COMPILATION

RAS 204 ARCHITECTURE STUDIO 2

BACHELOR OF SCIENCE (HBP)(HONS.)(ARCHITECTURE)

USM KPM PPD

2018

BOARD OF EDITOR

- SITI AMIRAH BINTI MOHTARAM
- REDUAN BIN MAHAT
- ESURYATI BINTI KAMARUDIN
- ATIKAH BINTI ADRUS

e-ISBN_____

Published by
Center of Architecture Technology (CArT)
Politeknik Port Dickson

JUN 2018

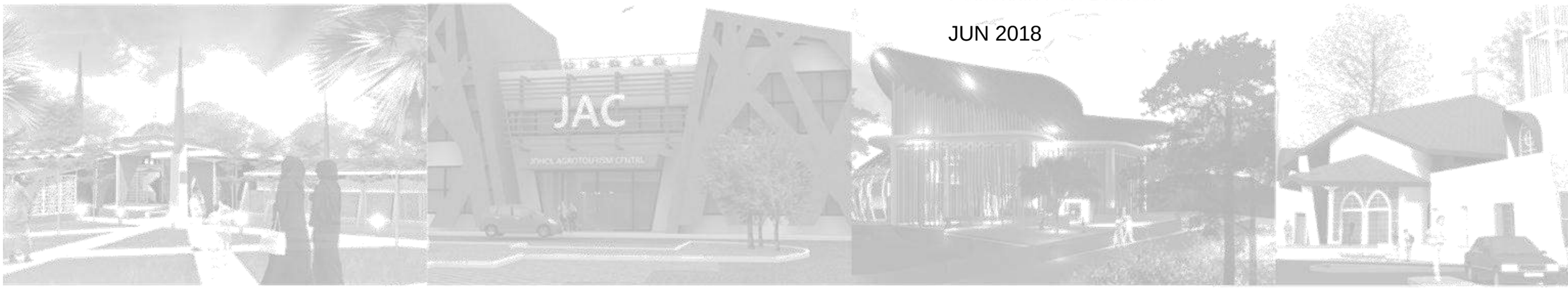


TABLE OF CONTENT

FOREWORD

In the name of Allah, the Most Gracious and the Most Merciful. Alhamdulillah, all praise to Allah for the strengths and blessing in completing this book. This book is the work of second year students (2018), Bachelor of Science (HBP) (Hons.) (Architecture) - USMKPM (PPD) in the field of Architecture for the RAS 204 - ARCHITECTURE STUDIO 2 course.

This book is a compilation of the designs of the religious buildings project and an agrotourism building. This book not only displays the buildings' designs but also highlights the ideas made by the students. This book brings together the compilation of all year 2 (2018) students' works, with all levels.

As far as I know, it was the first attempt since the USM-KPM (PPD) offshore program was launched. We are aware that there are still flows in this book which can be improved in the future. Hopefully this book will benefit and guide students especially in Architecture and to all those who need it.

Wallahu'alam.

PROJECT 1:
A PLACE OF WORSHIP

PROJECT 1:
A PLACE OF WORSHIP
(MOSQUE)

ADILAH BINTI
MOHAMMAD SHAHUDDIN
131904

MOSQUE IN NATURE the oneness of allah

A PLACE OF WORSHIP | LUKUT, PORT DICKSON

PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904 | GROUP 3

issue

-LACK PLACES OF WORSHIP ESPECIALLY ON FRIDAYS
-LUKUT LACK OF INTERESTING PLACE SUCH AS GARDEN

aim

TO PROPOSE A MOSQUE THAT ARE ENVIRONMENT-FRIENDLY AND ACHIEVING GBI RATING SYSTEM AND ALSO BUILD A MOSQUE THAT CAN BE A COMMUNITY CENTRE

objective

CREATE A MOSQUE BE MORE ENVIRONMENT-FRIENDLY
-TO ACHIEVE INDOOR ENVIRONMENT QUALITY
-ENERGY EFFICIENCY
-SUSTAINABLE SITE PLANNING & MANAGEMENT

CREATE COMMUNITY CENTRE FOR POPULATION
-BUILDJANAZAH ROOM
-BUILD MULTIPURPOSE ROOM FOR SEMINAR ETC.
-CREATE CLEAN OPEN SPACE WITH GREAT VIEW

concept

THE ONENESS OF ALLAH

-THE NOTION OF TAWHID IS THE MOST IMPORTANT CORNERSTONE IN THE CONCEPTUAL FRAMEWORK FOR ISLAMIC ARCHITECTURE.

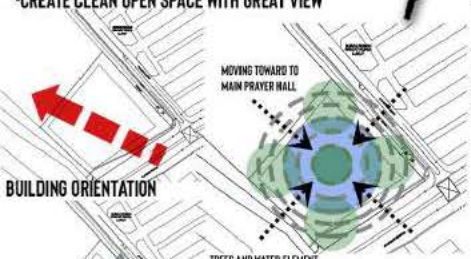
-TAWHID MEANS ASSERTING THE UNITY OR ONENESS OF ALLAH.
-TAWHID IS THE ISLAMIC CONCEPT OF MONOTHEISM.

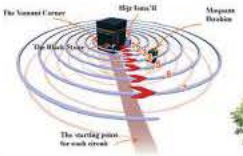
-THE WORD TAWHID IS DERIVED FROM THE WORDS WAHID AND AHAD WHICH MEAN "ONE", "UNIQUE" AND "PEERLESS".

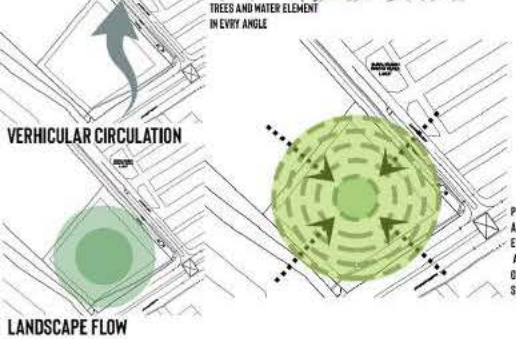
approach

THE POSITION OF THE MAIN ROOM IS IN THE CENTER, IN EVERY DIRECTION WILL GO TO THE MAIN ROOM

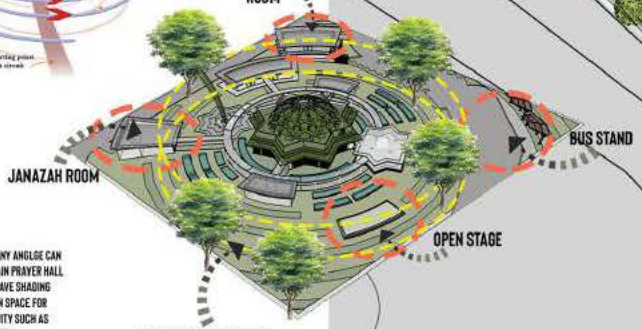
THE CONCEPT OF TAWAF, MOVING AROUND THE PRAYER ROOM. SURROUNDED BY TREES AND WATER ELEMENTS TO COOL THE INNER SPACE

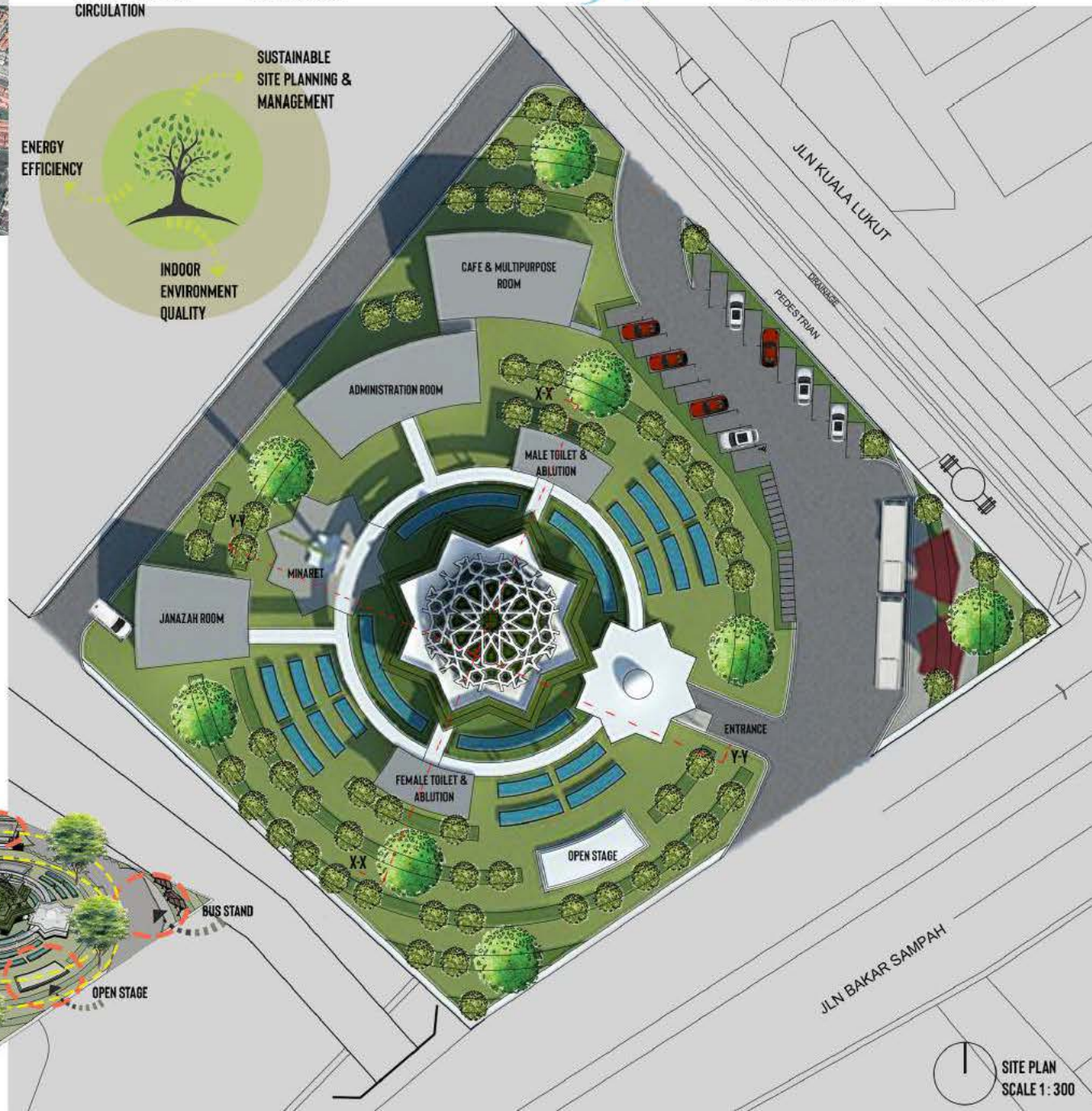






PEOPLE FROM ANY ANGLGE CAN ACCESS THE MAIN PRAYER HALL EVERY PLACE HAVE SHADING AREA AND OPEN SPACE FOR OUTDOOR ACTIVITY SUCH AS SEMINAR AND ETC.





MOSQUE IN NATURE

A PLACE OF WORSHIP | LUKUT, PORT DICKSON

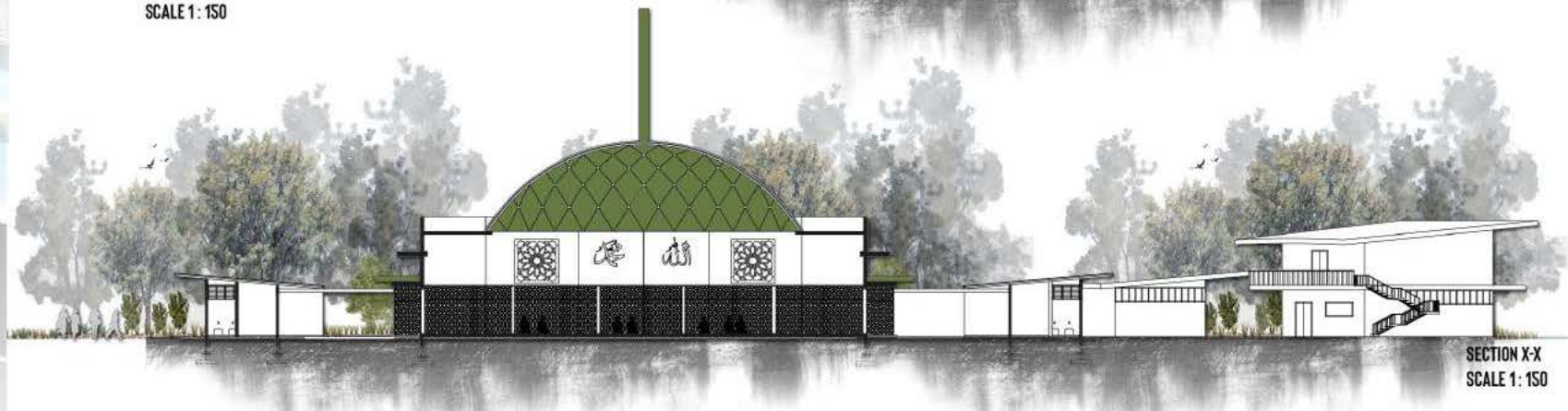
PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904 | GROUP 3

the oneness of allah

LEFT ELEVATION
SCALE 1 : 150

FRONT ELEVATION
SCALE 1 : 150

SECTION Y-Y
SCALE 1 : 150



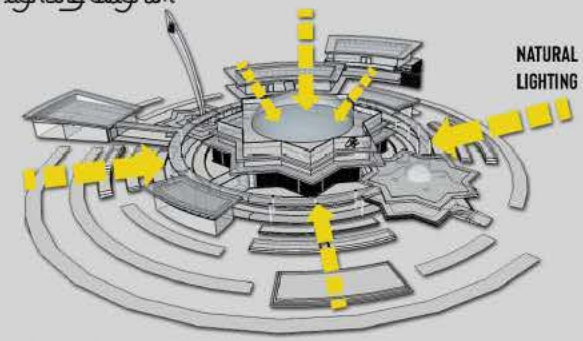
SECTION X-X
SCALE 1 : 150

MOSQUE IN NATURE the oneness of allah

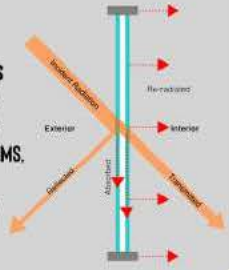
A PLACE OF WORSHIP | LUKUT, PORT DICKSON

PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904 | GROUP 3

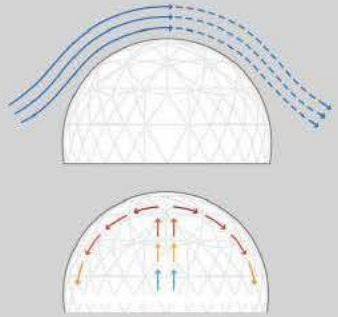
lighting diagram

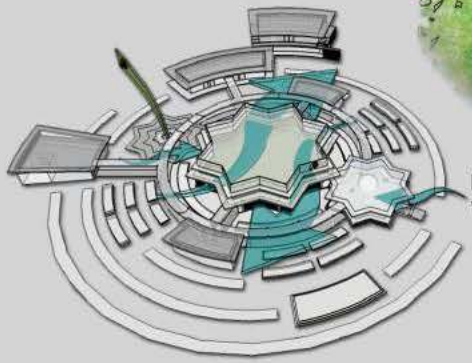


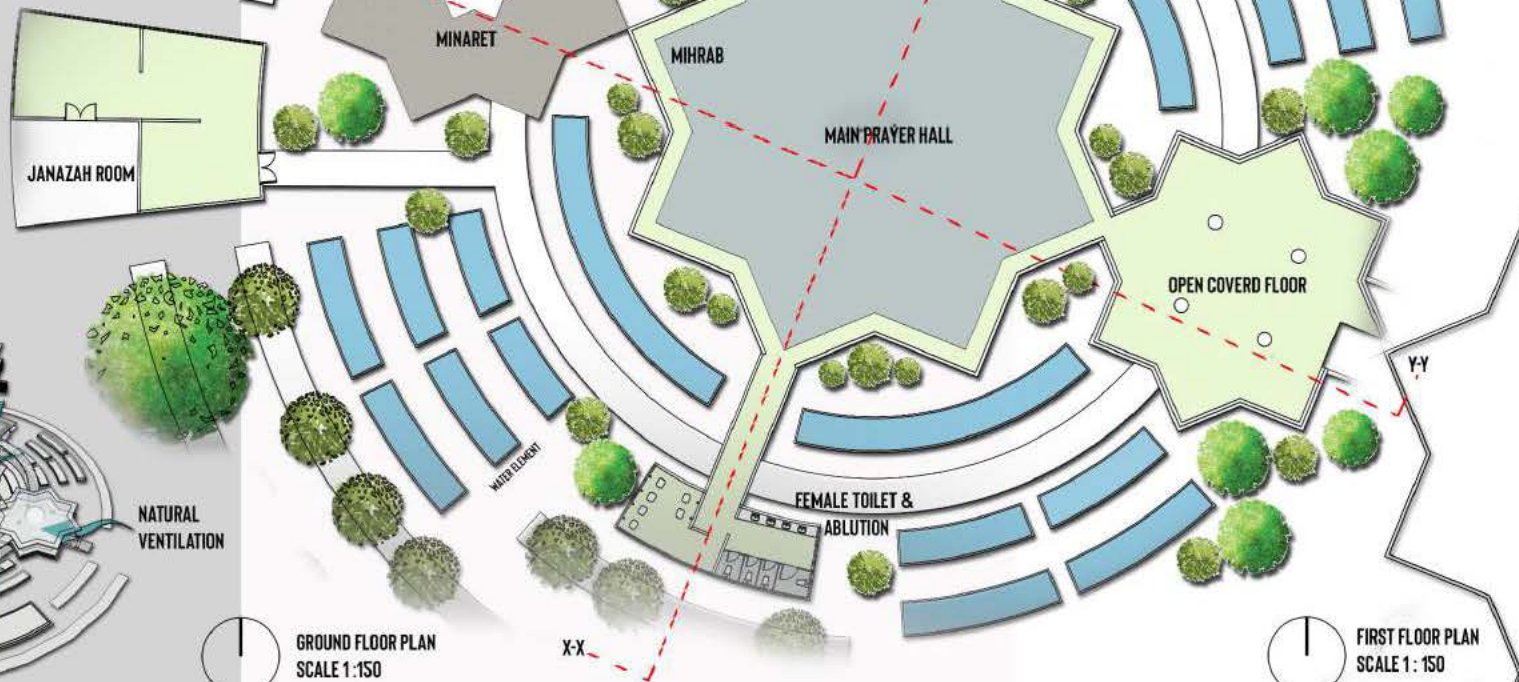
- SOLAR REFLECTIVE GLASS
INSTALLED INTO WINDOWS AND FACADES, BOTH SINGLE AND DOUBLE GLAZED SOLAR CONTROL GLASS ALLOWS THERMAL INSULATION DURING THE COOLER SEASONS, PROTECTION FROM OVERHEATING DURING WARM PERIODS, ENERGY SAVINGS IN HEATING SYSTEMS, AIR CONDITIONING AND ARTIFICIAL LIGHTING, THE PROTECTION OF THE ENVIRONMENT AND INSULATION AGAINST OUTSIDE NOISE.

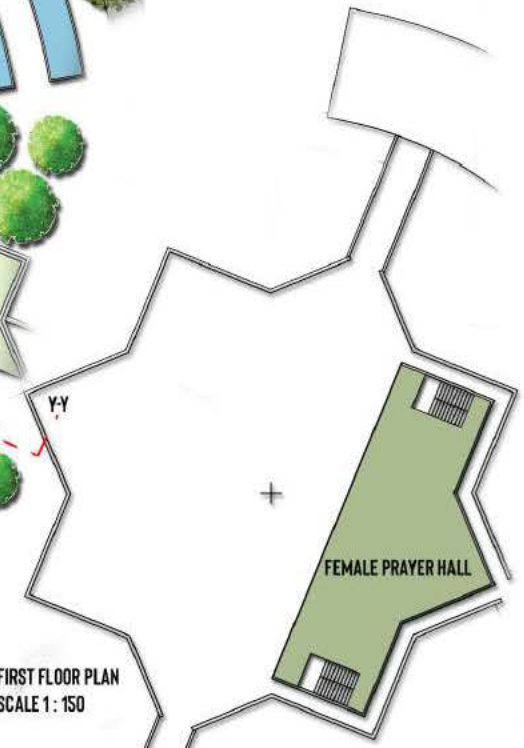


flow visualization





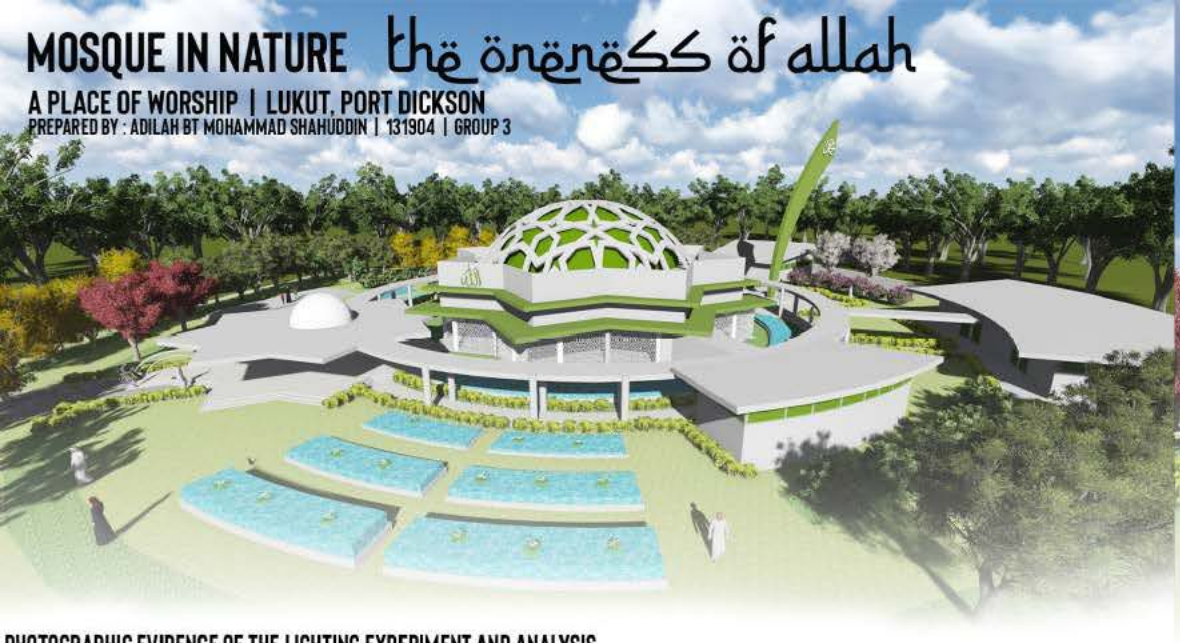




MOSQUE IN NATURE the oneness of allah

A PLACE OF WORSHIP | LUKUT, PORT DICKSON

PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904 | GROUP 3



PHOTOGRAPHIC EVIDENCE OF THE LIGHTING EXPERIMENT AND ANALYSIS

interior | exterior

MAIN PRAYER HALL SPACE. THIS EXPERIMENT WE ARE FOCUS ON THE AMBIENT BETWEEN SHADOW & BRIGHTNESS

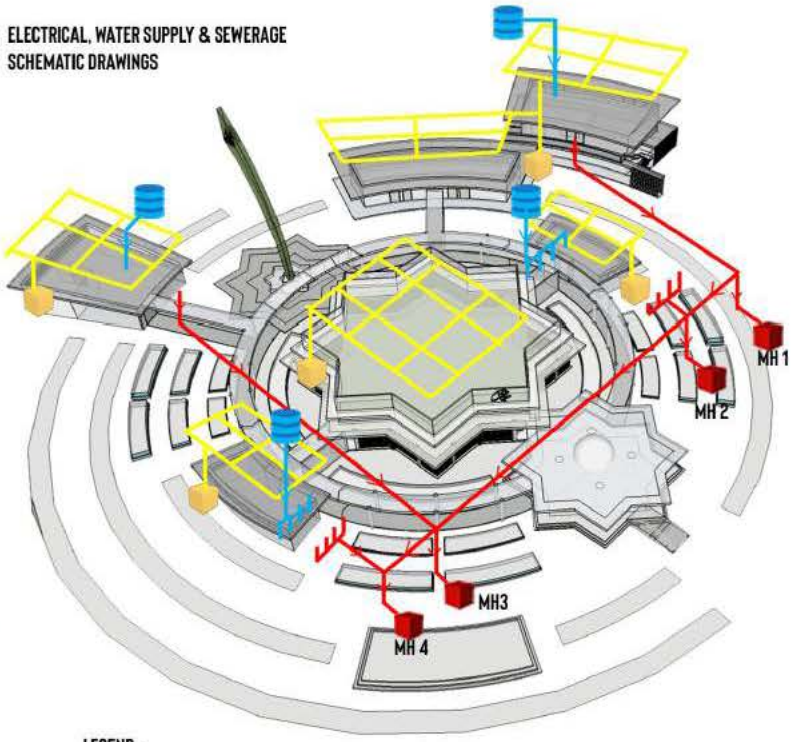
MAIN PRAYER HALL SPACE. THIS EXPERIMENT WE ARE FOCUS ON THE AMBIENT BETWEEN SHADOW & BRIGHTNESS

analysis

THE MOVEMENT OF THE SUN DURING THE DAY IS AMPLIFIED BY THE MOVEMENT OF SHADOWS ACROSS THE FLOOR.

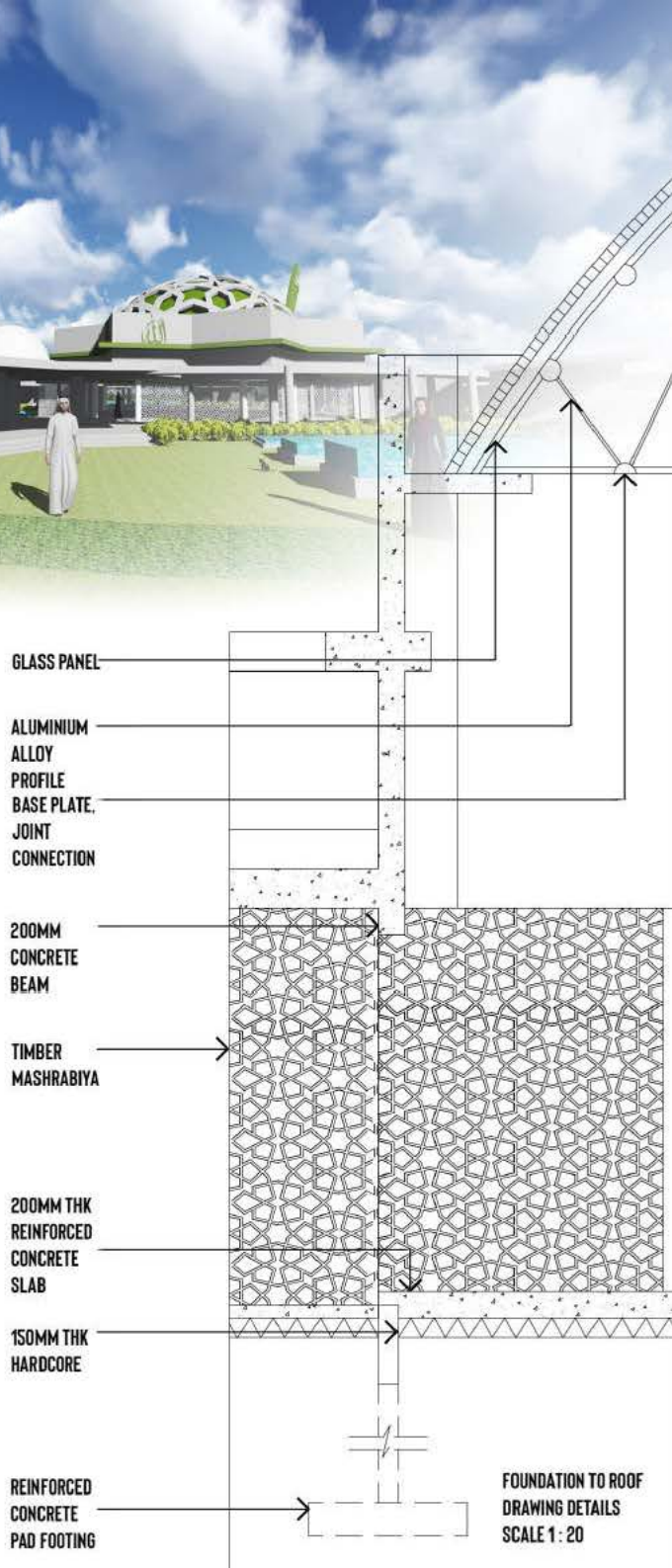
LIGHT GIVES DEPTH AND GREATER DYNAMISM TO TEXTURE AND THE MOVEMENT OF LIGHT THROUGHOUT THE DAY ALLOWS THE SURFACE TO CHANGE CHARACTER AND BECOME AN ANIMATED SURFACE RATHER THAN BE TOO STATIC.

ELECTRICAL, WATER SUPPLY & SEWERAGE SCHEMATIC DRAWINGS



LEGEND :

- MANHOLE
- M & E
- WATER TANK



FOUNDATION TO ROOF DRAWING DETAILS
SCALE 1 : 20

AMIRUL HELMI BIN AHMAD ZAKI TALHAH
131910

توازن

ABOUT SITE

THE EXISTING SITE LOCATED RIGHT BESIDE MAIN ROAD WHICH IS JLN BAKAR SAMPAH.IT ALSO SURROUNDED BY RESIDENTIAL AREA WHERE CONSISTING OF MUSLIMS, BUDDHISTS, HINDUS AND CHRISTIANS WHO LIVE IN HARMONY.BESIDE THAT, WE CAN SEE THAT THE SURROUNDING AREA AREA IN DEVELOPMENT PROCESS UNFORTUNATELY, THERE ARE SOME FLAWS ABOUT THE SITE.

KEY PLAN
N.T.S

LOCATION PLAN (LUKUT)
N.T.S

ACTIVITIES

THE MOSQUE IS AN EFFECTIVE PLACE NOT ONLY TO PRAY FOR THE COMMUNITY AROUND THE AREA TO BUT ALSO CAN DO OTHER ACTIVITIES OTHER THAN THE NORMAL ACT OF WORSHIP

TARGET USER

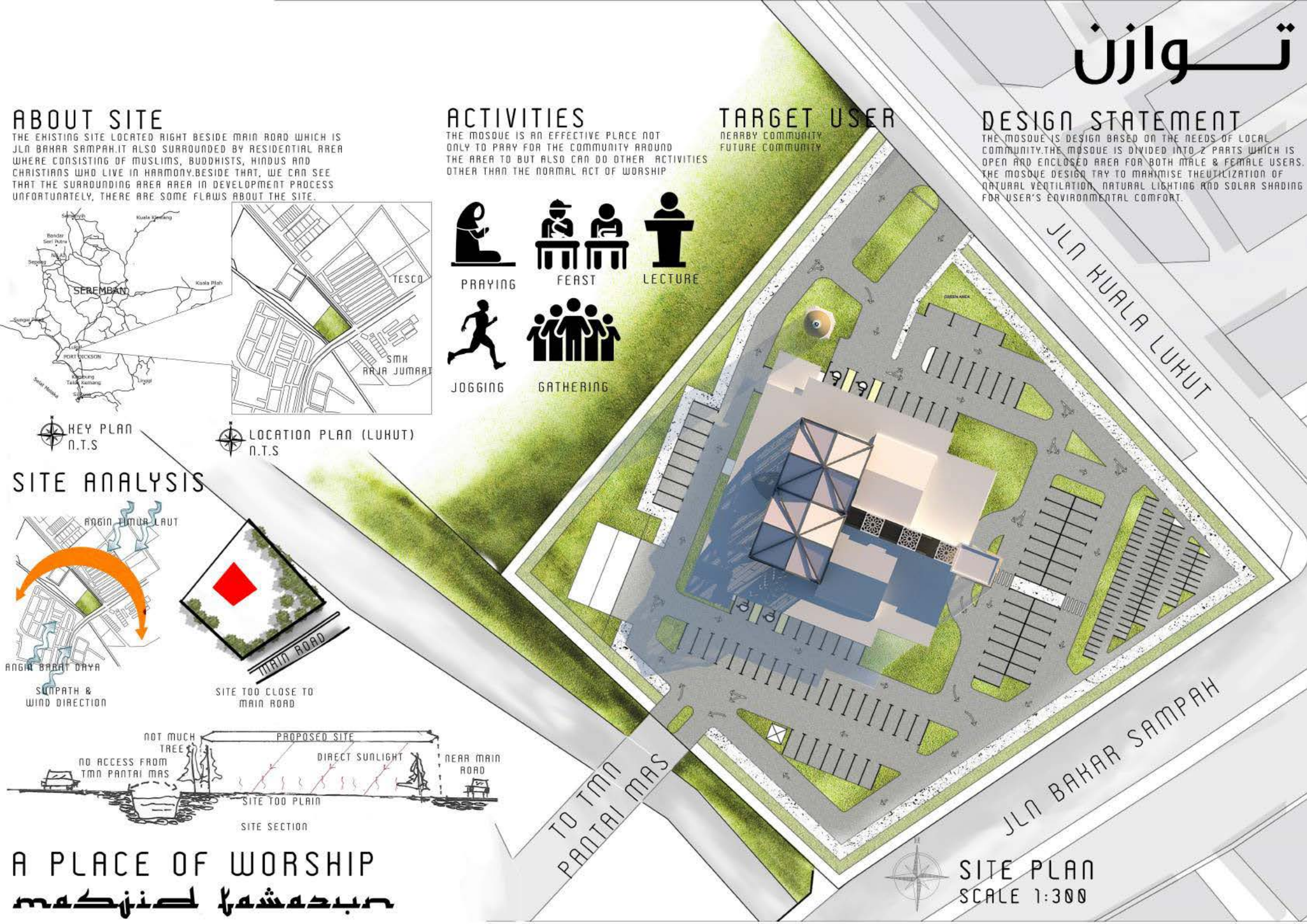
NEARBY COMMUNITY
FUTURE COMMUNITY

DESIGN STATEMENT

THE MOSQUE IS DESIGN BASED ON THE NEEDS OF LOCAL COMMUNITY.THE MOSQUE IS DIVIDED INTO 2 PARTS WHICH IS OPEN AND ENCLOSED AREA FOR BOTH MALE & FEMALE USERS. THE MOSQUE DESIGN TRY TO MAXIMISE THEUTILIZATION OF NATURAL VENTILATION, NATURAL LIGHTING AND SOLAR SHADING FOR USER'S ENVIRONMENTAL COMFORT.

SITE ANALYSIS

SITE SECTION



SITE PLAN
SCALE 1:300

A PLACE OF WORSHIP

masjid tawazun

DESIGN CONCEPT

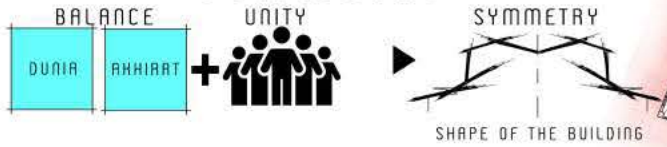
the best in Islam is the

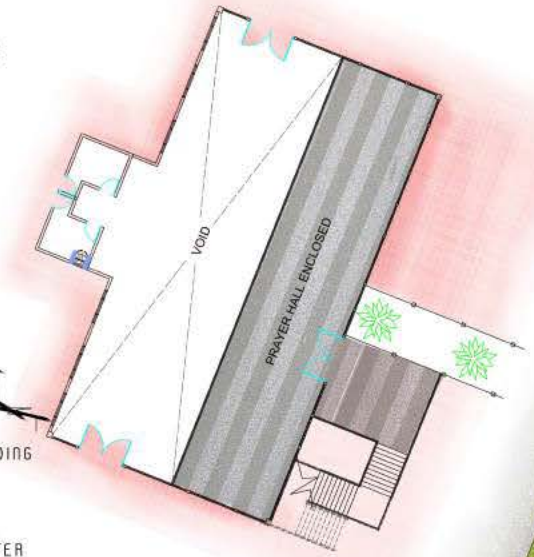
AVERAGE

BALANCE

UNITY

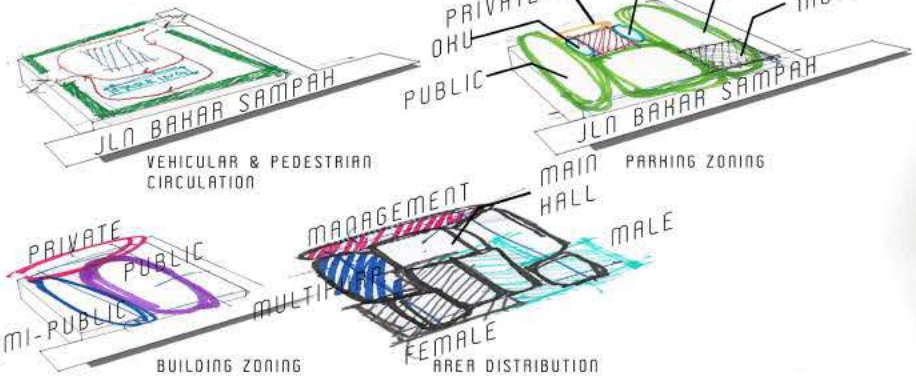
SYMMETRY



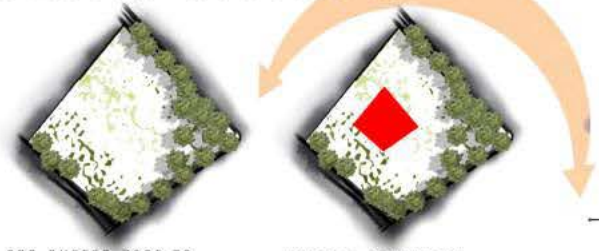


PROPHET MUHAMMAD HAS TAUGHT US THAT THERE SHOULD BE A CONSIDERATION BETWEEN THE LIFE ON EARTH WITH THE AFTERLIFE. PROPHET MUHAMMAD HAVE SAID THAT THE BEST THING IN ALL MATTER IS THE ONE IN THE MIDDLE(AVERAGE).WHEN WE ARE TOO CARELESS CHASE AFTER THINGS(BERSIFAT DUNIAWI),THEN WE WILL BECOME A GREEDY PERSON.AND IF WE ARE TOO CARELESS CHASE THE AFTERLIFE, WE WILL BECOME A PERSON WHO IS NOT CARE ABOUT OTHER PEOPLE AROUND US.SO BEST THING TO DO ACCODADING TO PROPHET MUHAMMAD IS TO FIND BOTH CURRENT LIFE AND AFTERLIFE IN BALANCE MANNER.

DESIGN IDEA

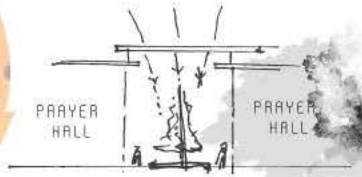


DESIGN APPROACH



ADD BUFFER ZONE TO REDUCE SOUND AND SMELL POLLUTION

BUILDING ORINTATION FOLLOW SUN ORIENTATAION

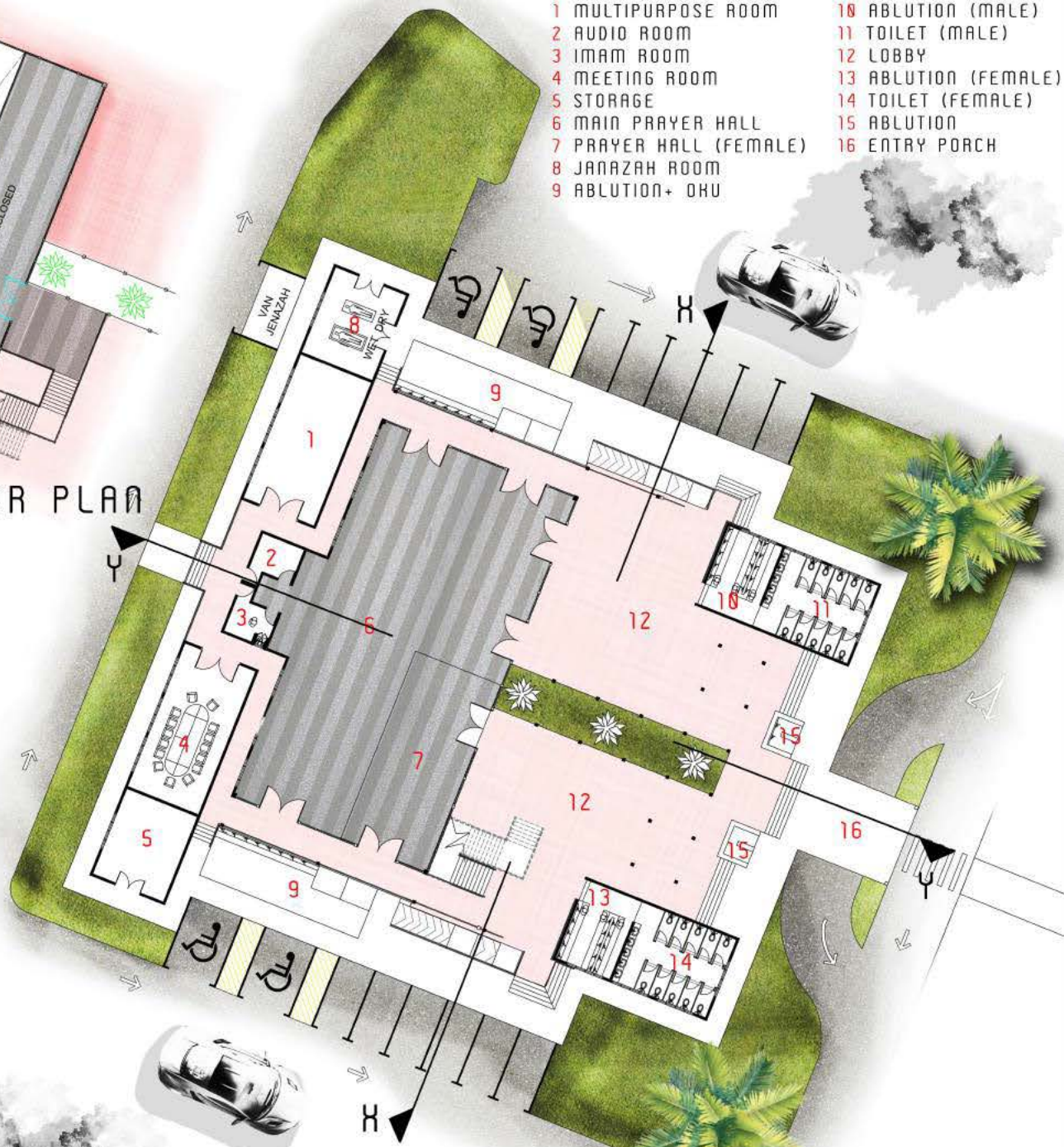


LANDSCAPE INSIDE BUILDING

FIRST FLOOR PLAN

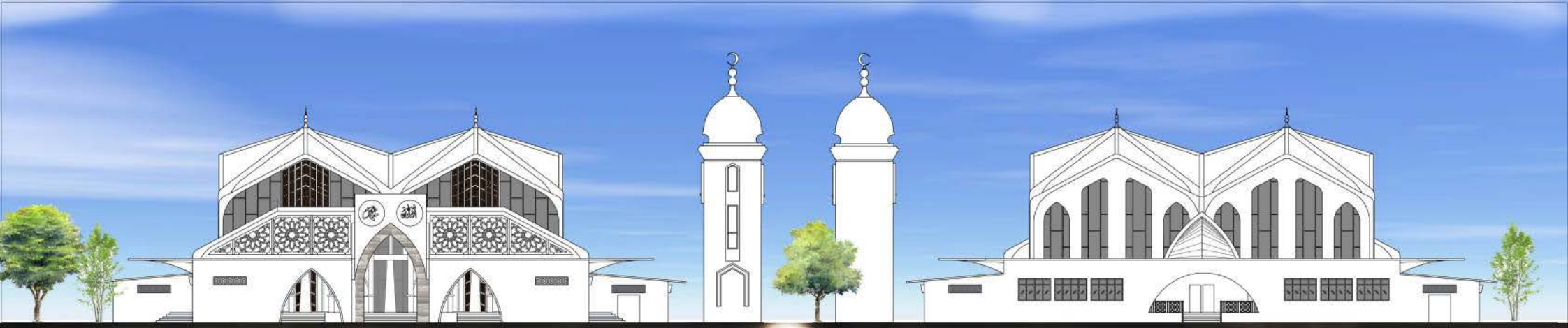
SCALE 1:150

1 MULTIPURPOSE ROOM
2 AUDIO ROOM
3 IMAM ROOM
4 MEETING ROOM
5 STORAGE
6 MAIN PRAYER HALL
7 PRAYER HALL (FEMALE)
8 JANAZAH ROOM
9 ABLUTION+ OKU
10 ABLUTION (MALE)
11 TOILET (MALE)
12 LOBBY
13 ABLUTION (FEMALE)
14 TOILET (FEMALE)
15 ABLUTION
16 ENTRY PORCH



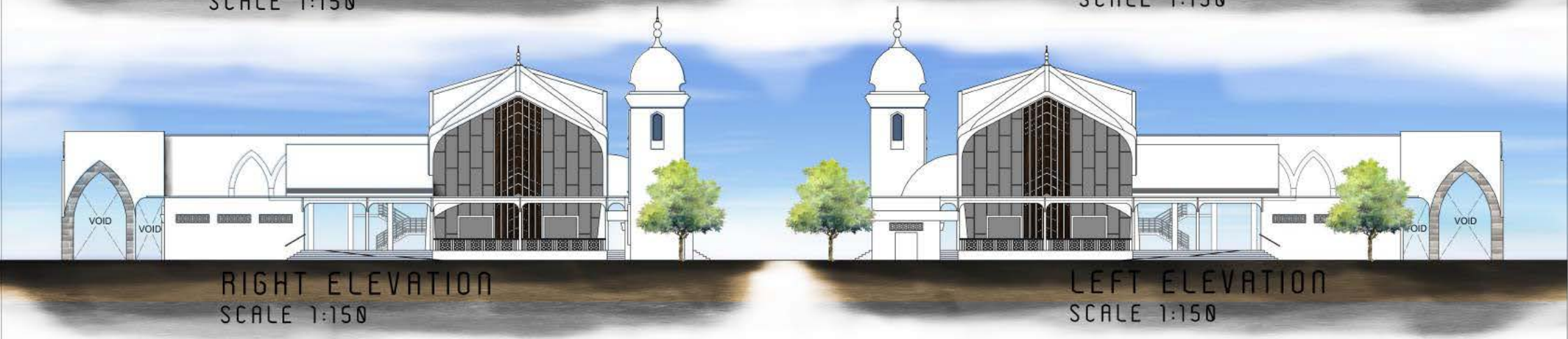
GROUND FLOOR PLAN

SCALE 1:150



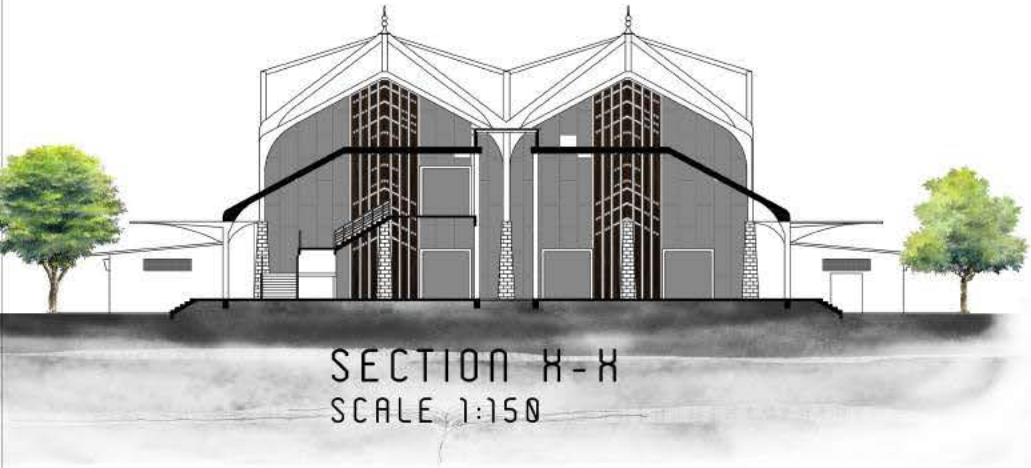
FRONT ELEVATION
SCALE 1:150

REAR ELEVATION
SCALE 1:150

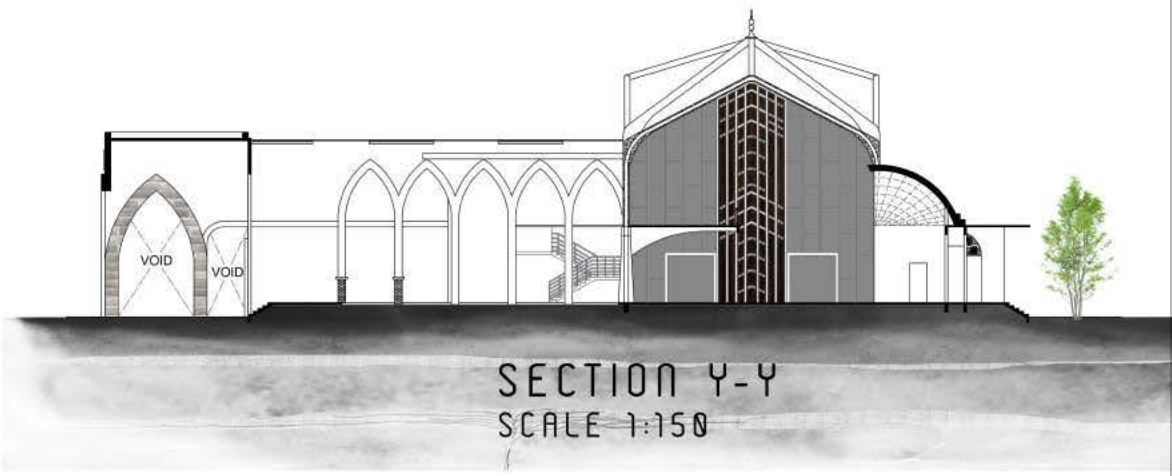


RIGHT ELEVATION
SCALE 1:150

LEFT ELEVATION
SCALE 1:150



SECTION X-X
SCALE 1:150



SECTION Y-Y
SCALE 1:150

SCHEMATIC DRAWING

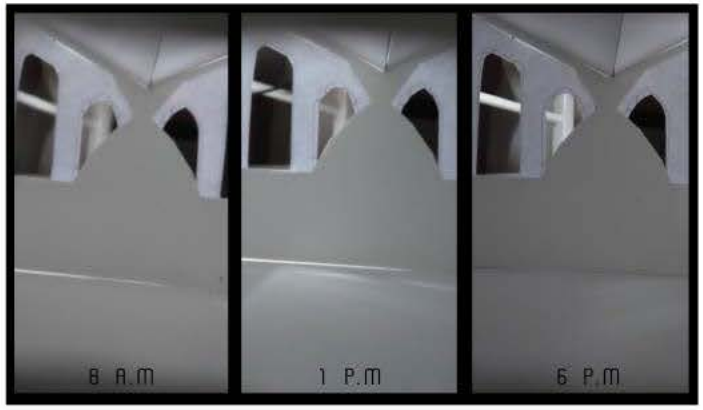
WATER SUPPLY
SCHEMATIC DIAGRAM

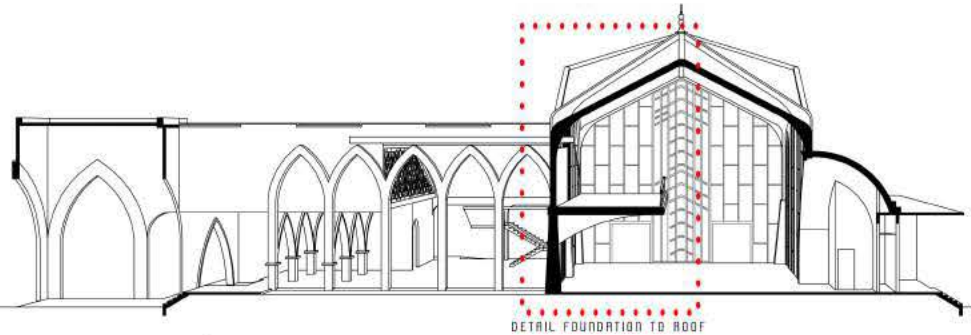
SEWERAGE SCHEMATIC
DIAGRAM

ELECTRICAL SCHEMATIC
DIAGRAM

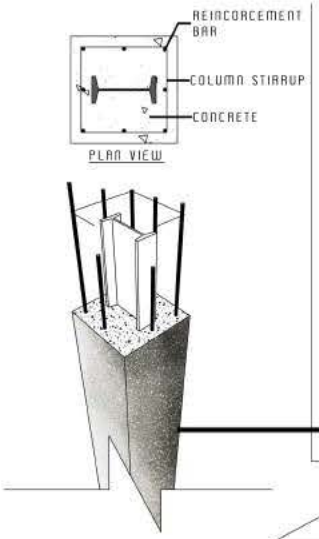
LIGHTING ANALYSIS

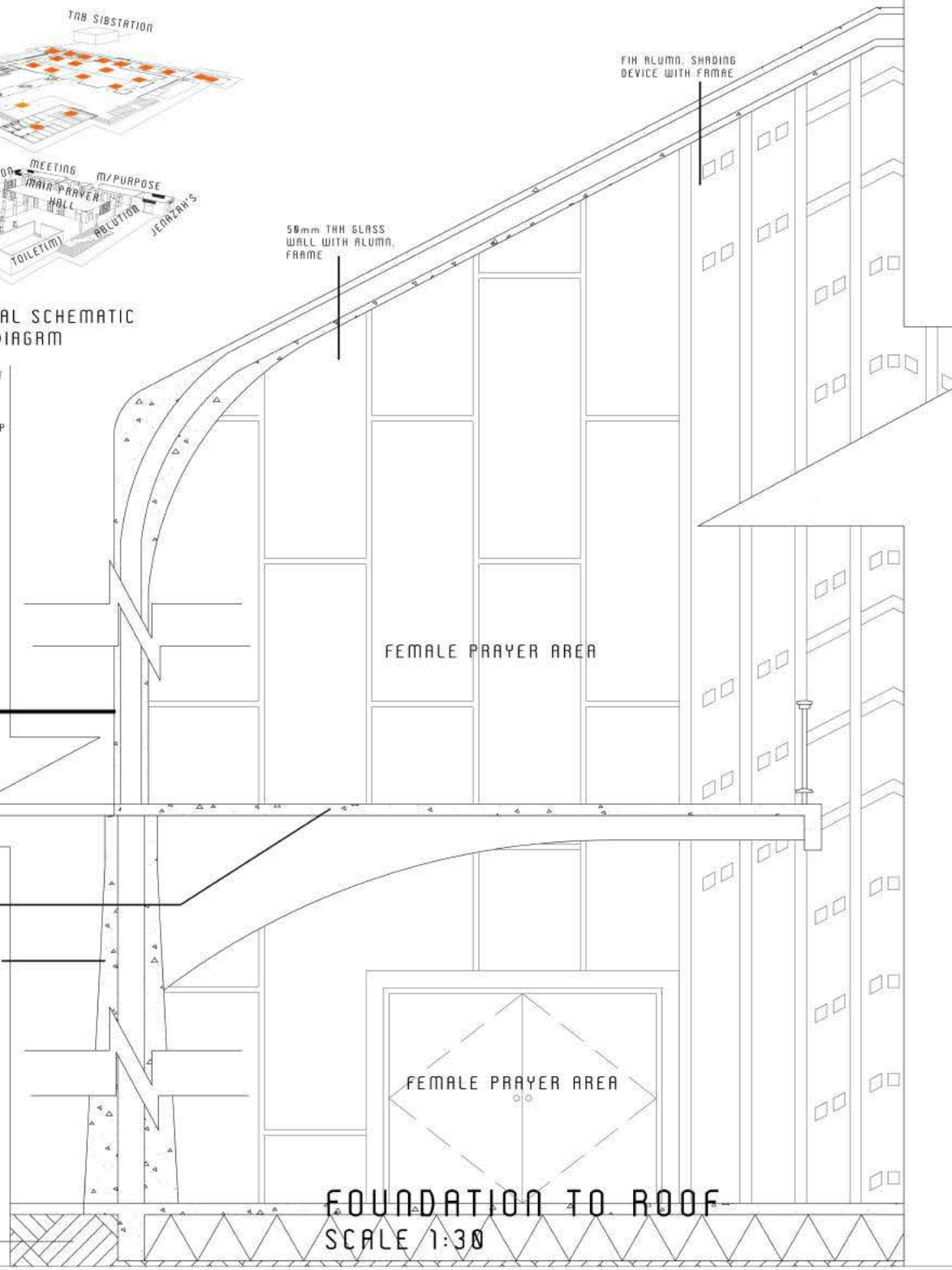
ON THIS MOSQUE DESIGN, THE OPENING ARE ALL AROUND THE MAIN PRAYER HALL TO ALLOW NATURAL LIGHTING TO PENETRATE THE AREA WITHOUT HAVE TO USE ARTIFICIAL LIGHTING. IN ADDITION , TO REDUCE THE SUNLIGHT GLARE, THE SHADING DEVICE ALSO HAVE BEEN PUT ALONG SIDE THE OPENING. SO THE PENETRATION OF THE SUNLIGHT CAN BE CONSIDER AS BALANCE





DETAIL FOUNDATION TO ROOF





FOUNDATION TO ROOF
SCALE 1:30

ANIQ AMMAR BIN ABD RAHIM
131911

A PLACE OF WORSHIP

131911 26.3.18

SPIRITUAL ARCHITECTURE LEADS US TO A LEVEL WHERE DOING ARCHITECTURE IN A SENSITIVE MANNER DUE TO RELIGION. FOR EXAMPLE, THE KIBLAT OF A MOSQUE. THE ORIENTATION OF THE BUILDING NEEDS TO BE PRECISE AND PROPERLY PLANNED. THE ARRANGEMENT FOR THE MUSLIMIN AND MUSLIMAH IS ALSO CRUCIAL DURING PRAYER AND THE SAF IS ARRANGE IN A PROPER MANNER. THESE ARE THE PRECEDENT STUDIES OF BUILDINGS AND FORM OF IDEAS FOR THIS PLACE OF WORSHIP.







AL-KAHF MOSQUE

DESIGN STATEMENT

CREATING A MOSQUE WITH A DIFFERENT KIND OF PERSPECTIVE SUCH AS THE SANCAKLAR MOSQUE IN TURKEY, AND THE COLOGNE MOSQUE IN GERMANY. A DIFFERENT KIND OF ARCHITECTURE THAT DEFINES A MOSQUE WITHOUT CHANGING THE PURPOSE OF THE MOSQUE. SUCH ARCHITECTURE IS MANAGED THROUGHOUT ANALYSIS OF THE SITE AND BRINGING A FRESH LOOK FOR THE MOSQUE IS QUITE A CHALLENGE. IN THIS DESIGN, I HAVE RELATED THE DESIGN WITH THE MOVEMENT OF THE SHALAT AND THE STORY OF THE PROPHET MUHAMMAD P.B.U.H AT JABB AL NOR. IN THIS DESIGN, IT IS TO BRING THE EMOTION OF FOCUS OF ONESELF TO PERFORM THE PRAYER AND ADDRESS WE HUMAN ON HOW SMALL WE ARE UNDER THE LIGHT OF ALLAH S.W.T.

HIGHLIGHT THE FORM

THE FORM IS TOOK FROM THE SHAPE OF A PERSON'S RUKU' AND THE FORM IS HIGHLIGHTED TO GET THE SHAPE AND FUNCTION OF THE BUILDING

ZONING

THE BUILDING CONSIST OF FOUR PARTICULAR PART WHICH IS THE PRAYER HALL IN GREY, THE WET AREA IN BLUE, SOCIAL AREA IN YELLOW, THE SERVICES IN RED AS A CONTROL THROUGHOUT THE BUILDING

SKIN

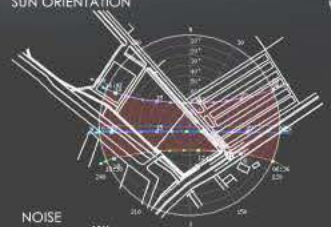
AFTER ALL OF THE PARTICULAR PART ARE MANAGED, THE OUTER LAYER IS THEN PLACED FOR THE OUTER LAYER OF THE BUILDING.

FINISHING

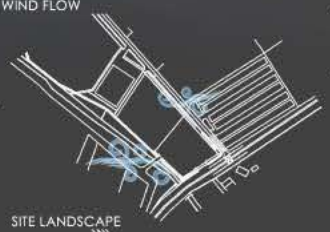
KEY PLAN
N.T.S

LOCATION PLAN
N.T.S

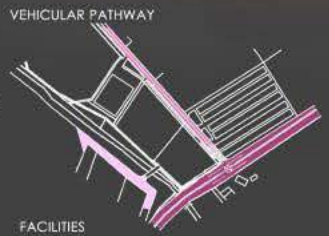
SUN ORIENTATION



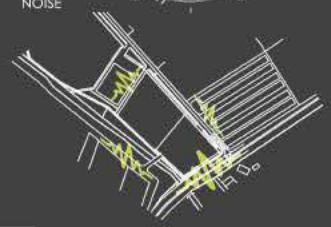
WIND FLOW



VEHICULAR PATHWAY

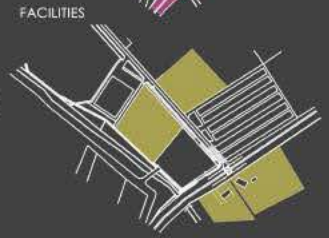


NOISE



SITE LANDSCAPE

FACILITIES

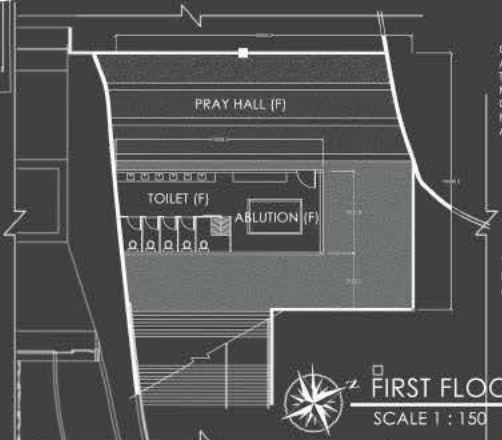


A PLACE OF WORSHIP

131911 26.3.18

SITE PLAN
SCALE 1 : 300

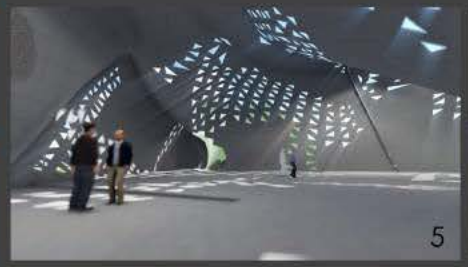
GROUND FLOOR PLAN
SCALE 1 : 150



ON THE FIRST FLOOR, IT IS AN AREA FOR WOMEN ONLY. THIS IS TO SEPARATE MUSLIMAH FROM MUSLIMIN AND TO GET THE PRIVACY FOR THE MUSLIMAH TO GET READY AND DO ABLUTION.

THERE IS ALSO TOILET AND ABLUTION AREA FOR THE MUSLIMAH ON THE FIRST FLOOR.

FIRST FLOOR PLAN
SCALE 1 : 150

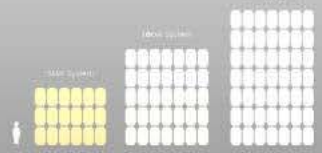


FOR THE INTERIOR, I HAVE MADE THE WINDOWS PARTIALLY FOR THE BUILDING TO GET THE IDEA OF A CAVE'S LIGHTING. WITH THE LIGHT GENERATES FROM THE SUN CREATES THE RAY TO BRING THE SENSE OF SELF AWAKENING FOR VISITORS OR JEMAAH. A WELCOMING SPACE ALSO FOR THOSE WHO ENTERS.

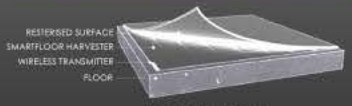
OTHER THAN THAT, WITH THIS KIND OF LIGHT PROVIDES A SOOTHING FEEL FOR THE JEMAAH. THEY COULD ALSO EXPERIENCE AS IF THEY ARE WALKING IN A CAVE AND ALSO A NEW AND AMAZING EXPERIENCE BEFORE IBADAH. FURTHERMORE, WITH THIS DESIGN INCREASES THE KHUSYUK IN SHALAT AND EVEN WOULD MAKES US APPRECIATE THE RESOURCES PLUS THE LIFE THAT ALLAH GAVE US TO STILL WALK ON THIS EARTH.

A PLACE OF WORSHIP

131911 26.3.18

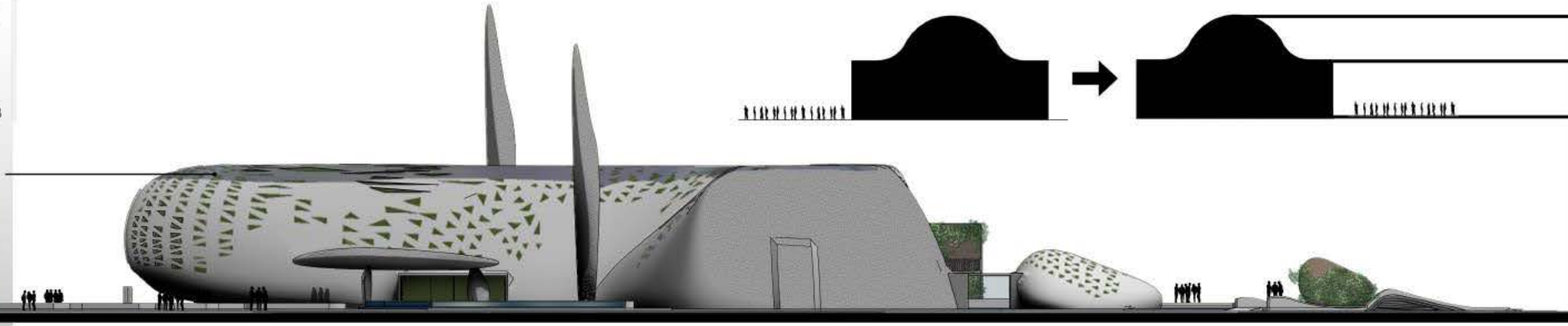


THERE ARE SOME FEATURES FOR POWER GENERATING AND SELF-SUSTAINED FACTORS OF A BUILDING. FOR EXAMPLE THE SOLAR PANEL LOCATED ON THE ROOF SURFACE OF THE BUILDING. OTHER THAN THAT IS THE KINETIC FLOOR APPLICATION. THIS TYPE OF POWER GENERATOR REACTS TO THE MOVEMENT OF THE JEMAAH. IT IS SUITABLE WHEN THE JEMAAH IS PERFORMING THE PRAYER, FOR EXAMPLE EVERYTIME IN A PROSTRATE MANNER, IT GENERATES ELECTRICITY. A SINGLE PERSON COULD GENERATE 500 W, WHEN IT IS GENERATES BY FOR EXAMPLE 500 JEMAAH, IT PRODUCES 50 KW. ENOUGH TO GENERATE ELECTRICITY OF LIGHT FOR THE BUILDING IN ONE SINGLE DAY. THERE ARE EVEN A COOLING SYSTEM THAT USES WATER AND PIPE THROUGHOUT THE FLOOR FLAB, THAT IS THE RADIANT COOLING SYSTEM.

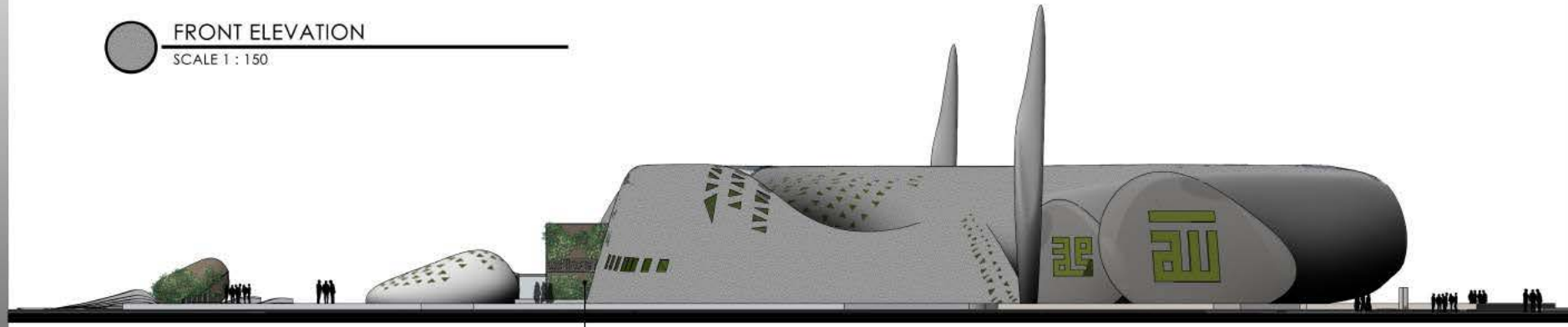


SMARTFLOOR APPLICATION

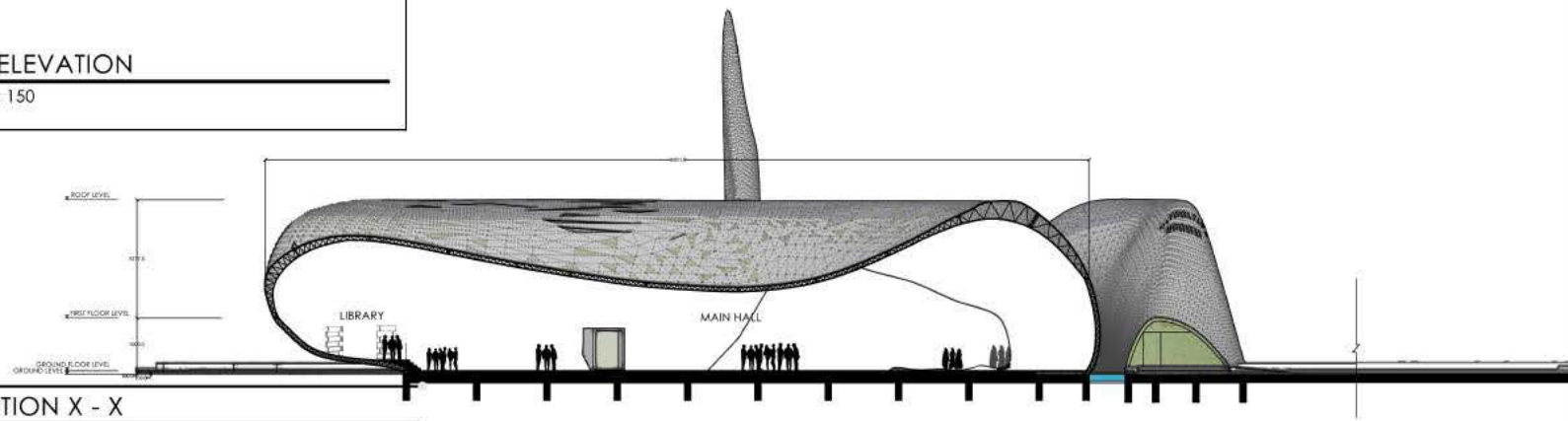
RADIANT COOLING SYSTEM



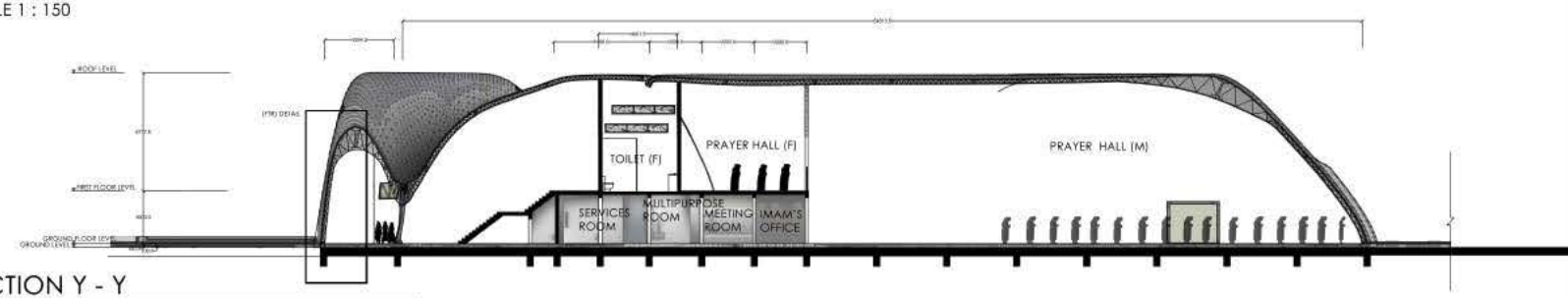
FRONT ELEVATION
SCALE 1 : 150



REAR ELEVATION
SCALE 1 : 150



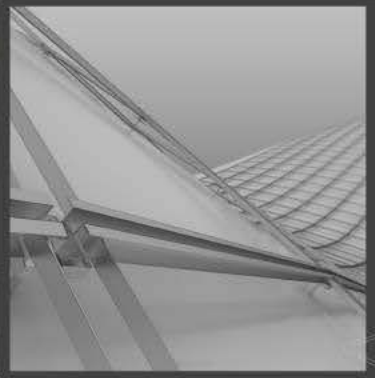
SECTION X - X
SCALE 1 : 150

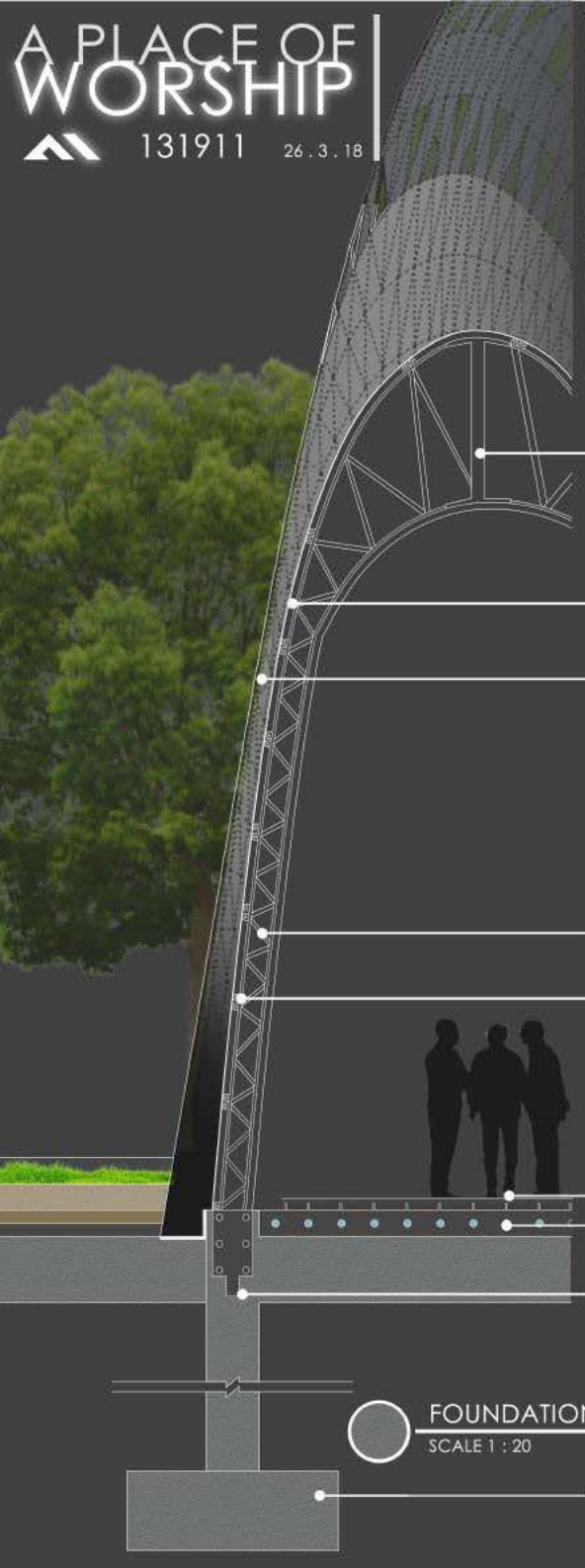


SECTION Y - Y
SCALE 1 : 150

A PLACE OF WORSHIP

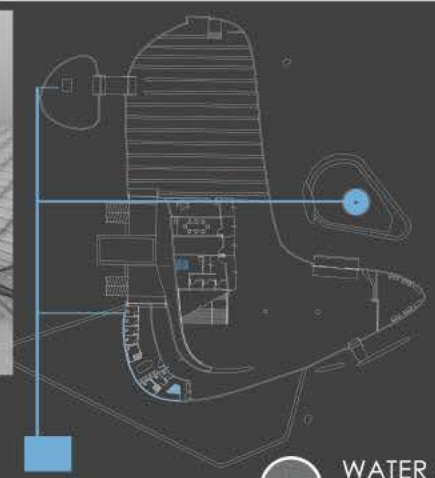
131911 26.3.18



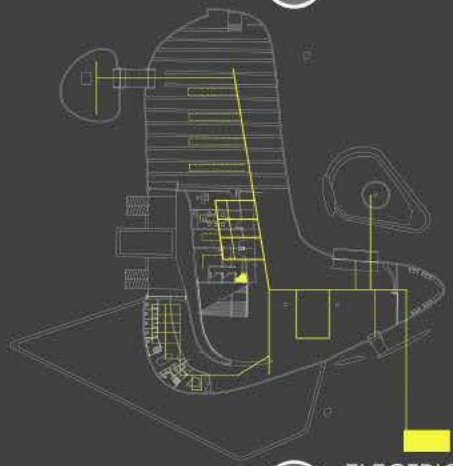


FOUNDATION TO ROOF DETAIL

SCALE 1 : 20

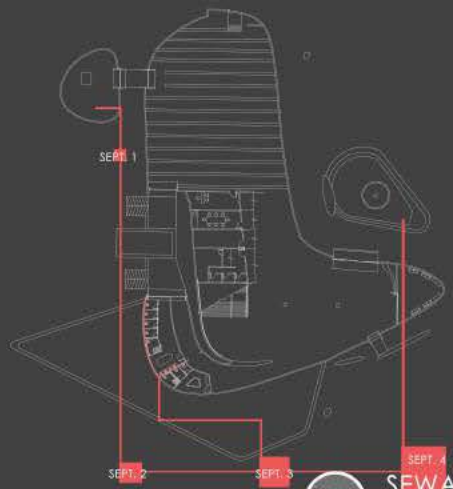


WATER SUPPLY DIAGRAM



ELECTRICAL DIAGRAM

N.T.S



SEWARAGE DIAGRAM

N.T.S

LIGHTING EXPERIMENT AND ANALYSIS

LIGHTING ANALYSIS DIAGRAM 1

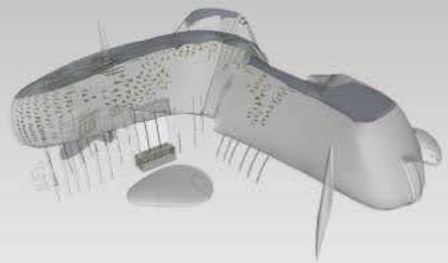
8.00 A.M

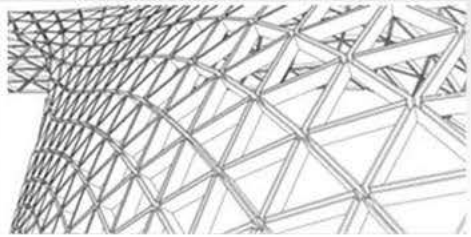
LIGHTING ANALYSIS DIAGRAM 2

12.00 P.M

LIGHTING ANALYSIS DIAGRAM 3

3.00 P.M





ATIKAH BINTI ADRUS
131913

The path of Islam which leads on to the path of success in the hereafter

MASJID SIRATUL JANNAH

CONCEPTUAL

اهْدِنَا الصِّرَاطَ الْمُسْتَقِيمَ

IHDINAS SIRATAL MUSTAQIM

"Guide us upon the straight path"

SIRAT-AL-MUSTAQIM REFERS TO THE PATH OF ISLAM WHICH LEADS ON TO THE PATH OF SUCCESS IN THE HEREAFTER.

THE WORLD IS A PLACE TO GATHER GOOD DEEDS BEFORE WE BEING JUDGED AND RETURNED TO ALLAH. THE MOSQUE IS A PLACE OF WORSHIP WHERE MUSLIMS CAN COME TOGETHER FOR SALAH AS WELL AS A CENTRE FOR INFORMATION, EDUCATION, SOCIAL WELFARE AND DISPUTE SETTLEMENT .

THE MOSQUE IS A WAY OR ACTS AS A PATH FOR THE HUMAN TO DO OR TO COLLECT THE CHARITY WORSHIP FOR THE HEREAFTER. SO, THE CONCEPT OF THE BRIDGE OF SIRATAL MUSTAQIM IS BEING APPLIED TO THE BUILDING FROM THE ENTRANCE OF MASJID SIRATUL JANNAH TO THE AREA OF PRAYER HALL BY A RAMP WHICH REPRESENT THE HUMAN'S JOURNEY FROM THE "DUNIAWI TO UKHRAWI".

DESIGN STATEMENT

MASJID SIRATUL JANNAH WITH THE TOTAL FLOOR AREA ABOUT 1200M2 IS LOCATED AT THE LOT 4034, JALAN KUALA LUKUT, 71010 PORT DICKSON NEGERI SEMBILAN. THE HIERARCHY OF THE PYRAMID ROOF WITH THE SYMMETRICAL BALANCE IS APPLIED TO THE BUILDING.

THE HIERARCHY IS BEING APPLIED AS IN BECOMING A GOOD MUSLIM, THERE ARE THREE TYPES OF ISTIQAMAH THAT HAVE TO GO THROUGH- HEART, VERBAL AND ACTS WHICH HAVE TO STAND FIRMLY ON A STRAIGHT PATH, HOLDING ON TO THE ISLAMIC CREED AND IMPLEMENTING THE SHARIAH FIRMLY – UNCHANGING AND TURNING IN WHATEVER CIRCUMSTANCES. WHILE THE SYMMETRICAL PRINCIPLE SEND THE MORAL MESSAGE "WE ARE ALL THE SAME".

THE ARCHITECTURE STYLE IS COMBINATION BETWEEN TRADITIONAL AND MODERN STYLE.

DESIGN STRATEGIES

GREENARIES AS BUFFER ZONE

AGAINST THE HECTIC BEHAVIOUR OUTSIDE OF THE SITE WHICH IS AN URBAN CONTEXT.
GREENARIES TO TUNE THE NOISE AND DIRECT SIGHT.

NATURAL SUNLIGHT

MAXIMISING THE INDIRECY NATURAL LIGHTING INSIDE THE INTERIOR TO REDUCE THE USAGE OF ARTIFICIAL LIGHTING.

OPEN & NATURAL VENTILATED CORRIDOR

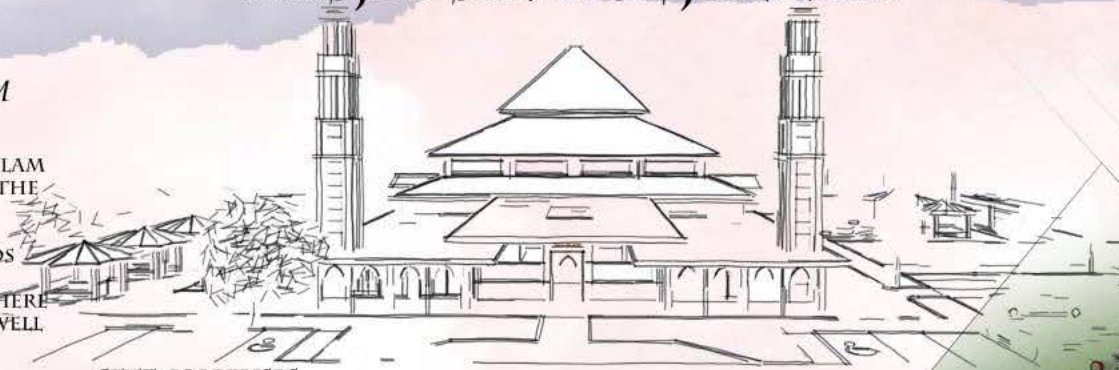
TO PROMOTE CROSS VENTILATION AND MIONIMISE AIR CONDITIONED SPACES.
REDUCING ENERGY CONSUMPTION AND GREENHOUSE GAS EMISSION.

ENERGY EFFICIENCY

USED LED LIGHTING FOR SOME SPACE FOR ENERGY SAVING INCORPORATED WITH MOTION SENSORS TO REDUCE ENERGY WASTAGE.

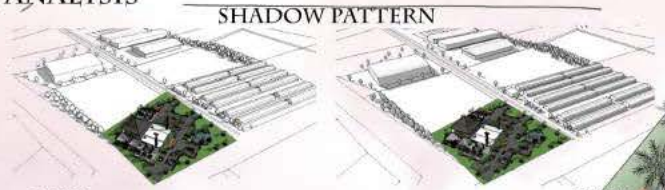
LOW E-GLASS

ADMIT 55% OF VISIBLE SUNLIGHT BUT REFLECT 70% OF THE ASSOCIATED HEAT, REDUCING ENERGY USED FOR LIGHTING AND COOLING SPACE.



SITE ANALYSIS

SHADOW PATTERN



CLIMATE AND SOUND

KEY PLAN
SCALE N.T.S

LOCATION PLAN
SCALE N.T.S

SITE PLAN
SCALE 1:300

ZONING

1. PROPOSED BUILDING
2. LANDSCAPE
3. PLAYGROUND
4 PARKING AREA

NAME : ATIKAH BINTI ADRUS MATRIC NO : 131913
LECTURER : MR REDUAN BIN MAHAT | MDM SITI AMIRAH BT MOHTARAM

The path of Islam which leads on to the path of success in the hereafter

MASJID SIRATUL JANNAH

FRONT ELEVATION
SCALE 1:150

PLAYGROUND

OPEN SPACE

MASJID SIRATUL JANNAH

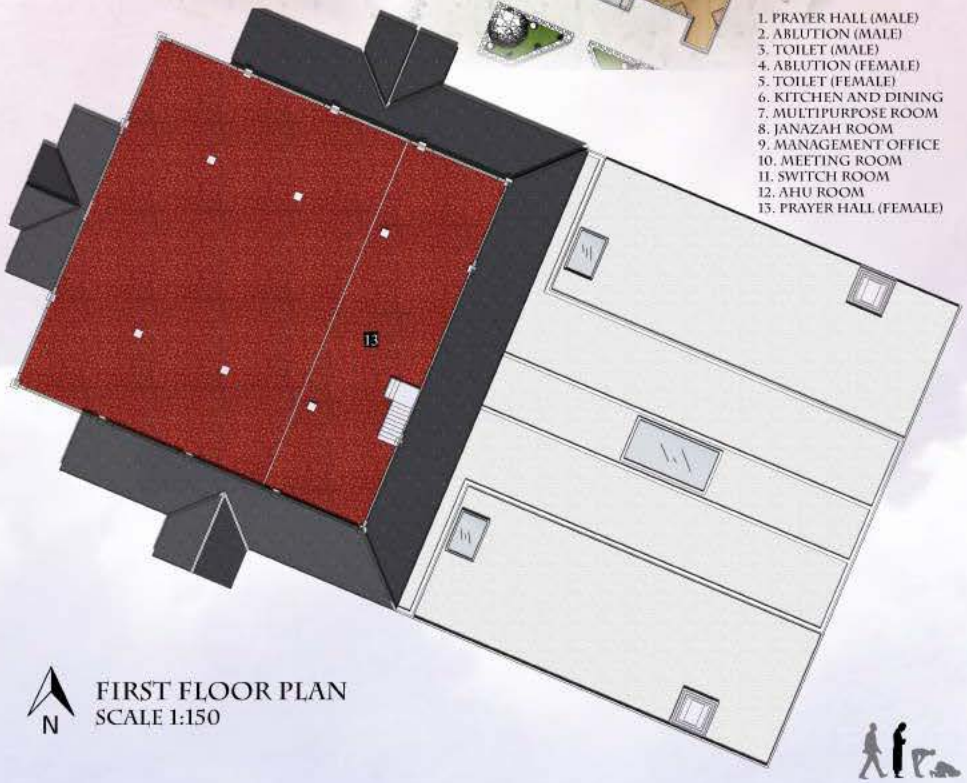
LEFT ELEVATION
SCALE 1:150

N

GROUND FLOOR PLAN
SCALE 1:150

LEGEND

1. PRAYER HALL (MALE)
2. ABLUTION (MALE)
3. TOILET (MALE)
4. ABLUTION (FEMALE)
5. TOILET (FEMALE)
6. KITCHEN AND DINING
7. MULTIPURPOSE ROOM
8. JANAZAH ROOM
9. MANAGEMENT OFFICE
10. MEETING ROOM
11. SWITCH ROOM
12. AHU ROOM
13. PRAYER HALL (FEMALE)



N

FIRST FLOOR PLAN
SCALE 1:150

NAME : ATIKAH BINTI ADRUS MATRIC NO : 131913
LECTURER : MR REDUAN BIN MAHAT | MDM SITI AMIRAH BT MOHTARAM

The path of Islam which leads on to the path of success in the hereafter

MASJID SIRATUL JANNAH

FRONTAGE OF MASJID SIRATUL JANNAH

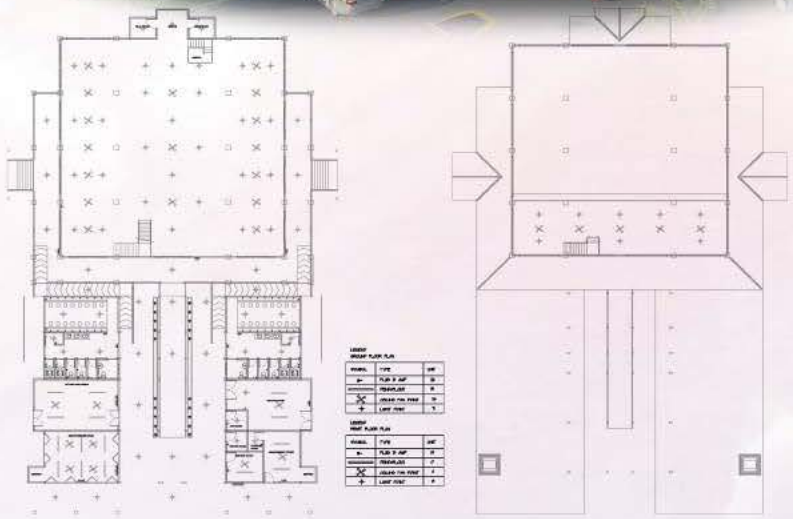
THE CORRIDOR OF MASJID SIRATUL JANNAH

VIEW TOWARS MAIN ENTRANCE PRAYER HALL

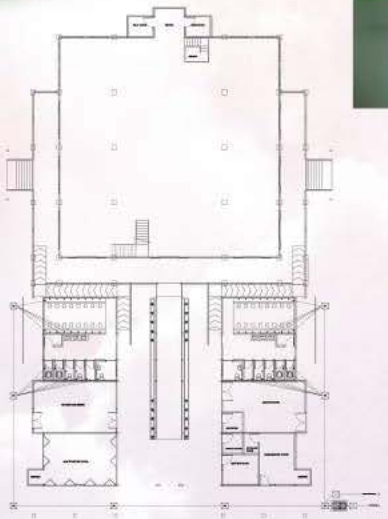
LIGHTING FROM LEFT BUILDING

VIEW TOWARS MAIN ENTRANCE PRAYER HALL

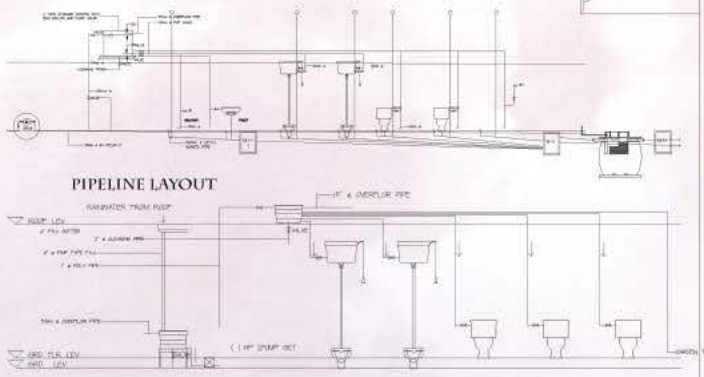
LIGHTING FROM RIGHT BUILDING



ELECTRICAL SCHEMATIC DRAWING

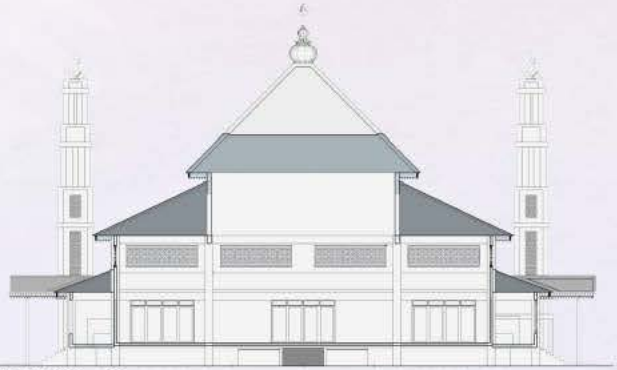


SEWERAGE SCHEMATIC DRAWING



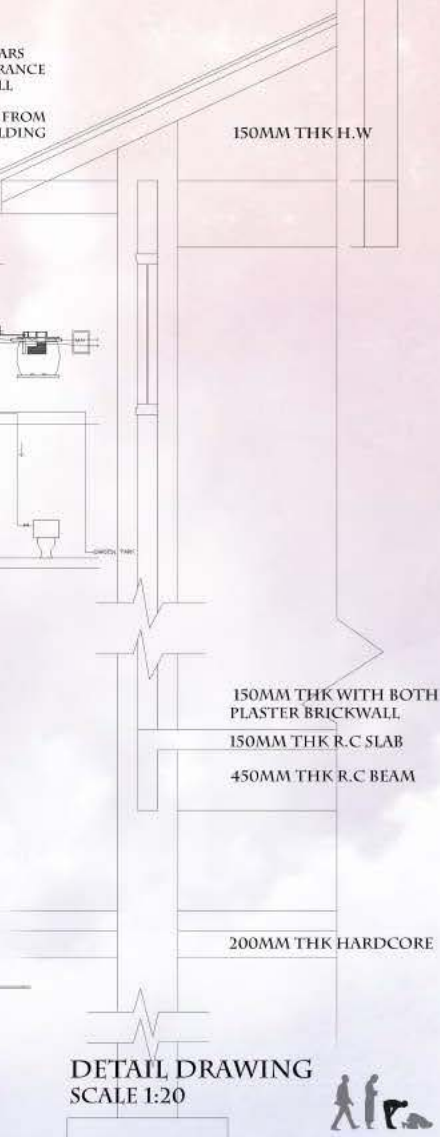
PIPELINE LAYOUT

RAINWATER COLLECTION SYSTEM



SECTION X - X
SCALE 1:150

SECTION Y - Y
SCALE 1:150



DETAIL DRAWING
SCALE 1:20

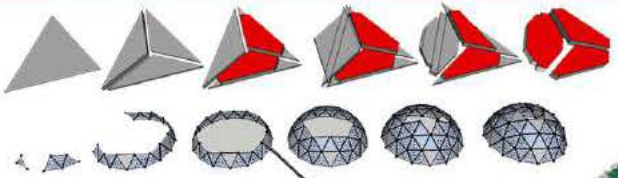
NAME : ATIKAH BINTI ADRUS MATRIC NO : 131913
LECTURER : MR REDUAN BIN MAHAT | MDM SITI AMIRAH BT MOHTARAM

ESURYATI BINTI KAMARUDIN
131917

THE CURVEY TRIANGLE MOSQUE

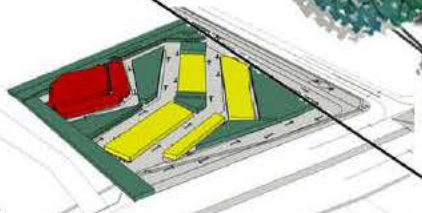
DESIGN IDEA AND CONCEPT

THE VERTICES OF THE "TRIANGLE" PRESENT THE MOST IMPORTANTS MASJID : MASJID AL-HARAM, MASJID AL-NABAWI AND AL;AQSA MOSQUE. MOSQUE IS A PLACE DESIGNED TO BRING PEOPLE TO ONE GOAL AND TIE WORSHIP OF GOD, WHICH REPRESTING IN THE CENTER OF THE TRIANGLE.

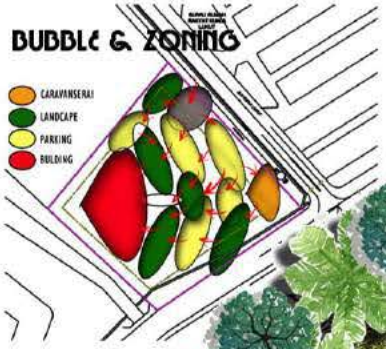


DESIGN STATEMENT

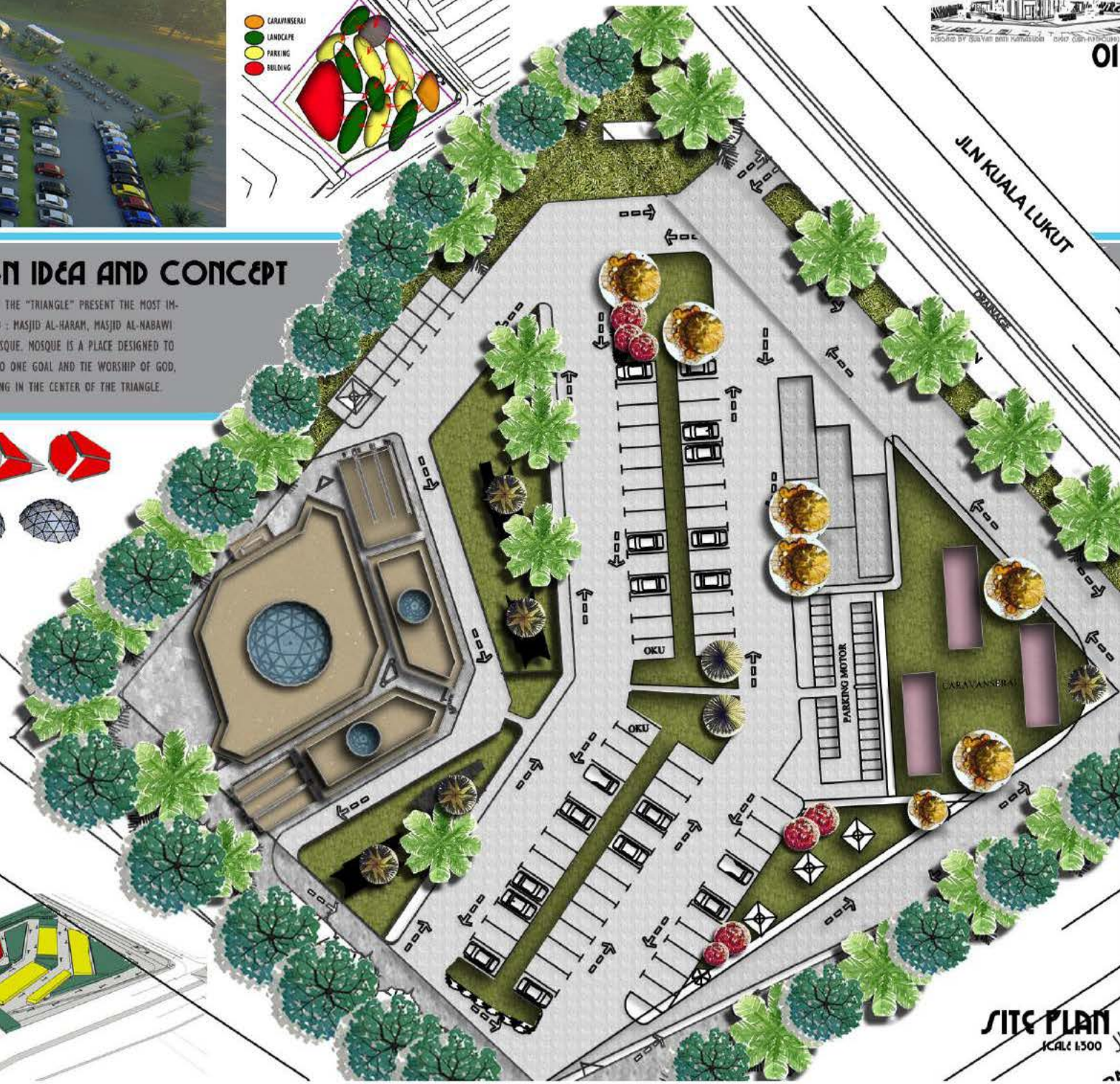
THIS AL-HUSNA MASJID IS LOCATED IN LOCUT, NEGERI NEMBERAN. REQUESTING THE SEGITIGE, DESIGNED CONSUMPTION THAT HAVE OWNED ELEMENTS. SUCH ELEMENTS INCLUDED WITH THE CONCEPT USED IN IDEA PROCESSING IN THE PLACE OF IDEA FLOORS, KUBAH, MIHRAB AND ALSO PLANNING IN THE BUILDING SETTING. THIS SIDE HAS 3 BLOCKED BLOCKES, WHICH ARE BLOCKES ARE THE MAIN SETTING ROOMS WHICH PLACES 326-350 PEOPLE JEMAAH. HAS HYDRAULIC HYGIENE AND MECHANICAL USERS. BLOCKS ON THE LEFT FEATURES WILL HAVE A WOMAN SPONSOR FROM 100 - 126 PEOPLE, MULTIPLE SPACE, ADMINISTRATION AND COURSE ROOM. REMOVE THE BLOCK IN THE PARTY OF THE FIRST FEATURE PLANING THE DINING ROOM, KITCHEN, STOR AND MEETING MEETINGS. EXPENSIVE 1016M PERSEGI. OUR SIMPLE AL-HUSNA HAS A SUCCESSFUL INTERESTED ELEMENT. HAS A RELIABLE TOWER 5 LEVELS WHICH MAKE EARLY 5 RUKUN ISLAM. DESCRIPTION C. THE CONSUMPTION OF MIHRAB WHICH HAS HELPS ADMINISTRATION WITH A TURNED STYLE. DESCRIPTION OF CHARACTER CLUSTERING ENHANCING THE SEGITIGE CONCEPT, ANY BODY PANEL USING METAL BUILDING MATERIALS, GLASS AND RELATED DRINKS OF A SELECTED BODY. THE LIGHTING LIGHTS CAN BE CONTAINED TO THE SPACE SPACE. THIS MASJID ALSO HAS MUQARMAS THAT GIVES A GEOMETRID ELEMENT OF ANY KUFI ANY FEATURE IN THE DEVELOPMENT OF MUQARMAS USING TECHNICAL OR COMPUTATION OF ITS DAMAGES. MASHRABIYA ALSO APPLIED DESIGNED PATTERNED JOINT PANEL FORMS GEOMETRI.PANEL MASHRABIYA THIS MOSQUE AND REPLACE THE WALL HAS VENTILATION LIGHTING DESIGN THAT ALLOWS SEMULAJADI.PEMBINAAN PISHTAQ AND ALSO IWAN AND USING DESIGN CALLIGRAPHY WRITING VERSES OF THE HOLY QURAN AS A DECORATIVE. FOR THE CARAVANSER CASE BUILDING TO USE THE BACKGROUND OF MOSQUES CONSTRUCTION.



BUBBLE & ZONING



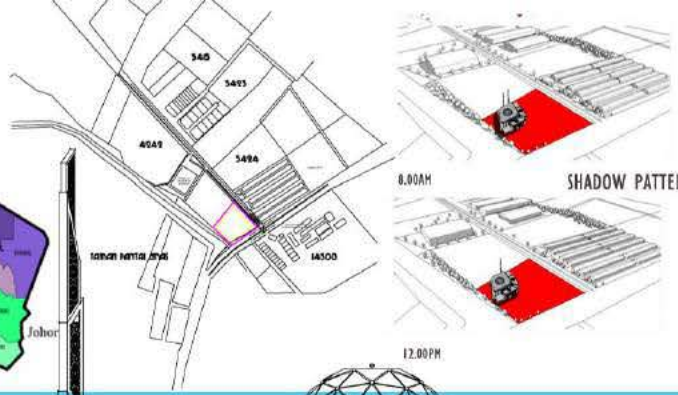
01



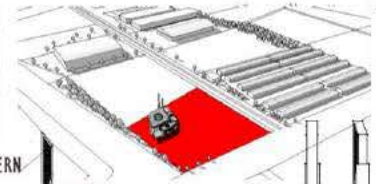
SITE PLAN
SCALE 1:500

THE CURVEY TRIANGLE MOSQUE

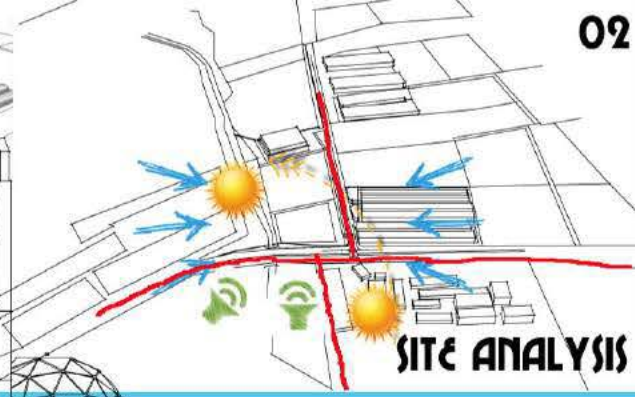
KEY & LOCATION



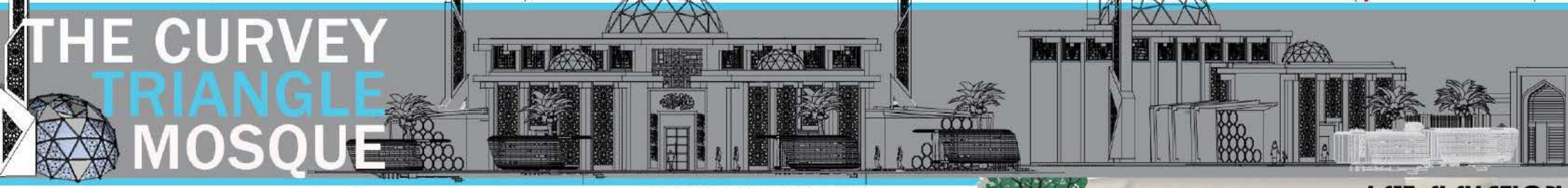
SHADOW PATTERN

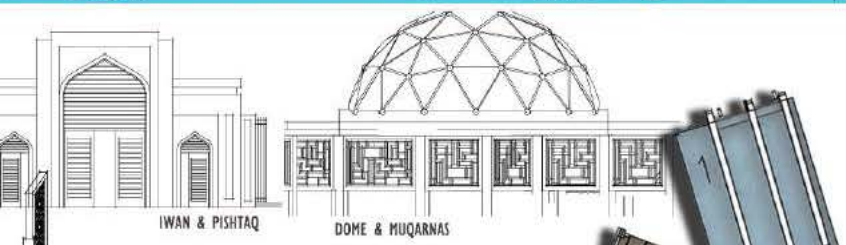


SOCIO-CULTURE

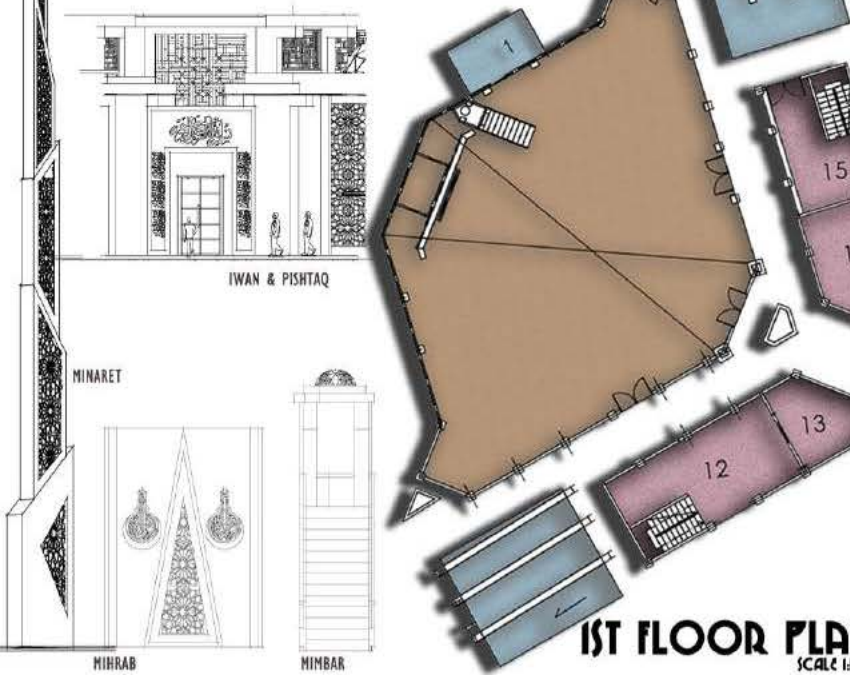


SITE ANALYSIS





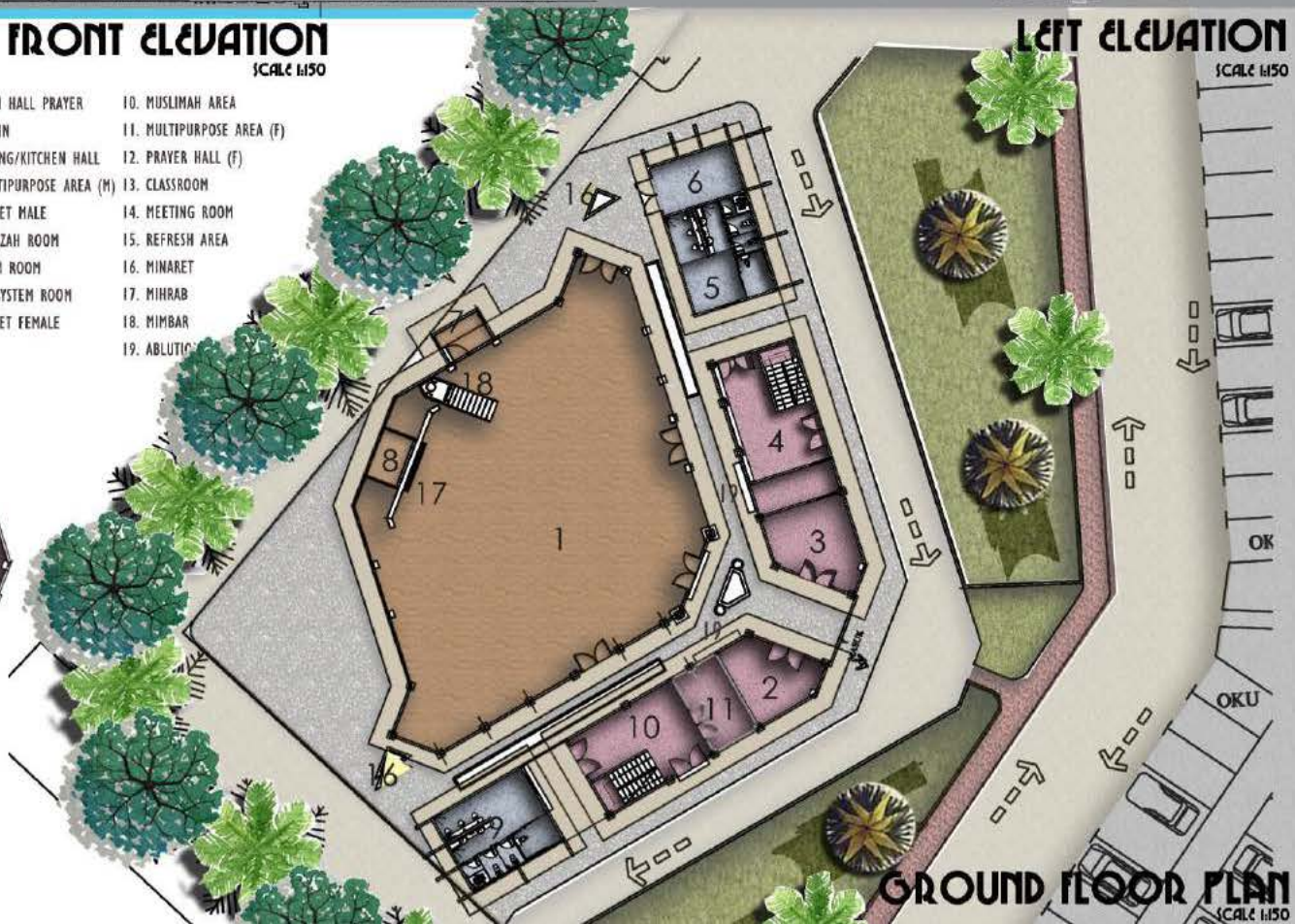
FRONT ELEVATION
SCALE 1:150



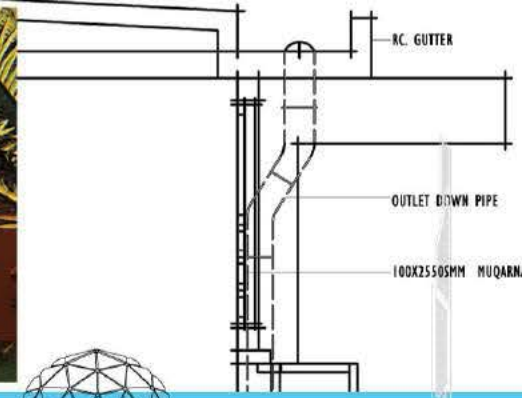
1. MAIN HALL PRAYER
2. ADMIN
3. DINING/KITCHEN HALL
4. MULTIPURPOSE AREA (M)
5. TOILET MALE
6. JANAZAH ROOM
7. IMAM ROOM
8. PA SYSTEM ROOM
9. TOILET FEMALE
10. MUSLIMAH AREA
11. MULTIPURPOSE AREA (F)
12. PRAYER HALL (F)
13. CLASSROOM
14. MEETING ROOM
15. REFRESH AREA
16. MINARET
17. MIHRAB
18. MIMBAR
19. ABLUTI

1ST FLOOR PLAN
SCALE 1:150

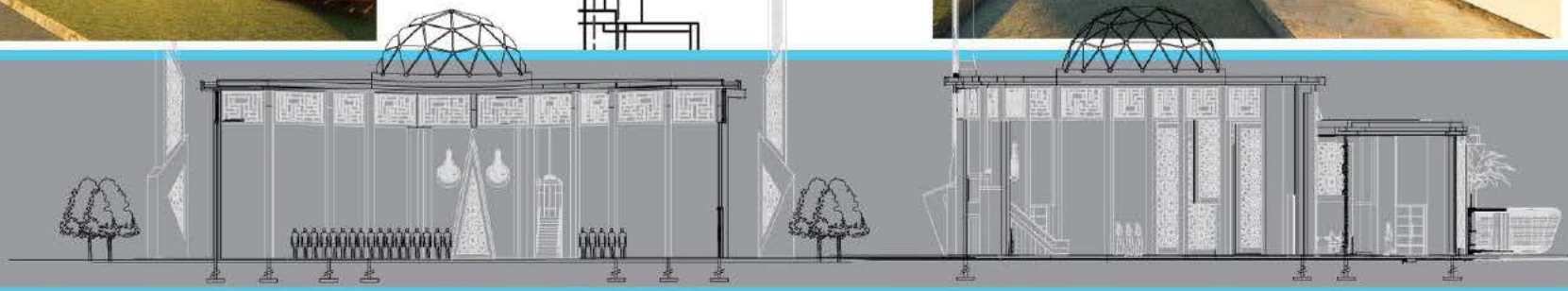
LEFT ELEVATION
SCALE 1:150



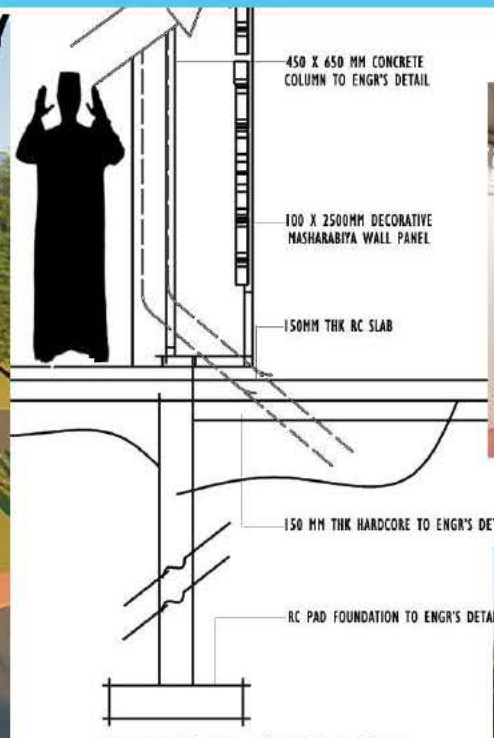
GROUND FLOOR PLAN
SCALE 1:150



THE CURVEY TRIANGLE MOSQUE



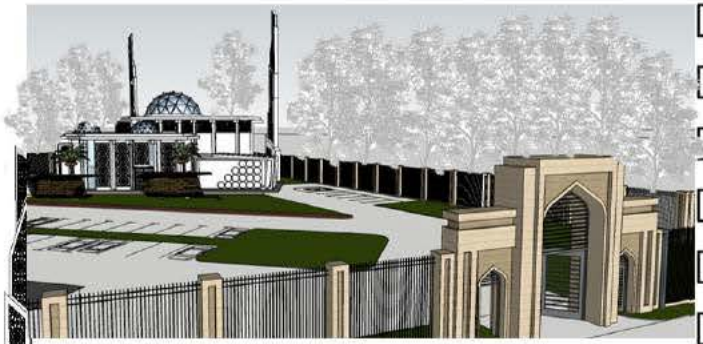
SECTION Y-Y
SCALE 1:50

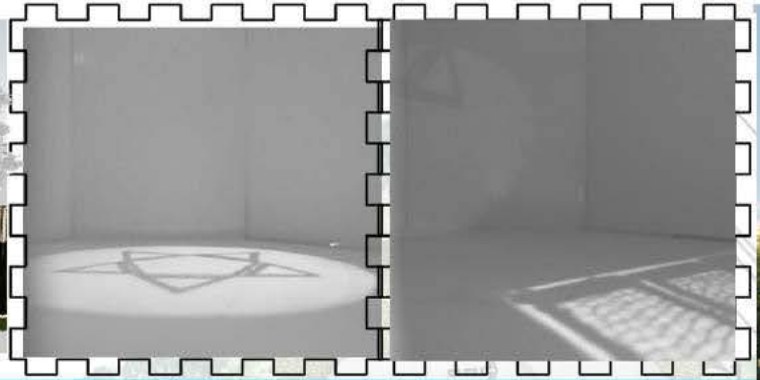


TYPICAL SECTION
SCALE 1:20

SECTION X-X
SCALE 1:50

INTERIOR



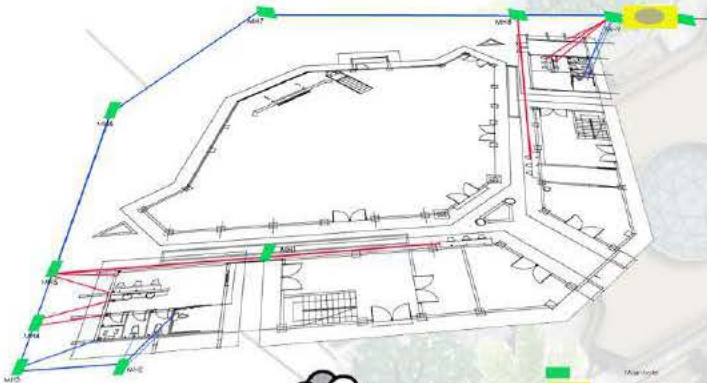


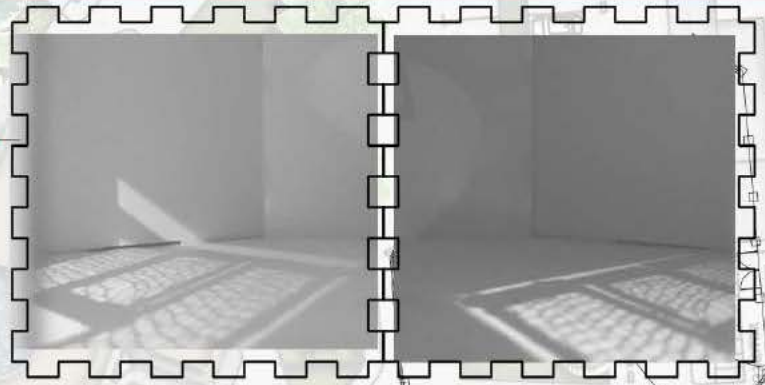
THE CURVEY TRIANGLE MOSQUE

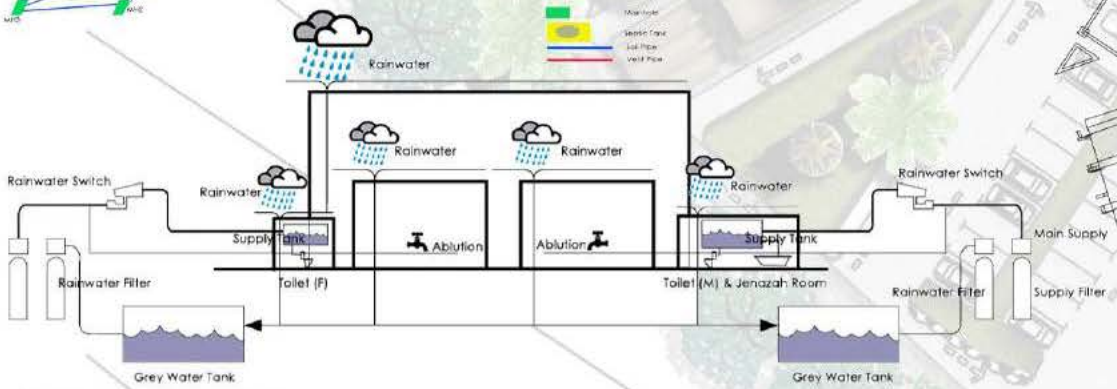
LIGHTING EXPERIMEN

THE USING OF DAYLIGHT IN ABUILDING IS A CREATIVE STRATEGY IN PASSIVE DESIGN. THE SUN IS THE SOURCE OF DAY-LIGHT AND CAN BE USE TO AS NATURAL LIGHTING WITH LESS CONSUMPTIONOF ELECTRUCITY. THUS A GOOD LIGHTING SHOULD BE DESIGN WELL. NATURAL LIGHTING DIRECT FROM DOME TO IMPROVE GBI INDEX. LIGHTING FROM MASHARA-BIYA WALL PANEL ALMOST TO IMPROVE GBI INDEX

SEWERAGE SCHEMATIC DRAWINGS







WATER SUPPLY

SCHEDULE	ELECTRICAL LAY OUT	
Y	FAN	TO BE FIXED AT CEILING
	METER BOX	TO BE FIXED AT 5'0" HT FROM F.L
	SWITCH BOARD	TO BE FIXED AT 4'6" HT FROM F.L
	CEILING LIGHT	TO BE FIXED AT CEILING
	5AMPS SOCKET ON SB	TO BE FIXED AT 4'6" HT FROM F.L

ELECTRICAL LAYOUT

MOHAMAD AMIRUL ARSYAD BIN RAZALI
131921

MOHAMAD AMIRUL ARSYAD BIN RAZALI
131921
GROUP1
USM-KPT (POLIPD)

masjid al-rahman

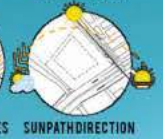
KUALA LUKUT, 71010 PORT DICKSON, NEGERI SEMBILAN.

SITE ANALYSIS

PROPOSE SITE

WIND DIRECTION


VISTA PREFERENCES


SUNPATH DIRECTION

CIRCULATION

NOISE ANALYSIS

KEY PLAN
SCALE N.T.S

LOCATION PLAN
SCALE N.T.S

DESIGN STATMENT

This project is to design a place of workship eilther a mosque , tample or church at v Jalan Kuala Lukut 71010 Port Dickson, Negeri Sembilan . It will provide facility to community, providing praying hall, active living consists various spaces in term of outdoor and indoor facillities. The mosque includ praying hall , toilet male and female ablution, janazah room, meeting room, managment office and multipurpose on the ground floor level, while on the first floor is the extra praying hall for Jumaat
praying.

DEFINITION OF WORKSHIP PLACE (MOSQUE)

The word mosque repeats 28 times in Al quraan. In terms of language, the word is taken from the prostration, which means obedience, and submissive with the respect of the noble. But the forehead, both hands, knees, and feet to the ground, then called it prostrate by the shari'a, that is clear intent of those meanings, because of that the building devoted to performing the prayer is called the mosque, which means "the place of prostration"

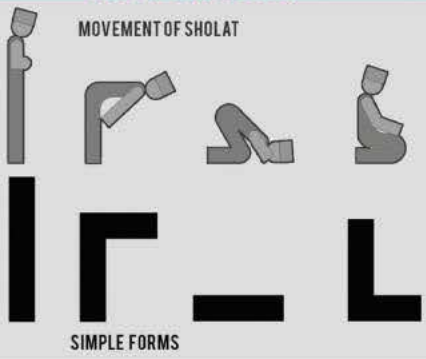
SOLAT

Prayer by language means prayer. While in terms of the terms are some of the speeches and deeds initiated with takbir and ended with
greetings including bow and prostration in it along with the prescribed conditions. In one of the hadiths mentioned,
"The prayer is a pillar of religion (Islam), so whoever sets it up then he has established the religion (Islam) and whoever demolishes it then he has demolished the religion (Islam)."

KABAH

Kabah is the Qiblah, which is the direction of the Muslims in their prayers. besides prayer, in the neighborhood of the congregation also performed tawaf as a form of obedience to Allah swt. Mentioned in Surah *Al-Baqarah 144 And who are more unjust than those who prevent the name of Allah from being mentioned in His mosques and strive toward their destruction. It is not for them to enter them except in fear. For them in this world is disgrace, and they will have in the Hereafter a great punishment."... bestow your face towards the Qiblah (cabinet) wherever you are ..."*
In this regard, it is the basis of the sincere mosque by

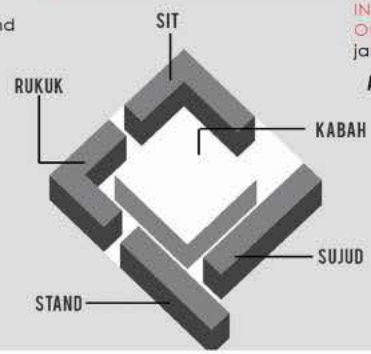
CONCEPTUAL DESIGN



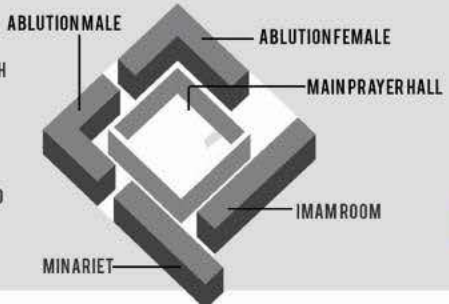
Simple form dispointed by section movement of Tawaf (surrounding habah) complain with movement of solat

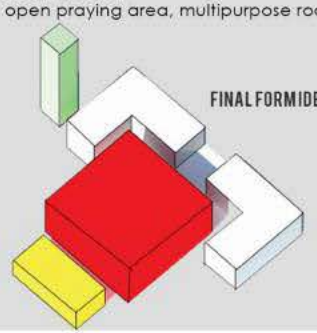
The approach for inspirationfrom the Kabah form look at the square form at the centre and surrounding other fotm

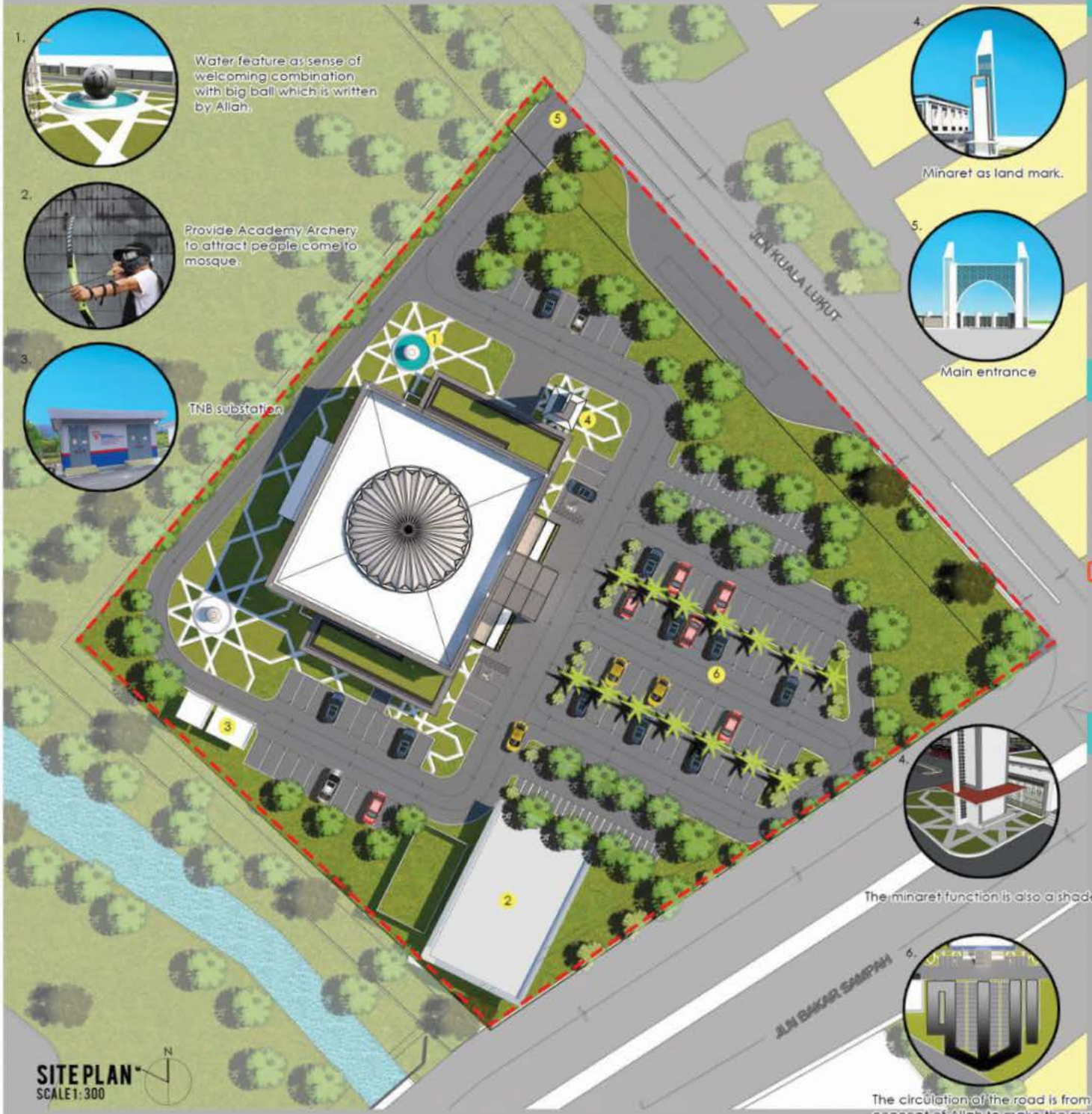
FORM TRANSFORMATION



TRANFORM SHAPE CAUSE HAPPENING THE SPACE TO BE TWO AREA, INDOOR AND OUTDOOR AREA.
INDOOR : function as praying area , male and female prayer hall.
OUTDOOR : functuin as open space such as coridor, open praying area, multipurpose room, janazah room ablution and toilet.

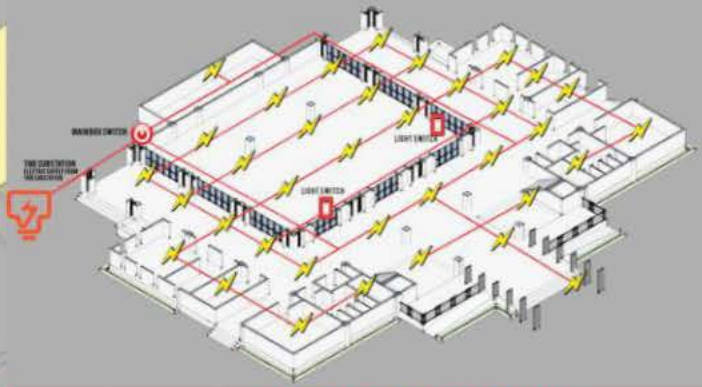




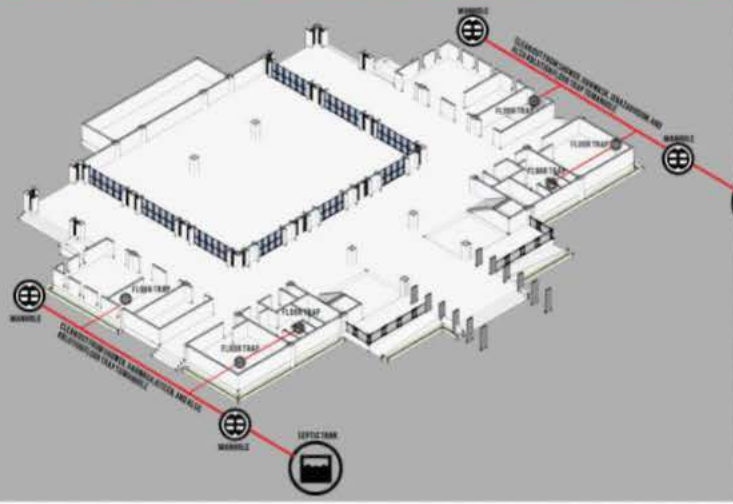


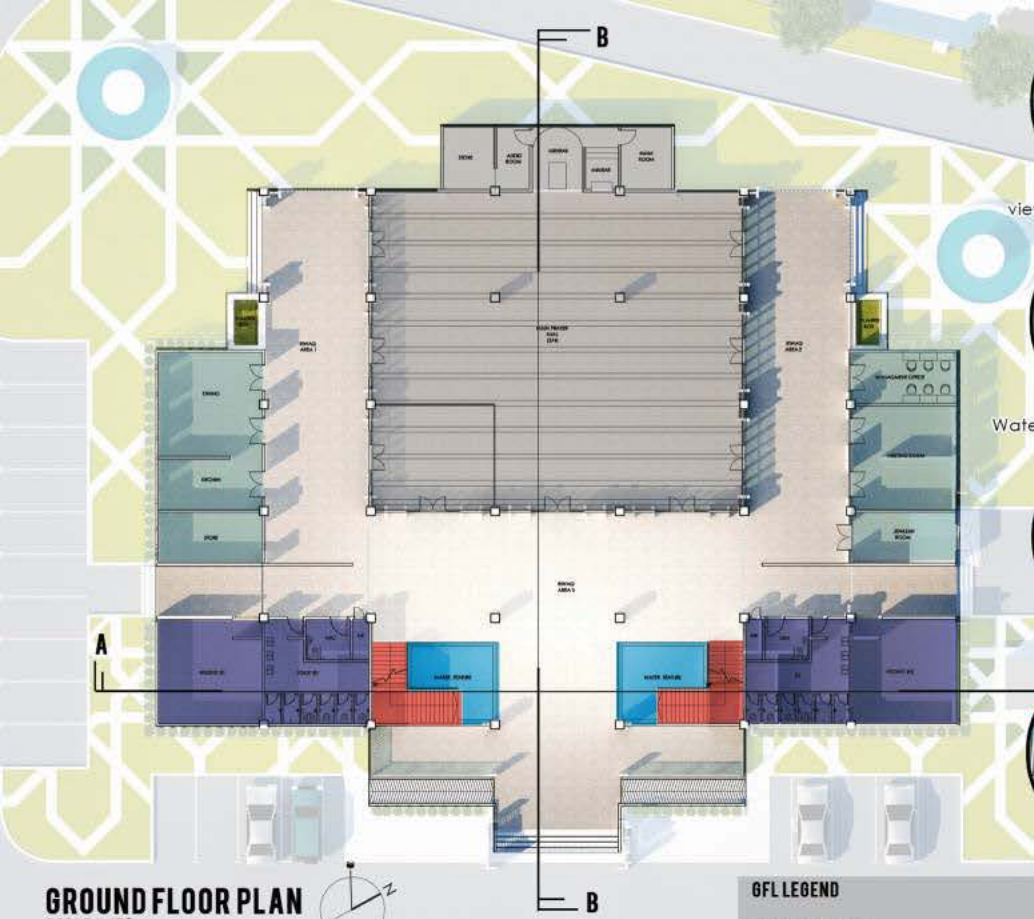
WATER SUPPLY DIAGRAM
NOT TO SCALE

ELECTRICAL SUPPLY DIAGRAM
NOT TO SCALE



SEWERAGE SYSTEM DIAGRAM
NOT TO SCALE





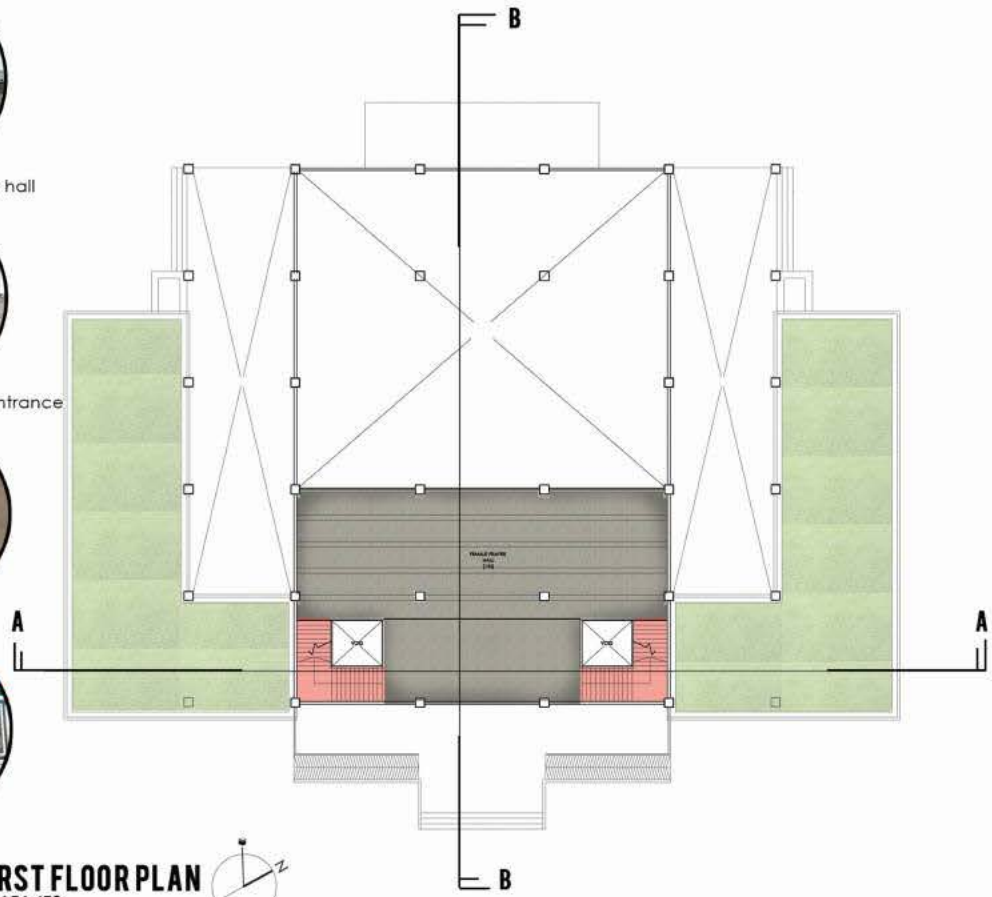
view from main prayer hall

Water feature in main entrance

Green wall.

Entrance.

GROUND FLOOR PLAN
SCALE 1:150



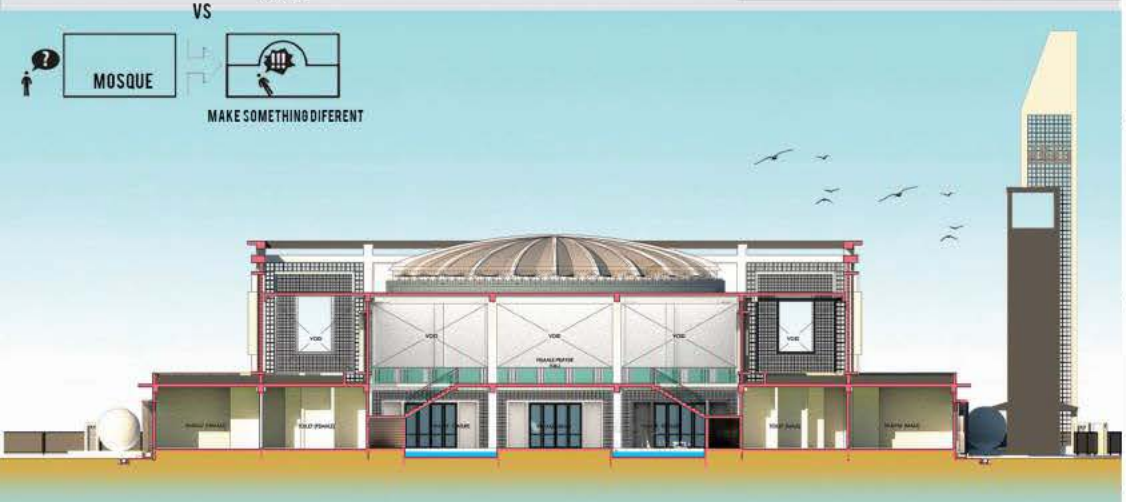
FIRST FLOOR PLAN
SCALE 1:150

GFL LEGEND

1. MAIN PRAYER HALL
2. FEMALE PRAYING AREA
3. MIMBAR
4. MIHRAB
5. AUDIO ROOM
6. IMAM ROOM
7. STORE
8. OPEN PRAYING AREA 1
9. OPEN PRAYING AREA 2
10. OPEN PRAYING AREA 3
11. DINING
12. KITCHEN
13. FAMALE ABLUTION
14. MALE TOILET
15. MALE ABLUTION
16. JENAZAH ROOM
17. MEETING ROOM
18. MANAGMENT OFFICE
19. MINARET.

DIAGRAM CONCEPT

VS



LIGHTING ANALYSIS

LIGHTING FROM THE CENTER

The using of daylight in a building is a creative strategy in a design. The sun is the source of lightand ventilation. it can be use to as natural lighting with less consumption of electricity. a good lighting should be designed well in order to archived enough lighting. it can reduce the usage of artifical lighting that can cause of high bill of cost and sickness of body.

LIGHTING FROM LEFT

The concept of light is from humble of person in a mosque, pray to allah. the flow of light can give thegood impact to the human in the mosque. the balanced and harmony of light are put on the facade sorround of building. it give the lighting of building are balanced.

LIGHTING FROM RIGHT

The source of light is taken most 70% from sun. but it have the glass sorround of the opening wall. it can save the cost of light and also it give the better lighting beside it give much more better natural ventilation.

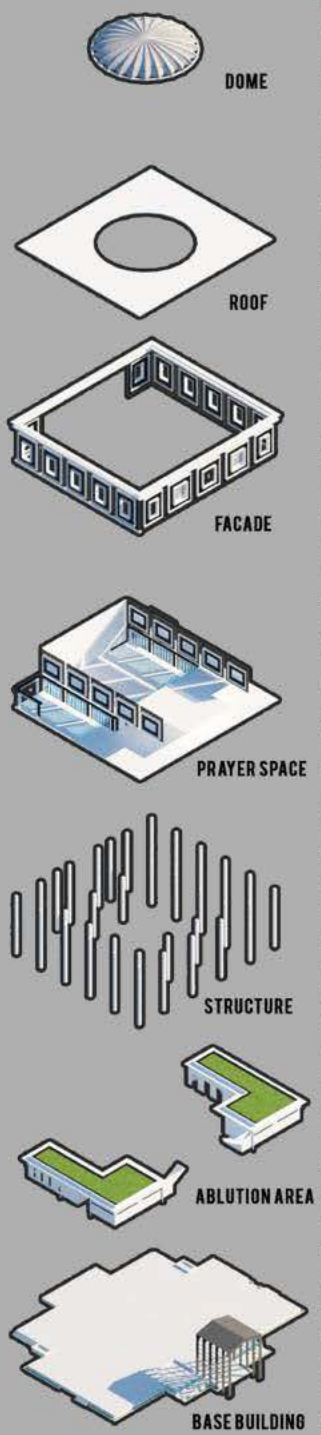
SECTION A-A
SCALE 1:150

FRONT ELEVATION
SCALE 1:150

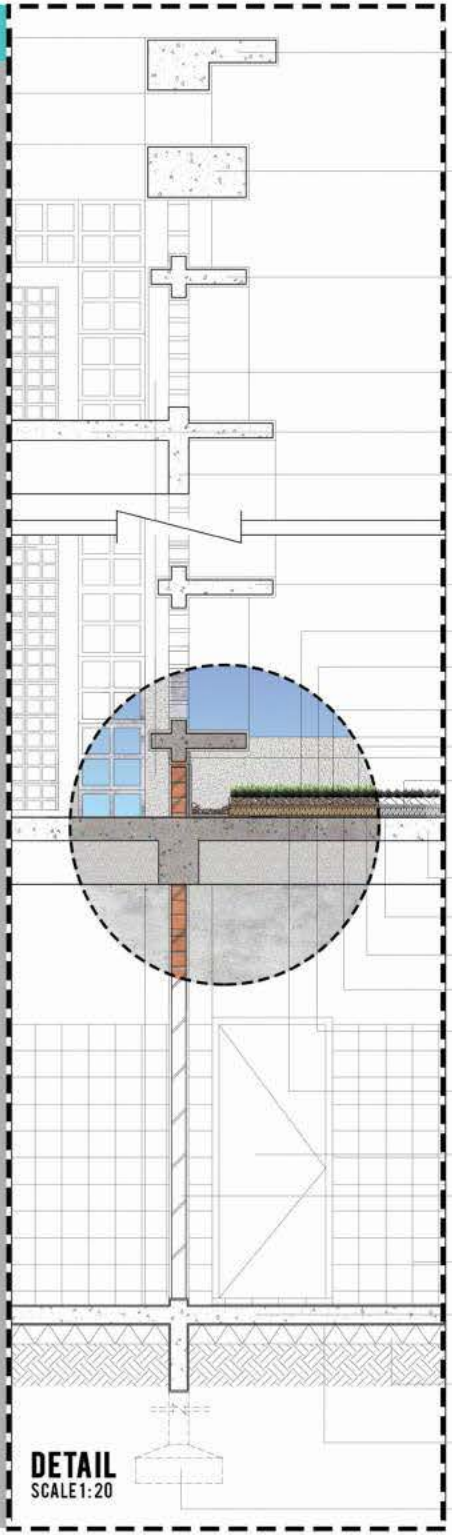
SECTION B-B
SCALE 1:150

RIGHT ELEVATION
SCALE 1:150

EXPLODED VIEW
NOT TO SCALE



DETAIL
SCALE 1:20



500mm X 1000mm THK. R.C COPPING TO ENGR'S DETAIL

300mm X 500mm CONCRETE BEAM WITH 18mm THK. PLASTER ON BOTH SIDES TO ENGR'S DETAIL

150mm X 300mm THK. R.C COPPING TO ENGR'S DETAIL

5mm THK. COSTUM R.C SCREEN WALL TO ENGR'S DETAIL

150mm THK. R.C SLAB TO ENGR'S DETAIL

5mm THK. COSTUM R.C SCREEN WALL TO ENGR'S DETAIL

150mm X 700mm THK. R.C COPPING TO ENGR'S DETAIL

ENGINEERED SOIL WITH PLANTINGS

FILTER FABRIC

OPTIONAL : RESERVOIR LAYER

MOISTURE-RETENTION LAYER

AERATION LAYER

150mm THK. R.C SLAB TO ENGR'S DETAIL

GREEN ROOF WATERPROOFING MEMBRANE.

PROTECTION COURSE

ROOT BARRIER

DRAINAGE LAYER

THERMAL INSULATION

2100 x 900 HW TIMBER PANEL DOOR.

114mm THK. BRICKWORK WITH 18mm THK. PLASTER ON BOTH OF SIDE.

15mm THK. TILE TO MANUF DETAIL

150mm THK. R.C SLAB TO ENGR'S DETAIL

150mm THK. HARDCORE

DAMP PROOF MEMBRANCE ABOVE 25mm BLINDING SAND

R.C PAD FOOTING TO ENGR'S DETAIL

MOHAMMAD FARID BIN MD YUSUFF
131922

VIEW FROM JALAN BAKAR SAMPAH

RAS204:ARCHITECTURE STUDIO 2
SEMESTER 4,2017/18
SCHOOL OF HOUSING,
BUILDING & PLANNING
UNIVERSITI SAINS MALAYSIA

PROJECT 1: A PLACE OF WORSHIP

KEY PLAN
NTS

LOCATION PLAN
NTS

SITE IMAGE

ADDRESS SITE : LOT 4034 JALAN KUALA LUKUT
71010 PORT DICKSON, NEGERI SEMBILAN
AREA OF SITE : 10000 SQM OR 1 HECTAR
TYPE OF SITE : COMMERCIAL
OWNER SITE : MR. TAN WEI CHANG

INTRODUCTION

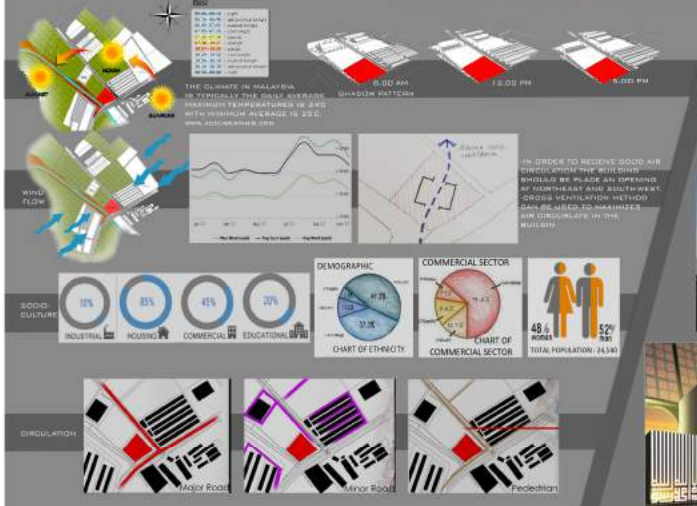
SACRED ARCHITECTURE (ALSO KNOWN AS SPIRITUAL ARCHITECTURE) IS A RELIGIOUS ARCHITECTURAL PRACTICE CONCERNED WITH THE DESIGN AND CONSTRUCTION OF PLACE OF WORSHIP OR SACRED OR INTENTIONAL SPACE, SUCH AS MOSQUES, CHURCHES, STUPAS, SYNAGOGUES, AND TEMPLES.
ARCHITECS OFTEN AIM TO INFUSE THEIR CREATIONS WITH MEANING, BUT ONE TYPE OF STRUCTURE DEMANDS SOMETHING PARTICULARLY MOVING-A SPIRITUAL BUILDING- THAT DEPICTSTHE INTIMATE RELATION BETWEEN MAN AND GOD.

THE CLIENT

MAJLIS AGAMA ISLAM NEGERI SEMBILAN

ARCHITECTURAL STATEMENT

FORM: THIS MOSQUE DOES NOT HAVE A DOME BUT HOUSES THE MINANGKABAU HOUSE. THIS DESIGN APPLIES THE PROLOGUE OF BASANDI SYARAK, SYARAK BASANDI KITABULLAH, WHICH MEANS CUSTOMARY TO RELIGION, AND RELIGION IS RELATED TO KITABULLAH (THE QUR'AN).
IT IS THE MOST POPULAR IN THE AL-WALIYY MOSQUES. IN FACT, THIS MOSQUE ROOF DEPICTS THE LAYOUT OF THE FABRIC USED BY THE FOUR TRIBES OF QURAISH WHEN DISPUTED ABOUT THE TRANSFER OF HAJAR ASWAD STONE IN MECCA. WHEN NOTED, THE FOUR CORNERS OF THE ROOF OF THIS MOSQUE ARE SHAPED LIKE A GONJONG IN THE MINANGKABAU HOUSE BRACKETS: IF MOST MOSQUES ARE BUILT HAVE A DOME ON TOP, ANOTHER WITH THIS ONE MOSQUE, NOT HAVING A DOME BUT WITH THE SPECIAL ROOF OF THE MINANGKABAU WITH A FEATURE OF A GONJONG BUILDING. THE ROOF OF THE MOSQUE HAS 4 SPHERICAL CORNERS SIMILAR TO THE GADANG ROOF ROOF DESIGN.



SITE INVENTORY & ANALYSIS

Masjid Raya Sumatera Barat
SITE:Kota Padang, Sumatera Barat, Indonesia
ARCHITECT:Rizal Muslimin
Spesifikasi:
Kapasitas 5.000–6.000 orang
Tinggi (maks) 47 meter (154 kaki)
Menara 1:
Tinggi menara 85 meter (279 kaki)

PRECEDENT STUDY

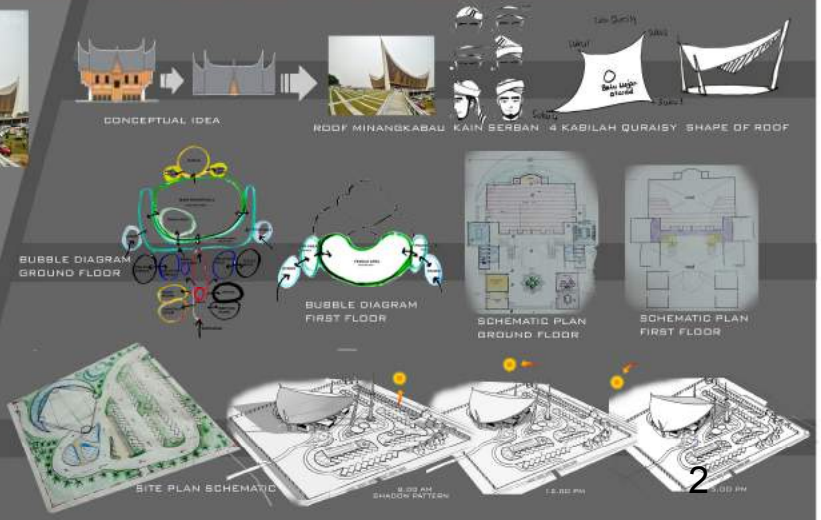


DIAGRAM CONCEPTUAL IDEA

BIRD EYE VIEW

VIEW TOWARDS DROPOFF

VIEW FROM EAST

SITE PLAN
SCALE 1:300

VIEW TOWARDS POND

NIGHT VIEW

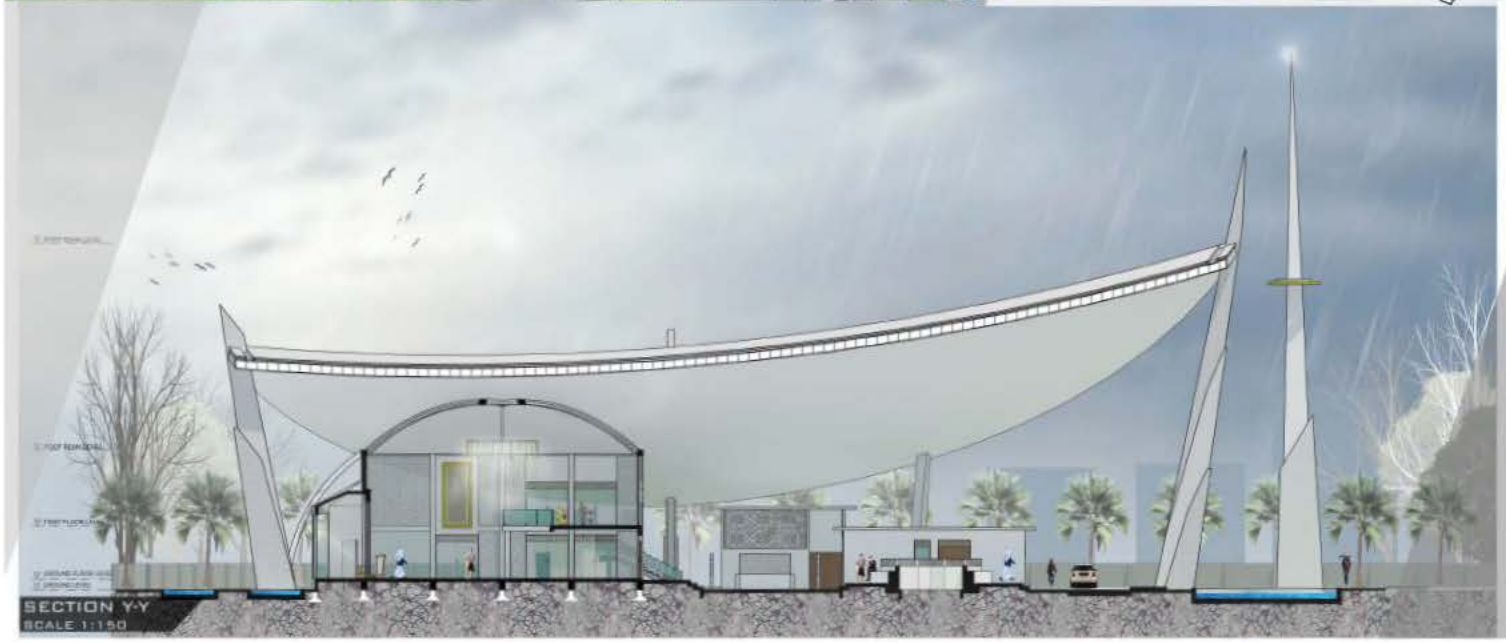
VIEW TOWARDS MAIN ENTRANCE

SECTION X-X
SCALE 1:150

FRONT ELEVATION
SCALE 1:150


LEGEND
GROUND FLOOR PLAN
SCALE 1:150


VOID
VOID
VOID
LEGEND
FIRST FLOOR PLAN
SCALE 1:150


SECTION Y-Y
SCALE 1:150


VIEW FROM
FEMALE AREA


VIEW TOWARDS
PRAYER HALL

SHADOW POSITION AND BRIGHTNESS AT 8.00 A.M IN MAIN PRAYER HALL

SHADOW POSITION AND BRIGHTNESS AT 12.00 P.M IN MAIN PRAYER HALL

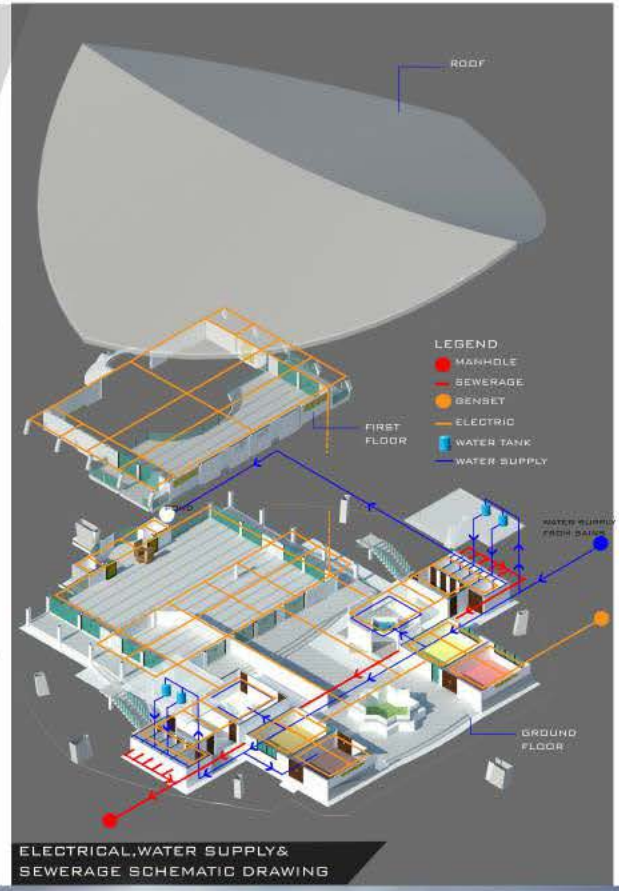
SHADOW POSITION AND BRIGHTNESS AT 2.00 P.M IN MAIN PRAYER HALL

SHADOW POSITION AND BRIGHTNESS AT 5.00 P.M IN MAIN PRAYER HALL

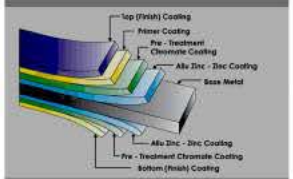
USING THE DAYLIGHT IN A BUILDING IS A CREATIVE STRATEGY IN PASSIVE DESIGN. THE SUN IS A SOURCE OF DAYLIGHT AND CAN BE USE TO AS NATURAL LIGHTING WITH LESS CONSUMPTION OF ELECTRICITY. THUS A GOOD LIGHTING SHOULD BE DESIGNED WELL IN ORDER TO ACHEVE ENOUGH LIGHTING, HENCE REDUCING THE USAGE OF ARTIFICIAL LIGHTING THAT CAN CAUSE HIGH BILL OF ELECTRICITY.

