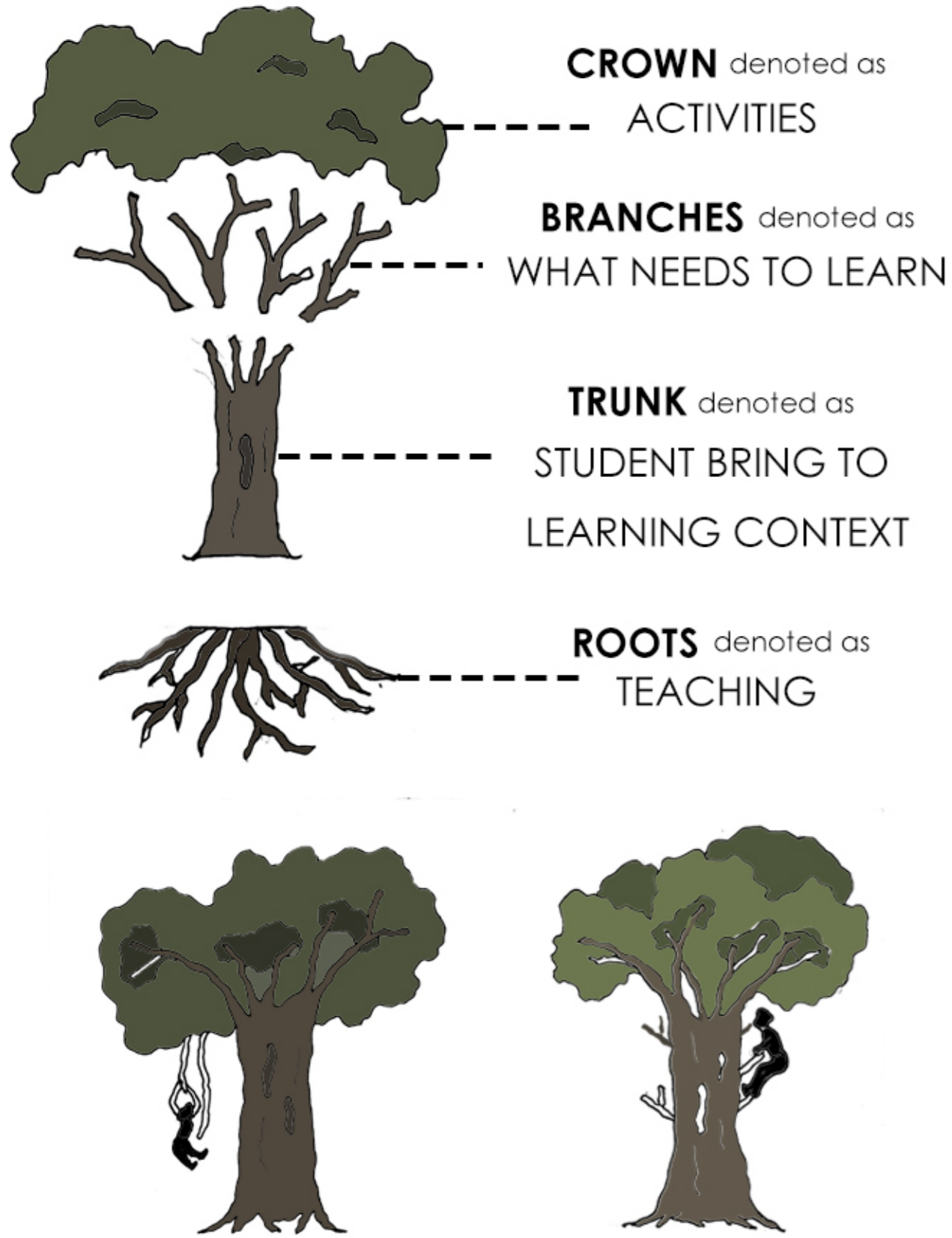


CONCEPT



CONCEPT OF THIS DESIGN IS INSPIRED FROM TREE. IN THIS DESIGN, EACH BLOCKS ARE DESIGNED STRUCTURALLY, AESTHETICALLY ON THE CONCEPT BASED ON TREE LOADING, TREE GROWTH, TREE STRUCTURE. INDIVIDUAL PIECES OF KNOWLEDGE ARE ASSOCIATED WITH OTHER PIECES IN TREE HIERCHY.

