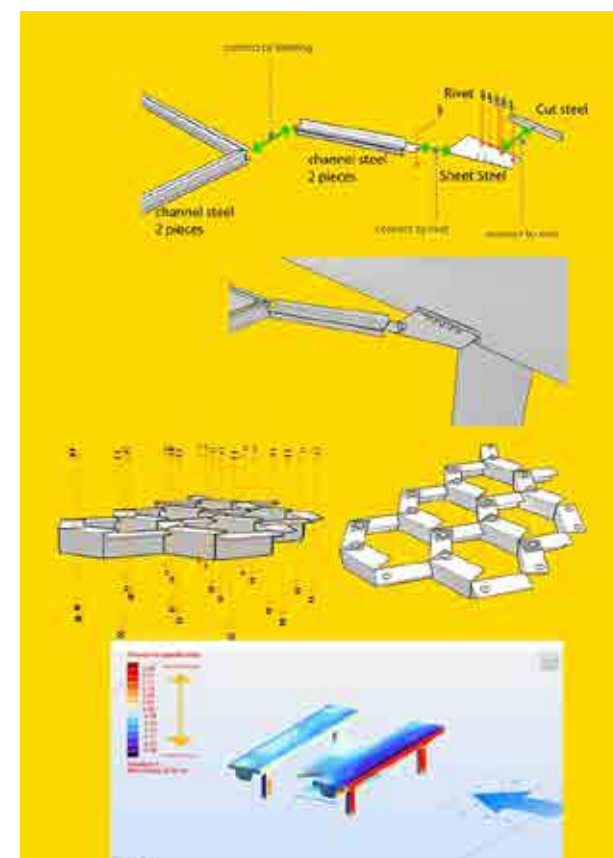
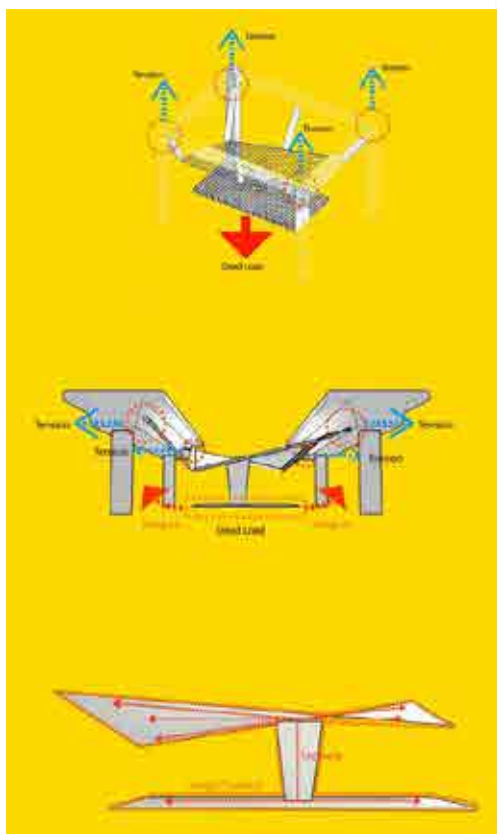
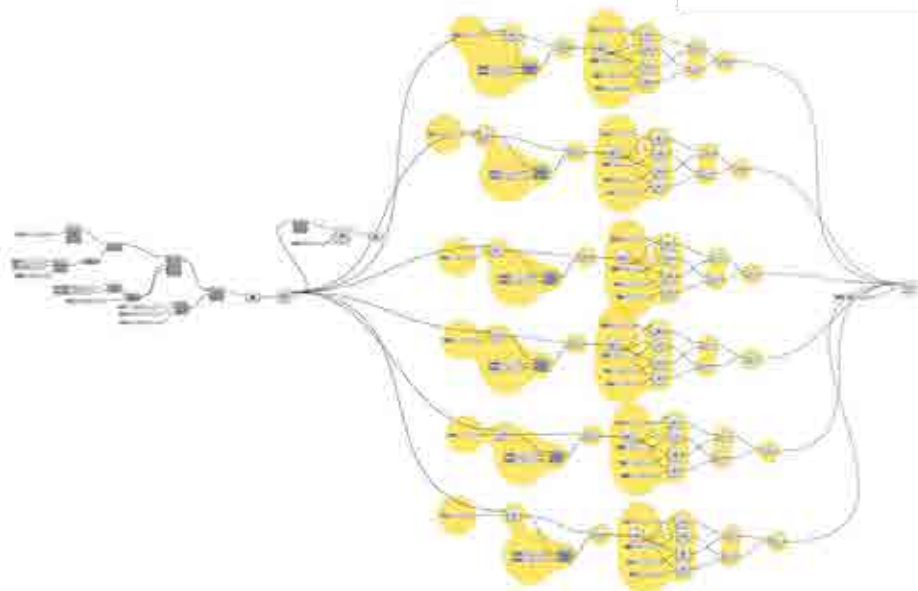
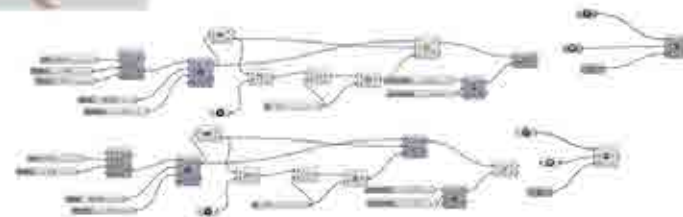
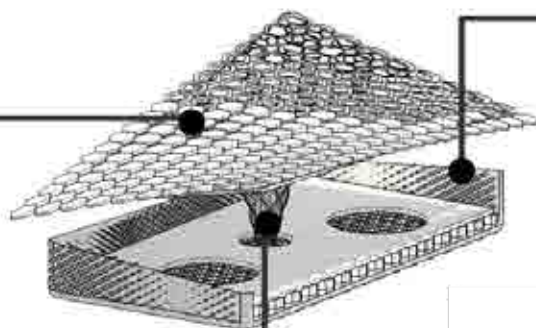
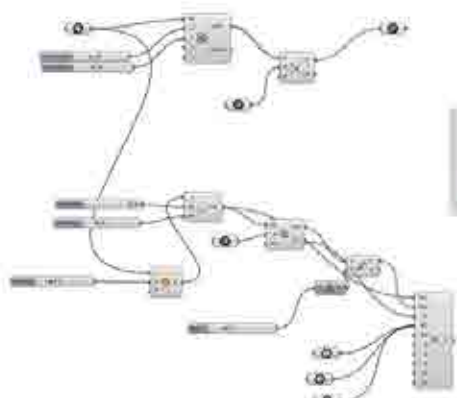


**ELEMENT MATERIALS**









**PROFESSIONAL**



# 07

The "Hunca Villa House" project is a 2-story residential house with a variety of contemporary styles. The main theme is that it is a house for use in tropical Thailand. It is decorated with natural wood tones and bare concrete and the highlight is The architect who specializes in bamboo has used bamboo in many parts of this house. The living space of the building is divided into 3 parts to accommodate medium-sized families and up. Each house is filled with space for different activities together. Including the surrounding garden area that can be accessed everywhere as well.

In the scope of this project, My main duty is to prepare a construction drawing for a municipality permit and develop the next model for the actual construction by building information modeling (BIM), which consists of Architectural and extended designs, engineering (arrangement), sanitation, and electrical systems. In addition, it participated in the extraction of various materials.