ISLAMIC PATTERN PRODUCED IN FLOOR'S MAIN PRAYER HALL WHEN SUNLIGHT PENETRATE EVERY WALL, DIRECTLY, IT PRODUCES AN INTERESTING SCENE IN THE BUILDING, AS WELL AS SERVES AS A SHADING DEVICE.

LIGHTING ANALYSIS

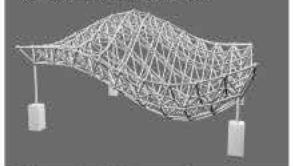


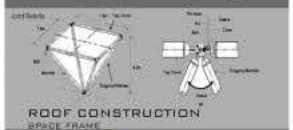
ELECTRICAL,WATER SUPPLY& SEWERAGE SCHEMATIC DRAWING



PROPERTIES OF MATERIAL

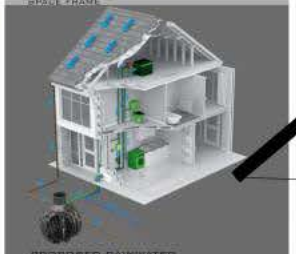
METALIC COATING: ALU/ZINC ALL COATING AZ150 (HIGHER OR LOWER COATING OPTIONAL)
PAINT COATING: SILICAN MODIFIED POLYSTER (MIN) OPTIONAL - RMP & PVF)
PAINTING THICKNESS (TOP): 18 - 22 MICRONS
PAINTING THICKNESS (BOTTOM): 5 - 7 MICRONS
SURFACE PAINT REFLECTION: GLOSSY FINISH (OPTIONAL MATT FINISH)
STANDARD FOLLOWED: ASTM A755, IS277, JIS3222, AS1397TENSILE STRENGTH: 240 - 550 MPA



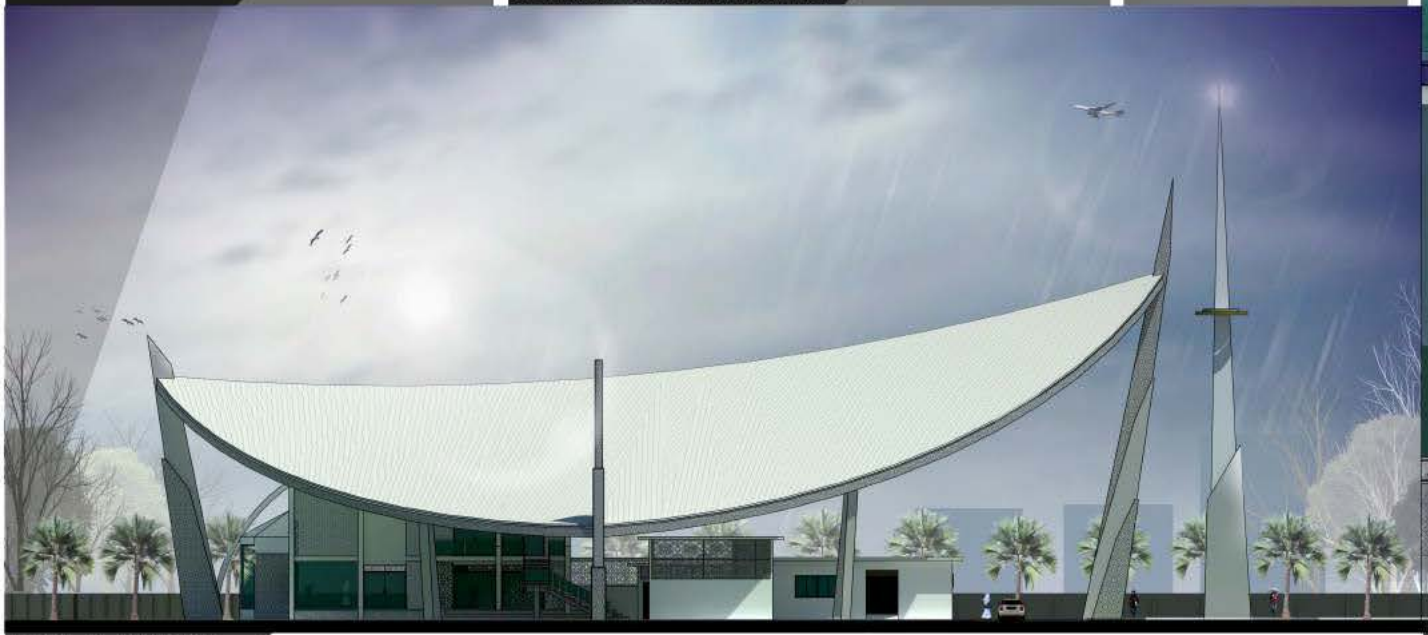


ROOF CONSTRUCTION

SPACE FRAME

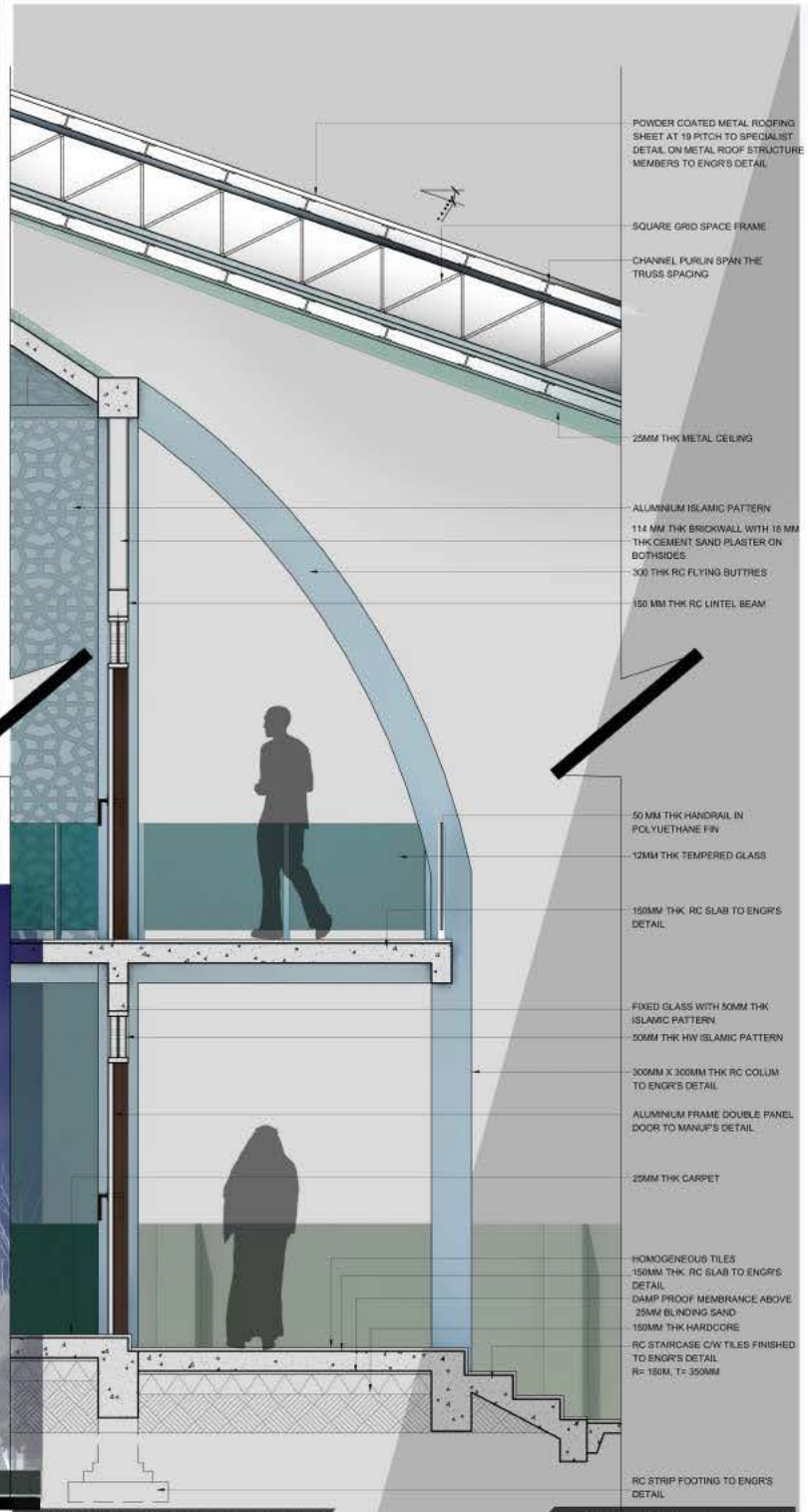


PROPOSED RAINWATER VESTING SYSTEMHA



LEFT ELEVATION

SCALE 1:150



FOUNDATION TO ROOF DETAIL

SCALE 1:20

MOHAMAD IQBAL BIN SAZALI
131923

AL-MAASYIR MOSQUE

KEY PLAN
SCALE: N.T.S

LOCATION PLAN
SCALE: N.T.S

INTRODUCTION

AL-MAASYIR SERVES THE SPIRITUAL, RELIGIOUS AND COMUNAL NEEDS OF MUSLIMS IN THIS AREA BY MEANS OF NURTURING THEIR FAITH, UPHOLDING THEIR VALUES AND FOSTERING THE WELL BEING OF THE SURROUNDING COMMUNITY THROUGH WORSHIP, CHARITY AND EDUCATION. IN THE FUTURE THIS MOSQUE CAN BE LEADING MOSQUE IN PORT DICKSON IN PROVIDING ISLAMIC GUIDANCE AND SERVICES TO THE COMMUNITY

SITE ADDRESS

LOT 4034, JALAN KUALA LUKUT, 71010 PORT DICKSON, NEGERI SEMBILAN DARUL KHUSUS

AREA OF SITE

1 HECTARE (10000 SQM)

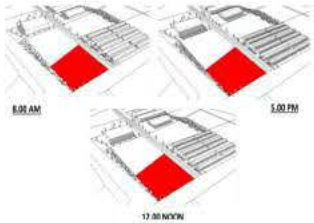
OWNER

MR. TAN WEI CHAN

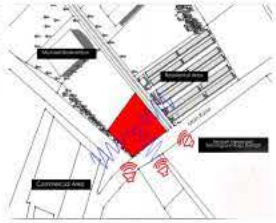
SITE ANALYSIS

POPULATION ETHNIC IN SURROUNDING

SUN ORIENTATION



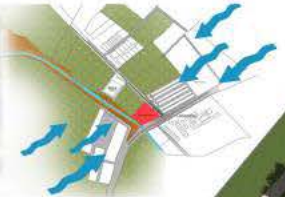
SHADOW PATTERN



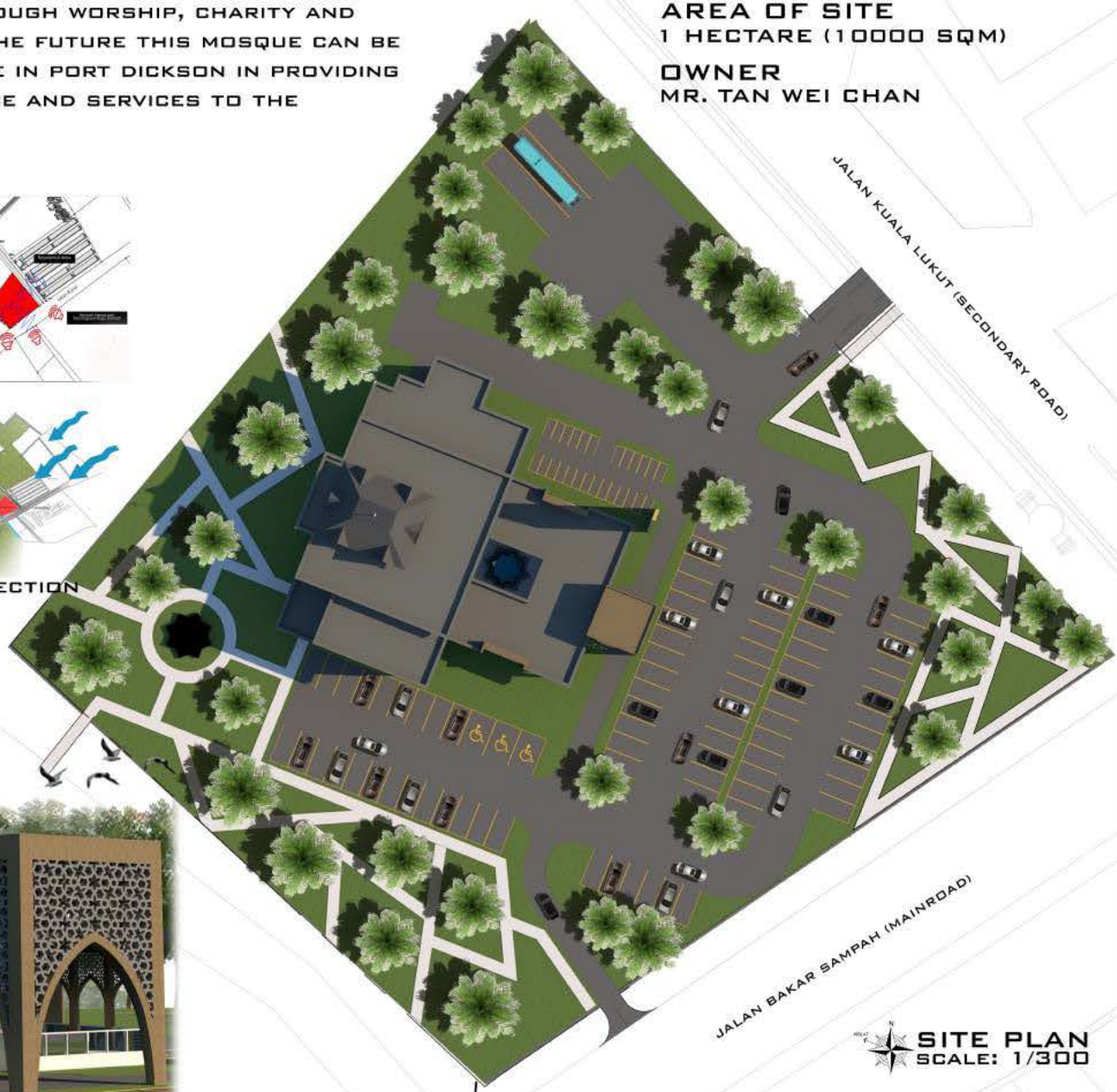
NOISE

VIEW FROM SITE

IMPACT OF THE DEVELOPMENT



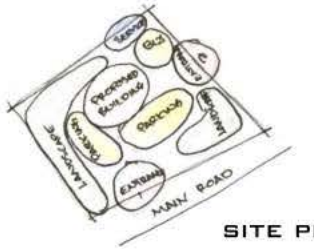
WIND DIRECTION



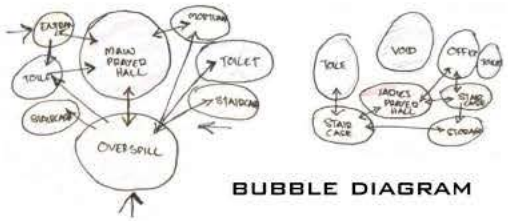
SITE PLAN
SCALE: 1/300

CONCEPTUAL SKETCHES & IDEA

THE CONCEPTUAL FOR AL-MAASYIR MOSQUE USING GEOMETRIC SHAPE AND WELL KNOWN AS MONDRAIN PATTERN HORIZONTAL AND VERTICAL PATTERN TO INDICATE THE SPACE IN THIS BUILDING. AL-MAASYIR EMPHASIZED ASYMETRICAL RECTANGULAR BECAUSE OF THE SIZE OF THE RECTANGULAR.



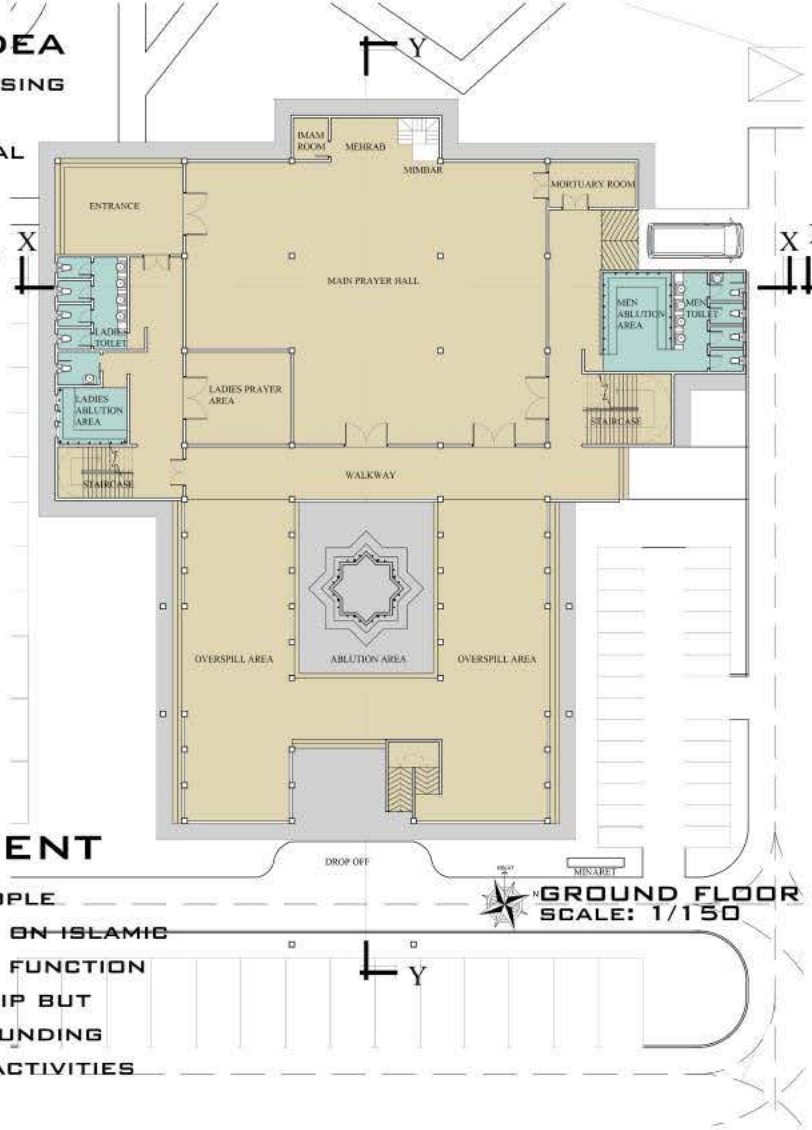
SITE PLANNING IDEA



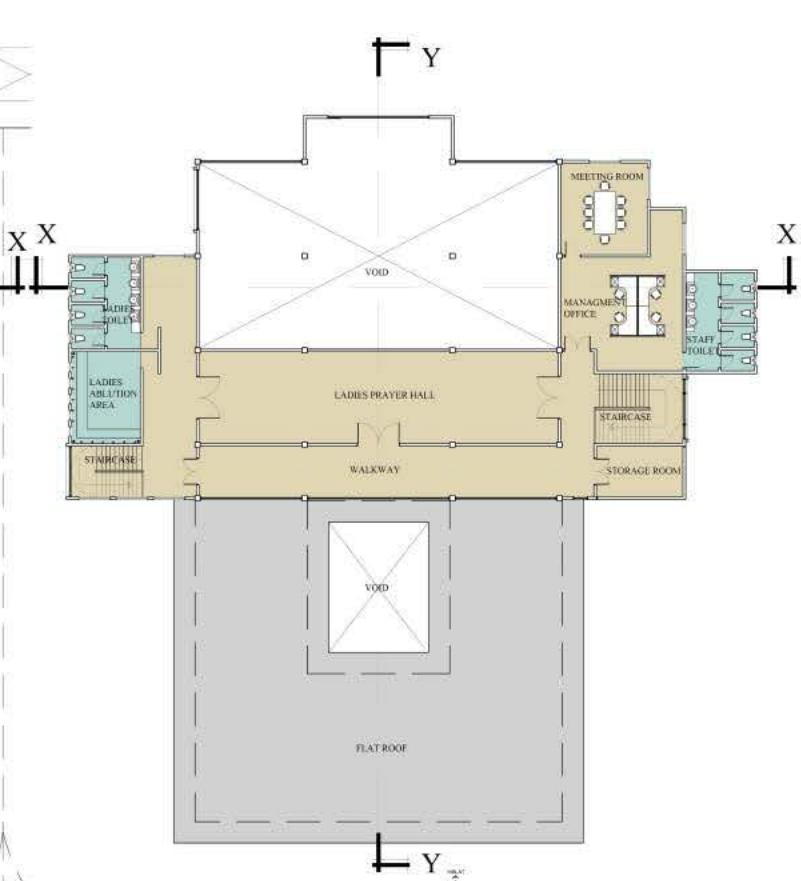
BUBBLE DIAGRAM

ARCHITECTURAL STATEMENT

TO FORM A MOSQUE IN PORT DICKSON TO PEOPLE SURROUNDING. AND IS WAS DESIGNED BASED ~~ON ISLAMIC~~ GEOMETRIC PATTERN IN THE FACADE AND THE FUNCTION OF THIS BUILDING WAS NOT ONLY FOR WORSHIP BUT THEY ALSO CAN GATHER WITH PEOPLE SURROUNDING THAT CAME TO THAT MOSQUE AND DO SOME ACTIVITIES IN THIS AREA.



GROUND FLOOR PLAN
SCALE: 1/150



FIRST FLOOR PLAN
SCALE: 1/150

SECTION X-X
SCALE: 1/150

SECTION Y-Y
SCALE: 1/150

PERSPECTIVE VIEW 1
SCALE: N.TS

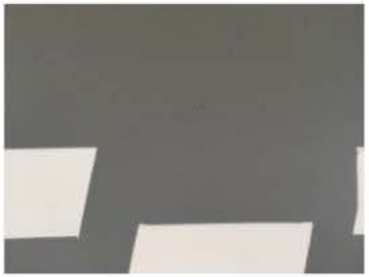
PERSPECTIVE VIEW 2
SCALE: N.T.S

PERSPECTIVE VIEW 4
SCALE: N.T.S

PERSPECTIVE VIEW 3
SCALE: N.T.S

FRONT ELEVATION
SCALE: 1/150

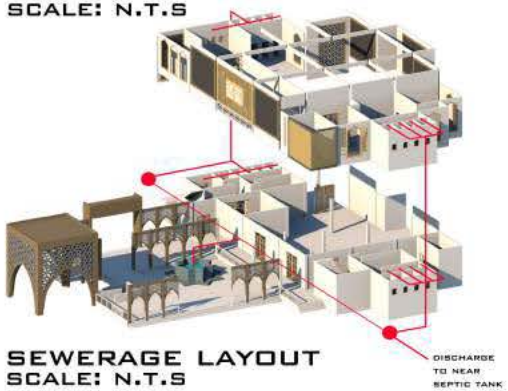
REAR ELEVATION
SCALE: 1/150



LIGHTHING ANALYSIS

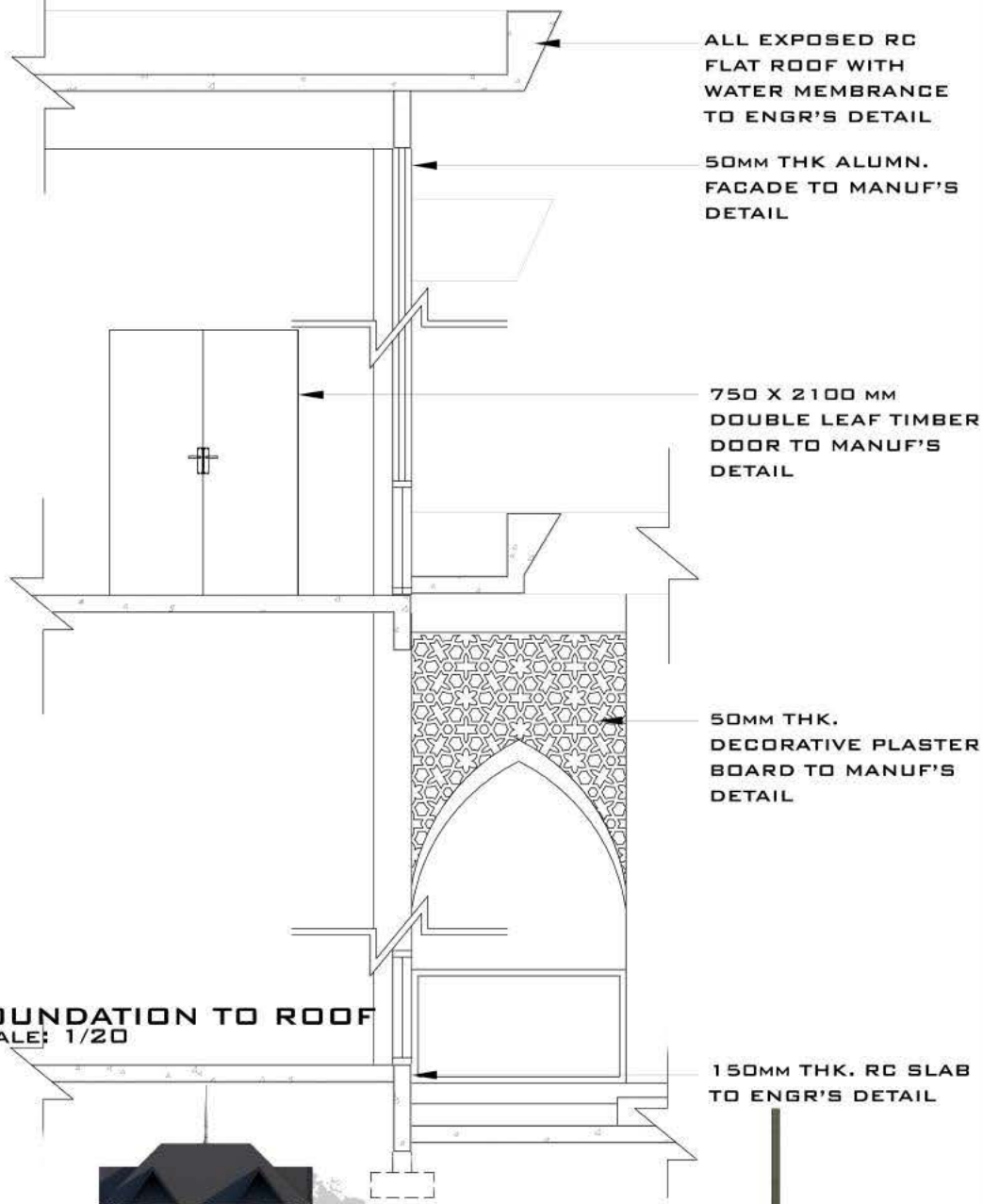
LIGHT PLAYS A CENTRAL ROLE IN THE ENVIROMENT. LIGHT INFLUENCE OUR WELL BEING, THE AESTHETICS EFFECT AND THE MOOD OF THE ROOM AREA. IN DESIGNING MOSQUE , LIGHTHING IS MOST IMPORTANT ASPECT NEED TO BE CONSIDER RATHER USING NATURAL OR MECHANICAL LIGHTHING

WATER SUPPLY LAYOUT
SCALE: N.T.S



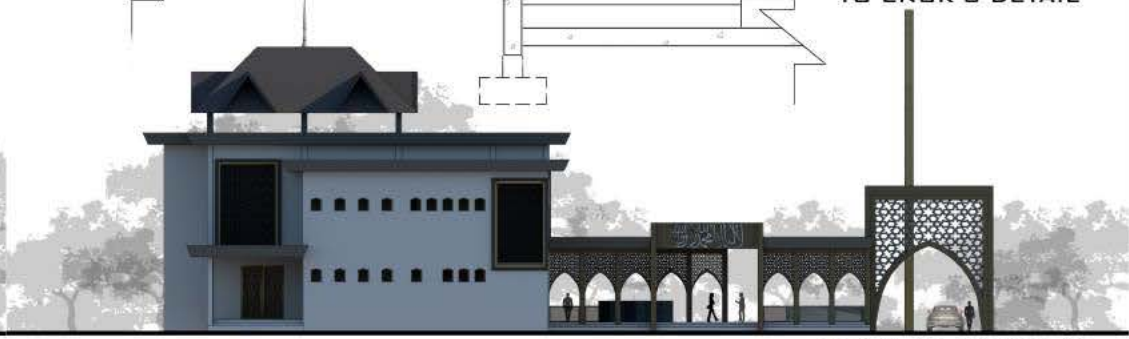
SEWERAGE LAYOUT
SCALE: N.T.S

ELECTRICAL LAYOUT
SCALE: N.T.S



FOUNDATION TO ROOF
SCALE: 1/20

RIGHT ELEVATION
SCALE: 1/150



LEFT ELEVATION
SCALE: 1/150

MOHAMMAD AIDIL AFIQ BIN NAZARUDIN 131924

PROJECT 01

PLACE OF WORSHIP

AL LANABAQ MOSQUE

MOHAMMAD AIDIL AFIQ BIN NAZARUDIN I ID : 131824 I

RAS 204 ARCHITECTURE STUDFIO 2 I SEMESTER 2 2017/2018 I

STUDIO MASTER: EN. REDUAN B MAHAT , PN. SITI AMIRAH BT MOHTARAM

KEY PLAN

NOT TO SCALE

LOCATION PLAN

NOT TO SCALE

SITE BACKGROUND

-LOCATED AT LOT 4034 JALAN KUALA LUKUT
-71010 PORT DICKSON, NEGERI SEMBILAN.
-AREA OF SITE IS 10000 SQM / 1 HECTAR
-TYPE OF SITE IS COMMERCIAL SITE
-OWNER SITE IS MR. WEI CHANG

BUBBLE DIAGRAM

(SITE BUBBLE)

FUNCTION

LEGEND

1. PROPOSED BULDING
2. DROP OFF
3. MINARET
4. MOTORCYCLE PARKING
5. CAR PARKING AREA
6. WATER FOUNTAIN
7. AMPHITEATER
8. OPEN SPACE
9. STAFF PARKING
10. BUS PARKING

SITE PLAN

SCALE 1 : 300

1

ARCHITECTURE STATEMENT

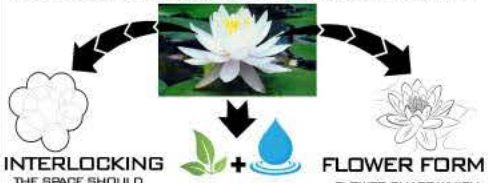
THIS PROJECT REQUIREMENT IS TO DESIGN A MOSQUE BUILDING FOR A COMMUNITY NEEDED. THIS BUILDING SITE LOCATED AT JALANKUALA LUKUT, LUKUT, PORT DICKSON. THROUGHT HISTORY, RELIGION HAS CREATED A BEAUTIFUL CREATION IN THIS ARCHITECTURE WORLD.THIS PLACE OF WORSHIP HAVE RELATION BETWEEN MAN AND GOD. THIS MOSQUE HAS MAIN HALL, ABLUTION FOR WOMEN AND MAN, OFFICE MULTIPURPOSED HALL AND MEETING ROOM. OTHER FACILITIES INCLUDE PARENTING ROOM, LIBRARY AND CLASS FOR KAFA SESSION.

CLIENT

MAJLIS AGAMA ISLAM NEGERI SEMBILAN. THEY WANT A PALCE OF WORKSHIP WHICH CAN BE AN ATTRACTIVE PIECE AND KNOWN WELL

CONCEPT

THE CONCEPT FOR THIS BUILDING IS BASED ON LIY FLOWER. THE CHARACTERISTIC OF THIS FLOWER CAN BE USED WHICH IS FRESHNESS, INTERLOCKING AND FLOWER FORM ITSELF.



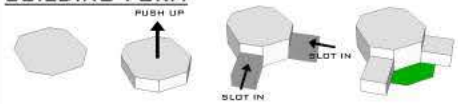
INTERLOCKING
THE SPACE SHOULD BE NOR FAR APART

FRESHNESS
COMBINATION THE ELEMENT OF WATER AND GREENERY

FLOWER FORM
FLOWER SHAPE WHICH IS URVE AND ARCH

IDEA DEVELOPMENT

BUILDING FORM



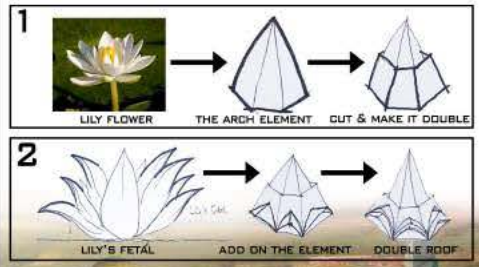
1 GEOMATRIC ISLAMIC SHAPE

2 GIVING A VOLUME TO BECOME A MASSING

3 ADDING ACTIVETIES

4 A'FRESHNESS' TERM IS ADDED

ROOF DESIGN



SITE ANALYSIS


POTENTIAL VIEW


SITE AXIS


VEHICLE CIRCULATION

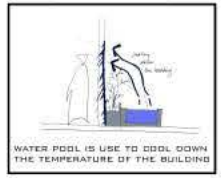

WIND DIRECTION


LANDSCAPE STRATEGY

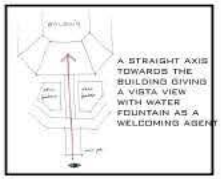

SUNPATH

DESIGN APPROACH

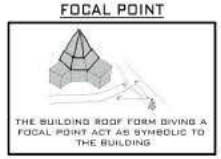
WATER FEATURE


WATER POOL IS USE TO COOL DOWN THE TEMPERATURE OF THE BUILDING

WELCOMING STRATEGY



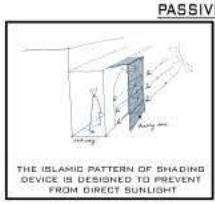
FOCAL POINT

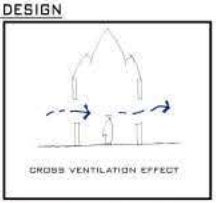

THE BUILDING ROOF FORM GIVING A FOCAL POINT ACT AS SYMBOLIC TO THE BUILDING

RAINWATER HARVESTING


THE RAINWATER WILL BE COLLECTES AND WILL BE USED FOR PLANTAION AND TOILET

PASSIVE DESIGN


THE ISLAMIC PATTERN OF SHADING DEVICE IS DESIGNED TO PREVENT FROM DIRECT SUNLIGHT

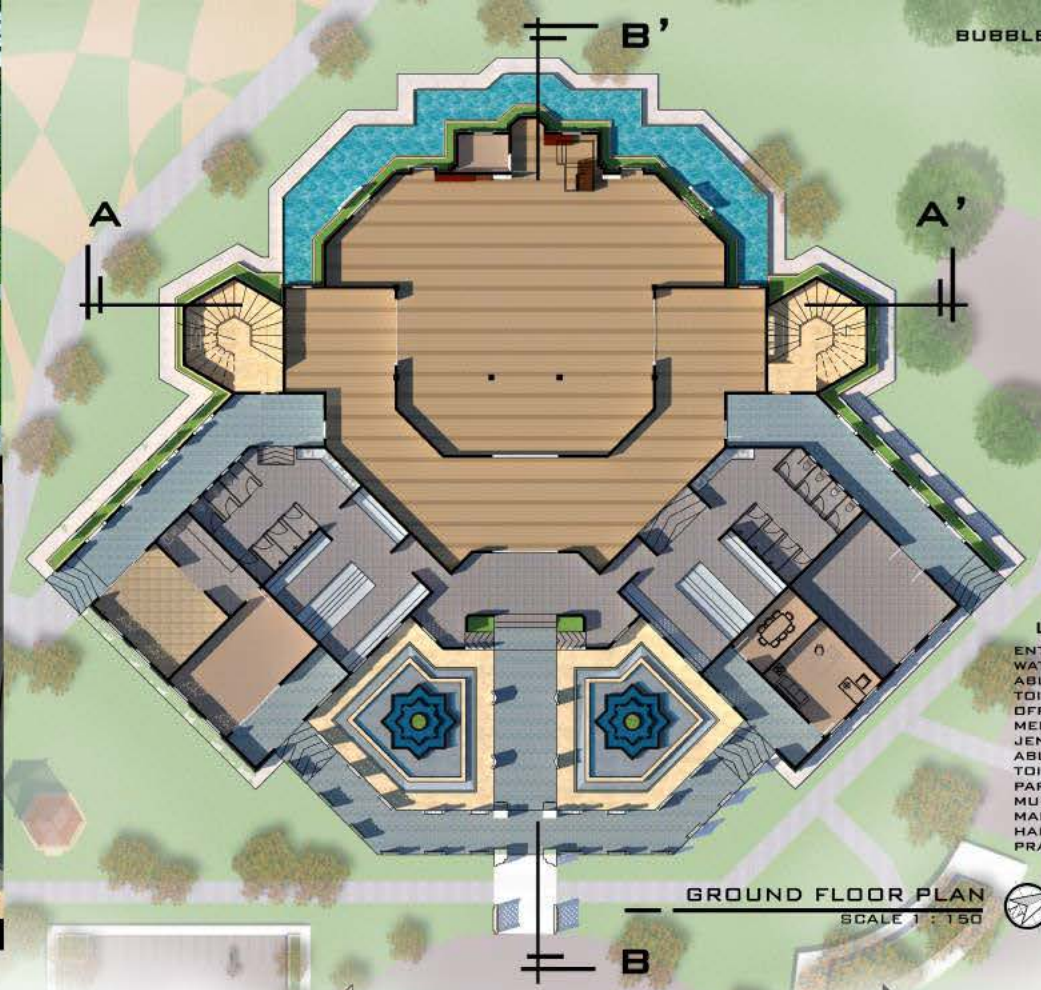

CROSS VENTILATION EFFECT

BIRD EYE VIEW

OPEN AREA (LANDSCAPE)

ENTANCE OF THE MOSQUE

BUBBLE DIAGRAM :



LEGEND :

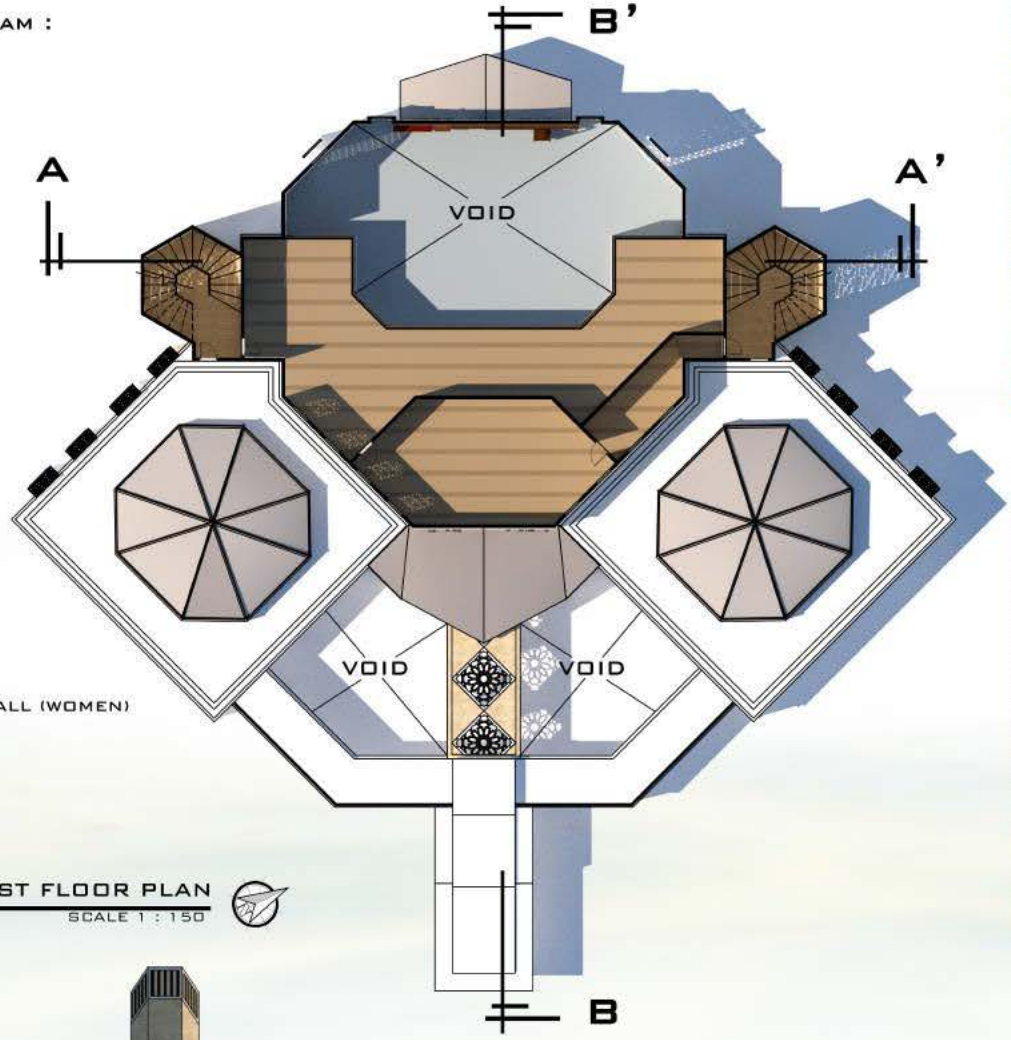
- ENTRANCE
- WATER FOUNTAIN
- ABLUTION (MALE)
- TOILET (MALE)
- OFFICE
- MEETING ROOM
- JENAZAH ROOM
- ABLUTION (FEMALE)
- TOILET (FEMALE)
- PARENTING ROOM
- MULTIPURPOSE ROOM
- MAIN PRAYER HALL
- HALLWAY
- PRAYER PLACE

GROUND FLOOR PLAN
SCALE 1 : 150

SECTION A - A'
SCALE 1 : 150

FRONT ELEVATION
SCALE 1 : 150

BUBBLE DIAGRAM :



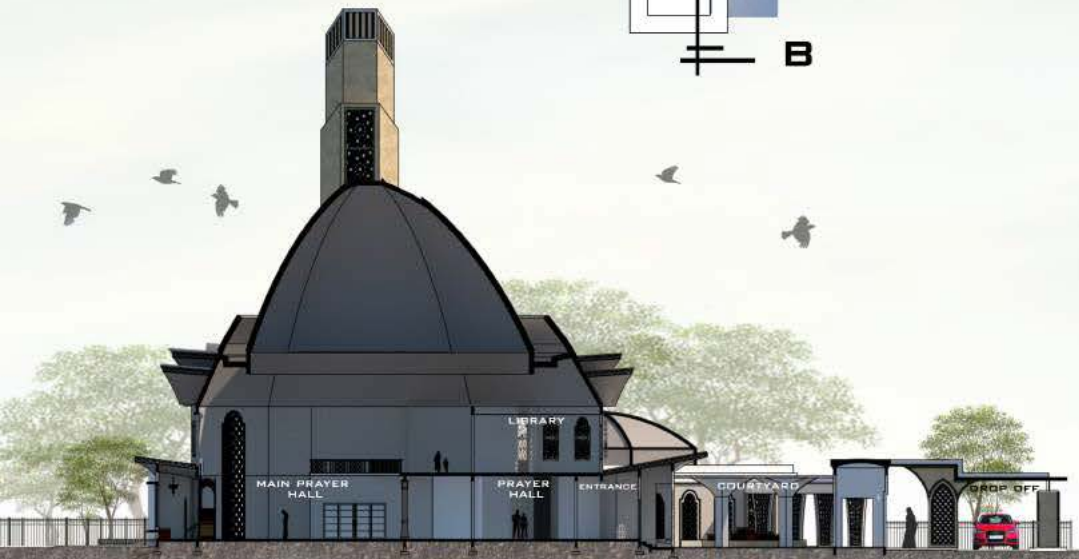
LEGEND :

PRAYER HALL (WOMEN)
LIBRARY
HALLWAY

FIRST FLOOR PLAN
SCALE 1 : 150

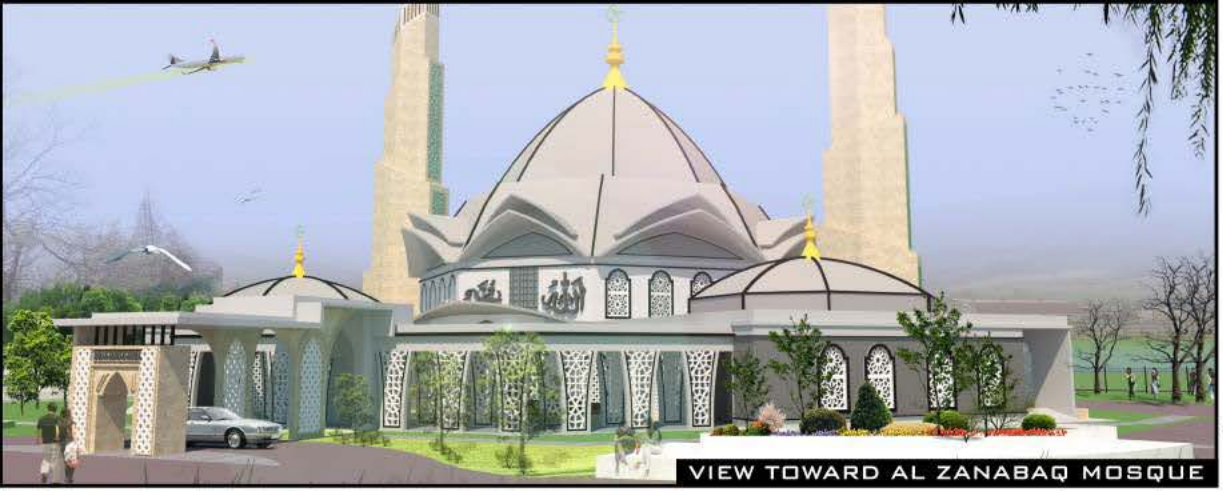
VIEW OF REAR BUILDING

MAIN PRAYER HALL



SECTION B -B'
SCALE 1 : 150

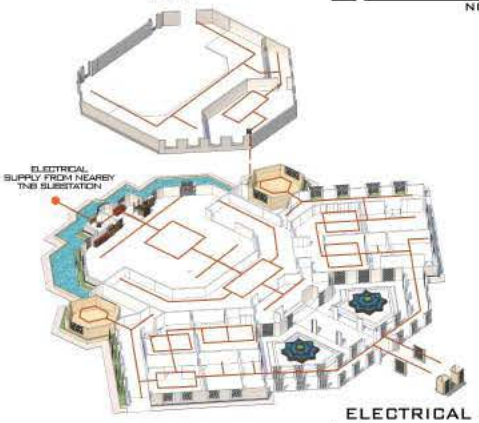
LEFT ELEVATION
SCALE 1 : 150



VIEW TOWARD AL ZANABAQ MOSQUE

WATER SUPPLY DIAGRAM

NOT TO SCALE



ELECTRICAL DIAGRAM

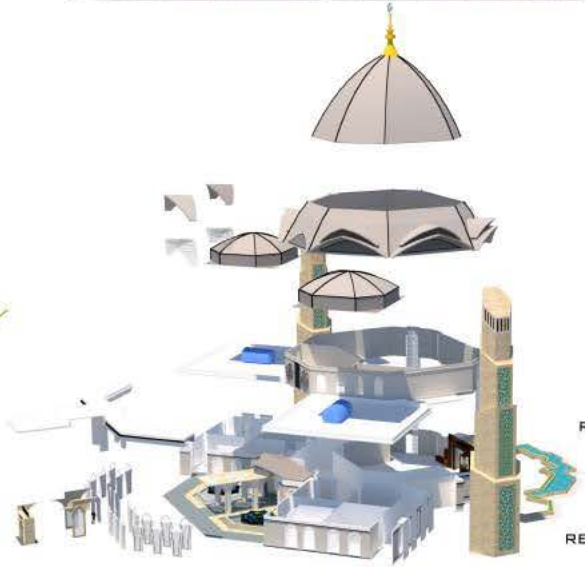
NOT TO SCALE

SEWARAGE DIAGRAM

NOT TO SCALE

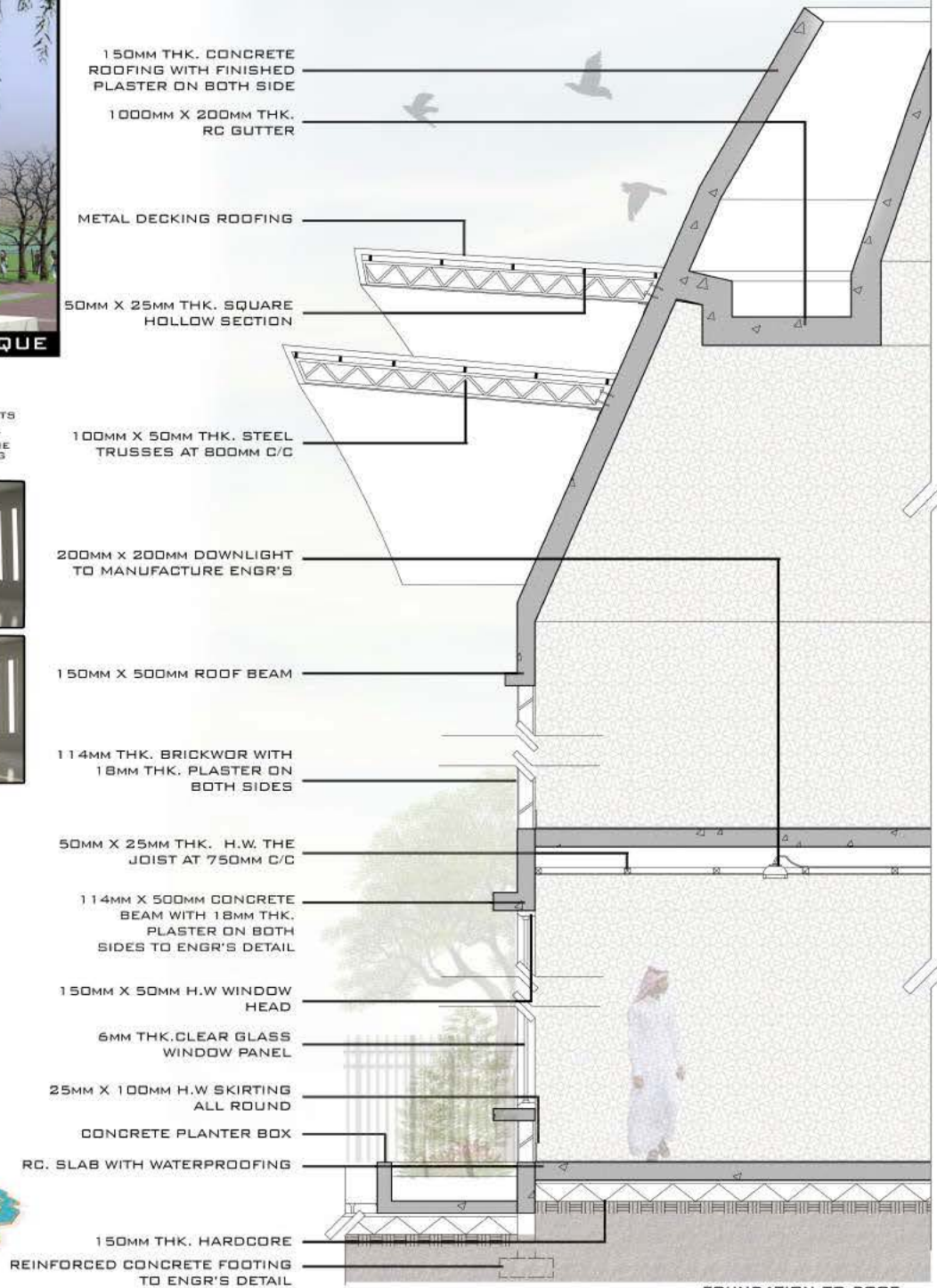
LIGHTING ANALYSIS

USING DAYLIGHT IN THIS BUILDING IS A KEY STRATEGY FOR PASSIVE DESIGN.LETTING SUNLIGHT INTO THIS BUILDING IMPACTS VISUAL COMFORT, AS WELL AS THERMAL COMFORT. USING AN ISLAMIC PATTERN AS A SHADING DEVICE MAY REDUCE A DIRECT SUNLIGHT PANETRATE INTO THE BUILDIN. IN ORDER TO KEEP THE NATURAL SUNLIGHT. WIDE OPENING DESIGN AND LONG IS BEING USED.



EXPLODED VIEW

NOT TO SCALE



FOUNDATION TO ROOF

SCALE 1 : 20

MUHAMMAD ANWAR BIN MOHD ALI
131929

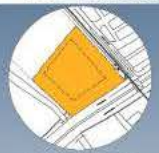
MASJID AL MUNAWWARAH

PROJECT 1 : A PLACE OF WORSHIP

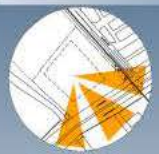
KEY PLAN
SCALE N.T.S

LOCATION PLAN
SCALE N.T.S

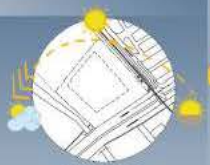
SITE ANALYSIS



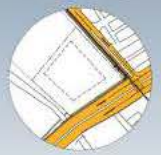
SITE LOCATION



BEST VIEW

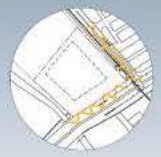


SUN PATH



PEDESTRIAN
AND CIRCULATION

WIND DIRECTION



NOISE ANALYSIS

LIGHTNING ANALYSIS

THE USING OF DAYLIGHT IS BUILDING IS A CREATIVE STRATEGY IN PASSIVE DESIGN. THE SUN IS THE SOURCE OF DAYLIGHT AND CAN BE USE TO NATURAL LIGHTING CAN LESS CONSUMPTION OF ELECTRICITY.

OVERCAST ARTIFICIAL LIGHT

OPENING "A" IS CLOSED

OPENING "B" IS CLOSED

OPENING "C" IS CLOSED

DESIGN CONCEPT

BALANCE AS A SIMPLE AND PURE FORM. THE PERFECT FORM, BECAUSE WHAT WE WANT TO CONVEY IS THE PURITY OF THE FAITH. FOR US THIS FORM REFLECTS HE RELIGION. EVEN IN THE EARLIEST MOSQUES THE SHAPE OF THE BUILDING BASED ON THE SQUARE, ON A REGULAR FORM WE ARE THE SAME IN FRONT OF ALLAH.

SPACES

IF THE WEATHER CONDITIONS IN LUKUT DURING RAIN SESION, WE DESIGNED A FLEXIBLE SOLUTION TO SHELTER BIGGER NUMBER OF PEOPLE WITHIN THE PERIMETER OF THE MOSQUE. BY USING OVERSPILL AREA IN THE MOSQUE, WE CAN OFFER EXTRA SPACE FOR PRAYING.

PRIVACY AREA

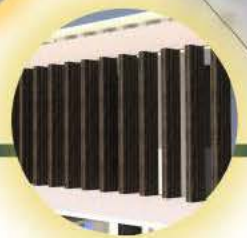
WE CAN TRANSFORM THE INTERIOR OF THE MAIN PRAYING HALL INTO SMALLER SPACES IN THE TIME WHEN THE MOSQUE IS NOT FULL. THIS FLEXIBILITY IS DONE BY RESPECTING THE RULE FOR NOT MIXING MEN AND WOMEN IN THE PROCESS OF PRAYING.

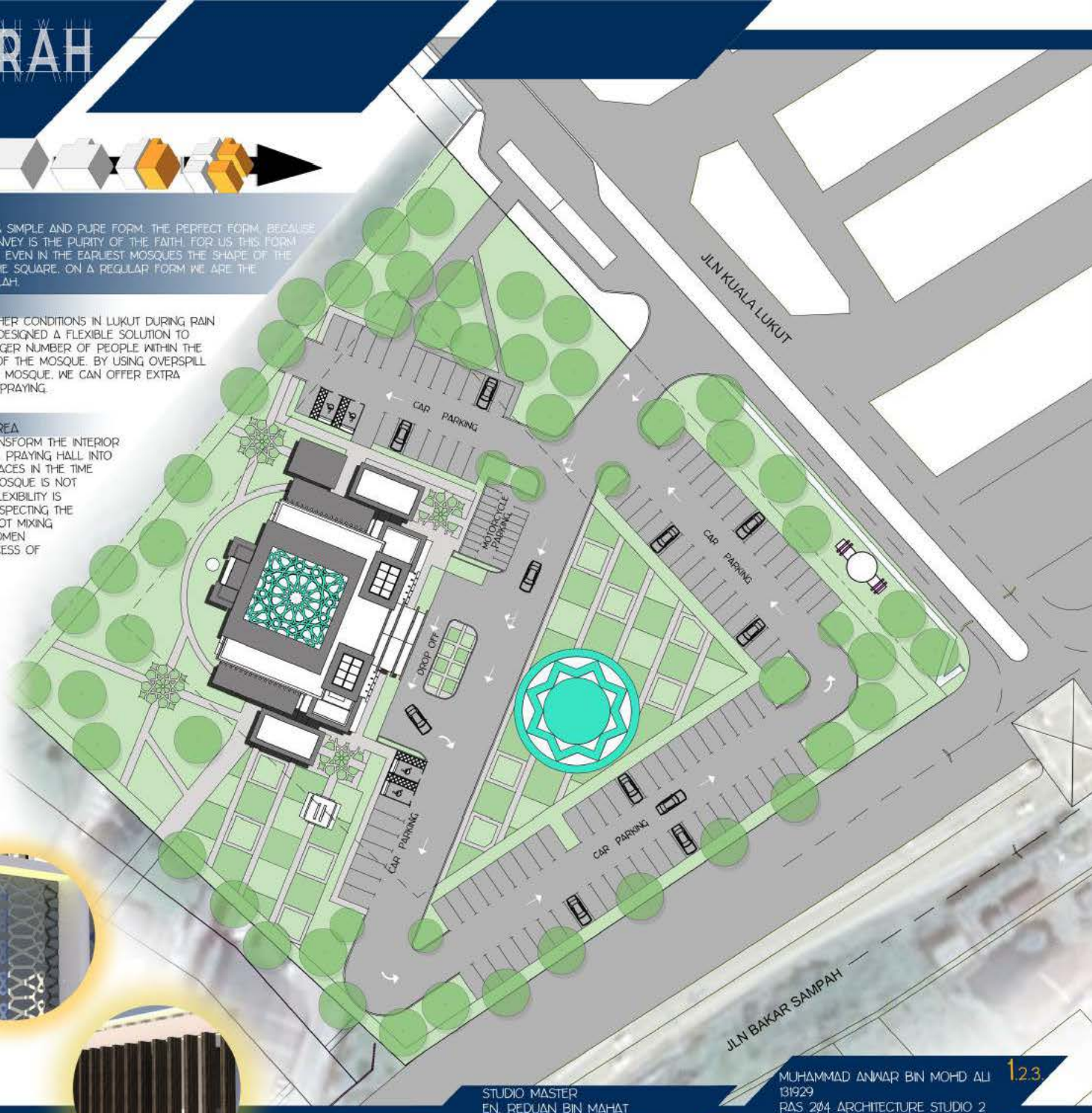
THE AIMS

FAMILY

TOURIST

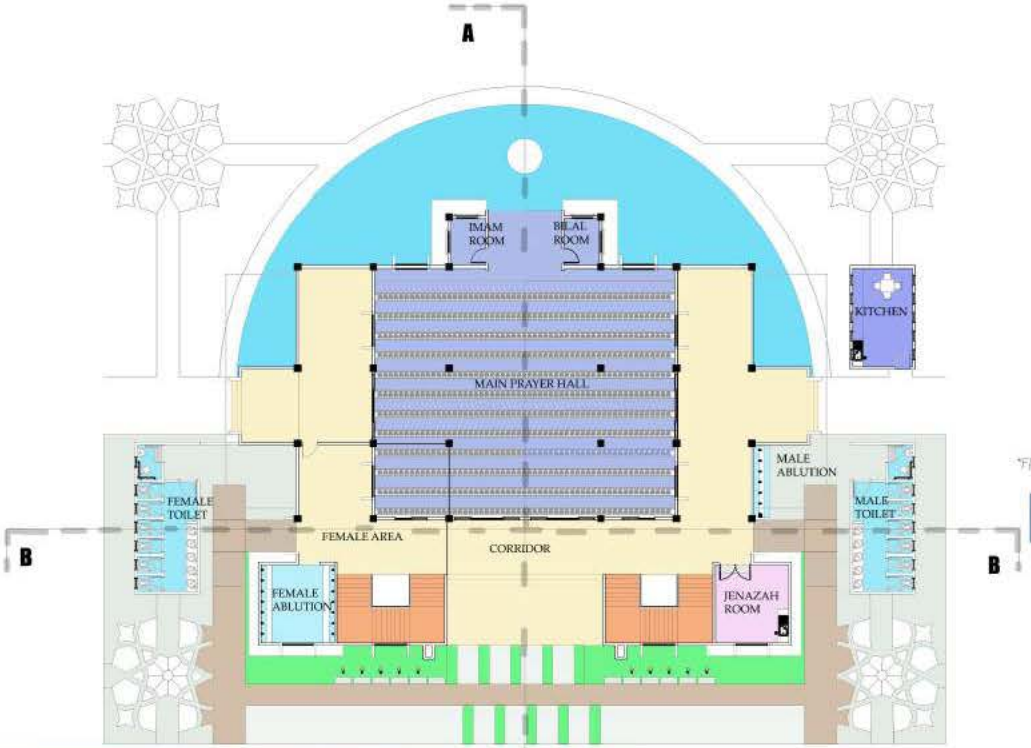
MUSAFIR



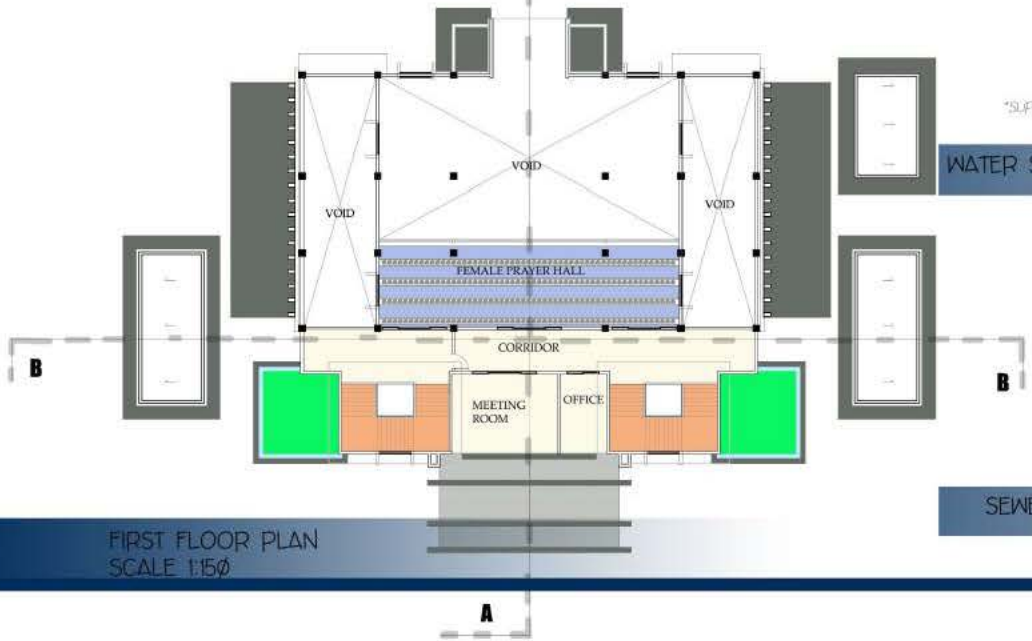


STUDIO MASTER
EN. REDUAN BIN MAHAT
PN SITI AMIRAH MOHTARAM

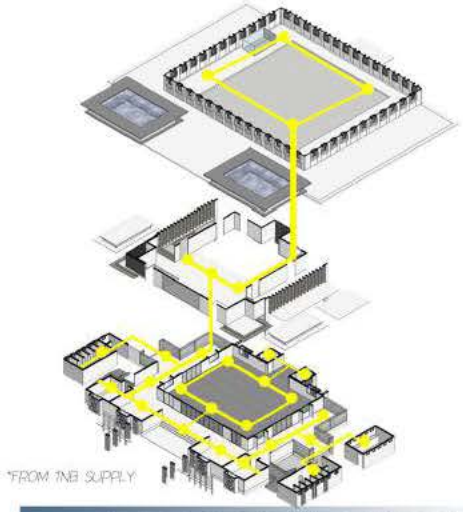
MUHAMMAD ANWAR BIN MOHD ALI 1.2.3.
131929
RAS 204 ARCHITECTURE STUDIO 2
SEMESTER 4 SO17/2018



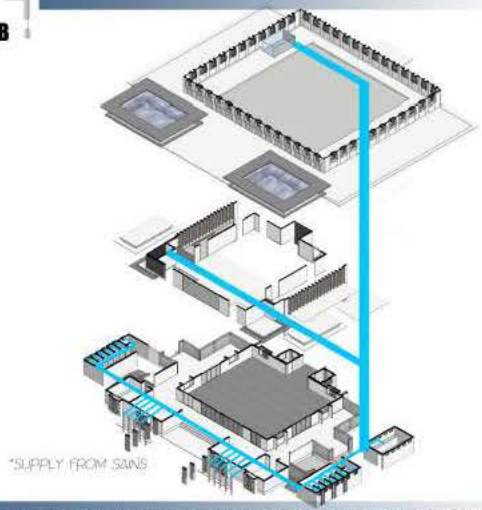
GROUND FLOOR PLAN
SCALE 1:150



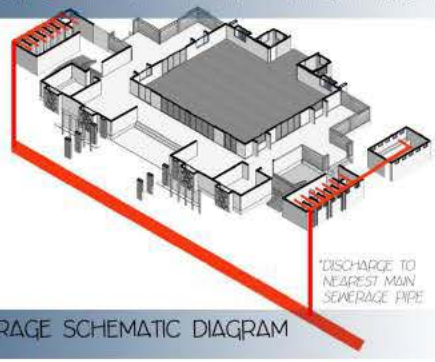
FIRST FLOOR PLAN
SCALE 1:150



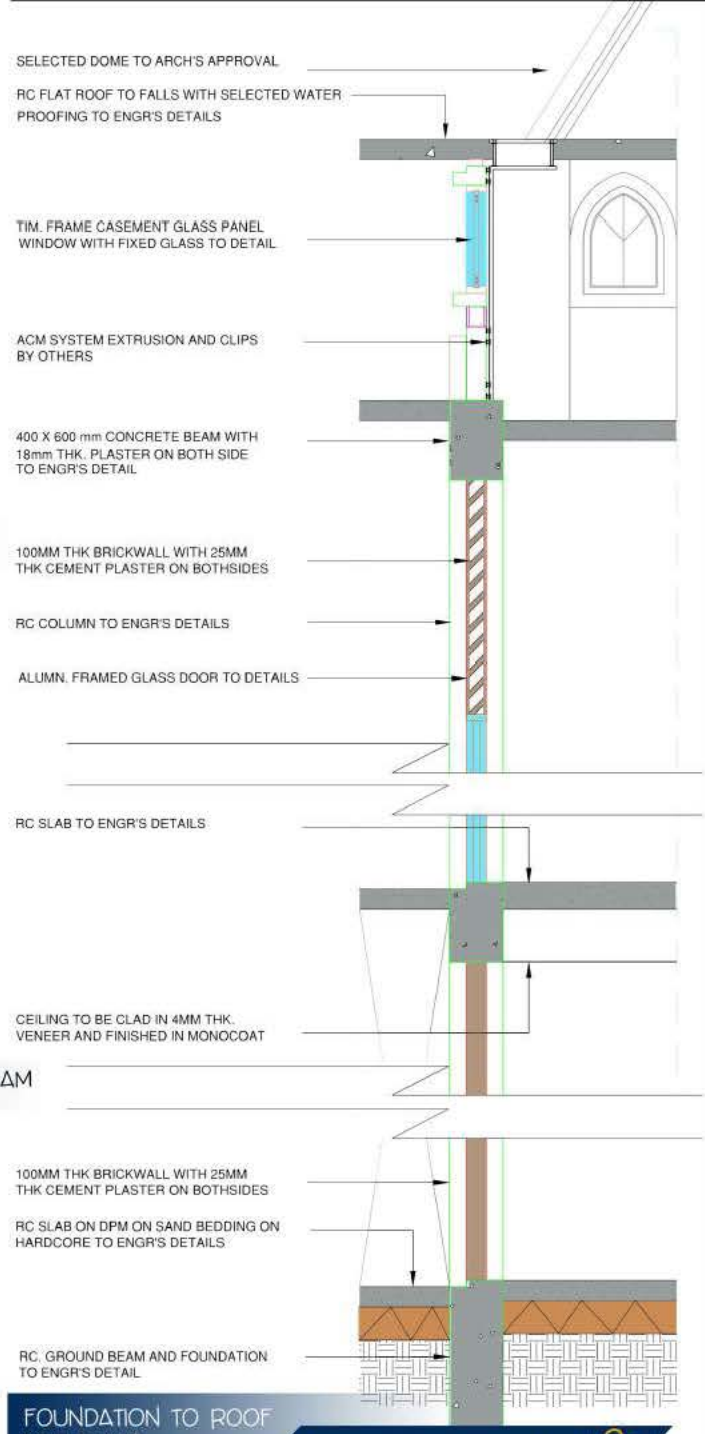
ELECTRICAL SCHEMATIC DIAGRAM



WATER SUPPLY AND RAINWATER HARVERTING DIAGRAM



SEWERAGE SCHEMATIC DIAGRAM

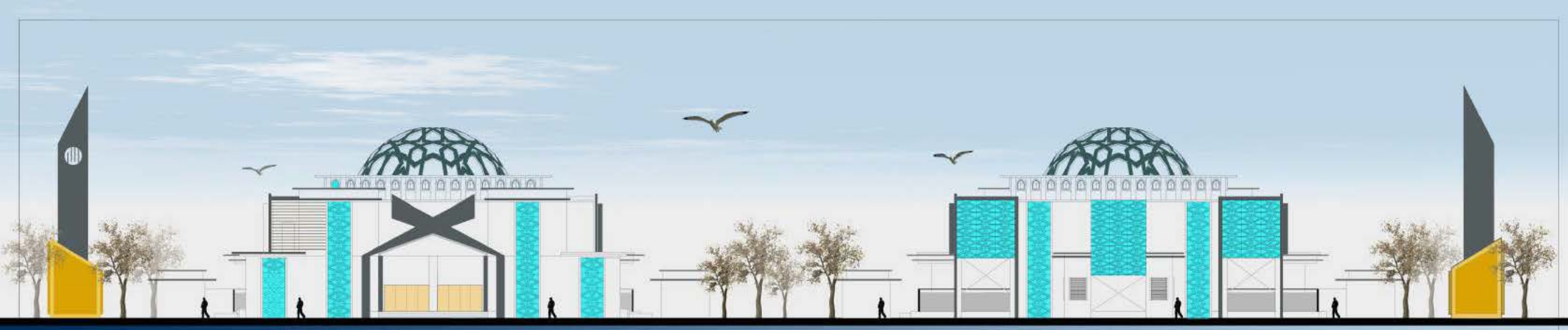


FOUNDATION TO ROOF
SCALE 1:20

STUDIO MASTER
EN. REDUAN BIN MAHAT
PN SITI AMIRAH MOHTARAM

MUHAMMAD ANWAR BIN MOHD ALI
131929
RAS 204 ARCHITECTURE STUDIO 2
SEMESTER 4 SO17/2018

1.23



FRONT ELEVATION
SCALE 1:15Ø

REAR ELEVATION
SCALE 1:15Ø

LEFT ELEVATION
SCALE 1:15Ø

RIGHT ELEVATION
SCALE 1:15Ø

SECTION A-A
SCALE 1:15Ø

SECTION B-B
SCALE 1:15Ø

STUDIO MASTER
EN. REDUAN BIN MAHAT
PN SITI AMIRAH MOHTARAM

MUHAMMAD ANWAR BIN MOHD ALI
131929
RAS 204 ARCHITECTURE STUDIO 2
SEMESTER 4 SO17/2018

1.2.3

MUHAMMAD ASHRAF BIN AZIZ
131930

Architect
RULES OF SURVIVAL

بسم الله الرحمن الرحيم

PROJECT 1
A PLACE OF WORKSHIP
MASJID AL - SYAKIRIN

DESIGN STATEMENT

MOSQUE (مسجد) IS AN ARABIC WORD WHICH MEANS PLACE OF PROSTRATION. THE MOSQUE IS THE SPECIFIC PLACES, SUCH AS PRAYERS AND IKTIKA FOR MUSLIMS. THE BUILDING IS ALSO A CULTURAL CENTRE, AND DEVELOPMENT OF MUAMALAT ISLAMIC DA'WAH ACTIVITIES CENTER, AS WELL AS MUSLIMS. THE MOSQUE HAS NO FIXED SHAPE, SINCE THE BEGINNING OF ISLAM (S.A.W), THE PROGRESS OF UMMAH AND ISLAMIC MOVEMENT ALL STARTED FROM THE MOSQUE. THE MOSQUE HAS BEEN MADE AS A PLACE TO GATHER, DISCUSS AND PLAN STRATEGIES THAT ARE NOT LIMITED TO THE FIELD OF DA'WAH IN FACT COMMERCIAL, LEGAL, AND DISSEMINATION OF KNOWLEDGE, AS WELL AS MANY OTHERS.

THIS MOSQUE HAS LARGE OPENING TO GET MAXIMUM NATURAL VENTILATION AND NATURAL DAYLIGHT SO THAT WE CAN APPRECIATE GODS CREATION. THIS BUILDING ALSO HAS THIER INNOVATION THAT USED ON INDOOR AREA TO GET FRESH AIR INSIDE THIS MOSQUE. THE MATERIAL THAT USED FOR THIS INNOVATION IS LIGHTWEIGHT PLASTIC MATERIAL CALLED PROSOLVE 370E, WHICH IS COVERED WITH A VERY THIN LAYER OF TITANIUM DIOXIDE (TIO2) POWDER WHEN IT RECEIVES DIRECT SUNLIGHT, IT NEUTRALIZES THE EMISSIONS AND OTHER TOXINS AND RETAINS THEM. NO HIGH UV RADIATION LEVELS ARE NEEDED TO ACTIVATE THE COATING ELECTRONS SO THAT THEY BREAK DOWN NITROGEN OXIDES AND OTHER COMPOUNDS, TRANSFORMING THEM INTO WATER AND CALCIUM NITRATE (AN ELEMENT FOUND IN FERTILIZERS) THAT WILL BE WASHED OFF BY THE RAIN.

ISSUE

-NEAREST MOSQUE AND CHURCH ARE FAR AND CAN'T COVER USERS
-LACK OF COMMUNITY AREAS THAT CAN CREATING TOGETHER IN LUKUT AREA

AIM

TO PROVIDE FACILITIES TO THE MUSLIM COMMUNITY WHO LIVE AND WORK IN THE VICINITY OF LUKUT

CONCEPT

TRANSPARENT + FLEXIBLE +RESPONDING

TRANSPARENT
-PUBLIC PRAYER HALL WHICH HAS A SPACIOUS OPENINGS IN TERMS OF LIGHTING, VISIBILITY AND VENTILATION TO INSPIRE COMMUNITIES TO BE MORE CLOSE TO GOD AND BE AN EXAMPLE AND BE INTRODUCED TO RURAL 'IBNU ABBAR R.A PERNAH BERKATA, AMALAN FARDHU YANG DILAKUKAN SECARA TERANG-TERANGAN LEBIH UTAMA DARIPADA YANG TERSEMBUNYI

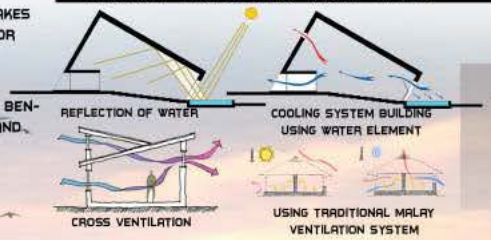
FLEXIBLE
-THE MOSQUE HAS A VARIETY OF SPACE WHICH MAKES IT FLEXIBLE IN TERMS OF SPACE AND FUNCTION FOR USE ANY TIME

RESPONDSIVE
-SPACE THAT CAN HELP THE COMMUNITY AND CAN BENEFIT ALL OF SOCIETY IRRESPECTIVE OF RELIGION AND RACE

OBJECTIVE

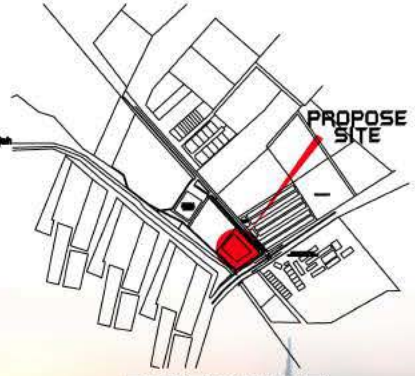
-TO ENHANCE STUDENT ABILITY IN CRITICALLY ANALYZING THE COMMONISSUE OF COMMUNITY, CULTURE AND RELEGION
-FOR STUDENT TO APPLY AND UNDERSTAND THE HORIZONTAL AND VERTICAL CIRCULATION IN MOSQUE
-TO LEARN AND DECIDE ON CONSTRUCTION AND DETAILINGTAHT FRIENDLY WITH ENVIRONMENT AND EASY TO SERVICE
-TO APPLY ENERGY EFFICIENCY BY MAXIMIZING THE UTILIZATION OF NATURAL VENTILATION, DAYLIGHT AND SOLAR SHADING
TO APPLY UNIVERSAL DESIGN FOR ACCESSIBILITY THAT BENEFITS ALL USER

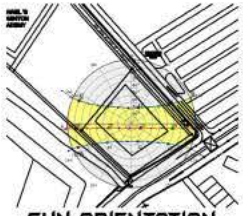
ENERGY EFFICIENCY THAT APPLY

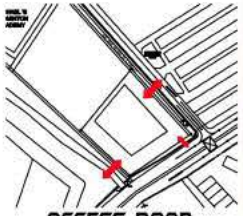


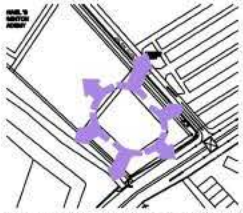
KEY PLAN

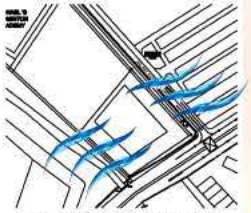
LOCATION PLAN




SUN ORIENTATION


ACCESS ROAD

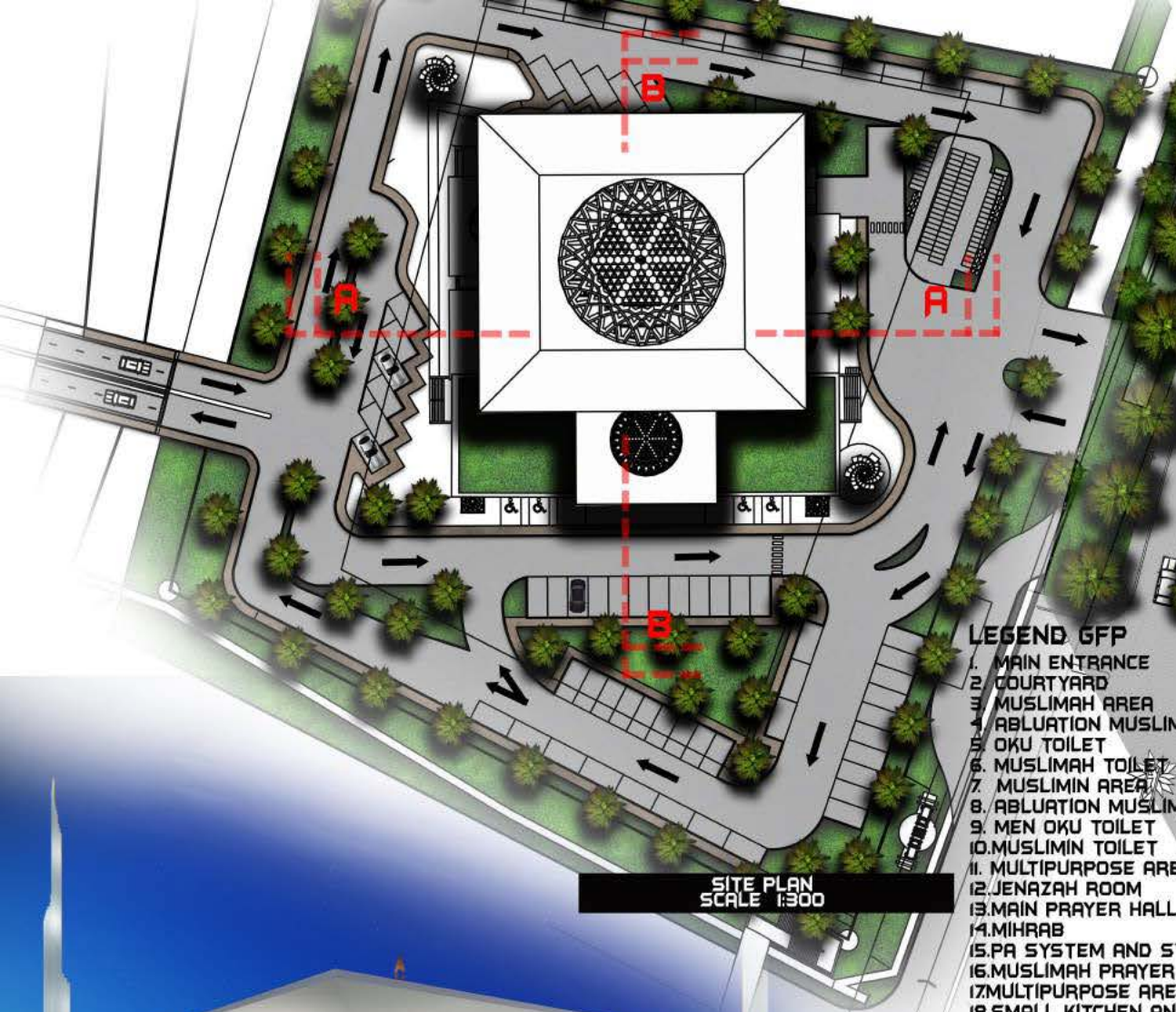

SITE POTENTIAL VIEW


AIR FLOW ON SITE


SITE CONTEXT


SHADOW PATTERN


PERSPECTIVE VIEW



SITE PLAN
SCALE 1:300

LEGEND GFP

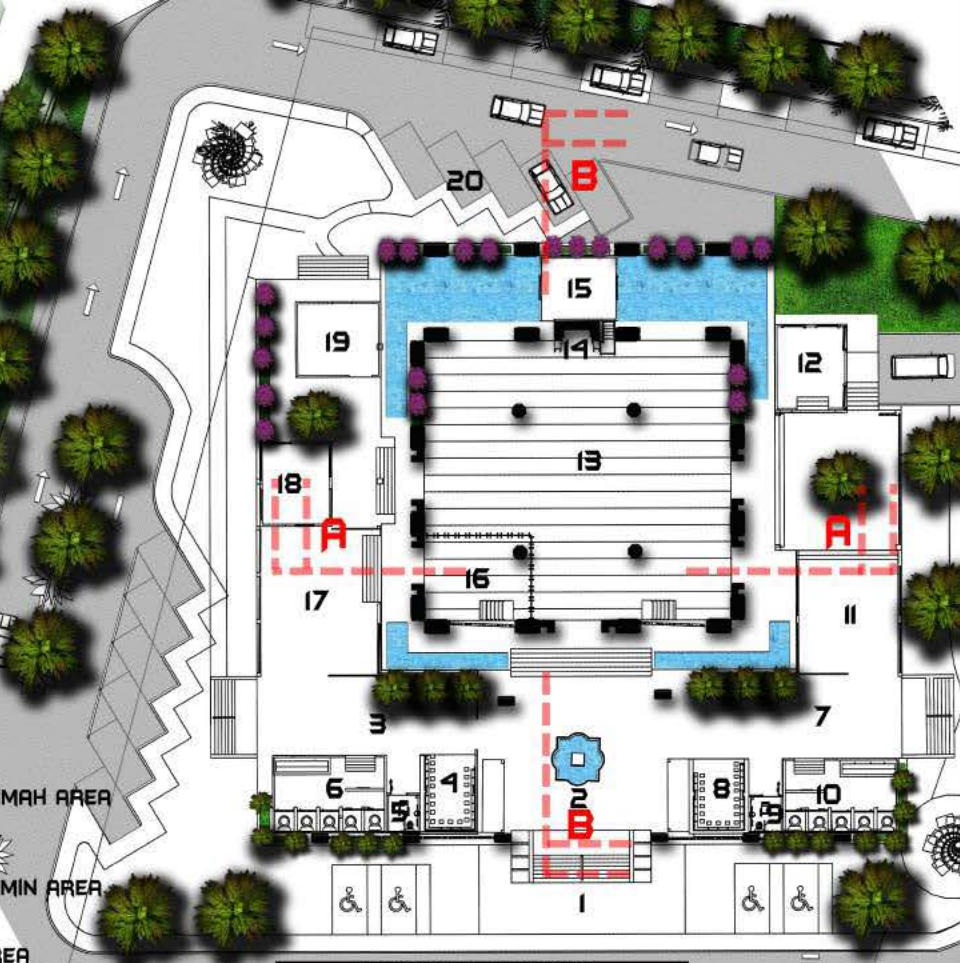
1. MAIN ENTRANCE
2. COURTYARD
3. MUSLIMAH AREA
4. ABLUATION MUSLIMAH AREA
5. OKU TOILET
6. MUSLIMAH TOILET
7. MUSLIMIN AREA
8. ABLUATION MUSLIMIN AREA
9. MEN OKU TOILET
10. MUSLIMIN TOILET
11. MULTIPURPOSE AREA
12. JENAZAH ROOM
13. MAIN PRAYER HALL
14. MIHRAB
15. PA SYSTEM AND STORAGE ROOM
16. MUSLIMAH PRAYER AREA
17. MULTIPURPOSE AREA
18. SMALL KITCHEN AND DINING ROOM
19. OFFICE AND MEETING ROOM
20. PARKING STAFF

LEGEND FFT

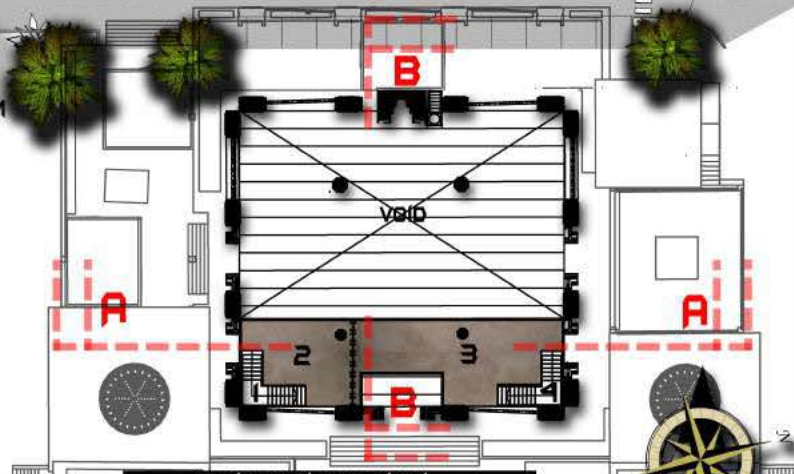
1. STAIRCASE MUSLIMAH
2. MUSLIMAH PAYER AREA
3. MUSLIMIN PRAYER AREA
4. MUSLIMIN ACCESS AREA

PERSPECTIVE NIGHT VIEW

MAIN HALL PRAYER AREA



GROUND FLOOR PLAN
SCALE 1:150

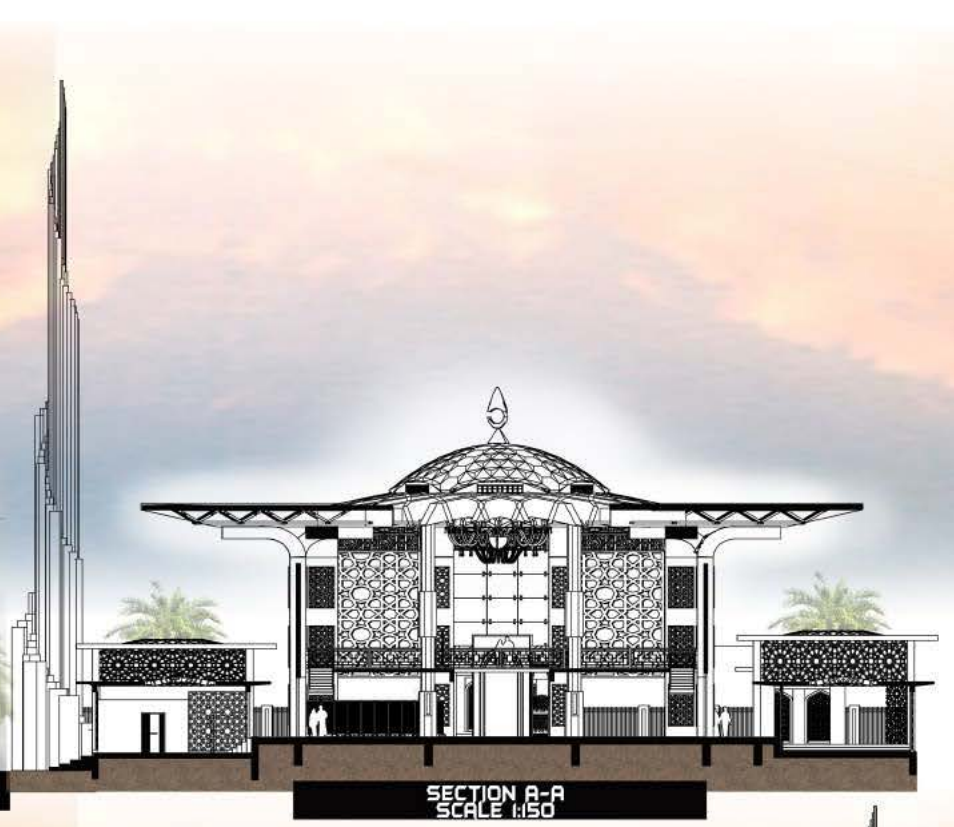


FIRST FLOOR PLAN
SCALE 1:150

MUHAMMAD ASHRAF BIN AZIZ
131930

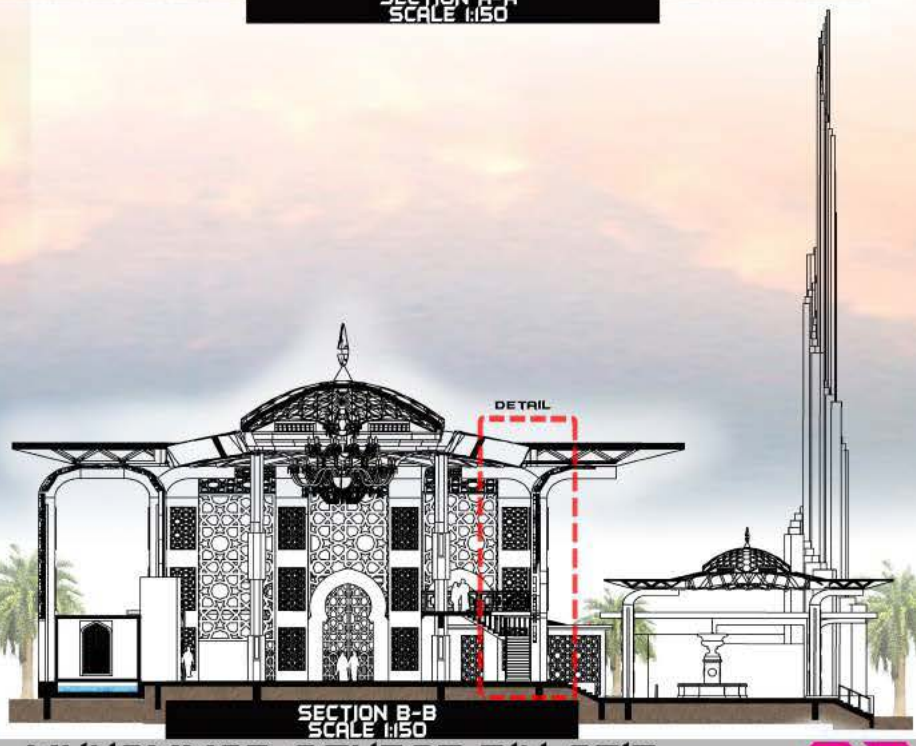
26/3/18

LEFT ELEVATION
SCALE 1:150



SECTION A-A
SCALE 1:150

FRONT ELEVATION
SCALE 1:150



SECTION B-B
SCALE 1:150

MUHAMMAD ASHRAF BIN AZIZ
131930

26/3/18

ELECTRICAL, WATER SUPPLY & SEWERAGE SCHEMATIC DRAWING
NOT TO SCALE

EXPLODED VIEW
NOT TO SCALE

INNOVATION

ISLAMIC PATTERN SHADING DEVICES MATERIAL FROM PROSOLVE370ES COVERED WITH TITANIUM DIOXIDE POWDER. WHEN ULTRAVIOLET RAYS OF SUN-LIGHT REACH THE TITANIUM DIOXIDE ON THE TILES. IT TRIGGERS A CHEMICAL REACTION BETWEEN THE TITLES AND THE SMOG IN THE AIR (MONO-NITROGEN OXIDES).

WIND TURBINE

COTTON GAUZE BANDAGE

ISLAMIC PATTERN SHADING DEVICES MATERIAL FROM PROSOLVE370ES COV-ERED WITH TITANIUM DIOX-IDE POWDER

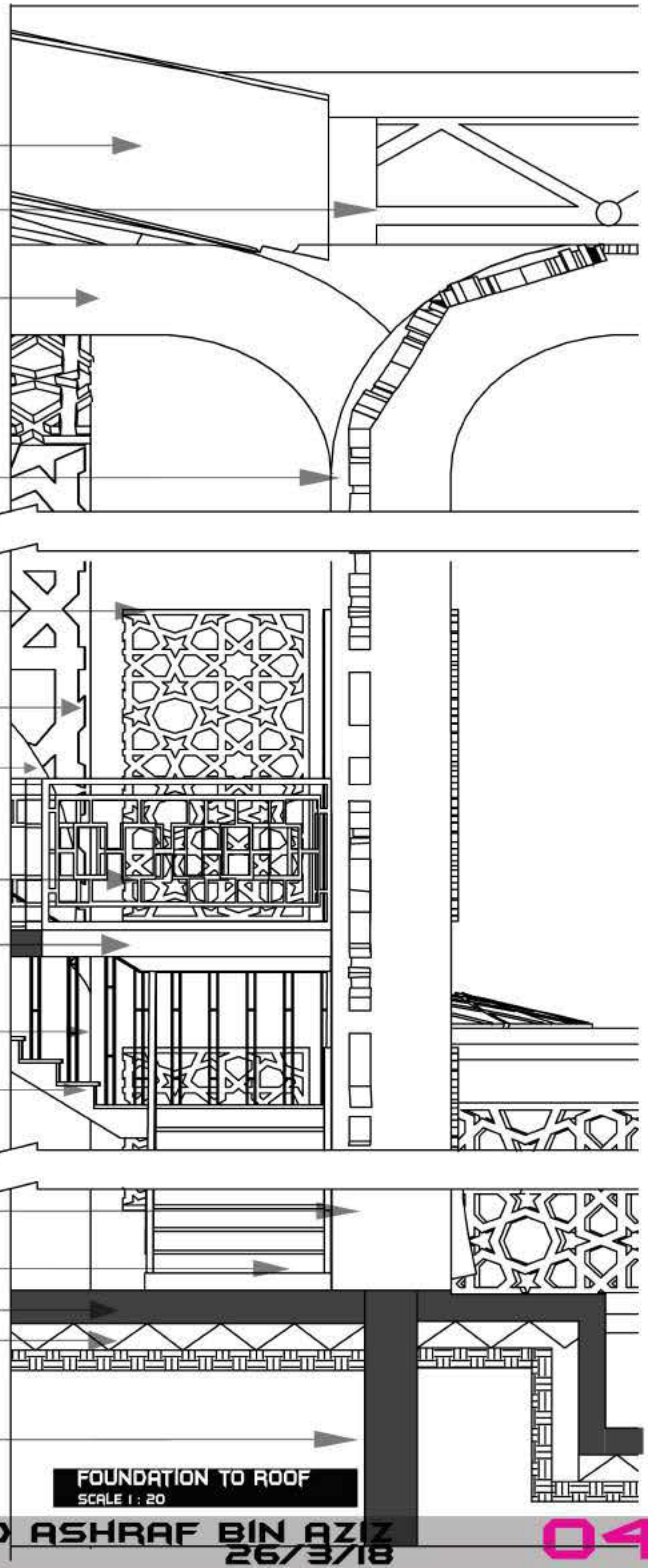
THE FAN THAT USED IS GENERATED BY NATURAL VENTILATION AS A WIND TURBINE AND AT THE MIDDLE ON FAN AND ISLAM-IC SHADING DEVICED HAS A COTTON GAUZE BANDAGE THAT ALWAYS GET WET TO MAKE SURE INSIDE THIS MAIN PRAYER HALL CAN GET FRESH AND COOL NATURAL AIR

LIGHTING ANALYSIS

CONCEPT STATEMENT

THIS BUILDING HAS USING STRATEGY IN PASSIVE DESIGN THAT USING 100% NATURAL DAYLIGHT WITH LARGE OPENING AROUND THE MAIN PRAYER HALL TO MINIMIZE THE CONSUMPTION OF ELECTRICITY. A WELL DESIGN WITH GOOD LIGHTING SHOULD BE IN ORDER TO ACHEVE ENOUGH LIGHTING INSIDE TO THE BUILDING. HENCE, REDUCING THE USAGE OF ARTIFICIAL LIGHTING THAT CAN MAKE HEAT ISLAND PHENOMENON.

AS IT CAN SEEN IN THE IMAGES BELOW, THE DAYLIGHT ENTERED TO MAIN PRAYER HALL THROUGH OPENING FROM WALL AND ROOF TO GET MAXIMUM NATURAL DAYLIGHT.



FOUNDATION TO ROOF
SCALE 1 : 20

MUHAMMAD FATHULLAH
BIN ZAINUDDIN
131932

HADHARI MOSQUE
LUKUT, PORT DICKSON

PREPARED BY : MUHAMMAD FATHULLAH BIN ZAINUDDIN 131932

AIM

TO PORPOSE SPIRITUAL ARCHITECTURE IS A RELIGIOUS ARCHITECTURAL PRACTICE.
TO BE ISLAMIC RELIGIOUS CENTER FOR EVERY COMMUNITY AROUND PORT DICKSON AND TRAVELERS.

OBJECTIVE

- PREPARE FACILITIES TO POPULATION IN RELIGIOUS WORKSHIP
- ESTABLISHING A STRONG COMMUNITY OF PEOPLE TO RELIGION
- CREATE IDENTITY LUKUT MOSQUE
- ENLARGE EMPIRE ISLAM

DESIGN STATEMENT

THIS PROJECT IS TO DESIGN A PLACE OF WORKSHOP EITHER A MOSQUE OR CHURCH AT LUKUT, PORT DICKSON IT WILL PROVIDE FACILITY TO COMMUNITY, PROVIDING PRAYING HALL , ACTIVE LIVING OPPORTUNITIES. IT CONSISTS VARIOUS SPACES IN TERM OF OUTDOOR AND IN DOOR FACILITIES. THE MOSQUE INCLUDE PRAYING HALL, TOILET, ABLUTION JENAZAH ROOM AND MULTIPURPOSE ROOM OR DINING AREA .

IDEA/CONCEPTUAL DEVELOPMENT

USING REAL LIFE (FLORA SUPERMOON)

CONNECTED TO FIVE ANGLE THAT HAVE THE STRENGTH OF DESIGN AND SPACE

UNIC

POWER

COMBINATION FLORA AND MOON STAR

THE RAFFLESIA

THIS DESIGN IS INSPIRED BY A HERBACEOUS PLANT IN SOUTHEAST ASIA, A RAFFLESIA PLANT. THIS FLOWER IS THE LARGEST IN THE WORLD AND THAT WILL STALLY THIS MASJID AS THE MOST ENTERTAINMENT PLACE IN THIS WORLD. CONCEPT OF 'THE RAFFLESIA' THERE ARE SOME INTERESTING ELEMENTS IN THE FLOWER GROUP AND ITS OWN FORM. THEREFORE, FROM EACH OF THESE FLOWER AREA HAS BEEN APPLIED TO EVERY SPACE IN THIS MOSQUE. THE USE OF LEVELLING SHOWS THAT THIS MOSQUE IS MORE VISIBLE AND WELL-RESPECTED. IN DESIGN THE USE OF RYHTYM AND LINE IS VERY MUCH. THEREFORE FROM THE ASPECT OF THE ROOF ALSO, APPLY THE ELEMENT OF THE SHAPE ITSELF AND FEED IT WITH THE CLIMATE FOUND IN PORT DICKSON. IN ADDITION THERE ARE MANY LIFE-THREATENING PLANTS SUCH AS GARDENS AND LANDSCAPES AROUND THE MOSQUE, BUT FROM THE FACADE WE CAN SEE THAT THERE IS A WOODEN TWIG. WHAT IS IMPORTANT, THE STRENGTH OF THE RAFFLESIA IS TO ATTRACT MUSLIM PEOPLE TO VISIT FOR RECREATION AS THE RAFFLESIA ITSELF IS THE ATTRACTION OF THE CROWD TO FIND IT AND MUST CAPTURE THE PICTURE. HENCE, THE DESIRE OF THIS DESIGN TO ATTRACT PEOPLE COME TO PURSUE THE REWARD.

SITE INENTORY / ANALYSIS

BUBBLE DIAGRAM

KEY PLAN
SCALE N.T.S

LOCATION PLAN
SCALE N.T.S

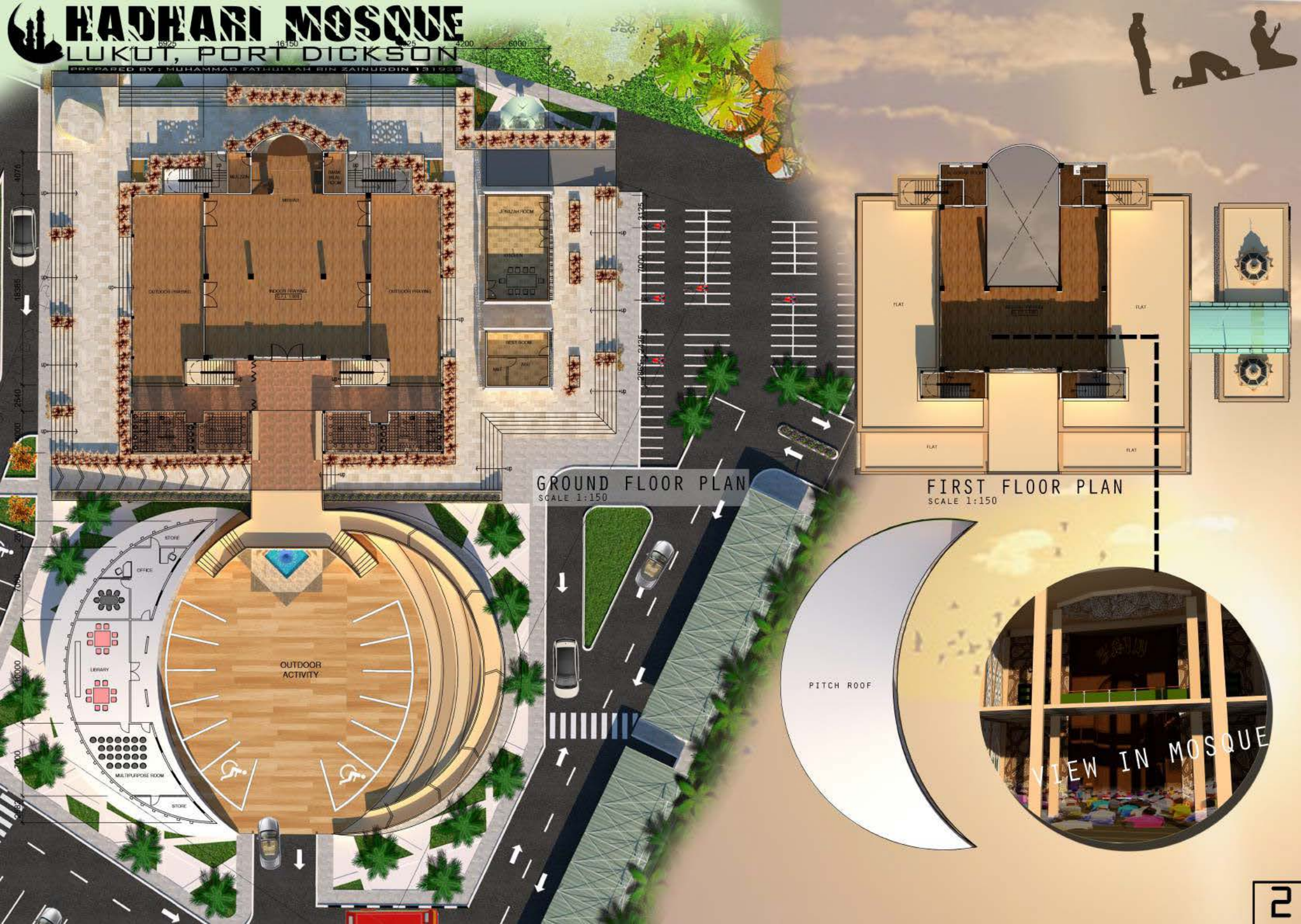
SITE PLAN
SCALE 1:300

CLIENT
RICH LOCAL MILLIONAIRE WHO OWNS THE PIECE OF PROPERTY. HE WANT PLACE OF WORKSHIP BUILT THERE, WHICH CAN BE AN ATTRACTIVE PIECE WHICH WILL MAKE MACANG BUBUK SO FAMOUS AND KNOW TO ALL

HADHARI MOSQUE

LUKUT, PORT DICKSON

PREPARED BY : MUHAMMAD FATHULLAH BIN ZAINUDDIN 131933



HADHARI MOSQUE

LUKUT, PORT DICKSON

PREPARED BY : MUHAMMAD FATHULLAH BIN ZAINUDDIN 131

SECTION X-X
SCALE 1:150

SECTION Y-Y
SCALE 1:150

FRONT ELEVATION
SCALE 1:150

RIGHT ELEVATION
SCALE 1:150

HADHARI MOSQUE
LUKUT, PORT DICKSON

PREPARED BY : MUHAMMAD FATHULLAH BIN ZAINUDDIN 131932

CONCEPT STATEMENT

THE USING OF DAYLIGHT IN A BUILDING IS VERY STRATEGY IN PASSIVE DESIGN. THE SUN IS THE SOURCE OF DAYLIGHT AND CAN BE USE TO AS NATURAL LIGHTING WITH LESS CONSUMPTION OF ELECTRICITY.THERE IS MUCH MORE TO FACILITATE THE LIGHT AGAINST THE OVERCAST ARTIFICIAL ELECTRICITY USE TOO MUCH.

RAFFLESIA MEANS THE NATURAL LIGHT IS OPENING THE LOT, PLANTS WHICH REQUIRES SUCH AS LIGHT TO CONTINUE ON FERTILE. AT THE ROOF AND DOME LIGHT USING ADE OPENED GLASS. LEFT AND RIGHT OF BUILDING OPENINGS ALSO HAVE MANY EXTREMELY LIGHT GLASS WALL WITH THE USE OF FRAME. MATERIAL IS USED TO CONTROL THE LIGHT OF DARK GLASS HEAT MENEMBUHI ROOM IN MOSQUE

OVERCAST ARTIFIAL LIGHT | OPEN 'A' IS CLOSED | OPEN 'B' IS CLOSED | OPEN 'C' IS CLOSED

ELECTRICAL, WATER SUPPLY, SEVERAGE SHEMATIC

SCALE N.T

LEGEND : ELECTRICAL, SEVERAGE, WATER SUPPLY

EXIT / ENTRANCE

ACTIVITIES

OKU PARKING

CAR PARKING

PEDESTRIAN

BUS PARKING

LANDMARK

MOTOR PARKING

ENTRANCE

BUS STOP

PERSPECTIVE SITE

GENERATION ULUL ALBAB

WELCOME TO HADHARI MOSQUE

SILL PLATE

ANCHOR BOLT

CHANNEL CONNECTION TRUSSES

COMPOSITE CLADDING OR GOLD/BRONZE STONE LAYER ON PREFABRICATED TRUSSES FOR STRUCTURAL DRAWING

SK PLUS DEPTH BLOCKING NATCHES OF EACH BAY FOR VENTILATION ROOF VENTILATION REQUIREMENT

MF SUSPENDED CEILING COMPLETE WITH 12.5mm PAINTED GYPROC WALLBOARD

PENDAT LAMP TEST - CANNVASCO P3 WHITE, 400mm 510mm HIGH, 11Y LIGHTYEARS

SITES: TRUSSES ARE FABRICATED BY WELDING OR BOLTING STRUCTURAL ANGLES AND TEES TOGETHER WITH GUSSET PLATE CONNECTORS TO FORM THE TRIANGULATED FRAMEWORK

BESPOKE ACCESS PANELS FORMED OF 4mm THINK COMPOSITE ALUMINUM SHEET COMPRISING OF 2 THIN SKINS OF ALUMINIUM ENCAPSULATING A NYLON "INTER LAYER"

REINFORCED CONCRETE COLUMN SUPPOTO

1x1 ANODIZED ALUMINUM CHANEL

10 " DARK TEMPERED GLASSTRETW

WOOD BLOCKING GOARS

DETAIL VAPOR BARRIER MEMBRANE FIBRES OVER THE UPSTAND (MILDTHENT PLUS OR EQUAL SPECIFICATION

UNIVERSATED SAPPHIRE MIN 500mm, 2570 40 mm ROUNDED SHINGLE

FIRST FLOOR PLAN

WATERPROOF LAYER

3/4" BUTT JOINT WITH CLEAR SILICONE CAULK

CONCRETE ROOF SLAB

1x1 ANODIZED ALUMINUM CHANEL

10 " DARK TEMPERED GLASSTRETW

WALL

FLOOR FINISH OVER RADIANT HEATING PIPES

CONCRETE SLAB, 150

4" RIGID INSULATION

MIN 6MIL MTM

3" SAND

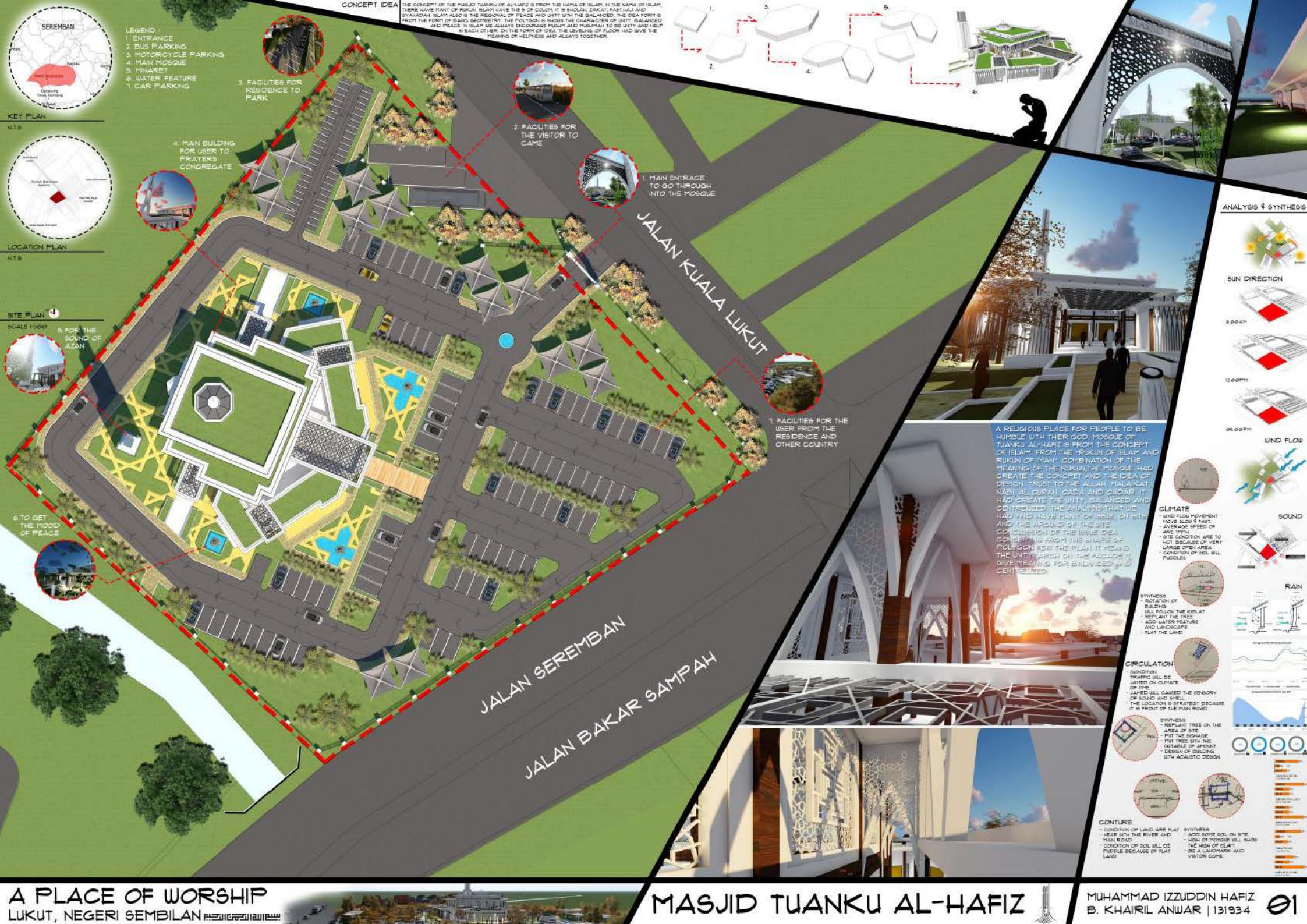
6" CRUSHED ROCK

GROUND FLOOR PLAN

FOUNDATION TO ROOF

SCALE 1:20

MUHAMMAD IZZUDDIN HAFIZ BIN KHAIRIL ANWAR 131934



A PLACE OF WORSHIP

LUKUT, NEGERI SEMBILAN

MASJID TUANKU AL-HAFIZ

MUHAMMAD IZZUDDIN HAFIZ
B. KHAIRIL ANWAR | 131934

ELECTRICAL LAYOUT

TYPES	DESCRIPTION
	electricity meter
	fuse and distribution board
	ceiling fan point
	3 pin 13 amp. power point outlet
	one way switch
	ceiling light point
TV	television point
TEL	telephone point

GROUND FLOOR
SCALE N.T.S

FIRST FLOOR
SCALE N.T.S

LEGEND :

GROUND FLOOR
1. MAIN HALL PRAYER
2. WOMEN PRAYER
3. SUTRAH
4. OPEN AREA
5. OFFICE 1
6. JENAZAH ROOM
7. TOILET (MALE)
8. OFFICE 2
9. SEMINAR ROOM 1
10. TOILET (FEMALE)
11. KITCHEN
12. SEMINAR ROOM 2
14. IMAM ROOM
15. AUDIO STORE
16. MULTIPURPOSED HALL

FIRST FLOOR
13. ADDITIONAL PRAYER

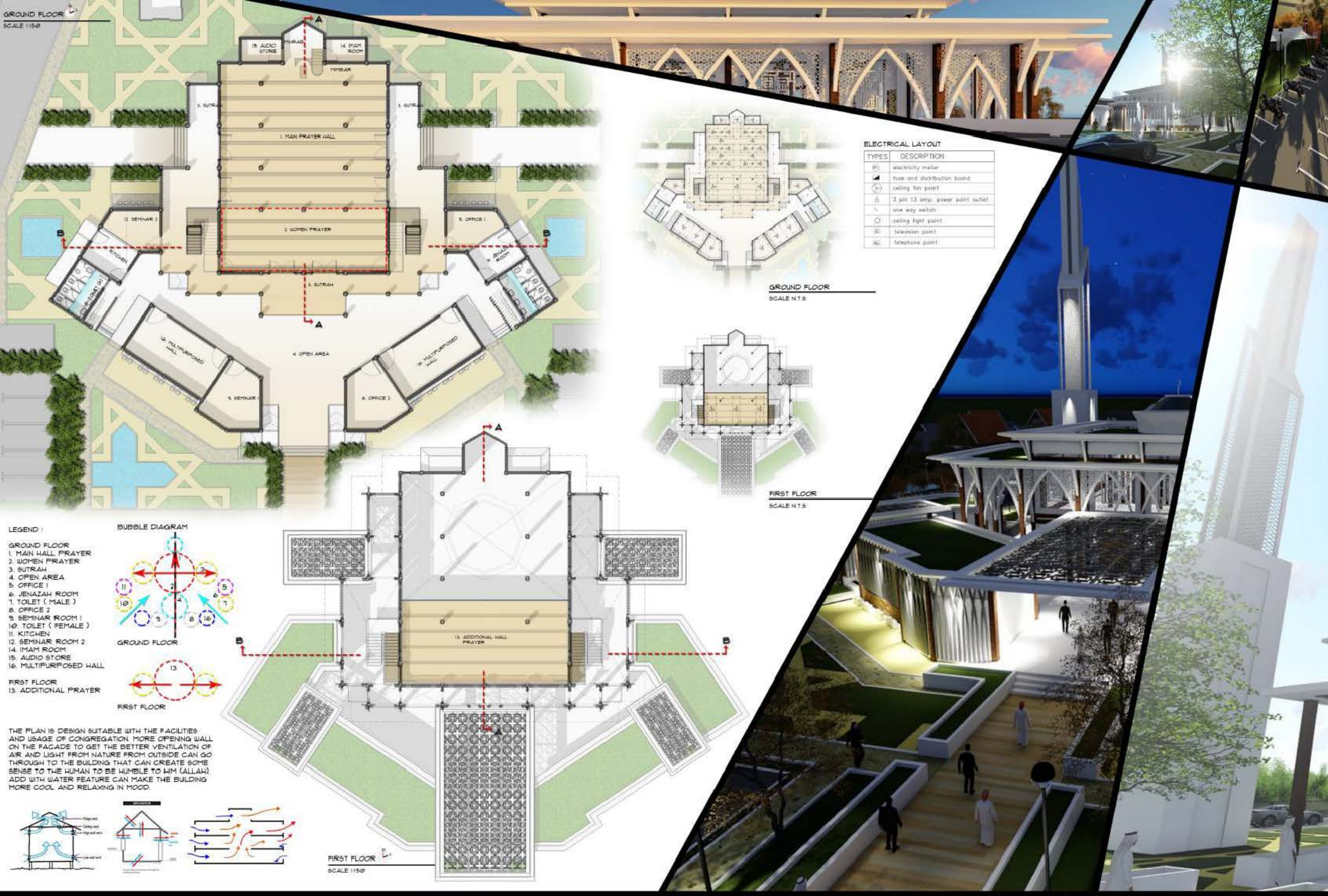
BUBBLE DIAGRAM

GROUND FLOOR

FIRST FLOOR

FIRST FLOOR
SCALE 1:150

THE PLAN IS DESIGN SUITABLE WITH THE FACILITIES AND USAGE OF CONGREGATION. MORE OPENING WALL ON THE FACADE TO GET THE BETTER VENTILATION OF AIR AND LIGHT FROM NATURE FROM OUTSIDE CAN GO THROUGH TO THE BUILDING THAT CAN CREATE SOME SENSE TO THE HUMAN TO BE HUMBLE TO HIM (ALLAH). ADD WITH WATER FEATURE CAN MAKE THE BUILDING MORE COOL AND RELAXING IN MOOD.



A PLACE OF WORSHIP

LUKUT, NEGERI SEMBILAN بسم الله الرحمن الرحيم

MASJID TUANKU AL-HAFIZ

MUHAMMAD IZZUDDIN HAFIZ
B. KHAIRIL ANWAR | 131934

02

LEFT ELEVATION
SCALE 1:150

FRONT ELEVATION
SCALE 1:150

SECTION A-A
SCALE 1:150

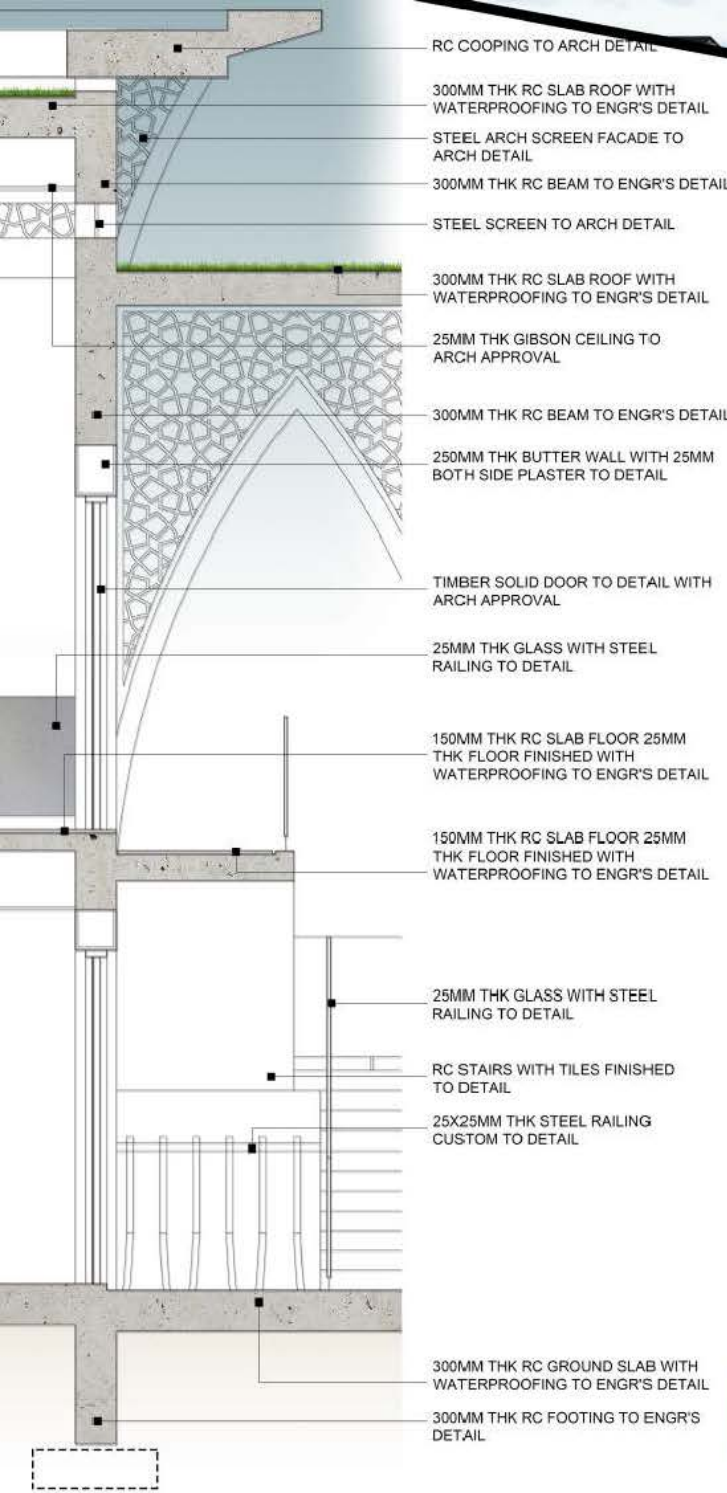
SECTION B-B
SCALE 1:150

A PLACE OF WORSHIP

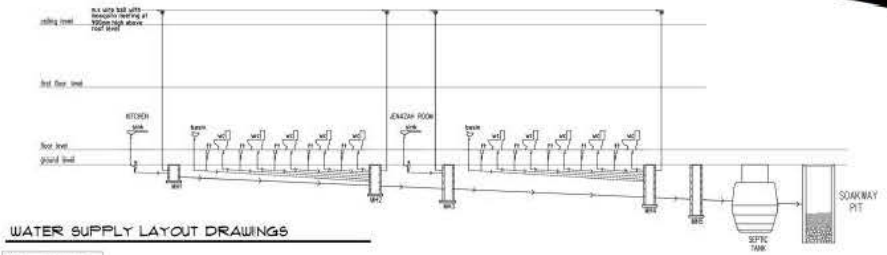
LUKUT, NEGERI SEMBILAN بسم الله الرحمن الرحيم

MASJID TUANKU AL-HAFIZ

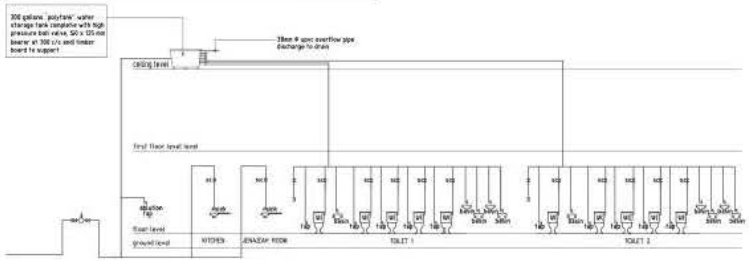
MUHAMMAD IZZUDDIN HAFIZ
B. KHAIRIL ANWAR | 131934



SEWERAGE SCHEMATIC LAYOUT DRAWINGS



WATER SUPPLY LAYOUT DRAWINGS



LIGHTING ANALYSIS

THE USING OF DAYLIGHT IN A BUILDING IS A CREATIVE STRATEGY IN A DESIGN. THE SUN IS THE SOURCE OF LIGHTAND VENTILATION. IT CAN BE USE TO AS NATURAL LIGHTING WITH LESS CONSUMPTION OF ELECTRICITY. A GOOD LIGHTING SHOULD BE DESIGNED WELL IN ORDER TO ARCHIVED ENOUGH LIGHTING. IT CAN REDUCE THE USAGE OF ARTIFICAL LIGHTING THAT CAN CAUSE OF HIGH BILL OF COST AND SICKNESS OF BODY.

LIGHTING FROM THE CENTER

THE CONCEPT OF LIGHT IS FROM HUMBLE OF PERSON IN A MOSQUE, PRAY TO ALLAH. THE FLOW OF LIGHT CAN GIVE THE GOOD IMPACT TO THE HUMAN IN THE MOSQUE. THE BALANCED AND HARMONY OF LIGHT ARE PUT ON THE FACADE SORROUND OF BULDING. IT GIVE THE LIGHTING OF BUILDING ARE BALANCED.

LIGHTING FROM LEFT

THE SOURCE OF LIGHT IS TAKEN MOST 70% FROM SUN. BUT IT HAVE THE GLASS SORROUND OF THE OPENING WALL. IT CAN SAVE THE COST OF LIGHT AND ALSO IT GIVE THE BETTER LIGHTING BESIDE IT GIVE MUCH MORE BETTER NATURAL VENTILATION.

LIGHTING FROM RIGHT

HARVESTING SYSTEM

THE BULDING HAD PUT THE SYSTEM OF GREEN LIKE NATURE VENTILATION AND LIGHTING. BESIDE IT HAD PUT THE SYSTEM OF RAIN WATER HARVESTING THAT HAD PUT ON THE ROOF OF BULDING. IT CAN COLLECT THE RAIN WATER AND REUSED TO THE GARDEN AND MORE.

A PLACE OF WORSHIP

LUKUT, NEGERI SEMBILAN

MASJID TUANKU AL-HAFIZ

MUHAMMAD IZZUDDIN HAFIZ
B. KHAIRIL ANWAR | 131934

MUHAMMAD SYAFIQ HILMI
BIN MD YAZID
131935

Layar Mosque

RAS 204 : ARCHITECTURE STUDIO 2 A PLACE OF WORSHIP

GLIMPSE OF HISTORY

LUKUT IS WELLKNOWN WITH MINING AREA DURING CENTURY. IT ALSO ACT AS ONE OF THE EARLIEST IMPORTANT HARBOUR DURING THIS ERA. THE GOVENOR UNDERGO INTERNATIONAL IMPORT AND EXPORT OF MINING SUBSTANCES. PLUS LUKUT ALSO IS ONE OF MERCHANT PITSTOP.

SACRED ARCHITECTURE

SACRED ARCHITECTURE IS ALSO KNOWN AS SPIRITUAL ARCHITECTURE. IT IS A RELIGIOUS ARCHITECTURAL PRACTICE CONCERNED WITH THE DESIGN AND CONSTRUCTION OF PLACES OF WORSHIP OR SACRED INTENTIONAL SPACE, SUCH AS MOSQUE, CHURCH, TEMPLE, TUPAS, AND SYNAGOGUES. THROUGHOUT HISTORY, RELIGION HAS SPARKED THE CREATION OF SOME OF THE WORLD'S MOST BEAUTIFUL ARCHITECTURAL ARCHIEVEMENTS. ARCHITECTS OFTEN AIM TO INFUSE THEIR CREATIONS WITH MEANING, BUT ONE TYPE OF STRUCTURE DEMANDS SOMETHING PARTICULARLY MOVING, A SPIRITUAL BUILDING THAT DEPICTS THE **INTIMATE RELATION BETWEEN MAN AND GOD.**

KEY PLAN
N.T.S

LOCATION PLAN
N.T.S

DESIGN STATEMENT

THIS PROJECT REQUIRES STUDENT TO DESIGN THEIR CHOICES PLACE OF WORSHIP, LOCATED AT JALAN KUALA LUKUT, NEGERI SEMBILAN. THIS SACRED ARCHITECTURE VITALATE HUMAN WITH GOD, INTENTIONALLY AS IT IS TIED TO SHOW THE MIGHTY OF CREATOR. IT IS COMPULSORY TO CREATE **RESONANCE** VIBES THAT ECHOES PEACEFULLY THROUGH SPACES WHILE PERFORMING SALAH. LAYAR MOSQUE INTRODUCE ISLAMIC COMMUNITY WITH CONNECTION SEQUENCE TO INTO SURROUNDING VIBES. THIS MOSQUE CAN BE FIT WITH 600 PAX IN A TIME. ITS ALSO PROVIDE OTHERS PUBLIC SPACES SUCH AS MULTIPURPOSE ROOM, WAKAF FOR COVERING AND **RELAXING** GARDEN. BESIDES, THIS MOSQUE USED NATURAL DAYLIGHT TO REDUCED ELECTRICITY USAGE AND MAXIMISE AIR VENTILATION BY ALLOWING AIR TO CIRCULATE INTO THE BUILDING.

OBJECTIVE

- TO APPLY ARCHITECTURAL DESIGN ELEMENTS AND PRINCIPLES
- USING **ENVIROMENTALLY FRIENDLY** MATERIALS FOR POST AND BEAM STRUCTURE
- APPLY PASSIVE APPROACHES FOR ENVIROMENTAL COMFORT AND **ENERGY EFFICIENCY**
- APPLY **UNIVERSAL DESIGN**
- APPLY APPROPRIATE WATER SUPPLY AND PLUMBING SYSTEM

CLIENT

MAJLIS AGAMA ISLAM NEGERI SEMBILAN

SITE ANALYSIS

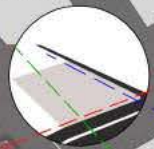
SUNPATH
-DESIGN OPENING FACING EAST AREA TO CAPTURE MORNING SUNLIGHT

WIND DIRECTION
-HOLLOW ISLAMIC GEOMETRY TO ALLOW WIND CIRCULATE INTO BUILDING

NOISE POLLUTION
-PROPOSED PARKING AREA AT FRONT AS BUFFER ZONE AND BARRIER

VISTA
-PROPOSED GARDEN AREA AT POSITIVE VIEW TO INCREASE POSITIVE VIBES

ODOUR
-UNPLEASENT ODOUR FROM SOLID WASTE DISPOSAL. PROPOSED LANDSCAPE BUFFER TO ABSORB THE UNPLEASENT ODOUR



SITE AXIS
-THE GREEN LINE REPRESENT QIBLAT AS MAIN BUILDING AXIS WHILE BLUE AND RED AS SITE AXIS COLLATERAL

A BRIDGE IS PROPOSED TO HELP RESIDENTIAL ACROSS THE RIVER FROM THE OTHER SIDE

SITE INFORMATION

LOT NUMBER : 4034
LOT SIZE : 10,000 SQM
LOT ZONING : COMMERCIAL
OWNER : MR. TAN WEI CHANG

A GARDEN IS PROPOSED ON THE LEFT SIDE OF THE MOSQUE TO ABSORB AND BUFFER ODOUR FROM THE RIVER THAT POLLUTED BY DISPOSAL OF SOLID WASTED

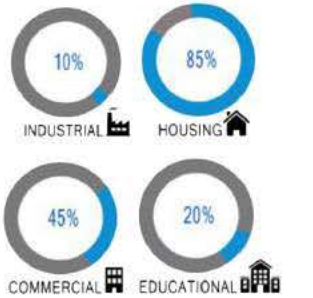
WATER FOUNTAIN IS PROPOSED ON THE WALKWAY THROUGH THE MOSQUE TO GIVES PEACEFULL FEELINGS WITHOUT INTEGRATE WITH OTHER NATURE

FOUR UNIT OF GAZEBO IS PROPOSED IN THE GARDEN AREA AS SHADED PLACE. BESIDE IT IS ALSO BE USED FOR GROUP DISCUSSION OR USRAH OUTDOOR

JALAN KUALA LUKUT

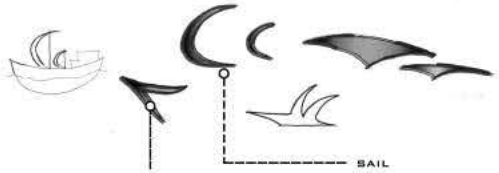
JALAN BAKAR SAMPAH

SITE PLAN
SCALE 1 :300



CONCEPTUAL IDEA

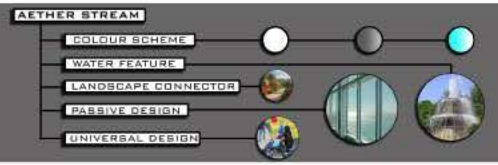
AETHER STREAM FOCUS ON **PLEASENT FEELINGS** TOWARDS THE ENVIRONMENT. AETHER MEANS SILENCE TREATMENT IN STATE OF PEACEFULL MIND IS ARCHIEVE. WHILE STREAM STAND FOR RIVER WITH FORCE MOVING TOWARDS. IT ALSO REPRESENT ROWING BOAT IN THE SEA TOWARDS SAME PURPOSE. IN ISLAM, THE PURPOSE OF HUMAN EXIST IN THIS WORDS IS TO DO GOOD FOR AN AFTERLIFE. THIS CONCEPT ALSO RELATE WITH THE HISTORIC REGION OF LUKUT ONCE UPON A TIME WHERE IT BECOME HARBOUR FOR MINE TRANSFERRING AND MERCHANT SHIP.



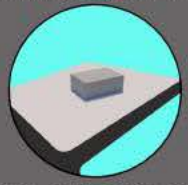
MERCHANT SHIP USE TO TRANSFER MINING SUB -STANCES AT HARBOUR

SAILING OCRA
-AS DIRECTION HEADING AND GUIDE
-DESIGN AS MIHRAB IN THE MOSQUE

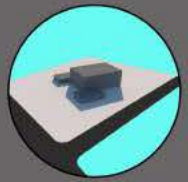
-MOST IMPORTANT PART IN THE SHIP
-TO ALLOW FOWARD MOVEMENTS IN SAILING
-ACT AS THE MAIN ROOF
-CONTAIN HIERARCHY FOR EACH SPACE



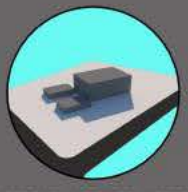
FORM DEVELOPMENT



MAIN HALL AS THE BUILDING CENTRE AND THE HIGHEST HEIGHT IN THE HIERARCHY OF THE BUILDING



OTHER FACILITIES IS BUILD ON THE LEFT AND RIGHT OF MAIN PRAYER HALL TO BE PHASE ON SECOND FUNCTION

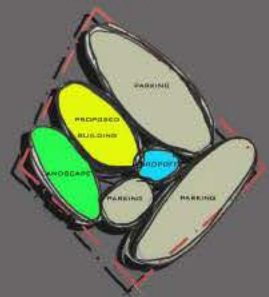


THE SECOND AND THIRD HIERARCHY BEING ARRANGE LINEARLY WITH THE MAIN HALL AS THE CENTRE OF IT WILL BE PROPOSED A COURTYARD

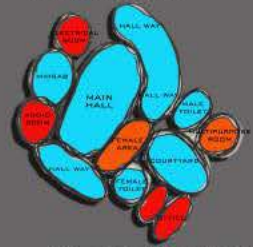
THE BUILT UP IS ENCOLOSE TOGETHER BY THREE LAYER OF ROOF AS EACH ROOF REPRESENT DIFFERENT FUNCTION THAT ITS HOLD

BUBBLE DIAGRAM

SITE ZONING



GROUND FLOOR PLAN

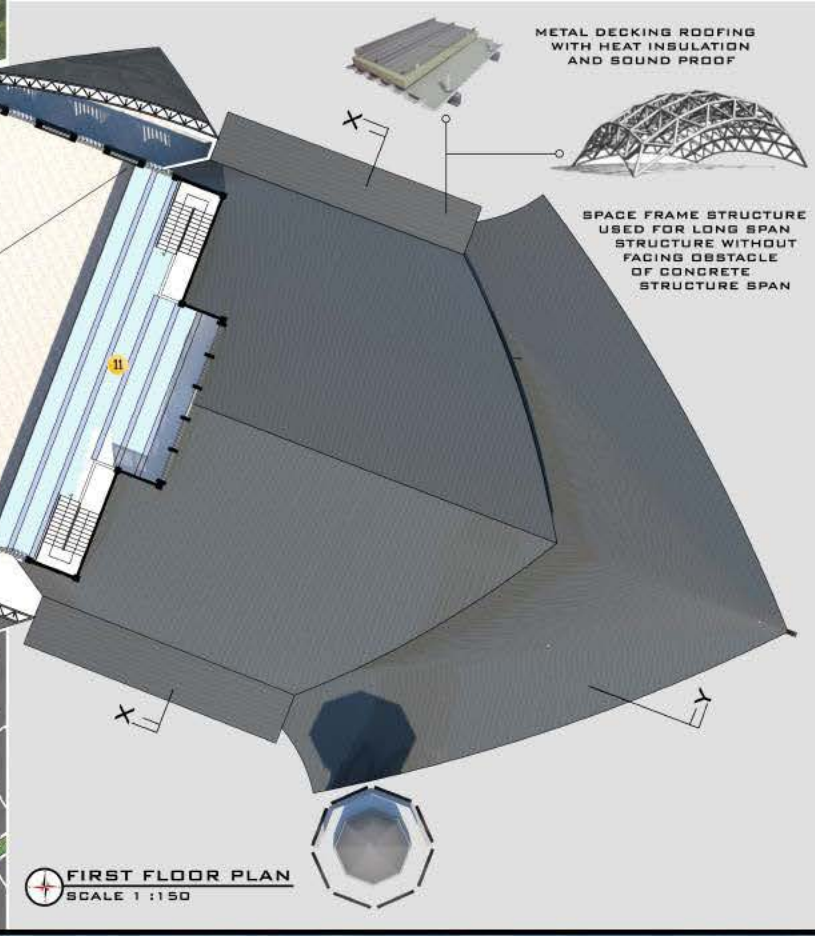


FIRST FLOOR PLAN

LEGEND
PUBLIC
SEMI-PUBLIC
PRIVATE

MUHAMMAD SYAFIQ HILMI BIN MD YAZID
131935
USM - KPT PPD
RAS 204 ARCHITECTURE STUDIO 2

GROUND FLOOR PLAN
SCALE 1 :150



FIRST FLOOR PLAN
SCALE 1 :150

SECTION X-X
SCALE 1 :150

SECTION Y-Y
SCALE 1 :150

MUHAMMAD SYAFIQ HILMI BIN MD YAZID
131935
USM - KPT PPD
RAS 204 ARCHITECTURE STUDIO 2

BIRD EYE VIEW
N.T.S

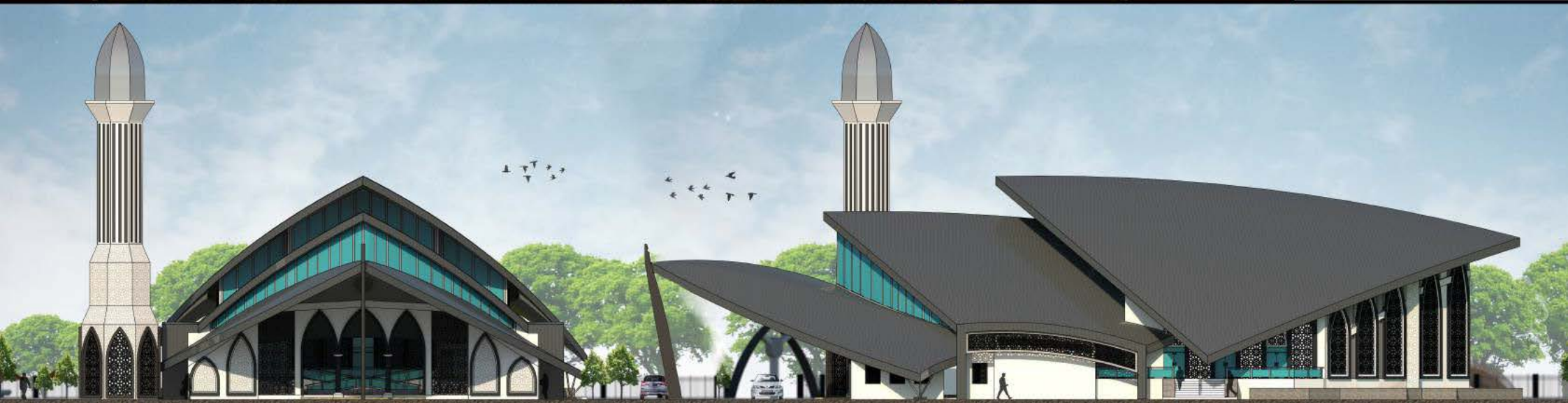
VIEW TOWARD PRAYER HALL
N.T.S

VIEW TOWARD COURTYARD
N.T.S

TECHNOLOGY STUDY

SYDNEY OPERA HOUSE USE THE ADVANTAGE OF NATURAL LIGHT TO MINIMIZE ELECTRICITY USED DURING DAYLIGHT.

NATURAL SUN LIGHT PASS THROUGH THE GLAZING GLASS PANEL INTO THE BUILDING. DOUBLE GLAZING GLASS REDUCE THE HEAT TAKEN BY THE BUILDING THROUGH TRANSITION OF HEAT BETWEEN THE GLASS ITSELF.



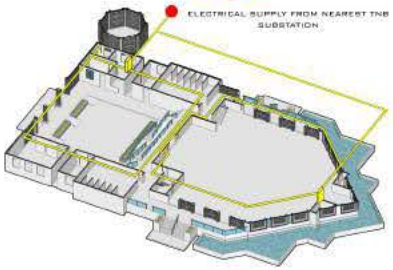
FRONT ELEVATION
SCALE 1 :150

RIGHT ELEVATION
SCALE 1 :150

MUHAMMAD SYAFIQ HILMI BIN MD YAZID
131935
USM - KPT PPD
RAS 204 ARCHITECTURE STUDIO 2

ELECTRICAL SCHEMATIC DIAGRAM

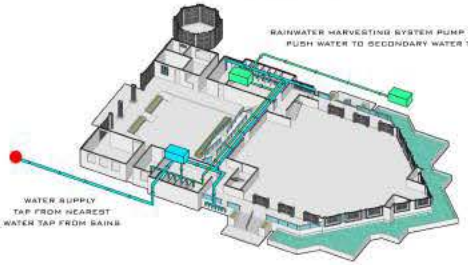
LOCAL AUTHORITY INVOLVE : JKR ELECTRIK



THE MAINHALL ELECTRICAL WIRING IS ISOLATED FROM OTHER FACILITIES TO INCREASE ELECTRICAL EFFICIENCY

WATER SUPPLY SCHEMATIC DIAGRAM

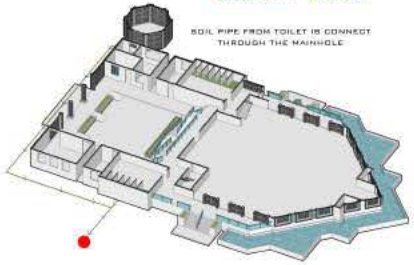
LOCAL AUTHORITY INVOLVE : SAINS



RAINWATER HARVESTING COLLECTING TANK

SEWERAGE SCHEMATIC DIAGRAM

LOCAL AUTHORITY INVOLVE : IndahWater



FROM MAINHOLE, ALL WASTE DISPOSAL WILL ENTER THE SEWERAGE PIPE

08.00 AM

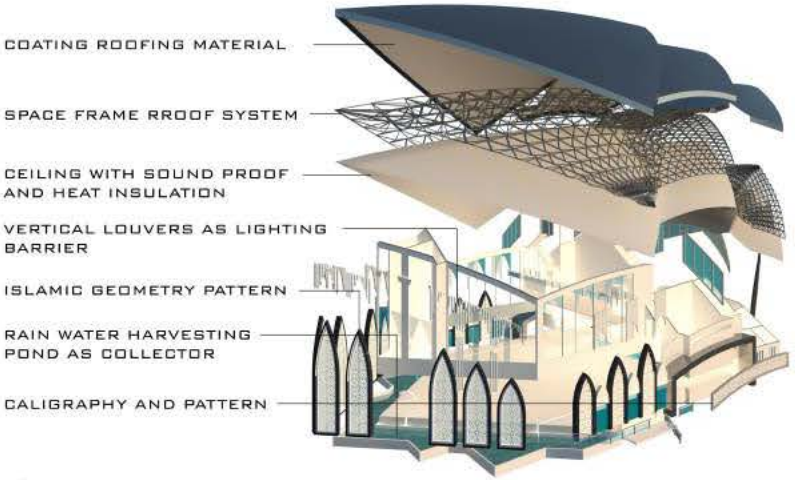
THE MORNING SUNLIGHT FROM EAST LIGHTUP THE REAR WINDOW OF MAIN PRAYER HALL FROM FIRST FLOOR

12.00 PM

SUNLIGHT FROM ABOVE THE BUILDING. THE SHADOWS IS SHORT AND STATIC AND BRIGHT IN THE AFTERNOON.

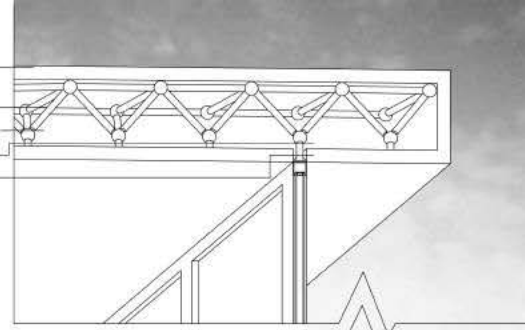
06.00 PM

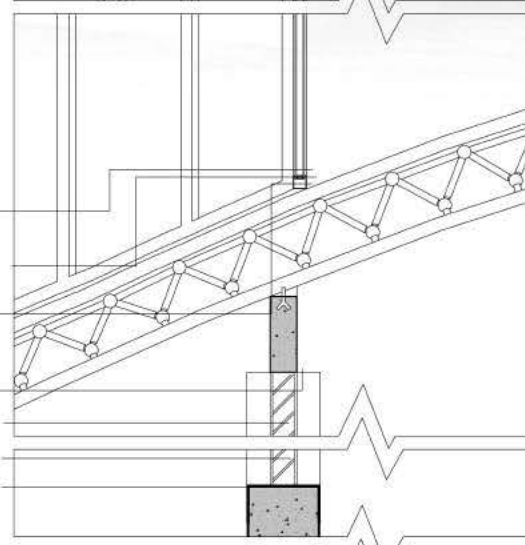
THE SUNSET LIGHT FROM THE WEST DIRECTION INTO THE BUILDING. POINTED ARCH BRINGS LUMINENCE AND PATTERN IN THE MOSQUE MAIN PRAYER HALL.

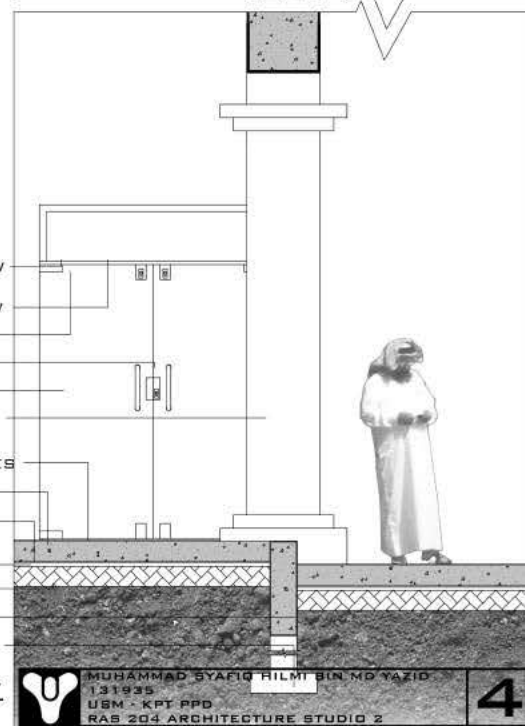


EXPLODED VIEW
N.T.S

MOSQUE PERPSPECTIVE
N.T.S







FOUNDATION TO ROOF
SCALE 1 :20

MUHAMMAD SYAFIQ HILMI BIN MD YAZID
131935
USM - KPT PPD
RAS 204 ARCHITECTURE STUDIO 2

NOR FARAH HANIM BINTI TALIB
131938

MASJID AL-NABATIA, LUKUT

DESIGN STATEMENT

LOCATED AT LOT 434, SEREMBAN ROAD, 71007 PORT DICKSON, NINE STATE. THE PROJECT IS TO BUILD A PLACE FOR WORSHIP NEAR THE RESIDENTIAL AREA AND 1200M SQUARE AREA THAT CAN ACCOMMODATE 600 PILGRIMS AT THE SAME TIME. THE MOSQUE IS NOT ONLY BUILT FOR WORSHIP PURPOSES, BUT ALSO PLACES FOR OTHER ACTIVITIES SUCH AS PLACES OF STUDY, RELIGIOUS ACTIVITIES, BIG DAY CELEBRATIONS, AND OTHER SOCIAL ACTIVITIES.

THE MAIN CONCEPT OF THE DESIGN WAS INSPIRED BY THE ROUTINE CARRIED OUT BY A PERSON PRAYING AND USING THE PRINCIPLE HIERARCHY. THIS PRINCIPLE CAN BE SEEN IN THE BUILDING WHERE THE PRAYER ROOM IS BUILT MORE VISUAL WEIGHT THAN OTHER BUILDINGS AROUND IT AND IS SEPARATED BY ANOTHER SPACE. IT IS AIMED AT FOCUSING THE SPACE OF WORSHIP FROM ANOTHER SPACE FOR EASIER FOCUSING ON DOING PRAYER. THE LOWERING OF THE CURVED DOWNWARD ARCHES CAN BE SEEN AT THE SIDE VIEW. BESIDES THAT THE MOSQUE HAS NO WALL, THE WALL IS REPLACED WITH A WALL PANEL OPEN TO STRIKE NATURAL LIGHTING AND WIND INTO THE BUILDING. WHILE THE EXTERIOR OF THE MOSQUE EMBRACES THE CONTEMPERIORY CONCEPT OF THE GARDEN CONCEPT. THE MOSQUE ALSO IMPLEMENTS A MOSQUE IN THE PARK TO CREATE A SENSE OF CALM, WHERE 80 PER CENT IS SEEN AS A GREEN AREA AND 20 PER CENT IS A VERHICAL AREA.

