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# ***PROFESSIONAL PORTFOLIO***

*ASAD FAROOQUE*  
*B.ARCH (N.C.A)*

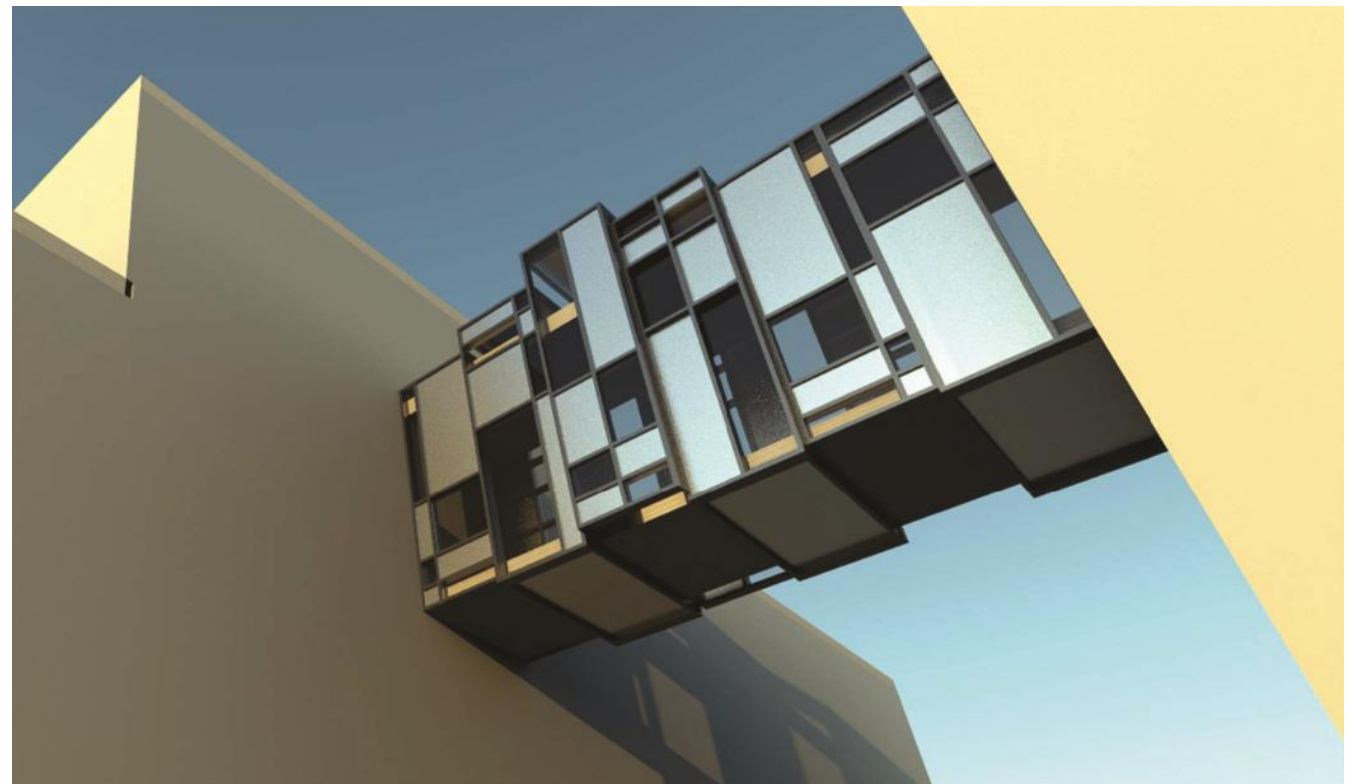
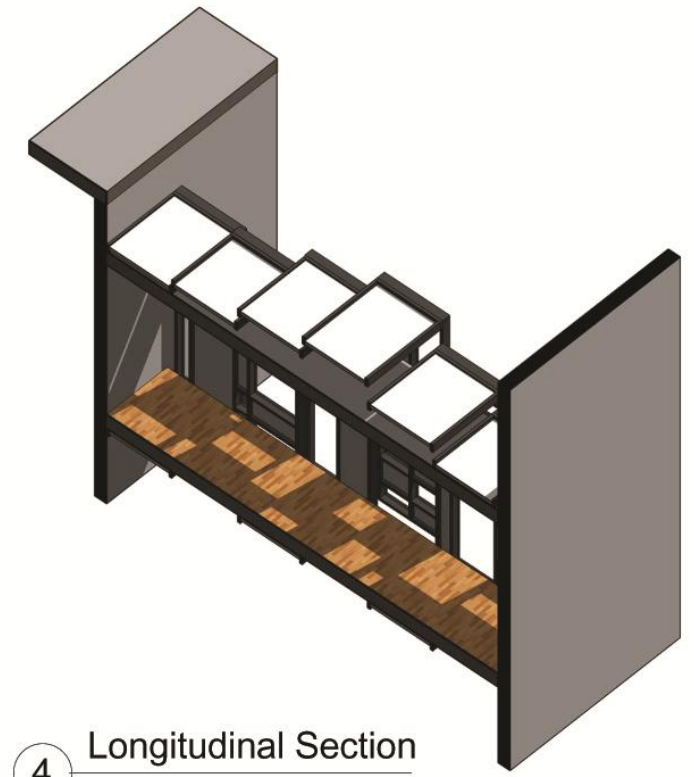
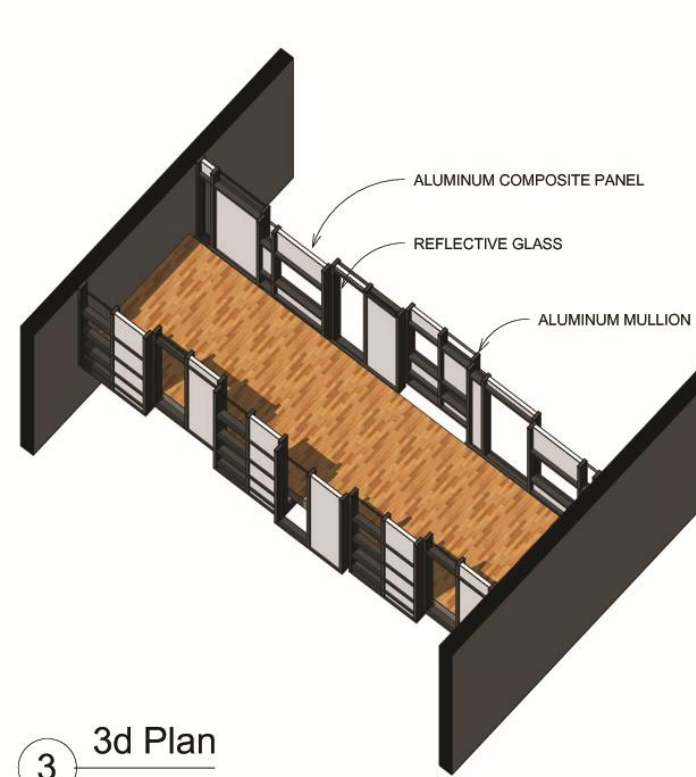
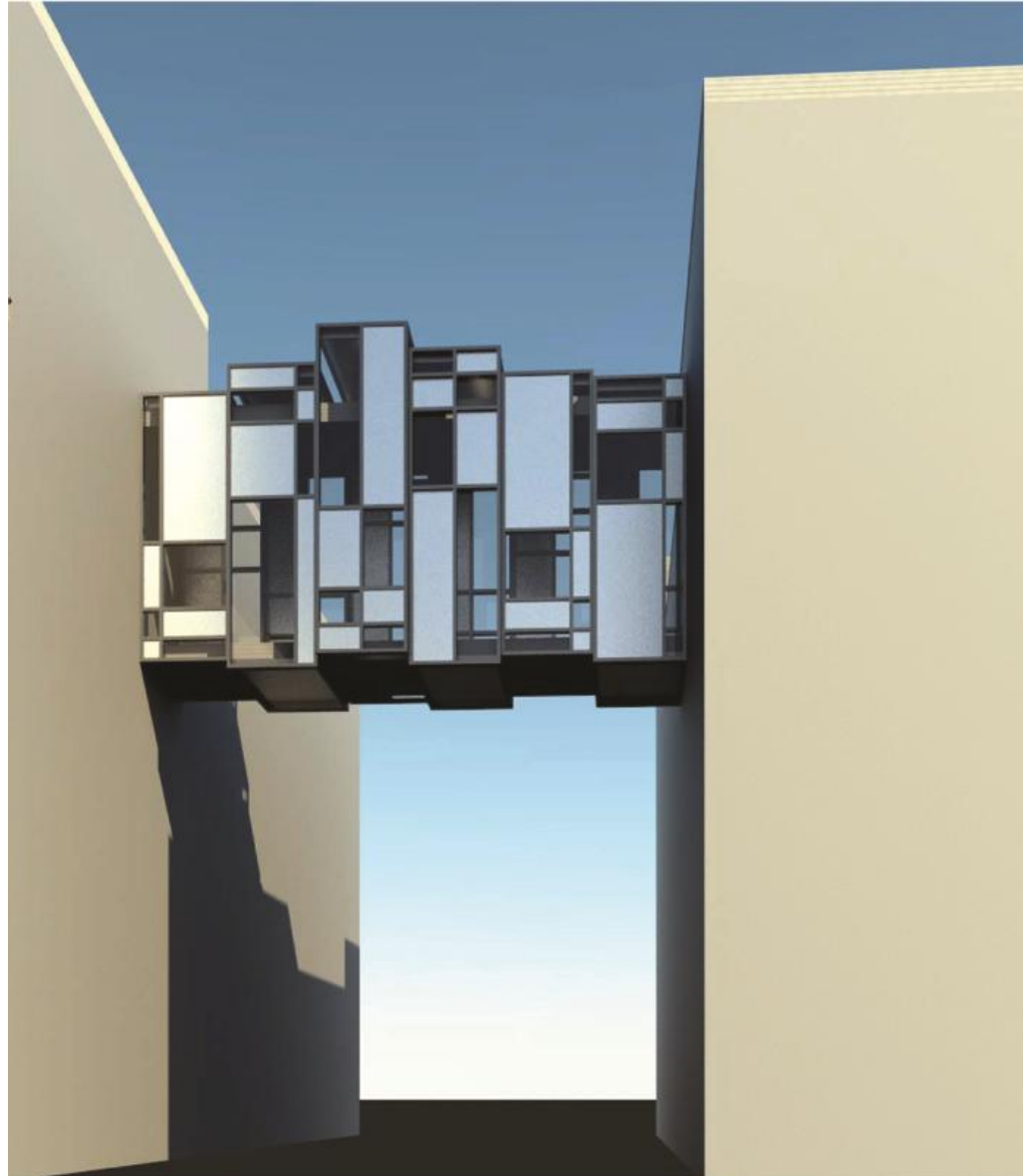
# LEATHER TEX FACTORY, LAHORE.

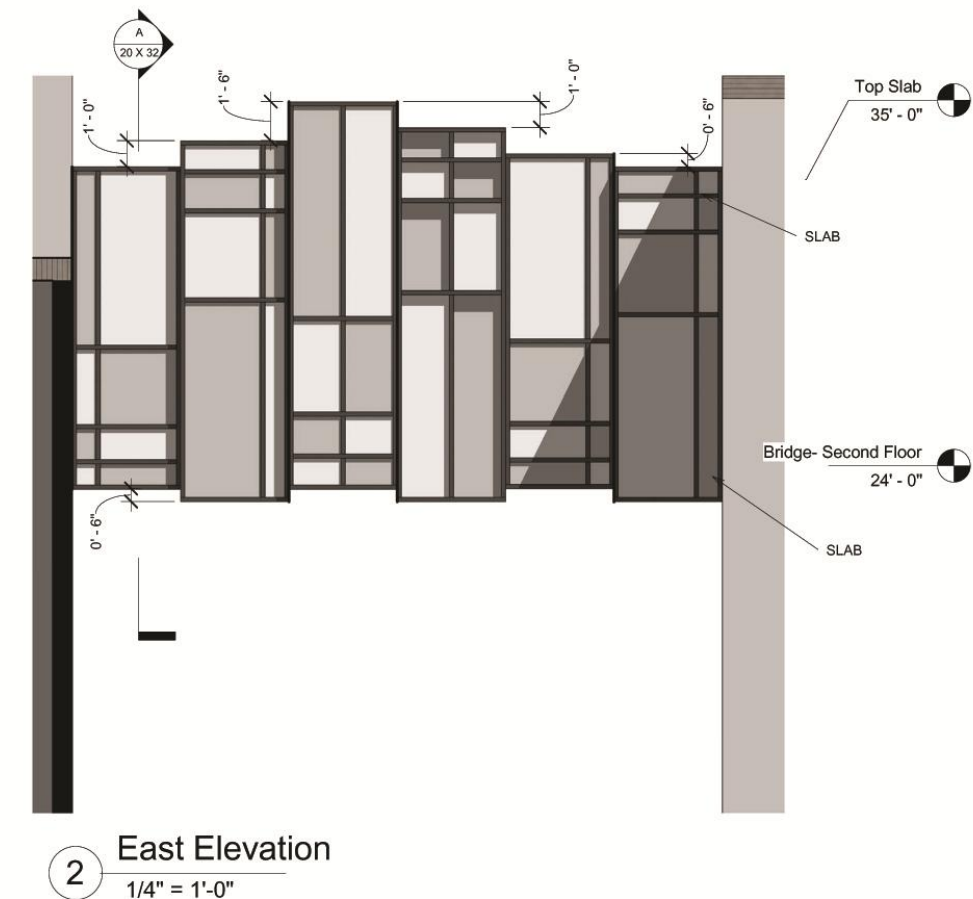
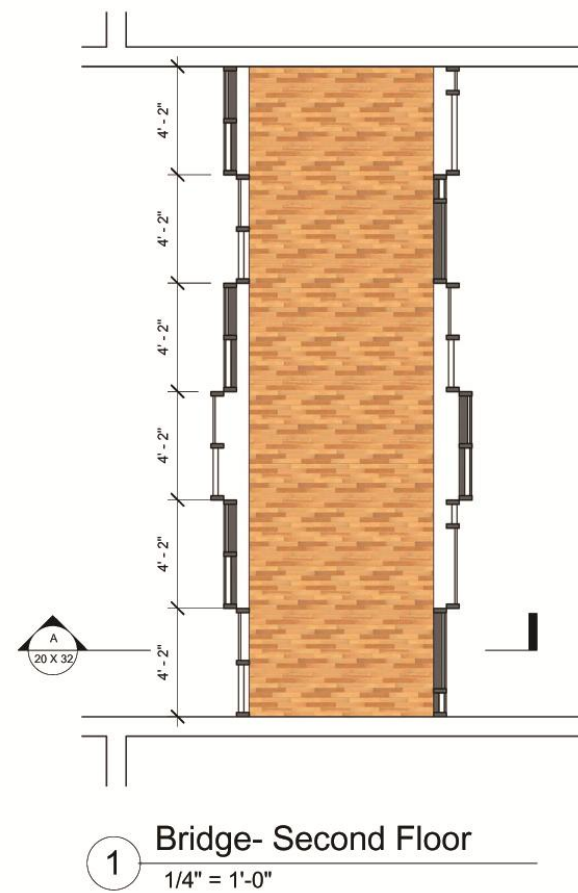
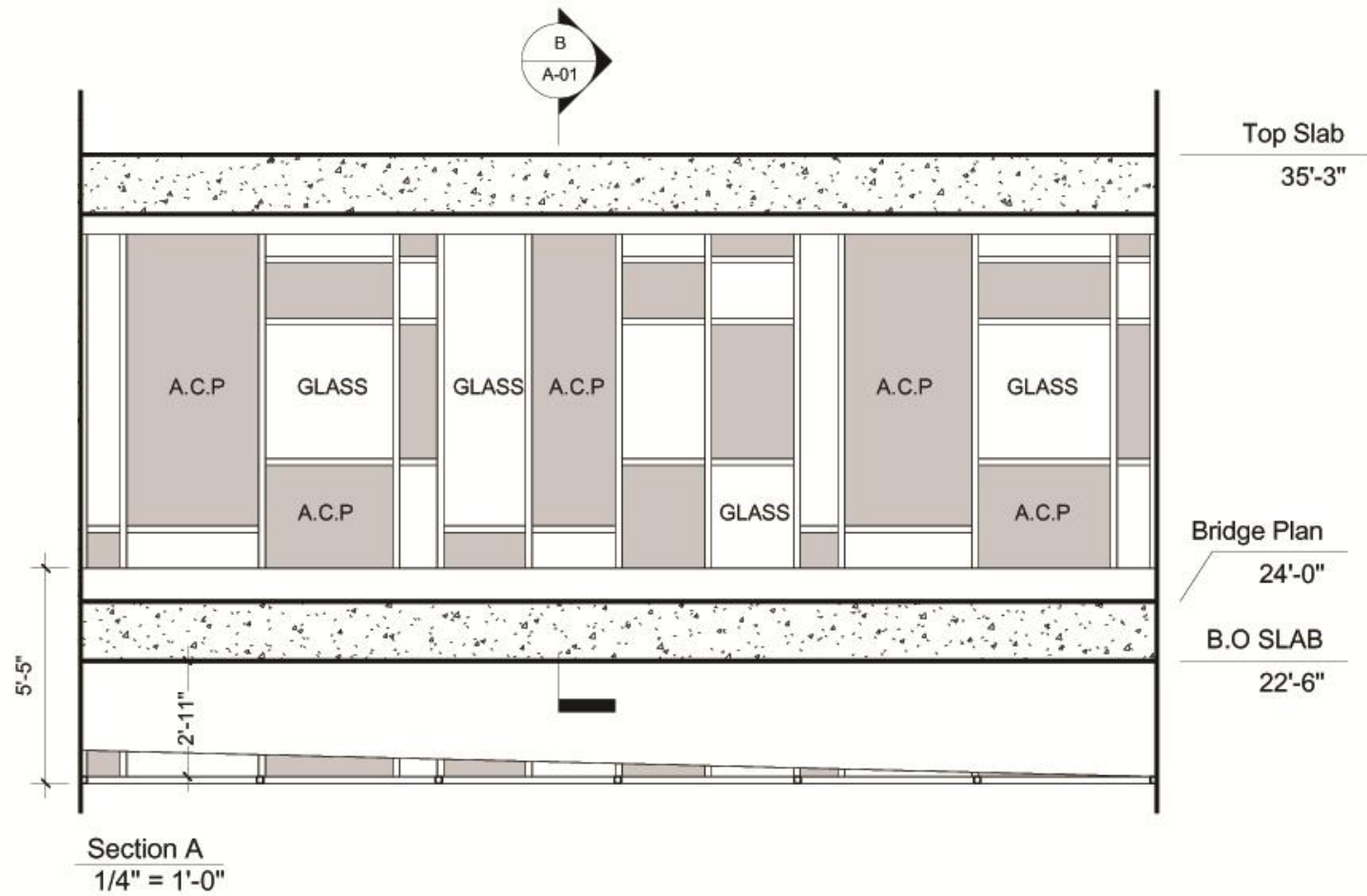
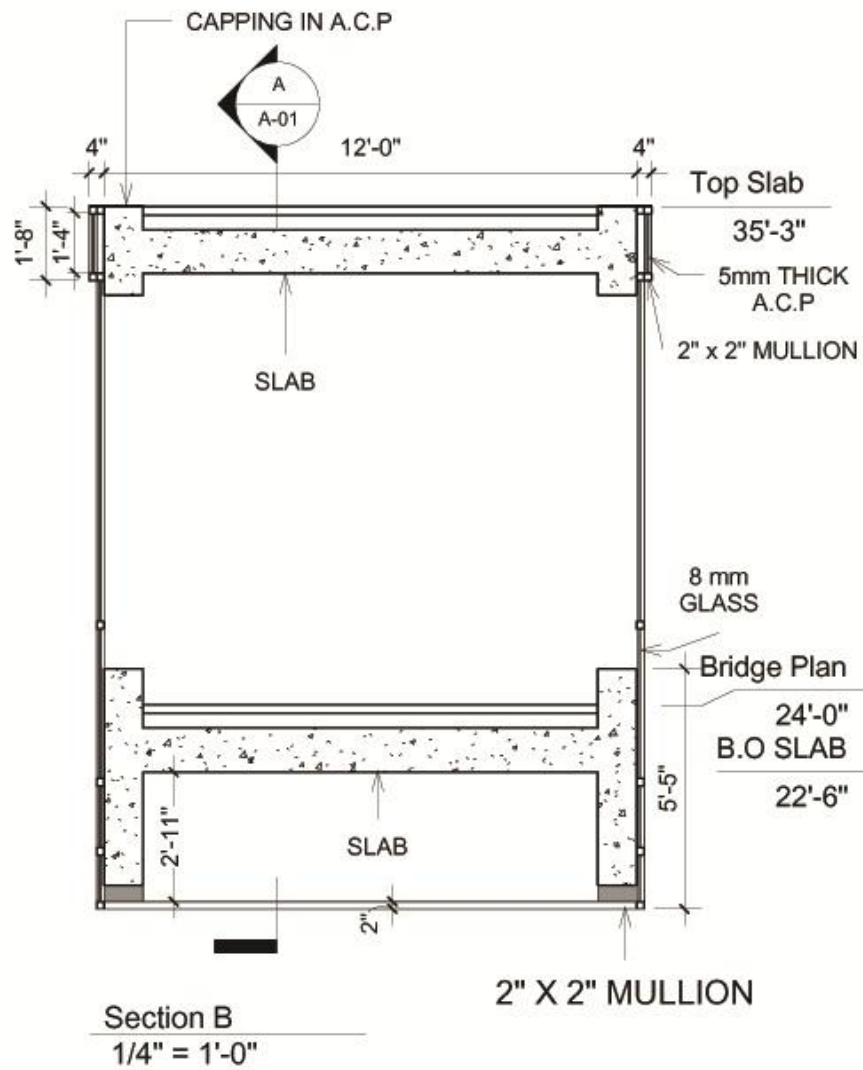
## PEDESTRIAN BRIDGE CONNECTING THE TWO BLOCKS

The glass and aluminum golden proportion bridge squeezes in between two factory blocks, suggesting a continuity of space across. The six modular volumes are characterized by alternate surfaces of glass and A.C.P segmented in golden ratio, visually supporting the adjacent units by compressing against each other.

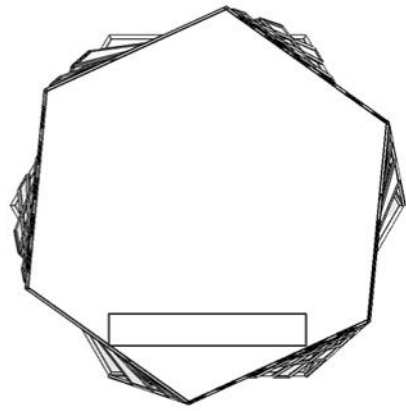
Their wave-like composition in space are reminiscent of their elastic transformation when a lump of clay pressed at both ends ; expanding in the middle , crystallized in space; generating an intriguing sense of movement flow along the journey. The geometric division of volumes reflect the variety of buildings blocks of variable proportion in its vicinity.

Sliding glass panels provide cross ventilation and views towards both sides. At night, the interior glows with LED lights accentuating the interplay of volumes.



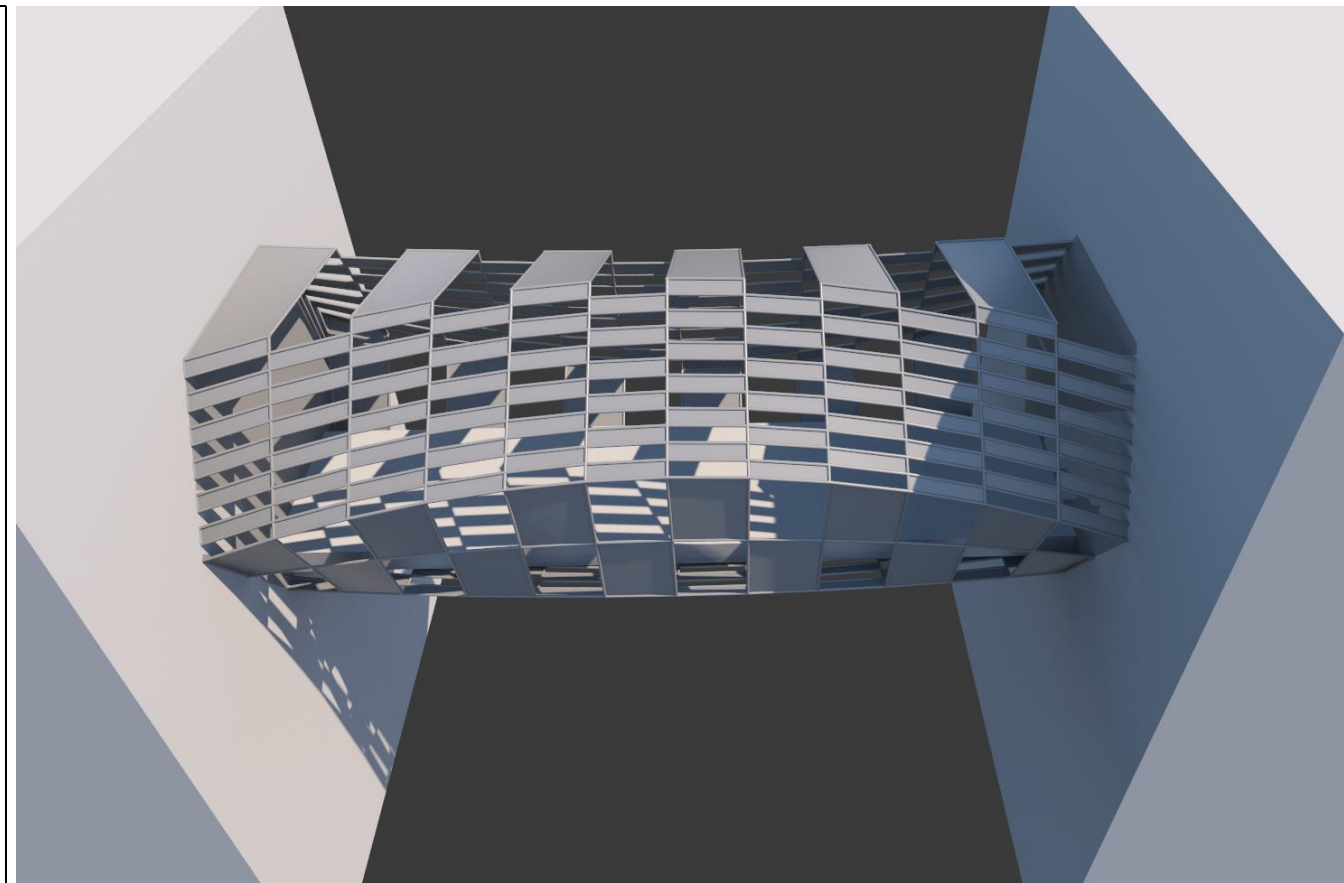
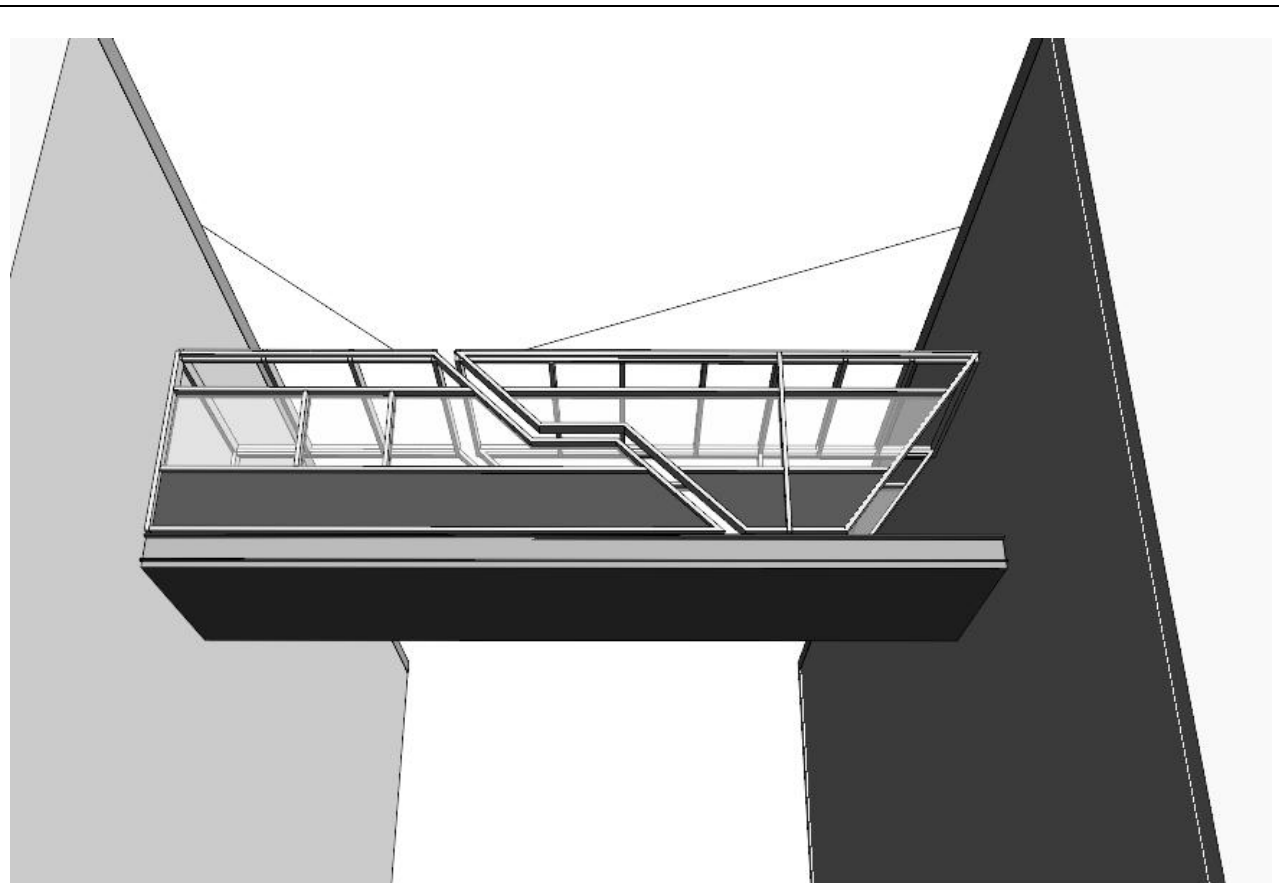
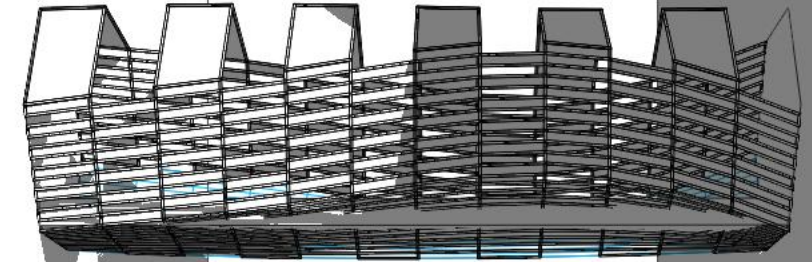
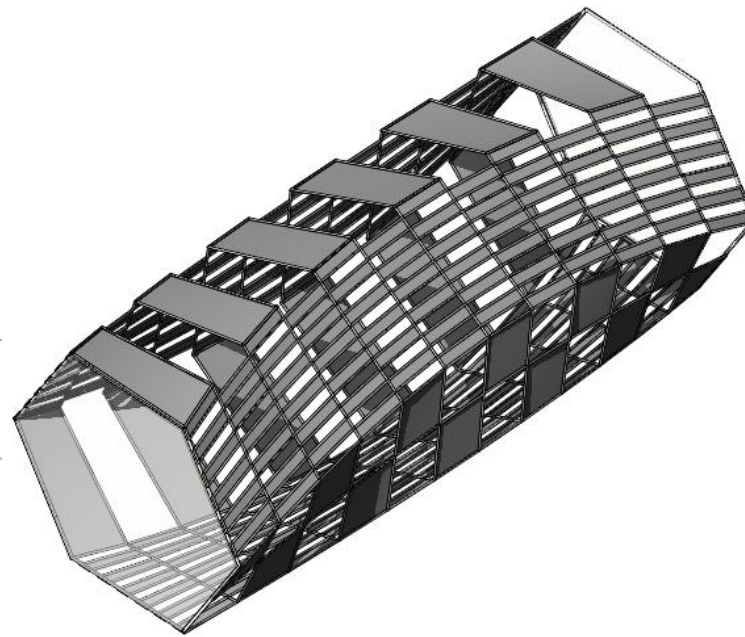






SECTION

Top of Slab  
22' - 5"  
Second Floor  
21' - 2"



Another approach to conceptualize the bridge. Its about capturing a moment or an event in space.

The image above is one of the **preliminary concepts** proposed for the bridge. The form results when several hexagons parallel to each other at regular intervals are rhythmically rotated about their center points.

The idea was dropped for the reason it was going out of the clients budget. Local construction techniques were limited. And special equipment hired for its construction would exponentially increase the investment.



## QADRI GLASS DISPLAY CENTRE, LAHORE.

This was a renovation project located in suburbs of Lahore. The existing building was a rectangular double story grey structure with its openings cut out according to its initial plan. The design challenge was to conceive a new layout for the display of glass artifacts on the ground and first floor as well as a modern exterior façade. This had to be achieved keeping in consideration that no further structure or openings could be made in the existing structure as per local by-laws.

The design concept for the façade was to maximize the building width visually to keep it from its inherent narrow appearance. This was achieved by developing a sense of continuity of extruded volumes overlapping each other; from its longer western side towards its southern face. Embracing the existing openings, the masses give them a new meaning in terms of their organization. Visually the walls and roofs consist of masses that are hung from the central core terminating in cantilevers that provide open-air shelter at ground floor. Parking for cars is provided within the void at the front and the open area along the western side.

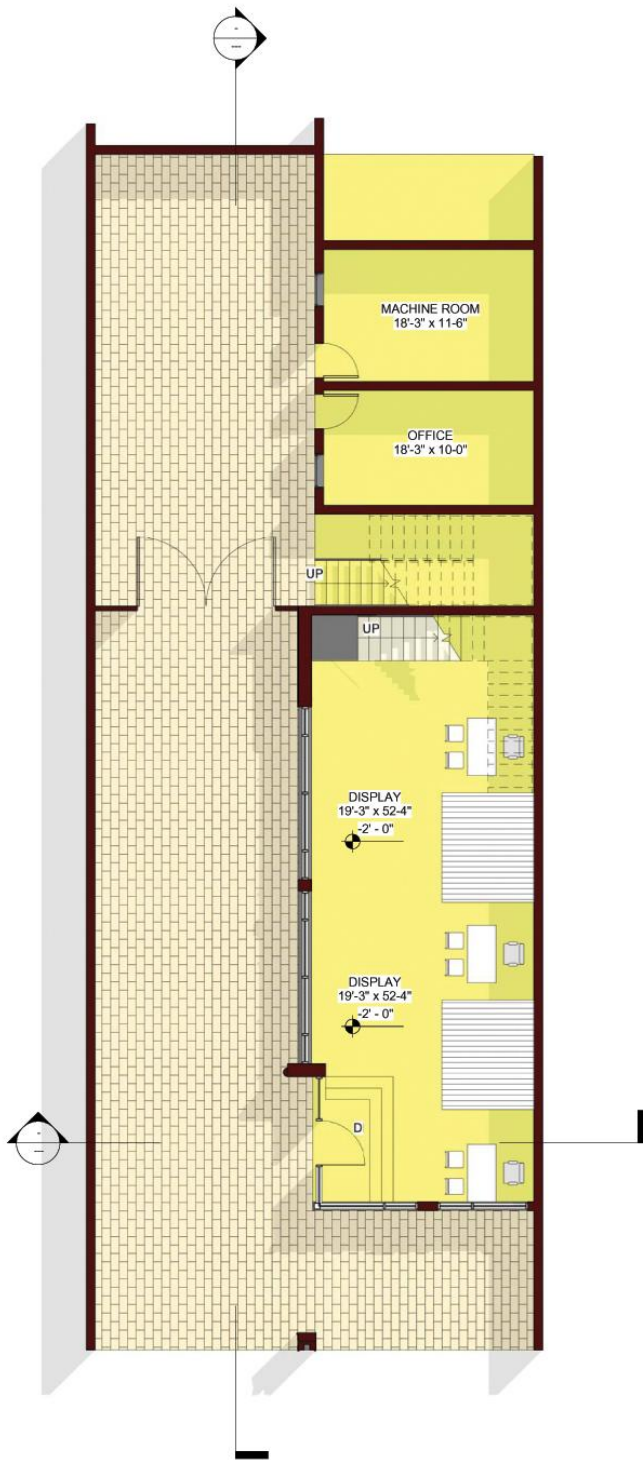




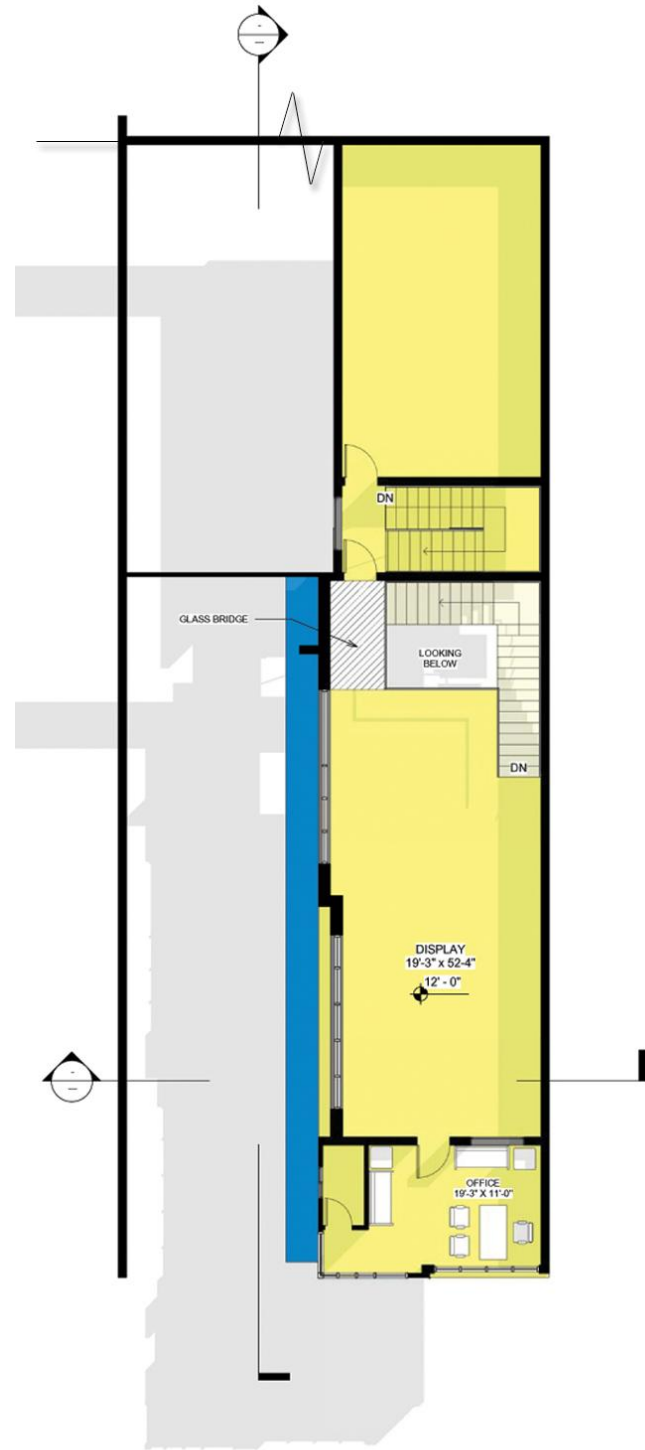
1

Section 1

1/8" = 1'-0"



GROUND FLOOR PLAN



FIRST FLOOR PLAN



# FABCON ENGINEERING FACTORY, LAHORE.

## OFFICE WING, LAHORE

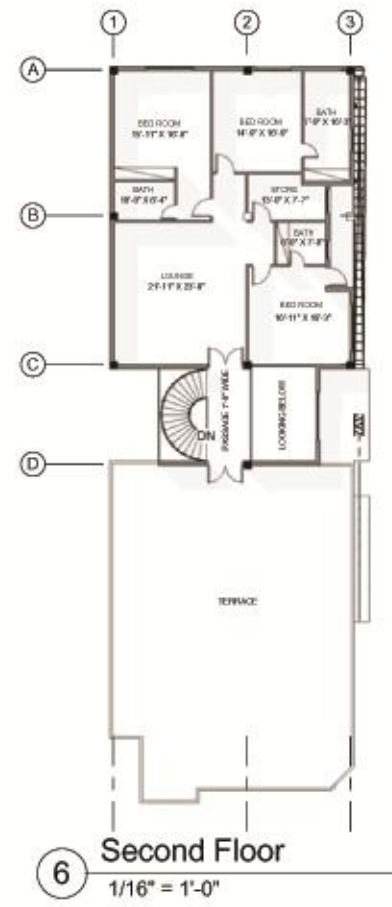
The existing double story structure of Fabcon engineering office block required renovation and expansion, with addition of an extra floor to accommodate new office spaces. This was achieved by redesigning the interior spaces according to the existing regular geometric grids to fulfill the new program and the addition of third story on same reference lines.