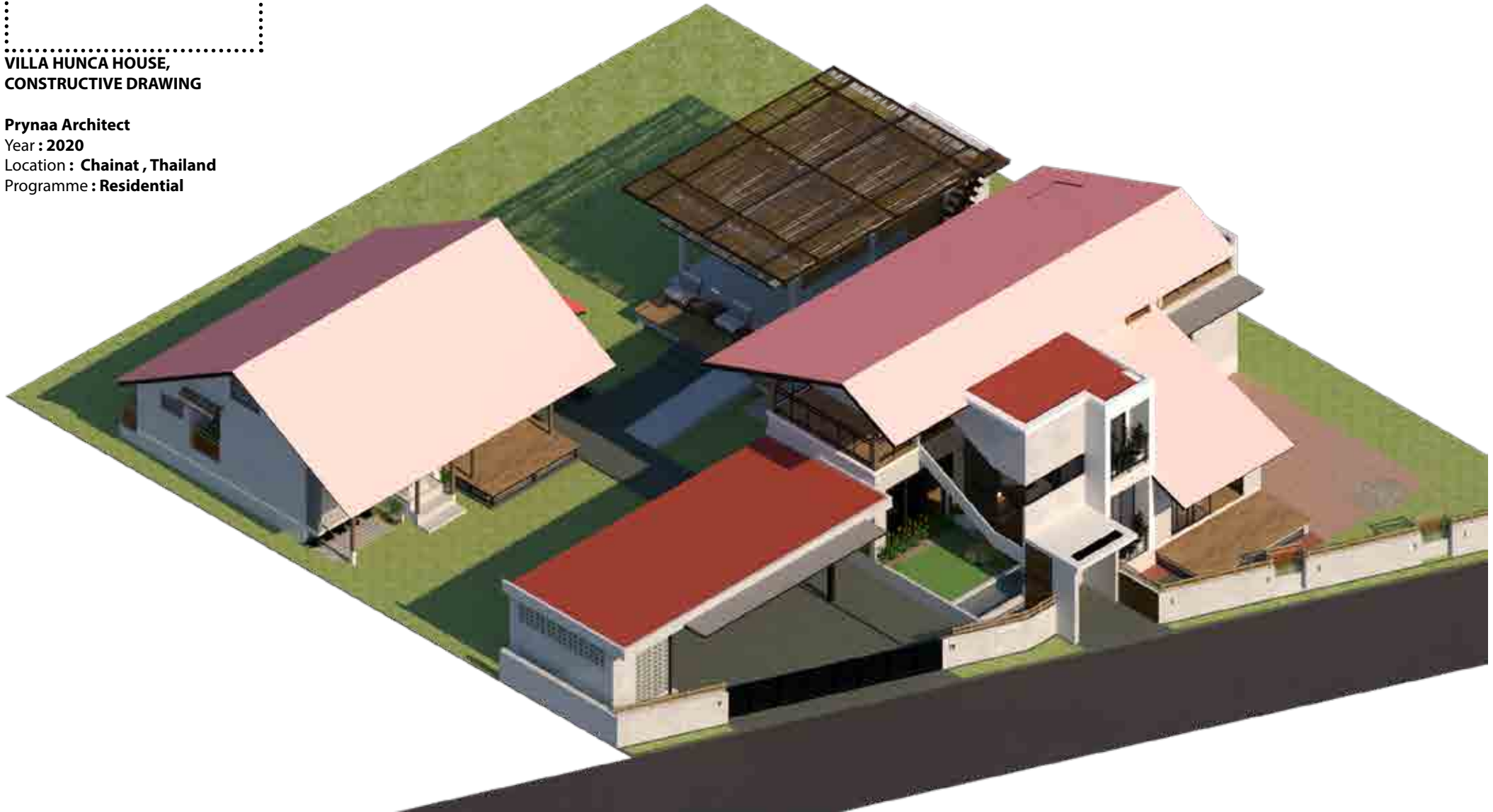
## VILLA HUNCA HOUSE, CONSTRUCTIVE DRAWING

**Prynaa Architect**

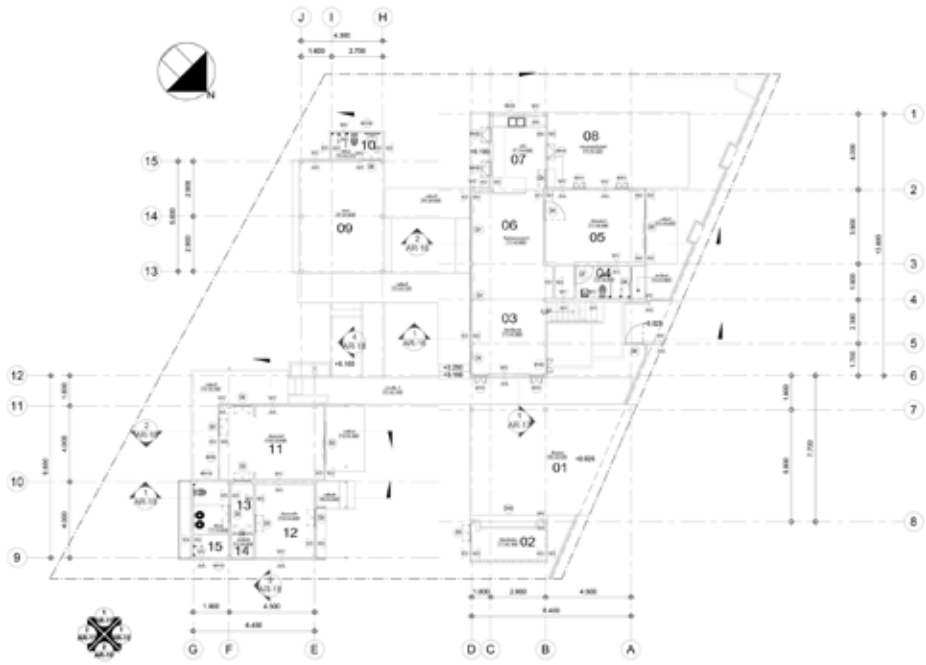
Year : **2020**

Location : **Chainat , Thailand**

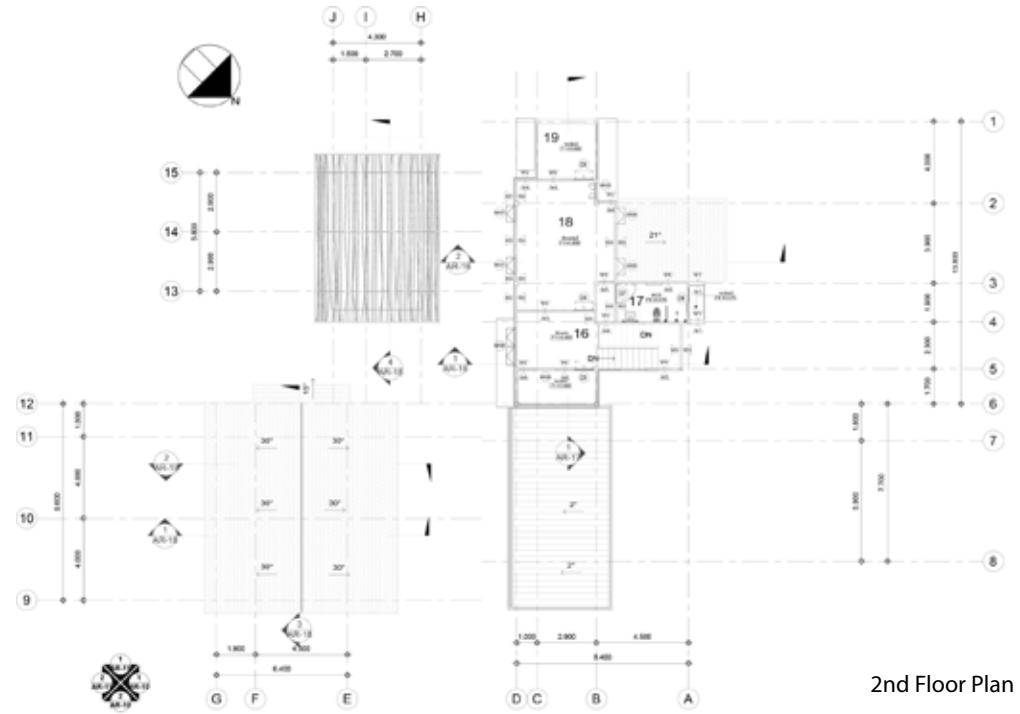
Programme : **Residential**



HUNCA VILLA HOUSE

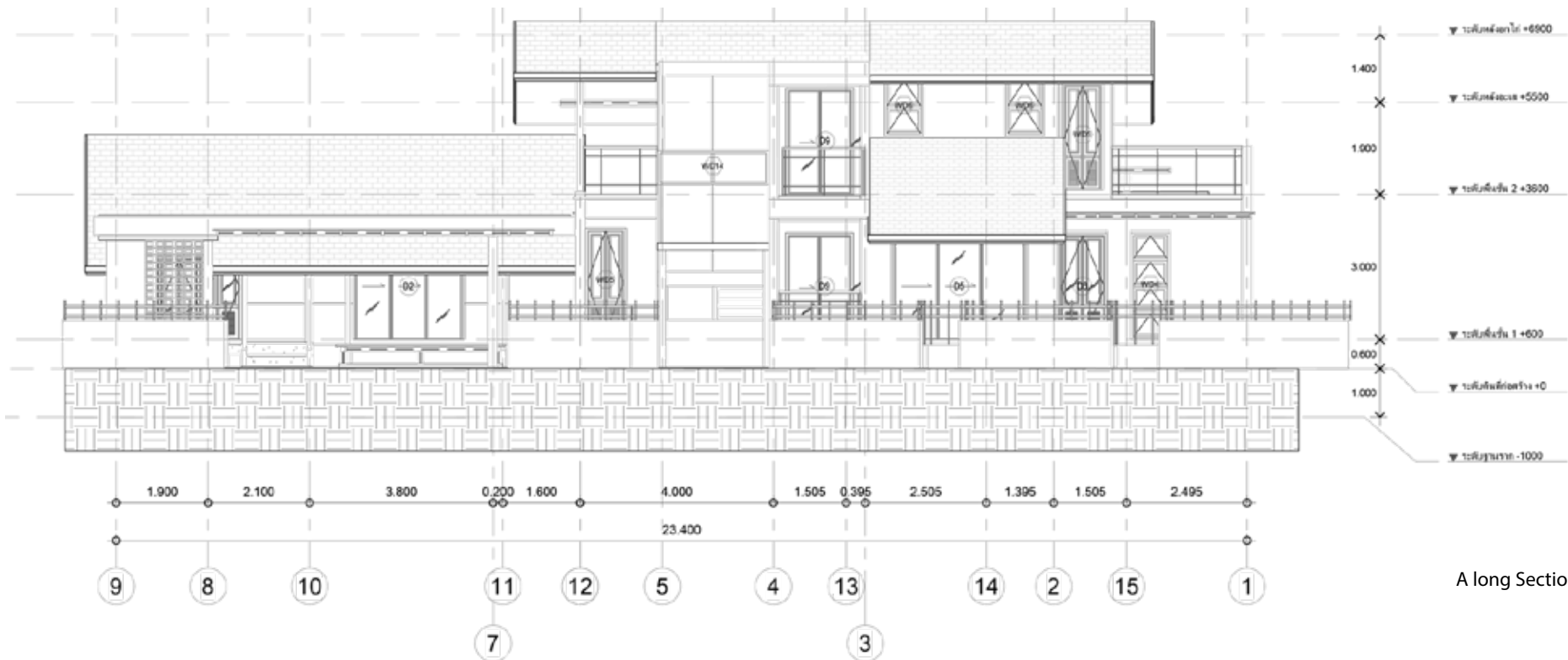


Ground Floor Plan

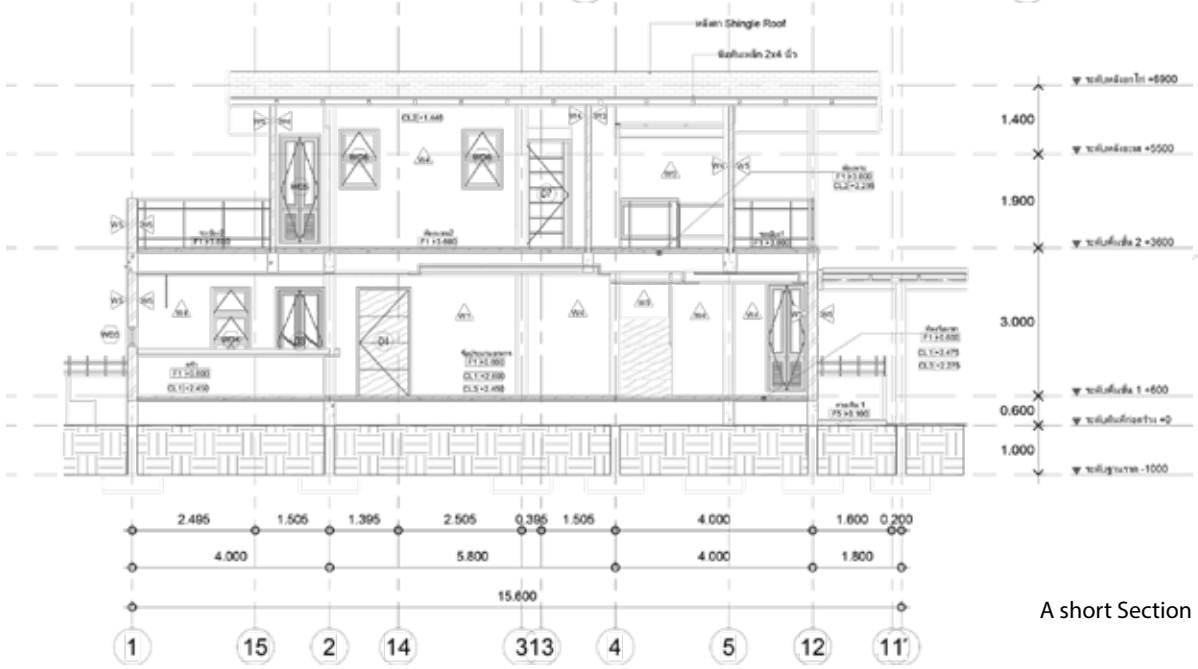


2nd Floor Plan

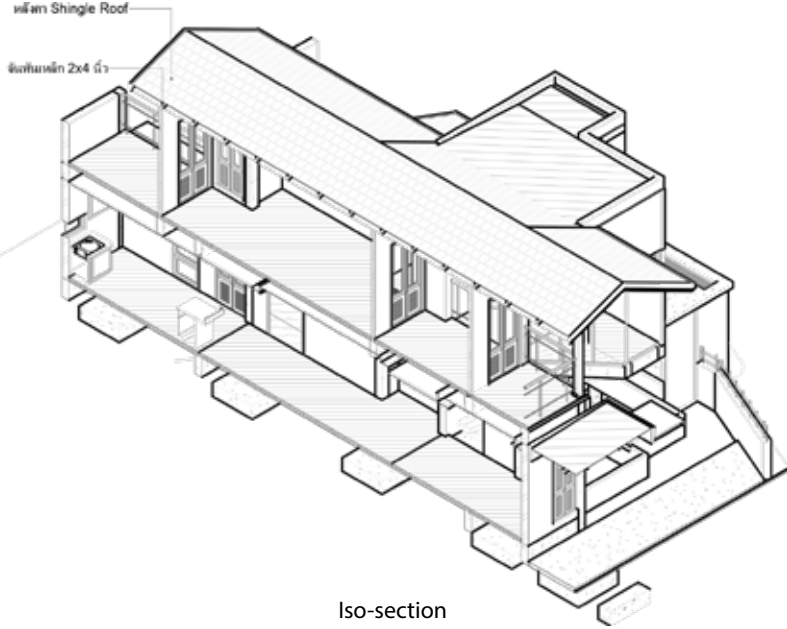




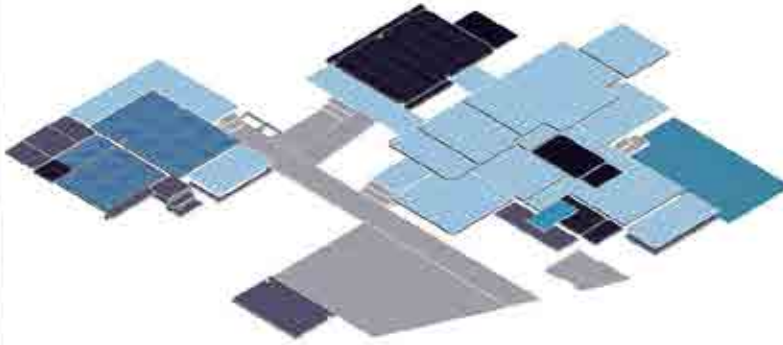
A long Section



A short Section

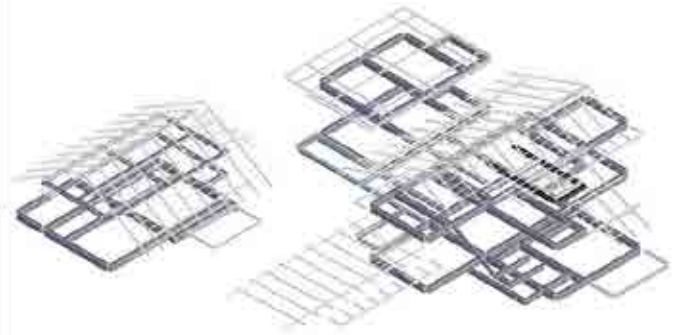


Iso-section



Schedule of floors

A	B	C
Item No.	Description	Quantity
01	ปูนซีเมนต์ปอร์ตแลนด์ 42.5	1
02	ปูนซีเมนต์ปอร์ตแลนด์ 32.5	1
03	ปูนซีเมนต์ปอร์ตแลนด์ 22.5	1
04	ปูนซีเมนต์ปอร์ตแลนด์ 12.5	1
05	ปูนซีเมนต์ปอร์ตแลนด์ 5.25	1
06	ปูนซีเมนต์ปอร์ตแลนด์ 2.5	1
07	ปูนซีเมนต์ปอร์ตแลนด์ 1.25	1
08	ปูนซีเมนต์ปอร์ตแลนด์ 0.625	1
09	ปูนซีเมนต์ปอร์ตแลนด์ 0.3125	1
10	ปูนซีเมนต์ปอร์ตแลนด์ 0.15625	1
11	ปูนซีเมนต์ปอร์ตแลนด์ 0.078125	1
12	ปูนซีเมนต์ปอร์ตแลนด์ 0.0390625	1
13	ปูนซีเมนต์ปอร์ตแลนด์ 0.01953125	1
14	ปูนซีเมนต์ปอร์ตแลนด์ 0.009765625	1
15	ปูนซีเมนต์ปอร์ตแลนด์ 0.0048828125	1
16	ปูนซีเมนต์ปอร์ตแลนด์ 0.00244140625	1
17	ปูนซีเมนต์ปอร์ตแลนด์ 0.001220703125	1
18	ปูนซีเมนต์ปอร์ตแลนด์ 0.0006103515625	1
19	ปูนซีเมนต์ปอร์ตแลนด์ 0.00030517578125	1
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Schedule of structural frame



Schedule of foundations

<9.รายการตามประตู>						
A	B	C	D	E	F	G
Item No.	Description	Quantity	Unit	Material	Price	Total
01	ประตูบานไม้ 1.80 x 2.10 ม.	1	บาน	ไม้สัก	1,800	1,800
02	ประตูบานไม้ 1.50 x 2.10 ม.	1	บาน	ไม้สัก	1,500	1,500
03	ประตูบานไม้ 1.20 x 2.10 ม.	1	บาน	ไม้สัก	1,200	1,200
04	ประตูบานไม้ 0.90 x 2.10 ม.	1	บาน	ไม้สัก	900	900
05	ประตูบานไม้ 0.60 x 2.10 ม.	1	บาน	ไม้สัก	600	600
06	ประตูบานไม้ 0.30 x 2.10 ม.	1	บาน	ไม้สัก	300	300
07	ประตูบานไม้ 0.15 x 2.10 ม.	1	บาน	ไม้สัก	150	150
08	ประตูบานไม้ 0.075 x 2.10 ม.	1	บาน	ไม้สัก	75	75
09	ประตูบานไม้ 0.0375 x 2.10 ม.	1	บาน	ไม้สัก	37.5	37.5
10	ประตูบานไม้ 0.01875 x 2.10 ม.	1	บาน	ไม้สัก	18.75	18.75
11	ประตูบานไม้ 0.009375 x 2.10 ม.	1	บาน	ไม้สัก	9.375	9.375
12	ประตูบานไม้ 0.0046875 x 2.10 ม.	1	บาน	ไม้สัก	4.6875	4.6875
13	ประตูบานไม้ 0.00234375 x 2.10 ม.	1	บาน	ไม้สัก	2.34375	2.34375
14	ประตูบานไม้ 0.001171875 x 2.10 ม.	1	บาน	ไม้สัก	1.171875	1.171875
15	ประตูบานไม้ 0.0005859375 x 2.10 ม.	1	บาน	ไม้สัก	0.5859375	0.5859375
16	ประตูบานไม้ 0.00029296875 x 2.10 ม.	1	บาน	ไม้สัก	0.29296875	0.29296875