KEY PLAN

LOCATION PLAN

SOCIO-CULTURE

SHADOW PATTERN

VENTILATION

SUNPATH

NOISE

DESIGN APPROACH

CONTENT → CONTEXT → CONCEPT → IMPLEMENTATION DESIGN

SITE PLAN SCALE 1:300

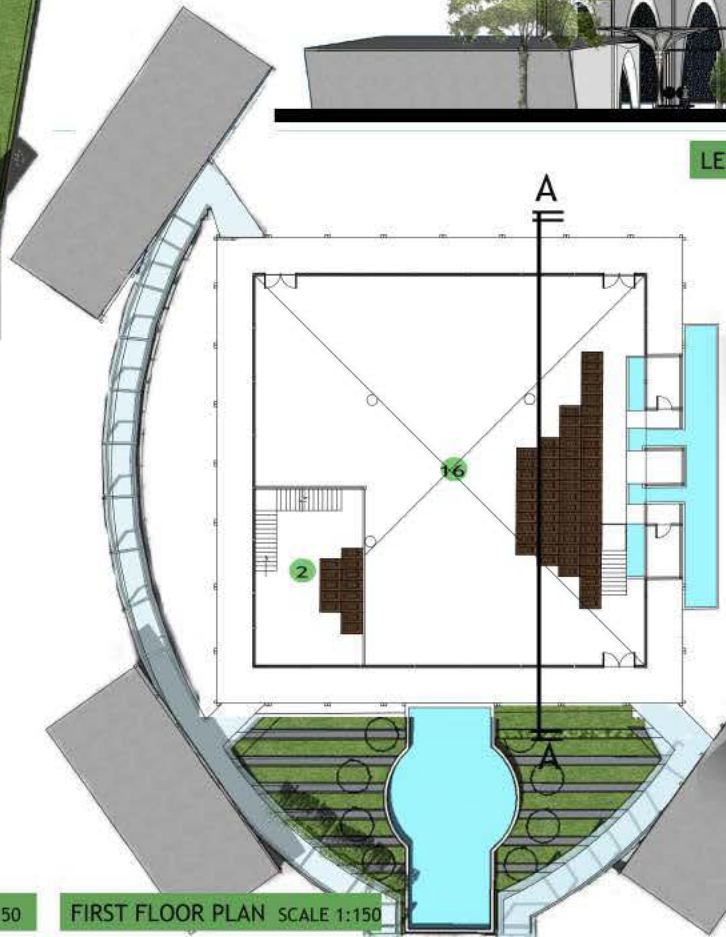
1

NOR FARAH HANIM BINTI TALIB 131938

LEGEND

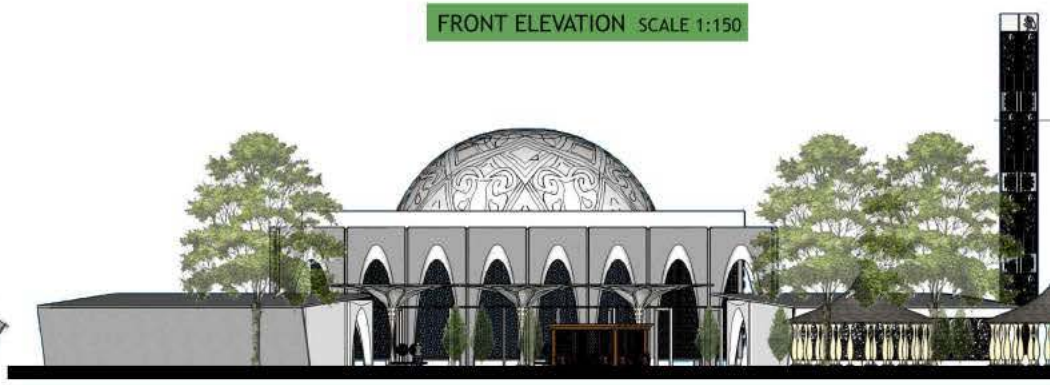
1. MUSLIM PRAYER AREA
2. MUSLIMAH PRAYER AREA
3. MUSLIM TOILET
4. MUSLIM WUDUK AREA
5. JANAZAH ROOM
6. MUSLIMAH TOILET
7. WUDUK AREA
8. MUSLIMAH REST ROOM
9. OFFICE ROOM
10. MEETING ROOM / CLASSROOM
11. KITCHEN
12. MIMBAR
13. MIHRAB
14. IMAM ROOM
15. SUBSYSTEM ROOM
16. VOID

GROUND FLOOR PLAN SCALE 1:150



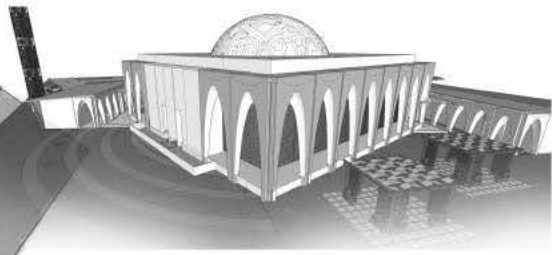
FIRST FLOOR PLAN SCALE 1:150

FRONT ELEVATION SCALE 1:150



LEFT LELEVATION SCALE 1:150

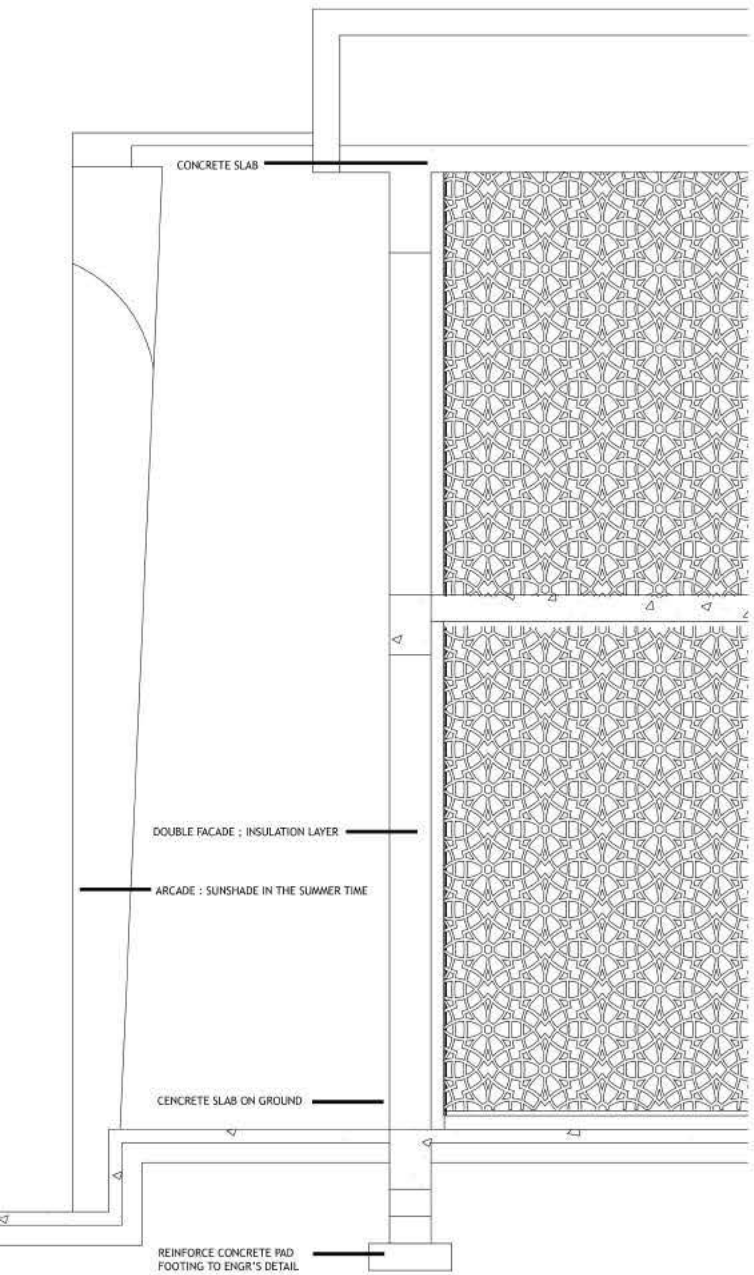
PERSPECTIVE VIEW TOWARD GAZEBO



PERSPECTIVE VIEW TOWARD REAR LANDSCAPE

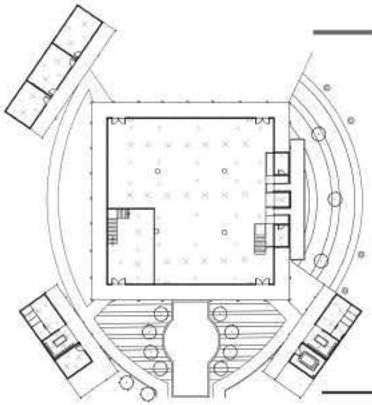
2

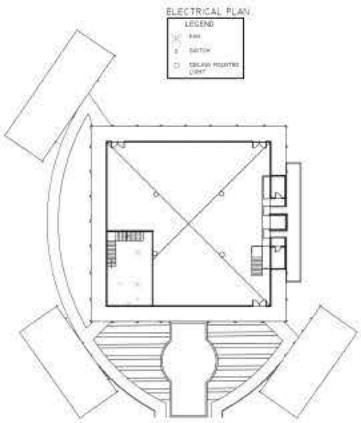
NOR FARAH HANIM BINTI TALIB 131938



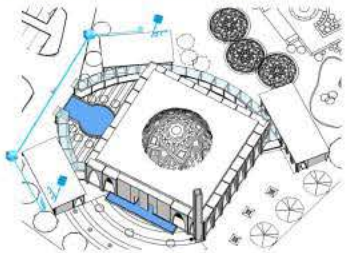
FOUNDATION TO THE ROOF SCALE 1:20

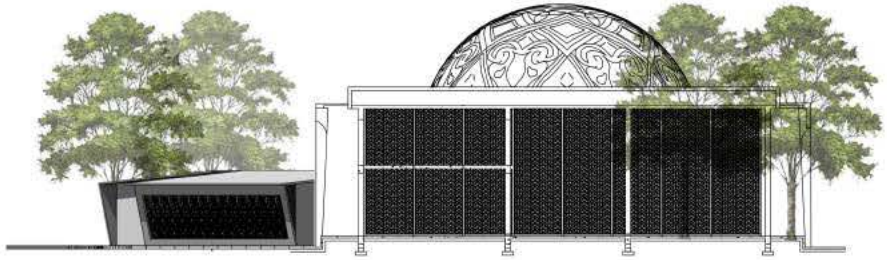
ELECTRICALA LAYOUT



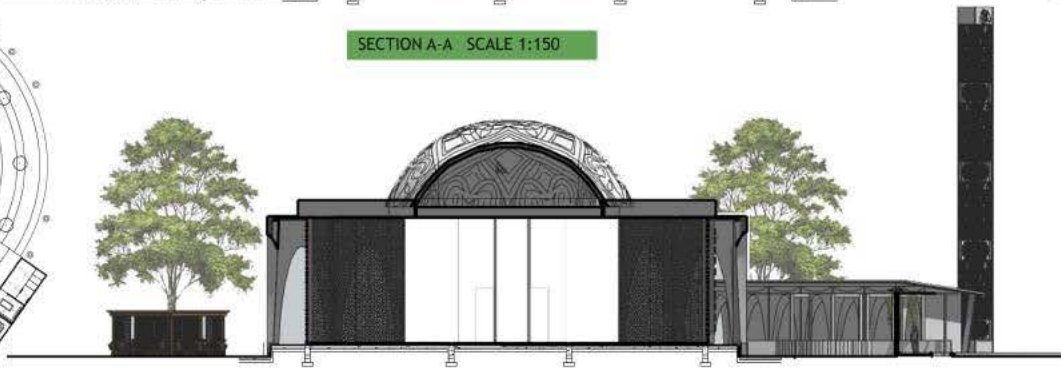


SANITARY & WATER SUPPLY DIAGRAMATIC



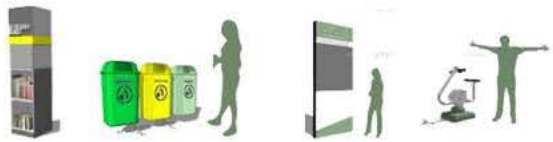


SECTION A-A SCALE 1:150



SECTION B-B SCALE 1:150

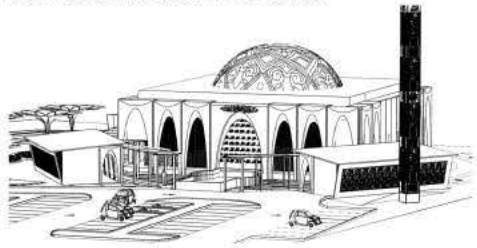
FURNITURE



LIGHTING ANALYSIS

THE USING OF DAYLIGHT IN BUILDING IS A STRATEGY IN PASSIVE DESIGN. THE SUN IS THE SOURCE OF DAYLIGHT AND CAN BE USE TO NATURAL LIGHTING WITH LESS CONSUMTION OF ELECTRICITY THAT CAN BE USE TO NATURAL LIGHTING WITH LESS CONSUMPTION OF ELECTRICITY THAT CAN COUSE LOW BILL PF ELECTRICITY.

THE AL-NABATIA MOSQUE TAKES AN APPROACH BY REPLACING THE WALL WITH ENGRAVING OPENINGS. IT AIMS TO GET MORE NATURAL LIGHT AND OTHER THAN HEAT LIGHT CAN BE FILTERED WITH THE CORIDOR BUILT AROUND THE BUILIDNG.



3

NOR FARAH HANIM BINTI TALIB 131938

NOR YASMIN BINTI MOHD ARIFF
131939

NUR AD-DIN MOSQUE

TRANSCENDENCE OF LIGHT

KEY PLAN

LOCATION PLAN

ZONING

Transcendence (in religios) :

The aspect of a god's nature and power which is wholly independent of the material universe.

The concept isinspired by the meaning of the light in islam. The mosque in islamis the house of prayer weere the light of god decennds to the belivers.

Nur Ad-Din :

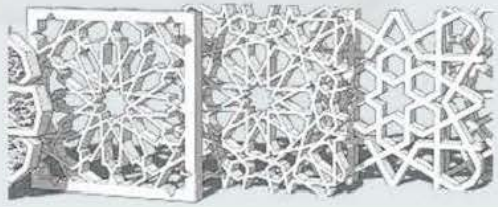
Means "light of religion", from Arabic نور (nur) meaning "light" combined with دين (din) "religion, faith".

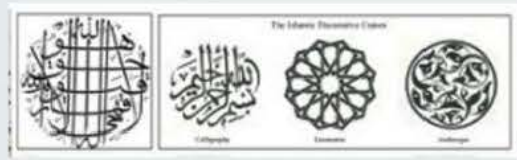
The evolution of the mosque's design originated from the simple polygonal islamic pattern that forms the basic of the architectural grid.

The pattern is then enchoed throughout the mosque to give the design continuity.The roof of the mosque is a segment dome which begins at grround level, carrying your eyes up to the sky giving an indication of the true reason of the mosque creation.

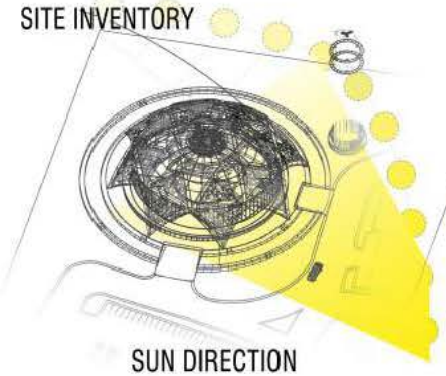
The mpsque uses a double-skin screen treatment, shich is an aesthetical and enviromental technique.

This double skin system allows fully natural lighting and allow also the air to circulated between the cavities of the two facade and provides a reduction in the temperature of the environment.

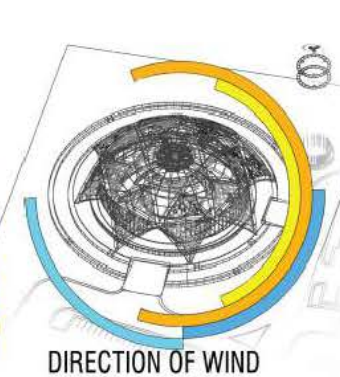




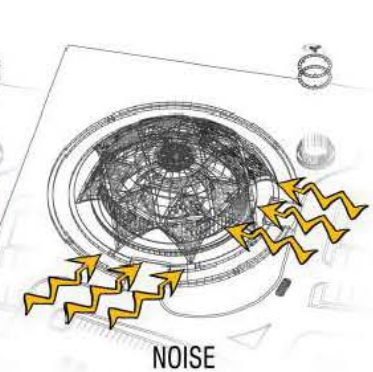
SITE INVENTORY



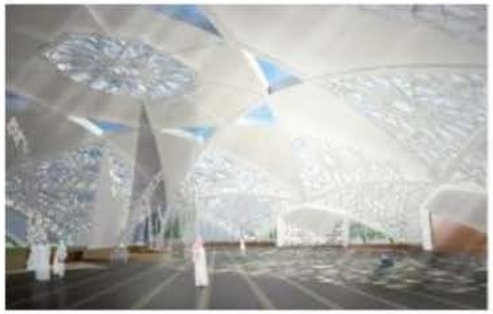
SUN DIRECTION



DIRECTION OF WIND

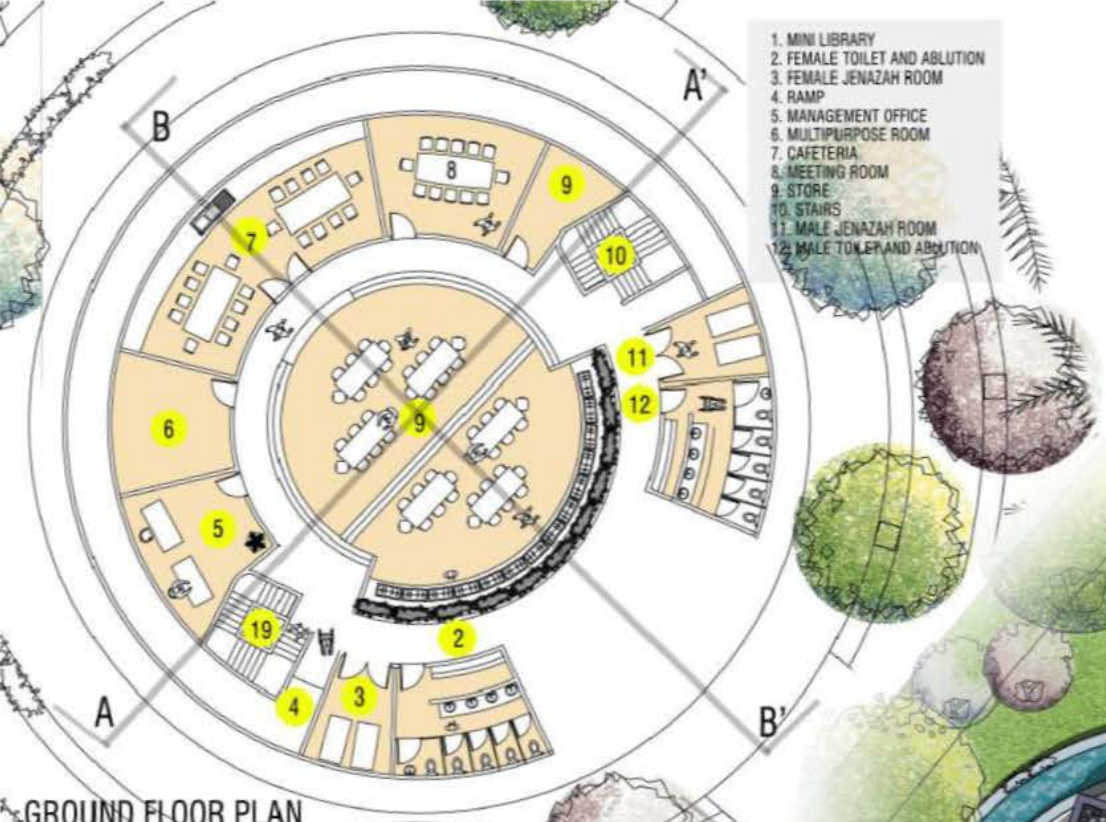


NOISE



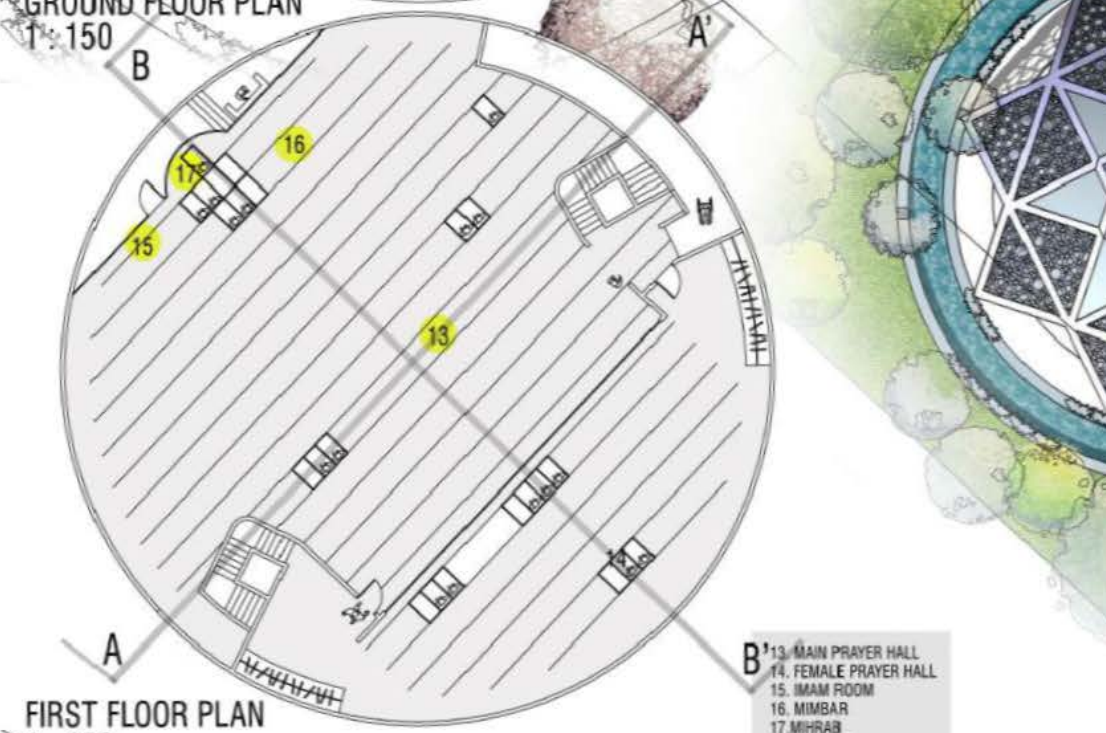
VIEW FROM THE MAIN PRAYER HALL

NOR YASMIN BT MOHD ARIFF 131939



GROUND FLOOR PLAN
1 : 150

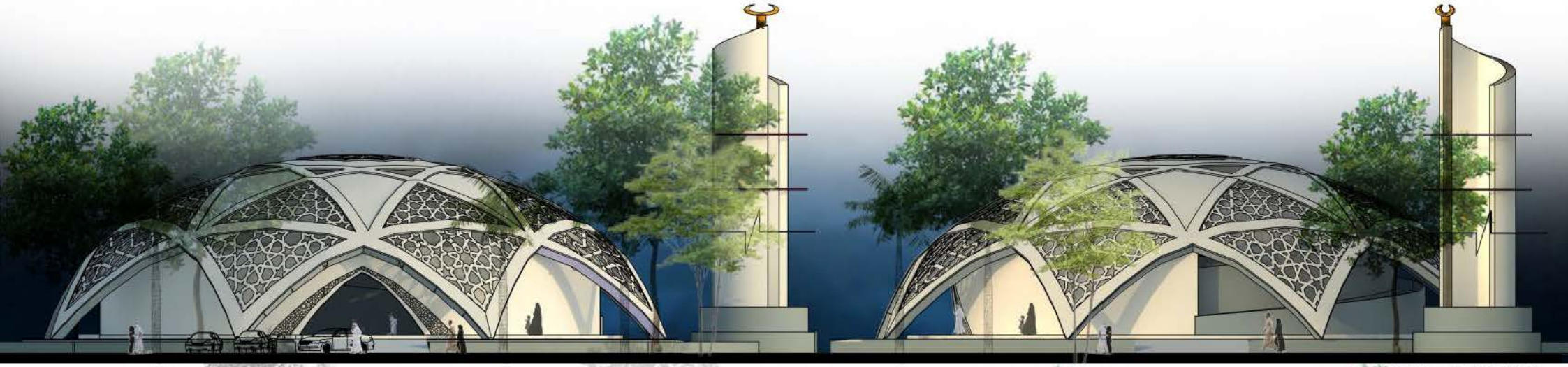
1. MINI LIBRARY
2. FEMALE TOILET AND ABLUTION
3. FEMALE JENAZAH ROOM
4. RAMP
5. MANAGEMENT OFFICE
6. MULTIPURPOSE ROOM
7. CAFETERIA
8. MEETING ROOM
9. STORE
10. STAIRS
11. MALE JENAZAH ROOM
12. MALE TOILET AND ABLUTION



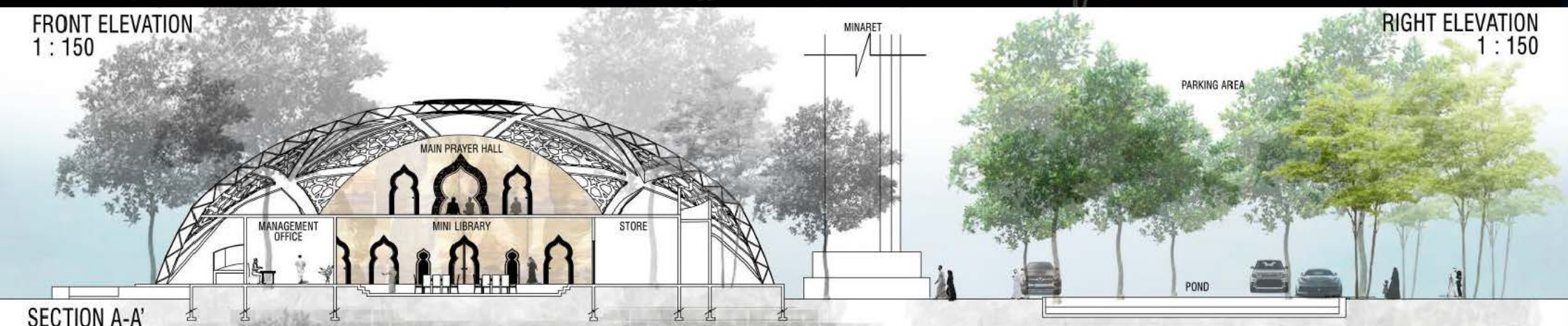
FIRST FLOOR PLAN
1 : 150

13. MAIN PRAYER HALL
14. FEMALE PRAYER HALL
15. IMAM ROOM
16. MIMBAR
17. MIHRAB
18. MINARET

SITE PLAN
1 : 300



FRONT ELEVATION
1 : 150



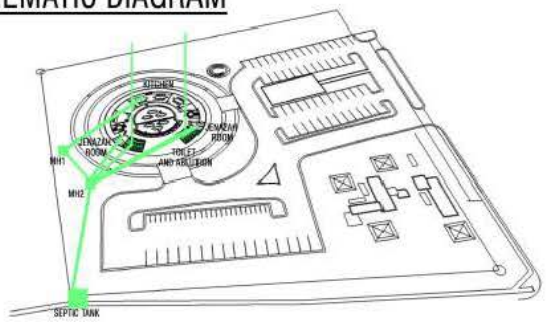
SECTION A-A'
1 : 150

RIGHT ELEVATION
1 : 150

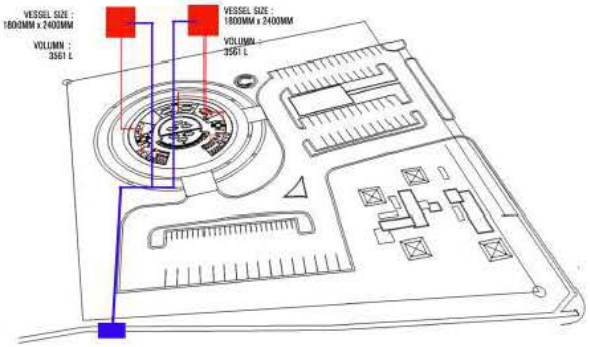
SECTION B-B'
1 : 150

NOR YASMIN BT MOHD ARIFF 131939

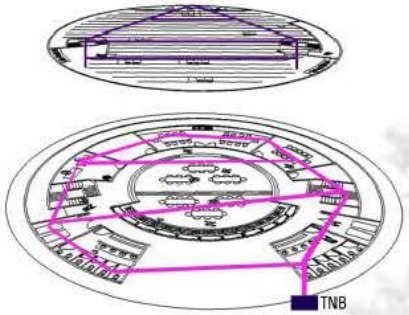
SCHEMATIC DIAGRAM



WASTE WATER AND SEWERAGE SYSTEM

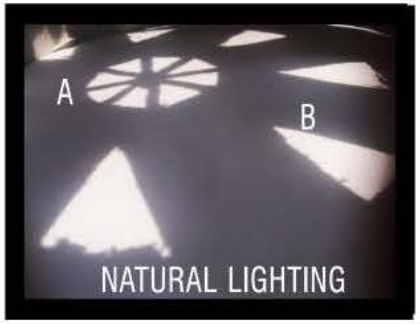


WATER SUPPLY

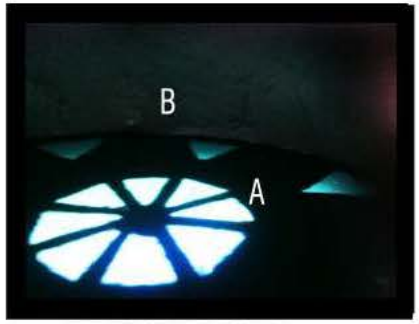


ELECTRICAL LAYOUT

LIGHTING ANALYSIS



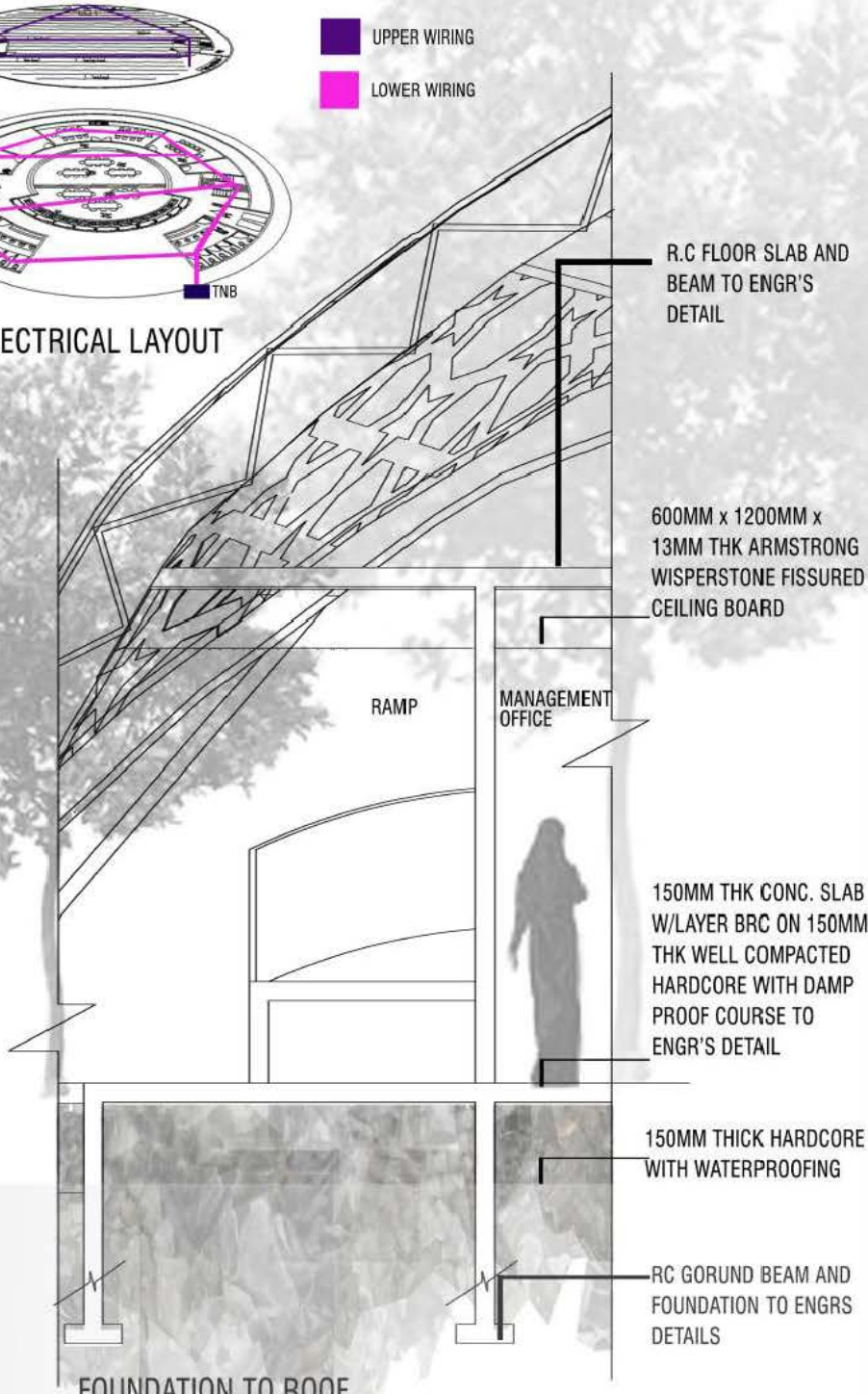
SOME OF OPENING "B" IS CLOSED



ARTIFICIAL LIGHT

THE USING OF DAYLIGHT IN A BUILDING IS A CREATIVE STRATEGY IN PASSIVE DESIGN, THE SUN IS THE SOURCE OF DAYLIGHT AND CAN BE USE TO AS NATURAL LIGHTING WITH LESS CONSUMPTION OF ELECTRICITY. THUS A GOOD LIGHTING SHOULD BE DESIGNED WELL IN ORDER TO ARCHIEVE ENOUGH LIGHTING. HENCE REDUCING THE USAGE OF ARTIFICIAL LIGHTING THAT CAN CAUSE HIGH BILL OF ELECTRICITY.

THIS DOUBLE SKIN SYSTEM ALLOWS FULLY NATURAL LIGHTING AND ALLOW ALSO THE AIR TO CIRCULATED BETWEEN THE CAVITIES OF THE TWO FACADE AND PROVIDES A REDUCTION IN THE TEMPERATURE OF THE ENVIRONMENT.



FOUNDATION TO ROOF
1 : 20

NORADLEEN FARIHA
BINTI CHE MAHADI
131940

PROJECT 1 : A PLACE OF WORSHIP

MASJID PURNAMA

LUKUT, NEGERI SEMBILAN

INTRODUCTION

A PLACE OF WORSHIP

SACRED ARCHITECTURE ALSO KNOWN AS SPIRITUAL ARCHITECTURE IS A RELIGIOUS ARCHITECTURE PRACTICE.ARCHITECT OFTEN AIM TO INFUSE THEIR CREATIONS WITH MEANING. BUT ONE TYPE OF STRUCTURE DEMANDS SOMETHING PARTICULARLY MOVING- A SPIRITUAL BUILDING- THAT DEPICTS THE INTIMATE RELATION BETWEEN MAN AND GOD. ROBERT SCHULLER SUGGESTED THAT "TO BE PSYCHOLOGYCALLY HEALTHY, HUMAN BEINGS NEED TO EXPERIENCE THEIR NATURAL SETTING, THE SETTING WE WERE DESIGN FOR, WHICH IS GREEN." THE WAY LIGHT IS INTRODUCED TO THESE SACRED SPACES SUGGEST THE JOURNEY ONE TAKES FROM DARKNESS TO FULFILMENT OF THE HEART AND SOUL.

CLIENT

A LOCAL MILLIONAIRE THAT WANTS A PLACE OF WORSHIP TO BE BUILT ON SITE WHICH CAN ATTRACT, FAMOUS AND KNOWN ALL.

"He created the heavens and the Earth with truth. He wraps the night around the day and wraps the day around the night, and has made the Sun and Moon subservient, each one running for a specified term."
(Surat az-Zumar, 5)

IDEA CONCEPT

HELIO-MAN CENTRIC SYSTEM

= "Helios" meaning "to cover as a spherical body"

= "cyclonessa," meaning "Blowing, whirling or revolving."

= Sun that is responsible for night and day

HABLUMINANNAS
MUSLIM RELATION WITH OTHER HUMAN BEING

HABLUMINALLAH
MUSLIM RELATION WITH ALMIGHTHY

Special (Public Spaces) | Prey Session (Semi Public) | Administrator (Private)

SITE ANALYSIS

Thes site has numerous landmark by the local people and by adding the new mosque nearer to other landmark, to make it as a standpoint

The proposed site facing the main Seremban-Lukut Roadway and also being heavily connected with nearby neighboorhood.
Which have more than 500 housing within 20km radius

the site i lack of vegetation and absent of nearby recreational park

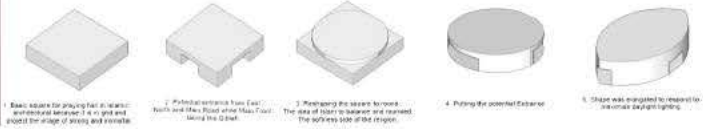
No shading area on site

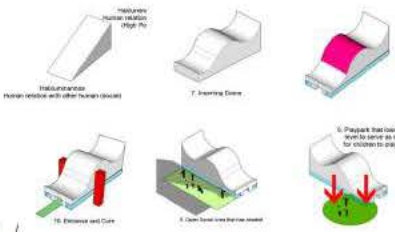
TYPES OF VEHICLE

ISSUES

1. No existing parking and usually mosque existed lack of parking
2. Most mosque does not appeal for other activities
3. To be the next Landmark
4. No Halal restaurant near the site
5. Pedestrianisation

DESIGN DEVELOPMENT

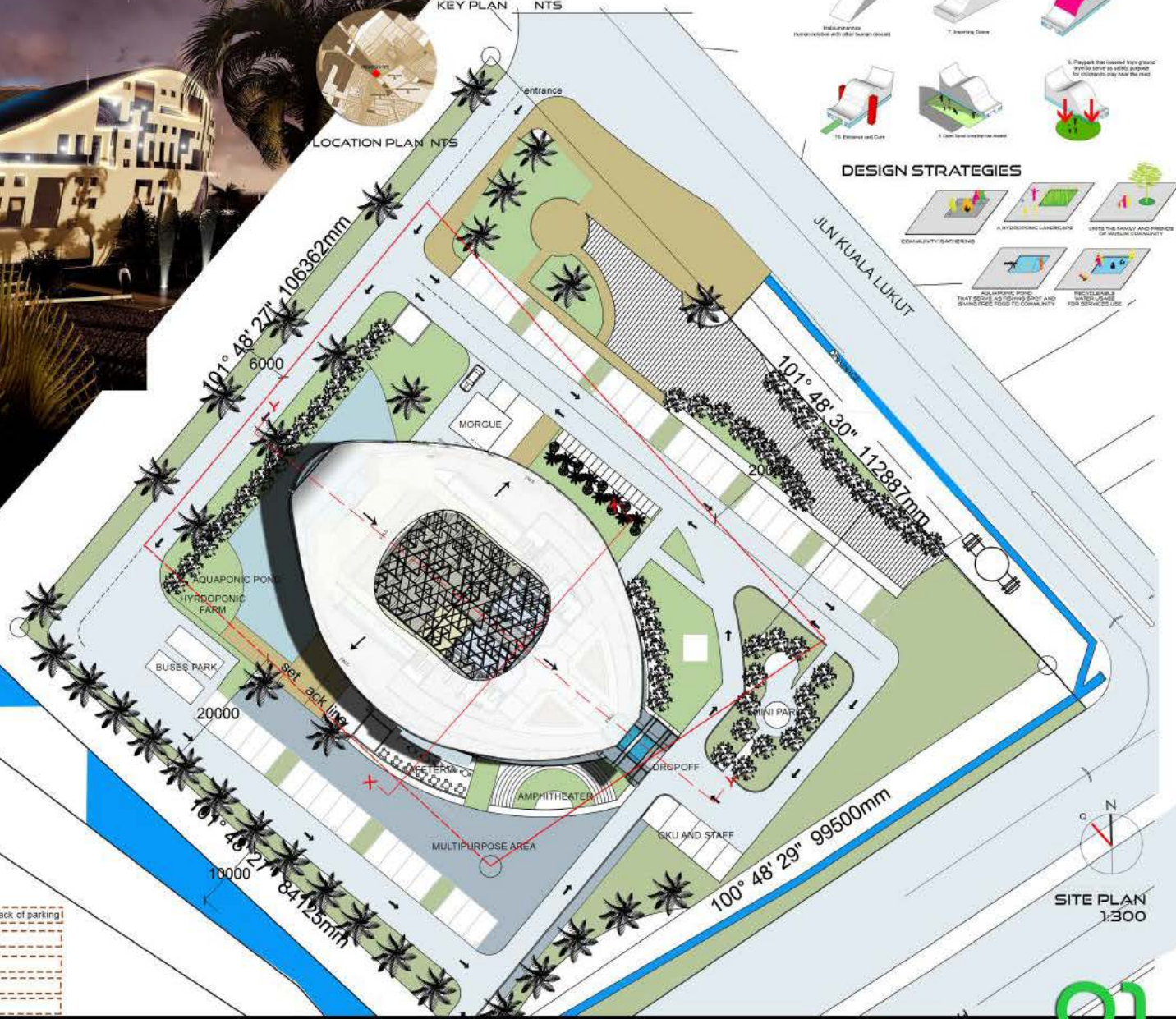




DESIGN STRATEGIES

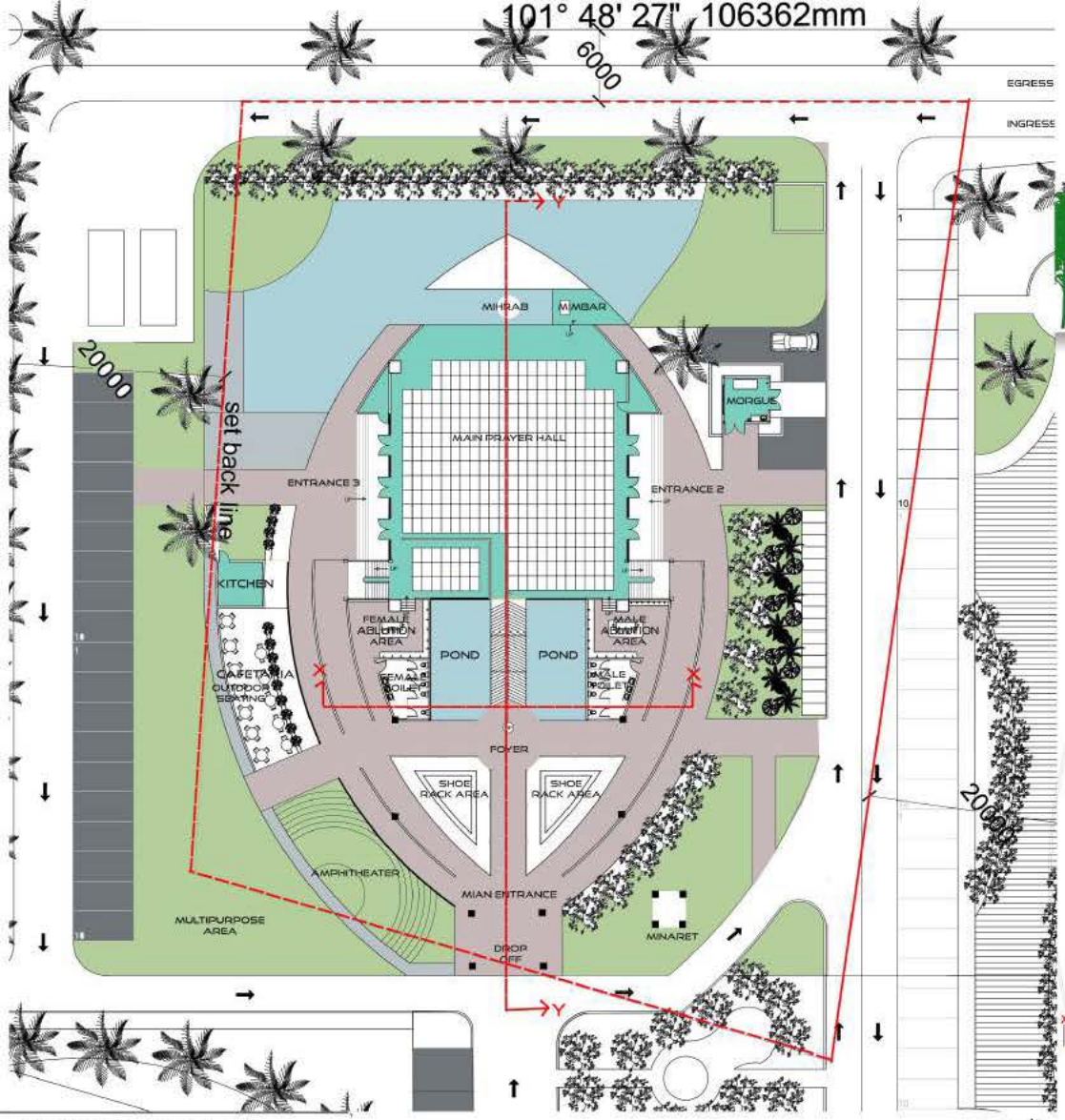
KEY PLAN NTS

LOCATION PLAN NTS

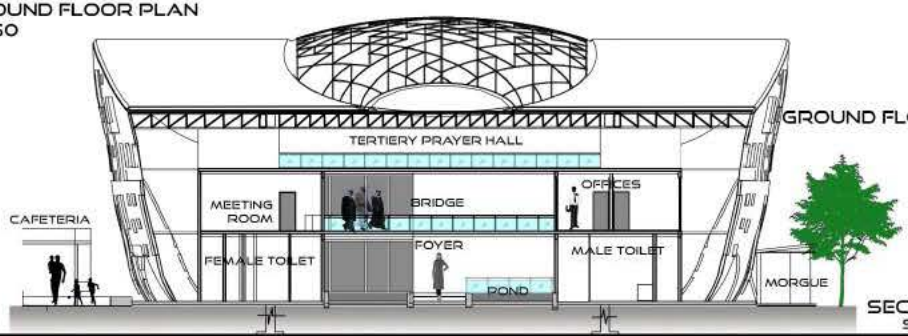


SITE PLAN
1:300

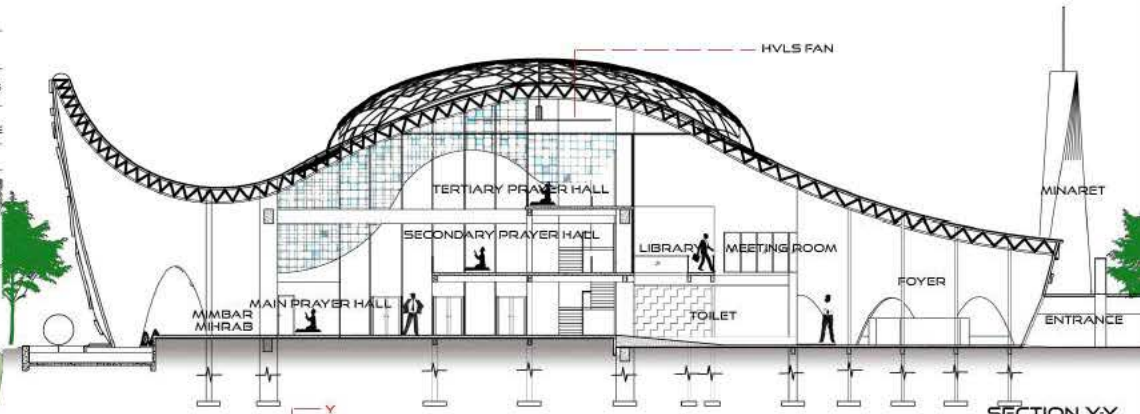
NAME : NORADLEEN FARIHA BINTI CHE MAHADI
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM



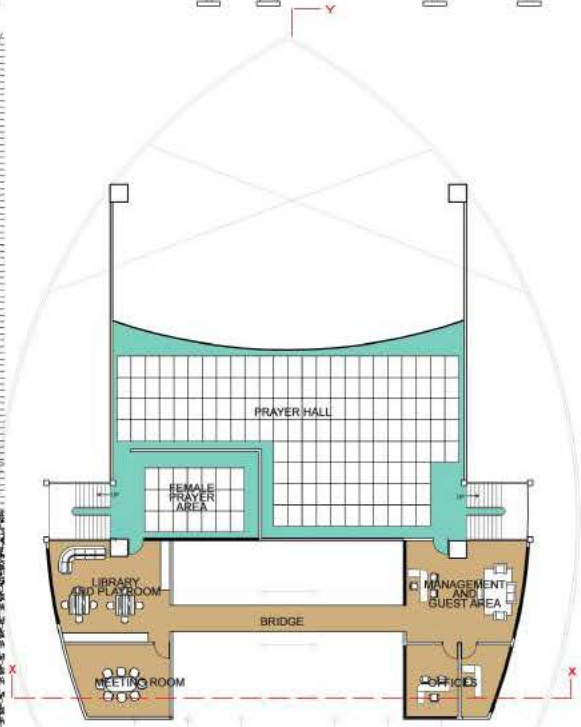
GROUND FLOOR PLAN
1 : 150



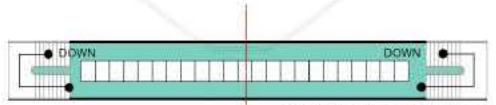
SECTION X-X
SCALE 1:150



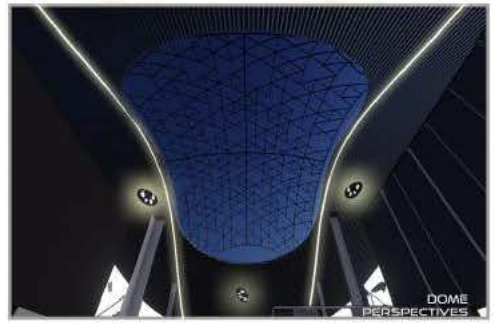
SECTION Y-Y
SCALE 1 : 150



GROUND FLOOR PLAN
1 : 150



THIRD FLOOR PLAN
SCALE 1 : 150



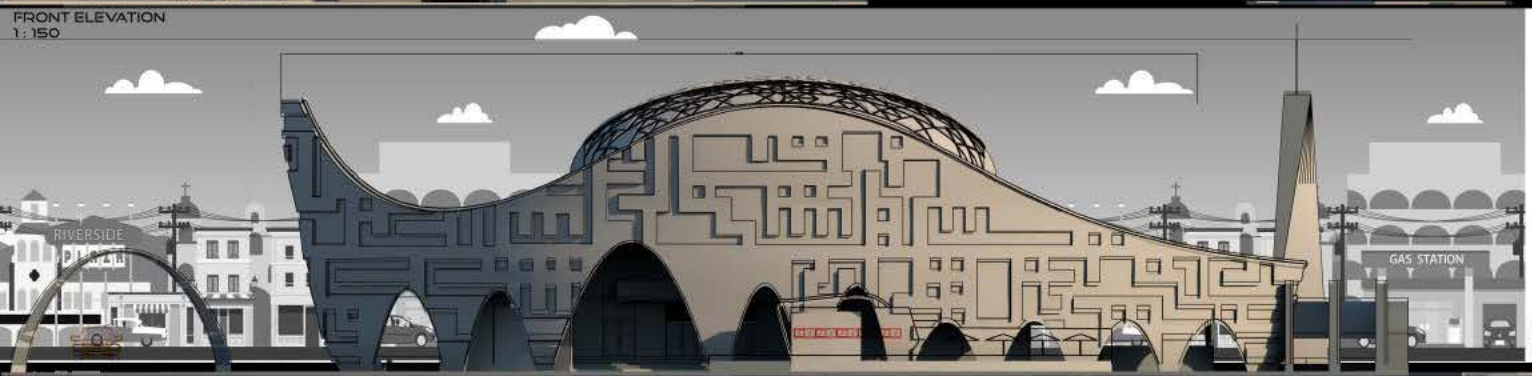
NAME : NORADLEEN FARIHA BINTI CHE MAHADI
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM

MASJID PURNAMA , LUKUT

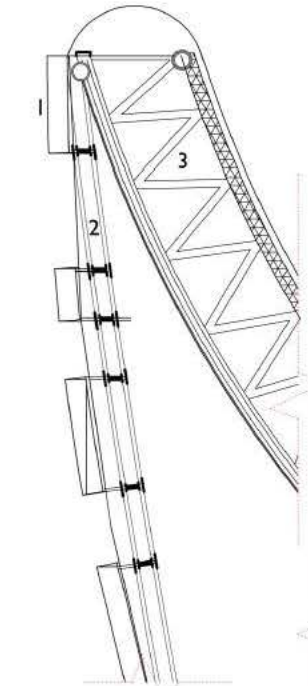

VIEW FROM ENTRANCE


AERIAL VIEW

FRONT ELEVATION
1 : 150



LEFT ELEVATION
1 : 150

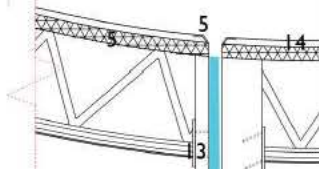


LEGENDS

1. External wall 800
☐ 300 mm T-shaped precast reinforced concrete columns at nominal 11 m centres.
250 mm thick precast reinforced concrete wall panels bolted to columns.
175 mm void for acoustic attenuation with horizontal closers to prevent stack effect air movement in cavity.
100 mm mineral wool thermal insulation. Vapour barrier.

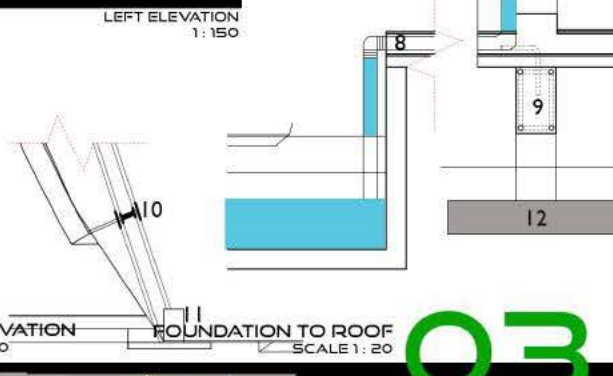
2 - 3
Roof trusses Steel roof trusses at 11m centres tapered to form 3% fall to roof (3970 mm high at centre of roof) made up from:
HEA 300 (290
☐ 300 mm I-section) top chord. HEA 200 (190
☐ 200 mm I-section) diagonal braces.
IPE 180 (180
☐ 91 mm I-section) vertical members generally. HEA 260 (250
☐ 260mm I-section) vertical end member.
HEA 300(290
☐ 300mm I-section) bottom chord

13
Roof trusses bracket Steel bracket bolted to precast concrete wall. Truss rests on and is bolted to 300 ☐ 300 mm elastomeric isolation pad which is bolted to the fi xing bracket.



4. Cladding panels
1490 X 1490
☐ 55mm thick precast glassreinforced concrete cladding panels with four M12 stainless steel fi xing sockets cast into rear.

5. Gutter
6. Typical Concrete Column
7. Gully
8. Typical Floor Slab
9. Typical Concrete Beam
10-11
Brackets 230 mm long
☐ 50mm galvanised steel angles with slotted holes welded to vertical rails.
110 x50 mm thick foldestainless steel brackets with slotted holes bolted to stainless steel sockets cast into cladding panels.
12. Pad Footing Foundation



LEFT ELEVATION
SCALE 1 : 150

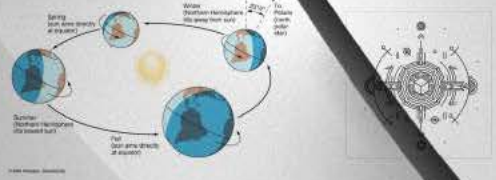
FOUNDATION TO ROOF
SCALE 1 : 20

03

NAME : NORADL
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM

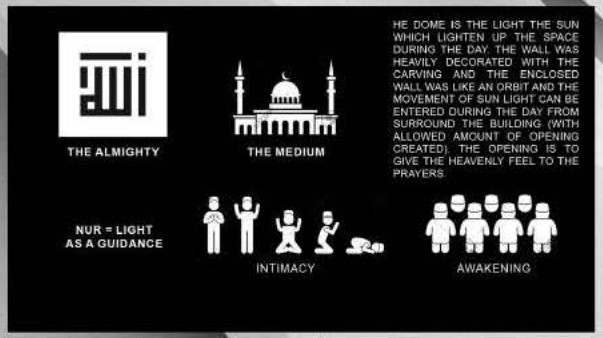
MASJID PURNAMA , LUKUT

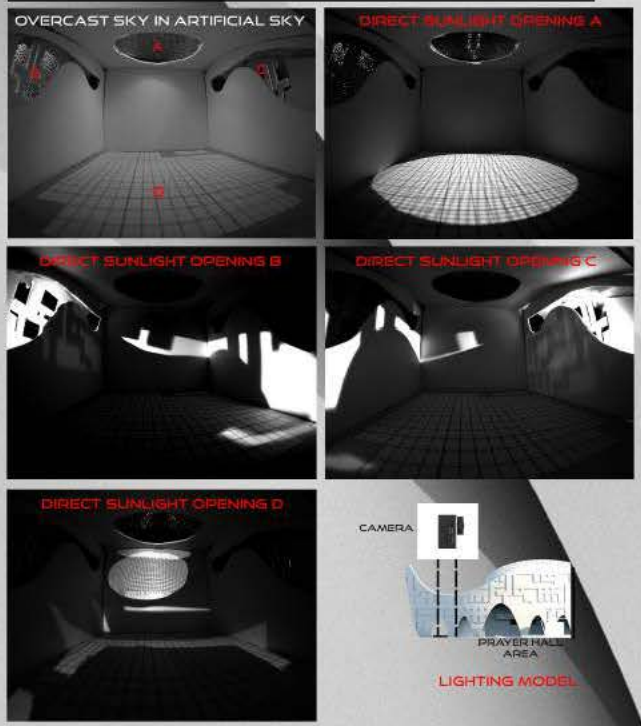
LIGHTING ANALYSIS AND CONCEPT



THE CONCEPT LIGHTING APPLIED IS THE **CELESTIAL**

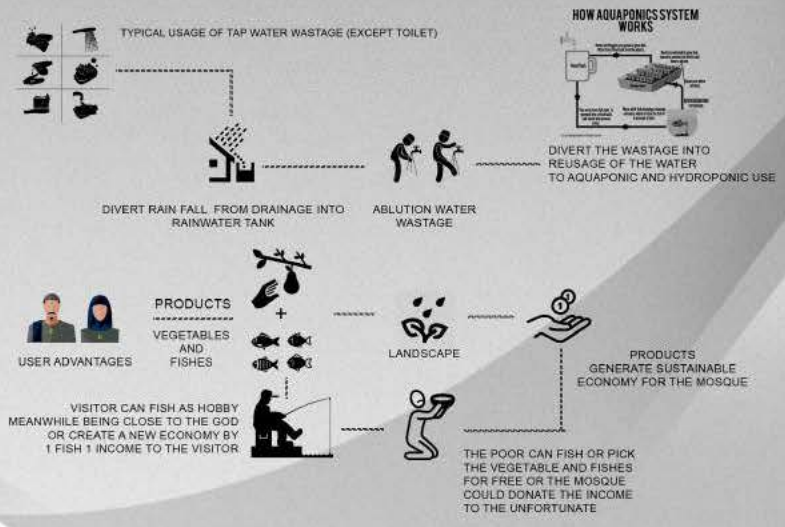
PERTAINING TO THE SKY OR VISIBLE HEAVEN, OR TO THE UNIVERSE BEYOND THE EARTH'S ATMOSPHERE, AS IN CELESTIAL BODY.



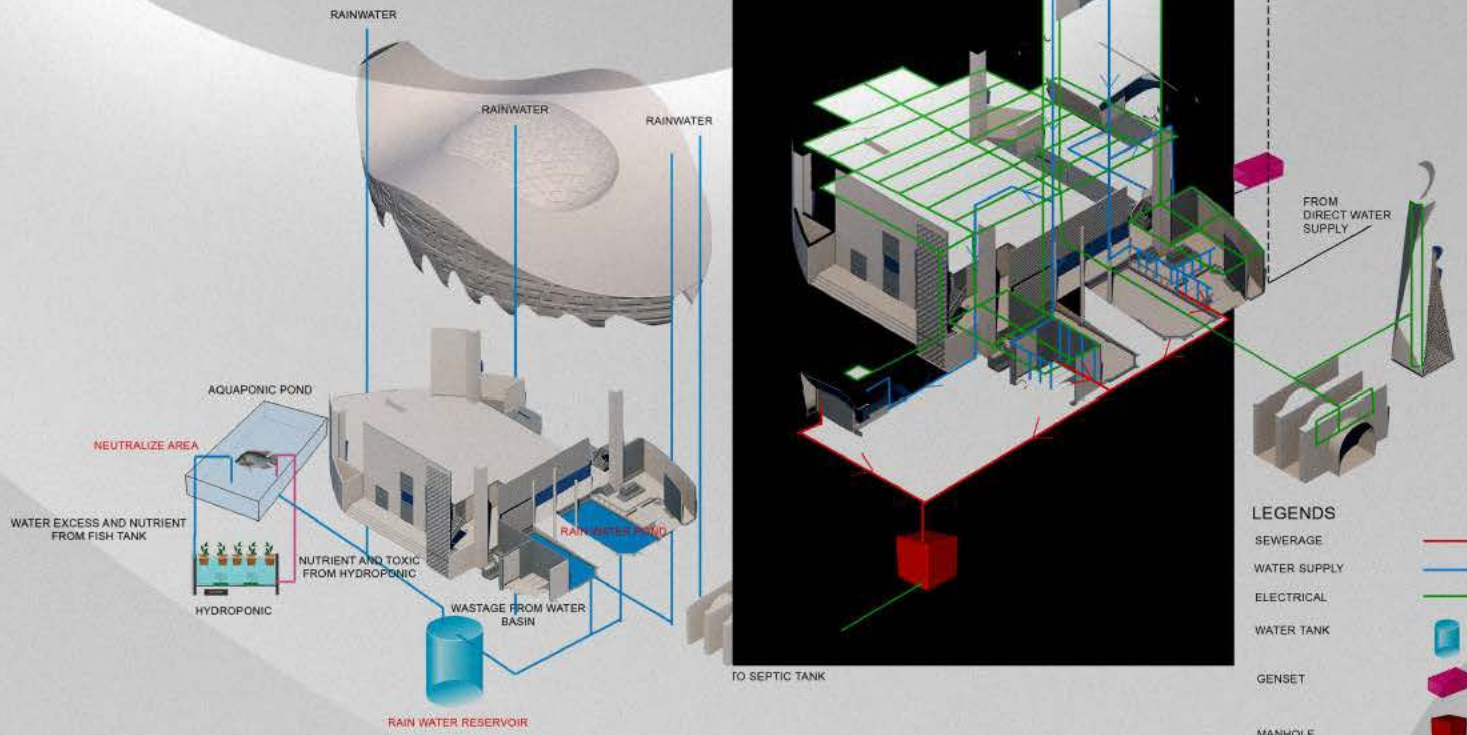


LIGHTING MODEL

WATER HARVESTING AND AQUAPONIC + HYDROPONIC WATER SYSTEM SCHEMATIC DIAGRAM



SEWERAGE, WATER SUPPLY AND ELECTRICITY SCHEMATIC DIAGRAM



NAME : NORADLEEN FARIHA BINTI CHE MAHADI
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM

MASJID PURNAMA , LUKUT

NURFARAHIN BT ROSLAN
131943

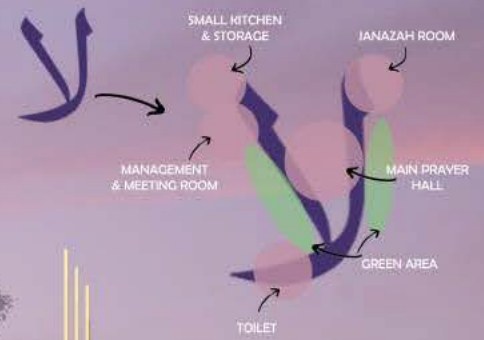
LAM 'A MOSQUE

PROJECT 1 : A PLACE OF WORSHIP

NURFARAHIN BINTI ROSLAN . 131943 . GROUP 4

THE LAM'A MOSQUE IS DERIVED FROM AN IMPORTANT ELEMENT OF ARABIC LETTER WHICH IS لا "LAM ALIF". THE LETTER EXPRESS SOME CHARACTERISTICS OF THE WAY THAT NATURE OBEY TO THE RULES OF GOD. ONE OF THE RULE IS PERFORMING SHALAH. IN ORDER TO DO THAT ONE MUST HAVE EASINESS AND CALMNESS, SO BASED ON THE CONCEPT EASINESS AND CALMNESS APPLIED TO THE CIRCULATION AND THE LANDSCAPE SURROUNDING BUT THE MOST IMPORTANT SECTION IS THE SPATIAL DESIGN WHICH BRING TRUE CALMNESS TO THE PILGRIMS.

CONCEPT DIAGRAM



RIGHT **ELEVATION**
SCALE 1 : 150

LEFT **ELEVATION**
SCALE 1 : 150

SITE ANALYSIS

PROPOSED SITE | WIND DIRECTION | SUNPATH & SHADOW | VISTAS | VEHICULAR DIRECTION

LIGHTING ANALYSIS

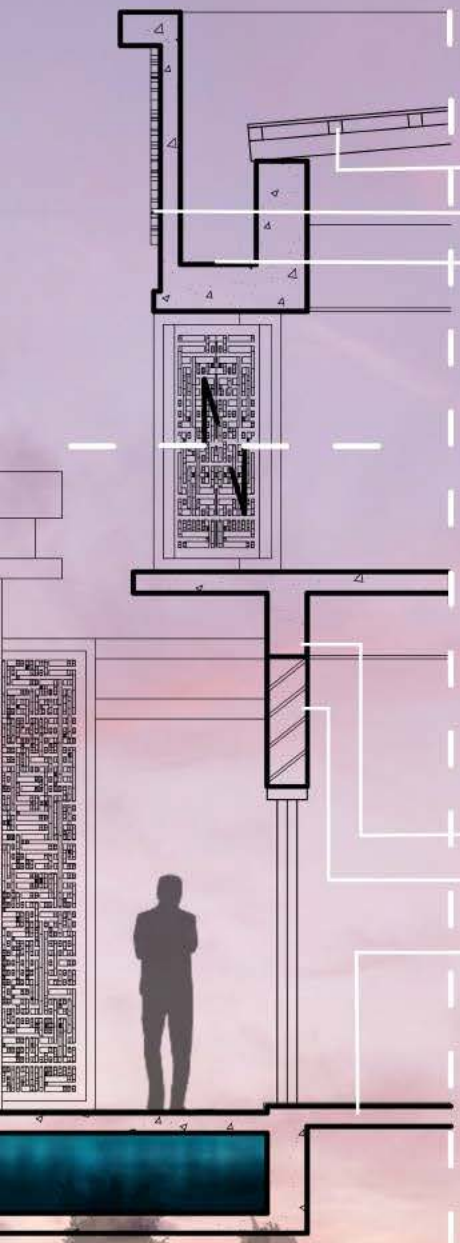
PASSIVE LIGHTING OR NATURAL LIGHTING IS A GOOD WAY TO CREATE A CALM SCENERY INTO THE BUILDING ESPECIALLY IN A HOLY PLACE LIKE MOSQUE. LAM'A MOSQUE WITH KUFI LETTER AT SOME OF THE OPENING GIVE NICE LOOK INTO THE MAIN PRAYER HALL WHEN SUNLIGHT ENTER THE BUILDING.

OPENING A IS CLOSED | OPENING C IS CLOSED | OPENING B IS CLOSED

LAM 'A MOSQUE

PROJECT 1 : A PLACE OF WORSHIP

NURFARAHIN BINTI ROSLAN . 131943 . GROUP 4



FOUNDATION TO ROOF
SCALE 1 : 20

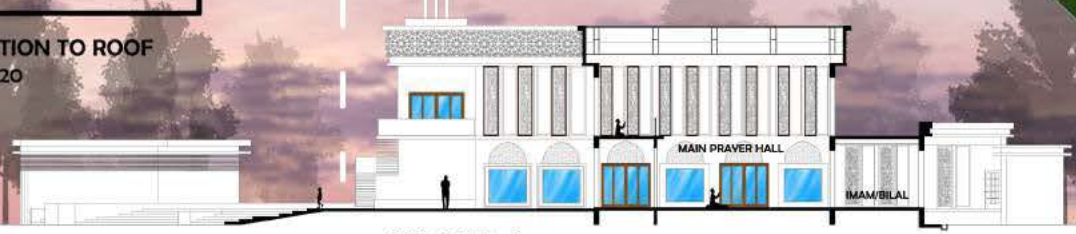
KEY PLAN
SCALE N.T.S

LOCATION PLAN
SCALE N.T.S

SITE PLAN
SCALE N 1 : 300

REFERENCES

1. MAIN BUILDING
2. MINARET
3. MANAGEMENT OFFICE/MEETING ROOM
4. MULTIPURPOSE HALL/KITCHEN/STORAGE
5. JANAZAH ROOM
6. TOILET MALE/FEMALE
7. PARKING AREA
8. MOTORCYCLE PARKING AREA
9. ABLUTION AREA
10. BUS PARKING



SECTION A -A
SCALE 1 : 150

SECTION B- B
SCALE 1 : 150

LAM 'A MOSQUE

PROJECT 1 : A PLACE OF WORSHIP

NURFARAHIN BINTI ROSLAN . 131943 . GROUP 4

LEGEND

1. IMAM/BILAL & P.A SYSTEM
2. M.S.B ROOM
3. MIHRAB
4. MIMBAR
5. MAIN PRAYER HALL (ENCLOSED)
6. MAIN PRAYER HALL (FEMALE)
7. ABLUTION AREA (FEMALE)
8. SAHN (COURTYARD)
9. ABLUTION AREA (MALE)
10. OPEN AREA
11. MANAGEMENT OFFICE
12. MEETING ROOM
13. MULTIPURPOSE ROOM
14. SMALL KITCHEN
15. STORAGE ROOM
16. JANAZAH ROOM
17. TOILET (FEMALE)
18. TOILET (MALE)
19. O.K.U TOILET

N

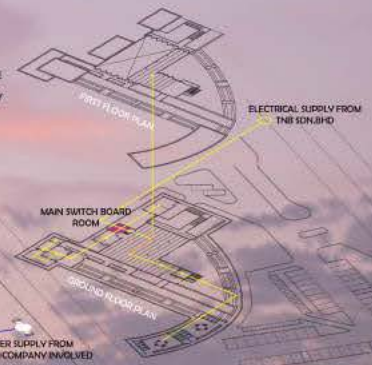
GROUND FLOOR PLAN
SCALE 1 : 150

N

FIRST FLOOR PLAN
SCALE 1 : 150

SEWERAGE SCHEMATIC DIAGRAM

WATER SUPPLY DIAGRAM



ELECTRICAL DIAGRAM

SYAMIRUL ALIF BIN SHAHARUDIN
131947

A PLACE OF WORSHIP

MOSQUE AL- A'ITIJAH

A mosque been design methaphore base on prostrate and ka'aba. it also prostrate towards the qibla that is ka'aba.

Futhermore the design is quite different then others mosque because the design does not have mosque dome. But the space inside still big because of double volume and gigantic from the ground floor to the roof top for represent Allah almighty.

KEY PLAN
NTS

LOCATION PLAN
NTS

RAS204 :
ARCHITECTURE STUDIO 2
PROJECT ONE

ISSUE

- Theres are alot Islamic people need mosque for their own worship.

- Need control behavior of typical malay that doesnt had good temperament.

AIMS

- To Propose a well expensive design Malay religious which is attractive masterpiece and can be a focal point for Lukut area.

OBJECTIVE

Create a place that reflect the history of islam for muslim and muslimah always remember and thankful to god.

Create An Interesting Place For Worship

Create to get better relationship between Umah

Create Own Identity (night lailatul qadr)

Activity

there were alot activity beside then worship. its also for tighten relationship between Umah

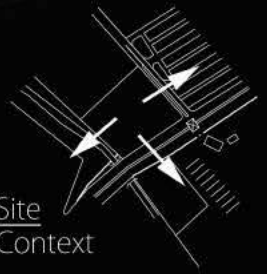
WORSHIP

KNOWLEDGE

LECTURE

Sun Path

Circulation
Vehicular



Site
Context

CONCEPTUAL & DESIGN PROCESS [INTERMIX]

a small stone building in the court of the Great Mosque at Mecca that contains a sacred black stone and is the goal of Islamic pilgrimage and the point toward which Muslims turn in praying.

A square that come from elevetion of Ka'aba. It also represent balance, symmetry and others. as we can see muslim and muslimah had to balance life which means not too rich but not too poor to always remember the almighty god

KOWTOW is kneel and touch the ground with the forehead in worship. In islamic we must w p toward qiblah

In the last 10 days of Ramadan, many Muslims are raising their worship. They munajah, muhasabah, tafakur and increase other worship to get night lailatul qadr. Alot islamic believe that all life will be kowtow towards k i b l a h

Wind Flow
Direction

Positive View
In Direction

HISTORY AND SITE ANALYSIS

Lukut is a small town in Port Dickson District, Negeri Sembilan, Malaysia. Lukut is situated within the parliamentary constituency of Teluk Kemang. The historical Kota Lukut is located here and also Sekolah Menengah Teknik Port Dickson

Lukut also famous for its Bird's Nest (Swiftlet Nest) industry. It is a traditional natural healthy food as most Chinese believed. One of the famous brand is Hutanis Bird's Nest which originates from the town.

LEGEND
1. Public Parking
2. Members Committees
3. Service Road
4. Bus Parking
5. Refuse Chamber
6. Motorcycle Parking
7. Opening Lecture
8. Picnic Area
9. Bollard
10. Main Entrance
11. Minor Entrance
12. Exterior Ablution
13. Kitchen
14. Mortuary

SOLAR PANEL

LEGEND
1. Mimbar
2. Mihrab
3. Worship Halls
4. Ablution Exterior
5. Oku female Worship
6. Officer Rooms
7. Multi Purpose Room
8. Wash Area/ Ablution
9. Male toilet
10. Female Toilet
11. Speaker Area

Using pine tree as a landscape design for prevent toxic air pollution

A Grand entrance from the site until the entrance of the mosque.Its inpired by Tajmahal design

Ground Floor Plan
Scale 1: 150

Site Floor Plan
Scale 1: 300

LEGEND
1. First Floor Worship Halls
2. Toilet & Washing
3. Ablution
4. Hamam
5. Dressing Room
6. Balcony

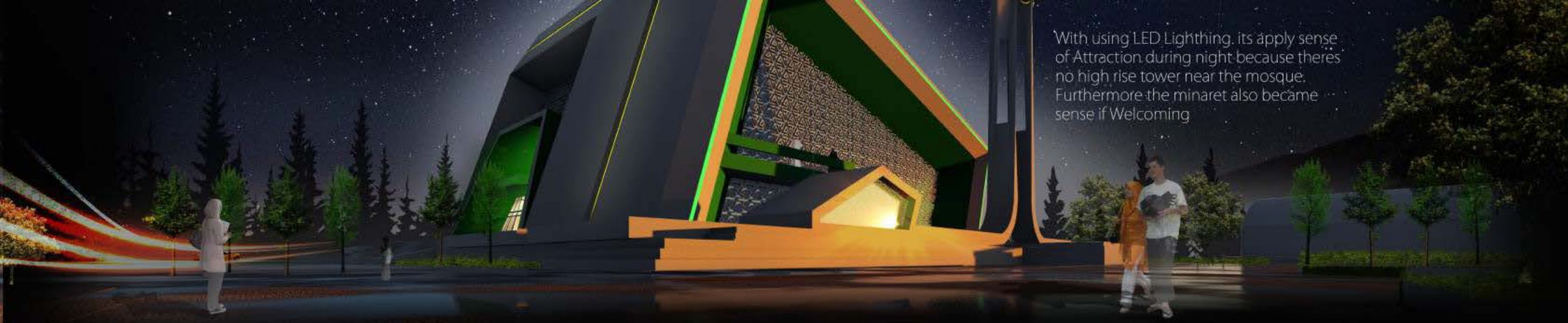
First Floor Plan
Scale 1: 150

A void been design for the the sense of welcoming on the ground floor. Its create a double volume for the entrance sense of welcoming

9.00am
Opening Lecture han been shelter from the mosque building

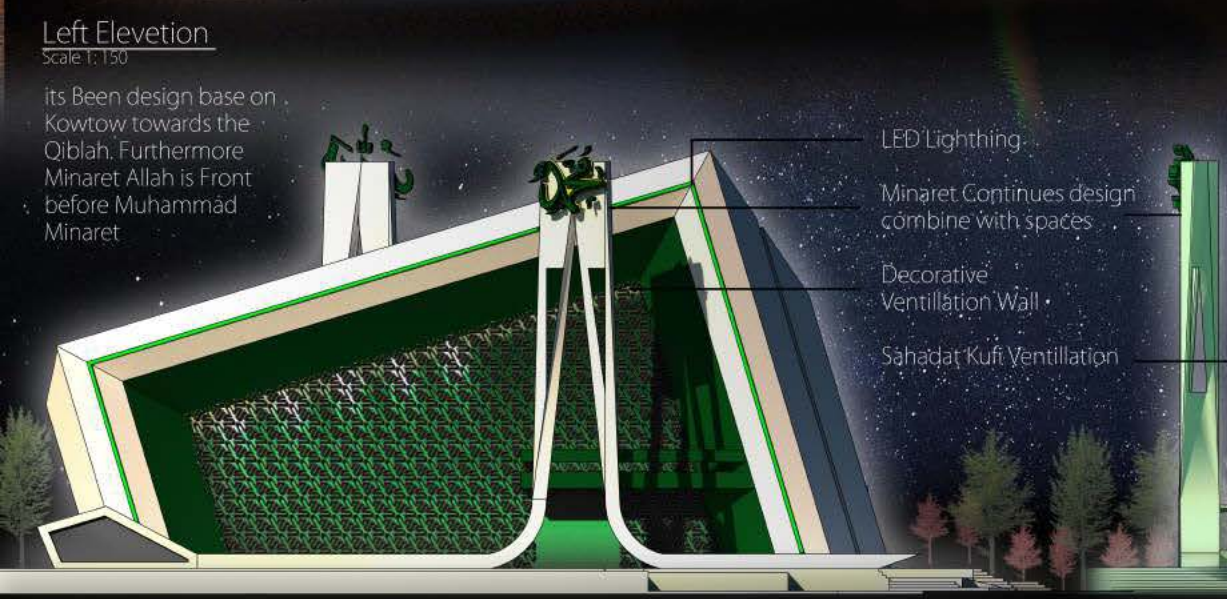
12.00am
All Site been direct sunlight for interact people coming . inside

5.00pm
shelter at the kitchen and bench area



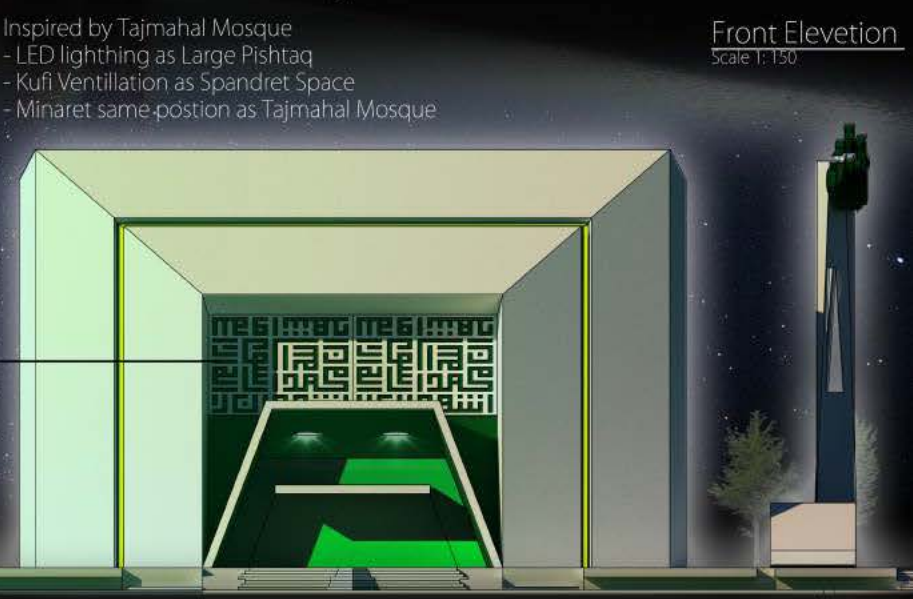
Left Elevetion
Scale 1: 150

its Been design base on Kowtow towards the Qiblah. Furthermore Minaret Allah is Front before Muhammad Minaret

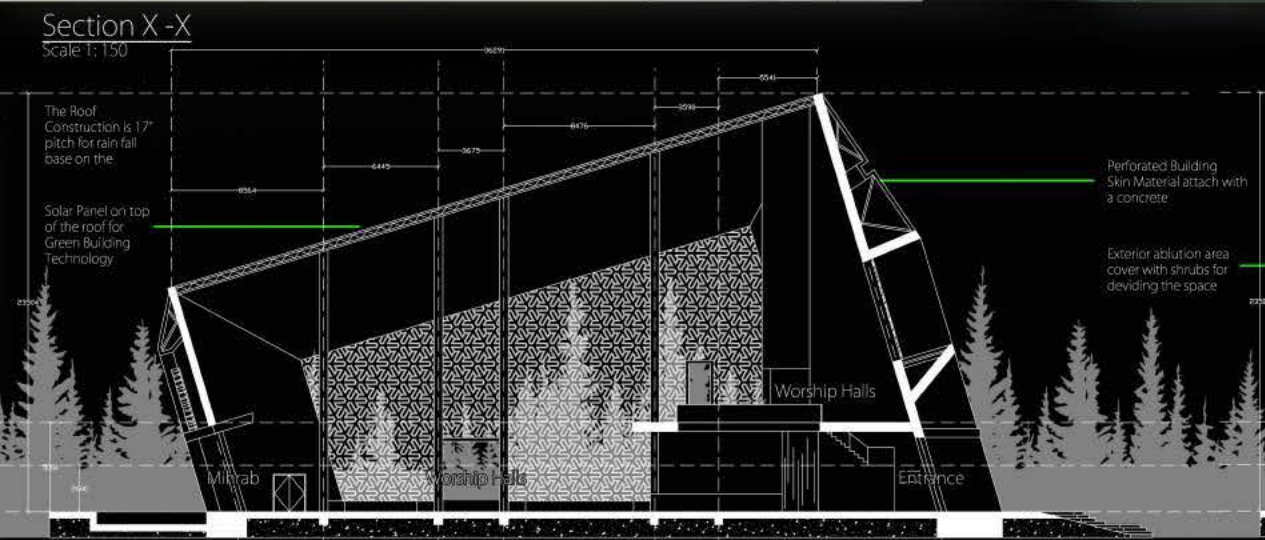


Inspired by Tajmahal Mosque
- LED lighthing as Large Pishtaq
- Kufi Ventillation as Spandret Space
- Minaret same postion as Tajmahal Mosque

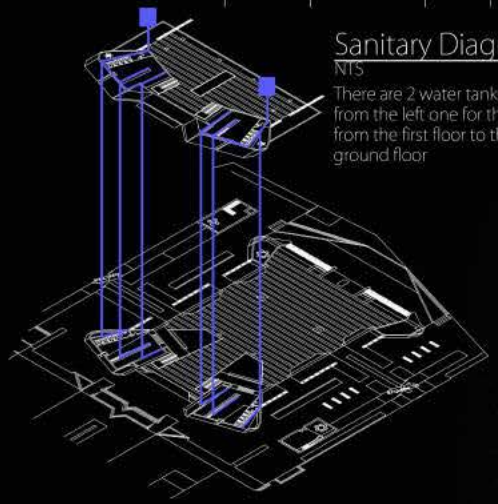
Front Elevetion
Scale 1: 150



Section X -X
Scale 1: 150



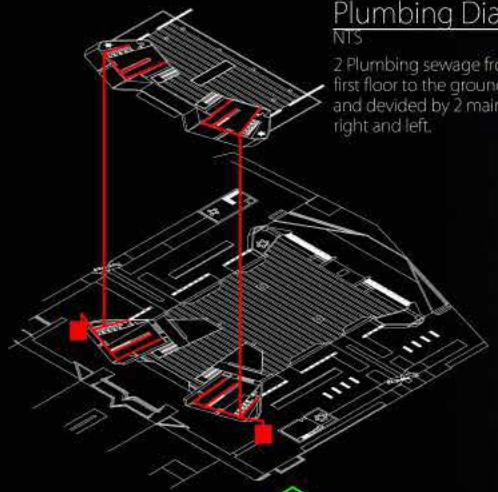
Sction Y - Y
Scale 1: 150



Sanitary Diagram

NTS

There are 2 water tanks , one from the left one for the right. from the first floor to the ground floor



Plumbing Diagram

NTS

2 Plumbing sewage from the first floor to the ground floor and devided by 2 main hole right and left.

Electrical Diagram

NTS

There were LED lighthing from the exterior building skin

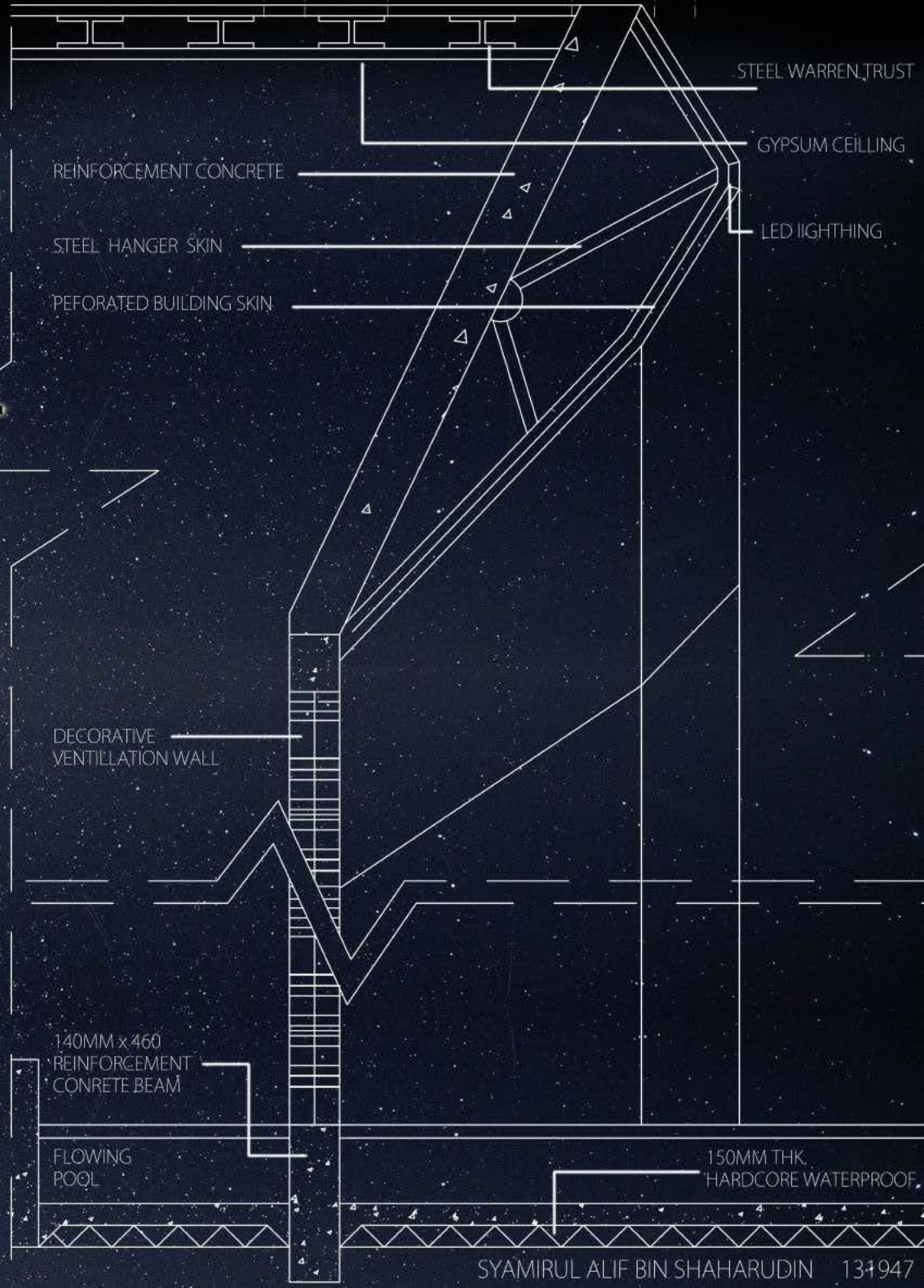
The design is well prepare by using element of water as reflection of the light during afternoon

Futhermore its also using element of water as ventillation inside of the building

Enviromental Science Study

Enviromental Science Study

The science of daylighting design is not just how to provide enough daylight to an occupied space, but how to do so without any undesirable side effects. Beyond adding windows or skylights to a space, it involves carefully balancing heat gain and loss, glare control, and variations in daylight availability. For example, successful daylighting designs will carefully consider the use of shading devices to reduce glare and excess contrast in the work space. Additionally, window size and spacing, glass selection, the reflectance of interior finishes, and the location of any interior partitions must all be evaluated.



SYAMIRUL ALIF BIN SHAHARUDIN 131947

SYED HAZIQ SAGGAFF BIN SYED HOOD
131948

CAHAYA LUKUT MOSQUE

RAS 204 : ARCHITECTURE STUDIO 2 (2017/2018) PROJECT 1 : A PLACE OF WORSHIP AT LUKUT , NEGERI SEMBILAN
HBP (ARCHITECTURE) USM-KPT

ARCHITECTURAL STATEMENT

AS HUMAN LIFE DEVELOPED, SO THE DEMAND WIL INCREASE PEOPLE OF LUKUT ARE IN NEED OFA NEW PLACE FOR WORSHIP AS THE NEAREST CANNOT CONTAIN THE RESIDENT ANYMORE, A MOSQUE WAS PROPOSED FOR THIS SITE. IT HAVE TO CONNECT TO THE SPIRITUAL ARCHCITECTURE THAT WILL CAUSE THE REACTION OF HEART. THE CREATION MUST HAVE MEANING AND SHOW THE RELATION OF HUMAN AND GOD. HUMILITY IS A STATE OF BEING HUMBLE, SUBMISSIVE AND CALM. FOR THAT, THIS MOSQUE PROVIDE PLACE TO ACHIEVE HUMILITY AND CONNECT WITH GOD. LIGHT EFFECT, OPEN PLAN AND USER FRIENDLY DESIGN. THIS MOSQUE ALSO INTERACT WITH COMMUNITY WHICH PROVIDED SPACE FOR EVENT ANT, FORUM AND RELIGIOUS DISCUSSION.
ARE USED TO MAKE THIS MOSQUE
ONE OF THE GEATEST.

ABOUT SITE

LOT NO. **3034** , JLN KUALA LUKUT, 71010 , PORT DICKSON NEGERI SEMBILAN DARUL KHUSUS.

THE CLIENT : MAJLIS AGAMA ISLAM NEGERI SEMBILAN

THE SITE IS ALMOST **FLAT** AND **CLEAR** WITHOUT ANY STRUCTURE. IT ALSO DOESNOT HAVE ANY BIG TREES. BEFORE IT WAS A RUBBER FIELD AND BEING CLEAR FOR FUTURE DEVELOPMENT.THE SITE IS SUITABLE FOR **MOSQUE** AS NEAREST ARE FAR AND DEMAND FROM THE NEIGHBOURHOOD. IT IS IN THE CENTRE OF POPULATION AND BETWEEN RESIDENTIAL AREA AND COMMERCIAL. THIS MAKE IT A VERY STRATEGIC SITE.

STUDIES

SITE ANALYSIS

KEY PLAN N.T.S

LOCATION PLAN N.T.S

SUN ORIENTATION

WIND DIRECTION

PARKING SPACE

PROPOSED ENTRANCE

PARKING CALCULATION

			PROVIDED
CAR	570 / 15	= 38	57 (2 OKU)
BUS	1		3
MOTOR CYCLE	570 / 15	= 38	50

CASE STUDY

BAHAI TEMPLE OF SOUTH AMERICA

MARMARA UNIVERSITY MOSQUE

CONCEPT

HUMILITY
(REACTION OF HEART)

ILLUMINATION
(SUN)

1 . ON FACADE
2. PENETRATE INSIDE

IDEA OF INNER AND OUTER

INTIMATE SKYLIGHT
- THE DIRECTION ALONG SIDE WITH THE SUN

RADIANT
(GLOWING)

CAST GLASS (DOME)

CAPTURE THE
1 . BLUE LIGHT OF DAWN
2. WHITE LIGHT OF DAY
3. GOLD LIGHT OF AFTERNON
4. ORANGE LIGHT OF SUNSET
5. THE REVERSAL AND NIGHT

SERENITY

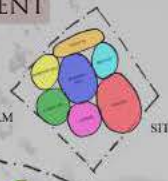
FOCUS ON GOD
- STEP IN SIDE AND LEAVE OUTSIDE WORLD

HUMILITY
- BIG DOME
- PENETRATE HALF LIGHT

COMFORT
- LOW LIGHT
- HUGE WINDOW PATTERN OF TRADITION

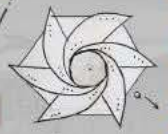
DEVELOPMENT

BUBBLE DIAGRAM

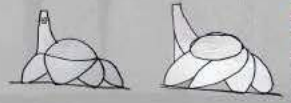


SITE

FLOOR PLAN



SKETCHES



IDEAS

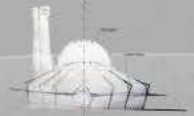
SHAPE

FORM / ORDER

FLYING BUTRESS

AHAD

WIND AND LIGHT WELL



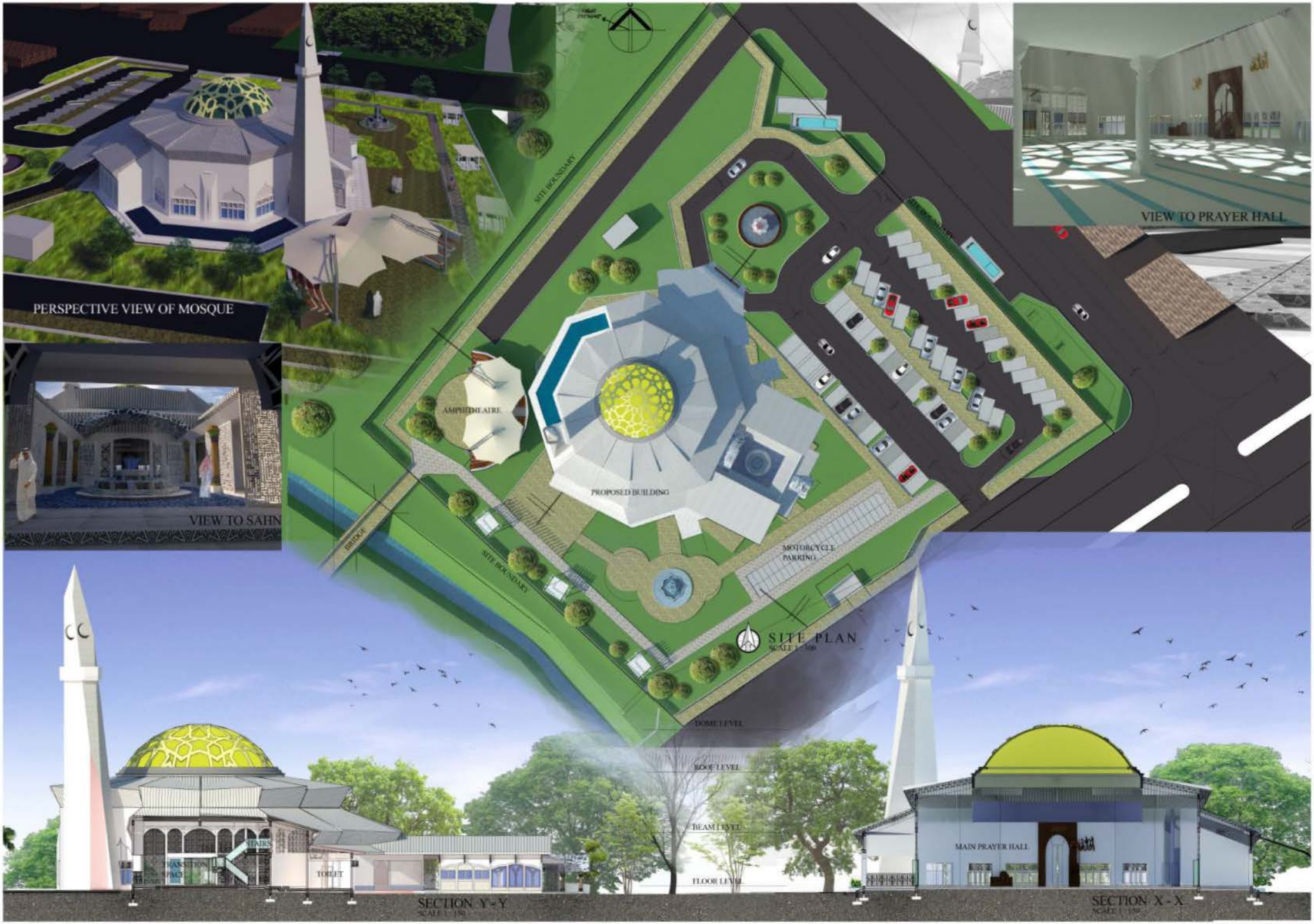
PERSPECTIVE VIEW

SYED HAZIQ SAGGAFF BIN SYED HOOD
131948

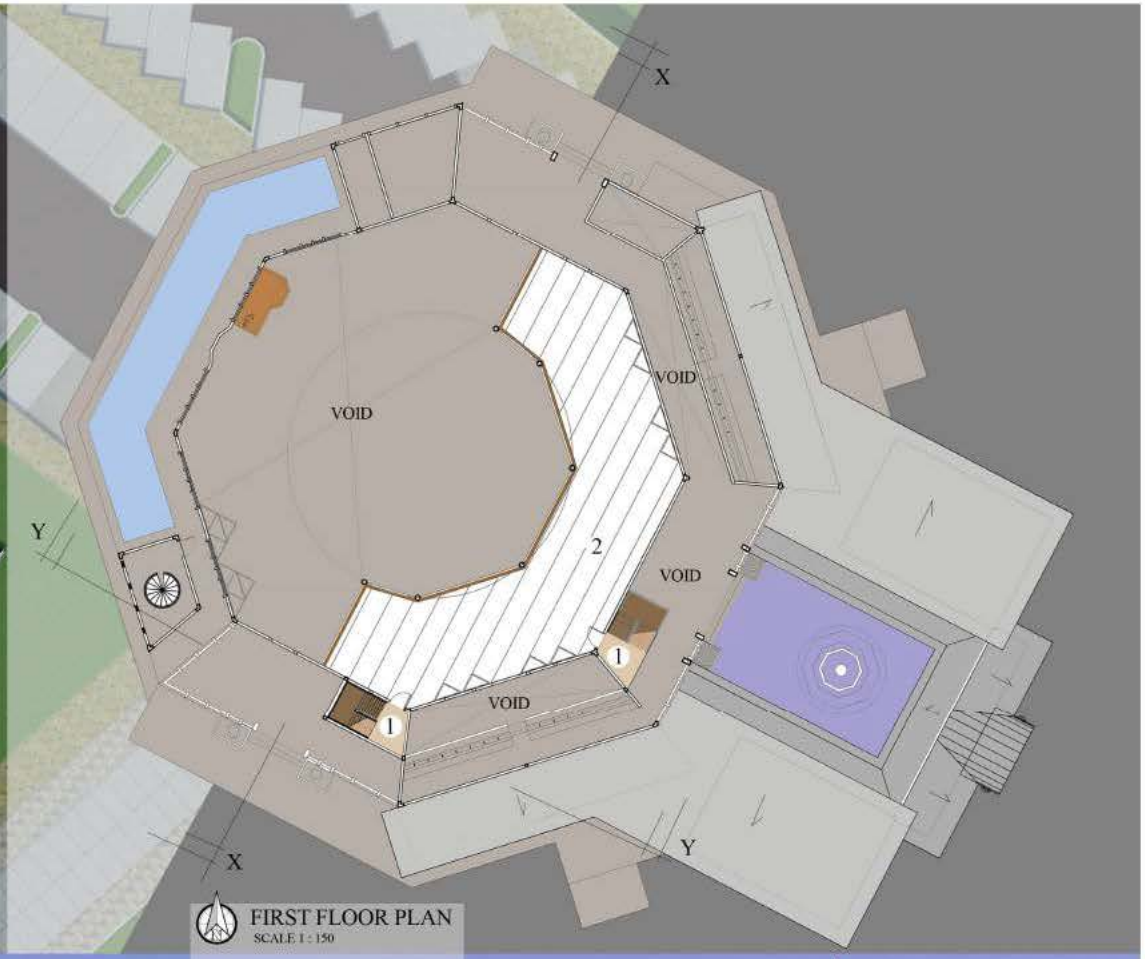
PERSPECTIVE VIEW OF MOSQUE

VIEW TO SAHN

VIEW TO PRAYER HALL



GROUND FLOOR PLAN
SCALE 1 : 150



FIRST FLOOR PLAN
SCALE 1 : 150

LEGEND

1 . DROP OFF
2. TRANSITION AREA
3. JENAZAH ROOM
4. IMAM'S ROOM
5. PA SYSTEM AND ELEC ROOM
6. MAIN PRAYER HALL
7. ABLUTION AREA (MEN)
8. TOILET (MEN)
9. SHOES AREA
10. ABLUTION AREA (WOMEN)
11. TOILET (WOMEN)
12. KITCHEN AND DINING
13. LIBRARY
14 SAHN
15. OFFICE LOBBY
16. MEETING AREA
17. OFFICE
18. MINARET

LEGEND

1. TRANSITION AREA
2. PRAYER AREA (WOMAN)

FRONT ELEVATION
SCALE 1 : 150

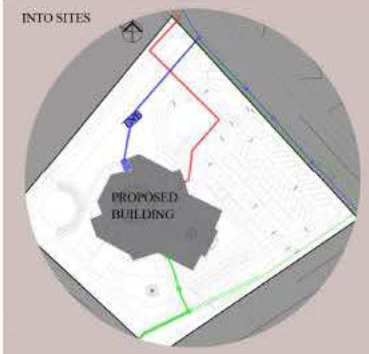
RIGHT ELEVATION
SCALE 1 : 150

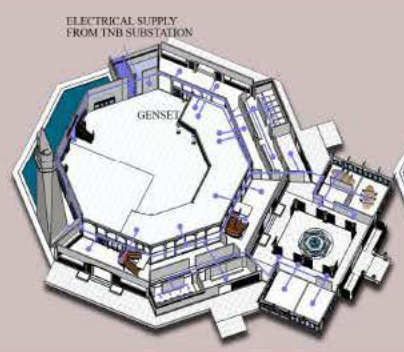
SERVICES

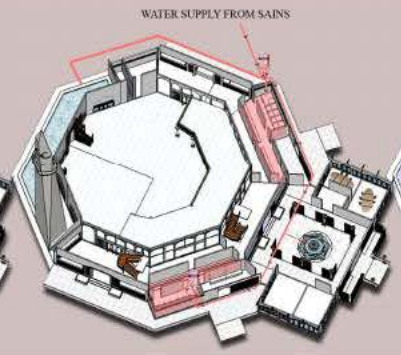
ELECTRICAL SCHEMATIC DIAGRAM

WATER SUPPLY SCHEMATIC DIAGRAM

SEWERAGE SCHEMATIC DIAGRAM







LIGHTING ANALYSIS

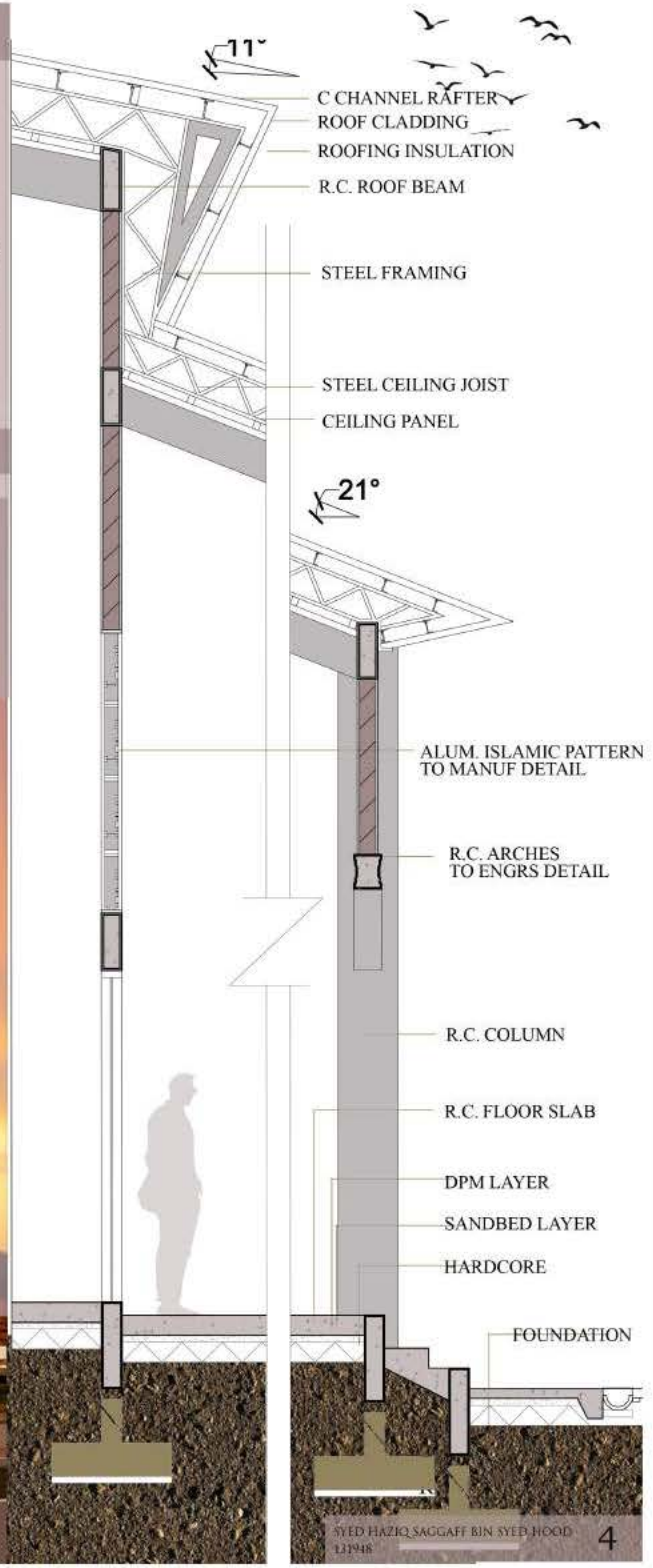
8 A.M.

12 P.M.

2 P.M.

6 P.M.

SUNSET VIEW



TENGKU AHMAD NIZAR
TENGKU NOOR HISHAM
131950

A PLACE OF WORSHIP

minang @ LUKUT , PORT DICKSON

FOR RICH LOCAL MILLIONAIRE WHO OWNS THE PIECE OF PROPERTY | TENGKU AHMAD NIZAR B. TENGKU NOOR HISHAM | 131950

ISSUE

- MAJORITY POPULATION OF MUSLIM : COMMERCIAL, RESIDENTAL - LACK OF WORSHIP AREA
- NO SPECIFIC PLACE FOR SURROUNDING RESIDENT OR PEOPLE TO INTERACT & GATHER : EVENT, GATHERING, FESTIVAL

AIM

TO PROPOSE A WORSHIP PLACE FOR SURROUNDING COMMUNITY TO INTERACT & GATHER, OCCUR A HIGHLY ACTIVE COMMUNITY

OBJECTIVE

CREATE A PLACE OF WORSHIP THAT EVOKE SOMETHING BEYOND OUR WORLD

- PROGRESSIVE RELIGIOUS
- MODERN ISLAMIC ARCHITECTURE
- IMPLEMENT LEGACY

CREATE AN INTERACTION PLACE FOR THE COMMUNITY

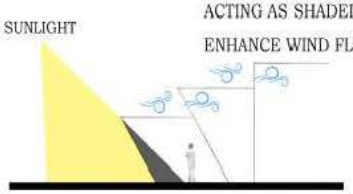
- AREA FOR SPECIFIC EVENT OR CEREMONIES
- ISLAMIC LANDSCAPE ARCHITECTURE
- KINDERGARDEN
- ISLAMIC ACTS & EDUCATION

CONCEPT

MINIMALISM + PROGRESSIVE RELIGIOUS

ISLAM

- PURITY
- SIMPLICITY
- LUCID



MINIMALISM

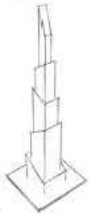
- DESIGN ELEMENTS STRIVE TO CONVEY THE MESSAGE OF SIMPLICITY, THE BASIC GEOMETRIC FORMS, ELEMENTS WITHOUT DECORATION, SIMPLE MATERIALS AND THE REPETITIONS OF STRUCTURES REPRESENT A SENSE OF ORDER AND ESSENTIAL QUALITY.

PROGRESSIVE RELIGIOUS

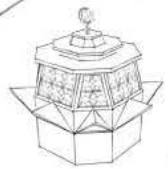
- BREAKING AWAY FROM USING TRADITIONAL FEATURES (MIDDLE EAST ELEMENTS OF DOMES ARCHES)
-IMPLEMENT ORIGINS FROM LEGACY TRADITIONAL FORM & MATERIALS

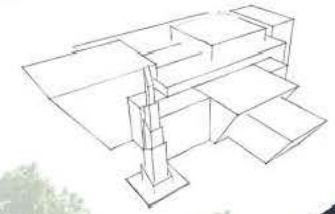
CONCEPTUAL DESIGN

- INNOVATE MINANGKABAU ROOF DESIGN AS BUILDING FORM BY ACTING AS SHADED SYSTEM & ENHANCE WIND FLOW DIRECTION

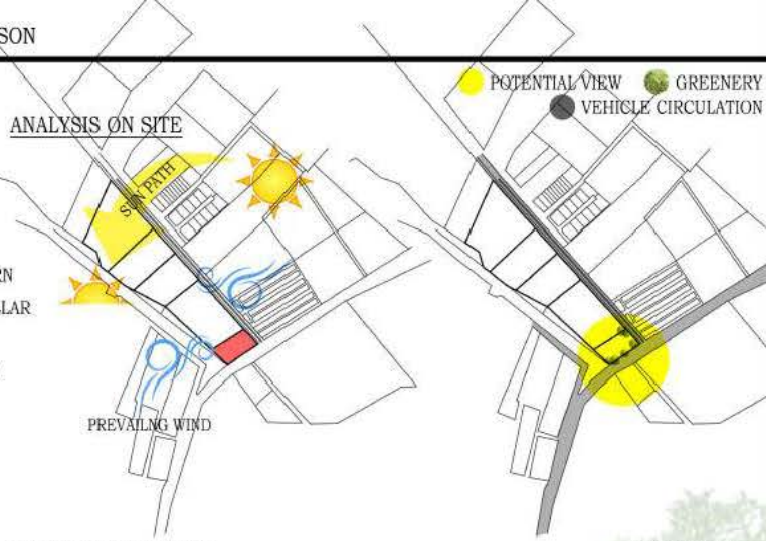


- 5 TIERED SINGLE MODERN MINARET SYMBOLIZE 5 PILLAR OF ISLAM
- GLASS DOME DESIGN TO EXCITE PROGRESSIVE ISLAMIC ARCHITECTURE





ANALYSIS ON SITE



IDEA DEVELOPMENT

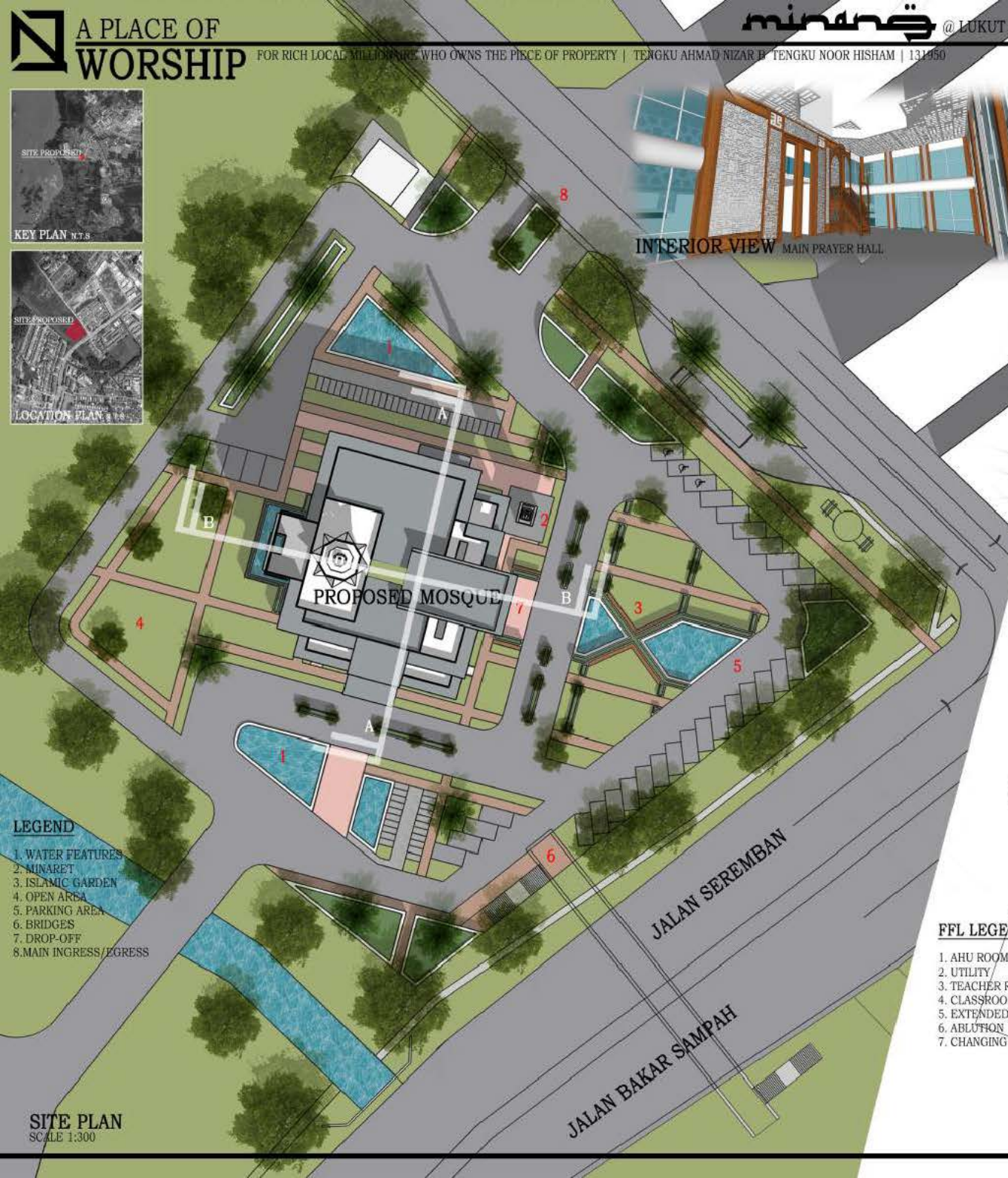
ACTIVITIES

A PLACE OF WORSHIP

FOR RICH LOCAL MILLIONAIRE WHO OWNS THE PIECE OF PROPERTY | TENGKU AHMAD NIZAR B. TENGKU NOOR HISHAM | 131950

minaret @ LUKUT , PORT DICKSON

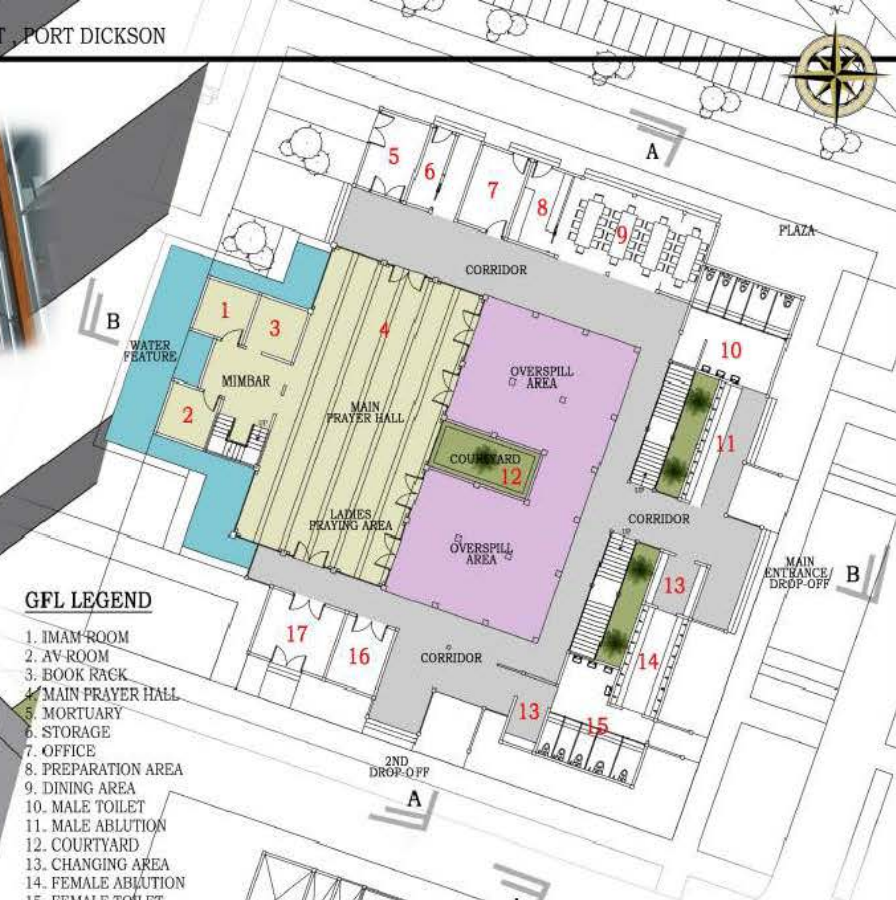
INTERIOR VIEW MAIN PRAYER HALL



LEGEND

1. WATER FEATURES
2. MINARET
3. ISLAMIC GARDEN
4. OPEN AREA
5. PARKING AREA
6. BRIDGES
7. DROP-OFF
8. MAIN INGRESS/EGRESS

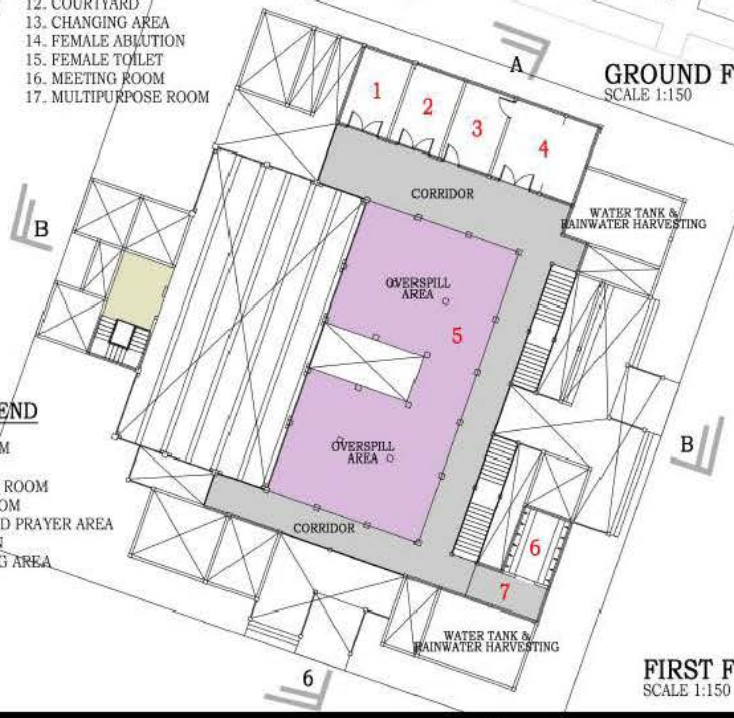
SITE PLAN
SCALE 1:300



GFL LEGEND

1. IMAM ROOM
2. AV ROOM
3. BOOK RACK
4. MAIN PRAYER HALL
5. MORTUARY
6. STORAGE
7. OFFICE
8. PREPARATION AREA
9. DINING AREA
10. MALE TOILET
11. MALE ABLUTION
12. COURTYARD
13. CHANGING AREA
14. FEMALE ABLUTION
15. FEMALE TOILET
16. MEETING ROOM
17. MULTIPURPOSE ROOM

GROUND FLOOR PLAN
SCALE 1:150



FFL LEGEND

1. AHU ROOM
2. UTILITY
3. TEACHER ROOM
4. CLASSROOM
5. EXTENDED PRAYER AREA
6. ABLUTION
7. CHANGING AREA

FIRST FLOOR PLAN
SCALE 1:150

A PLACE OF WORSHIP

FOR RICH LOCAL MILLIONAIRE WHO OWNS THE PIECE OF PROPERTY | TENGKU AHMAD NIZAR B TENGKU NOOR HISHAM | 131950

minaret @ LUKUT , PORT DICKSON

FRONT ELEVATION
SCALE 1:150

LEFT ELEVATION
SCALE 1:150

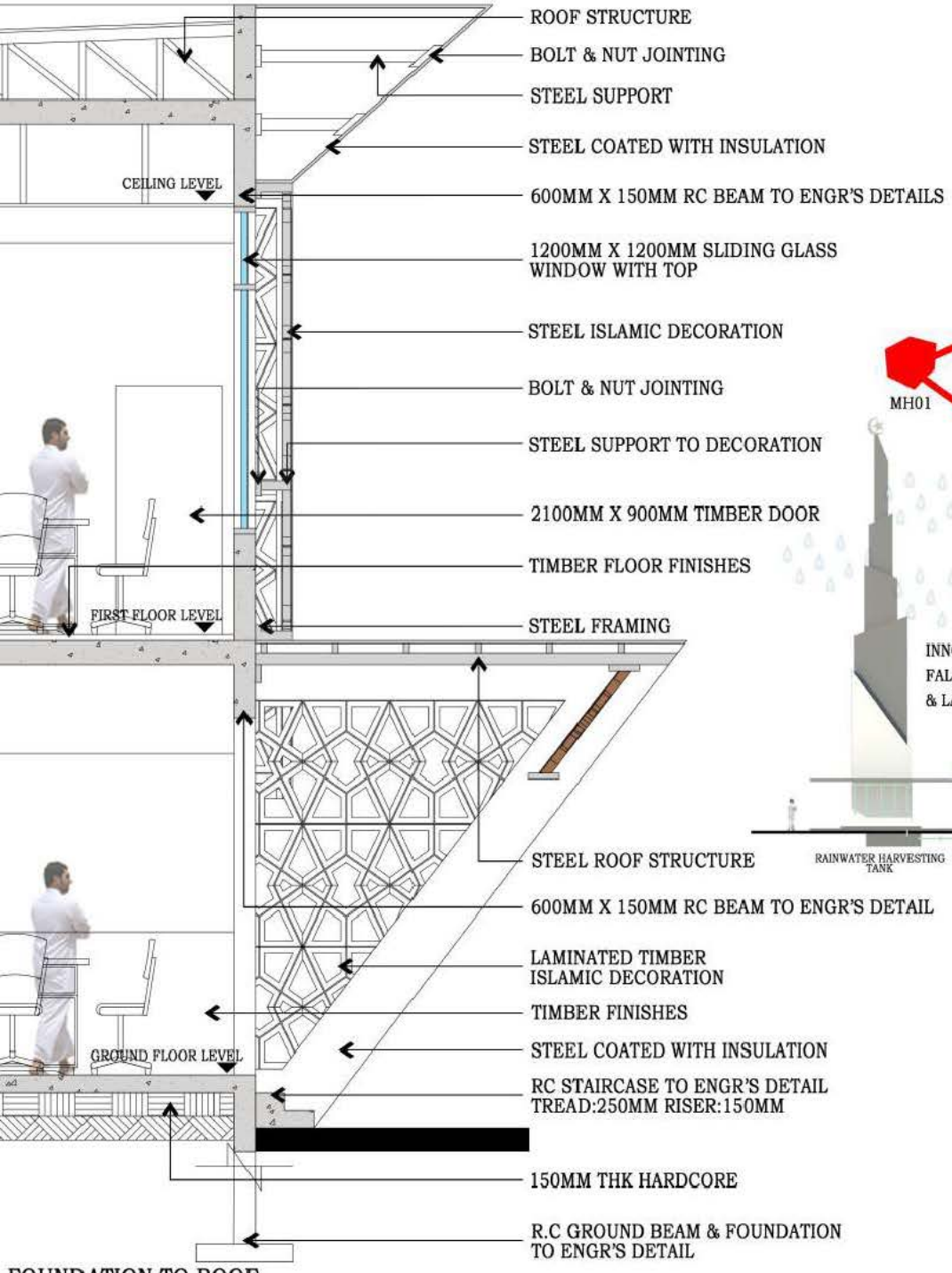
SECTION A-A
SCALE 1:150

SECTION B-B
SCALE 1:150

A PLACE OF WORSHIP

FOR RICH LOCAL MILLIONAIRE WHO OWNS THE PIECE OF PROPERTY | TENGKU AHMAD NIZAR B. TENGKU NOOR HISHAM | 131950

minaret @ LUKUT , PORT DICKSON

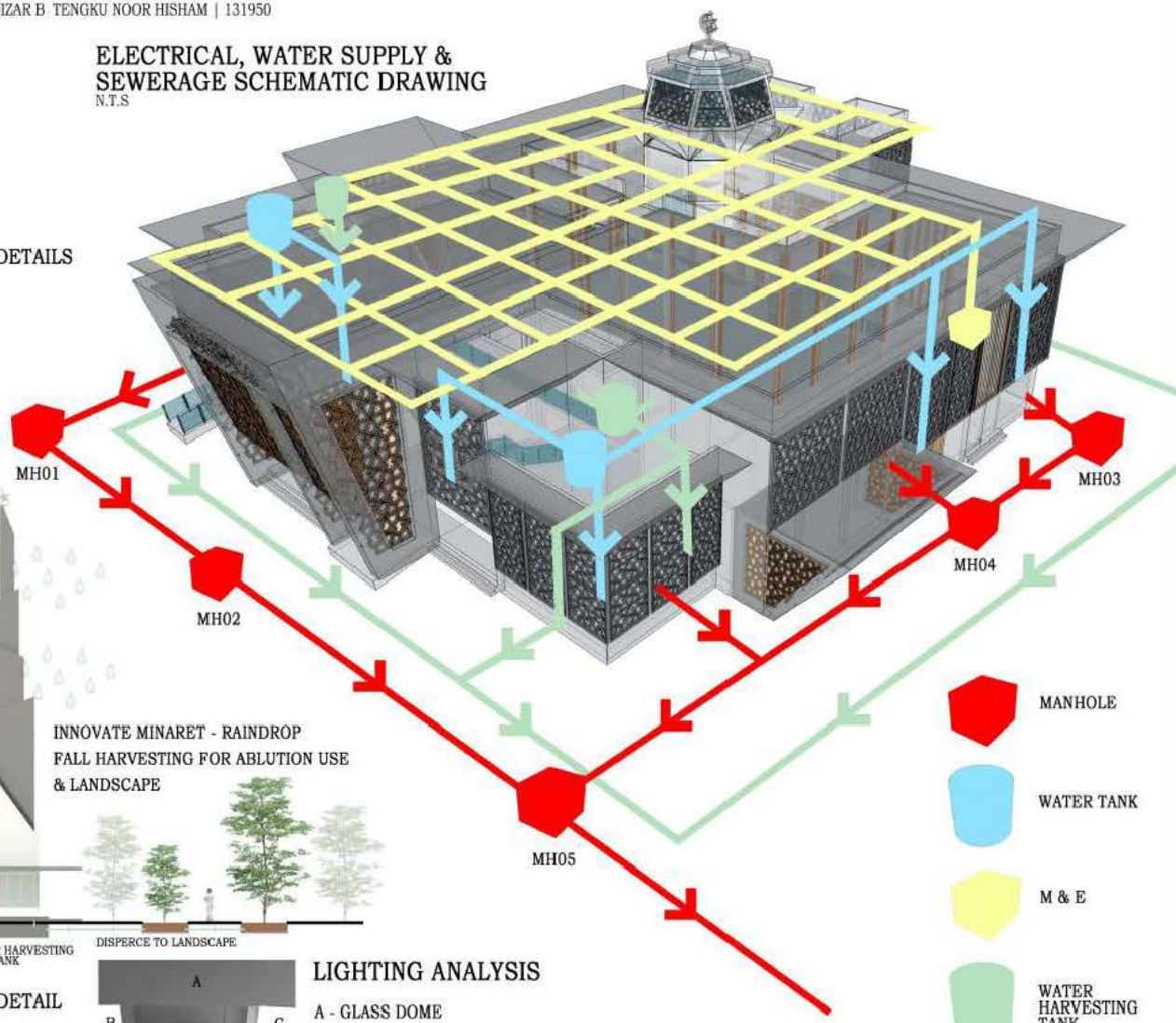


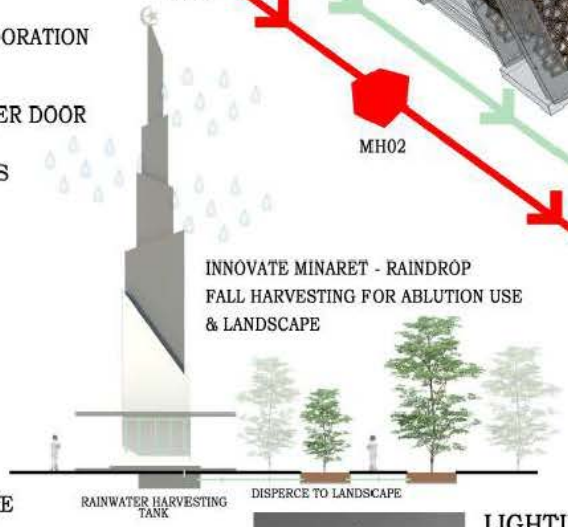
FOUNDATION TO ROOF

SCALE 1:20

ELECTRICAL, WATER SUPPLY & SEWERAGE SCHEMATIC DRAWING

N.T.S





LIGHTING ANALYSIS

A - GLASS DOME
B - OPENING ON WESTERN SIDE
C - OPENING ON NOTHERN SIDE

TAKE AN ADVANTAGES OF NATURAL RESOURCES DAYLIGHT IS A CREATIVE STRATEGY IN PASSIVE DESIGN THAT HELP WITH LESS CONSUMPTION OF ENERGY. DESIGN A FORM THAT REDUCE DIRECT SUNLIGHT & ENHANCE SHADED PRODICE.

LOW E GLASS DOME & PANELS ARE USED THROUGHOUT THE BUILDING WHICH ALLOWS LIGHT INTO THE MOSQUE AND REDUCED HEAT GAIN THROUGH BY THE SUN RAYS, THUS REDUCING THE TEMPERATURE.

NATURAL SUNLIGHT GET THROUGH THE BUILDING FROM HORIZONTAL & VERTICAL OPENING, RESULT SHOWN THE OPENING DESIGNED ALLOW LIGHT TO TRAVEL INTO THE WHOLE MAIN PRAYER HALL

WAN MUHAMMAD SYAHIR BIN WAN ABDULLAH 131952

RAS 2014 : ARCHITECTURE STUDIO 2 I PROJECT 1 : A PLACE OF WORSHIP

AL DIHYAH MOSQUE

LOT 4034 JALAN KUALA LUKUT
71010 PORT DICKSON
NEGERI SEMBILAN

ABDULLAHCONSTRUCTION

WANMUHAMADSYAHIRBINW.ABDULLAH
ID : 131952
IC : 951119 - 11 - 5491
SEMESTER : 4 YEAR 2
STUDIOMASTERS: EN REDUAN MAHAT
PN SITI AMIRAH

INTRODUCTION

SPIRITUAL ARCHITECTURE IS A RELEGIOUS ARCHITECTURAL PRACTICE CONCERNED WITH THE DESIGN AND CONSTRUCTION OF PLACES OF WORSHIP OR SACRED INTENTIONAL SPACE. THROUGHOUT HISTORY, RELIGION HAS SPARKED THE CREATION OF SOME OF THE WORLD MOST BEAUTIFUL ARCHITECTURAL ACHIEVEMENTS.

DESIGN STATEMENT

TO DESIGN A MOSQUE WHICH CAN BE AN ATTRACTIVE PIECE THAT PROVIDE MULTIPURPOSE FUNCTION AND SPACES. PROPOSED MOSQUE ALSO CAN BE A CENTRE TO SOME URBANITES FOR RESTING AREA AFTER A LONG DRIVE. INTENTION TO DESIGNING THE MOSQUE IS AS A FOCAL POINT TO BANDAR LUKUT. IT WILL BE A NEW ATTRACTION TO LUKUT ITSELF.

ISSUE

TYPICAL DESIGN AND SHAPED FORM IN MOSQUE DESIGNING

SAME DESIGN IN MALAYSIAN ARCHITECTURAL CULTURE ON MOSQUE, MADE IT AS TYPICAL DESIGN AMONG THE MOSQUE ITSELF. THE INTENTION HERE IS TO CREATE A NEW SURROUNDING OF ARCHITECTURAL MOSQUE SCENE AND DID NOT STICK TO THE OLD STYLE OF MOSQUE DESIGN

THERE IS LESS CENTRE (ISLAMIC) CENTRE AT BANDAR LUKUT

PORT DICKSON FAMOUSLY KNOWN AS A BUSY FOR HOLIDAY SPOT AND SEREMBAN WAS A CAPITAL FOR NEGERI SEMBILAN STATE. BANDAR LUKUT WAS LOCATED BETWEEN THIS TWO PLACE AND THERE IS LESS PLACE FOR RESTING + PRAYING (FOR MUSLIM)

SECURITY FOR USERS / PRAYERS / JAMAAH

CICULATION PLAYING AN IMPORTANT ROLE FOR SECURITY OF A MOSQUE. SECURITY ALSO RELATED TO AURAH OF FEMALE USERS AND DURING THE ABULATION AND PRAYERS.

MOSQUE AS A MULTIPURPOSE PLACE OF WORSHIP

STATING THE MOSQUE IS THE ONLY FOR WORSHIPING AND EVERYTHING ABOUT SOCIALIZE WILL PREVENT OUT FROM THE MOSQUE

AIMS

- TO DESIGN A MULTIPURPOSE FUNCTION MOSQU BUT AT THE SAME TIME REMAIN ITS ORIGINAL FUNCTION
- FOCUS ON TO CHANGE PERCEPTION ON TYPICAL DESIGN OF MOSQUE
- TO DESIGN A SAFE MOSQUE IN TERM OF CRIME PREVENTION AND AURAH ESPECIALLY FOR FEMALE MUSLIM USERS
- TO BE A NEW FOCAL POINT TO BANDAR LUKUT
- TO BE A NEW CENTER FOR BANDAR LUKUT (ISLAMIC CENTER)

OBJECTIVE

- TO STUDY A CIRCULATION IN BETWEEN FEMALE AND MALE IN A WORSHIP PLACE (MOSQUE) IN SCOPE OF AURAH AND SECURITY
- TO DEVELOP A NEW FORM OF MOSQUE THAT NOT TYPICAL BUT STILL STAYING ON ITS ORIGINAL SPACES FUNCTION

AIMS USER

CONCEPTUAL IDEAS : OASIS əʊˈeɪsɪs

"A pleasant or peaceful area or period in the midst of a difficult or hectic place or situation" - oxford dictionary

METAPHOR

OASIS IS A METAPHOR SITUATION BETWEEN PORT DICKSON AND SEREMBAN . FAMOUSY KNOWN ASHOLIDAY PORT (PORT DICKSON) AND CENTRE (SEREMBAN), CONNECTING THEM WAS BANDAR LUKUT (ALONG- JALAN SEREMBAN. AL DIHYAH MOSQUE WILL NOT ONLY BE A PLACE OF WORSHIP BUT ALSO FUNCTION AS A RESTING PLACE FOR USERS.

DESIGN INTENTION

CURVE SHAPED STUDY

THE INTENTION IS TO CREATE CURVED SHAPE ON BUILDING TO GIVE PLEASENT VIEW COMPARE TO STRAIGHT CUT BUILDING . ONCE PHILIP JOHNSON SAID BILBAO MUSEUM'S MAJESTIC CURVES MOVED HIM AT AN EMOTIONAL LEVEL AND ATTRACT HIM THE MOST IS THE CURVATION

SPACES STUDY

RELATION BETWEEN OTHERS SPACES TO ANOTHER SPACES PLAYING AN IMPORTANT ROLE FOR A BUILDING. ITS RELATED ON WHICH BUSSINESS COME FIRST

SECURITY STUDY

MOST RELATED TO SECURITY IS FEMALE USERS. BECAUSE MOST OF THE ROBBERY CASES OCCURED TO FEMALE. FEMALE ALSO HAVE ISSUE ON AURAH IN A MOSQUE

KHUSYU' STUDY

THE STUDY BETWEEN HOW BUILDING CAN RELATE TO KHUSYU' AND FOCUS OF PERSON DURING A PRAYERS. USING NATURAL APPROACH

PRECIDENT STUDY :

Masjid Tengku Tengah Zaharah Kuala Terengganu Terengganu architect : Raja Bahrin (seni bahri)

CONCEPTUAL DEVELOPMENT

melawi
mosque umbrella
(sun shading)

(sibmng haji
hotel KLIA
(shaped and form)

volumic water
features-court yard
(interior)

opening view
to praying area

islamic ornaments
as an aesthetic
features to
the mosque

AL DIHYAH : BEHIND THE NAME

AL DIHYAH WAS TAKEN FROM A FREND OF MUHAMAD ﷺ PROPHET HE WAS ONE OF THE MOST GOOD LOOKING PERSON AT THAT ERA EVEN GABRIEL IMPERSONATE AS HIM TO SEND A MESSENGER TO PROPHET MUHAMAD.

" hidup adalah satu perjalanan dan solat adalah rehat bagi orang mukmin "

KEY PLAN

LOCATION PLAN

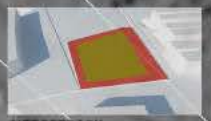
the site was located along the jalan bakar sampah road and beside the site, there's an existing building Michael Badminton academy

THE SITE

SITE SECTION

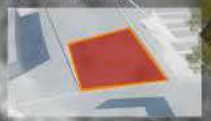
MICRO STUDY

SITE
proposed site : 10,000 m2
Land owner : goverment

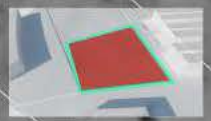


SITE SETBACK
facing road : 20 M
boundaries : 6 M

CIRCULATION
the site plain and doesnt have any road and path



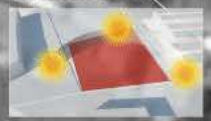
MANMADE STRUCTURE
does nt have padestrian walkway and only single road



DRAINAGE
rain will flow to drain near-by the site and stagnant water

SITE CONDITION
rain will flow to drain near-by the site and stagnant water

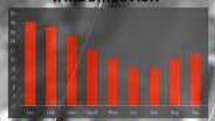
MACRO STUDY



SUNPATH

WIND DIRECTION

SOUND



HUMIDITY

SITE PLAN
SCALE 1:300

S STRATEGIC AREA FOR WORSHIP (MOSQUE) DEVELOPMENT BECAUSE THE PROPOSED SITE NEAR THE MAIN ROAD AND EASY ACCESS

W TRAFFIC NEARBY THE SITE WILL SLOW DURING THE PEAK HOUR (6 AM, 5PM, 6PM) AND SITE ALSO EXPOSED TO NOICE AND AIR POLLUTION

O EASY ACCESS TO SITE (CIRCULATION)

T LESS TREE ON SITE AS A NATURAL SUN SHADING AND IT MADE DIRECT SUNLIGHT TOWARD THE PROPOSED SITE (RELATED TO THERMAL COMFORT)

SOSIO CULTURE

POPULATION

- IT SUITABLE TO BUILD A MOSQUE BASED ON THE MALAY (MUSLIM) POPULATION
- RESIDENT WILL HELP PROMOTE DUE TO HIGH OF POPULATION OF RESIDENT NEARBY

FACILITIES AND INFRASTRUCTURE

TESCO — DISTANCE : 350 M

surau rakyat — DISTANCE : 500 M

Giant — DISTANCE : 600 M

Michael badminton academy — DISTANCE : 50 M

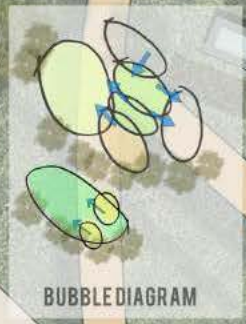
CIRCULATION STUDIES

- 7.5 M ROAD SIZE FOR DOUBLE LANE CIRCULATION IN PROPOSED SITE

- 3.5 M ROAD SIZE FOR SINGLE LANE ROAD FOR DROP OFF INTO THE MOSQUE

PARKING STUDIES

LEGEND
1. MEETING ROOM
2. MANAGEMENT OFFICE
3. BILAL AND IMAM ROOM
4. STORAGE / LIBRARY
5. MUTIPURPOSE ROM
6. DINING ROOM
7. MULTIPURPOSE ROOM
8. JANATOR ROOM
9. AHU ROOM
10. COURT YARD
11. MALE ABULATION
12. MALE TOILET
13. FEMALE TOILET
14. FEMALE ABULATION
15. CAFE'



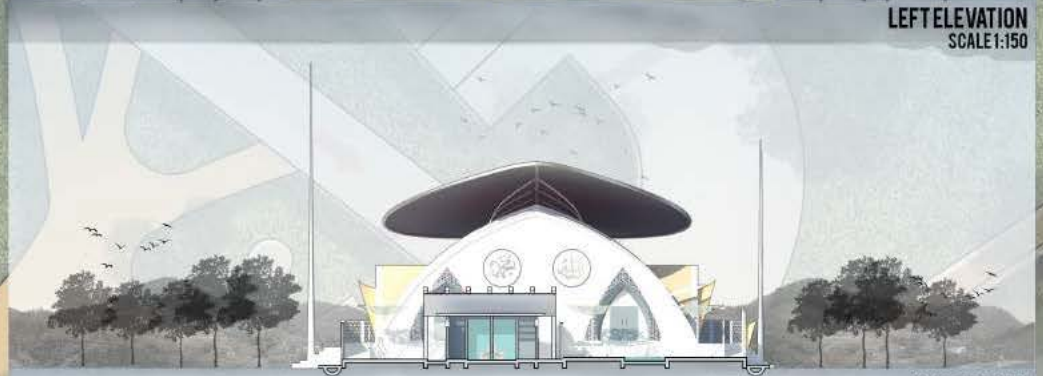
BUBBLE DIAGRAM

GROUND FLOOR PLAN
SCALE 1:150

LEGEND
16. MIHRAB
17. MIMBAR
18. MALE AREA
19. FEMALE AREA

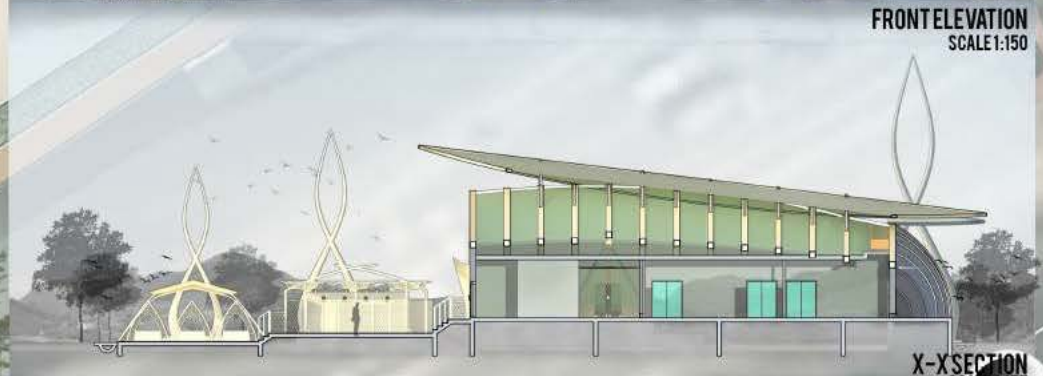
FIRST FLOOR PLAN
SCALE 1:150

LEFT ELEVATION
SCALE 1:150



Y-Y SECTION
SCALE 1:150

FRONT ELEVATION
SCALE 1:150

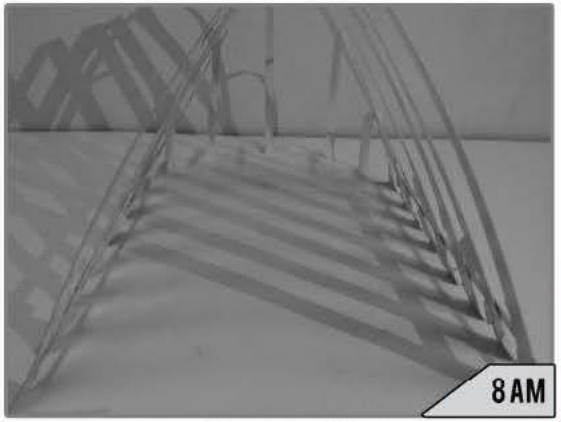


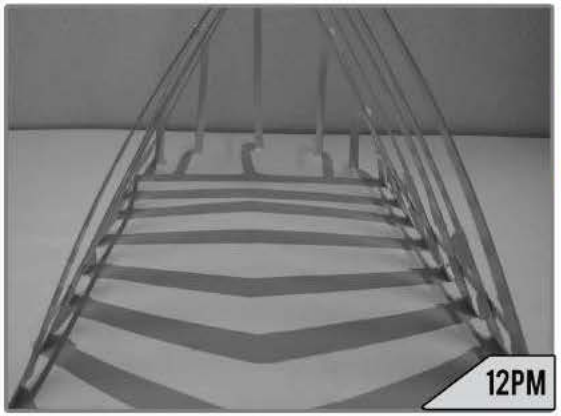
X-X SECTION
SCALE 1:150

LIGHTING ANALYSIS

THE LIGHT PROJECTION WAS ON PRAYING AREA (FIRST FLOOR AREA), PROJECTION OF LIGHT WAS FROM EAST TO WEST AND THE TIME ESTIMATED FOLLOWING THE MUSLIM TIME PRAYER (SUBH,ZUHR,ASR). NAURAL LIGHTING THAT OCCURED IN THIS SPACES HAD HELP INTO BUILDING LIGHTING AND ITS ALSO CAN HELP IN LESTING THE COST. ADDITION HIGH PANETRATION OF LIGHT ASLO HELP REACHING THE KHUSYU'

THIS SPACES HAD THE MOST EXPOSED INTO LIGHTING. WITH HELP OF LOW E GLASS IT BECAME LESS LIGHT PANETRATE COMPARE TO NORMAL GLASS. PRECAST IBS WAL ALSO HELP IN SHADING THIS SPACES. THIS SPACE IS THE MAIN SPACE OF THE BUILDING AND IT ALSO THE MOST USED SPACES IN THE MOSQUE, SO LIGHT PROJECTION WAS REALLY IMPORTANT.



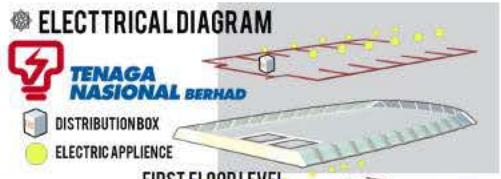


ELECTTRICAL DIAGRAM

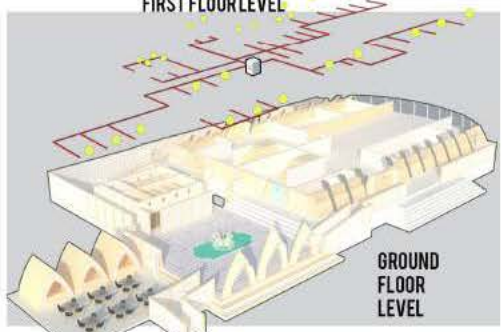
TENAGA NASIONAL BERHAD

DISTRIBUTION BOX

ELECTRIC APPLIENCE



FIRST FLOOR LEVEL



SEWERAGE SCHEMATIC DIAGRAM

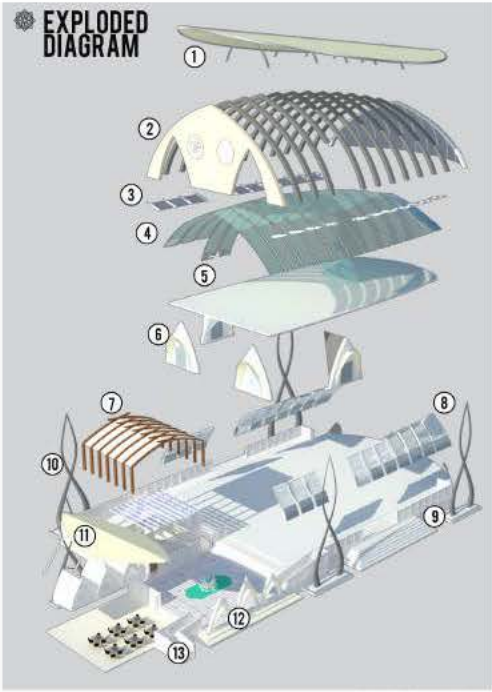
WATER SUPPLY DIAGRAM

sains

WATER SUPPLY FLOW

WATER FLOW FROM TANK AND DISTRIBUTE INOT ABULATION / TOILET (FEMALE/MALE) COURT YARD

EXPLODED DIAGRAM



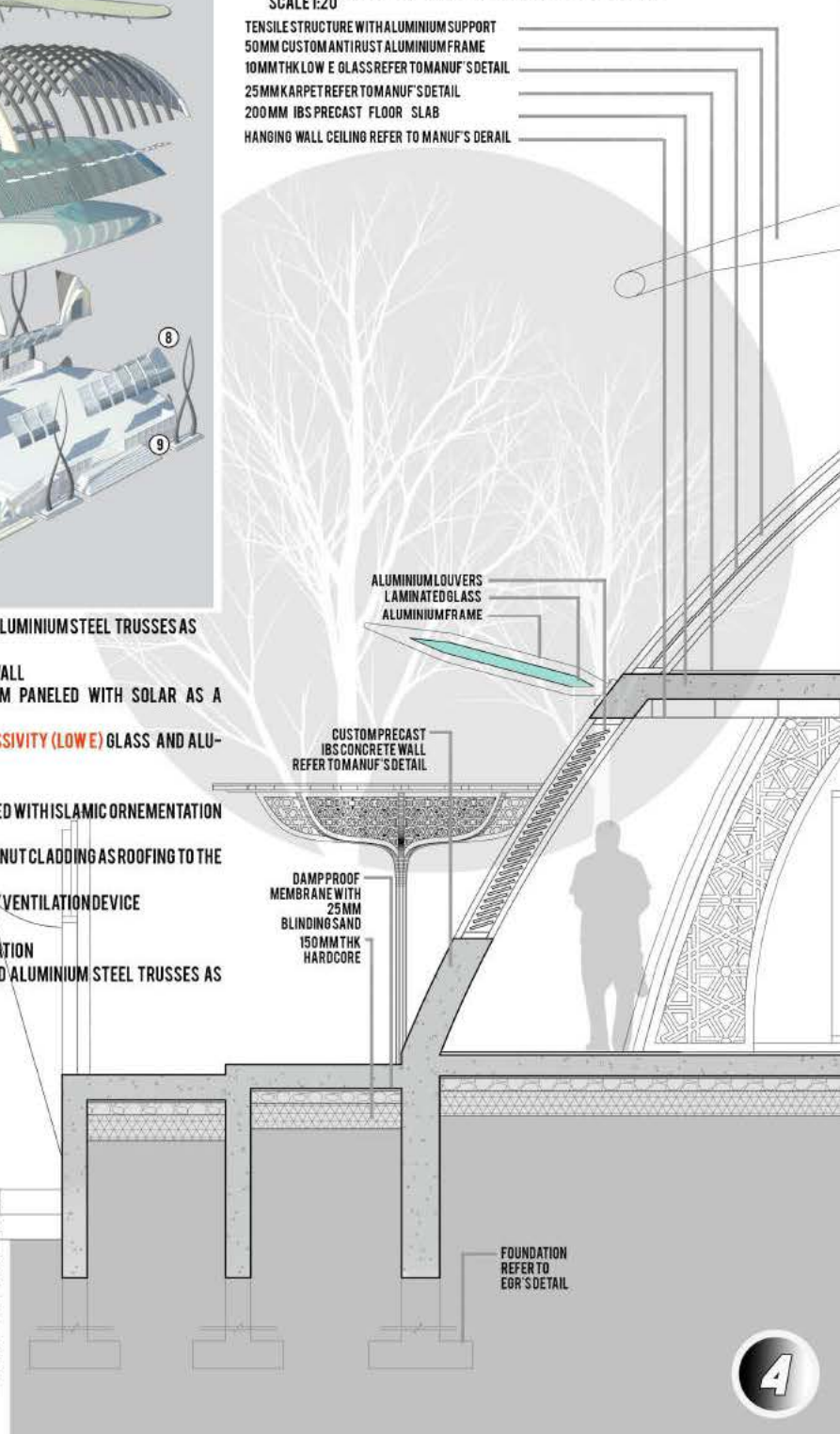
1. TENSILE STRUCTURE AS ROOF AND ALUMINIUM STEEL TRUSSES AS SUPPORT TO THE COLUMN
2. CUSTOM PRECAST CONCRETE IBS WALL
3. GLASS GLAZED WITH ALUMINIUM PANELED WITH SOLAR AS A SHADING DEVICE
4. GLASS COATED WITH LOW EMMESISSIVITY (LOW E) GLASS AND ALUMINIUM AT BOOTH SIDE
5. SECOND FLOOR
6. ENTRANCE TO THE MOSQUE DETAILED WITH ISLAMIC ORNEMENTATION AND DOUBLE PANEL DOOR
7. CUSTOM WOOD TRUSSES, BOLT AND NUT CLADDING AS ROOFING TO THE TOILET AREA
8. ALUMINIUM LOUVERS AS SHADING/VENTILATION DEVICE
9. 1200M HEIGHT HANDRAIL
10. MINARATE FOR SPEAKER INSTALLATION
11. TENSILE STRUCTURE AS ROOF AND ALUMINIUM STEEL TRUSSES AS SUPPORT
12. DROP OFF
13. RAMP FOR WHEELCHAIR

WHAT IS LOW E GLASS?

THIS FILM COATING REFLECTS RADIANT INFRARED ENERGY, WHICH IS MEANT TO KEEP THE ENERGY ON THE SAME SIDE IT ORIGINATES FROM WHILE STILL LETTING IN VISIBLE LIGHT. SO WHEN THE SUN SHINES, A LOW-E COATED WINDOW REFLECTS A LOT OF THAT UNWANTED ENERGY BACK TOWARDS THE SUN INSTEAD OF LETTING THE HEAT PASS THROUGH THE GLASS

FOUNDATION TO ROOF DETAIL DRAWING

SCALE 1:20



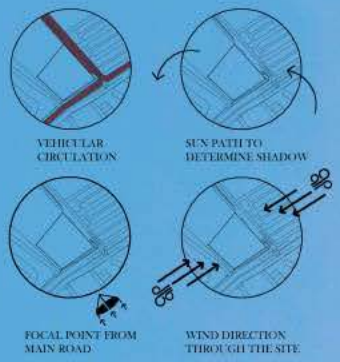
ZAL HAZMI BIN NORSABARUDDIN
131954

MASJID PUTIH

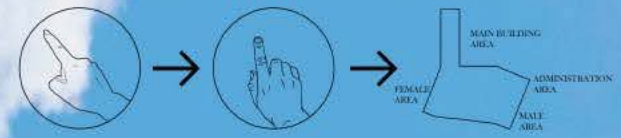
PROJECT 1 : A PLACE OF WORSHIP

THE WHITE SACRED MOSQUE IS DERIVED FROM AN IMPORTANT SYMBOL PERFORMED DURING SHALAH. IT SHOWS THE CONCEPT OF TESTIMONY IN ISLAM WHICH IS ONE GOD. THE HAND AND FINGER GESTURE ALSO SHOW THE UNITY IN ISLAM BESIDE USING IT AS A GUIDANCE TO ORGANIZE SPATIAL DESIGN OF THE MOSQUE. THE MAIN OBJECTIVE IS TO CREATE A GOOD SPATIAL DESIGN FOR THE PILGRIMS TO GET THE BEST EXPERIENCE DURING SHALAH. OTHER OBJECTIVE IS TO SHOW THE SANCTITY OF ISLAM BY USING THE WHITE PLAIN COLOUR AS THE EXTERIOR FINISHES.