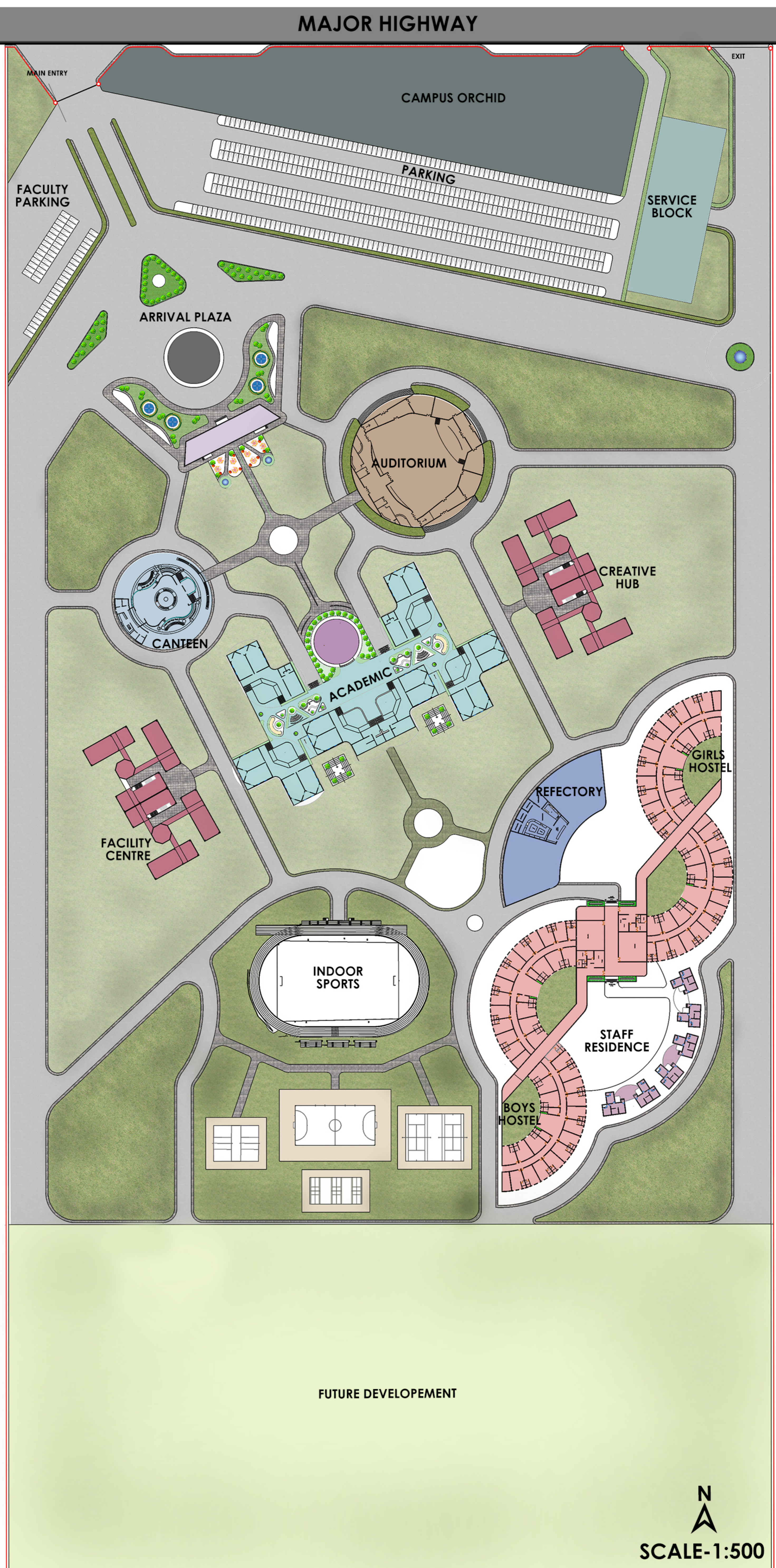
