

ARCHITECTURE PORTFOLIO

PICHANA DEESARAPAD

CONTENTS

| | | | | | |
|---------------------------------|---|----|-------------------------------|---|--|
| 00 | Pichana Deesarapad Curriculum Vitae | 1 | HOSPITALITY | | |
| | | | | 2018 | Trivista Recreation Hotel Klongsan Academic project |
| COMMERCIAL BUILDING | | | OFFICE BUILDING | | |
| 01 | 2020 Klongsan Cultural District Academic project | 2 | 05 | 2019 Ministry of Energy Head Office Academic project | 17 |
| | 2018 Yaowarat Mitrtown Academic Project | | RENOVATION | | |
| STRUCTURAL DESIGN | | | 06 | 2020 SPK House Design work | 21 |
| 02 | 2018 Issey Miyake Pavilion Academic project | 7 | 07 | 2020 Bethel Massage and Therapy Design Work | 27 |
| 03 | 2018 Nakhonratchasrima Railway Station Academic Project | 9 | | 2020 Restroom Renovation Design Work | |
| HOSPITAL AND HEALTH CARE | | | | 2020 KMITL Wood workshop and maker space Design and Drawing Work | |
| | 2017 The Tempo Phayathai Health Center Academic project | | DESIGN CONTEST / AWARD | | |
| 04 | 2019 NINT Neurological Institute of Northern Thailand Academic Project | 11 | 08 | 2017 F.L.E.C 9 sq.m. by CONWOOD Award / Contest | 29 |
| RELIGIOUS BUILDINGS | | | | 2019 HAFELE Kitchen Design contest Contest | |
| | 2018 La montee Chapel and Museum Songkron Academic project | | | | |

Curriculum Vitae



PICHANA DEESARAPAD

May, 19, 1997

+66879723271

patpichana@gmail.com
1398 Suksawad Road,
Rajburana District,
Bangkok, 10140

EDUCATION

- 2015-2020 **King Mongkut's Institute of Technology Ladkrabang**
Bangkok, Thailand
- 2013-2014 **Toender Gymnasium (AFS Exchange Student)**
Toender, Denmark
- 2009-2015 **Kwong Chow School (English Program)**
Bangkok, Thailand

QUALIFICATION AND AWARDS

- 2017 2nd Runner Up
Conwood 9 sq.m. design contest
- 2015 Top 7
Chinese Speech Contest
- 2014 Level 4
HSK (Chinese Proficiency Test)

ACADEMIC EXPERIENCES

- December 2019 Volunteer Teacher at Baan Huay Kob School, Sangklaburi
Faculty of Architecture, Art camp
- June-August 2018 Ryukyu University Collaboration Design Workshop
Okinawa, Japan
- January 2018 Public Relation, Artist Relation, Art Director team
Art Slum, Art Street Music festival 2018
- February 2016-2017 Musical Play Dancer Team
Showbee 12-13 Architecture Musical Play, KMITL

WORK EXPERIENCES

- 2020 **Chinese tutor**
SPK House
Saphan Kwai, K.Pakapol Loychirakul
Bethel Massage
Ramkhamhaeng, Vichariya Trangkasombat
KMITL Wood workshop
KMITL, Bangkok
- May-August 2019 Internship
JYCArchitect, Taichung, Taiwan
- July 2018 Internship
Kuniken Ltd. Architect, Okinawa, Japan
- March 2018 Coordinate Camp Director
Afs Thailand Orientation Camp
- June-July 2017 Internship
KKSI China Architects, Shenzhen, China
- 2015-2017 Runner
Afs Thailand Orientation Camp
- 2015 English-Chinese Customer Service
Naraya Shop, Central World, Bangkok

RELATED SKILLS

Softwares

| | |
|--------------------|--------------------|
| Sketchup | Advanced |
| AutoCAD | Advanced |
| Autodesk Revit | Upper-Intermediate |
| Rhinoceros | Basic |
| V-ray for sketchup | Upper-Intermediate |
| Lumion | Advanced |
| Photoshop | Advanced |
| Illustration | Intermediate |
| Indesign | Basic |
| Premier Pro | Intermediate |
| Microsoft Office | Advanced |

Languages

| | |
|---------|--------------|
| Thai | Mothertongue |
| English | Pre-Advanced |
| Chinese | Intermediate |
| Danish | Intermediate |

INTERESTS

Design, Fashion, Sustainability, Coffee, Piano

Architectural Project

Klongsan Cultural Center

Klongsan, Bangkok

Type: Shopping Center

Area: 26,000 sq.m.

Year: 2020

Software: AutoCAD, Sketchup, V-ray
for Sketchup, Lumion, Photoshop

The purpose of program has 3 main points, Economy, Social and Environment. Nowadays, Thailand has lesser public space that are close to the water. This project except from being a shopping space, 110 Canalé is a hub of promoting community's products and also a public space that's close to the Chaophraya river, where activities will happen every week.





Elevation 1



Elevation 2



Elevation 3



Elevation 4





Three Alleys

Backyard Alley, Aqua Alley and Neighbourhood alley are three main shopping alley in this program which was made for recognition and the unique style in each different shopping path.

Backyard alley was design with an atmosphere of backyard of houses where there are many trees and a place where people could sit and talk.

Aqua alley used the conceptual idea of ancient Klongsan where people live with Klong and river. The Landmark is waterfall.

Neighbourhood alley locate between local product's shops where it is also a gathering space for local people and tourists.



Activities

The purpose of this project, apart from being a shopping space. It is a public space where tourists and local people can meet. From planning, the area that are close to the river was designed to be a multifunctional public park, where a part of this park was design to be a traditional Thai culture playground.

The retails shop that is close to the river are restaurants and bistro. We also designed an entrance where it is related to the old Thadindaeng pier to make it more attractive to get in to the building.

On 3rd floor we create a green roof planting and an observation tower so that people can come to this building many times.



Architectural Project

ISSEY MIYAKE PAVILION

Structural Design

Type: Pavilion

Area: 6,650 sq.m.

Year: 2018

Software: Sketchup, AutoCAD, Lumion, Photoshop

Collaboration Team: Krittika Rodcharoen,

Yanika Vejmanee Korn, Pichana Deesarapad,

Watsachol Sricha

Since we designed Issey Miyake's exhibition pavilion, we took the brand's unique style of fabric, which is both pleats and waver. To present the identity of the brand. Folded plate is one of the wide span structure which can present pleats style of fabric the most. In addition, folded plate suits the function of exhibition. Tent is another wide span structure which can also present Issey Miyake's waver style of fabric and the newest design of clothes. Also, Tent can be use as a plaza for the exhibition.