SITE ANALYSIS

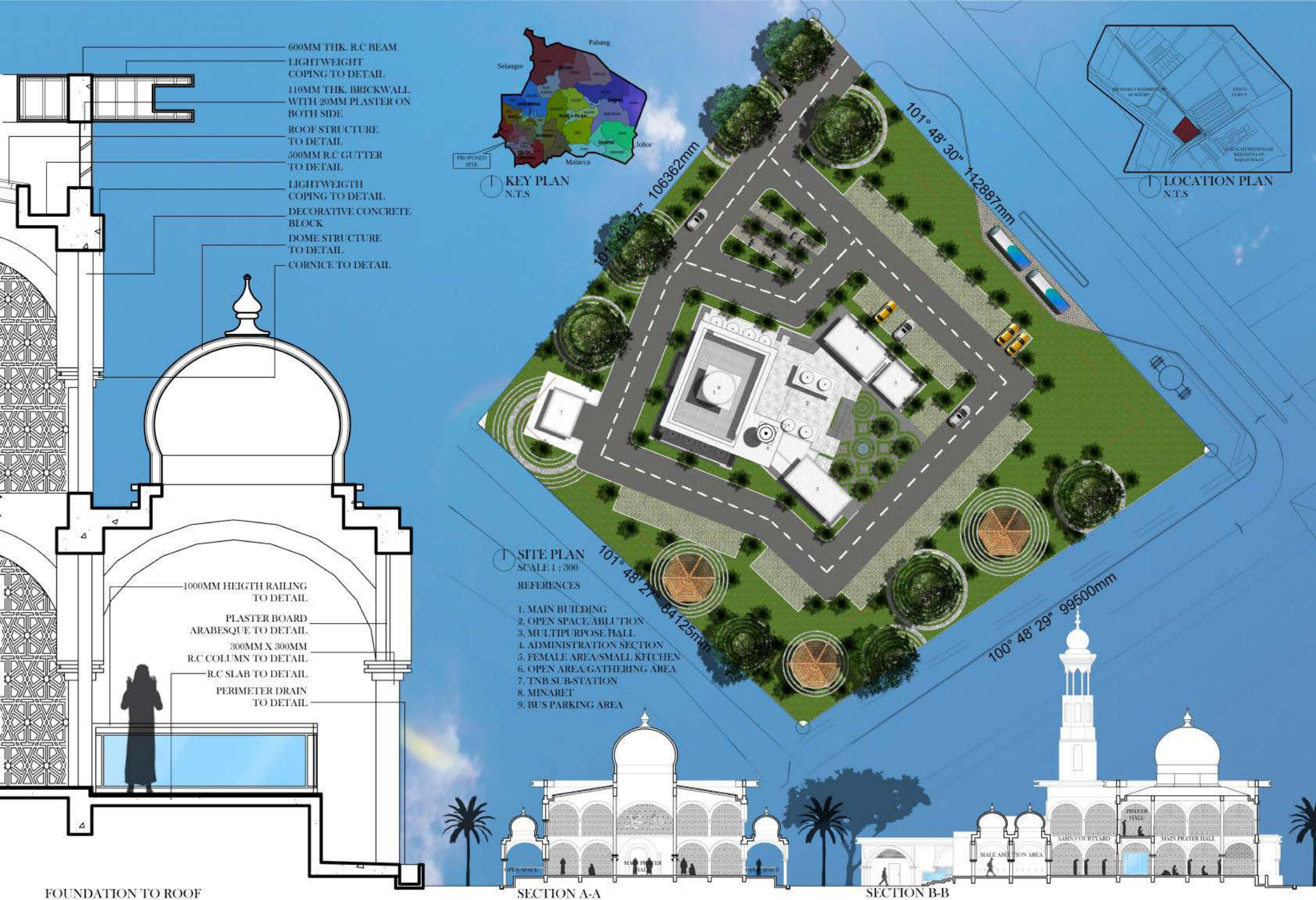


CONCEPTUAL IDEA



FRONT ELEVATION
SCALE 1 : 150

REAR ELEVATION
SCALE 1 : 150

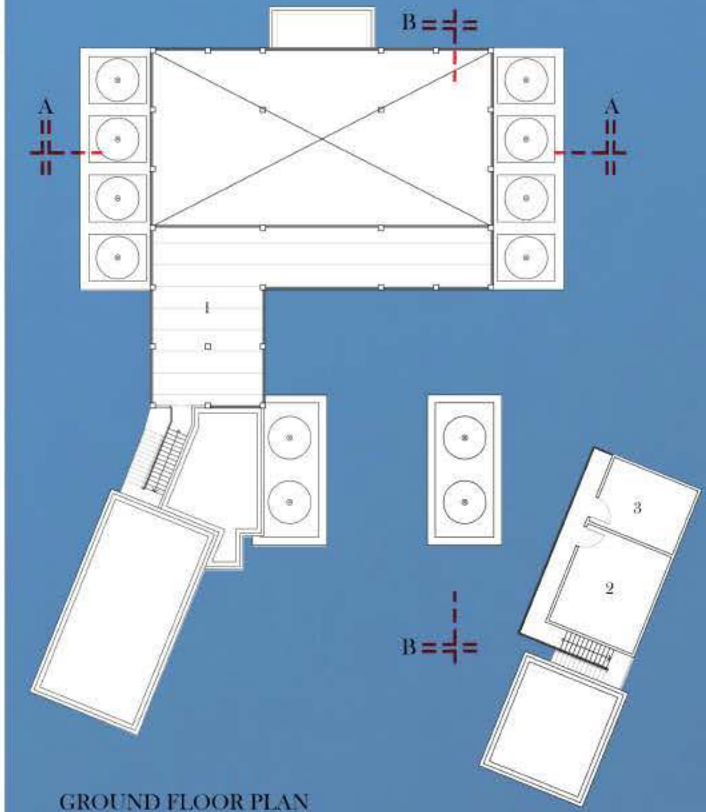


FOUNDATION TO ROOF
SCALE 1 : 20

SECTION A-A
SCALE 1 : 150

SECTION B-B
SCALE 1 : 150

GROUND FLOOR PLAN
SCALE 1 : 150



GROUND FLOOR PLAN
SCALE 1 : 150

REFERENCES

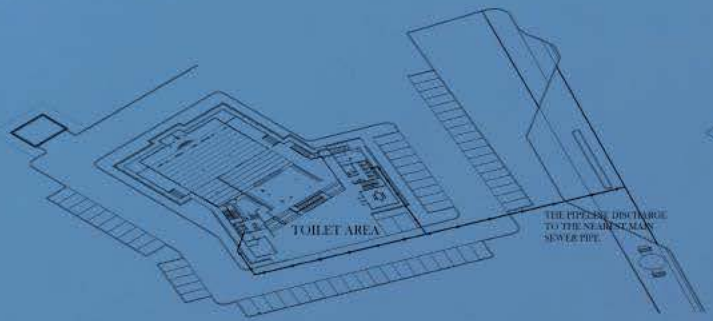
1. PRAYER HALL
2. MEETING ROOM
3. MANAGEMENT OFFICE

LIGHTING ANALYSIS

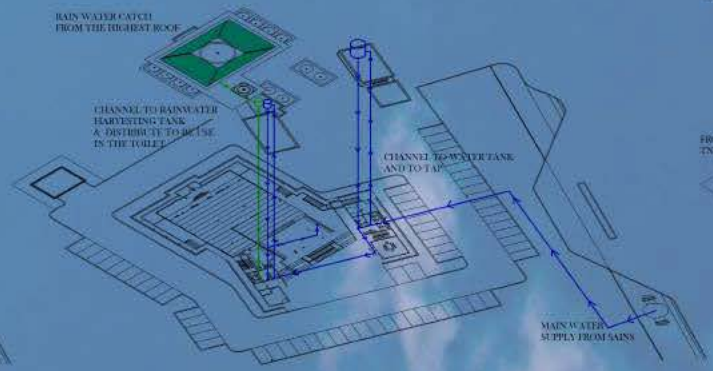
NATURAL LIGHT IS ONE OF THE WAY TO CREATE A BEAUTIFUL EFFECT INTO THE BUILDING THAT MOSTLY USED IN RELIGIOUS BUILDING. MASJID PUTIH THAT FULL WITH DECORATIVE ARABESQUE AT THE OPENING SHOWS HIGH-END ART TO THE PILGRIMS ON ALL SIDE OF THE WALLS.

SANITARY DIAGRAM

SANITARY DIAGRAM INVOLVE THE WASTE WATER FROM TOILETS WHICH ARE SEPARATED FROM THE MAIN BUILDING. THE AGENCY INVOLVED IS INDAH WATER.

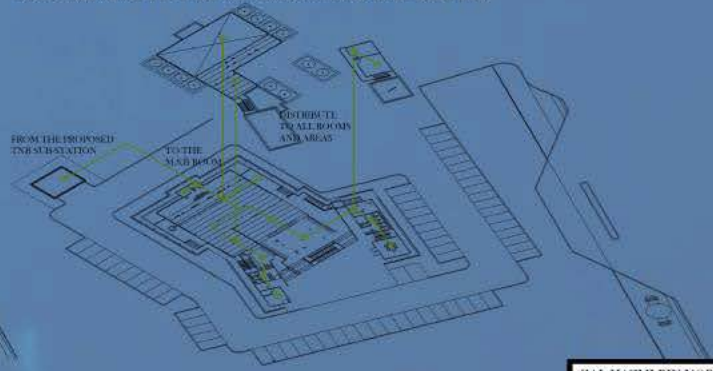


WATER SUPPLY SCHEMATIC DIAGRAM & RAINWATER HARVESTING SYSTEM



ELECTRICAL SCHEMATIC DIAGRAM

ELECTRICAL SUPPLY FROM TENAGA NASIONAL BERHAD



ZAL HAZMI BIN NORSABARUDDIN
131954
GROUP 4
PROJECT 1 : PLACE OF WORSHIP

ANNUR FARHANAH BINTI NAJAMUDDIN
131955

MASJID AN-NUR ,LUKUT

LOCATION PLAN
NOT TO SCALE

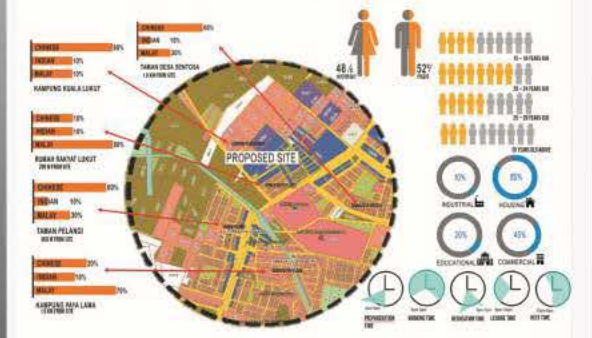
KEY PLAN
NOT TO SCALE

SITE PLAN
SCALE 1:300

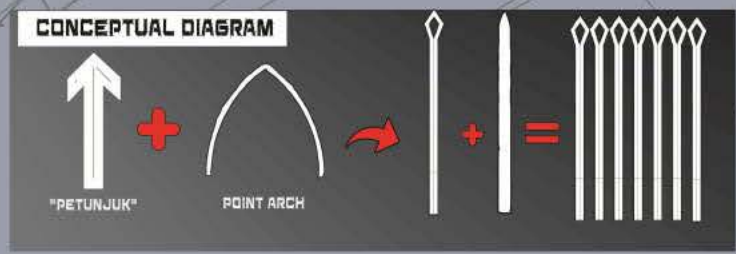
DESIGN STATEMENT

TO DESIGN A MOSQUE FOR LUKUT CITIZEN WITH "PETUNJUK" OR KNOWN AS HIDAYAH OR TRUE LIGHT(CAHAYA KEBENARAN) THAT MEAN A SIGN OR SOME INFORMATION THAT HELPS YOU TO FIND THE ANSWER TO A PROBLEM.HIDAYAH ALSO KNOWN AS ADVICE OR INFORMATION AIMED AT RESOLVING A PROBLEM OR DIFFICULTY, ESPECIALLY AS GIVEN BY SOMEONE IN AUTHORITY.MASJID AL-HIDAYAH HAVE SAHN KNOWN AS COURTYARD IN ISLAMIC ARCHITECTURE THAT IS SURROUND BY RIWAQ : PORTICO OPEN ON AT LEAST ONE SIDE. IT IS AN ARCHITECTURAL DESIGN ELEMENT IN ISLAMIC ARCHITECTURE AND ISLAMIC GARDEN DESIGN.THIS MOSQUE CAN BE A LANDMARK FOR LUKUT AREA BECAUSE IT NEAR THE MICHEAL BADMINTON ACADEMY(MBA).EVERY YEAR ,MICHEAL BADMINTON ACADEMY(MBA) WILL MAKE TORNEMENT INTERNATIONALLY THAT MAKE FOREIGNER COME TO THIS MBA FOR THE COMPITITION.

SITE ANALYSIS



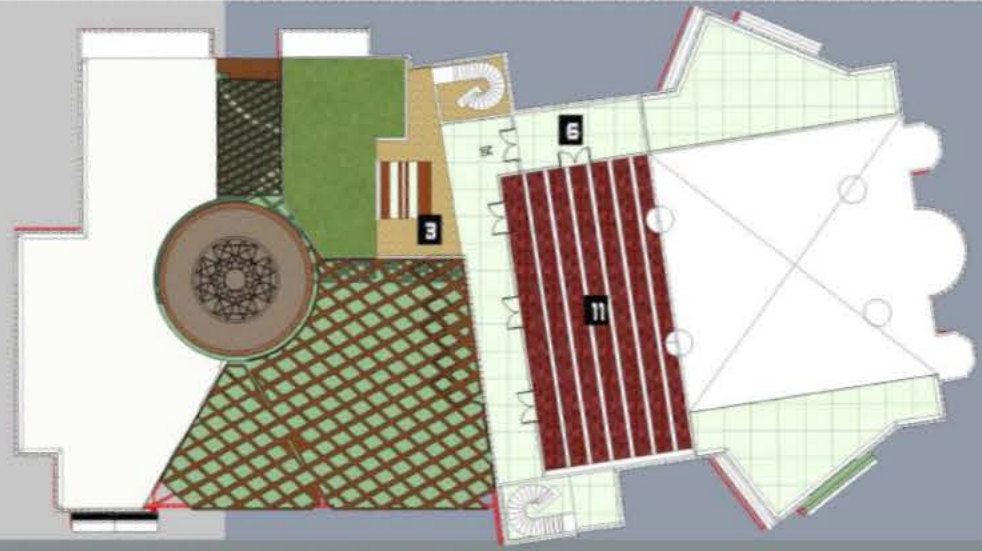
CONCEPTUAL DIAGRAM



PLACE OF WORSHIP: MOSQUE
NAME : ANNUR FARHANAH BINTI NAJAMUDDIN
NO MATRIC : 131955

01

GROUND FLOOR PLAN/SCALE 1:150



GROUND FLOOR PLAN/SCALE 1:150

SPACE NAME		
[1] OUTSIDE ABULATION	[8]MINI KITCHEN	[16] ENTRANCE 1
[2]ABULATION MALE	[9]DINNING FOR 40	[17] ENTRANCE 2
[3]ABULATION FEMALE	[10]OPEN SAFF[UNJURAN SAFF] /MULTIPURPOSE AREA	[18]ENTRANCE 3
[4]TOILET MALE	[11] FEMALE PRAYER AREA	[19]ENTRANCE 4
[5] TOILET FEMALE	[11] FEMALE PRAYER AREA	[20]ENTRANCE 5
[6]CHANGING ROOM	[12]MALE PRAYER AREA	[21] ENTRANCE 6
[7]SAHN	[13]BILIK JENAZAH	[22] ENTRANCE 7
[8]MINI KITCHEN	[14]BILIK MUAZIN	
	[15]BILIK IMAM/MANAGEMENT OFFICE	

RUANG WUDHUK LUAR MUSLIMIN

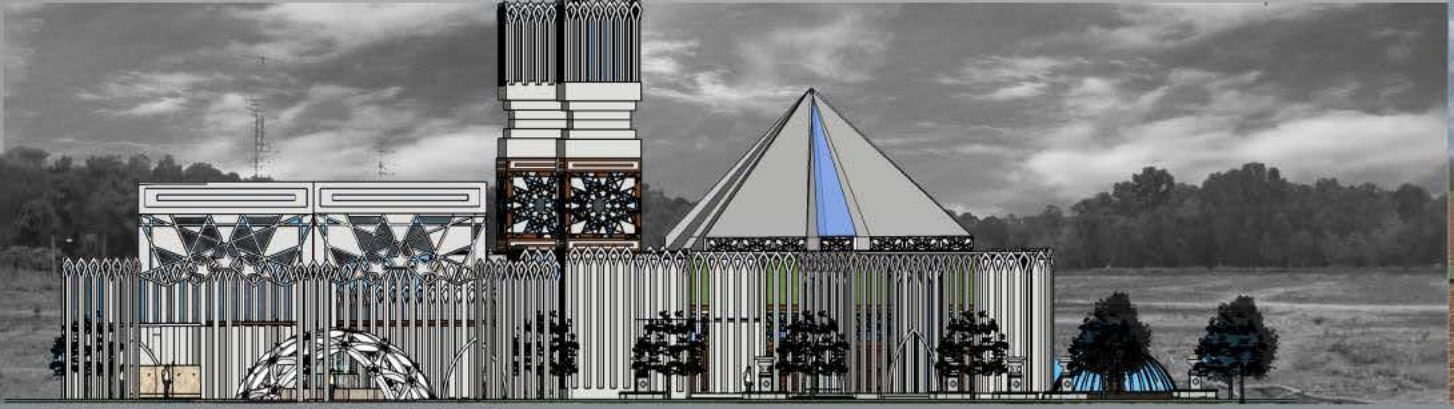
RUANG WUDHUK MUSLIMAT

VIEW FROM ENTRANCE

OVERALL VIEW

PLACE OF WORSHIP: MOSQUE
NAME : ANNUR FARHANAH BINTI NAJAMUDDIN
NO MATRIC : 131555

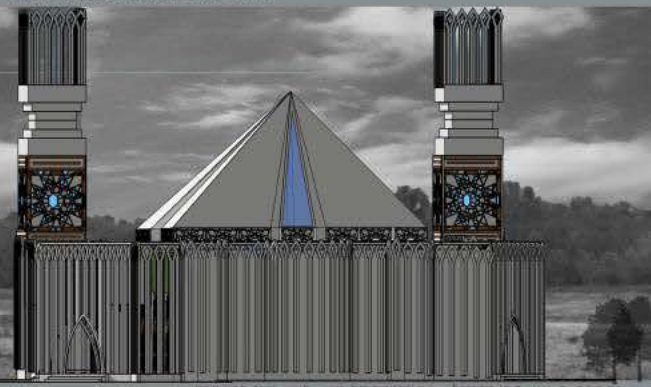
02



FRONT ELEVATION / SCALE 1: 150

VIEW FROM ENTRANCE ROAD

LEFT ELEVATION / SCALE 1:150



RIGHT ELEVATION /SCALE 1:150

REAR ELEVATION / SCALE 1: 150

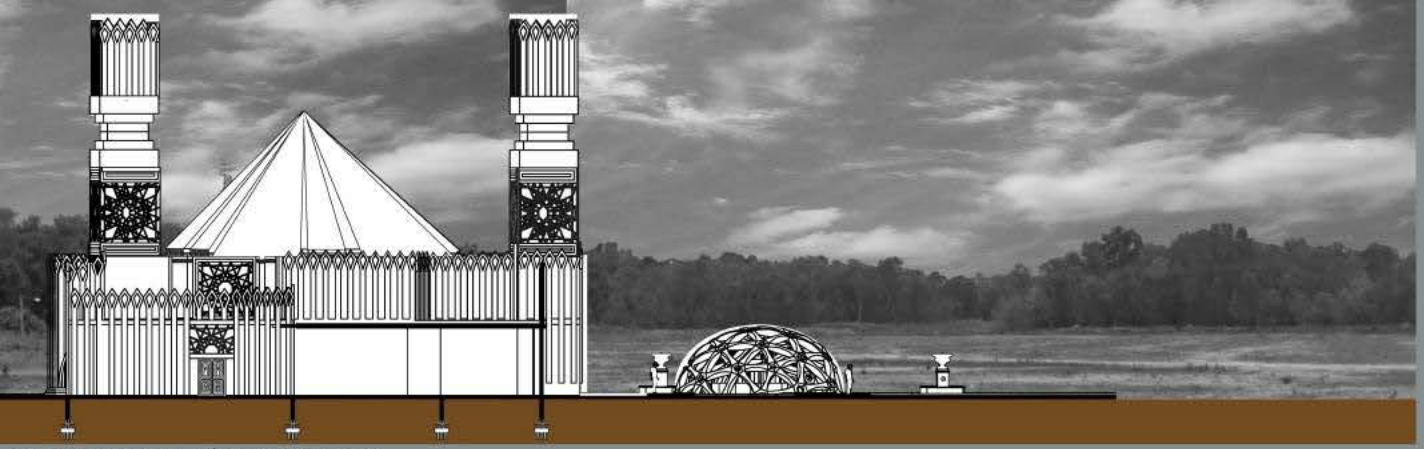
VIEW FROM MOTIF GARDEN

GERBANG/ENTRANCE OF THE MOSQUE

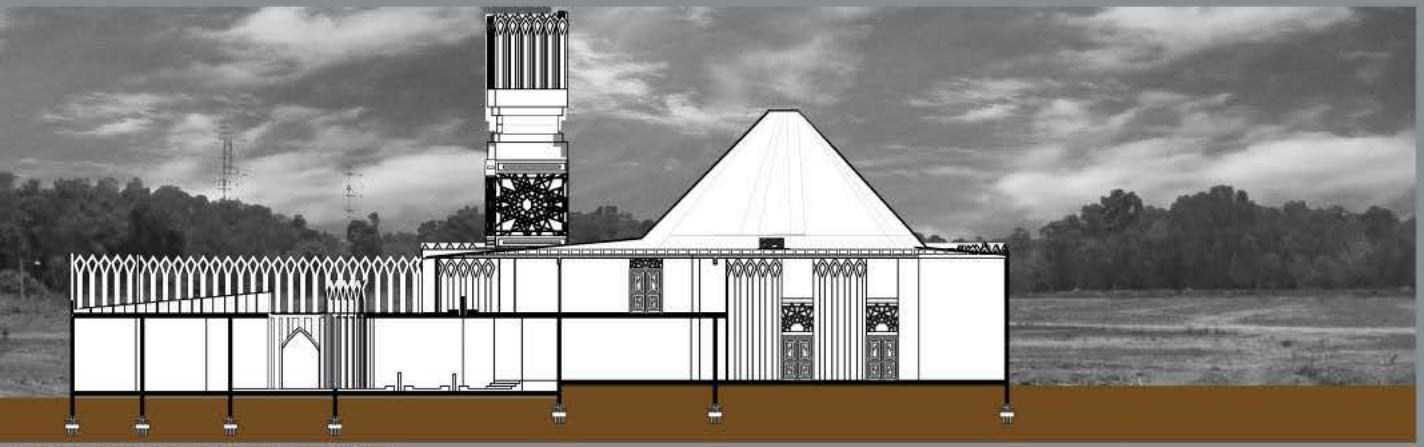
WATER FOUNTAIN IN MOTIF GARDEN

PLACE OF WORSHIP: MOSQUE
NAME : ANNUR FARHANAH BINTI NAJAMUDDIN
NO MATRIC : 131955

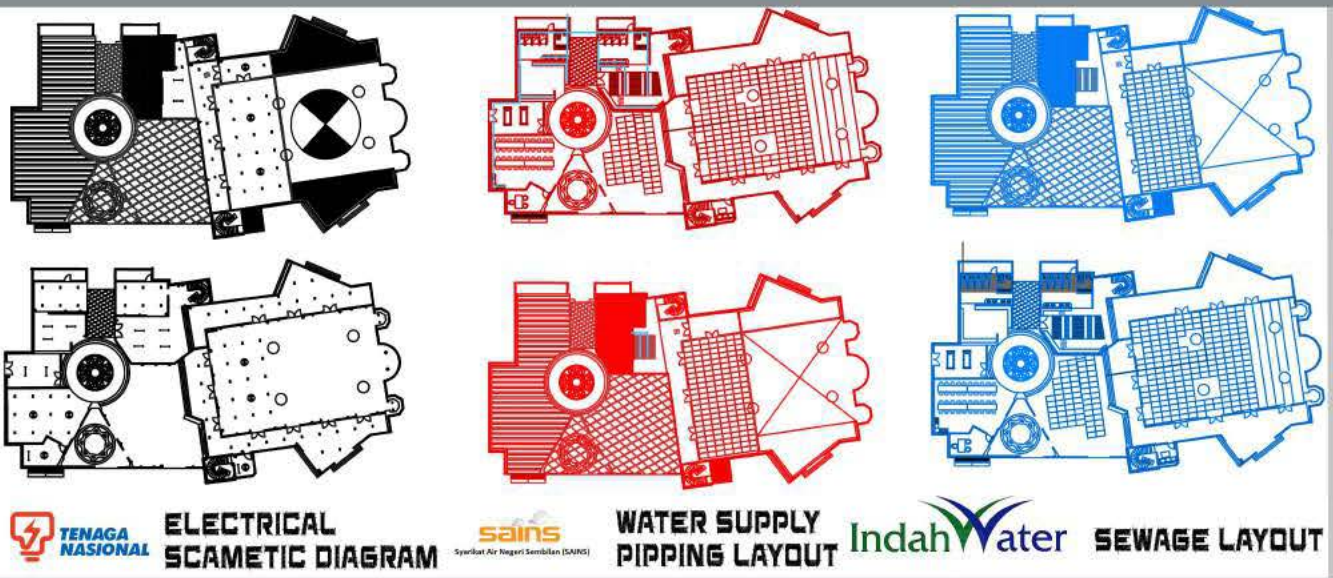
03



SECTION B-B /SCALE 1:150



SECTION AA-A/SCALE 1:150



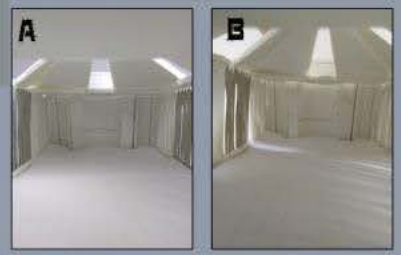
LIGHTING STUDY INSIDE MOCKUP MODEL

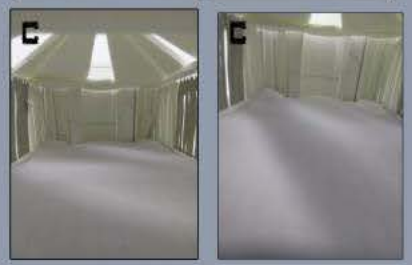
PASSIVE DAYLIGHTING IS A SYSTEM OF BOTH COLLECTING SUNLIGHT USING STATIC, NON-MOVING, AND NON-TRACKING SYSTEMS IS APPLY IN THIS BUILDING BY USING SHAPE OF FACADE WALL.SO THE NATURAL SUNLIGHT W\CAN ENTER THE BUILDING THROUGH THE GAP BETWEEN THE SHAPE OF WALL.

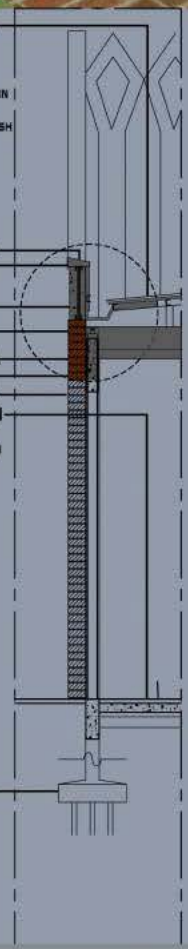
LIGHTING ANALYSIS:A : NATURAL LIGHTING

B:ARTIFICIAL LIGHTIHING FROM RIGHT

C : ARTIFICIAL LIGHTING FROM LEFT







FOUNDATION TO ROOF(DETAIL DRAWING) SCALE 1:30

PLACE OF WORSHIP: MOSQUE

NAME : ANNUR FARHANAH BINTI NAJAMUDDIN
NO MATRIC : 131955

MUHAMMAD AFIF RIZAL
BIN AHMAD NADZRI
131956

MASHRABIYA

A PLACE OF WORSHIP
LUKUT, PORT DICKSON

MUHAMAD AFIF RIZAL BIN AHMAD NAZRI
NO MATRIX : 13196 | GROUP 01

PROJECT AIM

To propose a place of worship to infuse their creations with meaning, but one type of structure demands something particularly moving - a spiritual building - that depicts the intimate relation between Man and God. These building have at least one thing in common: architecture that transform raw, earthly materials into compositions so powerful they evoke something beyond our world.

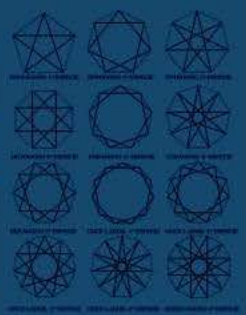
OBJECTIVE

-Demonstrate knowledge and practice in process producing design mosque with multiple function .
-Site context and users need.
-Apply and clear horizontal and vertical circulation to ensure smooth flow of internal circulation and users comfort.
-Integration of environmentally friendly materials.
-Apply passive approaches for environmental comfort and energy efficiency by maximizing the utilization of natural ventilation, daylight and solar shading.

SITE ANALYSIS

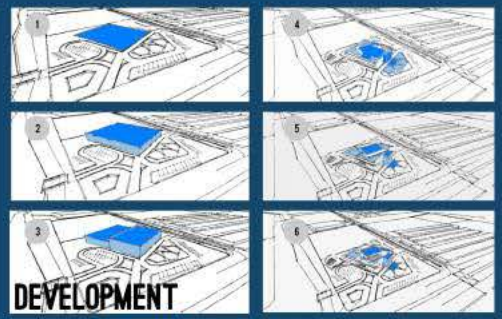
CONCEPT

Mashrabiya is Arabic: مشربية), also either shanshūl (شنشول) or rūshān (روشان), is a type of projecting oriel window enclosed with carved wood latticework located on the second storey of a building or higher, often lined with stained glass. The mashrabiya is an element of traditional Arabic architecture used since the Middle Ages up to the mid-20th century. It is mostly used on the street side of the building.
Mashrabiya were mostly used in houses and palaces although sometimes in public buildings such as hospitals, inns, schools and government buildings. They are found mostly in the Mashriq – i.e. the eastern part of the Arab world, but some types of similar windows are also found in the Maghreb (the western part of the Arab world). They are very prevalent in Iraq, the Levant, Hejaz and Egypt. They are mostly found in urban settings and rarely in rural areas. Basra is often called "the city of Shanasheel".



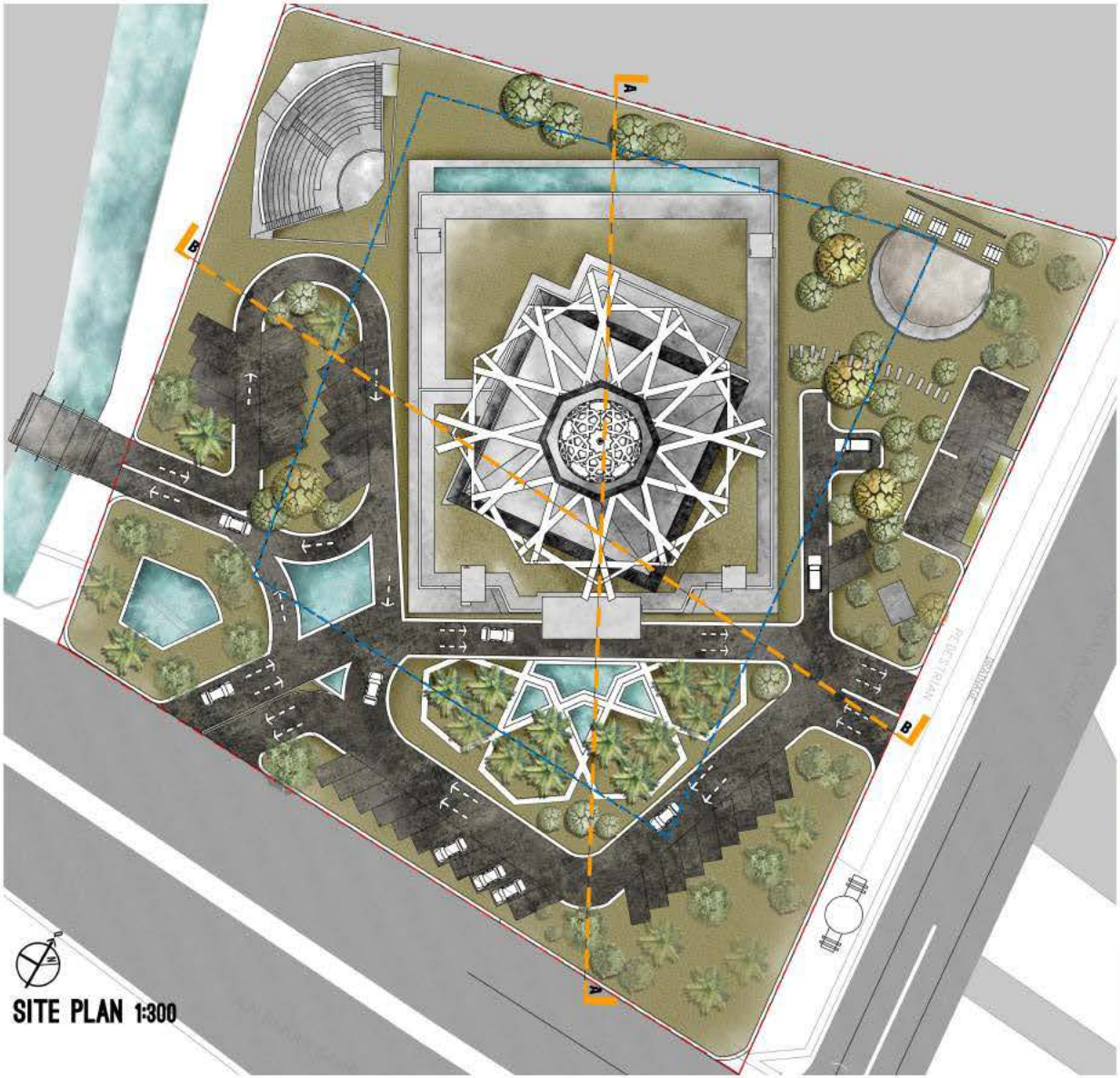
IMAGES

DEVELOPMENT



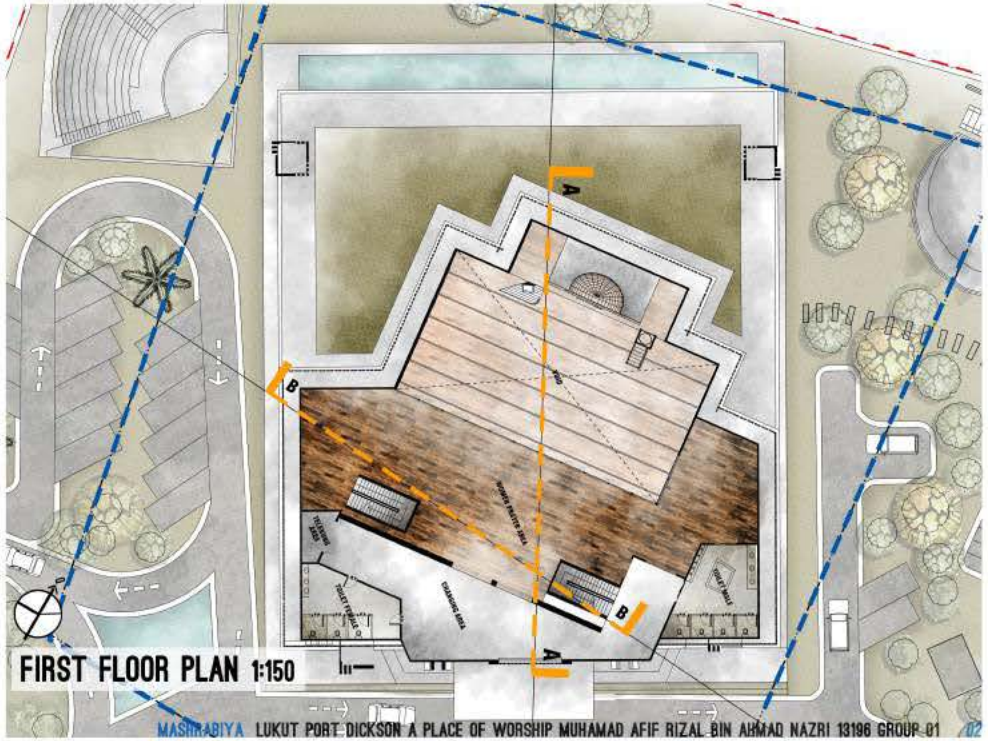
KEY PLAN NTS

LOCATION PLAN NTS



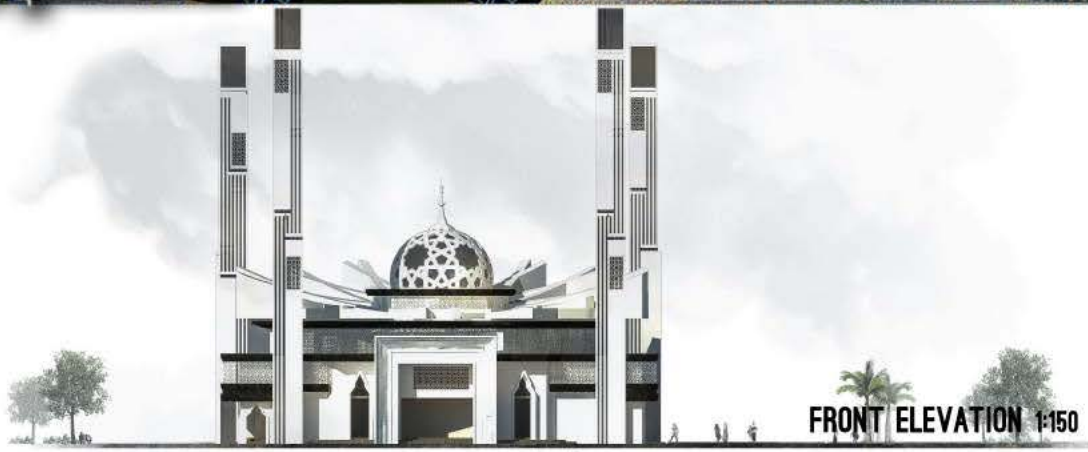
SITE PLAN 1:300

GROUND FLOOR PLAN 1:150



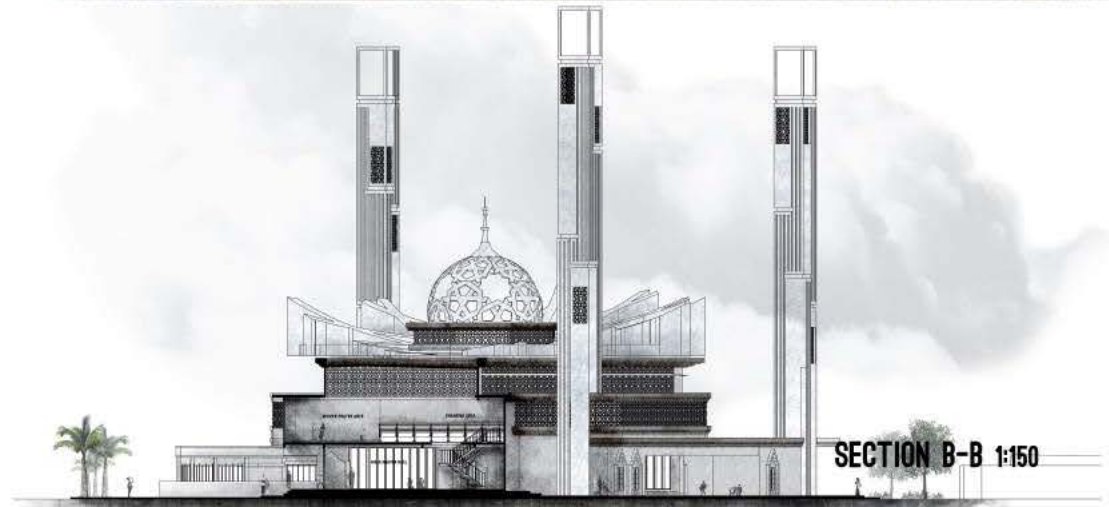
FIRST FLOOR PLAN 1:150

VIEW FROM JALAN KUALA LUKUT



FRONT ELEVATION 1:150

RIGHT ELEVATION 1:150



SECTION B-B 1:150

SECTION A-A 1:150

LIGHTING ANALYSIS

-Passive design are using daylight in a building to get a creative strategy .
-Sun is the source of daylight and can be use to a natural lighthing with less consumption of electricity.
-Good lighting should be designed well in order to achieve enough lighting
-Reduce the usage of artificial lighting that can cause high bill of electricity .
-Mashrabiya means arabian islamic ornamentation can distribute the shape of lighting to a spiritual get to a building

EXPLODED DIAGRAM

URBAN COMPONENT

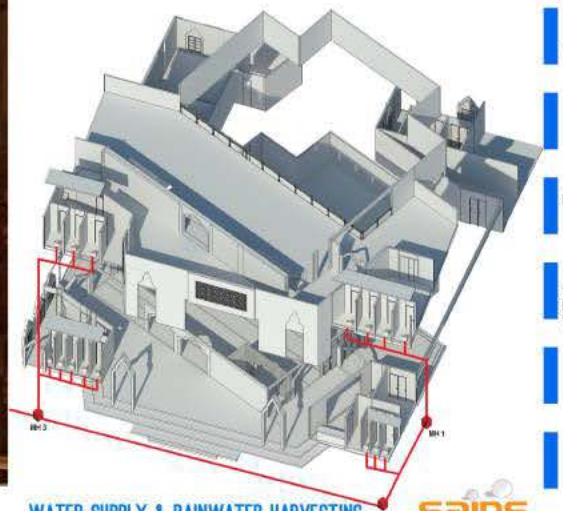
- D INTELLECTUAL ARENA
- C PUBLIC SPACE
- B MEETING NODES
- A URBAN ACTIVITIES

FEATURED ELEMENT

- E THE DOME
- F GREEN ROOF
- G MINARET
- H OPEN SPACE

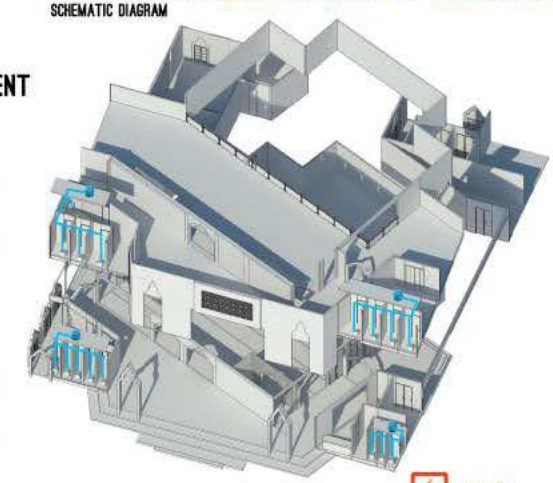
SEWERAGE SCHEMATIC DIAGRAM

IndahWater



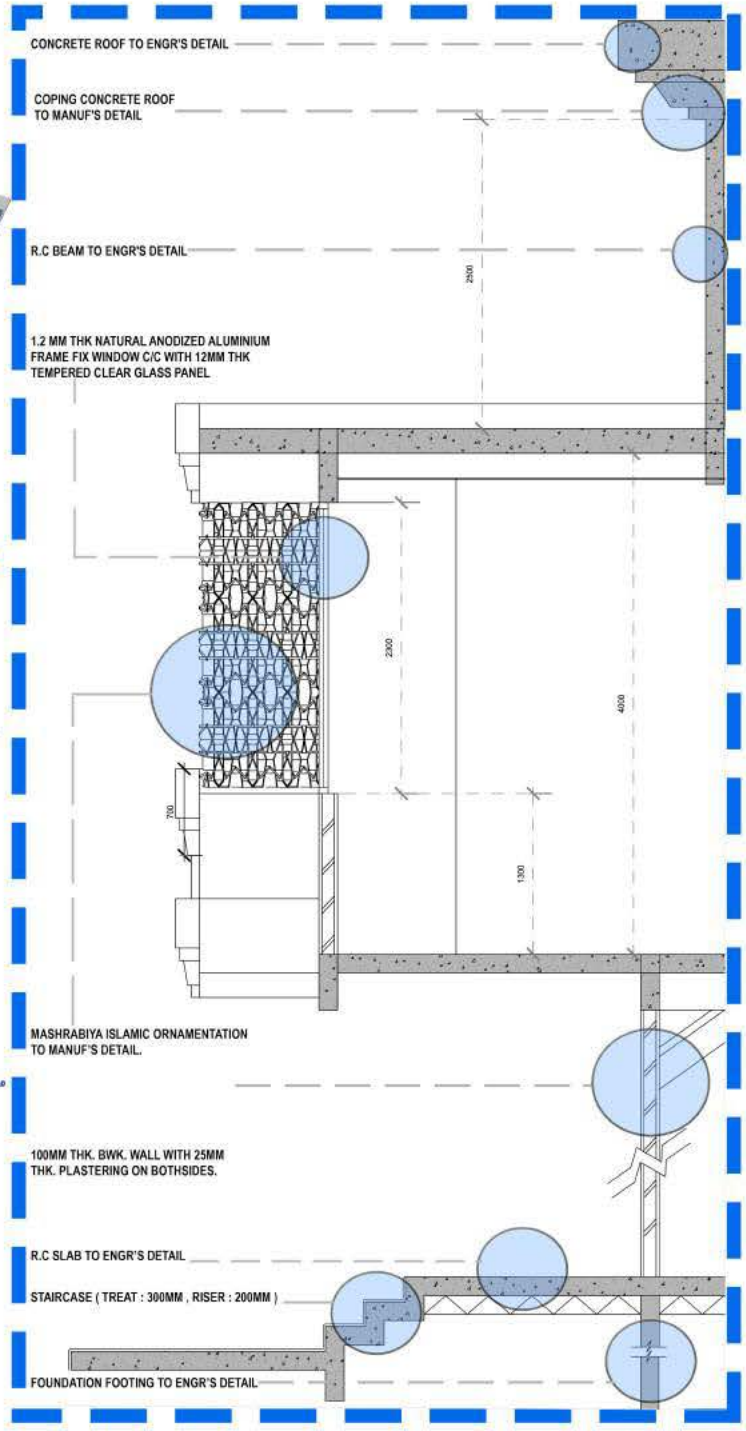
WATER SUPPLY & RAINWATER HARVESTING SCHEMATIC DIAGRAM

sains



ELECTRICAL SCHEMATIC DIAGRAM

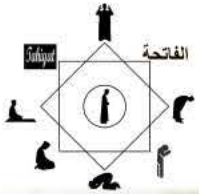
TENAGA NASIONAL BERHAD



FOUNDATION TO ROOF

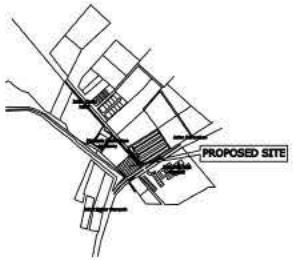
SCALE 1:20

MUHAMMAD FARHAN BIN MOHD FISAL
131957



This mosque **design concept** is based from an Islamic form of nine branches that shows the 'rukun solat'. first is **'Stand right'**,standing properly or standing upright. second is **'Takbiratul ihram'** which is the act of restricting prayer with the treatment outside prayer.third is **'Read Surah al-Fatihah'** which is the only surah that required in solah. fourth is **'ruqu'** which is the act of bowing is bending forward with at least until his palms reach the knee. fifth is **'i'tidal'** which is back from the bowing state to standing upright which is the original state of prayer. sixth is **'sujud'** which is Prostration is a deed that demonstrates the humility of a person especially in prayer. seventh is **'Sit between two prostrations'** which is sitting between the two prostrations. eighth is **'tahiyat akhir'** is sitting while reading. final one is **'Read the final tahiyat'**.

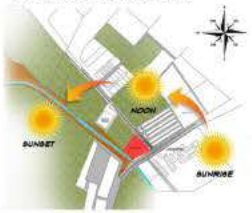
MASJID SHEIKH ABDUL MALIK



KEY PLAN
SCALE : N.T.S

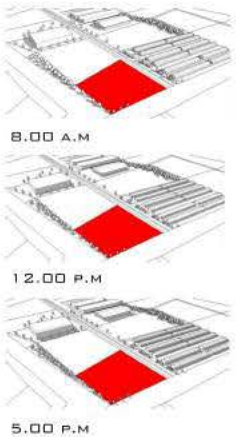
LOCATION PLAN
SCALE : N.T.S

WIND DIRECTION

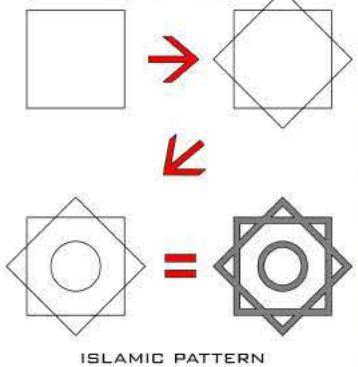


SUN PATH

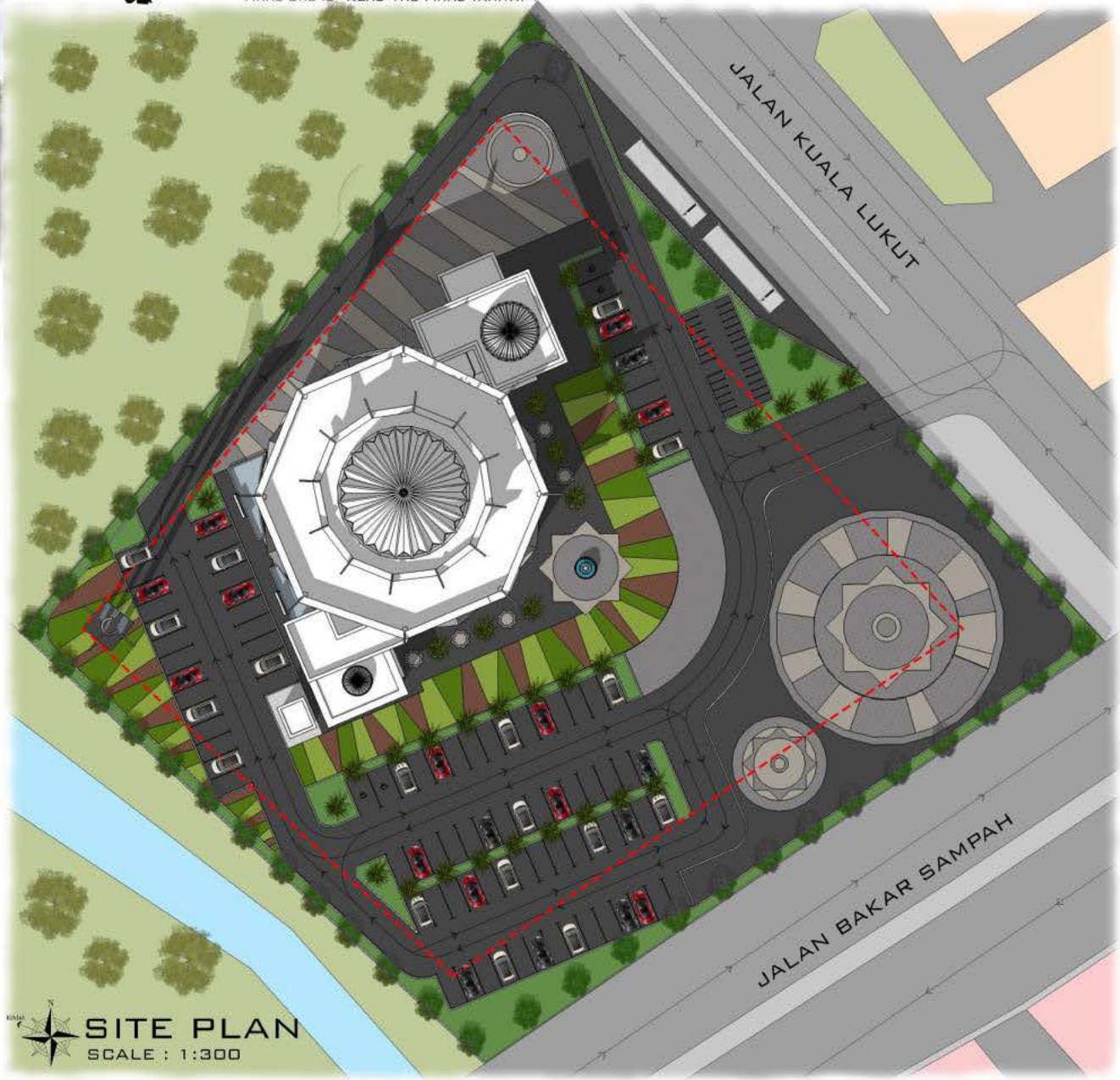
SHADOW PATTERN



CONCEPTUAL SKETCHES & INITIAL IDEA



ISLAMIC PATTERN



SITE PLAN
SCALE : 1:300

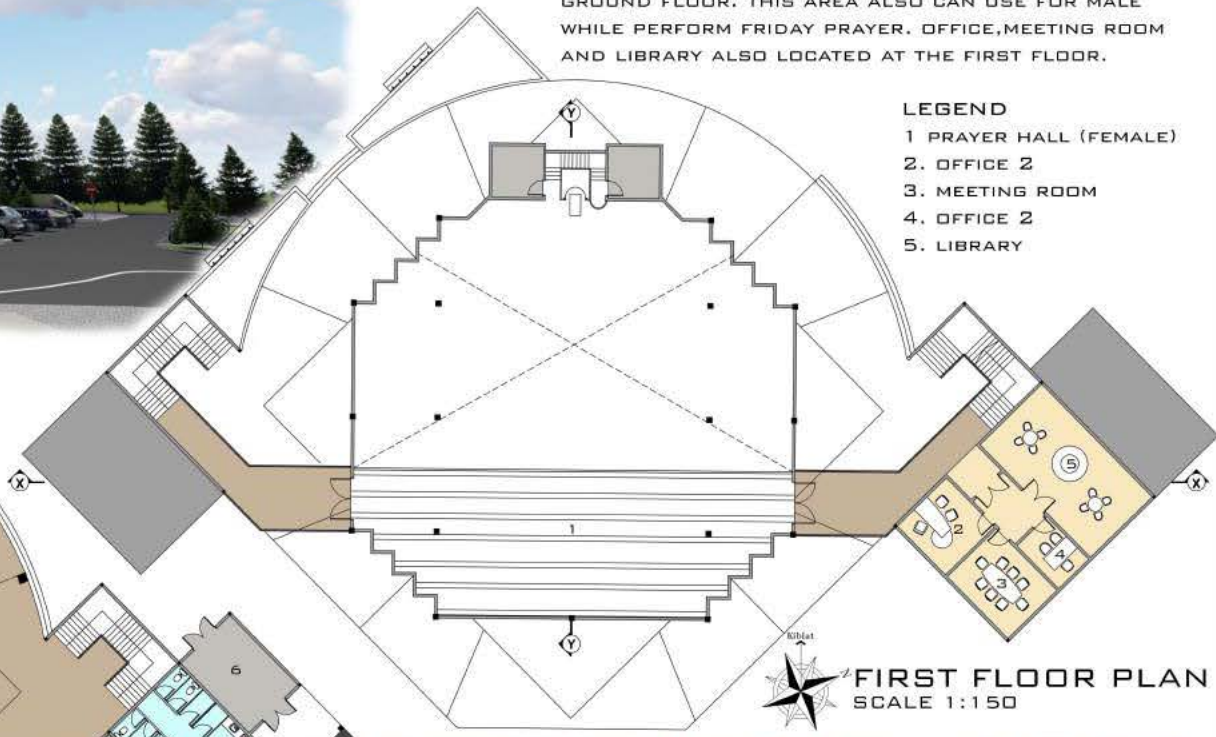
MASJID SHEIKH ABDUL MALIK
PROJECT 1: A PLACE OF WORSHIP

MUHAMMAD FARHAN BIN MOHD FISAL
131957
SCHOOL OF HOUSING, BUILDING & PLANNING, USM KPT (POLI-PD)

PERSPECTIVE VIEW 2

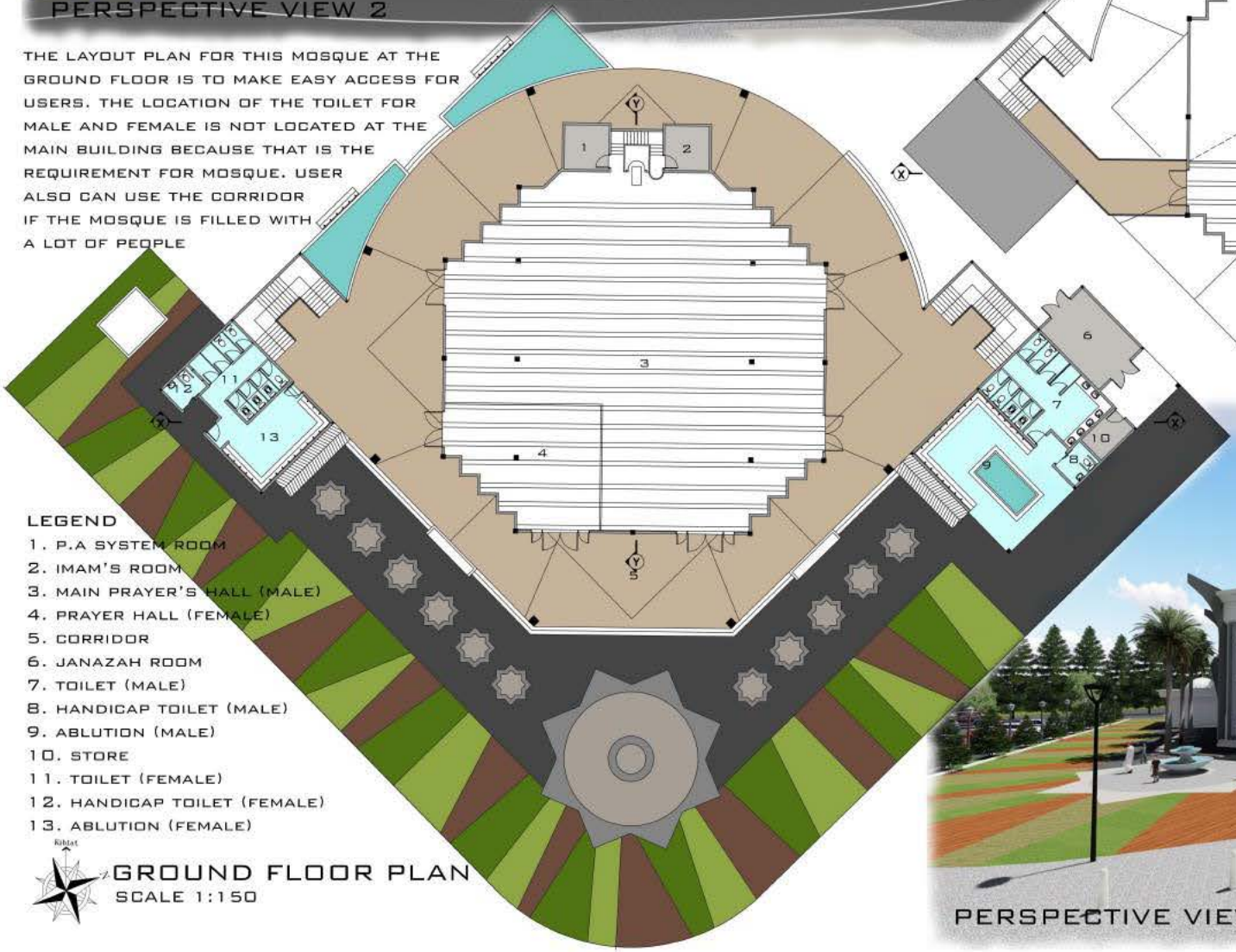
THE MAIN PRAYER HALL FOR FEMALE WERE LOCATED AT FIRST FLOOR WHILE HANDICAP USER CAN USE AT THE GROUND FLOOR. THIS AREA ALSO CAN USE FOR MALE WHILE PERFORM FRIDAY PRAYER. OFFICE,MEETING ROOM AND LIBRARY ALSO LOCATED AT THE FIRST FLOOR.

LEGEND
1 PRAYER HALL (FEMALE)
2. OFFICE 2
3. MEETING ROOM
4. OFFICE 2
5. LIBRARY



FIRST FLOOR PLAN
SCALE 1:150

THE LAYOUT PLAN FOR THIS MOSQUE AT THE GROUND FLOOR IS TO MAKE EASY ACCESS FOR USERS. THE LOCATION OF THE TOILET FOR MALE AND FEMALE IS NOT LOCATED AT THE MAIN BUILDING BECAUSE THAT IS THE REQUIREMENT FOR MOSQUE. USER ALSO CAN USE THE CORRIDOR IF THE MOSQUE IS FILLED WITH A LOT OF PEOPLE



LEGEND
1. P.A SYSTEM ROOM
2. IMAM'S ROOM
3. MAIN PRAYER'S HALL (MALE)
4. PRAYER HALL (FEMALE)
5. CORRIDOR
6. JANAZAH ROOM
7. TOILET (MALE)
8. HANDICAP TOILET (MALE)
9. ABLUTION (MALE)
10. STORE
11. TOILET (FEMALE)
12. HANDICAP TOILET (FEMALE)
13. ABLUTION (FEMALE)

GROUND FLOOR PLAN
SCALE 1:150

PERSPECTIVE VIEW 3

MASJID SHEIKH ABDUL MALIK
PROJECT 1: A PLACE OF WORSHIP

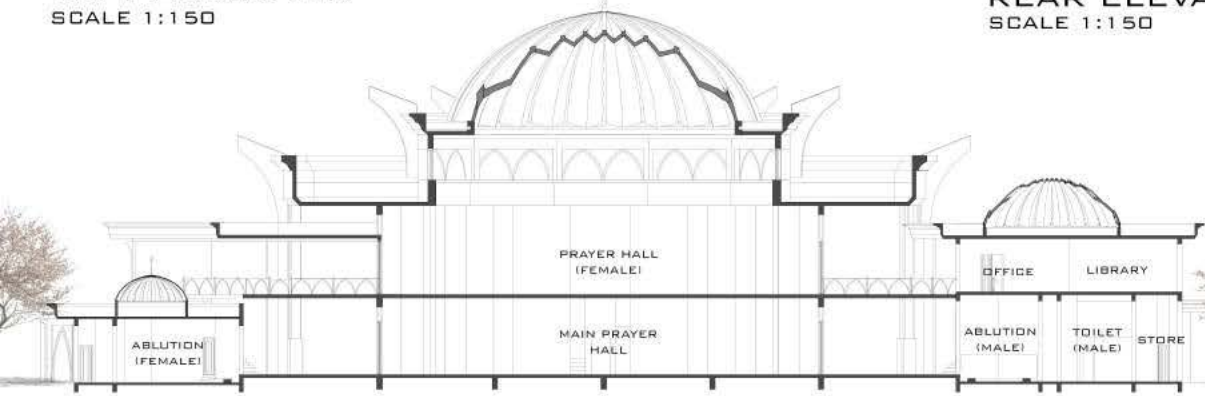
MUHAMMAD FARHAN BIN MOHD FISAL
131957
SCHOOL OF HOUSING, BUILDING & PLANNING, USM KPT (POLI-PD)

FRONT ELEVATION
SCALE 1:150

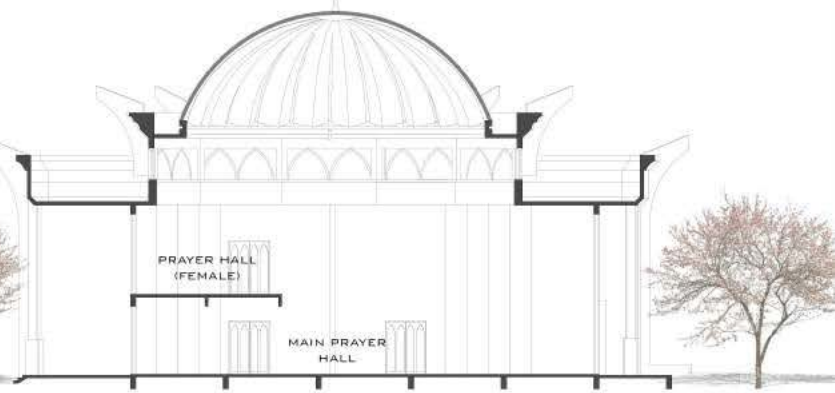
RIGHT ELEVATION
SCALE 1:150

LEFT ELEVATION
SCALE 1:150

REAR ELEVATION
SCALE 1:150



SECTION X-X
SCALE 1:150



SECTION Y-Y
SCALE 1:150

MASJID SHEIKH ABDUL MALIK
PROJECT 1: A PLACE OF WORSHIP

MUHAMMAD FARHAN BIN MOHD FISAL
131957
SCHOOL OF HOUSING, BUILDING & PLANNING, USM KPT (POLI-PD)

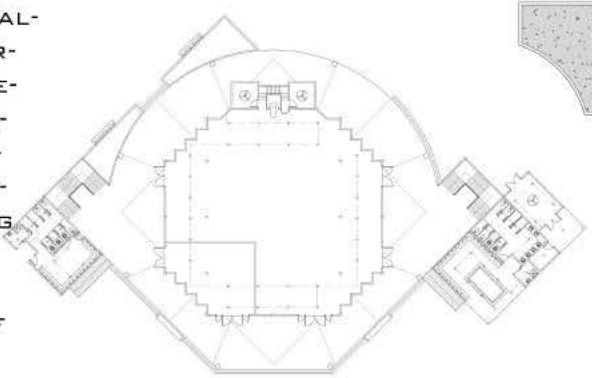
LIGHTING ANALYSIS

12.00 P.M

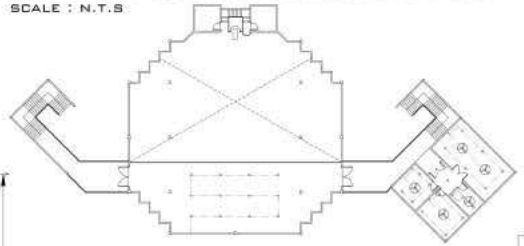
2.00 P.M

4.30 P.M

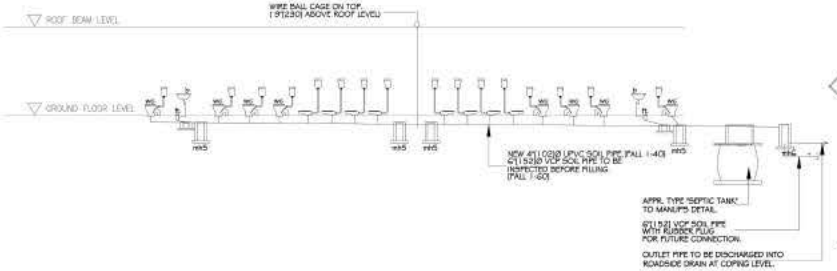
THE SHADING IN A SCENE DEPENDS ON A COMBINATION OF MANY FACTORS—HOW THE LIGHTING VARIES SPATIALLY ACROSS A SURFACE, HOW IT VARIES ALONG DIFFERENT DIRECTIONS, THE GEOMETRIC CURVATURE AND REFLECTANCE PROPERTIES OF OBJECTS, AND THE LOCATIONS OF SOFT SHADOWS. IN THIS ARTICLE, WE CONDUCT A COMPLETE FIRST-ORDER OR GRADIENT ANALYSIS OF LIGHTING, SHADING, AND SHADOWS, SHOWING HOW EACH FACTOR SEPARATELY CONTRIBUTES TO SCENE APPEARANCE, AND WHEN IT IS IMPORTANT.
IN THESE THREE PICTURE SHOWS THE DIFFERENCE OF THE SHADOW AT DIFFERENT TIME



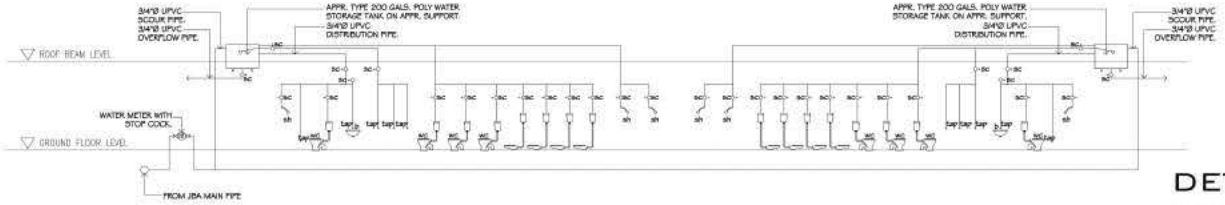
GROUND FLOOR ELECTRICAL LAYOUT
SCALE : N.T.S



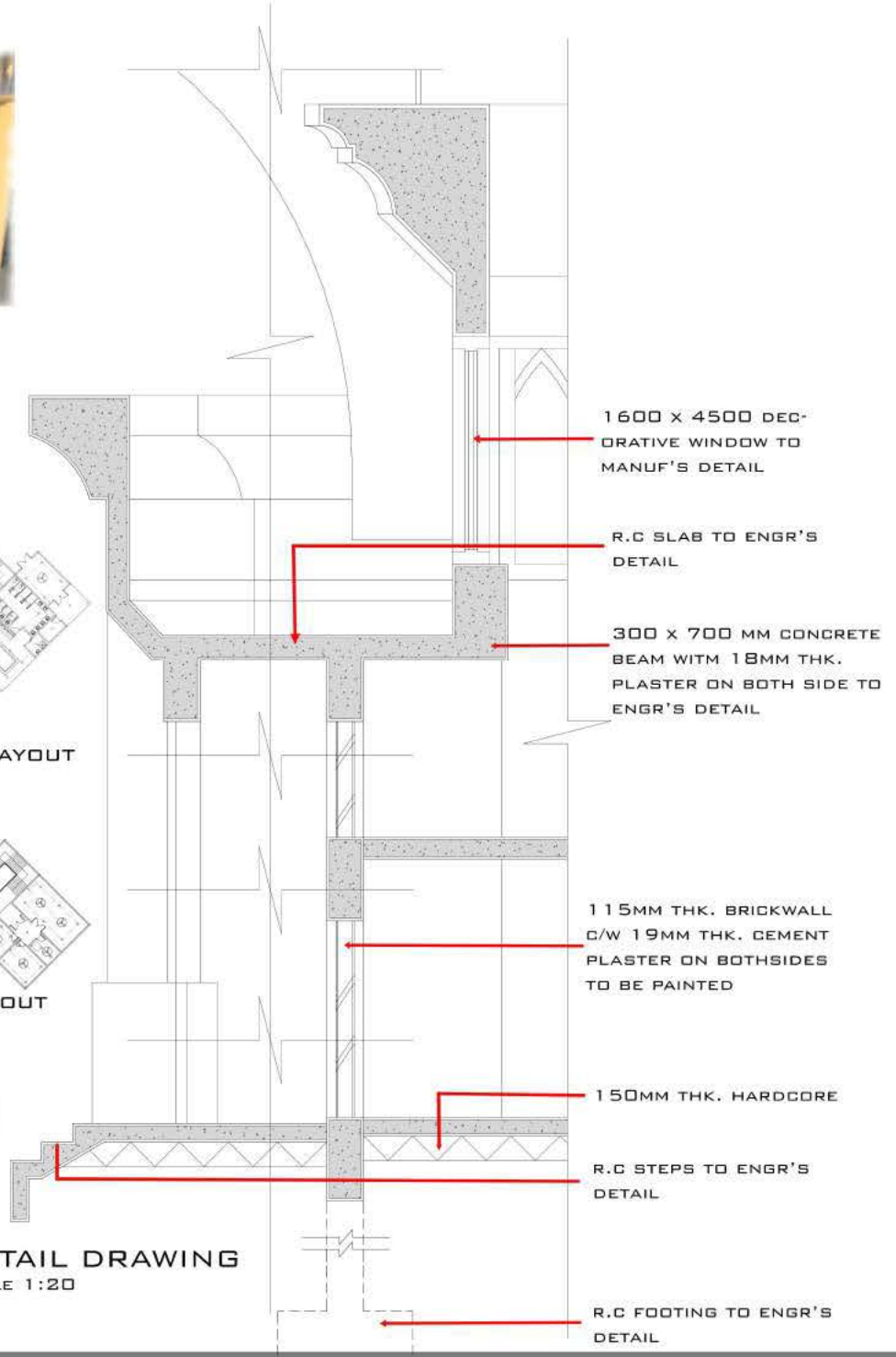
FIRST FLOOR ELECTRICAL LAYOUT
SCALE : N.T.S



SEWERAGE SCHEMATIC DRAWING
SCALE : N.T.S



WATER SUPPLY SCHEMATIC DRAWING
SCALE : N.T.S



DETAIL DRAWING
SCALE 1:20

MUHAMMAD FARHAN BIN MOHD FISAL
131957
SCHOOL OF HOUSING, BUILDING & PLANNING, USM KPT (POLI-PD)

HAZIQ BIN ABD GHANI
135355

AL-BAQARAH MOSQUE, LUKUT

RAS204: ARCHITECTURE STUDIO | PROJECT 1: A PLACE OF WORSHIP

HAZIQ BIN ABD GHANI | **135355** | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT

DESIGN STATEMENT

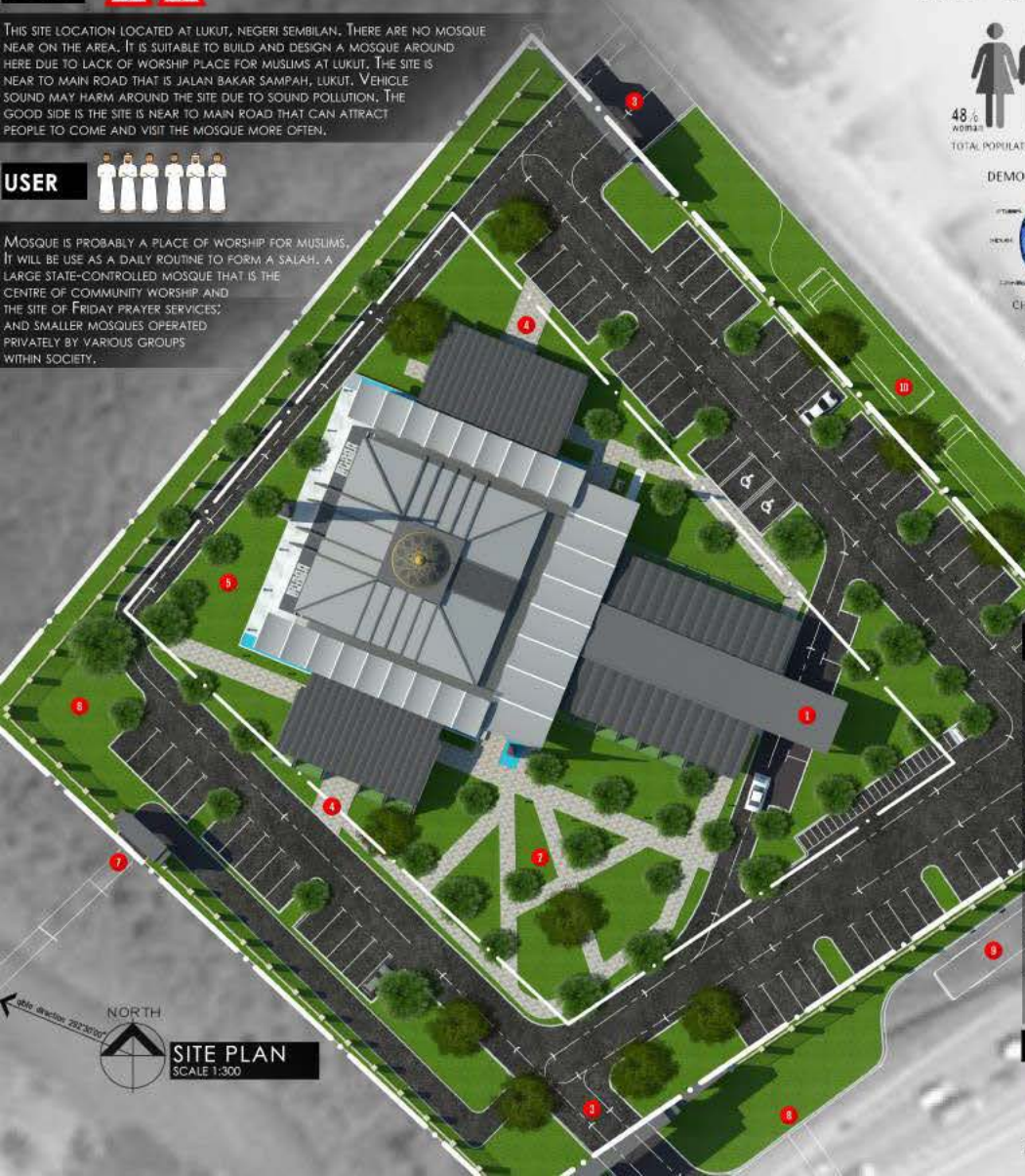
A PLACE OF WORSHIP IS A SPECIALLY DESIGNED STRUCTURE OR CONSECRATED SPACE WHERE INDIVIDUALS OR A GROUP OF PEOPLE SUCH AS A CONGREGATION COME TO PERFORM ACTS OF DEVOTION, VENERATION, OR RELIGIOUS STUDY. A BUILDING CONSTRUCTED OR USED FOR THIS PURPOSE IS SOMETIMES CALLED A HOUSE OF WORSHIP. TEMPLES, CHURCHES, SYNAGOGUES AND MOSQUES ARE EXAMPLES OF STRUCTURES CREATED FOR WORSHIP. FOR THIS PROJECT, THE MOSQUE DESIGN IS A PLACE OF WORSHIP FOR MUSLIM PEOPLE. RELIGIOUS ARCHITECTURE EXPRESSES THE RELIGIOUS BELIEFS, AESTHETIC CHOICES, AND ECONOMIC AND TECHNOLOGICAL CAPACITY OF THOSE WHO CREATE OR ADAPT IT, AND THUS PLACES OF WORSHIP SHOW GREAT VARIETY DEPENDING ON TIME AND PLACE.

ISSUES

THIS SITE LOCATION LOCATED AT LUKUT, NEGERI SEMBILAN. THERE ARE NO MOSQUE NEAR ON THE AREA. IT IS SUITABLE TO BUILD AND DESIGN A MOSQUE AROUND HERE DUE TO LACK OF WORSHIP PLACE FOR MUSLIMS AT LUKUT. THE SITE IS NEAR TO MAIN ROAD THAT IS JALAN BAKAR SAMPAH, LUKUT. VEHICLE SOUND MAY HARM AROUND THE SITE DUE TO SOUND POLLUTION. THE GOOD SIDE IS THE SITE IS NEAR TO MAIN ROAD THAT CAN ATTRACT PEOPLE TO COME AND VISIT THE MOSQUE MORE OFTEN.

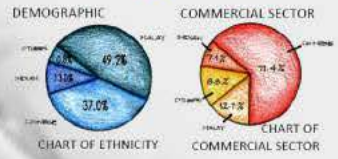
USER

MOSQUE IS PROBABLY A PLACE OF WORSHIP FOR MUSLIMS. IT WILL BE USE AS A DAILY ROUTINE TO FORM A SALAH. A LARGE STATE-CONTROLLED MOSQUE THAT IS THE CENTRE OF COMMUNITY WORSHIP AND THE SITE OF FRIDAY PRAYER SERVICES; AND SMALLER MOSQUES OPERATED PRIVATELY BY VARIOUS GROUPS WITHIN SOCIETY.



LOCATION PLAN
NOT TO SCALE

KEY PLAN
NOT TO SCALE



SOCIO-CULTURE DATA

LEGEND

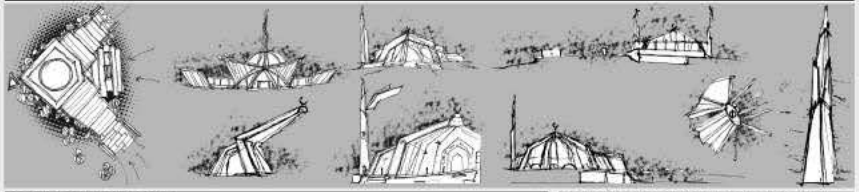
1) DROP OFF AREA/PORCH
2) SAHN/COURTYARD
3) VEHICLE ENTRANCE
4) SECONDARY ENTRANCE MOSQUE
5) TNB SUBSTATION PROPOSED
6) GAZEBO/WAKAF
7) PROPOSED BRIDGE FOR PEDESTRIAN AND MOTORCYCLE
8) PROPOSED PEDESTRIAN BRIDGE
9) PROPOSED BUS STOP AREA
10) BUS PARKING

VEGETATION TYPE

DESIGN CONCEPT

ISLAMIC THOUGHT CATEGORIZES THE ENTIRE **COSMOS** INTO TWO DOMAINS; THE UNSEEN UNIVERSE (ARABIC ALAM-UL-GHAIB), WHICH IS IMPERCEPTIBLE TO MANKIND IN GENERAL, HAS PROPERTIES UNKNOWN TO US, AND INCLUDES ALLAH, ANGELS, PARADISE, HELL, SEVEN HEAVENS, AND AL-ARSH (THE DIVINE THRONE) AND THE OBSERVABLE UNIVERSE (ARABIC ALAM-UL-SHAHOOD).THE MOST SIGNIFICANT DESCRIPTION OF HEAVEN IN SURAH AL-BAQARAH [2:25] IS A BEAUTIFUL GARDEN, FILLED WITH GREENERY AND FLOWING WATER. IN FACT, THE ARABIC WORD, JANNAH, MEANS "GARDEN."

CONCEPTUAL SKETCHES



SITE ANALYSIS

SUNPATH DIRECTION

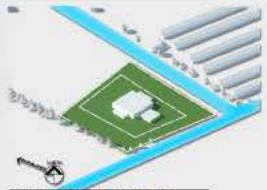

BEST VIEW FROM SITE


WINDFLOW DIRECTION


VEHICLE FLOW

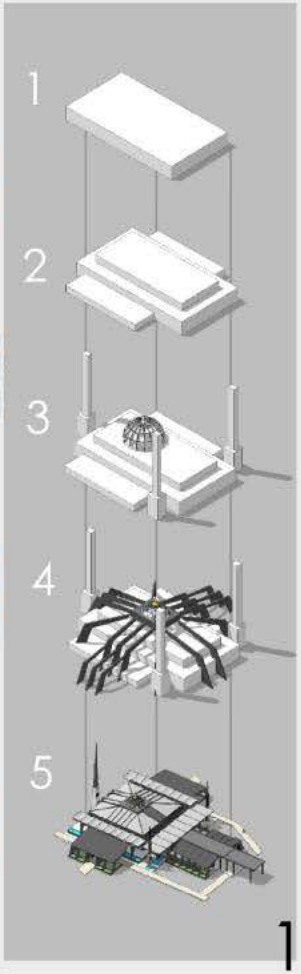

SITE AXIS


BUILDING QIBLA ORIENTATION


TRAFFIC FLOW OUTSIDE SITE


VEGETATION ZONING

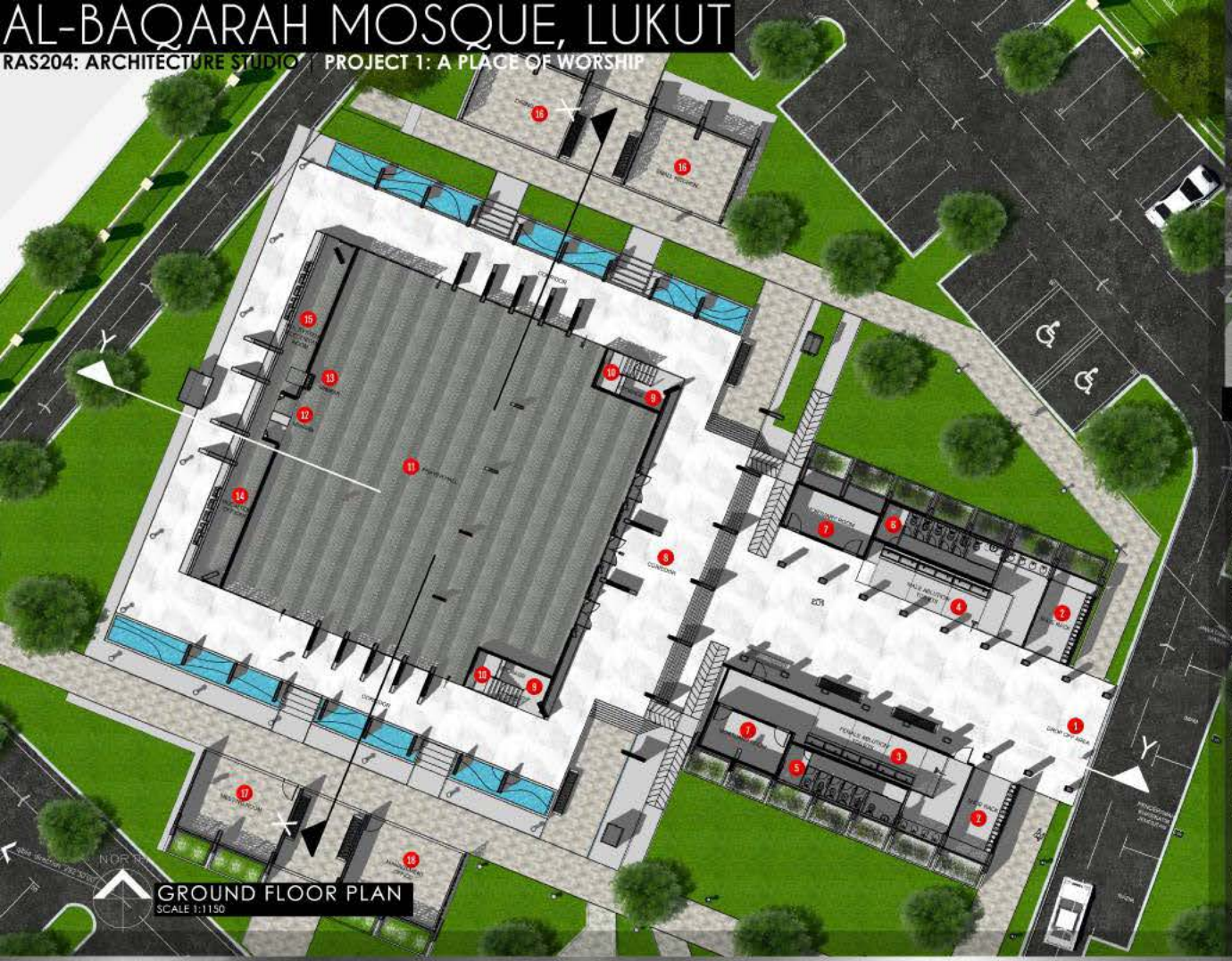
DESIGN DEVELOPMENT



AL-BAQARAH MOSQUE, LUKUT

RAS204: ARCHITECTURE STUDIO / PROJECT 1: A PLACE OF WORSHIP

HAZIQ BIN ABD GHANI | 135355 | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT



GROUND FLOOR PLAN
SCALE 1:1150

EXTERIOR PERSPECTIVE

LEGEND

1) DROP OFF AREA/PORCH
2) SHOE RACK
3) FEMALE ABLUTION
4) MALE ABLUTION
5) FEMALE TOILET
6) MALE TOILET
7) JANAZAH ROOM
8) CORRIDOR
9) STORAGE AREA
10) STAIRS
11) PRAYER HALL
12) MIHRAB
13) MIMBAR
14) ROOM FOR OFFICER
15) ELECTRICAL ROOM/ PA SYSTEM ROOM
16) DINING & SMALL KITCHEN
17) MEETING ROOM
18) MANAGEMENT ROOM

PRAYER HALL

OPEN CORRIDOR

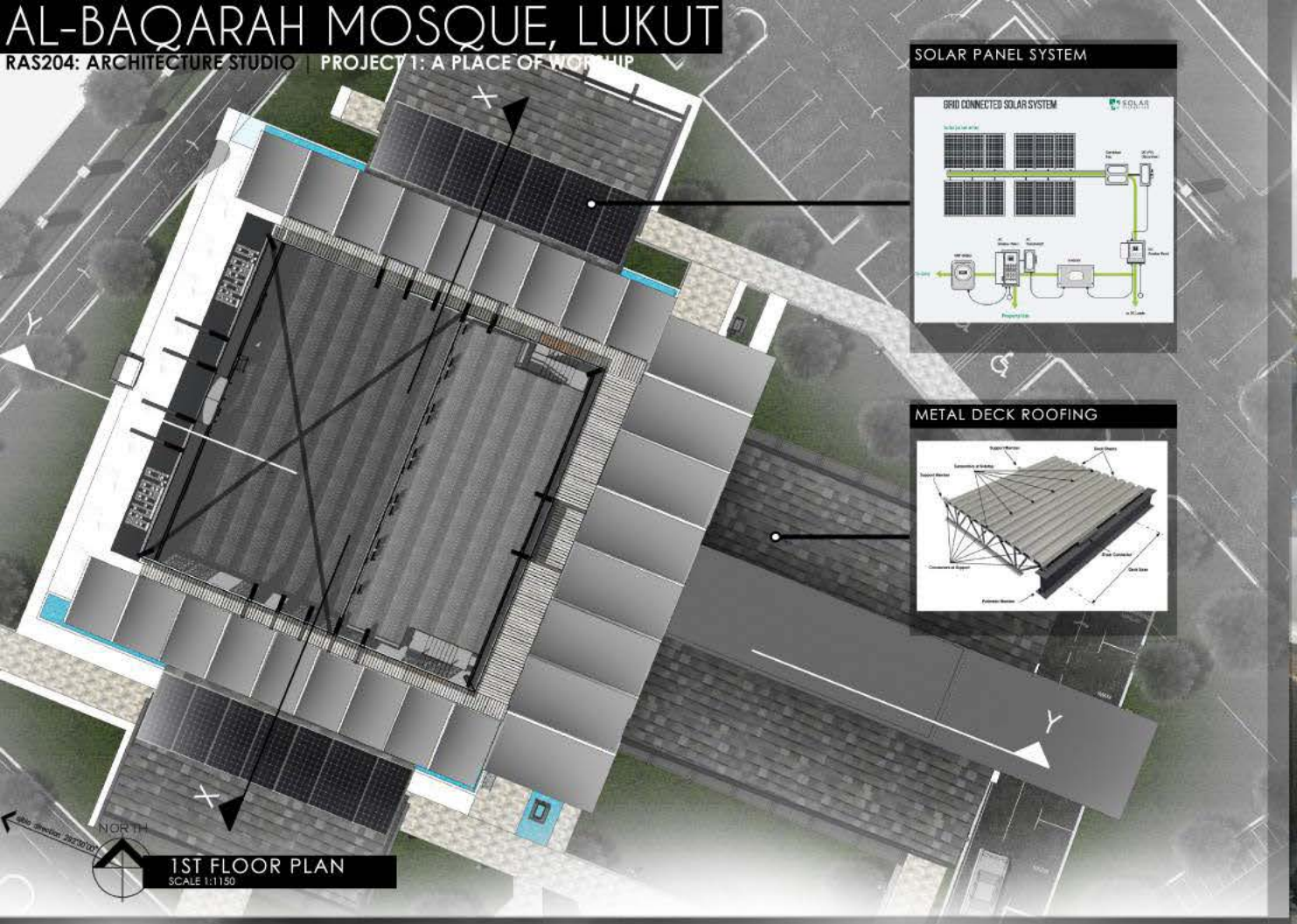
LEFT ELEVATION
SCALE 1:150

FRONT ELEVATION
SCALE 1:150

AL-BAQARAH MOSQUE, LUKUT

RAS204: ARCHITECTURE STUDIO | PROJECT 1: A PLACE OF WORSHIP

HAZIQ BIN ABD GHANI | 135355 | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT



1ST FLOOR PLAN
SCALE 1:1150

SOLAR PANEL SYSTEM

METAL DECK ROOFING

OPEN LANDSCAPE

PRAYER HALL SPACE

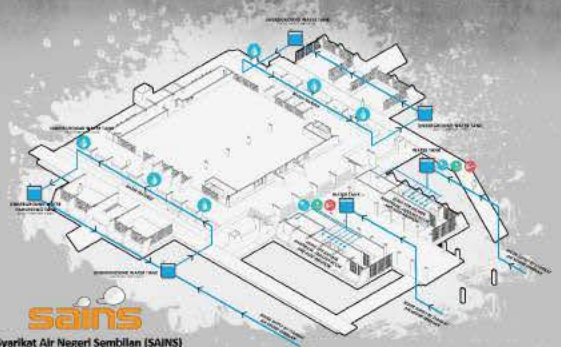
SECTION Y-Y
SCALE 1:1150

SECTION X-X
SCALE 1:1150

AL-BAQARAH MOSQUE, LUKUT

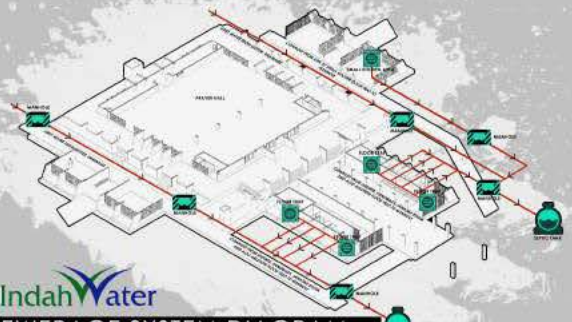
RAS204: ARCHITECTURE STUDIO 2 | PROJECT 1: A PLACE OF WORSHIP

HAZIQ BIN ABD GHANI | 135355 | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT



WATER SUPPLY DIAGRAM
NOT TO SCALE

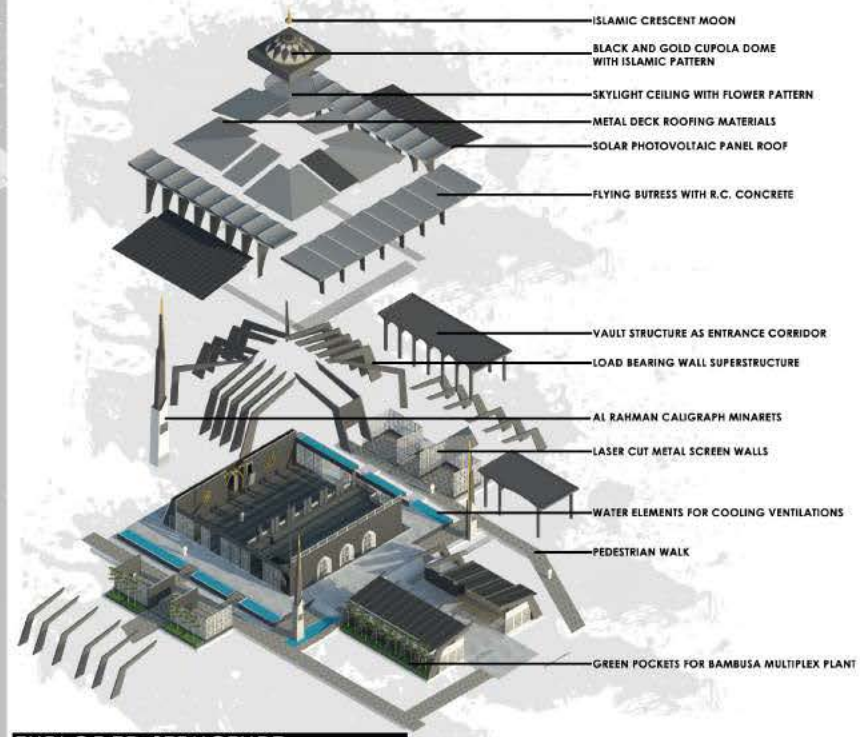
ELECTRICAL SUPPLY DIAGRAM
NOT TO SCALE



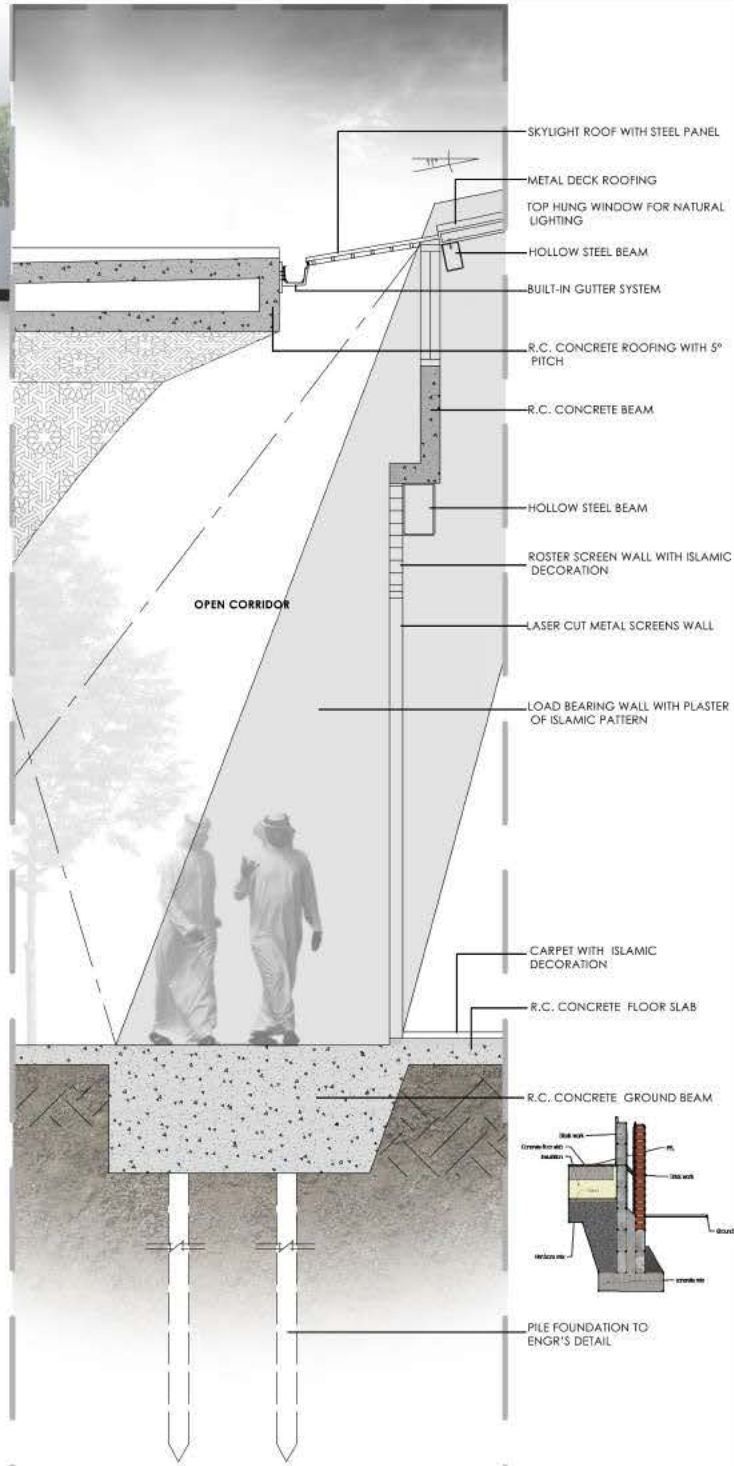
SEWERAGE SYSTEM DIAGRAM
NOT TO SCALE

THE MODEL LIGHTING ANALYSIS SHOWN THAT ARE 3 DIFFERENT TIME THAT TAKEN DUE TO SHADOW ANALYSIS. **THE FIRST** PICTURE ARE SHOWN AT 9AM. THE LIGHTING FROM EAST SUNLIGHT DIRECT INTO THE PRAYER HALL TO LIGHT UP THE SPACE INSIDE. FOR **THE SECOND** PICTURE, THE DIRECT SUNLIGHT ARE ILUMINATED FROM THE CUPOLA DOME WITH A FLOWER DECORATION DIRECT TO THE PRAYER HALL. THIS ANGLE SHOWN THAT THE PRAYER HALL HAS LIGHTEN UP DUE TO THE DIRECT SUNLIGHT FROM ABOVE. **THE LAST** PICTURE ARE TAKEN AT 5PM. THE LIGHT FROM WEST SIDE ARE ILUMINATED INTO THE PRAYER HALL.

MODEL LIGHTING ANALYSIS
NOT TO SCALE



EXPLODED STRUCTURE
NOT TO SCALE



FOUNDATION TO ROOF DETAIL
SCALE 1:20

PROJECT 1:
A PLACE OF WORSHIP

PROJECT 1:
A PLACE OF WORSHIP
(CHURCH)

KARTHIKGHEYAN VASUDEVAN
131919

ST. THOMAS MOORE CHURCH

SITE AT LUKUT , PORT DICKSON, NEGERI SEMBILAN

PREPARED BY KARTHIKGHEYAN VASUDEVAN | 131919 | GROUP 2 |

01

BIRD VIEW PERSPECTIVE
SCALE N.T.S

CHURCH (A PLACE OF WORSHIP)

IS A BUILDING USED FOR CHRISTIAN RELIGIOUS ACTIVITIES, PARTICULARLY FOR WORSHIP SERVICES.IN TRADITIONAL CHRISTIAN ARCHITECTURE, THE CHURCH IS OFTEN ARRANGED IN THE SHAPE OF A CHRISTIAN CROSS. WHEN VIEWED FROM PLAN VIEW THE LONGEST PART OF A CROSS IS REPRESENTED BY THE AISLE AND THE JUNCTION OF THE CROSS IS LOCATED AT THE ALTAR AREA.THE ANGLICAN COMMUNION IS THE THIRD LARGEST CHRISTIAN COMMUNION WITH 85 MILLION MEMBERS AND FOUNDED IN 1867 IN LONDON, ENGLAND.RETAIN THEIR OWN LEGISLATIVE PROCESS AND EPISCOPAL POLITY UNDER THE LEADERSHIP OF LOCAL PRIMATES.

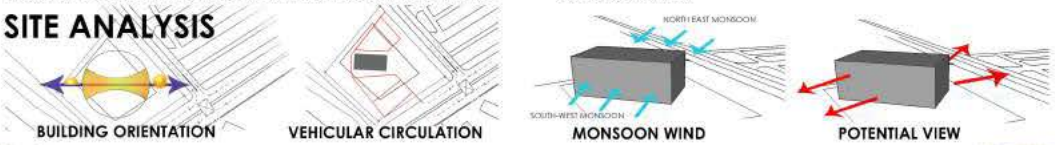
AIM

TO PROPOSE A CHURCH FOR ANGLICAN COMMUNION (SACRED ARCHITECTURE) THAT DEPICTS THE INTIMATE RELATION BETWEEN MAN AND GOD AND CREATES A NEW LANDMARK AT LUKUT, NEGERI SEMBILLAN.

OBJECTIVES

- A PLACE WHERE MAKE US CLOSER TO GOD
- CREATES UNITY AMONG PEOPLE SURROUNDING AREA
- OVERCOME THE ISSUE OF LACK CHURCH AT LUKUT AREA

SITE ANALYSIS



BUILDING ORIENTATION | VEHICULAR CIRCULATION | MONSOON WIND | POTENTIAL VIEW

CONCEPT

SANCTUM ➡ LATIN - SANCIRE ➡ SANCTUS -HOLY ➡ SANCTUM (LATE 16TH CENTURY)

A SACRED PLACE, ESPECIALLY A SHRINE WITHIN A TEMPLE OR CHURCH

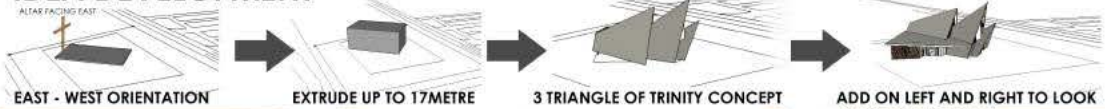
IDEAS

CREATES THE ENVIRONMENT OF HEAVEN (PLACE OF GOD). THE SITE WITH GARDENS AND GREEN AREAS, USES OF NATURE ELEMENTS AND USES OF RAW MATERIAL CREATES CALM AND SPIRITUAL ENVIRONMENT.

CONSTRUCTION

THE CONSTUCTION METHOD USES POST AND BEAM, STEEL STUCTURE. THE MATERIAL USED FOR THE STRUCTURE ARE TUBULAR STEEL WITH TRUSS FOR MAIN STRUCTURE AND CONCRETE FOR SECONDARY STRUCTURE. THE STEEL JOINT USES BOLT AND NUT CONNECTION TO STUMP AS GROUND SUPPORT. THE ROOF USED LIGHTWEIGHT GLAZED CERAMIC TILES WHICH IS SUITABLE FOR MALAYSIA`S CLIMATE AND KEEP THE SURFACE INSIDE THE CHURCH AGAINST THE HEAT ABSORBTION. IT BRINGS SPECIALTY TO THE APPEARANCE OF THE CHURCH.

IDEA DEVELOPMENT



EAST - WEST ORIENTATION | EXTRUDE UP TO 17METRE | 3 TRIANGLE OF TRINITY CONCEPT | ADD ON LEFT AND RIGHT TO LOOK CROSS ON TOP VIEW

GARDEN PERSPECTIVE
SCALE N.T.S

VIEW TO ALTAR
SCALE N.T.S

ST. THOMAS MOORE CHURCH

SITE AT LUKUT , PORT DICKSON, NEGERI SEMBILAN

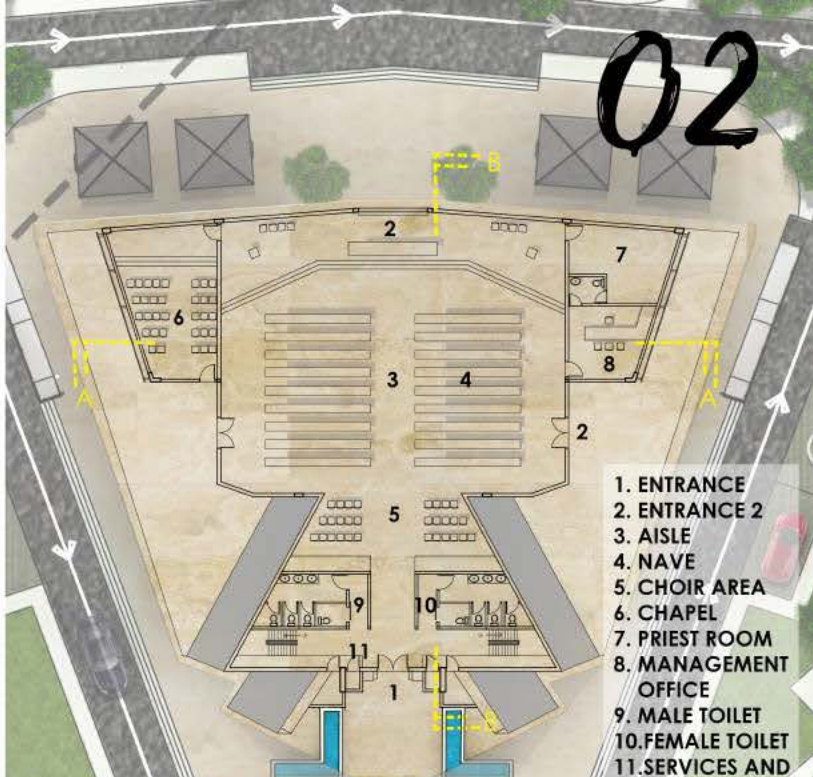
PREPARED BY KARTHIKGHEYAN VASUDEVAN | 131919 | GROUP 2 |

02

SITE PLAN
SCALE 1 : 300

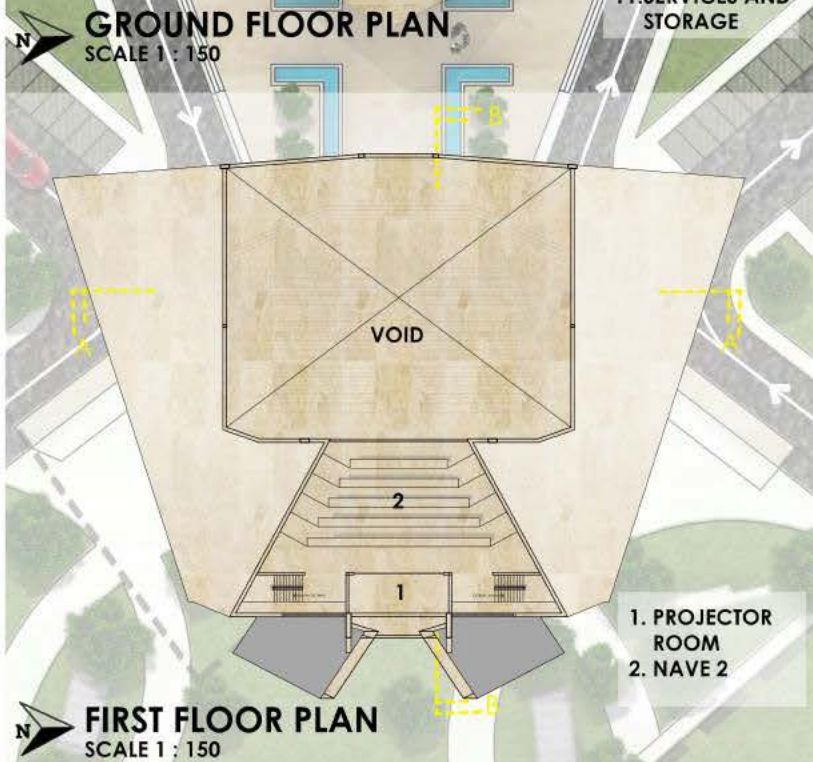
KEY PLAN
SCALE N.T.S

LOCATION PLAN
SCALE N.T.S



1. ENTRANCE
2. ENTRANCE 2
3. AISLE
4. NAVE
5. CHOIR AREA
6. CHAPEL
7. PRIEST ROOM
8. MANAGEMENT OFFICE
9. MALE TOILET
10. FEMALE TOILET
11. SERVICES AND STORAGE

GROUND FLOOR PLAN
SCALE 1 : 150



1. PROJECTOR ROOM
2. NAVE 2

FIRST FLOOR PLAN
SCALE 1 : 150

ST. THOMAS MOORE CHURCH

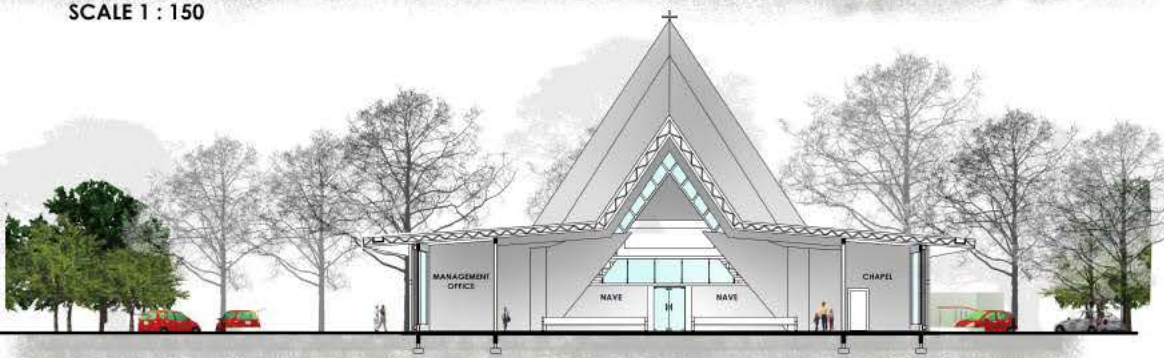
SITE AT LUKUT , PORT DICKSON, NEGERI SEMBILAN

PREPARED BY KARTHIKGHEYAN VASUDEVAN | 131919 | GROUP 2 |

03

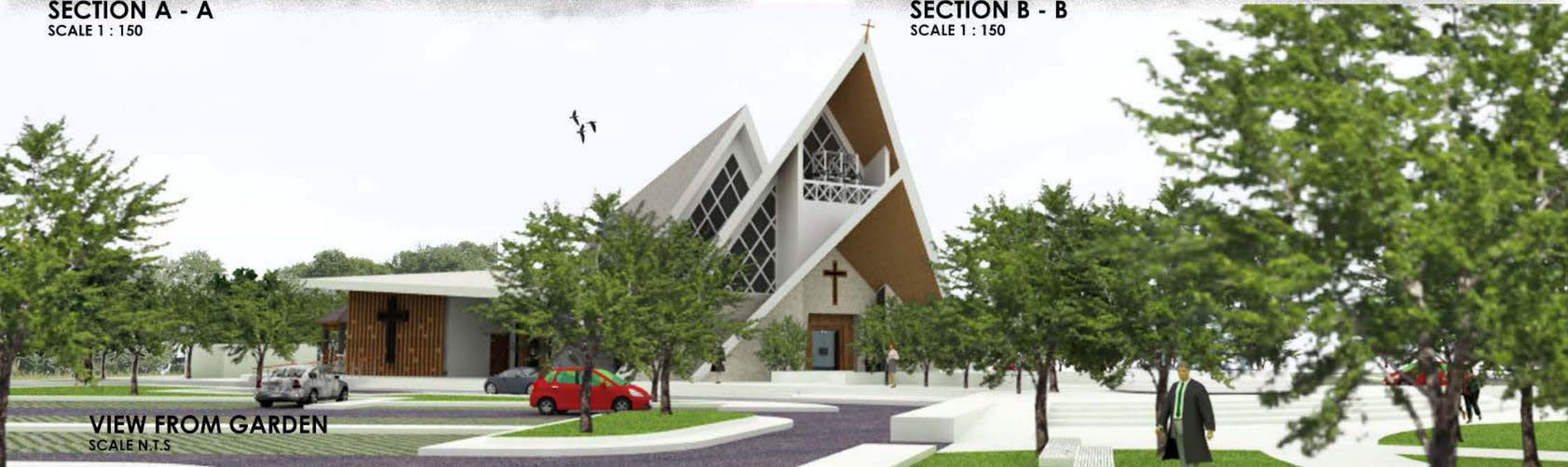
FRONT ELEVATION
SCALE 1 : 150

SIDE ELEVATION
SCALE 1 : 150



SECTION A - A
SCALE 1 : 150

SECTION B - B
SCALE 1 : 150



VIEW FROM GARDEN
SCALE N.T.S

ST. THOMAS MOORE CHURCH

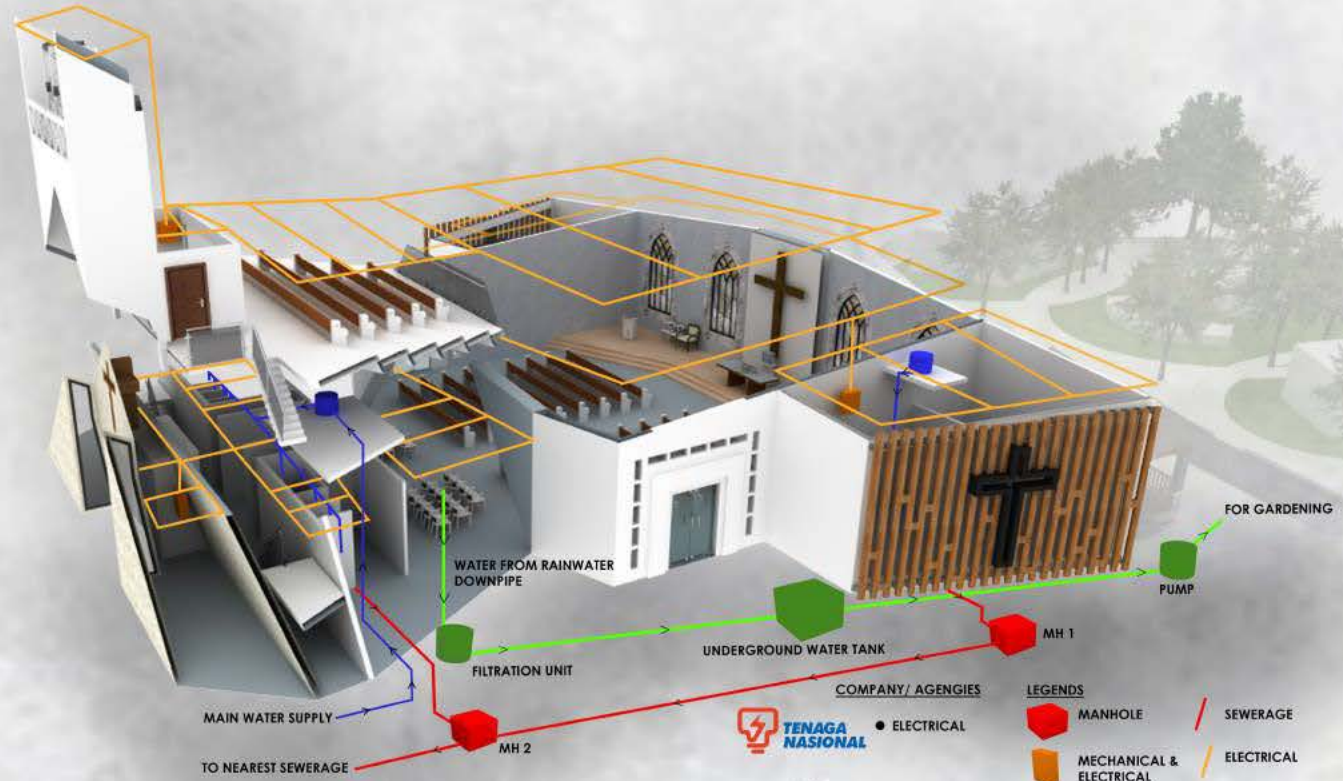
SITE AT LUKUT , PORT DICKSON, NEGERI SEMBILAN

PREPARED BY KARTHIKGHEYAN VASUDEVAN | 131919 | GROUP 2 |

LIGHTING ANALYSIS

DAYLIGHT AND ARCHITECTURE ARE INHERENTLY CONNECTED. THROUGHOUT THE HISTORY OF ARCHITECTURE, DAYLIGHT HAS PLAYED AN INVALUABLE ROLE IN THE LIGHTING OF BUILDINGS. DAYLIGHT IS ESSEML NOT ONLY FOR VISION, BUT ALSO FOR THE EFFECTS ON PEOPLE WORKING IN, LIVING OR EXPERIENCING BUILT ENVIRONMENT. ARCHITECTURE MUST FULFIL VISUAL AS WELL AS BIOLOGICAL NEEDS WITHS OPENINGS IN A WAY THAT GIVES US FULL CONTROL OVER HOW LIGHT AND HEAT ARE ADMITTED INTO A BUILDINGAND OVER THE VIEW WE HAVE OUT OF THAT BUILDING. THIS BRANCH OF ARCHITECTURE HAS EVOLVED INTO DAYLIGHTING DESIGN.
BASED ON THE ANALYSIS CONDUCTED USING ARTIFICIAL LIGHT, RESULT SHOWS THAT THE ENTIRE SPACE TOGETHER WITH OPENINGS IS SUFFICIENT AND ALLOW LIGHT TO TRAVEL TO WHOLE PRAYING HALL.

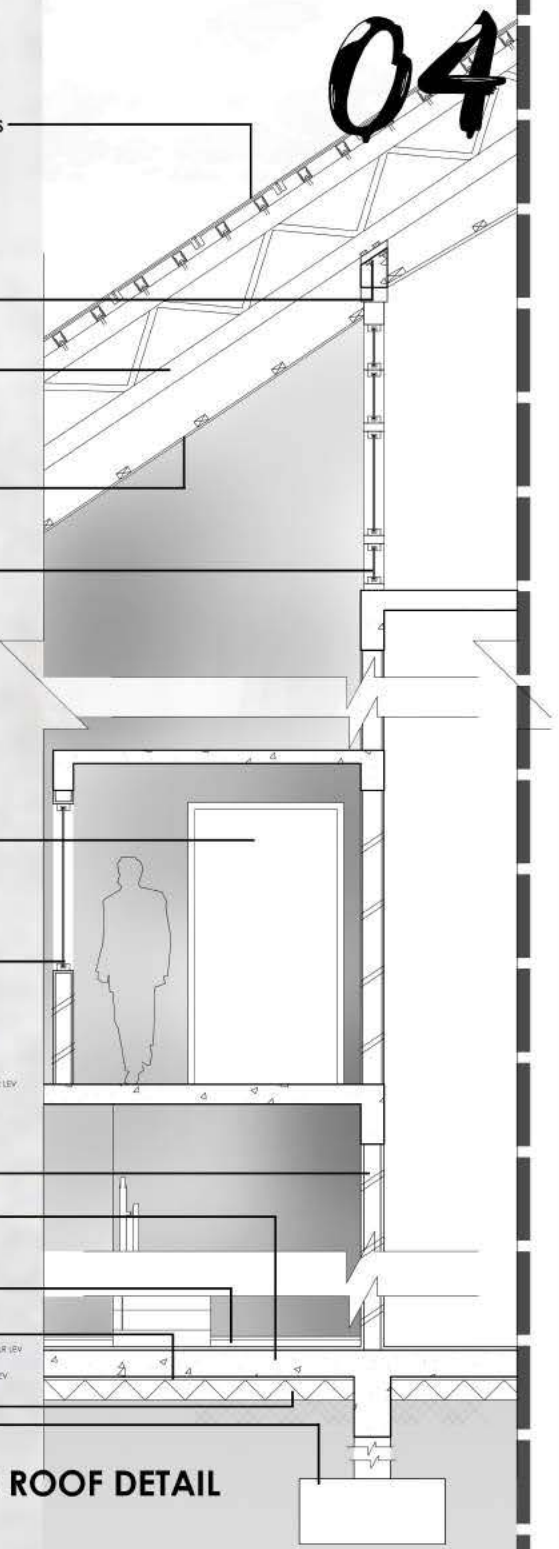
OVERCAST ARTIFICIAL LIGHT | OPENING A IS CLOSED | OPENING B IS CLOSED | OPENING C IS CLOSED



ELECTRICAL,WATER SUPPLY & SEWERAGE SCHEMATIC DRAWINGS

SCALE N.T.S

04



FOUNDATION TO ROOF DETAIL

SCALE 1 : 20

MARILYN SIA ANAK DAVIOL JUPONG
131920

ST. MICHAEL ANGLICAN CHURCH

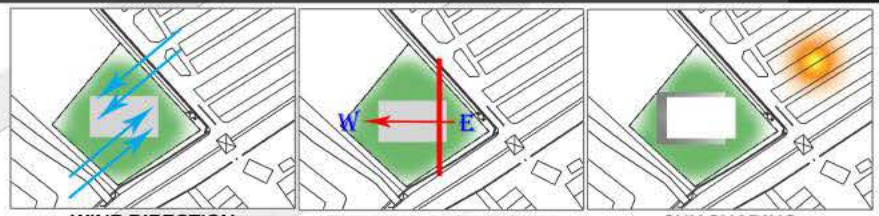
MARILYN SIA ANAK DANIEL JUPONG | 131920 | GROUP 04

DESIGN STATEMENT

CHURCH IS PUBLIC BUILDING WHERE ALL THE CHRISTIAN BELIEVERS COME TO HEAR AND WORSHIP GOD EVERY SUNDAY. THE 'ST. MICHAEL CHURCH' IS AN ANGLICAN CHURCH WHICH IS PROPOSED TO ACCOMODATE 500 CHRISTIAN COMMUNITY TO GATHER AND WORSHIP GOD. THE CHURCH WAS INSPIRED FROM THE BIBLE VERSE, WHERE IT IS STATED THE BAPTISM OF JESUS CHRIST.THIS CHURCH CONSIST OF VARIOUS SPACE OTHER THAN THE MAIN CONGREGRATION AREA. THESPACE CAN BE USED BY THE ANGLICAN COMMUNITY TO DO RELIGIOUS ACTIVITIES. THE USED OF LOUVRES FACADE IS USED IN DESIGNING THIS CHURCH. BESIDES THAT, GREEN ROOF AND GREEN WALL ARE ALSO APPLIED IN THIS DESIGN.

KEY PLAN
NOT TO SCALE

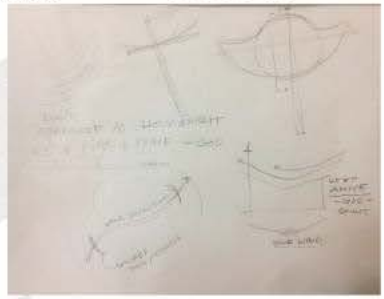
LOCATION PLAN
NOT TO SCALE



WIND DIRECTION | BUILDING ORIENTATION | SUN SHADING

CONCEPTUAL IDEA

MATHEW 3:16
AS SOON AS JESUS WAS BAPTIZED, HE WENT UP OUT OF THE WATER. HEAVEN WAS OPENED, AND HE SAW AT THAT MOMENT THE SPIRIT OF GOD DESCENDING LIKE A DOVE AND ALIGHTING ON HIM.

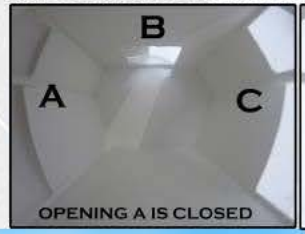


IDEA : THE WING OF DOVE

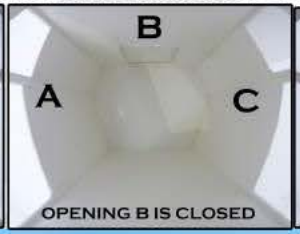
LOVE + PURITY + PEACE = HOLY SPIRIT

LIGHTING ANALYSIS

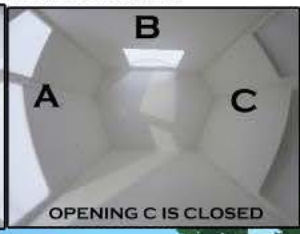
LIGHT PLAY A CENTRAL ROLE INCTHE DESIGN OF VISUAL ENVIROMENT. WHAT WE SEE, WHAT WE EXPERIENCE AND HOW WE INTERPRET THE ELEMENTS IS AFFECTED BY HOW LIGHT INTERACT WITH US AND WITH THE ENVIROMENT. THE STUDY OF LIGHT ANALYSIS BELOW SHOWS THE LIGHTS ENTER THE MAIN CONGREGATION. AS THE SUN FACING EAST, OPENING AT A AND B RECEIVED MORE LIGHT WHICH MAKE THE SPACE MORE BRIGHTER AND THE PROPOSED OPENING IS SATISFIED.



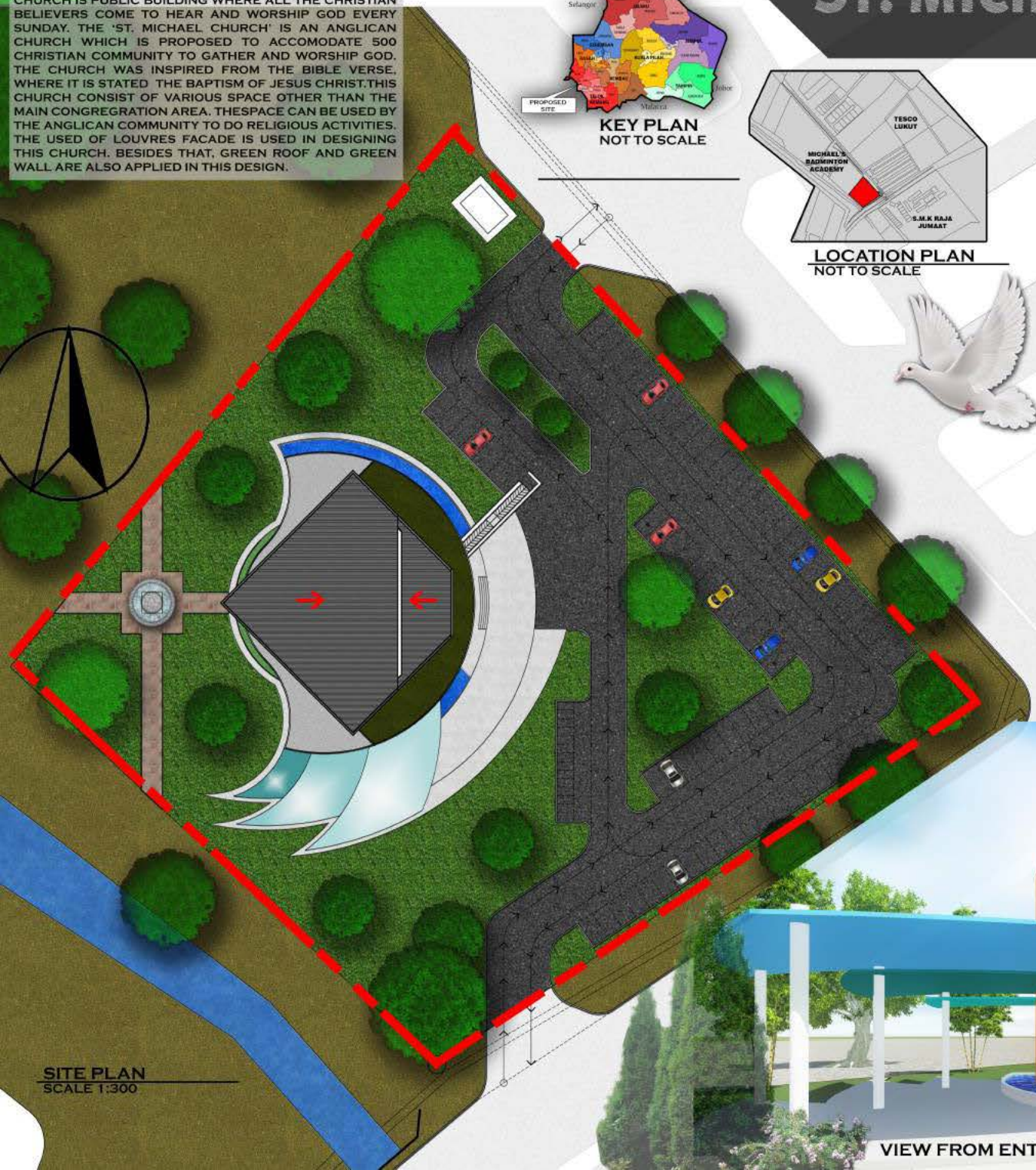
OPENING A IS CLOSED



OPENING B IS CLOSED



OPENING C IS CLOSED

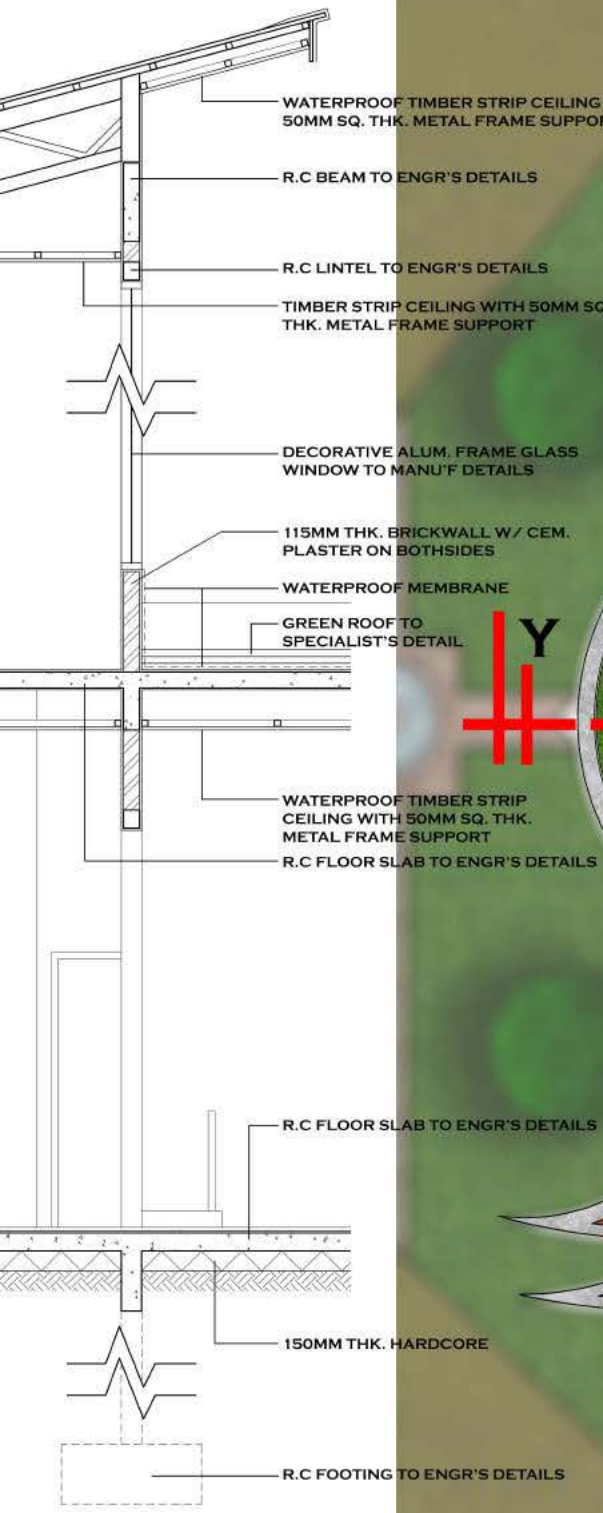


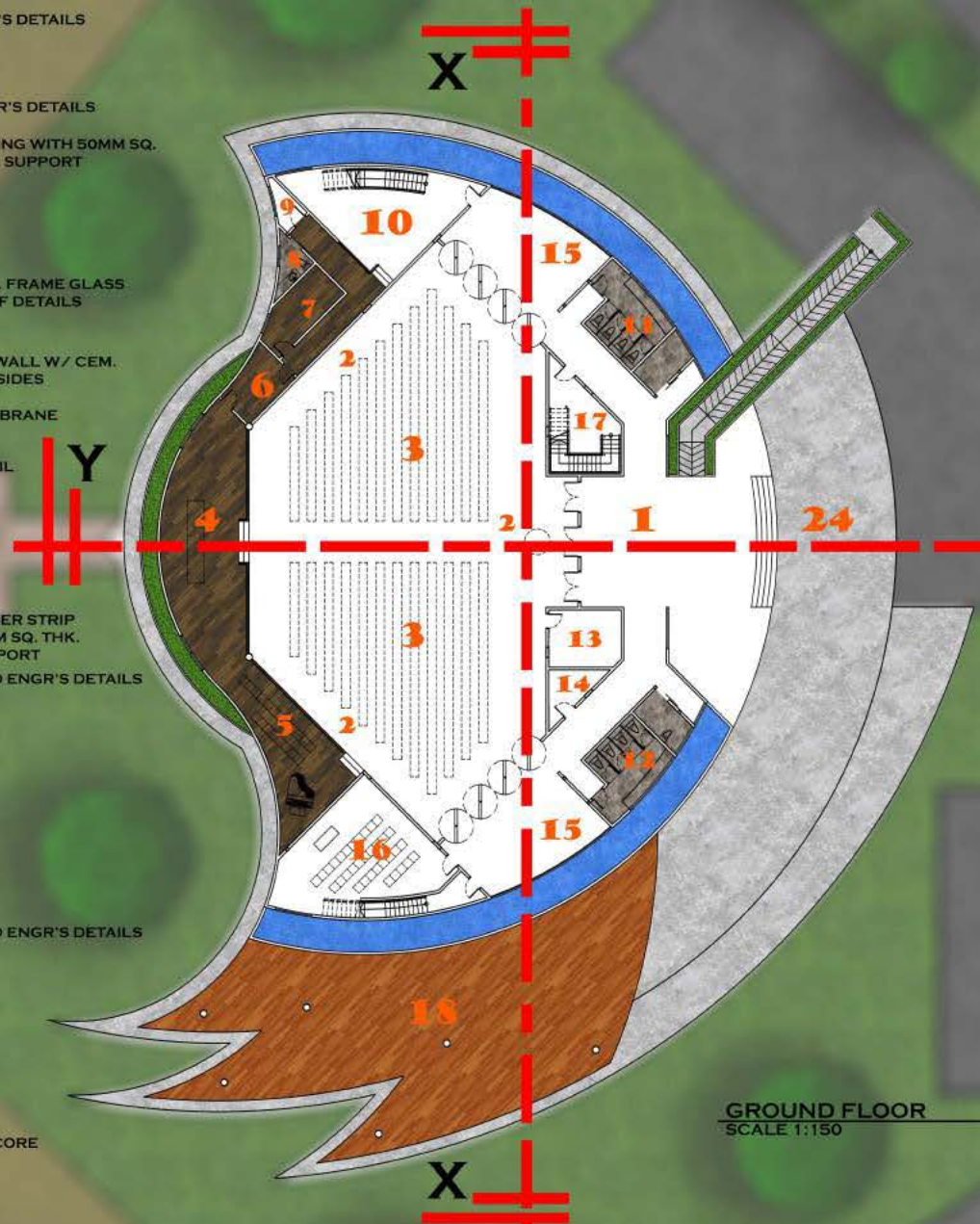
SITE PLAN
SCALE 1:300

VIEW FROM ENTRANCE

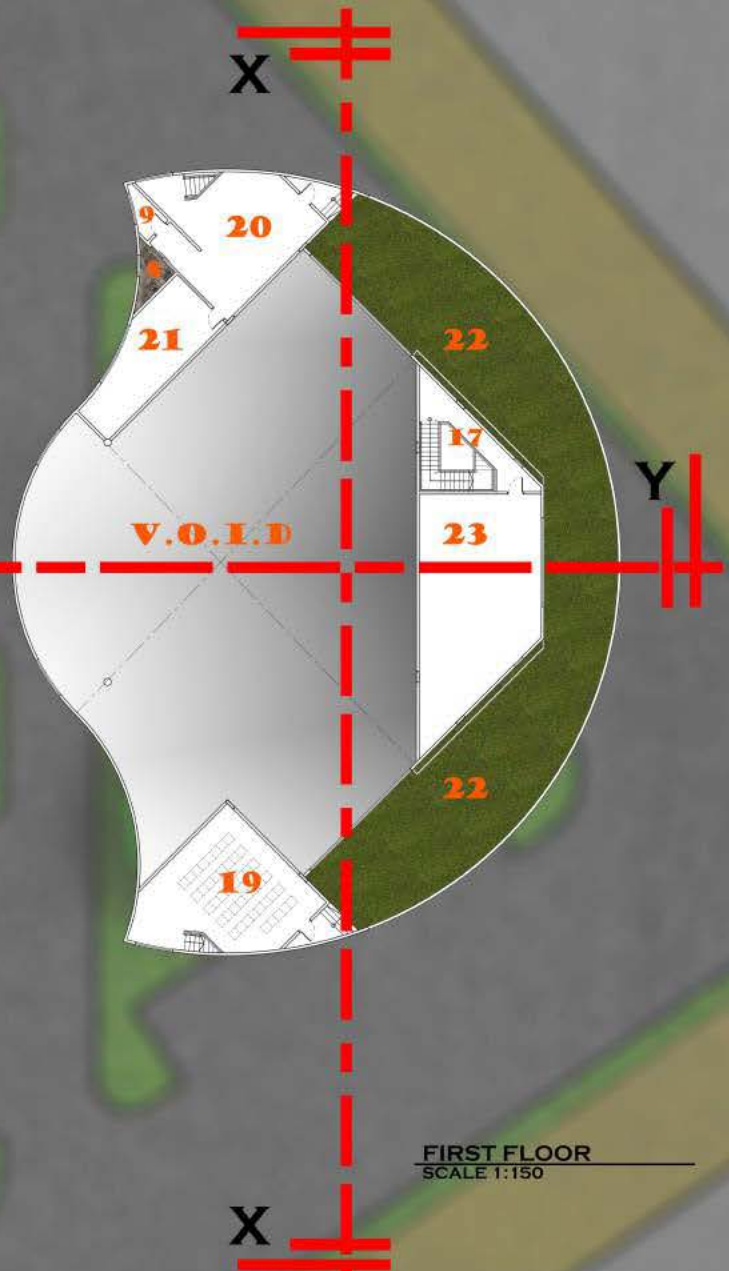
ST. MICHAEL ANGLICAN CHURCH

MARILYN SIA ANAK DANIEL JUPONG | 131920 | GROUP 04





GROUND FLOOR
SCALE 1:150

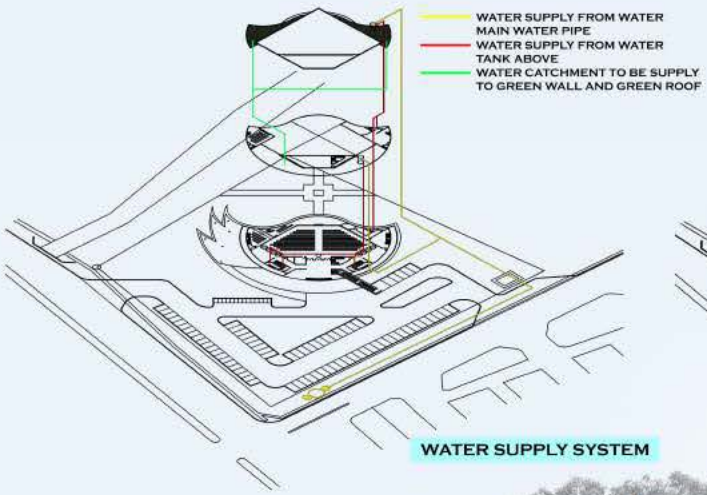


FIRST FLOOR
SCALE 1:150

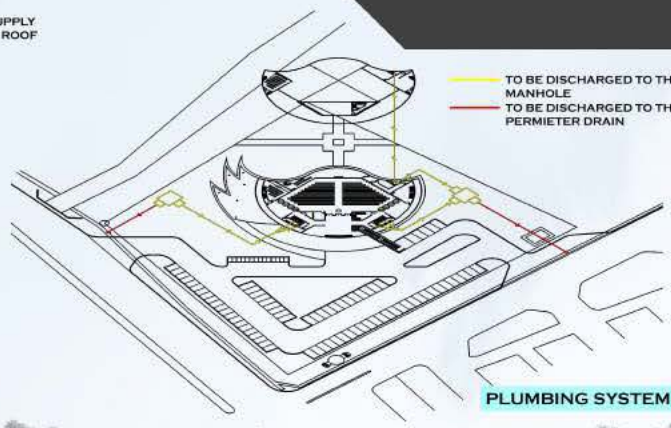
1. MAIN ENTRY
2. AISLE
3. NAVE
4. ALTAR
5. CHOIR AREA
6. VESTRY
7. FATHER'S ROOM
8. TOILET
9. STORE
10. MANAGEMENT OFFICE
11. MALE TOILET
12. FEMALE TOILET
13. MEDIA ROOM
14. MSB ROOM
15. FOYER
16. SUNDAY SCHOOL
17. STAIRCASE
18. COVERED AREA
19. CLASSROOM
20. MEETING AREA
21. LIBRARY
22. MULTIPURPOSE HALL
23. GREEN AREA
24. ENTRANCE PORCH

ST. MICHAEL ANGLICAN CHURCH

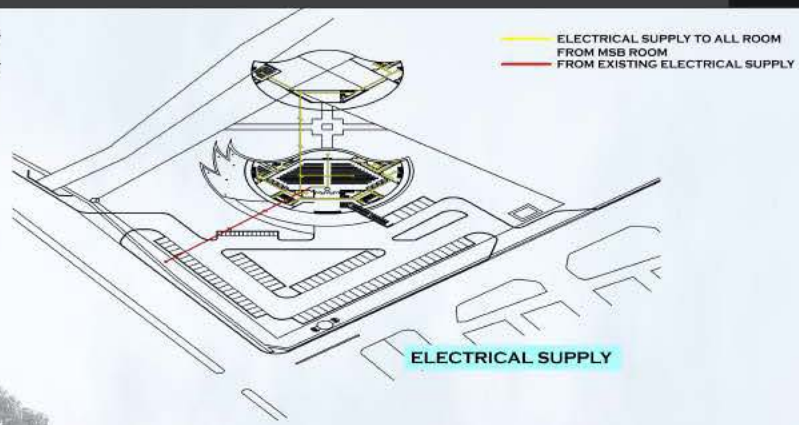
MARILYN SIA ANAK DANIEL JUPONG | 131920 | GROUP 04



WATER SUPPLY SYSTEM



PLUMBING SYSTEM



ELECTRICAL SUPPLY

SECTION X-X
SCALE 1:150

SECTION Y-Y
SCALE 1:150

FRONT ELEVATION
SCALE 1:150

SIDE ELEVATION
SCALE 1:150

VANCESTER ANAK RIPON
131951

ROMAN CATHOLIC CHURCH OF HOLY TRINITY

SITE AT LUKUT, PORT DICKSON, NEGERI SEMBILAN

PREPARED BY VANCESTER ANAK RIPON • 131 951 • GROUP 4

01

DESIGN STATEMENT

This project is to design of worship place either a mosque, Tample or church at centre of Lukut Town, Port Dickson, Negeri Sembilan. It will provide facility to community, providing praying hall, activie living opportunity and contributing to the sosial fabric to the area, It consists various space in term of outdoor and indoor facilities, The Church include main praying hall, sacristy room. priest room, chapel, confession room, fellowship hall, commitee office, toilet, meeting room and utility room on the ground floor level while on the first floor is extra praying hall include with choir space, P.A system room, store for church music instrument and bell tower. Also to include grotto, outdoor assembly point for special event and fountain for holy water.

ISSUES

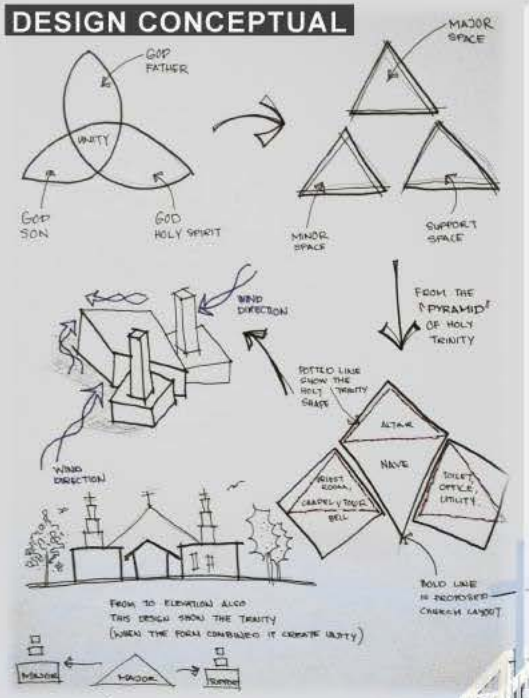
This project was proposed because roman catholic church that have are far from lukut town it is ' Church Of The Immaulate Conception, Port Dickson' . The old church capacity can't accomodate the christian community surround Port Dickson and Lukut. Other than that, the proposed site is abundance and suitable for new development because it's located at the centre of lukut, the land can enhancing the church by anchoring the new focal point and gateway.

USER

DESIGN INSPIRATION

'HOLY TRINITY' is only one God in three Persons while distinct from one another in their relations of origin. It is *the Father* who generates, *the Son* who is begotten, and *the Holy Spirit* who proceeds. This to show a protruding character of harmony in unity ontu christianity life. This design concept intimates a strong and rigid a simple form. From this concept the spaces are dividend into three where is MAJOR, MINOR & SUPPORT.

DESIGN CONCEPTUAL



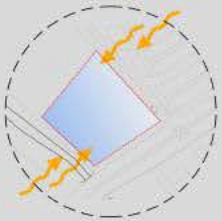
KEY PLAN
NOT TO SCALE

LOCATION PLAN
NOT TO SCALE

SITE ANALYSIS

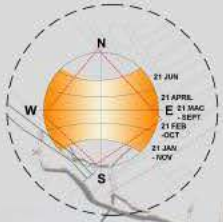
PROPOSED SITE

BUILDING AREA

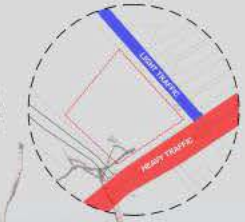


WIND ORIENTATION

VISTA PREFERENCE



SUN DIRECTION



VEHICULAR CIRCULATION

VIEW FROM MAIN ROAD

ROMAN CATHOLIC CHURCH OF HOLY TRINITY

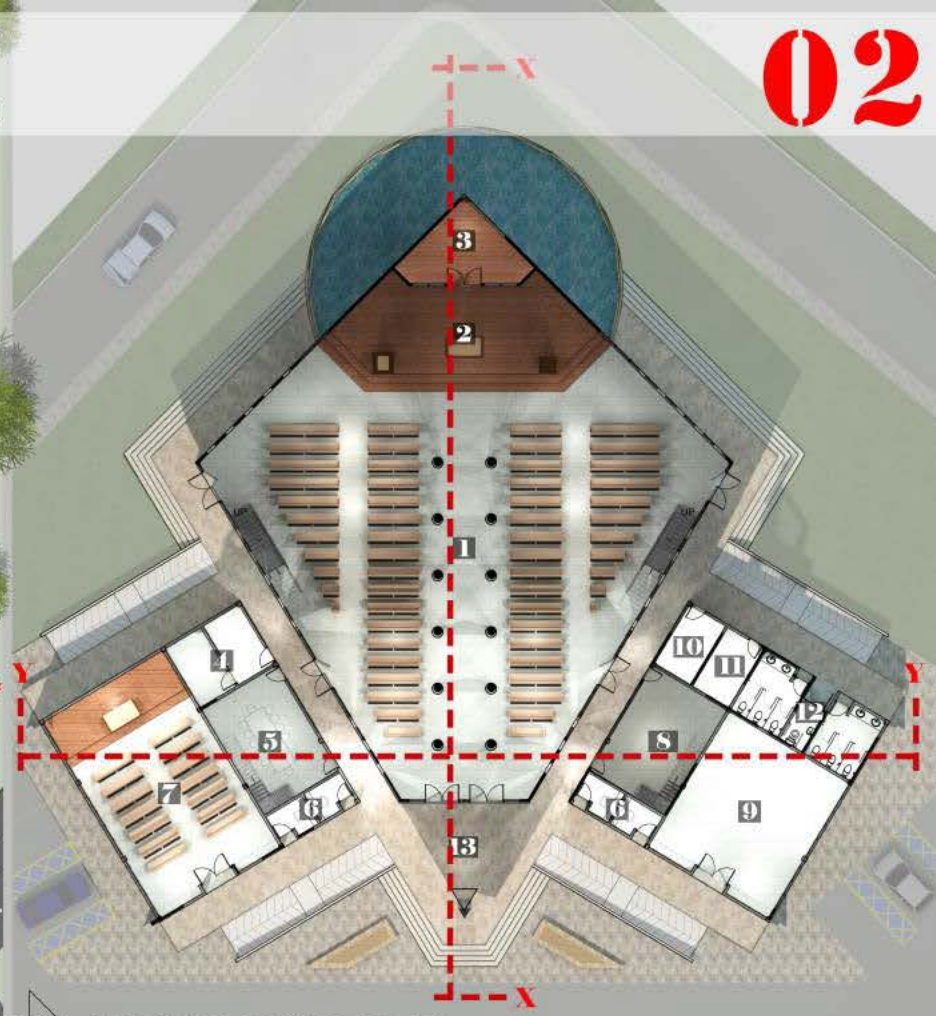
SITE AT LUKUT, PORT DICKSON, NEGERI SEMBILAN

PREPARED BY VANCESTER ANAK RIPON • 131 951 • GROUP 4

02

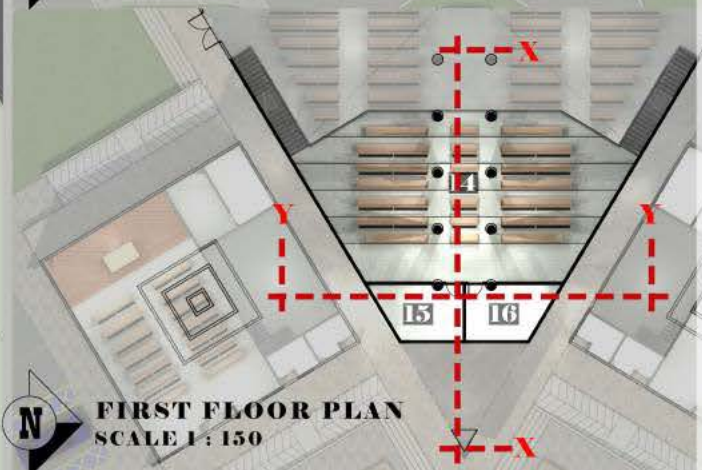
N

SITE PLAN
SCALE 1 : 150



N

GROUND FLOOR PLAN
SCALE 1 : 150



N

FIRST FLOOR PLAN
SCALE 1 : 150

LEGEND

1. PRAYER HALL
2. ALTAR
3. SACRISTY ROOM
4. PRIEST ROOM
5. MEETING ROOM
6. CONFESSION ROOM
7. SMALL CHAPEL
8. COMMITEE OFFICE
9. FELLOWSHIP HALL
10. UTILITY
11. M&E ROOM
12. TOILET
    - MALE
    - FEMALE
    - OKU
13. NARTHEX
14. CHOIR / MAZZENINE
15. P.A SYSTEM ROOM
16. STORE

ROMAN CATHOLIC CHURCH OF HOLY TRINITY

SITE AT LUKUT, PORT DICKSON, NEGERI SEMBILAN

PREPARED BY VANCESTER ANAK RIPON • 131 951 • GROUP 4

FRONT ELEVATION
SCALE 1 : 150

LEFT ELEVATION
SCALE 1 : 150

SECTION X - X
SCALE 1 : 150

SECTION Y - Y
SCALE 1 : 150

VIEW FROM MAIN ENTRANCE

ROMAN CATHOLIC CHURCH OF HOLY TRINITY

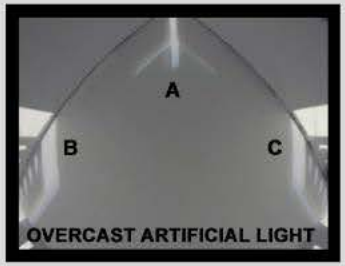
SITE AT LUKUT, PORT DICKSON, NEGERI SEMBILAN

PREPARED BY VANCESTER ANAK RIPON • 131 951 • GROUP 4

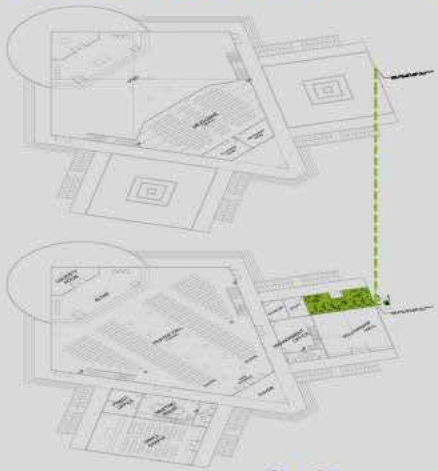
LIGHTING ANALYSIS

DAYLIGHT IS A CREATIVE STRATEGY IN PASSIVE DESIGN. THE SUN IS SOURCE OF DAYLIGHT AND CAN BE USED AS NATURAL LIGHTING WITH LESS CONSUMPTION OF ELECTRICITY. THUS, A GOOD LIGHTING SHOULD BE DESIGN WELL IN ORDER TO AHIEVE ENOUGH LIGHTING. HENCE, WITH GOOD LIGHTING IT CAN REDUCE SPENDING ON YOUR BUILDING BILL.

THE HOLY TRINITY CHURCH GET THE DAYLIGHT BY USING A VERTICAL OPENING AT A THREE DIFFERENT SIDE. THE ANALYSIS SHOW A GOOD LIGHTING EFFECT AT 3 PM. WHY 3PM? BECAUSE IN ROMAN CATHOLIC, MOST OF SPECIAL MASS BEING CONDUCT DURING EVENING. THE RESULT SHOWS THAT THE LIGHTING COMING GIVE PEACE AND LESS GLARE TO THE CHURCH SPACE

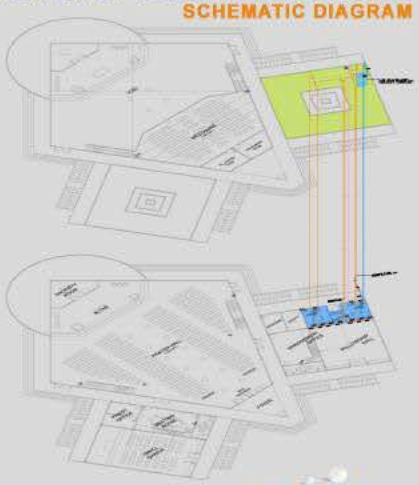


SEWERAGE SCHEMATIC DIAGRAM



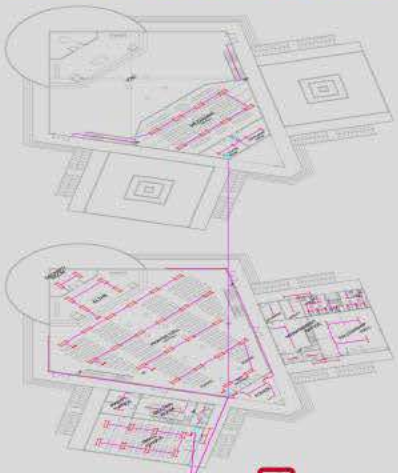
AGENCY / COMPANY INVOLVE : IndahWater

WATER SUPPLY & RAINWATER HARVESTING SCHEMATIC DIAGRAM

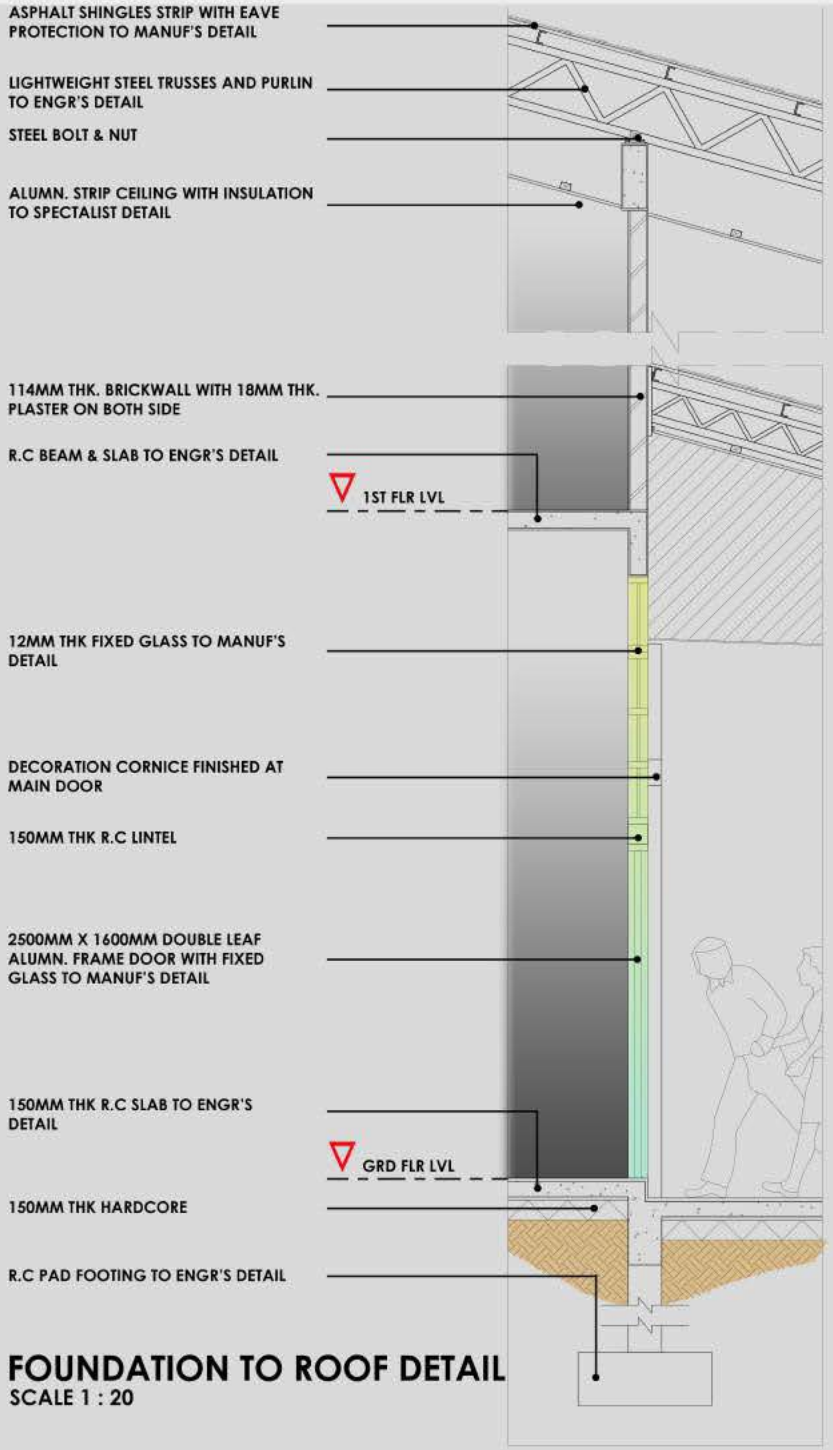


AGENCY / COMPANY INVOLVE : sains Syarikat Air Negeri Sembilan (SAINS)

ELECTRICAL SCHEMATIC DIAGRAM



AGENCY / COMPANY INVOLVE : TENAGA NASIONAL BERHAD



FOUNDATION TO ROOF DETAIL

SCALE 1 : 20

PROJECT 1:
A PLACE OF WORSHIP
(TEMPLE)

SHARARATH BUNJARAT AP SENG CHUAN
131946

SHARARATH BUNJARAT A/P SENG CHUAN **131946**

LO:TUS TEMPLE

PURITY OF THE BODY, SPEECH, AND MIND

THIS IS A PLACE FOR BUDDHIST WORSHIPPING, PRAYING, MEDIATION, THINKING AND CONTEMPLATION, AS WELL AS A PLACE SATISFYING THE NEEDS OF DAILY LIFE. THE BUILDING IS LOCATED BY THE RIVER. THE DESIGN STARTED FROM THE CONNECTION BETWEEN THE BUILDING AND NATURE, ASSEMBLED THE SHAPE OF A LOTUS FLOWER. A PLACE WITH POWER OF PERCEPTION WHERE PLANTS, WATER, BUDDHA AND HUMAN COEXIST IS THUS CREATED.