17	ประตูบานไม้ 0.000146484375 x 2.10 ม.	1	บาน	ไม้สัก	0.146484375	0.146484375
18	ประตูบานไม้ 0.0000732421875 x 2.10 ม.	1	บาน	ไม้สัก	0.0732421875	0.0732421875
19	ประตูบานไม้ 0.00003662109375 x 2.10 ม.	1	บาน	ไม้สัก	0.03662109375	0.03662109375
20	ประตูบานไม้ 0.000018310546875 x 2.10 ม.	1	บาน	ไม้สัก	0.018310546875	0.018310546875
21	ประตูบานไม้ 0.0000091552734375 x 2.10 ม.	1	บาน	ไม้สัก	0.0091552734375	0.0091552734375
22	ประตูบานไม้ 0.00000457763671875 x 2.10 ม.	1	บาน	ไม้สัก	0.00457763671875	0.00457763671875
23	ประตูบานไม้ 0.000002288818359375 x 2.10 ม.	1	บาน	ไม้สัก	0.002288818359375	0.002288818359375
24	ประตูบานไม้ 0.0000011444091796875 x 2.10 ม.	1	บาน	ไม้สัก	0.0011444091796875	0.0011444091796875
25	ประตูบานไม้ 0.00000057220458984375 x 2.10 ม.	1	บาน	ไม้สัก	0.00057220458984375	0.00057220458984375
26	ประตูบานไม้ 0.000000286102294921875 x 2.10 ม.	1	บาน	ไม้สัก	0.000286102294921875	0.000286102294921875
27	ประตูบานไม้ 0.0000001430511474609375 x 2.10 ม.	1	บาน	ไม้สัก	0.0001430511474609375	0.0001430511474609375
28	ประตูบานไม้ 0.00000007152557373046875 x 2.10 ม.	1	บาน	ไม้สัก	0.00007152557373046875	0.00007152557373046875
29	ประตูบานไม้ 0.000000035762786865234375 x 2.10 ม.	1	บาน	ไม้สัก	0.000035762786865234375	0.000035762786865234375
30	ประตูบานไม้ 0.0000000178813934326171875 x 2.10 ม.	1	บาน	ไม้สัก	0.0000178813934326171875	0.0000178813934326171875
31	ประตูบานไม้ 0.00000000894069671630859375 x 2.10 ม.	1	บาน	ไม้สัก	0.00000894069671630859375	0.00000894069671630859375
32	ประตูบานไม้ 0.000000004470348358154296875 x 2.10 ม.	1	บาน	ไม้สัก	0.000004470348358154296875	0.000004470348358154296875
33	ประตูบานไม้ 0.0000000022351741790771484375 x 2.10 ม.	1	บาน	ไม้สัก	0.0000022351741790771484375	0.0000022351741790771484375
34	ประตูบานไม้ 0.00000000111758708953857221875 x 2.10 ม.	1	บาน	ไม้สัก	0.00000111758708953857221875	0.00000111758708953857221875
35	ประตูบานไม้ 0.000000000558793544769286109375 x 2.10 ม.	1	บาน	ไม้สัก	0.000000558793544769286109375	0.000000558793544769286109375
36	ประตูบานไม้ 0.0000000002793967723846430546875 x 2.10 ม.	1	บาน	ไม้สัก	0.0000002793967723846430546875	0.0000002793967723846430546875
37	ประตูบานไม้ 0.00000000013969838619232152734375 x 2.10 ม.	1	บาน	ไม้สัก	0.00000013969838619232152734375	0.00000013969838619232152734375
38	ประตูบานไม้ 0.000000000069849193096160763671875 x 2.10 ม.	1	บาน	ไม้สัก	0.000000069849193096160763671875	0.00000006984919309