STRUCTURE CONCEPT DESIGN

ISSEY MIYAKE'S FASHION STYLE



one of Issey Miyake's sell point is pleats fabric

FOLDED FORM



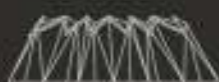
PLEATS PATTERN

FOLDED FORM



extrude the height of folded form for a coverable area

FOLDED PLATE



folded plate structure is a wide span structure that is the most suitable for this form of pavillion which no need for pillar.

PLEATS VS SATIN

ISSEY MIYAKE'S FASHION STYLE



FLEXIBLE FORM



FLOW OF FABRIC

FLEXIBLE FORM

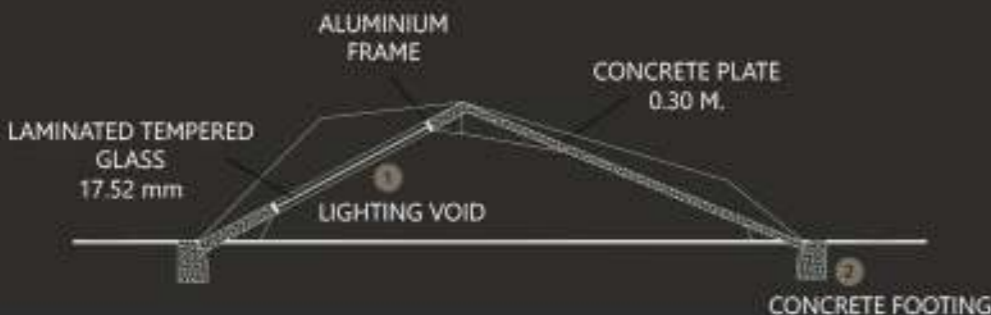


developing form for create a coverable space

TENSILE STRUCTURE



tensile and tent structure is a wide span structure which allow to take a huge coverage area with only 3 supports. This design was inspired by Issey Miyake's new clothes collection.



FORCE DIAGRAM

FOLDED PLATE



TENT STRUCTURE



CABLE STRUCTURE



STRUCTURE DETAILS



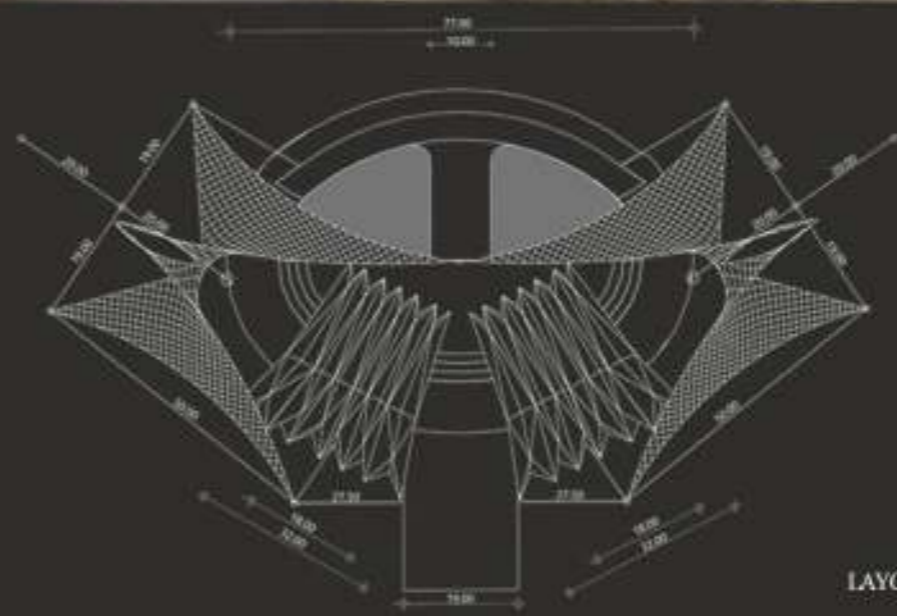
3 CORNER PLATE CLAMPED TO FABRIC



4 BASE PLATE



5 TENT FOOTING



Architectural Project

NAKHONRATCHASIRIMA RAIWAY STATION

Structural Design

Type: Transportation Hub

Area: 40,000 sq.m.

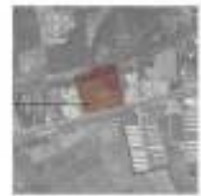
Year: 2019

Software: Sketchup, AutoCAD, Lumion, Photoshop

Collaboration Team: Kantapon Mikatananon, Kullawit Insan, Yanika Vejmaneeorn, Thanachit Amthet, Panitan Khanurai, Pichana Deesarapad, Watsachol Sricha, Sirilak Leknoi

NakhonRatchasima railway station is a hub station in Northeastern Thailand. The project is plan for the high speed train from the biggest transportation hub in ASEAN, Bangsue station, to other country in ASEAN and Asia passing through Nakhonratchasirima, the biggest province in Northeastern. The estimate users in rush hour is around 2,000 people. There are 8 platforms for local train at first floor and 4 platforms of high speed trains at the third floors.





Site Analysis



Mountain form



Local product

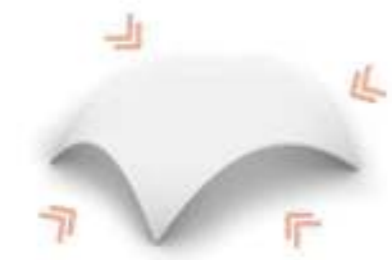


Inhabitants lifestyle



Nakhonratchasima geographic

Mass study



Project Analysis

Since this railway station is a hub station so, the entrance of local train and high speed train is coming in every way.

The Opening

The opening for the entrance of trains using the structure of Arch.

Increase height

Increase the height by its function and this makes the building more shapy.