THE SITE PLAN AND BUILDING IS DESIGNED BASED ON THE FIVE ELEMENT OF BUDDHISM, WHICH ARE EARTH, WATER, FIRE, WIND AND VOID. EACH ELEMENTS IS REPRESENTED BY OBJECT, SPACES AND ACTIVITY. MOVING ALONG TO BUILDING DESIGN. TO OBEY THE FACTS OF BUDDHIST TEMPLE DESIGN, THE WORSHIP HALL IS DESIGNED FACING EAST. CIRCULAR SHAPE OF THE PLAN RESEMBLED THE DHARMA WHEEL, THE LOTUS FLOWER, AND ZEN ENSO. IT IS THEN CUT OFF ACCORDING TO LOCAL WIND PATTERN TO MAXIMIZE THE NATURAL VENTILATION. THE TEMPLE IS DESIGNED WITH CURVED LAMINATED TIMBER AND GLASS, WHERE THE LIGHT AND THE SHADOW GET THROUGH THE GLASS AND FLOW INTO THE INTERIOR SPACE SOFTLY ALONG THE CURVED WALL, EXAGGERATING THE LIGHT OF BUDDHA. THE ENVELOPE WHICH RESEMBLE THE LOTUS PETAL IS MADE OF PERFORATED STEEL SO THAT IT CAN ACT AS SUN SHADING AND ALSO GIVE AN INTERESTING SHADOW INTO INTERIOR.

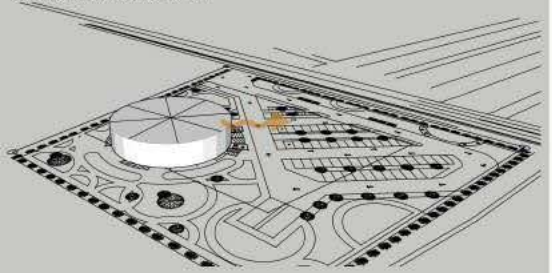
KEY PLAN SCALE N.T.S

LOCATION PLAN SCALE N.T.S

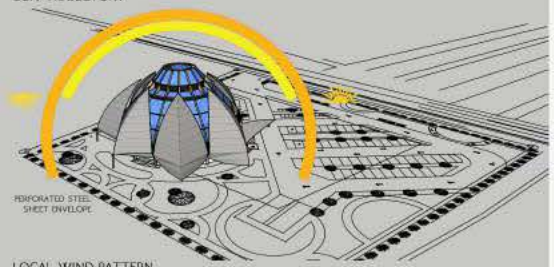
ADDRESS	:	LOT **4034**, JALAN KUALA LUKUT, **71010**, PORT DICKSON, NEGERI SEMBILAN
AREA	:	**10,000** SQM / **1** HECTAR
TYPE OF SITE	:	COMMERCIAL
OWNER SITE	:	MR TAN WEI CHANG

SITE ANALYSIS

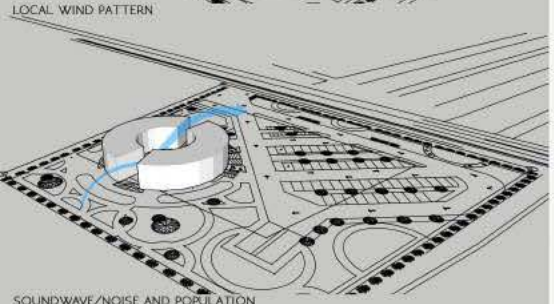
BUILDING ORIENTATION FACING EAST



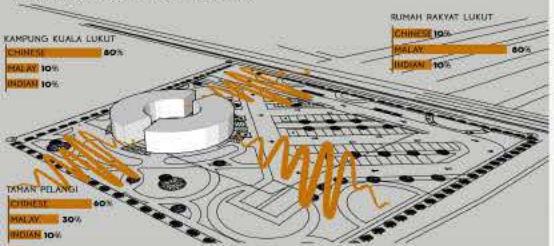
SUN TRAJECTORY



LOCAL WIND PATTERN



SOUNDWAVE/NOISE AND POPULATION



IDEA AND CONCEPT

THE FIVE ELEMENT PHILOSOPHY IS DERIVED FROM BUDDHIST BELIEFS. THE FIVE ELEMENTS ARE, IN ASCENDING ORDER OF POWER, EARTH WATER, FIRE, WIND, AND VOID.

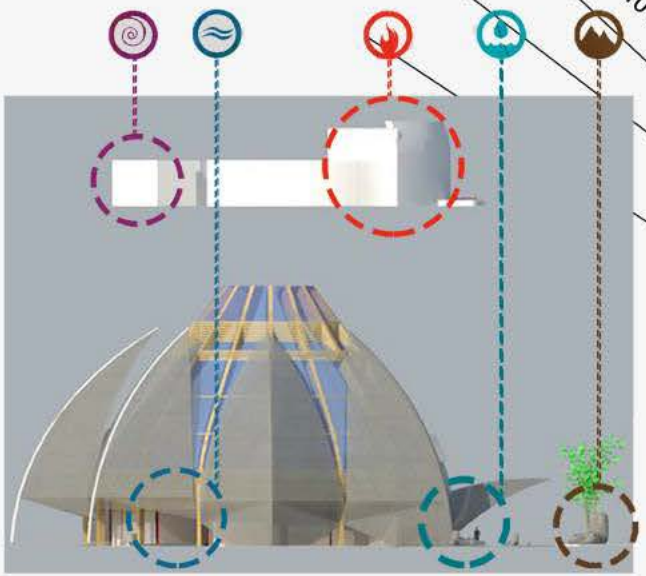
地 EARTH
HARD SOLID OBJECTS ON EARTH SUCH AS STONE ;
REPRESENT BONES MUSCLE, TISSUES IN HUMAN BODY.
MEANS STABILITY, GRAVITY, PHYSICALITY

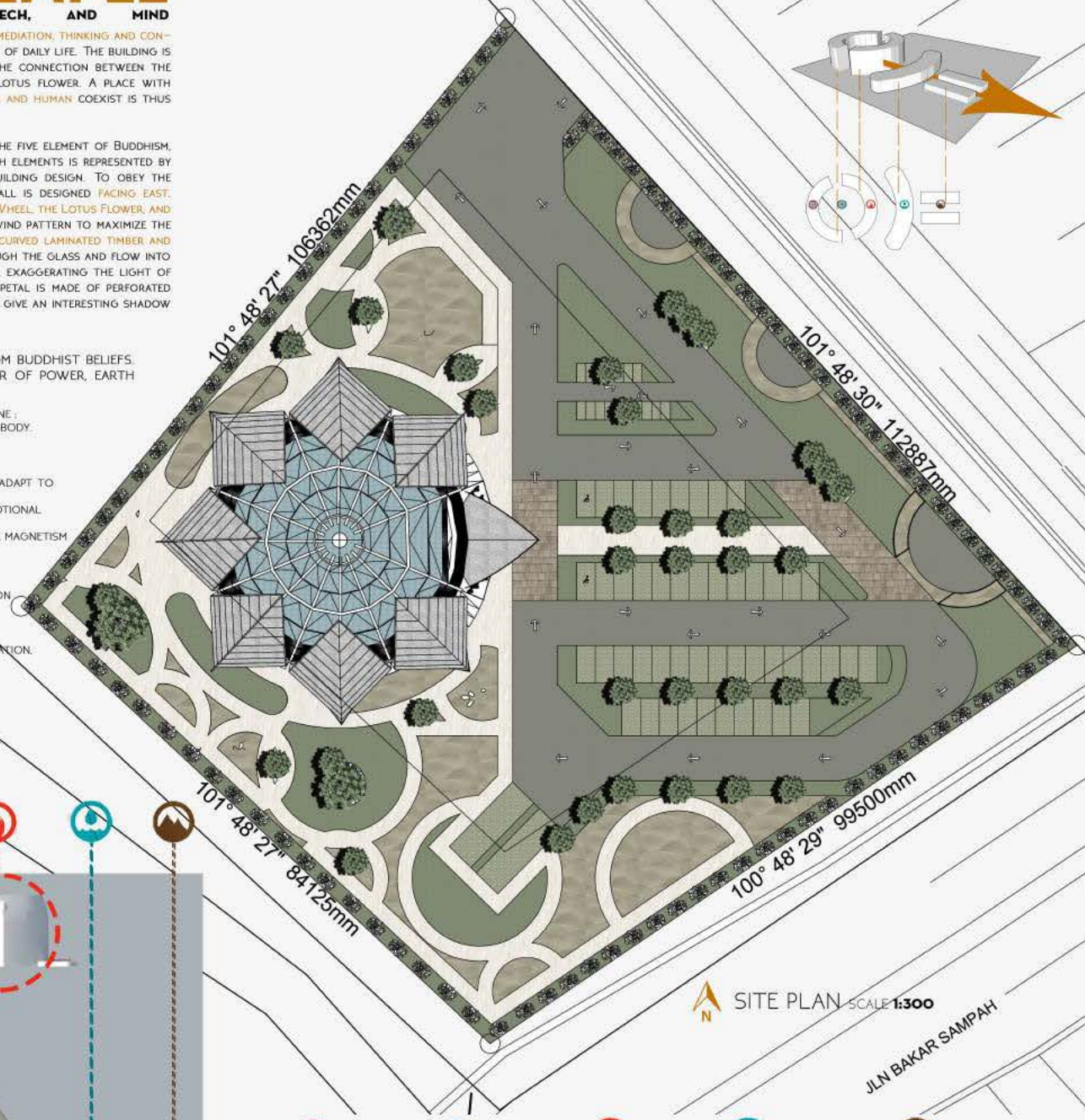
水 WATER
FLUID, FLOWING (WATER ELEMENT) OR PLANTS (ADAPT TO ENVIRONMENT, GROWING
REPRESENT BLOOD IN HUMAN (MENTAL AND EMOTIONAL TENDENCIES)
MEANS EMOTION, DEFENSIVENESS, ADAPTABILITY, MAGNETISM

火 FIRE
ENERGETIC, MOVING, FORCEFUL ;
REPRESENT METABOLISM, BODY HEAT
MEANS SECURITY, MOTIVATION, DESIRE, INTENTION

風 WIND
GROW, EXPAND, FREEDOM OF MOVEMENT ;
REPRESENT HUMAN MIND (BREATHING, RESPIRATION, OPEN MIND ATTITUDE
MEANS WILL, ELUSIVENESS, EVASIVENESS, BENEVOLENCE

空 VOID
VOID, SKY, HEAVEN, MARTIAL ARTS
REPRESENT SPIRIT, THOUGHT, CREATIVE ENERGY
MEANS QUINTESSENTIAL CREATIVE ENERGY





SITE PLAN SCALE **1:300**

VOID
MEDITATION HALL, ZEN GARDEN, MONASTERY, ROOF GARDEN
MEDITATING, PLANTING, YOGA, MARTIAL ARTS LIKE TAICHI

WIND
NATURAL VENTILATION, OPEN AREA
LEISURE WALK

FIRE
WORSHIP HALL
BURNING INCENSE STICK AND CANDLES, PRAYING

WATER
LOTUS POND
WELCOMING ENTRANCE

EARTH
ROCK (ZEN GARDEN)
LANDSCAPING ON SITE

SHARARATH BUNJARAT A/P SENG CHUAN **131946**

LO:TUS TEMPLE

PURITY OF THE BODY, SPEECH, & MIND

LEGEND

1	WORSHIP HALL	– **177** SQM
2	DINING	– **63.5** SQM
3	KITCHEN	– **31.6** SQM
4	MUSEUM	– **56.75** SQM
5	SHOP	– **31.5** SQM
6	TOILET	– **124.5** SQM
7	OFFICE	– **13.5** SQM
8	MONESTERY	– **37.4** SQM
9	MEETING ROOM	– **11.05** SQM
10	MEDITATION HALL	– **46** SQM
11	CLASSROOM	– **31.6** SQM
12	SERVICE ROOM	– **12.65** SQM
13	ROOF GARDEN	
14	STUDY AREA	– **31.55** SQM

FLOOR PLAN

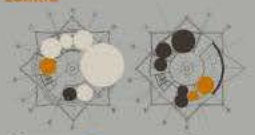
CIRCULAR SHAPE OF THE PLAN RESEMBLED

ZEN ENSO
ENLIGHTENMENT, INFINITY, STRENGTH, ELEGANCE, THE UNIVERSE, AND THE VOID

DHAMMA WHEEL
BUDDHIST DHARMA, GAUTAMA BUDDHA'S TEACHING AND WALKING OF THE PATH TO NIRVANA, SINCE EARLY BUDDHISM

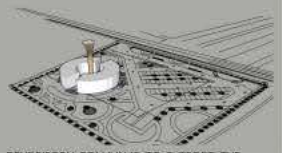
LOTUS FLOWER
SYMBOLIC OF PURITY OF THE BODY, SPEECH, AND MIND

ZONING



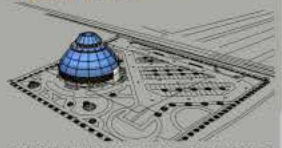
PRIVATE SEMI-PUBLIC PUBLIC

DESIGN PROCESS



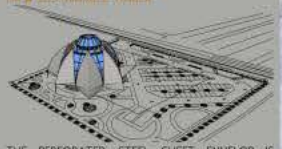
DENDRIFORM COLUMN IS TO SUPPORT THE STRUCTURE AND ALSO ACT AS A RAIN COLLECTOR TO THE RAINWATER TANK UNDERGROUND.

WATER EFFICIENCY
WE **1** RAINWATER HARVESTING
WE **2** WATER RECYCLING



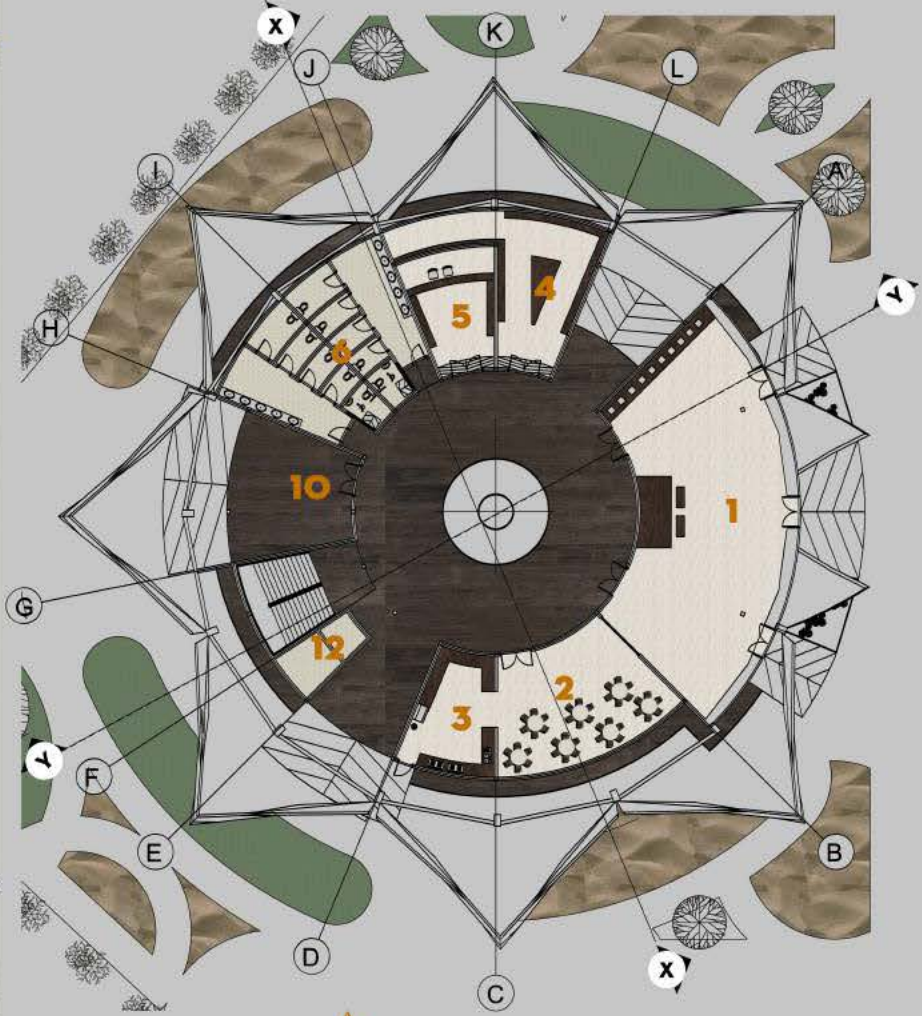
CURVED LAMINATED SALVAGED TIMBER USED AS THE STRUCTURE. SPACES BETWEEN TIMBER IS EITHER LOUVRES / GLASS. LOUVRES PLACEMENT IS DESIGNED ACCORDING TO THE STACK VENTILATION SYSTEM, WHICH IS ONE AT BOTTOM, THE OTHER ONE IS NEAR THE ROOF. GLASS IS USED TO MAXIMIZE THE NATURAL LIGHTING.

MATERIALS AND RESOURCES
MR **3** SUSTAINABLE TIMBER

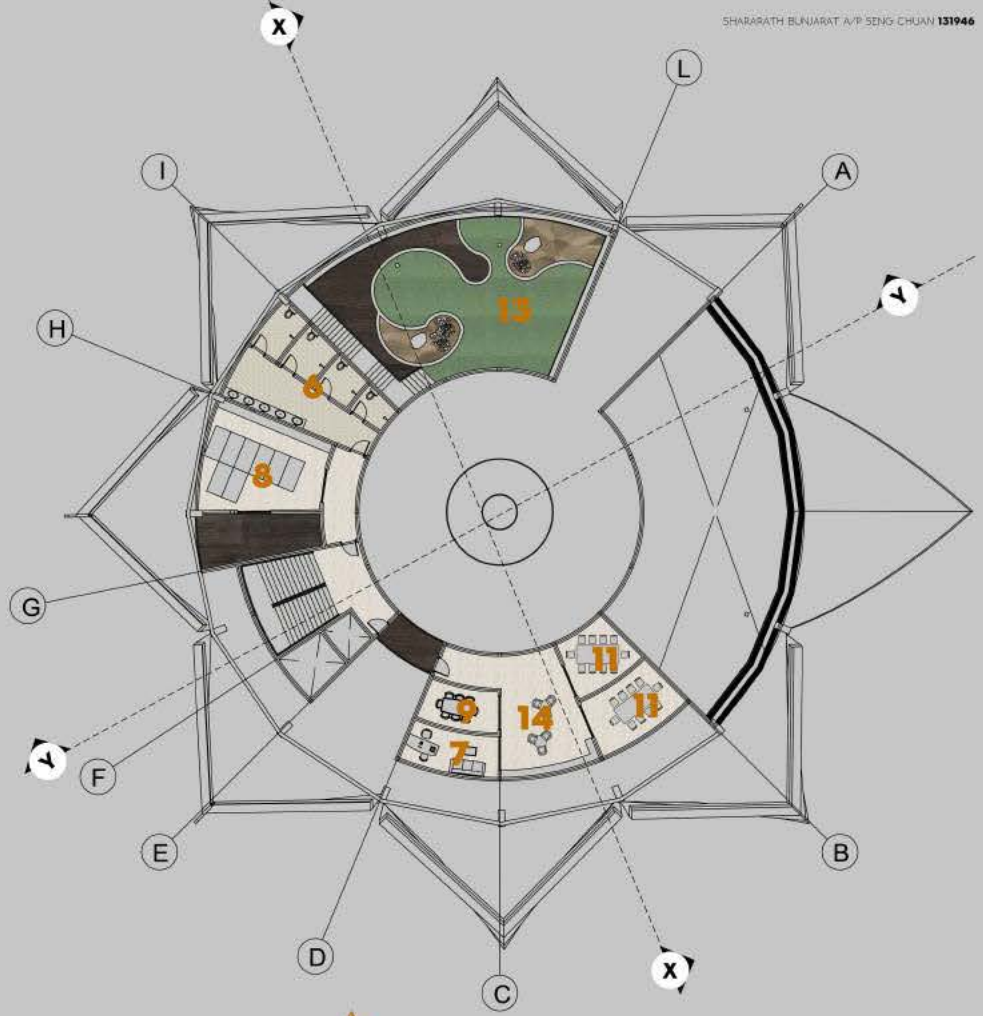


THE PERFORATED STEEL SHEET ENVELOP IS DESIGNED LIKE LOTUS PETAL. THE ENVELOPE ACT AS THE SUNSHADING AND AS A SENSE OF AESTHETIC VALUE. THE PERFORATED STEEL SHEET IS A BREATHABLE ENVELOPE. THE ENVELOPE GIVE A SENSE OF DIFFERENCES IN LIGHT AND SHADOW DIRECT INTO THE INTERIOR.

INDOOR ENVIRONMENTAL QUALITY
EQ **8** DAYLIGHTING
EQ **15** EXTERNAL VIEWS

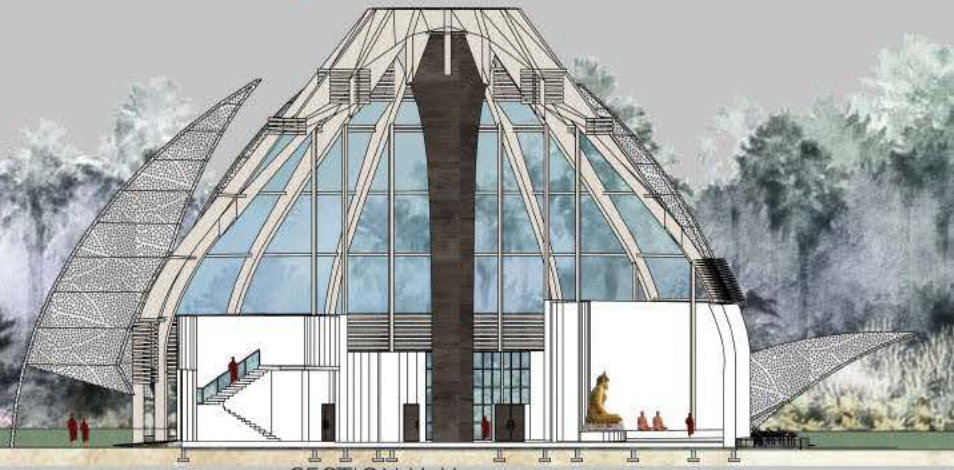


GROUND FLOOR PLAN SCALE **1:150**



FIRST FLOOR PLAN SCALE **1:150**

SECTION X–X SCALE **1:150**

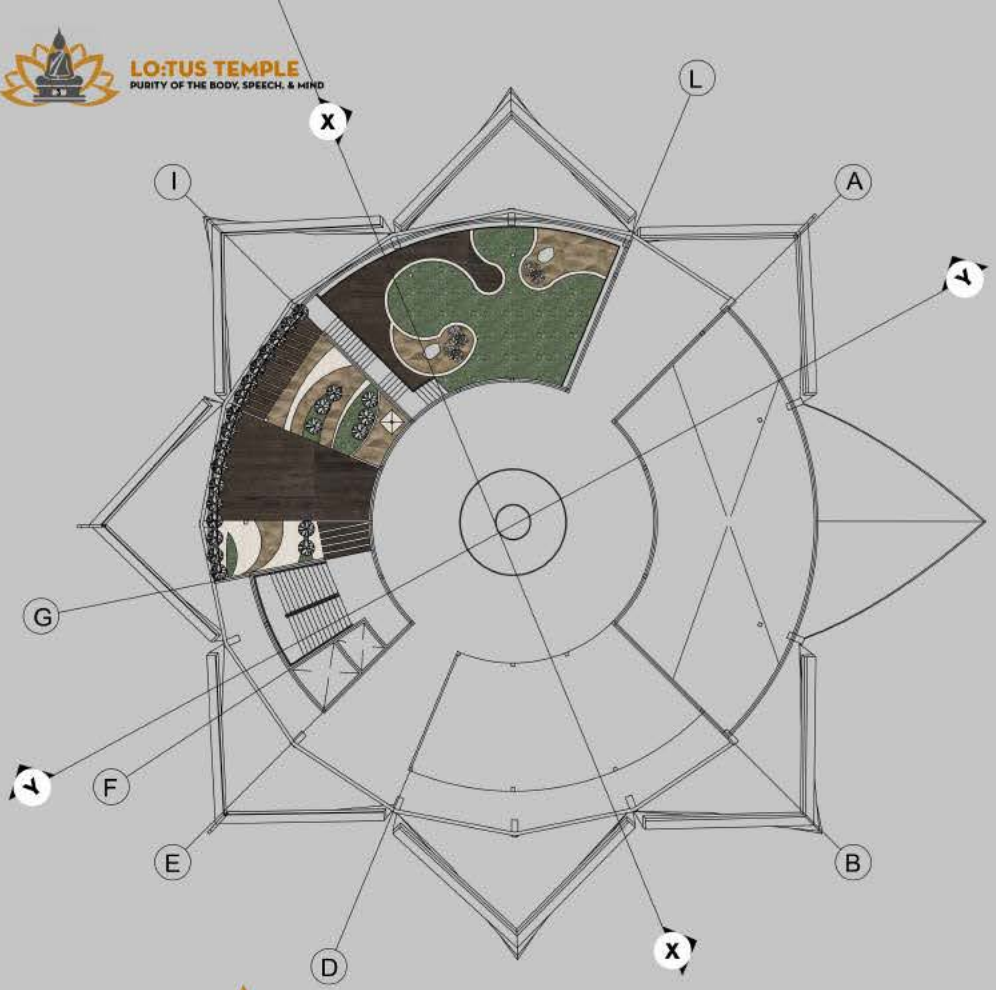


SECTION Y–Y SCALE **1:150**

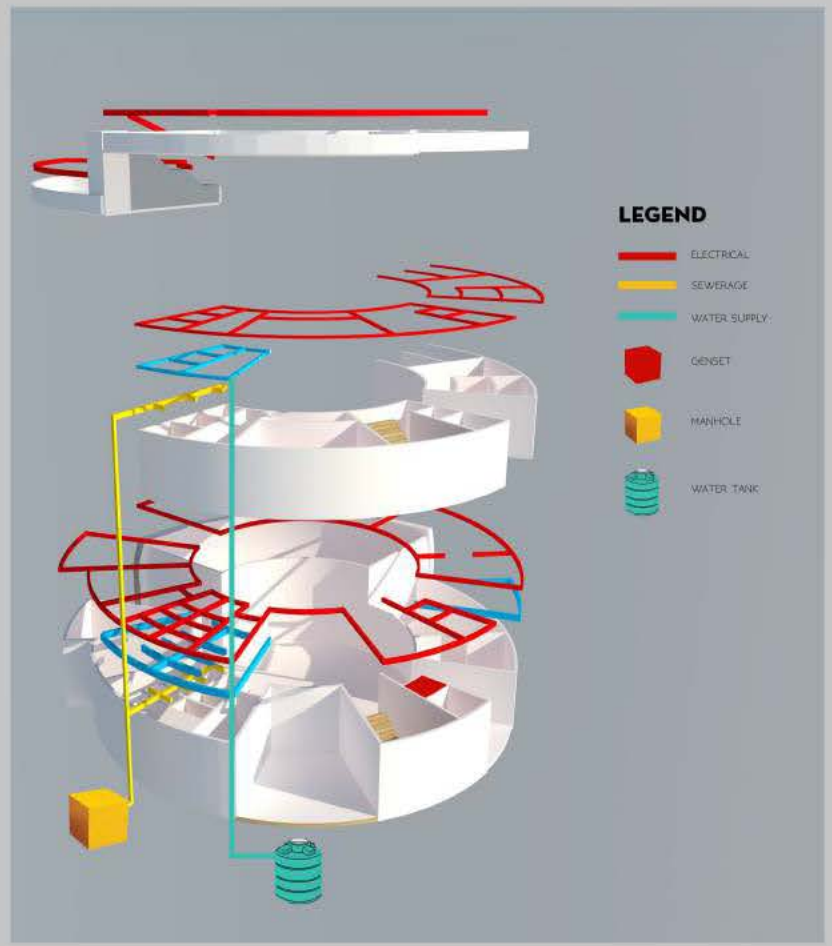
SHARARATH BUNJARAT A/P SENG CHUAN **131946**

LO:TUS TEMPLE

PURITY OF THE BODY, SPEECH, & MIND



SECOND FLOOR PLAN SCALE **1:150**

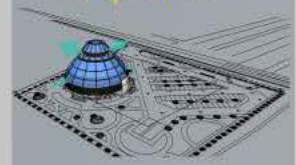


ELECTRICAL, WATER SUPPLY & SEWERAGE SCHEMATIC DIAGRAM

GREEN TECHNOLOGY

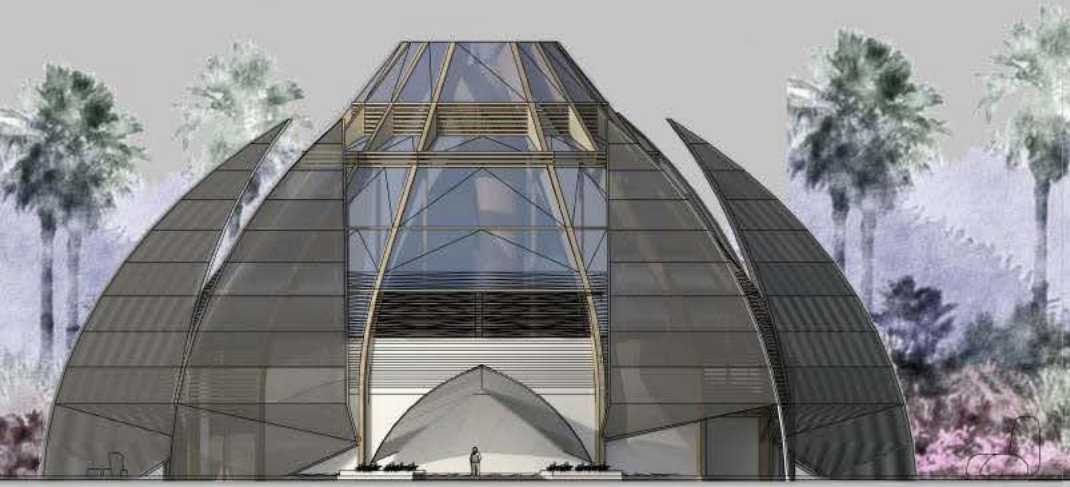
DENDRIFORM COLUMN ACT AS A RAIN COLLECTOR AND CHANNELED IT INTO THE UNDERGROUND RAINWATER HARVESTING TANK WHICH WILL THEN BE TREATED AND FILTERED AND DISTRIBUTED TO TOILET FOR FLUSHING OR EVEN FOR WATERING THE LANDSCAPE.

THE LOUVRES DESIGN WAS TO MIMIC THE VENTILATION STACK SYSTEM WHERE THE LOUVRES IS LOCATED AT TWO DIFFERENT HEIGHT. AS THE LOWER PART LOUVRES ACCEPTING COOL AIR FROM THE OUTSIDE, WHICH THEN TURN IN TO HOT AIR WITHIN THE BUILDING SPACE, AND THE HOT AIR WILL EXERT FROM THE BUILDING THROUGH THE HIGHER LOUVRES.



SUSTAINABLE SITE PLANNING & MANAGEMENT

SM **4** GREEN VEHICLE PROPRITY – LOW EMITTING & FUEL EFFICIENT VEHICLES
SM **5** PARKING CAPACITY – **1** PARKING PER **25** SQM HALL (**2** OKU, **46** CAR, **2** BUS, **15** MOTORCYCLE)
SM **6** GREENERY & ROOF (ZEN GARDEN AS LANDSCAPE, GREEN ROOF – ROOF GARDEN, GRASSCRETE PARKING



EAST ELEVATION SCALE **1:150**

SOUTH ELEVATION SCALE **1:150**

LO:TUS TEMPLE

PURITY OF THE BODY, SPEECH, & MIND

16 - 16 - 4 LOW EMISSIVITY GLASS - **6MM** OUTER GLASS, **16MM** SPACE, **4MM** INNER GLASS, **26MM** THICK GLASS PANEL

350MM THK CURVED LAMINATED TIMBER

200MM WIDTH WITH **150MM** THK SALVAGED TIMBER LOUVRES WITH A LENGTH OF **6500MM** AND **100MM** IN BETWEEN EACH LOUVRE VERTICALLY

6 MM THK PERFORATED STEEL SHEET TO MANUFS DETAIL

200MM WIDTH WITH **150MM** THK SALVAGED TIMBER LOUVRES WITH A LENGTH OF **6500MM** AND **100MM** IN BETWEEN EACH LOUVRE VERTICALLY

350MM THK CURVED LAMINATED TIMBER

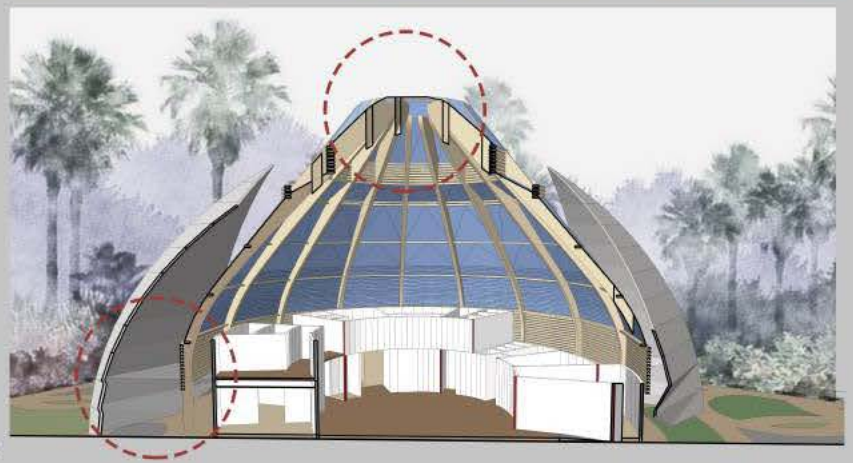
STAIRCASE CONSTRUCTION
THREAD - **260MM**
RISER - **160MM**
WIDTH - **2000MM**
NUMBER OF STEPS - **25**
HEIGHT - **4000MM**

200 MM THK BRICKWALL WITH **17MM** THK PLASTERED ON BOTH SIDE

200 MM THK REINFORCED CONCRETE HARDCORE WITH WATERPROOFING MEMBRANE

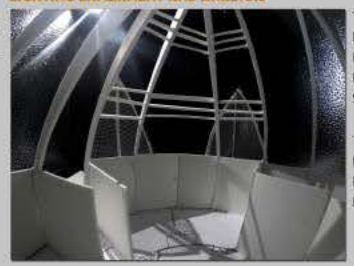
REINFORCED CONCRETE GROUND BEAM AND FOUNDATION TO ENGR DETAIL

FOUNDATION TO ROOF DETAIL SCALE **1:20**



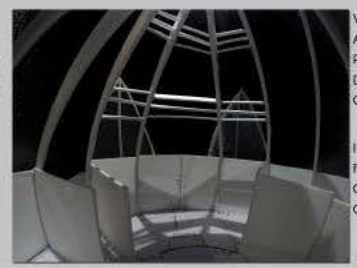
SECTIONAL PERSPECTIVE SCALE **N.T.S**

LIGHTING EXPERIMENT AND ANALYSIS



THE WORSHIP HALL IS FACING EAST WHICH IS WHERE THE SUN RISE. DURING THE SUN RISE, THE SUNLIGHT PENETRATE THROUGH THE PERFORATED STEEL SHEET LOTUS PETAL ALIKE SHAPED ENVELOPE, THE PATTERN OF THE PERFORATED STEEL SHEET FORMS A INTERESTING SHADOW THROUGH THE GLASS.

THE CURVED LAMINATED TIMBER ALSO FORMED A VERTICAL SHADOW INTO THE WORSHIP HALL. THE COMBINATION SHADOW OF THE PERFORATED STEEL SHEET AND LAMINATED TIMBER RESEMBLE THE STEM OF LOTUS FLOWER TO BLOOM THROUGH ALONG THE LEAVES.T



WHEN THE SUN NEARLY REACH OR REACH ON TOP OF THE BUILDING, ANOTHER PATTERN OF SHADOW IS FORMED WHICH IS THROUGH THE PLACEMENT OF LOUVRES ALONG THE LAMINATED TIMBER. THE LOUVRES DOES NOT JUST ACT AS A VENTILATION BUT ALSO BY CREATING A CIRCULAR SHAPE OF SHADOW.

IN CONCLUSION, FROM THESE STRUCTURE, THERE IS SHADOW FORMED FROM THE PERFORATED STEE; SHEET, THE LOUVRES WHICH CREATES CIRCULAR SHAPE SHADOW, AND THE CURVE LAMINATED TIMBER CREATES VERTICAL SHADOW.

PROJECT 2:
JOHOL AGROTOURISM CENTRE (JAC)

ADILAH BINTI MOHAMMAD SHAHUDDIN
131904

JOHOL AGROTOURISM CENTRE

JOHOL, NEGERI SEMBILAN

INTERACTIVE DAIRY FARM AND APAM JOHOL

PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904

AGROTOURISM

AGRO-TOURISM IS A TOURISM CONCEPT THAT IS RAPIDLY GAINING POPULARITY IN MALAYSIA AS IT OFFERS TOURISTS AN ASSORTMENT OF ACTIVITIES RELATING TO THE AGRICULTURE SECTOR. MALAYSIA IS A COUNTRY RICH IN AGRICULTURAL RESOURCES.
AMONG THE AGRO-TOURISM ACTIVITIES THAT ARE WELL RECEIVED ARE VISITS TO ORCHARDS AND ANIMAL FARMS, RESEARCH CENTRES AND HOMESTAYS.

JOHOL

JOHOL TOWN HAVE NOT SEEN RAPID DEVELOPMENT OVER THE PAT DECADES.. THEY INITIATED A COLLABORATIVE VENTURE TO CREATE A RESEARCH AND KNOWLEDGE HUB IN JOHOL. THESE ACTIVITIES ARE SEEN TO EMPOWER THE LOCAL FARMERS WITH THE KNOW-HOW TO GENERATE INCOME AND IMPROVE THE SOCIO-ECONIMIC STATUS OF THE SLEEPY TOWN.

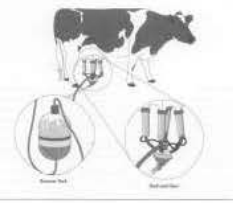
WHAT YOU CAN SEE HERE ?

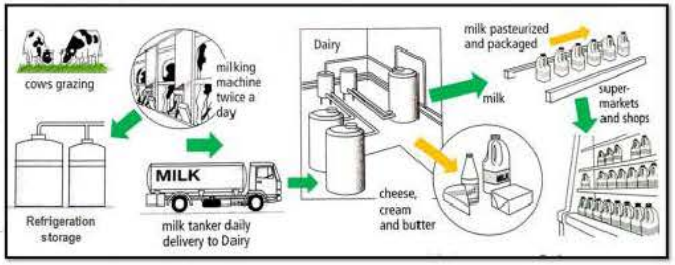
WE CAN SEE LIVE HOW BREEDERS ARE REARING CATTLES, MANAGING AND SEE MILKING PROCESS ACTIVITIES AND VISITORS CAN LEARN NEW KNOWLEDGE AND CONVEY TO THE COMMUNITY THE REAL LIFE OF THE COW.
WE CAN LEARN ABOUT CATTLE BREEDS AND LEARN THE HISTORY OF CATTLE BREEDING THAT HAS LONG BEEN IMPLEMENTED IN JOHOL

WHAT CAN YOU DO HERE ?

WE CAN JOIN THE COW MILKING ACTIVITIES, LEARN HOW TO MANAGE COWS AND STUDY COW'S MILK QUALITIY IN THE RESEARCH ROOM
WE ALSO CAN JOIN THE WORKER MAKING APAMJOHOL, LEARN THE TECHNIQUES OF MAKING AND THE INGRIDIENTS NEED.

MILK PROCESSING INFROMATION





MINANGKABAU

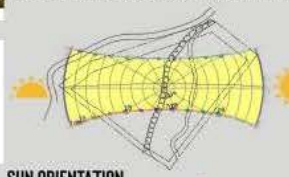
THE MINANGKABAU TRADITIONAL HOUSE OR BETTER KNOWN AS RUMAH GADANG HAS A VERY SPECIAL CHARACTERISTIC ON THE STRUCTURE AND SHAPE OF ITS ROOF. THE BASE FORM OF THE ROOF IS THE SQUARE OF THE PLACE THAT BOILS UPWARDS. THE HORIZONTAL LINES ARE SOMEWHAT CURVED AND SHARP AND RAMPS AND LOWER AT THE BOTTOM OF THE ROOF. IF OBSERVED, THE ROOF OF THE HOUSE IS VERY SHARP LIKE A BUFFALO HORN WHILE THE BODY CURVES AND SLOPING HOUSES LIKE THE HULL. THE ROOF IS MADE OF IJUK.

DIFFERENCES IN THE ARCHITECTURE OF NEGERI SEMBILAN TRADITIONAL HOUSES AND MINANGKABAU HOUSES

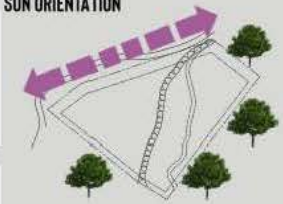
KEY PLAN

LOCATION PLAN

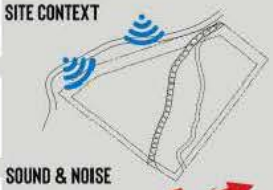
SITE INVENTORY& ANALYSIS



SUN ORIENTATION

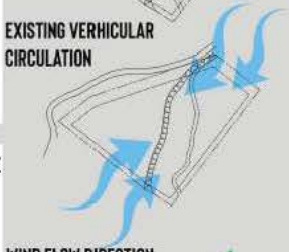


SITE CONTEXT

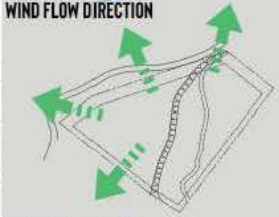


SOUND & NOISE

EXISTING VERHICULAR CIRCULATION



WIND FLOW DIRECTION



SITE POTENTIAL VIEW

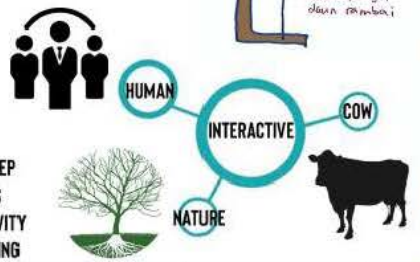
PLANNING

DESIGN CONCEPT

DESIGN CONCEPT IS INTERACTIVE FARMLAND TO DESIGN AREA OF INTERPRETATION OF RELATIONS OF HUMAN ACTIVITIES AND FARM PROCESSING WHICH ACTIVE IN SENSORY FARMLAND.
BEGIN BY LEARNING CONCEPT WAS PROCEEDED BY USER INSPIRATION TO HUMAN AND NATURE DEPENDENCE PROCESS IN DAIRY FARM AREA STEP BY STEP TO EXPLODE AGRICULTURE INDIGENOUS KNOWLEDGE THAT CAUSE OF BETTER PRODUCTIVITY AND SOCIAL BENEFIT ALONG WALKABLE LEARNING ROUTE.

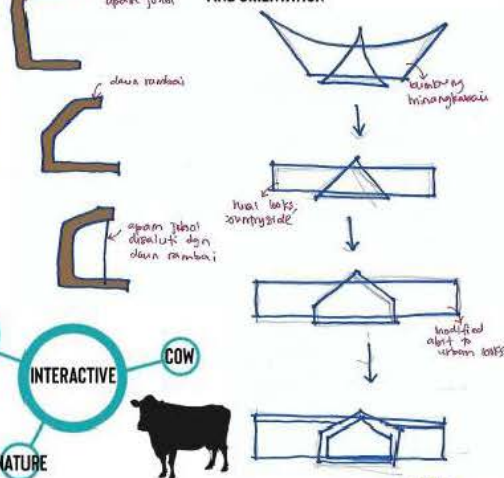
DESIGN IDEA IMPLIMENTED

DAUN RAMBAI & APAM JOHOL



CONCEPTUAL SKETCHES

IDEA FROM MINANGKABAU ROOF STRUCTURE AND ORIENTATION



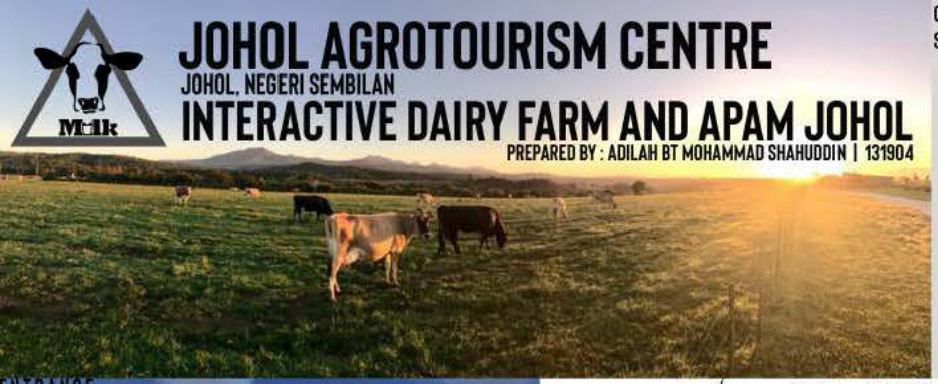
SITE PLAN
SCALE 1:400

JOHOL AGROTOURISM CENTRE

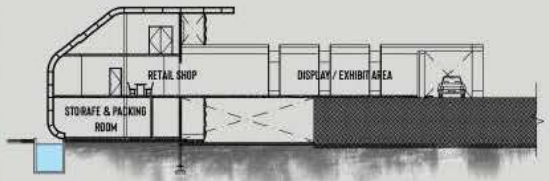
JOHOL, NEGERI SEMBILAN

INTERACTIVE DAIRY FARM AND APAM JOHOL

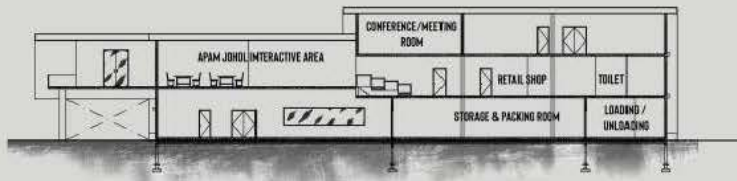
PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904



CROSS SECTION
SCALE 1:200



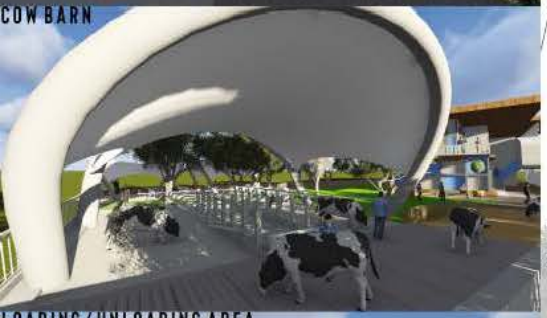
LONGITUDINAL SECTION
SCALE 1:200



ENTRANCE

LOWER GROUND WALKWAY

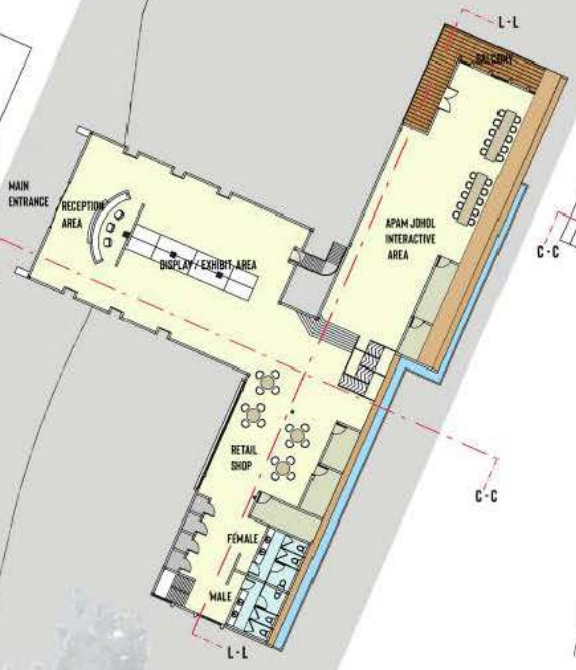
COW BARN



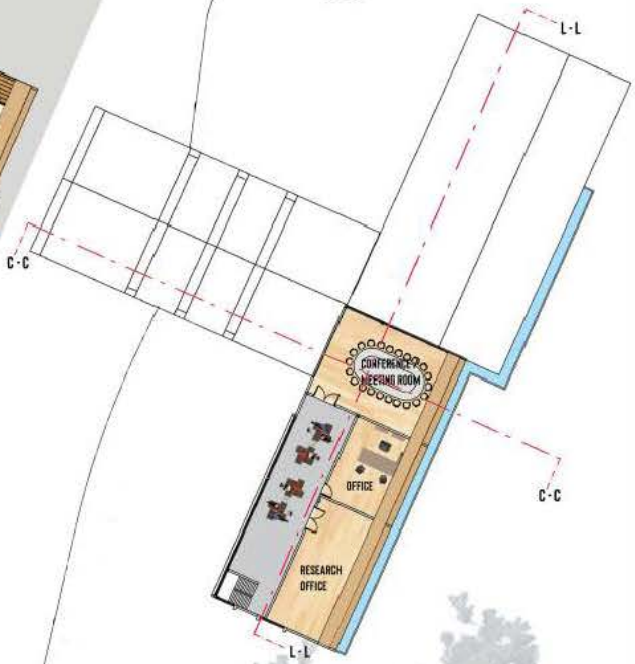
LOADING/UNLOADING AREA

LOWER GROUND FLOOR PLAN
SCALE 1:200

UPPER GROUND FLOOR PLAN
SCALE 1:200



FIRSTFLOOR PLAN
SCALE 1:200



LEFT ELEVATION
SCALE 1:200

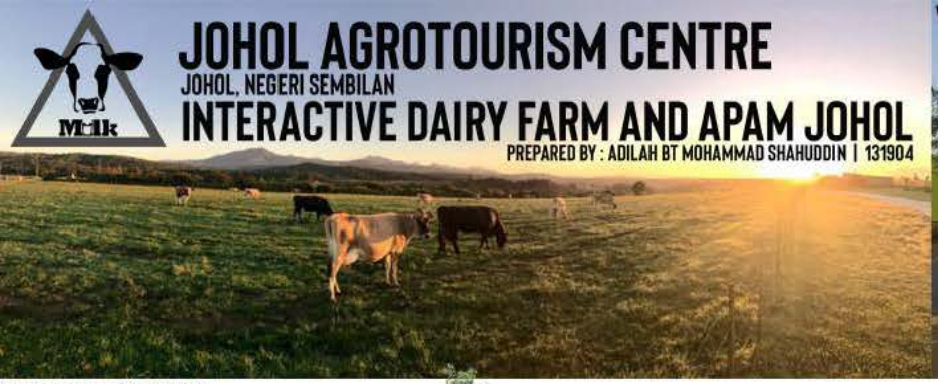
FRONT ELEVATION
SCALE 1:200

JOHOL AGROTOURISM CENTRE

JOHOL, NEGERI SEMBILAN

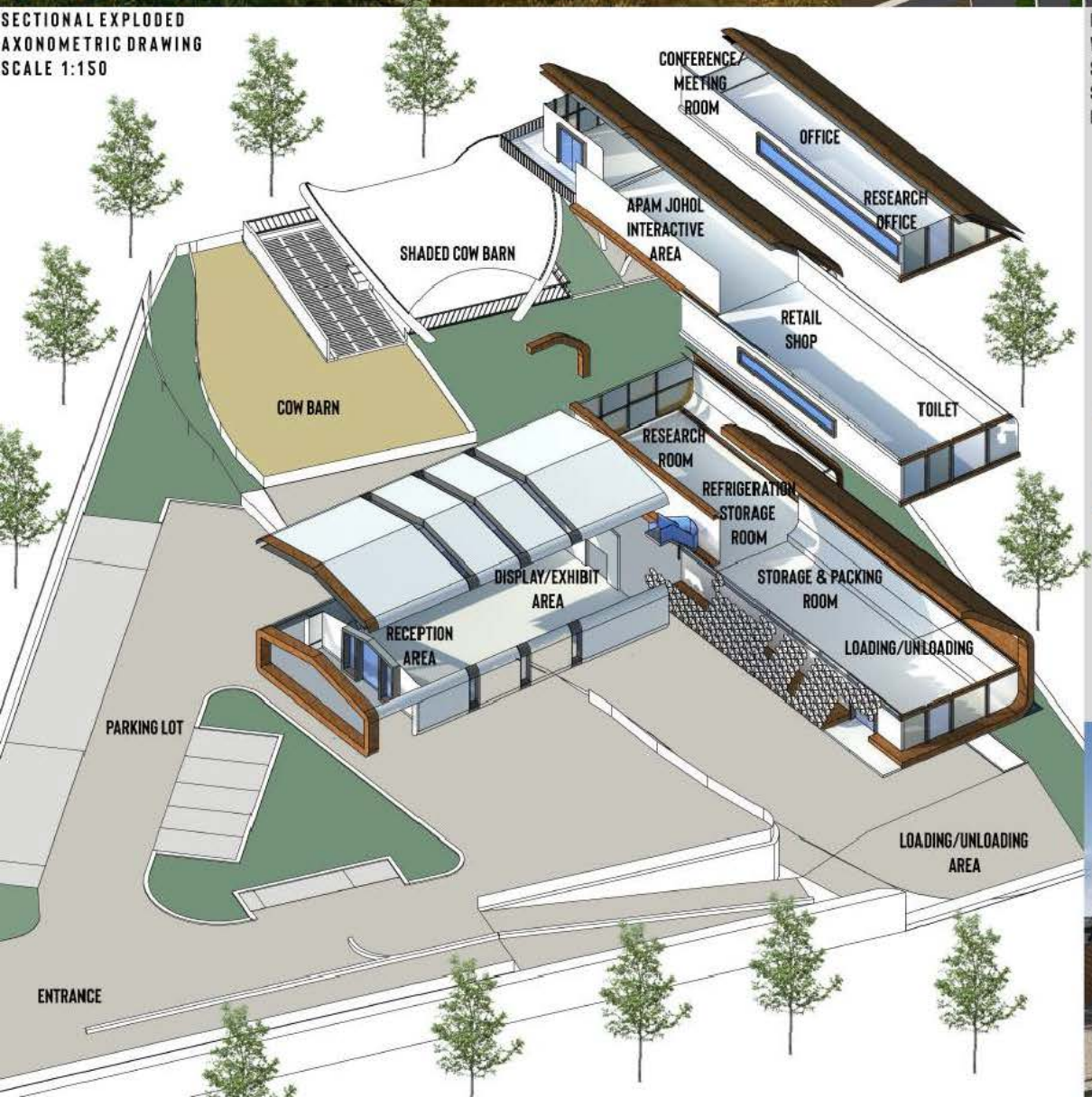
INTERACTIVE DAIRY FARM AND APAM JOHOL

PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904

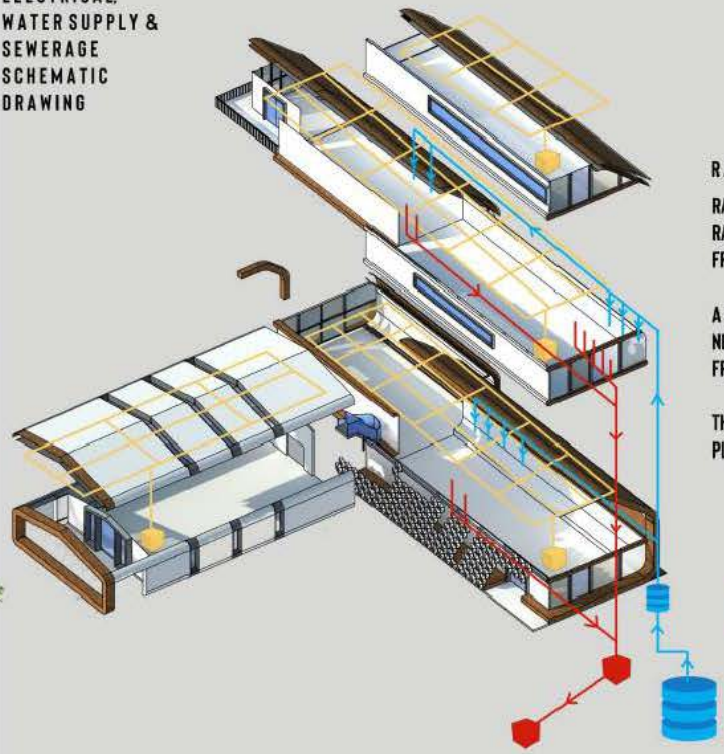


VIEW FROM THE BALCONY

SECTIONAL EXPLODED AXONOMETRIC DRAWING
SCALE 1:150



ELECTRICAL, WATER SUPPLY & SEWERAGE SCHEMATIC DRAWING



LEGEND :

- MANHOLE
- M&E
- WATER TANK

RAINWATER HARVESTING

RAINWATER RECYCLING INVOLVES COLLECTING RAINWATER FROM A BUILDING'S ROOF OR FROM ANY OTHER SURFACE

A WATER STORAGE OR HOLDING TANK IS NEEDED TO STORE THE WATER COLLECTED FROM THE ROOF OR OTHER SURFACES.

THIS SAVED WATER CAN BE PUMPED TO PLACES WHERE IT IS NEEDED

OUTDOOR LOUNGING AREA

INTERIOR OFFICE

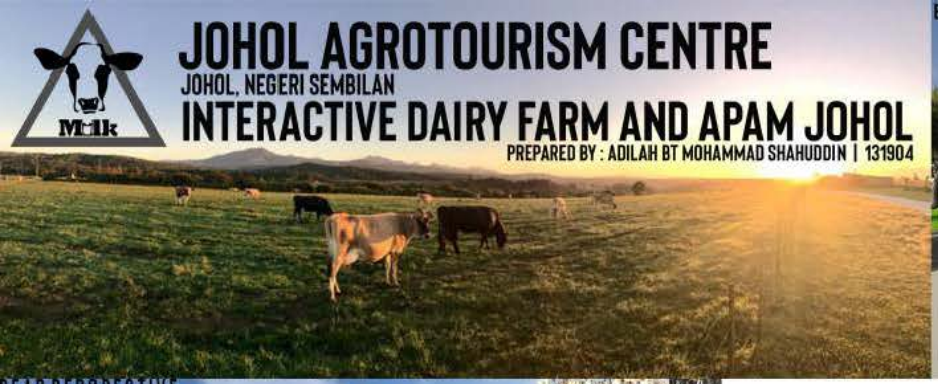
CONFERENCE/MEETING ROOM

JOHOL AGROTOURISM CENTRE

JOHOL, NEGERI SEMBILAN

INTERACTIVE DAIRY FARM AND APAM JOHOL

PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904



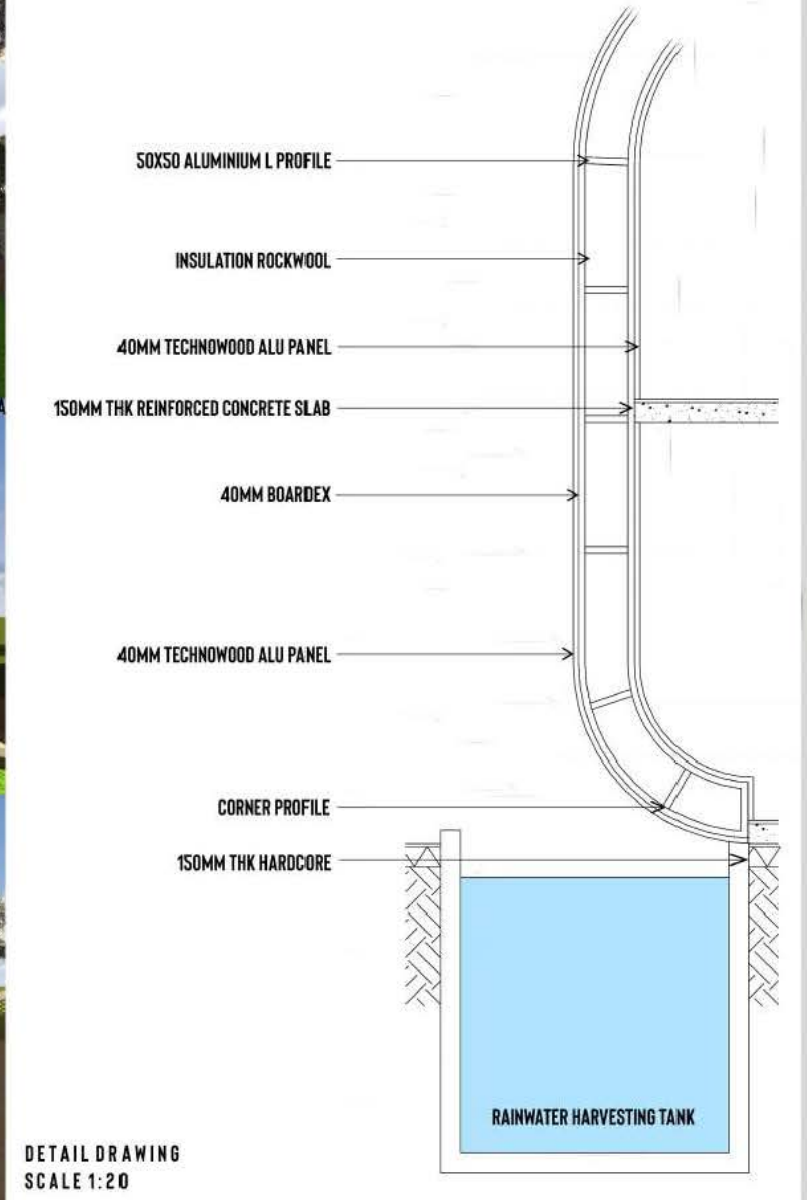
BUGGY ENTRANCE FOR HANDICAP

LOADING / UNLOADING ENTRANCE

REAR PERSPECTIVE

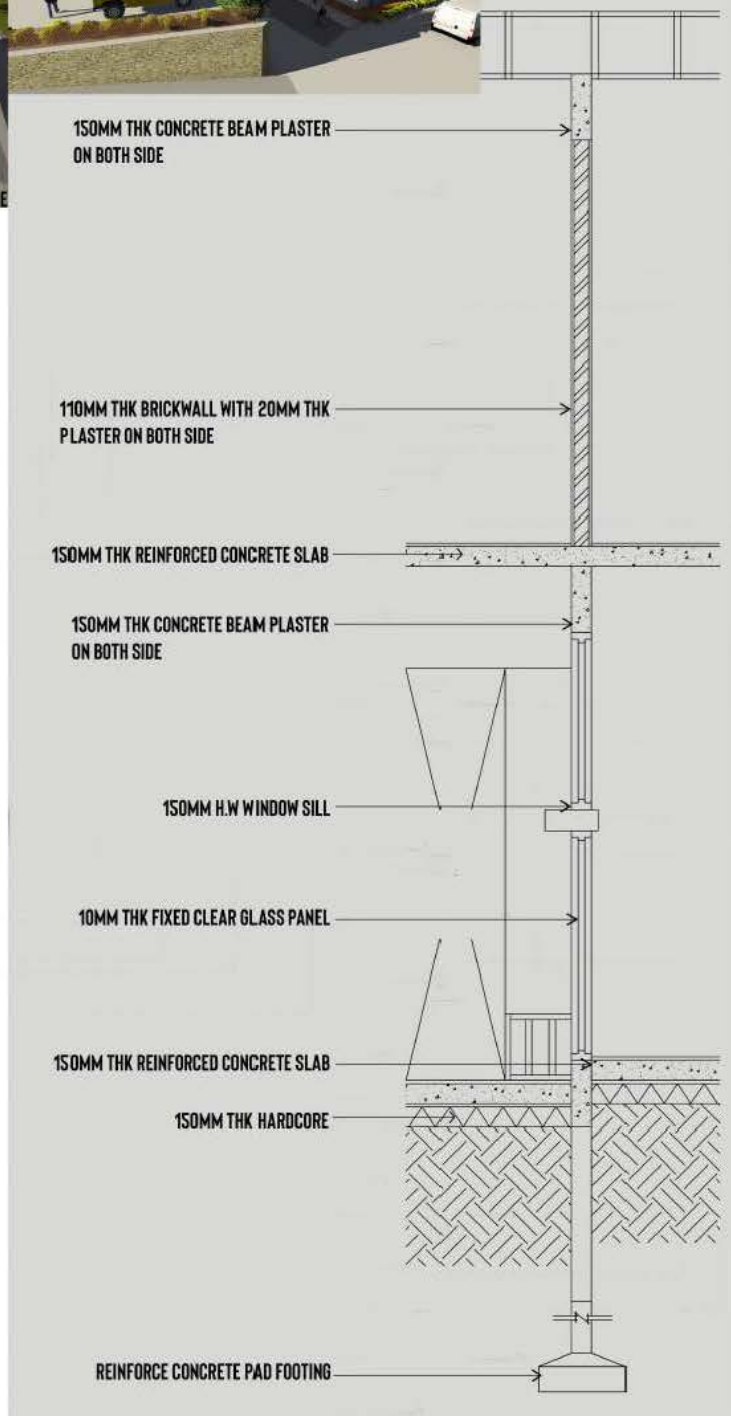
TESTING FRESH MILK AREA

COW BARN



DETAIL DRAWING
SCALE 1:20

DETAIL DRAWING
SCALE 1:20

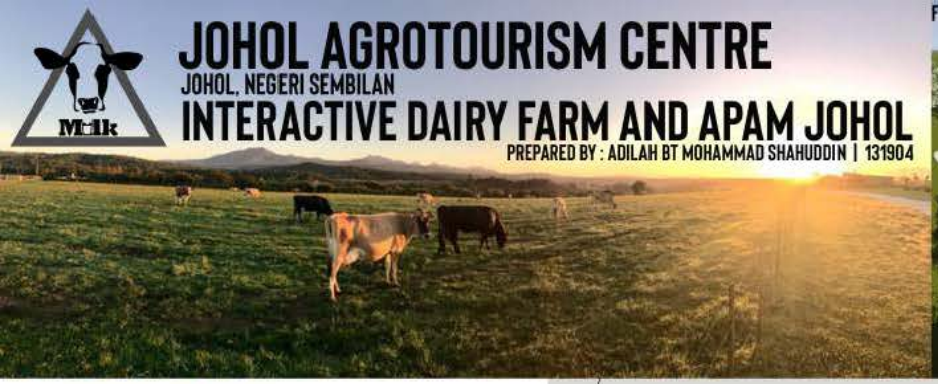


JOHOL AGROTOURISM CENTRE

JOHOL, NEGERI SEMBILAN

INTERACTIVE DAIRY FARM AND APAM JOHOL

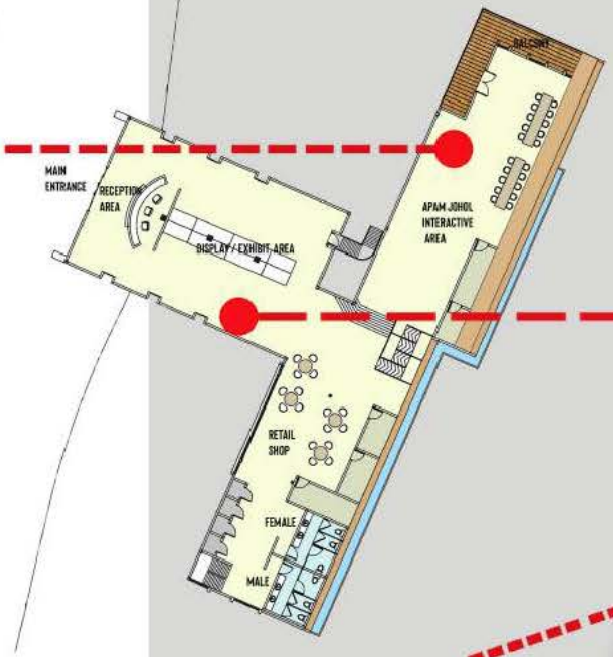
PREPARED BY : ADILAH BT MOHAMMAD SHAHUDDIN | 131904



FULL PERSPECTIVE

ENTRANCE PERSPECTIVE

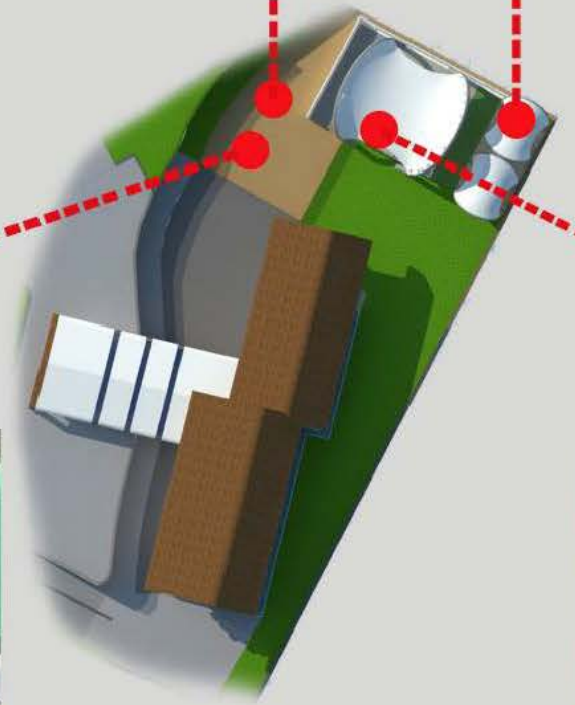
APAM JOHOL MAKING ACTIVITIES



FEEDING COW

TESTING FREST MILK

INDOOR MILKING TRAINEE



OUTDOOR MILKING ACTIVITIES

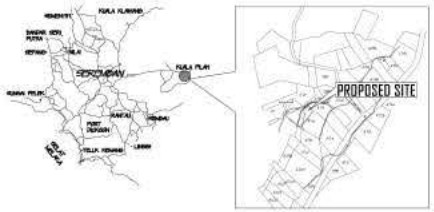
MILKING ACTIVITIES

AMIRUL HELMI BIN AHMAD ZAKI TALHAH
131910

JOHOL AGROTOURISM CENTRE (J A C)

-DISCOVER-LEARN-SPREAD-

AMIRUL HELMI B AHMAD ZAKI TALHAH 131910



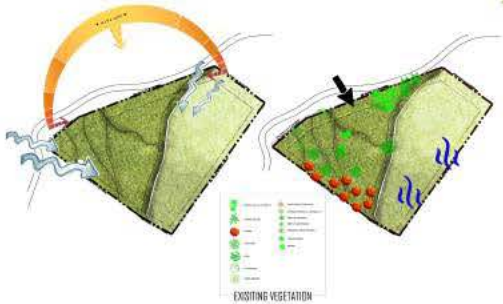
KEY PLAN
N.T.S

LOCATION PLAN
N.T.S

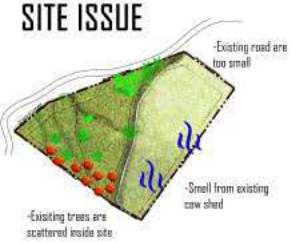
ABOUT SITE

Johol is one of the constituent Minangkabau states that formed Negeri Sembilan. Eventhough Johol is located near tourist attraction such as Gunung Datuk, Istana Seri Menanti and Hutan Lipur Ulu Bendul, Johol town have not seen rapid development over the past decade. The proposed site is located at lot 4716, Jalan Kampung Nuri, Johol Negeri Sembilan. Most of the people here are Malay and mostly work as farmer.

SITE ANALYSIS



SITE ISSUE

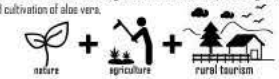


TARGET USER

LOCAL TOURISTS
INT. TOURISTS
STUDENTS
RESEARCHERS
FAMILIES

ABOUT JAC

JOHOL AGROTOURISM CENTRE (J A C) is a research and knowledge hub located in Johol specializing in sustainable agriculture agriculture, farming of tilapia fish and cultivation of aloe vera.



JAC is a quiet and peaceful agrotourism centre which combine the element of nature, agriculture and rural tourism. The establishment of JAC also is to help improve the socio-economic status of the Johol town which has not seen rapid development over the past decade. Beside that, JAC also seen to be capable of promoting the identity of Negeri Sembilan which have the influence of Minangkabau in term of the food, culture, architecture and many more.

KEY INSIGHT (AIM)

The main objective of the Johol Agrotourism Centre (JAC) is to make sure that we deliver a sustainable knowledge that are capable to utilize by the visitor anywhere they go. To make the visitor achieve what we target for them to achieve, we emphasize these 3 point in our learning and teaching process.

DISCOVER

Visitor will experience mildly terrained site with panoramic views to vast greenery and undeveloped area of Johol and discover a sustainable farming technique applied by local farmer.

LEARN

Visitor will be able to get first-hand experience and learn everything about agriculture and farming.

SPREAD

Visitor make benefit the knowledge they get here by practicing it at home, school or anywhere they thus make the knowledge the get here sustainable.

RESEARCH

HORTICULTURE

science and art of growing plants.
Include plant conservation, landscape restoration, soil management, landscape design and arboriculture.

AGROFORESTRY

land use management system in which trees and shrubs are grown around or among crops or pastureland.
It combines shrubs and tree in agricultural and forestry technologies to create more diverse, productive, profitable, healthy, ecologically sound, and sustainable land-use systems

PLANT PATHOLOGY

study of the organisms and environmental conditions that cause disease in plants, the mechanisms by which this occurs, the interactions between these causal agents and the plant (effects on plant growth, yield and quality), and the methods of managing

PRODUCTS

ALOE VERA

-One of the local product that have at Johol Agrotourism Center (JAC) is aloe vera.
There are a lot of aloe vera near the site but the people here does not take advantage of it.So here at JAC, aloe vera commercialize as main product at JAC. The research about benefit of aloe vera will be made at labs provided here.
BENEFIT OF ALOE VERA
-Aloe vera is best known for healing skin, wound and other skin disease. However, there are other benefit that are still under research. Among them are improve digestion, boosts immunity, inhibit cancer growth, heal side effect of radiotherapy, reduce athritis pain relieve joint and muscle pain, cure menstrual problem, reduce blood sugar level and many more.

TILAPIA

-Tilapia is a local product that have already been commercialize. The existing tilapia pond is located at nearby village but it is only pond only. Here at JAC, tilapia will be study for its benefit to us. There are 2 type of tilapia at JAC which are tilapia merah and tilapia biasa.Tilapia also will be used in aquaponic system. The visitor will see how aquaponic system work using tilapia and aloe vera and other plant.
BENEFIT OF TILAPIA
-Growth & development - impressive protein content for children growth
-Low in calory and fat
-Good for bone - contain phosphorus, which is essential for human health
-Prevent cancer - contain high content of Selenium which consider as antioxidant in nature.

CULTIVATION OF ALOE VERA

TILAPIA FISH FARMING

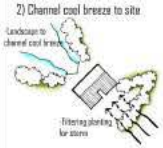
SITE PLAN
SCALE 1:400

AMIRUL HELMI B AHMAD ZAKI TALHAH 131910

DESIGN IDEA

1)Use the agroforestry system in planting vegetation

2) Channel cool breeze to site

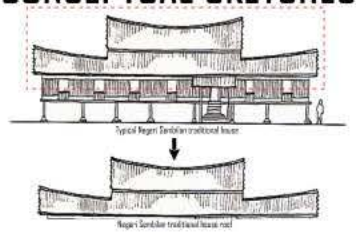


3) Pedestrian walkway for visitor to walk

4) Create path to control visitor flow

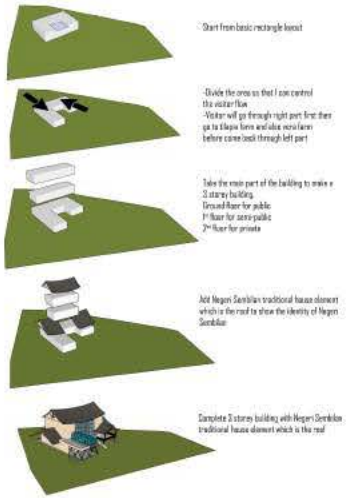
5) Divide the floor according to public & private space

CONCEPTUAL SKETCHES



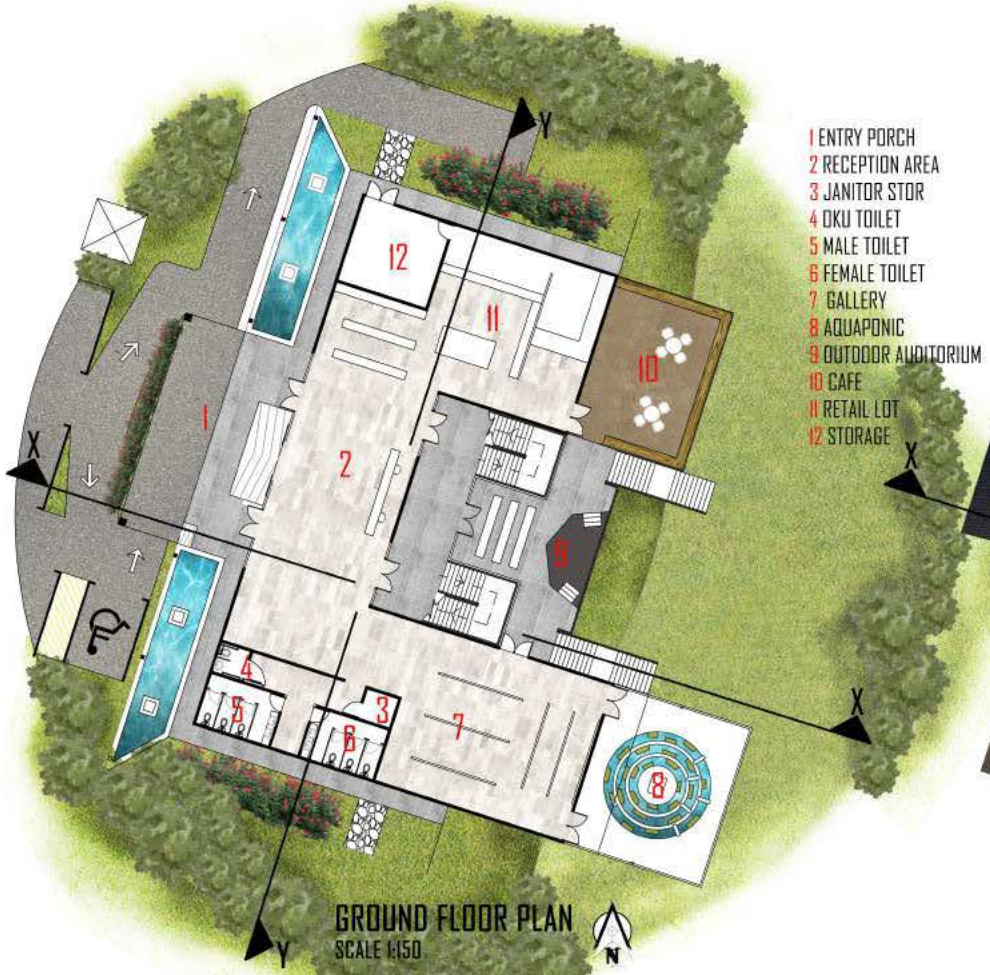
The best way to know the identity of a place is through its architecture.Architecture in Negeri Sembilan have been influenced by Minangkabau many years ago. However, the architecture at Negeri Sembilan which have been influenced by Minangkabau have been adjusted for the suitability of the place and the people. So, in order to not confusing the visitor about the identity between Minangkabau and Negeri Sembilan,I emphasize the shape of the Negeri Sembilan traditional roof on my design so that visitor will know that this is the identity of Negeri Sembilan which have been assimilated by the culture of Minangkabau and local people of Tanah Melayu.

CONCEPTUAL DIAGRAM



FRONT ELEVATION

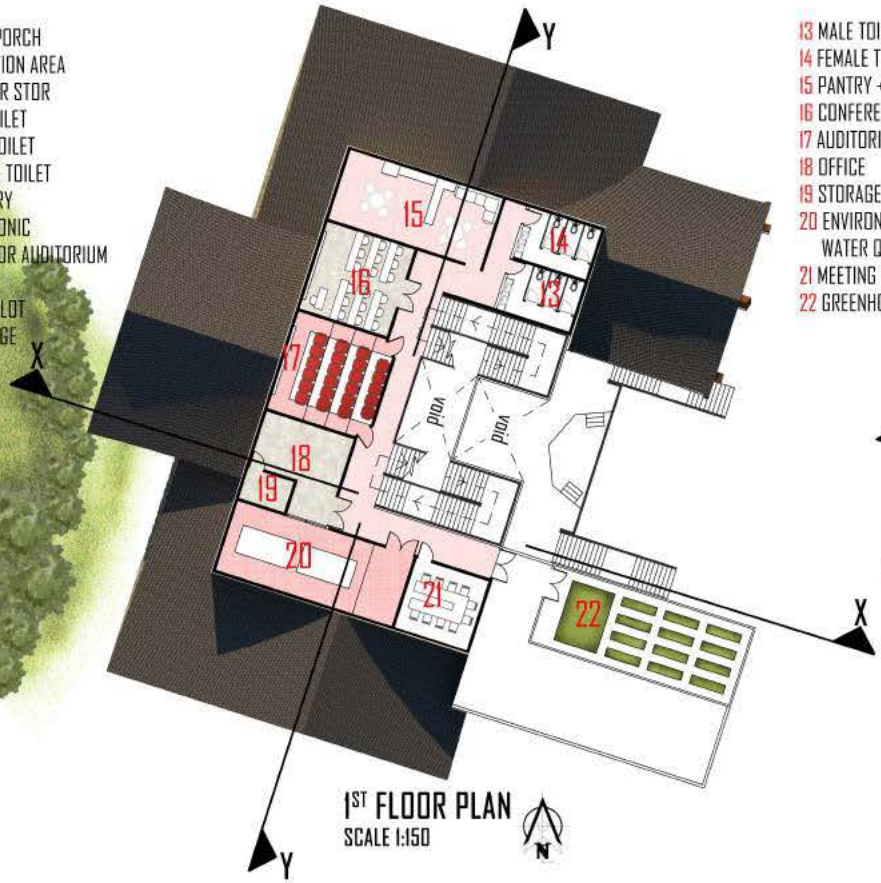
SCALE 1:150



GROUND FLOOR PLAN

SCALE 1:150

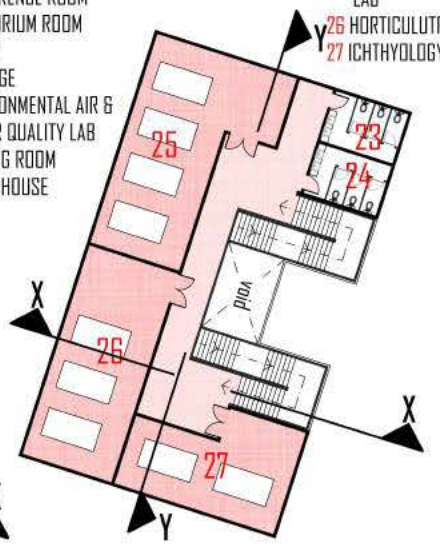
1 ENTRY PORCH
2 RECEPTION AREA
3 JANITOR STOR
4 OKU TOILET
5 MALE TOILET
6 FEMALE TOILET
7 GALLERY
8 AQUAPONIC
9 OUTDOOR AUDITORIUM
10 CAFE
11 RETAIL LOT
12 STORAGE



1ST FLOOR PLAN

SCALE 1:150

13 MALE TOILET
14 FEMALE TOILET
15 PANTRY + LOUNGE
16 CONFERENCE ROOM
17 AUDITORIUM ROOM
18 OFFICE
19 STORAGE
20 ENVIRONMENTAL AIR & WATER QUALITY LAB
21 MEETING ROOM
22 GREENHOUSE



2ND FLOOR PLAN

SCALE 1:150

23 MALE TOILET
24 FEMALE TOILET
25 PLANT PATHOLOGY LAB
26 HORTICULUTRE LAB
27 ICHTHYOLOGY LAB

AMIRUL HELMI B AHMAD ZAKI TALHAH 131910

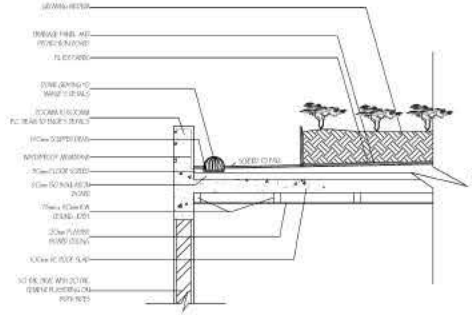
LEFT ELEVATION
SCALE 1:150

REAR ELEVATION
SCALE 1:150

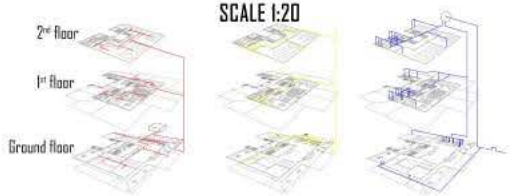
SECTION Y-Y
SCALE 1:150

RIGHT ELEVATION
SCALE 1:150

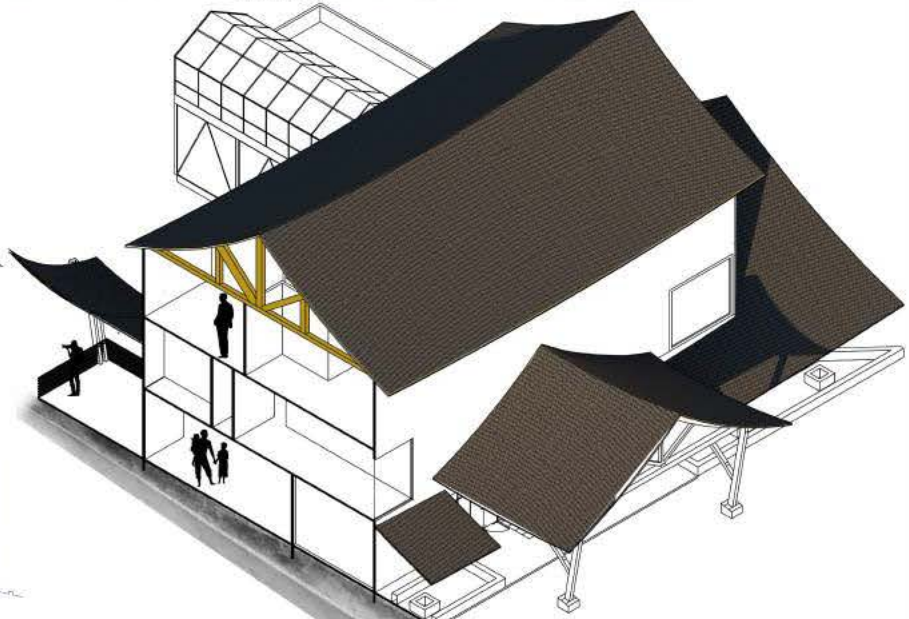
SECTION X-X
SCALE 1:150



GREEN ROOF DETAIL
SCALE 1:20



ELECTRICAL SEWERAGE WATER SUPPLY



SECTIONAL AXONOMETRIC
SCALE 1:150

ANIQ AMMAR BIN ABD RAHIM
131911

J A C

JOHOL AGROTOURISM CENTRE

NEGERI SEMBILAN

ANIQ 'AMMAR BIN ABD RAHIM 131911



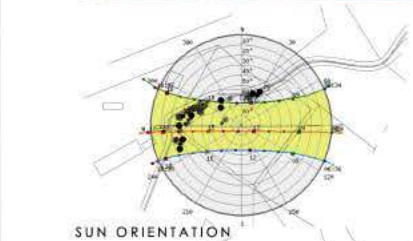



JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. THE REIGNING UNDANG LUAK OF JOHOL IS DATUK JOHAN PAHLAWAN LELA PERKASA SETIAWAN MUHAMMAD ABDULLAH (THE 15TH UNDANG). HE IS ONE OF THE FOUR UNDANGS THAT WILL PARTICIPATE IN THE ELECTION OF THE YAMTUAN BESAR OF NEGERI SEMBILAN; THE OTHER THREE ARE FROM SUNGAI UJONG (WHICH INCLUDED THE CAPITAL SEREMBAN AND PORT DICKSON), JELEBU AND REMBAU.

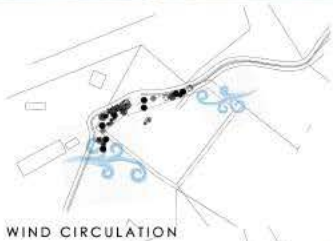
THIS STUDY IS TO CREATE AN AGROTOURISM CENTRE FOR LOCALS AND TOURIST. THUS, IT IS ALSO FOR THE DEVELOPMENT OF JOHOL ITSELF THAT THRIVE FOR A BETTER FUTURE THAT AWAITS JOHOL. THIS IS TO PRESERVE THE GREENERY AND ALSO GIVING THE OPPORTUNITY FOR LOCALS ON WORKING OPPORTUNITY.

KEY PLAN
NOT TO SCALE

LOCATION PLAN
NOT TO SCALE



SUN ORIENTATION

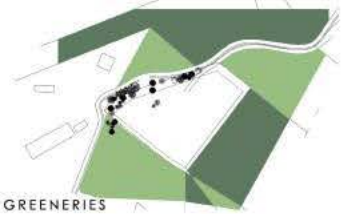


WIND CIRCULATION

FACILITIES

NOISE

VEHICHULAR PATHWAY



GREENERIES

DESIGN STATEMENT

IN THE PAST CENTURY, AGRICULTURE HAS BEEN CHARACTERIZED BY INCREASED PRODUCTIVITY, THE SUBSTITUTION OF SYNTHETIC FERTILIZERS AND PESTICIDES FOR LABOR, WATER POLLUTION, AND FARM SUBSIDIES.

THIS JOHOL AGRICULTURAL CENTRE IS DONE ACCORDING TO THE ARRANGEMENT OF FUNCTION OF ONE'S SPACE. THE IDEA WAS OBTAIN THROUGH THE MOVEMENT OF GROWTH OF A PLANT. WITH A SINGLE SHAPE IS ALTERED AND EXTRUDED INTO A FORM OF A BUILDING

BASE SHAPE

THE BASIC SHAPE IS TAKEN FROM THE SQUARE SHAPE AS A SYMBOL OF STABLE.

EXTRUDED

FROM THE BASIC SQUARE SHAPE IS THEN EXTRUDED TO SHOW THAT IT IS PART OF THE GROWTH RATE OF A PLANT ON GETTING THE FORM. THIS SHOWS THE MOVEMENT OF THE GROWING PLANT THAT IS FUSED TO THE BUILDING. THIS IS THE MIDDLE PART WHERE IT IS THE MAIN ENTRY OF THE BUILDING

COMBINED

THE BOTH SHAPES ARE COMBINED TO ENHANCE THE FORM OF THE OBTAINED SHAPE FOR THE BUILDING

REPETITION

REPEATING THE SHAPE TO ANOTHER KIND OF FORM WITH CERTAIN FUNCTION.

GREENS

ADDING GREENERIES TO THE FORM THAT WAS OBTAIN FROM ALL OF THE PROCESS TO ADD A CHARACTER TO THE DESIGNED BUILDING.

J A C

JOHOL AGROTOURISM CENTRE

NEGERI SEMBILAN

ANIQ 'AMMAR BIN ABD RAHIM 131911

PRODUCTS

PADDY

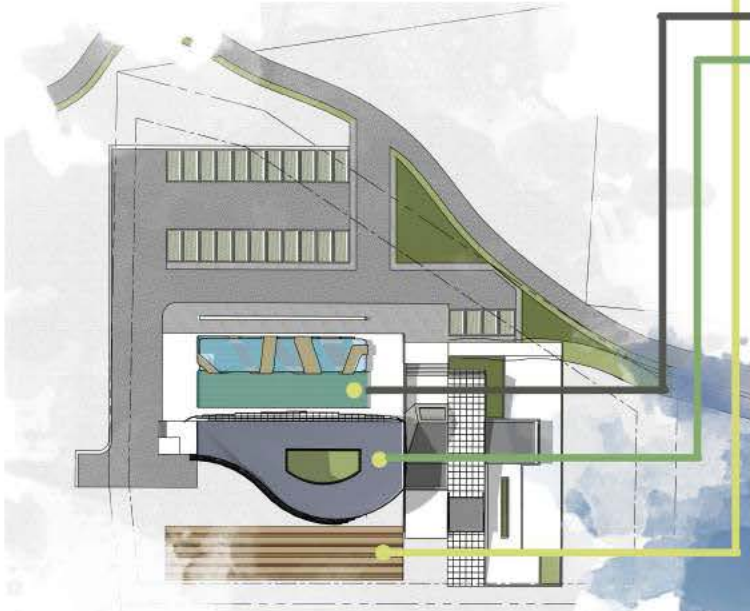
PADDY OR RICE IS WIDELY USE AROUND THE WORLD WHICH MOST OF THE WORLD POPULATION CONSUME. THERE ARE ALSO OTHER BENEFITS OTHER THAN EATING, IT IS ALSO MADE FOR SOAP, MOISTURISER, OIL AND MANY MORE.

FISH

FISH ARE A SPECIES OF ANIMALS THAT HAS A FAST GROWTH RATE WITH LARGE AMOUNT OF QUANTITY. SOME OF THE FISH ARE EASILY BREED AND MAY BE AFFORDABLE FOR THE LOCALS. THERE WIL BE A SNAKEHEAD FISH, TILAPIA, AND CATFISH IN THIS CENTRE.

SALAD

SALAD PLANTS ARE WIDELY CONSUME ALL OVER THE GLOBE AND VAST PLANTATION ARE KNOWN EVERYWHERE. THE CORAL SALAD ARE FAMOUS FOR ITS NUTRITION AND USAGE IN MANY RESTAURANTS OR STALLS. IT IS ALSO SUITABLE FOR VERTICAL FARMING.



SITE PLAN

SCALE 1 : 400

THIS AGROTOURISM CENTRE IS DIVIDED INTO TWO PARTS WHICH CONSIST OF OFFICE ANF THE OTHER HALF IS WHERE ALL THE PLANTATION IS HELD PLUS THE RESEARCH AND DEVELOPEMENT CENTRE. THROUGH THIS AGROTOURISM CENTRE IS TO CREATE AN AGRICULTURAL ENVIRONMENT TO JOHOL. BY DEVELOPING A BUILDING WHICH CONSIST OF INDOOR FARMING, SELF MAINTAINED DESIGN WOULD BRING A BETTER FUTURE JOHOL.

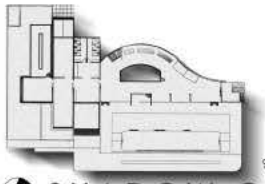
HERE, WE PROVIDE FISHABLE POOL FOR TOURIST TO EXPERIENCE FISHING, ALSO GET A CHANCE TO EXPERIENCE BEING IN A PADDY FIELD. MAKES THE BOND BETWEEN US MORE STRONGER AND CLOSER.

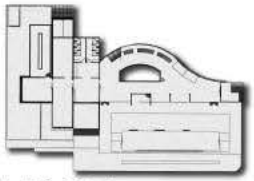
J A C

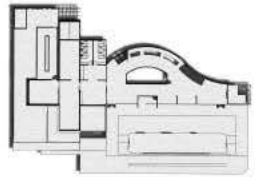
JOHOL AGROTOURISM CENTRE

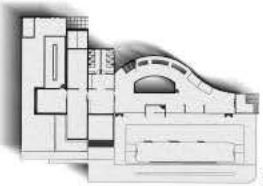
NEGERI SEMBILAN

ANIQ 'AMMAR BIN ABD RAHIM 131911

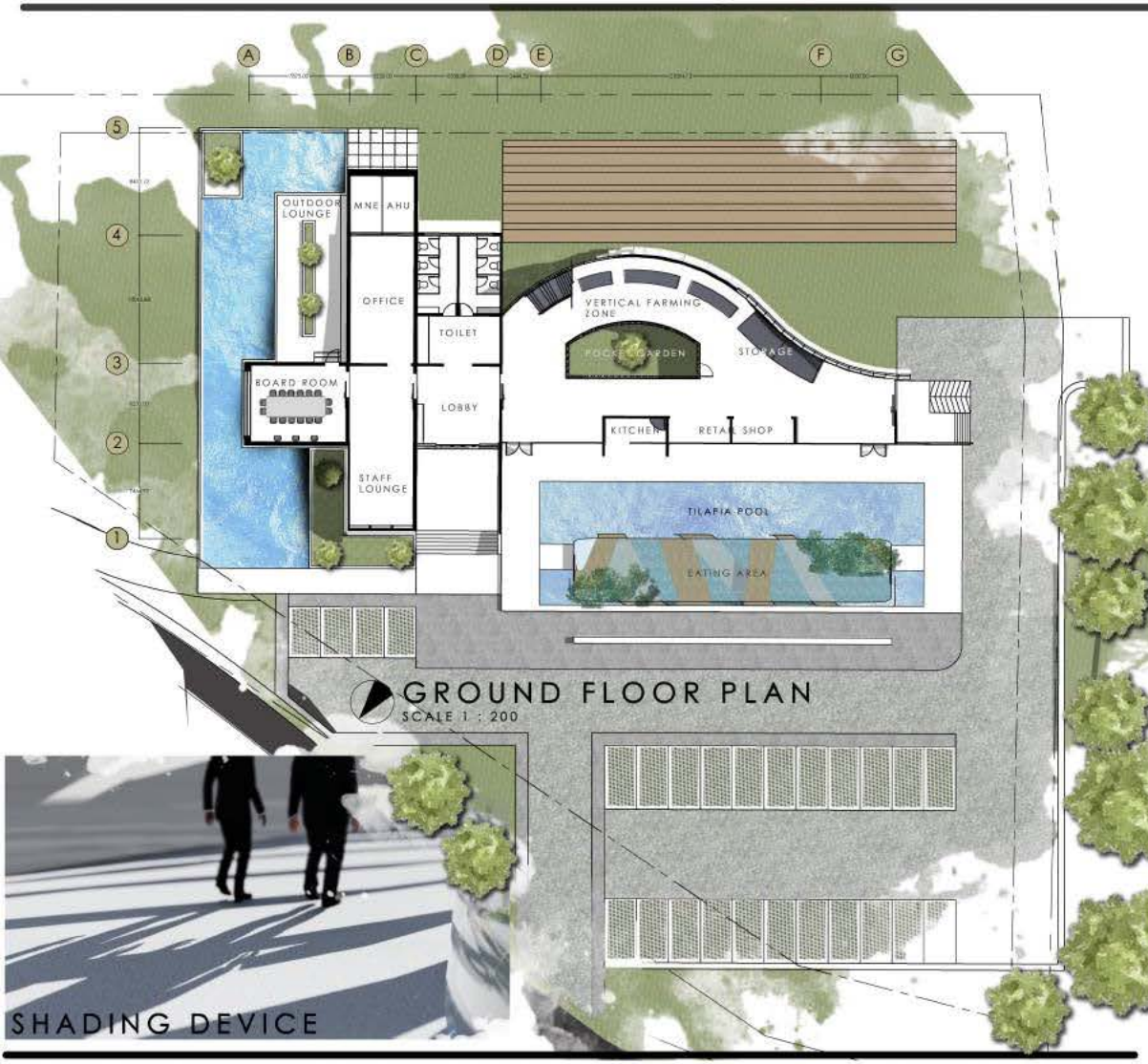






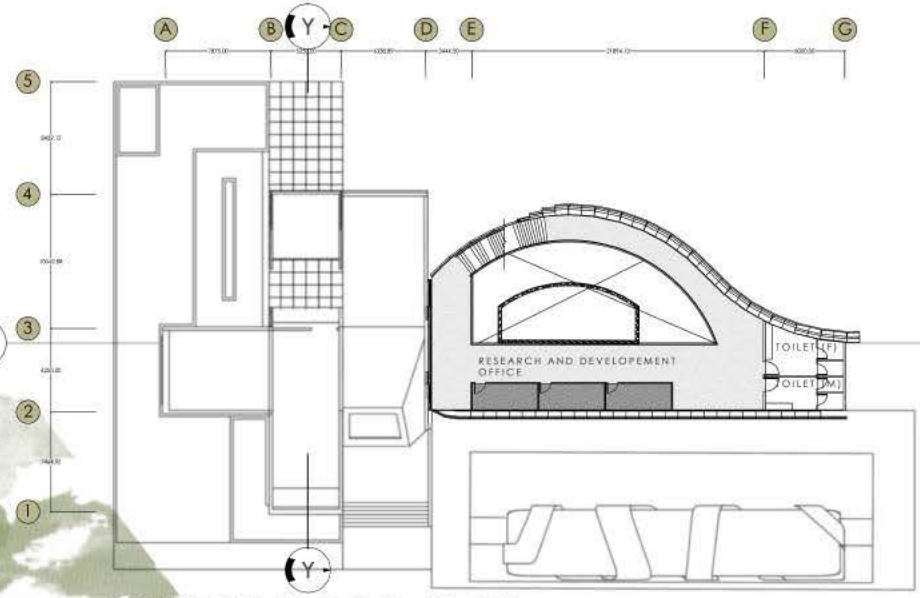


SHADOW ORIENTATION



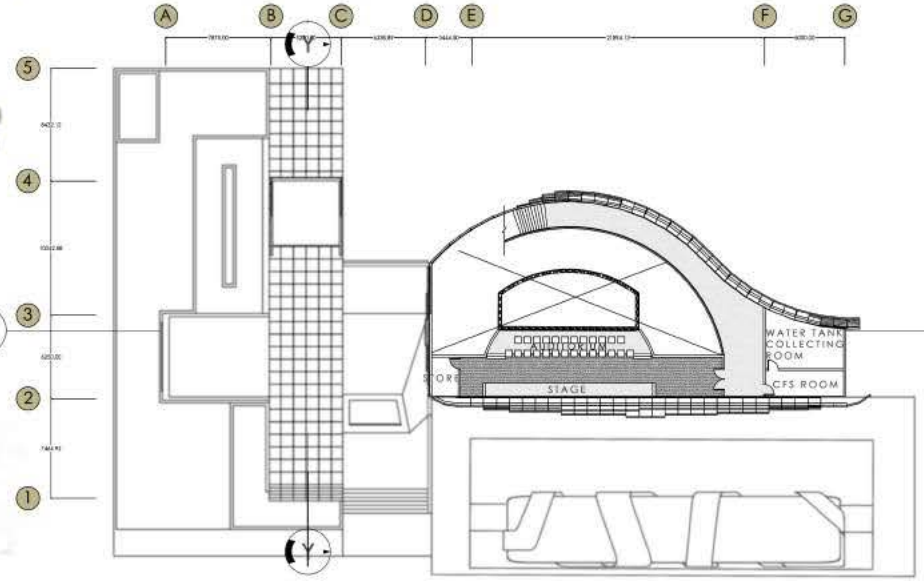
GROUND FLOOR PLAN

SCALE 1 : 200



FIRST FLOOR PLAN

SCALE 1 : 200



SECOND FLOOR PLAN

SCALE 1 : 200

J A C

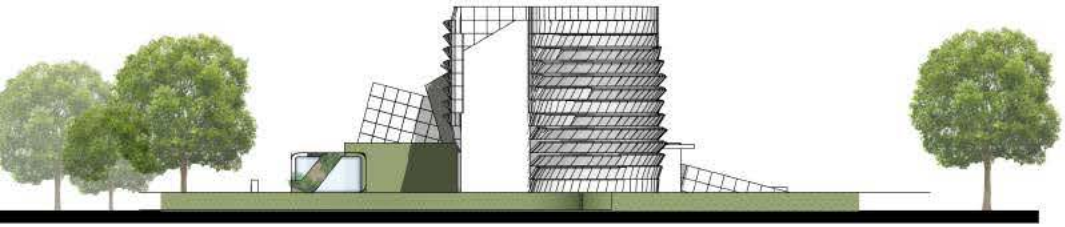
JOHOL AGROTOURISM CENTRE

NEGERI SEMBILAN

ANIQ 'AMMAR BIN ABD RAHIM 131911

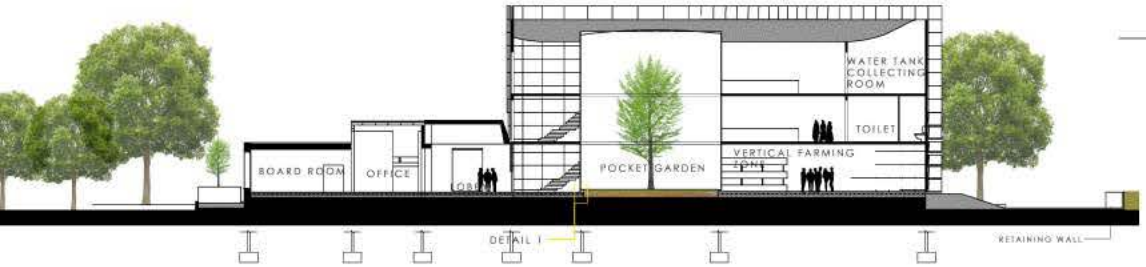
FRONT ELEVATION

SCALE 1 : 200



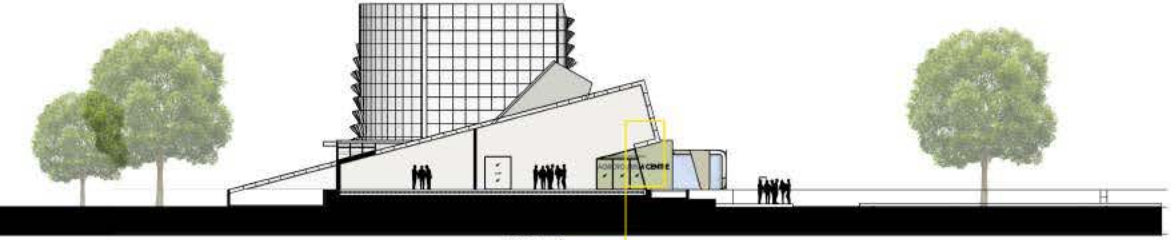
RIGHT ELEVATION

SCALE 1 : 200



SECTION X - X

SCALE 1 : 200



SECTION Y - Y

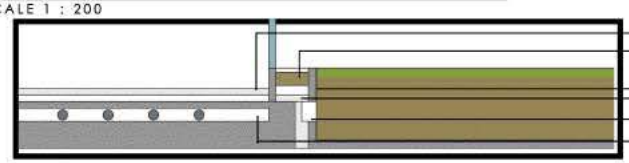
SCALE 1 : 200

FLEX-ABLE SOLAR PANELS

20MM COATED RAIN SCREEN PANEL BOLTED TO RC WALL WITH STIFFENERS

SECTIONAL AXONOMETRIC

SCALE 1 : 200

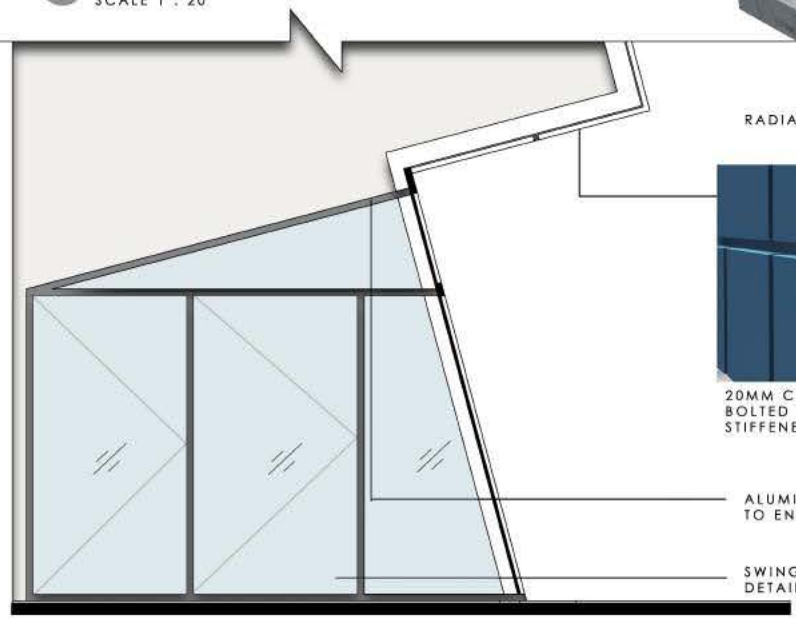


DETAIL 1

SCALE 1 : 20

RADIANT COOLING FLOOR SYSTEM

20MM COATED RAIN SCREEN PANEL BOLTED TO RC WALL WITH STIFFENERS



DETAIL 1

SCALE 1 : 20

J A C

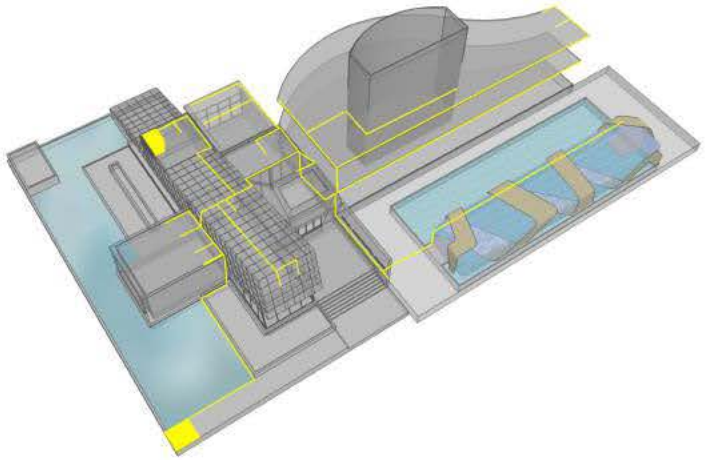
JOHOL AGROTOURISM CENTRE

NEGERI SEMBILAN

ANIQ 'AMMAR BIN ABD RAHIM 131911

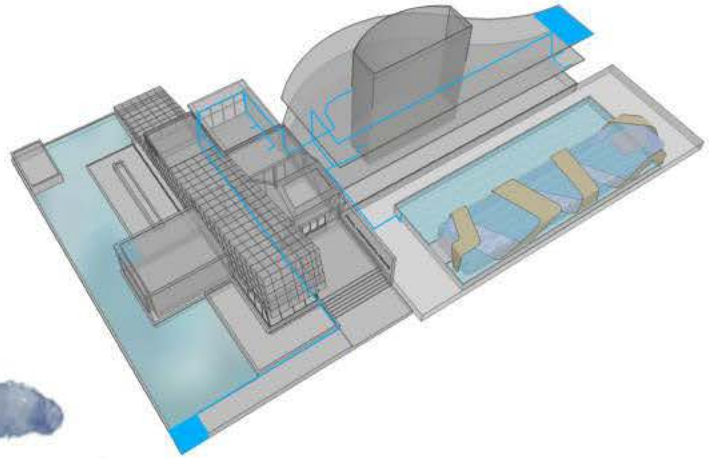
ENTRANCE PERSPECTIVES

INTERIOR PERSPECTIVES



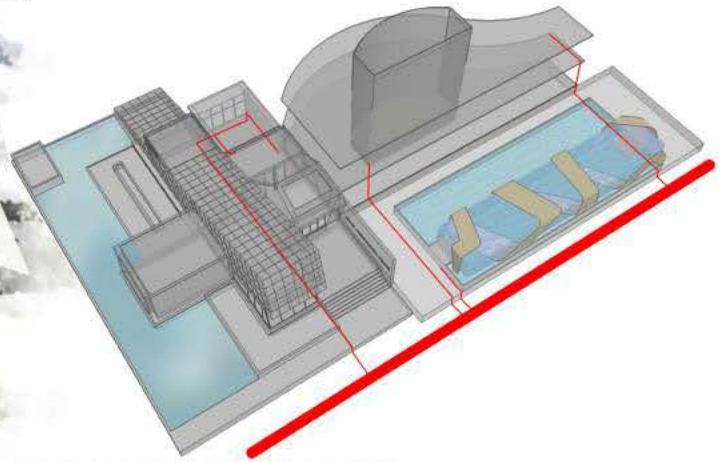
ELECTRICAL SCHEMATIC

N.T.S



WATER SCHEMATIC

N.T.S



DRAINAGE SCHEMATIC

N.T.S

ATIKAH BINTI ADRUS
131913

JOHOL AGROTOURISM CENTRE [JAC]

RECONNECT :
LOVE OF LIFE OF NATURE

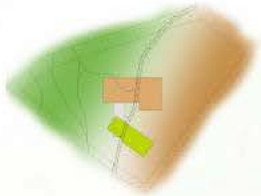
INTRODUCTION
JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. BALAI UNDANG LUAK JOHOL HAD VISITED USM AND INITIATED A COLLABORATIVE VENTURE TO CREATE A RESEARCH AND KNOWLEDGE HUB IN JOHOL, SPECIALIZING IN SUSTAINABLE AGRICULTURE AND FARMING. THESE ACTIVITIES ARE SEEN TO EMPOWER THE LOCAL FARMERS WITH THE KNOW-HOW TO GENERATE INCOME AND IMPROVE THE SOCIO-ECONOMIC STATUS OF THE SLEEPY TOWN.
WITH THE R&D INPUT OF USM RESEARCHERS AND AGRO-FARMING PRODUCTS HARVESTED BY PEOPLE OF JOHOL, THIS PAVES WAY OFF A OFF-SHOOT DESTINATION NAME JOHOL AGRITOURISM CENTRE. JAC WILL EMERGE AS A DESTINATION WHERE VISITORS GET FIRST-HAND EPERIENCE TO JOHOL AGRO-FARMING. AT THE SAMTE TIME, VISITORS WILL MARVEL AT THE R&D SCIENTIFIC FINDINGS OF USM TEAM OF RESEARCHES BEHIND THE CREATION OF SUSTAINABLE FARMING TECHNIQUES IN CULTIVATING STINGLESS HONEY BEES AND BAMBOO.

CLIENT
BALAI UNDANG LUAK JOHOL

DESIGN STATEMENT
JOHOL AGROTOURISM CENTRE (JAC) IS LOCATED AT THE KAMPUNG NURI, JOHOL, NEGERI SEMBILAN.
THE BUILDING IS BEING BUILT ON THE 1.2 ACRES OF SITE THAT BELONGS TO MRS. RAMISAH.
THE CENTRE IS BUILT WITH THE PRINCIPLE OF HIERARCHY OF FLOOR LEVEL AND THE LINEAR OF ORGANIZATION.
THE CENTRE CAN BE DIVIDED INTO THREE ZONING - PRIVATE, SEMI-PUBLIC AND PRIVATE.

DESIGN APPROACH
BIOPHILIA - LOVE OF NATURE
BIOPHILIC DESIGN IS AN APPROACH TO ARCHITECTURE THAT SEEKS TO CONNECT BUILDING OCCUPANTS MORE CLOSELY TO NATURE. BIOPHILIC DESIGN INCORPORATED INTO BUILT ENVIRONMENTS RECONNECTS PEOPLE TO THE NATURAL WORLD - NATURAL LIGHTING AND VENTILATION, NATURAL LANDSCAPE FEATURES AND OTHER ELEMENTS FOR CREATING A MORE PRODUCTIVE AND HEALTHY BUILT ENVIRONMENT FOR PEOPLE.

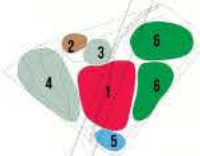
CONCEPT
RECONNECT = INTERLOCKING



BOTTOM WING WILL BE OPEN AREA SERVED AS MINI CAFE AND SEATING AREA.

RESPOND TO CONTOUR TO CREATE HIERARCHY FLOOR LEVEL TO SEPARATE PUBLIC AND PRIVATE AREA.

BUBBLE DIAGRAM



1. PROPOSED BUILDING
2. INGRESS & EGRESS
3. STAFF PARKIG
4. VISITOR PARKING
5. WATER FEATURE
6. BAMBOO & STINGLESS BEES

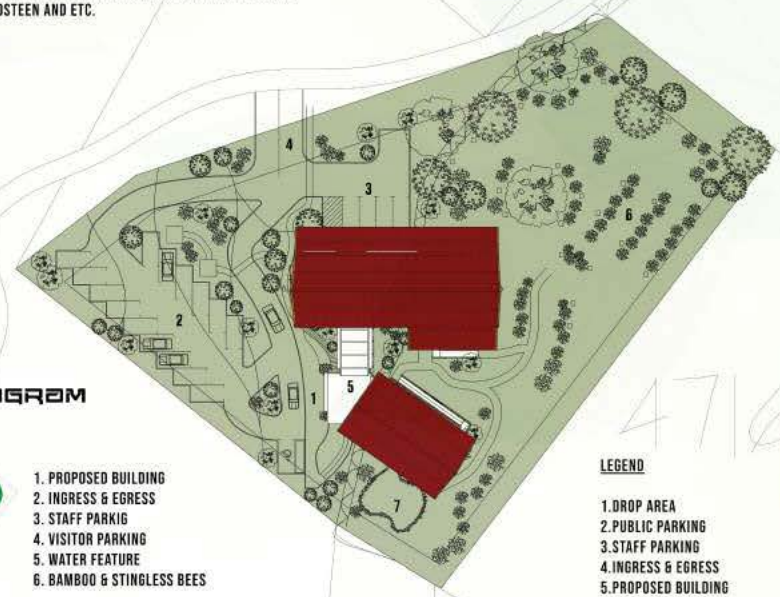
PRODUCTS
STINGLESS BEE : GENIOTRIGONA THORACICA

THE STINGLESS BEES IS SLIGHTLY DARKER AND DOES NOT STING. STINGLESS BEES HONEY IS VERY SMALL IN QUANTITY COMPARED WITH THE QUANTITY OF OTHER HONEY BEE. IT IS BECAUSE THE BEE IS SMALL IN SIZE COMPARED TO OTHER BEES. IT IS ALSO SLIGHTLY TASTE SOUR COMPARED TO OTHER HONEY BEE.

THE STINGLESS BEES IS PREFERRED TO LIVE IN TROPICAL REGIONS SUCH AS IN AUSTRALIA, AFRICA, SOUTHEAST ASIA AND THE TROPICAL CONTINENT OF AMERICA. THORACICA IS A POLLINATING AGENTS THAT SUITABLE FOR PLANTS SUCH AS DURIAN, RAMBUTAN, MANGOSTEEN AND ETC.

BAMBOO

BAMBOO PLANTATIONS ARE NOT DIFFICULT TO CARE BECAUSE THEY ARE PLANTED ONCE WITHOUT REQUIRING REPLANTING AND ONLY NEED FERTILIZER FOR ONCE A YEAR. THE BAMBOO CAN NOT BE PLANTED IN OVER-DRY SOILS OR SUBMERGED SOILS THAT COULD AFFECT THE ROOT GROWTH. THE BAMBOO TREE MATURITY PERIOD IS ALSO SHORT, FOR ABOUT TWO YEARS WHILE FOR A SIX-YEAR BAMBOO STICK.



SITE PLAN
SCALE 1:400

LEGEND

1. DROP AREA
2. PUBLIC PARKING
3. STAFF PARKING
4. INGRESS & EGRESS
5. PROPOSED BUILDING
6. STINGLESS BEES FARM AND BAMBOO FARM
7. WATER FEATURE

FRONT ELEVATION
SCALE 1:150

REAR ELEVATION
SCALE 1:150

SITE LOCATION
JALAN KG. NURI, JOHOL, NEGERI SEMBILAN.
SITE AREA 4988 SQM (1.2 ACRES)

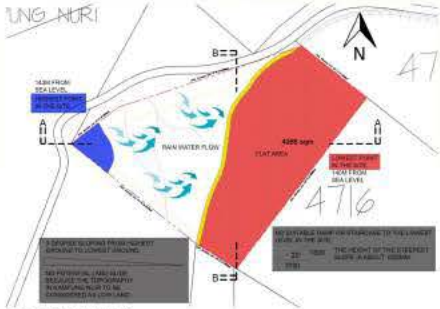
KEY PLAN
JOHOL, NEGERI SEMBILAN

LOCATION PLAN
JALAN KG. NURI, JOHOL

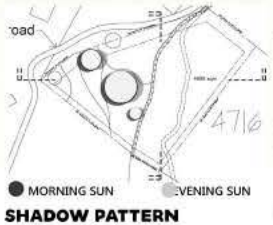
SITE ANALYSIS

NAME : ATIKAH BINTI ADRUS I 131913
LECTURER : EN. REDUAN BIN MAHAT I PN. SITI AMIRAH BINTI MOHTARAM

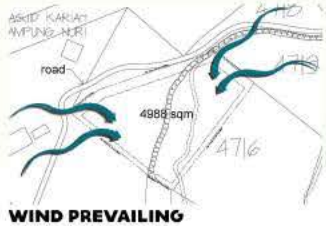
SOCIO-CULTURE



TOPOGRAPHY



SHADOW PATTERN



WIND PREVAILING

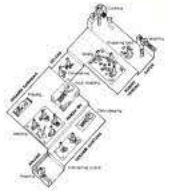
SITE SECTION

JOHOL AGROTOURISM CENTRE [JAC]

RECONNECT :
LOVE OF LIFE OF NATURE

CHARACTER

PRESENTING THE SPIRIT OF VERNACULAR ARCHITECTURE IN CONTEMPORARY STYLE THROUGH IMPLEMENTATION OF THE GIST OF VERNACULAR ARCHITECTURE SUCH AS IDENTITY, FUNCTIONALITY AND PASSIVE DESIGN.



HIERARCHY
THE DIFFERENT HEIGHT OF FLOOR LEVELING DEFINES THE FUNCTION AND IMPORTANCE OF THE SPACE.

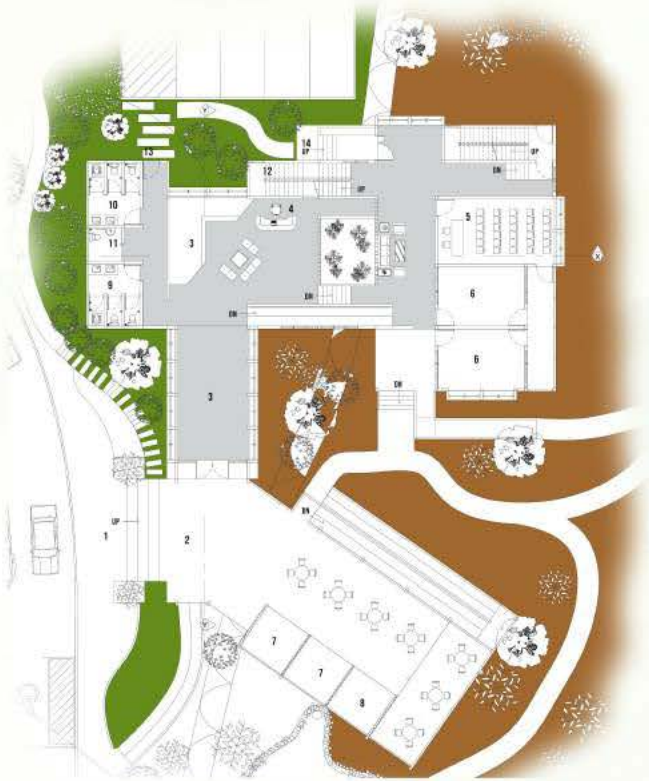
CLIMATIC RESPOND
TRADITIONAL MALAY HOUSE EXPERTS WITH ITS PASSIVE DESIGN IN CORRESPONDING TO MALAYSIA'S TROPICAL RAINFOREST CLIMATE.

SUSTAINABLE
LEARNING AND WORKING ENVIRONMENT

PASSIVE DESIGN
ADOPTED FROM MALAY TRADITIONAL HOUSE SUSTAINABLE DESIGN SOLUTION. THEY EMPHASIZE ON THE BUILDING FORM, MATERIALS AND OPENINGS TO MAXIMIZE WIND PASSAGE THROUGH THE BUILDING TO PERFORM CROSS AND STACK VENTILATION. BESIDE, LOW THERMAL CAPACITY MATERIAL ALSO USED TO MINIMIZE HEAT TRAPPED IN THE BUILDING.

TECHNOLOGY PRODUCTS
IMPLEMENTATION OF TECHNOLOGY MATERIALS & PRODUCTS SUCH AS OPERABLE LOUVER WINDOW MAXIMIZE WIND PASSAGE DURING DAY TIME, CONTROL OPENING SIZE DURING RAINING AND OFFERS PRIVACY AND SECURITY DURING NIGHT. BENEFIT FOR THE USER TO HAVE A MORE COMFORTABLE LEARNING SPACE AND WORKING SPACE.

AS MOST OF THE SPACE RECEIVE NATURAL LIGHTING AND WELL VENTILATED, LESS CONSUMPTION OF ENERGY USE RESULTS IN AN ENERGY EFFICIENT BUILDING.



LEGEND

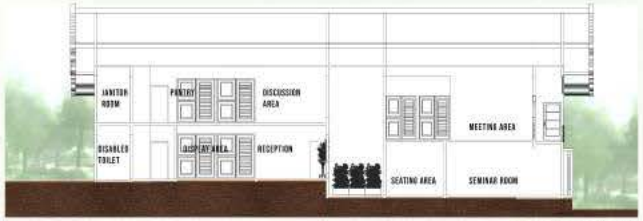
1. DROP AREA
2. LOBBY
3. DISPLAY AREA
4. RECEPTION
5. SEMINAR ROOM
6. WORKSHOP
7. RETAIL LOT
8. MINI CAFÉ
9. TOILET (F)
10. TOILET (M)
11. DISABLED TOILET
12. SWITCH ROOM
13. LOADING AREA / SERVICE AREA
14. STAFF ENTRANCE

GROUND FLOOR PLAN
SCALE 1:150

LEGEND

1. MEETING AREA
2. SEATING AREA
3. DISCUSSION AREA
4. WORK AREA
5. PANTRY
6. TOILET (F)
7. TOILET (M)
8. JANITOR ROOM
9. STORAGE ROOM

FIRST FLOOR PLAN
SCALE 1:150



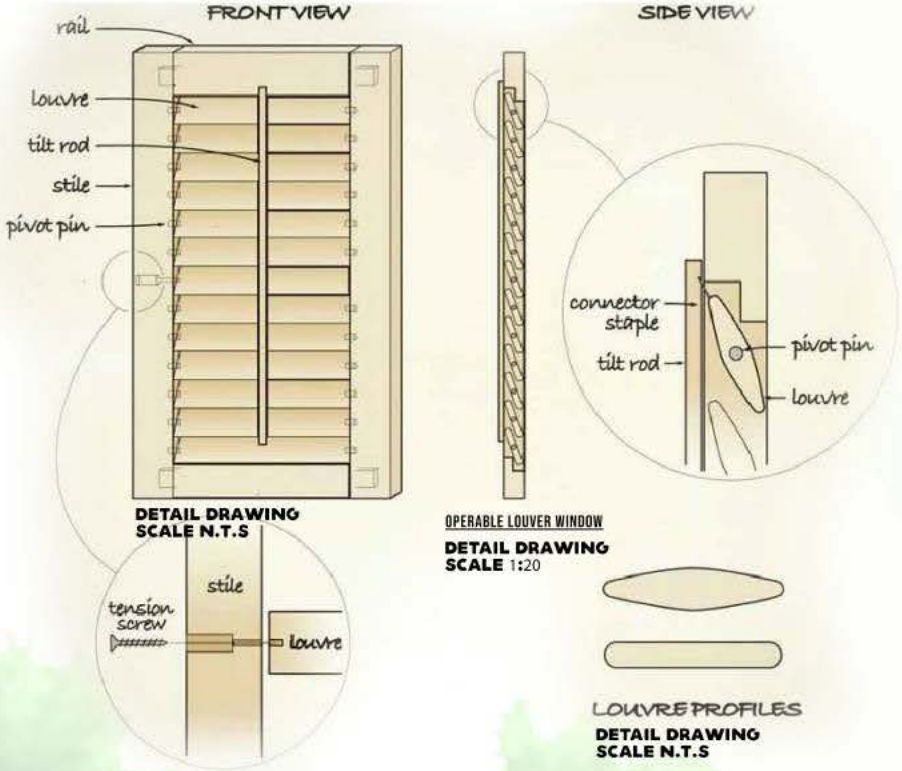
SECTION X - X
SCALE 1:150

SECTION Y - Y
SCALE 1:150

NAME : ATIKAH BINTI ADRUS I 131913
LECTURER : EN. REDUAN BIN MAHAT I PN. SITI AMIRAH BINTI MOHTARAM

JOHOL AGROTOURISM CENTRE [JAC]

RECONNECT :
LOVE OF LIFE OF NATURE



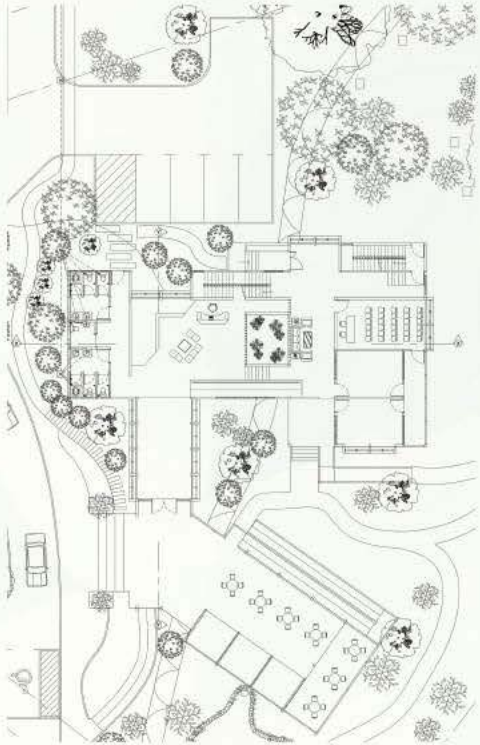
DETAIL DRAWING
SCALE N.T.S

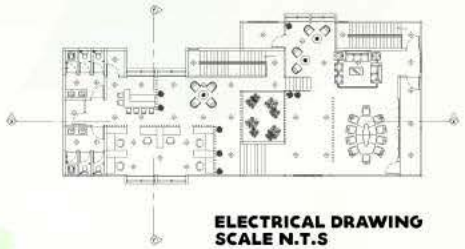
OPERABLE LOUVER WINDOW

DETAIL DRAWING
SCALE 1:20

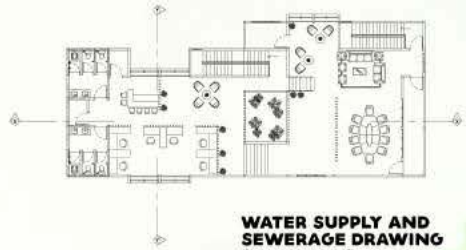
LOUVRE PROFILES

DETAIL DRAWING
SCALE N.T.S

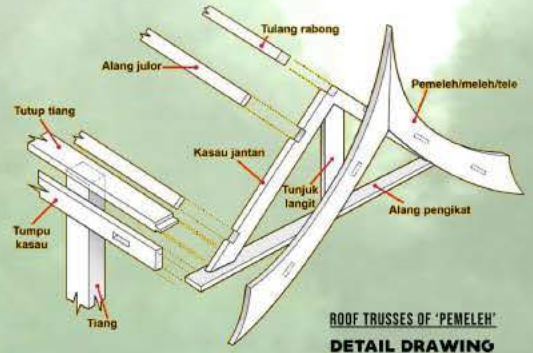




ELECTRICAL DRAWING
SCALE N.T.S



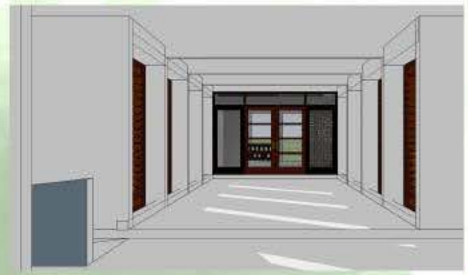
WATER SUPPLY AND SEWERAGE DRAWING
SCALE N.T.S



ROOF TRUSSES OF 'PEMELEH'

DETAIL DRAWING
SCALE 1:20

SECTIONAL PERSPECTIVE
SCALE 1:150



VIEW TOWARDS DISPLAY AREA
LIGHTING 0900

VIEW TOWARDS DISPLAY AREA
LIGHTING 1700

DAYLIGHT FACTOR ANALYSIS
VIEW TOWARDS DISPLAY AREA

NAME : ATIKAH BINTI ADRUS I 131913
LECTURER : EN. REDUAN BIN MAHAT I PN. SITI AMIRAH BINTI MOHTARAM

ESURYATI BINTI KAMARUDIN
131917

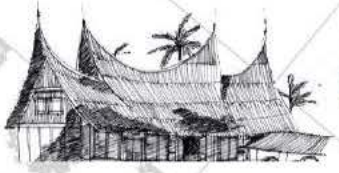
PROJECT 02

JOHOL AGROTOURISM CENTRE (JAC)

KAMPUNG NURI, JOHOL, NEGERI SEMBILAN

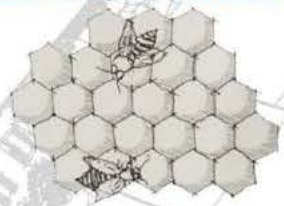
DESIGN STATEMENT

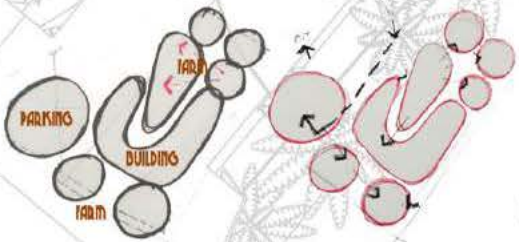
JOHOL IS A TOWN, MUKIM AND A STATE ASSEMBLY CONSTITUENCY IN KUALA PILAH DISTRICT.THE CONCEPT OF JOHOL AGROTOURISM IS HONEYCOMB, BECAUSE OF PRODUCT USED IS HONEY AND DURIAN. TIMBER,BAMBO AND CONRETE CONTRUCTION METHOD USED IN JOHOL AGROTOURISM CENTRE.SPACEPLANNING INSIDE IN THE BUILDING FOLLOW BY CONCEPT. THE BAMBO AND TIMBER MATERIAL WITH MINANGKABAU ROOF WHICH GIVES RURAL LOOK AND SUITS THE SURROUNDING SITE SPECIAL SPACES THAT INCLUDE IN (JAC) ARE WORKSHOP AREA,GALLERY,VIEW DECKING,CAFE,RETAIL SHOP.THESE ALLOW TOURIST ATTRACTIVE AROUND THE WORLD AND INTRODUCE THE CULTURE OF JOHOR AND NEGERI SEMBILAN.



DESIGN DEVELOPMENT

BEES PRODUCE MORE HONEY THAN THEY NEED AND STORE IT IN HONEY. THE HEXAGONAL STRUCTURE OF THE HONEYCOMB IS KNOWN TO ALL. HAVE YOU EVER WONDERED WHY BEES BUILD HEXAGONAL HONEYCOMBS IN PLACE OF OCTAGONAL OR PENTAGONAL? THE MATHEMATICIAN LOOKING FOR ANSWERS TO THESE QUESTIONS REACHED AN INTERESTING CONCLUSION: "A HEXAGONAL IS THE MOST SUITABLE GEOMETRIC FORM FOR THE MAXIMUM USE OF A PARTICULAR AREA." HEXAGONAL CELLS REQUIRE A MINIMUM QUANTITY OF WAX FOR CONSTRUCTION WHILE IT STORES THE MAXIMUM AMOUNT OF HONEY. THEREFORE, THE BEES USE THE MOST SUITABLE FORM. THE METHODS USED IN HONEYCOMB CONSTRUCTION ARE ALSO AMAZING: THE BEES BEGIN CONSTRUCTION OF TWO SURFACES FROM TWO DIFFERENT PLACES AND WORK THE HONEYCOMB SIMULTANEOUSLY IN TWO OPPOSITE DIRECTIONS. EVEN THOUGH THEY START FROM DIFFERENT PLACES, BEES, VERY MUCH, BUILD THE SAME HEXAGONS AND THEN JOINING THE HONEYCOMB BY CONNECTING IT TOGETHER AND INVESTING IN THE MIDDLE. THE POINT OF HEXAGON INTERSECTION IS CALCULATED SO EFFICIENTLY THAT NO SPACE ARE THEY CONTAINED





ESURYATI BINTI KAMARUDIN 131917

INTRODUCTION

01

JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. THE BEGINNING UNDANG LUAK OF JOHOR/TUN JOHAN PAHLAWAN LELA MAHKOTA SERAILAH MUHAMMAD ABDULLAH (THE 5TH UNDANG). HE IS ONE OF THE FOUR UNDANGS THAT WILL PARTICIPATE IN THE ELECTION OF YANG DI-PERTUAN BESAR NEGERI SEMBILAN. THE OTHER THREE ARE FROM SUNGAI UJONG (WHICH INCLUDES THE CAPITAL SERIEMBAN AND PORT DICKSON), JELEBU AND REMBAU. JOHOL TOWN HAVE NOT SEEN RAPID DEVELOPMENT OVER THE PAST DECADES. DALAM UNDANG LUAK JOHOL RECENTLY VISITED UIM AND INITIATED A COLLABORATIVE VENTURE TO CREATE A RESEARCH AND PATHFINDING HUB IN JOHOL, SPECIALIZING IN SUSTAINABLE AGRI-CULTURE AND FARMING OF CATTLES AND BEES. THESE ACTIVITIES ARE SEEN TO EMPOWER THE LOCAL FARMERS WITH THE KNOW-HOW TO GENERATE INCOME AND IMPROVE THE SOCIO-ECONOMIC STATUS OF THE SLEEPY TOWN. WITH THE ADD INPUT OF UIM RESEARCHERS AND AGRO-FARMING PRODUCTS HARVESTED BY PEOPLE OF JOHOL, THIS PAVES WAY FOR A OFF-SHOOT DESTINATION NAMED JOHOL AGROTOURISM CENTER. JAC WILL EMERGE AS A DESTINATION WHERE VISITORS GET FIRST-HAND EXPERIENCE TO JOHOL AGRO-FARMING, ITS BRIEF HISTORY AND HOW AGRO-FARMING OF UIM TEAM OF RESEARCHERS BEHIND THE CREATION OF SUSTAINABLE

SITE AND CLIENT

UNDANG LUAK, JOHOL, NEGERI SEMBILAN

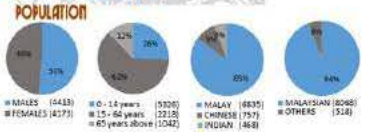
KEY PLAN

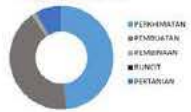
LOCATION PLAN

PROPOSED SITE

SITE ANALYSIS

POPULATION

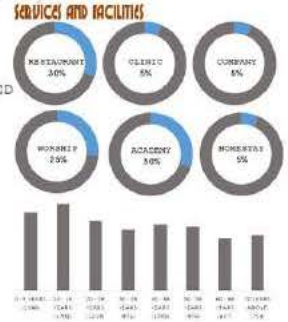


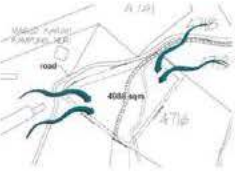


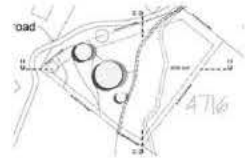
CLIMATE AND VEGETATION

ACTIVITIES

SERVICES AND FACILITIES





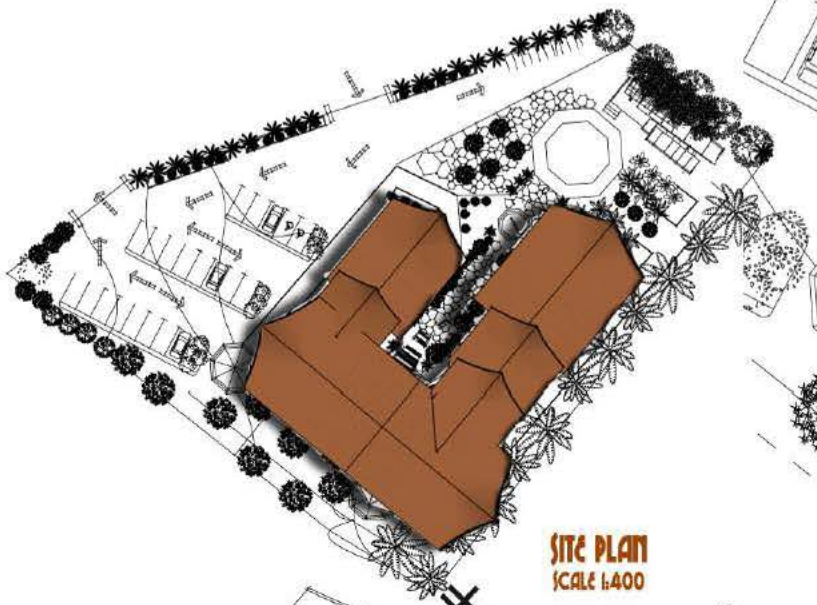


PROJECT 02

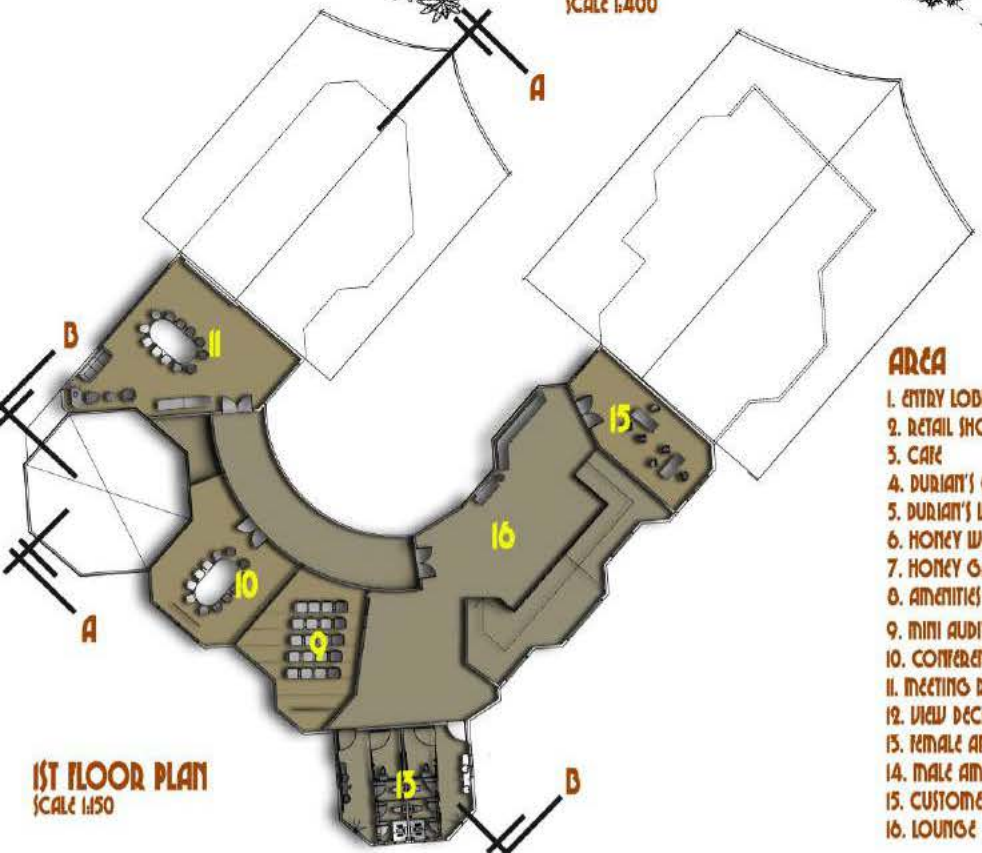
JOHOL AGROTOURISM CENTRE (JAC)

KAMPUNG NURI, JOHOL, NEGERI SEMBILAN

02

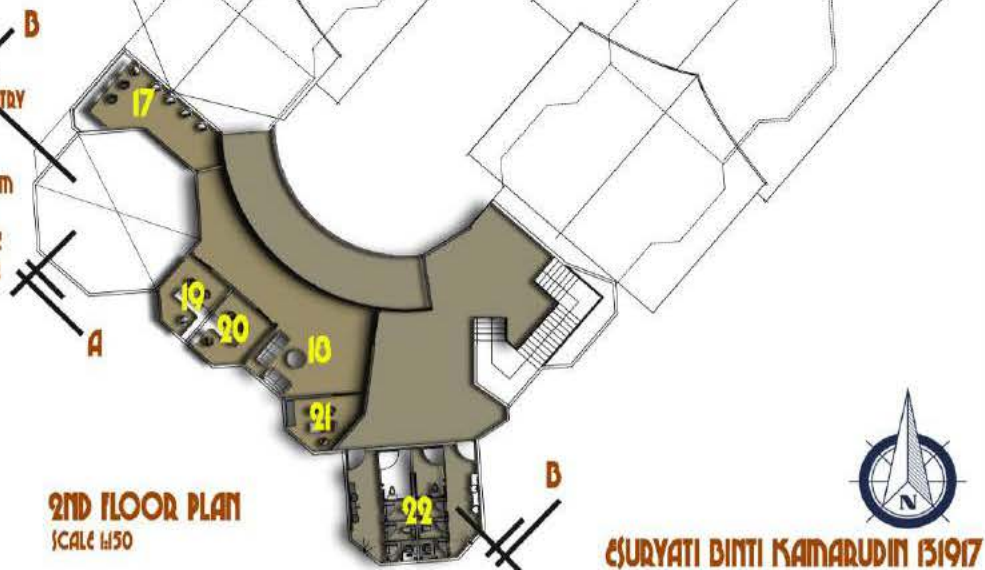


SITE PLAN
SCALE 1:400



1ST FLOOR PLAN
SCALE 1:150

GROUND FLOOR PLAN
SCALE 1:150



2ND FLOOR PLAN
SCALE 1:150

AREA

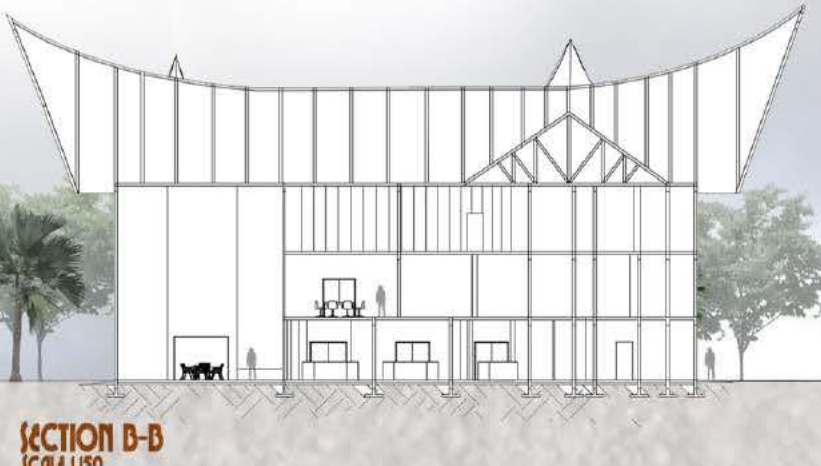
1. ENTRY LOBBY
2. RETAIL SHOP
3. CAFE
4. DURIAN'S GALLERY
5. DURIAN'S WORKSHOP
6. HONEY WORKSHOP
7. HONEY GALLERY
8. AMENITIES (F & M) - GROUND FLOOR
9. MINI AUDITORIUM
10. CONFERENCE ROOM
11. MEETING ROOM
12. VIEW DECKING
13. FEMALE AMENITIES (1ST FLOOR)
14. MALE AMENITIES (1ST FLOOR)
15. CUSTOMER SERVICE
16. LOUNGE
17. STAFF LOUNGE/PANTRY
18. ADMIN
19. R & D ROOM
20. SUPERVISOR ROOM
21. FINANCY ROOM
22. AMENITIES (FEMALE & MALE - 2ND FLOOR

ESURYATI BINTI KAMARUDIN 131917

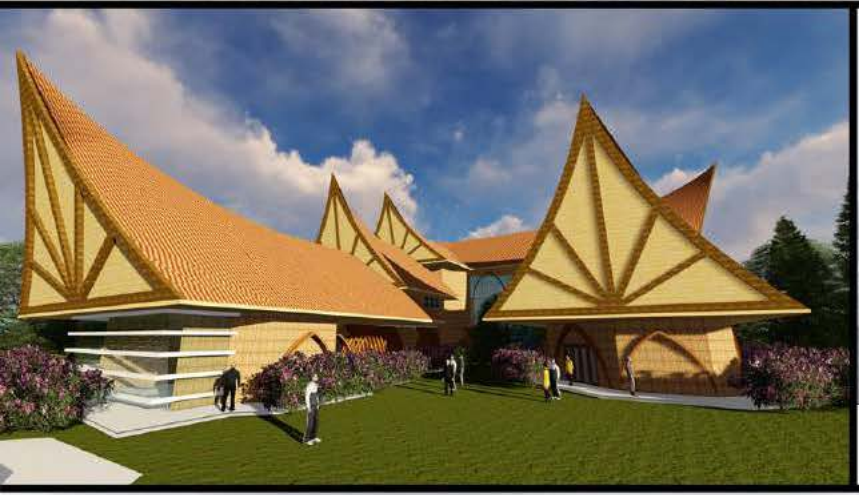
JOHOL AGROTOURISM CENTRE (JAC)

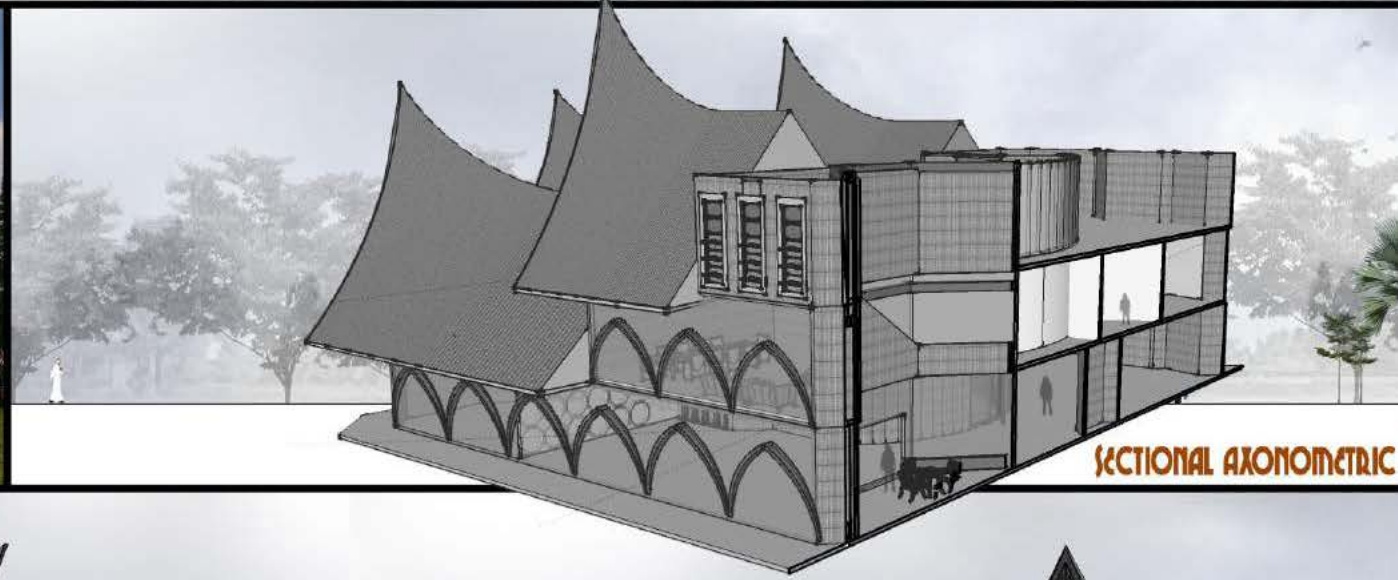
KAMPUNG NURI, JOHOL, NEGERI SEMBILAN

SECTION A-A
SCALE 1:150



SECTION B-B
SCALE 1:150





SECTIONAL AXONOMETRIC

RIGHT ELEVATION
SCALE 1:150

FRONT ELEVATION
SCALE 1:150

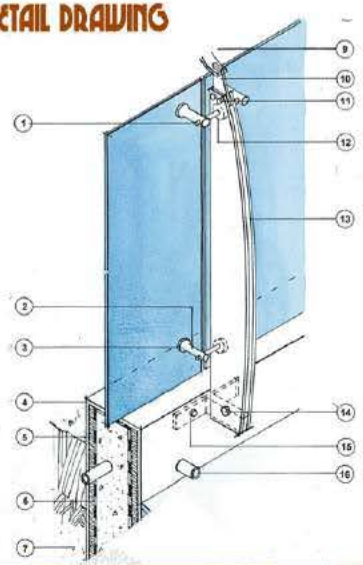
ESURYATI BINTI KAMARUDIN 131917

PROJECT 02

JOHOL AGROTOURISM CENTRE (JAC)

KAMPUNG NURI, JOHOL, NEGERI SEMBILAN

DETAIL DRAWING



CUT-AWAY ISOMETRIC OF GLASS

1. 16 mm dia solid ss bar secured by M8 x 20 mm grub screw fixed through drilled hole on underside
2. 16 mm dia ss solid bar glass support drilled and tapped to receive M8 x 20 mm grub screw on underside
3. Neoprene washer
4. Polyester powder-coated skirting with rolled corners
5. 25 mm polystyrene insulation
6. DPM
7. Meadow turf
8. 38 mm dia x 1.0 mm 90/10 brass handrail, butt jointed at balusters, with polished and waxed finish
9. 6 mm ss curved glass welded to sleeve
10. 10 mm ss flat with radiused edge
11. 35 mm dia x 5 mm ss disc drilled to take M10 internal sleeve connector
12. 60 mm dia x 20 mm ss spacer disc drilled for bar
13. 8 mm radiused mm balusters
14. M 10 internal sleeve connector
15. Polyester powder coated top bracket formed from 15 mm ms backplate and 20 mm ms web
16. Downpipe

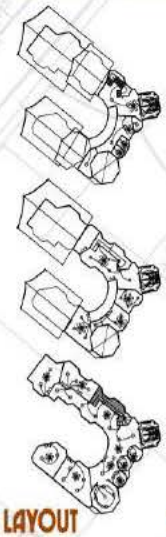
LIGHTING 1

LIGHTING 2

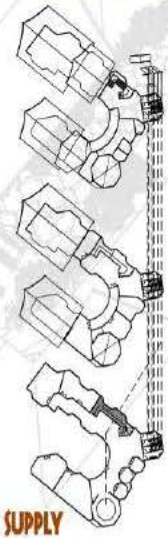
LIGHTING 3

LIGHTING 4

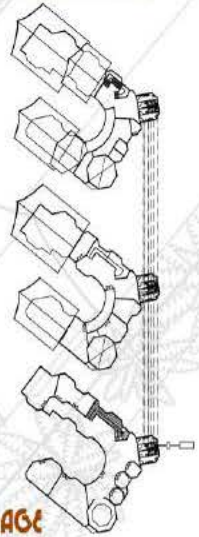
INTERIOR



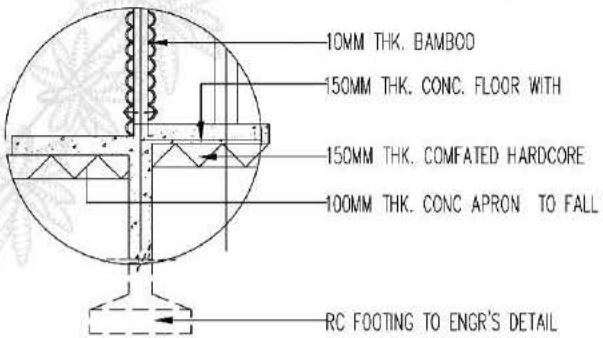
ELECTRICAL LAYOUT



WATER SUPPLY



SEWERAGE



ESURYATI BINTI KAMARUDIN 131917

KARTHIKGHEYAN VASUDEVAN
131919

JOHOL AGROTOURISM CENTRE

PROJECT 2 : RAS204 ARCHITECTURE STUDIO 2 | EN.REDUAN B. MAHAT | PN. AMIRAH BT.MOHTARAM

PREPARED BY KARTHIKGHEYAN VASUDEVAN | 131919 | GROUP 4 |

DESIGN STATEMENT

AGRITOURISM OR AGROTOURISM, AS IT IS DEFINED MOST BROADLY, INVOLVES ANY AGRICULTURALLY BASED OPERATION OR ACTIVITY THAT BRINGS VISITORS TO A FARM OR RANCH. THE CONCEPT JOHOL AGROTOURISM CENTRE (JAC) IS NATURING THE NATURE. ITS GIVE A OUTPUT OF SYTEMATIC PLANTING AND PLANING AND IN THE SAME TIME INTRODUCE THE CULTURE OF JOHOL AND NEGERI SEMBILAN. THE INITIAL IDEA WAS SYMBOLISE JOHOL WITH USING OF MINANGKABAU ROOF. JOHOL AGROTOURISM CENTRE IS DELIVERING THE KNOWLEDGE ON `RAMBAI` TREE AND COW , GOAT BREEDING TO PUBLIC TO GIVE AWARNESS ABOUT THE IMPORTANCE OF AGRICULTURE EVENTHOUGH WE ARE HEADING TO TECHNOLOGIES. VISITORS HAVE THE OPPORTUNITY TO WORK IN THE FIELDS ALONGSIDE REAL FARMERS AND FEED THE COWS AND GOATS AND GAIN KNOWLEDGE ON AGRICULTURE.