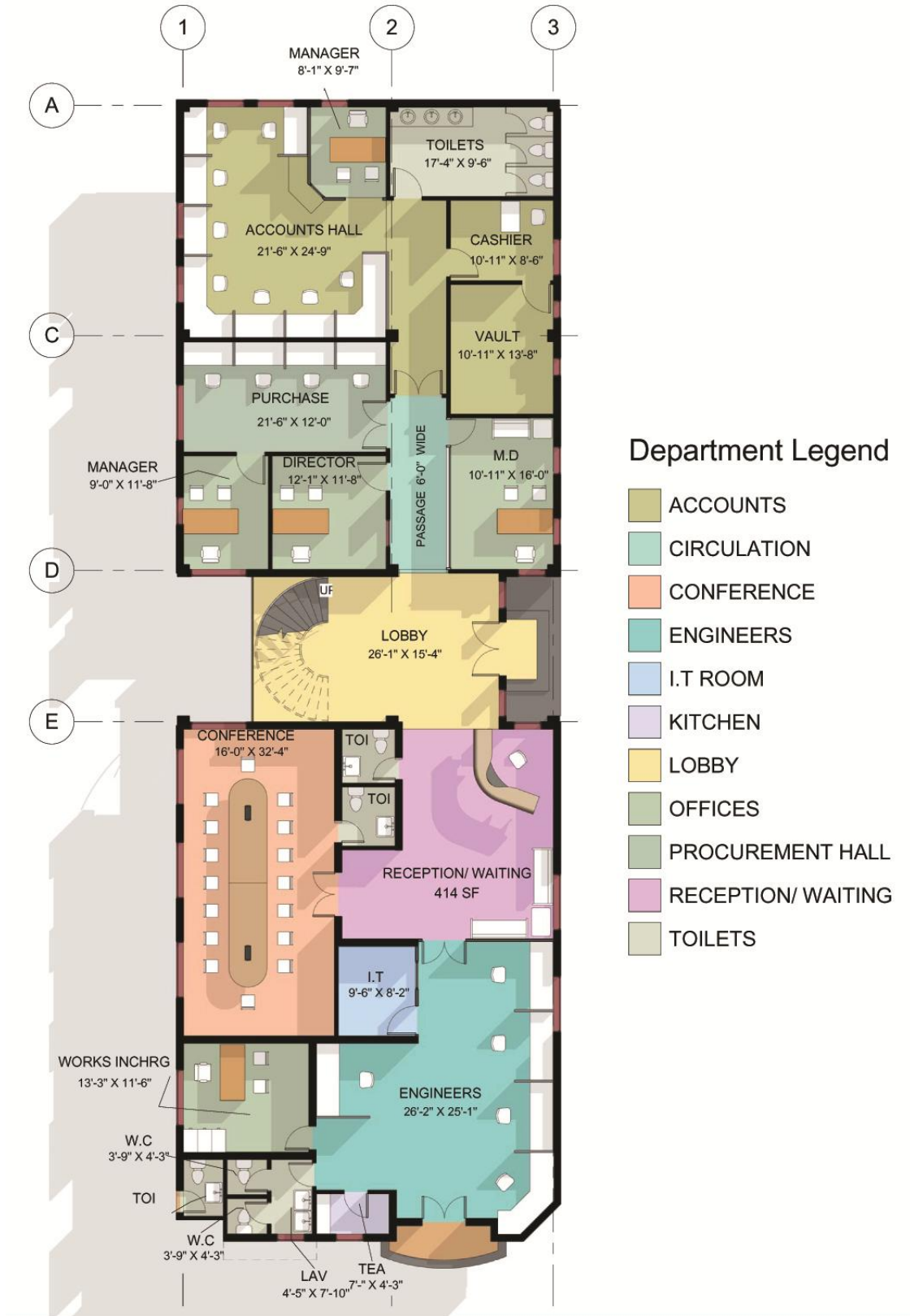
The building is accessible from the main entrance at the east side which opens into a lobby with large circular staircase leading up to the offices on first floor. Another entrance for the staff is provided at its south. The main entrance is accentuated with a mesh of hanging trusses projecting outwards as a shelter over a podium. This frame structure appears to be suspended from a bundle of chords, attached to the middle of an inclined steel frame column; which itself is held in place by steel chords connecting it with a large grey mass protruding out from the façade.

Highlighting itself boldly in terms of skin and bone structure, with exposed standing and decorative trusses, the elevation is done to express the prime functional aspect of Fabcon i.e. structural engineering. To balance this new façade treatment of the building with existing columns, dummy pillars have also been employed to give it a more industrial look.



1 East Elevation  
1 : 170





GROUND FLOOR PLAN



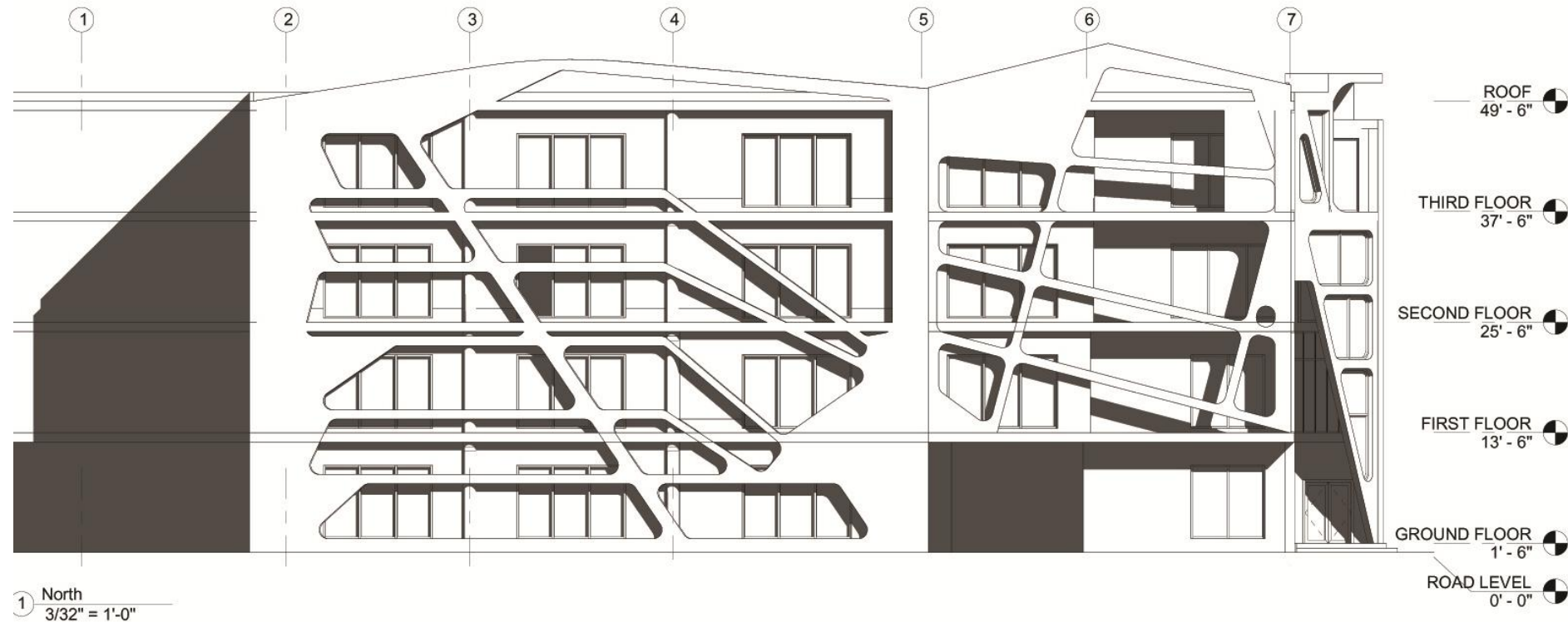
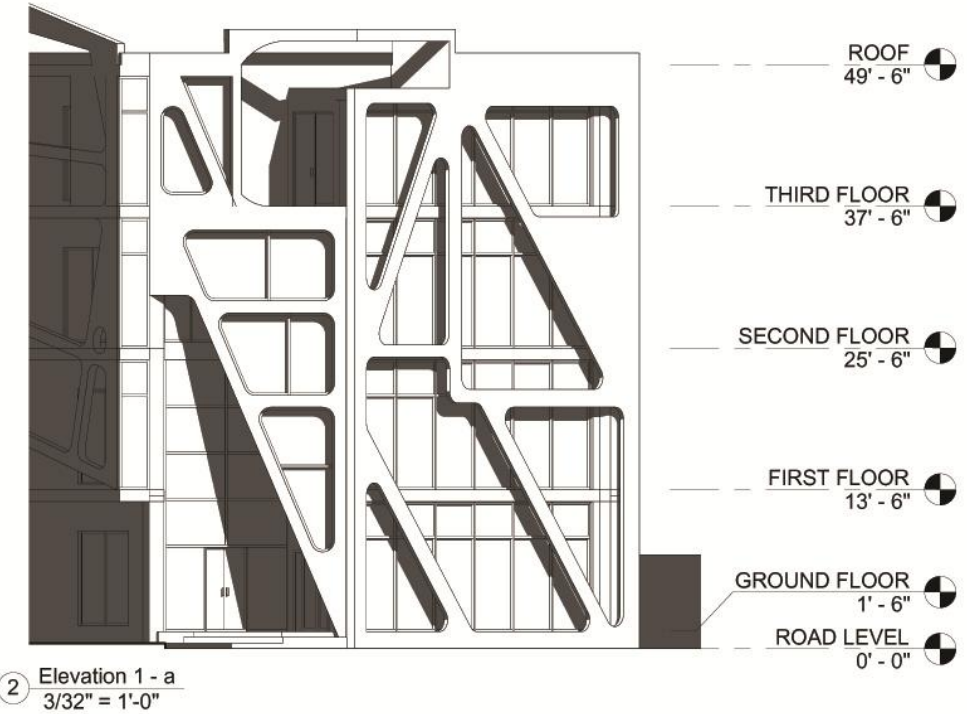
FIRST FLOOR PLAN



# JAWAD ZAHID PLAZA, MALL RD, LHR. CONCEPTUAL PROPOSAL

The plaza stands at a prominent location on the busy mall road of Lahore. Its concrete shell not only is the structure of the building but also creates a skin-like façade open to light, air, and views. This was conceptualized as layers of different materials and quality to reflect varying different architectural expressions throughout the mall road. All four levels serve as offices spaces and the basement is provided for parking.

The openings on the shell are modulated depending on structural requirements, views, sun exposure, and proportion. At night, the space between two adjacent layers is lit with LED lights, emphasizing every individual layer.



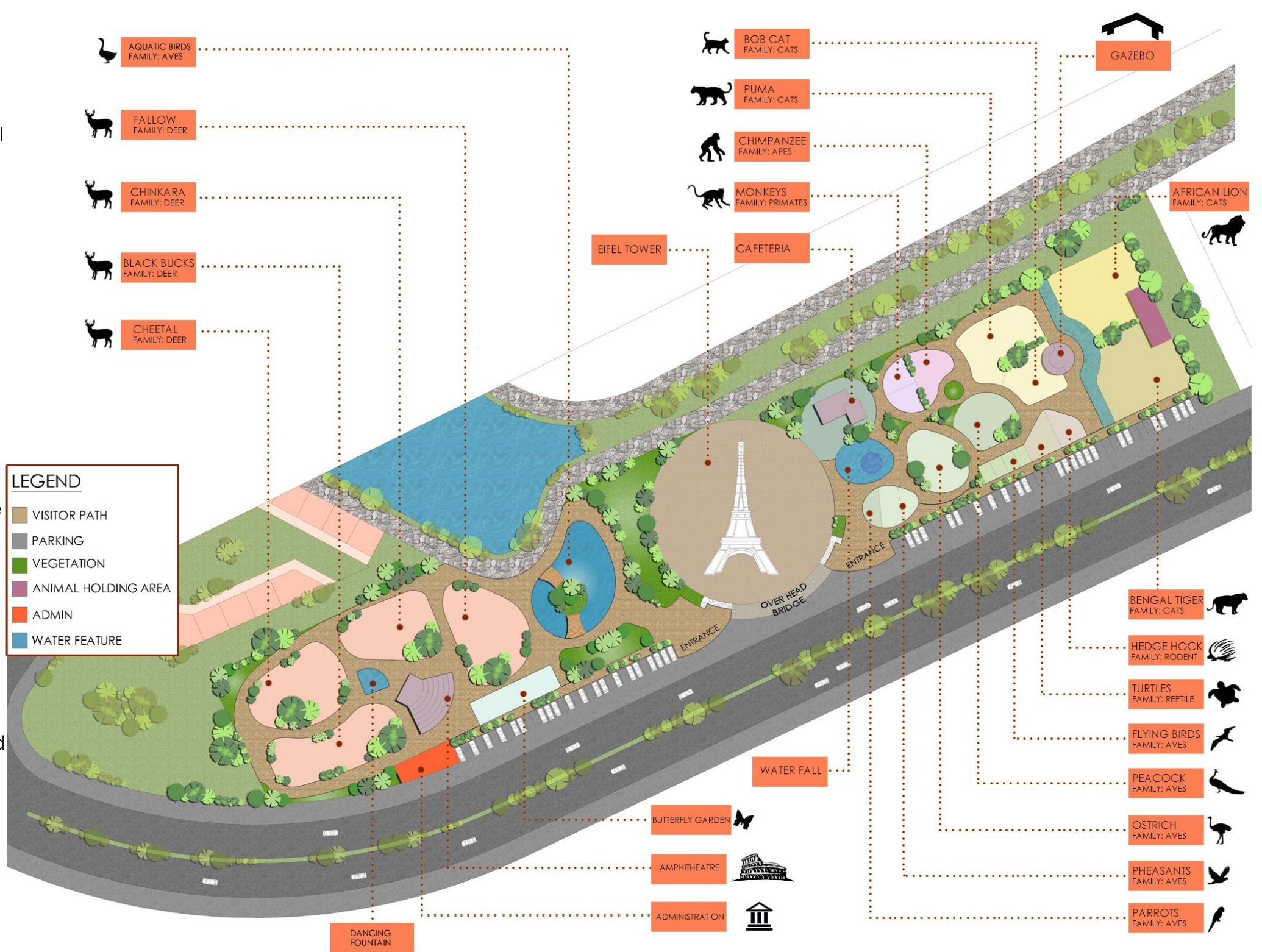


# BAHRIA TOWN, RAWALPINDI ZOO MASTER PLAN.

The zoo is a part of the recreational facilities provided for the newly developing Bahria town in Rawalpindi. The narrow site stretches along the main boulevard that branches into residential blocks further ahead. As desired by the client, a replica of "Eifel tower" is supposed to be located in the middle of this band of land. The monument shall have retail shops, offices and other commercial spaces along its periphery. The northern side is bordered by a green belt that runs along its length and ends into a lake. This lake slightly pokes into the site with a cusp.

Animals of almost all the major types are to be housed in habitats designed specifically for their individual category. Carnivores including the big cats, apes and birds are separated by herbivores and aquatic birds living across the Eifel tower. The two lands are linked by an overhead bridge that spans across the main entrance, along the periphery of the Eifel tower. A cafeteria, an amphitheatre and a butterfly garden are additional attractions that add to the experience of the visitor.

Both the eastern and the western parts are raised at their ends with a comfortable gradient. The lowest level being in the middle where the monument is located and the highest at the opposite ends. To intensify the experience of walking, the land is raised at variable levels with steps of various organic curves. The passage with a minimum-

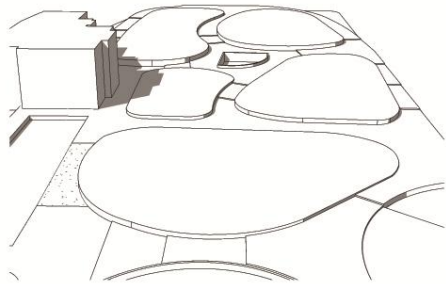


um width of 10 feet flows freely through and around different spaces, creating a sense of curiosity and exploration for the visitor. Lions and Tigers are held at the highest level, conceived as a reward at the climax of the journey

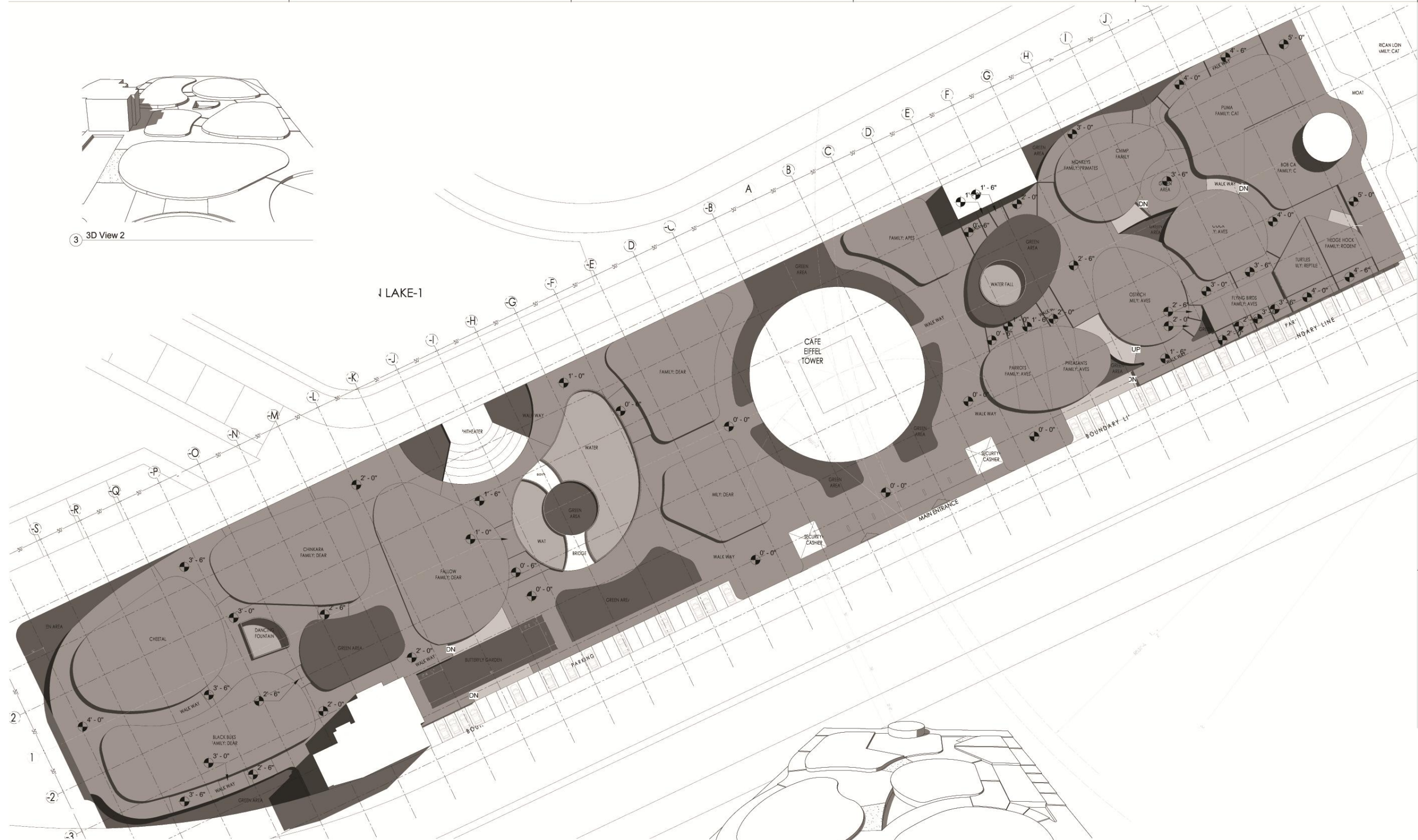
on the eastern side. Speaking of habitats, the entire layout of spaces and pathways has been designed to give it the most natural and wild look. The barrier between the observer and the animal is very subtle visually. Steel fences have

been replaced with bamboos and logs. Where moats are provided, adequate vegetation and natural boulders are used to disguise their sharp edges. Routes allow the observer to view animal at a distant as well as an intimate level.

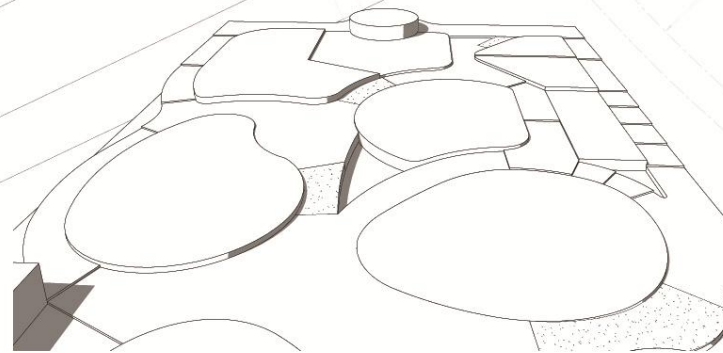




3 3D View 2

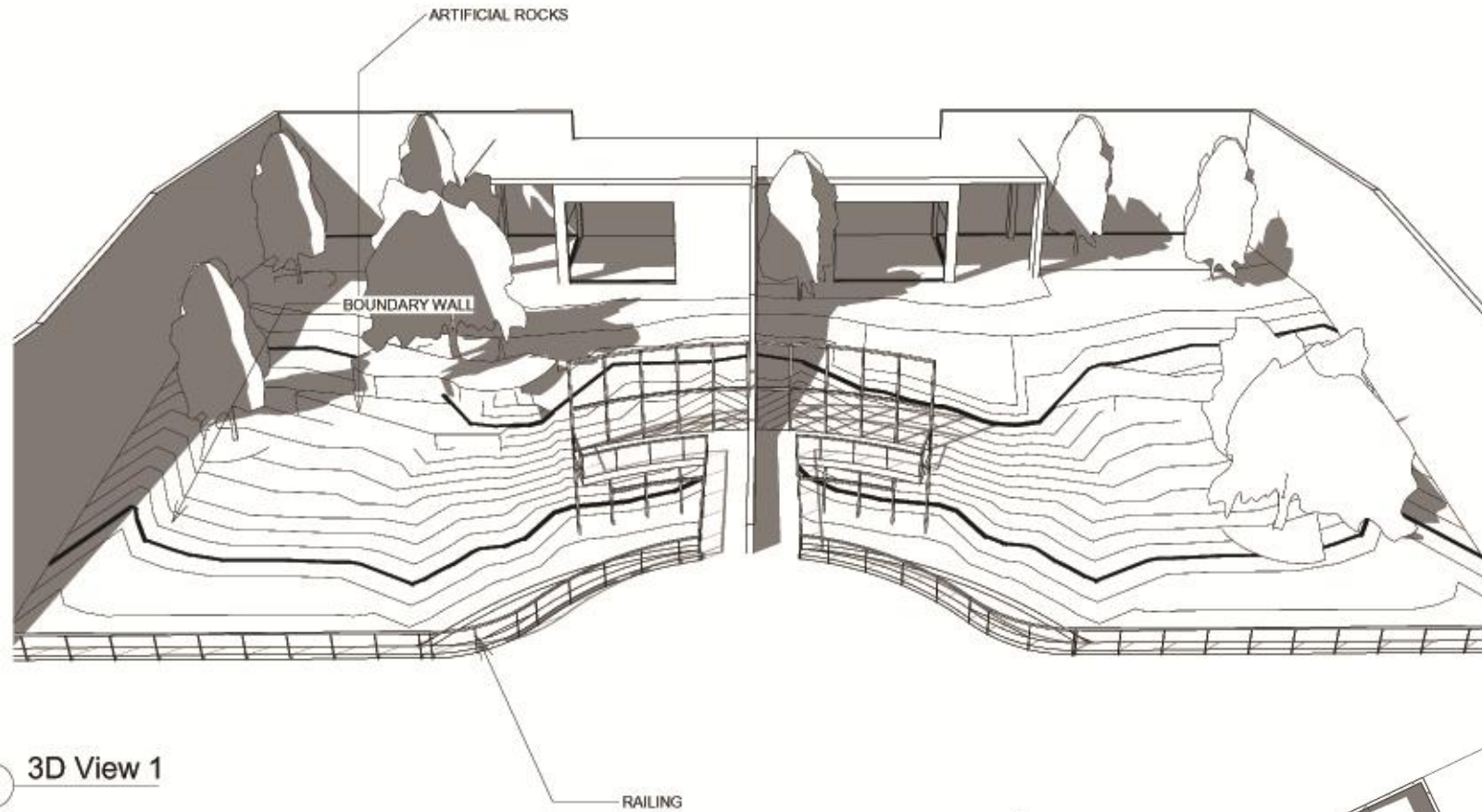


1 Site  
1: 410



2 3D View 1

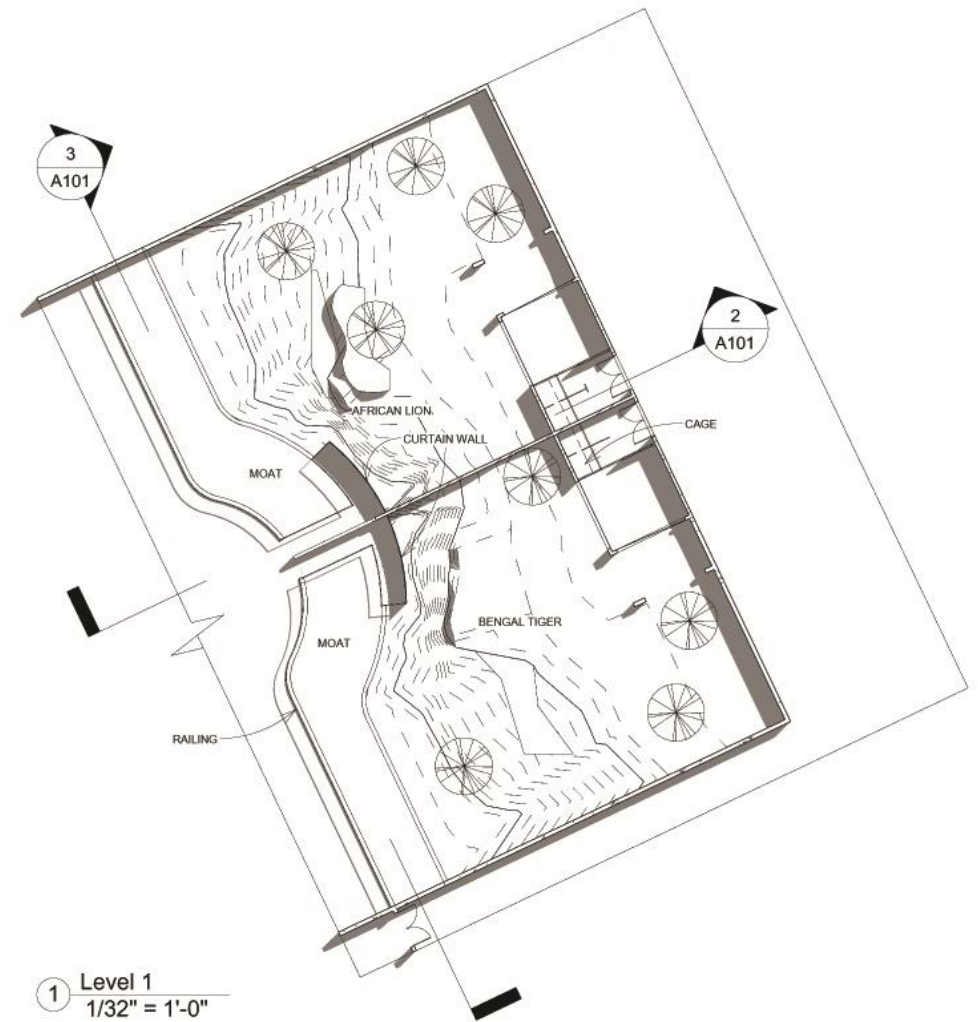




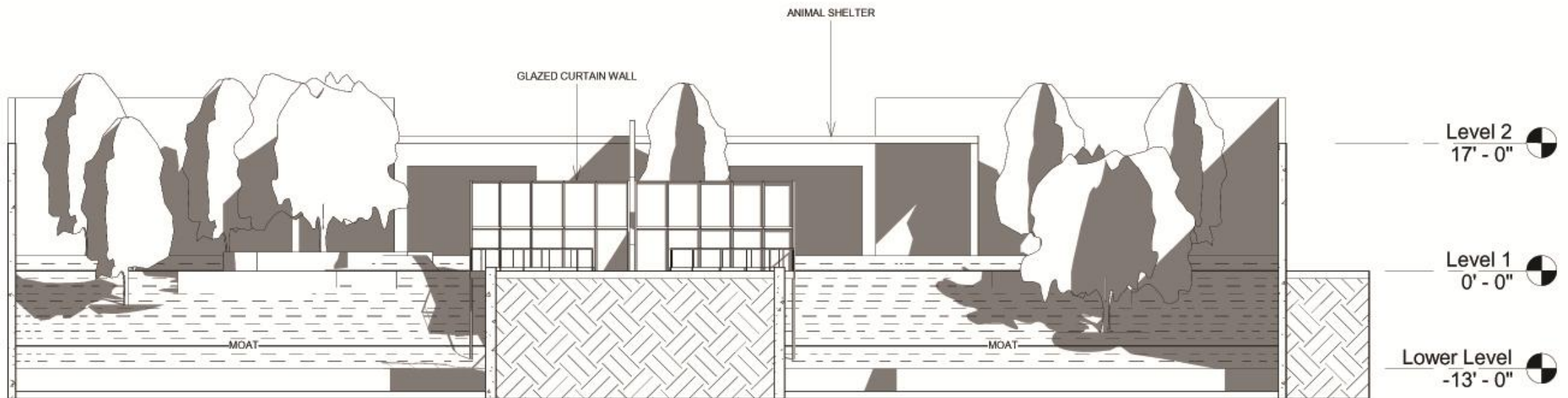
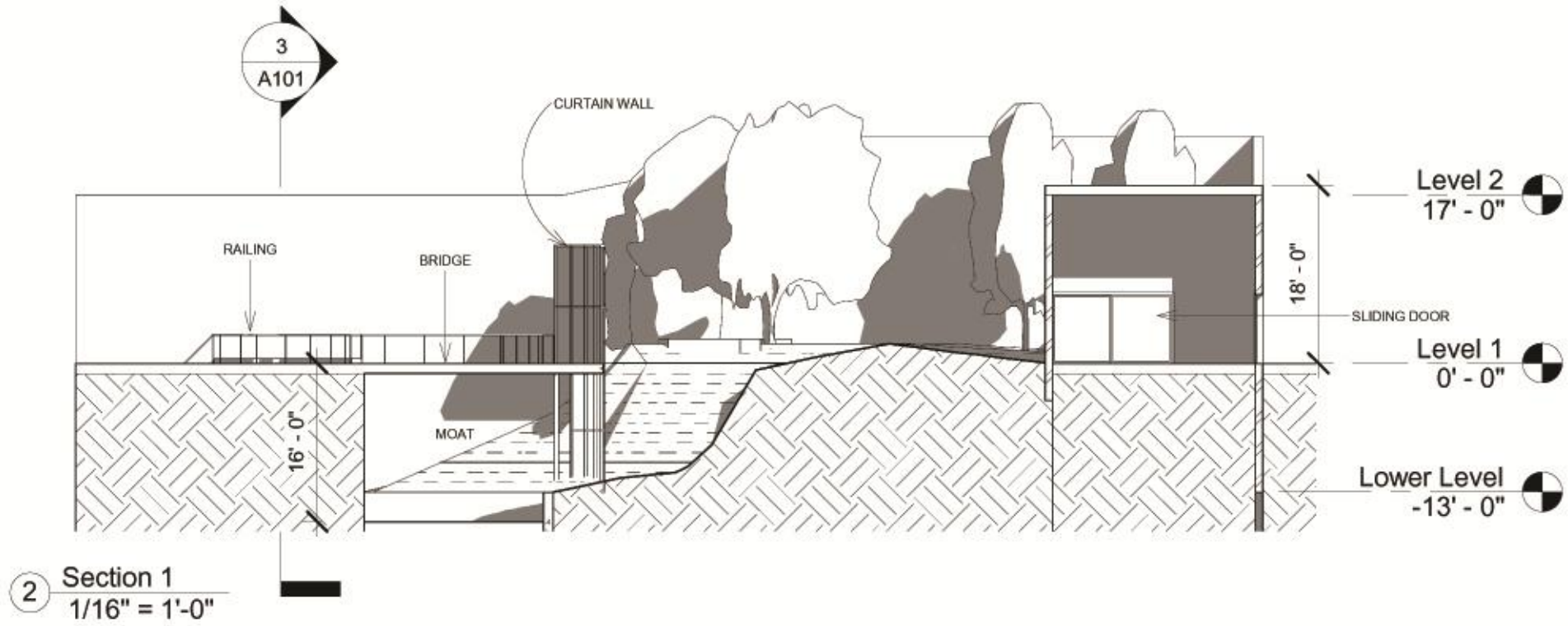
2 3D View 1



3 Sectional 3D







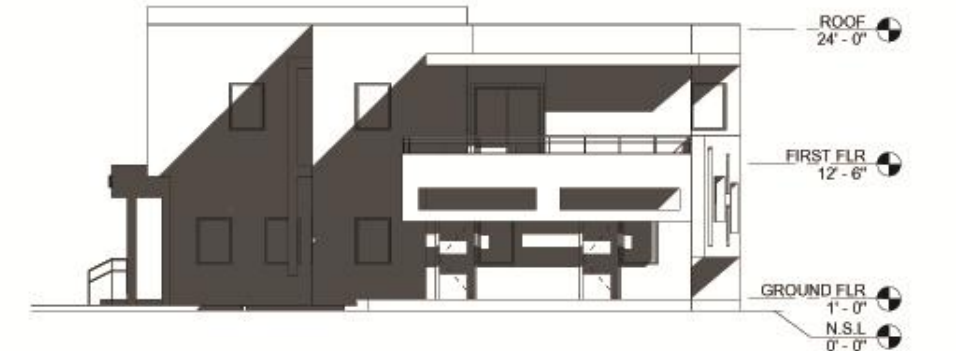
3 Section 2  
1/16" = 1'-0"



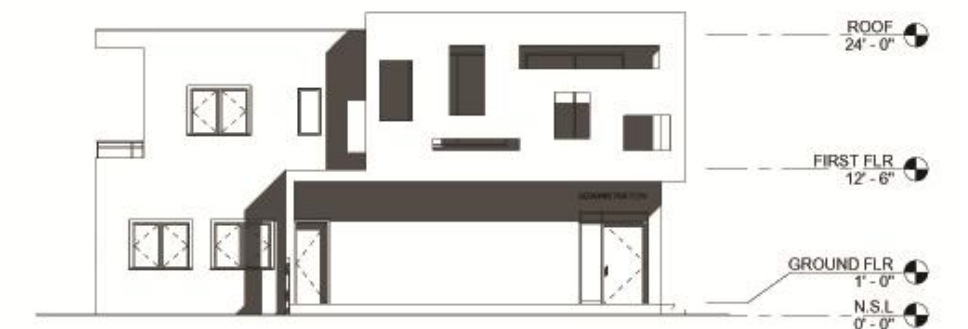
NORTH WEST PERSPECTIVE



① NORTH ELEVATION  
1/8" = 1'-0"



④ WEST ELEVATION  
1/8" = 1'-0"



③ EAST ELEVATION  
1/8" = 1'-0"



NORTH EAST PERSPECTIVE

## BAHRIA TOWN, RAWALPINDI ANIMAL CLINIC

The animal clinic capable of providing emergency, medical and surgical treatment for the zoo animals, sits on the boundary of the site as a free standing structure. Examination bays, O.T along with support facilities, drug store and staff lounge are located on the ground floor. The first floor comprises of zoo administration offices and a large hall for accounts. This floor is connected to the ground floor through a stair case with a separate entrance for staff. Public toilets on the eastern side are accessible from the outside.

The form was conceptualized from the understanding of diversity of living things in the wild. It exhibits the complexity of life systems being in harmony with each other. The screen walls with punctures are not mathematically modulated, yet they convey a sense of higher order which we call a chaos. A chaos which is in perfect harmony with itself but yet intangible. Large windows allows plenty of natural light filtering through the punctured screen walls. The juxtaposition of different volumes show that different systems with different codes combine together to form an organism.

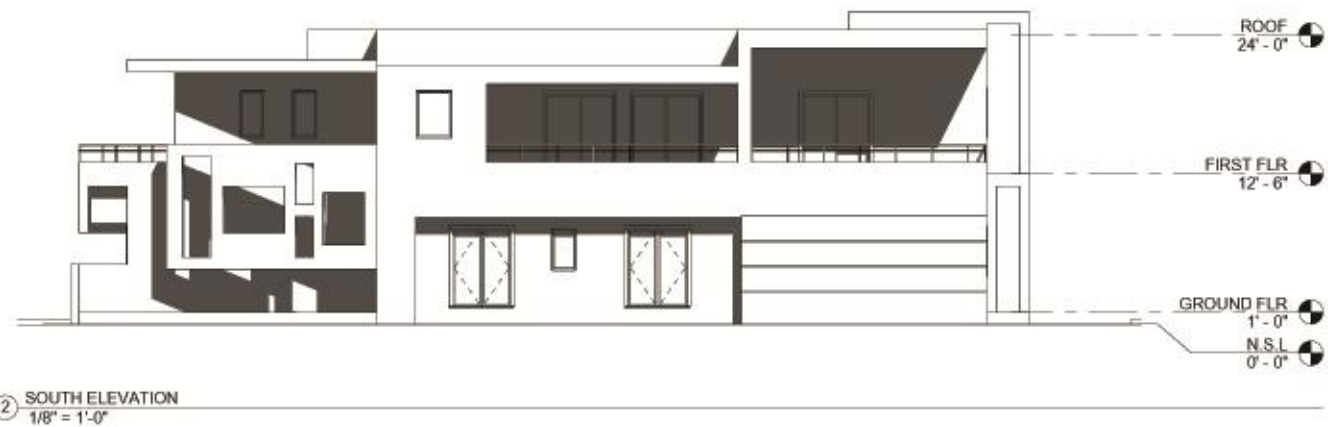




VIEW TOWARDS NORTH ELEVATION



VIEW TOWARDS SOUTH ELEVATION

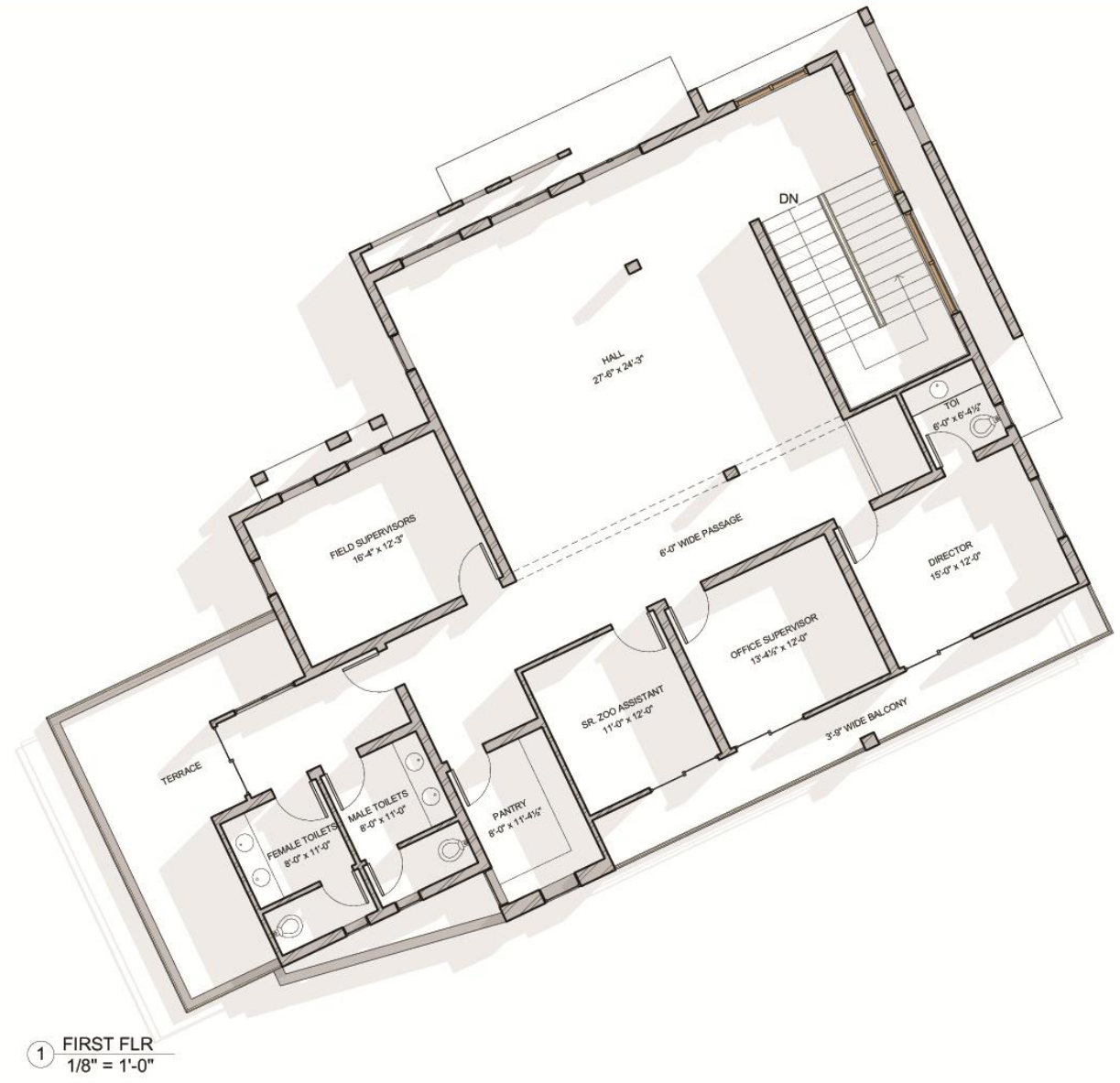


SOUTH WEST PERSPECTIVE





1 GROUND FLR  
1/8" = 1'-0"



1 FIRST FLR  
1/8" = 1'-0"

# ZESAN'S RESIDENCE

## LAYOUT AND ELEVATION

The 4500 sft site, accommodates a building which attempts to enrich its context and express the areas local traditional problems by pushing the limits architecturally.