Emphasize

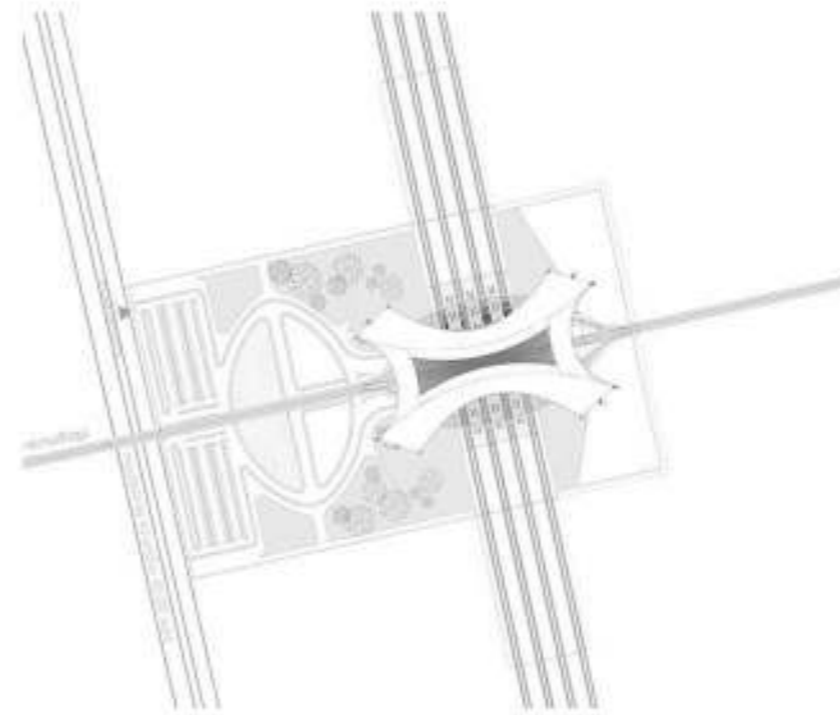
Emphasize the entrance of trains. The structure using the bigger Arch to emphasize and the small one is for cover the platform at the first floor

Void and Structure

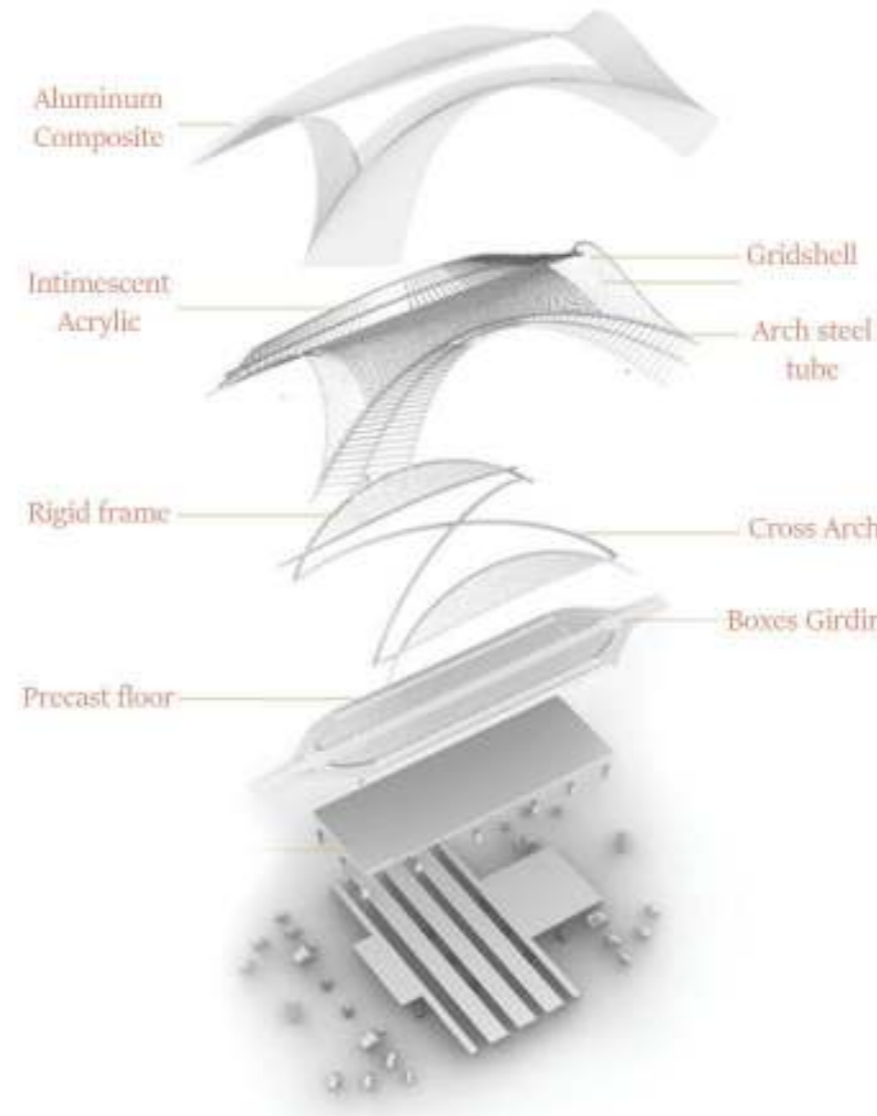
Create voids for having the skylight by design it from gridframe structure for the easier to install the material.



Section A



Layout Plan



Structure and Material diagram



Architectural Project

NINT Neurological Institute of Northern Thailand

Chiangmai, Thailand

Type: Hospital

Area: 76,500 sq.m.

Year: 2019

Software: Autodesk Revit, Lumion, Photo-shop

Collaboration Team: Kantapon Mikatananon, Yanika Vejmaneeekorn, Panitan Khanurai, Pichana Deesarapad, Watsachol Sricha

Nowadays, number of death rate is getting higher every year in Thailand. One of the reason is the disease that causes death. Thailand has huge number of people that are sick by neurological disease and can be found mostly in Northern Thailand and Bangkok. However, Northern Thailand has no specialized in neurological hospital while Chiangmai is the second biggest city in Thailand. This hospital's purpose is to be a hospital that has neurological specialists, medical hub and reseach and development institute for medical students and doctors all over Northern Thailand.





Rehabilitation Court Section



OPD Section



Research & Development Section



IPD Section



North Elevation



East Elevation



West Elevation



South Elevation



Building Facade Design

Facade of the building is designed to keep it simple and bring some details of Northern of Thailand's architecture such as slide louvers facade. From the car access will see a column stands charmingly in a rhythm grid.



Hospital Atmosphere

We designed every single part of the building to connect to the nature which shows in a rehabilitation courtyard, greenery corridor, aqua corridor. We use the potential of an outdoor space as much as we can. We consider the natural wind for ventilation so this building was designed to be a semi outdoor space in every single part of the building.