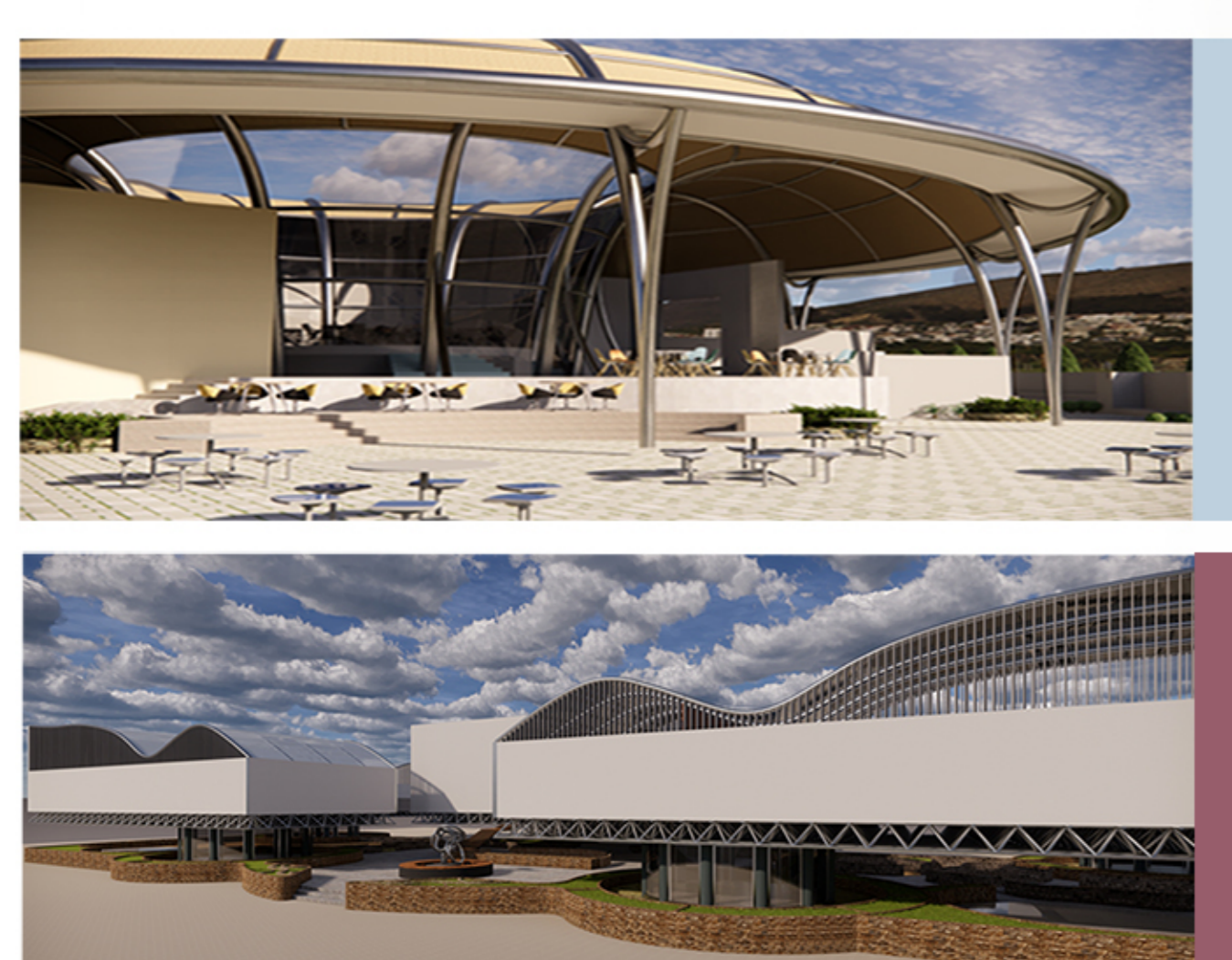
LINKING THEORY & PRACTICE