The "goggle eyed" windows of the first and second floor look onto the terraces and down on the lawn. The distinction between the walls, floors and ceilings are blurred. The first floor roof stretches out to become a shade over the window beneath. The side wall with horizontal louvers of concrete, cast wandering shadow on the front wall.

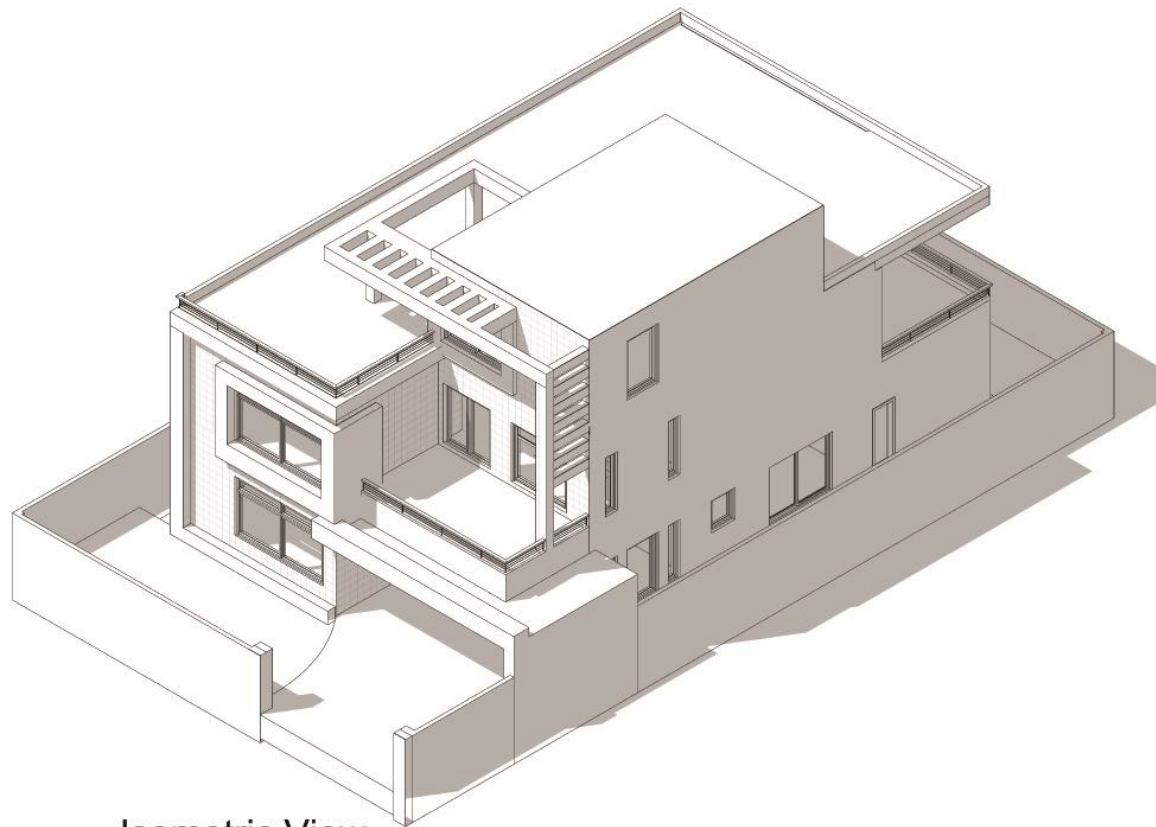
The protruded masses around windows and the extension of walls and roofs, juxtapose with the rough finished concrete.



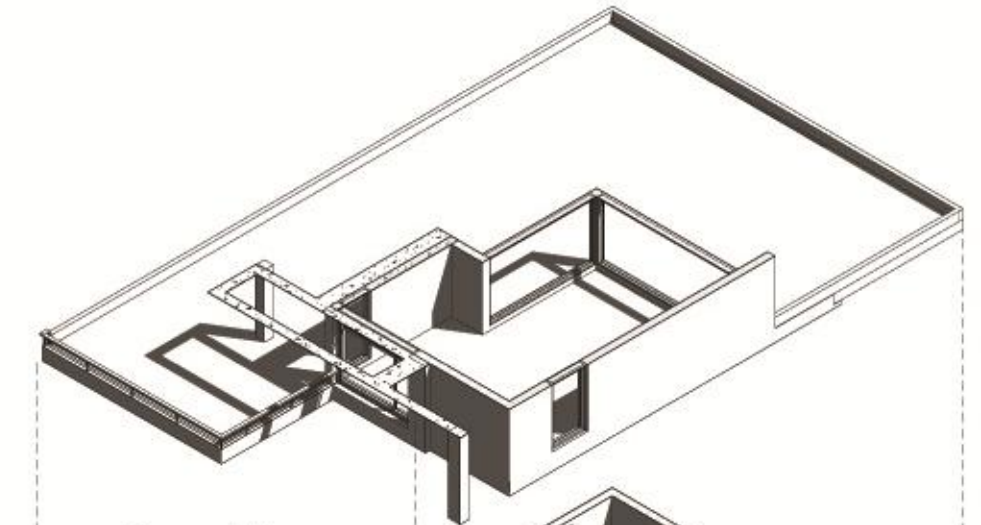
### South Perspective



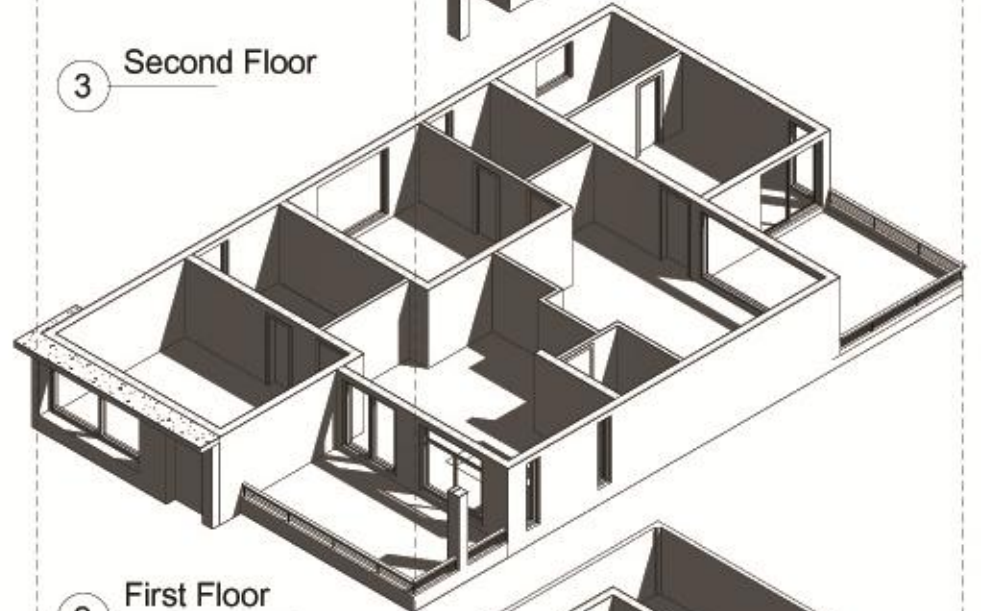




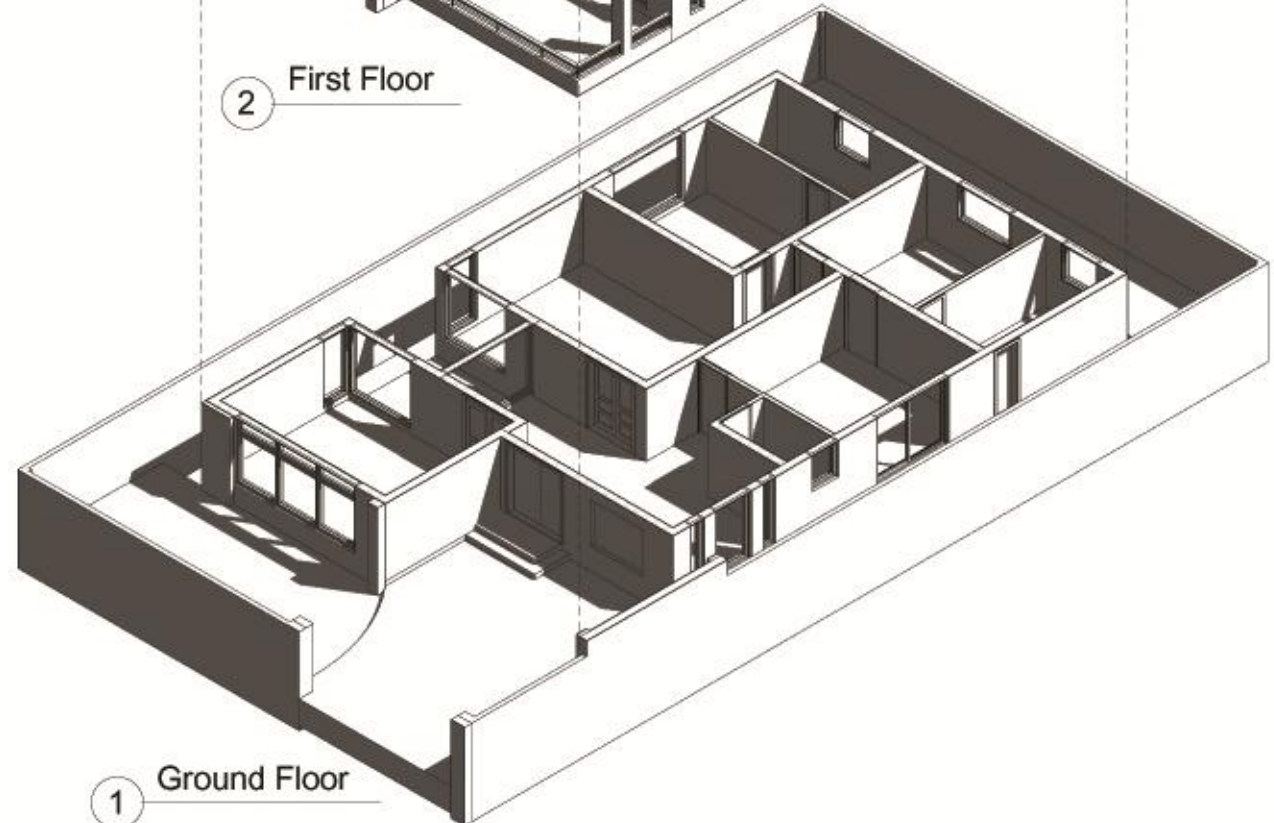
1 Isometric View



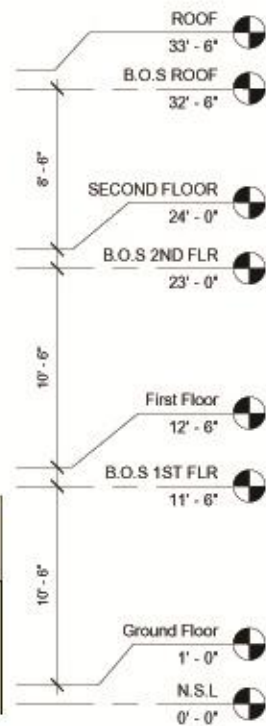
3 Second Floor



2 First Floor



1 Ground Floor



4 South Elevation  
3/16" = 1'-0"

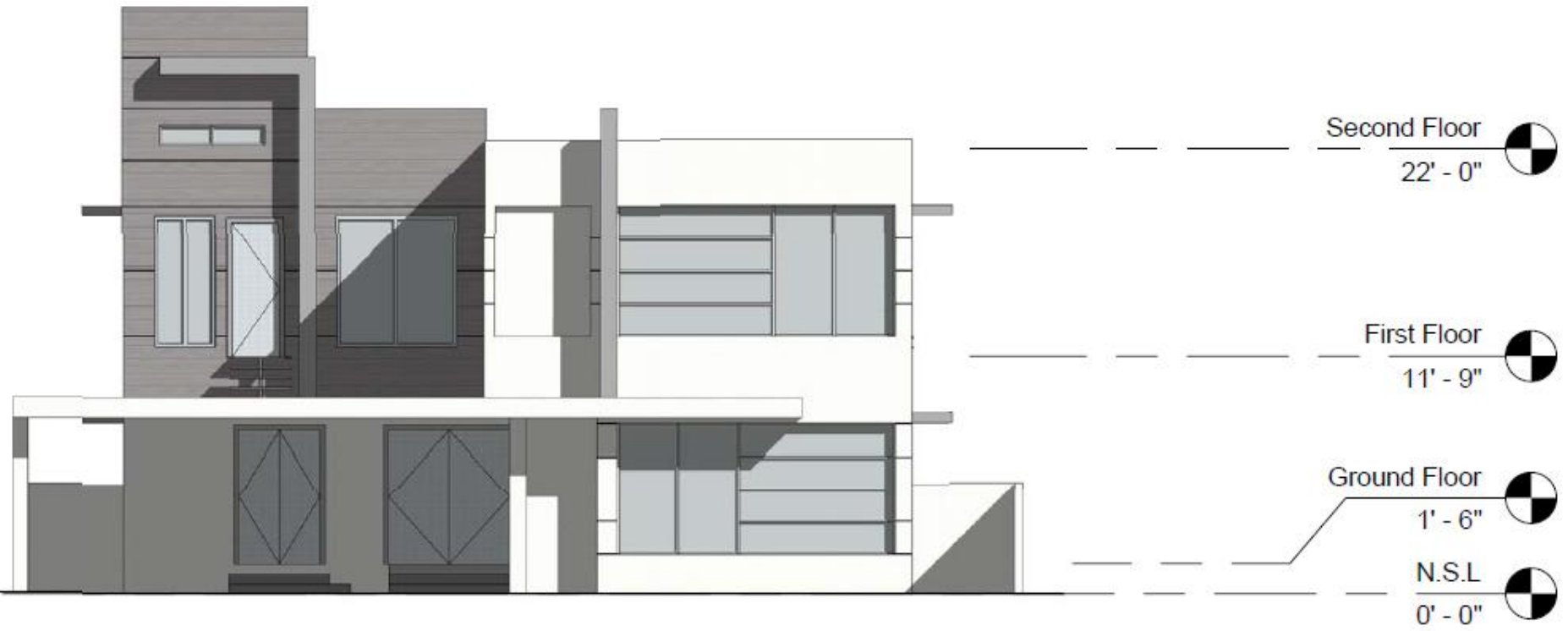


**582-B, D.H.A**  
*LAYOUT AND ELEVATION*

The façade of the house was proposed on modern and traditional lines.

The modern house is a play of volumes and planes in all three dimensions with kind of surgical clean surfaces. Solid volumes are interrupted by vertical walls which extend beyond the roof to give the whole building a different meaning.

The traditional house on the next slide is designed keeping the strict symmetrical and proportional rules. The windows with arched lintels are arranged symmetrically on the front. The pitched roof is reminiscent of the Spanish residential buildings, embracing the clients desire.



1 South Elevation  
1/8" = 1'-0"





SOUTH ELEVATION

Roof Level 2  
29' - 6"

Roof Level  
21' - 6"

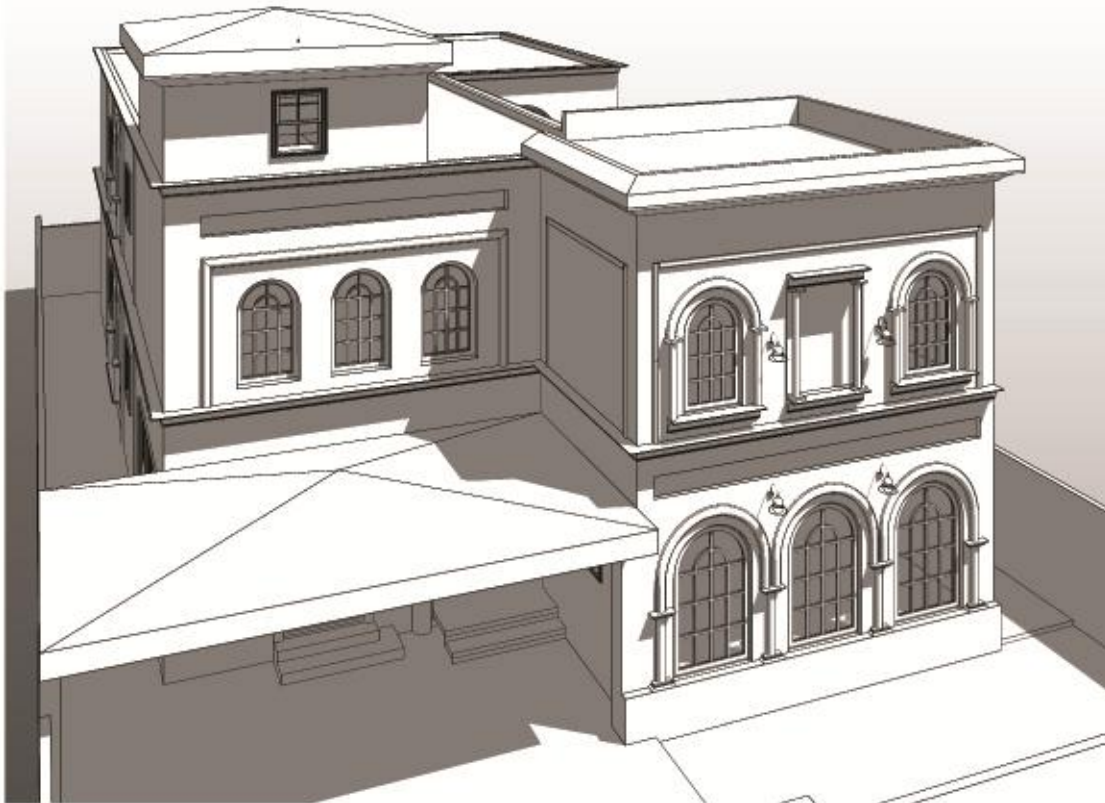
First Flr  
11' - 3"

Ground Flr  
0' - 0"

N.S.L  
-1' - 6"



FRONT PERSPECTIVE VIEW



BIRDS EYE VIEW



SOUTH WEST PERSPECTIVE VIEW



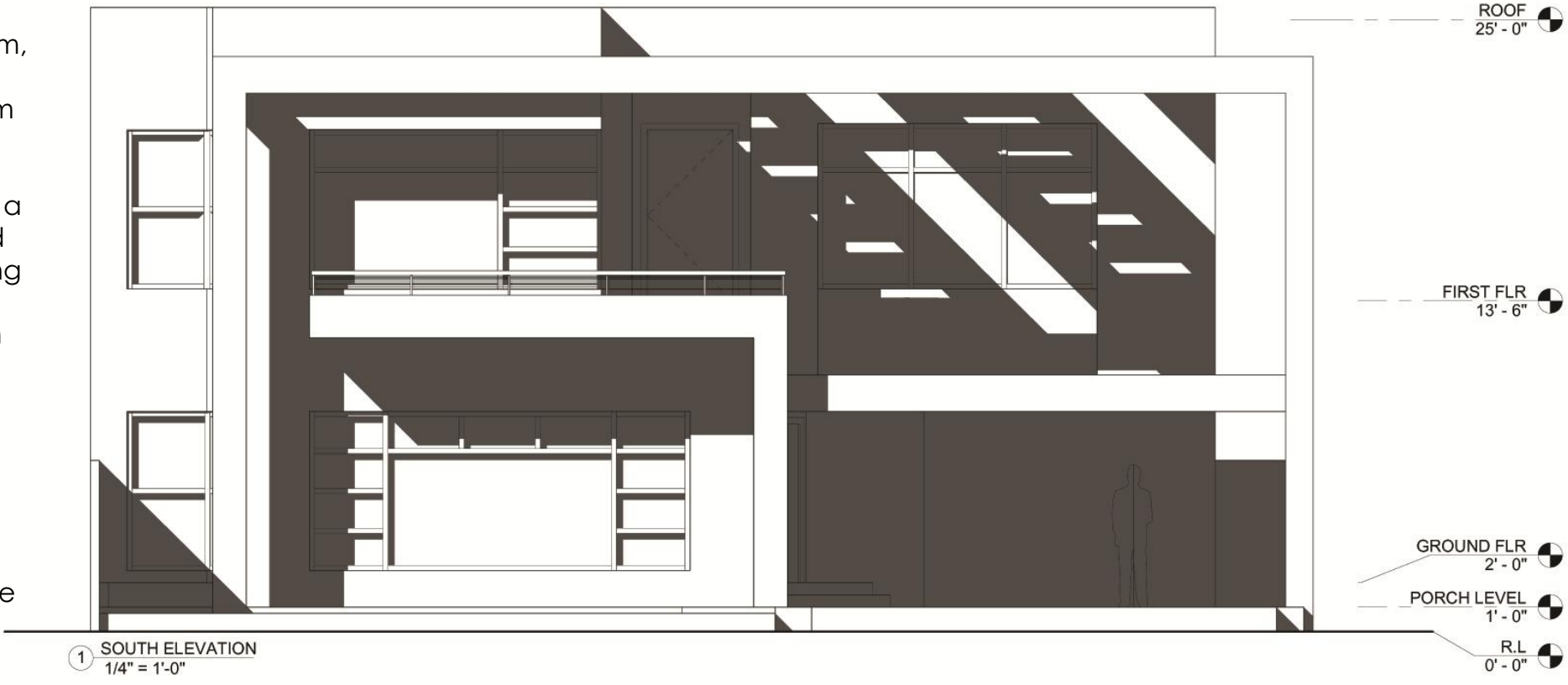
# MOHSIN JAMAL'S RESIDENCE

## LAYOUT AND ELEVATION

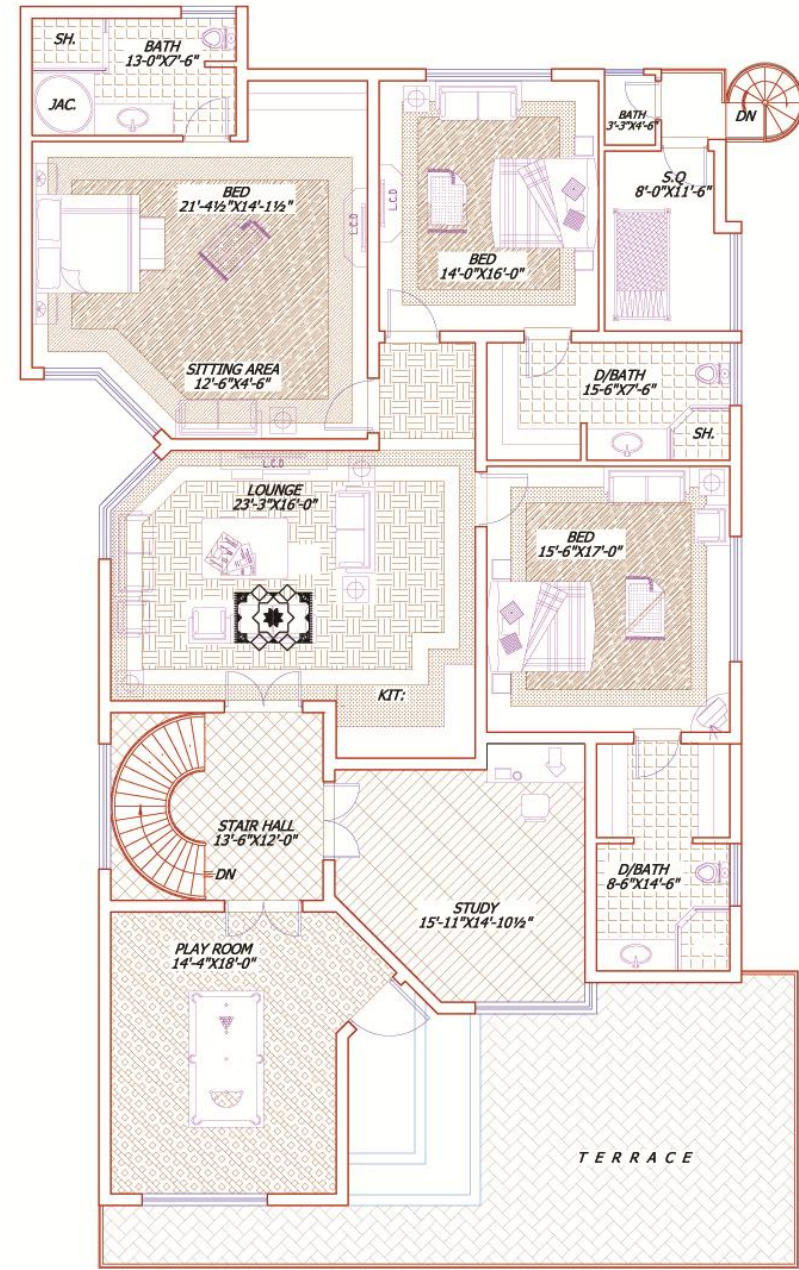
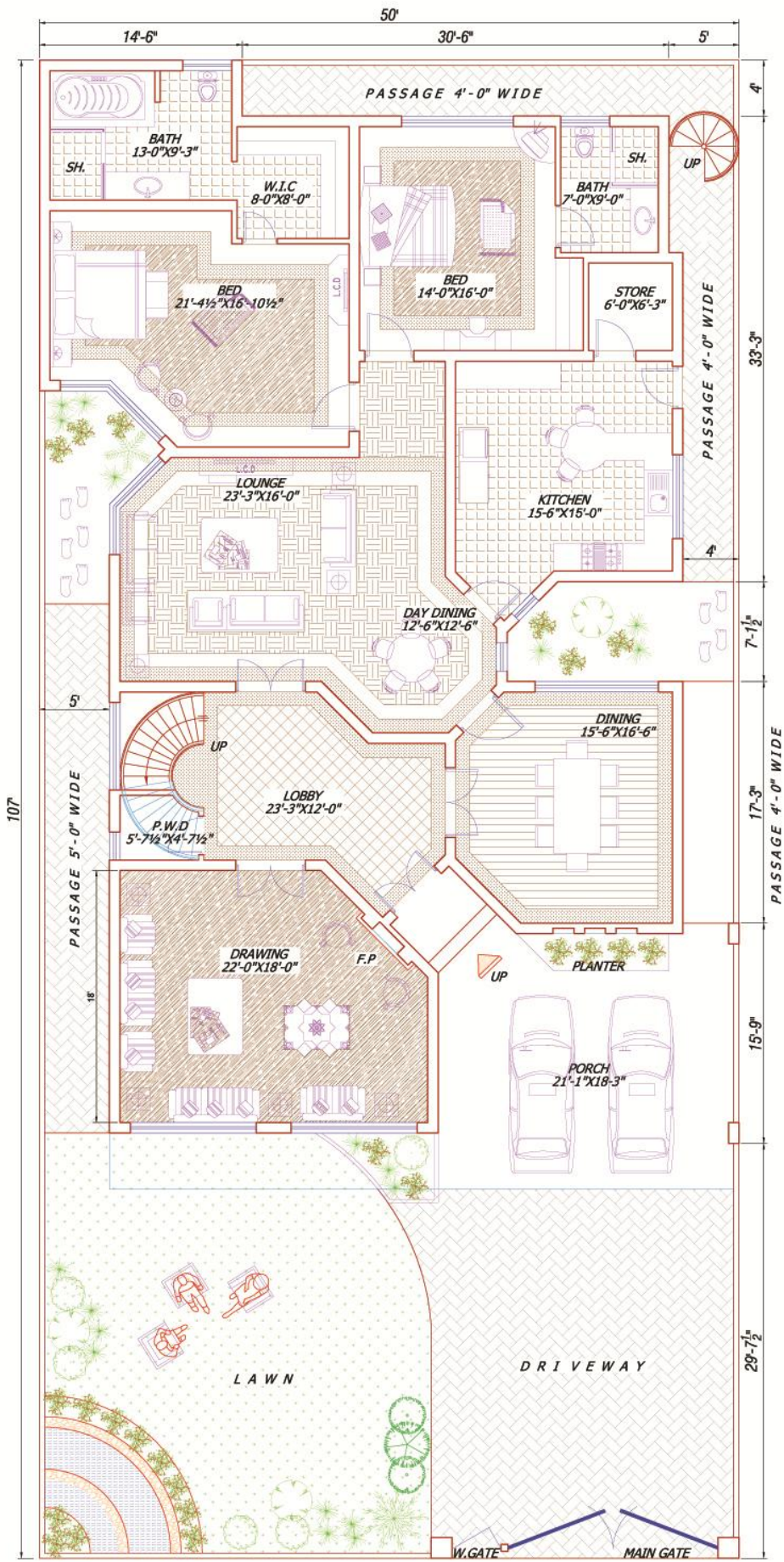
The house sits on a site, open to north, surrounded by neighboring residential buildings. It was designed for a family of 7 members. The ground floor contains lounge, drawing room, dining room, kitchen and 2 bed rooms while the first floor houses 3 bed rooms, study area and a play room for children.

The house is entered through a vestibule, where a semi-circular staircase connects the ground and the first floor. This vestibule opens into the drawing room, dining room and the lounge. The drawing room windows look out to the front lawn with an unobstructed view. The day-dining area with a view to a small green area, fits snugly in an octagonal corner of the lounge.

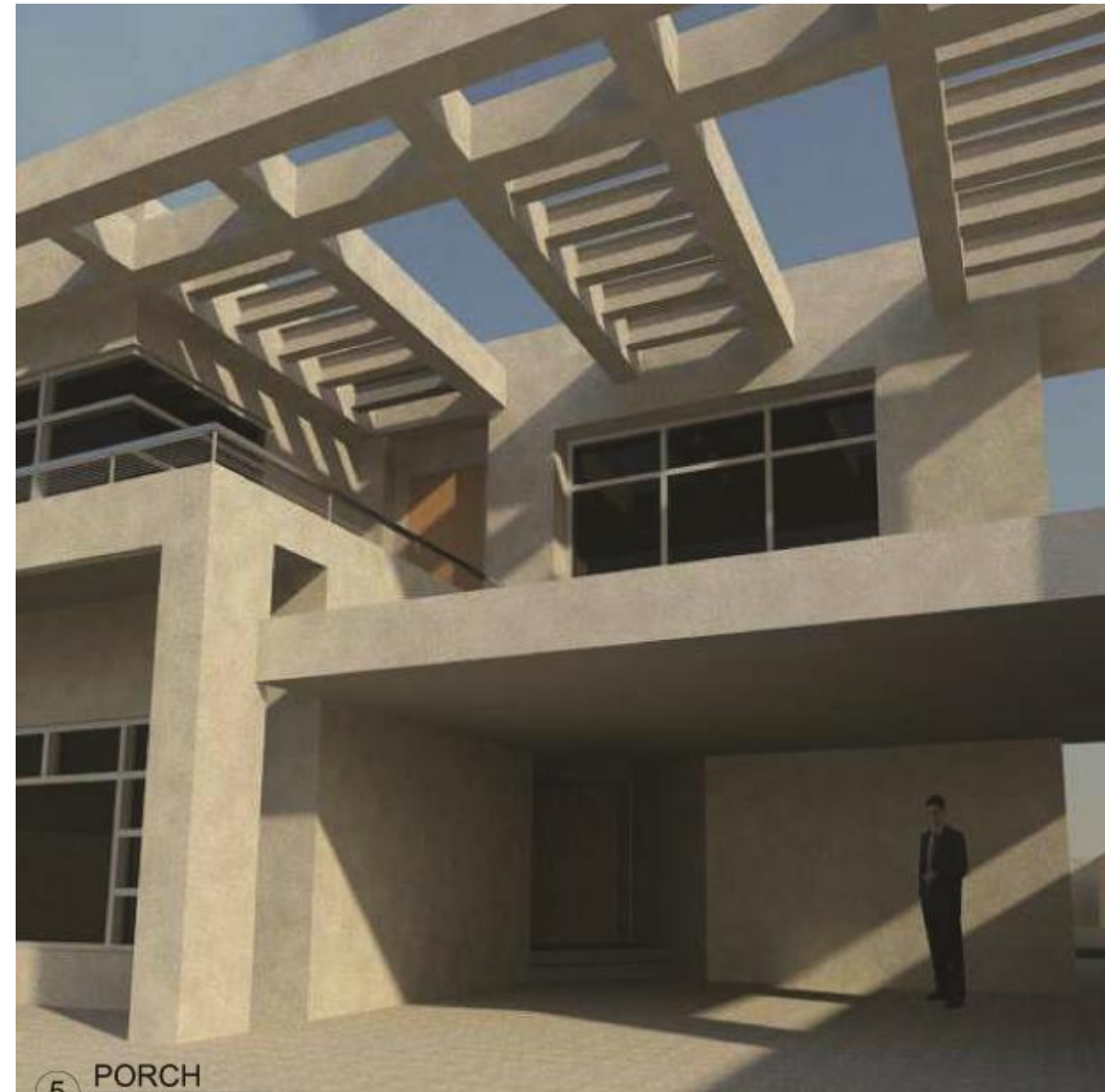
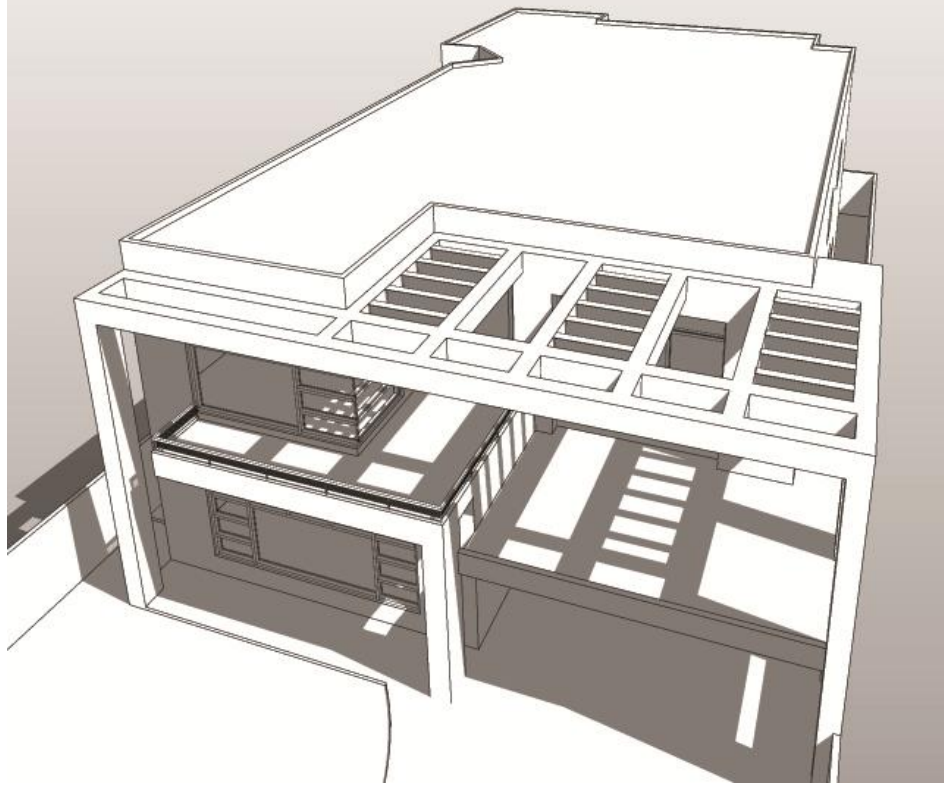
Looking at the façade, The punctured roof slab extends over the porch on the south side, to become a dominant element. The windows are segmented with proportions that follow the same language as that of the punctured roof.











The punctured roof slab extends over the porch on the south side, to become a dominant element



6 SOUTH EAST

# AMANULLAH'S RESIDENCE

## LAYOUT AND ELEVATION

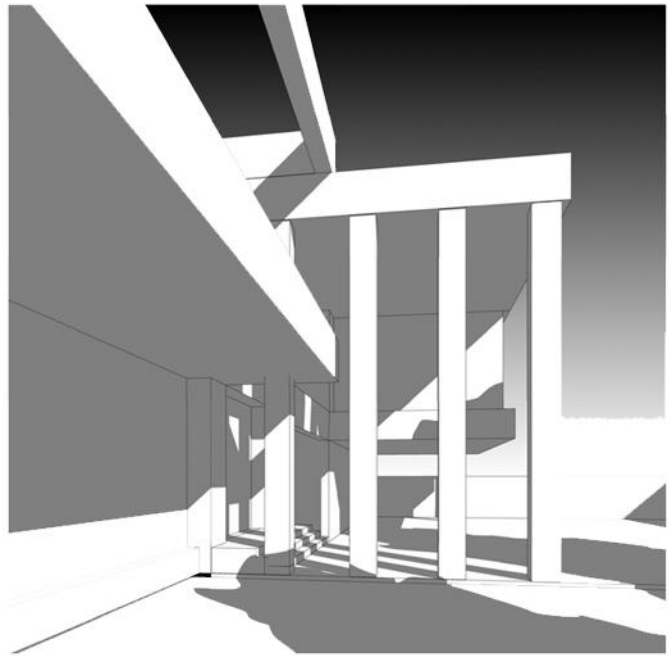
The front entry gives one the choice of turning left to the living room or right to the staircase, which is on the side as an extension of the dining room. The fireplace is on one short wall of the living room and The master bedroom has been enlarged.

The master bedroom, drawing room and the lounge share views with the side lawn. The drawing room is entered through a small corridor that extends like a branch on left from the main lobby.

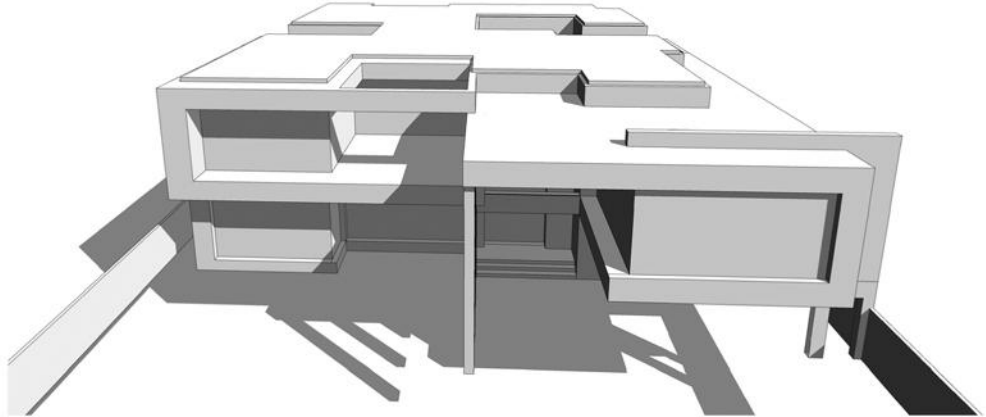
The open plan is broken up by letting it flow around corners, so you can't see all the dining area from the living room or all the open kitchen from the dining room.