Architectural Project

MINISTRY OF ENERGY HEAD OFFICE

Phahonyothin, Bangkok

Type: Office Building

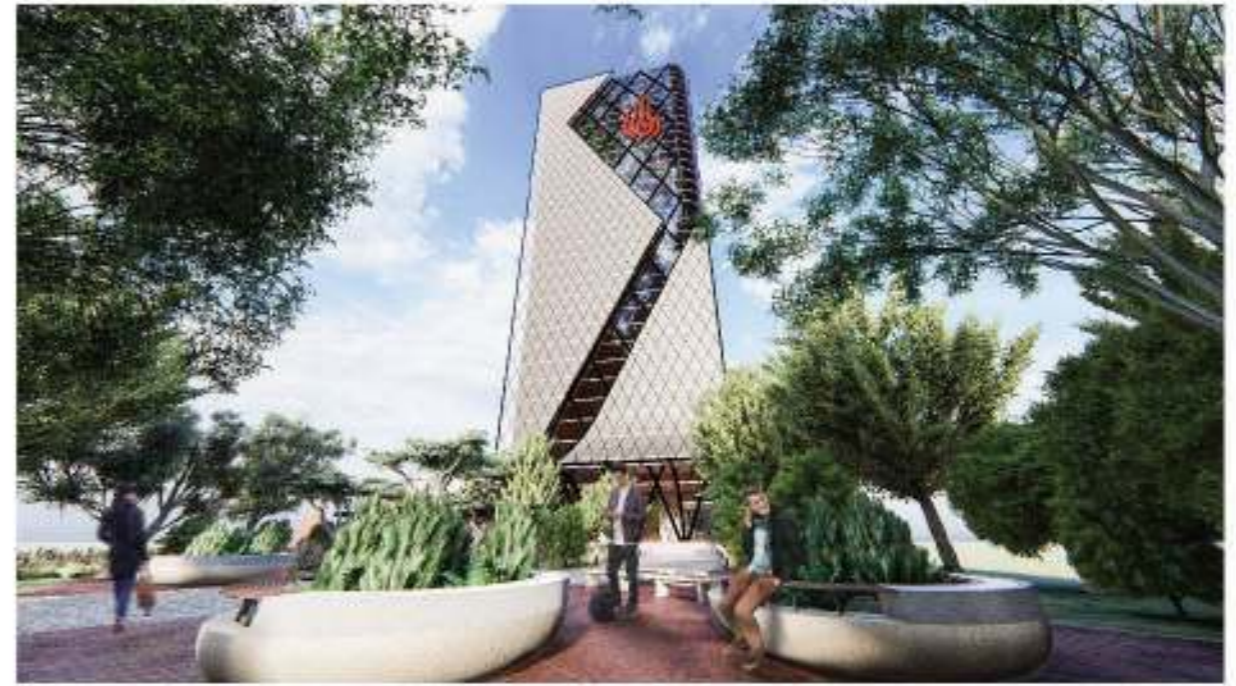
Area: 76,000 sq.m.

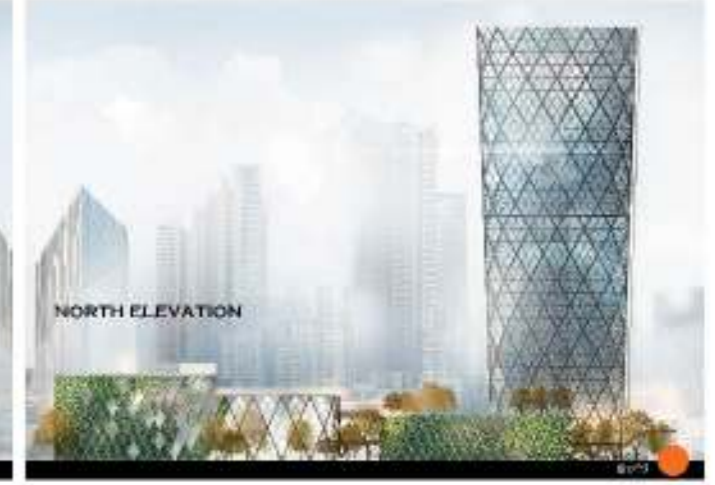
Year: 2019

Software: Rhinoceros, Grasshopper, AutoCAD, Lumion, Photoshop

Collaboration Team: Jongsalit Lertprapaphong, Pornpipat Seukhan, Pitchaya Panyasaroj, Pichana Deesarapad, Phanthira Ponlertpittayakul, Phachinee Wongchai, Wanlapa Boonboot, Sudarat Sahagalo, Athip Chanthalak

The Term of reference of this project is Ministry of energy Thailand had a plan to move from the old building where they rented to the new building. The target of this project is this building must educate people about sustainable energy by its function and architecture. The character of the building need to be modern and stylish. This building consists of office, museum and learning center, convention hall and public space. This building also need to be certified by either TREE or LEED. In this project, we have studied both architectural design, structural design and equipment system in the building.





From what we see from plan, buildings are separate in to 4 buildings, Office tower, Museum and learning center, Convention hall and car park building. The building is split to create more security and more privacy for those who work in the office. Moreover, this can create more green space between the building and it could be a gathering park where people could educate more about sustainable energy such as pavegen system, solar cell system and solar tube system

The building has to be outstanding when people see it from far. According to the character, this building need to looks modern and stylish. By the concept of "spreading of energy" from the old generation to new generation can be place by energy from the top to the bottom with a thunder shape of double wall facade. This facade except from being a look for the building, this also can help to reduce heat that come to the building. From west and south will gain a lot of heat so

we decided to use double wall facade and green wall. The structure of office building we chose diagrid system. Diagrid system has an advantages when we do not want any single column in th building. Therefore, this tower is an open plan office which we separate one floor one department. On the top of office building is Minister of energy office which is VIP office zone which has VIP elevator separately.