IN THIS DESIGN, WE CREATED OUTDOOR SPACES IN SOME OF THE BLOCKS TO MAKE STUDENT TO SPEND TIME AROUND TREES AND IN NATURE ALSO MAKES THE STUDENT TO BE MORE HEALTHIER AND EVEN IMPROVES STUDENTS' ACADEMIC PERFORMANCES.

LEGEND

- ARRIVAL PLAZA
- ADMIN
- CANTEEN
- AUDITORIUM
- ACADEMIC
- LIBRARY
- FACILITY CENTRE
- CREATIVE HUB
- MESS HALL
- HOSTEL
- STAFF RESIDENCE
- FUTURE DEVELOPEMENT
- SERVICE BLOCK





CONCEPT & FORM EVOLUTION

A tree structure can be defined recursively as a collection of nodes, where each node is a data structure consisting of a value and a list of references to nodes. The start of the tree is the "root node" and the reference nodes are the "children". No reference is duplicated and none points to the root.

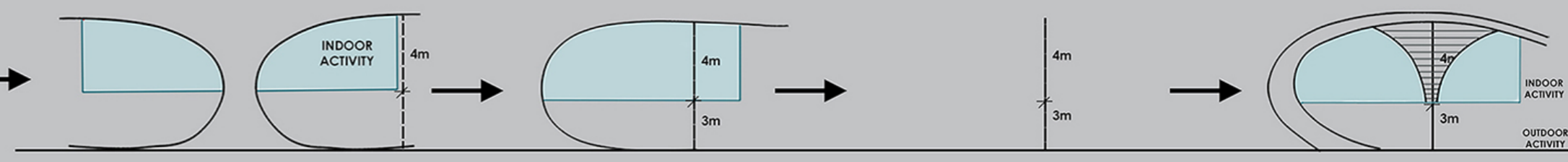
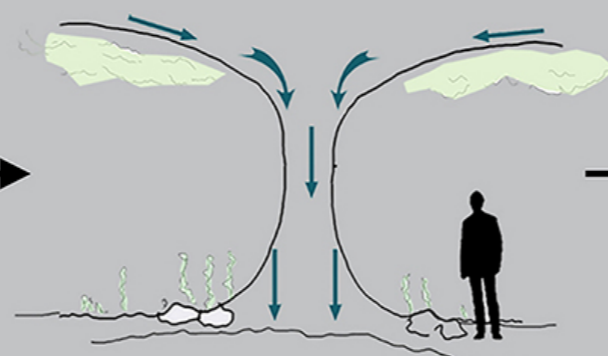


Diagram of the three dimensions in which load is exerted. Most risk assessment concentrates implicitly on the axial component, where compression strength is the critical limit, but torsion can also be important.

Strength = ability to withstand an applied stress without failure

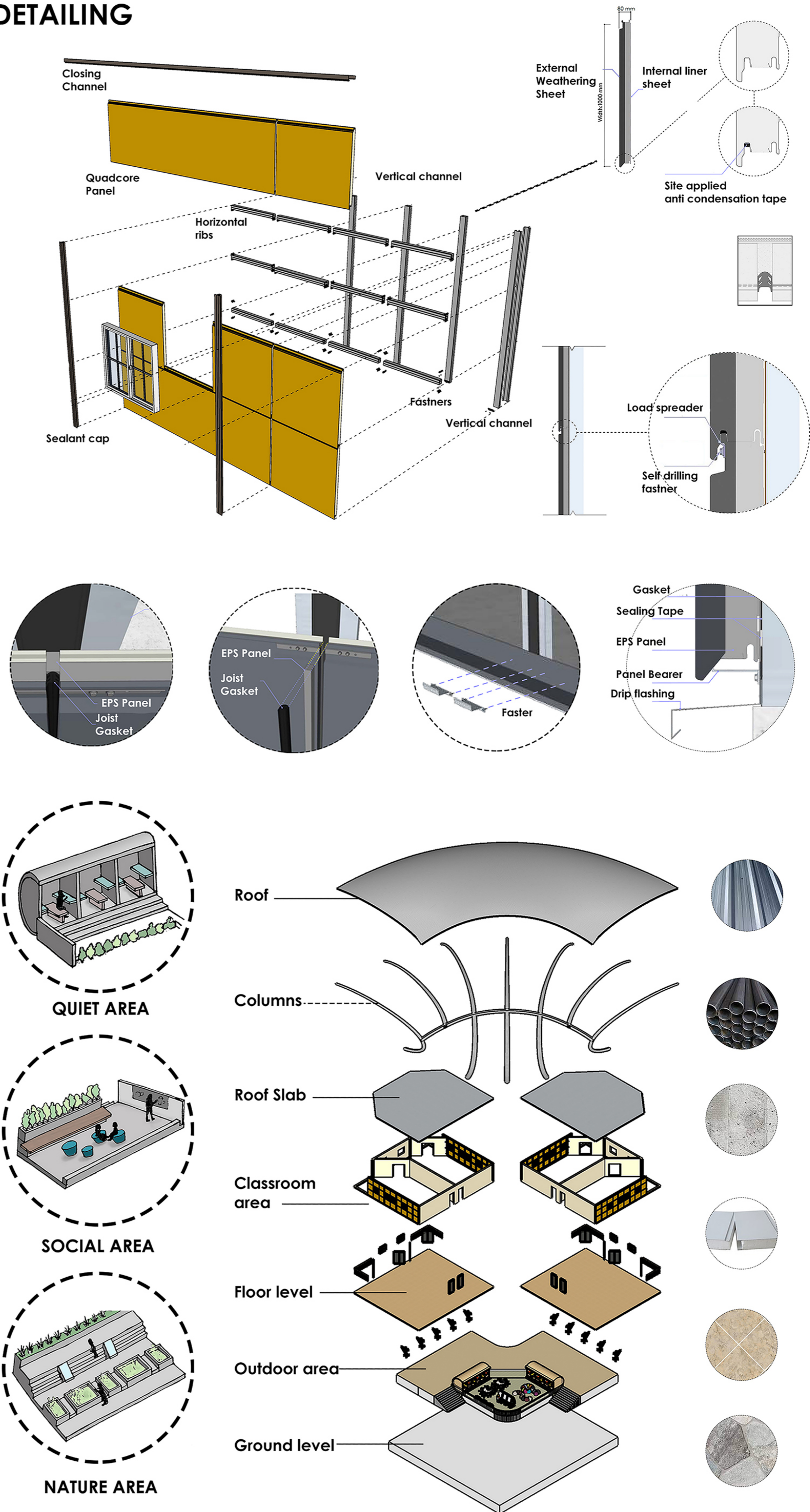
As load moves through the tree, it produces different stress levels that depend upon the local mechanics, the local material and the local supporting