# 08

This is a renovation of a house in Ang Thong Province. The style of the original house was a wooden house with a traditional basement. The proposition of this project is to renovate the main house which is a basement house with some additions on the ground floor and take out a new house. The building style combines Thai architecture with modern simplicity with natural teak materials to match the original house. Therefore, this house is still a natural wooden house.

In the scope of this project My main duty is to prepare a construction drawing for a municipal permit with building information modeling (BIM), which consists of Architectural vs. Extended In addition, I participated in the extraction of various materials.

## ANGTHONG HOUSE, CONSTRUCTIVE DRAWING

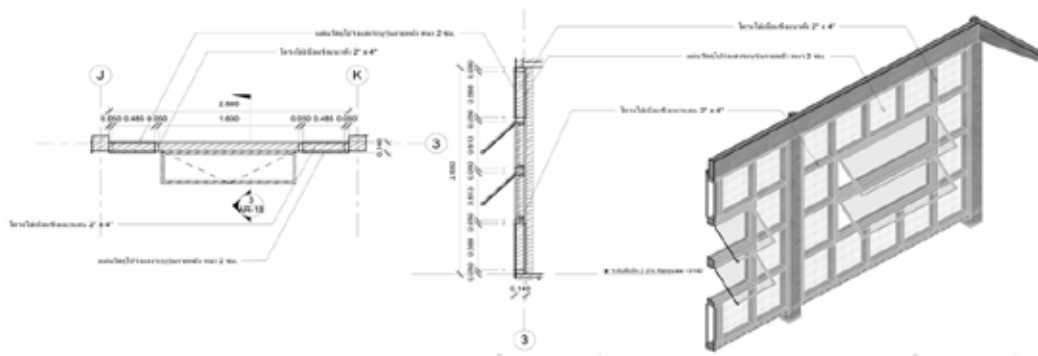
**Wat + Kittipat Architects**

**Year : 2020**

**Location : Angthong, Thailand**

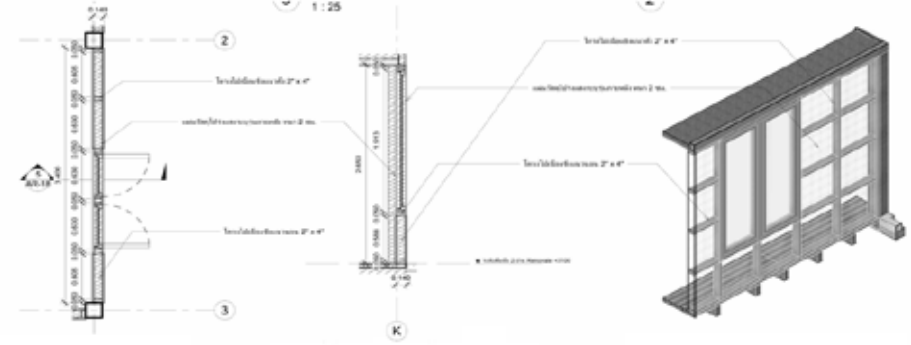
**Programme : Residential**





Plan details

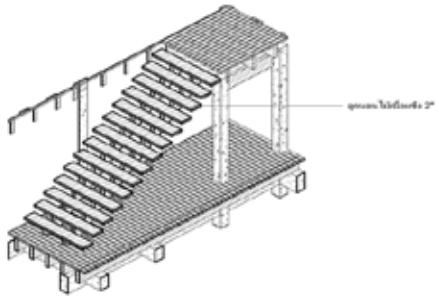
Isometric details



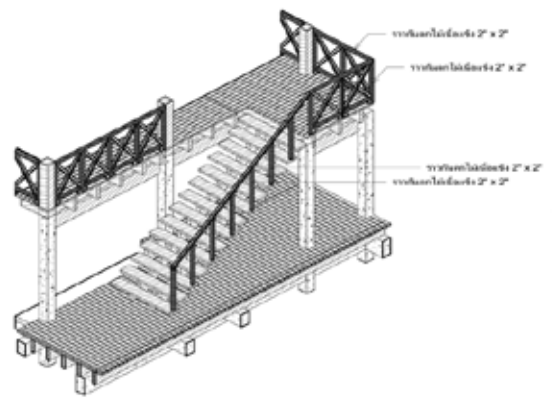
Plan details

Isometric details

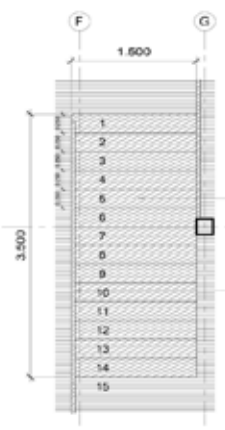
**FRAME WALL DETAILS**



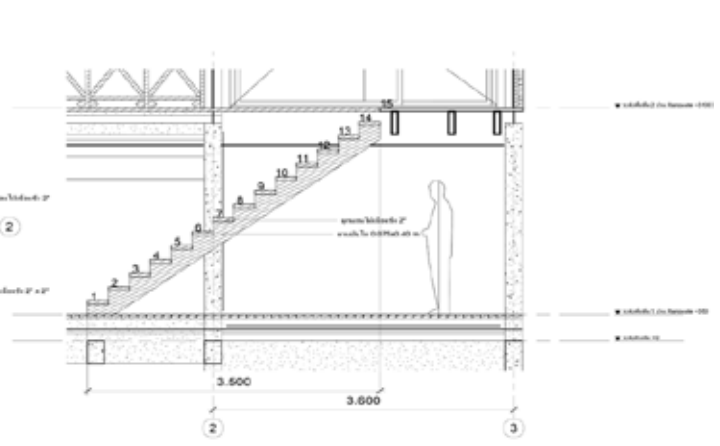
Isometric details



Isometric details



Isometric details



Isometric details

**RAILING, STAIR DETAILS**



This project is a job that has been hired to design and make interior construction drawings. The owner's desire is a loft style mixed with simplicity. The designer has determined that in each room there will be 1 built-in piece of furniture, in addition to general floating furniture for flexibility of use.

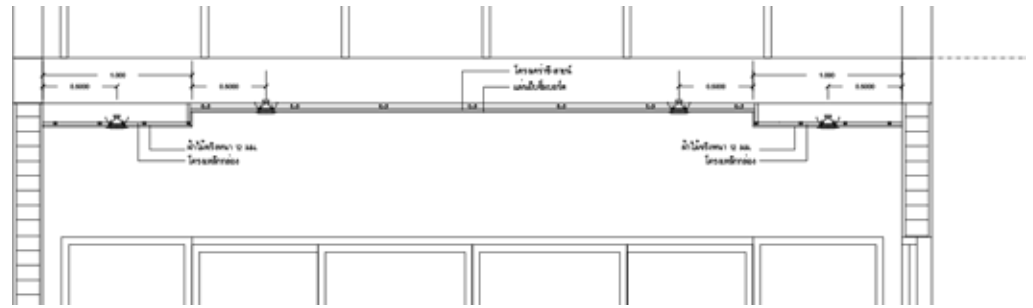
In the scope of this project, I have been involved as a co-designer in production such as 3d rendering, construction drawings, etc. to prepare and present to the employer.