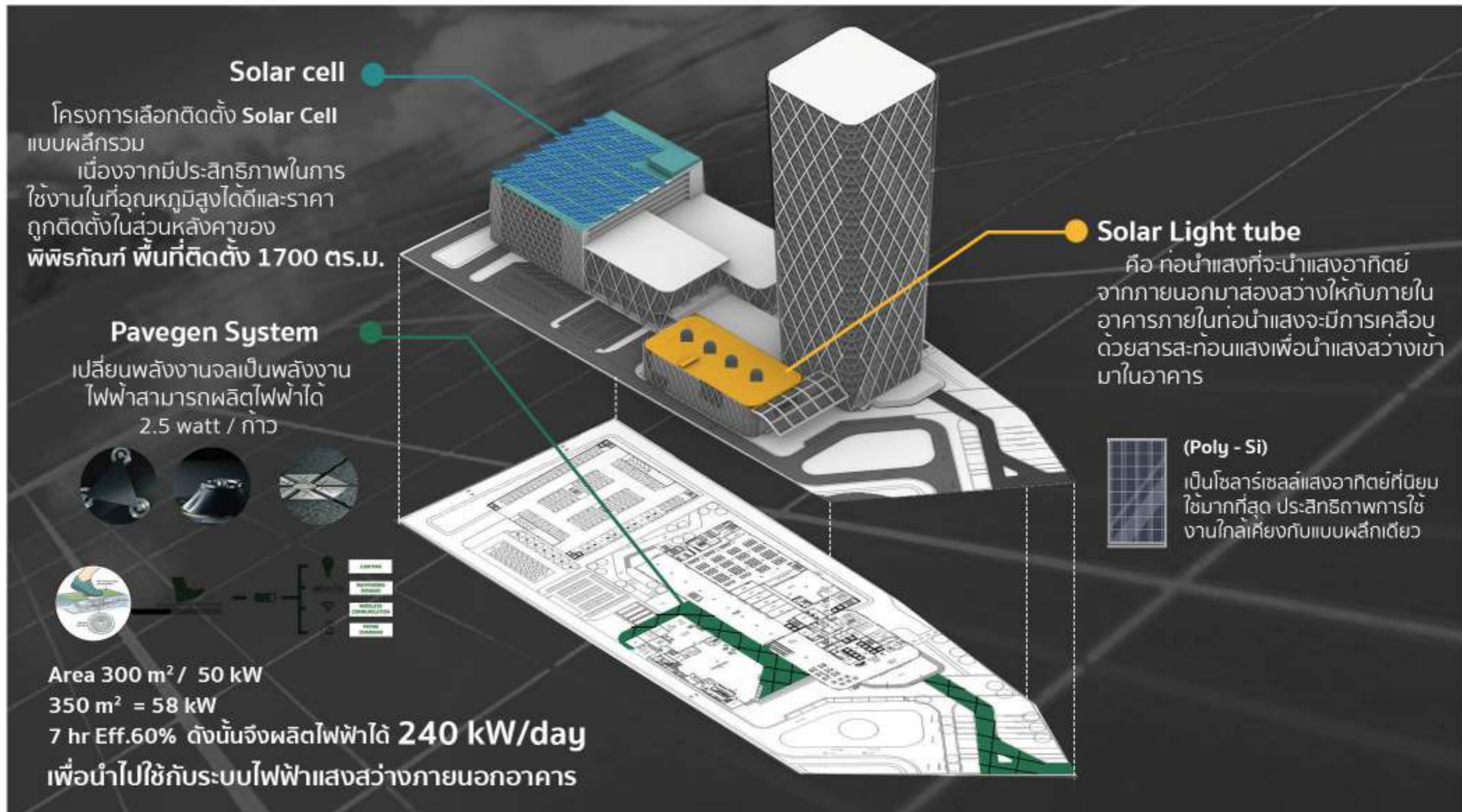
Sustainable Energy Museum

Museum building is supported for hundreds of people. This building consists of Museum area and Learning center area. There is also a library where visitors can use and educate themselves about the energy. Museum has 7 rooms with 7 contents. The most attractive room is energy city and World's crisis which play with projector lightign and huge size of city model.



Open Plan Office

The disgrid structure building is the building without a pillar. What we designed in open plan office is we consider the core office, the elevator and the activities that will be occur. The concept of the office is every corner is visible. Insert resting area between working area to reduce stress. Office plan can be separate in to 5 zones which are private zone, quiet zone, fun zone, collaboration zone and a chief room.



Solar Light Tube

Solar light tube is placed on the rooftop of museum and learning center building where the rooftop is connect to the last room of museum to educate people how solar light tube is work. This solar light tube has more than 40 tubes which get the light brightness from the sun and bounce in the tube to give the brightness to some area in the building which require lesser brightness than artificial light.

Pavegen System

Pavegen system is a new type energy system which transfer from kinetic energy to electrical energy. Pavegen is placed to the area where people walk pass by a lot and easy to see, in the main entrance and the corridor between museum building and office building.

Solar Cell

Solar cell is the most basic sustainable energy which convert sun energy to electrical energy. Solar cell is placed on the top of car park building facing to the south. The area where solar cell is placed is 1,700 sq.m.

Renovation design

SPK House

Type: Renovation

Area: 220 sq.m.