ISSUES

- THERE IS NO STRONG ACTIVITIES THAT CAN PROMOTE THEIR CULTURE WHICH CAN ATTRACT PUBLIC TO VISIT.
- ALOT OF ABANDON HOUSE NEAR TO SITE DUE TO MIGRATION.

N

SITE PLAN
SCALE 1:400

LEGENDS

1) DROP OFF & ENTRANCE
2) PARKING
3) BUGGY CAR PARKING
4) RAMBAI TREE AREA
5) TOUCH AND FEEL AREA
6) COW BARN
7) GOAT BARN
8) MILK PRODUCE AREA
9) OUTDOOR CAFE

N

KEY PLAN
SCALE N.T.S

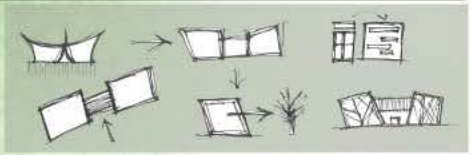
N

LOCATION PLAN
SCALE N.T.S

FARMING | ANIMAL BREEDING | FISHING | APAM JOHOL

MINANGKABAU

CONCEPTUAL SKETCHES



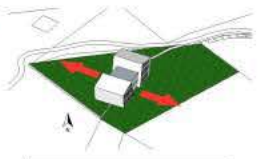
SITE ANALYSIS

SUN ORIENTATION

WINDFLOW

BEST VIEW

VEHICULAR CIRCULATION



SITE AXIS

VEGETATION

JOHOL

JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. THE REIGNING UNDANG LUAK OF JOHOL IS DATUK JOHAN PAHLAWAN LELA PERKASA SETIAWAN MUHAMMAD ABDULLAH (THE 15TH UNDANG).- JOHOL IS PART OF THE PARLIAMENTARY CONSTITUENCY OF KUALA PILAH. JOHOL IS ALSO A CONSTITUENCY OF THE NEGERI SEMBILAN STATE LEGISLATIVE ASSEMBLY.

DESIGN CONCEPT

RISE OF NATURA NATURANS

FUTURE | NATURE | NATURING

RISE OF NATURA NATURANS MEANS IMPROVISATION ON NATURE TO GIVE BETTER OUTPUT WITH SYSTEMATIC PLANING ARRANGING THE EXISTING NATURE ELEMENTS TO TOURIST ATTRACTION

IDEA DEVELOPMENT

FRONT FACADE VIEW
SCALE N.T.S

JOHOL AGROTOURISM CENTRE

PROJECT 2 : RAS204 ARCHITECTURE STUDIO 2 | EN.REDUAN B. MAHAT | PN. AMIRAH BT.MOHTARAM

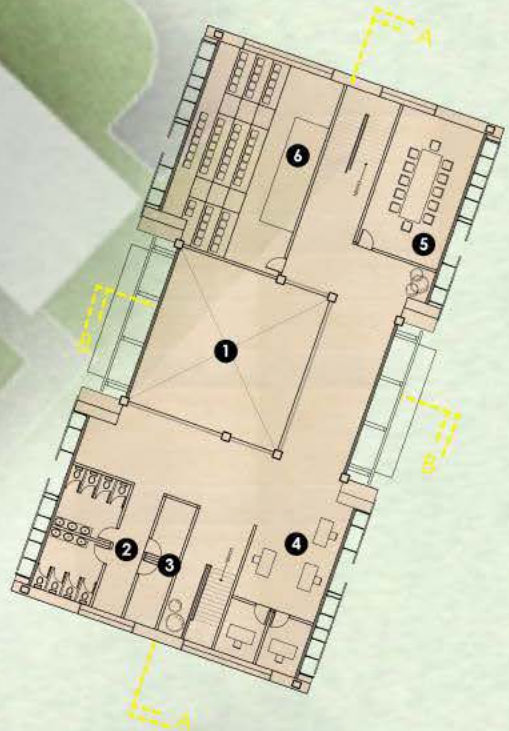
PREPARED BY KARTHIKGHEYAN VASUDEVAN | 131919 | GROUP 4 |

N

GROUND FLOOR PLAN
SCALE 1: 150

LEGENDS

1)RECEPTION
2) WAITING AREA
3) TOILET
4) BRIEFING ROOM
5) GALERY
6) LOCKER
7) DECKING
8) INDOOR CAFE
9) SOUVINER KIOSK
10) SERVICES

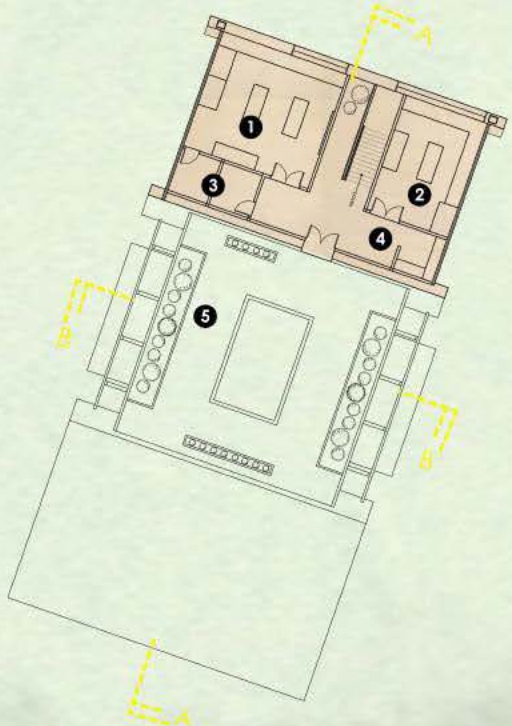


N

FIRST FLOOR PLAN
SCALE 1: 150

LEGENDS

1) VOID
2) TOILET
3) STORAGE
4) OFFICE
5) MEETING ROOM
6) AUDOTRIUM



N

SECOND FLOOR PLAN
SCALE 1: 150

LEGENDS

1) RESEARCH CENTRE (FOOD)
2) RESEARCH CENTRE (HERBS)
3) STORAGE
4) PANTRY
5) OUTDOOR RESEARCH (PLANT)

AGRICULTURE AREA VIEW
SCALE N.T.S

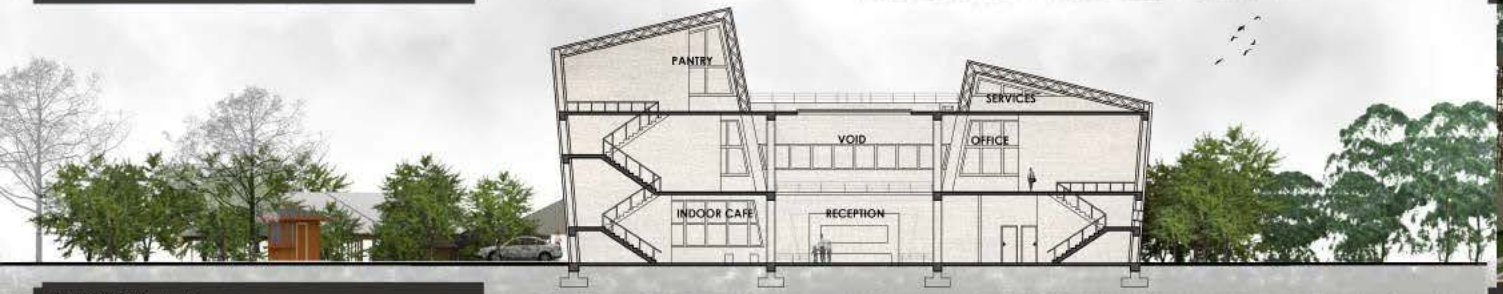
JOHOL AGROTOURISM CENTRE

PROJECT 2 : RAS204 ARCHITECTURE STUDIO 2 | EN.REDUAN B. MAHAT | PN. AMIRAH BT.MOHTARAM

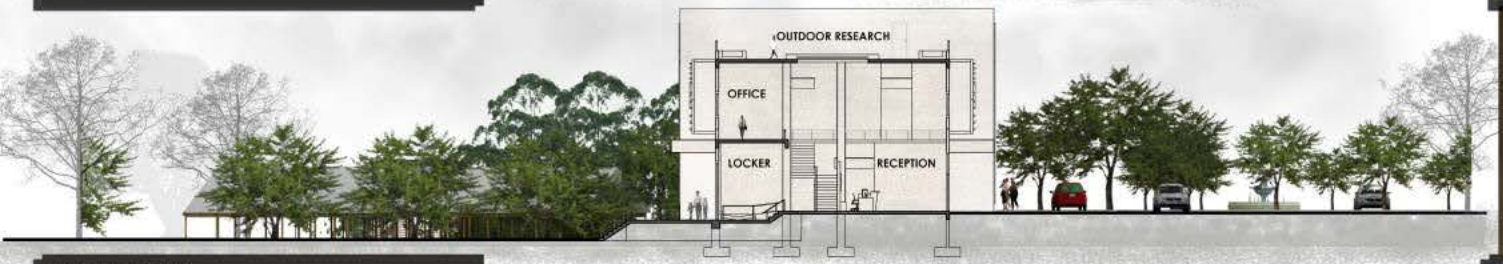
PREPARED BY KARTHIKGHEYAN VASUDEVAN | 131919 | GROUP 4 |

FRONT ELEVATION
SCALE 1: 150

SIDE ELEVATION
SCALE 1: 150



SECTION A-A
SCALE 1: 150



SECTION B-B
SCALE 1: 150

SITE ENTRANCE VIEW
SCALE N.T.S

COW FEEDING AREA
SCALE N.T.S

RAMBAI PLANTATION AREA
SCALE N.T.S

RECEPTION AREA
SCALE N.T.S

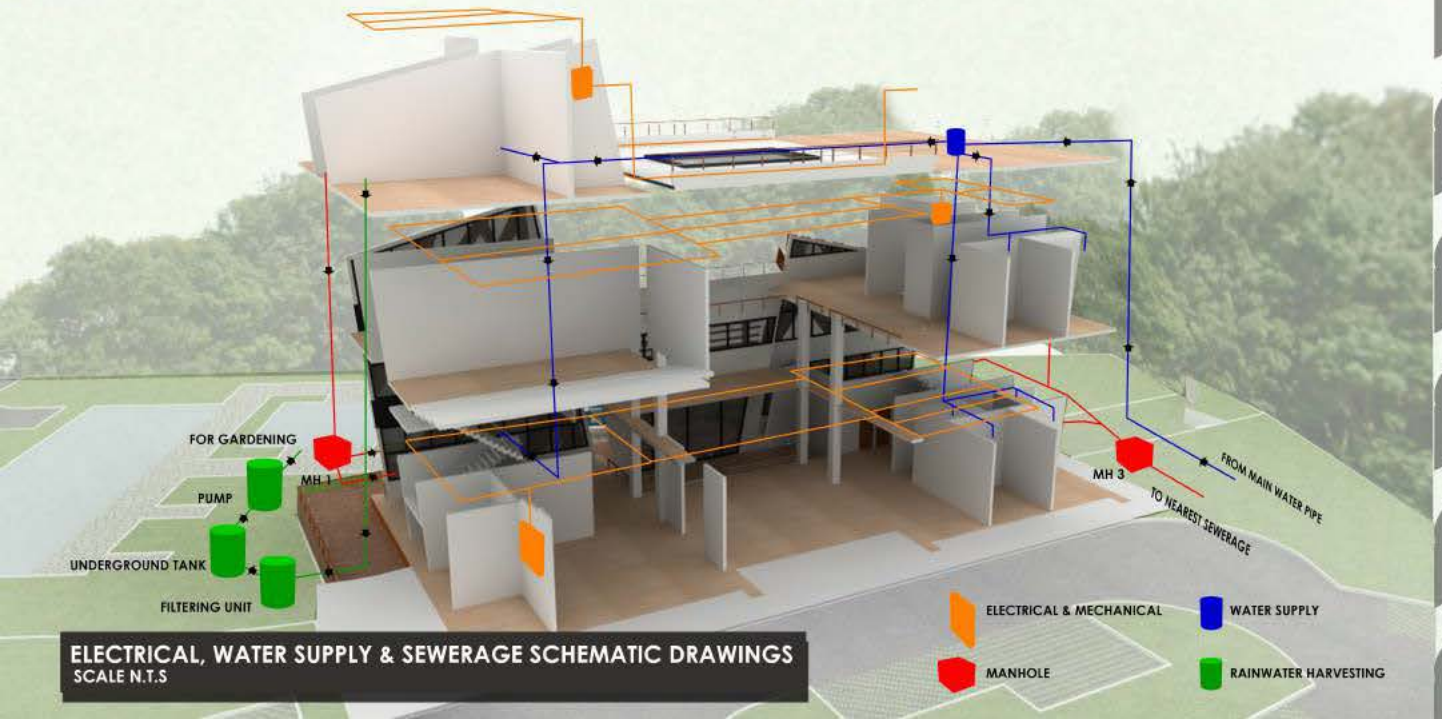
JOHOL AGROTOURISM CENTRE

PROJECT 2 : RAS204 ARCHITECTURE STUDIO 2 | EN.REDUAN B. MAHAT | PN. AMIRAH BT.MOHTARAM

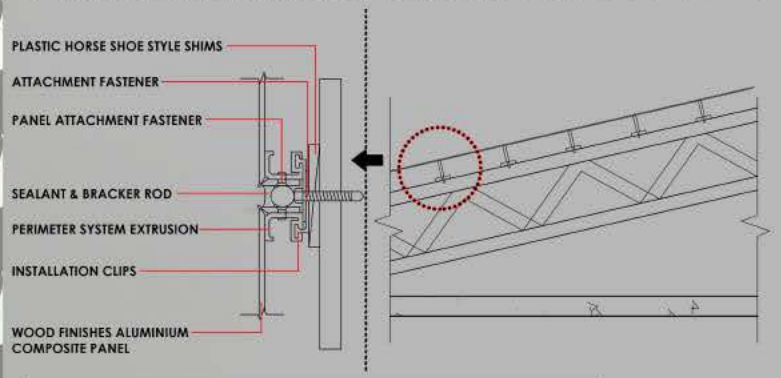
PREPARED BY KARTHIKGHEYAN VASUDEVAN | 131919 | GROUP 4 |

SECTIONAL AXONOMETRIC DRAWING
SCALE 1: 150

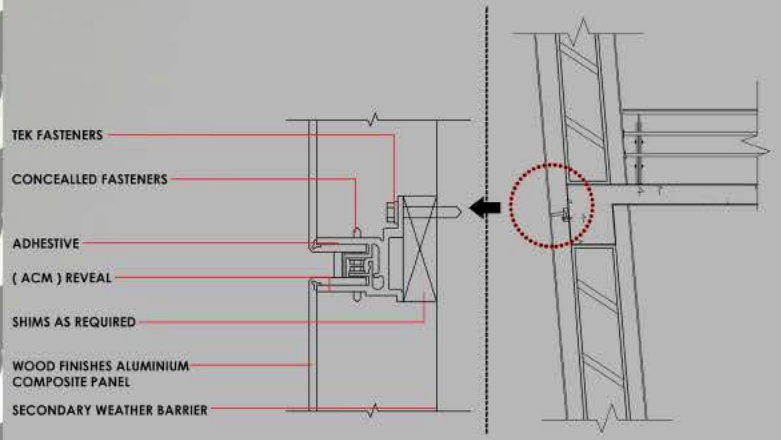
LIGHTING ANALYSIS
SCALE N.T.S



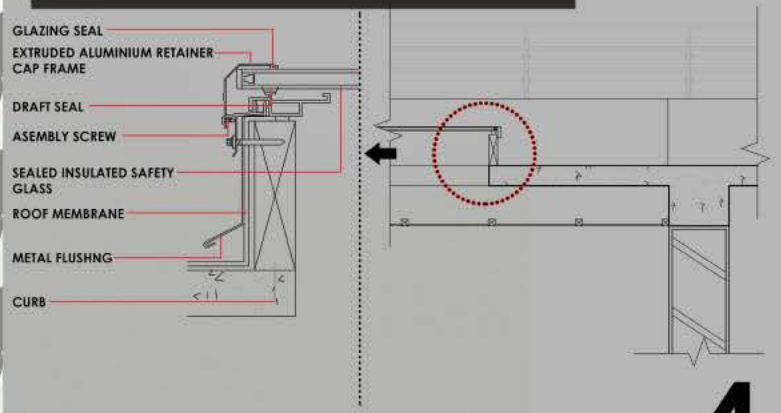
ELECTRICAL, WATER SUPPLY & SEWERAGE SCHEMATIC DRAWINGS
SCALE N.T.S



ALUMINIUM COMPOSITE TO TUBULAR STEEL TRUSS
SCALE 1 : 20



ALUMINIUM COMPOSITE TO CONCRETE BEAM
SCALE 1 : 20



SKYLIGHT DETAIL
SCALE 1 : 20

MARILYN SIA ANAK DAVIOL JUPONG
131920

JOHOL AGROTOURISM CENTRE

MARILYN SIA ANAK DAVIOL JUPONG
131920

JOHOL IS AN AREA LOCATED IN NEGERI SEMBILAN. THE AREA REFERRED IN THEIR SLANG IS 'LUAK' • LUAK JOHOL IS LOCATED AT THE SOUTHEAST OF NEGERI SEMBILAN WHICH COVERED GEMENCHEH, GEMAS, PASIR BESAR, AIR KUNING SELATAN, KEPIS, DANGI, SELARU, JOHOL AND PALONG.

LOCATION PLAN
NOT TO SCALE

KEY PLAN
NOT TO SCALE

DESIGN STATEMENT

THE CONCEPT OF AGROTOURISM IS A DIRECT EXPANSION OF ECOTOURISM, WHICH ENCOURAGES VISITORS TO EXPERIENCE AGRICULTURAL LIFE AT FIRST HAND. AGROTOURISM IS GATHERING STRONG SUPPORT FROM SMALL COMMUNITIES AS RURAL PEOPLE HAVE REALISED THE BENEFITS OF SUSTAINABLE DEVELOPMENT BROUGHT ABOUT BY SIMILAR FORMS OF NATURE TRAVEL. VISITORS HAVE THE OPPORTUNITY TO WORK IN THE FIELDS ALONGSIDE REAL FARMERS AND WADE KNEE-DEEP IN THE SEA WITH FISHERMEN HAULING IN THEIR NETS.

THE CONCEPT OF THIS AGROTOURISM IS BASED ON NATURE VS. NURTURE WHERE BOTH PARTIES (PEOPLE AND NATURE) CONTRIBUTNG TO EACH OTHER.

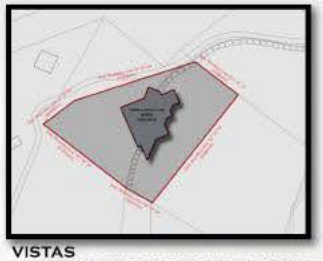
LEGENDS:

1. PARKING
2. RATTAN TREE
3. RAMBUTAN TREE
4. COW AREA / FEEDING
5. LOADING AREA

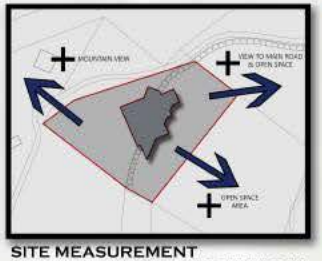
SITE PLAN
SCALE 1:400

INTERIOR VIEWS

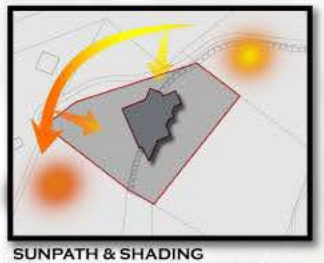
SITE ISSUES



VISTAS
THE VIEWS MOSTLY SURROUNDED BY TREES AND MOUNTAIN BECAUSE THE SITE IS IN RURAL AREA, SUITS FOR AGRICULTURE.



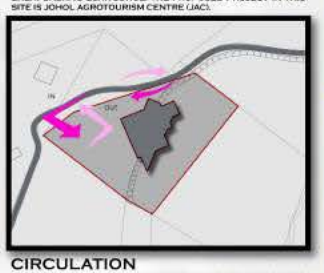
SITE MEASUREMENT
THE SIZE OF THE SITE IS 49838Msq. AND IT IS BELONG TO THE BALAI UNDANG LUAK JOHOL. THE PROPOSED PROJECT IN THIS SITE IS JOHOL AGROTOURISM CENTRE (JAC).



SUNPATH & SHADING
SUNPATH DIRECTION FROM EAST TO WEST. THE USE OF LONG FACADE AT SOUTH TO REDUCE THERMAL MASS ENTERING THE BUILDING.

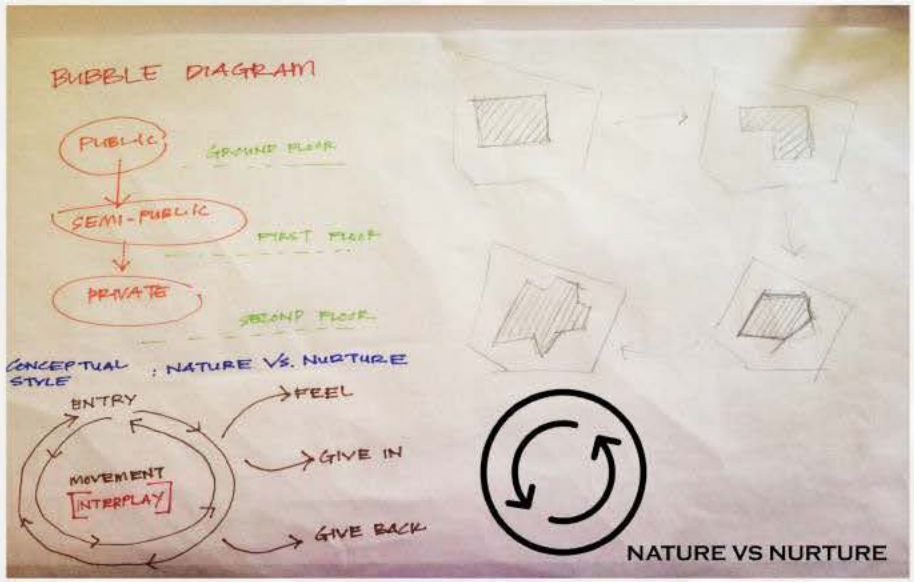
PREVAILING WIND
FRESH WIND BREEZE (UNPOLLUTED AIR) FROM TWO POINT OF DIRECTION PROVIDE GOOD VENTILATION TO THE OCCUPANTS.

TOPOGRAPHY
THE LAND SLOPE TO 1:500mm AT THE LOWEST POINT. SUITABLE FOR WATER FLOW. DRAINAGE AND WATER COLLECTION SYSTEM SHOULD BE AT THIS LOWEST POINT.



CIRCULATION
THE MAIN ROAD IS VERY SMALL WHICH ALLOWED JUST ONE TO TWO CAR AT ONE TIME AND TO AVOID TRAFFIC TWO-WAY ENTRANCE IS PROPOSED.

DESIGN DEVELOPMENT

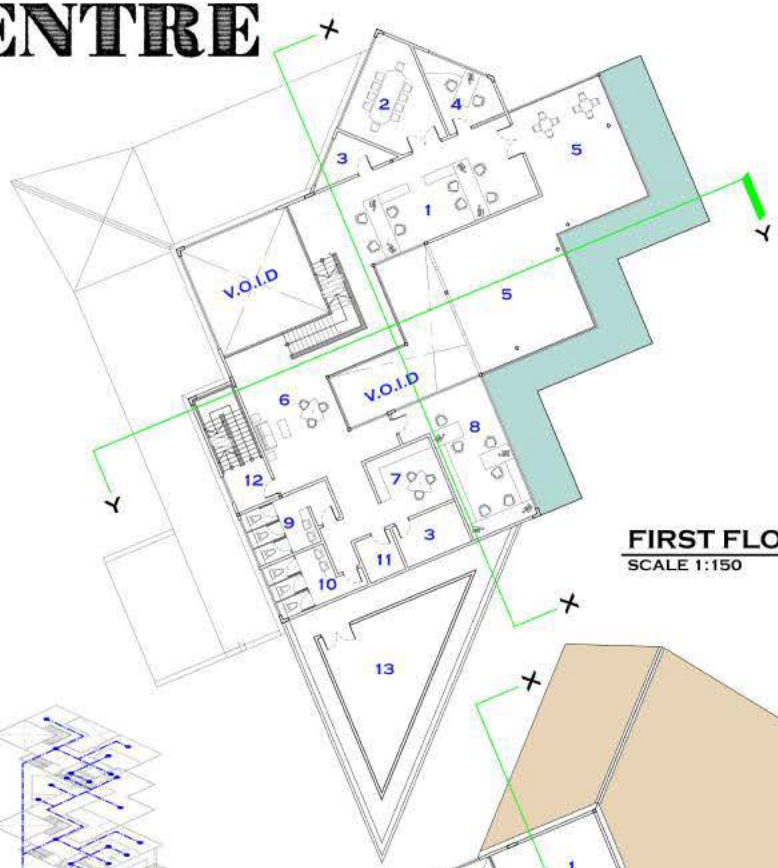


2 JOHOL AGROTOURISM CENTRE

MARILYN SIA ANAK DAVIOL JUPONG
131920

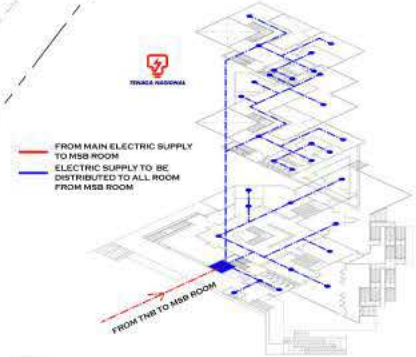
1. ENTRY LOBBY
2. RECEPTION
3. GALLERY
4. OPENABLE RATTAN AREA (WORKSHOP)
5. OPENABLE RAMBUTAN WORKSHOP AREA
6. CAFE
7. OUTDOOR DECKING
8. COW FEEDING AREA
9. AUDIO VISUAL ROOM
10. RETAILS SHOPS
11. FOYER
12. MALE TOILET
13. FEMALE TOILET
14. OKU TOILET
15. FIRE STAIRCASE
16. MSB ROOM
17. P.A SYSTEM

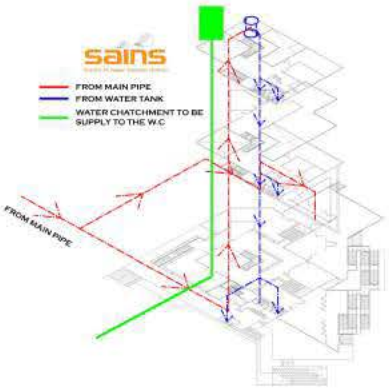
GROUND FLOOR PLAN
SCALE 1:150

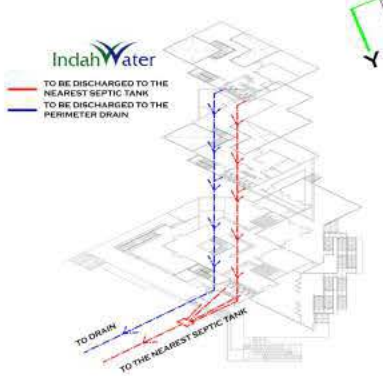


1. ADMIN OFFICE
2. MEETING AREA
3. STORE
4. MANAGER'S ROOM
5. BALCONY
6. STAFF LOUNGE
7. PANTRY
8. OFFICE
9. MALE TOILET
10. FEMALE TOILET
11. JANITOR ROOM
12. FIRE STAIRCASE
13. GREENHOUSE (GLASS)

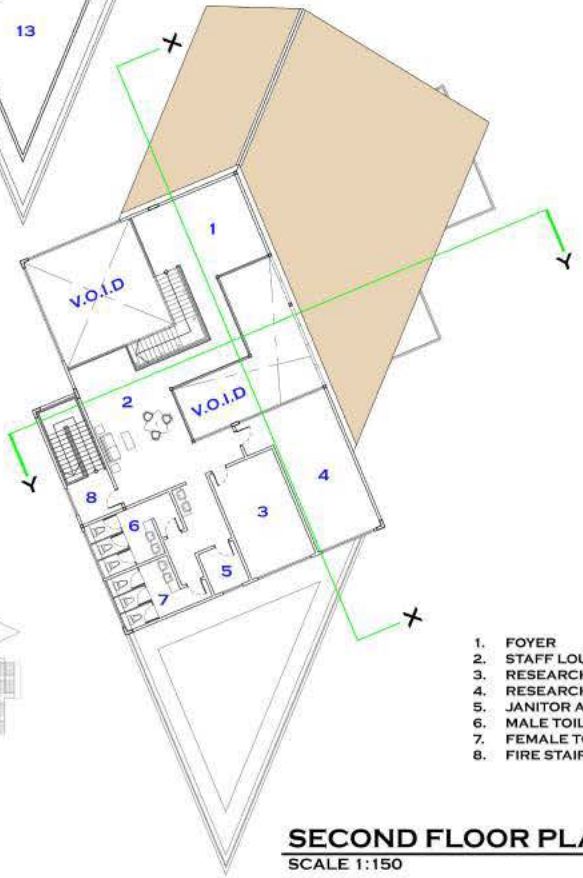
FIRST FLOOR PLAN
SCALE 1:150







SCHEMATIC DIAGRAM
NOT TO SCALE

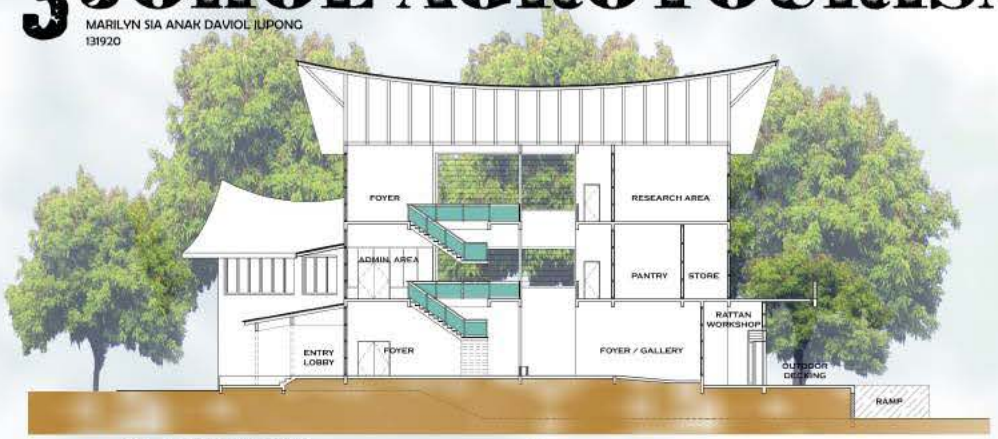


1. FOYER
2. STAFF LOUNGE
3. RESEARCH AREA 01
4. RESEARCH AREA 02
5. JANITOR AREA
6. MALE TOILET
7. FEMALE TOILET
8. FIRE STAIRCASE

SECOND FLOOR PLAN
SCALE 1:150

3 JOHOL AGROTOURISM CENTRE

MARILYN SIA ANAK DAVIOL IUPONG
131920



SECTION X-X
SCALE 1:150

SECTION Y-Y
SCALE 1:150

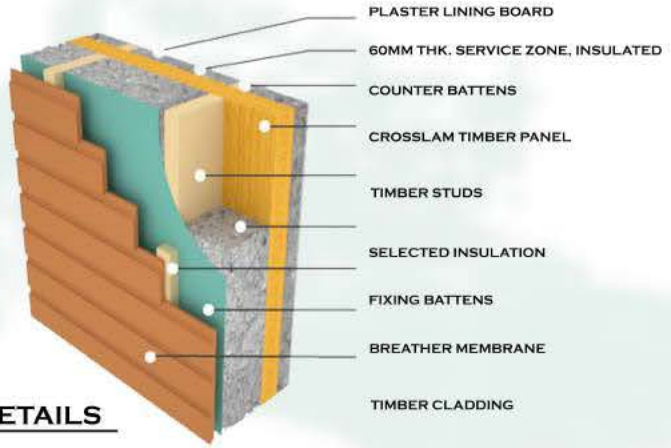
FRONT ELEVATION
SCALE 1:150

SIDE ELEVATION
SCALE 1:150

4 JOHOL AGROTOURISM CENTRE

MARILYN SIA ANAK DAVIOL JUPONG
131920

ISOMETRIC SECTIONAL
SCALE 1:150



WALL DETAILS
SCALE 1:20

LIGHTING ANALYSIS

0900 A.M

1200 P.M

0300 P.M

MOHAMAD AMIRUL ARSYAD BIN RAZALI
131921

J.O.H.O.L | AGROTOURISM CENTRE

MOHAMAD AMIRUL ARSYAD BIN RAZALI | 131921 | RAS204 ARCHITECTURE STUDIO
SCHOOL HOUSING BUILDING PLANNING (HBP)

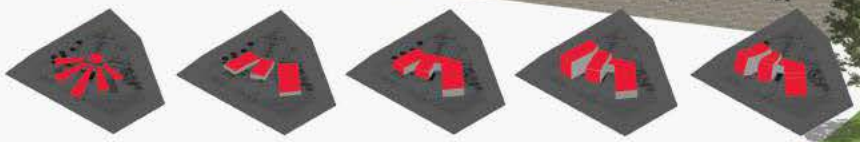
1

THE DESIGN

Based on the site analysis, it is found that the area of the site is less windy because it iS surrounded by large trees, hence the building applies a design that that wind can enter into the building. This building and facade design based from stud structure that vertically down. From this façade design, it applies mechanism that can be opened and can gives wind ventilation to the building, in addition, the glass designbetween the facade can gives natural ventilation and give natural forces of buoyancy and wind to move fresh air into the buildings. This stud structure features the characteristics and elements of 'Rumah Melayu Negeri Sembilan' as well.

In addition, Johol area is not developed, it can gives job opportunities for locals and attract domestic and international tourist to visit and discover 'maman trees' and it can produce
unique local food such as 'Apam Johol'.

CONCEPTUAL DIAGRAM



EXTERIOR PERSPECTIVE VIEW 1
SCALE N.T.S

KEY PLAN
SCALE N.T.S

LOCATION PLAN
SCALE N.T.S

AIM

To propose a place of Johol Agrotourism Centre. Introduce Johol product, witch is Apam Johol, Rendang Mamam. Ikan Talapia and many alse. These are seen empower the local farmer s with the know-how to generate income and improve the socio-economic status of sleepy town.

OBJECTIVE

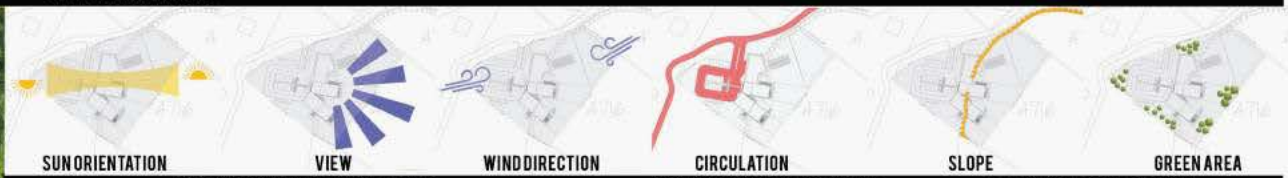
Demonstrate knowlage and comprehansion in producting a chematic design proposal specific funtion and multy-story building on a Hill Context. The site context, user need and the impact of development to its surounding integration of environmentally friendly structure , specific function & multi-story building on Hill Context. The site context , user need and the impact of development to its surounding integration of environmentally friendly structure. To applay universal design.

ABOUT SITE

JOHOL is one of the consituent Minangkabau states formed Negeri Sembilan. The reigning Undang Luak Johol is Datuk Johan Pahlawan Lela Perkasa Setiawan Muhammad Abdullah (The 15th Undang) He is one of four undangs that will participate in the election of tthe Yang Dipertuan Besar Negeri Sembilan.

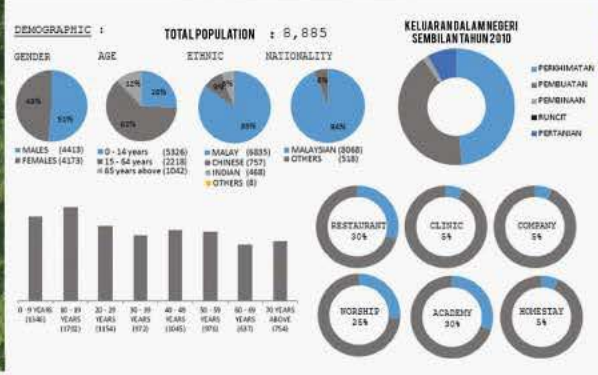
SITE ANALYSIS

SITE PLAN
SCALE 400



SUN ORIENTATION | VIEW | WIND DIRECTION | CIRCULATION | SLOPE | GREEN AREA

SOCIO CULTURE STUDY



PRODUCT CHOOSEN

HOW TO SLOVE PROBLEM OF JOHOL SLEEPY TOWN.

WHY?
-MANY YOUNGSTER MIGRATE T LARGER TOWN.
-LESS JOB OPPORTUNITY IN JOHOL.

WHERE?
KG.NURI AREA

HOW?
-INCREATE JOB OPPORTUNITY IN JOHOL FOR JAC.

WHAT?
-PROPOSE OF JAC.

DESIGN CONCEPT

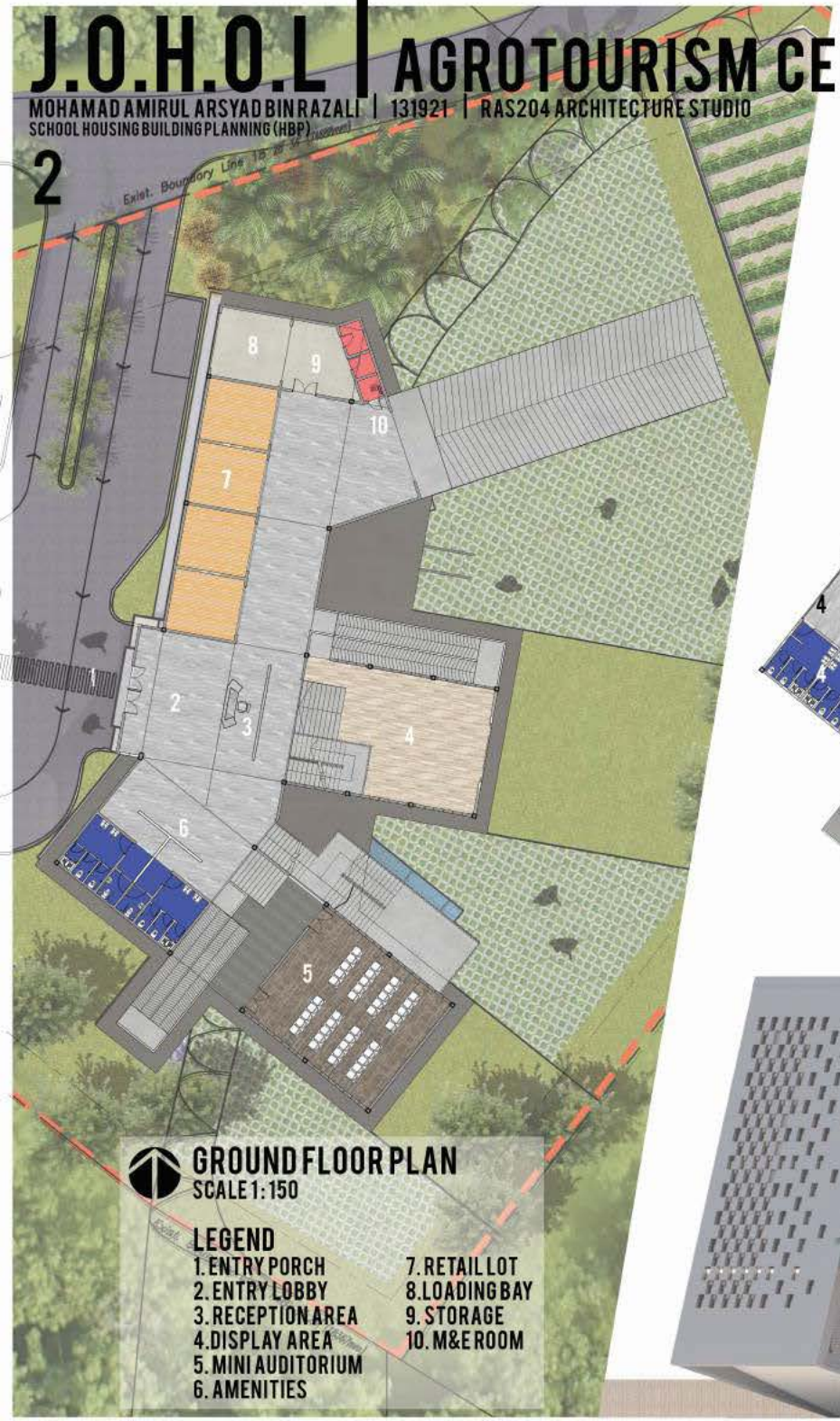
STUDTURE

THE CONCEPT 'STUDTURE' BASED FROM WORDS 'STUD STRUCTURE'. THE DESIGN OF THIS JOHOL AGROTOURISM CENTER IS BASED FROM STUD STRUCTURE DESIGN AS WELL. THE STUD STRUCTURE HAS A LOT OF CHARACTERISTICS SUCH AS STRONG, IMPORTANT, AND FUNDAMENTAL FOR THE STRUCTURE.

J.O.H.O.L | AGROTOURISM CENTRE

MOHAMAD AMIRUL ARSYAD BIN RAZALI | 131921 | RAS204 ARCHITECTURE STUDIO
SCHOOL HOUSING BUILDING PLANNING (HBP)

2



GROUND FLOOR PLAN
SCALE 1:150

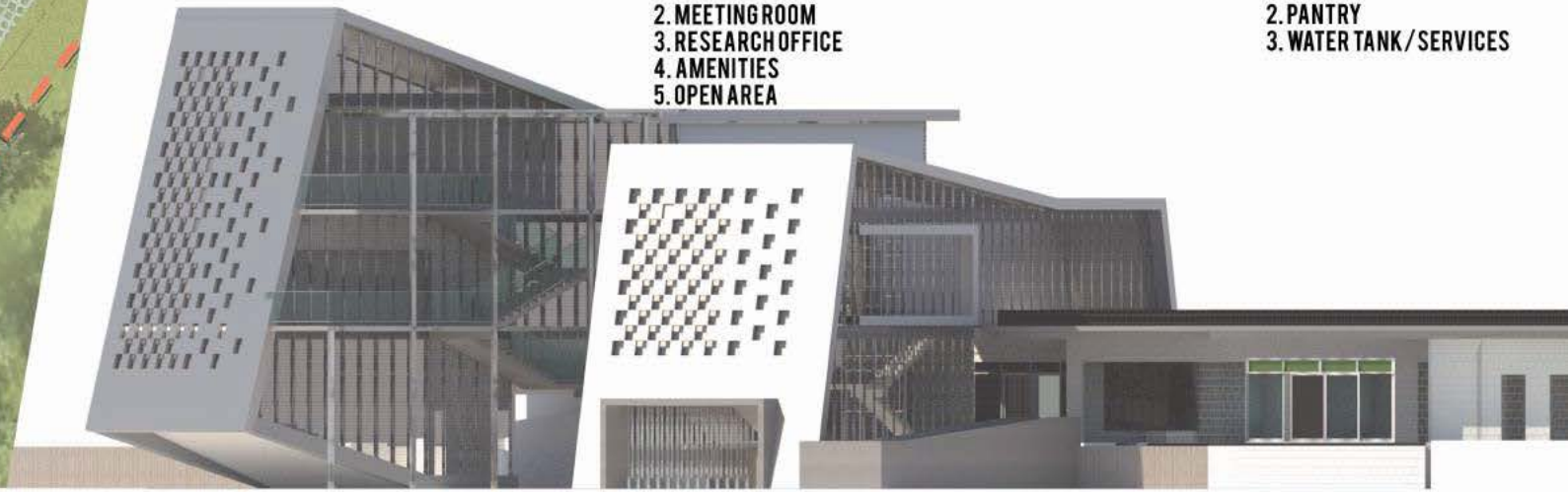
LEGEND
1. ENTRY PORCH
2. ENTRY LOBBY
3. RECEPTION AREA
4. DISPLAY AREA
5. MINI AUDITORIUM
6. AMENITIES
7. RETAIL LOT
8. LOADING BAY
9. STORAGE
10. M&E ROOM

FIRST FLOOR PLAN
SCALE 1:150

LEGEND
1. SEMINAR ROOM
2. MEETING ROOM
3. RESEARCH OFFICE
4. AMENITIES
5. OPEN AREA

SECOND FLOOR PLAN
SCALE 1:150

LEGEND
1. MANAGEMENT OFFICE
2. PANTRY
3. WATER TANK / SERVICES



J.O.H.O.L | AGROTOURISM CENTRE

MOHAMAD AMIRUL ARSYAD BIN RAZALI | 131921 | RAS204 ARCHITECTURE STUDIO
SCHOOL HOUSING BUILDING PLANNING (HBP)

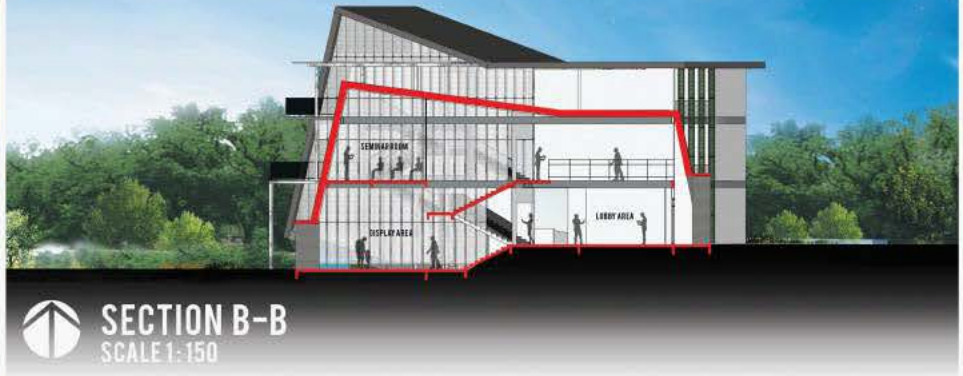
3

EXTERIOR PERSPECTIVE VIEW 2
SCALE N.T.S

EAST ELEVATION
SCALE 1:150

SECTION A-A
SCALE 1:150

WEST ELEVATION
SCALE 1:150



SECTION B-B
SCALE 1:150

J.O.H.O.L | AGROTOURISM CENTRE

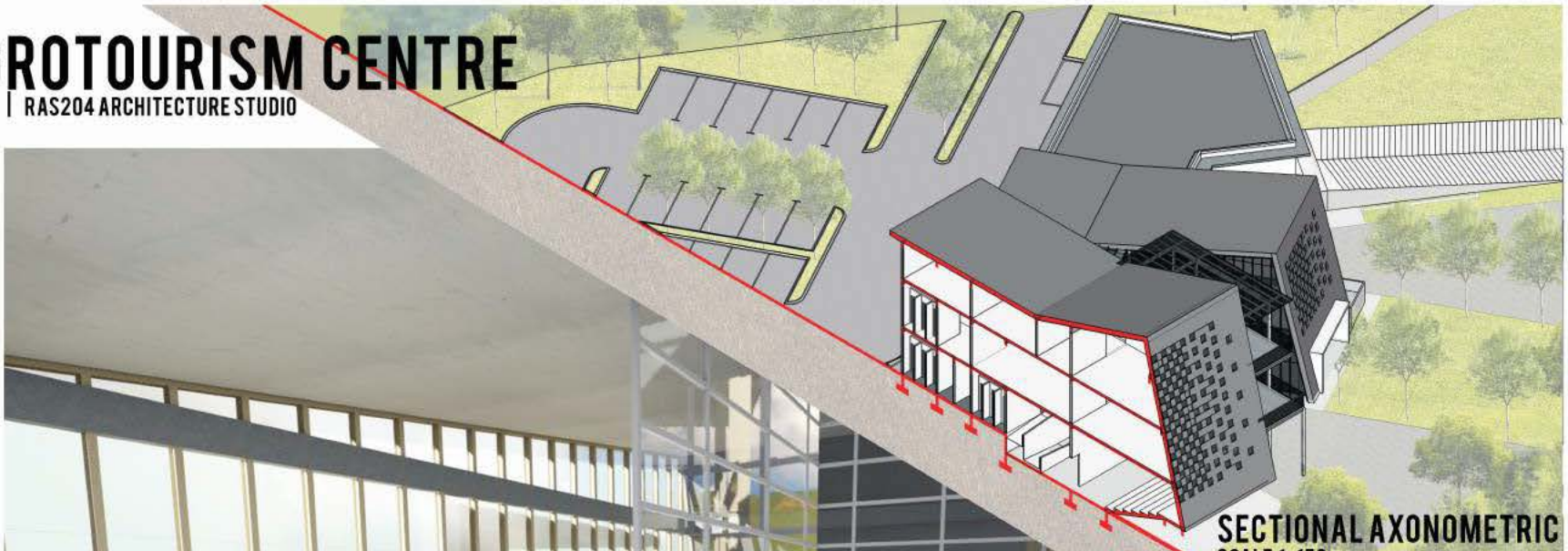
MOHAMAD AMIRUL ARSYAD BIN RAZALI | 131921 | RAS204 ARCHITECTURE STUDIO
SCHOOL HOUSING BUILDING PLANNING (HBP)

4

MANAGMENT OFFICE VIEW
SCALE N.T.S

MINI AUDITORIUM
SCALE N.T.S

INTERIOR PERSPECTIVE VIEW
SCALE N.T.S



SECTIONAL AXONOMETRIC
SCALE 1:150

STAIRCASE VIEW
SCALE N.T.S

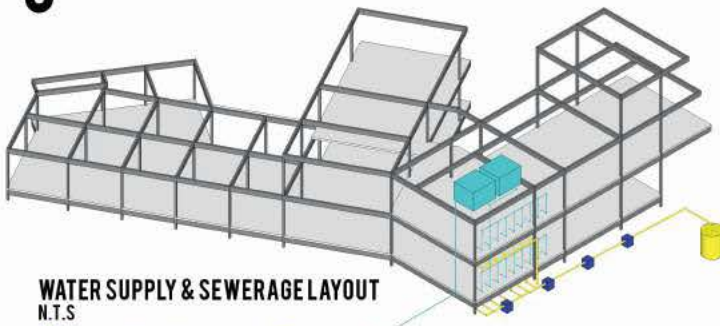
ENTRANCE VIEW
SCALE N.T.S

MEETING ROOM
SCALE N.T.S

J.O.H.O.L | AGROTOURISM CENTRE

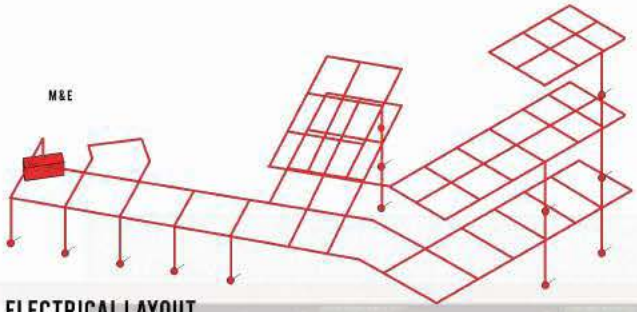
MOHAMAD AMIRUL ARSYAD BIN RAZALI | 131921 | RAS204 ARCHITECTURE STUDIO
SCHOOL HOUSING BUILDING PLANNING (HBP)

5

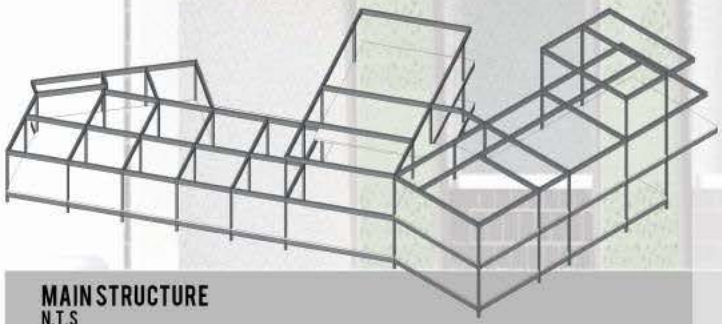


WATER SUPPLY & SEWERAGE LAYOUT
N.T.S

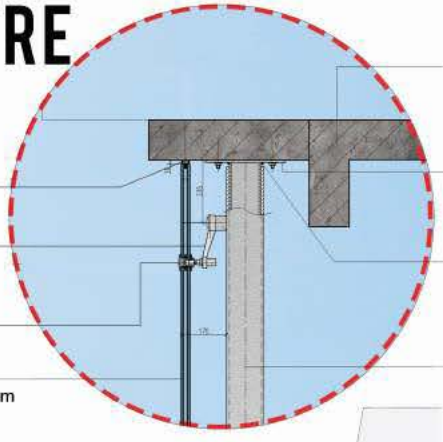
WATER TANK | WATER SUPPLY | SEVERAGE TANK | SEVERAGE | MANHOLE



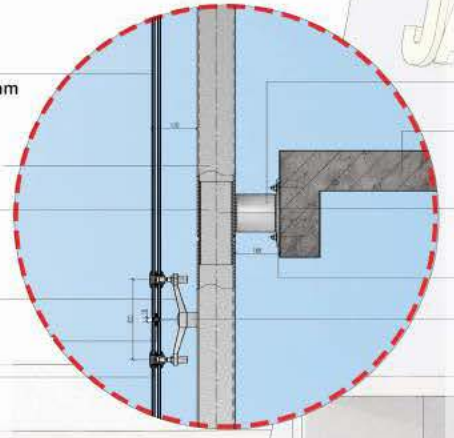
ELECTRICAL LAYOUT
N.T.S



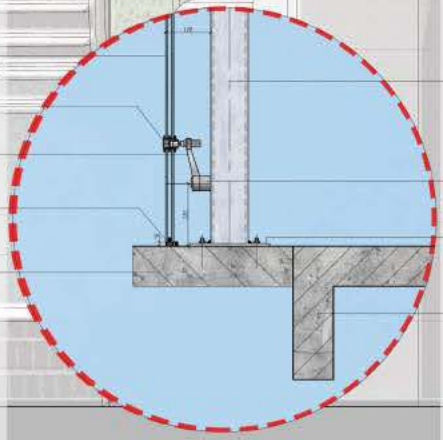
MAIN STRUCTURE
N.T.S



DETAIL 1 SCALE 1:10

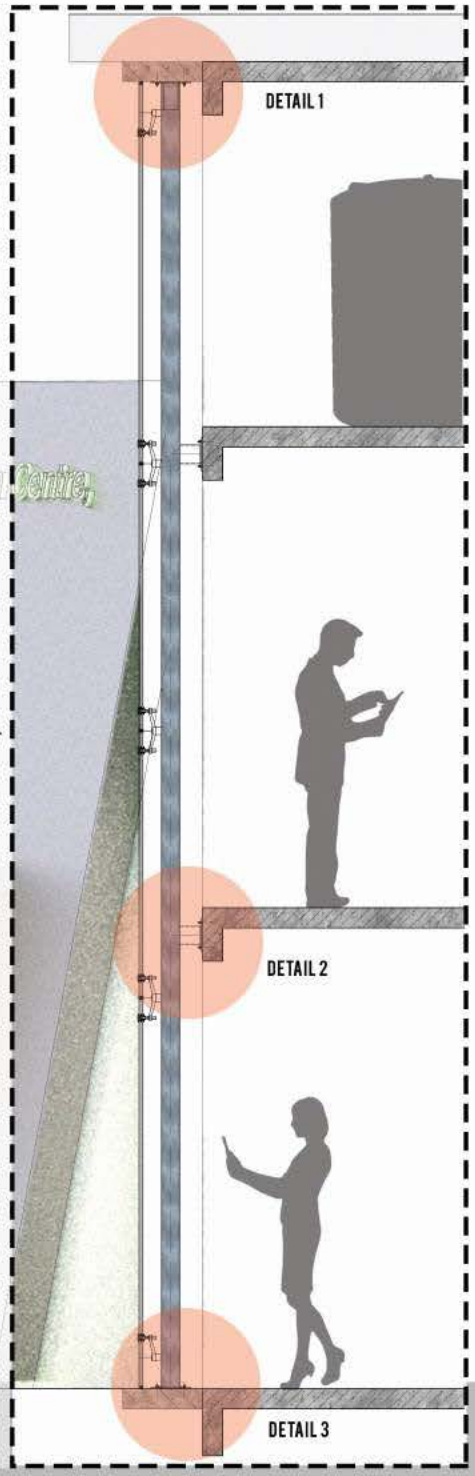


DETAIL 2 SCALE 1:10



DETAIL 3 SCALE 1:10

SPECIAL DETAIL SCALE 1:20



MOHAMMAD FARID BIN MD YUSUFF
131922

JOHOL AGROTOURISM CENTRE (JAC)

VIEW TOWARDS JAC

RAS204:ARCHITECTURE STUDIO 2
SEMESTER 4,2017/18
SCHOOL OF HOUSING,
BUILDING & PLANNING
UNIVERSITI SAINS MALAYSIA

PROJECT 1: JOHOL AGROTOURISM CENTRE (JAC)

KEY PLAN
NTS

LOCATION PLAN
NTS

ADDRESS SITE : LOT 4716, JALAN KAMPUNG NURI 73100 JOHOL, NEGERI SEMBILAN
AREA OF SITE : 4988 sqm (1.2 Acres)
TYPE OF SITE : AGRICULTURE
OWNER SITE : PN RAMISAH

INTRODUCTION

JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. THE REIGNING UNDANG LUAK OF JOHOL IS DATUK JOHAN PAHLAWAN LELA PERKASA SETIAWAN MUHAMMAD ABDULLAH(THE 15TH UNDANG). WITH R&D INPUT OF USM RESEARCHERS AND AGRO-FARMING PRODUCT HARVESTED BY PEOPLE OF JOHOL, THIS PAVES WAY FOR A OFF-SHOOT DESTINATION NAME JOHOL AGROTOURISM CENTRE.

THE CLIENT

BALAI UNDANG LUAK JOHOL

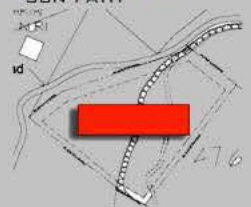
ARCHITECTURAL STATEMENT

SWEET POTATO AND CHICKEN ARE SELECTED AS THE MAIN SOURCE OF PRODUCTS TO BEINTRODUCED IN JOHOL AGROTOURISM CENTRE (JAC).

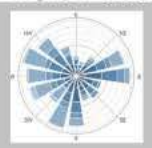
SUN PATH

TEMPERATURE

SUN PATH & WIND FLOW



THE LONGER FAÇADE FACING NORTH OR SOUTH WHILE THE SHORTEST FACING EAST AND WEST TO REDUCE BUILDING THERMAL



SITE INVENTORY & ANALYSIS

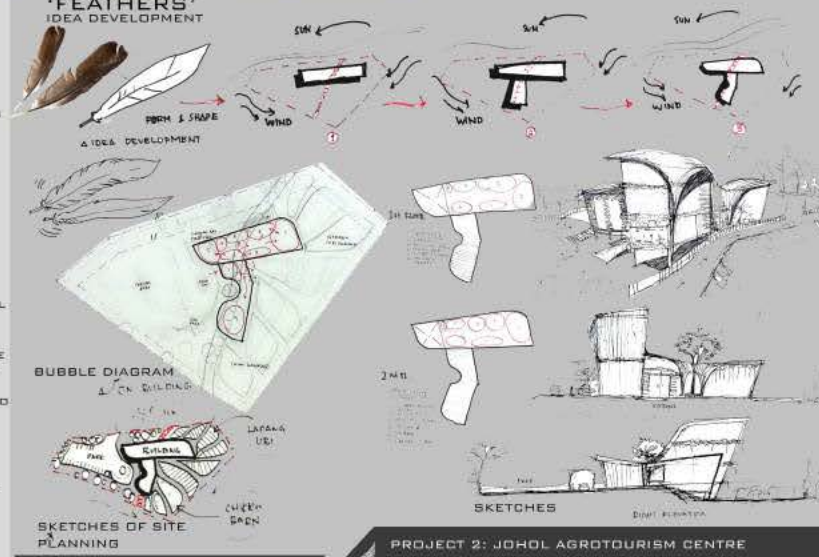
LOCATION: TOKYO , JAPAN
ARCHITECTS: KONO DESIGNS
YEAR : 2010
AREA: 19,974M2
FLOORS: 9 STOREY
INITIAL IDEA : TO ALLOW EMPLOYEES TO GROW AND HARVEST THEIR OWN FOOD AT WORK.

THE DOUBLE-SKIN GREEN FACADE FEATURES SEASONAL FLOWERS AND ORANGE TREES PLANTED WITHIN THE 3' DEEP BALCONIES.

THE BALCONIES ALSO HELP SHADE AND INSULATE THE INTERIORS WHILE PROVIDING FRESH AIR WITH OPERABLE WINDOWS

PRECEDENT STUDY

'FEATHERS'
IDEA DEVELOPMENT



CONCEPTUAL SKETCHES

SITE PLAN
SCALE 1:400

VIEW TOWARDS SLOPE

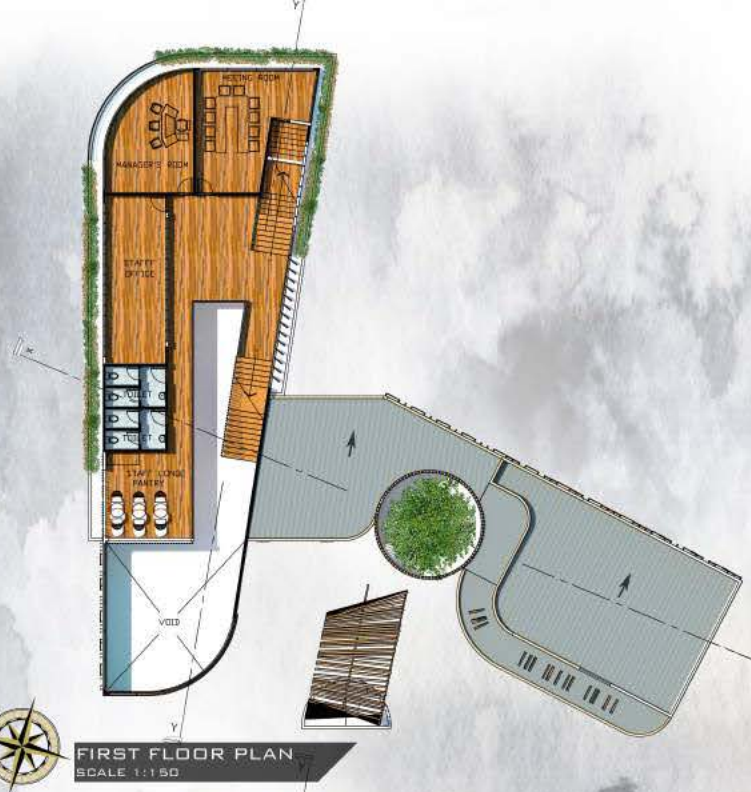
VIEW TOWARDS POCKET GARDEN

GROUND FLOOR PLAN
SCALE 1:150

FRONT ELEVATION
SCALE 1:150

REAR ELEVATION
SCALE 1:150

PROJECT 2: JOHOL AGROTOURISM CENTRE
MOHAMAD FARID BIN MD YUSUFF
131922



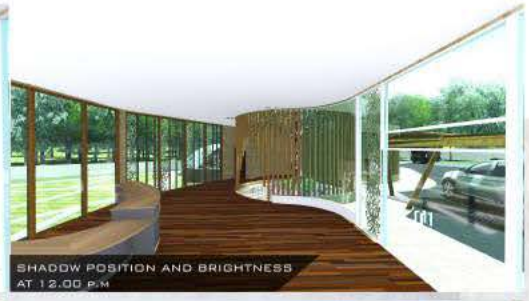
FIRST FLOOR PLAN
SCALE 1:150

SECOND FLOOR PLAN
SCALE 1:150

USING THE DAYLIGHT IN A BUILDING IS A CREATIVE STRATEGY IN PASSIVE DESIGN. THE SUN IS A SOURCE OF DAYLIGHT AN D CAN BE USE TO AS NATURAL LIGHTING WITH LESS CONSUMPTION OF ELECTRICITY. HUS A GOOD LIGHTING SHOULD BE DESIGNED WELL IN ORDER TO ACHEVE ENOUGH LIGHTING. HENCE REDUCING THE USAGE OF ARTIFICIAL LIGHTING THAT CAN CAUSE HIGH BILL OF ELECTRICITY.

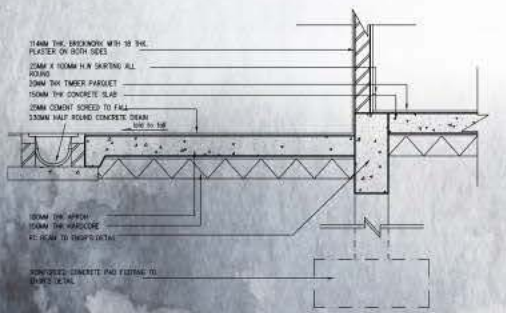
ISLAMIC PATTERN PRODUCED IN FLOOR'S MAIN PRAYER HALL WHEN SUNLIGHT PENETRATE EVERY WALL. DIRECTLY, IT PRODUCES AN INTERESTING SCENE IN THE BUILDING, AS WELL AS SERVES AS A SHADING DEVICE.

LIGHTING ANALYSIS
(AT RECEPTION AREA)

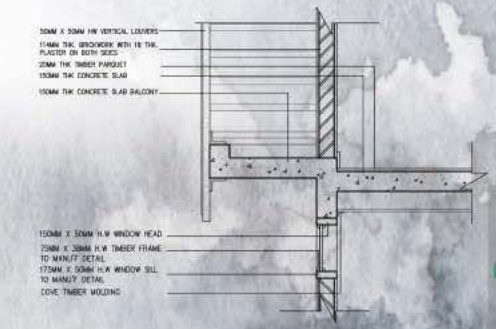


SECTION X-X
SCALE 1:150

SEXCTION Y-Y
SCALE 1:150



DETAIL A
SCALE 1:20

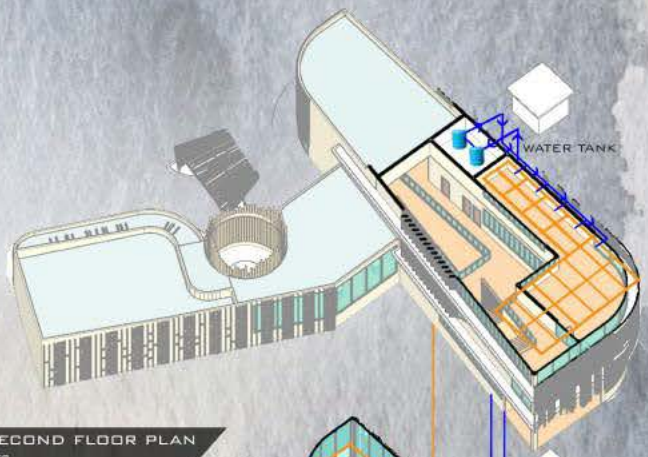


DETAIL B
SCALE 1:20

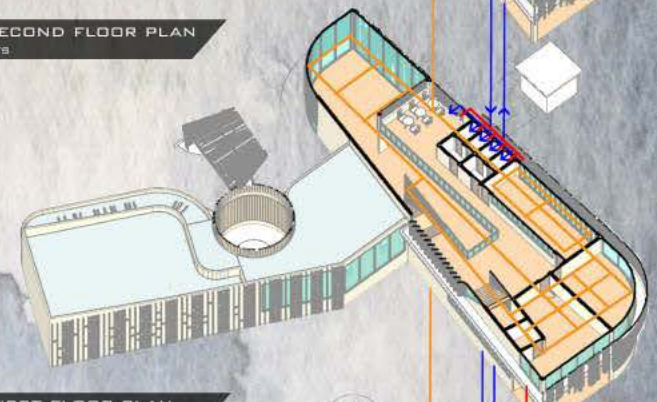
LEGEND

- MANHOLE
- SEWERAGE
- GENSET
- ELECTRIC
- WATER TANK
- WATER SUPPLY

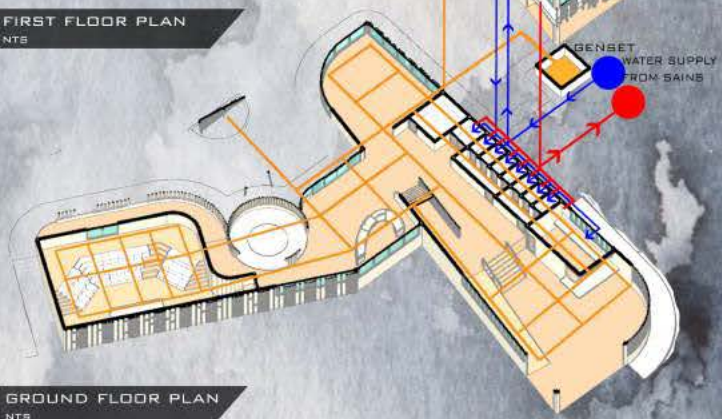
SECTIONAL PERSPECTIVE
SCALE 1:50



SECOND FLOOR PLAN
NTS



FIRST FLOOR PLAN
NTS



GROUND FLOOR PLAN
NTS

ELECTRICAL, WATER SUPPLY & SEWERAGE
SCALE NTS


VIEW TOWARDS DROPOFF


VIEW TOWARDS RECEPTION AREA


VIEW TOWARDS DROPOFF


MEETING ROOM


VIEW FROM MAIN GATE


VIEW TOWARDS CAFE


VIEW TOWARDS STAGE


BIRD EYE VIEW


VIEW TOWARDS AUDITORIUM

MOHAMAD IQBAL BIN SAZALI
131923

JOHOL AGROTOURISM CENTRE

NEGERI SEMBILAN

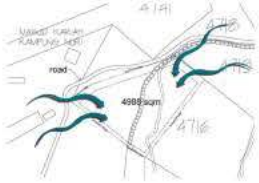
INTRODUCTION

JOHOL REGION IS LOCATED IN THE SOUTHEASTERN PART OF NEGERI SEMBILAN COVERING AREAS GEMENCHEH, GEMAS, AIR KUNING SELATAN, DANGI, SELARU, JOHOL AND PALONG. IN TERM OF ADMINISTRATION JOHOL IS UNDER DISTRICT ADMINISTRATION OF KUALA PILAH, TAMPIN AND JEMPOL. MOST OF THE PEOPLE IN JOHOL PRACTICING PERPATIH CUSTOM RELATED TO MINANGKA-BAU BUKIT TINGGI SUMATERA

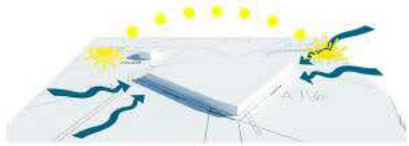
CONCEPTUAL IDEA & SKETCHES

THE MAIN CONCEPT IS DRIVEN BY THE IDEA OF A SET OF GRAND INHABITABLE PALMS THAT ARE GROWN ON THE PALM OIL OF JOHOL, NEGERI SEMBILAN.

SITE ANALYSIS



WIND



SUNPATH

SOLARPATH

KEY PLAN
SCALE: N.T.S

LOCATION PLAN
SCALE: N.T.S

SITE PLAN
SCALE: 1/400

MOHAMAD IQBAL BIN SAZALI
131923

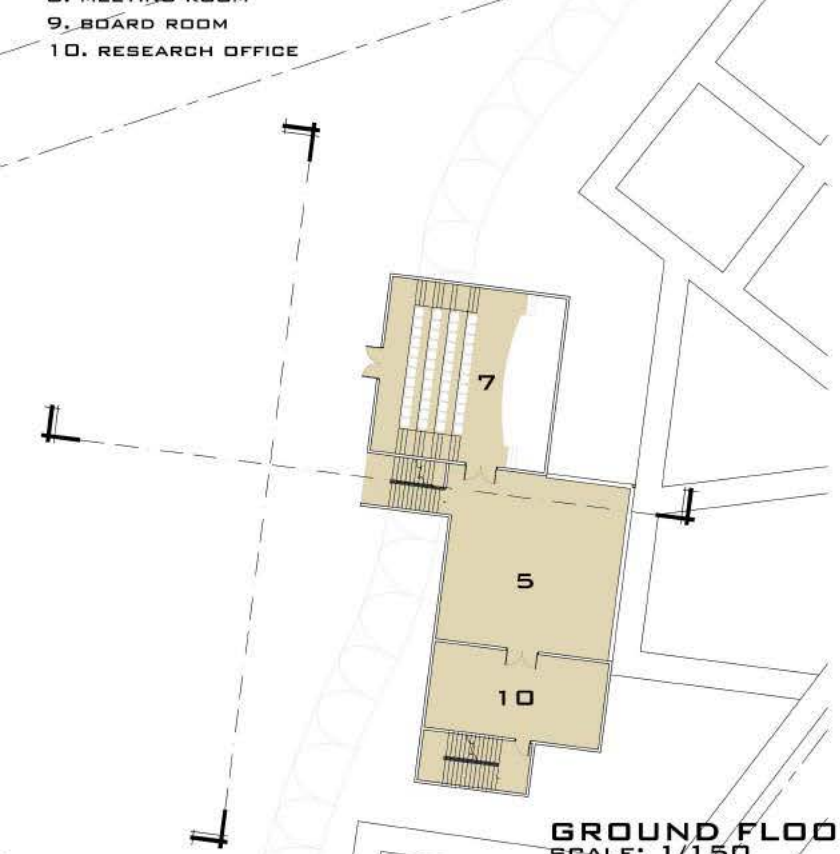
JOHOL AGROTOURISM CENTRE

NEGERI SEMBILAN

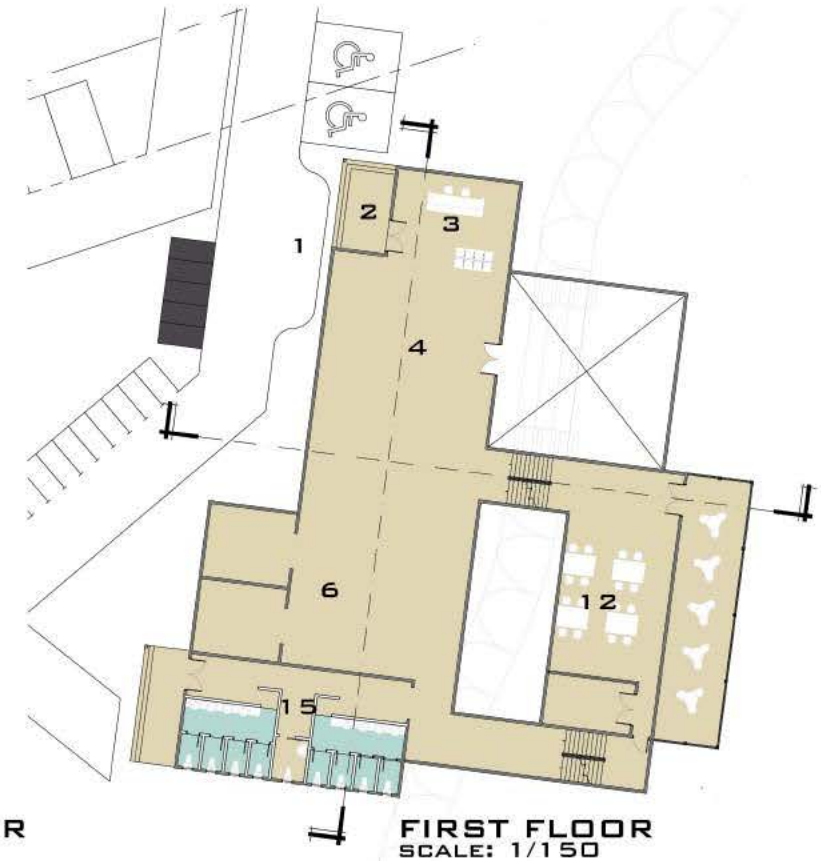
1. ENTRY PORCH
2. LOBBY
3. RECEPTION AREA
4. EXHIBIT AREA
5. INTERACTIVE WORKSHOP
6. COMMERCIAL AREA
7. MINI AUDIOTORIUM
8. MEETING ROOM
9. BOARD ROOM
10. RESEARCH OFFICE
11. WORKSTATION
12. COFFEE BAR
13. OPERATION MANAGER ROOM
14. GENERAL MANAGER ROOM
15. TOILET

ARCHITECTURAL STATEMENT

TO FORM A AGROTOURISM CENTER IN JOHOL AND IS WAS DESIGNED BASED ON THE CULTURE OF PEOPLE IN THAT AREA. THIS DEVELOPMENT WILL BE LANDMARK TO JOHOL AND WILL INCREASE TOURIST TO COME TO JOHOL AND ECONIMAL IN JOHOL ALSO WILL INCREASE



GROUND FLOOR
SCALE: 1/150



FIRST FLOOR
SCALE: 1/150

SECOND FLOOR
SCALE: 1/150

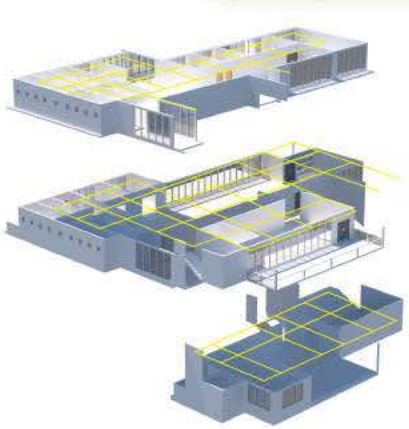
SECTION Y-Y
SCALE: 1/150

SECTION X-X
SCALE: 1/150

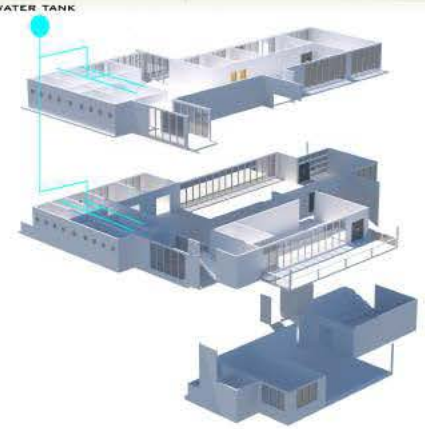
JOHOL AGROTOURISM CENTRE

NEGERI SEMBILAN

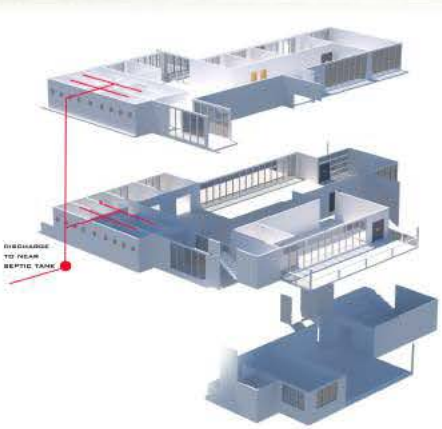
INTERIOR WORKSTATION



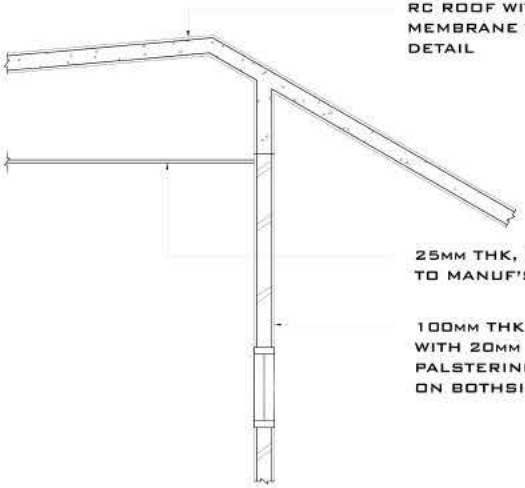
ELECTRICAL DIAGRAM
SCALE: N.T.S



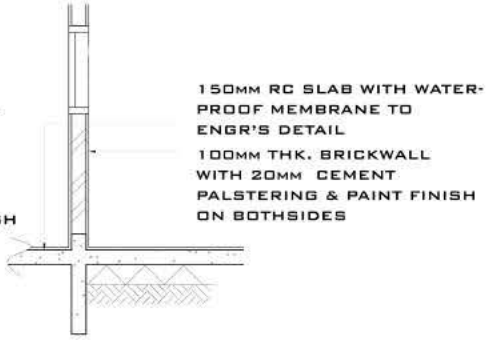
WATER SUPPLY DIAGRAM
SCALE: N.T.S



SEWERAGE DIAGRAM
SCALE: N.T.S



DETAIL 1
SCALE: 1/20



DETAIL 2
SCALE: 1/20

PERSPECTIVE SECTIONAL
SCALE: 1/150

FRONT ELEVATION
SCALE: 1/150

RIGHT ELEVATION
SCALE: 1/150

MOHAMAD IQBAL BIN SAZALI
131923

MOHAMMAD AIDIL AFIQ BIN NAZARUDIN 131924

PROJECT 02
JOHOL AGROTOURISM CENTRE

FLOWLOGY AGROTOURISM

MOHAMMAD AIDIL AFIQ BIN NAZARUDIN I ID : 131824 I
RAS 204 ARCHITECTURE STUDFIO 2 I SEMESTER 4 2017/2018 I
STUDIO MASTER: EN. REDUAN B MAHAT , PN. SITI AMIRAH BT MOHTARAM

KEY PLAN
NOT TO SCALE

LOCATION PLAN
NOT TO SCALE

SITE BACKGROUND

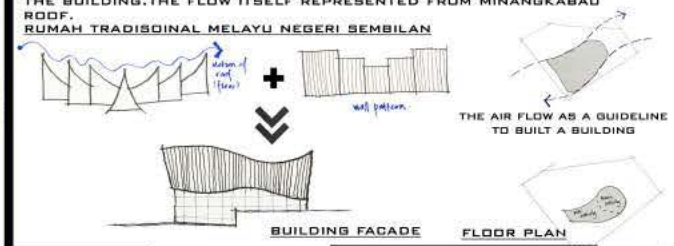
*LOCATED AT LOT 4718, JALAN KAMPUNG NURI 73100 JOHOL, NEGERI SEMBILAN
*AREA OF SITE IS 988 SQM (1.2 ACRES)
*TYPE OF SITE IS AGRICULTURE
*THE OWNER OF THIS SITE IS PN RAMISAH

ARCHITECTURE STATEMENT

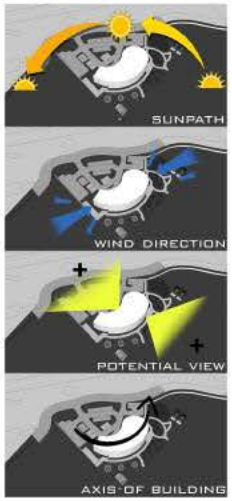
THIS PROJECT REQUIREMENT IS TO DESIGN AN AGROTOURISM CENTRE IN JOHOL FOR COMMUNITY NEEDED. THIS BUILDING SITE LOCATED AT JALAN KAMPUNG NURI, JOHOL, NEGERI SEMBILAN. WITH THE EXISTANCE R&D SPACES IN THE BUILDING, IT WILL GENERATE A NEW JOB OPPOURTUNITY. THIS BUILDING MAY PROMOTE INTERACTION BETWEEN NATURE AND PEOPLE WITH THE PRESENCE OF DUCK AND MAMAN PLANTATION. OTHER FACILITY CONTAIN IN THIS BUILDING IS AUDITORIUM, RETAIL LOT, GREEN HOUSE, EXIBITION AREA, CAFE, AND RESEARCH AND DEVELOPMENT LABORATORY.THE VISITOR MAY GET THEIR FIRST-HAND EXPERIENCE ON THE PRODUCT AGRO-FARMING.

CONCEPT

THE CONCEPT FOR THIS BUILDING IS BASED ON 'MOTION'. THE CHARACTERISTIC LIKR FLOW IS BEING ADAPTED TOWARDS THE BUILDING.THE FLOW ITSELF REPRESENTED FROM MINANGKABAU ROOF.
RUMAH TRADISOINAL MELAYU NEGERI SEMBILAN



SITE ANALYSIS



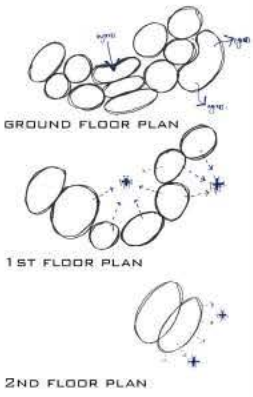
TARGET

PRODUCT CHOOSE

CLEOME GYNANDRA (POKOK MAMAN)

THIS PLANT ID A SCRUB TREE THAT CAN BE CONTROLLED ITS PLANTATION. EXAMPLES OF ITS PRODUCT IS FOOD AND HEALTHY PRODUCT.

BUBBLE DIAGRAM



FUNCTION

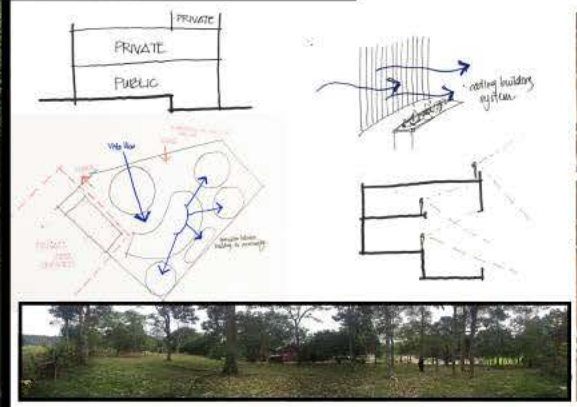
DUCK

ALL PART OF THEIR BODY CAN BE USEFULLSUCH AS EGG, MEAT, FEATHER, TAIL, AND MANY MORE.THE PRODUCT CAN BE PRODUCE LIKE MERCHANDISE, FOOD AND MANY MORE

BUILDING MASSING

AIR FLOW BECOME GUIDLINE | CUT TO APPRECIATE THE VIEW | BEING PUSH UP | ADDED A GREENERY | MOTION FACADE

SKETCH AND SITE PHOTO



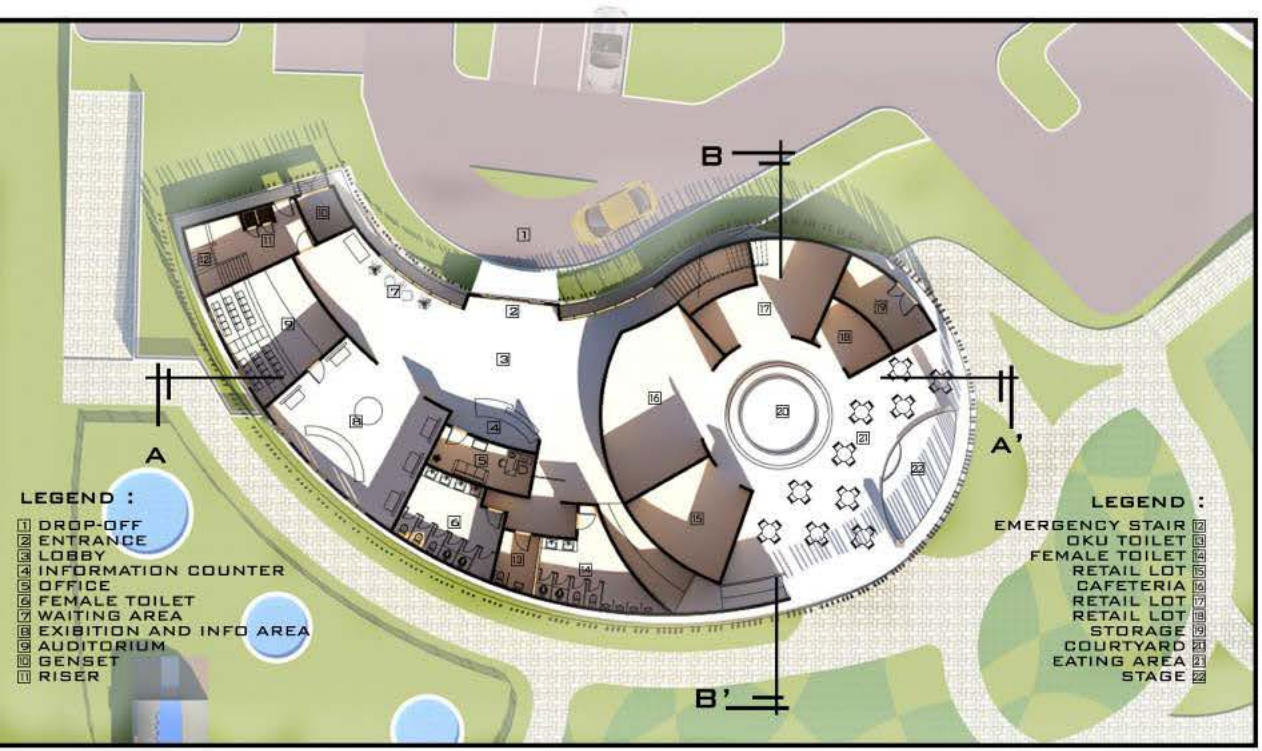
FACADE STUDY

LAM CAFÉ, VIETNAM

THIS BUILDING USING A BAMBOO AS A WALL TO AMPHASIS THE MAXIMUM AIR CIRCULATION THE BUILDING. THE CROSS VENTILATION OCCCURS WHEN THE AIR FLOW TO THE BUILDING

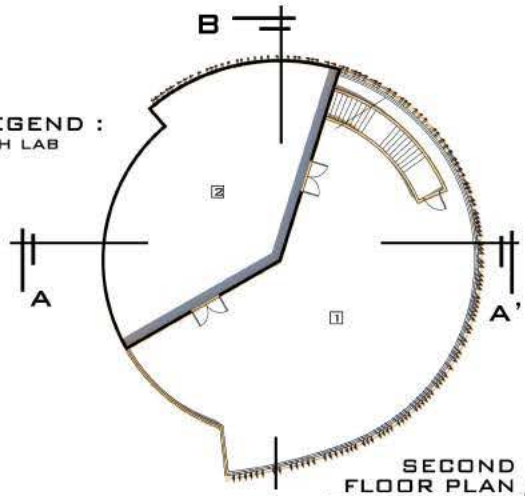
PROJECT 02
JOHOL AGROTOURISM CENTRE

MOHAMMAD AIDIL AFIQ BIN NAZARUDIN I ID : 131824 I
RAS 204 ARCHITECTURE STUDFIO 2 I SEMESTER 4 2017/2018 I
STUDIO MASTER: EN. REDUAN B MAHAT , PN. SITI AMIRAH BT MOHTARAM



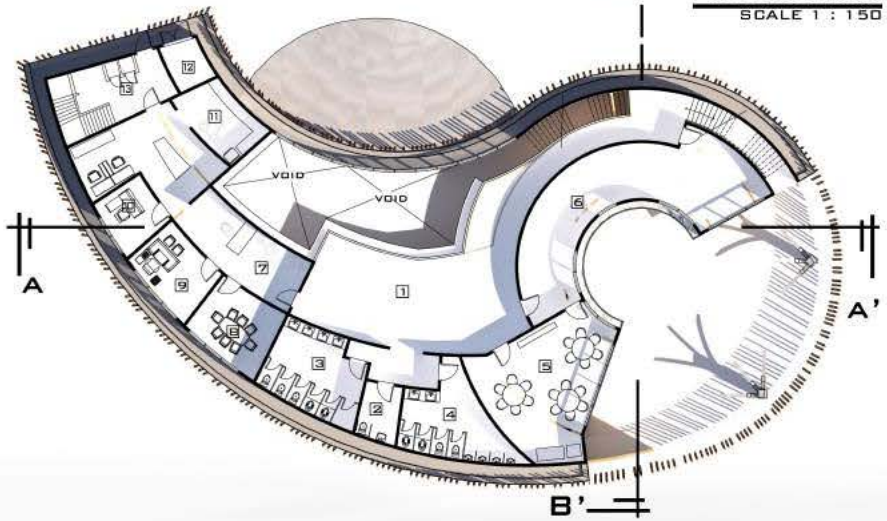
GROUND FLOOR PLAN
SCALE 1 : 150

SECOND FLOOR LEGEND :
- PRIVATE RESEARCH LAB
- OPEN SPACE



SECOND FLOOR PLAN
SCALE 1 : 150

FIRST FLOOR LEGEND :
1 HALLWAY
2 OKU TOILET
3 MALE TOILET
4 FEMALE TOILET
5 SEMINAR ROOM
6 RESEACH OFFICE
7 WAITING AREA
8 MEETING ROOM
9 EXECUTIVE MANAGER ROOM
10 MANAGER ROOM
11 PANTRY
12 GENSET
13 RISER



FIRST FLOOR PLAN
SCALE 1 : 150

SECTION A - A'
SCALE 1 : 150

SECTION B - B'
SCALE 1 : 150

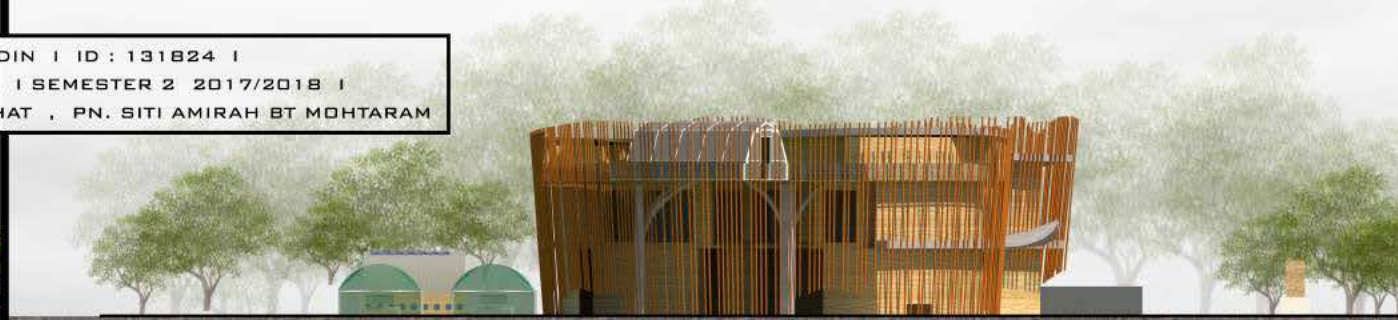
PROJECT 02
JOHOL AGROTOURISM CENTRE

MOHAMMAD AIDIL AFIQ BIN NAZARUDIN I ID : 131824 I
RAS 204 ARCHITECTURE STUDFIO 4 I SEMESTER 2 2017/2018 I
STUDIO MASTER: EN. REDUAN B MAHAT , PN. SITI AMIRAH BT MOHTARAM

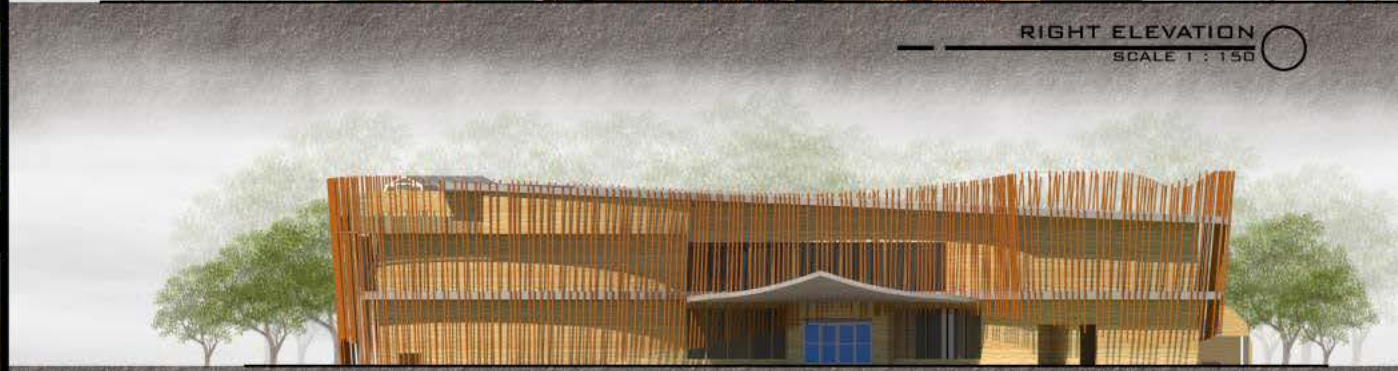
VIEW FROM GREEN HOUSE

VIEW FROM RESEARCH OFFICE

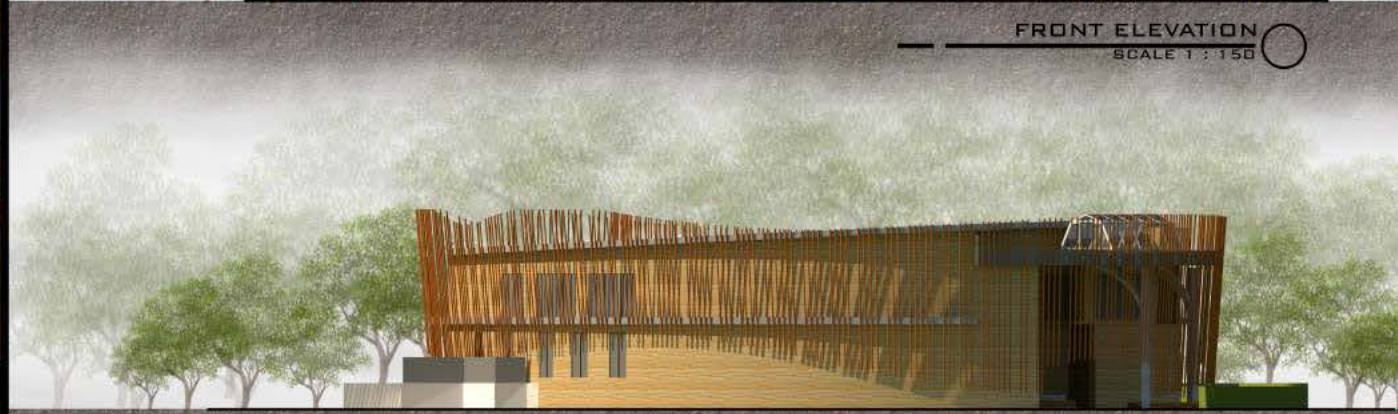
VIEW TOWARDS REAR BUILDING



RIGHT ELEVATION
SCALE 1 : 150



FRONT ELEVATION
SCALE 1 : 150

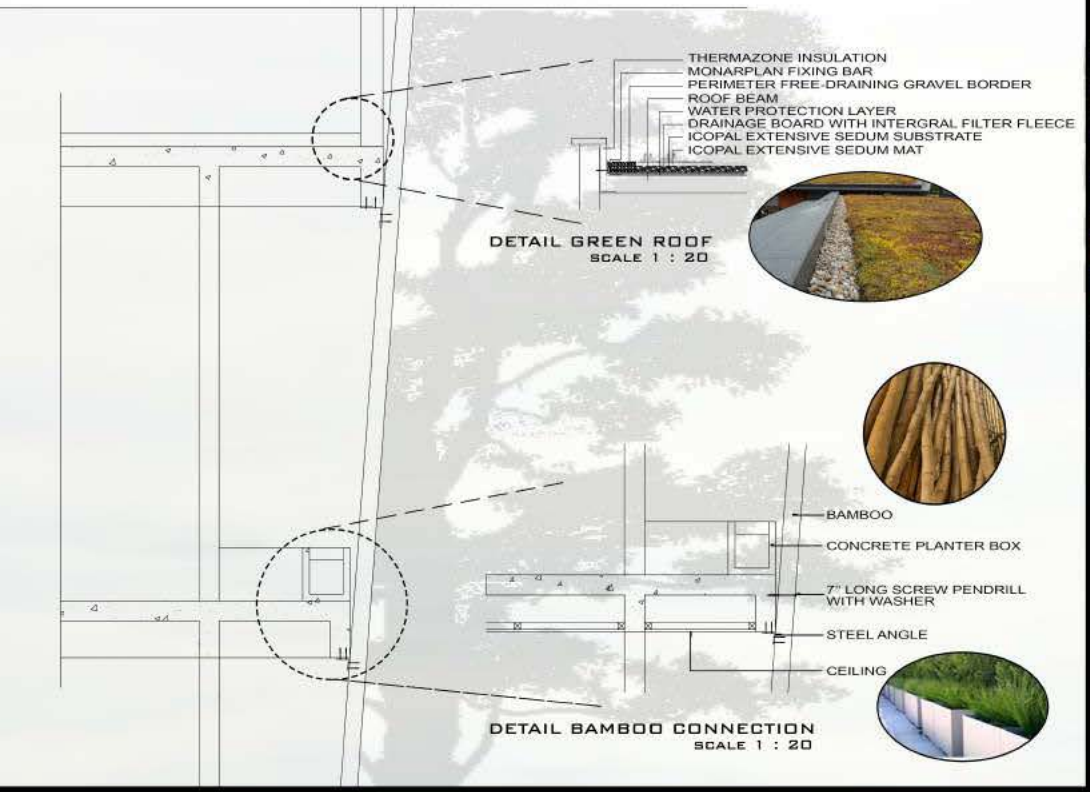


REAR ELEVATION
SCALE 1 : 150

LEFT ELEVATION
SCALE 1 : 150

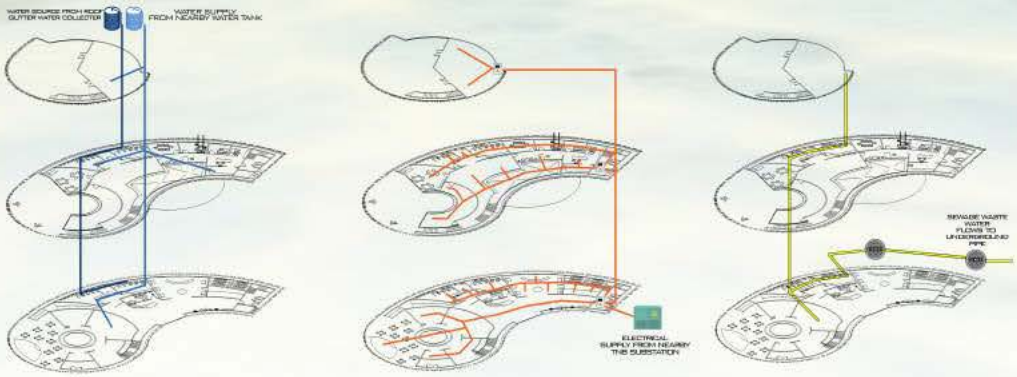
PROJECT 02
JOHOL AGROTOURISM CENTRE

MOHAMMAD AIDIL AFIQ BIN NAZARUDIN I ID : 131824 I
RAS 204 ARCHITECTURE STUDFIO 2 I SEMESTER 4 2017/2018 I
STUDIO MASTER: EN. REDUAN B MAHAT , PN. SITI AMIRAH BT MOHTARAM



DETAIL GREEN ROOF
SCALE 1 : 20

DETAIL BAMBOO CONNECTION
SCALE 1 : 20



AGENCY / COMPANY INVOLVED : sains

WATER SUPPLY DIAGRAM
NOT TO SCALE

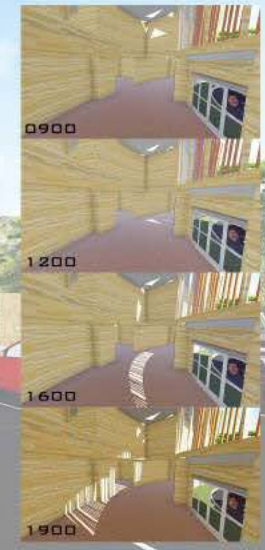
AGENCY / COMPANY INVOLVED : TENAGA NASIONAL

ELECTRICAL DIAGRAM
NOT TO SCALE

AGENCY / COMPANY INVOLVED : IndahWater

SEWARAGE DIAGRAM
NOT TO SCALE

LIGHTING OBSERVATION



SECTIONAL AXONOMETRIC
SCALE 1:150

MUHAMMAD ANWAR BIN MOHD ALI
131929

JOHOL AGROTOURISM CENTER

NEGERI SEMBILAN

01

MUHAMMAD ANWAR BIN MOHD ALI 131929
SCHOOL OF HBP (USM)
2017 / 2018 (SEMESTER 4)

STUDIO MASTER
EN REDUAN BIN MAHAT
PN AMIRAH BT MOHTARAM

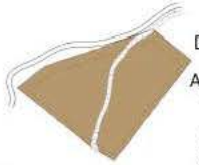
KEY PLAN

LOCATION PLAN

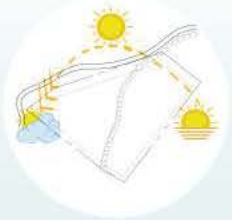
SITE ANALYSIS

PROPOSED SITE

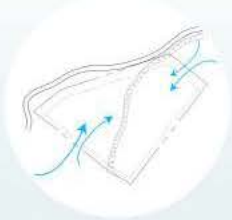
BEST VIEW



CONTOUR



SUN PATH



WIND DIRECTION

CIRCULATION

DEFINITION OF AGROTOURIM

COLLABORATION BETWEEN TOURISM AND AGRICULTURE. VISITOR GO TO TRAVELLING AS TOURIST TO ENJOY, RELAXATION, SPENDTIME AND MONEY FOR ENJOYABLE AND HAPPINESS. AT THE SAME TIME IS TO VISIT AGRICULTURE ACTIVITIES SUCH AS HARVESTING, PLANTING AND FISHING.

ISSUE

JOHOL RICH WITH LOCAL SOURCES (AGRICULTURE FARMING).
NEED TO PROMOTE (DEVELOP) POTENTIAL LOCALS OF JOHOL AT INTERNATIONALLY.
SLEEPY TOWN.

CONCEPT

CAPSULE + TECHNOLOGY = CAPSULOGY
CAPSULE IS A TERM OF SMALL SPACES. SUITABLE TO MAXIMIZE SPACE OF THE PROPOSED SITE. SAME PLACE WITH DIFFERENT FUNCTION SAIZ AND AREA.
COMBINATION AGRO FARMING WITH NITROGEN - CYCLE TEHNOLOGY IS LIKE "AQUAPONIC SYSTEM" TO BALANCE THE GROW FARMING.

HISTORY OF JOHOL

JOHOL REGION IS PART OF NEGERI SEMBILAN. THE ORIGIN OF NEGERI SEMBILAN BEGAN SINCE THE RAJA MELEWAR (1773) IN THE REMBAU PENAJIS WHICH WAS ATTENDED BY NINE LUAK. THE MERGER OF THE REGION (UJUNG RIVER, JELEBU, JOHOL AND INAS, REMBAU, TAMPIN, ULU MUAR, JEMPOL, TERACHI AND MOUNT SAND) WAS NAMED NEGERI SEMBILAN. MOST OF THE PEOPLE PRACTICE CUSTOMARY PRACTICES THAT ARE RELATED TO THE MINANGKABAU BUKIT TINGGI OF SUMATRA FOURTH LAW - SUNGAI UJUNG, REMBAU, JOHOL AND JELEBU APPOINT THE YANG DI PERTUAN BESAR NEGERI SEMBILAN. JOHOL IS A AREA IN NEGERI SEMBILAN. LUAK JOHOL IS LOCATED IN THE SOUTHEASTERN PART OF NEGERI SEMBILAN COVERING THE AREAS OF GEMENCHEH, GEMAS, PASIR BESAR, SOUTH YELLOW WATER, KEPIS, DANGI, SELARU, JOHOL AND PALONG. IN TERMS OF ADMINISTRATION, JOHOL IS UNDER THE DISTRICT ADMINISTRATION OF KUALA PILAH, TAMPIN AND JEMPOL.

JOHOL AGROTOURISM CENTER

NEGERI SEMBILAN

02

MUHAMMAD ANWAR BIN MOHD ALI 131929
SCHOOL OF HBP (USM)
2017 / 2018 (SEMESTER 4)

STUDIO MASTER
EN REDUAN BIN MAHAT
PN AMIRAH BT MOHTARAM

1. GARDEN
2. AQUARIUM
3. CIRCULATION
4. MAIN AUDITORIUM
5. TOILET
6. STAFF LOUNGE
7. MINI LANDSCAPE
8. BOARD ROOM
9. MEETING ROOM

FIRST FLOOR PLAN
SCALE 1:150

1. AQUARIUM
2. CIRCULATION
3. WORKSHOP AREA
4. TOILET
5. RESEARCH OFFICE

SECOND FLOOR PLAN
SCALE 1:150

SITE PLAN
SCALE 1 : 400

1. MAIN ENTRANCE
2. AQUARIUM
3 - 6 RETAIL LOT
7. EXHIBITION AREA
8. TOILET
9. RECEPTION
10. COFFEE BAR
11. TOILET
12. DECKING
13. SMALL CATFISH
14. BIG CAT FISH
15. BACCAUREA MOTLEYANA
16. SERVICES

GROUND FLOOR PLAN
SCALE 1:150

JOHOL AGROTOURISM CENTER
NEGERI SEMBILAN

03

MUHAMMAD ANWAR BIN MOHD ALI 131929
SCHOOL OF HBP (USM)
2017 / 2018 (SEMESTER 4)

STUDIO MASTER
EN REDUAN BIN MAHAT
PN AMIRAH BT MOHTARAM

FRONT ELEVATION
SCALE 1:150

REAR ELEVATION
SCALE 1:150

SECTION A-A
SCALE 1:150

SECTION B-B
SCALE 1:150

JOHOL AGROTOURISM CENTER
NEGERI SEMBILAN

04

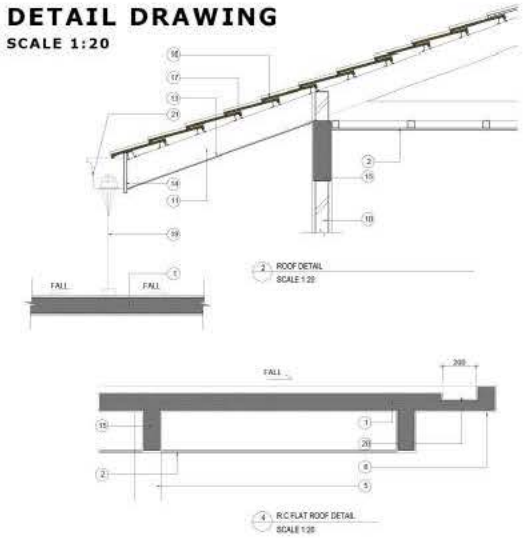
MUHAMMAD ANWAR BIN MOHD ALI 131929
SCHOOL OF HBP (USM)
2017 / 2018 (SEMESTER 4)

STUDIO MASTER
EN REDUAN BIN MAHAT
PN AMIRAH BT MOHTARAM

SECTIONAL PERSPECTIVE
SCALE N.T.S

PERSPECTIVE VIEW
SCALE N.T.S

DETAIL DRAWING
SCALE 1:20



%%UNOTE

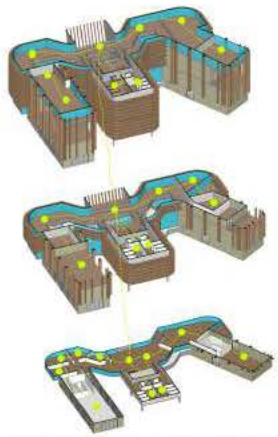
ALL ROOF WORKS TO BE INCLUDED MONIER COMPACTROLL, MONIER ¼ PIPE SET, MONIER WAKAFLEX OR APPROVED EQUIVALENT

%%USPECIFICATION

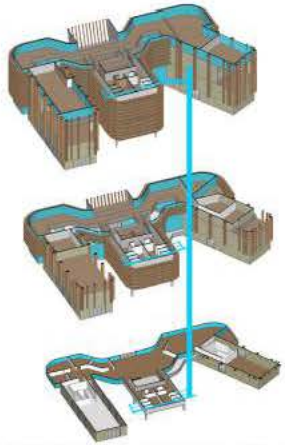
1. RC FLAT ROOF WITH SELECTED WATERPROOFING MEMBRANE TO ENGR'S DETAIL
2. CEILING TO DETAIL
3. METAL DECKING ROOFING @ 2° PITCH TO MANUFACTURER'S SPECS
4. 150 X 50 PURLINS AT 1200 CTS TO ENGR'S DETAILS
5. RC COLUMN TO ENGR'S DETAIL
6. 10MM UPVC CORNER BEADING WITH WATER DRIP LINE THROATING AS DRIP
7. MONIER WAKAFLEX TO MANUF'S DETAILS
8. FIBRE CEMENT BOARD SIDING FIXED TO MANUFR'S RECOMENDATION
9. DOME HEAD FLOOR TRAP
10. 100MM THK BRICKWALL WITH 20MM THK CEMENT PLASTER ON BOTHSIDES
11. PREFABRICATED ROOF TRISSES TO ENGR'S DETAILS
12. BRICKWALL WITH 25MM THK CEMENT PLASTER ON BOTHSIDES UP TO BOTTOM OF ROOF TILES
13. SELECTED EAVES LINING UNDER ROOF OVERHANG
14. 6MM THK HW FIBRE CEMENT FASCIA BOARD
15. RC BEAM TO ENGR'S DETAIL
16. SELECTED CONC. ROOFING TILES TO SPECS
17. STEEL ROOF BATTEN TO MANUFR'S DETAILS
18. 100Ø UPVC DOWNPIPE
19. SELECTED BLACK PVC CHAIN
20. SCUPPER DRAIN TO FALL
21. UPVC GUTTER TO MANUF'S DETAILS WITH UPVC BRACKET
22. CEMENT SAND SCREED TO FALL
23. -
24. SELECTED WALL PLUG
25. 50 X 20 X 5MM THK M.S WALL PLATE
26. 6MMØ M.S BOLT & NUT
27. 2MM THK G.I BRACKET
28. 100MMØ SELECTED RWDP TO ARCH APPROVAL

ENTERIOR PERSPECTIVE 1

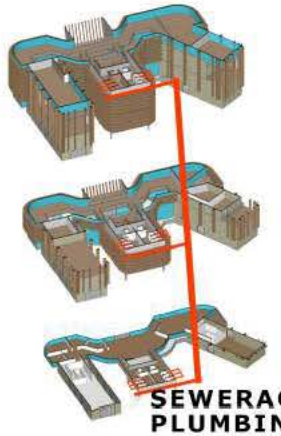
ENTERIOR PERSPECTIVE 2



ELECTRICAL DIAGRAM



COLD WATER PLUMBING



SEWERAGE PLUMBING

MUHAMMAD ASHRAF BIN AZIZ
131930

Architect
RULES OF SURVIVAL

PROJECT 2
JOHOL AGROTOURISM CENTRE

EVERGREEN
AGROTOURISM CENTRE

DESIGN STATEMENT

JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. THE REIGNING UNDANG LUAK OF JOHOL IS DATUK JOHARI PAHLAWAN LELA PERKASA SETIAWAN MUHAMMAD ABDULAH (THE 15TH UNDANG). HE IS ONE OF THE FOUR UNDANGS THAT WILL PARTICIPATE IN THE ELECTION OF THE YANG DIPERTUAN BESAR NEGERI SEMBILAN.
JOHOL TOWN HAVE NOT SEN RAPID DEVELOPMENT OVER THE PAST DECADES. BALAI UNDANG LUAK JOHOL RECENLY VISITED USM AND INITIATED A COLLABORATION VENTURE TO CREATE A RESERCH AND KNOWLEDGE HUB IN JOHOL.
THIS AGROTOURISM HAS LARGE OPENING TO GET MAXIMUM NATURAL VENTILATION AND NATURAL DAYLIGHT SO THAT WE CAN APPRECIATE THE NATURE. THE BUILDING ALSO USED THE CONCEPT AS THE ALOE VERA PLANT WHERE HE USED THE TECHNIQUE OF COOLING BUILDINGS ARE RECONSTRUCTED SO RATHER THAN PLANTS.

ISSUE

-NEAREST MOSQUE AND CHURCH ARE FAR AND CAN'T COVER USERS
-LACK OF COMMUNITY AREAS THAT CAN CREATING TOGETHER IN LUKUT AREA

AIM

TO PROVIDE FACILITIES AND AGROTOURISM FOR TOURISM AND VILLAGERS

OBJECTIVE

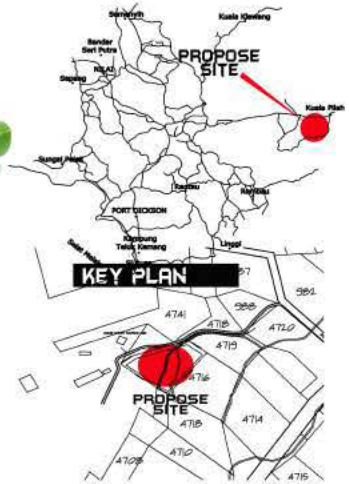
-TO ENHANCE STUDENT PROPOSE DESIGN WITH MULTY-STOREY ON HILL CONTEXT
-FOR STUDENT TO APPLY AND UNDERSTAND THE SPACE AND FUNCTION ABOUT AGROTOURISM CENTRE
-TO LEARN AND DECIDE ON CONSTRUCTION AND DETAILINGTAHT FRIENDLY WITH ENVIRONMENT
-TO APPLY ENERGY EFFICIENCY BY MAXIMIZING THE UTILIZATION OF NATURAL VENTILATION, AND DAYLIGHT
-TO APPLY UNIVERSAL DESIGN FOR ACCESSIBILITY THAT BENEFITS ALL USER

USER

CONCEPT

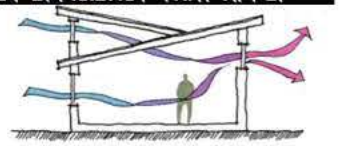
SPIRAL OF ALOE VERA PLANT

ALOE VERA PLANT GREW AND GREW UP IN SPIRAL AND ARRANGED ACCORDING TO THE ORDER. THE BUILDING TOOK THE CONCEPT RATHER THAN THE STACKING SET OF WAYS OF BUILDING PLANTS AND USE THE COOLING ELEMENT AS IN THE ALOE VERA PLANT

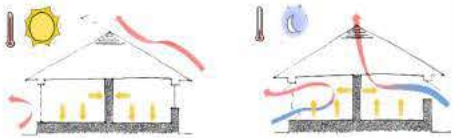


LOCATION PLAN

ENERGY EFFICIENCY THAT APPLY

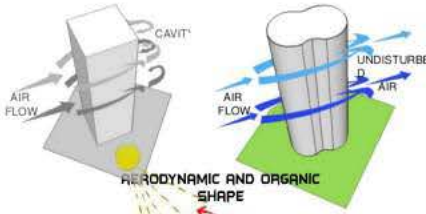


CROSS VENTILATION

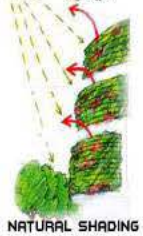


USING TRADITIONAL MALAY VENTILATION SYSTEM

SQUARE SHAPE AEROFOIL SHAPE



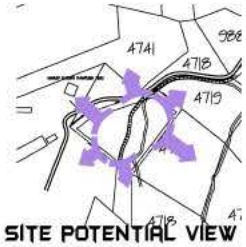
AERODYNAMIC AND ORGANIC SHAPE



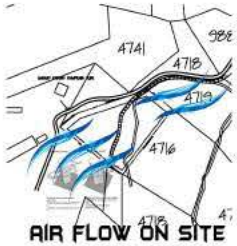
NATURAL SHADING FOR COOLING SYSTEM

SUN ORIENTATION

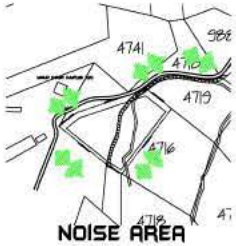
ACCESS ROAD



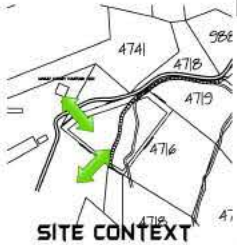
SITE POTENTIAL VIEW



AIR FLOW ON SITE



NOISE AREA



SITE CONTEXT

MUHAMMAD ASHRAF BIN AZIZ
131930
21/5/18

1. ALOE VERA

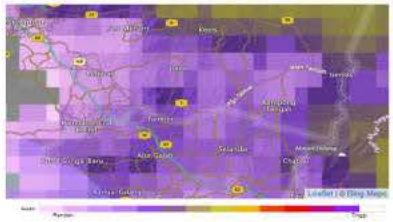
ALOE VERA IS A SUCCULENT PLANT SPECIES OF THE GENUS ALOE. AN EVERGREEN PERENNIAL, IT ORIGINATES FROM THE ARABIAN PENINSULA BUT GROWS WILD IN TROPICAL CLIMATES AROUND THE WORLD AND IS CULTIVATED FOR AGRICULTURAL AND MEDICINAL USES. THE SPECIES IS ALSO USED FOR DECORATIVE PURPOSES AND GROWS SUCCESSFULLY INDOORS AS A POTTED PLANT.

ALOE VERA IS EASILY CULTIVATED AND GUARDED ESPECIALLY IN HOT MOIST AND THIS PLANT HAS MANY NUTRIENTS THAT CAN BE USED AS MEDICINAL AND BEAUTY TO BE COMMERCIALISED.

IT IS FOUND IN MANY CONSUMER PRODUCTS INCLUDING BEVERAGES, SKIN LOTION, COSMETICS, OR OINTMENTS FOR MINOR BURNS AND SUNBURNS. THERE IS LITTLE SCIENTIFIC EVIDENCE OF THE EFFECTIVENESS OR SAFETY OF ALOE VERA EXTRACTS FOR EITHER COSMETIC OR MEDICINAL PURPOSES. STUDIES FINDING POSITIVE EVIDENCE ARE FREQUENTLY CONTRADICTED BY OTHER STUDIES

2. SUNFLOWER

WEATHER
KUALA PILAH IS SIMILAR TO THE WEATHER IN MALAYSIA. IN SUMMARY WEATHER CONDITIONS ARE AS FOLLOWS:
AVERAGE TEMPERATURE (27I C)
THE DRY SEASON (JAN, FEB, JUNE, JULY AND AUG)
ANNUAL RAINFALL (1623 MM)
WETTEST MONTH (NOVEMBER)
DRIEST MONTH (JANUARY).



SUNFLOWERS (HELIANTHUS ANNUUS) OR ' SUNFLOWER ' IS A POPULAR PLANT OF THE FAMILY ASTERACEAE WHICH IS AN IMPORTANT INDUSTRIAL PLANTS FOR SOME COUNTRIES.

PRODUCT THAT GENERATED FROM SUNFLOWER

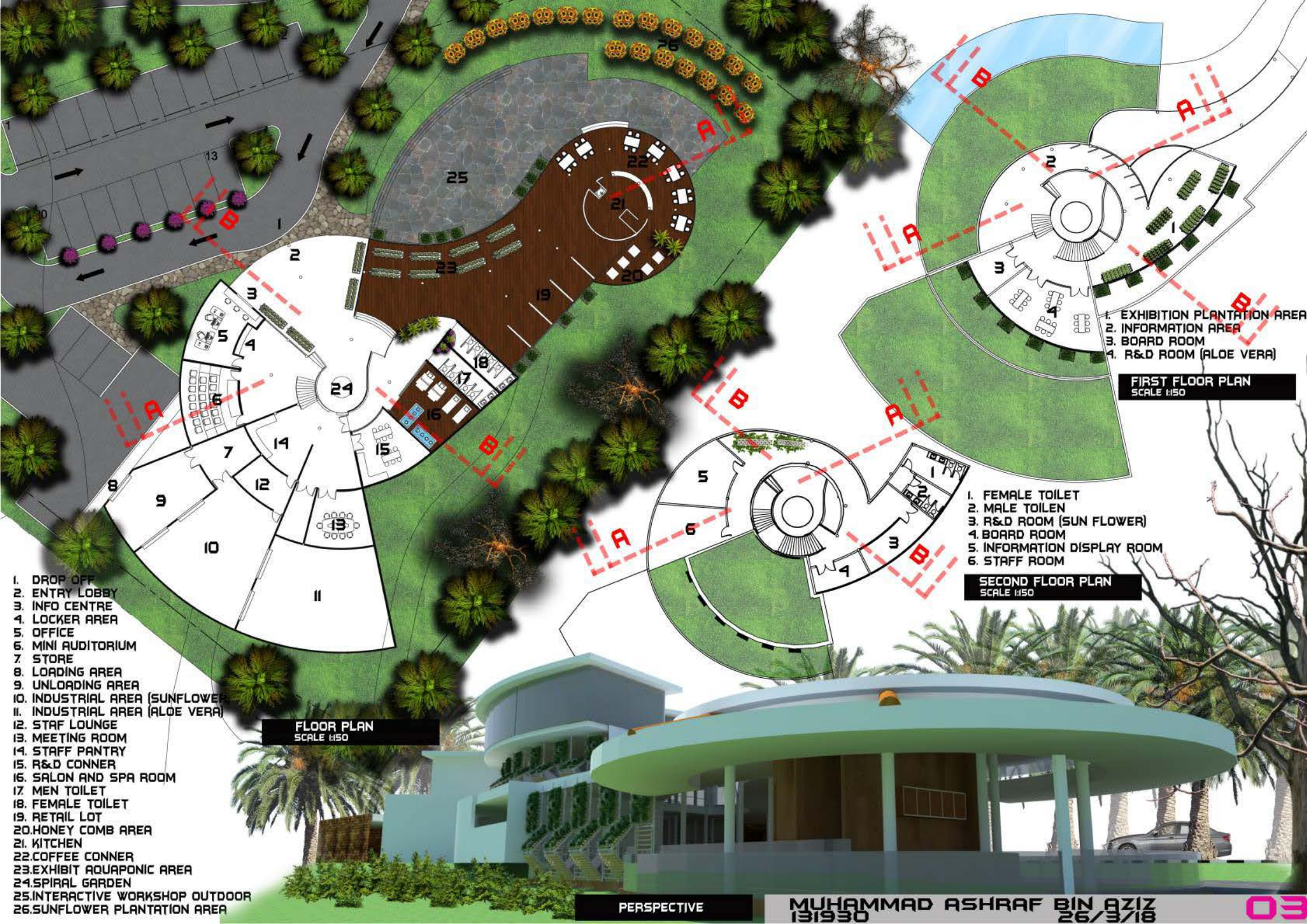
3. HONEYCOMB

A HONEYCOMB IS A MASS OF HEXAGONAL PRISMI IC WAX CELLS BUILT BY HONEY BEES IN THEIR NESTS TO CONTAIN THEIR LARVAE AND STORES C HONEY AND POLLEN.

HONEYCOMB EASILY TAKEN CARE OF AND IF THEF IS A SOURCE OF VIRTUALLY UNINHABITED. THE PF CESS TO GET THE HONEY CAN BE ACCELERATED

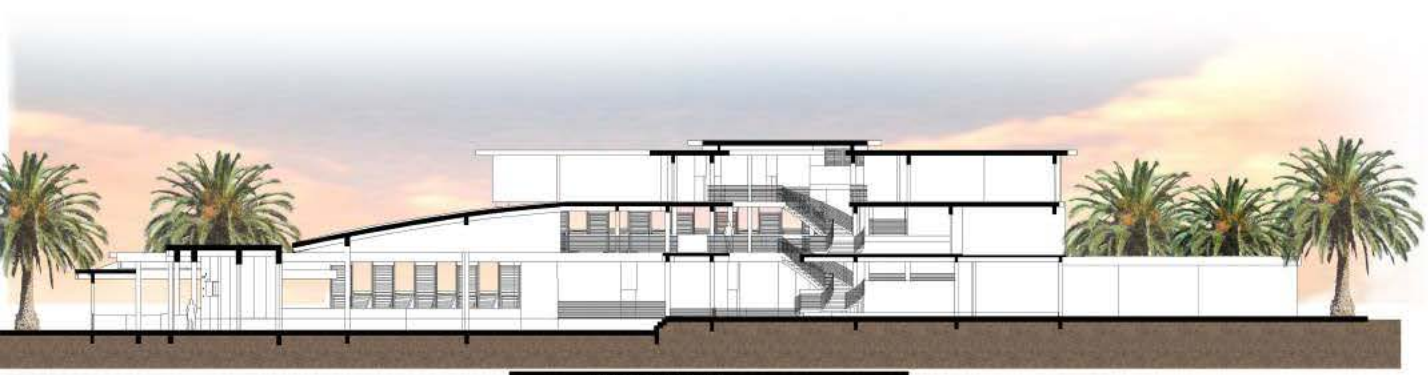
SITE PLAN
SCALE 1:400

EXTERIOR PERSPECTIVE



MUHAMMAD ASHRAF BIN AZIZ
131930
26/3/18

03

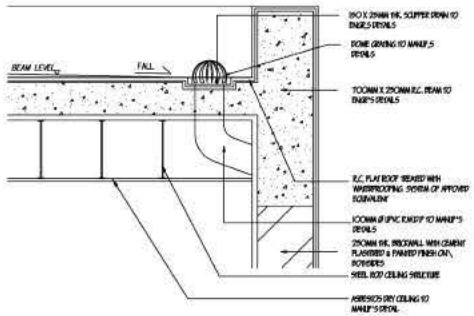


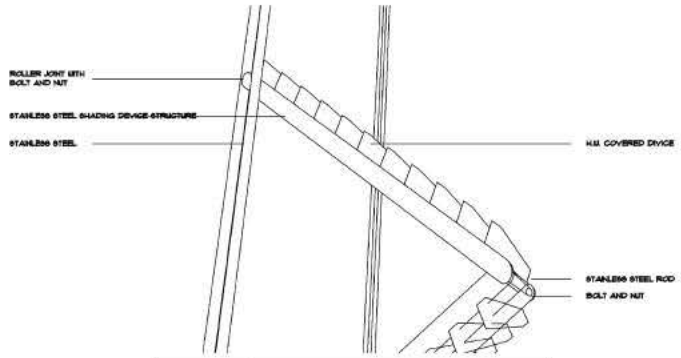
SECTION A-A
SCALE 1:150

SECTION B-B
SCALE 1:150

LEFT ELEVATION
SCALE 1:150

FRONT ELEVATION
SCALE 1:150





DETAIL DRAWING
SCALE 1:20

SECTIONAL PERSPECTIVE
SCALE 1:150

INTERIOR PERSPECTIVE

MUHAMMAD FATHULLAH
BIN ZAINUDDIN
131932

JOHOL AGROTURISM CENTRE

MUHAMMAD FATHULLAH BIN ZAINUDDIN 131932

AIM

JOHOL AGROTOURISM CENTRE AS AN DESTINATION CELEBRATING SUSTAINAABLE AGRICULTURE DEVELOPED IN JOHOL. THE FIRST RHING JAC TARGET DOMESTIC AN INTERNATIONAL TOURIS KEEN TO EXPLORE THE WILDERNESS, ECO-TRAILS , FARMING PRODUCTS.

DESIGN STATEMENT

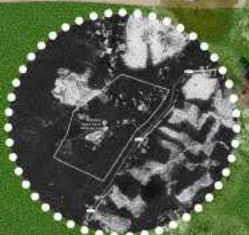
CONSTRUCTION JOHOL AGRO TOURISM CENTER IS LOCATED IN THE AREA 'UNDANG' IS AN AREA IN THE VILLAGE GREEN MEET WITH PLANTS. IHE CONCEPT OF ORGANIC STYLE IN AGRO PRODUCTS THIS MARKETED FOR THE INCOME FROM THIS INDUSTRY. DESIGN IS APPLIED VALUE REPRESENTS COMMERCIAL AND MODERN AND GREEN AREA AROUND THE BUILDING. BE MOST IN USING THE CONCEPT OF BUILDING GREEN AND THE WHOLE BUILDING WITH GARDEN ROOF IN THAT MAKE AS CROPS "POKOK MAMAN" HAVING RAM DOWN FROM THE TOP TO THE ROOF TOP. THE BUILDING TEMPERATURE CONTROL ENVIRONMENT WITHIN WHICH PROVIDES THE OXYGEN. APPLYING THE PLEASURE OF THIS DESIGN ENVIRONMENT, NOT CENTERED ON THE OUTSIDE OF THE ROOM. THEY NEED TO IMPLEMENT THE USER WILL EXPLORE THE ROUND ONE BUILDING. AREA LIVESTOCK DUCK IN THE BACK OF THE NEAREST LOADING BAY. FOR EASY TO DEVELOP PROCESSES AND MAINTENANCE

PRODUCT

THE SELECTION OF PLANTS OF PEARL "IS THE MOST OPTION OF PEOPLE IN AREA OF JOHOL AREA, IT IS A FAMOUS MUSLIM WHICH ARE MADE IN THE FOODS. DUCK IS ALSO THE MOST FOOD MANY PEOPLE ARE SELLING IN STREET AS DUCK "SALAI" THE DUCKS ARE BAKED

ORGANIC STYLE

KEYPLAN
SCALE N.T.S



LOCATION PLAN
SCALE N.T.S

SITE PLAN
SCALE 1:400

OBJECTIVE

TOURISM

GIVING OPPORTUNITIES AND EXPERIENCE TO FOREIGN VISITORS TO FEEL IN THE JOHOL, TO PROVIDE ORIGINAL PRODUCTS FROM THIS AREA ARE MANY TOURISTS VISITING

SOSIAL & ECONOMY

TO SUPPORT AND DEVELOP AGRICULTURE FIELD HUSBANDRY AND INVESTMENT INCOME TO PRODUCE THE JOHOL AGROTURISM

ENVIRONMENT

EFFICIENCY MANAGE OF RESOURCES. KEEPING THE ENVIRONMENT AND PRESERVING THE PLANTING PASTURES CAN BE MADE IN BISNESS MARKET AND COMPETITIVE IN FOREIGN MARKETS

IDEA DEVELOPMENT

ORGANIC

HARMONY BETWEEN HUMAN HABITAT AND THE NATURAL WORLD

ANIMAL

VEGEETRIAN

GREEN SUSTAINABLE ARCHITECTURE

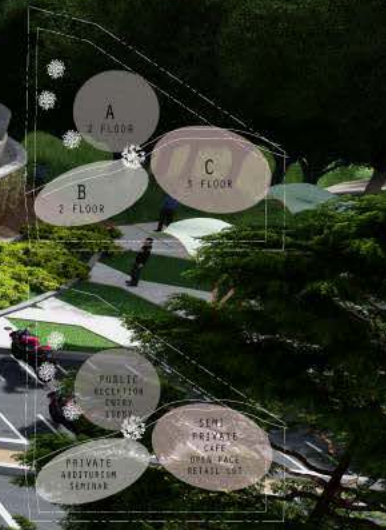
IS AN OBVIOUS DESIGN CONCEPT THAT IS USED IN THIS DEVELOPMENT. AS THIS DEVELOPMENT CHAMPIONS AGRICULTURE AND SUSTAINABILITY. EFICIENCY AND ECOLOGICAL CONSERVATION IS A MUST. PASSIVE AND ACTIVE TECHNOLOGIES ARE USED TO STRENGTHEN THE SUSTAINABILITY ASPECT OF THE DEVELOPMENT.

RENDANG MAMAN

FACT INTERESTING, MINANG RENDANG WAS ALSO LISTED AS THE 50TH BEST COURSE IN THE WORLD BY CNN INTERNATIONAL. SEARCH THROUGH A LIST OF FOODS WORLD'S 50 MOST DELICIOUS FOODS IN 2011
MAMAN (CLEOME GYANDRA) IS A PLANT OF THE FAMILY CLEOMECEAE THAT CAN BE GROWN ON A COMMERCIAL SCALE TO PRODUCE FRESH LEAVES MAMAN

Organic

BUBBLE DIAGRAM



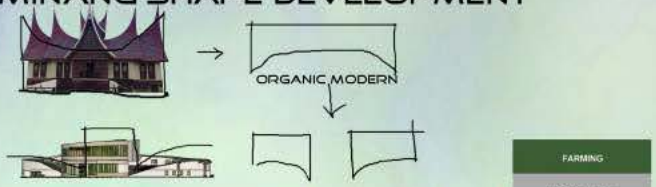
SITE INVENTORY

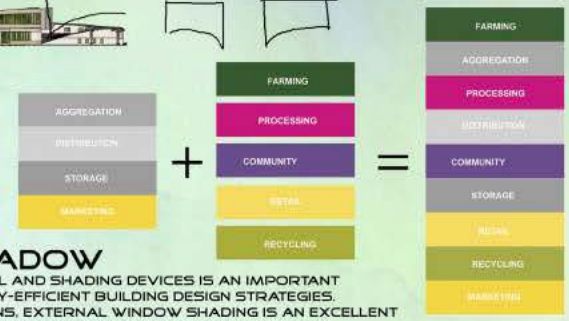
JOHOL AGROTURISM CENTRE

MUHAMMAD FATHULLAH BIN ZAINUDDIN 131932

GROUND FLOOR PLAN
SCALE 1:150

MINANG SHAPE DEVELOPMENT





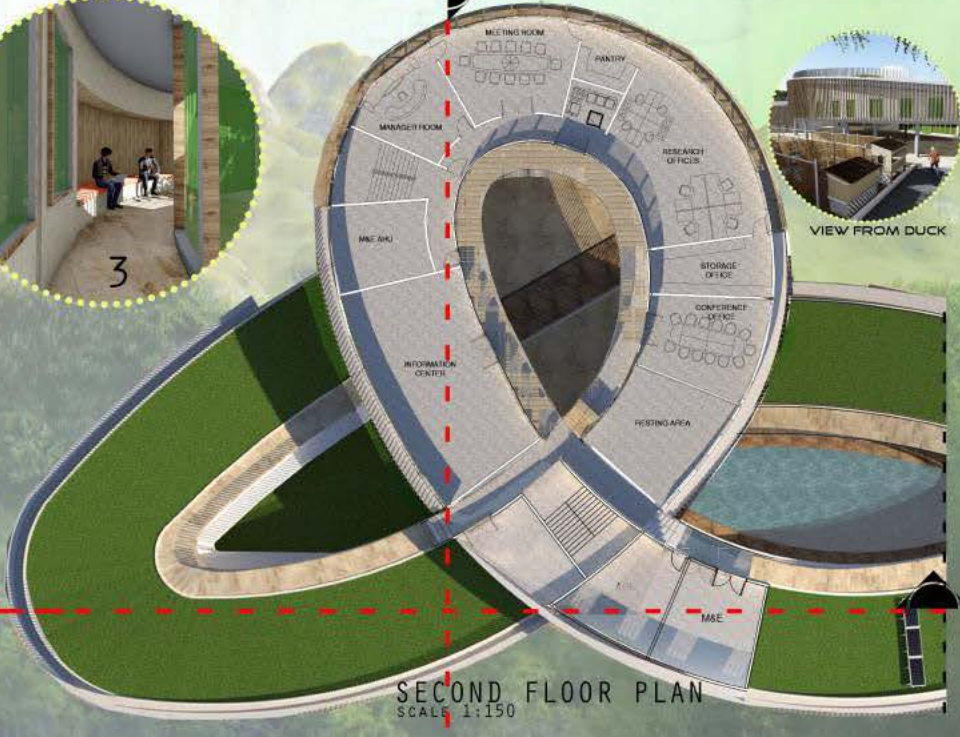
FACADE SHADOW

THE USE OF SUN CONTROL AND SHADING DEVICES IS AN IMPORTANT ASPECT OF MANY ENERGY-EFFICIENT BUILDING DESIGN STRATEGIES. DURING COOLING SEASONS, EXTERNAL WINDOW SHADING IS AN EXCELLENT WAY TO PREVENT UNWANTED SOLAR HEAT GAIN FROM ENTERING A CONDITIONED SPACE. FUNCTION AS REFLECTORS, CALLED LIGHT SHELVES, WHICH BOUNCE NATURAL LIGHT FOR DAYLIGHTING DEEP INTO BUILDING INTERIORS

9.00 AM | 12.00 PM | 3.00PM

VIEW FROM DUCK

FIRST FLOOR LOWER SLOPE PLAN
SCALE 1:150



SECOND FLOOR PLAN
SCALE 1:150

JOHOL AGROTURISM CENTRE

MUHAMMAD FATHULLAH BIN ZAINUDDIN 0752

SECTION X-X
SCALE 1:150

SECTION Y-Y
SCALE 1:150

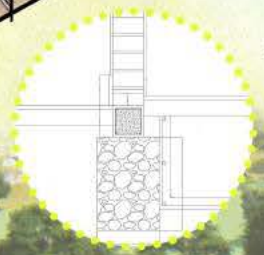
FRONT ELEVATION
SCALE 1:150

RIGHT ELEVATION
SCALE 1:150

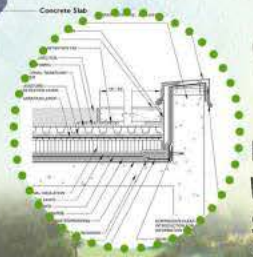
JOHOL AGROTURISM CENTRE

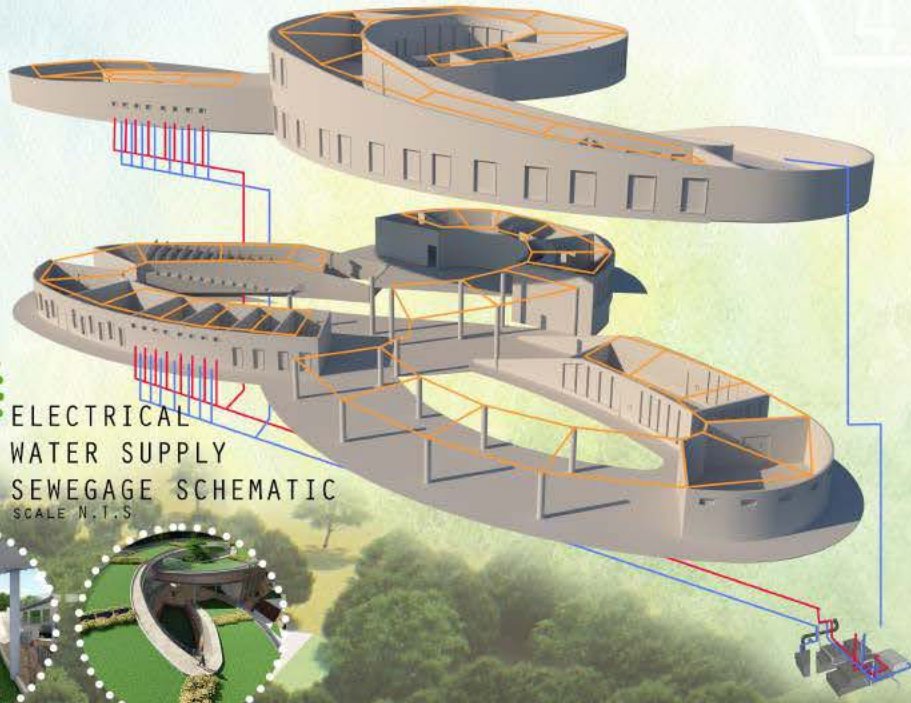
MUHAMMAD FATHULLAH BIN ZAINUDDIN 131932

SECTIONAL
AXONOMETRIC
SCALE 1:150

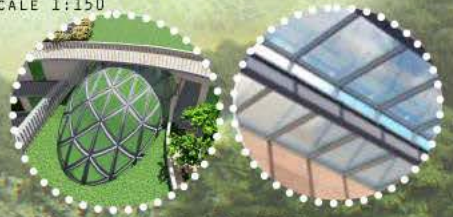


DETAIL
SCALE 1:20





ELECTRICAL
WATER SUPPLY
SEWEGAGE SCHEMATIC
SCALE N.T.S



PHOTOVOLTAIC GLASS

THE LIGHT WELLS AND SKYLIGHT INTEGRATED IN THE BUILDING WOULD SUSE PHOTOVOLTAIC GLASS THAT WOUD NOT ONLY DECREASE THE HEAT INDEC FROM DIRECT SUNLIGHT, BUT WOULD ALSO STORE SOLAR ENERGY LIKE SOLAR PANELS. THIS WOULD ALSO HELP IN THE SUPPLY OF ENERGY FOR BUILDING USE. AS WELL AS REDUCE THE USE OR ARTIFICIAL LIGHTING SINCE IT LETS IN A HUGE AMOUNT OF LIGHT IMTO THE BULDING

ROOF GARDEN

FLOOT GARDENS ARE EXPECTED TO LOWER DOWN THE BUILDING'S HEAT INDEX. THE THREE BUILDING IN THE DEVELOPMENT HAVE ROOF GARDENS, BUT INSTEAD OF OMAMENTAL PLANTS, BUILDING-INTEGRATED AFRICULTURE WOULD BE THE SUBSTITUTE

SOLAR PANELS

THE ROOF OF THE SMALLER STRUCTURES, AS WELL AS THE ROOF GARDENS OG THE MAIN BUILDING ARE FILLED WITH SOLAR PANELS THAT WOULD SUPPLY THE ENERGY NEEDE BY THE BUILDINGS.

RAINWATER HAEVESTING

THE WHOLE DEVELOPMENT HAVE CISTEMS AND PONDS WHERE RAINWATER CAN BE STOCKED. THE RAINWATER FROM THE BUILDING ROOF CAN ALSO BE HARVESTED AND SUPPLIED BACK TO THE CROPS.

THE DESIGN EXPLORES WAYS ON HOW TO INTEGRATE AGRICULTURE INTO A BUILT ENVIRONMENT TO CREATE AND PROMINABLE TOURIST DESTINATION. IT RESULTS INTO AN EXPERIRNTIAL MUSEUM OF AGRICULTURE, THAT IS, A VENUE WHERE ONE GETS TO WITNESS FIRSTHAND NEW TECHNIQUES OF FARMING IN A COMFORTABLE CONTAINED AREA, SPECIFICALLY DESIGNED FOR LOCAL AND INTERNATIONAL TOURIST. IT ALSO SUCCEEDS IN PRESENTING AGRICULTURE AND FARMING IN A FUN WAY.

THE VISION FOR THIS DEVELOPMENT IS TAHT WOULD DEVELP INTO A MORE EXPANSIVE SCIENCE , BRANCHING OUT TO HAVING FARM A PROCESS PLANT, ANIMAL AND OTHER FACILITIES. THE SELECTION OF THE INITIAL SPACE IN THIS DESIGN FOCUSES ON EVENTS, RESEARH, AND COMMERCIAL ACTIVITY, WHICH ARE WHAT THE CITY NEEDS NOW. OTHER OPERATIONS AND SERVICE SPACES MAY FOLLOW DEPENDING ON THE DIRECTION OF GROWTH OF THE CITY.

MUHAMMAD IZZUDDIN HAFIZ BIN KHAIRIL ANWAR 131934

JOHOL

JOHOL AGROTOURISM CENTRE
RESEARH AND DEVELOPMENT

AIM

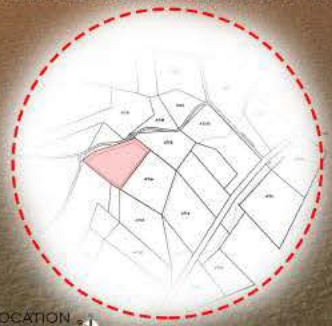
TO PROPOSED A PLACE OFJOHOL AGROTOURISM CENTER. INTRODUCE JOHOL PRODUCT. WITCH IS ON A TYPE OF FOOD, MINERAL SOURCE AND OTHER SUCH AS. APA JOHOL, RENDANG MAMAM, OTHER TREE AND OTHER ANIMAL. THESE ARE SEEN EMPOWER THE LOCALFARMER WITH THE KNOWLEDGE ON HOW TO GENERATE INCOME AND CAN BE IMPROVE THEIR SOCIO - ECONOMIC STATUS FROM THE SLEEPY AND DULL TOWN.

OBJECTIVE

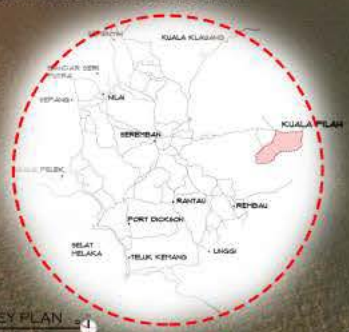
DEMOSTRATE KNOWLEDGE AND COMPREHANSSION IN PRODUCTING A SCHEMATIC DESIGN PROPOSAL SPECIFIC FUNCTION AND MULTI - STORY BUILDING ON HILL WITH NATURE CONTEXT . THE SITE CONTEXT, USER NEED AND THE IMPACT OF DEVELOPMENT TO ITS SURROUNDING INTEGRATION OF ENVIRONMENTLY FRIENDLY STRUCTURE. SPECIFIC FUNCTION & MULTY STORY BUILDING ON HILL WITH NATURE CONTEXT. THE SITE CONTEXT, USER NEED AND THE IMPACT OF DEVELOPMENT TO ITS SURROUNDING INTEGRATION OF ENVIRONMENT FRIENDLY STRUCTURE. TO APPLY UNIVERSAL DESIGN.

ABOUT SITE

JOHOL IS ONE OF THE CONSITUENT MINAGKABAU STATES FORMED NEGERI OF SEMBILAN. TH REIGNING UNDANG LUAK JOHOL IS DATUK JOHAN PAHLAWAN LELA PERKASA SETIAWAN MUHAMMAD ABDULLAH (THE 15TH UNDANG LUAK) HE IS THE ONE OF UNDANG THAT WILL PARTICIPATE IN THE ELECTION OF THE YANG DI PERTUAN BESAR NEGERI OF SEMBILAN.



LOCATION
SCALE N.T.S



KEY PLAN
SCALE N.T.S

SITE PLAN
SCALE 1:400

IDEA CONCEPT

SITE BUBBLE

THE ORIENTATION OF BUILDING ARE SUITBLE WITH THE MAIN CONCEPT OF THE DESIGN BUILDING, THE ORIENTATION OF BUILDING ARE EASY FOR USER TO USE, LACK OF TRAFFIC AND MORE FRIENDLY GREEN ENVIRONMENT. THE ROTATION OF THE BUILDING ARE CONSIDER WITH THE SUN ORIENTATION AND WIND, USER CAN GET MORE VIEW FROM ALL SIDE OF THE BUILDING. TO MERGE WITH THE OBJECTIVE FOR THIS BUILDING AND GET MORE GREEN ENVIRONMENT APPLY TO THE BUILDING.

CONCEPTUAL IDEA

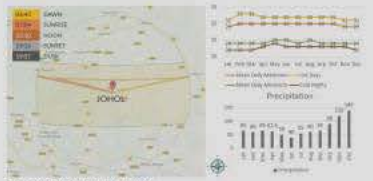
THE CONCEPT ARE BASED FROM THE ISSUE OF THE BORROUNDING ON SITE. THE HAVE MANY ISSUE AND LACK OF CERTAIN THING. THE ISSUE ARE THERE IS THE AREA NEAR OF THE SITE ARE LACK OF ANIMAL CARE, THEN, IT IS NO MOTIVATION TOWARD ON ANIMAL TO MAKE A NEW ILLEGAL PERSONAL PRODUCT. BESIDE THAT, THERE IS LESS OF CARE ON TREE, LESS OF MAINTARENCE ON IT.

THE FACT OF MOUNTAIN ARE IT CAN GIVE US A STRENGHT AND PEACEFULL

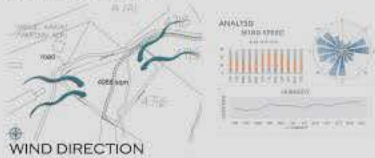
THE HORN

THE CONCEPT ARE FROM THE HORN OF ANIMAL. THE ADAT HAVE A LITTLE CONCEPT FROM THE HORN OF BUFFALO, CHARACTER OF HORN ARE STRONG AS A PROTESTION, SYMBOL OF STRENGHT AND IT HAVE SOME VALUABLE ON IT HORN. BESIDE OF HORN THE COMBINATION OF HORN AND HILL ARE THE IDEA CONCEPT FOR THE BUILDING.