# 09

## ANON'S HOUSE, INTERIOR DRAWING

**Sippavich Gumbang**  
Year : 2018  
Location : **Suratthani, Thailand**  
Programme : **Residential**

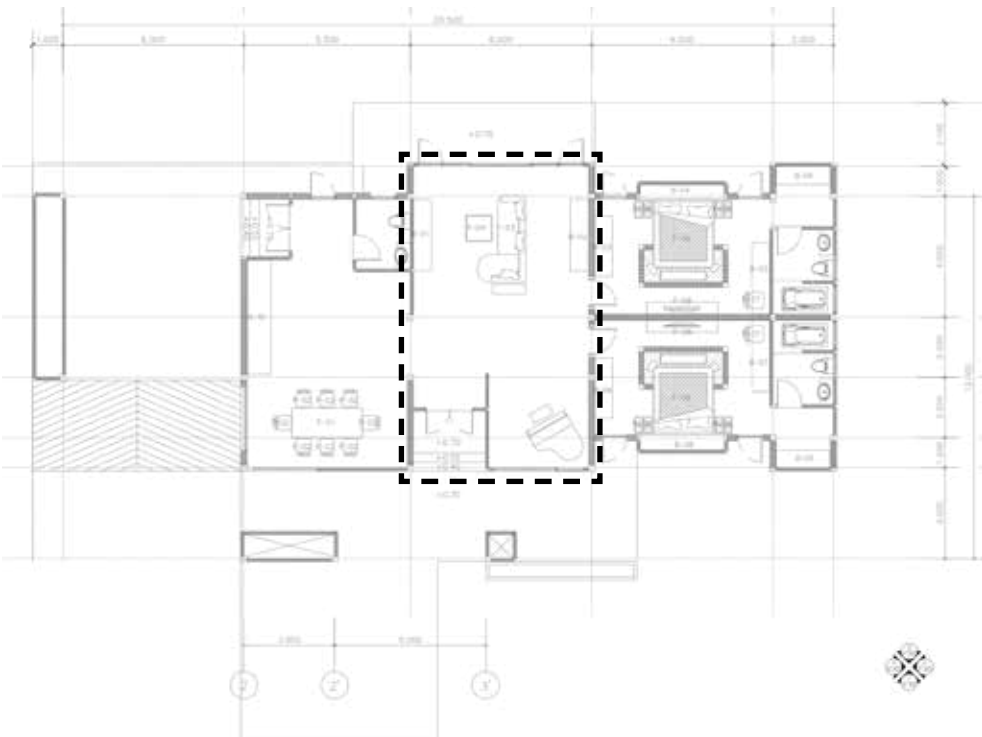




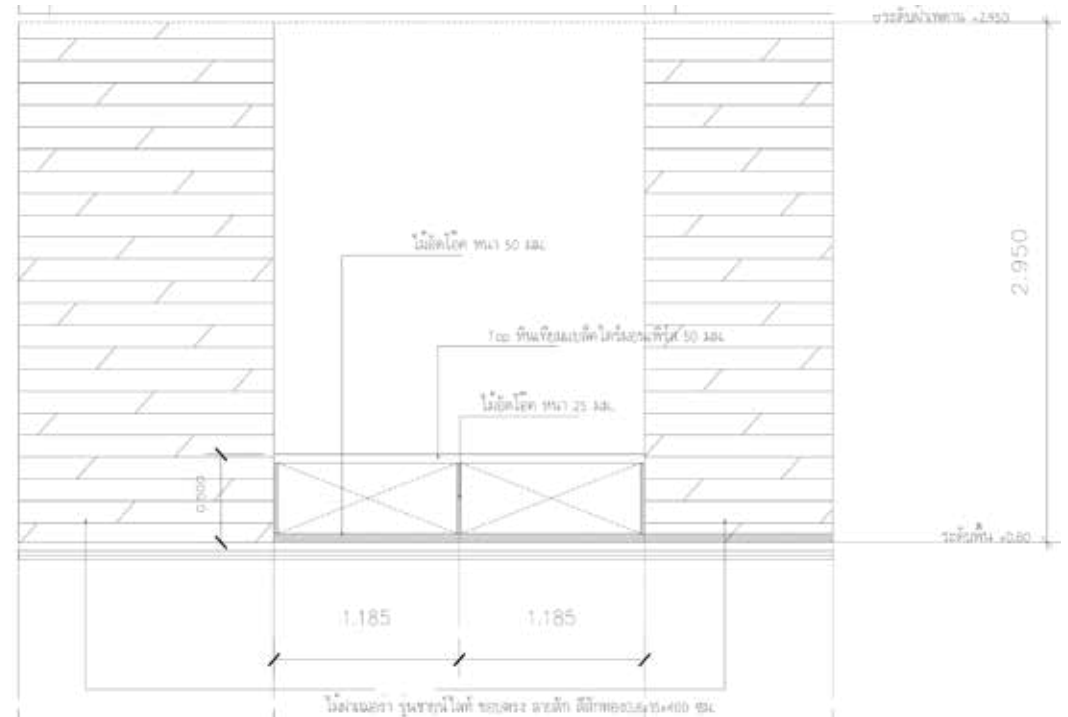
Ceiling Detail

**LIVING ROOM**

ANON'S HOUSE : DETAIL



Ground Floor Plan



A built table of detail





7-story office building project in the heart of Bangkok, the capital of Thailand. The designers of this project wanted this office building to be the highlight of this area. It is known that in the center of the capital there are tall buildings of various sizes filled with glass. Allowing architects to design concepts The facade is horizontal to create the dimensions of the glass panels to make it stand out. This project is one of the interesting projects.

In the scope of this project, I was involved as a 3d visualizer in creating an exterior perspective to complement the architectural design work for this architect's office.

# 10

**OFFICE BUILDING 25 Sukhumvit ,  
3D VISUALIZATION**

**4B Architect**

Year : **2021**

Location : **Bangkok, Thailand**

Programme : **Office Building**





OFFICE BUILDING 25 SUKHUMVIT : ALL PERSPECTIVES



# 11

The Coffee Bark project is not just a coffee shop. But there is an area for displaying cowboy collectibles. The building is decorated with what is known as "Truth of Materials", whether it is wood and natural stone and raw materials with the use of iron as a component. The program of this project has a variety of spaces. Such as coffee shops, skating rinks, vintage garages, semi-museums, etc.

In the scope of this project I was involved as a 3d visualizer in creating an exterior perspective to complement the architectural design work for this architect's office.

## COFFEE BARK SHOP, 3D VISUALIZATION

**Archiplusi**

Year : **2020**

Location : **Bangkok, Thailand**

Programme : **Commercial**

COFFEE BARK SHOP







COFFEE BARK SHOP : ALL PERSPECTIVES





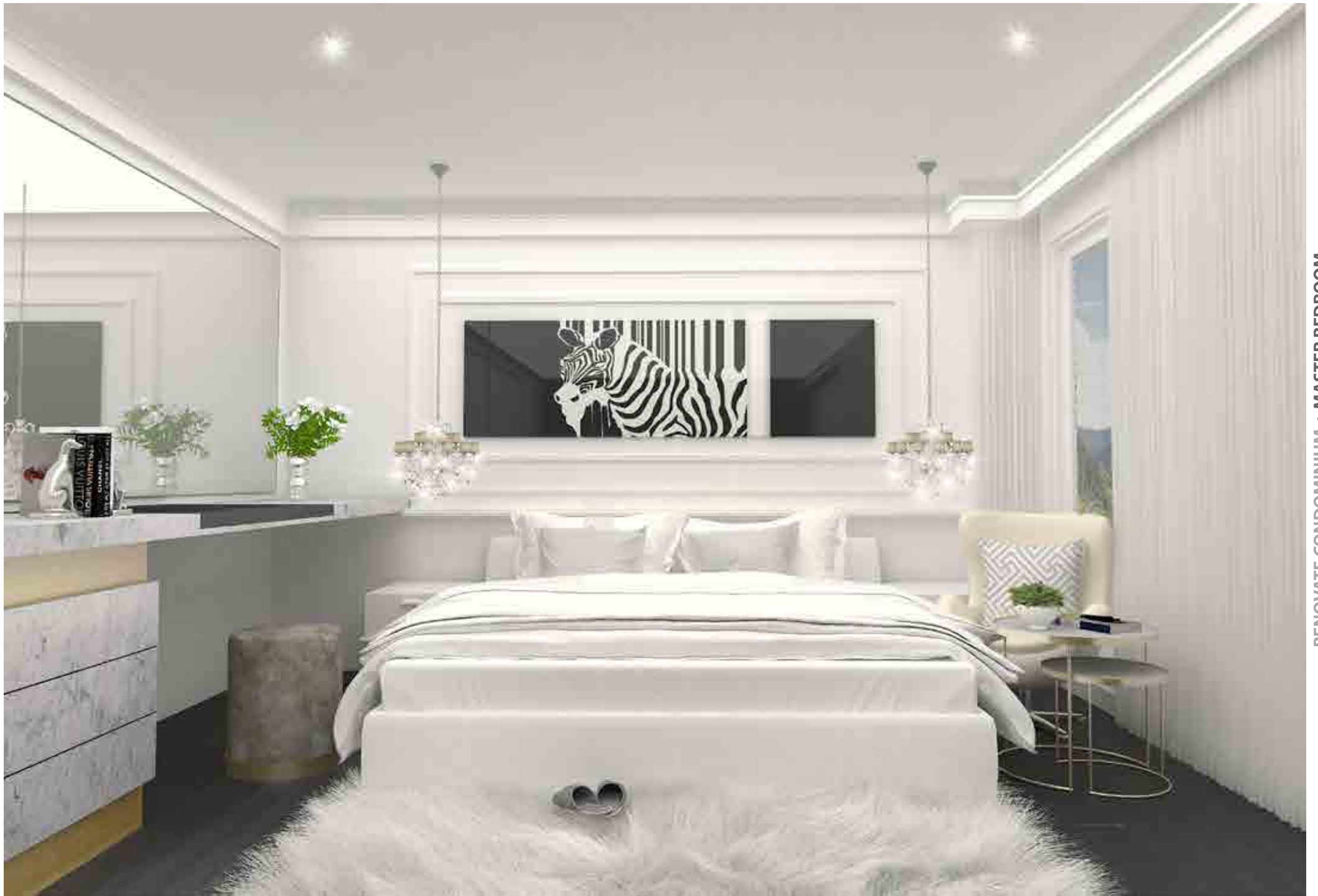
Renovation of this condominium is a commissioned work to design and produce a presentation. The requirement is a modern luxury style. The bedroom will be in bright tones, focusing on white and cream, while the living room focuses on the tones of various elements in gray-white and cut with dark curtains. In both rooms, there will be decoration. It is a glittering glass material such as a glass lampshade.

In the scope of this project, I have been involved as a co-designer in production such as 3d rendering, etc. to prepare for presentations to the employer.

# 12

**RENOVATE CONDOMINIUM,  
3D VISUALIZATION**

**Jirayuth Architect**  
Year : **2019**  
Location : **Bangkok, Thailand**  
Programme : **Residential**



RENOVATE CONDOMINIUM : MASTER BEDROOM





# 13

The Kleang Plantation Ville Project is a project with the concept of designing communities and villages to live as a place with a farm-like vibe in the suburbs. This project is full of plants, trees, and various species. Even the lakes and streams that surround the habitat. At the same time, there are convenient facilities to support people in the project and the surrounding area. Therefore, this project will answer the question for human beings to have a quality of life. Clean air and good health.

In the scope of this project, I was involved as a master planning assistant. Including the production such as making 3d rendering, etc. to prepare for presentation to the employer next.