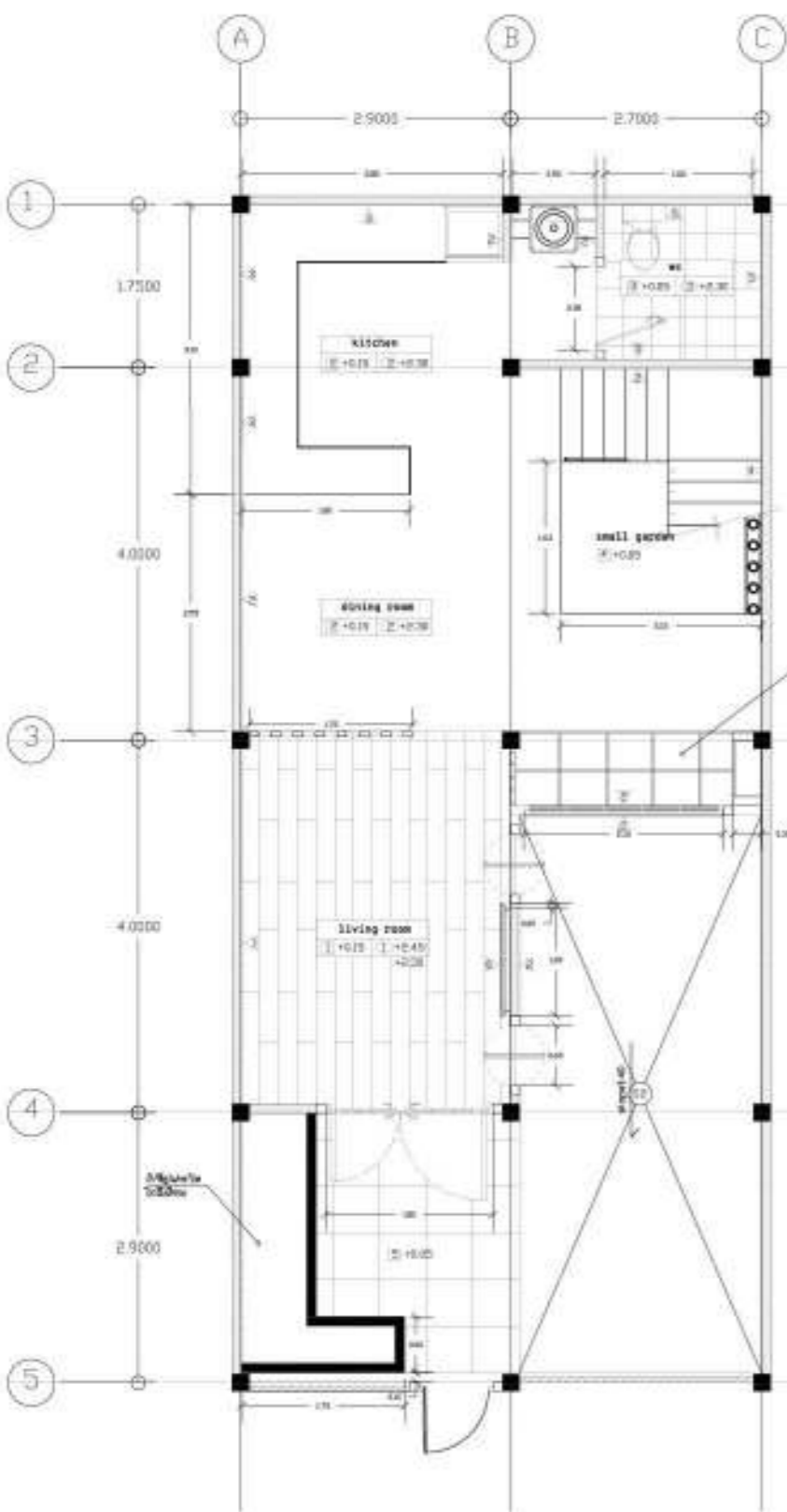
Year: 2020

Softwares: Sketchup, AutoCAD, Lumion, Photoshop

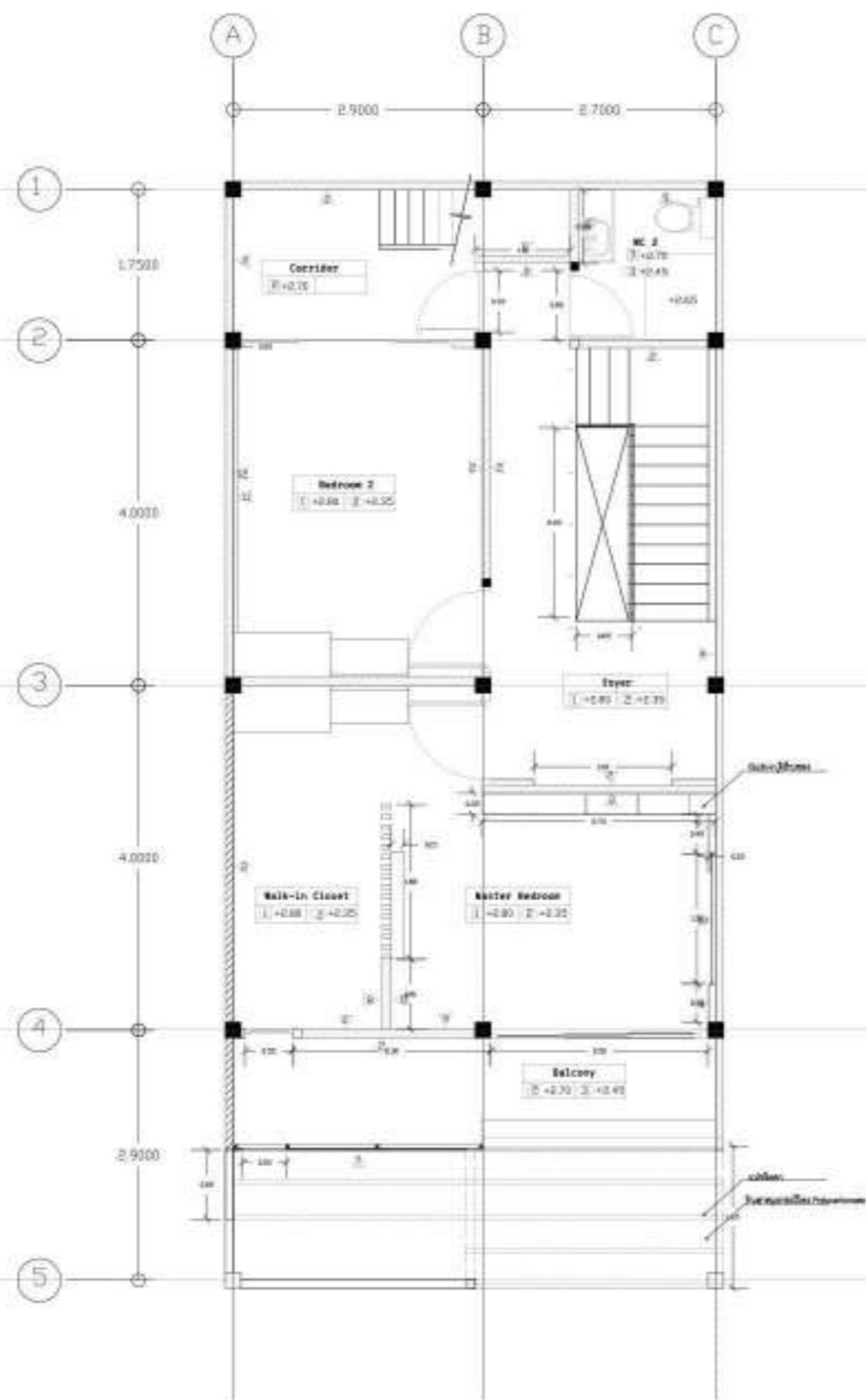
Client: K.Pakapol Loychirakul

SPK House is located at Saphankwai, Bangkok. The client wanted to renovate it for leasing. What the client needs is to keep the furniture, built-in wardrobe and create a multifunctional space on the 3rd floor with the limited budget.