The form was conceived by interlocking geometry of the planes and the flat, textureless surface of the main envelop.

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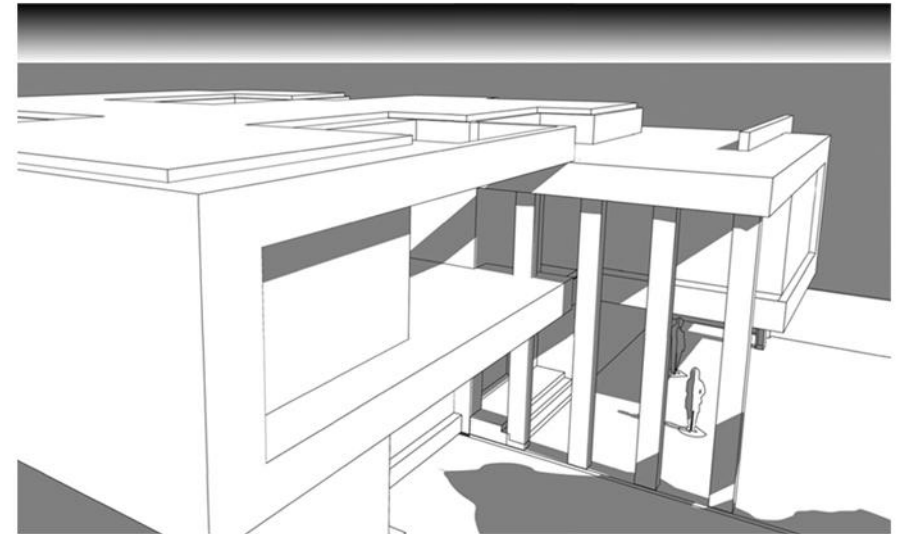
ENTRANCE



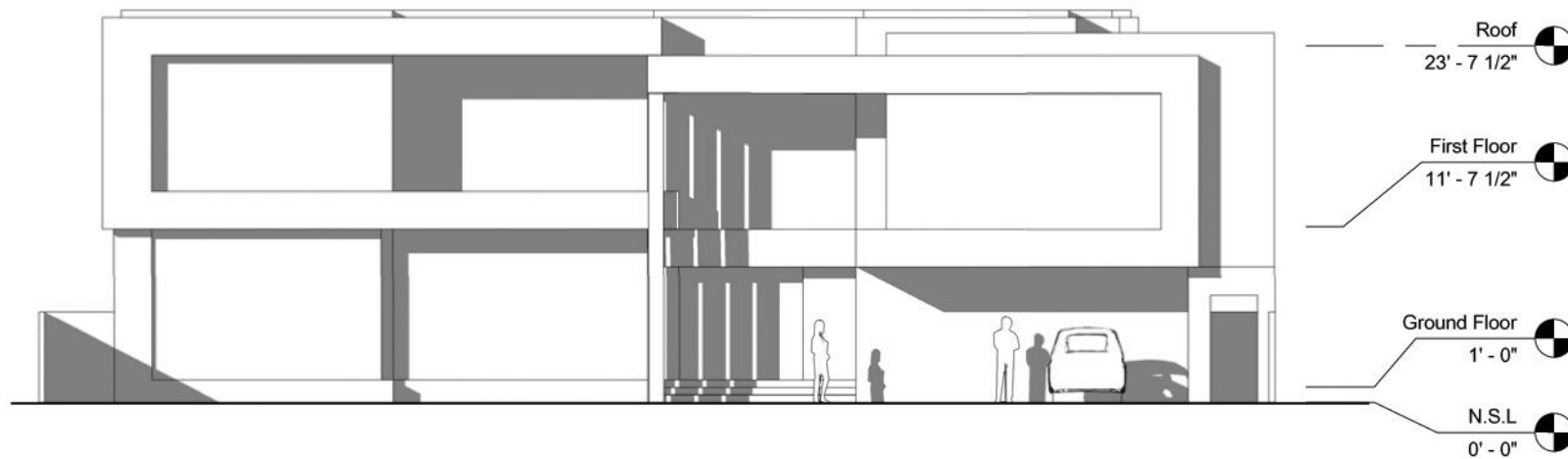
BIRDS EYE VIEW



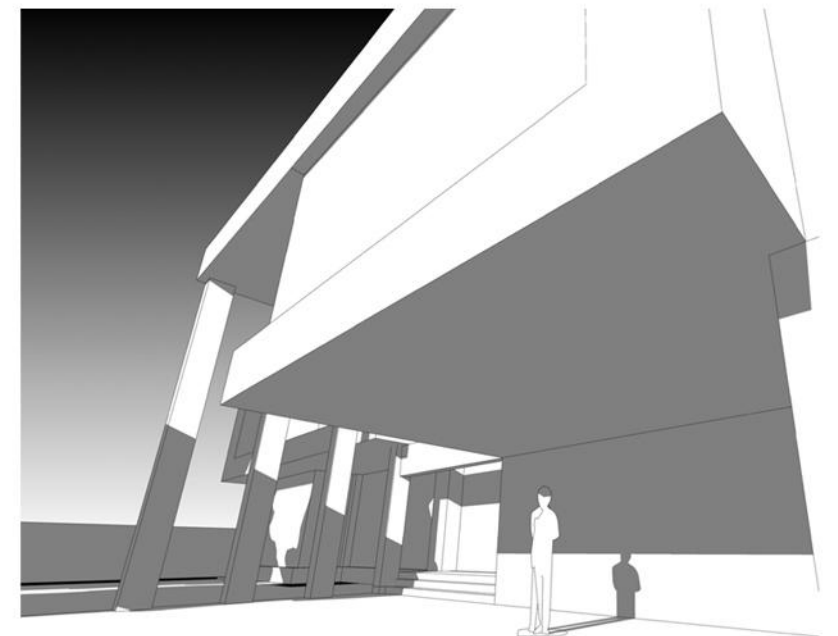




WEST SIDE PERSPECTIVE

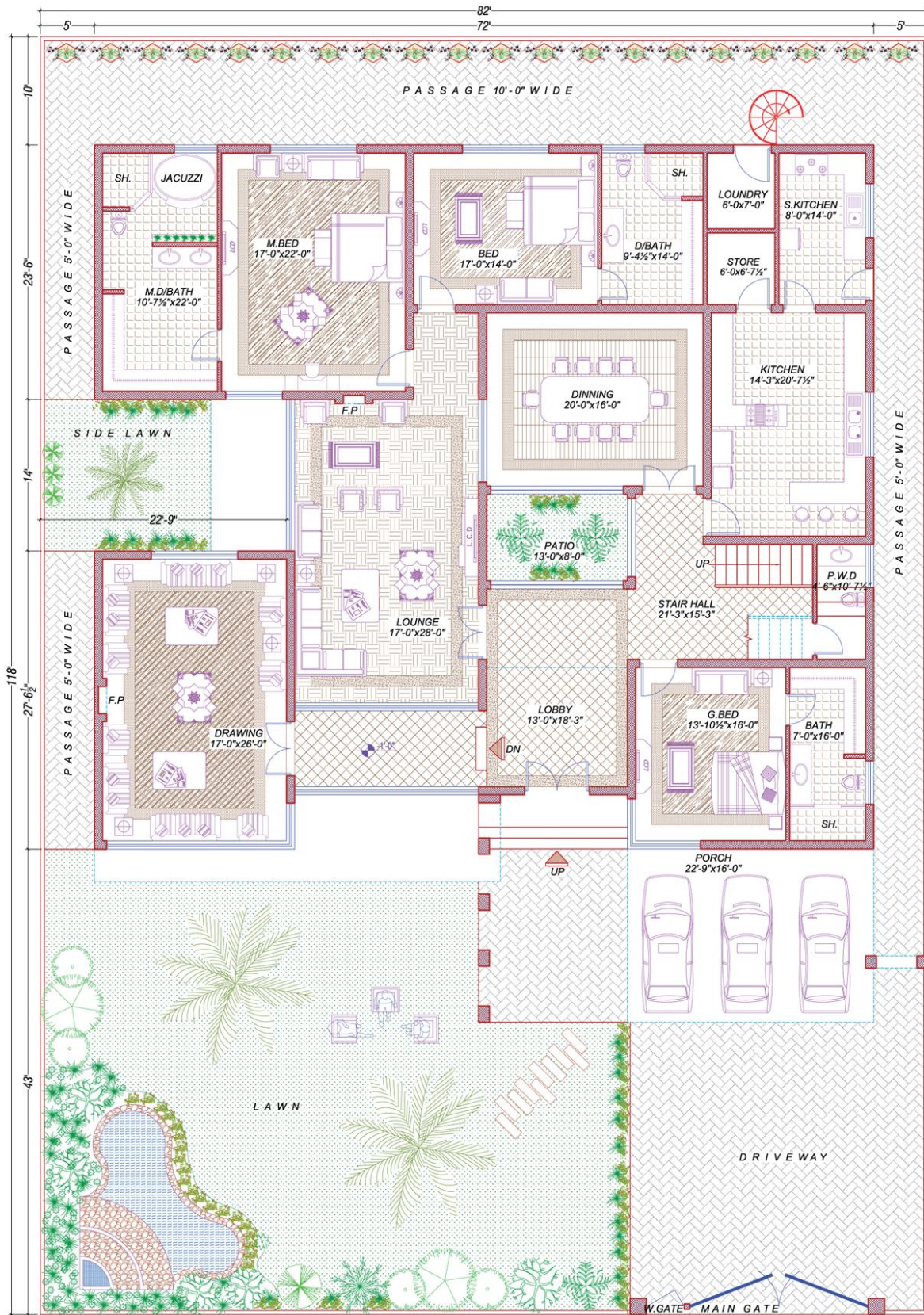


SOUTH ELEVATION



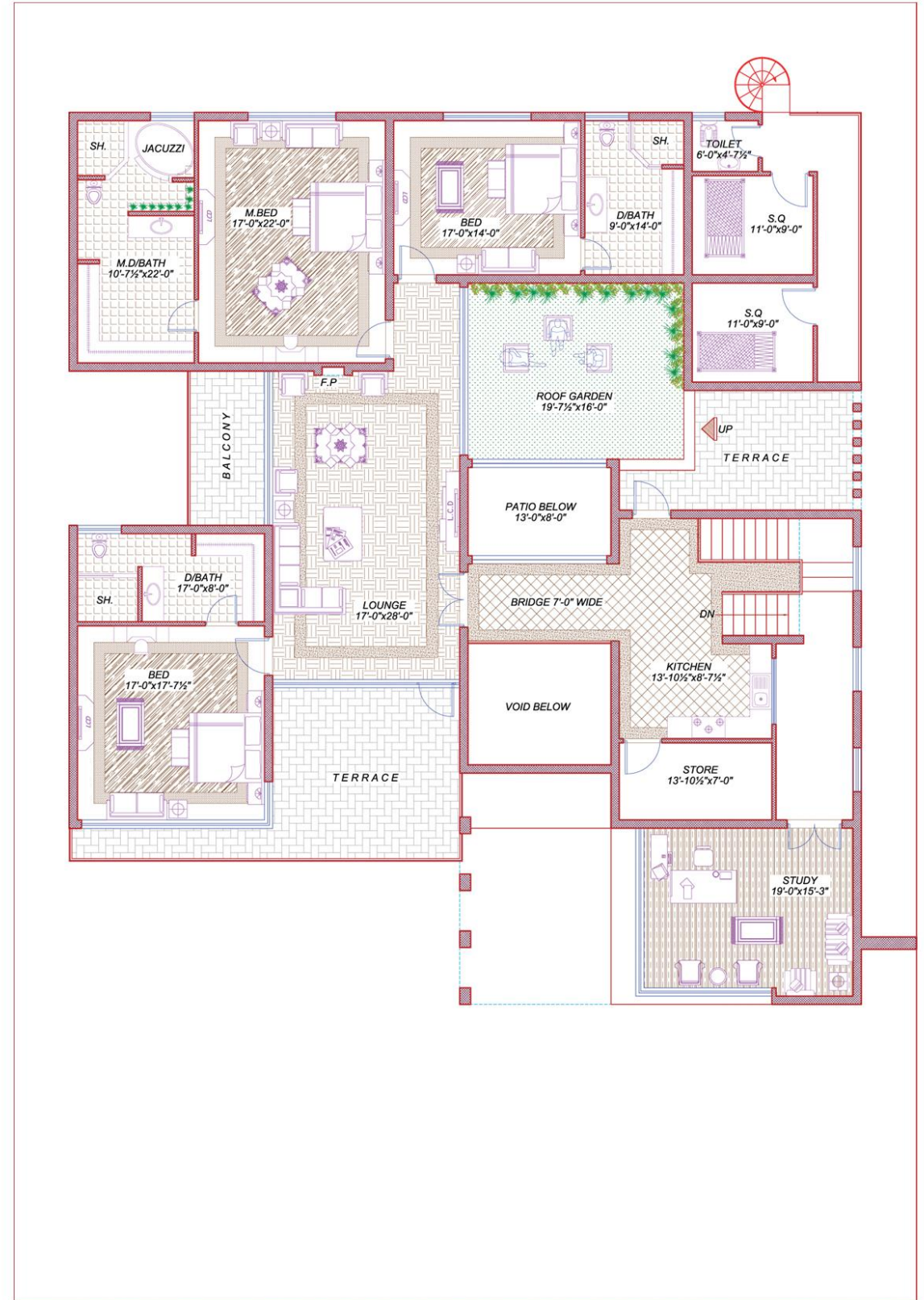
VIEW TOWARDS GARAGE





**GROUND FLOOR PLAN**

TOTAL COVERED AREA = 5006 Sft  
 TOTAL VOID AREA = 283 Sft  
 COVERED AREA = 4723 Sft



**FIRST FLOOR PLAN**

TOTAL COVERED AREA = 4674 Sft  
 TOTAL VOID AREA = 516 Sft  
 COVERED AREA = 4158 Sft



# SALMAN'S RESIDENCE

## ELEVATION PROPOSAL

A thorough modern language for exterior façade became the basis for design of this house. The building is conceived as cluster of solid and hollow frame cubes, juxtaposed with each other.

The east elevation consists of regularly arranged solid masses jutting out, around the window. This divides the front of the house into 6 basic rectangles, where each block harmoniously relates to the other in terms of proportion, symmetry, hierarchy and rhythm.

The west side consists of a small patio that becomes an element of view for the interior spaces around it.

A wide range of materials of different tones were used to create a warm, rich and a balanced exterior.



② South Elevation  
1/8" = 1'-0"



① East Elevation  
1/8" = 1'-0"



# SHABAZ'S RESIDENCE

## ELEVATION PROPOSAL

The proposed elevation for this house was an outcome of the clients inclination towards British colonial buildings. The brief also stated that building should blend subtly with its neighboring structures . This was resolved by picking up the prominent elements and colors from its surroundings and employing them carefully on the exterior shell, so that it fits into the empty void.

The main entrance is marked by a fixed circular window above it which is reminiscent of the colonial era. Two ionic columns standing at the corner of entrance podium support the pergola extending out from the roof level. The windows are segmented into panes of regular geometric lines and the edges of prominent walls are marked with quoins that characterize them in their own right.



1 South Elevation  
1/4" = 1'-0"



Front

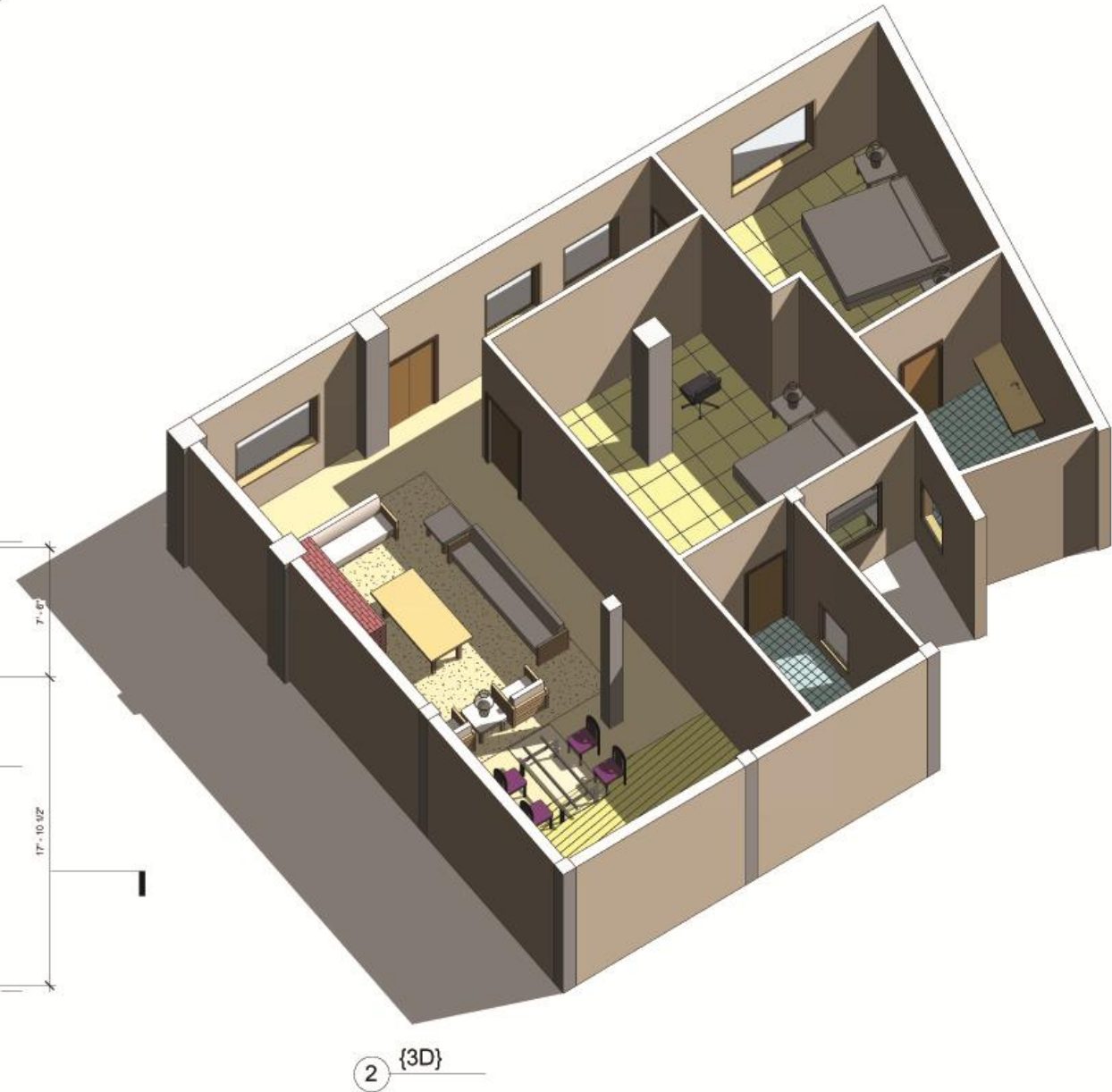
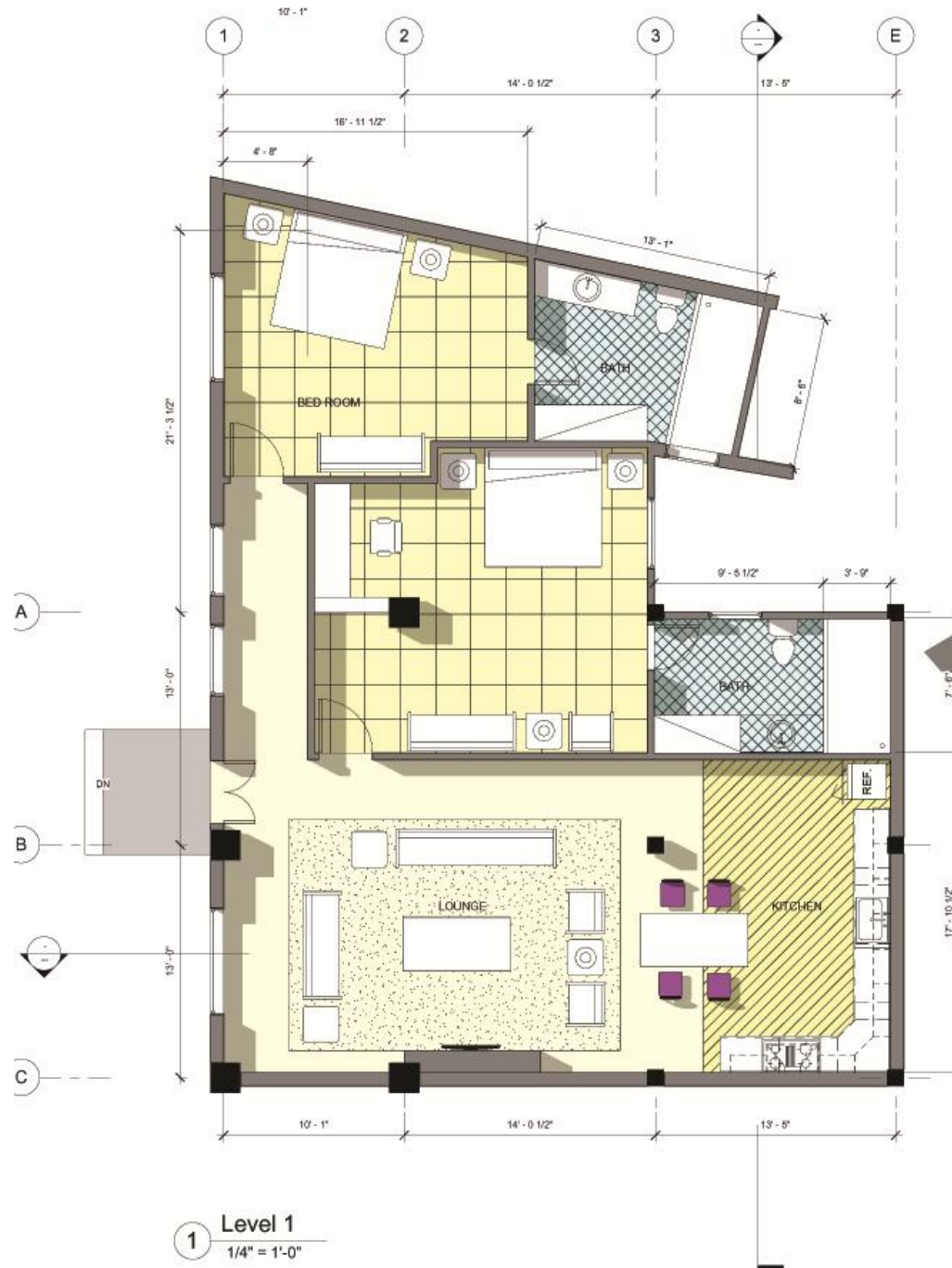


3 3D View 1  
Second Floor 25'-0"



# BRITISH COUNCIL, LAHORE. GUEST HOUSE LAYOUT

The brief for the renovation of an existing office block, to be converted into a guest house, specified no structural changes to be made to the existing building. The living room, dining room and the kitchen can be perceived as one continuous open space. The bedrooms fit into the structure with subtle privacy from the main living space. The bathrooms and the kitchen ventilate on the eastern side. Windows on the west side look out to the green courtyard which is surrounded by other neighboring blocks.



# WAQAR'S RESIDENCE, LAHORE.

## LAYOUT PROPOSAL

The house sits on a rectangular plot of 9000 Sft area. Its a double story structure with a simple façade, with spaces designed for two families. The spaces are planned around a central core staircase witch acts as a datum. High and large windows on the front allow natural light to filter into the living spaces and provide view of the lawn on the south.

The ground floor occupies three bedrooms with attached bathrooms, a drawing room, lounge, kitchen and a dining room that can be used in conjunction with both the drawing room and the lounge. The main entrance door opens into a long spacious double height lobby with a pleasant view of green area at its end. This patio is flanked by kitchen on the right and a drawing room on its left side. The lobby space flows left into a passage which provides access to the principle living spaces. A void has been scooped out at the core of the building where the main staircase connects the two floors.

The second floor houses three bedrooms, two servant quarters and a void occupied by the terrace on the southern side.





# MIR'S RESIDENCE

## LAYOUT PROPOSAL

The site for the house is a trapezium with a total area of 3.8 kanals. It was designed for a single household. The east side faces the lawn with two square shaped fountains connected to each other by stone steps walkway.

Entry is through a verandah on the south with the main door that opens into a lobby. The long rectangular lobby leads to the drawing room, bedroom, a staircase leading up to the roof and the lounge. The rest of the living spaces are arranged around the lounge which becomes a kind of a datum. The spacious bedroom, the lounge and the drawing room windows enjoy generous view of the lawn.



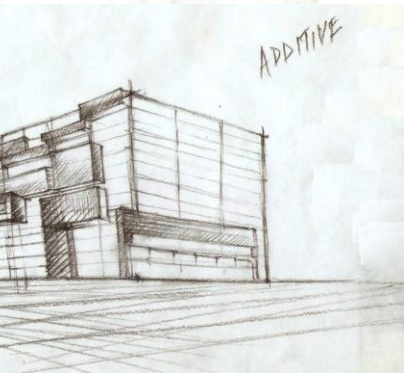
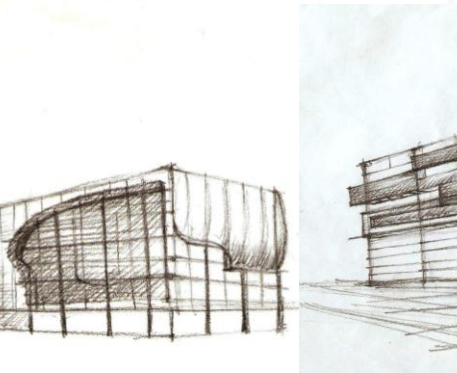
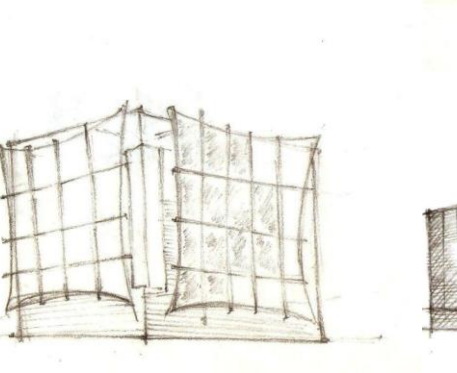
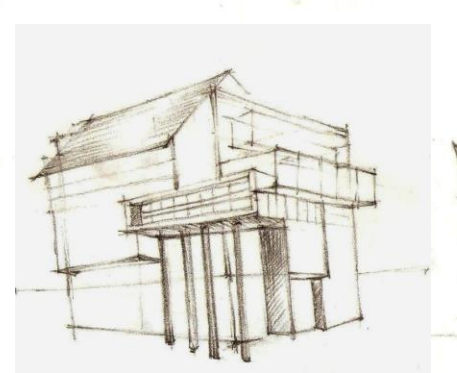
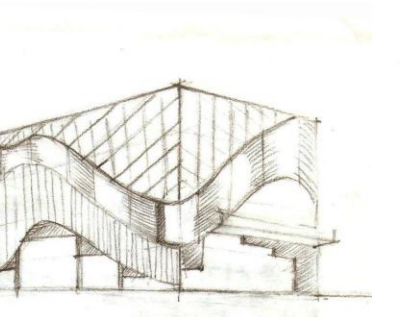
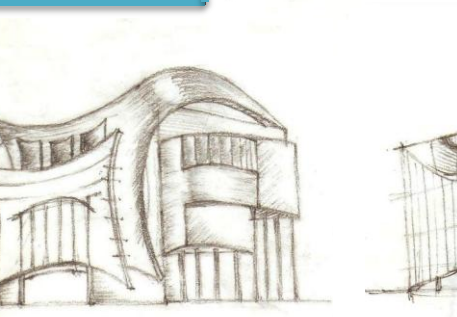
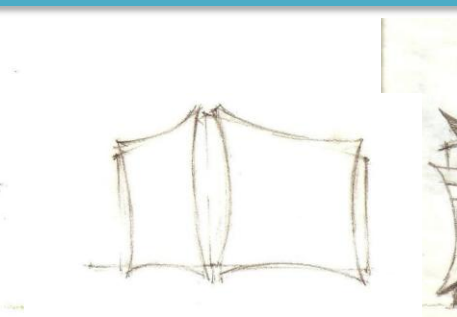
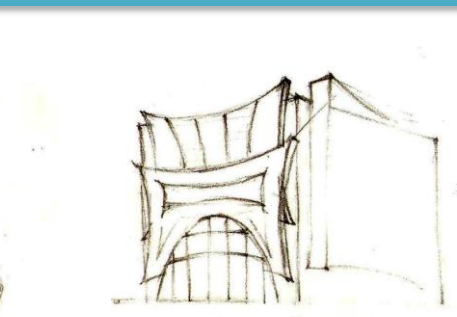
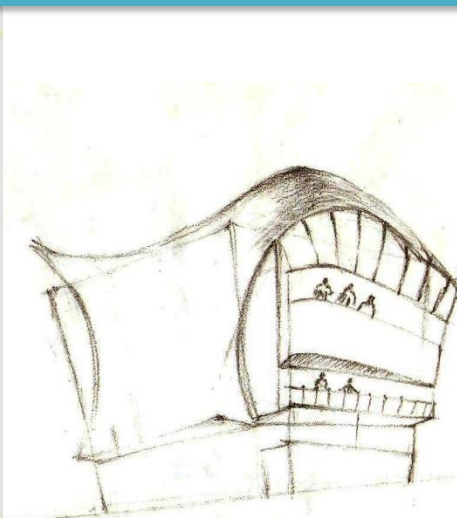
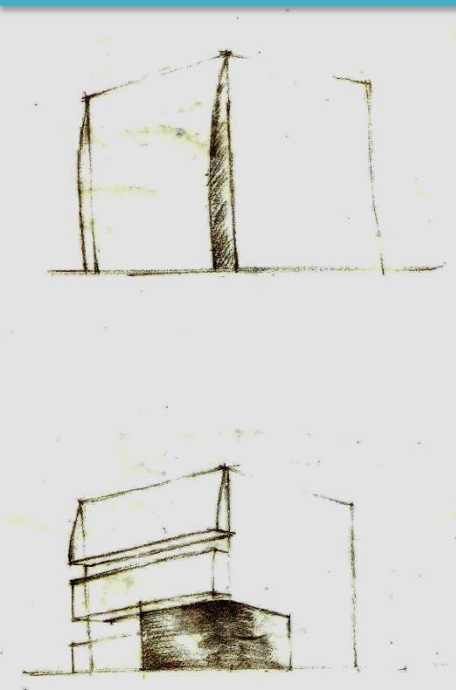
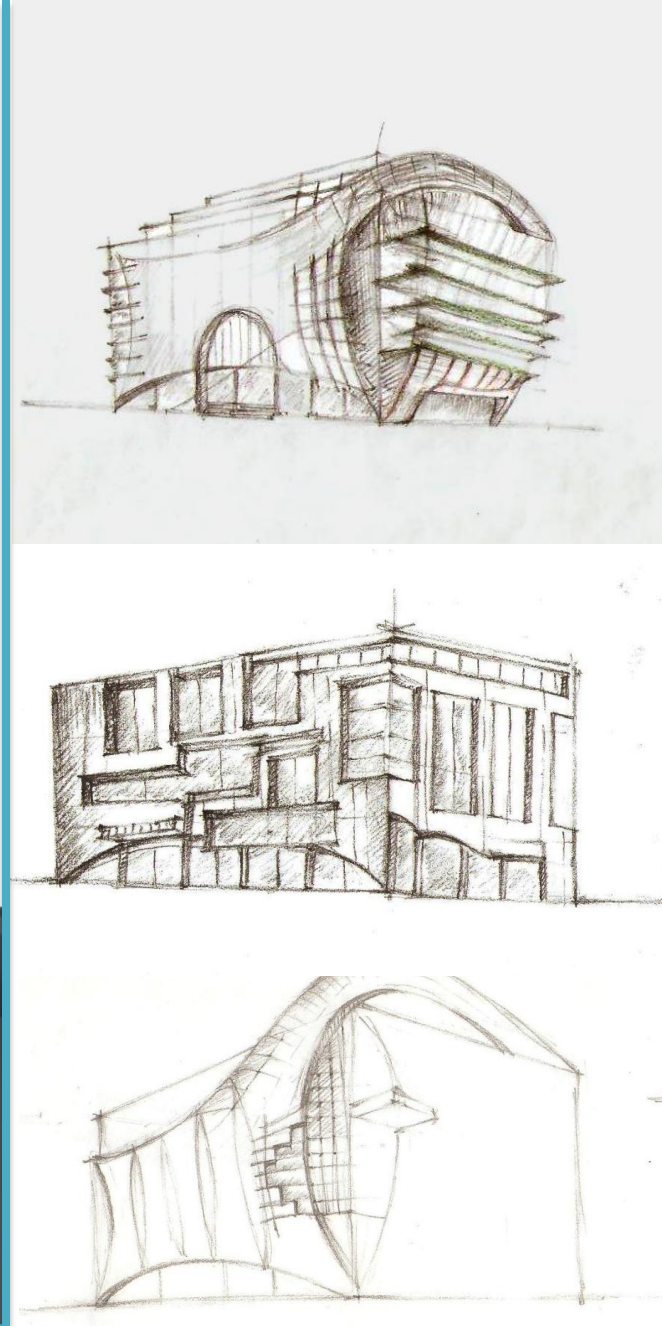


# LIBERTY MALL, LAHORE. CONCEPTUAL PROPOSAL

This was a proposal for elevation of a plaza erected in a commercial area in Lahore. It is when I was interning with Landmark Consultants, pvt ltd.

As an Architect, I require a visual forum to construe the information necessary for the conception and building of complex structures. This process necessitates a dialogue – a free exchange of thoughts and opinions – between architects and themselves, their clients, the contractors and their colleagues. The discourse implies a two-way interaction, which creates a learning environment, one where the interaction and reasoning facilitates the entire process of design.

With the varied uses of sketches for inspiration and design thinking, communication, recording, evaluation and testing, analysis, visualization and understanding, together with a passion to create images, my design depends upon a representational medium to facilitate the dialogue of these functions.





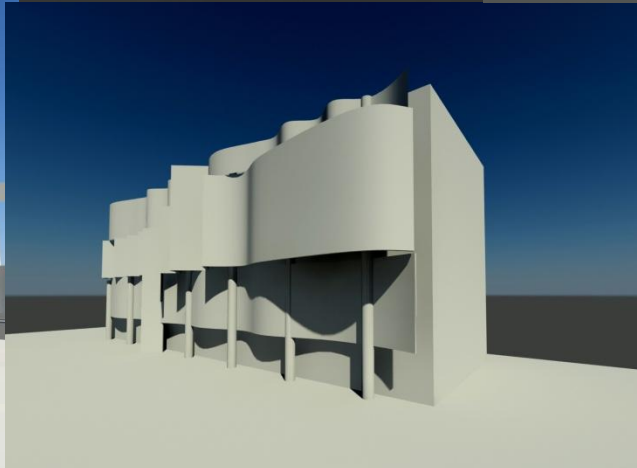
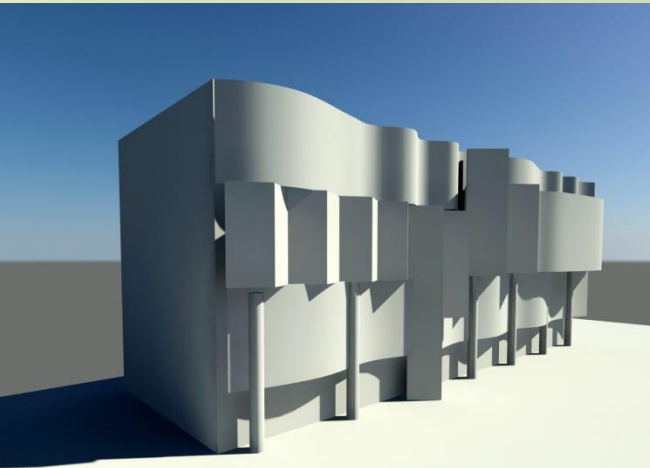
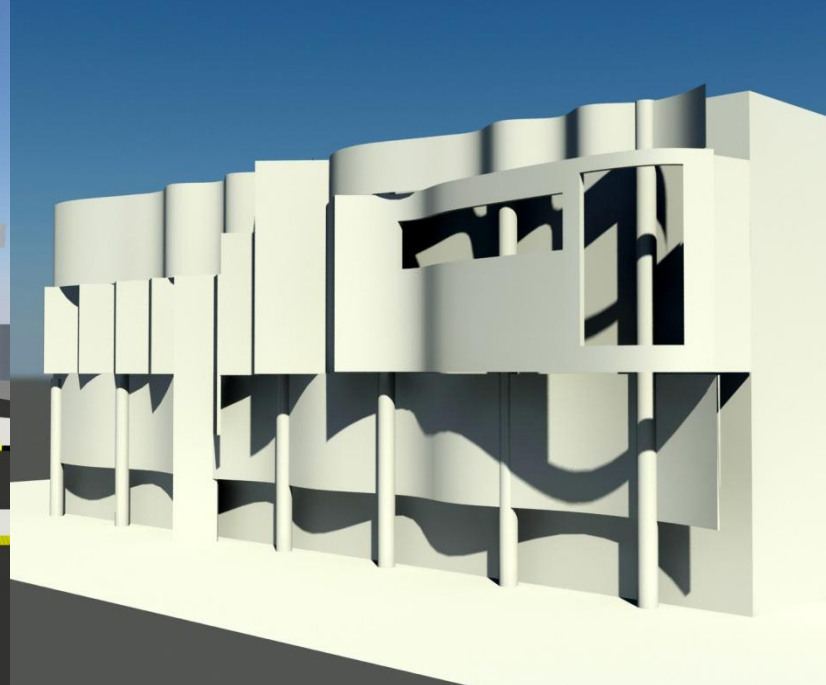
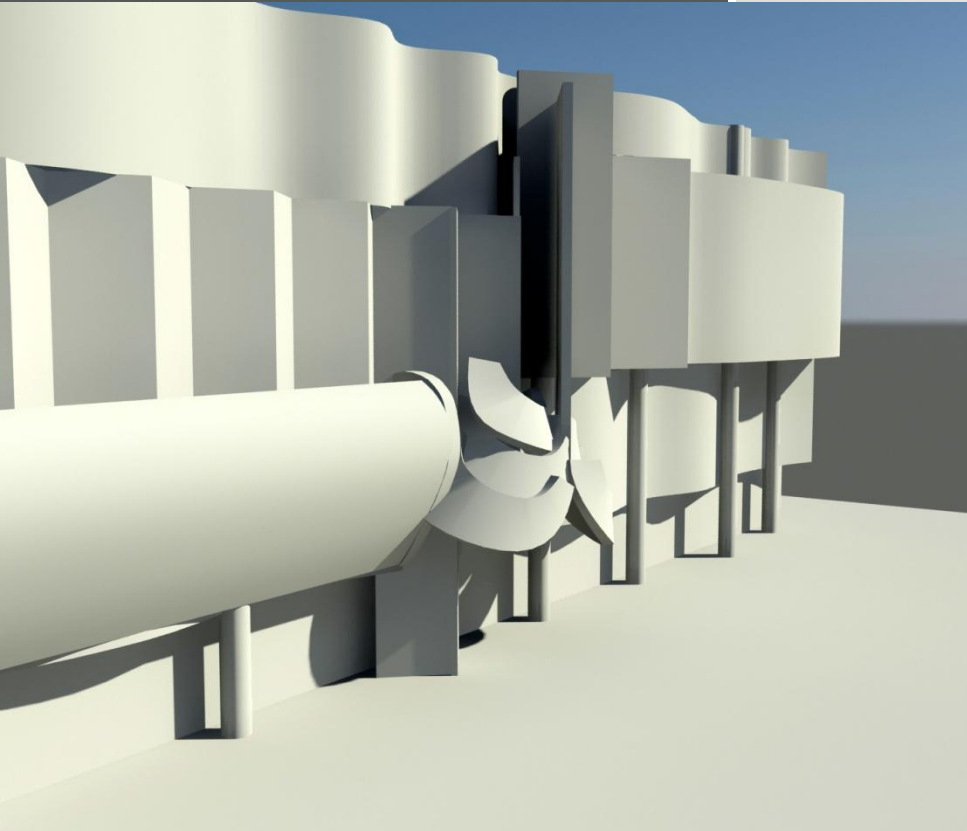
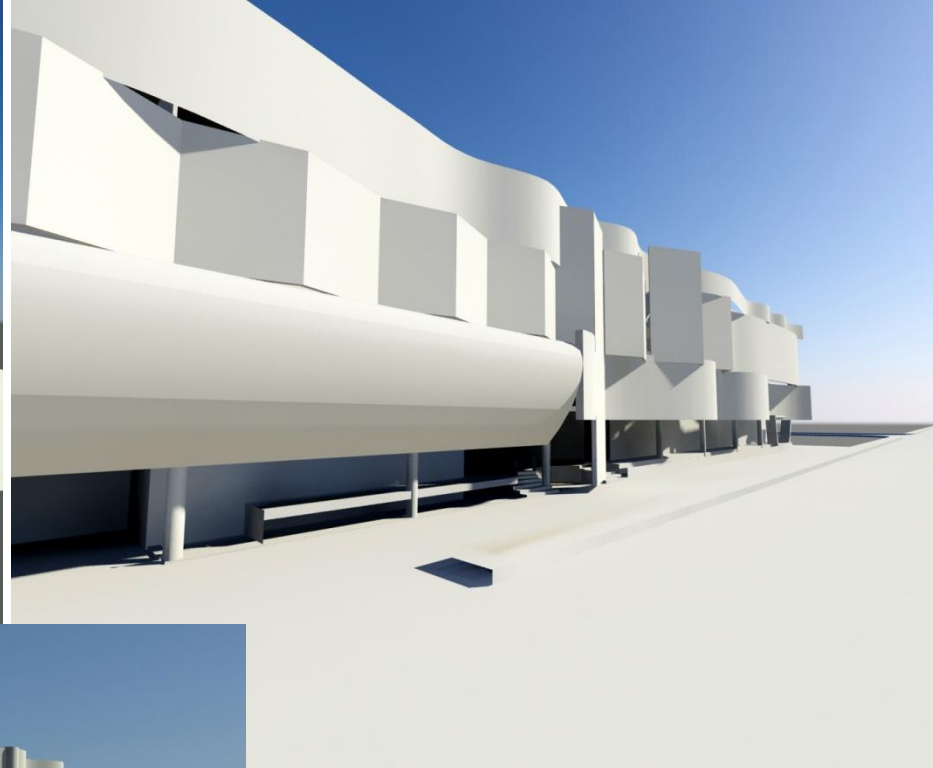
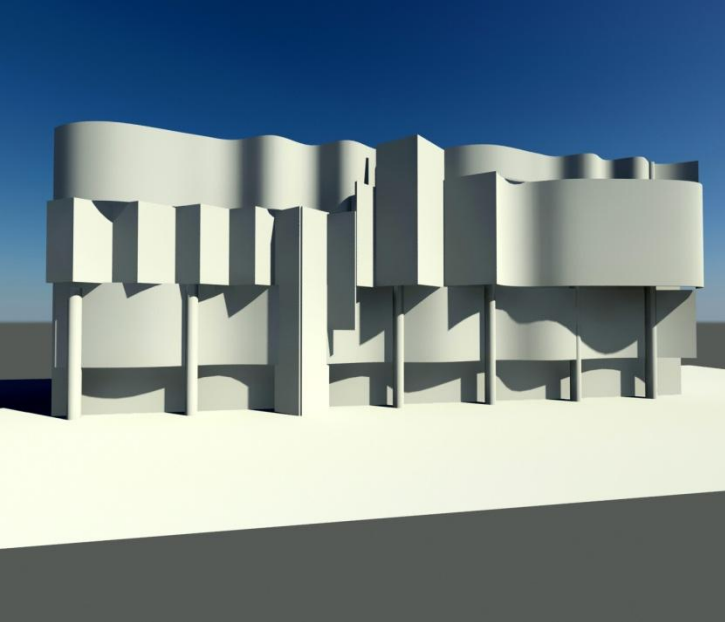
## LIBERTY MALL, LAHORE. CONCEPTUAL PROPOSAL

This is another project I was working on when interning at Landmark consultants pvt ltd. It's a four story plaza housing jewelry shops primarily and other retail outlets. Underground parking for cars is provided at two levels below the ground. The building stands at the corner of junction of two main roads, which are marked by several different commercial buildings all along its length.