SITE ANALYSIS
LOCAL CLIMATE

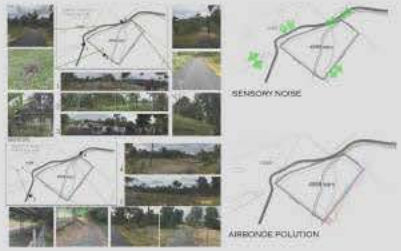


SUN OREINTATION



WIND DIRECTION

SITE ANALYSIS
SENSORY

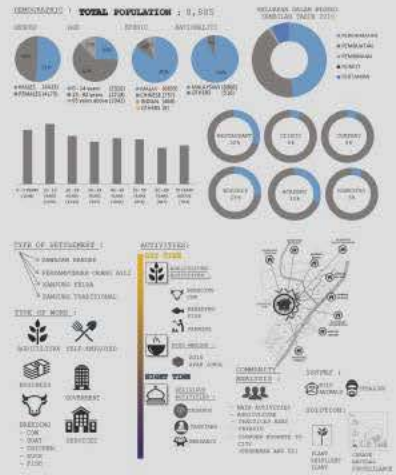


SENSORY NOISE

AIRBONDE POLUTION

SITE ANALYSIS
TRADITIONAL CULTURE

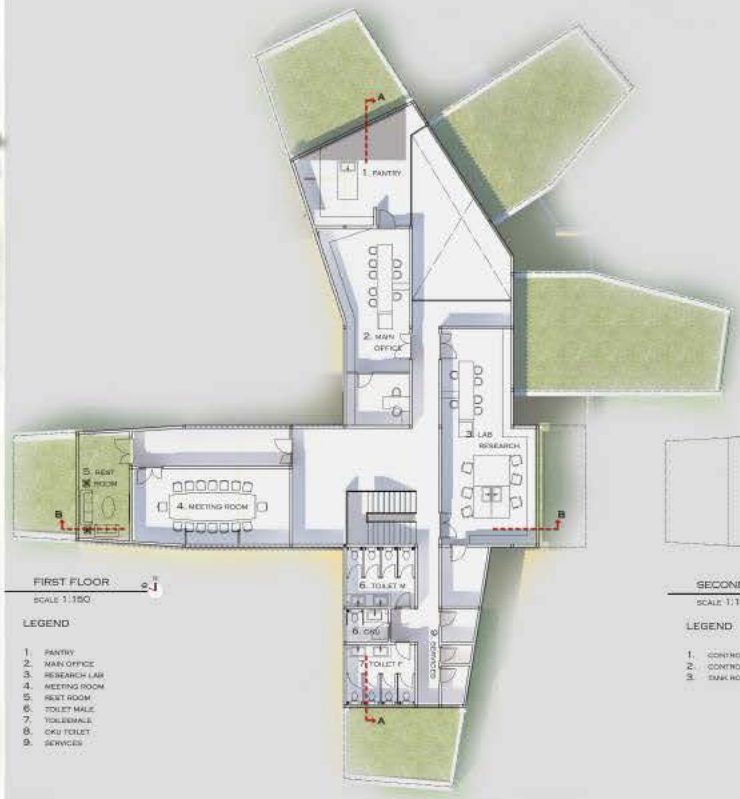
SITE ANALYSIS
SOCIO - CULTURE



MUHAMMAD IZZUDDIN HAFIZ KHAIRIL ANWAR I 131934
RAS204 I ARCHITECTURE STUDIO 2

GROUND FLOOR
SCALE 1:150

PLAN LAYOUT



FIRST FLOOR
SCALE 1:150

LEGEND

1. PANTRY
2. MAIN OFFICE
3. RESEARCH LAB
4. MEETING ROOM
5. REST ROOM
6. TOILET MALE
7. TOILEMALE
8. OKU TOILET
9. SERVICES

SECOND FLOOR
SCALE 1:150

LEGEND

1. CONTROLLER ROOM 1
2. CONTROLLER ROOM 2
3. TANK ROOM

GROUND FLOOR
SCALE N.T.S

FIRST FLOOR
SCALE N.T.S

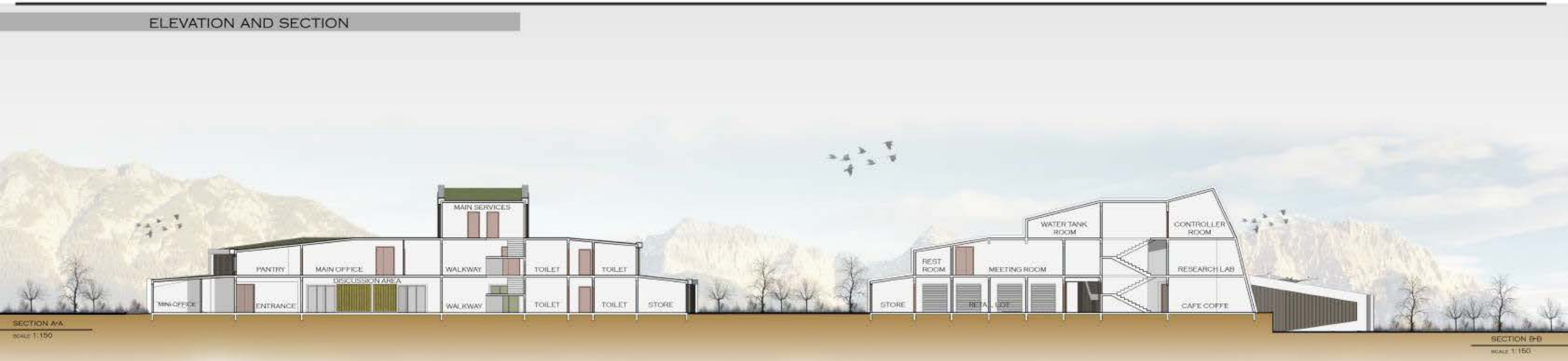
SECOND FLOOR
SCALE N.T.S

ELECTRICAL LAYOUT

AXONOMETRY SECTION

MUHAMMAD IZZUDDIN HAFIZ KHAIRIL ANWAR I 131934
RAS204 I ARCHITECTURE STUDIO 2

ELEVATION AND SECTION



SECTION A-A
SCALE 1:150

SECTION B-B
SCALE 1:150

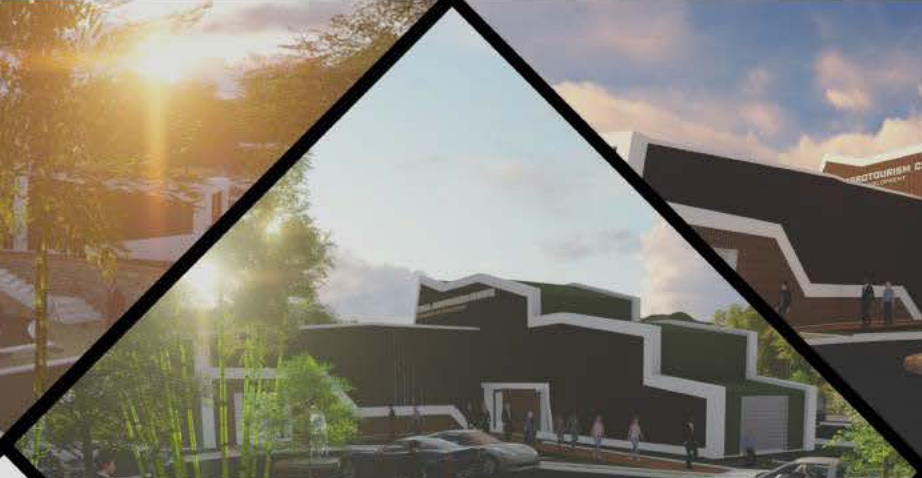
FRONT ELEVATION
SCALE 1:150

RIGHT ELEVATION
SCALE 1:150

PERSPECTIVE VIEW

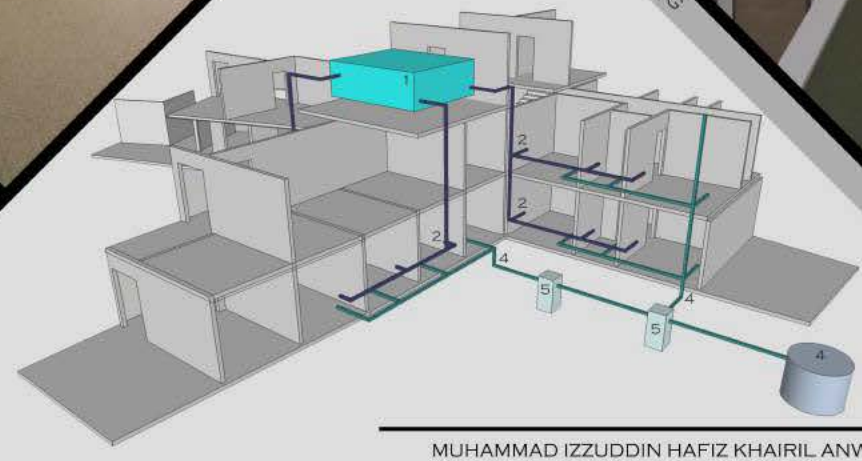
EXTERIOR PERSPECTIVE
VIEW FROM MAIN ENTRANCE

EXTERIOR PERSPECTIVE
VIEW ACTIVITY AREA



DETAIL DRAWINGS

SANITARY AND PLUMBING



MUHAMMAD IZZUDDIN HAFIZ KHAIRIL ANWAR I 131934
RAS204 I ARCHITECTURE STUDIO 2

MUHAMMAD SYAFIQ HILMI
BIN MD YAZID
131935

JOHOL AGROTOURISM CENTRE

RAS 204 : ARCHITECTURE STUDIO 2 PROJECT 2 JOHOL, NEGERI SEMBILAN

1

NAME : MUHAMMAD SYAFIQ HILMI BIN MD YAZID
MATRIC NO : 131935
STUDIO MASTERS : MR. REDUAN BIN MAHAT
MRS. AMIRAH BINTI MOHTARAM

DESIGN STATEMENT

THIS PROJECT REQUIRE STUDENT TO DESIGN A MULTISTOREY AGROTOURISM CENTRE LOCATED IN JOHOL, KUALA PILAH, NEGERI SEMBILAN. THIS AGROTOURISM CENTRE WILL DEVELOP BIT BY BIT LOCAL FARMERS TO CREATE THEIR OWN INCOME AND GENERATE SOCIO-ECONOMY IN JOHOL AREA WHICH SLOW IN DEVELOPMENT OF ECONOMY. BESIDE THAT, THE OTHER PURPOSE IS ATTRACTING LOCAL AND VISITORS FROM OUTSIDE TO EXPERIENCE NEW METHOD OF FARMING AND AGRICULTURE THAT ARE FAMOUS IN JOHOL THROUGH RESEARCH AND DEVELOPMENT TECHNIQUE. THIS AGROTOURISM CENTRE CONSIST OF THREE STOREY BUILDING WITH FACILITY SUCH AS AGRICULTURAL WORKSHOP, HEALTHY CAFE, RETAIL SHOP, MINI AUDITORIUM, CONFERENCE ROOM, RESEARCH AND DEVELOPMENT AREA, OFFICE AND OTHERS. THIS AGROTOURISM CENTRE CAN BE FIT WITH 300 PERSON AT A TIME. SUNSHADING DEVICE IS IMPLEMENTED IN THE BUILDING AS REFERENCE TO THE NEGERI SEMBILAN CULTURE AND DESIGN. THE COMBINATION OF MINIMALIST AND TRADITIONAL DESIGN INTERPRETED WITH CONSCIENCE .

CLIENT

BALAI UNDANG LUAK JOHOL

SITE ANALYSIS

SUNPATH

DESIGN BUILDING FACADE WITH SUNSHADING DEVICE TO CAPTURE OPTIMUM AMOUNT OF SUNLIGHT

WIND FLOW

CREATE OPENING WITH LOUVERS TO ALLOW WIND CIRCULATE THROUGH THE BUILDING

NOISE

THOSE ARE POSITIVE SOUNDS CREATE BY NATURE LIVING AND AZAN 5 TIMES A DAY FROM THE MOSQUE BESIDE

ODOUR

THE SMELL COMES FROM NEARBY COW BARN BESIDE THE SITE

PRODUCT CHOOSED

SAANEN GOAT

- SWITZERLAND BREED
- SHORT WHITE FUR ON THE BODY
- TRIANGULAR SHAPE FACE
- PRODUCE HIGH QUALITY MILK
- AVERAGE WEIGHT : MALE - 68~91KG FEMALE - 36~63KG
- FOOD : GRASS, BANANA SKIN, LEAF

ANGLO - NUBIAN GOAT

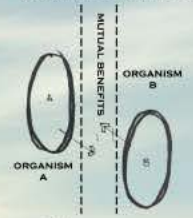
- BRITISH BREED
- CAN LIVE IN HOT CLIMATE
- LARGE AND CARRY MORE FLESH
- BROWNISH AND WHITE
- HAVE A VERY TENDER FRESH MEAT
- AVERAGE WEIGHT : MALE - 60~79KG FEMALE - 43~51KG
- FOOD : GRASS, LEAF, BANANA SKIN

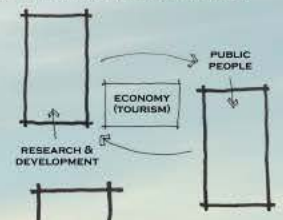
CAVENDISH BANANA

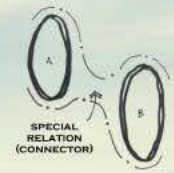
- SIMILAR CHARACTERISTIC WITH PISANG TANDUK
- HAVE LARGE DIAMETER OF GROWTH
- GREENISH DOMINAN STEM
- FRUITS WEIGHT CAN REACH 30KG
- SUITABLE FOR COOKING RECIPE, FRESH FRUIT EAT, AND OTHER COMMERCIAL PRODUCT.

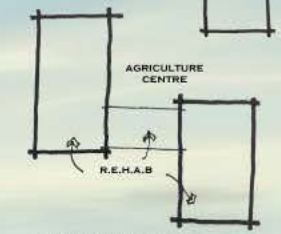
IDEA CONCEPT

"LIVING SYMBIOSIS" IS INTERACTION BETWEEN TWO DIFFERENT LIVING IN CLOSE PYSICAL ASSOCIATION , TYPICALLY TO THE ADVANTAGE OF BOTH - MUTUAL BENEFICIAL RELATIONSHIP.









JOHOL AGROTOURISM CENTRE

RAS 204 : ARCHITECTURE STUDIO 2 PROJECT 2 JOHOL, NEGERI SEMBILAN

2

NAME : MUHAMMAD SYAFIQ HILMI BIN MD YAZID
MATRIC NO : 131935
STUDIO MASTERS : MR. REDUAN BIN MAHAT
MRS. AMIRAH BINTI MOHTARAM

FACADE STUDY

KYEONG DOK JAI, KOREA

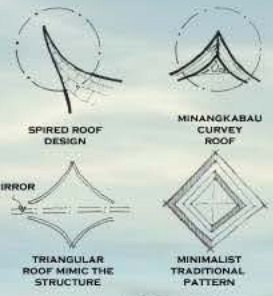
A SMALL RESIDENTIAL BUILDING WITH ALUMINIUM LOUVERS FACADE DESIGN. THE LOUVERS IMPACT ON DAYLIGHT SAVING IS INCREDIBLE WHICH IS 30% OF CURRENT ELECTRICAL COST. THE BENDING GEOMETRICAL SHAPE GIVES VARIOUS LIGHT SOURCE REFLECT.

ITC HOTEL, HYDERABAD, INDIA

THIS HOTEL USE ALUMINIUM LOUVERS FACADE TO CONTROL EXTREME LATENT HEAT IN INDIA. THE LOUVERS MUCH MORE CLOSER COMPARE TO ABOVE. A CERTAIN PART IN THE HALLWAY DOESNT COVERED BY LOUVERS TO GIVE SPECTATING VIEW OF THE CITY.

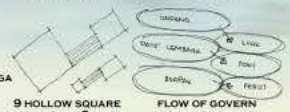
NEGERI SEMBILAN ARCHITECTURE STUDY

RUMAH GADANG OR RUMAH BAGONJONG (SPIRED ROOF HOUSE) ARE THE TRADITIONAL HOMES OF THE MINANGKABAU. THE ARCHITECTURE DESIGN SPREAD WIDE UNTIL NEGERI SEMBILAN WHICH IS ONE OF THE TERRITORY THAT IMPLEMENT THE MINANGKABAU ARCHITECTURE (SPIRED ROOF).



NEGERI SEMBILAN TRADITIONAL GOVERN SYSTEM MANAGEMENT

PYRAMID OF POWER

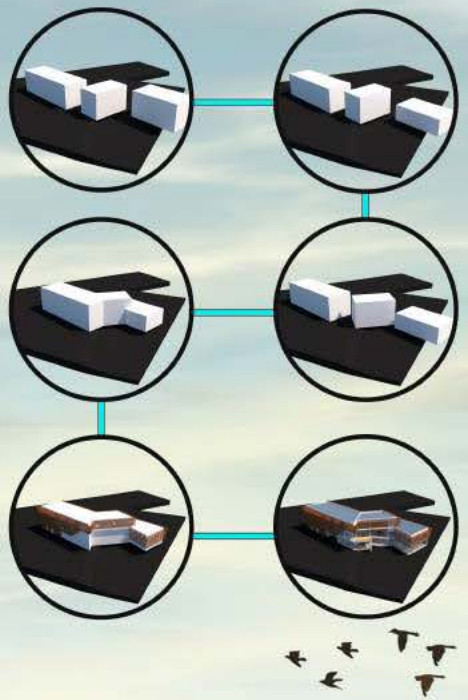


9 HOLLOW SQUARE REPRESENT 9 LUAK IN NEGERI SEMBILAN

FLOW OF GOVERN FOR EACH LAYER

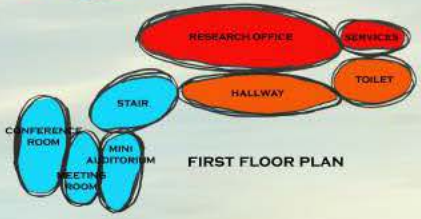
UNDANG AT THE MOST TOP CHAIN OF POWER

FORM MORPHOLOGY



BUBBLE DIAGRAM

GROUND FLOOR PLAN



FIRST FLOOR PLAN

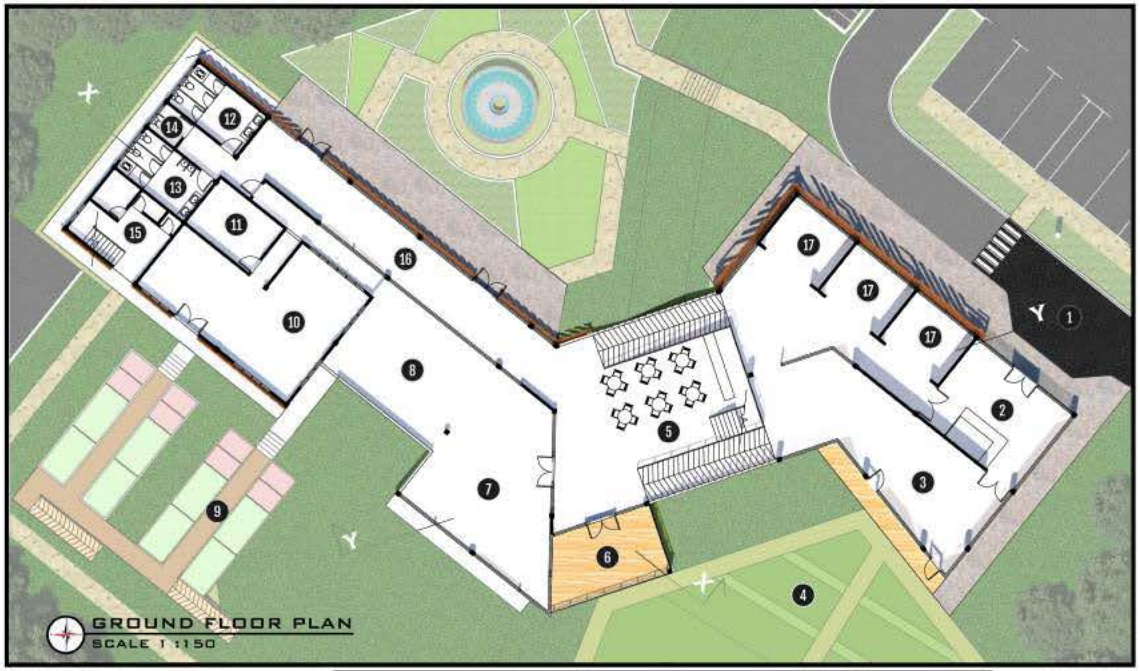
SECOND FLOOR PLAN

JOHOL AGROTOURISM CENTRE

RAS 204 : ARCHITECTURE STUDIO 2 PROJECT 2 JOHOL, NEGERI SEMBILAN

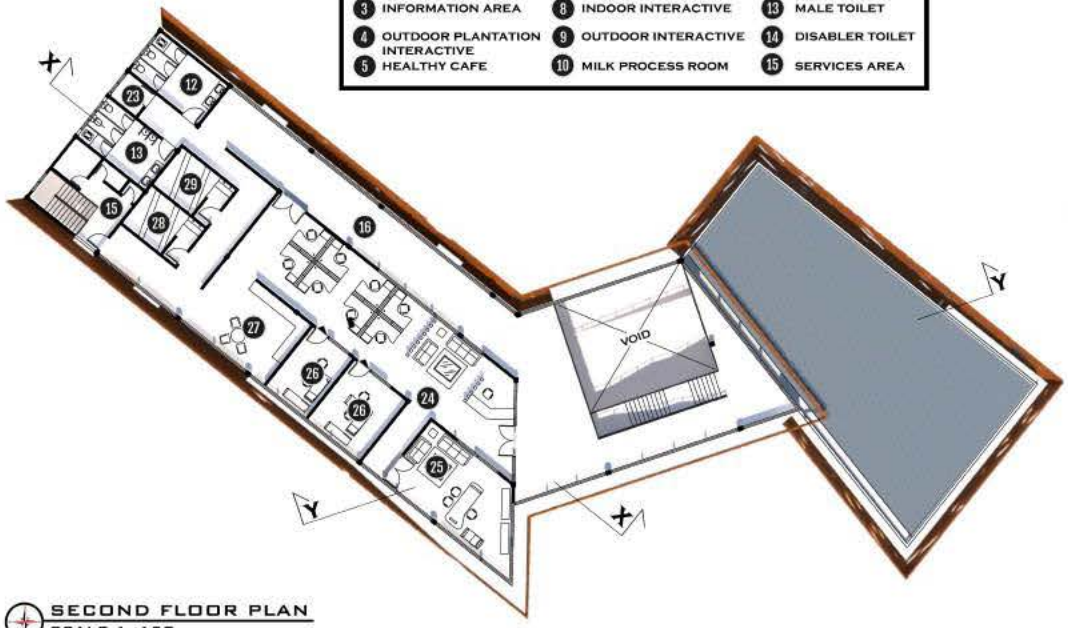
3

NAME : MUHAMMAD SYAFIQ HILMI BIN MD YAZID
MATRIC NO : 131935
STUDIO MASTERS : MR. REDUAN BIN MAHAT
MRS. AMIRAH BINTI MOHTARAM



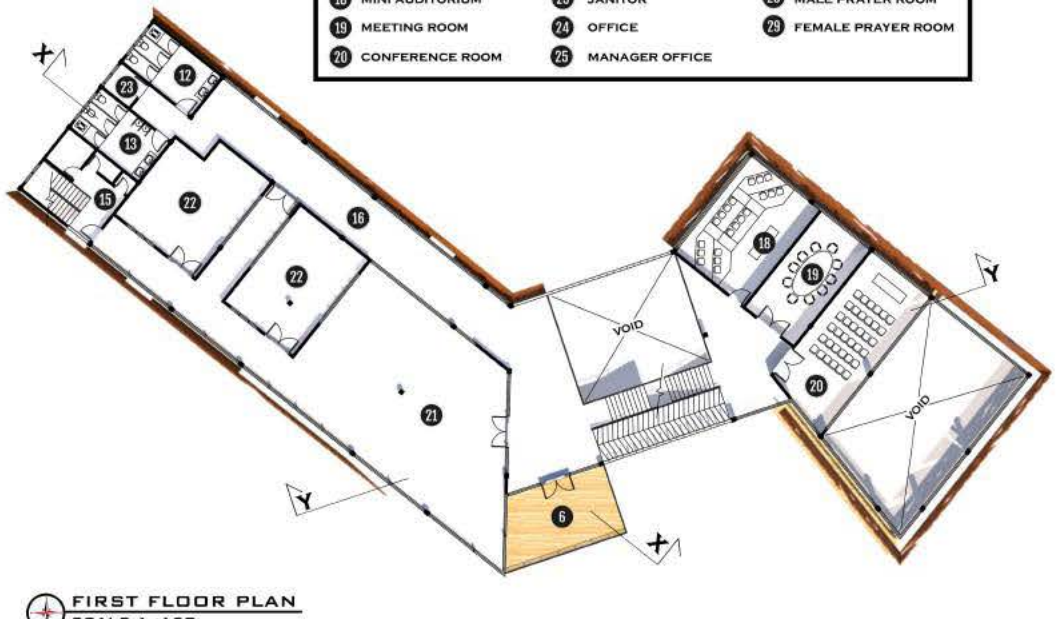
LEGEND

1 DROP OFF	6 BALCONY	11 COLD STORAGE
2 RECEIPTIONIST	7 INFORMATION PRODUCT	12 FEMALE TOILET
3 INFORMATION AREA	8 INDOOR INTERACTIVE	13 MALE TOILET
4 OUTDOOR PLANTATION INTERACTIVE	9 OUTDOOR INTERACTIVE	14 DISABLER TOILET
5 HEALTHY CAFE	10 MILK PROCESS ROOM	15 SERVICES AREA



LEGEND

16 HALLWAY	21 RESEARCHER OFFICE	26 EXECUTIVE ROOM
17 RETAIL SHOP	22 RESEARCH LAB	27 PANTRY
18 MINI AUDITORIUM	23 JANITOR	28 MALE PRAYER ROOM
19 MEETING ROOM	24 OFFICE	29 FEMALE PRAYER ROOM
20 CONFERENCE ROOM	25 MANAGER OFFICE	



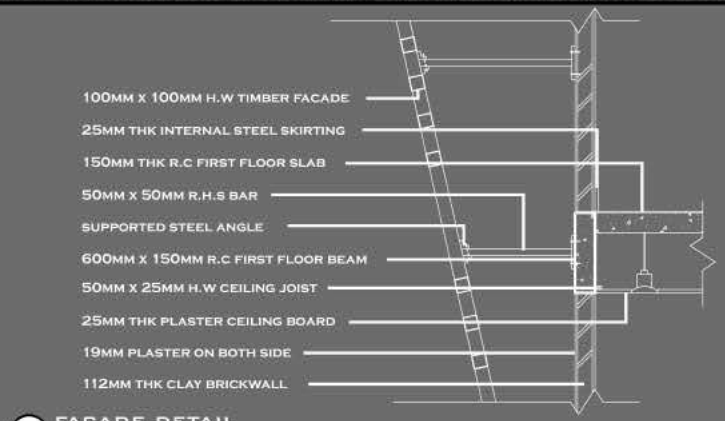
JOHOL AGROTOURISM CENTRE

RAS 204 : ARCHITECTURE STUDIO 2 PROJECT 2 JOHOL, NEGERI SEMBILAN

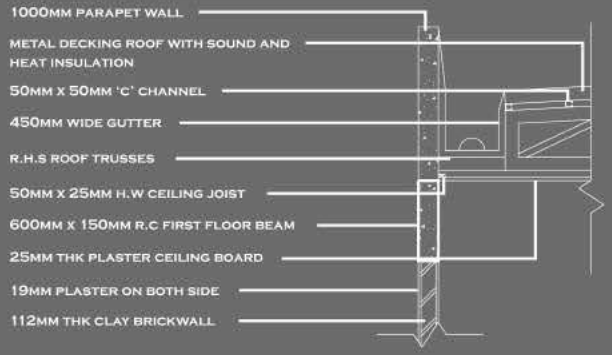
4

NAME : MUHAMMAD SYAFIQ HILMI BIN MD YAZID
MATRIC NO : 131935
STUDIO MASTERS : MR. REDUAN BIN MAHAT
MRS. AMIRAH BINTI MOHTARAM

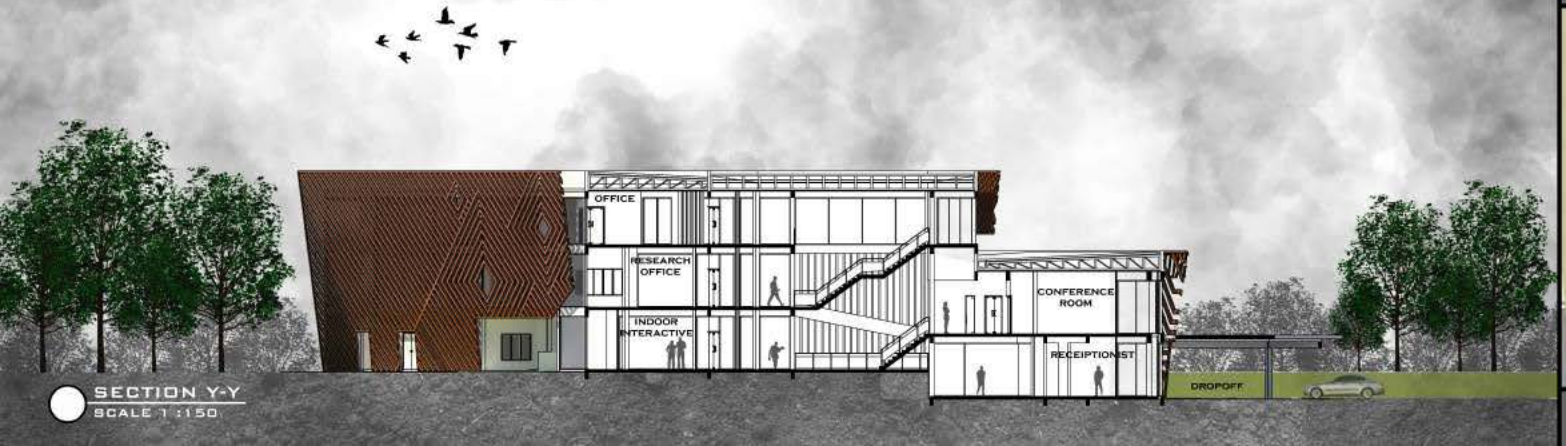
SECTION X-X
SCALE 1 :150



FACADE DETAIL
SCALE 1 :20



ROOF DETAIL
SCALE 1 :20



SECTION Y-Y
SCALE 1 :150

INTERIOR PERSPECTIVE

VIEW IN MINI AUDITORIUM ROOM

VIEW TOWARDS CAFE AREA

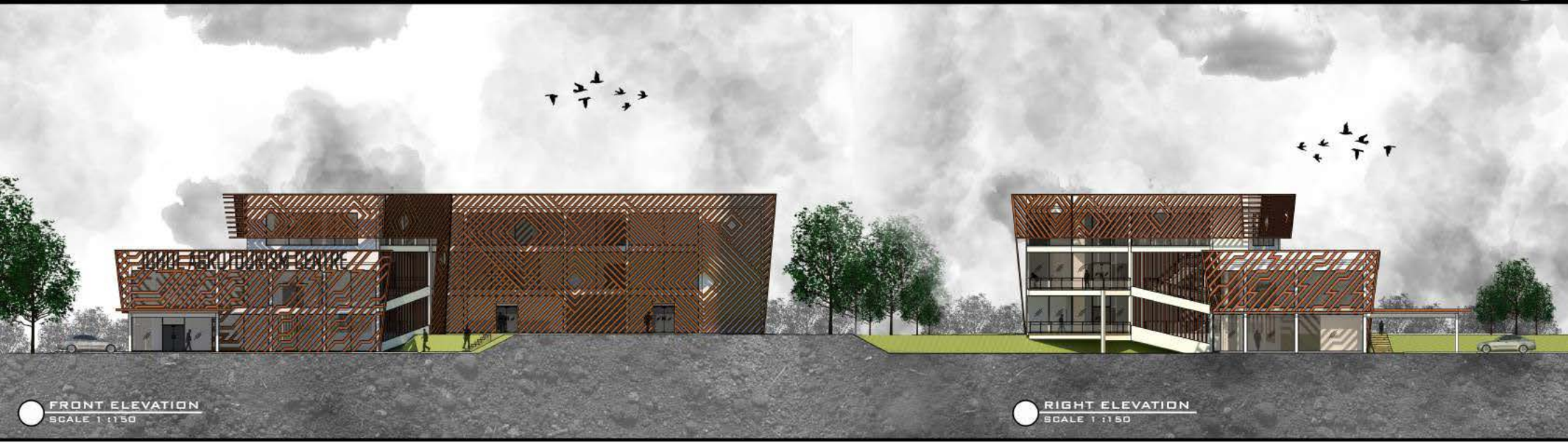
VIEW TOWARDS INDOOR INTERACTIVE AREA

JOHOL AGROTOURISM CENTRE

RAS 204 : ARCHITECTURE STUDIO 2 PROJECT 2 JOHOL, NEGERI SEMBILAN

5

NAME : MUHAMMAD SYAFIQ HILMI BIN MD YAZID
MATRIC NO : 131935
STUDIO MASTERS : MR. REDUAN BIN MAHAT
MRS. AMIRAH BINTI MOHTARAM

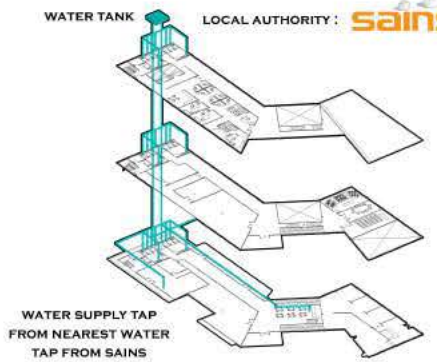


FRONT ELEVATION
SCALE 1 :150

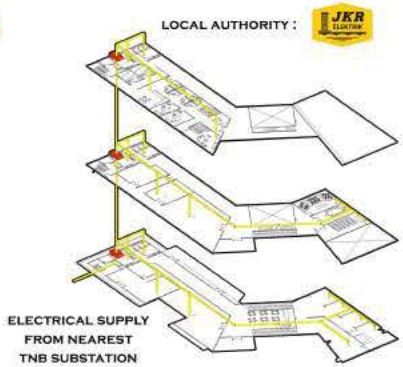
RIGHT ELEVATION
SCALE 1 :150

SECTIONAL PERSPECTIVE
SCALE 1 :150

WATER SUPPLY SCHEMATIC DIAGRAM

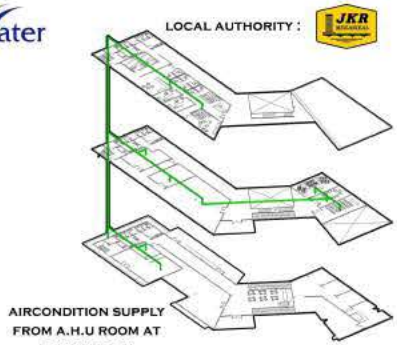


ELECTRICAL SUPPLY SCHEMATIC DIAGRAM



SEWERAGE SCHEMATIC DIAGRAM

A.H.U SCHEMATIC DIAGRAM



LIGHTING STUDY

8.00 AM

1.00 PM

6.00 PM

NOR FARAH HANIM BINTI TALIB
131938

JOHOL AGROTOURISM CENTRE

DESIGN STATEMENT

LOCATED AT JOHOL IN THE AREA OF NEGERI SEMBILAN. THE SITE LOCATED AT KAMPUNG NURI. THE SITE IS OWNED BY A VILLAGER WHICH LOT 4716,4717,1053 WITH 1500M2.THIS PROJECT IS TO BUILD JOHOL AGROTOURISM CENTRE THAT INITIATED A COLLABORATIVE VENTURE WITH BALAI UNDANG JOHOL LUAK. THIS PROJECT TO CREATE A RESEARCH AND KNOWLEDGE HUB IN JOHOL. SPECIALIZING IN SUITABLE AGRICULTURE AND FARMING. THIS PROJECT AIMS TO EMPOWER THE LOCAL FARMERS WITH THEKNOW-KNOW TO GENERATE INCOME AND IMPROVE THE SOCIO-ECONOMIC STATUS OF THE SLEEPY TOWN.

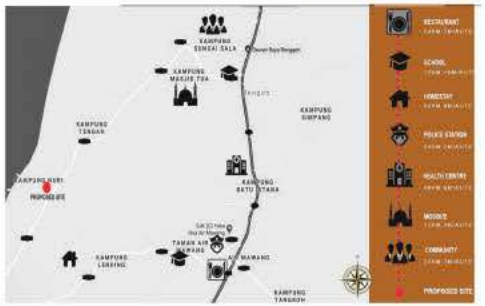
THE MAIN CONCEPT OF THE DESIGN WAS INSPIRED BY THE FROM THE INFLUENCE OF NINE-STATE HOME ARCHITECTURE PRACTICE. THE DETERRENT ARCHITECTURAL ELEMENTS ARE LIKE HAVING A SERIES OF PILLARS THAT CAN BE SEEN IN BUILDINGS AT THE FOYER AREA AND THE STAIRS HAVE BAMBOO PILLARS WHICH PLAY A ROLE AS THE MAIN SUPPORTER OF THE BUILDING. OTHERWISE IT CAN ALSO BE SEEN ON THE ROOF WHERE THE TIP OF THE ROOF IS SLIGHTLY FLUSHED AND STACKED. COHERENT FLOOR CONSTRUCTION ALONG THE PORCH WHICH SERVES AS A LOBBY IN LINE WITH THE CUSTOM OF PERPATIH WHICH OUTLINES THE VALUE OF EGALITARIANISM. USING BAMBOO AS THE MAIN MATERIAL OF BUILDING IS AIMED AT GIVING THE END OF THE NATURAL FEELING IN THE VILLAGE ENVIRONMENT BESIDES USING WOOD AS THE MAIN MATERIAL. THE SPACE FOR THE MARKETPLACE IS DESIGNED SO THAT VISITORS CAN SEE THE PRODUCT MANUFACTURING PROCESS TO BE INTRODUCED AND MARKETED TO CUSTOMERS OR VISITORS.

KEY PLAN | LOCATION PLAN | PROPOSED SITE

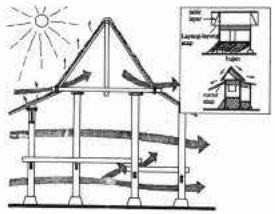
SUN PATH

SITE PLAN SCALE 1:400

BAMBOO MATERIAL STRUCTURE

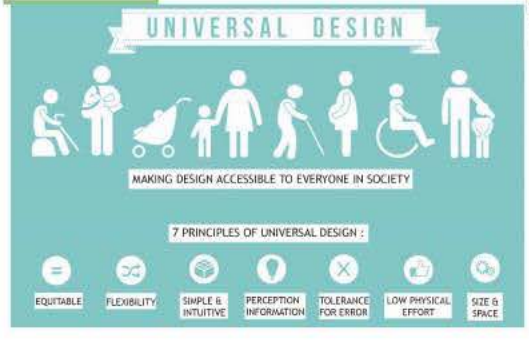


EXISTING BUILDING

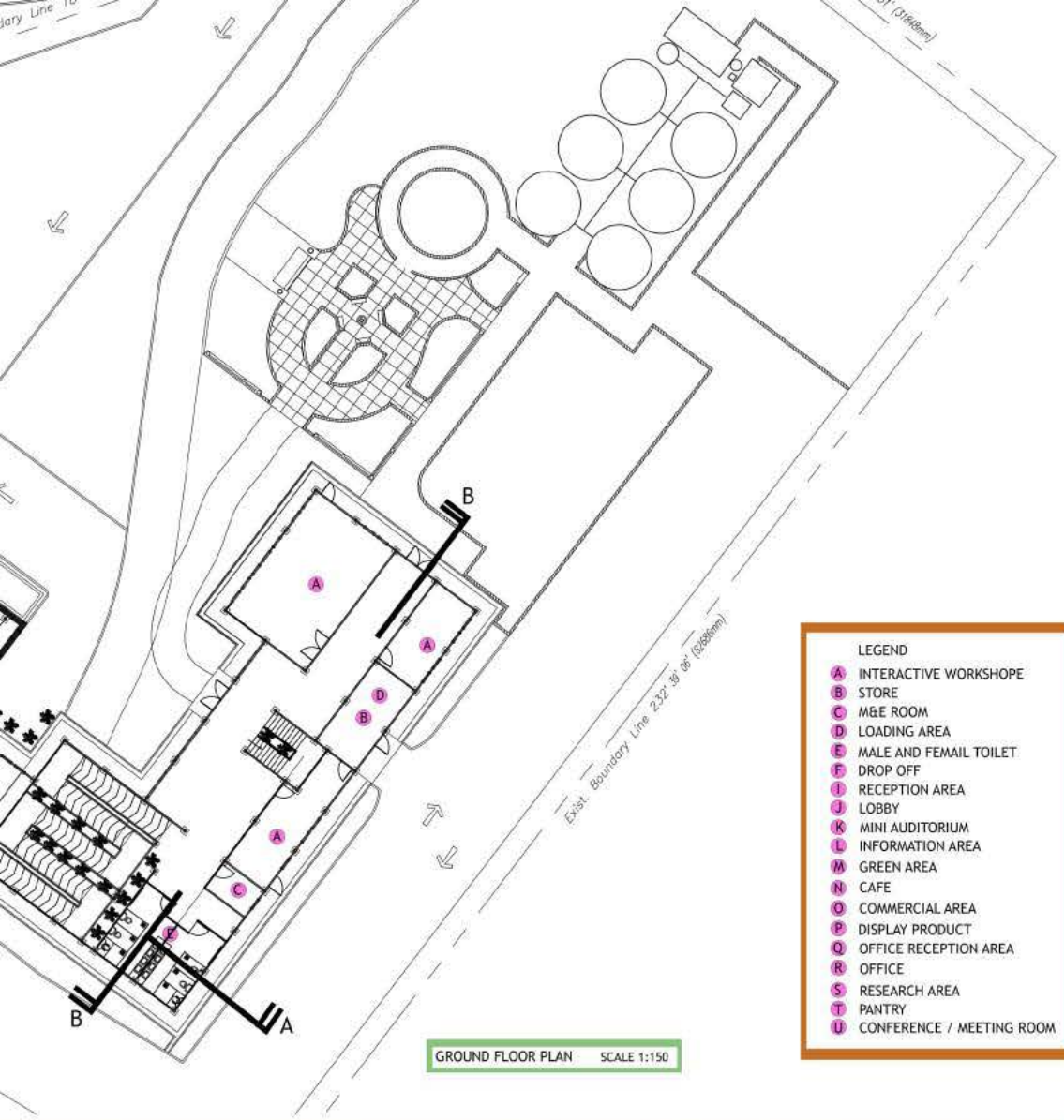


1) PILLAR HEIGHT AND MATERIAL OR LEAVES USED CAN COOL THE AIR INSIDE THE HOME.
2) THE STEEP ROOF PILLAR CAN OF ROOF RAINWATER DRAINAGE SO THAT DURABLE AND DOES NOT LEAK.
3) THE SECOND-FLOOR CAN JUSTIFY THE WIND FLOOR INTO AND CAN BE SOOTHING TO THE INNER HOUSE.

DESIGN APPROACH



NOR FARAH HANIM BINTI TALIB 131938



GROUND FLOOR PLAN SCALE 1:150

LEGEND

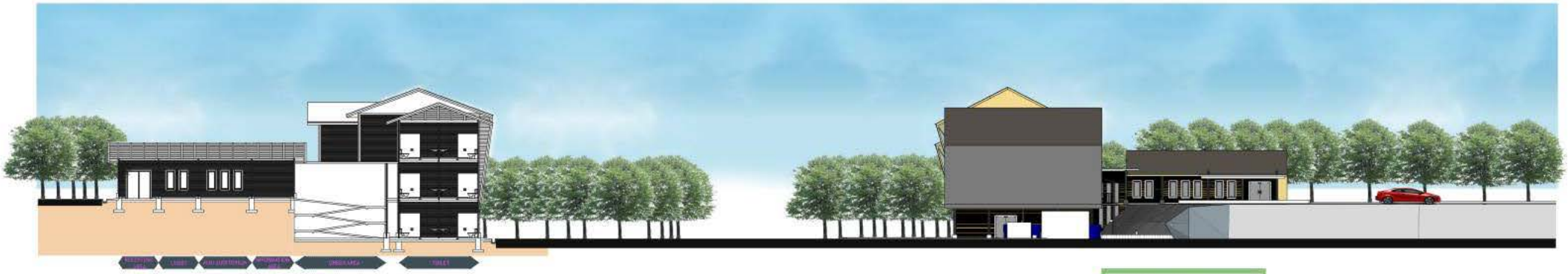
- A INTERACTIVE WORKSHOPE
- B STORE
- C M&E ROOM
- D LOADING AREA
- E MALE AND FEMAIL TOILET
- F DROP OFF
- I RECEPTION AREA
- J LOBBY
- K MINI AUDITORIUM
- L INFORMATION AREA
- M GREEN AREA
- N CAFE
- O COMMERCIAL AREA
- P DISPLAY PRODUCT
- Q OFFICE RECEPTION AREA
- R OFFICE
- S RESEARCH AREA
- T PANTRY
- U CONFERENCE / MEETING ROOM

PERSPECTIVE VIEW 1

FIRST FLOOR PLAN SCALE 1:150

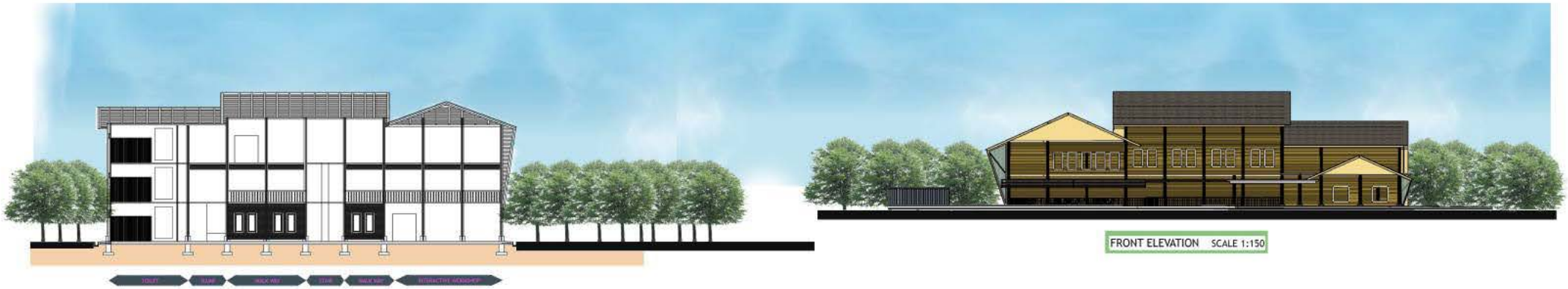
SECOND FLOOR PLAN SCALE 1:150

NOR FARAH HANIM BINTI TALIB 131938



SECTION A-A SCALE 1:150

LEFT ELEVATION SCALE 1:150



SECTION B-B SCALE 1:150

FRONT ELEVATION SCALE 1:150

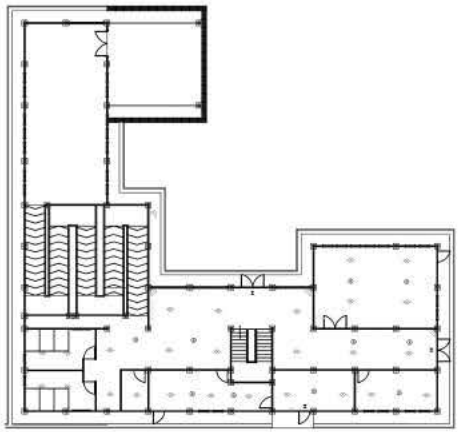
PERSPECTIVE VIEW 1

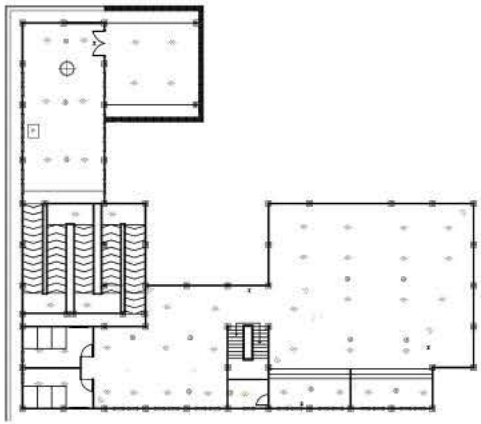
PERSPECTIVE VIEW 2

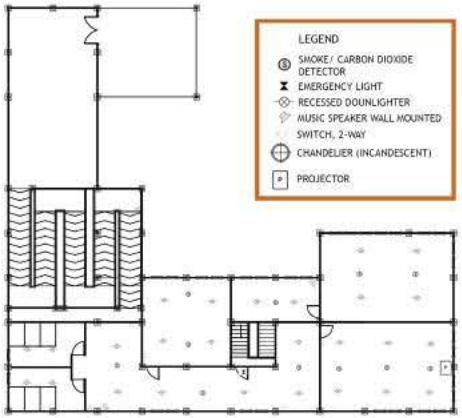
PERSPECTIVE VIEW 3

NOR FARAH HANIM BINTI TALIB 131938

ELECTRICAL LAYOUT





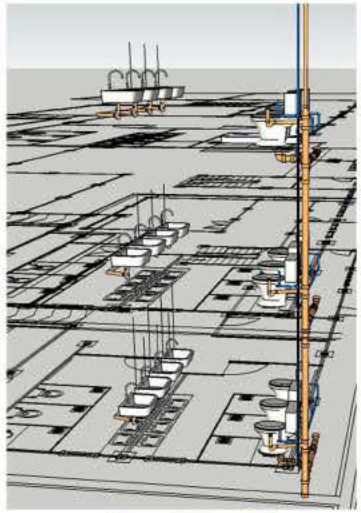


PERSPECTIVE VIEW 4

PERSPECTIVE VIEW 5

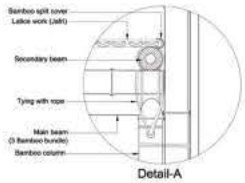
PERSPECTIVE VIEW 6

PERSPECTIVE VIEW 7

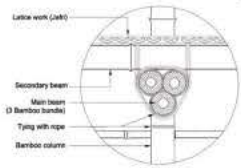


PLUMBING LAYOUT

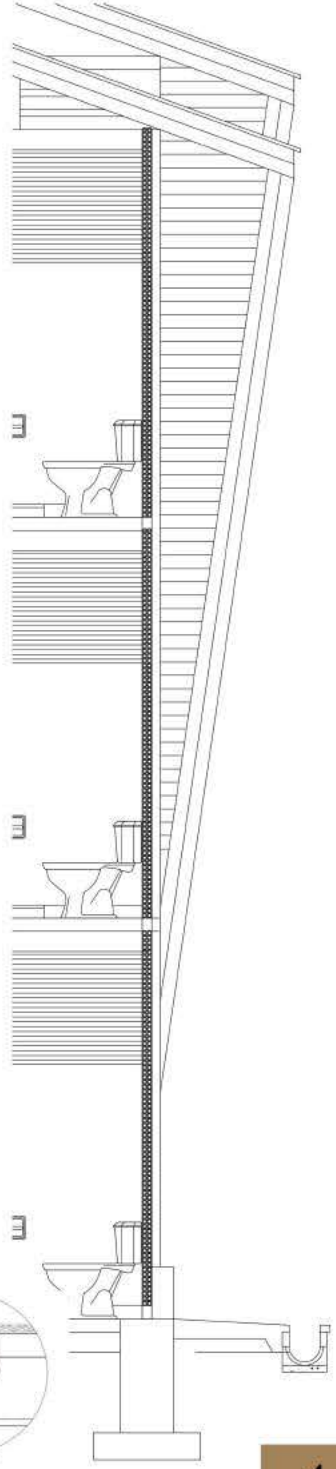
SECTIONAL AXONOMETRIC



Detail-A



Detail-B



NOR FARAH HANIM BINTI TALIB 131938

NOR YASMIN BINTI MOHD ARIFF
131939

Johol Dairyfarm Agro-Tourism centre

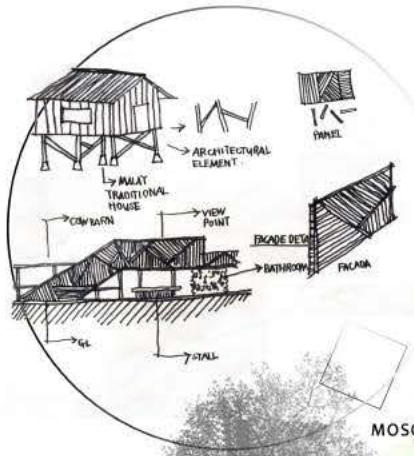
DESIGN STATEMENT

the agro-tourism centre project is a part of the assumption of revitalizing, connecting and preserving the elements that are part of the history of Kampung Nuri, Johol.

with qualifying the urban space, inserting new activities that seek the local diversity, conducting the aesthetics and culture potentiating in johol, leading to a new local dynamics from points of concentration of leisure and urban businesses.

redefining the space and creating a new environment preserving the identity of the neighborhood and its cultural,local flow dynamizer during the course different activities are excontradas, forming a network of spaces and public services

DESIGN CONCEPT

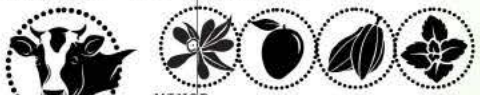


BUBBLE DIAGRAM

KEY PLAN

LOCATION PLAN

PRODUCT FOR RESEARCH:



MINOR:
VANILLA, MANGO, COCOA, MINT

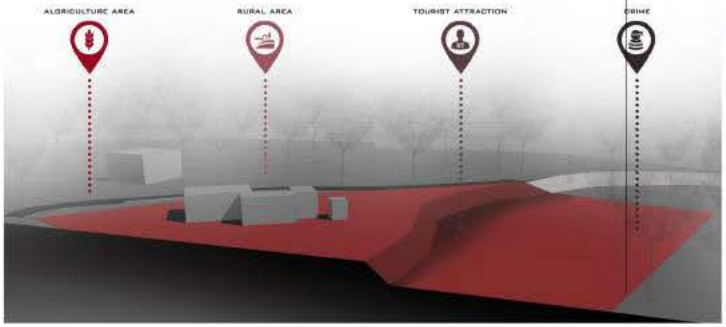
MAJOR:
COW MILK

PRODUCT PRODUCE:

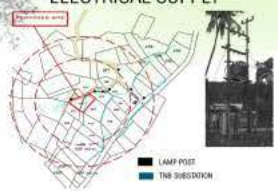
- ALL THE FLAVORS FOR THE PRODUCT ARE PRODUCED FROM THE PLANT
- VANILLA, COCOA, MINT AND MANGO FLAVORS

SITE PLAN
1 : 400

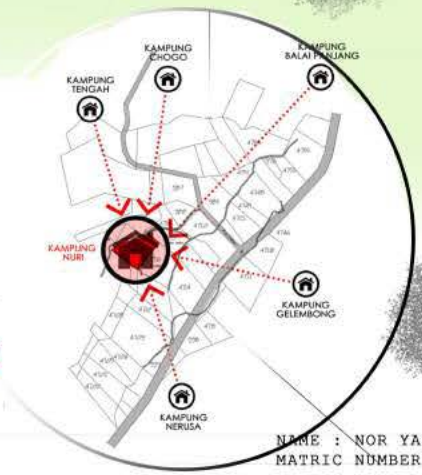
SITE ANALYSIS



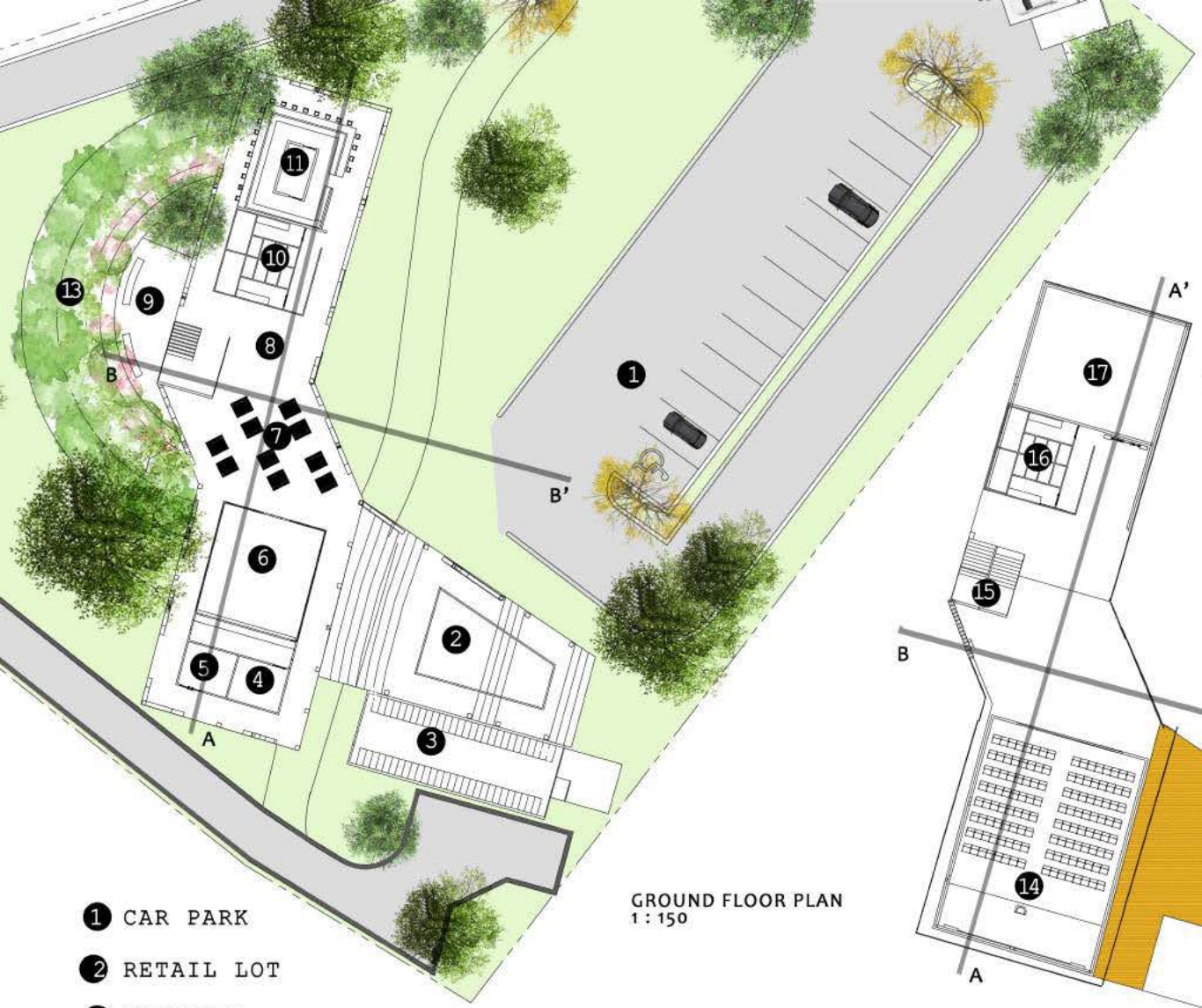
ELECTRICAL SUPPLY



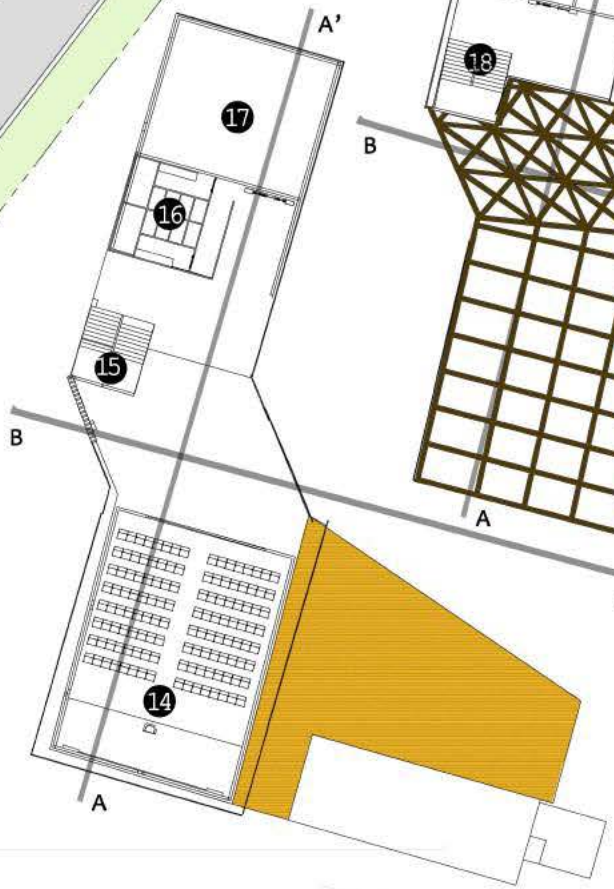
DRAINAGE SYSTEM



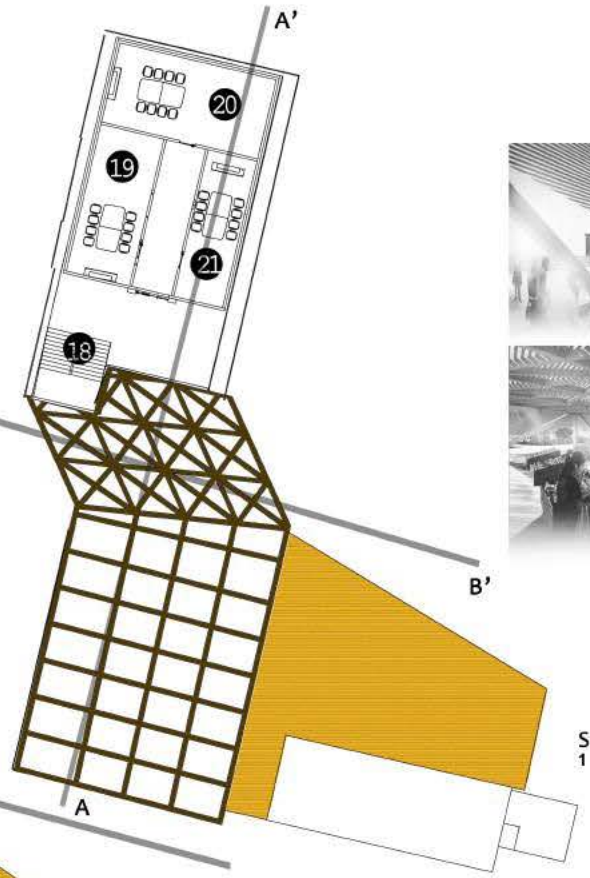
NAME : NOR YASMIN BT MOHD ARIFF
MATRIC NUMBER : 131939



GROUND FLOOR PLAN
1 : 150



FIRST FLOOR PLAN
1 : 150



SECOND FLOOR PLAN
1 : 150

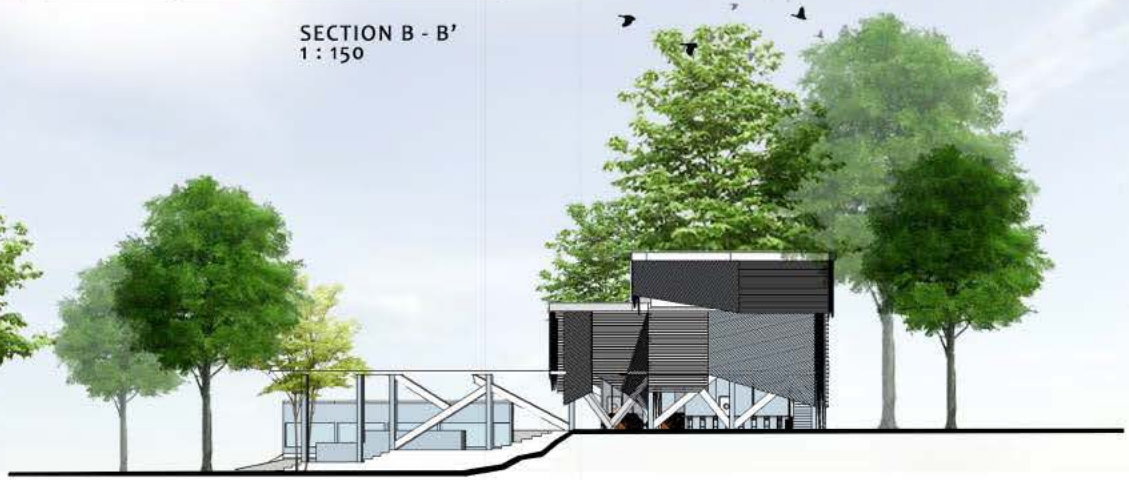
1 CAR PARK
2 RETAIL LOT
3 COW BARN
4 KITCHEN
5 STORAGE ROOM
6 INTERACTIVE WORKSHOP
7 DISPLAY AREA
8 RECEPTION AREA
9 COURTYARD
10 AMENITIES
11 COFFEE BAR
12 COW AREA
13 GARDEN
14 STAIR
14 MINI AUDITORIUM
15 STAIR
16 AMINITIES
17 RESEARCH ROOM
18 STAIR
19 MEETING ROOM
20 BOARD ROOM
21 CONFERENCE ROOM

NAME : NOR YASMIN BT MOHD ARIFF
MATRIC NUMBER : 131939

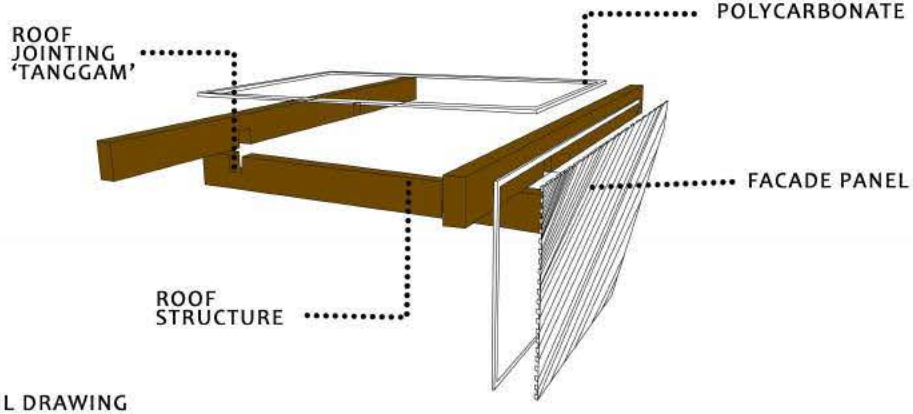
SECTION A - A'
1 : 150

SECTION B - B'
1 : 150

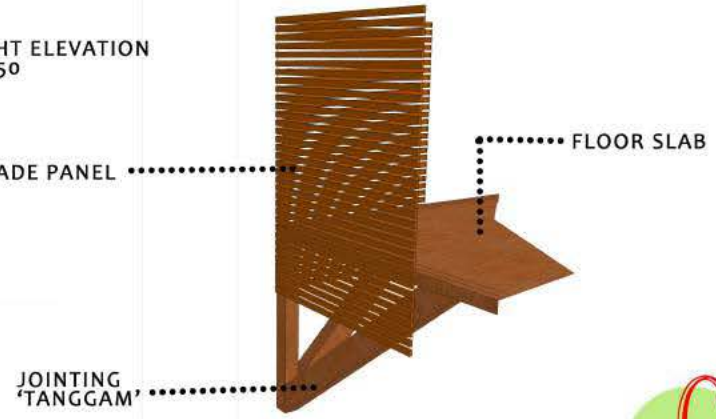
FRONT ELEVATION
1 : 150



RIGHT ELEVATION
1 : 150

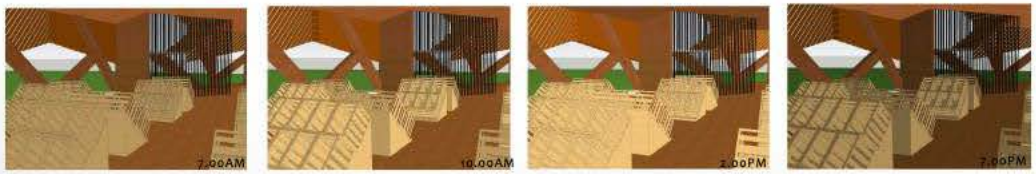


DETAIL DRAWING
1 : 20

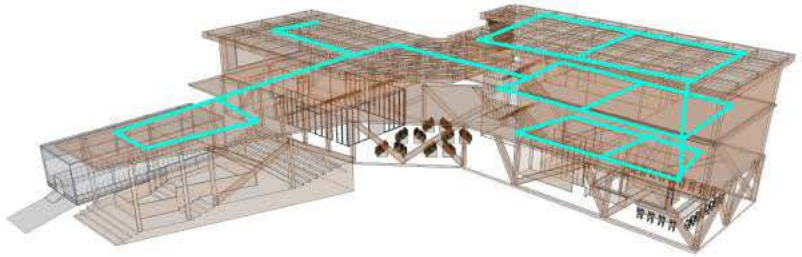


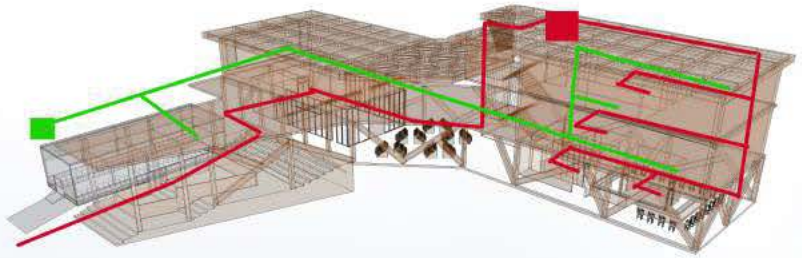
NAME : NOR YASMIN BT MOHD ARIFF
MATRIC NUMBER : 131939

SECTIONAL AXONOMETRIC DRAWING
1 : 150



SHADOW PATTERN





ELECTRICAL SCHEMATIC DRAWING
WATER SUPPLY SCHEMATIC DRAWING
SEWERAGE SCHEMATIC DRAWING

EXTERIOR PERSPECTIVE
NTS

NAME : NOR YASMIN BT MOHD ARIFF
MATRIC NUMBER : 131939

NORADLEEN FARIHA
BINTI CHE MAHADI
131940

JOHOL AGROTOURISM CENTER

project brief

JOHOL TOWN HAS NOT SEEN DEVELOPMENT OVER THE PAST DECADES. BALAI UNDANG LUAK JOHOL RECENTLY VISITED USM AND INITIATED A COLLABORATIVE VENTURE TO CREATE A RESEARCH AND KNOWLEDGE HUB IN JOHOL, SPEACIALIZING IN SUSTAINABLE AGRICULTURE AND FARMING OF LIVING ANIMALS OR INSECT. THESE ACTIVITIES ARE SEEN TO EMPOWER HE LOCAL FARMERS WITH THE KNOW HOW TO GENERATE INCOME AND IMPROVE **SOCIO-ECONOMIC STATUS OF SLEEPY TOWN.**

site location

Key Plan
not to scale

Location Plan
not to scale

history of site

Johol is one of the constituent Minangkabau states that formed Negeri Sembilan. The reigning Undang Luak of Johol is Datuk Johan Pahlawan Lela Perkasa Setiawan Muhammad Abdullah (The 15th Undang).

The Biduanda head leaders is a woman called Nenek Kerbau and married to Johol or Johan Pahlawan Lela Perkasa who is the son of Mianangkabau reign and has a daughther name Putri Kunun.
Nenek Kerbau reign Seri Menanti, Jempul and Hulu Muar with the help of her husband and it is her husband who move the Minangkabau people to his wife hometown.

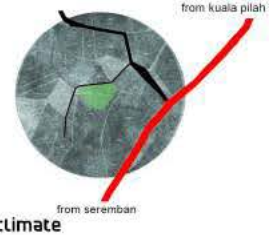
Datuk Johol was the first Undang who married to Putri Kunun.
Luak is a district.

Johol was popular with its traditional delicacies which is rendang maman, rendang itik ayam kerbau rusa (except cow) and Apam Johol which only exist in Johol.

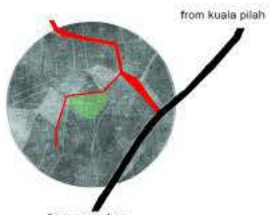
site analysis

circulation

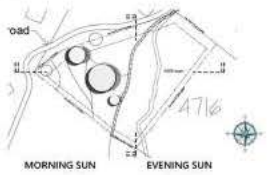
tourist main road

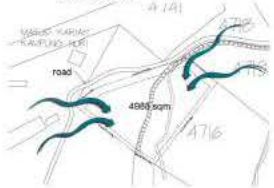


secondary road

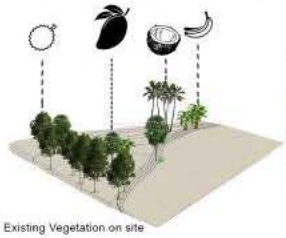


climate



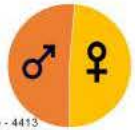


Vegetation

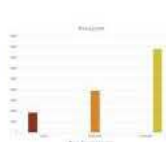


Existing Vegetation on site

local people demographic



Male - 4413
Female - 4713



hydrology

Drainage along the road near the site

Zoning

suitable for bee project as it consist of many fruit trees and fertile land

building typology

The area has many remaining Negeri Sembilan traditional house which has its signature Minangkabau Roof and elongated plan

local products of johol

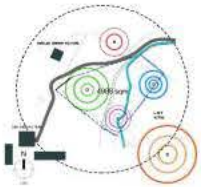
Apam Johol

Apam Johol is only existed in Johol. It is a fluffy cake that wrapped with 'Rambai' leaf traditionally and belief to enhance the flavor and smells of the cake. It is also belief the wrapped is created because of hygiene concerns.

Rendang Maman

Rendang Maman is a vegetable 'rendang' dish which replace the common meat 'rendang' exist in Asia.

soil analysis



a : humus
c : alluvial
d : inceptisol

issues

SLOW DEVELOPMENT OF JOHOL AS IT IS RURAL AREA

Johol rich with natural resources but does **not generate** income for its PEOPLE

Johol **Traditional Farming** which is time-consuming, labour cost and unhygenic

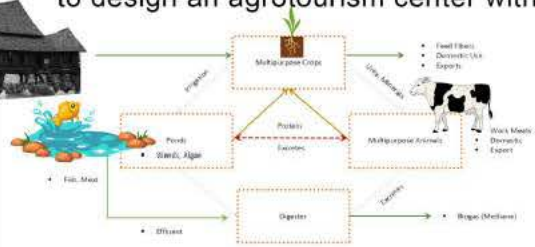
Veterans As Farmer is dominating the village meanwhile

40% young people more interested to live in the city and does not have skills to plant.

JOHOL DOES NOT KNOW HOW TO SUSTAIN AND INNOVATE THEIR PRODUCT WHICH BECOME **EXTINCTION** SUCH AS AYAM JOHOL AND KERBAU MAMAN

design strategies

to design an agrotourism center with **integrated** farming system



Products

Meloponini

Bees work all year round and help polienation

Baccaurea Motleyana

High contain nectar tree suitable for bee farming and help them to produce more propolis

Precedence Study

FONDATION LOUIS VUITTON BY FRANK GEHRY

The design responds to the setting of the Jardin d'Acclimatation, evoking the tradition of 19th-century glass garden buildings, the role of the Jardin in cultural memory (especially the work of Marcel Proust) and the desire to create a contemporary art museum that will be attractive and welcoming to the children and families who frequent the Jardin

OF NEGERI SEMBILAN AND MINANGKABAU PRACTICE INTO DESIGN AND ARCHITECTURE

EGALITARIANISME VALUE
"STAND TALL, STAND LOW"

THIS HOME DESIGN HAS A FOYER AND PORCH AND ITS WINDOWS ARE LOW FROM THE FLOOR TO ADAPT TO THE SURROUNDINGS AND ARE DESIGNED FOR PEOPLE SITTING AND NOT STANDING

"RUMAH GADANG" OR "RUMAH ADAT" IS A A PLACE OF COMMUNION AND CUSTOM CEREMONIES. ACCORDING TO SUDIRMAN (2007), THE CUSTOM HOUSE IS A HOUSE INHABITED ACCORDING TO THE RULES AND THE SO-CALLED CUSTOMARY NORMS

RUMAH PERLU MENGHADAP TANAH LAPANG

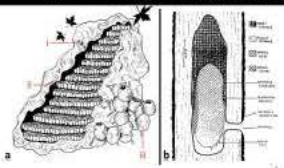
IDEA meloponini hive and food storage

HETERORIGONA ITAMA IS A STINGLESS BEE OR POPULARY KNOWN AS LEBAH KELULUT IN MALAYSIA. H.ITAMA IS A SPECIES THAT IS SUITABLE FOR BEE FARMING AS IT IS MOST ACTIVE AT TROPICAL TEMPERATURE PLACE AND PRODUCE A LOT OF HONEY COMPARED TO OTHER MELIPONINI BEES. THE BEES HAS ITS OWN STYLE OF SHELTER AND NEST WHICH IS DIFFERENT FROM THE COMMON BEES.

Heterotrigona Itama

- Stingless bee
- Produce s lot of honey
- Active most at 25 degree celcius
- Live inside Tree
- Trunks and Hollow

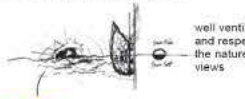
bee honey pods



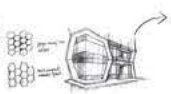
Stingless bees usually nest in hollow trunks, tree branches, underground cavities, or rock crevices.

The bees store pollen and honey in large, egg-shaped pots made of beeswax (typically) mixed with various types of plant resin.

These pots are often arranged around a central set of horizontal brood combs, wherein the larvae are housed.



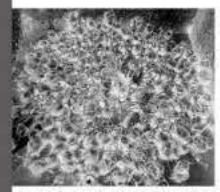
well ventilated and respecting the nature and views



applying honeycomb structure onto façade and structure

CONCEPT penninerved pilgrimage

MELOPONINI HIVES BUILT WITH CORELESS AND LIGHTWEIGHT DOUBLE LAYER STRUCTURE. THE HIVES CONSIST THOUSAND OF NERVES LIKE 'PIPE' BETWEEN PODS ACT AS VENTILATION SUPPLY. THIS DESIGN IS TO EXPLORE THE PENNINERVED JOURNEY AND TO RESEMBLES ITS FUNCTIONALITY AND SHAPE.



THE MELOPONINI HIVES HAVE HONEY PODS MADE BY MATERIALS KNOWN AS CERUMEN OR WAX WHICH PRODUCE FROM BEES ABDOMEN BY ITS GLANDS THAT CONVERTED SUGAR. IT WAS CHEWED AND BUILD BY BEES.

TREE IS A GROWTH STRUCTURE AND IT IS STRONG BECAUSE OF THE COMBINATION OF STEM. THIS BUILDING APPLYING THE BARK TREES STRUCTURES

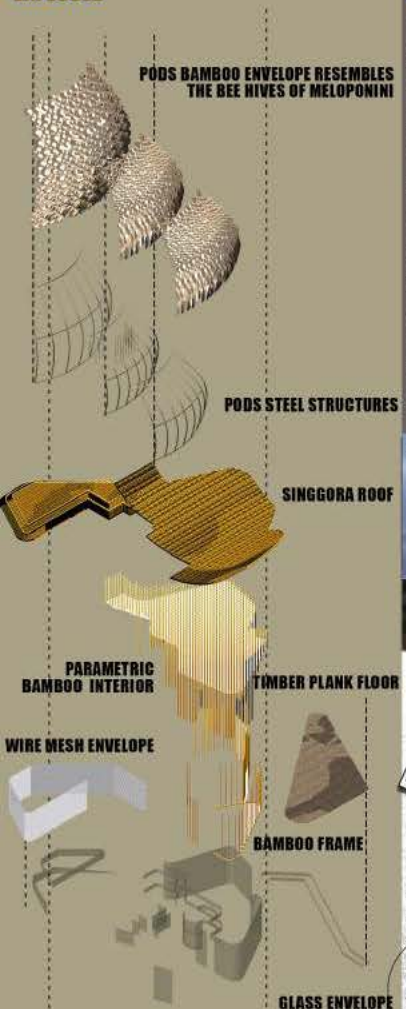
design strategies

EFFECTIVE METHODS OF SHAPING THE FORM, SUSTAINABILITY AND SOCIAL CONDITION OF THE BUILT ENVIRONMENT

NAME : NORADLEEN FARIHA BINTI CHE MAHADI
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM

Project 2: Johol Agrotourism Center

EXPLODED



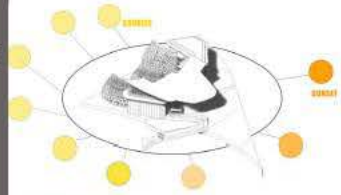
WHY BAMBOO?

1. BAMBOO HAS A TENSILE STRENGTH AND A PRESS THAT EXCEEDS WOOD.
2. BAMBOO HAS A GROWTH RATE OF 7 TIMES FASTER THAN OTHER PLANT SPECIES, AND CAN BE HARVESTED REPEATEDLY EVERY 3 YEARS.
3. BAMBOO FORESTS ARE ABLE TO STORE MORE WATER CONTENT THAN OTHER FOREST TYPES.
4. THE ENERGY NEEDED TO PRODUCE THE BAMBOO MATERIAL IS THE SMALLEST (IRON: 1500, CONCRETE: 240, WOOD: 80, BAMBOO 30, IN NMM2)
5. OF COURSE BAMBOO ALSO HAS WEAKNESSES, AMONG WHICH IS POWDER POWDER, BUT WITH TREATMENT AND PRECISE AND PROTECTION AGAINST WEATHER, BAMBOO WILL BE ABLE TO SURVIVE LONG AS BUILDING MATERIALS AND STRUCTURES.

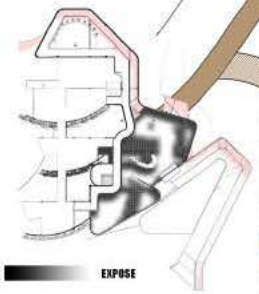
- IR BUDI FAISAL, INSTITUT TEKNOLOGI BANDUNG MAUD, MLA, PH.D. IR (ITB), MAUD, MLA (COLORADO), PHD (MELBOURNE)

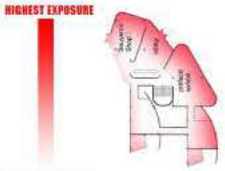
DAYLIGHT ANALYSIS

EXTERIOR ANALYSIS



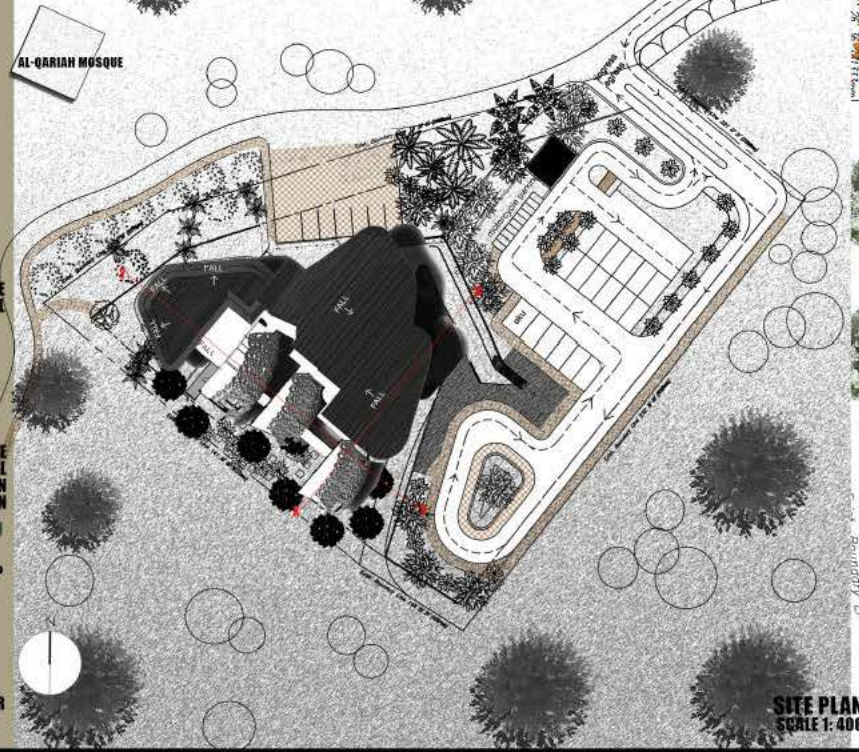
DESIGN ON MOST EXPOSURE SIDE





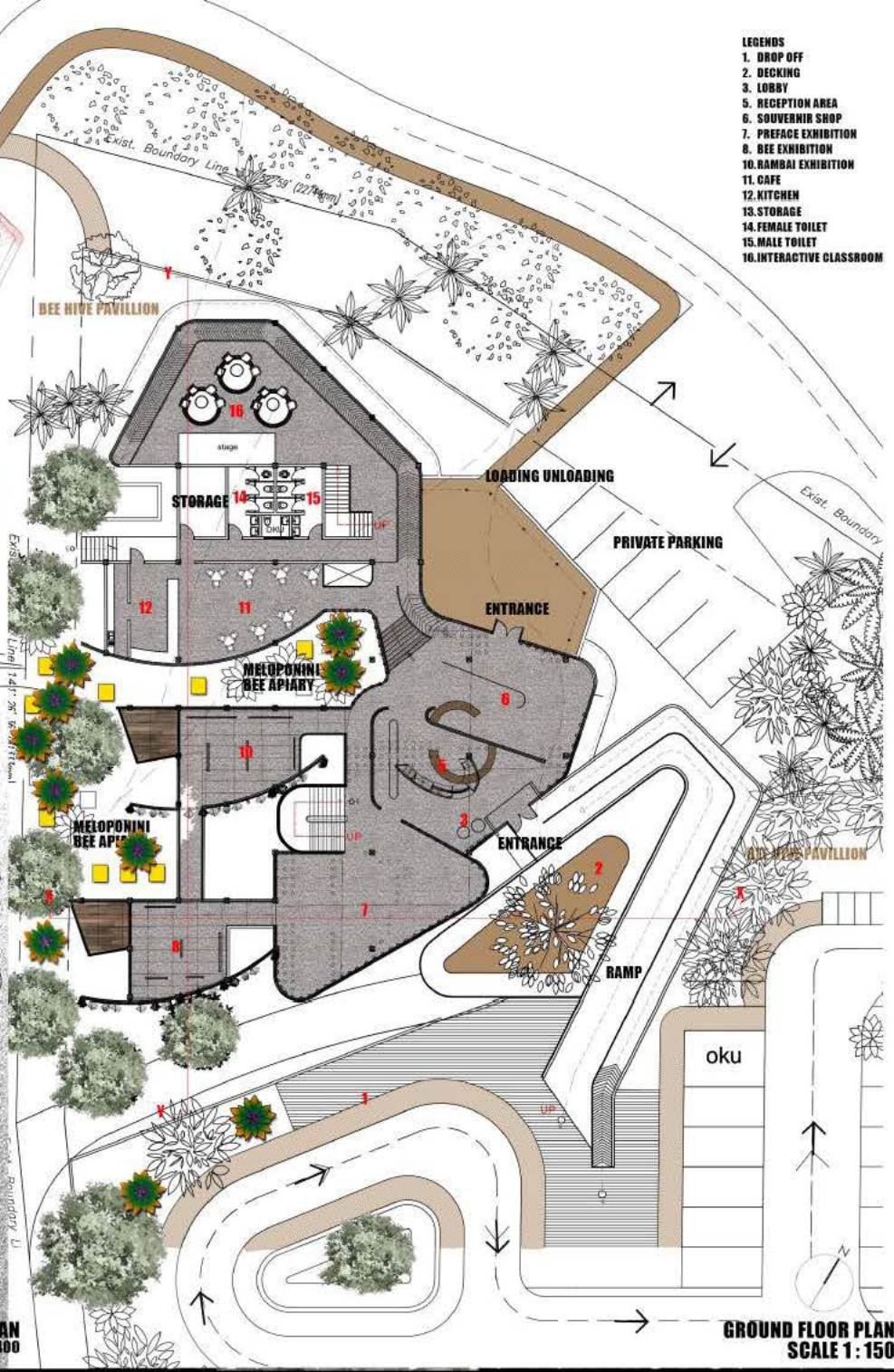
THE MOST RECEIVE EXPOSURE IS DURING THE NOON AND AFTERNOON. SINCE THE PLACE HAVE THE NICEST VIEW, MOST IMPORTANT SPACES WERE SITUATED THERE. THUS, TO OVERCOME IT, THE FACADE WAS DESIGNATED TO HAVE SOLID LAYERS AND DOUBLE GLAZING WINDOWS.

EXTERIOR PERSPECTIVES



SITE PLAN
SCALE 1: 400

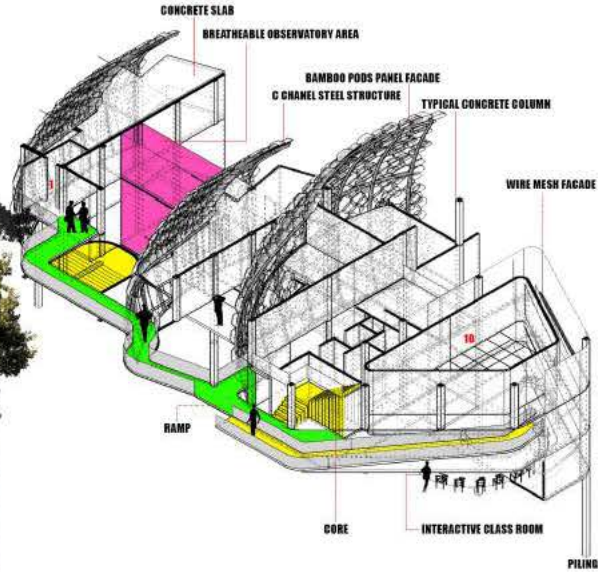
LEGENDS
1. DROP OFF
2. DECKING
3. LOBBY
5. RECEPTION AREA
6. SOUVENIR SHOP
7. PREFACE EXHIBITION
8. BEE EXHIBITION
10. RAMBAI EXHIBITION
11. CAFE
12. KITCHEN
13. STORAGE
14. FEMALE TOILET
15. MALE TOILET
16. INTERACTIVE CLASSROOM



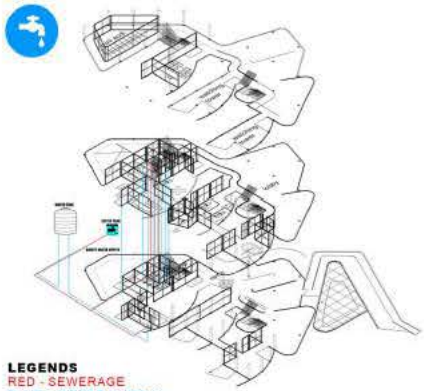
GROUND FLOOR PLAN
SCALE 1 : 150

NAME : NORADLEEN FARIHA BINTI CHE MAHADI
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM

Project 2: Johol Agrotourism Center

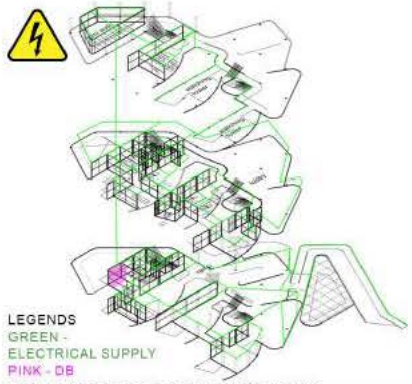


SECTIONAL AXONOMETRIC
SCALE 1 : 150



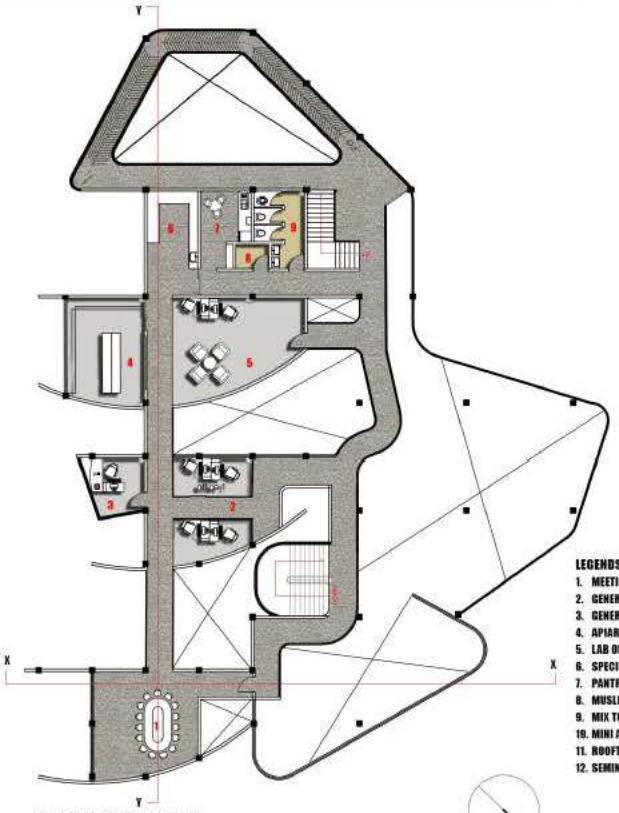
LEGENDS
RED - SEWERAGE
BLUE - WATER SUPPLY

SCHEMATIC WATER SUPPLY AND SEWERAGE DRAWING



LEGENDS
GREEN -
ELECTRICAL SUPPLY
PINK - DB

SCHEMATIC ELECTRICAL DRAWING



FIRST FLOOR PLAN
SCALE 1 : 150

LEGENDS
1. MEETING ROOM
2. GENERAL OFFICE
3. GENERAL MANAGER OFFICE
4. APIARRY BEE LAB
5. LAB OFFICE
6. SPECIMEN STORAGE AND SANITIZE ROOM
7. PANTRY
8. MUSLIM PRAYER ROOM
9. MIX TOILET
10. MINI AUDITORIUM
11. ROOFTOP
12. SEMINAR ROOM 20 PAX

SECOND FLOOR PLAN
SCALE 1 : 150

INTERIOR PERSPECTIVE
PODS HALLWAY

INTERIOR PERSPECTIVE
VIEW FROM SOUVERNIR SHOP

INTERIOR PERSPECTIVE
VIEW INTO INTERACTIVE CLASSROOM

INTERIOR PERSPECTIVE
OFFICE

INTERIOR PERPECTIVE RECEPTIONIST AREA

NAME : NORADLEEN FARIHA BINTI CHE MAHADI
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM

Project 2: Johol Agrotourism Center

FRONT ELEVATION
SCALE 1:150

LEFT ELEVATION
SCALE 1: 150

RIGHT ELEVATION
SCALE 1:150

DETAILS DRAWING

LEGENDS

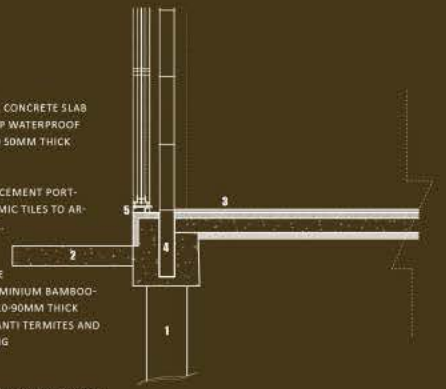
FOUNDATION
1. PILING

FLOOR
2. 150 MM THICK CONCRETE SLAB WITH 5MM DAMP WATERPROOF MEMBRANE AND 50MM THICK GRAVEL.

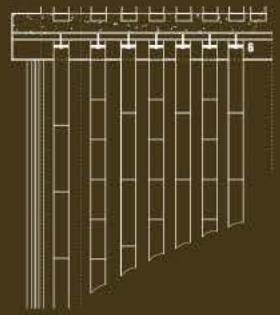
3. 15MM THICK CEMENT PORTLAND AND CERAMIC TILES TO ARCHITECTS DETAIL.

BAMBOO FACADE
4. 125MM O ALUMINIUM BAMBOO-CASEMENT OF 110-90MM THICK BAMBOO WITH ANTI TERMITES AND GLOSSY FINISHING

GLASS FACADE
5. 50MM X 50 MM ALUMINIUM CASEMENT. 10MM THICK DOUBLE GLAZING GLASS. L- ANGLED BOLT AND NUT JOINTING TO THE SLAB



BAMBOO TO CONCRETE SLAB



6. 110-90 MM O BAMBOO WITH ANTI TERMITE AND GLOSSY FINISHING. STIFFENER TO THE I-CHANLE STEEL BEAM

CONCRETE SLAB
7. 150 MM THICK CONCRETE SLAB WITH DAMP PROOF MEMBRANE , 5 MM THICK ALUMINIUM FLASHING

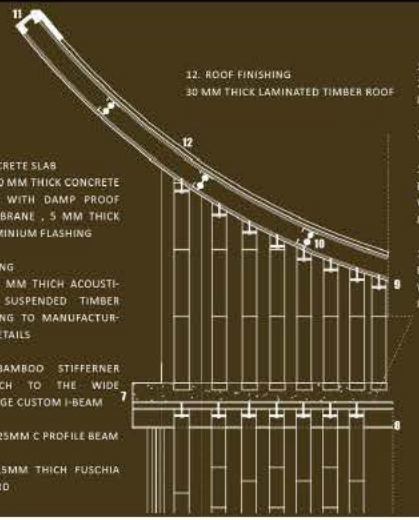
CEILING
8. 30 MM THICH ACOUSTICAL SUSPENDED TIMBER CEILING TO MANUFACTURER DETAILS

9. BAMBOO STIFFERNER ATTACH TO THE WIDE FLANGE CUSTOM I-BEAM

10. 125MM C PROFILE BEAM

11. 15MM THICH FUSCHIA BOARD

12. ROOF FINISHING
30 MM THICK LAMINATED TIMBER ROOF



BAMBOO TO CEILING AND CONCRETE SLAB

13. EXISTING COLUMN : 125MM WIDE FLANGE STEEL I-PROFILE.

14. 50MM/80MM STEEL ANGLE

15. FLUOROPOLYMER COATING BAMBOO PANEL 3MM-5MM THICK WITH ANTI TERMITE AND GLOSSY FINISHING SIZE 1000 MM O

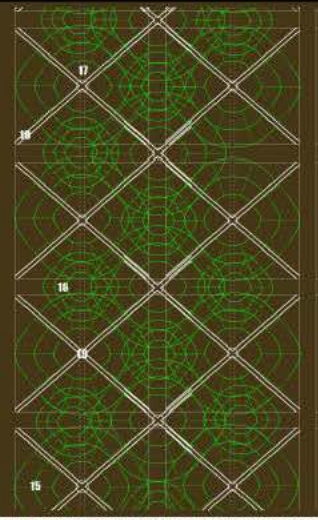
16. FLUOROPOLYMER COATING BAMBOO PANEL 3MM-5MM THICK WITH ANTI TERMITE AND GLOSSY FINISHING SIZE 500MM O

17. CONNECTING PIECE BETWEEN CONCAVE AND FLAT PANEL FOR HIGH PRECISION BUTT JOINT CALIBRATION ON 60/30/3MM ALUMINIUM CHANNEL.

18. DIAGONAL EXPANSION JOINT NEOPRENE

19. ALUMINIUM CYLINDER ANCHOR OF FLUOROPOLYMER BAMBOO PANEL TO THE DIAGONAL EXPANSION JOINT FOR WIND RESISTANCE

ROOF DETAIL
BAMBOO ONTO SLAB AND ROOF DETIALS



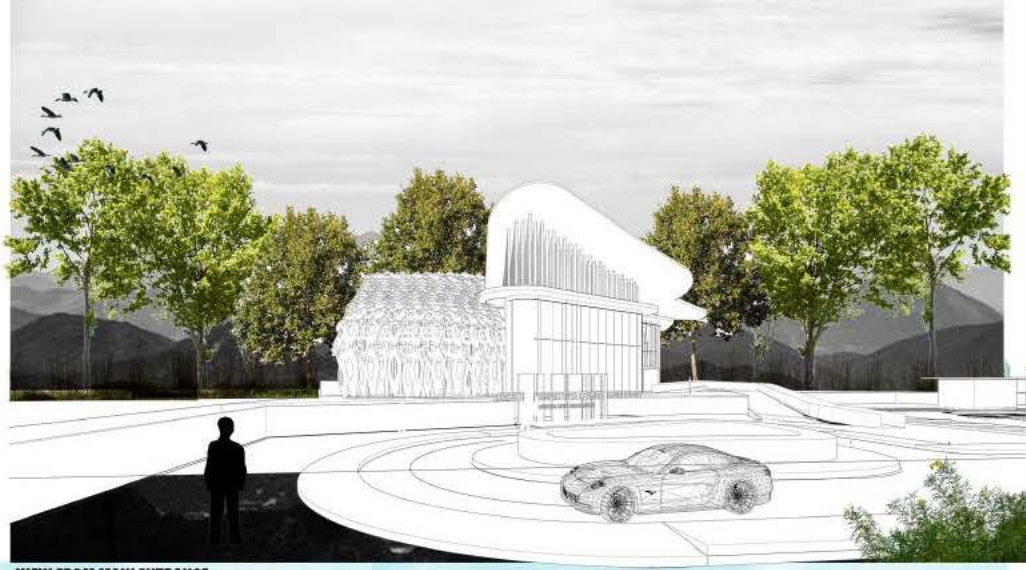
PODS EXHIBITION SKIN AND STRUCTURES DETAILS

DETAILS
SCALE 1:20

NAME : NORADLEEN FARIHA BINTI CHE MAHADI
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM

Project 2: Johol Agrotourism Center

SECTION X-X
SCALE 1:150



VIEW FROM MAIN ENTRANCE

SECTION Y-Y
SCALE 1:150

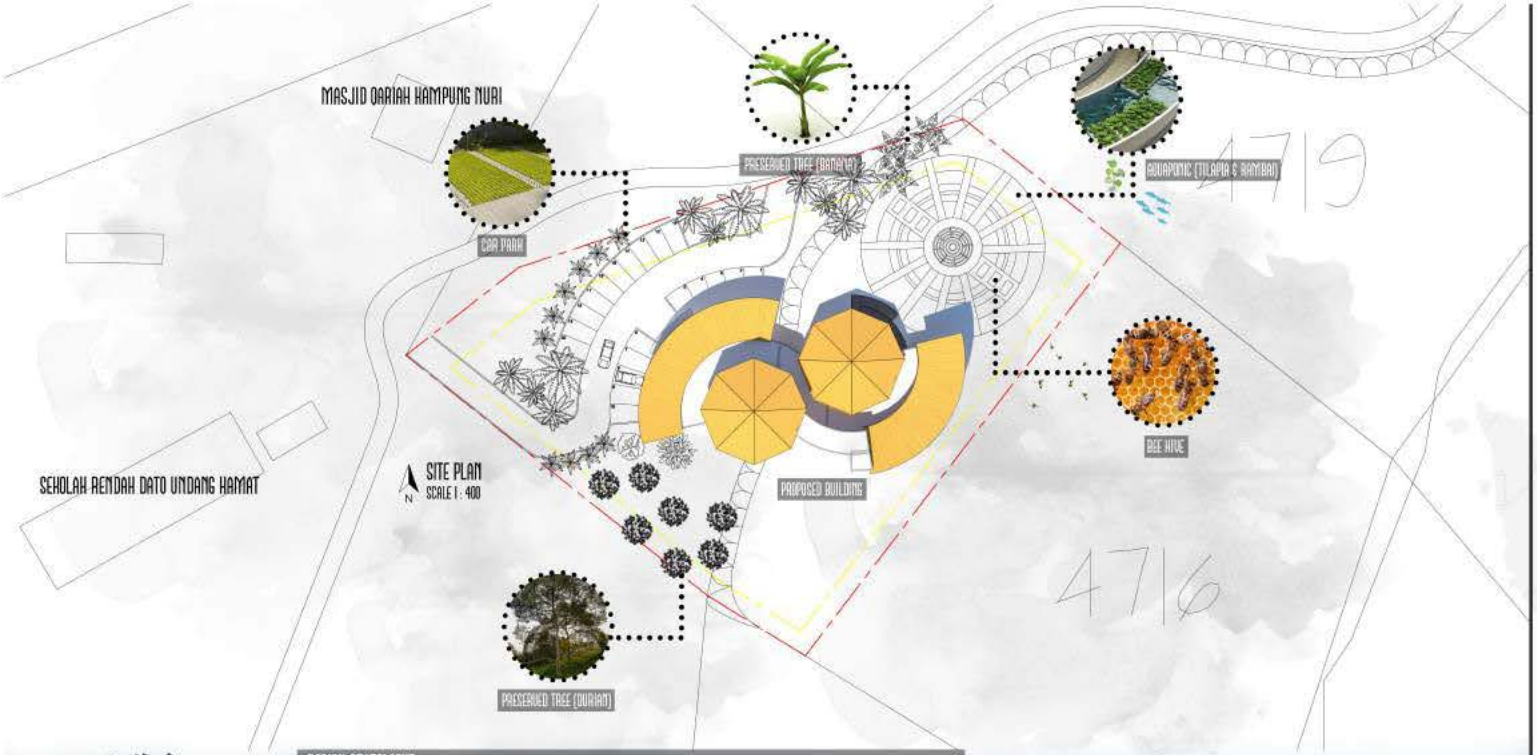
APROACHING VIEW

VIEW FROM POTHOLE PARKING

NAME : NORADLEEN FARIHA BINTI CHE MAHADI
MATRIC NUMBER : 131940
LECTURER/ SUPERVISOR : MR. REDUAN MAHAT , MDM. SITI AMIRAH MOHTARAM

Project 2: Johol Agrotourism Center

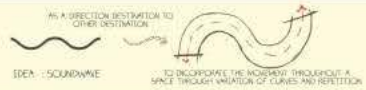
NURFARAHIN BT ROSLAN
131943



DESIGN STATEMENT

INSPIRED AND INFLUENCE BY THE HEAVY VEGETATION THAT PRODUCE ECHO . IT AFFECTED BY THE SOUND WAVED FROM A SURFACE BACK TO THE LISTENER. THE ECHO CONCEPT IS APPLIED INTO THE BUILDING PLAN TO INCORPORATE THE MOMENTUM THROUGHOUT A SPACE THROUGH VARIATION OF CURVES AND REPETITION. IT WILL GUIDE THE USERS A DESTINATION TO DESTINATION (SPACE TO SPACE).

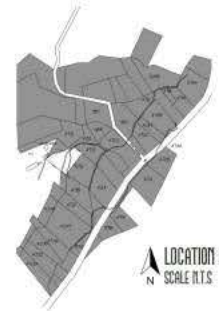
IDEA DEVELOPMENT



BUBBLE DIAGRAM

CONCEPTUAL SKETCHES

KEY PLAN
SCALE N.T.S



LOCATION PLAN
SCALE N.T.S

ECONOMIC SECTOR ANALYSIS

SITE ISSUE ANALYSIS

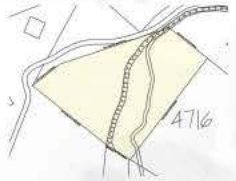
THE SITE

JOHOL AGROTOURISM CENTRE IS LOCATED AT LOT NUMBER OF 4716, KAMPUNG NURI, JOHOL. THE AREA IS ABOUT 43687M2 OR 12 ACRES AND THE TAIL OF TITIWANGSA RANGE EXTENDED FROM THE NORTHEN PART OF THE PENINSULAR. IT CAUSE THE JAC TO BE VERY SUITABLE AND STRATEGIC PLACE TO DO THIS PROJECT. LOW LAND, FERTILE SOIL AND HEAVY VEGETATION. EN-HANCE ALL THE PRODUCTION TO CONSISTENTLY GROWING UP. THE CLIENT IS BALAI UNDANG LUAK INTEND TO HAVE A PLACE WHERE THE LOCALS CAN BE ED-UCATE OF FARMING AND AGRICULTURE TO INCREASE THEIR INCOME. WITH THE HELP OF USM RESEARCHER, THIS PURE INTENTION SHOULD HAVE SUCCEED.

JAC JOHOL ARGOTOURISM CENTRE

RAS 204 ARCHITECTURE STUDIO . NURFARAHIN BINTI ROSLAN . 131943

INTRODUCTION JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. JOHOL TOWN HAVE NOT SEEN RAPID DEVELOPMENT OVER THE PAST DECADES. BALAI UNDANG LUAK JOHOL RECENTLY VISITED USM AND INITIATED A COLLABORATIVE VENTURE TO CREATE A RESEARCH AND KNOWLEDGE HUB IN JOHOL, SPECIALIZING IN SUSTAINABLE AGRICULTURE THESE ACTIVITIES ARE SEEN TO EMPOWER THE LOCAL FARMERS WITH THE KNOW-HOW TO GENERATE AND IMPROVE THE SOCIO-ECONOMIC STATUS OF THE SLEEPY TOWN. WITH THE R&D INPUT OF USM RESEARCHERS AND AGRO-FARMING PRODUCTS HARVESTED BY PEOPLE OF JOHOL, THIS PAVES WAY FOR A OFF-SHOOT DESTINATION NAMED JOHOL AGROTOURISM CENTRE. JAC JAC WILL EMERGE AS A DESTINATION WHERE VISITORS GET FIRST-HAND EXPERIENCE TO JOHOL AGRO-FARMING, ITS BRIEF HISTORY AND HOW AGRO-FARMING HAS THRIVED AND EMPOWERED THE LOCALS.

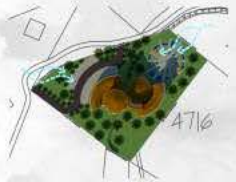


SITE MEAASUREMENT

THE SITE AREA IS ABOUT 43687m2, LOCATED AT JOHOL NEGERI SEMBILAN. THE SITE BELONG TO BALAI UNDANG LUAK AND BEING ASKED TO PROPOSED A JAC (JOHOL AGROTOURISM CENTRE

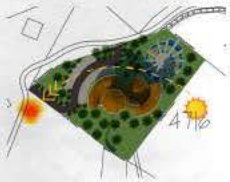
CIRCULATION

THE SITE IS CONNECTED TO SECONDARY ROAD WHICH ONLY FIT FOR 1 CAR AT A TIME. BUSES ARE NOT RECOMMENDED TO USE THE SECONDARY ROAD BECAUSE OF IT IS NARROW AND ONLY ACCOMMODATE VEHICLE BELOW 5 TONE.



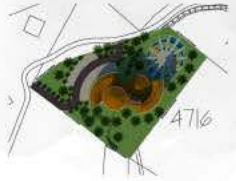
PREVAILING WIND

WIND COMES FROM TWO DIRECTION WHICH ARE FROM NORTH EAST AND NORTH WEST. AVERAGE SPEED IS ABOUT 1 MPH TO 20 MPH AND IT IS CONSIDER AS A FRESH BREEZE SCALE



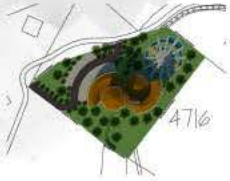
SUN PATH AND SHADOW

EAST TO THE WEST MOVEMENT, LONGEST FACADE FACING NORTH TO REDUCE THERMAL MASS OF THE BUILDING



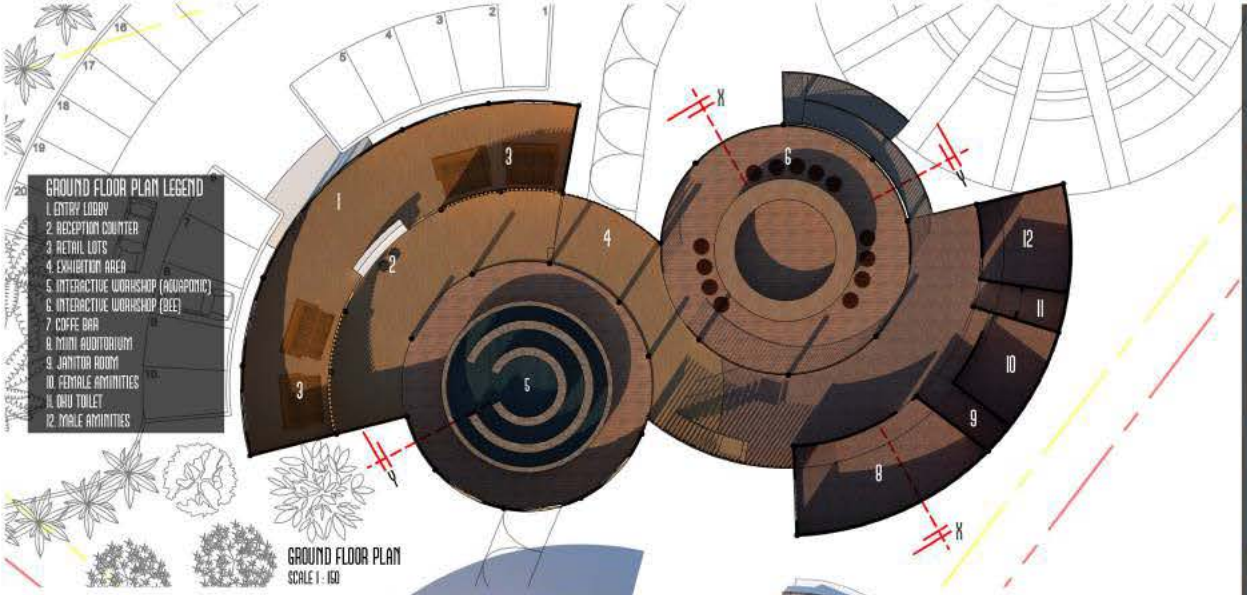
VEGETATION

HEAVY VEGETATION IS ON HIGHER GROUND OF WEST SIDE. IT PROVIDE TO THE BUILDING DURING THE AFTERNOON TIME

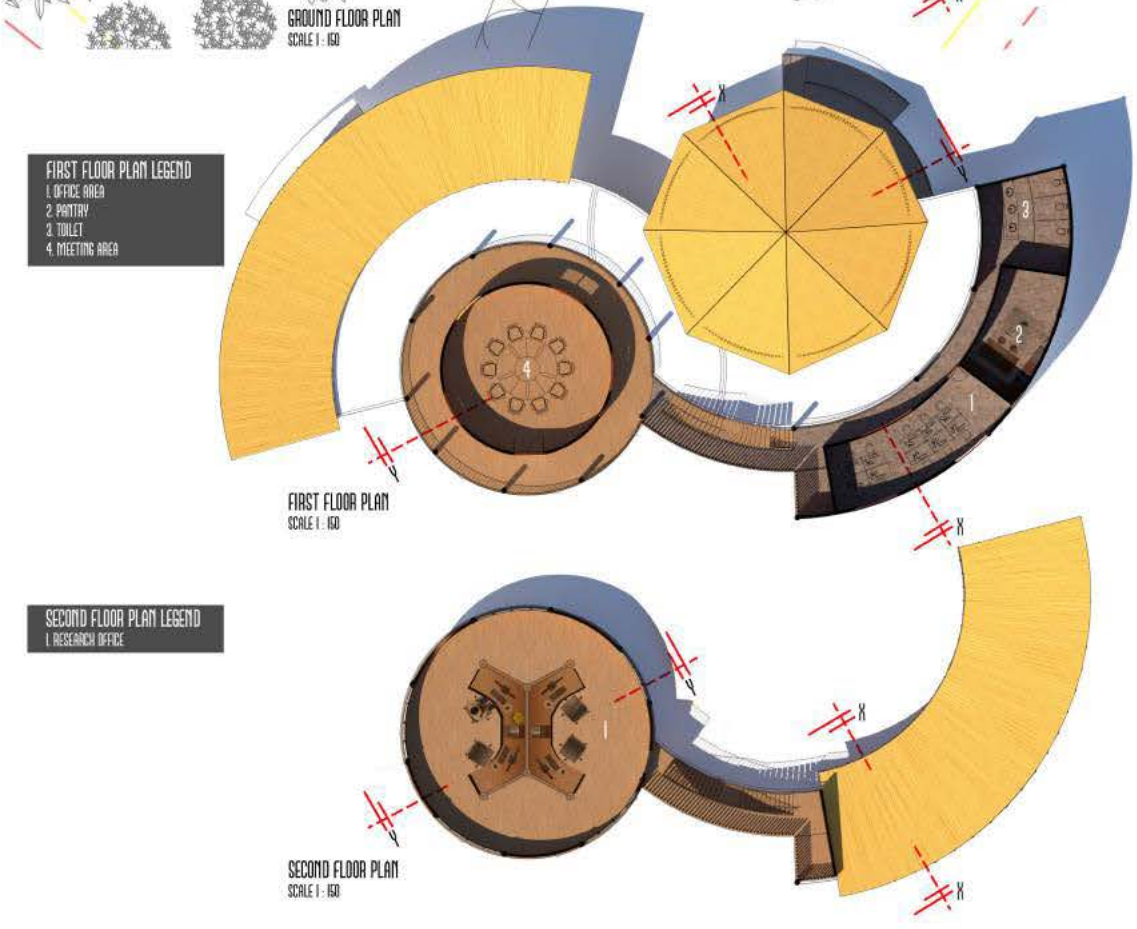


TOPOGRAPHY

WEST OF THE SITE IS THE HIGHEST POINT AND EAST SIDE IS THE LOWEST POINT AND THE LAND IS FLAT. DRAINAGE SYSTEM SHOULD BE ON THE LOWEST POINT WHERE RAINWATER FLOW DEPEND ON EARTH SURFACE.



GROUND FLOOR PLAN
SCALE 1 : 150



FIRST FLOOR PLAN
SCALE 1 : 150

SECOND FLOOR PLAN
SCALE 1 : 150

SECTION Y - Y
SCALE 1 : 150

SECTION X- X
SCALE 1 : 150

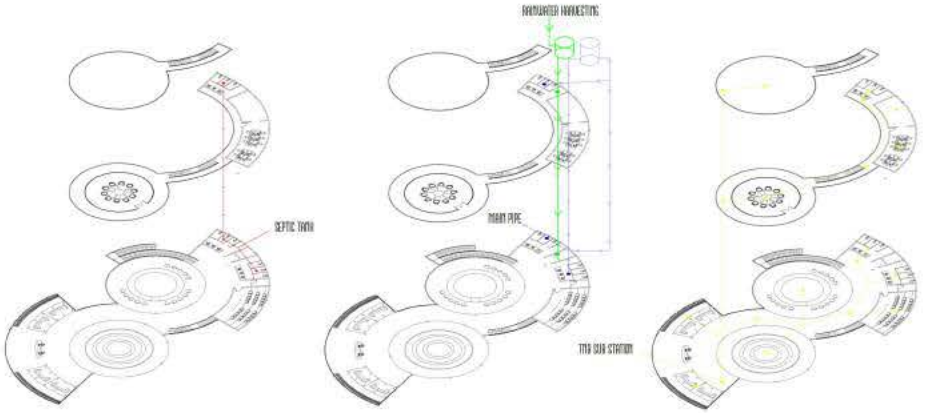
JAC JOHOL ARGOTOURISM CENTRE

RAS 204 ARCHITECTURE STUDIO . NURFARAHIN BINTI ROSLAN . 131943

EAST ELEVATION
SCALE 1 : 150

NORTH ELEVATION
SCALE 1 : 150

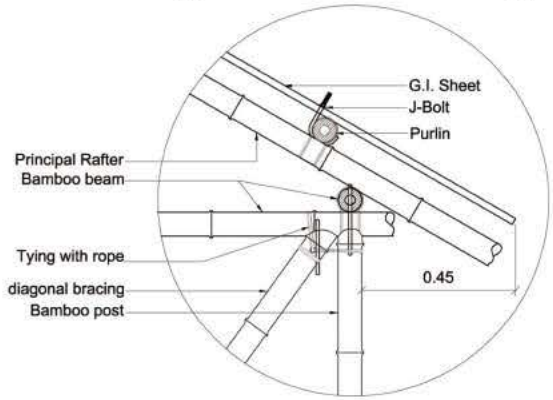
SECTIONAL PERSPECTIVE



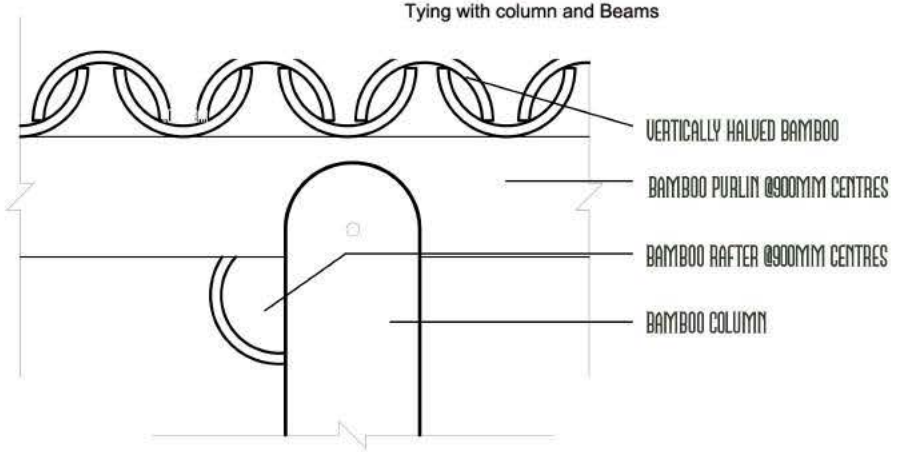
SCHEMATIC DIAGRAM OF SEWERAGE PIPES
N.T.S

SCHEMATIC DIAGRAM OF WATER SUPPLY
N.T.S

SCHEMATIC DIAGRAM OF ELECTRICAL
N.T.S



Detail-A
Tying with column and Beams



DETAIL DRAWINGS
SCALE 1 : 20

JAC JOHOL ARGOTOURISM CENTRE

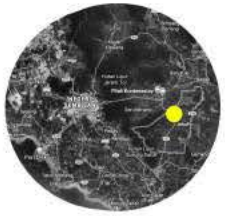
RAS 204 ARCHITECTURE STUDIO . NURFARAHIN BINTI ROSLAN . 131943

SHARARATH BUNJARAT AP SENG CHUAN
131946

JAC JOHOL AGROTOURISM CENTRE

CLIENT : BALAI UNDANG LUAK JOHOL, NEGERI SEMBILAN

1



KEY PLAN
SCALE N.T.S

LOCATION PLAN
SCALE N.T.S

RESEARCH AND KNOWLEDGE HUB

SUSTAINABLE AGRICULTURE

FARMING OF BEES

OBJECTIVES

TO EMPOWER LOCAL FARMERS

KNOW HOW TO GENERATE INCOME

IMPROVE SOCIO-ECONOMIC

SUSTAINABLE AGRICULTURE

`SMALL STEPS TO A BIG TOMORROW`

ECOSYSTEM APPROACH TO AGRICULTURE

SUN AIR NUTRIENTS SOIL WATER

CULTIVATING, PROCESSING, DISTRIBUTING

IMPACT

ECONOMIC ENTREPRENEURIAL ACTIVITIES, JOB CREATION, QUALITY

ENERGY EFFICIENCY TRANSPORT OF FOOD-STUFF

SOCIAL COMMUNITY PARTICIPATION IN DIAGNOSTIC WORKSHOP

CARBON FOOTPRINT CARBON SINK ABSORB CO_2, RELEASE O_2

IDEA & CONCEPT

50,000 BEES IN A HIVE

A BEE PRODUCE 1/8 TSP OF HONEY IN ITS LIFE

A HIVE CAN MAKE UP TO 60LBS OF HONEY

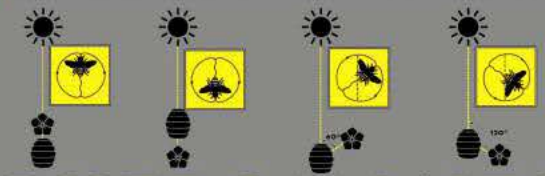
PRODUCT: BEESWAX, PROPOLIS, ROYAL JELLY

HIVE LOCATION

DAPPLE SUNLIGHT : THE BEE HIVE ARE GETTING PARTIAL SUN THROUGH THE BRANCHES OF A DECIDUOUS TREE.

WIND BREAKS : ONE OR MORE ROWS OF TREES OR SHRUBS PLANTED IN SUCH A MANNER AS TO PROVIDE SHELTER

GOOD DRAINAGE & WATER SOURCE : BEES NEED WATER TO DILUTE STORED HONEY THAT HAS CRYSTALLIZED



PHEROMONES

THE WAYS OF COMMUNICATION OF BEES SPECIFICALLY FOR FOOD SOURCE

MORNING SUN EVENING SUN 60° FOOD SOURCE 120° FOOD SOURCE

SITE INVENTORY / ANALYSIS

CAR ACCESS
BUS ACCESS
BIKE ACCESS
CIRCULATION

SUN TRAJECTORY

WIND PATTERN

VEGETATION

CONTOUR

SOCIO-CULTURE
TOTAL POPULATION : 8,885

AGRICULTURE, BUSINESS, SELF-EMPLOYED, BREEDING, GOVERNMENT WORKER

MINANGKABAU

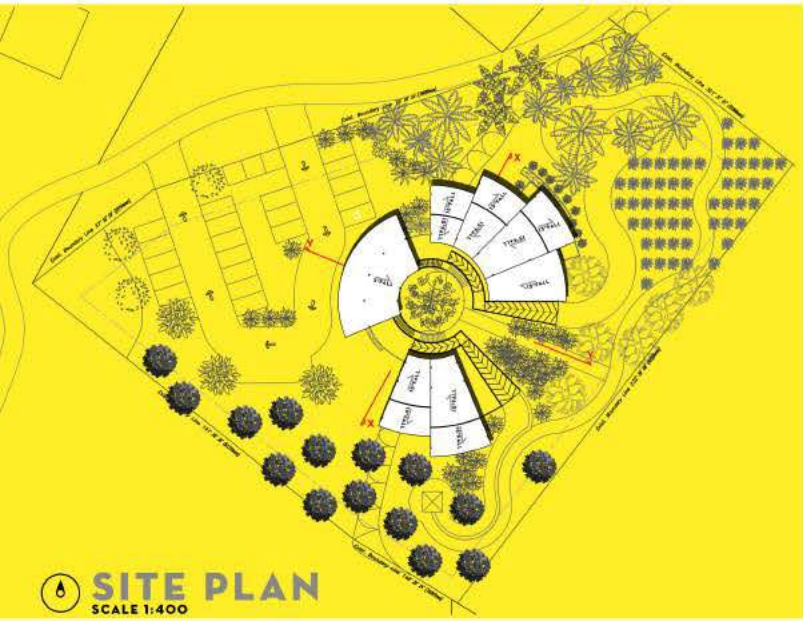
DRAMATIC CURVED ROOF STRUCTURES WITH MULTI-TIERED, UPSWEPT GABLE, IN IMITATION OF THE CURVING HORNS OF THE WATER BUFFALO

SHARARATH BUNJARAT A/P SENG CHUAN 131946

JAC JOHOL AGROTOURISM CENTRE

CLIENT : BALAI UNDANG LUAK JOHOL, NEGERI SEMBILAN

2

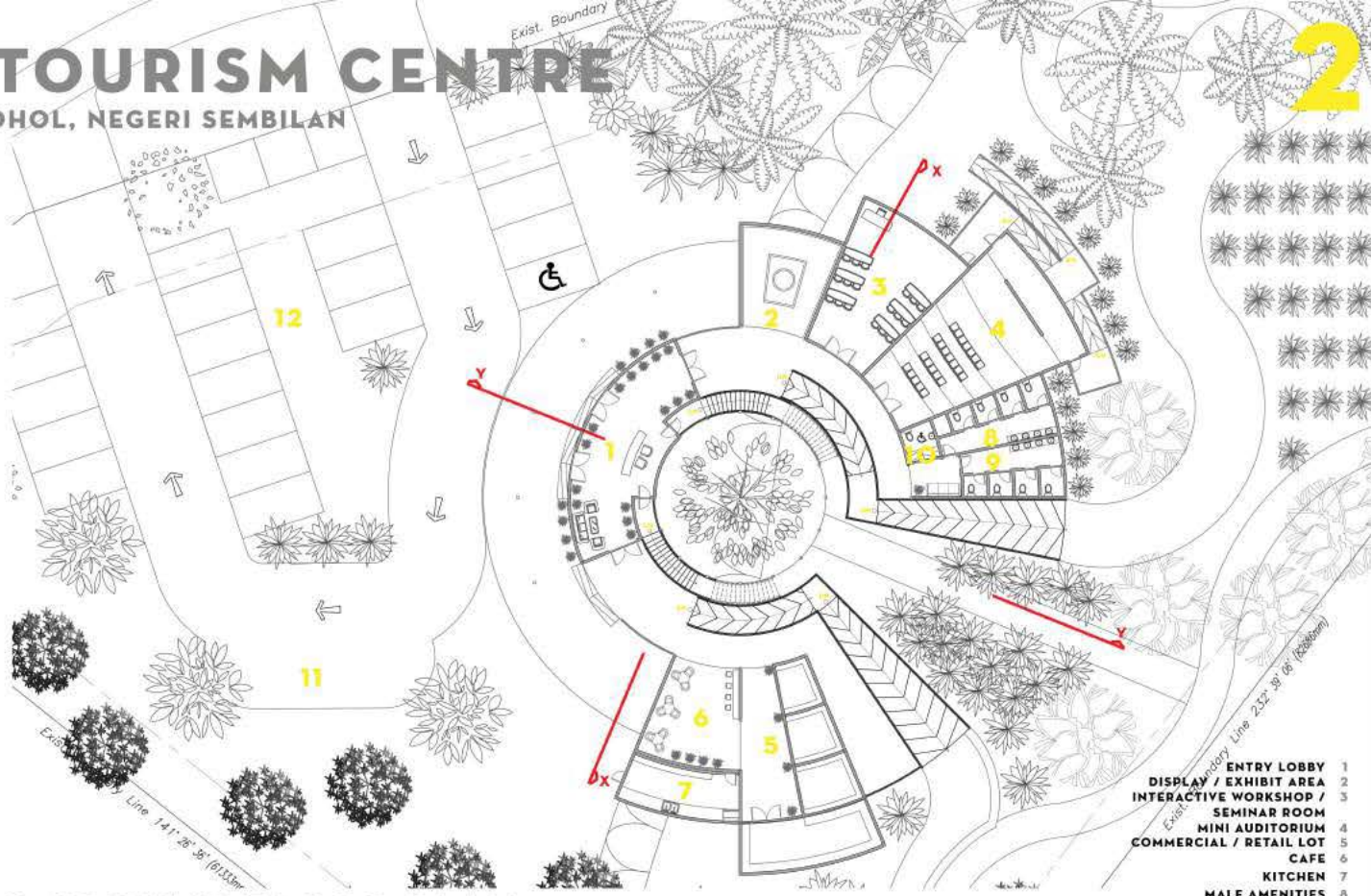


SITE PLAN
SCALE 1:400

BRIEF HISTORY

ADAT PERPATIH ARE CUSTOMARY LAWS WHICH ORIGINATED FROM THE MINANGKABAU HIGHLANDS IN SUMATRA, INDONESIA. IT WAS FOUND BY A MINANGKABAU LEADER NAMED SUTAN BALUN OR MORE FAMOUSLY KNOWN AS DATO PERPATIH NAN SEBATANG. ADAT PERPATIH IS A COMBINATION OF PRACTICES AND RULES OF LIFE FOR THE MINANGKABAU PEOPLE IN MALAYSIA.

THE SYSTEM PRACTICES DEMOCRACY IN ELECTING CHIEFS AND A KING. ONLY MEN ARE ELIGIBLE TO BE ELECTED AS LEADERS FOR THEIR CLAN OR TRIBE. THERE IS ALSO A FEMALE LEADER KNOWN AS IBU SAKA. THEIR CULTURE IS MATRILINEAL AND PATRIARCHAL, WITH PROPERTY AND LAND PASSING DOWN FROM MOTHER TO DAUGHTER, WHILE RELIGIOUS AND POLITICAL AFFAIRS ARE THE RESPONSIBILITY OF MEN.



GROUND FLOOR PLAN
SCALE 1:150

1 ENTRY LOBBY
2 DISPLAY / EXHIBIT AREA
3 INTERACTIVE WORKSHOP / SEMINAR ROOM
4 MINI AUDITORIUM
5 COMMERCIAL / RETAIL LOT
6 CAFE
7 KITCHEN
8 MALE AMENITIES
9 FEMALE AMENITIES
10 OKU AMENITIES
11 LOADING & UNLOADING AREA
12 CAR PARK 20 LOTS

ISSUES

- STRONG CULTURE: ADAT PERPATIH, UNDANG
- LOCAL FARMERS: AGRICULTURE ACTIVITIES
- REMOTED, NO PROPER SIGNAGE, NARROW ROAD
- CONTOURED SITE, 50% AREA MUST BE ACCESIBLE BY OKU
- CLOSEST BUILDING: SK DATO UNDANG KAMAT
- MULTI TIERED ROOF: MINANGKABAU ROOF & UNDANG POSITION
- AGRO FARMING + FARMING OF BEES
- PROPER WELCOMING ENTRANCE BICYCLE PATHWAY.
- 1:12 RAMP FROM HIGHEST GROUND TO LOWEST GROUND
- INTERACTIVE WORKSHOP FOR STUDENTS AT JAC

DESIGN REQUIREMENTS

JAC ACT AS A SUSTAINABLE AGRICULTURE DEVELOPMENT FOR RESEARCH & DEVELOPMENT ACTIVITIES

- DOMESTIC & INTERNATIONAL TOURIST
- EXPLORE WILDERNESS
- ECO TRAILS
- LOCAL FARMING

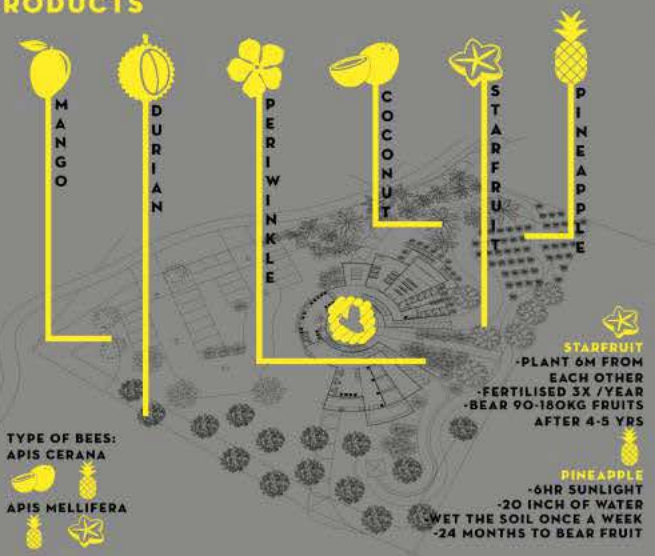
PRECEDENT STUDY

JOHN CURTIN SCHOOL OF MEDICAL RESEARCH

BRONZE, PALE BLUE AND SILVER METALLIC PANELS ARE CAREFULLY DETAILED TO SUPPRESS ANY HINT OF CONNECTION OR JOINT, IMBUING THE FACADE WITH A STRIKINGLY SURREAL PROFILE THAT CUTS A JAUNTY, JAGGED LINE AGAINST THE SKY. THE DISTANT RIDGELINE OF BLACK MOUNTAIN, CURLING IT AROUND THE TERRACE AND STRETCHING THE BUILDING OUT TOWARDS SOUTH OVAL.

SHARADATH BUNJARAT A/P SENG CHUAN 131946

PRODUCTS

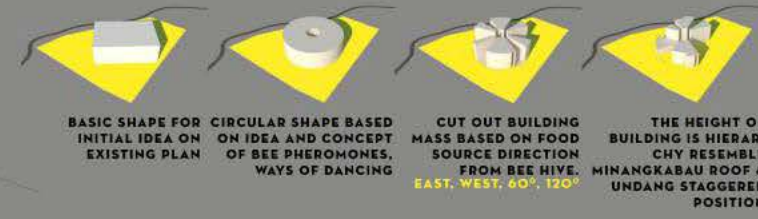


TYPE OF BEES:
APIS CERANA
APIS MELLIFERA

STARFRUIT
-PLANT 6M FROM EACH OTHER
-FERTILISED 3X /YEAR
-BEAR 90-180KG FRUITS AFTER 4-5 YRS

PINEAPPLE
-6HR SUNLIGHT
-20 INCH OF WATER
-WET THE SOIL ONCE A WEEK
-24 MONTHS TO BEAR FRUIT

DESIGN DEVELOPMENT
PHEROMONES

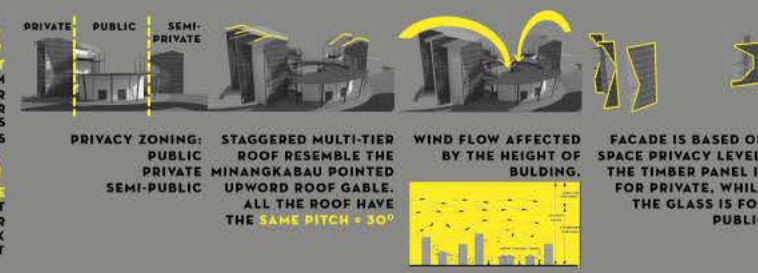


BASIC SHAPE FOR INITIAL IDEA ON EXISTING PLAN

CIRCULAR SHAPE BASED ON IDEA AND CONCEPT OF BEE PHEROMONES, WAYS OF DANCING

CUT OUT BUILDING MASS BASED ON FOOD SOURCE DIRECTION FROM BEE HIVE. EAST, WEST, 60°, 120°

THE HEIGHT OF BUILDING IS HIERARCHY RESEMBLE MINANGKABAU ROOF & UNDANG STAGGERED POSITION



PRIVACY ZONING:
PUBLIC
PRIVATE
SEMI-PUBLIC

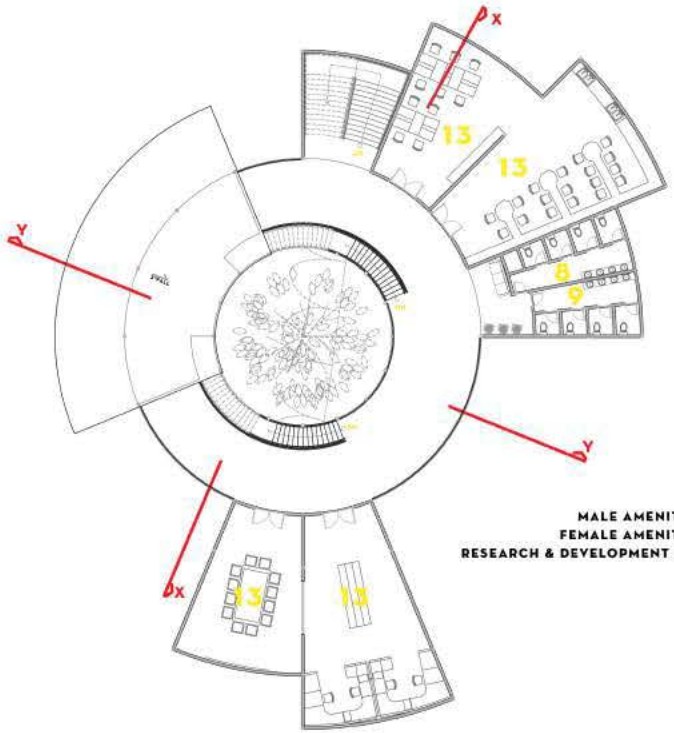
STAGGERED MULTI-TIER ROOF RESEMBLE THE MINANGKABAU POINTED UPWORD ROOF GABLE. ALL THE ROOF HAVE THE SAME PITCH = 30°

WIND FLOW AFFECTED BY THE HEIGHT OF BULDING.

FACADE IS BASED ON SPACE PRIVACY LEVEL. THE TIMBER PANEL IS FOR PRIVATE, WHILE THE GLASS IS FOR PUBLIC

JAC JOHOL AGROTOURISM CENTRE

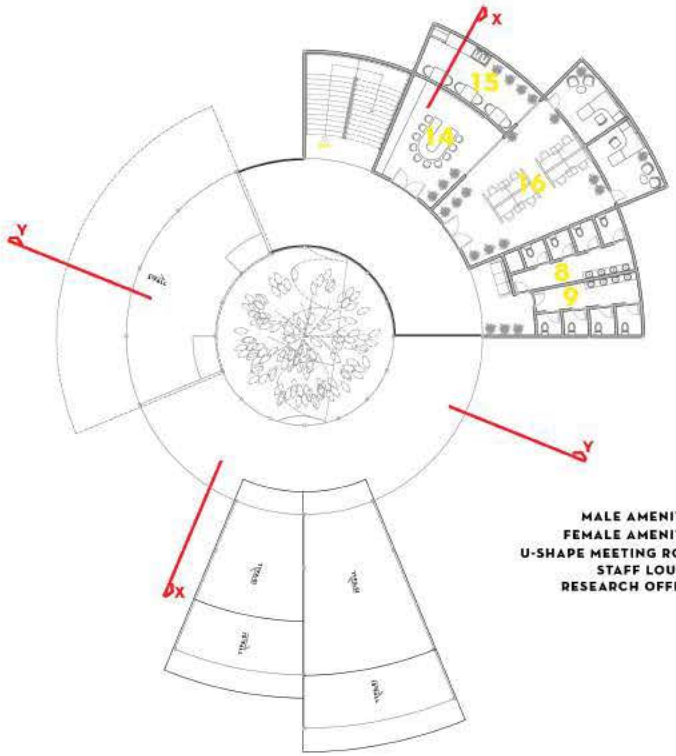
CLIENT : BALAI UNDANG LUAK JOHOL, NEGERI SEMBILAN



MALE AMENITIES 8
FEMALE AMENITIES 9
RESEARCH & DEVELOPMENT LAB 13

FIRST FLOOR PLAN

SCALE 1:150



MALE AMENITIES 8
FEMALE AMENITIES 9
U-SHAPE MEETING ROOM 14
STAFF LOUNGE 15
RESEARCH OFFICES 16

SECOND FLOOR PLAN

SCALE 1:150

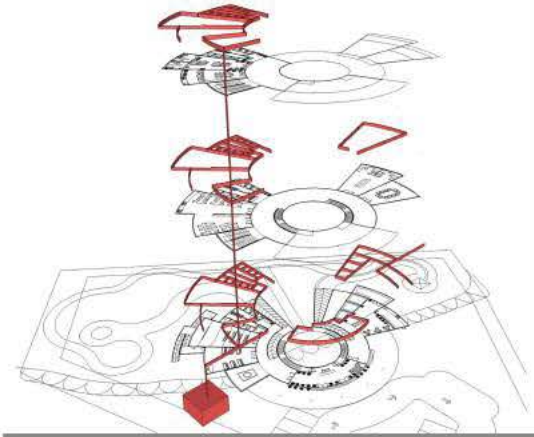
SOUTH ELEVATION

SCALE 1:150

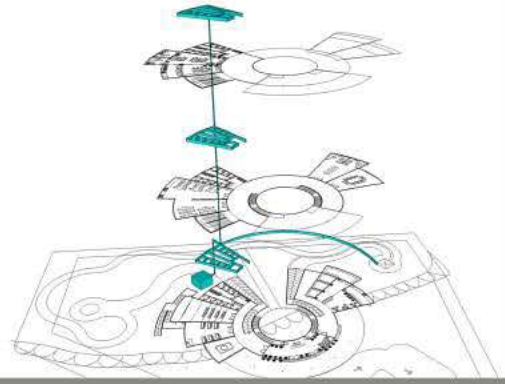
WEST ELEVATION

SCALE 1:150

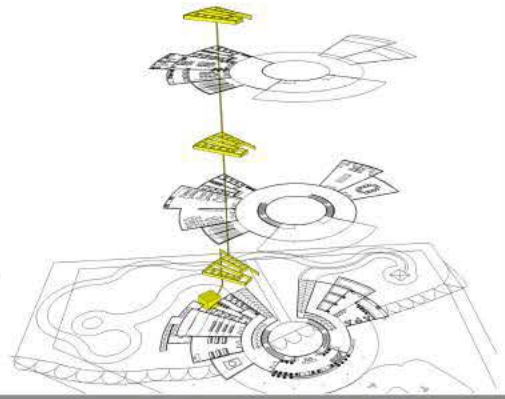
SCHEMATIC DIAGRAM



ELECTRICAL



WATER SUPPLY



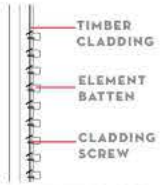
SEWERAGE

SHARARATH BUNJARAT A/P SENG CHUAN 131946

JAC JOHOL AGROTOURISM CENTRE

CLIENT : BALAI UNDANG LUAK JOHOL, NEGERI SEMBILAN

PLAN



ISOMETRIC VIEW

GLASS WALL WRAPPED IN TIMBER BATTENS FACADE

CAN BE INSTALLED ASPREFABRICATED AND MODULAR SYSTEM. THE SHAPE OF THE TIMBER BATTEN IS THE CONVENTIONAL RECTANGULAR FLAT BLOCK. IT IS USUALLY ATTACHE TO WALL BY USING PRE-MOUNTED STEEL CLIPS

DETAIL DRAWING

SCALE 1:20

SECTIONAL PERSPECTIVE

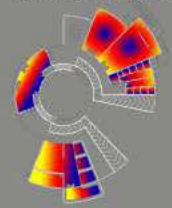
SCALE 1:150

MEETING ROOM

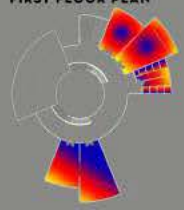
RESEARCH & DEVELOPMENT LAB

LIGHTING ANALYSIS

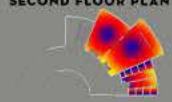
GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



AUDITORIUM

RETAIL LOT

SECTION X-X

SCALE 1:150

SECTION Y-Y

SCALE 1:150

SYAMIRUL ALIF BIN SHAHARUDIN
131947

PROJ 2:JOHOL AGROTOURISM CENTRE

Tengkolok Bonda

Tengkolok Tanduk.

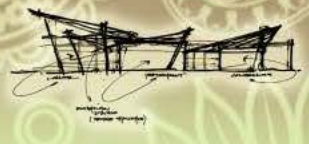
Tradition Batik Selendang

Traditional accesory

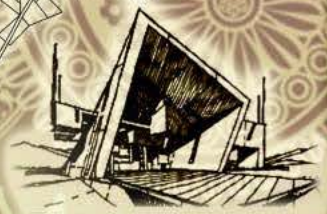
Tengkolok, also known as destar,setanjak/tanjak,and setangan kepala,is a traditional Malay and headgear. It is made from long songket cloth folded and tied in particular style (solek).

Johol is one of the constituent Minangkabau states that formed Negeri Sembilan. The reigning Undang Luak of Johol is Datuk Johan Pahlawan Lela Perkasa Setiawan Muhammad Abdullah (The 15th Undang). He is one of the four Undangs that will participate in the election of the Yamtuan Besar of Negeri Sembilan; the other three are from Sungai Ujong, Jelebu and Rembau.

Key–Plan
nts



Location Plan
nts



Rambai fruit is a type of fruit that will bear fruit in a number of quite a lot. The fruit also contains nutrients with interest and benefits that are good for health. Fruits such as duku rambai berries. Small round shape with yellowish brown. The flesh of the fruit is quite sweet, very tasty for healthy snacks. The fruit is a fruit that comes from rambai originated from Southeast Asia, it is not surprising that you will find this fruit in Indonesia.

Furthermore, the leaf also have nutritions and can make as for covering the food and cake

Talapia Fish

among the best sources of collagen collagen sourced lesser deities deepwater fish, as it has a high protein value and away from pollution. so far the source of the collagen found in talapia fish from fish skin or sisik which collagen is one of the content

Case Study Building

This building features unique pioneered the application of wood engineering innovation with the use of glue-laminated timber products (Glulam) as the main structure and local wood types. The building also serves as the showcase and referral centre for expert professionals such as architects, engineers, contractors and all levels of users and stakeholders.

The design is base on methaphore of Tengkolok tanduk that is headgear for woman head accessory. The reasson we used Tengkolok Tanduk as our methaphore design because to appriciate the culture sorrounding of our proposed site. Moreover thers alot of Single mother as residents at Kampung Nuri

Proces Metaphore Design

tengkolok tanduk came from Buffalo Horn and its also from symbolic of Minang Kabau

the space of interior building folow same as Tengkolok Tanduk that have a linkage at the middle form of it.

the shape of exterior just bacame building skin. Its be like Human wear the head-gear.

Site–Plan

scale 1:400

Bubble Diagram

The site proposed is quite private because of Kampung Nuri Surounding is forest.Beside that the site have alot tophography. The site have alot advantage such as nature surounding and culture of Kampung Nuri that is Adat Pepatih Negeri Sembilan.

Moreover, The disadvantage of surounding site is wild animals such as monkey and others

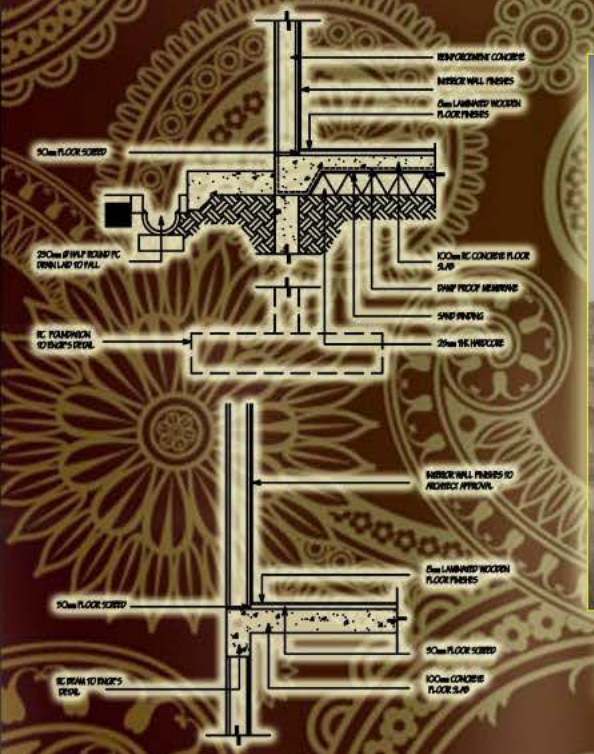

Ground floor
scale 1:200
1. Entry Porch
2. Entry Lobby
3. Counter Lobby
4. Exhibit Area
5. Intreractive Workshop Lab
6. Male Amenities
7. Female Amenities
8. Loading / Unloading Bay.
9. Medium Size Fish Pool
10. Small Size Fish Pool
11. Locker Room
12. Exhaust Fan Area.
13. M and E
14. Oku Park.
15. Motorcycle Park
16. Retail Lot.
17. Drop Off.
18. Refuse Chamber
First floor
scale 1:200
1. Hydroponic Area
2. Utilities
3. Waiting Area
4. Bakery and Retail Shop
5. Exhibition Area
6. Aminities Male
7. Aminities Female
8. Cafe
9. Cafe Counter
10. M and E
11. Exhaust Fan area
Interior Design
The space of the interior been split in and have linkage at both of them
There were design base on traditional malay house of negeri sembilan.
Second floor
scale 1:200
1. Green Roof
2. Meeting Room
3. Research Office
4. Seminar Room
5. Pantry
6. Auditorium

Front Elevation
scale 1:200

Left Elevation
scale 1:200

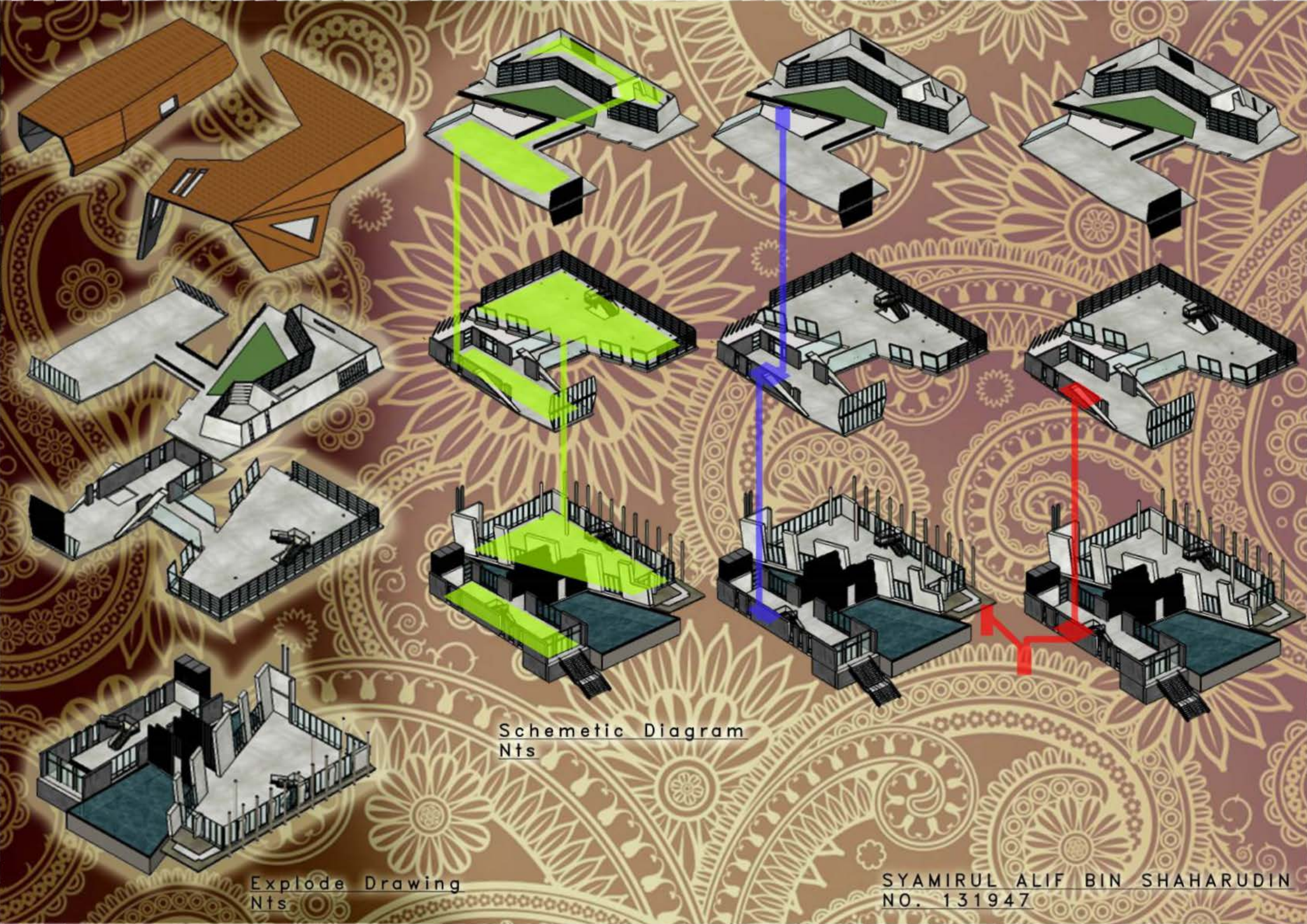
Section X-X
scale 1:200

Section Y-Y
scale 1:200



Stairway chair for OKU in each stair for universal design.Its design for one user only. Its is very securre especialy for OKU.

Section Axonometric
scale 1:150



Schemetic Diagram
Nts

Explode Drawing
Nts

SYAMIRUL ALIF BIN SHAHARUDIN
NO. 131947

SYED HAZIQ SAGGAFF BIN SYED HOOD
131948

JOHOL AGROTOURISM CENTRE (JAC)

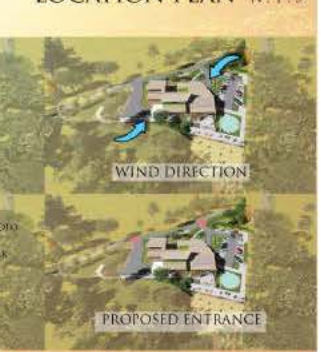
PROJECT 2 : JOHOL AGROTOURISM CENTRE (JAC) , JJOHOL , NOGORI SEMBILAN
RAS 204 : ARCHI STUDIO 2 (2017 / 2018)
SCHOOL OF HOUSING , BUILDING AND PLANNING , UNIVERSITI SAINS MALAYSIA (USM - KPT - PPD)

ABOUT SITE

ADDRESS : LOT 4716, JALAN KAMPUNG NURI, 73100, JOHOL, NEGERI SEMBILAN
SITE TOTAL AREA : 4988 sqm (1.2 Acres)
TYPE OF SITE : AGRICULTURE
OWNER : PN RAMISAH
SITE CONDITION : SLOPPY SURFACE
SURROUND BY SHADED TREES

KEY PLAN N.T.S

LOCATION PLAN N.T.S



SITE ANALYSIS

ARCHITECTURAL STATEMENT

LOCATED IN A DENSE HILLY FOREST ON A NARROW PENINSULA OF LAND IN NEGERI SEMBILAN, THE JOHOL AGROTOURISM CENTRE RESPONDS TO THE RICH **TOPOGRAPHY** AS IT WEAVES TOGETHER BUILDING AND LANDSCAPE. THE EXISTING LANDFORMS ARE PRESERVED AND REINFORCED THROUGH DROP OFF AND LOBBY WORK TOGETHER AS **WELCOMING SPACE.**

THE DESIGN ORGANIZES A CENTRE TO INTERGRATE OCCUPANTS WITH NATURE. THIS CENTRE FOCUSING IN LOCAL **SHEEP FARM, TRADISIONAL HERBS AND CORN FARM.** HERB ARE USED THROUGHOUT THE BUILDING AS FRAGRANCE AND ANTIBIOTIC TO OCCUPANTS. WHILE CORN GIVES ADVANTAGES IN INCOME AND PRODUCTS.

BRIEF : A RESEARCH AND KNOWLEDGE HUB FOR SUSTAINABLE ARCHI (R&D) FOR LOCAL FARMERS TO KNOW-HOW IN GENERATE INCOME AND IMPROVE SOSIOEONOMIC

USERS : RESEARCHES , WORKERS , FAMILY , TOURISTS

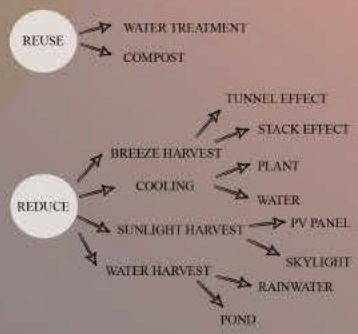
PRODUCT

SHEEP - DOPPER(MEAT) DAMARA(BEAUTY)
HIGH DEMAND (QURBAN/AQIQAH)
NEED 1 2 YEARS OLD FOR SHEEP
FAST INCOME ROTATION
EASY TO SHEPHERD

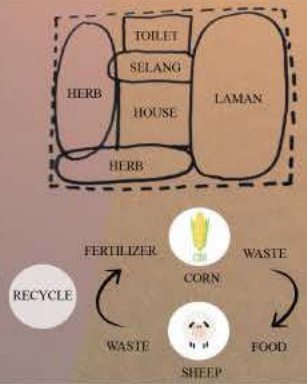
HERBS
ULAMAN(HEALTH), LAVENDER(SMELL)

CORN
FAST ROTATION OF INCOME
70 DAYS TO HARVESTING
3 ROW ONCE MONTH
(ROTATIONAL PLANTATION)

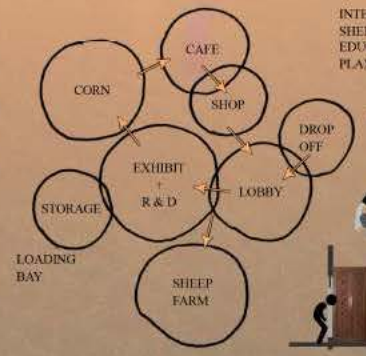
SUSTAINABLE APPROACH



TRADITIONAL ELEMENTS



IDEAS / BUBBLE DIAGRAM / CIRCULATION



INTERACTION IN CORN AND SHEEP FARM FOCUSING ON EDUCATION ON EACH PROCESS PLANTATION AND PETTING.

SCARECROW ELEMENT

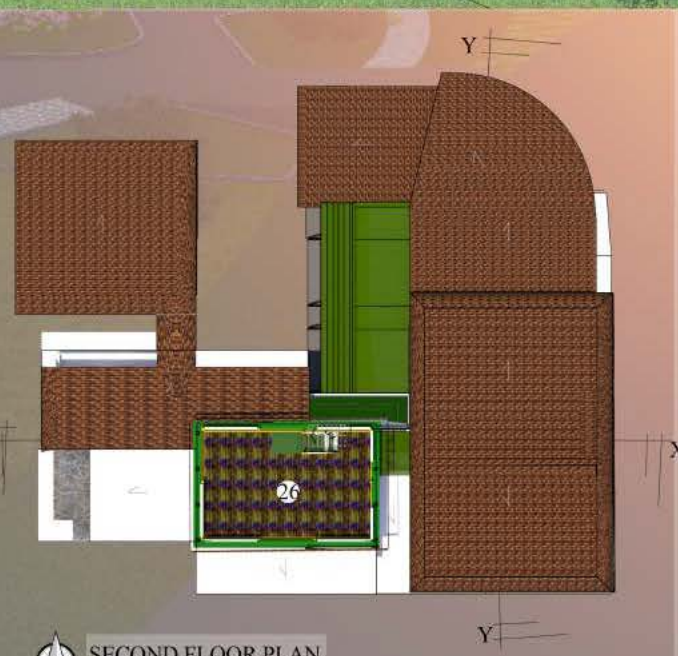
SITTING CROSSED LEGGED (BERSILA) IS A MALAY LIVING STYLE.