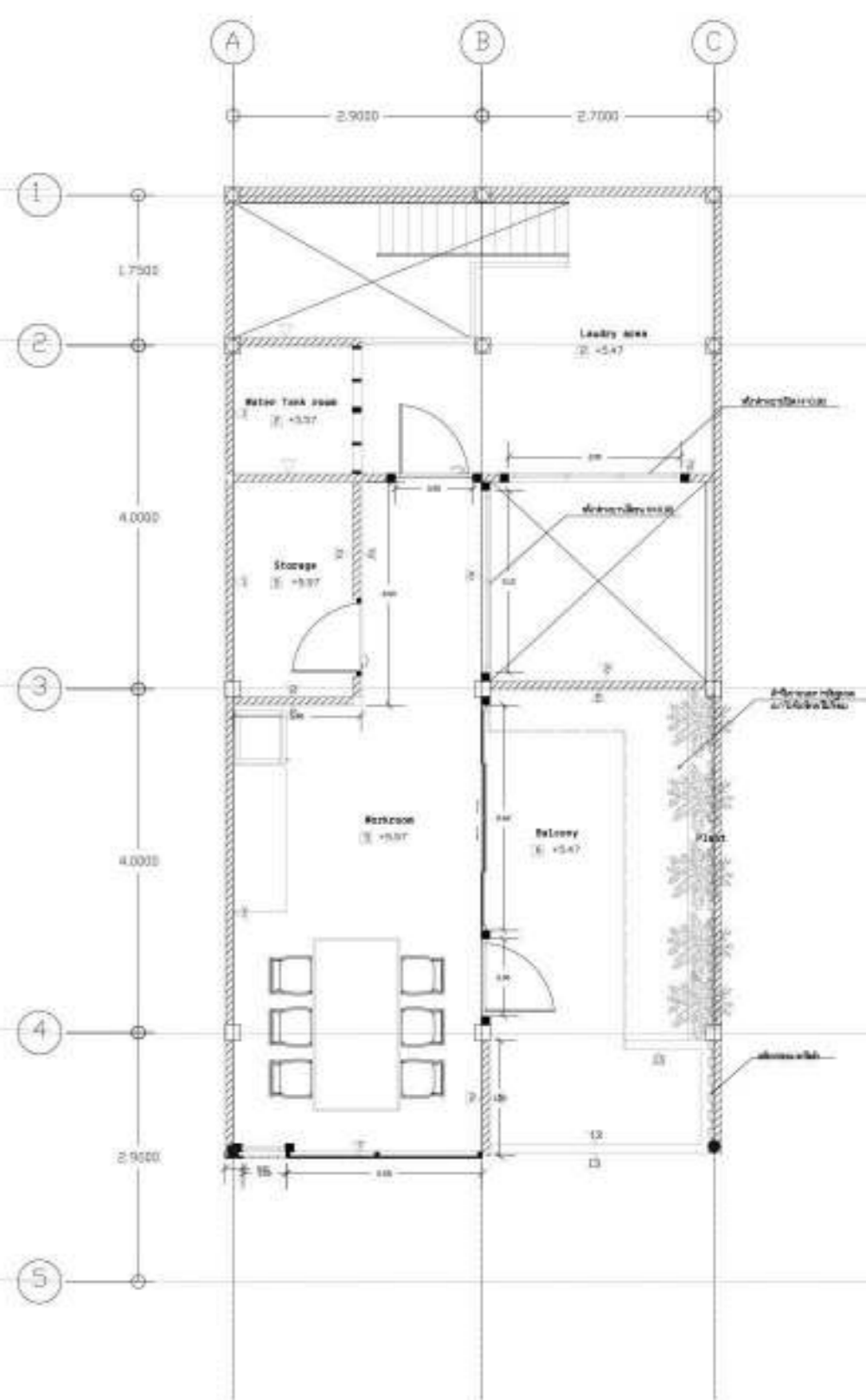




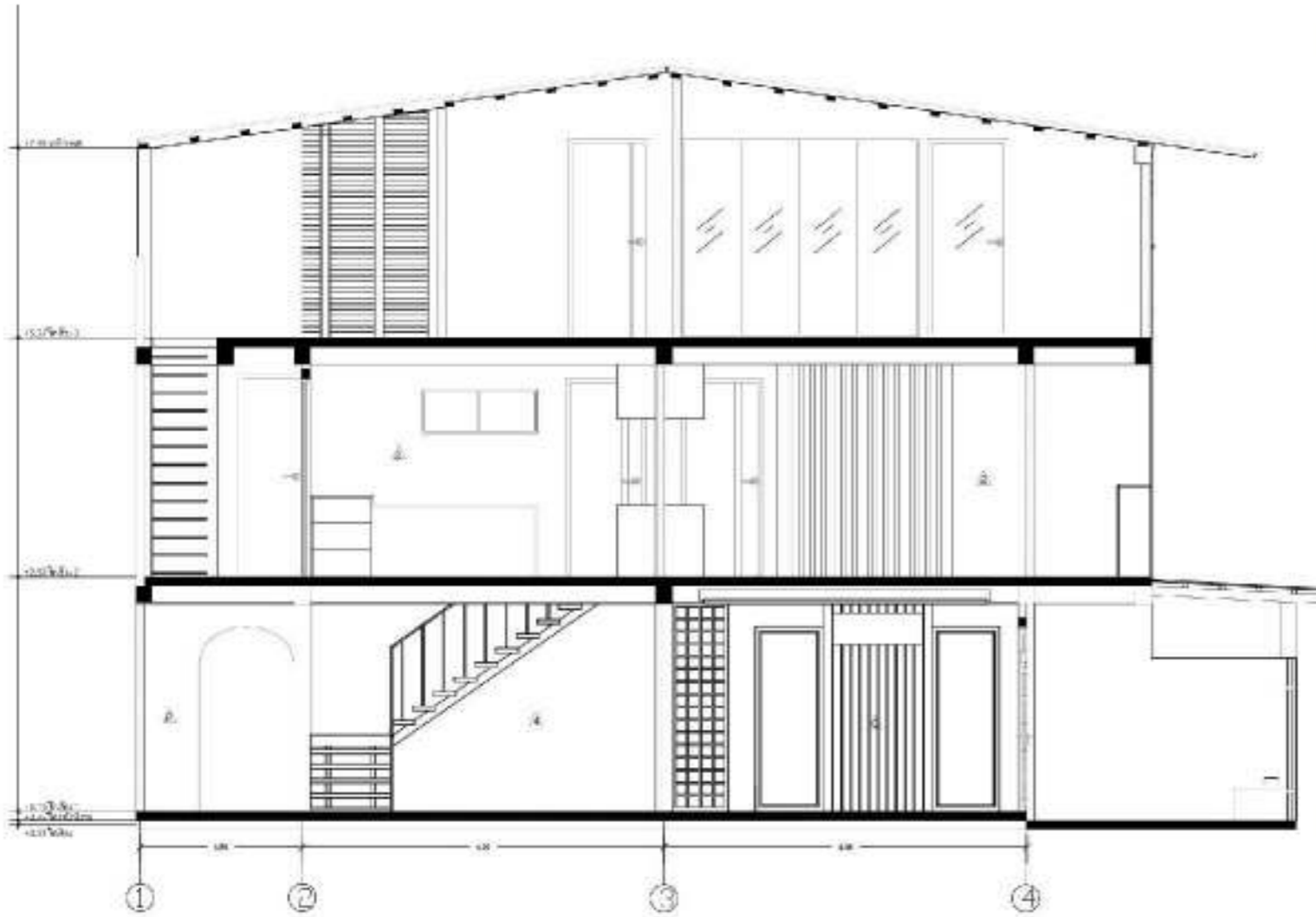
Plan F1
scale 1:50



Plan F2
scale 1:50



Plan F3
scale 1:50



Section A

Section A shows building's height, interior built-in details and how I designed zoning of this house.