**KLEANG PLANTATION VILLE,  
3D VISUALIZATION, URBAN DESIGN**

**Prynaa Architect**

Year : **2020**

Location : **Rayong, Thailand**

Programme : **Complex, Farm,  
Housing, Residential**



## MASTER PLAN

1. **S** : Small houses 75 units 2. **M** : Medium Houses 28 units 3. **C** : Commercial buildings 15 units 4. **CH** : Club houses 4 units  
 5. **HT** : Townhouses 10 units 6. **HS** : Small Townhouses 32 units 7. **V** : Floating villas 22 units 8. **F** : Single houses 11 units

KLEANG PLANTATION VILLE : MASTER PLAN & 3D SECTIONS



Each type of street

### 3D STREET SECTIONS





Overall : S, M size of Houses



Entrance to the village



Street in village



Street in village





Overall : Villas & Single Houses



The pier in the lake



Entrance to Single Houses



Close up : Villa houses





Overall : Club houses & Commercial buildings



Walk-way around the farms



Commercial buildings from a view's farm



A lot of farms





Bird's eye view / the whole scoping



Close up the park



Condominiums from a view's restaurant



Close up : Walk-way of condominiums



# 14

Doctoral students researched a membrane material called ETFE to study its feasibility and properties in detail. Therefore, the surface of ETFE was tested using software, and classified into 2 types, 2-layer surface, and 3-layer surface. The results were then studied for further use in design or construction.

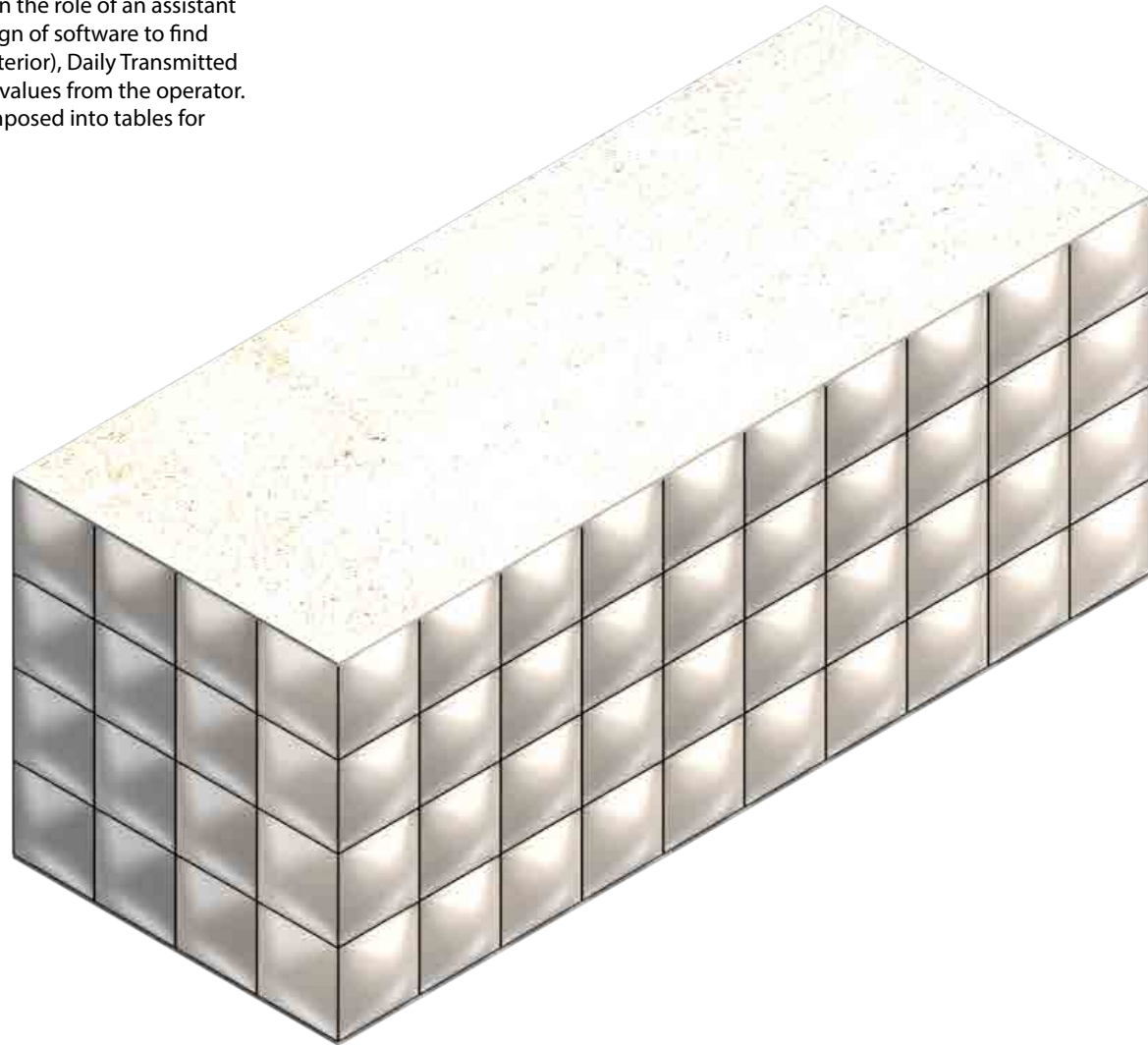
In the scope of this project, I have been in the role of an assistant researcher as a user. Computational design of software to find values of Daylight factor (Exterior and interior), Daily Transmitted Radiation by entering material property values from the operator. The results were then taken to be decomposed into tables for further submission to researchers.

**ETFE SKIN TESTING AND ANALYZE  
, COMPUTATIONAL DESIGNER,  
ASSISTANT RESEARCHER**

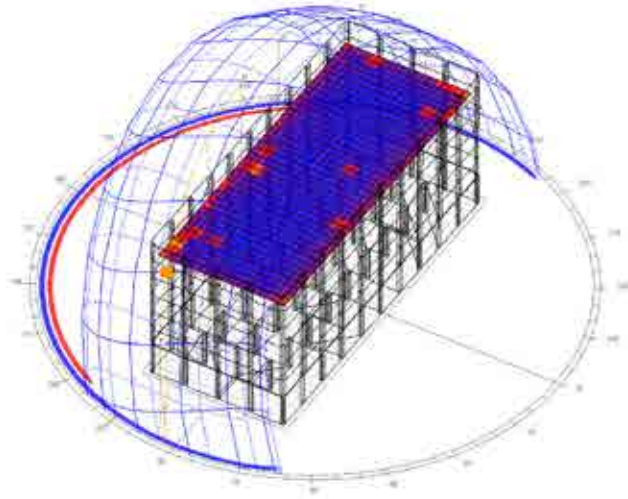
**PH.D Project by Aj sippavit  
Year : 2019**

**Location : Bangkok, Thailand**

**Programme : Concept, Experiment**

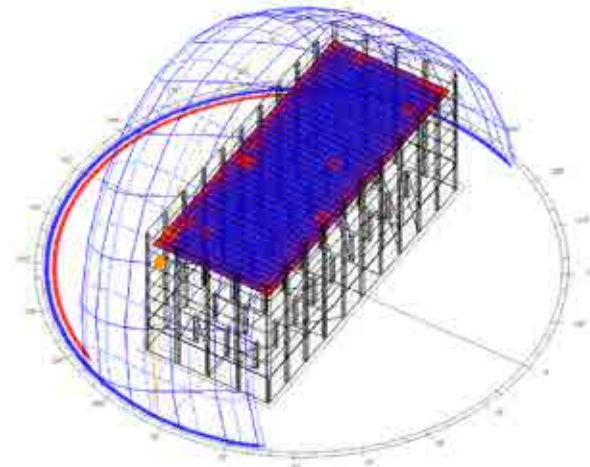


Daylight Analysis  
Daylight Factor  
Min: 0.00% (0.00%)  
Max: 43.00% (43.00%)



Daylight Factor : Double skins

Daylight Analysis  
Daylight Factor  
Min: 0.00% (0.00%)  
Max: 55.00% (55.00%)



Daylight Factor : Tripple skins

Member System	PFTE Filmglass	PVC Membrane	ETFE Film	PFTE High Transmittance (HPTFE)	Insulated Translucent Membrane
<b>Properties</b>					
Reflection	72 - 75%	75 - 78%	72 - 80%	80 - 75%	75%
Absorption	21 - 11%	17 - 22%	11 - 10%	2 - 7%	19 - 12%
Transmission	61 - 27%	8 - 14%	19 - 10%	14 - 18%	Heat: 3.3% Moist: 2.0% Sound: 1.3%
U-Value (W/m²K)	0.10	1.0	Single Layer: 0.6 Double Layer: 1.0 Triple Layer: 1.4	0.48	Heat: 0.9 Moist: 0.4 Sound: 0.1
g-Value (W/m²K)	0.8	0.6	Single Layer: 0.6 Double Layer: 0.9 Triple Layer: 1.4	0.6	Heat: 1.14 Moist: 0.75 Sound: 0.35
Sound Proof Coef (Rw) (dB)	14 - 22	0 - 14	14 - 22	15 - 14	Heat: 3.3% Moist: 2.0% Sound: 1.3%



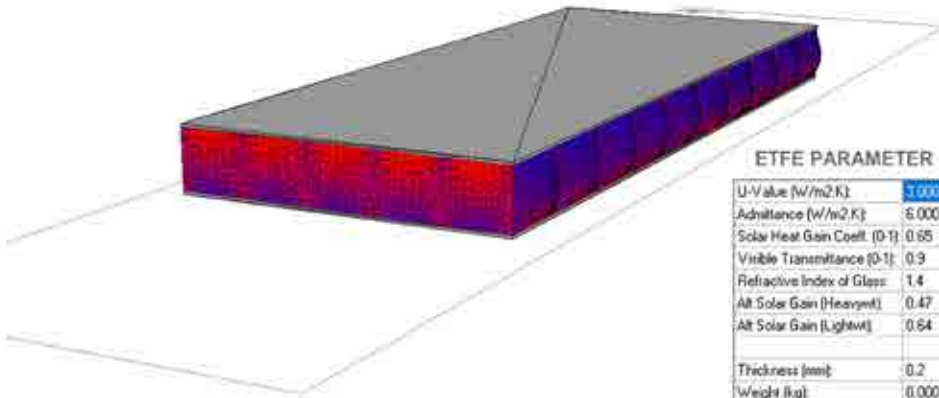
Member System	PFTE Filmglass	PVC Membrane	ETFE Film	PFTE High Transmittance (HPTFE)	Insulated Translucent Membrane
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U-Value (W/m²K)	0.10	1.0	Single Layer: 0.6 Double Layer: 1.0 Triple Layer: 1.4	0.48	Heat: 0.9 Moist: 0.4 Sound: 0.1
g-Value (W/m²K)	0.8	0.6	Single Layer: 0.6 Double Layer: 0.9 Triple Layer: 1.4	0.6	Heat: 1.14 Moist: 0.75 Sound: 0.35
Sound Proof Coef (Rw) (dB)	14 - 22	0 - 14	14 - 22	15 - 14	Heat: 3.3% Moist: 2.0% Sound: 1.3%