I began playing with the façade with different ideas that were grounded in somewhat "iconic" look. To give the neighborhood, with initial set of conditions a rejuvenated and enhanced ambiance, I came up with idea of developing a sense of movement, play, comfortable melodious rhythm. The curves and corrugation in glass and aluminum overlap each other at times and subtly blend into another volume. Its like a movement in disguise with intangible presence.

Play is far from being only a child 's game. Play is central to living. Inorganic and organic objects have a part to play in the world, even if it is a small part. Even a rock plays, although it may wait centuries to become actively involved. It has a part in the order of the universe, which makes it playful within its environment . Play constitutes a mode of manipulation and learning; its implementation might provide an approach to truth and interpretation. The framework of play provides boundaries to stretch against and becomes a method of representation. Play itself is an activity in which all humans engage, even when ' working'.







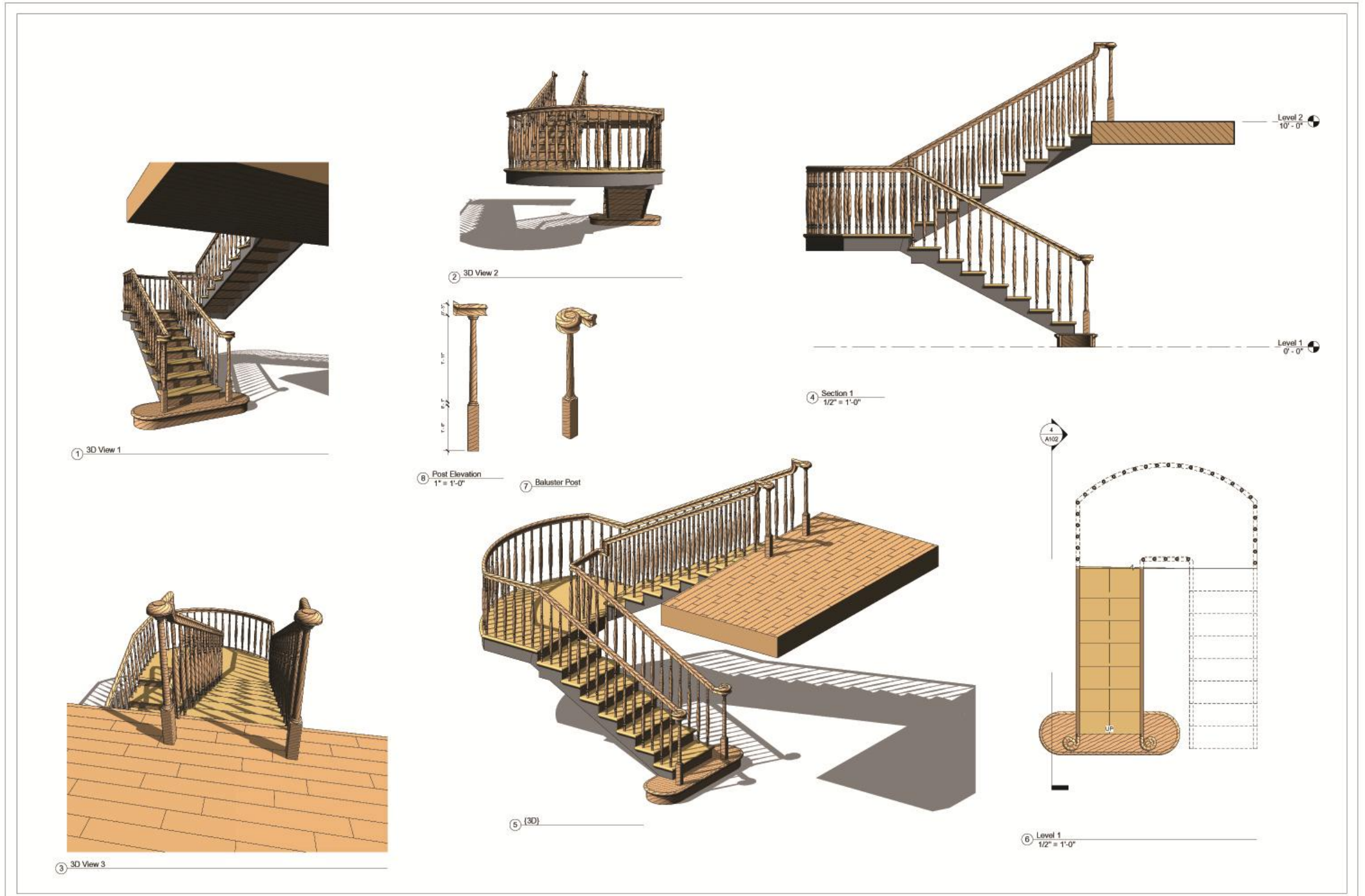
This was an interesting exercise for me to explore the potential of Revit when it comes to custom design. It requires a great deal of understanding about the wood joints and connection.

The trick to creating any staircase and railing design is in two parts. You create custom families such as goosenecks and landings, then attach Revit system stairs and railings to them.

The more complex the design, the more flexible the families have to be. Some are easy, some would haunt my dreams. But if you think about it: how is this different from ACTUALLY building a staircase? It's not. When building a staircase, you have to take individual pieces and cut them to fit. If a raised panel pattern needs a smaller panel at the end, what do you do. You MAKE A SMALLER PANEL! Revit...or any design application for that matter, is only as good as the person operating it.

You have to know how to gooseneck a railing to maintain a specific height.

# Custom Stair Layout Design Challenge I

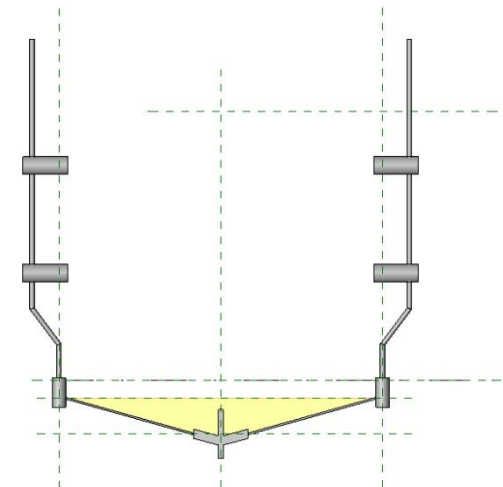
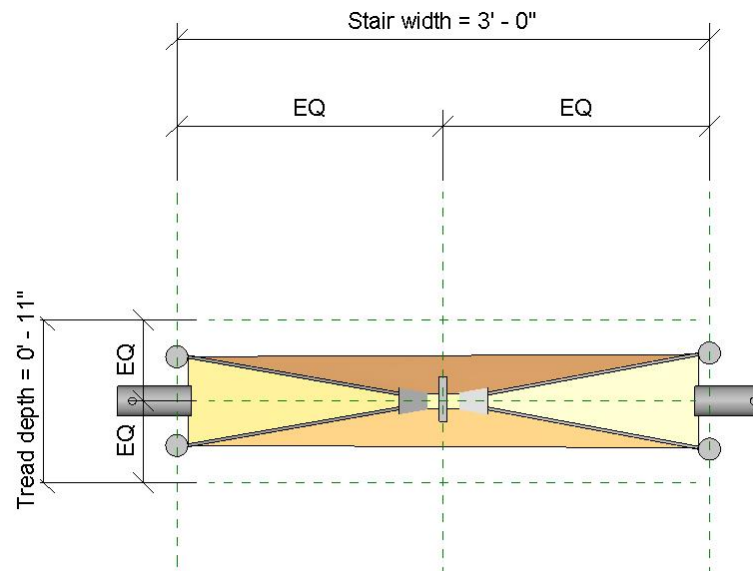
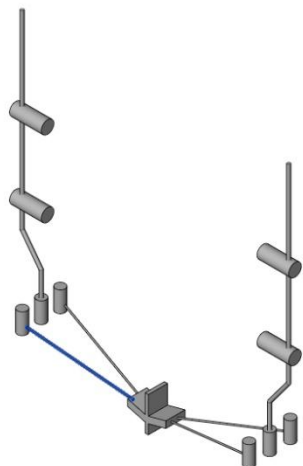
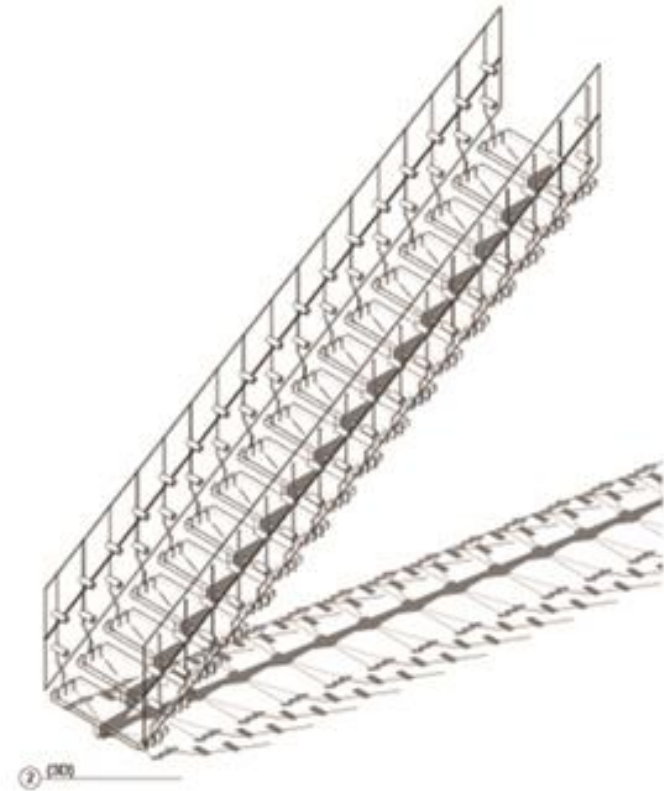
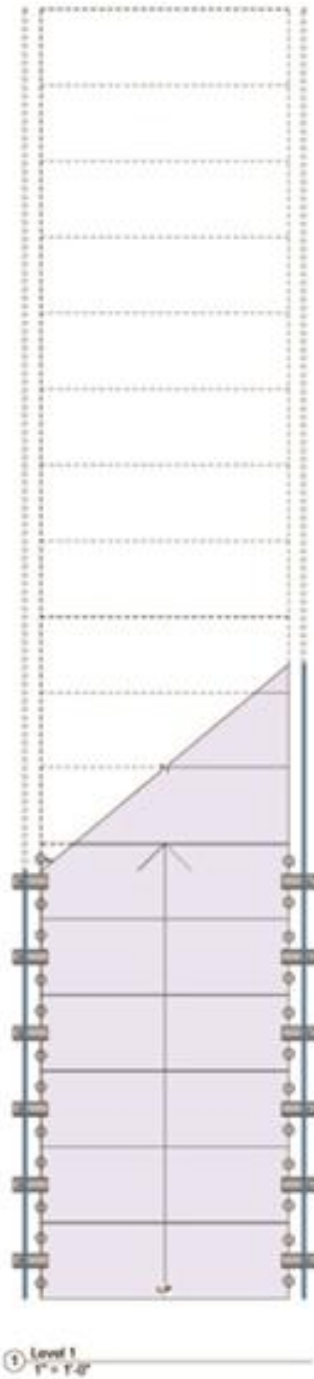


# Custom Stair Layout Design Challenge II

Designing the glass stairs was another great experience. It helped me learn how to create families for posts, balusters, panels, railings, and stair nosing. Focusing on design for high-end commercial and residential projects, I had to dive directly into the use of the Family Editor to physically build the components needed.

Once the families were established, I moved to Assembly in the project to expose the difficulties designers face.

The commercial portion of it covers extruded steel with glass panels; the residential portion covers handrails and raised panels. I also learnt how to design winding and spiral staircases, as well as how to create custom materials with wood hatching that can be applied to the stair components to give the stairs and railings my personal touch.





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# **ACADEMIC PORTFOLIO**

*ASAD FAROOQUE*  
*B.ARCH (N.C.A)*

# THESIS PROJECT, B.ARCH-2011.

## CARDIAC HEALTH CENTRE

### CLIENT

PAKISTAN MEDICAL ASSOCIATION

### CLIENT'S BRIEF

The client, Pakistan Medical Association (PMA) is carrying out projects of their new healthcare program "Synergizing Health in Pakistan" and has asked for a 150 bed cardiac hospital to be constructed in Johar Town, Lahore, near Expo Center. It will be a health care institute which will provide a complete range of cardiac care facilities to the people of Lahore.

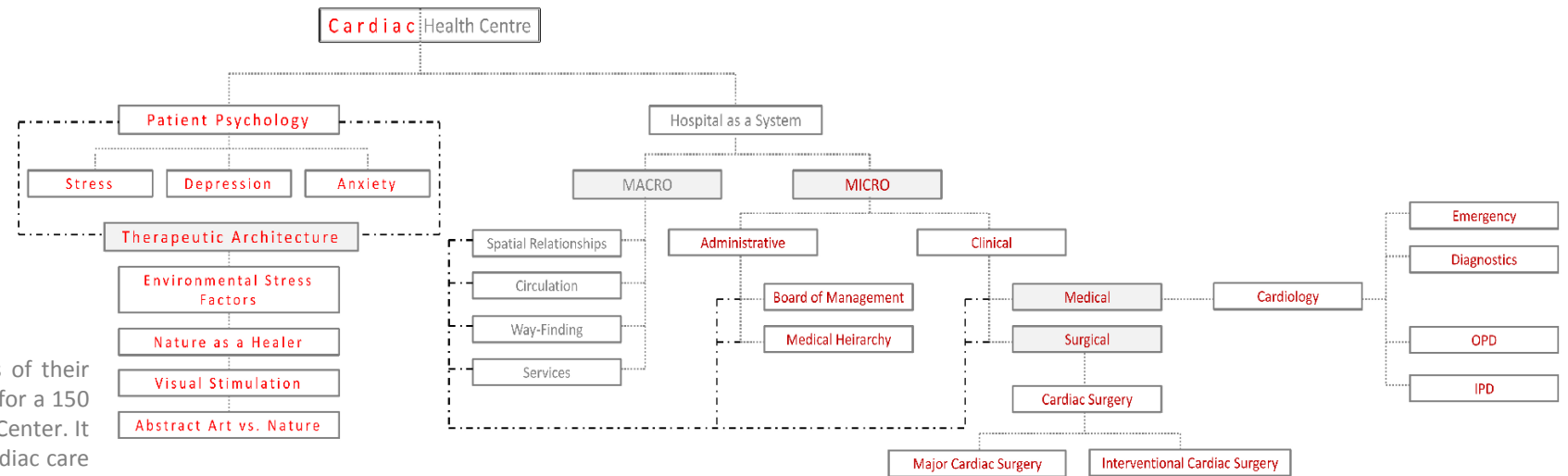
### SCOPE

- Provide preliminary care at Outdoor patient Department
- Provide a Cardiology and Cardiac Surgery department catering for all procedures and operations
- Provide all related diagnostic facilities
- Be of optimum quality in terms of hygienic environment.

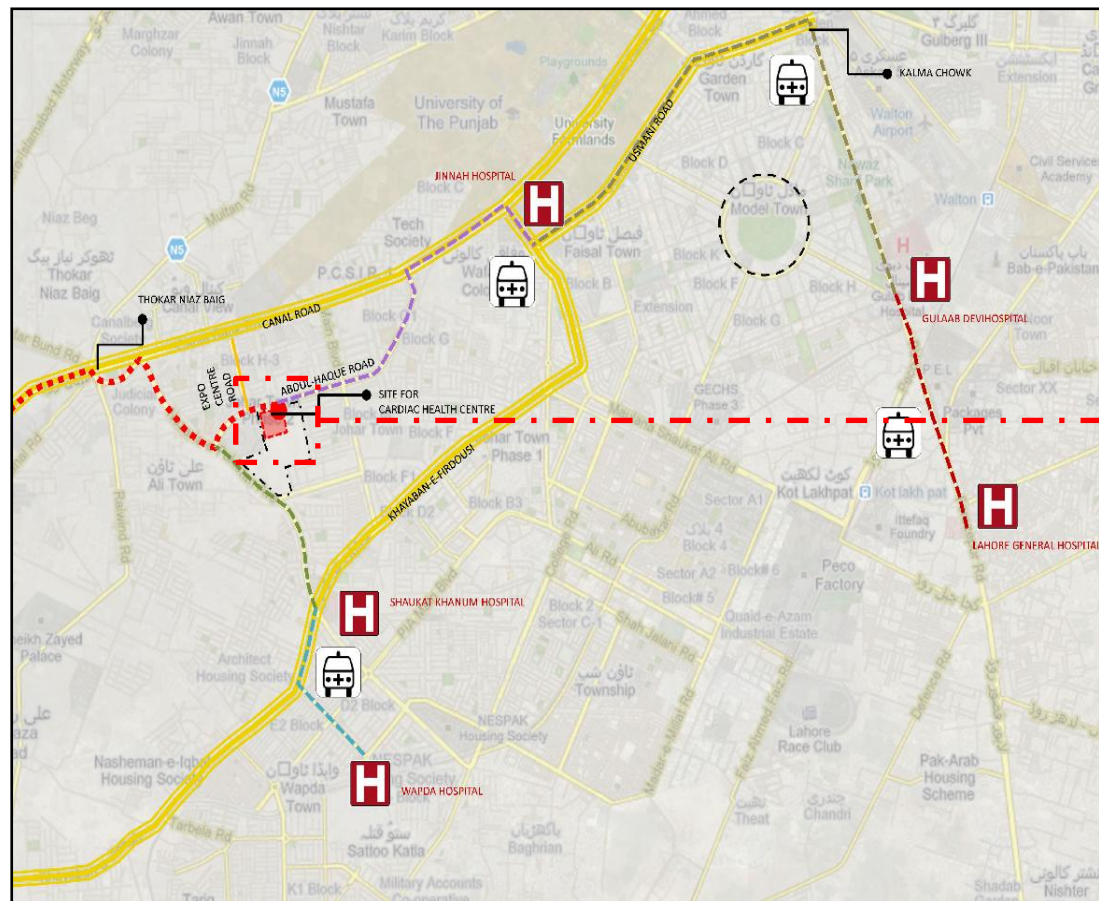
### REQUIREMENTS

- Emergency
- Out Patient Department
- Intensive care unit (ICU)
- Coronary care unit (CCU)
- Adult and pediatric cardiology
- Adult and pediatric cardiology surgery
- Cardiac catheterization and interventional cardiology
- Electrophysiology
- Pacemaker clinic
- Nuclear Medicine
- Echocardiography
- Exercise tolerance and holter monitoring
- Radiology
- Pathology

## ARCHITECT'S BRIEF



### SITE





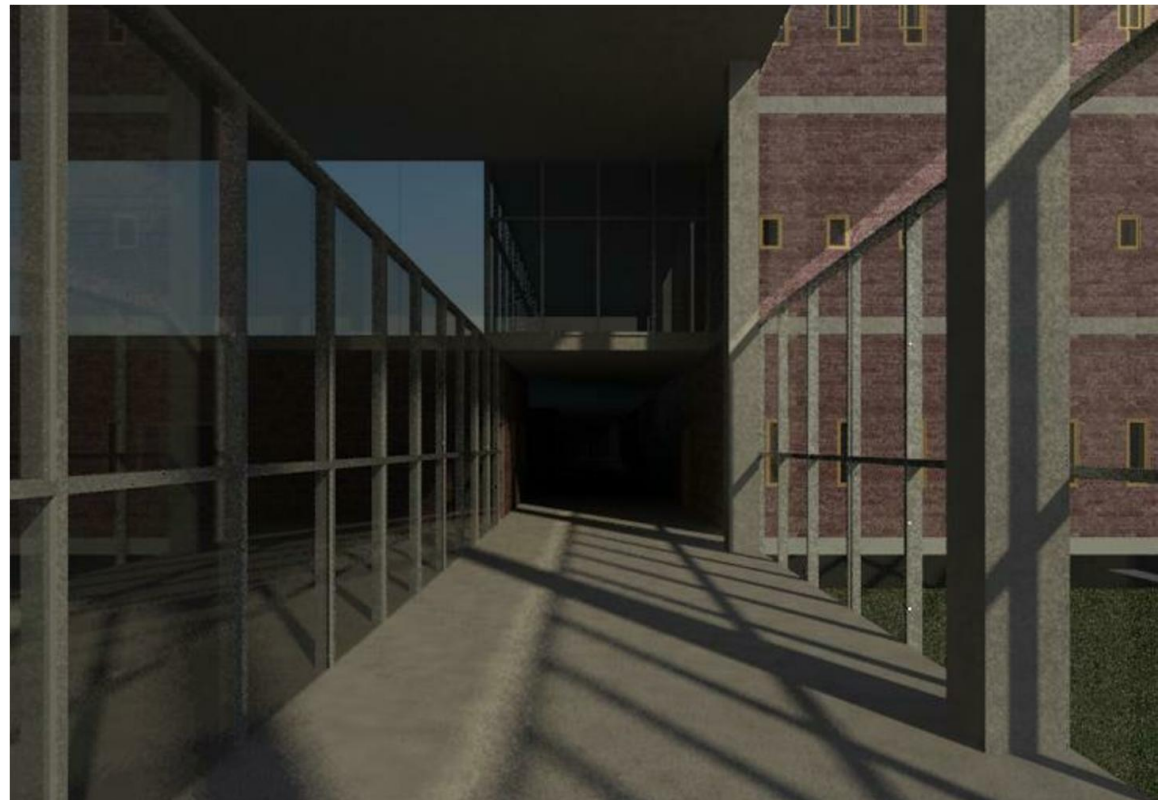
## About

The project is a 150 bed cardiac hospital to be constructed in Johar Town, Lahore, near Expo Center. It is a health care institute which will provide a complete range of cardiac care facilities to the people of Lahore. The underlying idea in the development of design is to create an environment which "aids" in the healing process of patients and eliminates the patient fear of conventional hospital. The cardiac centre seeks to create a sustainable, as well as, a physical and spiritual healing environment by providing easily accessible resources to patient and family members, access to views and natural light, and the use of warm non-institutional regional materials.

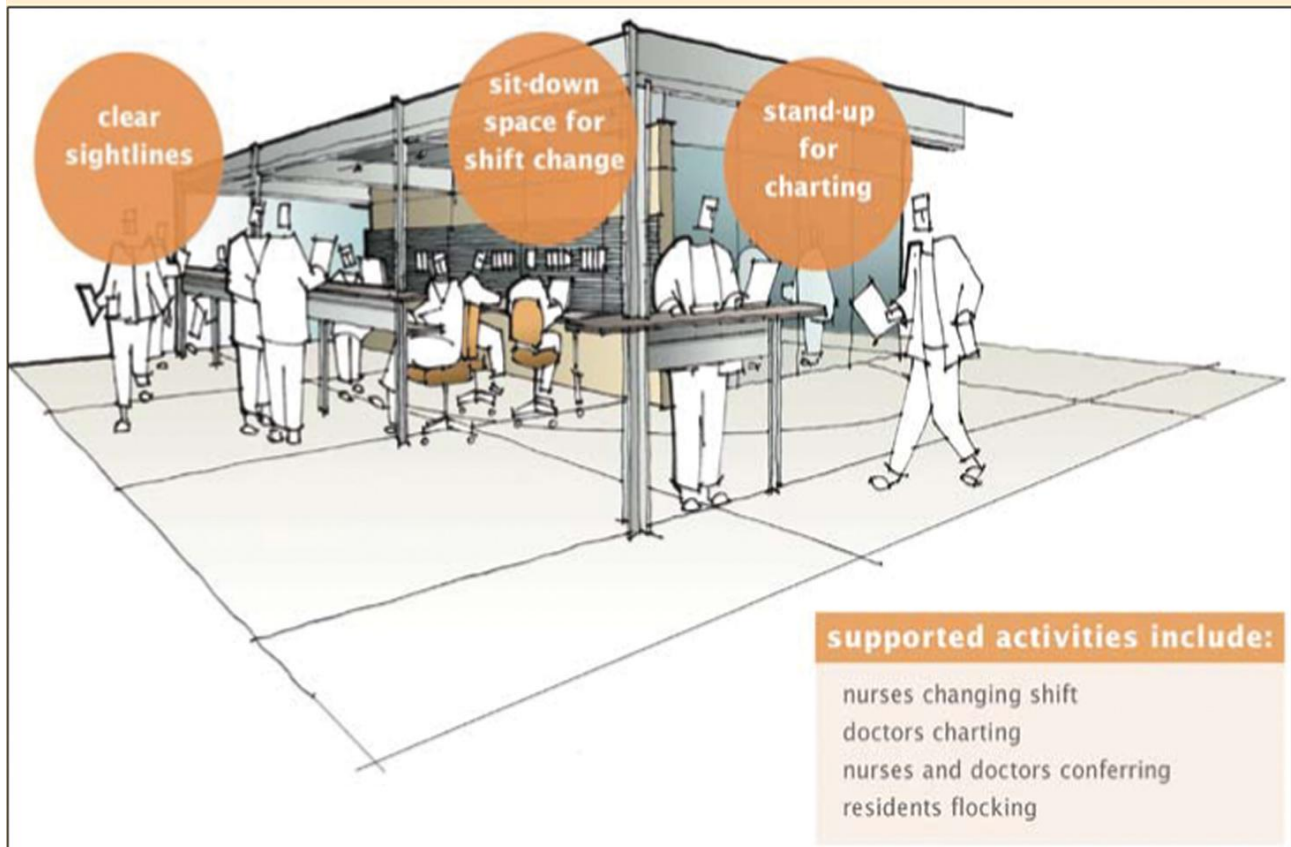
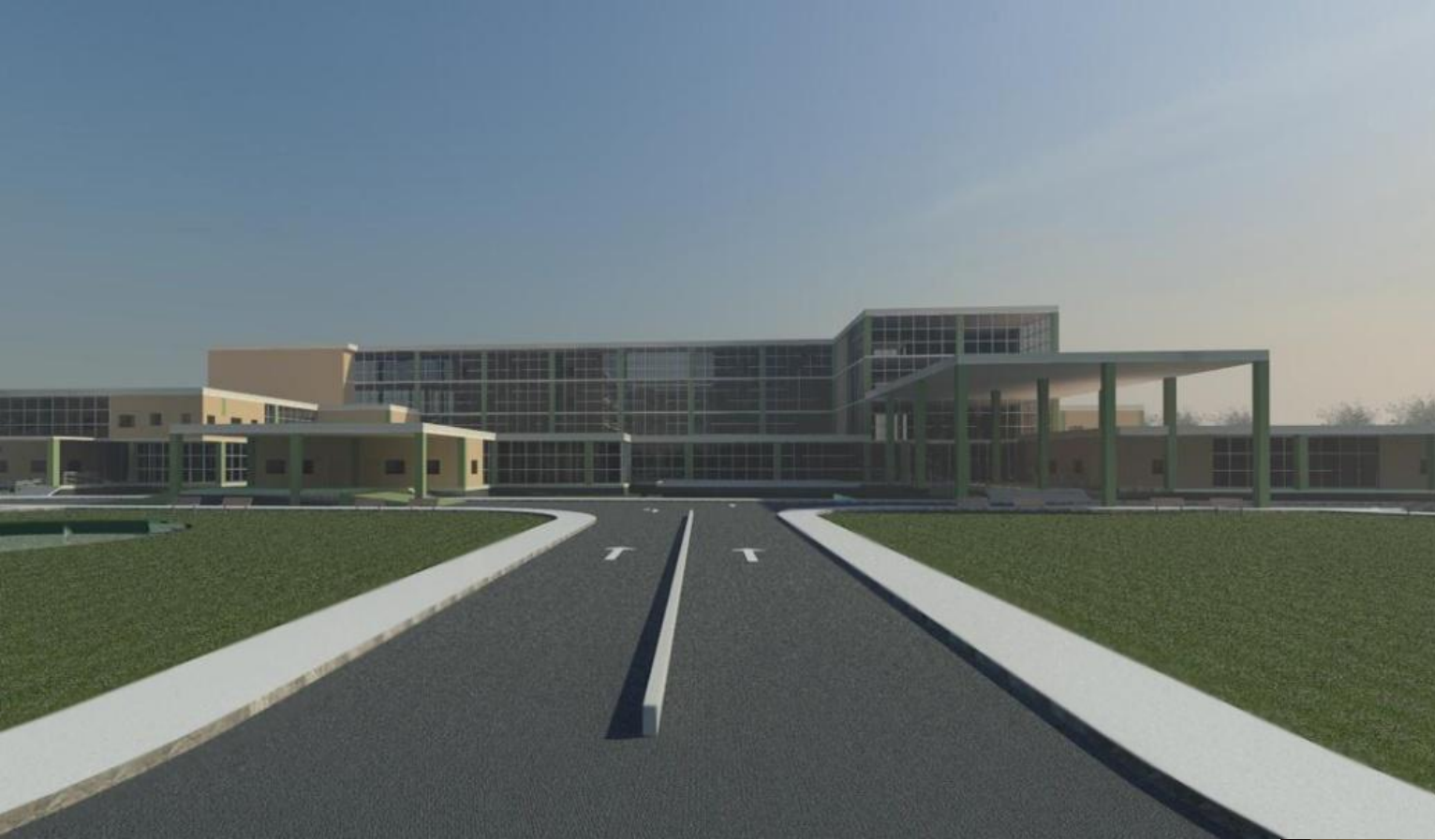
The facility provides an integrated patient experience including Emergency Department with a Trauma Center , all the essential cardiac diagnostic facilities including the Pacemaker clinic, Echo-Cardiography, Stress Test Lab, Catheterization Lab, Nuclear Medicine Dept etc, Major and minor surgical facilities, cardiac ICU and CCU and other support services, OPD, IPD where patients would stay for post operative treatment, fully equipped CSSD, Laundry, Store, Pharmacy and a 150-car parking area that is conveniently accessible by patients and staff .

The hospital infuses sunlight and natural perspectives into the entrance, welcoming visitors to a healing environment. Various way-finding strategies were incorporated in the layout to ensure easy and comfortable experience throughout the stay. Each department has a direct or an indirect hierarchical connection with other departments through the shortest possible routes. This facilitates the essential correspondence amongst them for maximum efficiency.

The IPD's healing courtyard is one of the hospitals prime facility as far as "therapeutic architecture" is concerned. This healing garden is overlooked by each of the patient rooms providing a calm and soothing view all the time for the patients under treatment. Pathways with attractive nodes at intervals that provide sitting/rest or leisure, positively encourage patients to move about and actively participate in their recovery. Research has shown that views of such natural landscapes can significantly reduce their blood cholesterol levels, stress level and hence minimize the time of their stay in hospital.









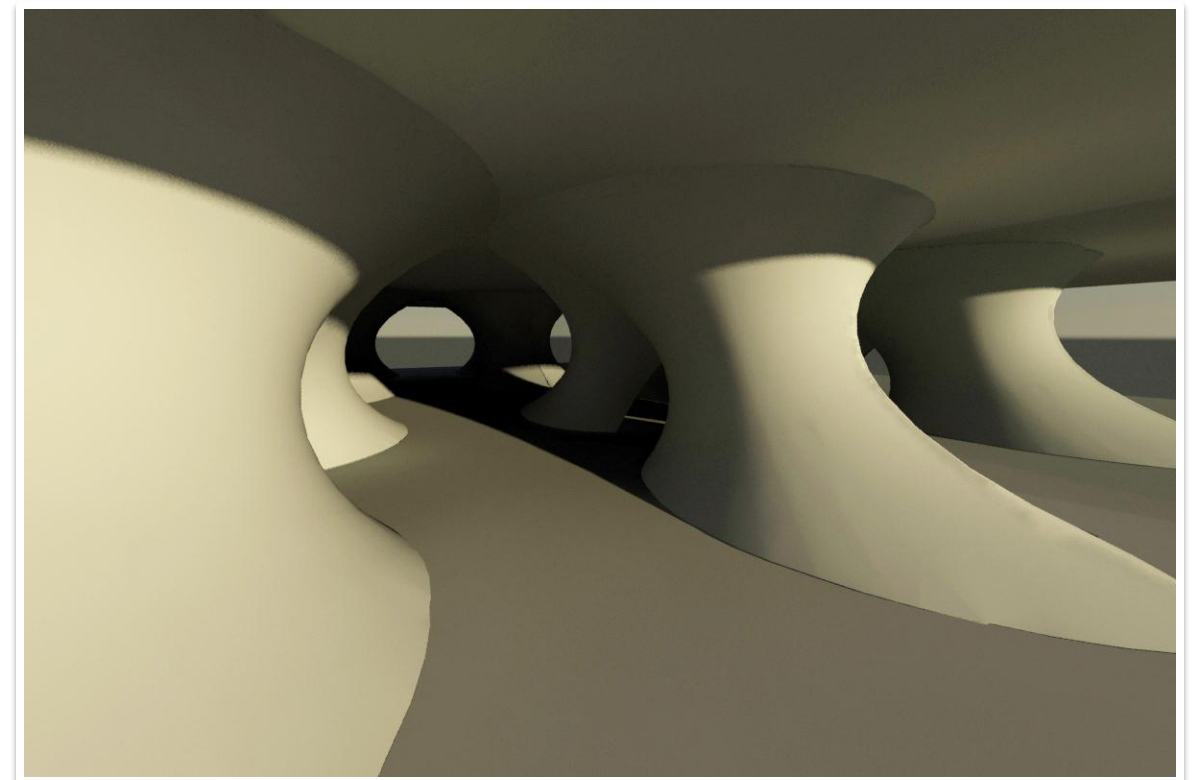
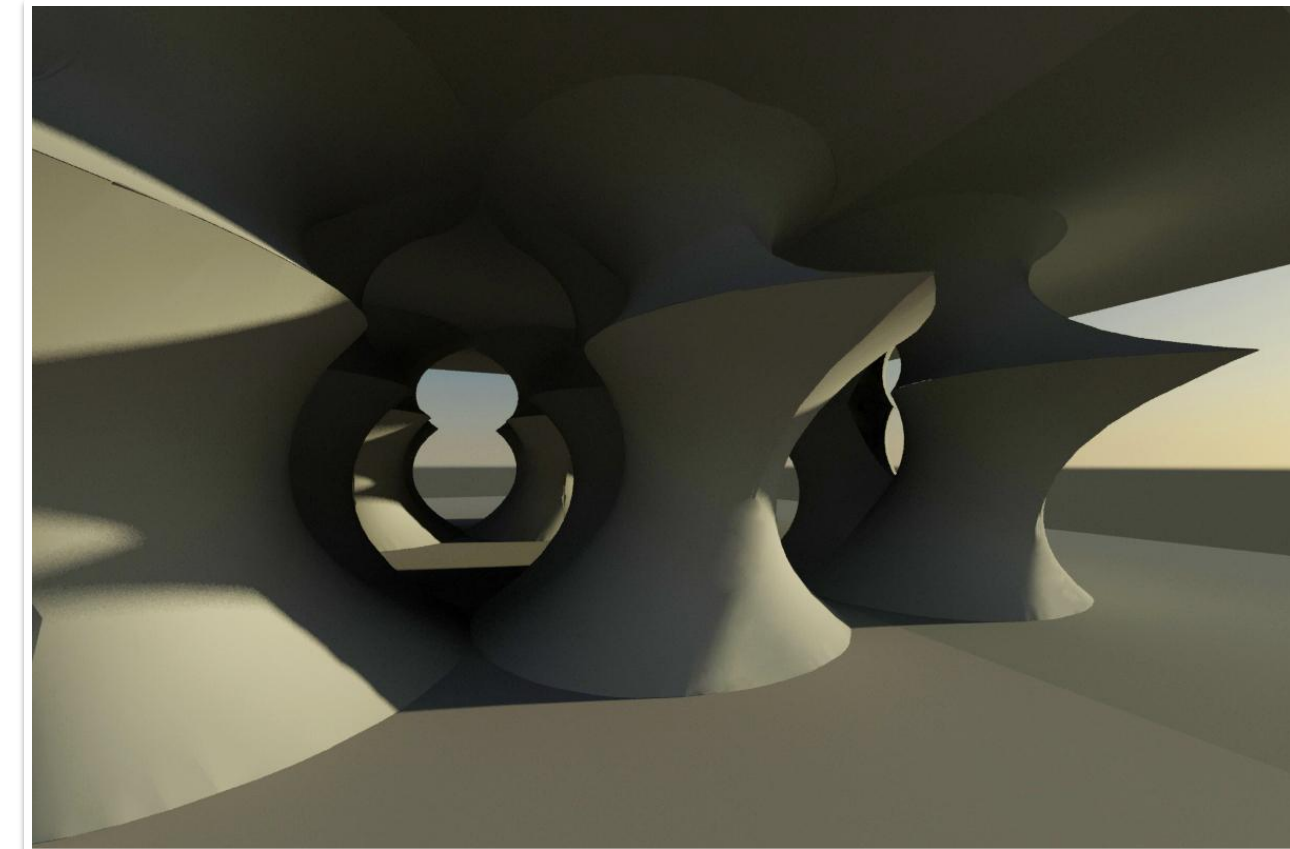
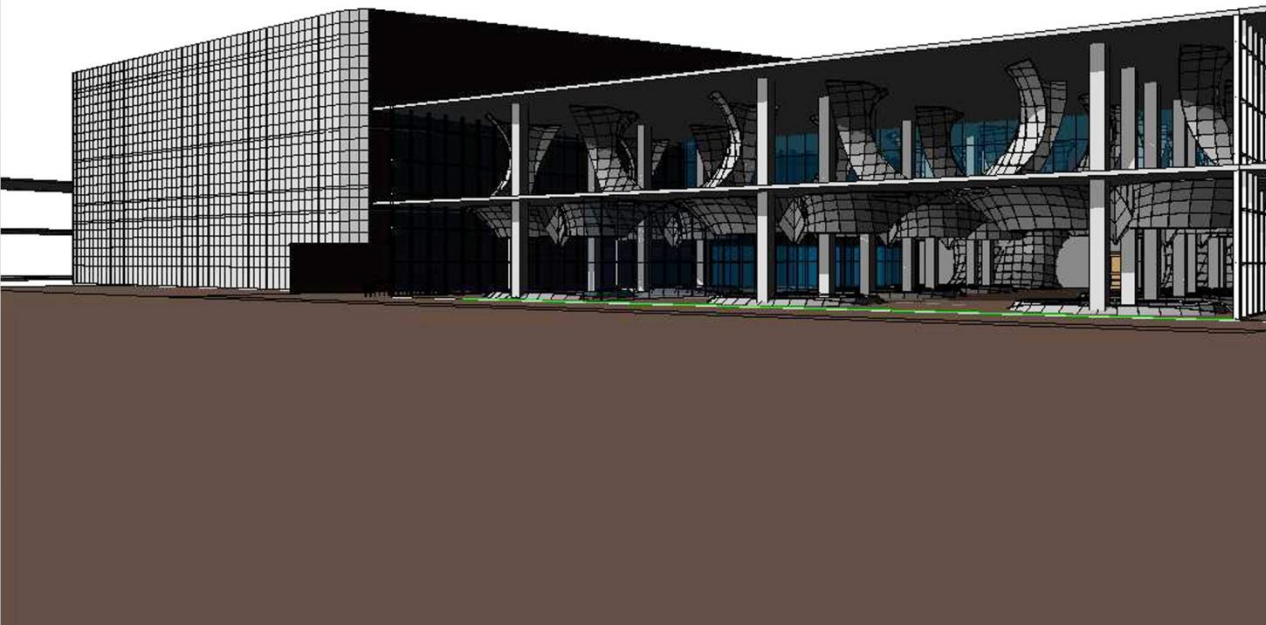
## STUDY IN MORPHOGENESIS: DESIGN OF DUCATI MOTORCYCLE SHOWROOM

The project required a showroom space to be designed for Ducati motorcycle, on a site located in one of the Lahore's most known commercial area.