Section B

When I first come to this house, I can see that the house is so dark and there's no any of natural sunlight. What I designed is remove the 3rd floor's floor and create a triple volume void to 1st floor for natural sunlight and ventilation in this house.



Living room (Before)



Living room (Before)



Living room (After)



Living room (After)



(Before)



Kitchen (Before)



Reading Area (After)



Kitchen (After)



Master Bedroom (Before)



Bedroom 2 (Before)



Master Bedroom (After)



Bedroom 2 (After)

Renovation design

Bethel Massage and Therapy

Ramkhamhaeng, Bangkok

Type: Renovation

Area: 34 sq.m.

Year: 2020

Softwares: Sketchup, AutoCAD, V-ray for
Sketchup, Lumion, Photoshop

Client: Vichariya Trangkasombat

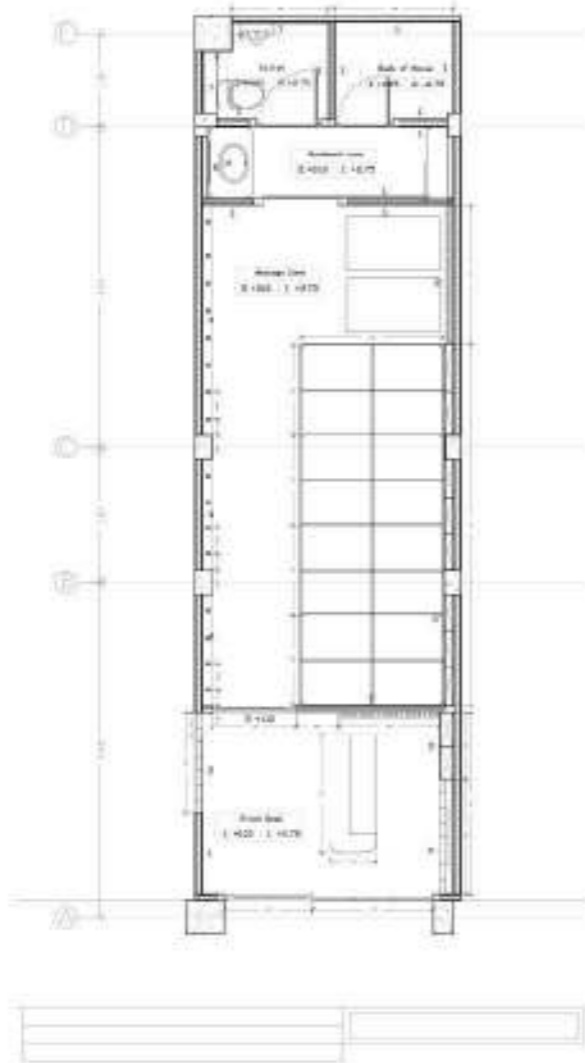
The client has a room which she wants to renovate to a massage and spa retail. The requirement is 4 massage beds and 2 foot massage chairs.





Peaceful Atmosphere

The design of this shop is consider about a calm in the massage room and a natural light that can get into reception area. I decided to replace the old window by glass block material to get the shimmering natural light and decorate reception area with glass blocks as well. The door panel is added between reception area and massage room for privacy and peaceful atmosphere. The mood inside the massage room is dark tone of color reflecting with the artificial upright from the floor.





Design Contest

F.L.E.C 9 sq.m. by CONWOOD

Suanluang Rama IX

Type: Contest
Award: 2nd Runner up
Area: 9 sq.m.
Year: 2017

Collaboration Team: Pichana Deesarapad,
Supot Imjit, Bhumtarat Samathi

F.L.E.C is the design contest product for Conwood 9 sq.m. Which Conwood is an Eco friendly product. The design comes with an installation to inspiring people to know how important trees and green living things are and encourage people to protects the trees and forest more.



DESIGN PROCESS

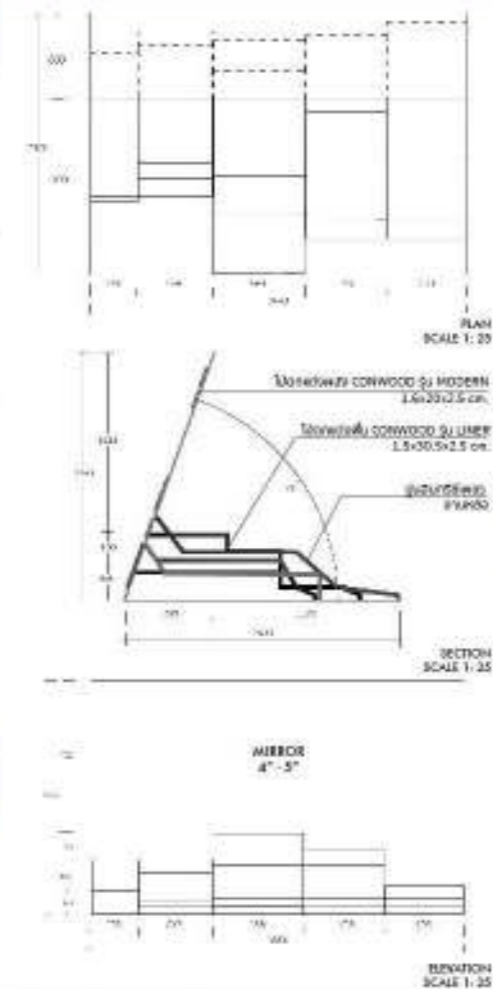
"Nowadays, trees have been sharply decreasing each year and only 31 % of the whole country remain. Although people know the benefits of having trees well, they make no effort in maintaining or even increasing the number of tree. The concept of F.L.E.C public space is the "reflection" of small green space that become a huge shady area, giving calm and peaceful space to rest and this can raise people awareness.
CONWOOD is an eco-friendly product since it can be used as a replacement of wood, resulting in a decrease in deforestation rate."



The tool in our design is the reflection of mirror, it effects by reflecting something to the opposite direction, which mean something behind us will stands in front, something below us goes above. This can raise people awareness of decreasing in number of trees.



CHAIR DESIGN INSPIRATION



PERSPECTIVE



BUDGET AROUND 75,000 BHT.