ETFE Materials : Double skins

ETFE Materials : Tripple skins

**OBJECT ATTRIBUTES**  
Avg. Daily Transmitted Radiation  
Value Range: 0.0 - 1000.0 W/m2  
01/01/2023 14:14

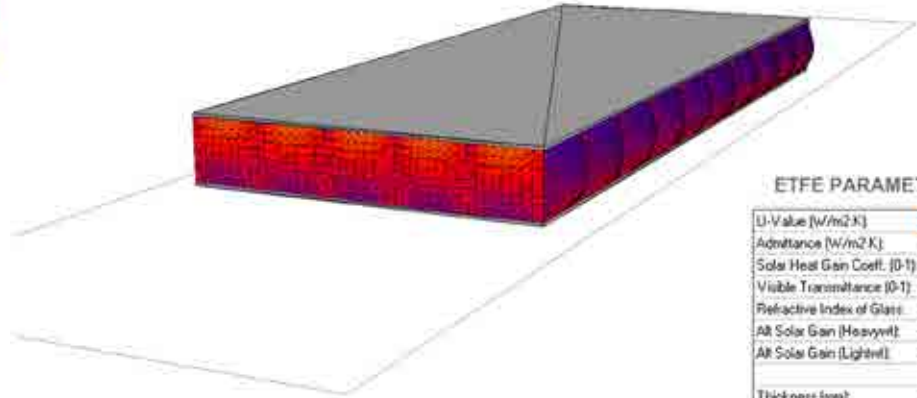


**ETFE PARAMETER**

U-Value (W/m2.K)	1.000	
Admittance (W/m2.K)	5.000	
Solar Heat Gain Coeff. (0-1)	0.65	
Visible Transmittance (0-1)	0.9	
Refractive Index of Glass	1.4	
Alt Solar Gain (Heavywt)	0.47	
Alt Solar Gain (Lightwt)	0.64	
Thickness (mm)	0.2	
Weight (kg)	0.000	
	Internal	External
Colour (Reflect)	0.550%	0.100%
Emissivity	1.9	1.9
Specularity	0	0
Roughness	2.99	2.99

Daily Transmitted Radiation : Double skins

**OBJECT ATTRIBUTES**  
Total Transmitted Radiation  
Value Range: 0.0 - 1000.0 W/m2  
01/01/2023 14:14

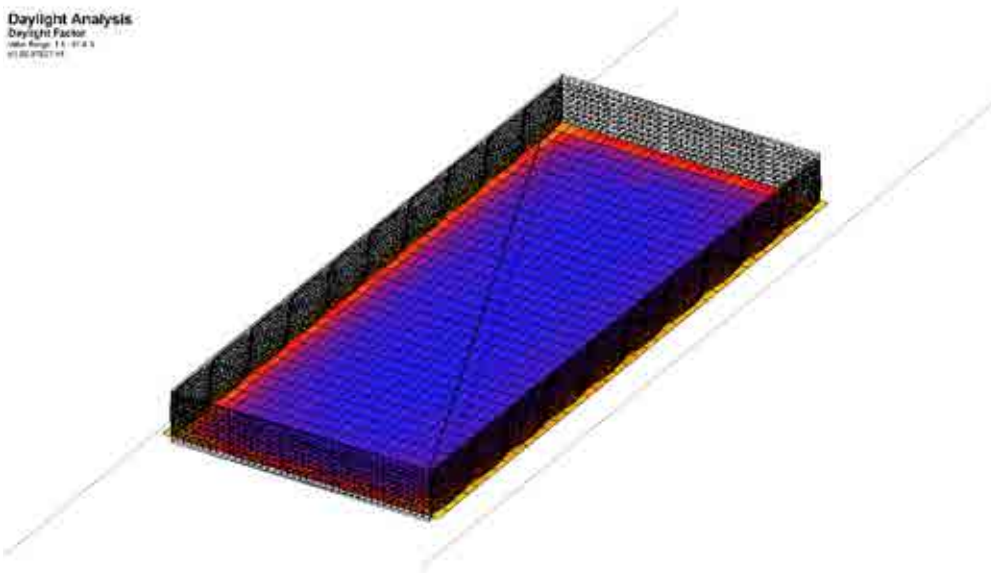


**ETFE PARAMETER**

U-Value (W/m2.K)	1.000	
Admittance (W/m2.K)	6.000	
Solar Heat Gain Coeff. (0-1)	0.5	
Visible Transmittance (0-1)	0.9	
Refractive Index of Glass	1.4	
Alt Solar Gain (Heavywt)	0.47	
Alt Solar Gain (Lightwt)	0.64	
Thickness (mm)	0.2	
Weight (kg)	0.000	
	Internal	External
Colour (Reflect)	0.550%	0.100%
Emissivity	1.9	1.9
Specularity	0	0
Roughness	2.99	2.99

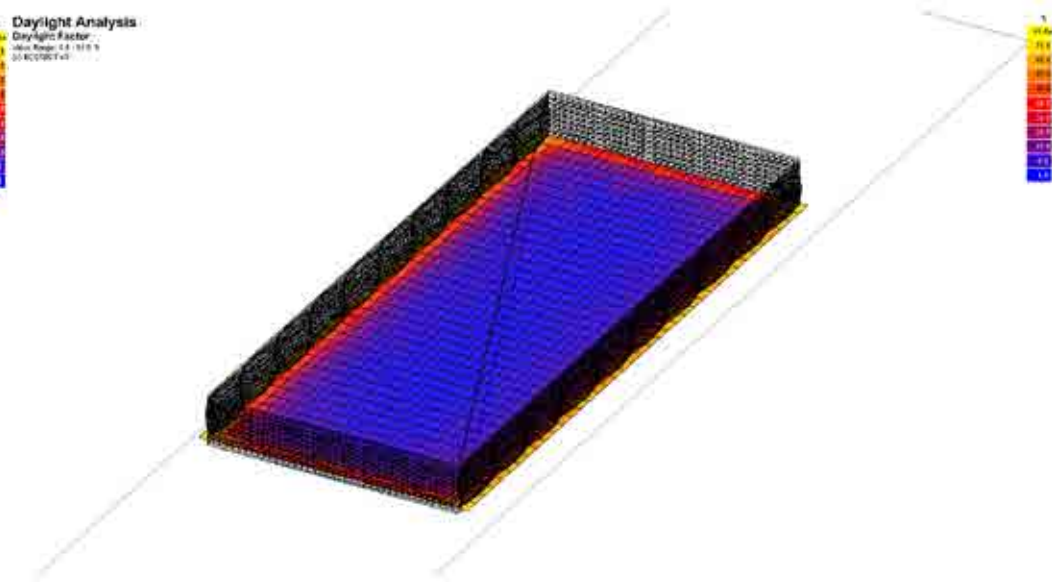
Daily Transmitted Radiation : Tripple skins

**Daylight Analysis**  
Daylight Factor  
Value Range: 0.0 - 100.0 %  
01/01/2023 14:14



Daylight Factor( Interior ) : Double skins

**Daylight Analysis**  
Daylight Factor  
Value Range: 0.0 - 100.0 %  
01/01/2023 14:14



Daylight Factor( Interior ) : Tripple skins



Avg. Daily Incident Radiation	Double Layer	Wh/m2	Tripple Layer	Wh/m2
North Wall	MAXIMUM	6726.73	MAXIMUM	6928.765
	MINIMUM	1060	MINIMUM	1060
	AVERAGE	3201.134	AVERAGE	3491.992
South Wall	MAXIMUM	6949.412	MAXIMUM	6951.139
	MINIMUM	530.001	MINIMUM	1060
	AVERAGE	2522.882	AVERAGE	3420.487
East Wall	MAXIMUM	6813.705	MAXIMUM	6806.302
	MINIMUM	628.37	MINIMUM	530
	AVERAGE	2685.568	AVERAGE	2386.797
West Wall	MAXIMUM	6813.575	MAXIMUM	6807.359
	MINIMUM	530	MINIMUM	530
	AVERAGE	2903.905	AVERAGE	2939.366