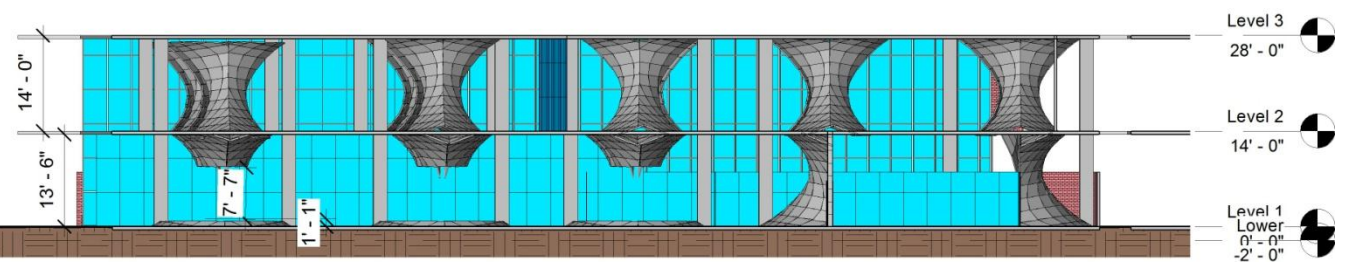
Every architectural space or setting has a particular value to it. This is because of an underlying code it is designed on. The code can be tangible, intangible or even accidental. Whatever the type of code its design is attributed to, the code is always there.

This exercise was about exploring different ways architecture could be conceived by using a certain code. This could be conceptualized on ones own definition or understanding of it. Taking this as a guideline, I decided to go for a mathematical "formula", which I used to develop geometrical surfaces creating spaces. The only way to achieve such geometry with accuracy was using a digital program. And this is what I ended up doing. I randomly chose a minimal surface developed on a certain algebraic expression (the code) and used its patch to further develop a surface according to my program requirements.

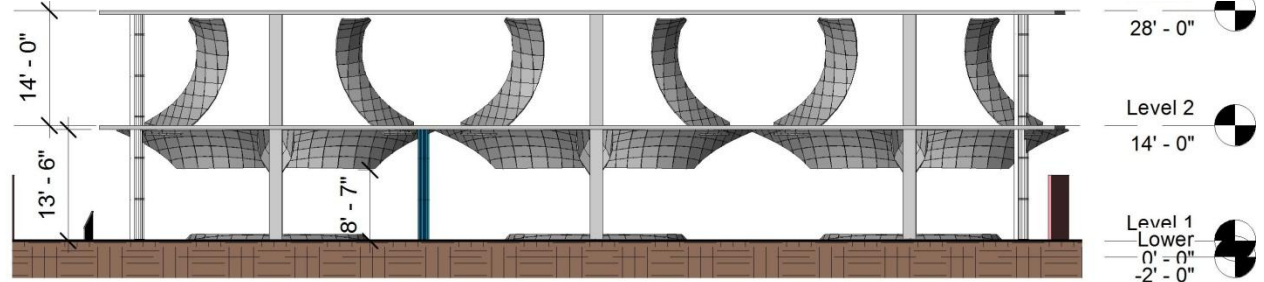
Architecture has long been dominated by orthogonal Cartesian principles of design preferring two dimensional planning and composition. Traditionally, three dimensional surface principles such as domes and vaults were implemented at positions predetermined. Although it is possible to produce complex three-dimensional space from such principles, the guiding parameters were usually generated by orthographic projections; plans, sections and elevations. Advancements in computation such as the calculus based NURBS surfaces and the accessibility of three dimensional modeling interfaces have liberated architects from two dimensional orthogonal logics. Surface logic attempts to describe a new way of thinking for architects guided by the principles inherent to working with equation based surfaces.



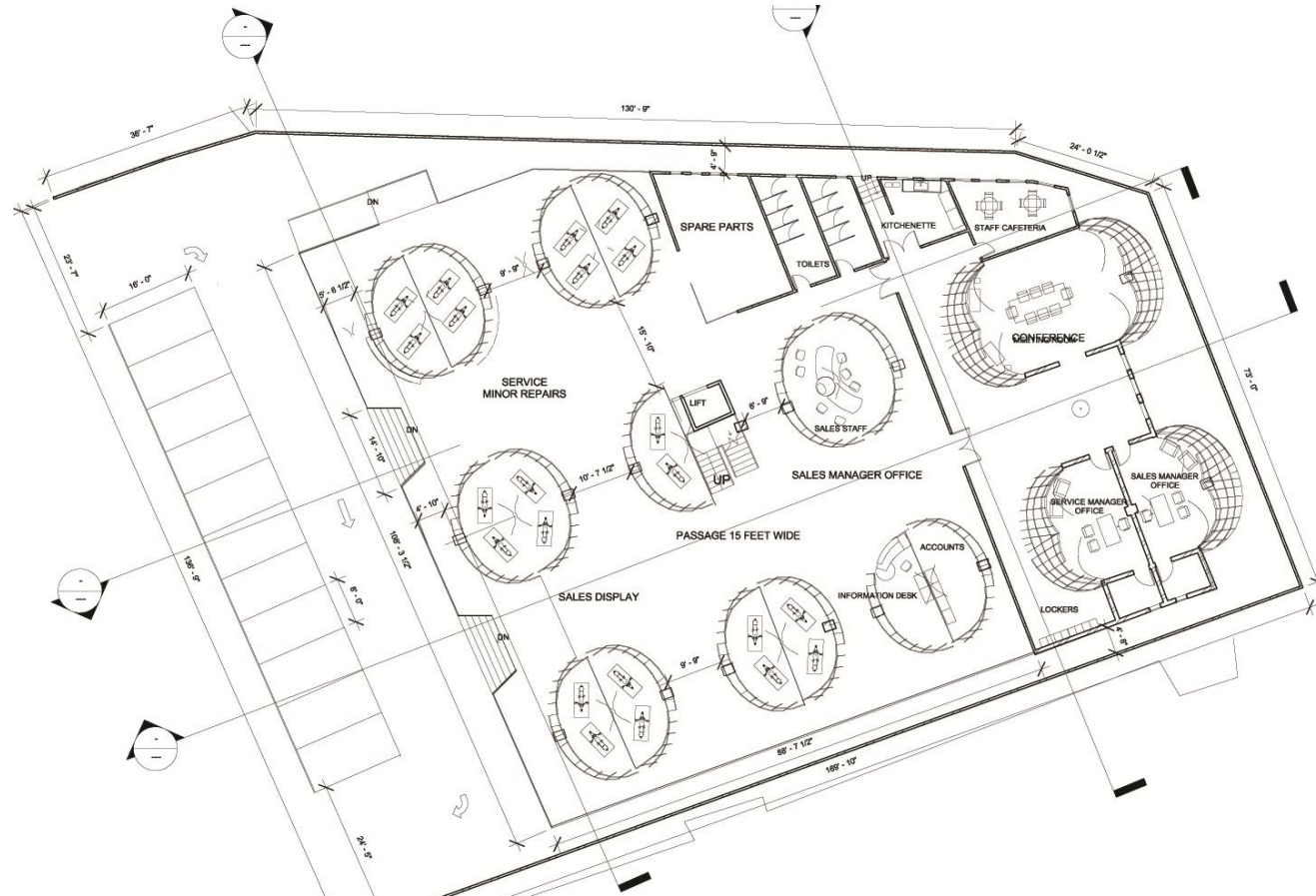
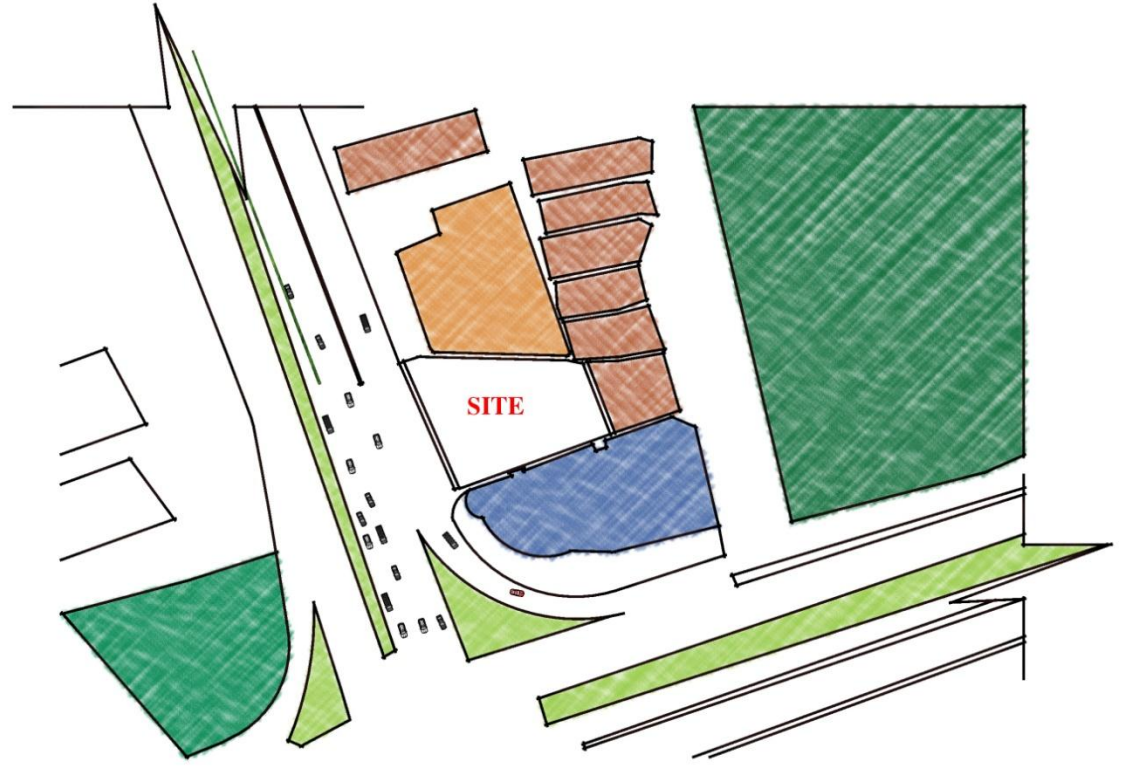




SECTION AA'  
SCALE: 1/16" = 1'-0"



SECTION BB'  
SCALE: 1/16" = 1'-0"



GROUND FLOOR PLAN  
SCALE: AS SHOWN



FIRST FLOOR PLAN  
SCALE: AS SHOWN

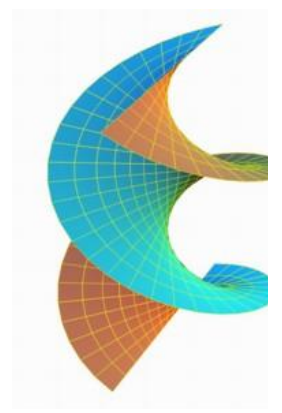
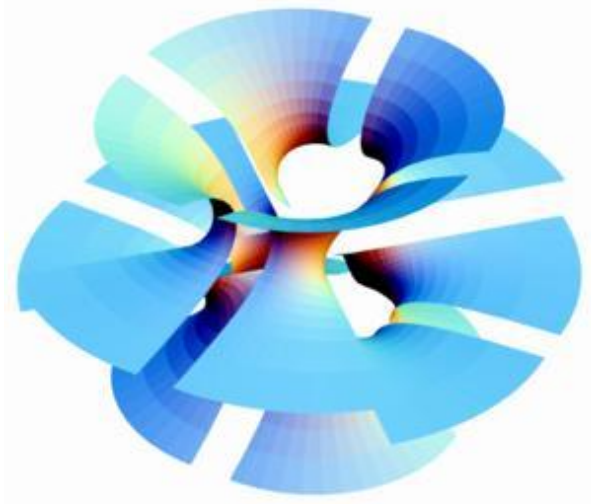
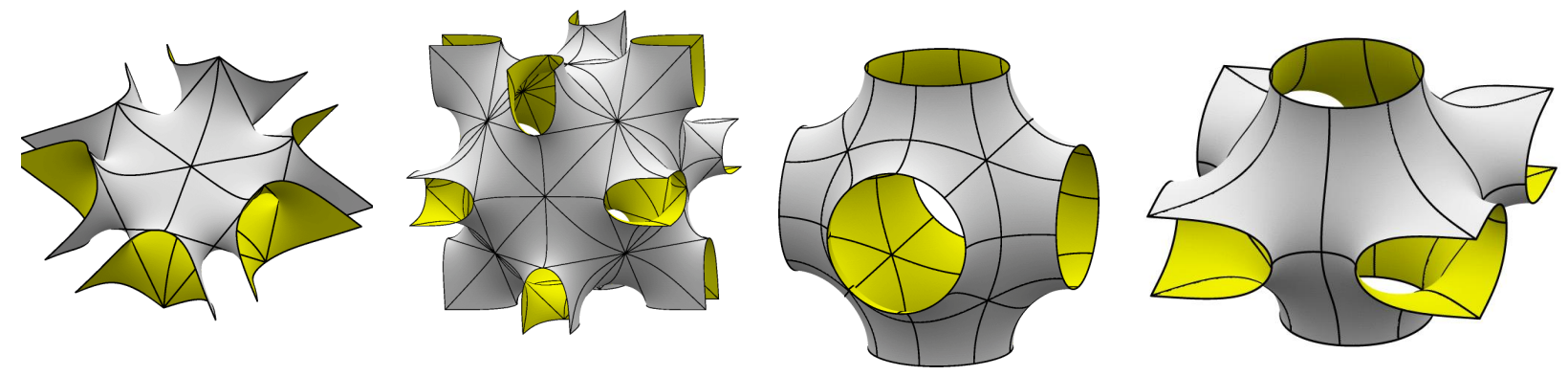


# DESIGN PROCESS: Schwarz's Principles of Periodic Minimal Surface

A periodic minimal surface constructed by Schwarz using the following two principles

- If part of the boundary of a minimal surface is a straight line, then the reflection across the line, when added to the original surface, makes another minimal surface.
- If a minimal surface meets a plane at right angles, then the mirror image of the plane, when added to the original surface, also makes a minimal surface.

## Examples of doubly & triply periodic minimal surface

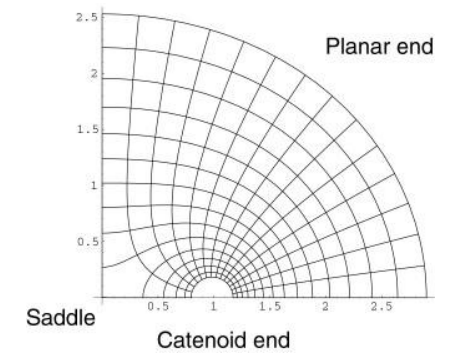
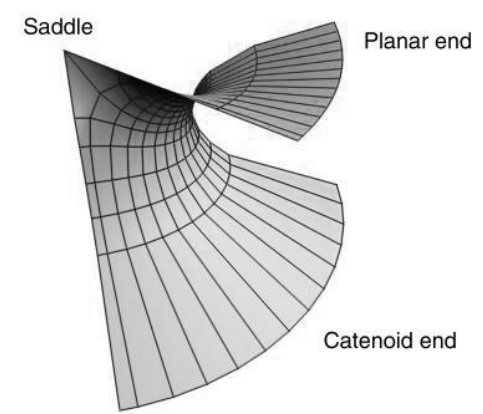
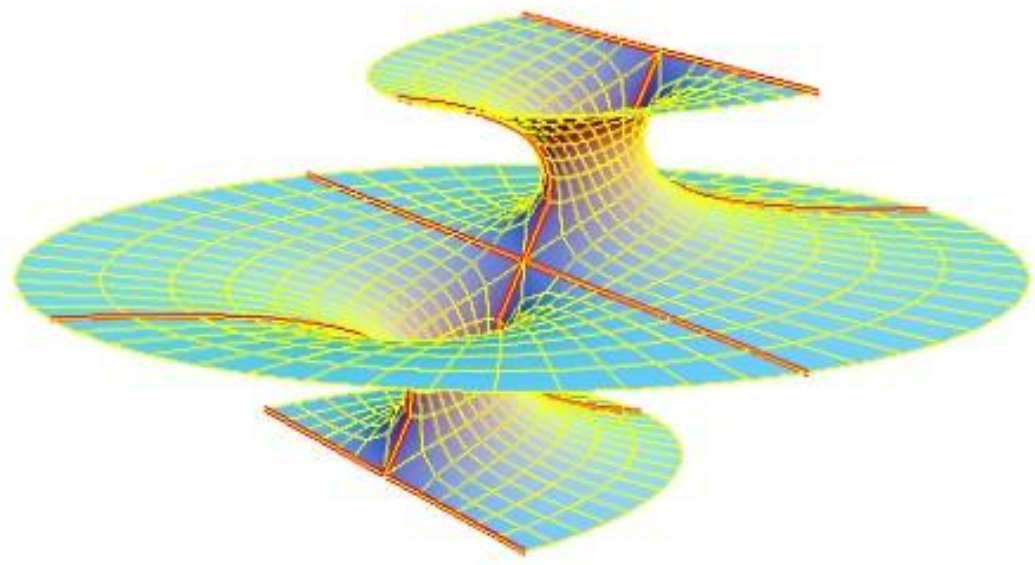


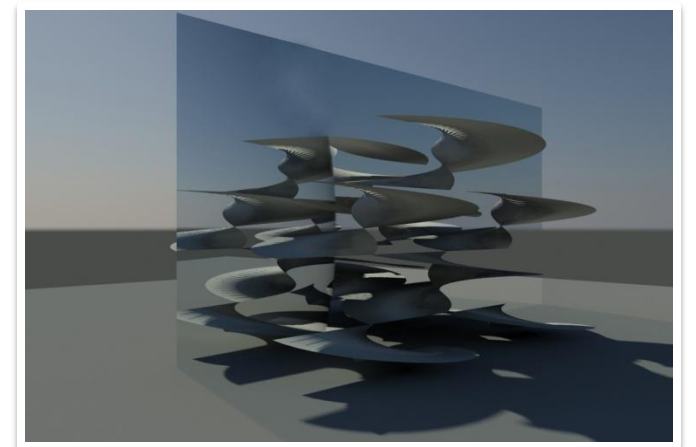
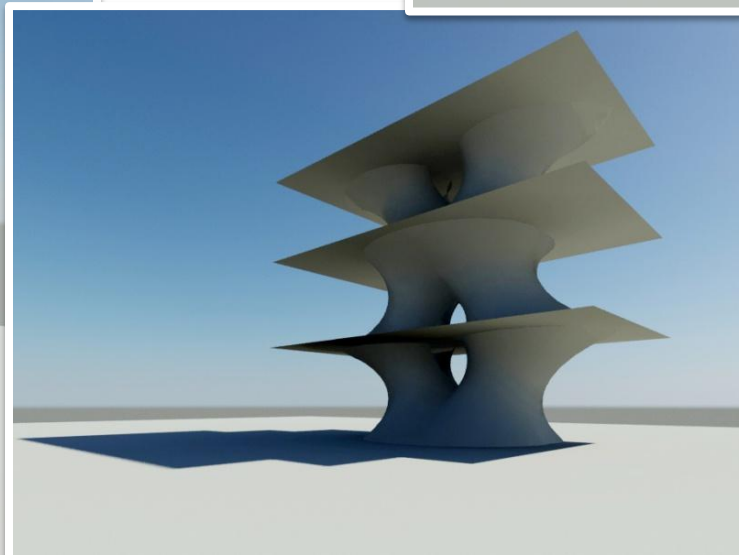
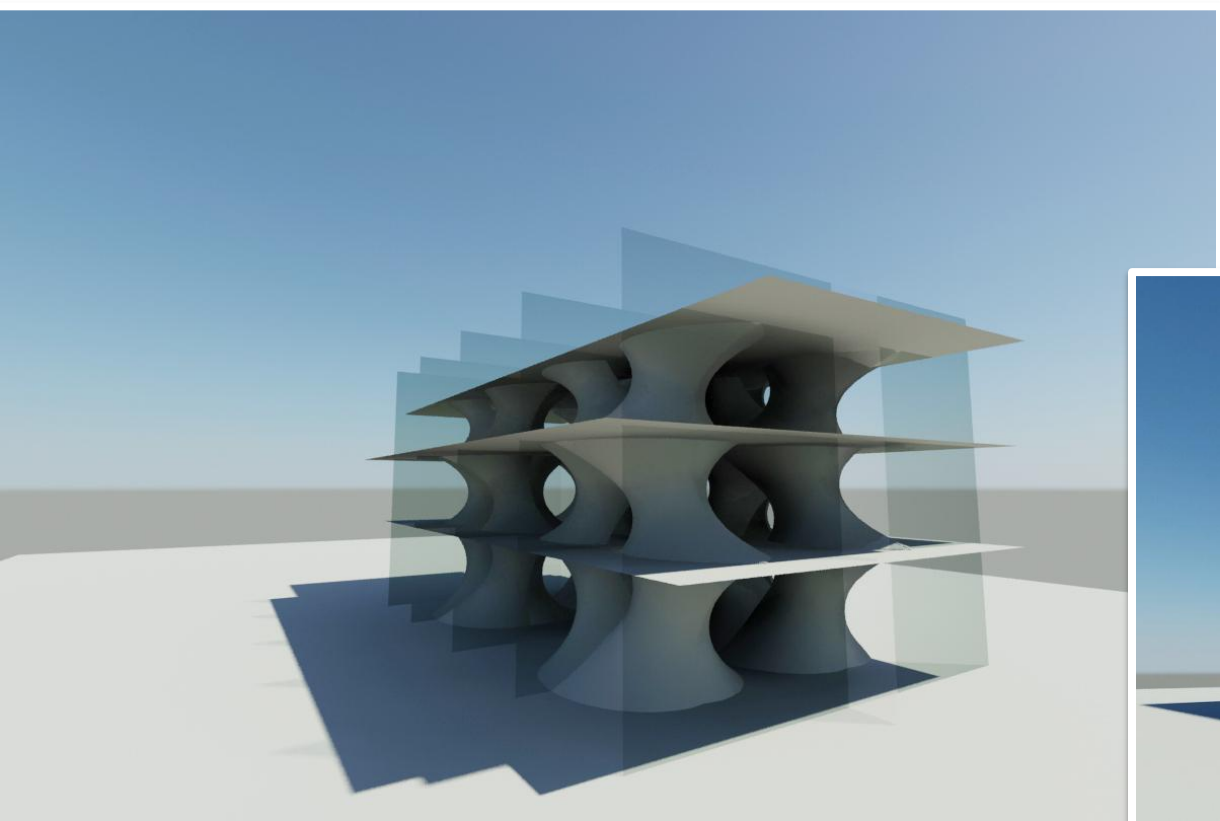
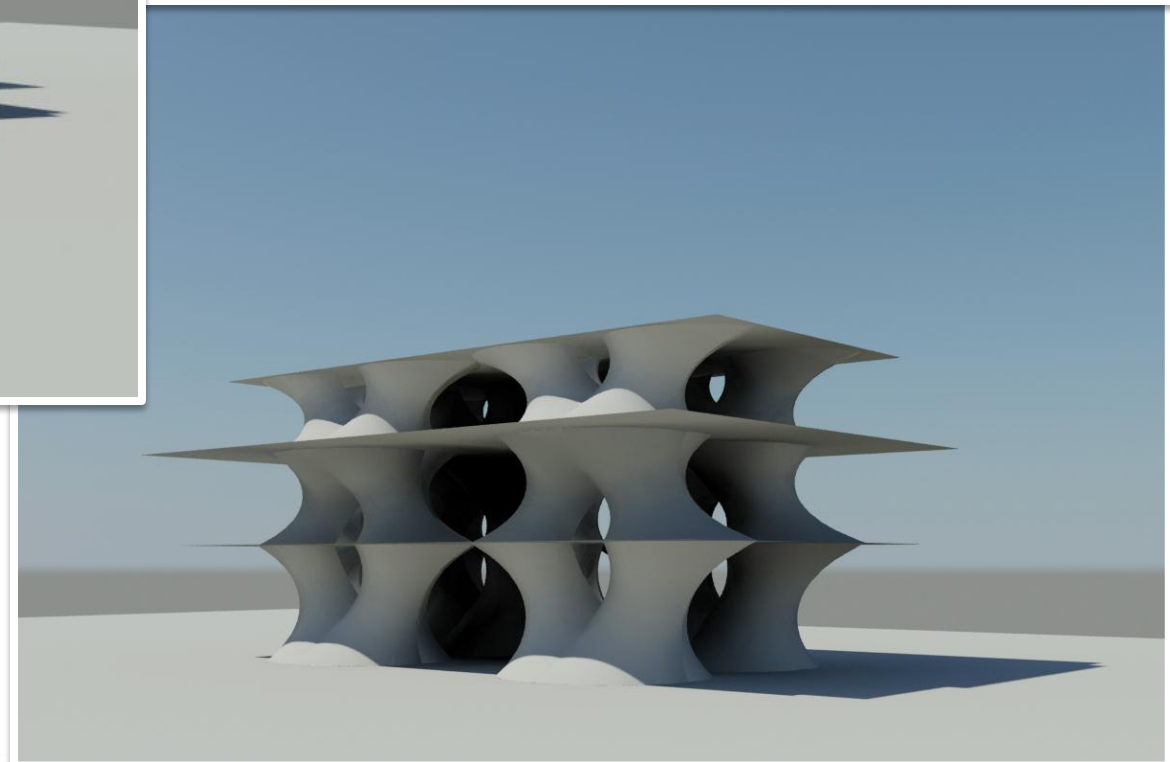
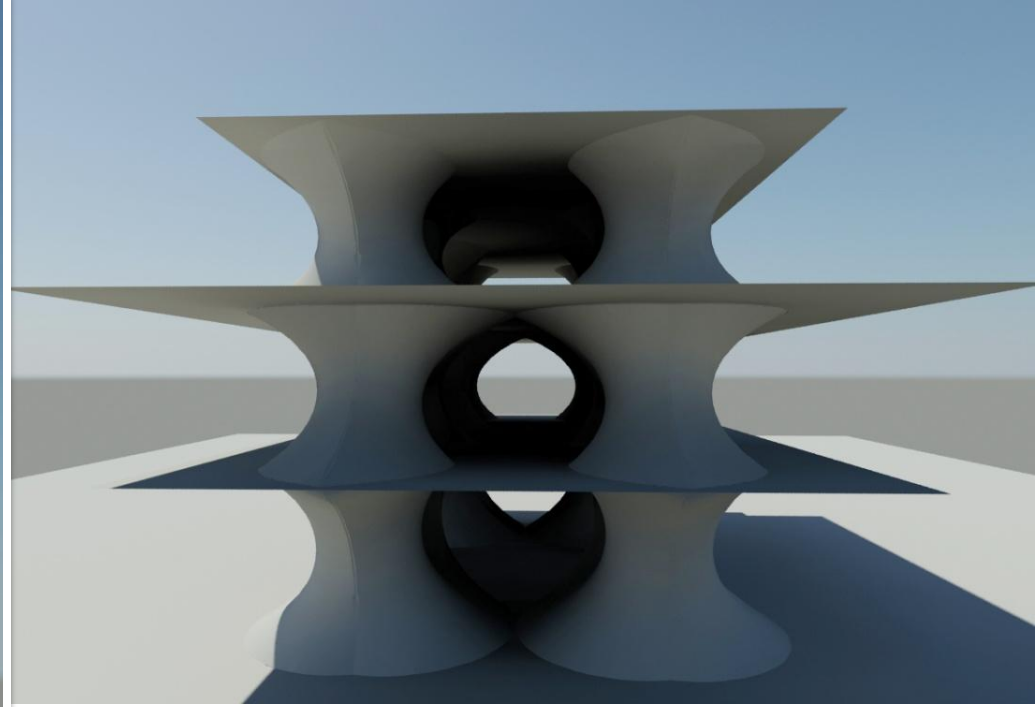
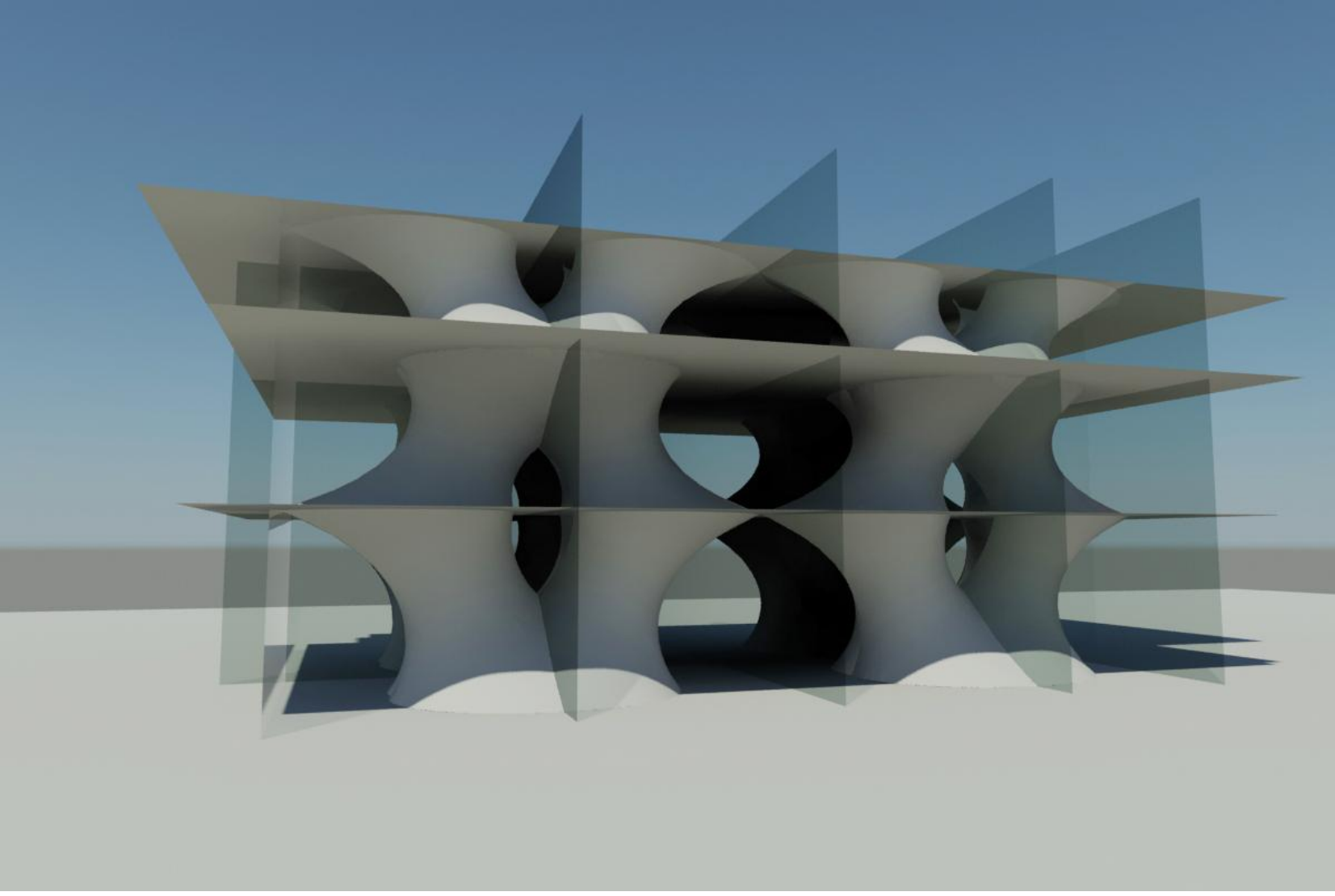
## CATENOID SURFACE

Enter Parameters	
Minimum u	-PI
Maximum u	PI
Minimum v	-2
Maximum v	2
PointCount u	25
PointCount v	13
Function X(u,v)	$\cos(a) \cdot \cos(u) \cdot \text{HCos}(v) + \sin(a) \cdot \sin(u) \cdot \text{HSin}(v)$
Function Y(u,v)	$-\cos(a) \cdot \sin(u) \cdot \text{HCos}(v) + \sin(a) \cdot \cos(u) \cdot \text{HSin}(v)$
Function Z(u,v)	$\cos(a) \cdot v + \sin(a) \cdot u$
Variables	$a = \text{PI}/2$

OK Cancel

## PATCHING





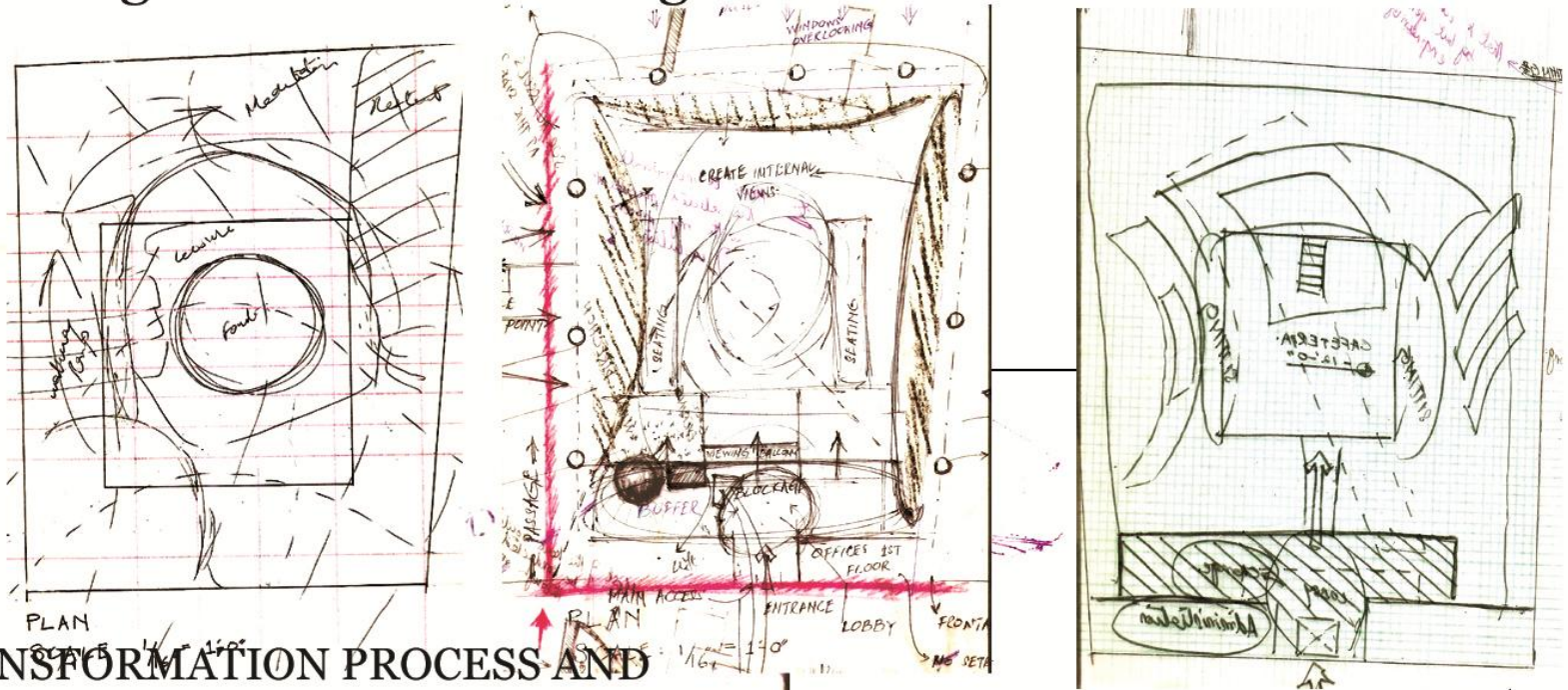


# THE PROJECT

THE DESIGN OF THE PROJECT BEGAN WITH THE BIOLOGICAL TRANSFORMATION PROCESS OF D'ARCY THOMPSON IN WHICH THE SELECTED PRECEDENT EXHIBITS ITS INITIAL CHARACTERISTICS AFTER GOING THROUGH A NUMBER OF TRANSFORMATIONAL MOVES. THE FINAL DESIGN SHOWS THE EVOLUTION OF LAXMI SITE AS A LIVING THING.