BOWING BEFORE ENTERING SIMILAR AS TRADISIONAL MALAY DESIGN THAT PRESS ON RESPECT.

SITE PLAN
SCALE 1 : 300

GROUND FLOOR PLAN
SCALE 1 : 150

FIRST FLOOR PLAN
SCALE 1 : 150



SECOND FLOOR PLAN
SCALE 1 : 150

LEGEND

1. DROP OFF
2. ENTRANCE
3. RECEPTION AREA
4. LOBBY
5. TRANSITION SPACE(SELANG)
6. HERB FARM(AROMATIC)
7. DISPLAY/EXHIBIT/RnD AREA
8. VIP BANQUET
9. MINI AUDITORIUM
10. CORN FARM(BY PHASE)
11. TOILET (WOMEN)
12. TOILET (MEN)
13. SERVICES
14 STORAGE AREA
15. LOADING BAY AREA
16. RETENTION POND
17. EXISTING TREES
18. CAFE
19. MINI AUDITORIUM
20. RESEARCH LAB
21. OFFICE LOBBY
22. MEETING ROOM
23. RESEARCH OFFICE
24. SEMINAR ROOM
25. MUSOLLA(MEN & WOMEN)
26. VIEW TOWER

VIEW TO SHEEP FARM

VIEW TO CORN FARM

SYED HAZIQ SAGGAFF BIN SYED HOOD - 131948 - R A S 2 0 4 : ARCHITECTURE STUDIO 2 (2017/2018) - PROJECT 2 : JOHOL AGROTOURISM CENTRE , NEGERI SEMBILAN

SECTION Y - Y
SCALE 1 : 150

VIEW TO DROP OFF ENTRANCE

VIEW TO MINI AUDITORIUM

SECTION X - X
SCALE 1 : 150

FRONT ELEVATION
SCALE 1 : 150

LEFT ELEVATION
SCALE 1 : 150

SYED HAZIQ SAGGAFF BIN SYED HOOD - 131948 - R A S 2 0 4 : ARCHITECTURE STUDIO 2 (2017/2018) - PROJECT 2 : JOHOL AGROTOURISM CENTRE , NEGERI SEMBILAN

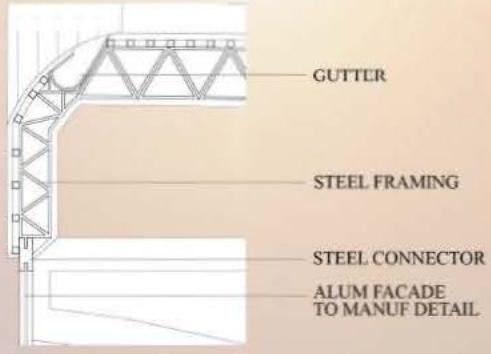
FRONT PERSPECTIVE VIEW

SCHEMATIC DIAGRAM

LEGEND
- GENSET
- ELECTRICAL
- WATER TANK
- WATER SUPPLY
- MAIN HOLE
- SEWERAGE

SECTIONAL AXONOMETRIC DRAWING
SCALE 1 : 150

ROOF DETAILING
SCALE 1 : 150



FACADE DETAILING
SCALE 1 : 150

SYED HAZIQ SAGGAFF BIN SYED HOOD - 131948 - R A S 2 0 4 : ARCHITECTURE STUDIO 2 (2017/2018) - PROJECT 2 : JOHOL AGROTOURISM CENTRE , NEGERI SEMBILAN

TENGKU AHMAD NIZAR
TENGKU NOOR HISHAM
131950

JOHOL AGROTOURISM CENTRE
FOR BALAI UNDANG LUAK, JOHOL

METAMORPHOSIS @ JOHOL, NEGERI SEMBILAN

TENGKU AHMAD NIZAR BIN TENGKU NOOR HISHAM | 131950

RESEARCH KNOWLEDGE INTERACTIVE

ABOUT SITE
- JOHOL IS AN AREA LOCATED IN NEGERI SEMBILAN THE AREA REFERRED IN THEIR SLANG IS "LUAK". LUAK JOHOL IS LOCATED AT THE SOUTHEAST OF NEGERI SEMBILAN WHICH COVERED GEMENCHEH, GEMAS, PASIR BESAR, AIR KUNING SELATAN, KEPIS, DANGI, SELARU, JOHOL AND PALONG
- FROM THE ADMINISTRATION, JOHOL IS UNDER KUALA PILAH, TAMPIN AND JEMPOL

AIM
- TO PROPOSE A JOHOL AGROTOURISM CENTRE FOR SURROUNDING COMMUNITY AS FOR RESEARCH AND KNOWLEDGE HUB BY HIGHLIGHT SPECIALIZING IN SUSTAINABLE AGRICULTURE AND FARMING

OBJECTIVE
CREATE AN AGROTOURISM CENTRE THAT INTEGRATED THRIVED AND EMPOWERED AGRO - FARMING WITH JOHOL CULTURE :
- AGRITECTURE (AQUAPONICS)
- PROGRESSIVE CULTURE
- IMPLEMENT LEGACY

CREATE AN AGROTOURISM CENTRE THAT IMPLEMENT JOHOL AGRO - FARMING :
- AEROPONICS AREA
- HYDROPONICS POND
- INTERACTIVE FISH FARMING (CATCH & RELEASE)

CONCEPT
AGRITECTURE + PROGRESSIVE CULTURE

AGRITECTURE
- A BLENDING OF THE TERMS AGRICULTURE AND ARCHITECTURE. AGRITECTURE IS THE PROCESS OF INFUSING AGRICULTURE INTO A BUILT ENVIRONMENT TO MAXIMIZE PLANT GROWTH USING THE BENEFITS OF DENSITY INDOORS AND MICROCLIMATES OUTDOORS

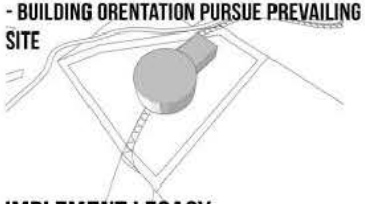
PROGRESSIVE CULTURE
- IMPLEMENTING TRADITIONAL FEATURES (MINANGKABAU) AS PART OF THE STRUCTURE

PRODUCT
- TILAPIA

- LOTUS / WATER LILIES

MEDICATION & NUTRITIONAL RESEARCH (WATER LILIES)
- CONTROLLING BLOOD SUGAR AND INSULIN LEVELS
- CURES BLOOD COUGH
- PREVENTS DIARRHEA AND NAUSEA
- PROTECTING AGAINST LIVER DAMAGE
- DISAPPEARS INSOMNIA

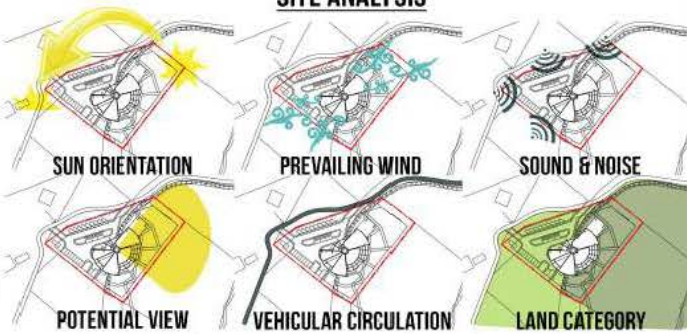
CONCEPTUAL DESIGN
-CENTRALIZED FORM AS MAIN STRUCTURE & EASILY ADAPT WITH SURROUNDING ENVIRONMENT
- BUILDING ORENTATION PURSUE PREVAILING WIND ON SITE



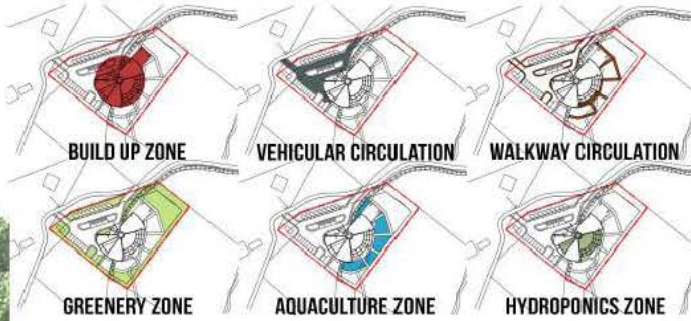
IMPLEMENT LEGACY
- TRADITIONAL FEATURES APPROACH MINANGKABAU ROOF AS AND AESTHETIC VALUE

- EVOKE MINANGKABAU ROOF AS A GEOMETRIC SHAPE TO CREATE BUILDING FORM

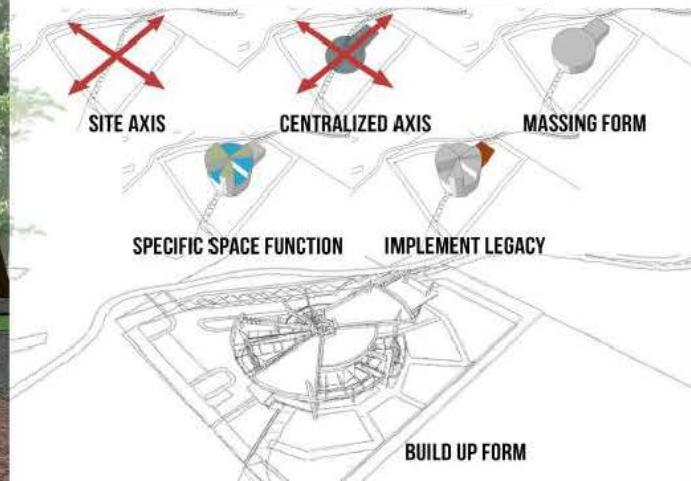
SITE ANALYSIS



SITE PLANNING | AGROUTOURISM CENTRE | METAMORPHOSIS



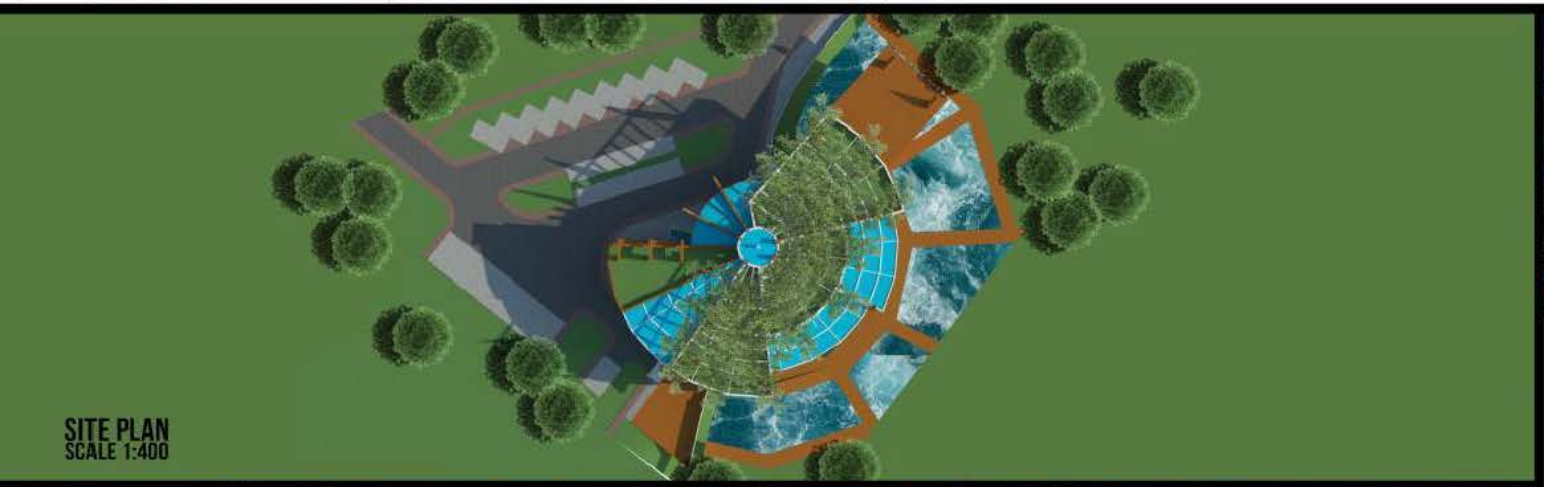
FORM DEVELOPMENT & BUILDING ZONE



JOHOL AGROTOURISM CENTRE
FOR BALAI UNDANG LUAK, JOHOL

METAMORPHOSIS @ JOHOL, NEGERI SEMBILAN

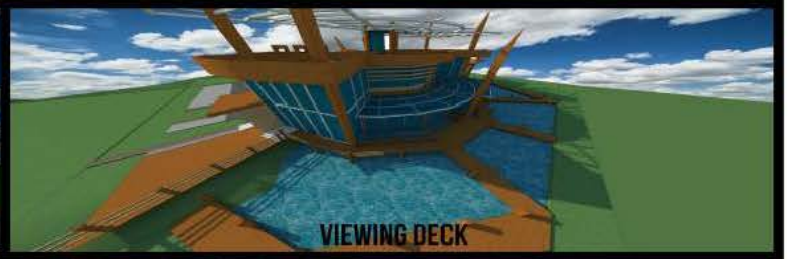
TENGKU AHMAD NIZAR BIN TENGKU NOOR HISHAM | 131950



SITE PLAN
SCALE 1:400

EASTERN VIEW

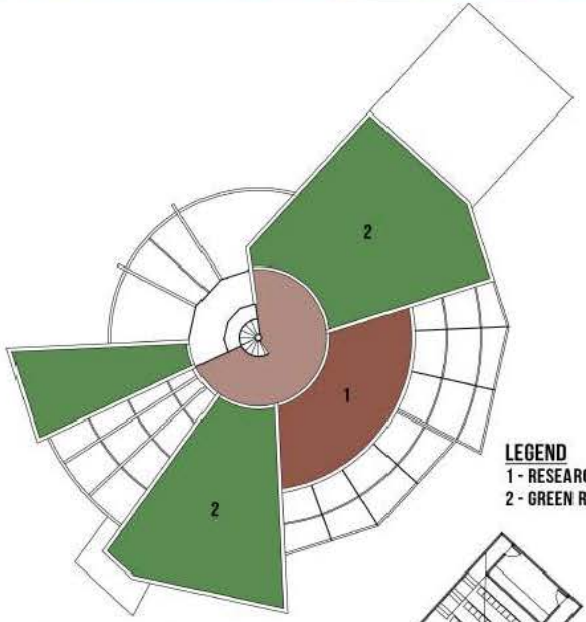
MAIN ENTRANCE & OPEN PLAZA



VIEWING DECK

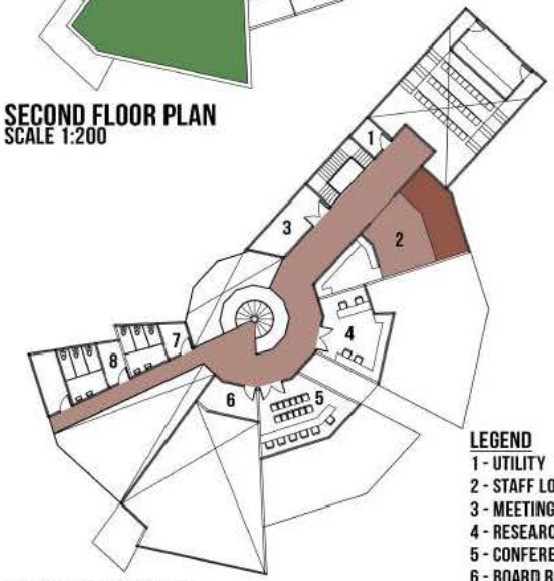
GROUND FLOOR PLAN
SCALE 1:200

LEGEND
1 - MINI AUDITORIUM
2 - STORAGE
3 - RECEPTION
4 - LOBBY
5 - COFFEE BAR
6 - HYDROPONICS ROOM
7 - EXHIBITION & RETAIL AREA
8 - M & E ROOM
9 - REST AREA
10 - MALE TOILET
11 - FEMALE TOILET
12 - PUMP ROOM



SECOND FLOOR PLAN
SCALE 1:200

LEGEND
1 - RESEARCH LAB
2 - GREEN ROOF GARDEN



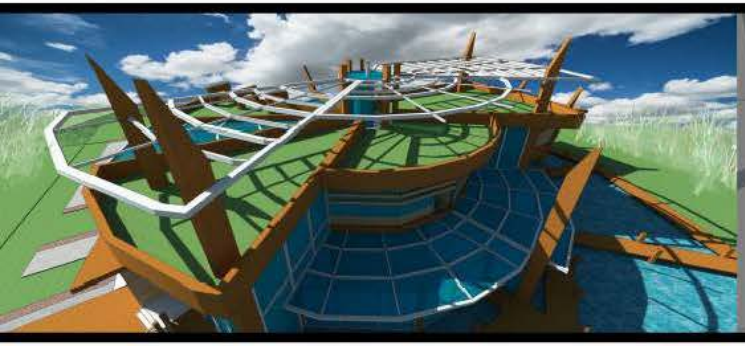
FIRST FLOOR PLAN
SCALE 1:200

LEGEND
1 - UTILITY
2 - STAFF LOUNGE
3 - MEETING ROOM
4 - RESEARCH OFFICE
5 - CONFERENCE ROOM
6 - BOARD ROOM
7 - MALE TOILET
8 - FEMALE TOILET

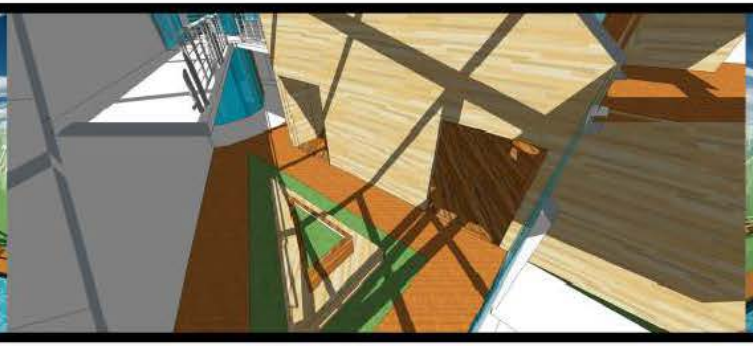
JOHOL AGROTOURISM CENTRE
FOR BALAI UNDANG LUAK, JOHOL

METAMORPHOSIS @ JOHOL, NEGERI SEMBILAN

TENGKU AHMAD NIZAR BIN TENGKU NOOR HISHAM | 131950



GREEN ROOF GARDEN



REST AREA & LANDSCAPE

HYDROPONICS & AQUACULTURE

SECTION A - A
SCALE 1:200

SECTION B - B
SCALE 1:200

FRONT ELEVATION
SCALE 1:200

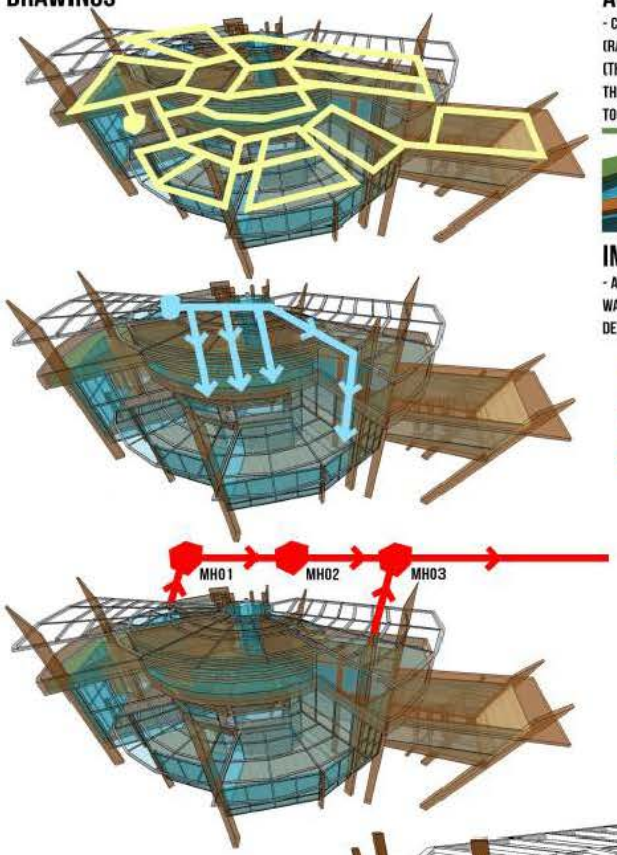
REAR ELEVATION
SCALE 1:200

JOHOL AGROTOURISM CENTRE
FOR BALAI UNDANG LUAK, JOHOL

METAMORPHOSIS @ JOHOL, NEGERI SEMBILAN

TENGKU AHMAD NIZAR BIN TENGKU NOOR HISHAM | 131950

ELECTRICAL, WATER SUPPLY & SEWERAGE SCHEMATIC DRAWINGS



ELECTRICAL
WATER SUPPLY
SEWERAGE
M & E
WATER TANK
MANHOLE

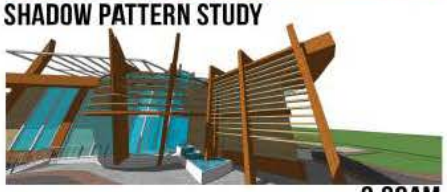
AQUAPONICS

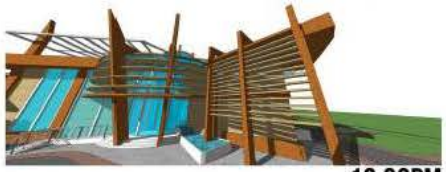
- COMBINATION OF AQUACULTURE (RAISING FISH) AND HYDROPONICS (THE SOIL-LESS GROWING OF PLANTS) THAT GROWS FISH AND PLANTS TOGETHER IN ONE INTEGRATED SYSTEM

IMPLEMENT LEGACY

- APPLY TRADITIONAL FEATURES OF TIMBER WALL STRIP AS A BUILDING FACADE & SHADING DEVICE FROM SURROUNDING ENVIRONMENT

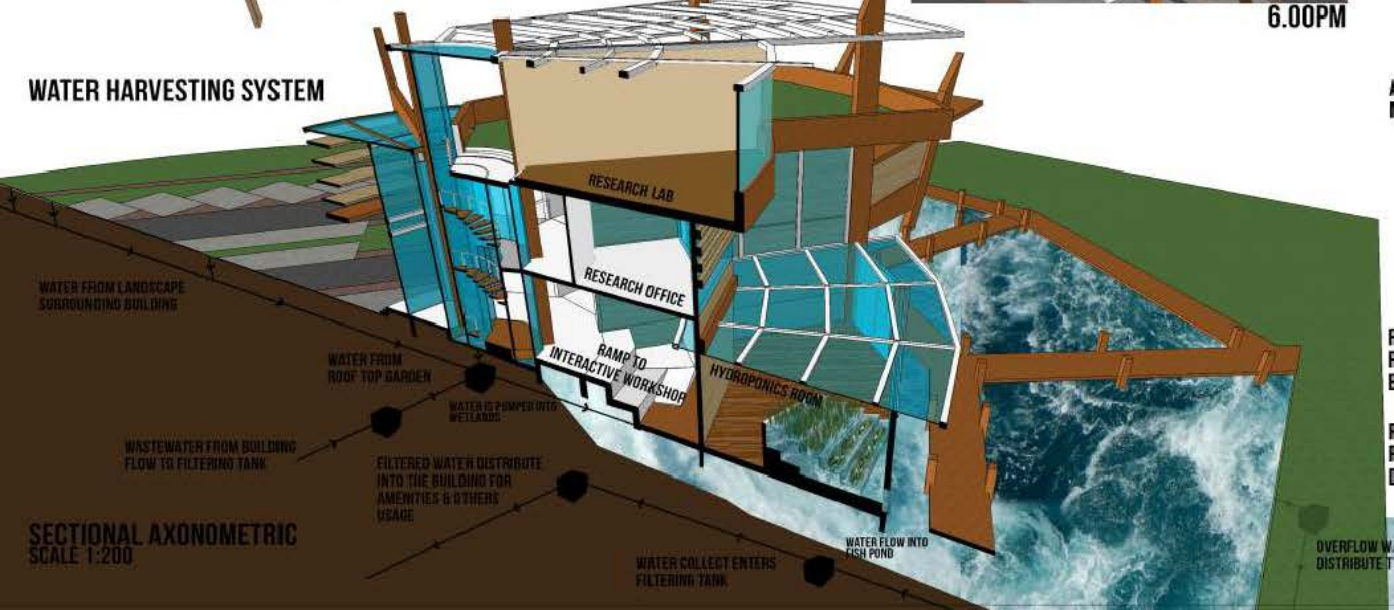
SHADOW PATTERN STUDY


9.00AM

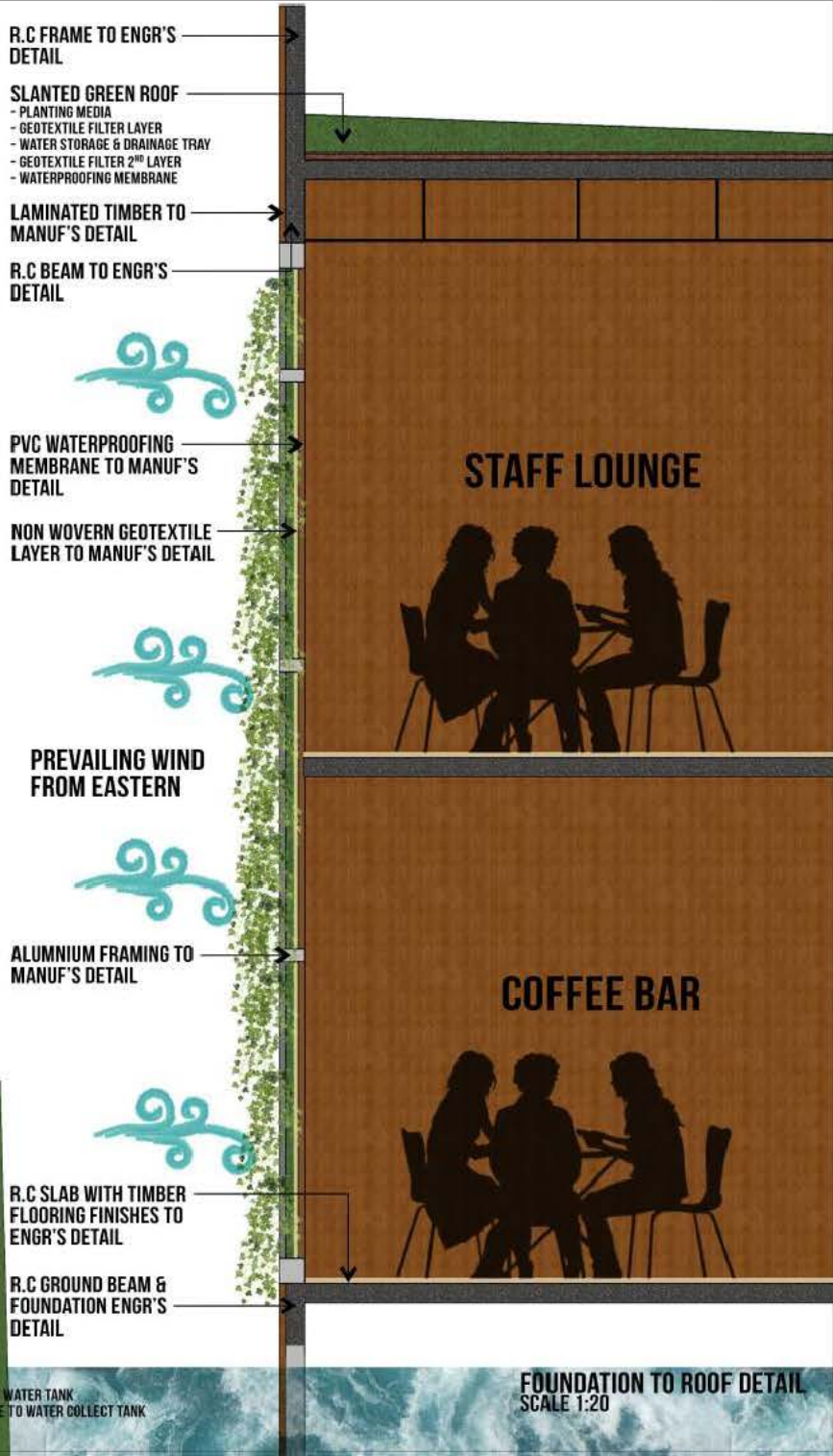

12.00PM


6.00PM

WATER HARVESTING SYSTEM



SECTIONAL AXONOMETRIC
SCALE 1:200



FOUNDATION TO ROOF DETAIL
SCALE 1:20

VANCESTER ANAK RIPON
131951

DESIGN STATEMENT

WHAT IS AGROTOURISM? IT'S DEFINED AS AGRICULTURALLY BASED OPERATION OR ACTIVITY THAT BRINGS VISITORS TO A FARM OR RANCH. AGROTOURISM IS GATHERING STRONG SUPPORT FROM SMALL COMMUNITIES AS RURAL PEOPLE AROUND JOHOL TO REALISED THE BENEFITS OF SUSTAINABLE DEVELOPMENT BROUGHT ABOUT BY SIMILAR FORMS OF NATURE TRAVEL. VISITORS HAVE THE OPPORTUNITY TO WORK IN THE FIELDS ALONG SIDE REALFARMERS TO FEED THE GOATS, CATCH THE RED TILAPIA FISH AND GAIN KNOWLEDGE ON AQUAPONIC FARMING. THIS PROJECT COLLABORATING VENTURE BETWEEN USM AND BALAI UNDANG LUAK JOHOL. THESE ACTIVITIES ARE TO EMPOWER THE LOCAL FARMERS TO GENERATE INCOME AND IMPROVE THE SOCIO-ECONOMIC STATUS OF THE JOHOL TOWN. NEVERTHELESS, THIS PROJECT IS TO BRING MODERN TOUCH OF NEGERI SEMBILAN TRADITIONAL ELEMENT AND BLEND WITH SUSTAINABLE DESIGN.

ISSUES

1. NON- DEVELOPING RURAL AREA
   - JOHOL IS A NEWLY DEVELOPED AREA AND NEEDS LOT OF CHANGES ESPECIALLY IN TERMS OF ARGICULTURAL BECAUSE THIS AREA SURROUND WITH NATURAL RESOURCES.

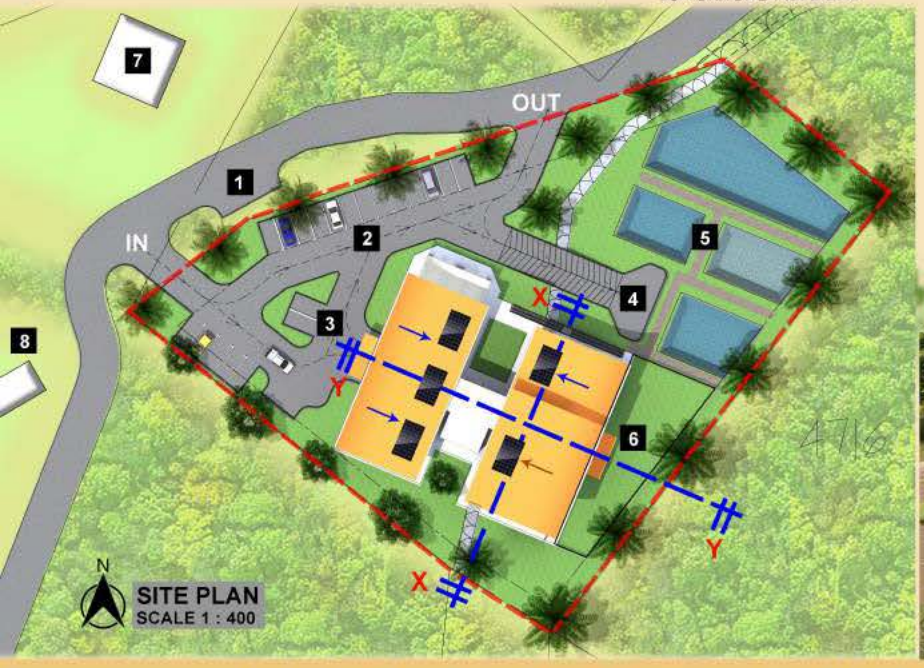
2. INTRODUCE DISTRIC OF JOHOL TO PUBLIC
   - SINCE JOHOL IS A RURAL AREA, THE REASON TO BUILD SOMETHING NEW IS GOOD BECAUSE IT CAN ATTRACT PEOPLE COME TO VISIT DISTRIC OF JOHOL.

3. NON-COLLECTING AREA FOR LOCAL PRODUCT
   - TO CREATE A BUILDING THE CAN E A CENTRE TO COLLECT JOHOL LOCAL PRODUCT. THIS CAN MAKE TOURIST EASY TO KNOW ABOUT JOHOL.

LEGEND

1. BUS LAYBY	5. TILAPIA FISH POND
2. CAR PARK	6. GOAT FARM (OPEN FIELD)
3. DROP OFF & ENTRANCE	7. MASJID KARIAH KG. NURI
4. LOADING BAY	8. SK DATO UNDANG KERAMAT

MINANGKABAU



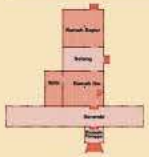
N
KEY PLAN
N.T.S

N
LOCATION PLAN
N.T.S

DESIGN CONCEPT

ELYSIAN CHARACTERISTIC OF PARADISE CREATIVE . DIVINELY . INSPIRED FOR THIS DESIGN MEANS TO MODERNISE RURAL AREA BECOME TOURISM HUB THAT CONSIDERATE CREATIVITY OF USING NEGERI SEMBILAN MALAY HOUSE PLAN, MINANG SONGKET PATTERN, DIVINELY PLACE FOR LOCAL AND VISITOR, AND INSPIRED PEOPLE TO LEARN TRADITIONAL AND MODERN FARMING.

IDEA DEVELOPMENT

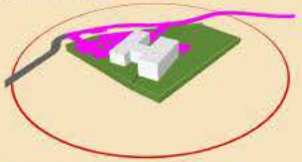


FLOOR PLAN NEGERI SEMBILAN HOUSE

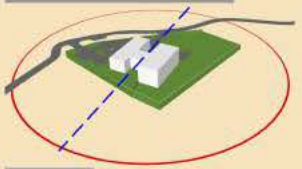
SITE ANALYSIS


SUN PATH


PREVAILING WIND


VEHICULAR CIRCULATION


POTENTIAL VIEW


SITE AXIS


VEGETATION

PRECEDENT STUDY

CROPS FOR THE FUTURE, KNOWN AS CFF, IS AN INDEPENDENT INTERNATIONAL ORGANISATION WITH A MANDATE TO PROMOTE AND FACILITATE THE GREATER USE OF NEGLECTED AND UNDERUTILISED CROPS FOR ENHANCED DIVERSIFICATION OF AGRICULTURAL SYSTEMS AND HUMAN DIETS, PARTICULARLY FOR THE BENEFIT OF POOR PEOPLE IN DEVELOPING COUNTRIES.


AERIAL VIEW

JOHOL AGROTOURISM CENTRE (J.A.C)

SITE AT KAMPUNG NURI , JOHOL, NEGERI SEMBILAN

PREPARED BY VANCESTER ANAK RIPON • 131 951 • GROUP 4

01

J . A . C PRODUCT

A GOAT IS USEFUL TO HUMANS WHEN IT IS LIVING AND WHEN IT IS DEAD, FIRST AS A RENEWABLE PROVIDER OF MILK, MANURE, FIBER, AND THEN AS A MEAT AND HIDE (TREATED SKINS). GOATS ARE EASIER AND CHEAPER TO MANAGE THAN CATTLE, AND HAVE MULTIPLE USES. BESIDE, MATERIAL FOR INTERNAL HUMAN SURGICAL SUTURES AND STRINGS FOR MUSICAL INSTRUMENTS.

TILAPIA FISH OR IT'S NICKNAMED "AQUATIC CHICKEN" THIS FAST-GROWING FISH IS BOTH LAUDED AS AN EXCELLENT SOURCE OF PROTEIN THAT'S "VITAL FOR BUILDING MUSCLE". FIVE BASIC NEEDS TO FARMING TILAPIA FISH IS CLEAN WATER, OXYGEN, FOOD, LIGHT AND ENOUGH SPACE TO SWIM. POND WITH A DEPTH OF 1.5M (4 FT) FOR TILAPIA FARMING. TILAPIA IS RICH IN NIACIN, VITAMIN B12, PHOSPHORUS, SELENIUM AND POTASSIUM.

AQUAPONICS CONSISTS OF TWO MAIN PARTS, WITH THE AQUACULTURE PART FOR RAISING AQUATIC ANIMALS AND THE HYDROPONICS PART FOR GROWING PLANTS. MANY PLANTS ARE SUITABLE FOR AQUAPONIC SYSTEMS. GREEN LEAF VEGETABLES WITH LOW TO MEDIUM NUTRIENT REQUIREMENTS ARE WELL ADAPTED TO AQUAPONIC SYSTEMS, INCLUDING CHINESE CABBAGE, LETTUCE, BASIL, SPINACH, CHIVES, HERBS, AND WATERCRESS.

PERSPECTIVE FROM MAIN ROAD

JOHOL AGROTOURISM CENTRE (J.A.C)

SITE AT KAMPUNG NURI , JOHOL, NEGERI SEMBILAN

PREPARED BY VANCESTER ANAK RIPON • 131 951 • GROUP 4

FRONT ELEVATION
SCALE 1 : 150

LEFT ELEVATION
SCALE 1 : 150

SECTION X - X
SCALE 1 : 150

SECTION Y - Y
SCALE 1 : 150

PERSPECTIVE FROM LINKAGE

PERSPECTIVE FROM TILAPIA FISH POND

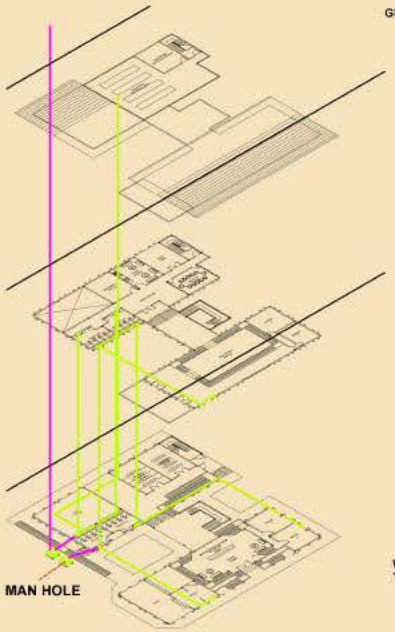
PERSPECTIVE TO J.A.C ENTRY PORCH

JOHOL AGROTOURISM CENTRE (J.A.C)

SITE AT KAMPUNG NURI , JOHOL, NEGERI SEMBILAN

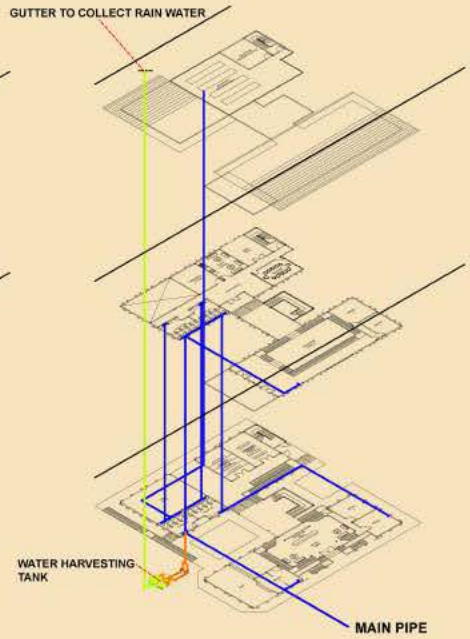
PREPARED BY VANCESTER ANAK RIPON • 131 951 • GROUP 4

SECTIONAL PERSPECTIVE
N . T . S



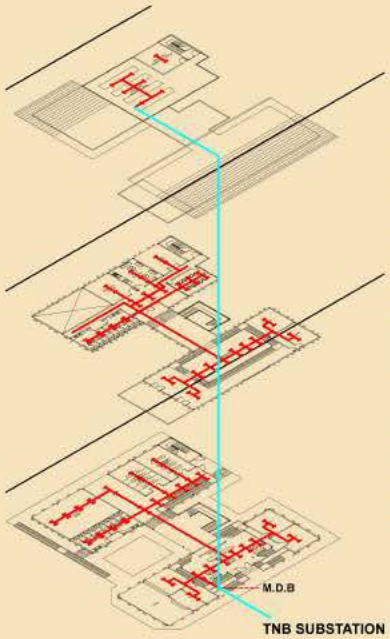
AGENCY / COMPANY INVOLVE :

IndahWater



AGENCY / COMPANY INVOLVE :

sains



AGENCY / COMPANY INVOLVE :

TENAGA NASIONAL

ROOF TRUSS AND PURLINS TO STRUCT'S DWGS.

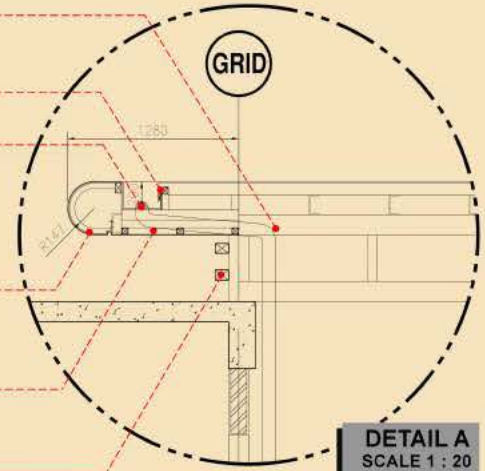
0.48MM TCT IN CLEAN COLORBOND FLASHING TO SPECIALIST DETAIL

0.48MM TCT IN CLEAN COLORBOND GUTTER ON ZINCALUME AS BASE AND ON BOTHSIDE WITH ANGLE / CHANNEL SUPPORT TO ENGR'S DETAIL/ EQUIVALENT.

0.48MM ZINCALUME BULL NOSE TO MANUFR'S SPEC. & DETAIL OR APPROVED EQUIVALENT.

ALUMN. STRIP CEILING OR EQUIVALENT TO SPECIALIST DETAIL.

ALUMN. SCREEN TO DETAIL



DETAIL A
SCALE 1 : 20

60MM DIAMETER X 3MM THK. S.S. PIPE HANDRAIL

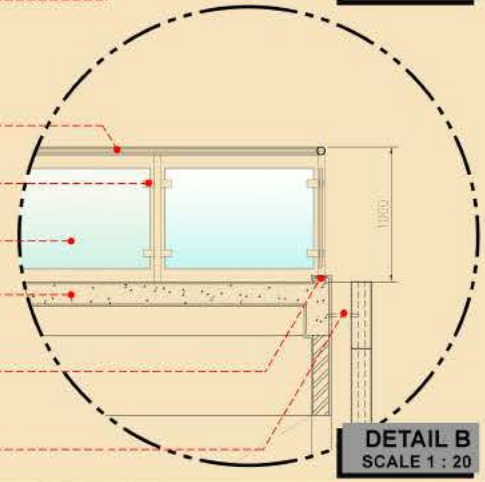
STAINLESS STEEL D-CLAMP

10MM THK TOUGHENED GLASS COLOUR TINTED

150MM THK R.C SLAB TO ENGR'S DETAIL

125 X 125 X 9MM THK. M.S. PLATE C/W 4 NOS. 12MM DIAMETER CAST -IN BOLTS & NUTS OR EQUIVALENT

50 X 50MM STEEL FRAME WITH COMPOSITE TIMBER FINISHED AND JOINT USING ANCHOR BOLT & NUT



DETAIL B
SCALE 1 : 20

LIGHTING ANALYSIS AT LOBBY / RECEPTION AREA

JOHOL AGROTOURISM CENTRE (J.A.C)

SITE AT KAMPUNG NURI , JOHOL, NEGERI SEMBILAN

PREPARED BY VANCESTER ANAK RIPON • 131 951 • GROUP 4

WAN MUHAMMAD SYAHIR BIN WAN ABDULLAH 131952

RAS 204 : ARCHITECTURE STUDIO 2 | PROJECT 2 | LOCATION : JOHOL NEGERI SEMBILAN

JOHOL AGROTOURISM CENTRE (JAC)

JLOT 4716,JALAN KAMPUNG NURI
73100 JOHOL,
NEGERI SEMBILANN

ABDULLAHCONSTRUCTION

WANMUHAMADSYAHIRBINW.ABDULLAH
ID : 131952
IC: 951119 - 11 - 5491
SEMESTER : 4 YEAR 2
STUDIOMASTERS: EN REDUAN MAHAT
PN SITI AMIRAH

INTRODUCTION

JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. THIS PROJECT WAS AN IGNITION FOR A NEW DEVELOPMENT AT JOHOL TOWN. A BUILDING WHICH CAN DO RSEARCH AND KNOWLEDGE HUB AT JOHOL. JOHOL AGROTOURISM CENTRE WILL EMERGE AS A DESTINATION WHERE VISITORS GET FIRST HAND EXPERIENCE TO JOHOL AGRO-FARMING.

DESIGN STATEMENT

TO DESIGN AN AGRICULTURE CENTRE THAT CAN BECAME A NEW ATTRACTION TO JOHOL AND BECOME A FOCAL POINT TO JOHOL IT ALSO IS AN IDEA WHERE FUSION BETWEEN MODERN ARCHITECTURE AND TRADITIONAL ARCHITECTURE OF NEGERI SEMBILAN

PRODUCTS :

- DAIRY PRODUCTS
- RAMBAI TREE

N.SEMBILAN TRADITIONAL DESIGN REVISION

rumah melayu negeri sembilan, sumber : arkib negara

ISSUES :

LESS DEVELOPMENT AT JOHOL

FROM OBSERVATION, JOHOL STILL AT THE BACK IN TERM OF ARCHITECTURAL BUILDING DEVELOPMENT. THIS PROJECT IS AN IGNITION FOR A NEW DEVELOPMENT AT JOHOL FOR A BETTER FUTURE.

THE FUSION BETWEEN ARCHITECTURE

THE PROBLEM OF ISSUE IN HOW RIGID A BUILDING IN TERM OF ARCHITECTURE WHEN ITS HAVE SOME FUSION/MIX BETWEEN MODERN ARCHITECTURE AND TRADITIONAL ARCHITECTURE.

CIRCULATION MOVEMENT

THE ISSUE IS HOW DOES A BUILDING SHAPE CAN CONTROL A CIRCULATION OF PEOPLE IN THE BUILDING. IT IS A STUDY HOW A DWELLERS CAN FEEL ALL THE PARTS OF THE BUILDING

NATURAL SCENT

HOW DOES TO PRODUCE A NATURAL AROMATIC SCENT USING ONLY NAATURAL ORAGNIC NATURE , EXAMPLE TREES , BUT TRESS THAT REPRESENT JOHOL, NEGERI SEMBILAN

AIMS AND OBJECTIVE

- TO DESIGN AN AGRICULTURE CENTRE WHICH CAN BE A NEW ATTRACTION AND FOCAL POINT TO JOHOL, NEGERI SEMBIAN
- TO FOCUS ON CIRCULATION OF THE BUILDING PROJECTION INTO CONTROLLING NATURALLY THE MOVEMENT INSIDE BUILDING
- TO DESIGN AN AGRICULTURE CENTRE WHICH HAVE FUSION BETWEEN TRADITIONAL NEGERI SEMBILAN ARCHITURAL STYLE AND MODERN ARCHITECTURAL STYLE
- TO DESIGN AN AGRICULTURE CENTRE WHICH HAVE FUSION BETWEEN TRADITIONAL NEGERI SEMBILAN ARCHITURAL STYLE AND MODERN ARCHITECTURAL STYLE

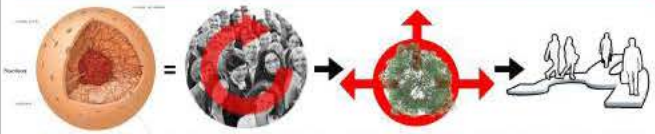
AIM USERS

CONCEPTUAL IDEAS : NUCLEUS OF JOHOL nju:klɪəs

- OXFORD DEFINITION : THE CENTRAL AND MOST IMPORTANT PART OF AN OBJECT, MOVEMENT, OR GROUP, FORMING THE BASIS FOR ITS ACTIVITY AND GROWTH
- BIOLOGICAL DEFINITION : A N ORGANELLE PRESENT IN MOST EUKARYOTIC CELLS, TYPICALLY A SINGLE ROUNDED STRUCTURE BOUNDED BY A DOUBLE MEMBRANE, CONTAINING THE GENETIC

FUNCTION OF NUCLEUS :

1 - IT CONTROLS THE HEREDITY CHARACTERISTICS OF AN ORGANISM.
2 - IT IS RESPONSIBLE FOR PROTEIN SYNTHESIS, CELL DIVISION, GROWTH AND DIFFERENTIATION.
3 - IT IS A SITE FOR TRANSCRIPTION PROCESS IN WHICH PRODUCED FOR PROTEIN SYNTHESIS.
4 - NUCLEOLUS PRODUCES RIBOSOMES AND ARE KNOWN AS PROTEIN FACTORIES.



NUCLEUS IS AN ORGANELLE THAT CAN BE FOUND IN HUMAN BODY, ITS ACTIN CONTROLLING ALL THE ACTIVITY INSIDE HUMAN. MASKED TO THE JOHOL AGRICULTURE CENTRE, NUCLEUS METAPHOWHERE ROUNDDED SHAPE AT THE MIDDLE OF JOHOL AGRICULTURE CENTER CONTROLLING THE MOVEMENT

CAFE

CENTRE

SOME OF THE SPACES IN JOHOL AGRICULTURE CENTRE, LINKAGE AT THE CENTRE OF THE BUILDING. IT CONNECT WITH PATHWAYS AND FOR HANDICAPPED WITH RAMP

EXHIBIT AREA

MANAGEMENT OFFICE

SITE PLAN
SCALE 1:400

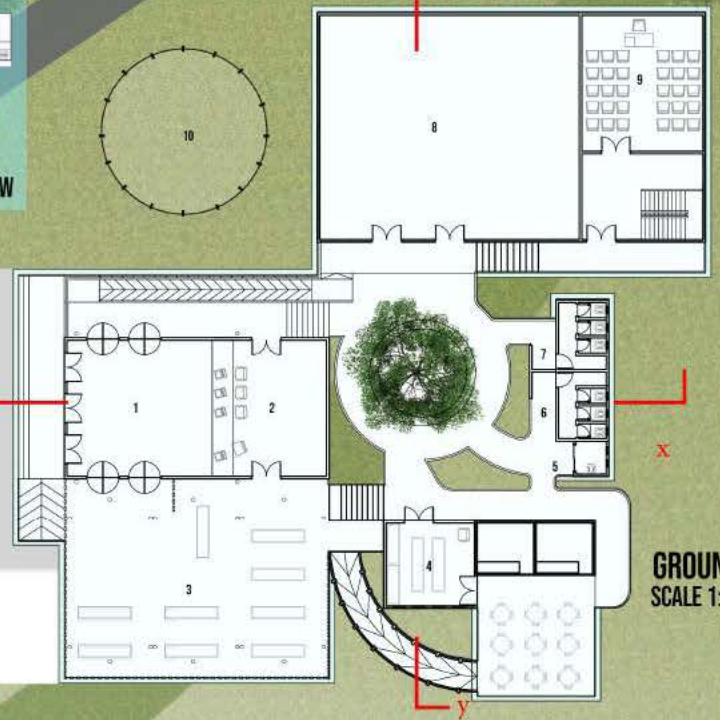
LEGEND
1. ENTRY LOBBY
2.RECEPTION AREA
3.DISPLAY AREA
4.RETAIL LOTS
5.OKU TOILET
6. MALE TOILET
7.FEMALE TOILET
8. WORKSHOPS
9.CONFERENCE ROOM
10.BARN

GROUND FLOOR PLAN
11. MINI AUDITORIUM
12. U SHAPED MEETING ROOM
13. MALE PRAY ROOM
14. FEMALE PRAY ROOM
15. FEMALE TOILET
16. MALE TOILLET

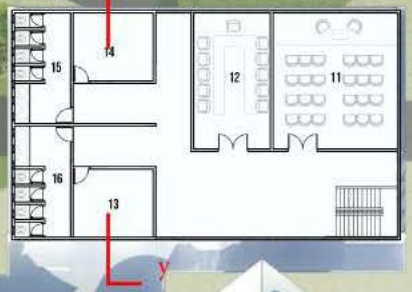
FIRST FLOOR PLAN
17.BOARD ROOM
18.STORAGE
19.RESEARCH OFFICE
20. PANTRY
21. COFFEE BAR

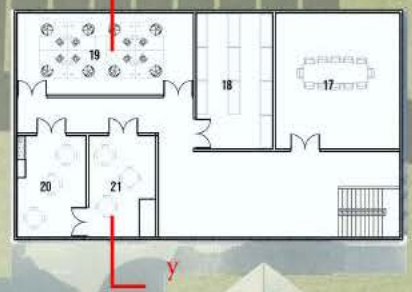
2ND FLOOR PLAN

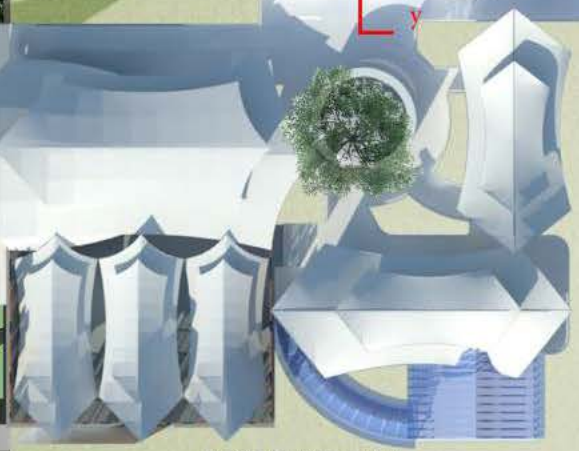
CIRCULATION FLOW



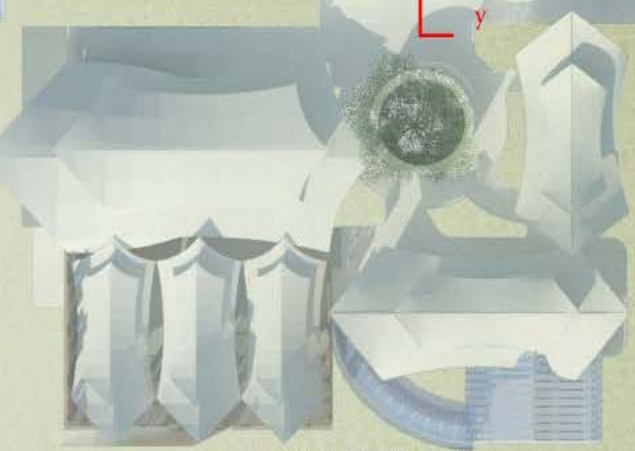
GROUND FLOOR PLAN
SCALE 1:150







FIRST FLOOR PLAN
SCALE 1:150



2ND FLOOR PLAN
SCALE 1:150

KEY PLAN LOCATION PLAN

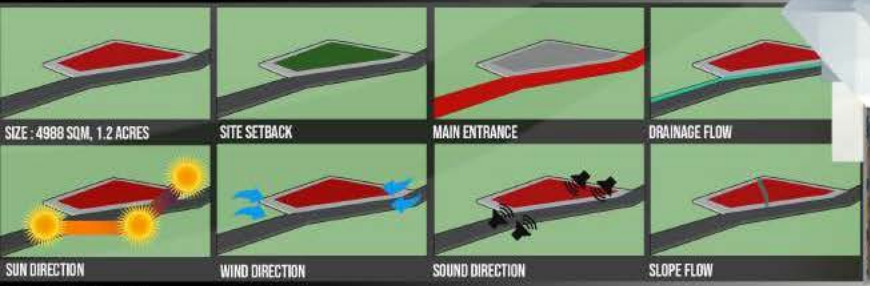
JOHOL IS AREA IN NEGERI SEMBILAN WHERE IT WAS LOCATED AT SOUTH EASTERN PART OF NEGERI SEMBILAN. KUALA PILAH WAS COVERING THE AREA OF GEMENCHEH, GEMAS, PASIR BESAR, AIR KUNING SELATANKEPIS, SELARI, DANGI, SELARU,JOHOL, AND PALONG. JOHOL ADMINISTRATION LIES UNDER THE DISTRICT ADMINISTRATION OF KUALA PILAH ,TAMPIN AND JEMPOL

SITE ANALYSIS

VIEW TOWARDS SITE

SECTION A-A SECTION B-B

SITE SECTION



SIZE : 4988 SQM, 1.2 ACRES
SITE SETBACK
MAIN ENTRANCE
DRAINAGE FLOW
SUN DIRECTION
WIND DIRECTION
SOUND DIRECTION
SLOPE FLOW

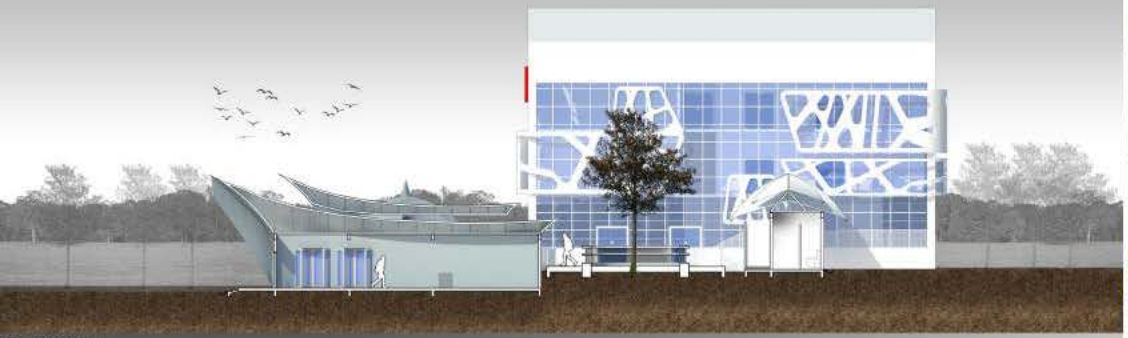
MACRO/MICRO STUDY

THE SITE WAS SURROUNDED BY TREES AND MOUNTAINS, THIS PLAC WAS REALLY SUITABLE AND PERFECT FOR BUILD UPP AN AGRICULTURE CENTER BECAUSE IT HAVE SENSE OF NATURE. BECAUSE THE SITE WAS SURROUNDED BY TREES, IT CAN ACT AS A BUFER ZONE FROM POLLUTION SUCH AS SOUND AND AIR POLUTION.

FRONT ELEVATION (SCALE 1:150)

LEFT ELEVATION (SCALE 1:150)

SECTION Y-Y (SCALE 1:150)



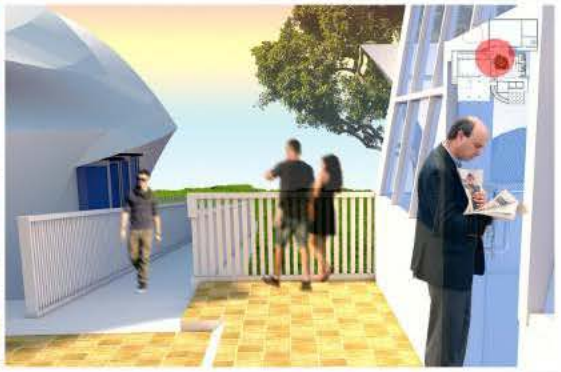
SECTION X-X (SCALE 1:150)

CENTRE OF JOHOL AGRICULTURE CENTRE (PLANTED WITH RAMBAI TREE)

DISPLAY AREA

RETAIL LOTS

BARN



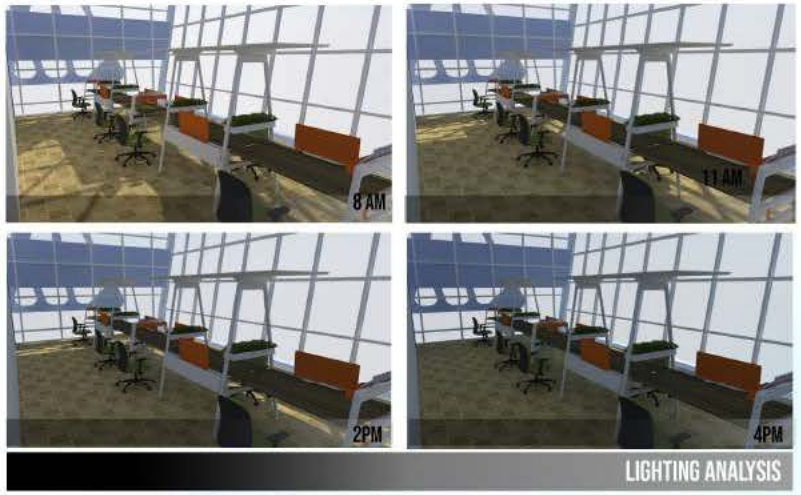
RAMP OVERVIEW

WHAT IS GREEN WALL?

GREEN WALL IS A WALL PARTIALLY OR COMPLETELY COVERED WITH GREENERY THAT INCLUDES A GROWING MEDIUM, SUCH AS SOIL OR A SUBSTRATEA GREEN WALL IS ALSO KNOWN AS A LIVING WALL OR VERTICAL GARDENIT PROVIDES INSULATION TO KEEP THE BUILDING'S INSIDE TEMPERATURE CONSISTENTGREEN WALLS MAY BE INDOORS OR OUTSIDE, FREESTANDING OR ATTACHED TO AN EXISTING WALL, AND COME IN A GREAT VARIETY OF SIZES.

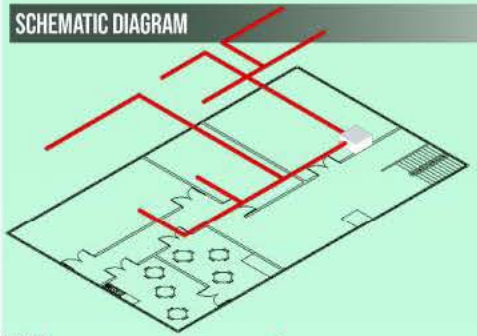
STRUCTURAL MEDIA GREEN WALL

STRUCTURAL MEDIA ARE GROWTH MEDIUM "BLOCKS" THAT ARE NOT LOOSE, NOR MATS, BUT WHICH INCORPORATE THE BEST FEATURES OF BOTH INTO A BLOCK THAT CAN BE MANUFACTURED INTO VARIOUS SIZES, SHAPES AND THICKNESSES. THESE MEDIA HAVE THE ADVANTAGE THAT THEY DO NOT BREAK DOWN FOR 10 TO 15 YEARS, CAN BE MADE TO HAVE A HIGHER OR LOWER WATER HOLDING CAPACITY DEPENDING ON THE PLANT SELECTION FOR THE WALL, CAN HAVE THEIR PH AND EC'S CUSTOMIZED TO SUIT THE PLANTS, AND ARE EASILY HANDLED FOR MAINTENANCE AND REPLACEMENT

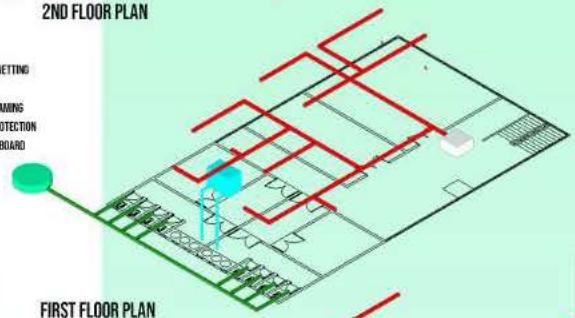


LIGHTING ANALYSIS

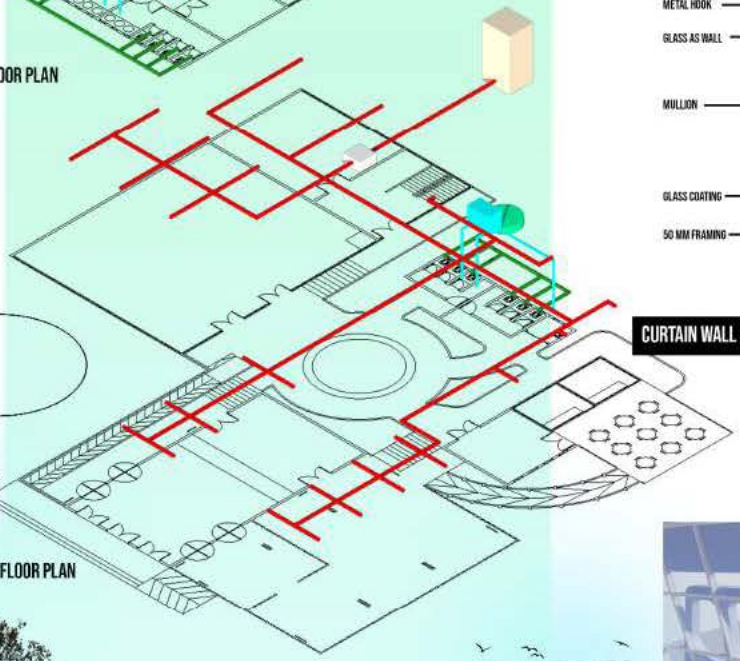
SCHEMATIC DIAGRAM



2ND FLOOR PLAN



FIRST FLOOR PLAN

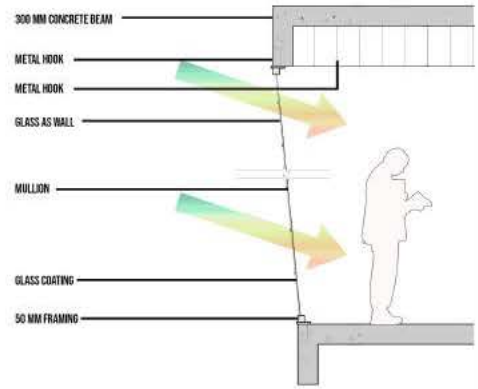


GROUND FLOOR PLAN

GENSET
ELECTTRICAL
SEWERAGE
MANHOLE
WATER SUPPLY

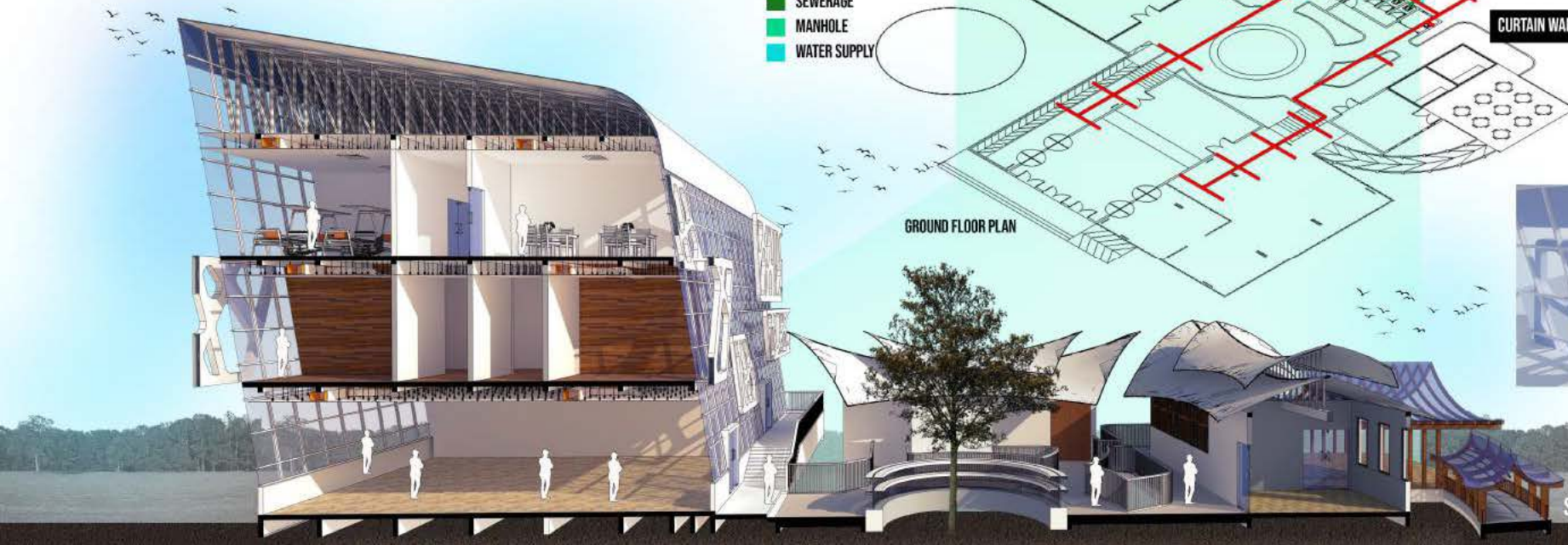
WHAT IS CURTAIN WALL?

A CURTAIN WALL SYSTEM IS AN OUTER COVERING OF A BUILDING IN WHICH THE OUTER WALLS ARE NON-STRUCTURAL, UTILIZED TO KEEP THE WEATHER OUT AND THE OCCUPANTS INTHE CURTAIN WALL FAÇADE DOES NOT CARRY ANY STRUCTURAL LOAD FROM THE BUILDING OTHER THAN ITS OWN DEAD LOAD WEIGHT



CURTAIN WALL DETAIL 1:20

CURTAIN WALL SYSTEMS ARE TYPICALLY DESIGNED WITH EXTRUDED ALUMINUM FRAMING MEMBERS THE ALUMINUM FRAME IS TYPICALLY INFILLED WITH GLASS, WHICH PROVIDES AN ARCHITECTURALLY PLEASING BUILDING, AS WELL AS BENEFITS SUCH AS DAYLIGHTING



SECTIONAL PERSPECTIVE

ZAL HAZMI BIN NORSABARUDDIN
131954

JAC
JOHOL AGROTOURISM CENTRE

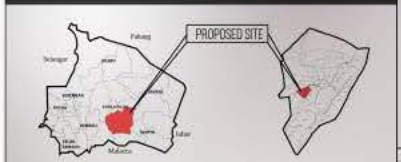
PROJECT 2 | ZAL HAZMI NORSABARUDDIN | 131 954 | INTEGRATED HERITAGE

INTRODUCTION

JOHOL IS ONE OF THE CONSTITUENT MINANGKABAU STATES THAT FORMED NEGERI SEMBILAN. THE REIGNING UNDANG LUAK OF JOHOL IS DATUK JOHAN PAHLAWAN LELA PERKASA SETIAWAN MUHAMMAD ABDULLAH THE 15TH UNDANG. JOHOL TOWN HAVE NOT SEEN RAPID DEVELOPMENT OVER THE PAST DECADES. BALAI UNDANG LUAK JOHOL RECENTLY VISITED USM AND INITIATED A COLLABORATIVE VENTURE TO CREATE A RESEARCH AND KNOWLEDGE HUB IN JOHOL. THESE ACTIVITIES ARE SEEN TO EMPOWER THE LOCAL FARMERS WITH THE KNOW HOW TO GENERATE INCOME AND IMPROVE THE SOCIO ECONOMIC STATUS OF THE SLEEPY TOWN. WITH THE RESEARH AND DEVELOPMENT INPUT OF USM RESEARCHERS AND AGRO FARMING PRODUCTS HARVESTED BY PEOPLE OF JOHOL AND PAVES WAY FOR A OFF SHOOT DESTINATION NAMED JOHOL AGROTOURISM CENTRE. JAC WILL EMERGE AS A DESTINATION WHERE VISITORS GET FIRST HAND EXPERIENCE TO JOHOL AGRO FARMING. IT'S BRIEF HISTORY AND HOW AGRO FARMING HAS THRIVED AND EMPOWERED THE LOCALS.

THE SITE AND CLIENT

JAC IS LOCATED AT KAMPUNG NURI JOHOL. THE AREA IS ABOUT 4888 M² OR 1.2 ACRES AND SITUATED AT THE TAIL OF TITIWANGSA RANGE EXTEND FROM THE NORTHERN PART OF THE PENINSULAR. BECAUSE OF ITS STRATEGIC LOCATION. JAC AREA IS IN LOW LANDED AREA FULL OF GREEN NATURE MAKE IT VERY SUITABLE TO DO THIS PROJECT AND MAKE IT MORE INTERESTING. THIS ELEMENTS ENHANCE THE PRODUCTION OF AGRICULTURE AND FARMING TO CONSISTENTLY GROWING UP.THE CLIENT IS BALAI UNDANG LUAK INTEND TO HAVE A PLACE WHERE THE LOCALS CAN BE EDUCATE OF FARMING AND AGRICULTURE TO INCREASE THEIR MONTHLY INCOME.



KEY PLAN
N.T.S

LOCATION PLAN
N.T.S

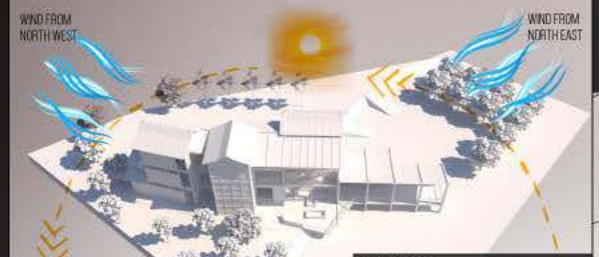
PRECEDENT STUDY

RIVER AND ROWING MUSEUM, ENGLAND

THE CONCEPT OF CLARITY AND SIMPLIFY SHOWS THE MATURITY OF THE ANCIENT MATERIAL, OAK, ACTING AS AN APPROPRIATE, EVOCATIVE SCREEN TO THE BUILDING.

JAC ARE FOCUSING ON THE MATERIALITY ARCHITECTURE WITH THE USES OF TREATED WOODEN MATERIAL, GLULAM, AS TO SHOW THE APPRECIATION TO THE CULTURE EXIST IN THE RURAL AREA OF JOHOL. ELONGATED FLOOR PLAN IS THE PRINCIPLE USED TO RESPONSE TO THE CLIMATIC ISSUE AND LOCAL NEED IN ORDER TO ACHIEVE PASSIVE DESIGN AS MUCH AS POSIBBLE.

SITE ANALYSIS AND SITE RESPONSE



VEGETATION

PRESERVE VEGETATION AREA TURN INTO U-PICK IT FARM FOR THE STAFF AND THE PERMITTED VISITORS

SUN PATH AND SHADOW

EAST TO WEST MOVEMENT, LONGEST FACADE FACING NORTH TO REDUCE THERMAL MASS OF THE BUILDING.

PREVAILING WIND

WIND COMES FROM TWO DIRECTION WHICH ARE FROM NORTH EAST AND NORTH WEST. FRAGMENTATION DESIGN APPLIED IN THE BUILDING TO ALLOW WIND MOVE THROUGH THE THE BUILDING AND REDUCE HEAT GAIN.

CIRCULATION

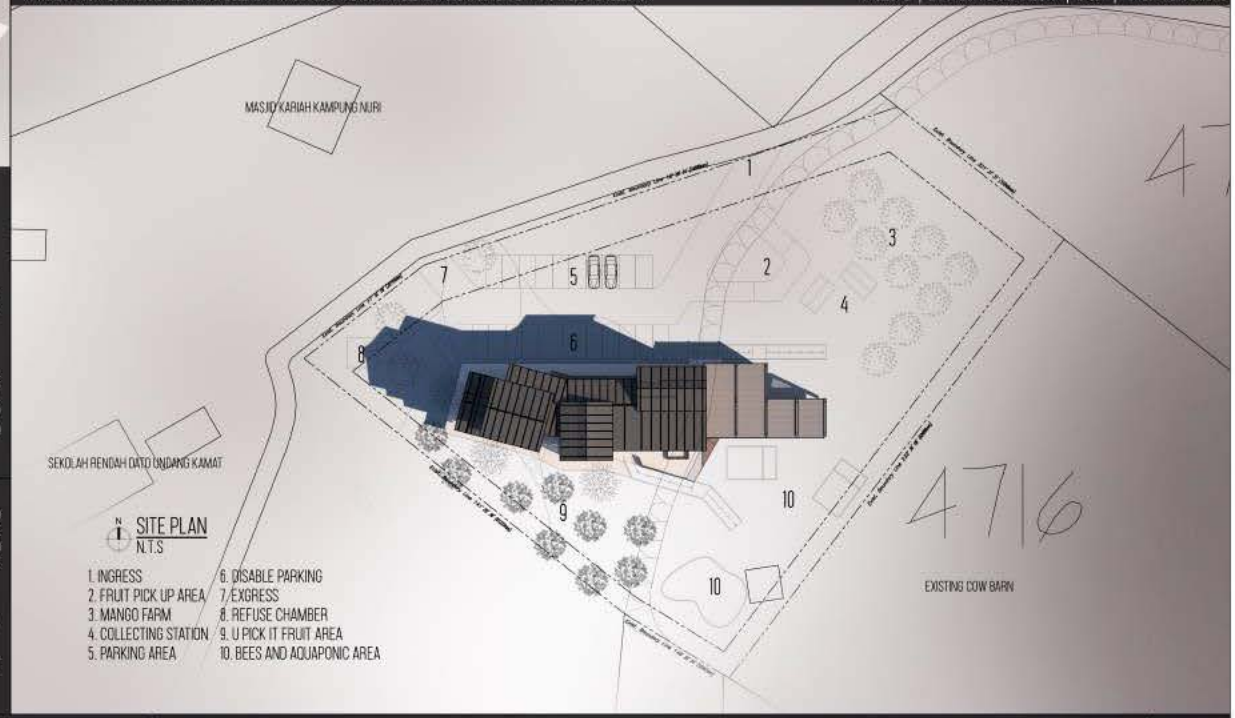
THE SITE IS CONNECTED TO SECONDARY ROAD WHICH ONLY FIT FOR 1 CAR AT A TIME. BUSES ARE NOT RECOMMENDED TO USE THE SECONDARY ROAD BECAUSE OF IT NARROW AND ONLY ACCOMODATE VEHICLE BELOW 5 TONE.

BUGGY CART IS PROVIDED TO PICK UP THE VISITOR FROM MAIN ROAD TO THE SITE.

BUS LAY BY AREA AND PICK UP AREA OF BUGGY CART

DESIGN NOTION

THE IDEA OF THIS PROJECT IS TO INTEGRATE BETWEEN MINIMALIST ARCHITECTURE STYLE AND VERNACULAR ARCHITECTURAL STYLE. SIMPLE BUILDING FORM INFLUENCED BY THE LOCALS NEED AND FUNCTION ENHANCE THE CONCEPT OF INTEGRATED HERITAGE WHICH APPRECIATE THE EXISTING NATURE BY REDUCING THE ENVIRONMENTAL DAMAGE AND INCREASE THE SENSE OF TRADITION. THE COMBINATION OF SQUARE SHAPE AND TRIANGLE SHAPE DERIVED FROM THE PHYSICAL CHARACTERISTIC OF VERNACULAR ARCHITECTURE WILL REDUCE THE BUILDING FOOTPRINT TO PRESERVE THE SOIL. WHILE ALL THE ORNAMENTAL STRIPPED FROM THE VERNACULAR ARCHITECTURE, AN ESSENTIAL QUALITY TO ACHIEVE SIMPLICITY ARE DERIVED FROM MINIMALIST ARCHITECTURE AND ADD SPIRITUAL ELEMENT WHICH BOOST THE NATURAL ELEMENT SUCH AMATERIALITY ARCHITECTURE SELECTION.



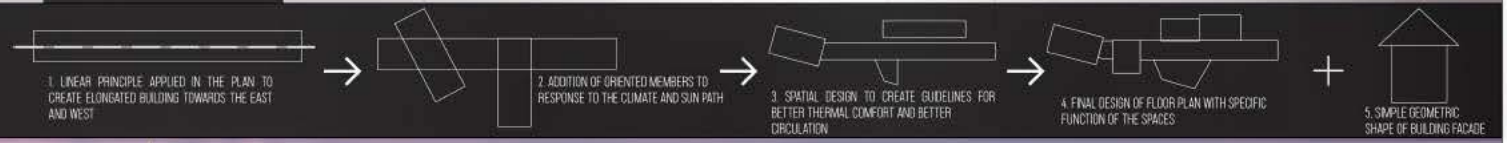
SITE PLAN
N.T.S

1. INGRESS
2. FRUIT PICK UP AREA
3. MANGO FARM
4. COLLECTING STATION
5. PARKING AREA
6. DISABLE PARKING
7. EXGRESS
8. REFUSE CHAMBER
9. U PICK IT FRUIT AREA
10. BEES AND AQUAPONIC AREA

SCHEMATIC DIAGRAM

IDEA DEVELOPMENT

INTEGRATED HERITAGE



1. LINEAR PRINCIPLE APPLIED IN THE PLAN TO CREATE ELONGATED BUILDING TOWARDS THE EAST AND WEST

2. ADDITION OF ORIENTED MEMBERS TO RESPONSE TO THE CLIMATE AND SUN PATH

3. SPATIAL DESIGN TO CREATE GUIDELINES FOR BETTER THERMAL COMFORT AND BETTER CIRCULATION

4. FINAL DESIGN OF FLOOR PLAN WITH SPECIFIC FUNCTION OF THE SPACES

5. SIMPLE GEOMETRIC SHAPE OF BUILDING FACADE

SECTIONAL PERSPECTIVE
N.T.S

JAC JOHOL AGROTOURISM CENTRE

PROJECT 2 | ZAL HAZMI NORSABARUDDIN | 131 954 | INTEGRATED HERITAGE

GROUND FLOOR PLAN

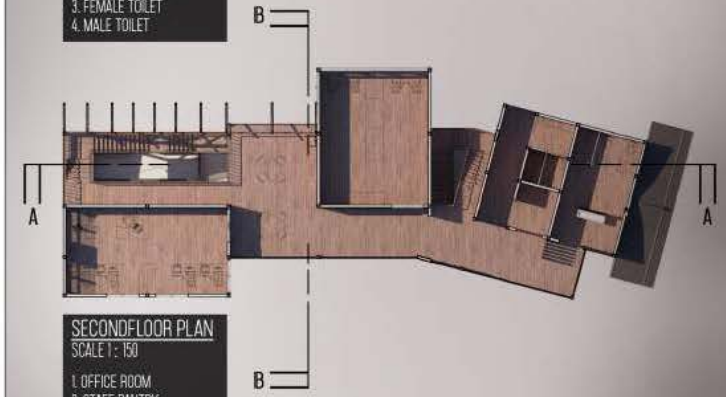
SCALE 1 : 150

1. ENTRY LOBBY
2. RETAIL LOT
3. RECEPTION AREA
4. AUDITORIUM ROOM
5. INTERACTIVE WORKSHOP
6. CAFE
7. KITCHEN AREA
8. DISABLED TOILET
9. FEMALE TOILET
10. MALE TOILET
11. M.S.B ROOM
12. AUDIO ROOM

FIRST FLOOR PLAN

SCALE 1 : 150

1. MEETING ROOM
2. CONFERENCE ROOM
3. FEMALE TOILET
4. MALE TOILET



SECONDFLOOR PLAN

SCALE 1 : 150

1. OFFICE ROOM
2. STAFF PANTRY
3. RESEARCH AND DEVELOPMENT ROOM
4. FEMALE TOILET
5. MALE TOILET

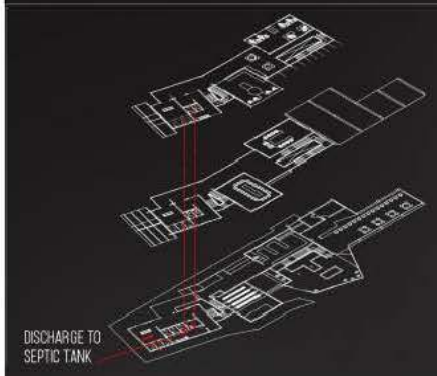
INTERIOR PERSPECTIVE OF MINI AUDITORIUM

EXTERIOR PERSPECTIVE

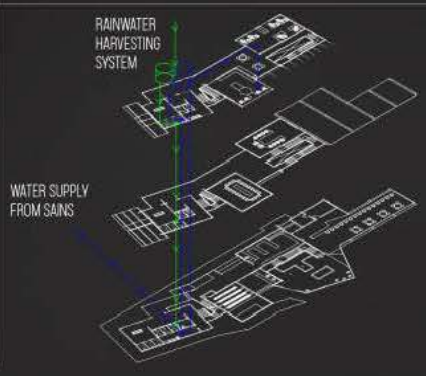
JAC JOHOL AGROTOURISM CENTRE

PROJECT 2 | ZAL HAZMI NORSABARUDDIN | 131 954 | INTEGRATED HERITAGE

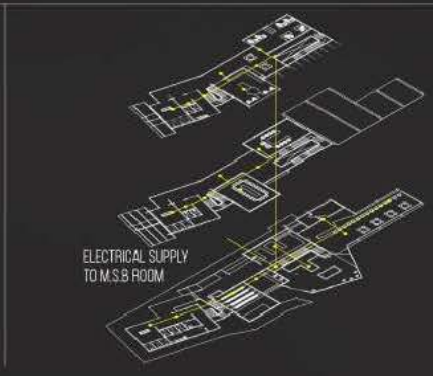
SCHEMATIC DIAGRAM OF SEWERAGE

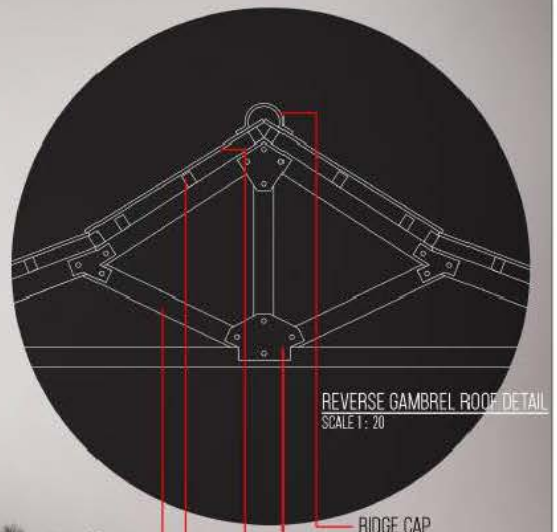


SCHEMATIC DIAGRAM OF WATER SUPPLY



SCHEMATIC DIAGRAM OF ELECTRICAL SUPPLY





REVERSE GAMBREL ROOF DETAIL
SCALE 1 : 20

SECTION A - A
SCALE 1 : 150

SECTION B - B
SCALE 1 : 150

LEFT ELEVATION
SCALE 1 : 150

RIGHT ELEVATION
SCALE 1 : 150

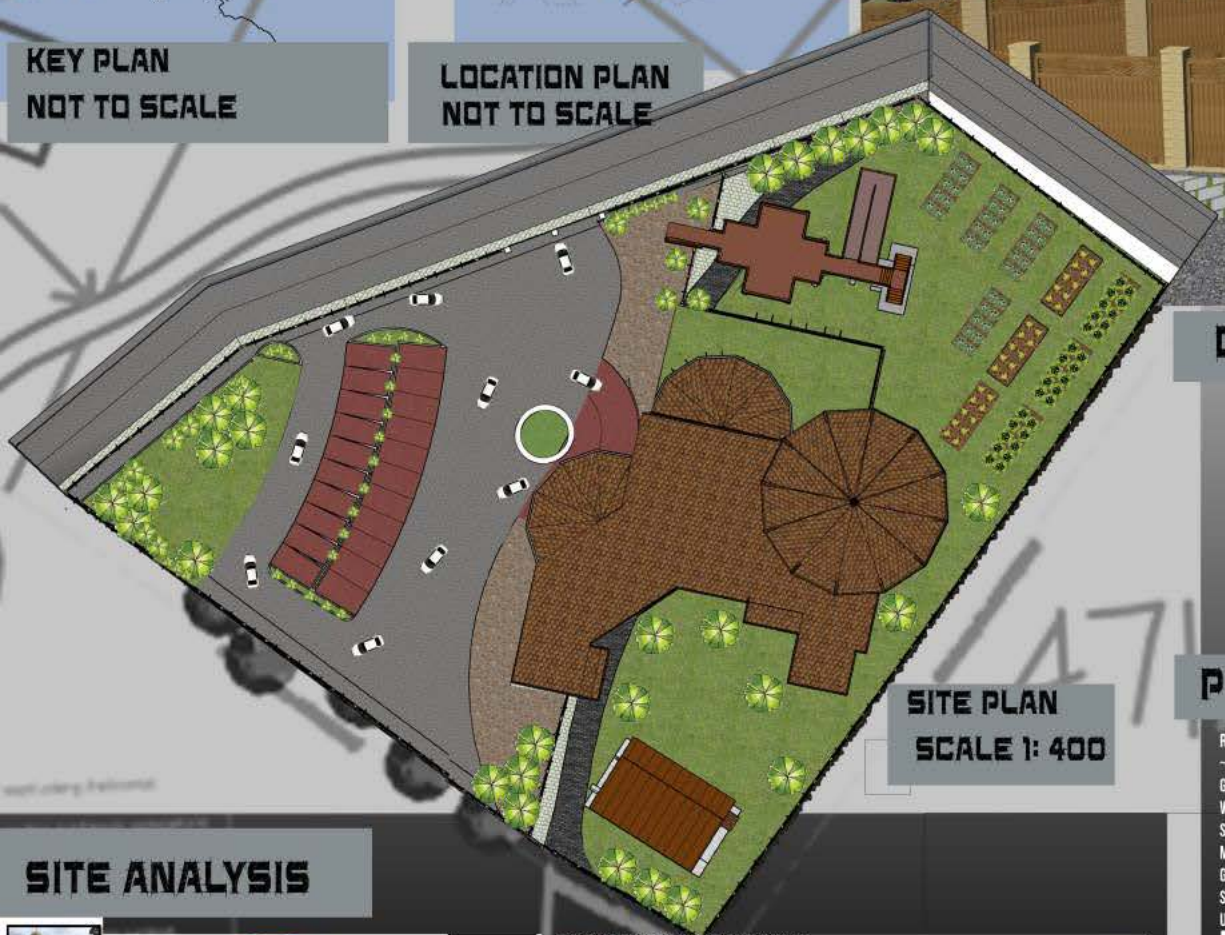
FRONT ELEVATION
SCALE 1 : 150

ANNUR FARHANAH BINTI NAJAMUDDIN
131955

JOHOL AGROTOURISM CENTRE

KEY PLAN
NOT TO SCALE

LOCATION PLAN
NOT TO SCALE



SITE PLAN
SCALE 1: 400

DESIGN STATEMENT

AIM TO DESIGN AN AGROTOURISM CENTRE WITH TRADITIONAL ARCHITECTURE ELEMENT APPROACH WITH USING INJECTED TIMBER CRAFT FOR FACADE LOUVERS. BESIDE PLAN HAVE 12 POINT OF POLYGON THAT CALL DODECAGON THAT HAVE 12-GON THAT REPRESENT 12 CLAN IN NEGERI SEMBILAN WHICH IS :

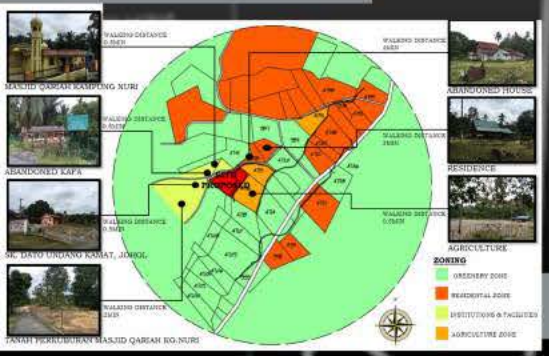
1)BIDUANDA (2) BATU HAMPAR (3) PAYA KUMBUH(PAYO KUMBOH) (4) MUNGKAL
(5) TIGA NENEK (6) SERI MELENGGANG (7) SERI LEMAK (8) BATU BELANG
(9) TANAH DATAR (10) ANAK ACHEH (11) ANAK MELAKA (12) TIGA BATU

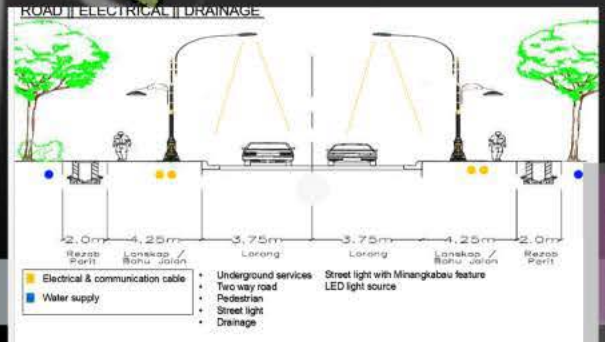
PRODUCT WILL PRODUCE

RENDANG MAMAN:
~MAMAN (CLEOME GYANDRA) IS A PLANT FROM THE FAMILY OF CLEOMECEAE THAT CAN BE GROWN COMMERCIALLY TO PRODUCE FRESH MINT LEAVES. THERE HAS NOT BEEN MUCH WRITINGS ON THE PRACTICE AND TECHNOLOGY OF MUM CULTIVATION WRITTEN BY SCIENTISTS IN OUR COUNTRY. I HAVE LEARNED THE AGRONOMY OR TECHNOLOGY OF THIS MAMMAL CULTIVATION FROM MY RESEARCH AND OBSERVATION TO SOME OF MINE GROWERS IN NEGERI SEMBILAN (AROUND GEMENCEH AND KUALA PILAH). NEGERI SEMBILAN PEOPLE ARE THE MOST SKILLED PEOPLE IN COOKING MAMAN LEAVES TO BE USED AS ORANGES OR MADE MAHAN ESPECIALLY ON FESTIVE DAYS.

POKOK MAMAN DAN TERNAKAN KAMBING

SITE ANALYSIS





JOHOL AGROTOURISM CENTRE
NAME : ANNUR FARHANAH BINTI NAJAMUDDIN
NO MATRIC : 131955

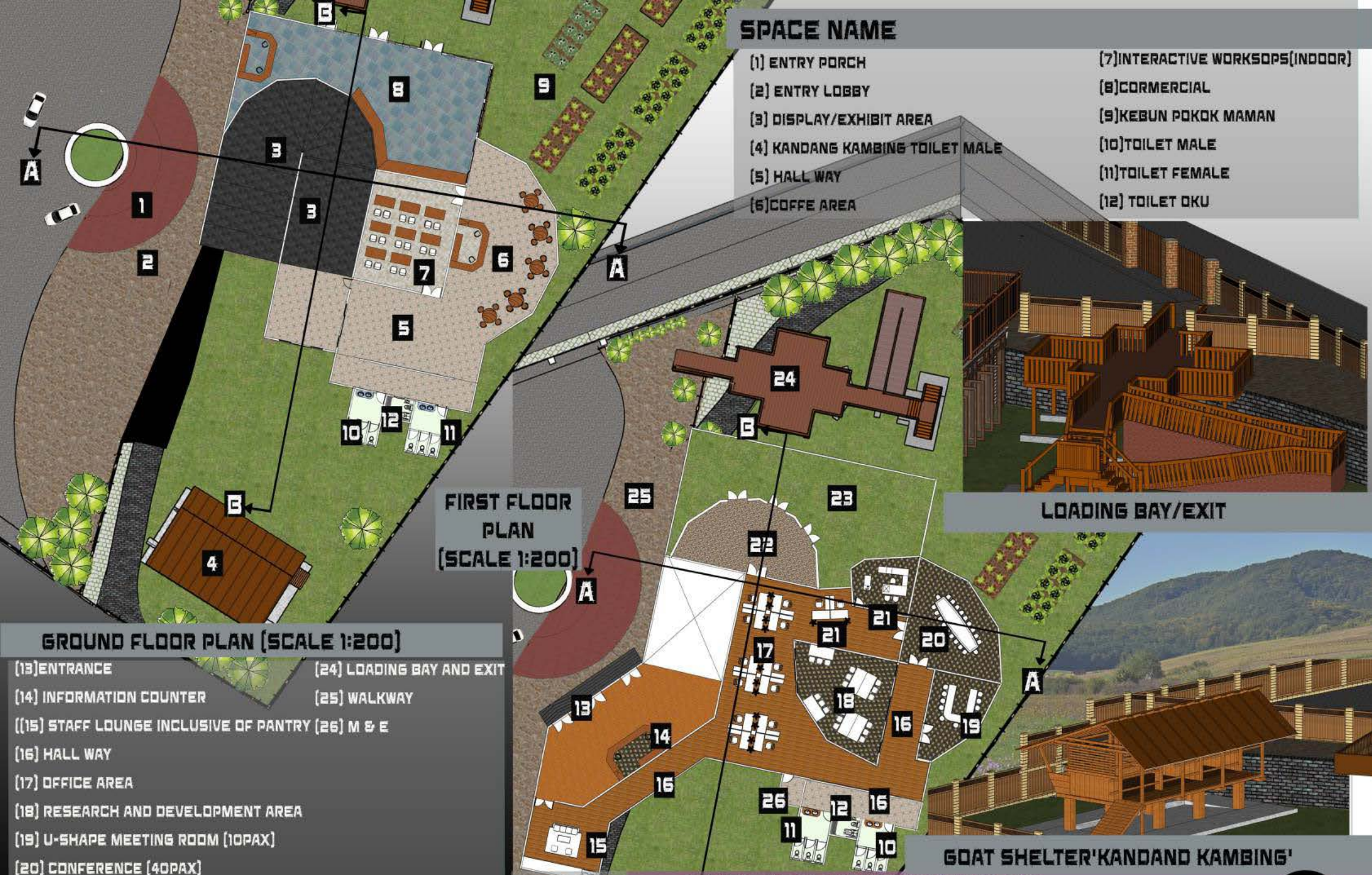
01

SPACE NAME

(1) ENTRY PORCH
(2) ENTRY LOBBY
(3) DISPLAY/EXHIBIT AREA
(4) KANDANG KAMBING TOILET MALE
(5) HALL WAY
(6)COFFE AREA
(7)INTERACTIVE WORKSOPS(INDOOR)
(8)CORMERCIAL
(9)KEBUN POKOK MAMAN
(10)TOILET MALE
(11)TOILET FEMALE
(12) TOILET OKU

LOADING BAY/EXIT

FIRST FLOOR PLAN (SCALE 1:200)



GROUND FLOOR PLAN (SCALE 1:200)

(13)ENTRANCE
(14) INFORMATION COUNTER
((15) STAFF LOUNGE INCLUSIVE OF PANTRY
(16) HALL WAY
(17) OFFICE AREA
(18) RESEARCH AND DEVELOPMENT AREA
(19) U-SHAPE MEETING ROOM (10PAX)
(20) CONFERENCE (40PAX)
(21) SUPEVISOR ROOM
(22) REST AREA/SMOKING AREA
(23) GREEN RESERVED
(24) LOADING BAY AND EXIT
(25) WALKWAY
(26) M & E

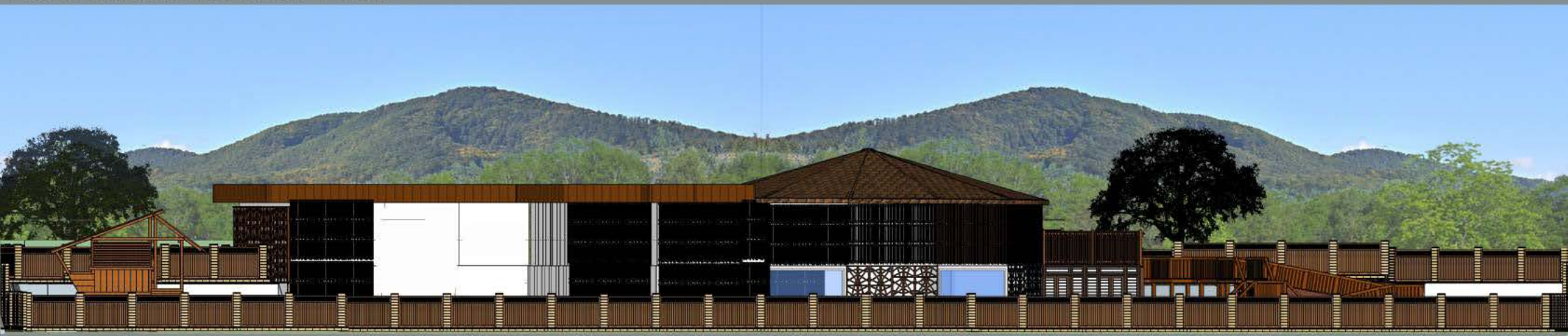
GOAT SHELTER'KANDAND KAMBING'

JOHOL AGROTOURISM CENTRE

NAME : ANNUR FARHANAH BINTI NAJAMUDDIN
NO MATRIC : 131955

02

FRONT ELEVATION (SCALE 1:200)



REAR ELEVATION (SCALE 1:200)

RIGHT ELEVATION (SCALE 1:200)

LEFT ELEVATION (SCALE 1:200)

JOHOL AGROTOURISM CENTRE

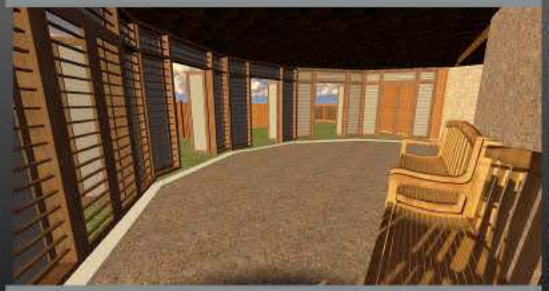
NAME : ANNUR FARHANAH BINTI NAJAMUDDIN
NO MATRIC : 131955

SECTION AA (SCALE 1:200)

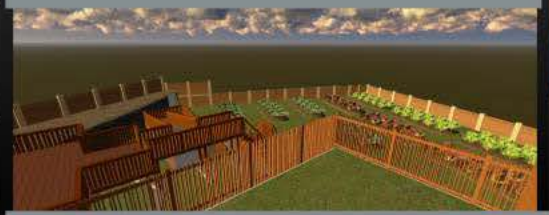
SECTION BB (SCALE 1:200)

ELECTRICAL/SEWAGE/PLUMBING LAYOUT

COFFEE AREA



REST AREA/SMOKING AREA FOR STAFF



VIEW FROM 'GREEN RESERVE TO KEBUN MAMAN

AXONOMETRIC

SECTION DETAIL(VERTICAL ROOF)

SECTION DETAIL(GREEN ROOF DETAIL)

VIEW FROM EXIT BRIGE TOWARD BUILDING

JOHOL AGROTOURISM CENTRE

NAME : ANNUR FARHANAH BINTI NAJAMUDDIN
NO MATRIC : 131955

04

MUHAMMAD AFIF RIZAL
BIN AHMAD NADZRI
131956

NAFAS WARISAN

AGROTOURISM CENTER

JOHOL, NEGERI SEMBILAN

MUHAMAD AFIF RIZAL BIN AHMAD NAZRI
NO MATRIX : 13196 GROUP 01

PROJECT AIM

To propose a place of Johol Agrotourism Centre
Introduce johol product , Apam Johol,Ikan Talapia, and Selasih. These are seen empower the local farmers with the know-how to generate income and improve the socio-economic status of the sleepy town.

OBJECTIVE

Demonstrate knowledge and comprehension in producing a schematic design proposal specific function and multi-storey building on a Hill Context. The site context , user need and the impact of the development to its surrounding. Integration of environmentally friendly structure, specific function& multi-storeybuilding on HillContext. The site context, user need and the impact of the development to its surrounding.Integration of environmentally friendly structure.

SITE

JOHOL is one of the constituent Minangkabau states formed Negeri Sembilan. The reigning Undang Luak of JOHOL is Datuk Johan Pahlawan Lela Perkasa Setiawan Muhammad Abdullah (The 15th Undang) . He is one of the four undangs that will participate in the election of the Yang DiPertuan Besar Negeri Sembilan.

CONCEPT : BREATHING ARCHITECTURE

This study explores architectural design by examining air, fluid mechanics, and the natural ventilation of buildings. In this context, this research introduces a new way of dealing with the process of architectural synthesis. The proposed way can be used either to create new architectural projects or to rethink existing ones. This study is supported by previous investigation into the natural ventilation of buildings. The investigation into the natural ventilation of buildings provides information and data that affect architectural design through various parameters.This study produces a new approach to the architectural design process. This approach leads to an innovative kind of architecture called "breathing architecture."

PRODUCT

1 TILAPIA

2 APAM RAMBAI

SELASIH
3

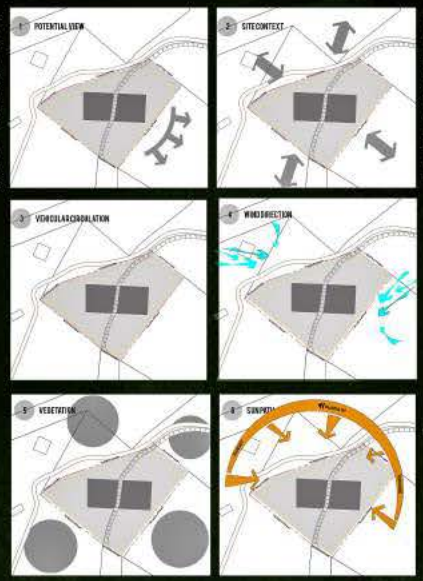
INSPIRATION

TOWARDS NATURE
2

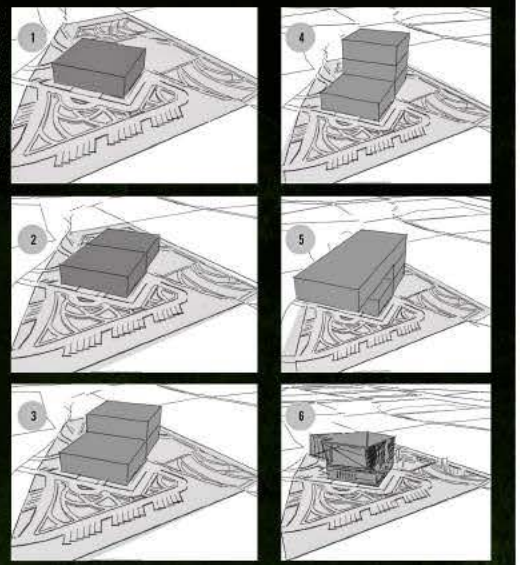
ISTANA MERANTI ROOF
1

JOHOL PRODUCT
3

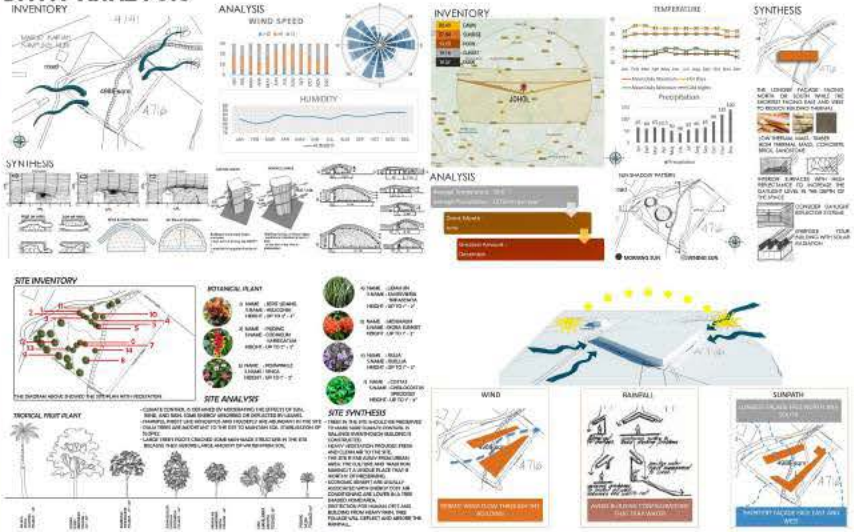
SITE ANALYSIS



DEVELOPMENT



DATA ANALYSIS

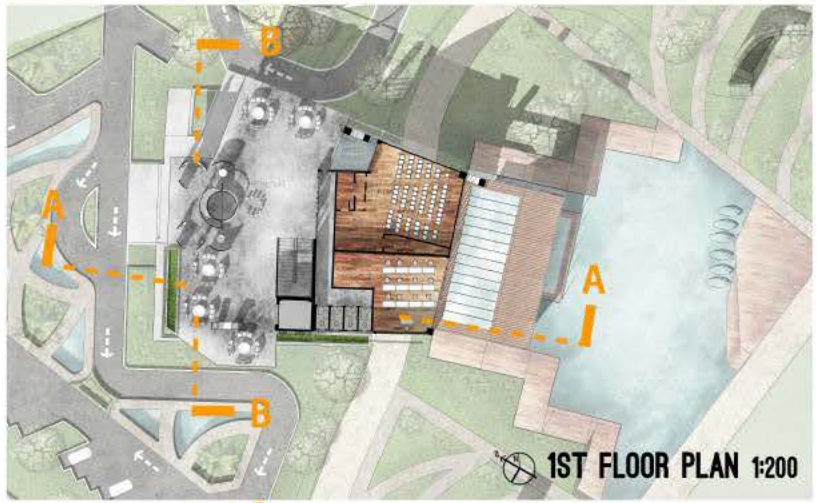


KEY PLAN NTS

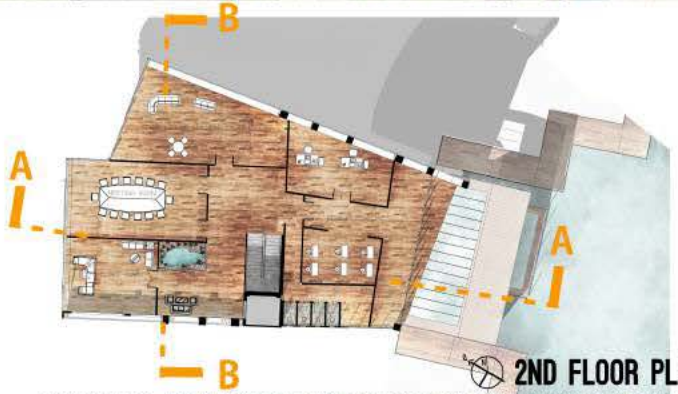
LOCATION PLAN NTS

GROUND FLOOR PLAN 1:200

SITE PLAN 1:400



1ST FLOOR PLAN 1:200



2ND FLOOR PLAN 1:200

FRONT ELEVATION 1:200

RIGHT ELEVATION 1:200

SECTION B-B 1:200

SECTION A-A 1:200

COFFEE BAR JOHOL PERSPECTIVE

ENTRY LOBBY PERSPECTIVE

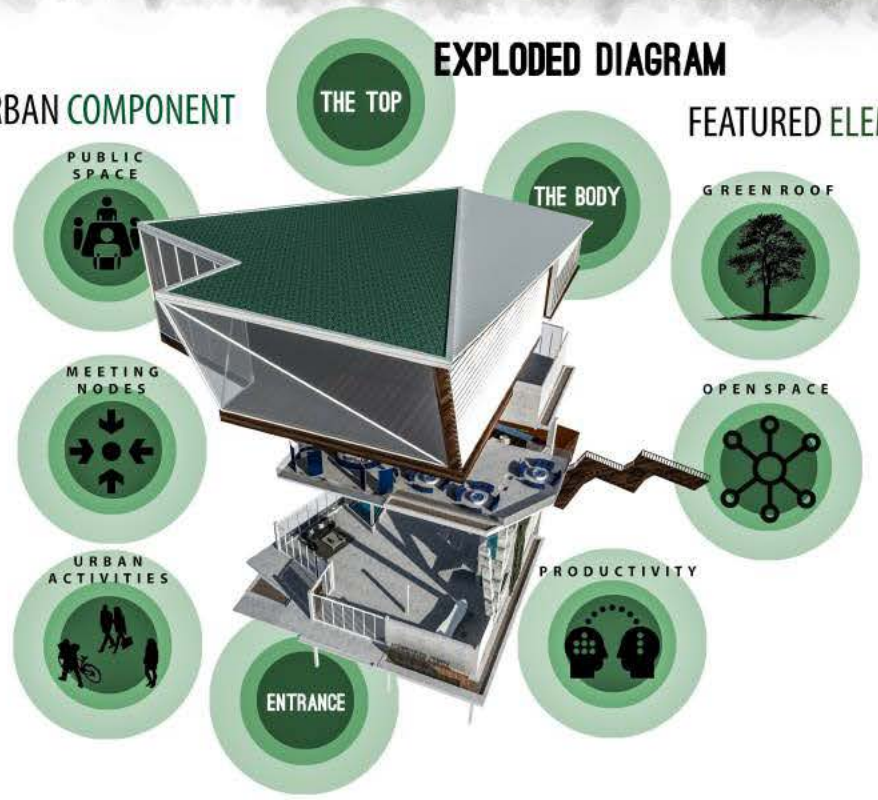
MINI POCKET GARDEN PERSPECTIVE

SECTIONAL PERSPECTIVE

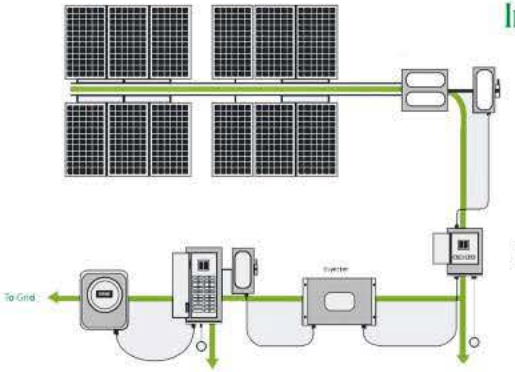
EXPLODED DIAGRAM

URBAN COMPONENT

FEATURED ELEMENT

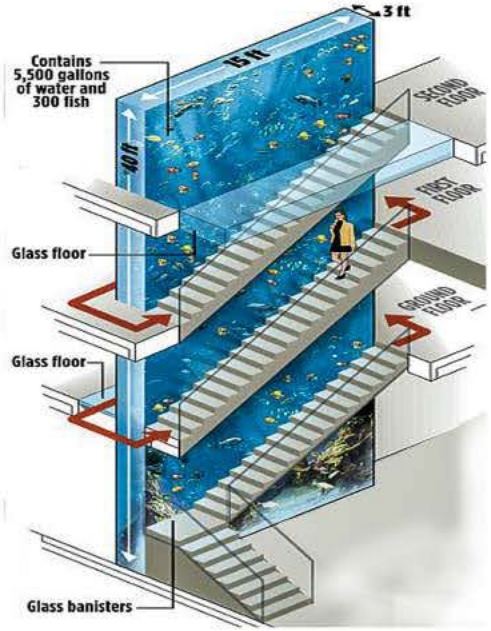


ENTRANCE PERSPECTIVE



SOLAR PANEL SYSTEM

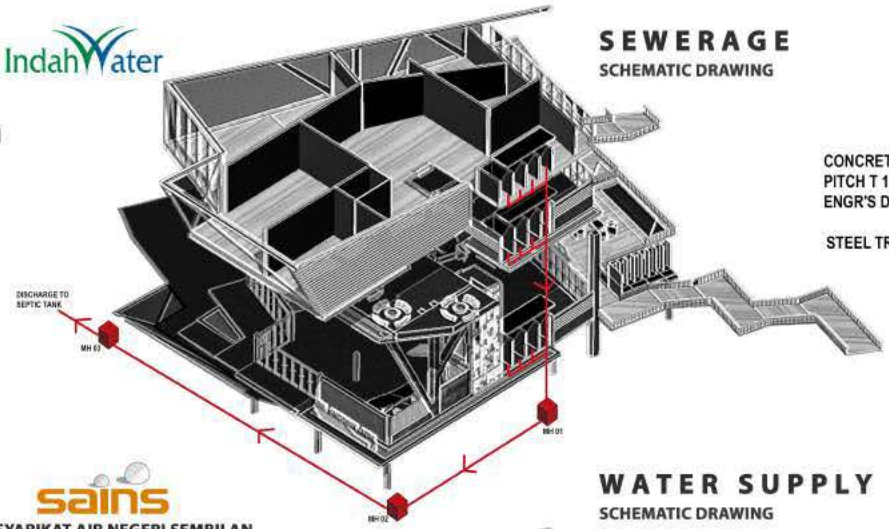
PHOTOVOLTAIC SOLAR PANELS ABSORB SUNLIGHT AS A SOURCE OF ENERGY TO GENERATE ELECTRICITY.



MINI AQUARIUM SYSTEM

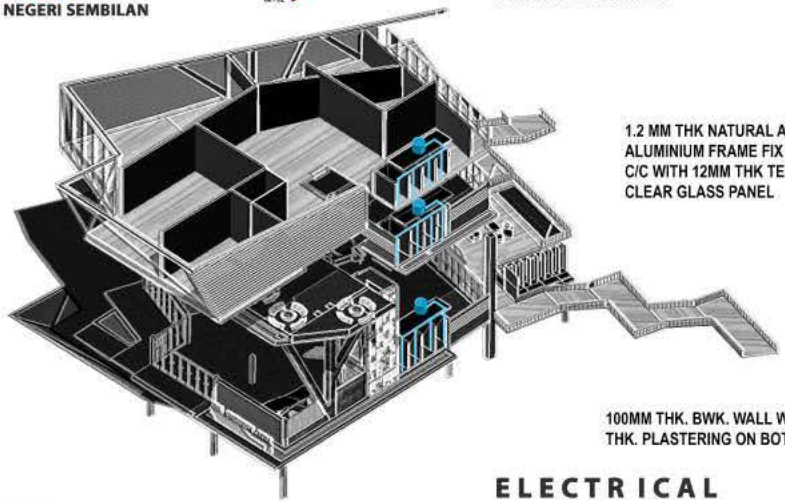
AN AQUARIUM (PLURAL: AQUARIUMS OR AQUARIA) IS A VIVARIUM OF ANY SIZE HAVING AT LEAST ONE TRANSPARENT SIDE IN WHICH AQUATIC PLANTS OR ANIMALS ARE KEPT AND TO BE DISPLAYED TO THE USER. ITS ALSO WILL GIVE ELEMENT ECO-FRIENDLY TO USER.

IndahWater



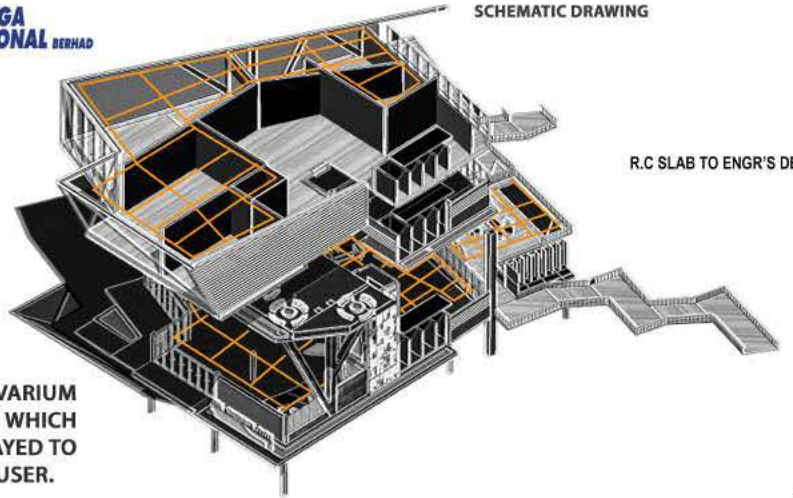
SEWERAGE
SCHEMATIC DRAWING

sains
SYARIKAT AIR NEGERI SEMBILAN

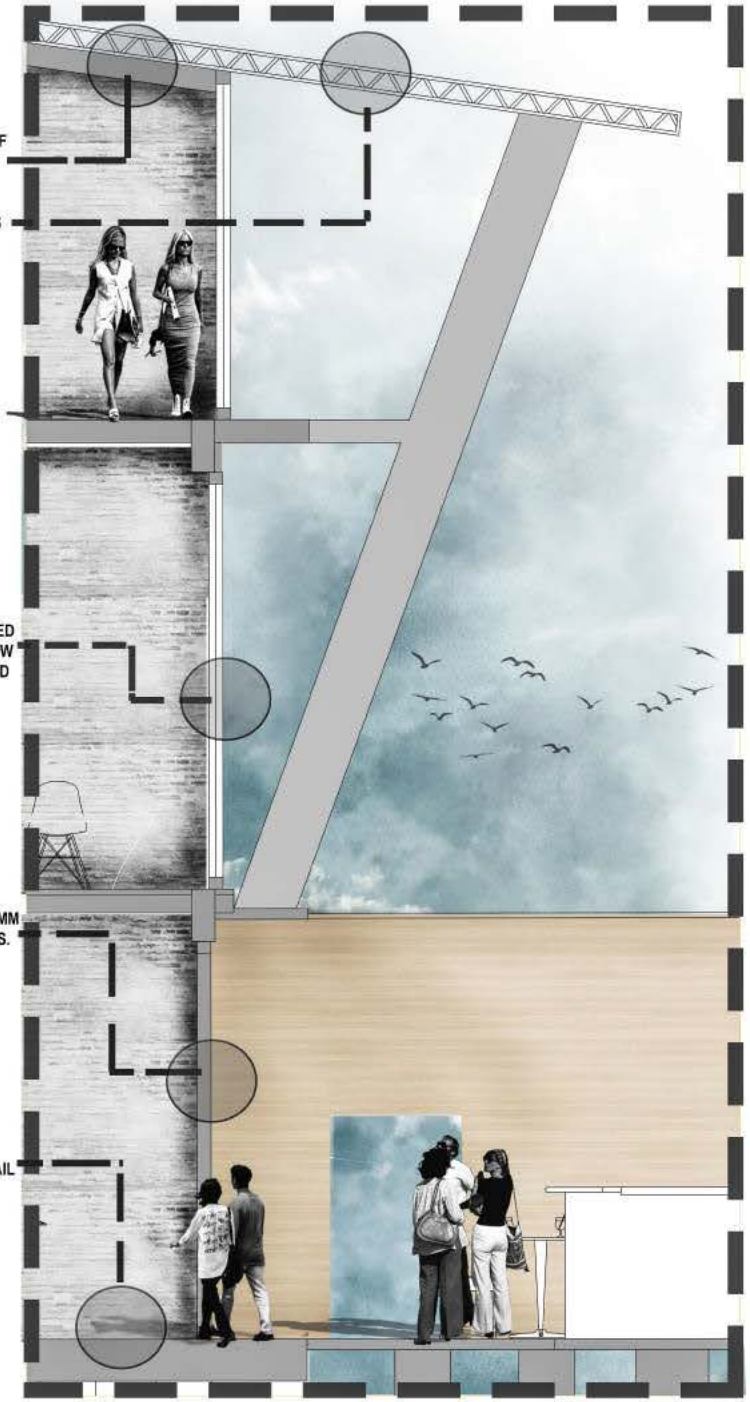


WATER SUPPLY
SCHEMATIC DRAWING

TENAGA NASIONAL BERHAD



ELECTRICAL
SCHEMATIC DRAWING



FOUNDATION TO ROOF 1:20

AERIAL PERSPECTIVE

VIZUALSATION

Nafas Warisan

''Conceptual architectural design based on the investigation into the natural ventilation of buildings''

FRONTAGE PERSPECTIVE

PLAZA PERSPECTIVE

MUHAMMAD FARHAN BIN MOHD FISAL
131957

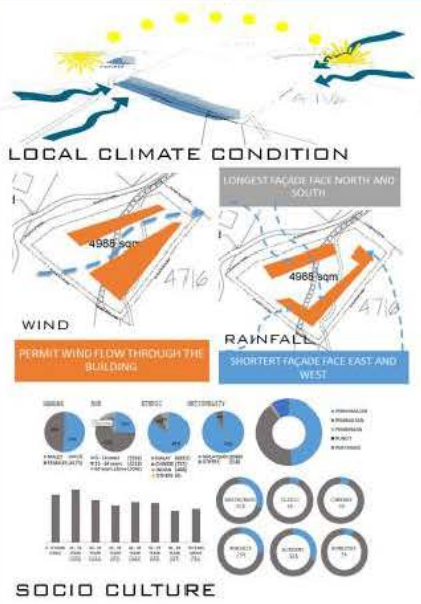
PROJECT 2 : JOHOL AGROTOURISM CENTRE

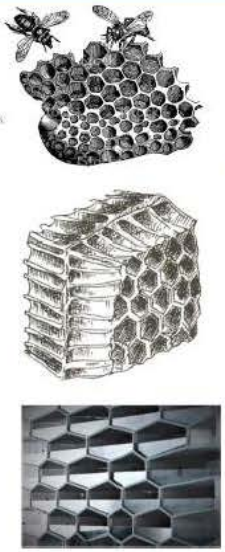
DESIGN CONCEPT

The method used in the construction of the honeycomb is also very amazing: bees start the construction of the hive from two-three different places and weave the honeycomb simultaneously in two-three strings. Though they start from different places, the bees, great in number, construct identical hexagons and then weave the honeycomb by combining these together and meeting in the middle. The junction points of the hexagons are assembled so deftly that there is no sign of their being subsequently combined.

Honeycomb structures are natural or man-made structures that have the geometry of a honeycomb to allow the minimization of the amount of used material to reach minimal weight and minimal material cost. The geometry of honeycomb structures can vary widely but the common feature of all such structures is an array of hollow cells formed between thin vertical walls. The cells are often columnar and hexagonal in shape. A honeycomb shaped structure provides a material with minimal density and relative high out-of-plane compression properties and out-of-plane shear properties

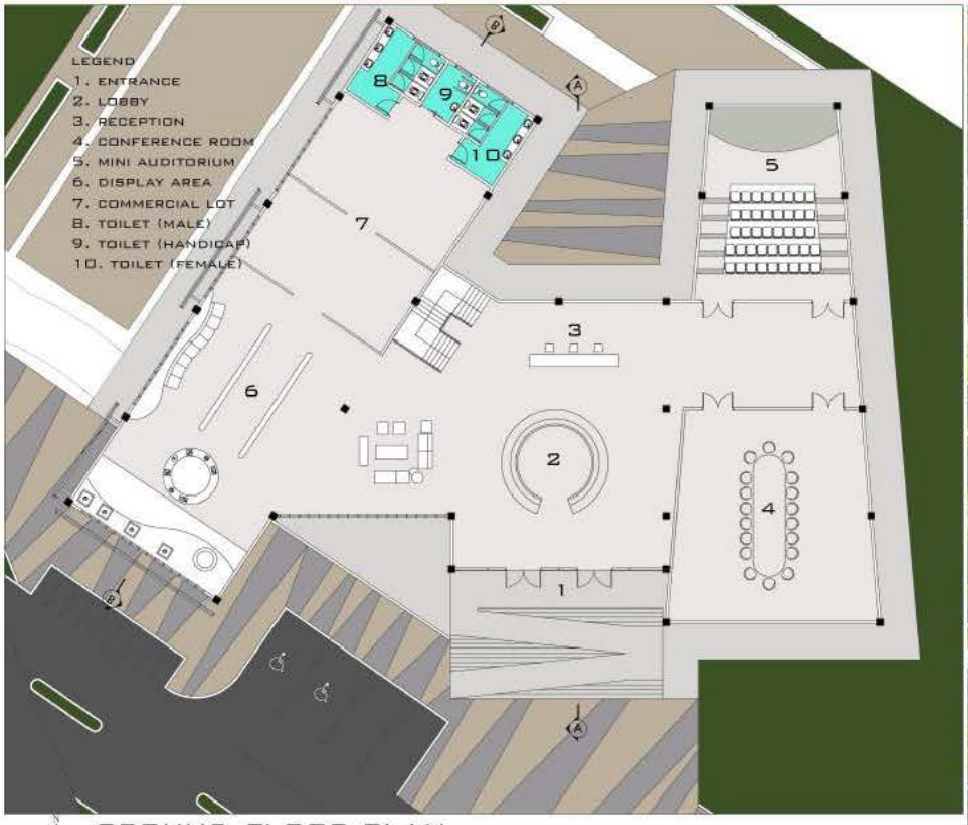
Drawing inspiration from its coastal setting, the hexagonal design evokes the natural geometries you find in certain coral formations or honeycomb. The facade has a hexagonal pattern that uniquely frames the natural beauty



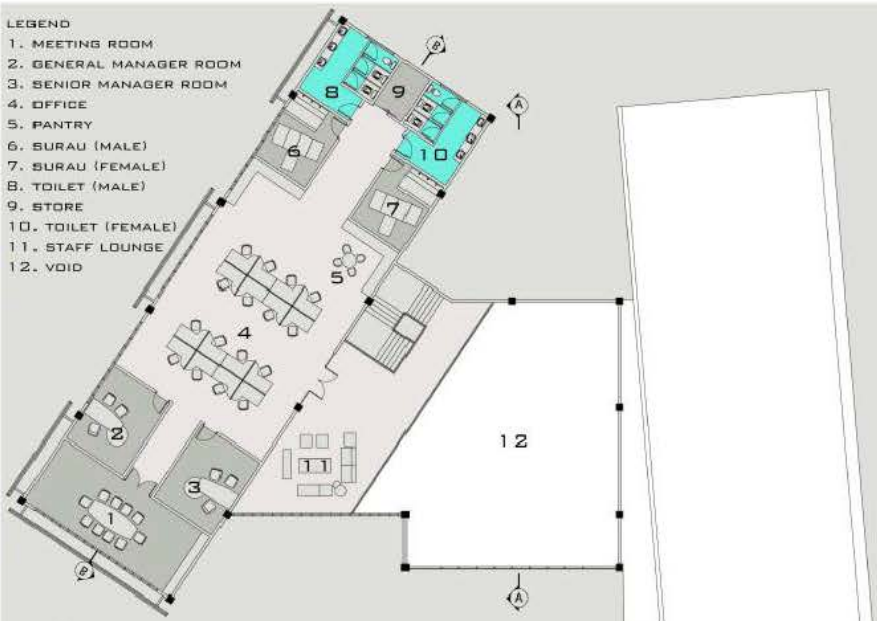


PROJECT 2 : JOHOL AGROTOURISM CENTRE

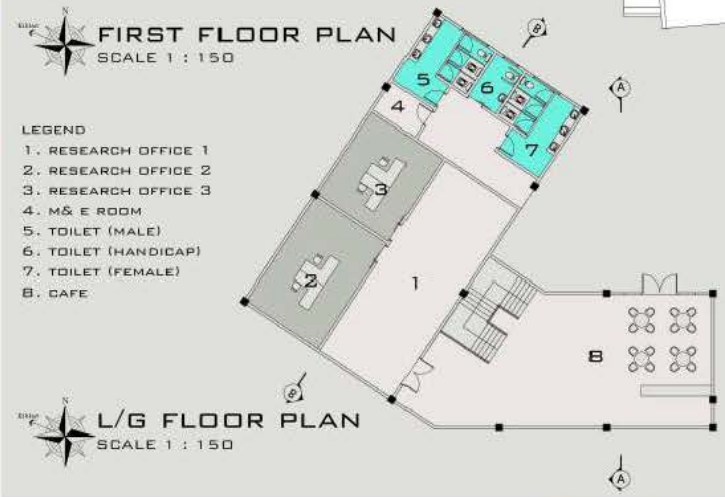
FRONT ELEVATION
SCALE 1 : 150



GROUND FLOOR PLAN
SCALE 1 : 150

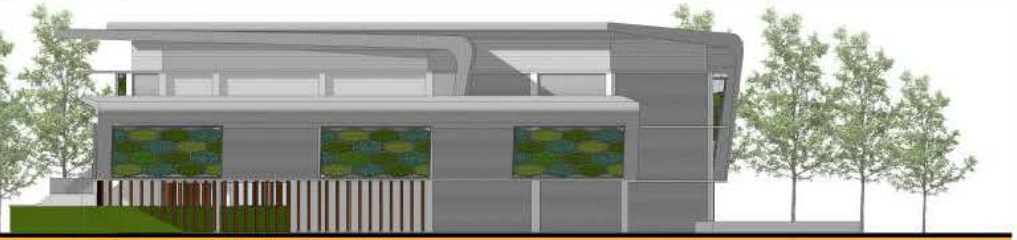


FIRST FLOOR PLAN
SCALE 1 : 150



L/G FLOOR PLAN
SCALE 1 : 150

LEFT ELEVATION
SCALE 1 : 150



RIGHT ELEVATION
SCALE 1 : 150

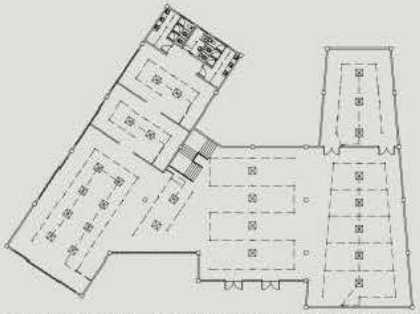
PROJECT 2 : JOHOL AGROTOURISM CENTRE

GALLERY

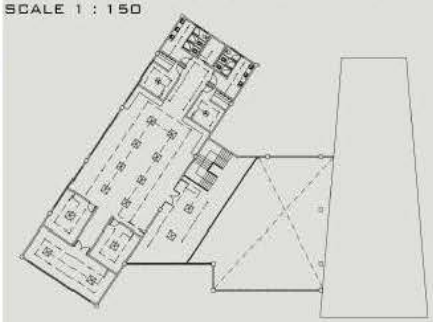
OFFICE

RESEARCH OFFICE

LOBBY

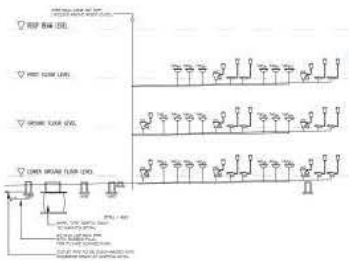


ELECTRICAL SCHEMATIC DRAWING (G.F)
SCALE 1 : 150

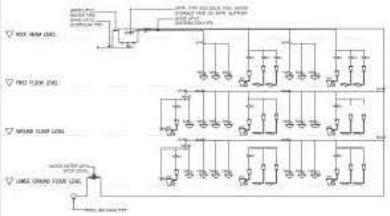


ELECTRICAL SCHEMATIC DRAWING (F.F)
SCALE 1 : 150

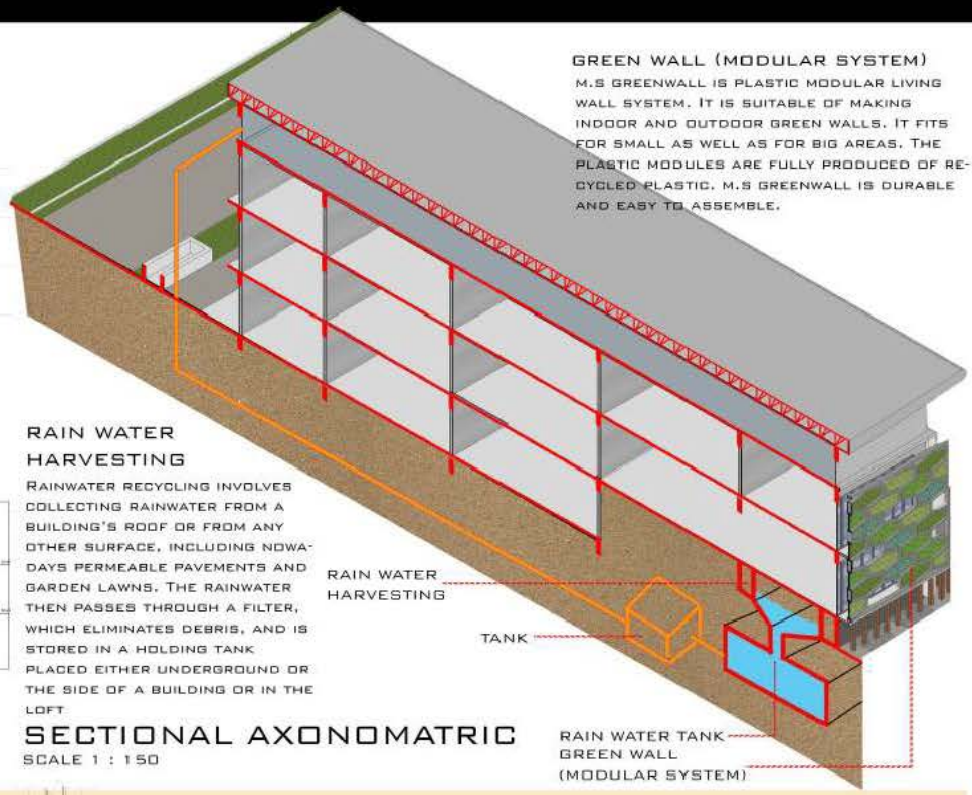
ELECTRICAL SCHEMATIC DRAWING
(L.G.F)
SCALE 1 : 150



DIAGRAMATIC SANITARY
SCALE N.T.S



DIAGRAMATIC PLUMBING
SCALE N.T.S



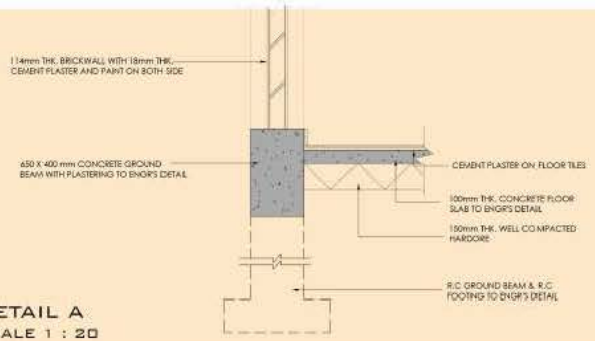
GREEN WALL (MODULAR SYSTEM)

M.S GREENWALL IS PLASTIC MODULAR LIVING WALL SYSTEM. IT IS SUITABLE OF MAKING INDOOR AND OUTDOOR GREEN WALLS. IT FITS FOR SMALL AS WELL AS FOR BIG AREAS. THE PLASTIC MODULES ARE FULLY PRODUCED OF RE-CYCLED PLASTIC. M.S GREENWALL IS DURABLE AND EASY TO ASSEMBLE.

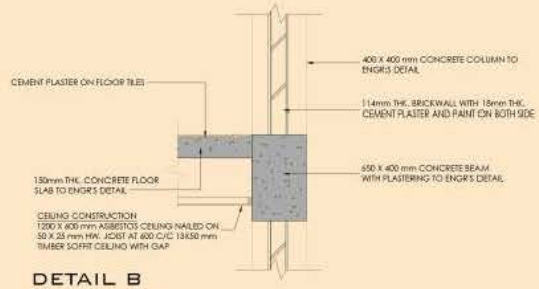
RAIN WATER HARVESTING

RAINWATER RECYCLING INVOLVES COLLECTING RAINWATER FROM A BUILDING'S ROOF OR FROM ANY OTHER SURFACE, INCLUDING NOWADAYS PERMEABLE PAVEMENTS AND GARDEN LAWNS. THE RAINWATER THEN PASSES THROUGH A FILTER, WHICH ELIMINATES DEBRIS, AND IS STORED IN A HOLDING TANK PLACED EITHER UNDERGROUND OR THE SIDE OF A BUILDING OR IN THE LOFT

SECTIONAL AXONOMATRIC
SCALE 1 : 150



DETAIL A
SCALE 1 : 20



DETAIL B
SCALE 1 : 20

SECTION A-A
SCALE 1 : 150

SECTION B-B
SCALE 1 : 150

HAZIQ BIN ABD GHANI
135355

JOHOL AGROTOURISM CENTRE (JAC)

RAS204: ARCHITECTURE STUDIO 2 | PROJECT 2: AGROTOURISM CENTRE

LOCATION PLAN
NOT TO SCALE

KEY PLAN
NOT TO SCALE

DESIGN STATEMENT

The second project site is located at **Johol**, Negeri Sembilan. johol is one of the constituent **Minangkabau** states that formed Negeri Sembilan. Johol town have not seen rapid developement over the past decades. **Balai Undang Luak Johol** is appointed as a client for this project to initiated a collaborative venture to create a research and knowledge hub in Johol.

The project is specializing in sustainable agriculture, **farming of rambai trees** and **farming goats**. These activities are seen to empower the local farmers with the know-how to **generate income** and **improve the socio-economic** status of the sleepy town.

GAIN KNOWLEDGE | EXPERIMENT NEW THINGS | CREATING NEW PRODUCT | GENERATE INCOME

RESEARCH AND DEVELOPEMENT PRODUCT

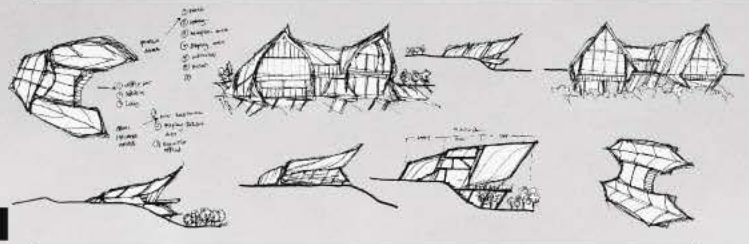
rambai trees/leaves - mainly known for production of apam johol, medicine, vinegar, jam etc

apam johol - the iconic food in johol, negeri sembilan. Eating with rendang minang, sambal tumis, and variety of local fruits jam.

local fruits/vegetables - can produce smoothies drinks, jam flavour for apam johol

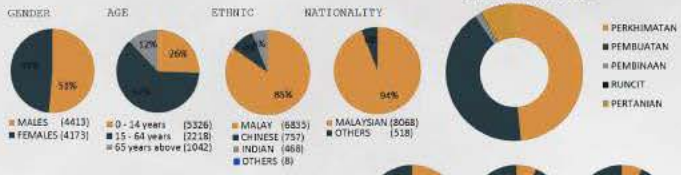
goats - produce fertilizer for local trees, rendang minang

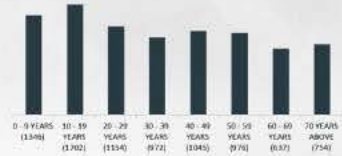
CONCEPTUAL SKETCHES



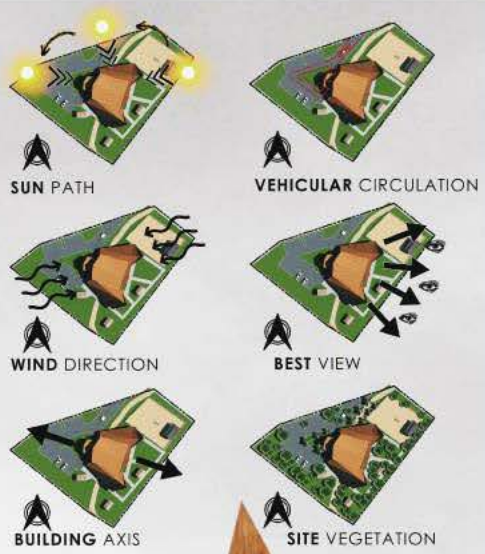
SOCIO-CULTURE DATA

DEMOGRAPHIC : **TOTAL POPULATION** : 8,885





SITE ANALYSIS



DESIGN CONCEPT

The concept are taken from **rambai leaves** which is iconic around the johol area. The rambai leaves is wild fruit tree spreaded around the area.

Rambai trees usually grow at a height of 9 to 12 meters with short branches and shady tops. The rambai tree has a shiny green leaf on the top and a delicate green war on the bottom of the leaf. Each leaves of rambai leaves are 33 centimeters wide and 15 centimeters wide.

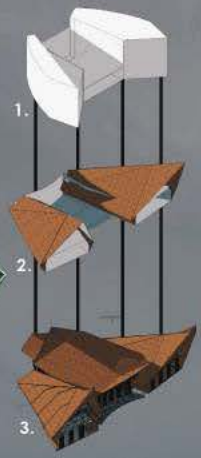
Rambai tree species is a dioecious tree, with male and female flowers grown on different individuals. Both types of flowers are fragrant and have yellow sepals. Rambai stamen stamen can grow up to 15 centimeters and pistillate inflorescences can reach 75 centimeters long.

The characteristic of the leaves is long. Thus, it is suitable for roof design on this project to protect and provide as a sun shading.

RAMBAI LEAVES

The leaf veins in derived to the roof design on the building to create an aesthetic value. It is function as skylight for natural sunlight to light up interior spaces.

DESIGN DEVELOPEMENT

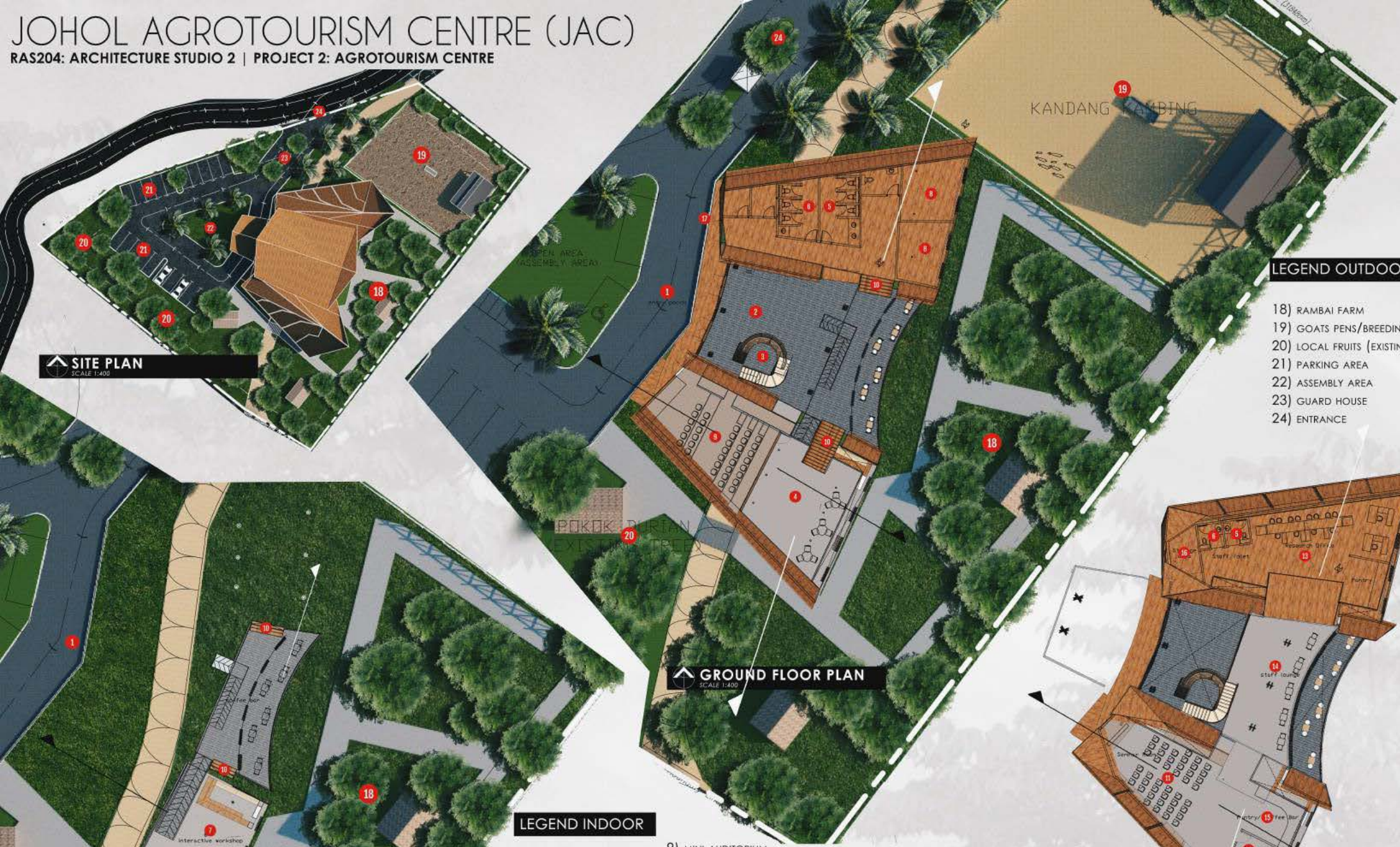


SITE ZONING

HAZIQ BIN ABD GHANI | **135355** | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT

JOHOL AGROTOURISM CENTRE (JAC)

RAS204: ARCHITECTURE STUDIO 2 | PROJECT 2: AGROTOURISM CENTRE



LEGEND OUTDOOR

18) RAMBAI FARM
19) GOATS PENS/BREEDING
20) LOCAL FRUITS (EXISTING)
21) PARKING AREA
22) ASSEMBLY AREA
23) GUARD HOUSE
24) ENTRANCE

LEGEND INDOOR

1) DROP OFF AREA/PORCH
2) ENTRY LOBBY
3) RECEPTION AREA
4) DISPLAY/ EXHIBIT AREA
5) FEMALE TOILET
6) MALE TOILET
7) INTERACTIVE WORKSHOP
8) COMMERCIAL LOTS
9) MINI AUDITORIUM
10) STAIRS
11) SEMINAR ROOM
12) MEETING ROOM
13) RESEARCH OFFICES
14) STAFF LOUNGE
15) COFFEE BAR
16) STORAGE ROOM
17) LOADING/UNLOADING

HAZIQ BIN ABD GHANI | **135355** | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT

JOHOL AGROTOURISM CENTRE (JAC)

RAS204: ARCHITECTURE STUDIO 2 | PROJECT 2: AGROTOURISM CENTRE

FRONT ELEVATION
SCALE 1:150

SIDE ELEVATION
SCALE 1:150

SECTION Y-Y
SCALE 1:150

SECTION X-X
SCALE 1:150

PANORAMIC CAFÉTERIA

SEMINAR ROOM SPACE

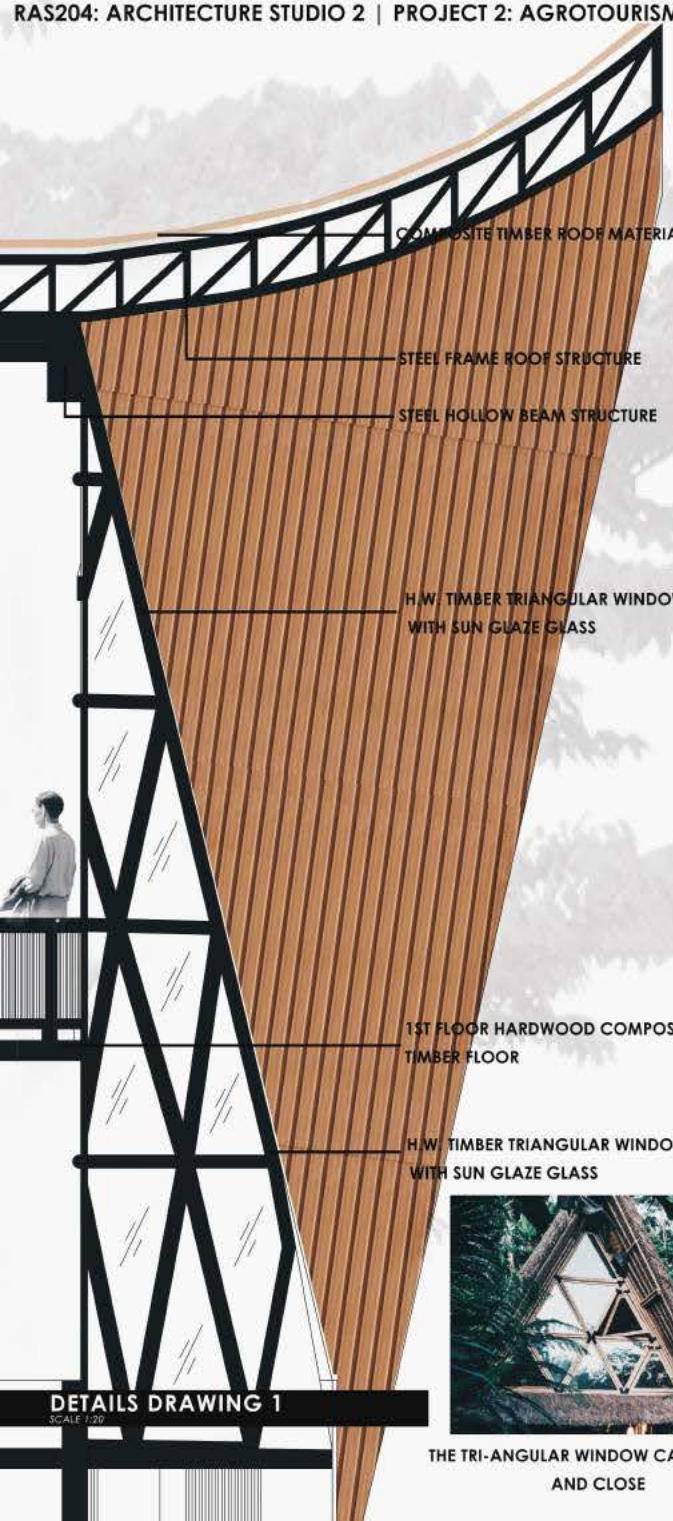
GREEN LANDSCAPE

INTERACTIVE WORKSHOP AREA

HAZIQ BIN ABD GHANI | **135355** | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT

JOHOL AGROTOURISM CENTRE (JAC)

RAS204: ARCHITECTURE STUDIO 2 | PROJECT 2: AGROTOURISM CENTRE



DETAILS DRAWING 1

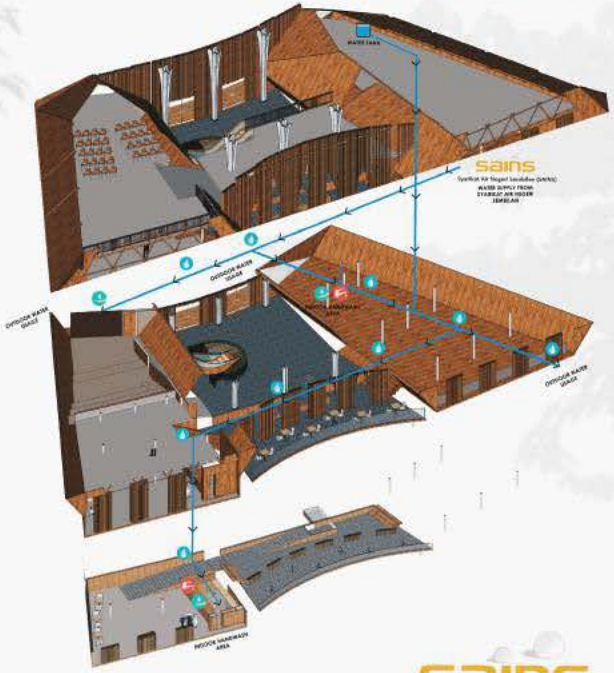
SCALE 1:20

THE TRI-ANGULAR WINDOW CAN BE OPEN AND CLOSE

ELECTRICAL SUPPLY DIAGRAM

NOT TO SCALE

TENAGA NASIONAL



WATER SUPPLY DIAGRAM

NOT TO SCALE

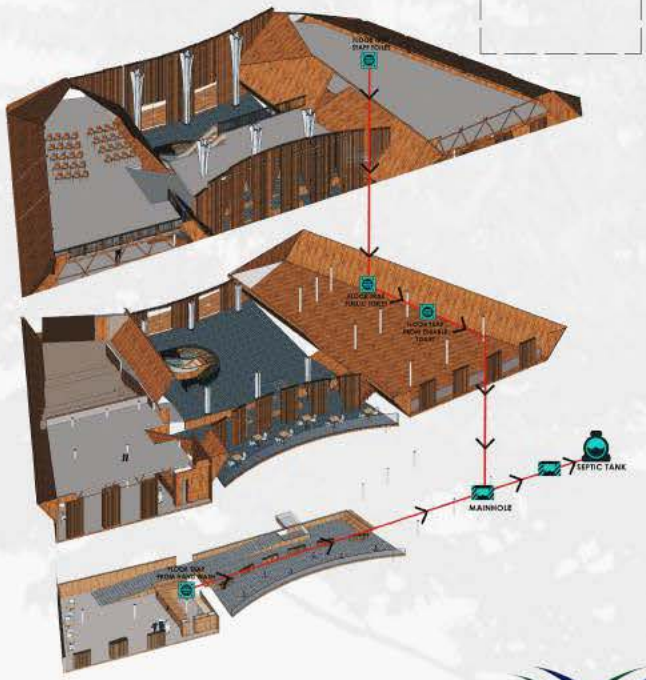
sains

Syarikat Air Negeri Sembilan (SAINS)

ELECTRICAL, WATER SUPPLY & SEWERAGE SCHEMATIC DRAWING

DETAILS DRAWING 2

SCALE 1:20



SEWERAGE DIAGRAM

NOT TO SCALE

IndahWater

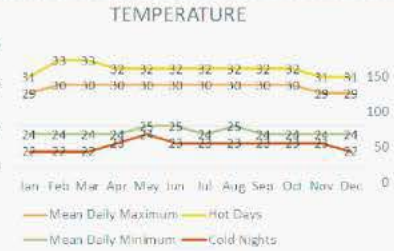
HAZIQ BIN ABD GHANI | **135355** | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT

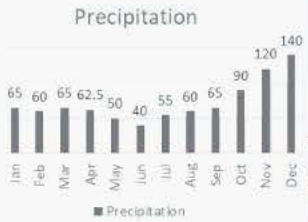
JOHOL AGROTOURISM CENTRE (JAC)

RAS204: ARCHITECTURE STUDIO 2 | PROJECT 2: AGROTOURISM CENTRE

LIGHTING ANALYSIS

This site analysis shown three type of lighting analysis which is at 9.00 am, 12.00 pm & 5.00pm. All three different lighting analysis shown different **shadow casting** towards interior of the building. At **9.00 am**, the sunlight from east side makes the lobby area more brighter than during mid-day. The exterior facade also function as sunshading to block direct sunlight into the building. At **12.00pm**, the interior is more calm with low lighting. At **5.00pm**, the sunlight is refracted into the welcoming area.





HAZIQ BIN ABD GHANI | **135355** | PN AMIRAH BT MOHTARAM & EN REDUAN B. MAHAT