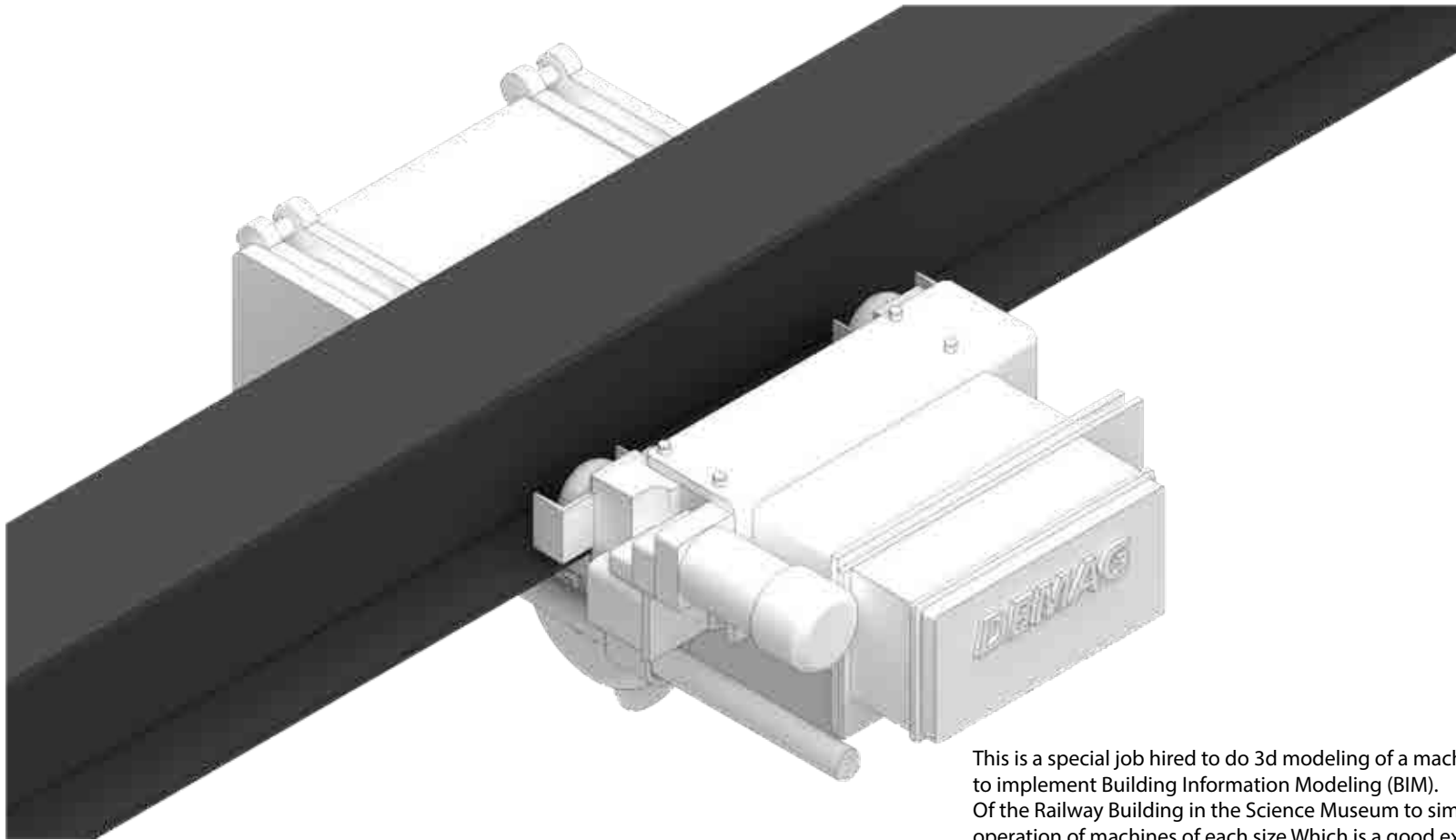
Avg. Daily Absorbed Radiation	Double Layer	Wh/m2	Tripple Layer	Wh/m2
North Wall	MAXIMUM	28472.738	MAXIMUM	40118.594
	MINIMUM	1761.838	MINIMUM	1590.832
	AVERAGE	9755.116	AVERAGE	11816.666
South Wall	MAXIMUM	39911.133	MAXIMUM	40258.129
	MINIMUM	330.541	MINIMUM	1425.265
	AVERAGE	10601.298	AVERAGE	11622.598
East Wall	MAXIMUM	39064.777	MAXIMUM	93.596
	MINIMUM	1638.097	MINIMUM	39018.613
	AVERAGE	10746.357	AVERAGE	330.54
West Wall	MAXIMUM	39063.969	MAXIMUM	39025.203
	MINIMUM	330.54	MINIMUM	330.54
	AVERAGE	11583.075	AVERAGE	11255.292

Avg. Daily Transmitted Radiation	Double Layer	Wh/m2	Tripple Layer	Wh/m2
North Wall	MAXIMUM	2641.295	MAXIMUM	2641.295
	MINIMUM	0	MINIMUM	0
	AVERAGE	330.162	AVERAGE	501.371
South Wall	MAXIMUM	477.001	MAXIMUM	2641.295
	MINIMUM	0	MINIMUM	0
	AVERAGE	53	AVERAGE	469.718
East Wall	MAXIMUM	2609.637	MAXIMUM	2609.637
	MINIMUM	0	MINIMUM	0
	AVERAGE	260.964	AVERAGE	220.474
West Wall	MAXIMUM	477	MAXIMUM	2576.88
	MINIMUM	0	MINIMUM	0
	AVERAGE	43.364	AVERAGE	218.134

Avg. Daily Incident Radiation	Glass Low E	Wh/m2
North Wall	MAXIMUM	6726.73
	MINIMUM	1060
	AVERAGE	2939.146
South Wall	MAXIMUM	6797.588
	MINIMUM	530.001
	AVERAGE	3200.679
East Wall	MAXIMUM	6726.73
	MINIMUM	1060
	AVERAGE	3334.765
West Wall	MAXIMUM	6726.73
	MINIMUM	530
	AVERAGE	2413.621

Avg. Daily Absorbed Radiation	Glass Low E	Wh/m2
North Wall	MAXIMUM	18004.652
	MINIMUM	3087.243
	AVERAGE	8734.154
South Wall	MAXIMUM	38964.266
	MINIMUM	964.353
	AVERAGE	12271.143
East Wall	MAXIMUM	38466.621
	MINIMUM	3087.243
	AVERAGE	13415.097
West Wall	MAXIMUM	38466.141
	MINIMUM	964.35
	AVERAGE	11159.655

Avg. Daily Transmitted Radiation	Glass Low E	Wh/m2
North Wall	MAXIMUM	1344.859
	MINIMUM	0
	AVERAGE	168.107
South Wall	MAXIMUM	242.873
	MINIMUM	0
	AVERAGE	26.986
East Wall	MAXIMUM	1328.74
	MINIMUM	0
	AVERAGE	120.795
West Wall	MAXIMUM	242.872
	MINIMUM	0
	AVERAGE	20.239



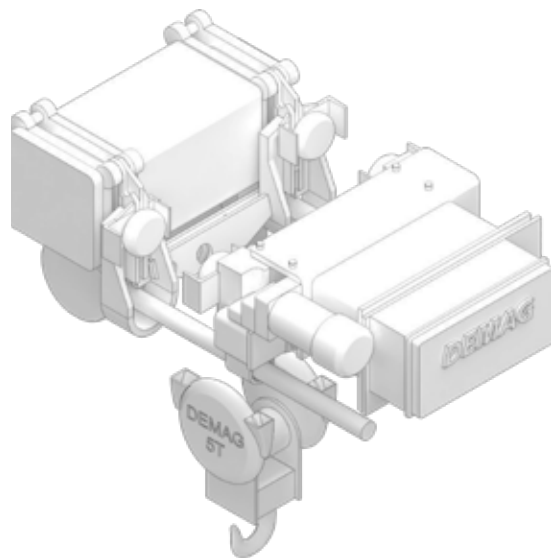
This is a special job hired to do 3d modeling of a machine crane to implement Building Information Modeling (BIM). Of the Railway Building in the Science Museum to simulate the operation of machines of each size Which is a good experience for this work.

15

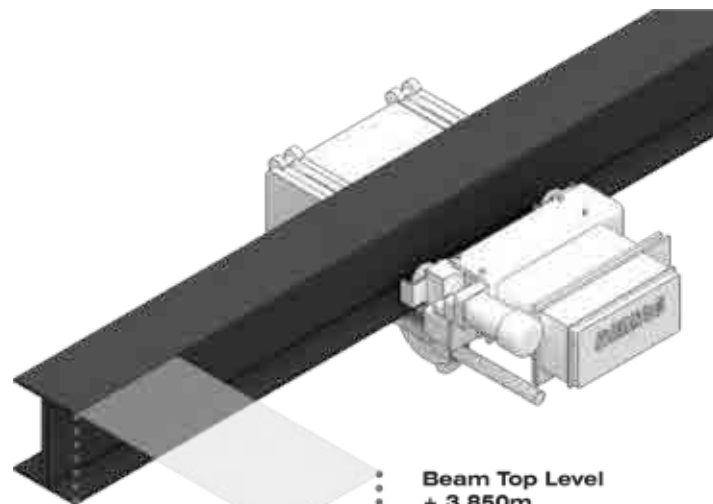
CRANE DEMAG

**CRANE DEMAG  
, 3D MODELER**

**Train Building of Science Museum**  
Year : **2017**  
Location : **Pathumthani, Thailand**  
Programme : **Mechanic**



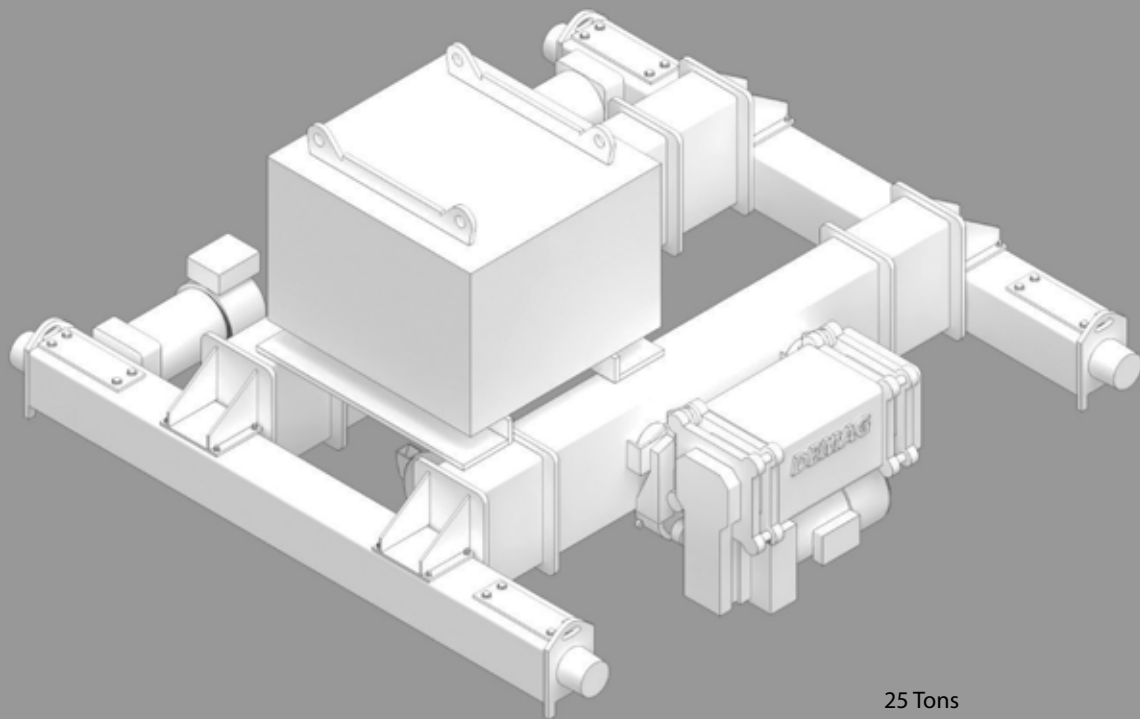
5 Tons



Beam Top Level  
+ 3.850m

Hook Path Level  
+ 3.015m

Floor Level



25 Tons