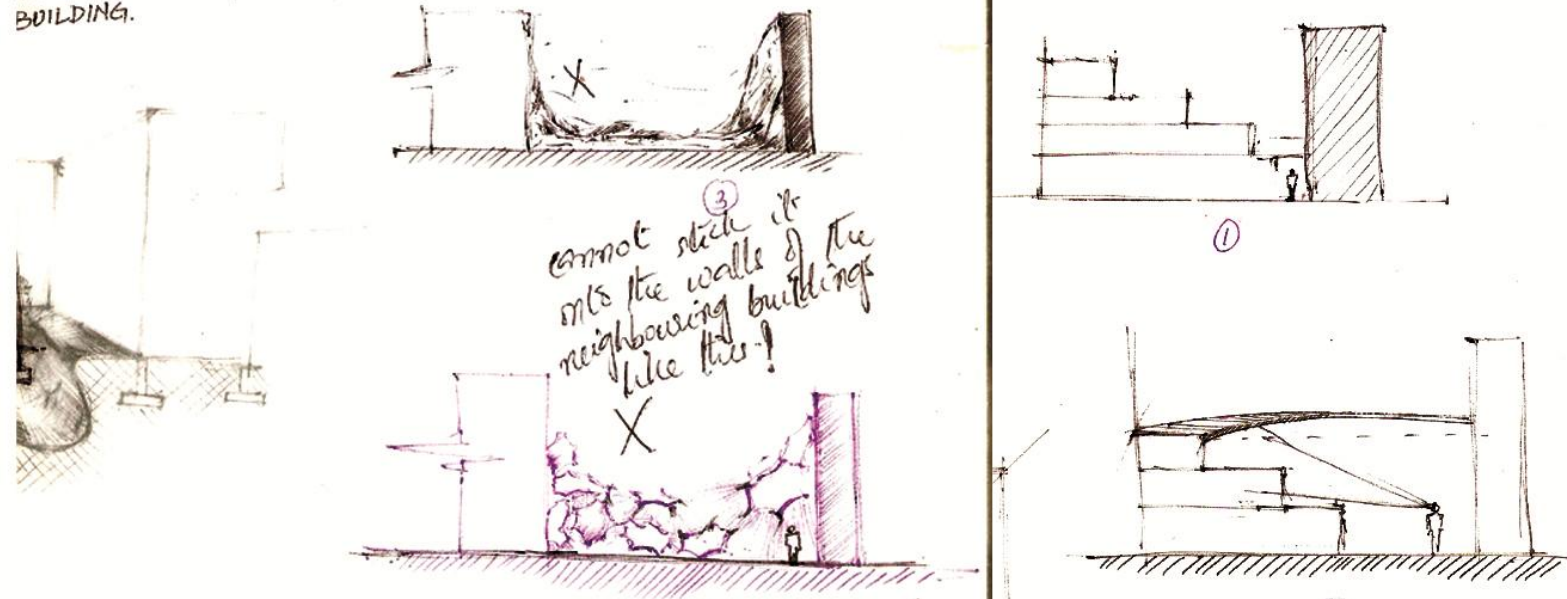
# Design Research Exercise 2

Drafting the design brief  
Design for laxmi building site



## GRID TRANSFORMATION PROCESS AND PROGRAM

LAXMI BUILDING.

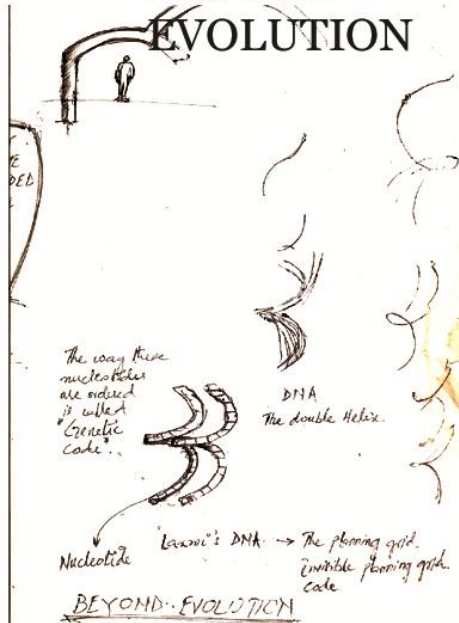


## FUNGUS METAPHOR

its too literal.

FACADE.  
DNA code -> Planning Grid.

## BEYOND EVOLUTION

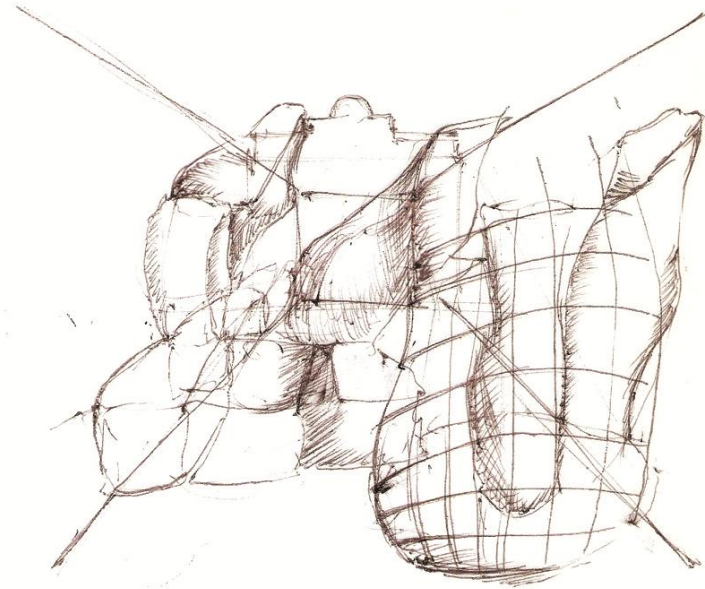
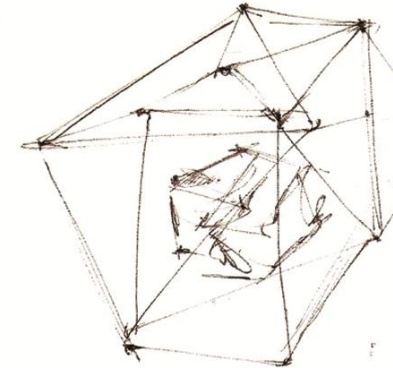
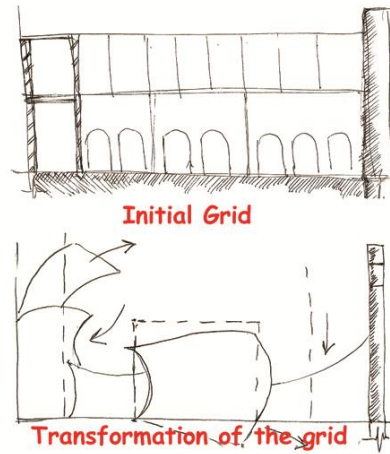




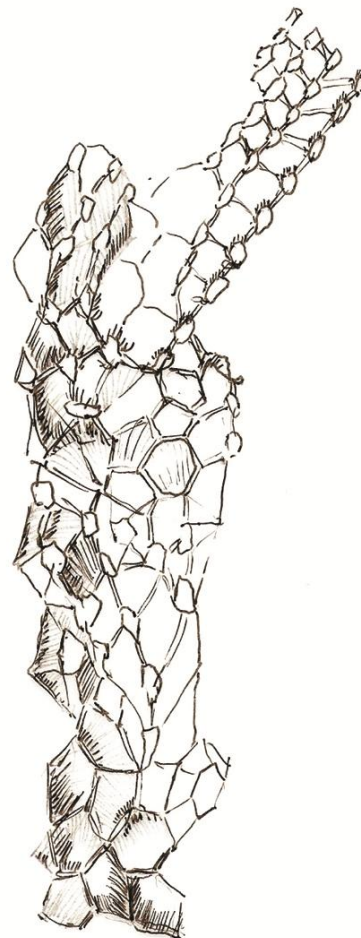
# DESIGN RESEARCH SKETCHES



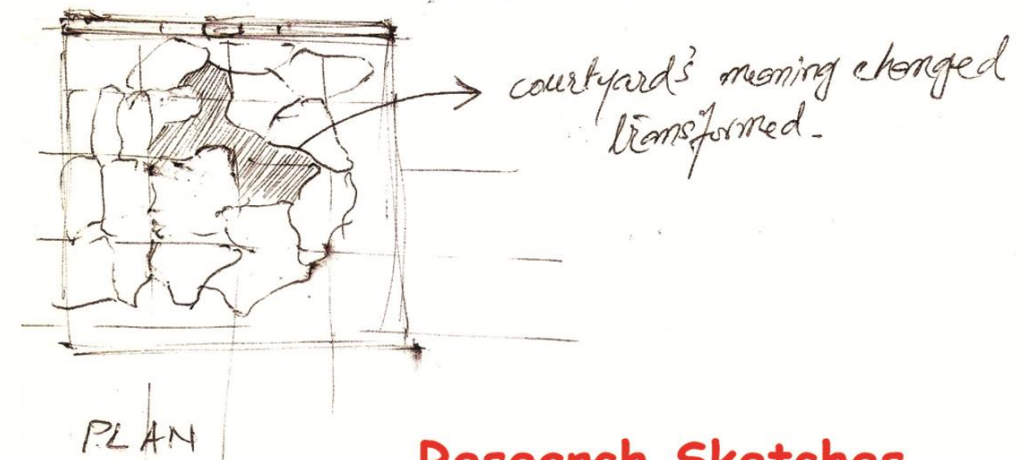
**Experiencial Sketch**



**Research Sketch Transformation**



**Cell Migration and pattern formation**



**Research Sketches**



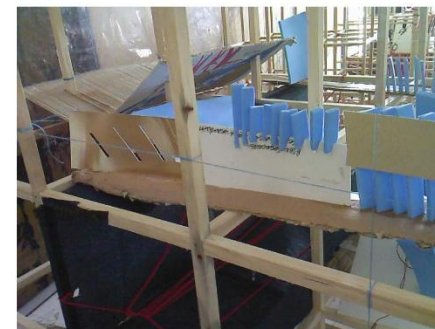
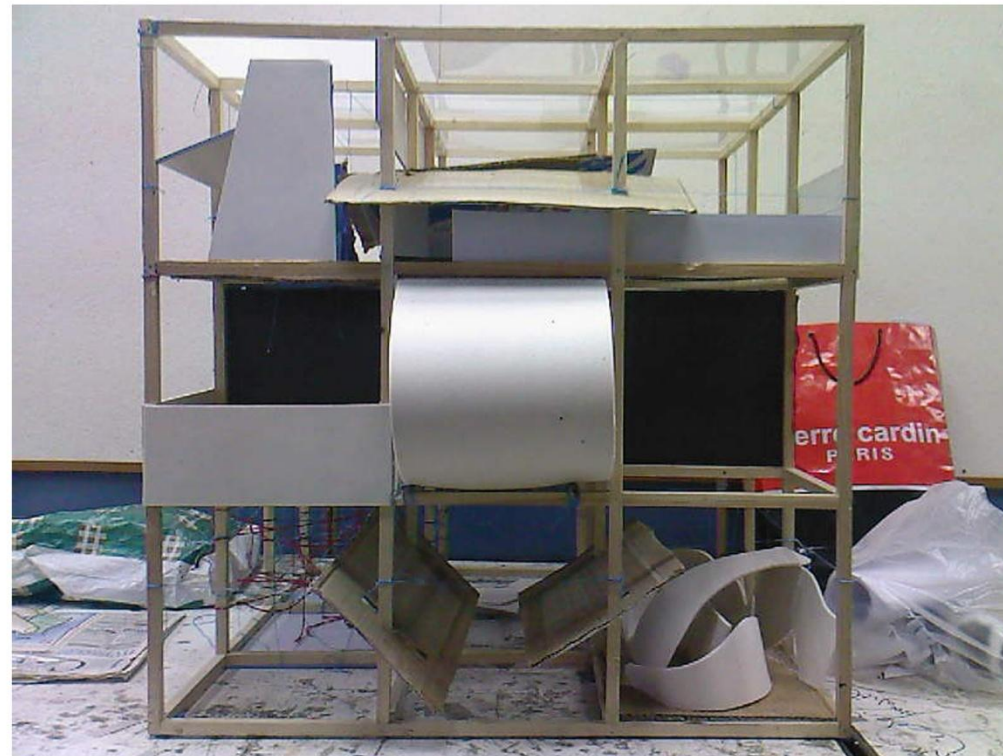
# DESIGN RESEARCH EXERCISE 1

## NON-LINEAR NARRATIVES IN ARCHITECTURE

### ARCHITECTUREAL RUBIK-THE PROBLEM OF 27 CUBES



THE DESIGN EXERCISE BEGAN WITH DRAFTING A CHARACTER SKETCH. IN MY DESIGN THE CHARACTER IS A SOCIOPATHIC KILLER WHO MOVES FROM ONE PLACE TO ANOTHER IN SEARCH OF A CONSTANT CHANGE. THE MOTION OF THE CHARACTER WAS MARKED WITH A THREAD AND THEN LATER THE SPACES WERE DEVELOPED ACCORDING TO HIS PERCEPTION.





# DESIGN RESEARCH EXERCISE 3

## REGENERATION OF A HISTORIC URBAN CENTER

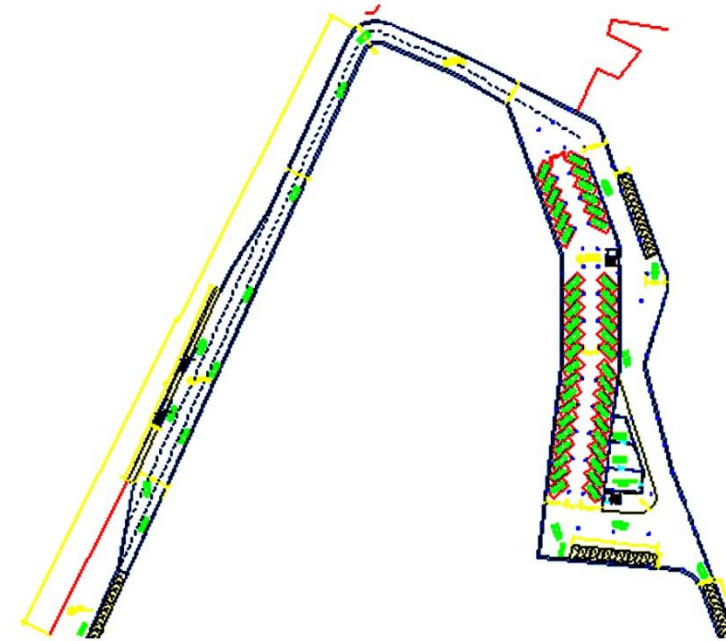
### DELIHI MUSLIM HOTEL, ANARKAL LAHORE

THE DESIGN FOCUSES ON THE ORDERING AND ZONING OF THE CONSISTENT TRAFFIC CONGESTION WITHIN THE ANARKALI STREET. THIS LEADS TO THE PROVISION OF CAR PARKING IN THE NEELA GUMBAD BASEMENT (TO REVERSE THE PROCESS OF URBAN DECAY IN THIS AREA).

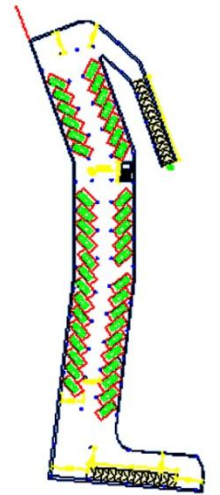
THE DELHI MUSLIM HOTEL SITE IS REPROGRAMMED AND PROVIDED WITH ACTIVITIES THAT SHALL CARRY ON THROUGHOUT THE NIGHT WHICH INCLUDE A RESTAURANT, AN OUTDOOR PERFORMANCE AREA AND AN OPEN AIR CINEMA.



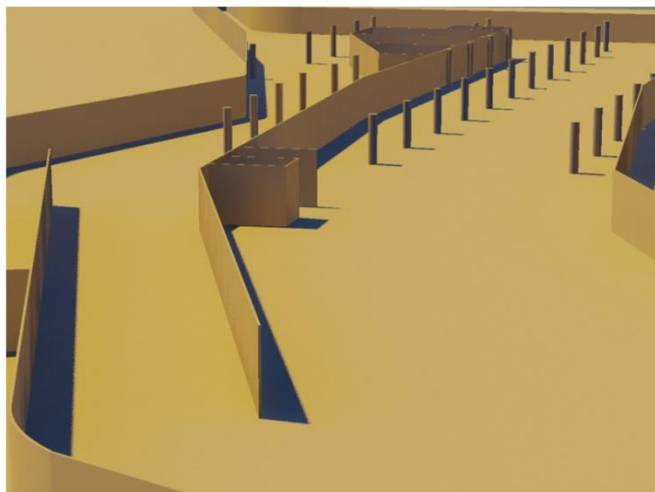
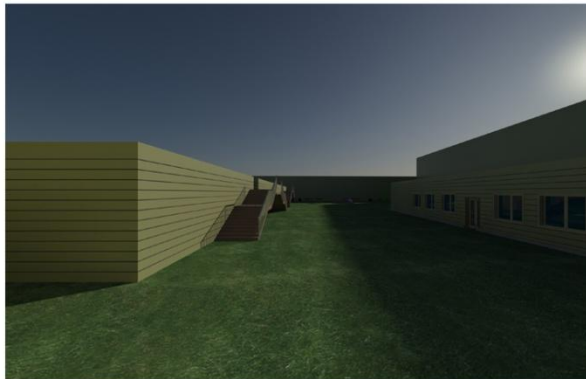
PLAN  
SITE: DELHI MUSLIM HOTEL



BASEMENT PLAN



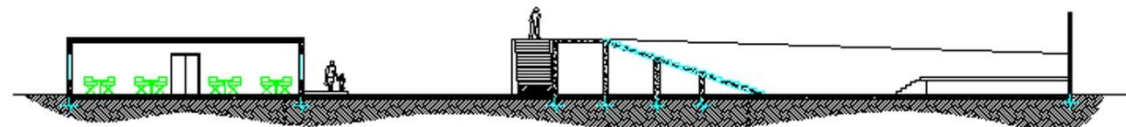
SECOND BASEMENT PLAN



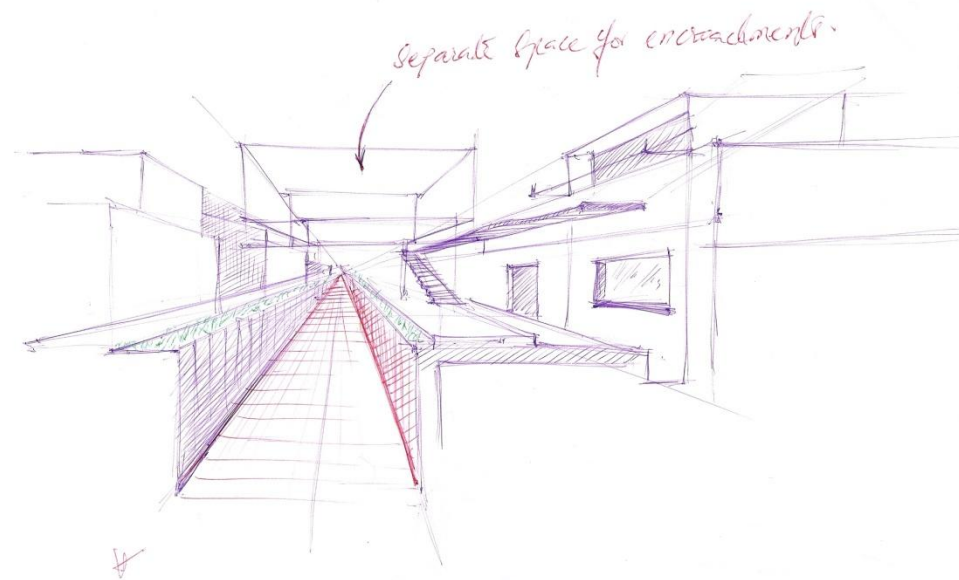
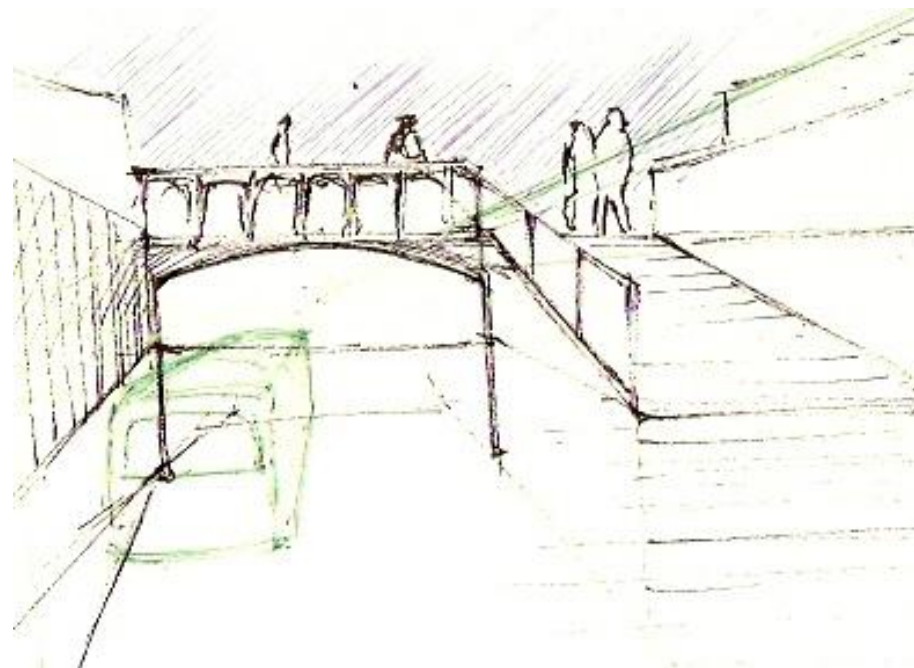
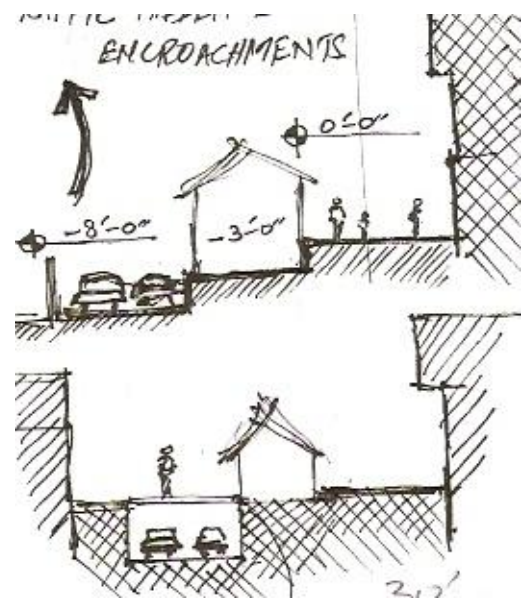
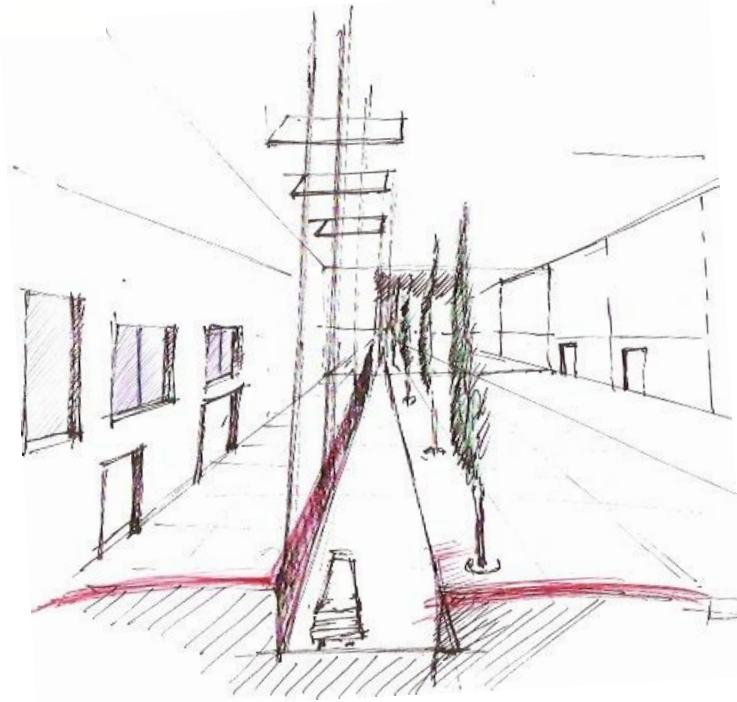
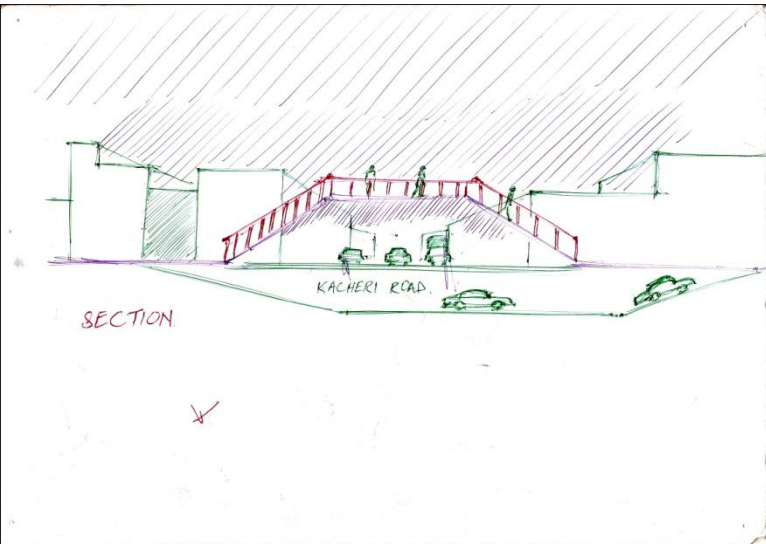
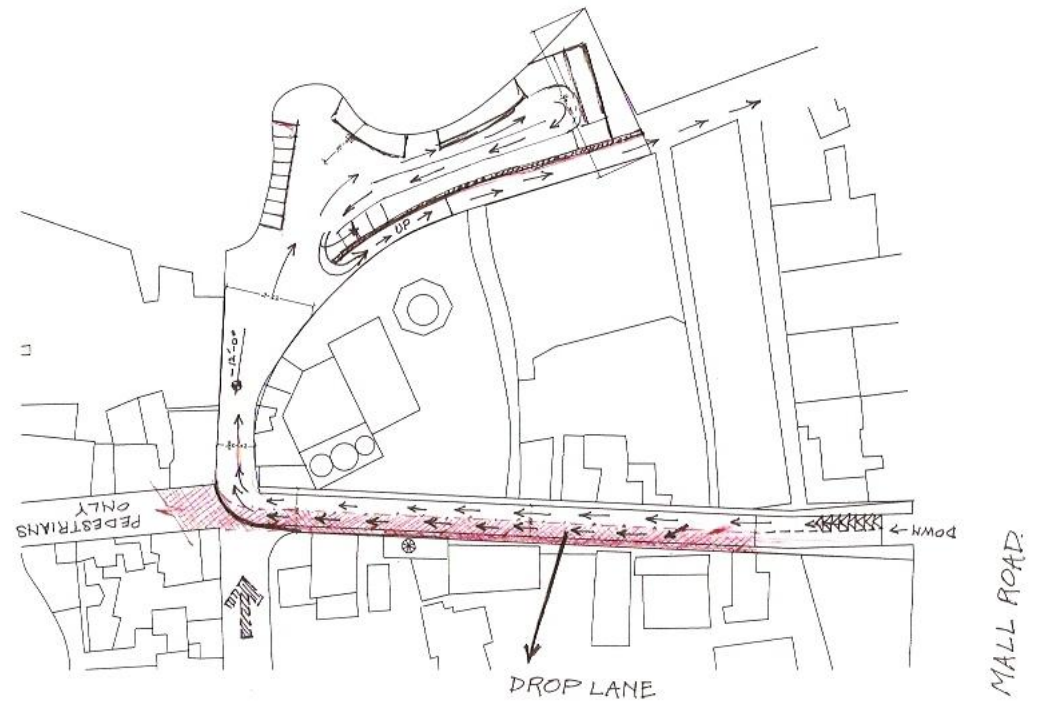
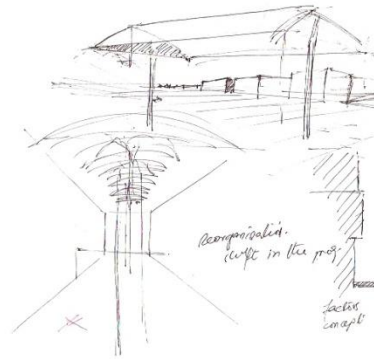
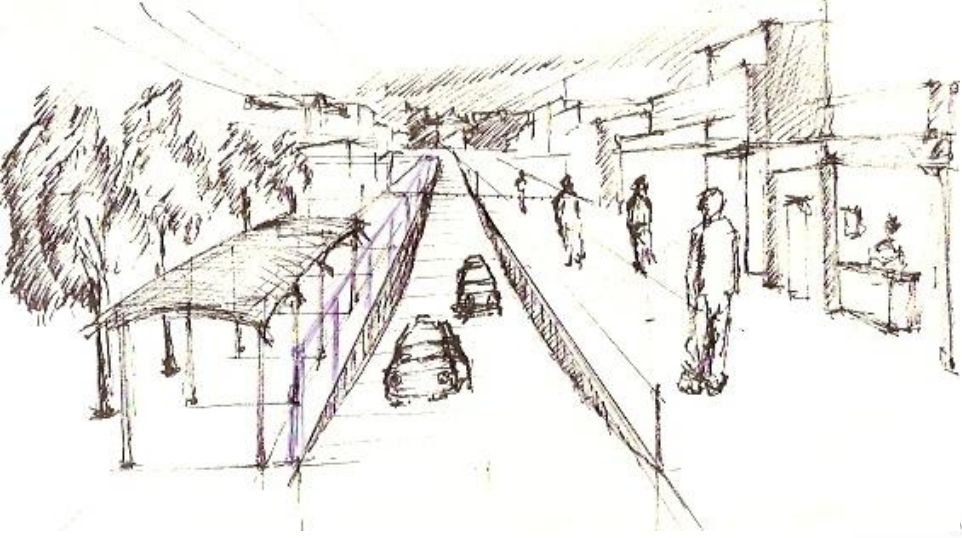
3D VIEWS



SECTION AA'









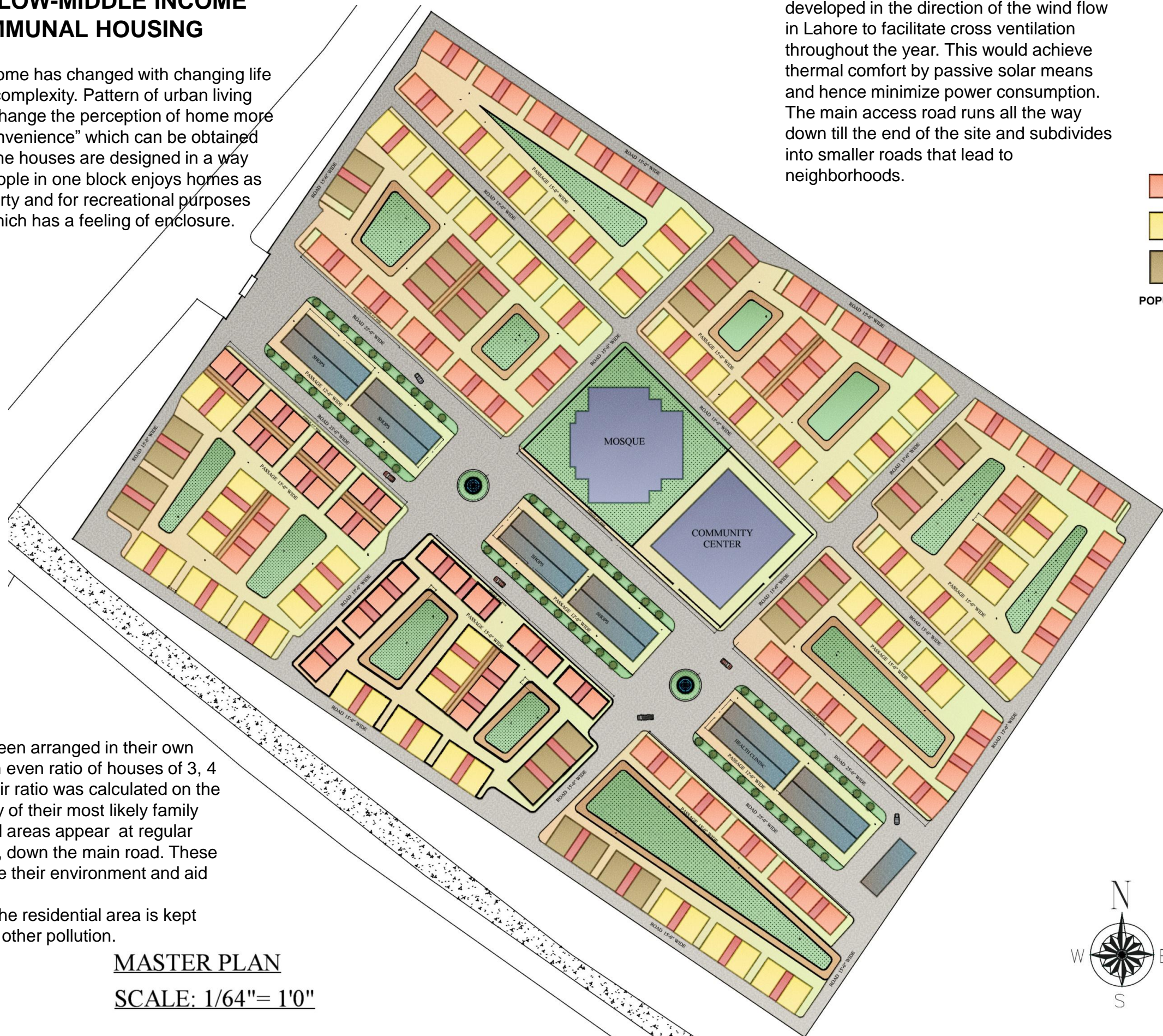
# DESIGN RESEARCH EXERCISE 6 DESIGNING LOW-MIDDLE INCOME GROUP COMMUNAL HOUSING

The meaning of home has changed with changing life patterns and city complexity. Pattern of urban living are beginning to change the perception of home more towards a "city convenience" which can be obtained and purchased. The houses are designed in a way that a group of people in one block enjoys homes as their private property and for recreational purposes shares a space which has a feeling of enclosure.

The major grid for the housing was developed in the direction of the wind flow in Lahore to facilitate cross ventilation throughout the year. This would achieve thermal comfort by passive solar means and hence minimize power consumption. The main access road runs all the way down till the end of the site and subdivides into smaller roads that lead to neighborhoods.

- 3 MARLAS
- 4 MARLAS
- 5 MARLAS

POPULATION DENSITY : 4000



All houses have been arranged in their own neighborhood with even ratio of houses of 3, 4 and 5 marlas. Their ratio was calculated on the basis of probability of their most likely family sizes. Commercial areas appear at regular intervals or nodes, down the main road. These nodes characterize their environment and aid in way-finding. Being in middle, the residential area is kept clear of noise and other pollution.

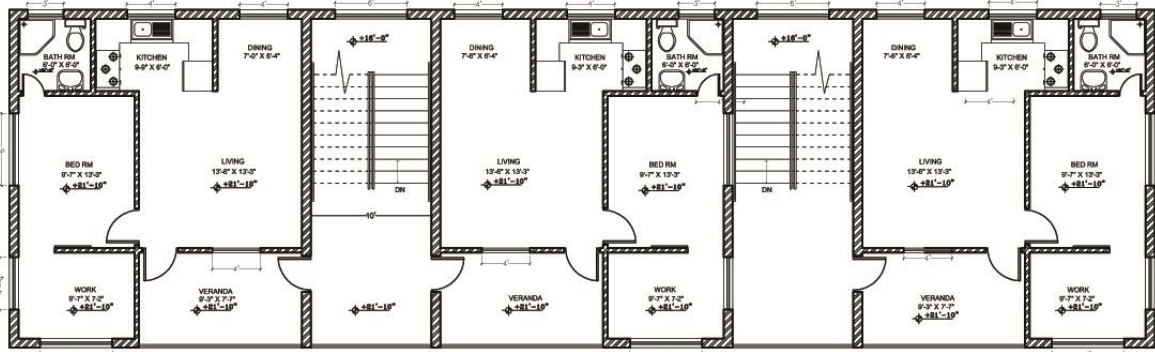
MASTER PLAN

SCALE: 1/64"= 1'0"





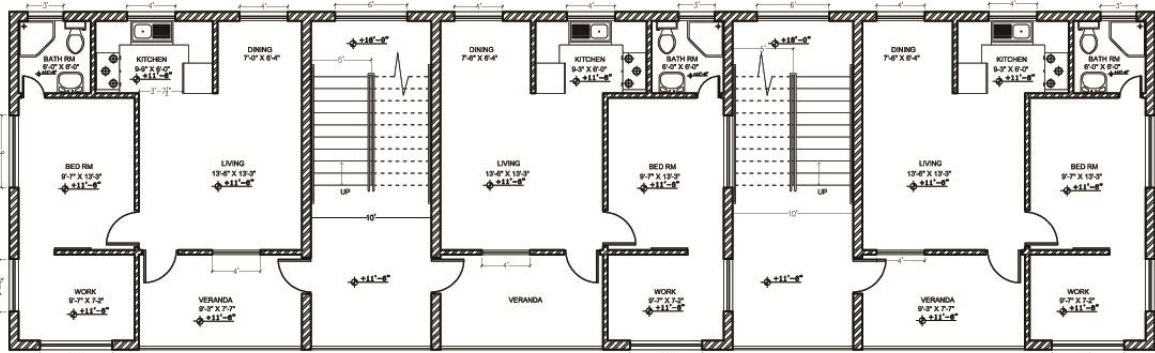
# EXAMPLE OF 3 MARLA HOUSING UNIT



3- MARLA UNITS A2

SECOND FLOOR

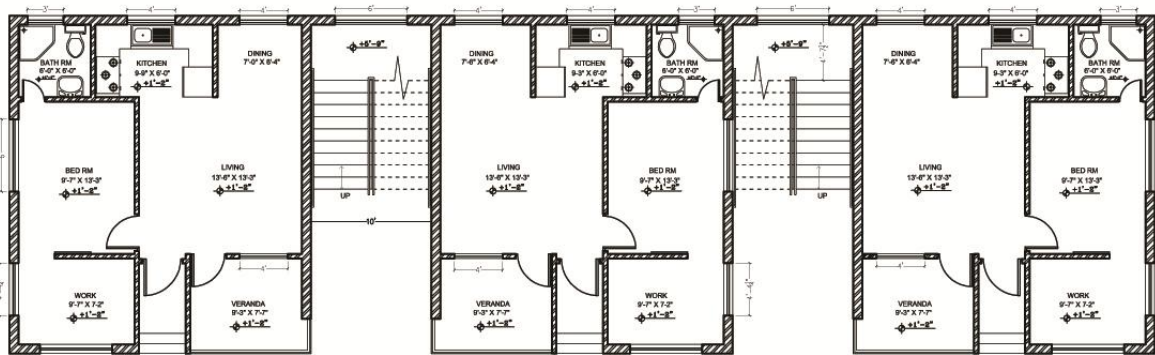
SCALE: 1/8" = 1'-0"



3- MARLA UNITS A2

FIRST FLOOR

SCALE: 1/8" = 1'-0"



3- MARLA UNITS A2

GROUND FLOOR

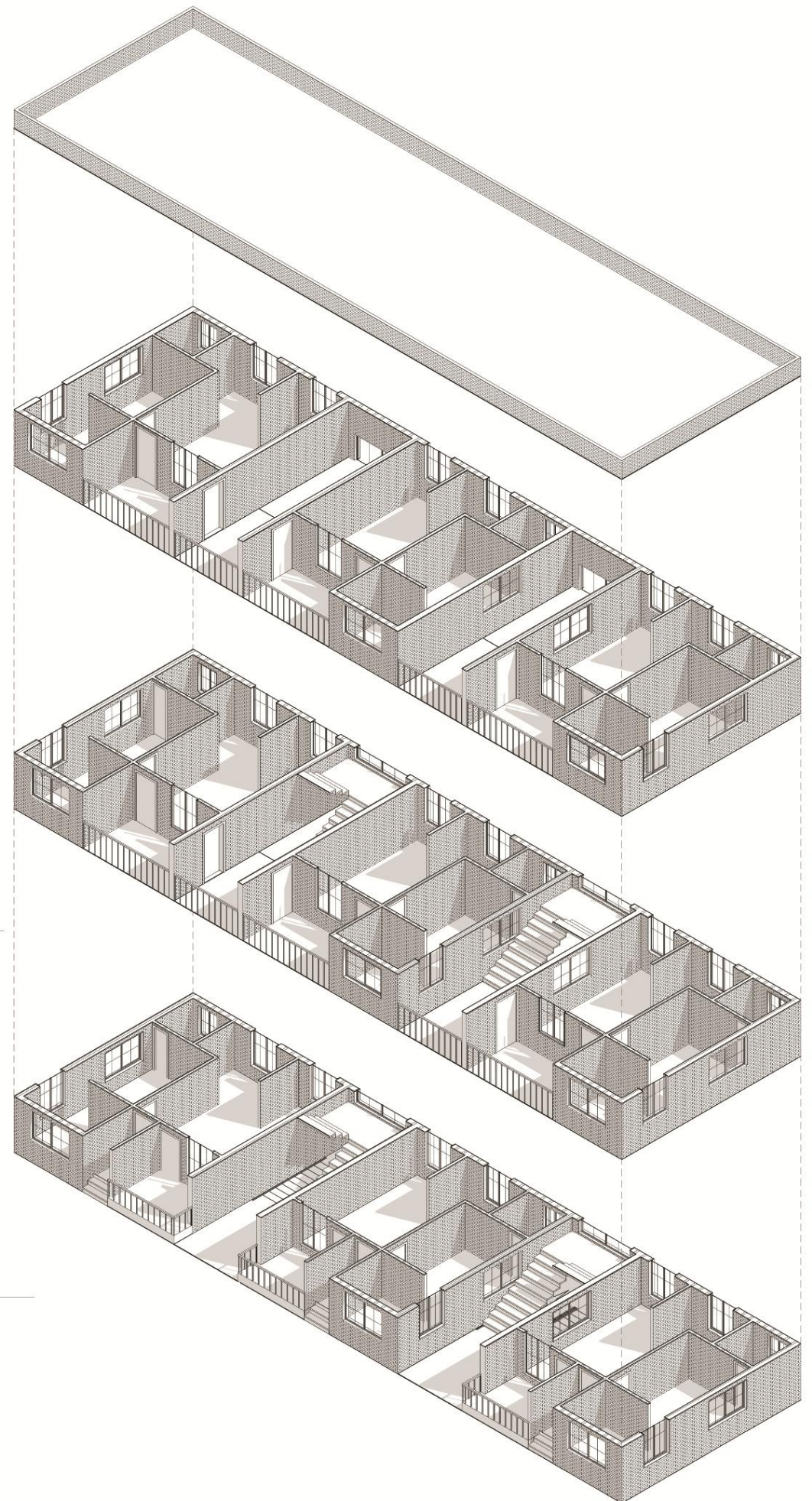
SCALE: 1/8" = 1'-0"

4 roof

3 second floor

2 first floor

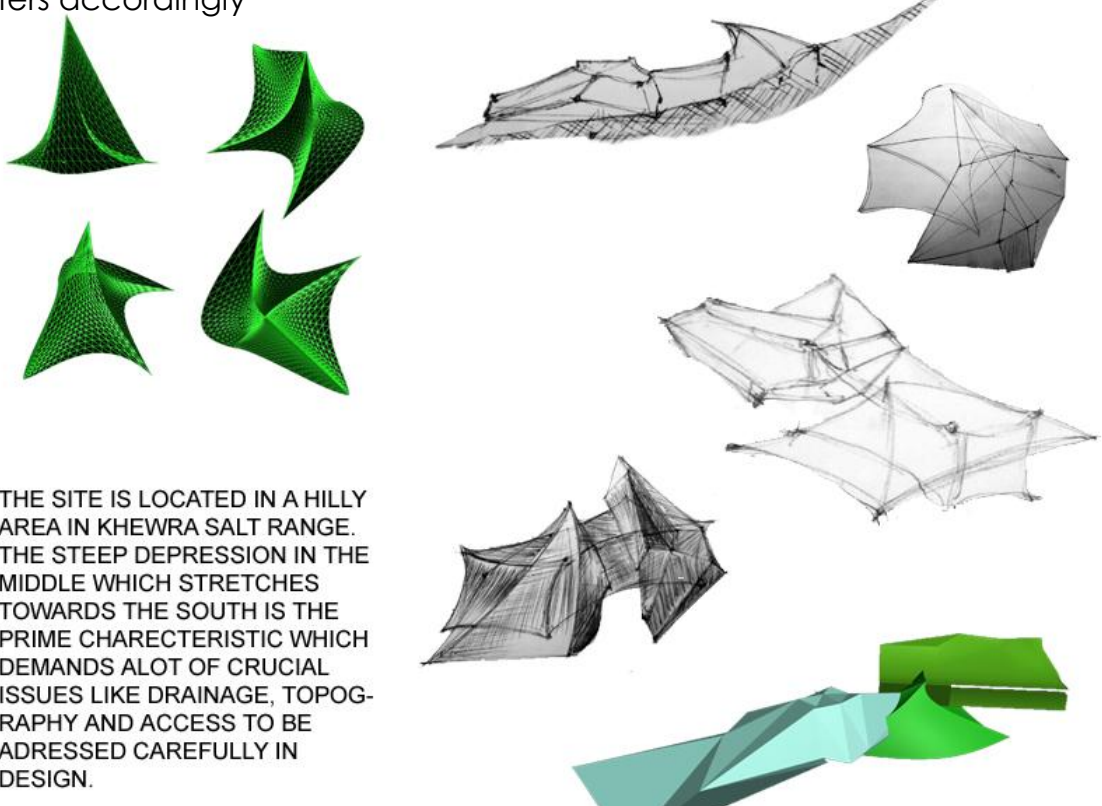
1 ground floor



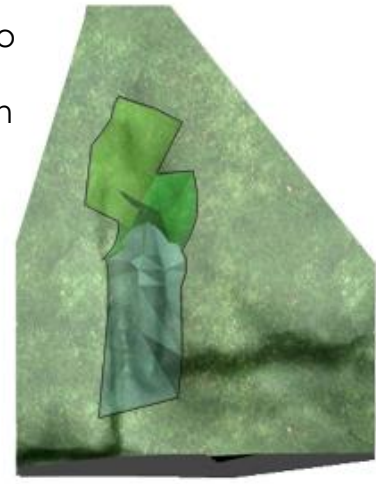


# MUSEUM OF NATURAL HISTORY, KHEWRA.

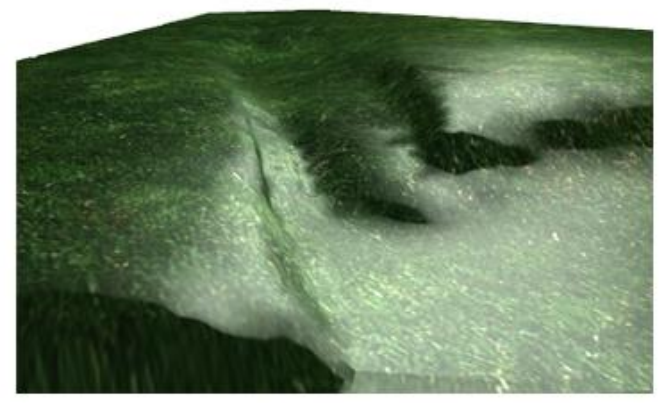
An organism is so complex a thing, and growth so complex a phenomenon, that for growth to be so uniform and constant in all the parts as to keep the whole shape unchanged would indeed be an unlikely and an unusual circumstance. Rates vary, proportions change, and the whole configuration alters accordingly



THE SITE IS LOCATED IN A HILLY AREA IN KHEWRA SALT RANGE. THE STEEP DEPRESSION IN THE MIDDLE WHICH STRETCHES TOWARDS THE SOUTH IS THE PRIME CHARACTERISTIC WHICH DEMANDS A LOT OF CRUCIAL ISSUES LIKE DRAINAGE, TOPOGRAPHY AND ACCESS TO BE ADDRESSED CAREFULLY IN DESIGN.



Site plan

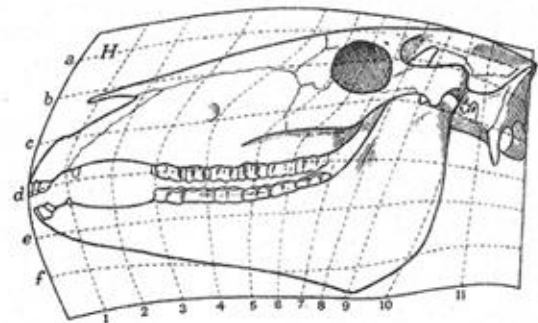


Perspective view of the site

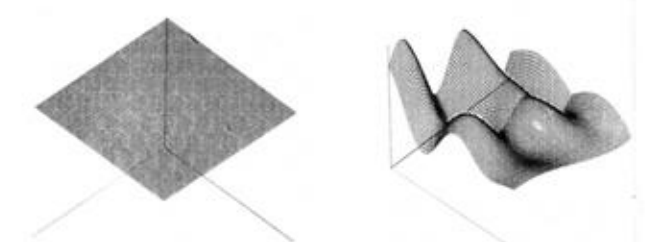
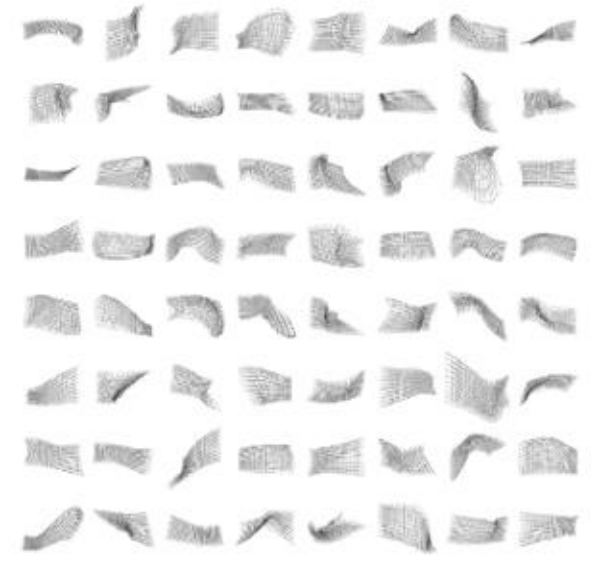


View through the main passage.

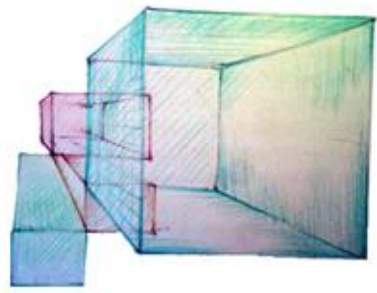
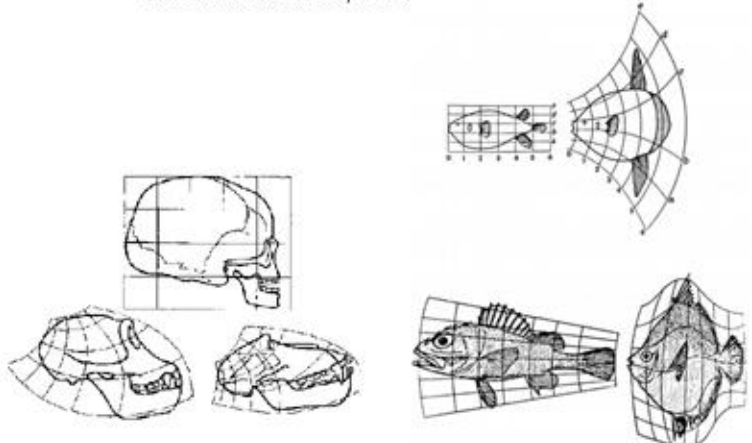
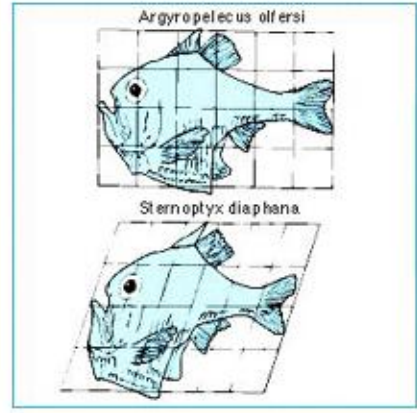
IT ALL BEGAN WITH THE THOMPSONIAN THEORY OF BIOLOGICAL TRANSFORMATION. SALT CRYSTALS EXIST IN A VARIETY OF PLATONIC VOLUMES. SO, I TOOK THREE OF SUCH SOLIDS AND MERGED THEM TOGETHER IN A WAY THAT THEY DON'T LOSE THEIR CHARACTER BUT YET THEY TRANSFORM AND MERGE IN TO EACH OTHER IN RESPONSE TO THE PROGRAM. FOR E.G. WHERE A HIGH CEILING WAS REQUIRED ACCORDINGLY, OR WHERE DRAINAGE WAS A PROBLEM IT ADJUSTED ITSELF ACCORDING TO THE SAME TRANSFORMATION PRINCIPLE.



Skull of horse, represented as a co-ordinate transformation of that of Hyracotherium, and to the same scale of magnitude, D'Arcy Thompson, On Growth and Form, 1961.



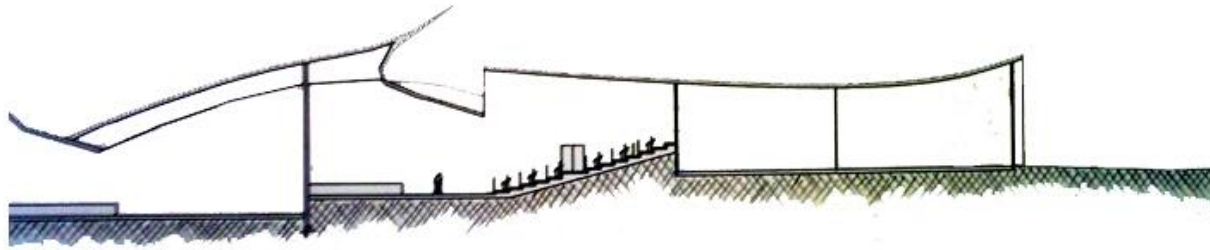
A simple plain can be morphed into shapes of endless possibilities.



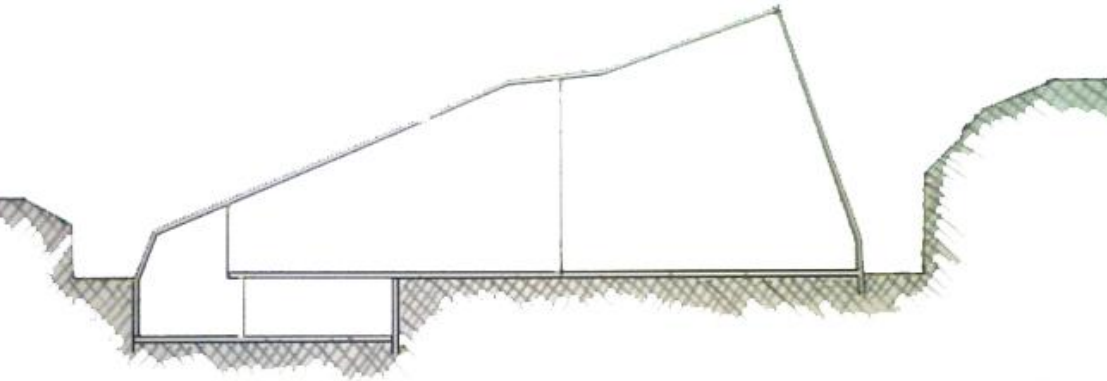
3D zoning of the program

IT STATES THAT IF A POINT OF A FORM IN A CARTESIAN CO-ORDINATE SYSTEM IS MOVED TO ANOTHER POSITION, ALL THE OTHER POINTS IN THE SYSTEM ALSO MOVE IN THE DIRECTION VERY CLOSE, WHICH CORRESPOND TO THE LINES OF NEW CURVED ORDINATES.

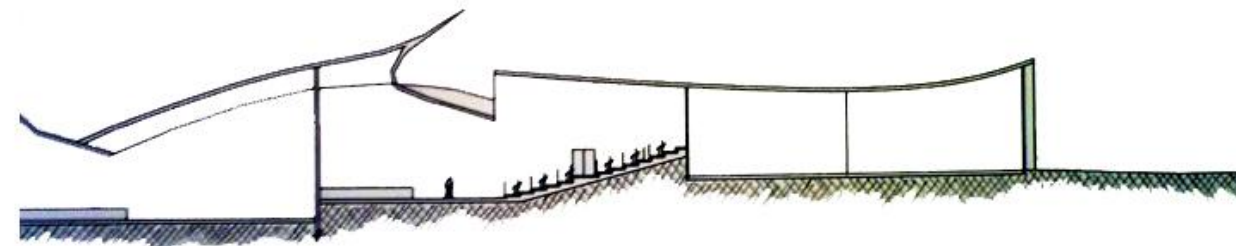




SECTION 1



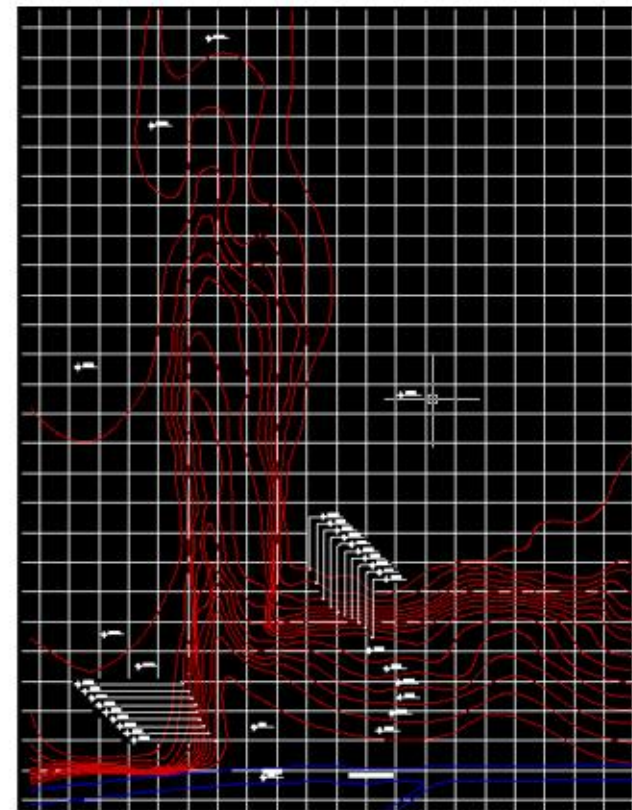
SECTION 2



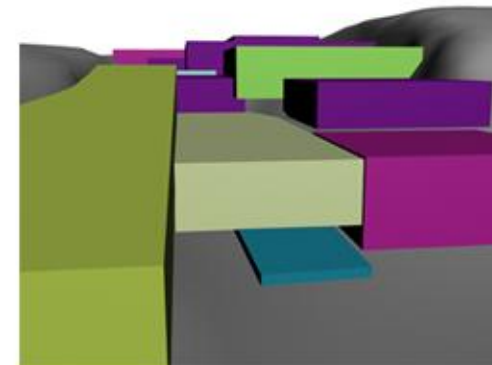
SECTION 3



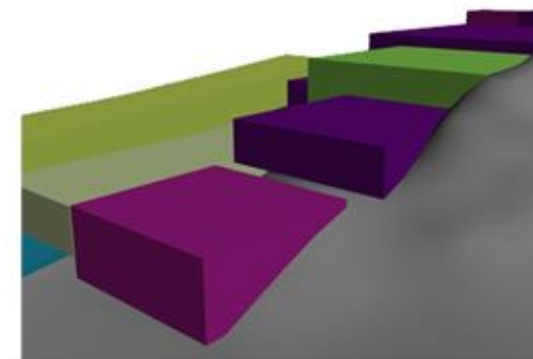
PLAN



SITE PLAN



ZONING STUDY MODEL



ZONING STUDY MODEL 2



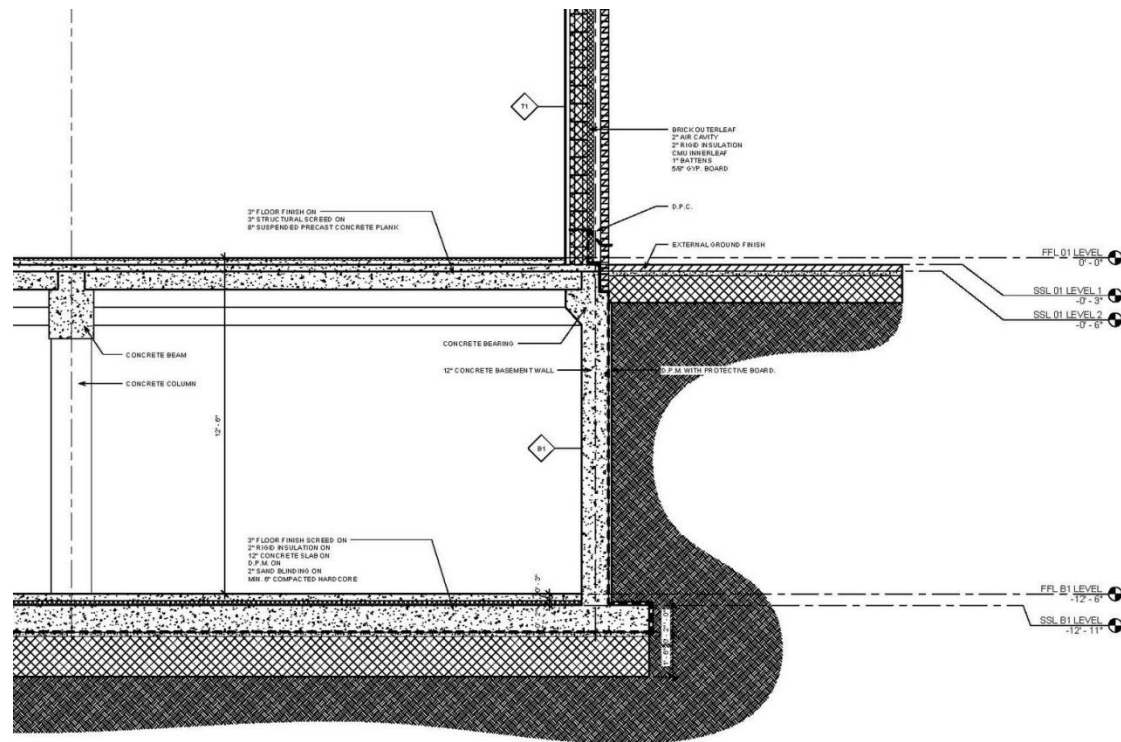


# REVIT EXPERIMENTAL PROJECT

This is the conclusion to the 'revit project', the experiment I was testing to see if a whole project could be done in about 15 hours. It also took its toll on me lasting 3-4 months from start to finish.

It a nice little project that poses different challenges and the use of different techniques to create a nice model and technical drawings, its not too small and not too big and it has the usually problems that you find working on a real project, the beauty about this project for me was i had already built this project in AutoCAD several years ago so all the designing was effectively not an issue for me which meant I could focus on the Revit modeling and exploring different techniques.

I did find when you start to go to a larger scale building the detail is lost slightly as there is so much more quantities of objects and junctions, you should decide early where you are cutting your sections and make sure that area is well modeled.



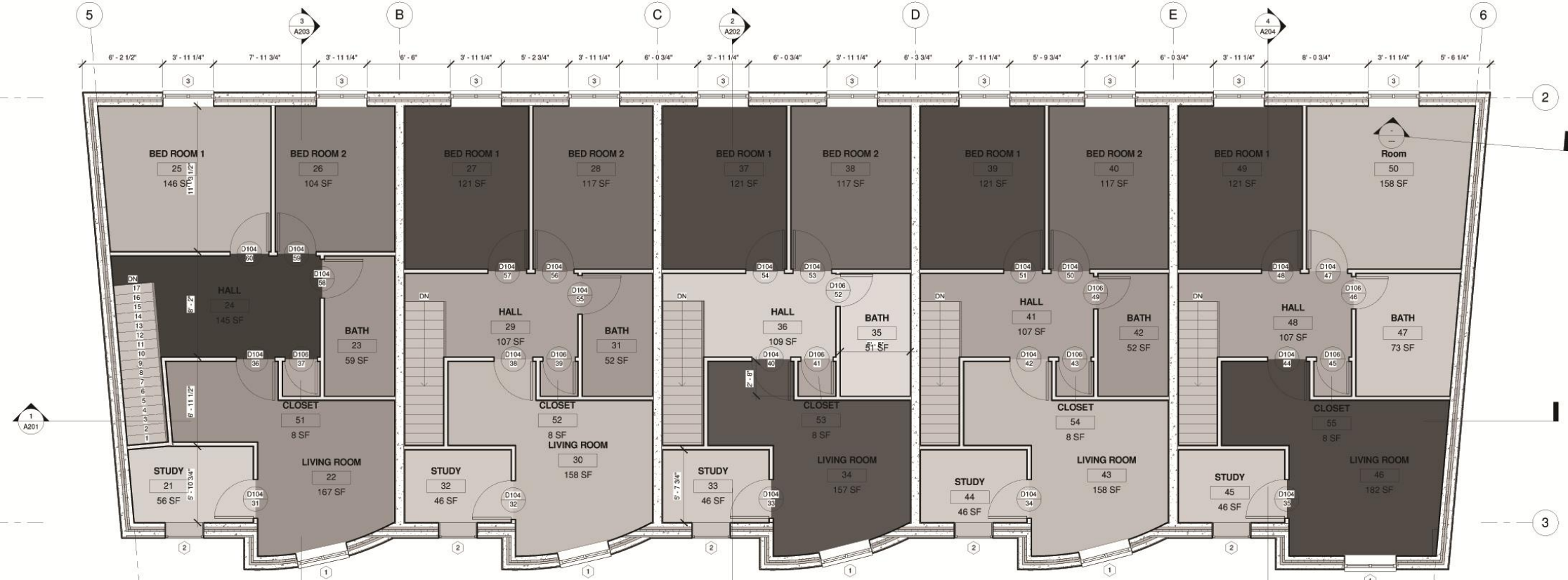




**Room Legend**

- BATH
- BED ROOM 1
- BED ROOM 2
- CLOSET
- HALL
- LIVING ROOM
- Room
- STUDY

1 03 LEVEL- FFL NAME COLOR SCHEME  
1/4" = 1'-0"

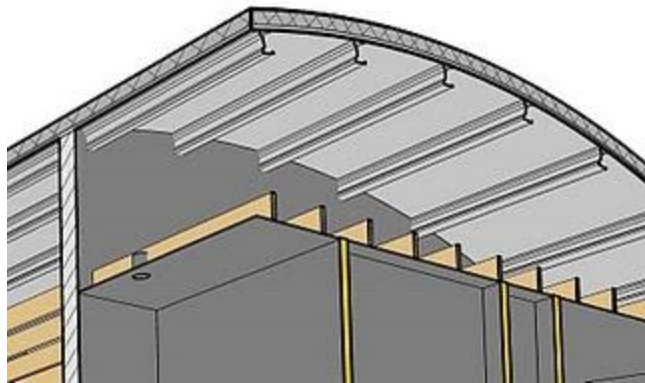
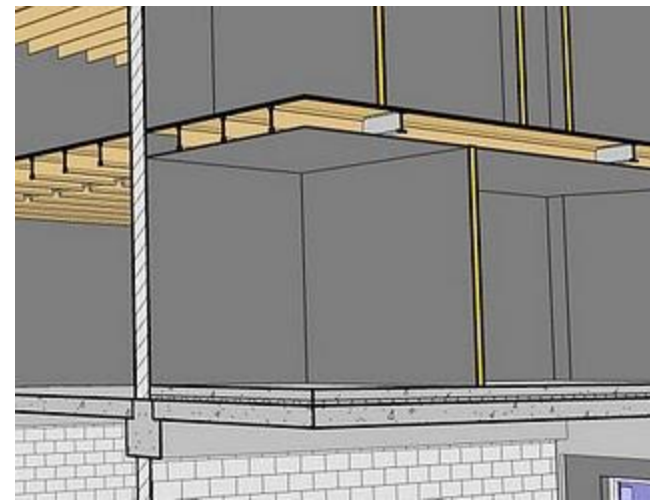
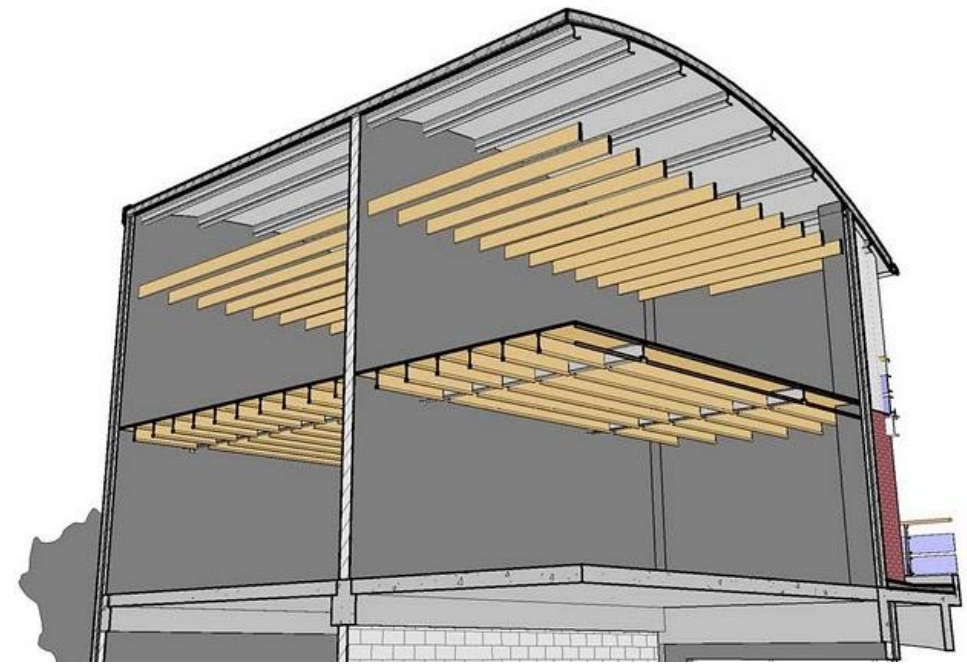
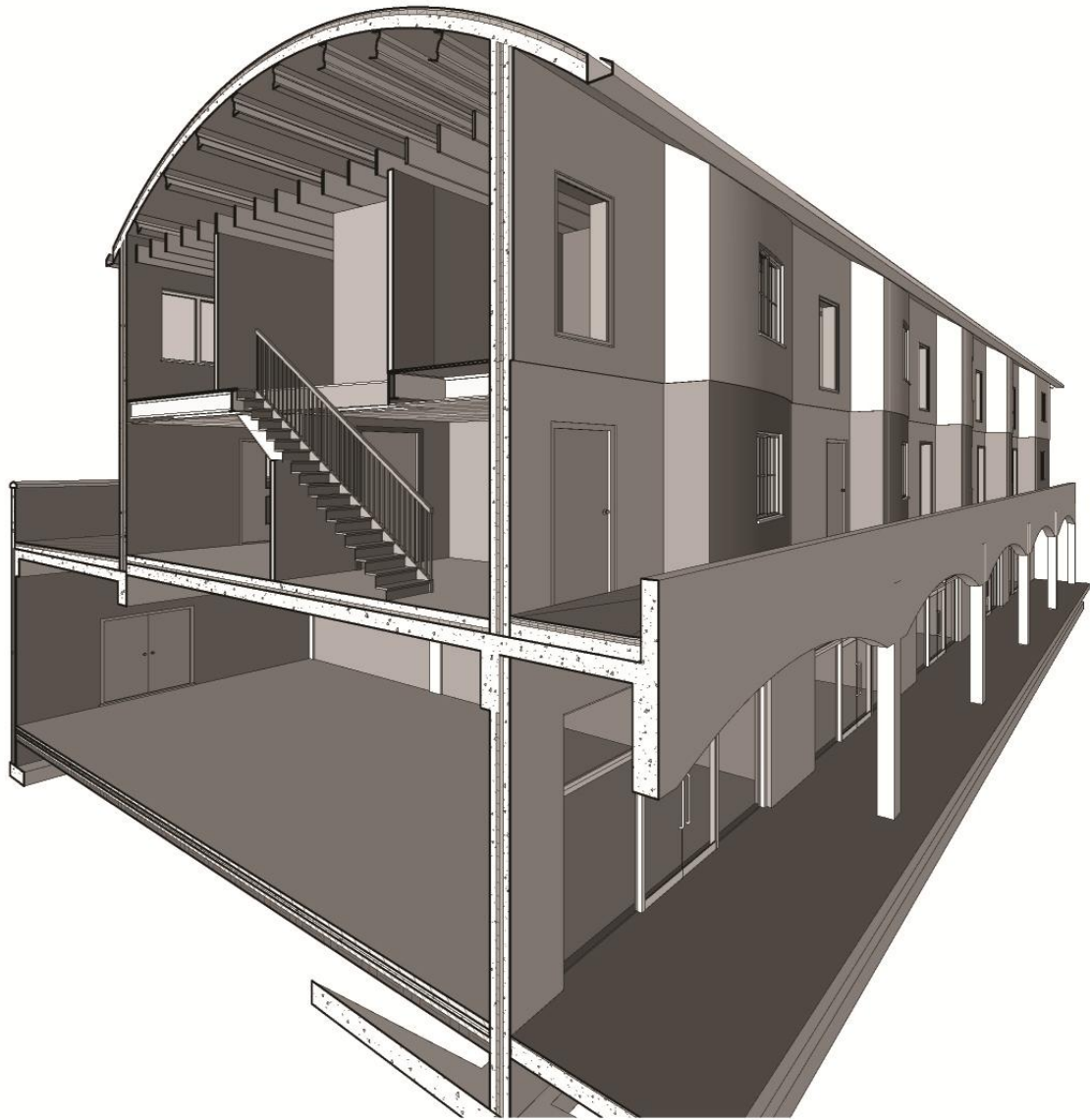


**Room Legend**

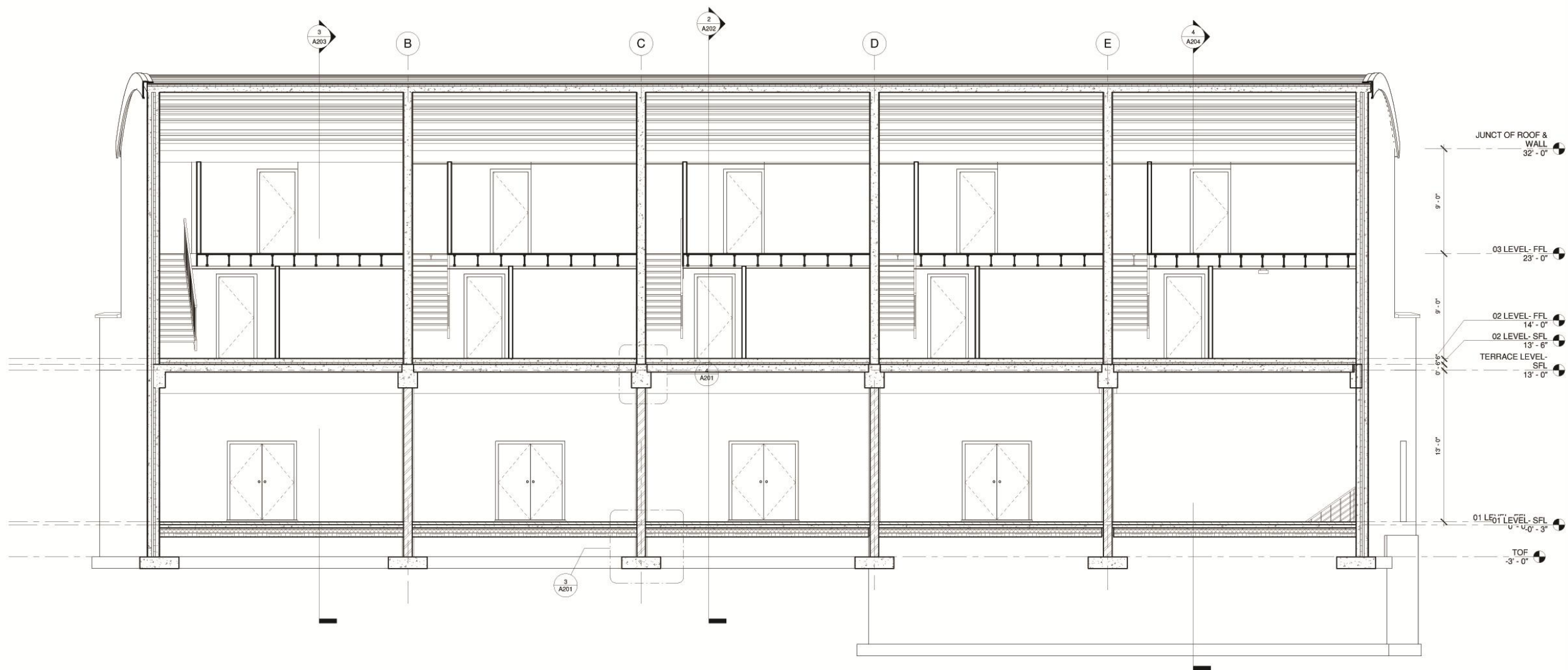
- 8 SF
- 46 SF
- 51 SF
- 52 SF
- 56 SF
- 59 SF
- 73 SF
- 104 SF
- 107 SF
- 109 SF
- 117 SF
- 121 SF
- 145 SF
- 146 SF
- 157 SF
- 158 SF
- 167 SF
- 182 SF

2 03 LEVEL- FFL AREA COLOR SCHEME  
1/4" = 1'-0"

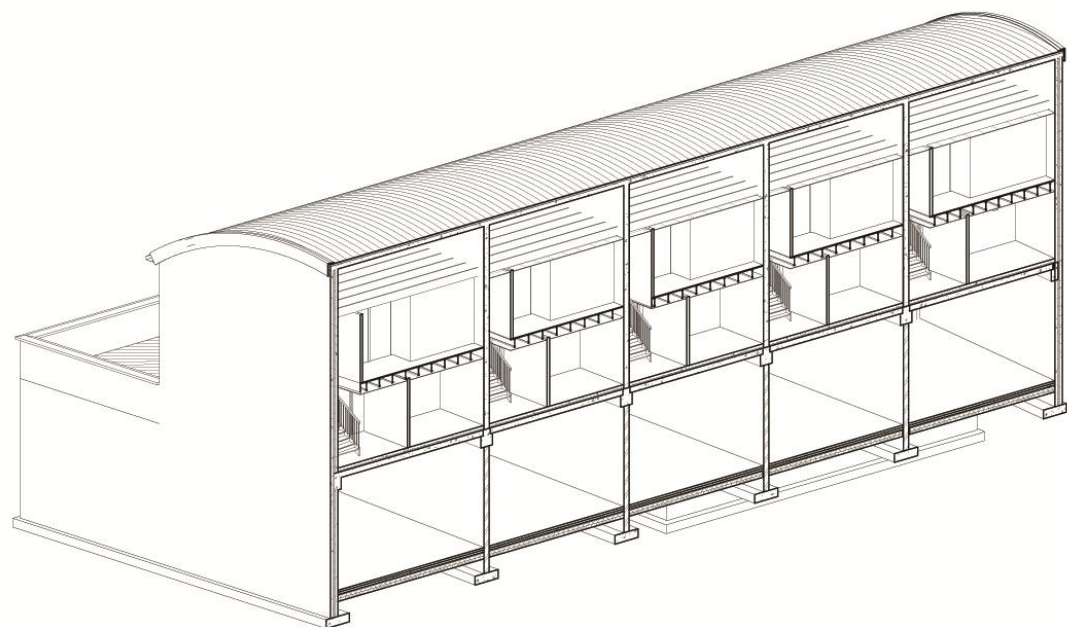




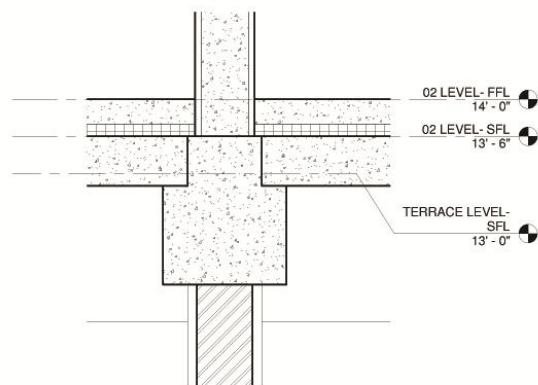




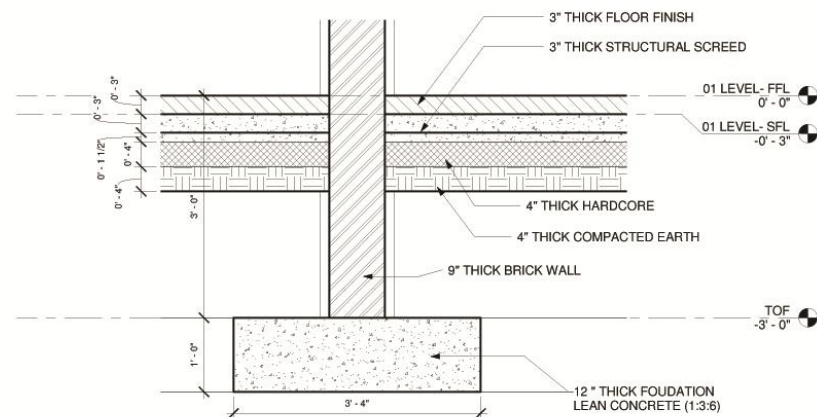
1 Section 1  
1/4" = 1'-0"



2 SECTION 1 3D



4 Callout (2) of Section 1  
1" = 1'-0"



3 Callout (3) of Section 1  
1" = 1'-0"



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## **ASAD FAROOQUE**

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