Load transference

EXPLODED ISO VIEW



DETAILING

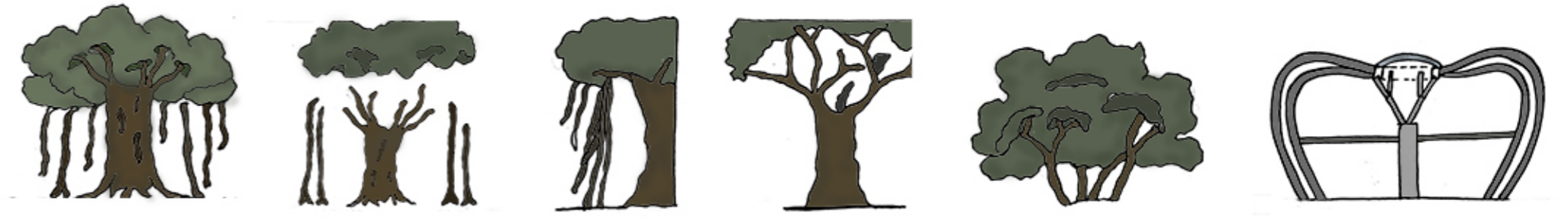


EXTERIOR VIEWS





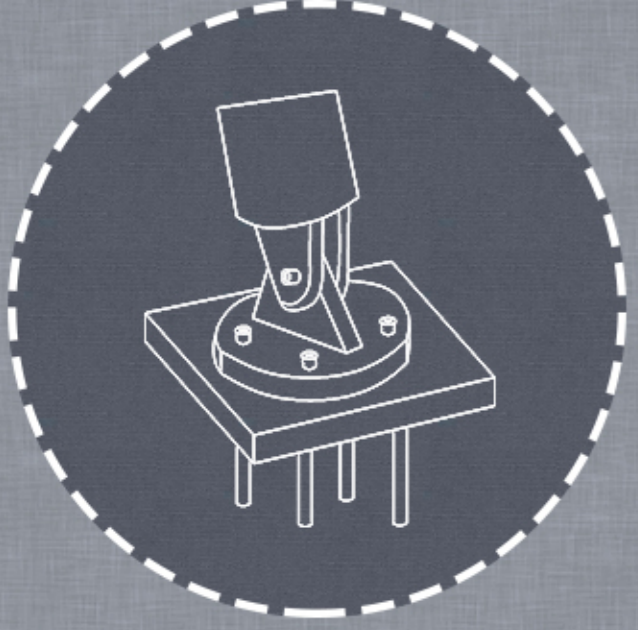
CONCEPT & FORM EVOLUTION



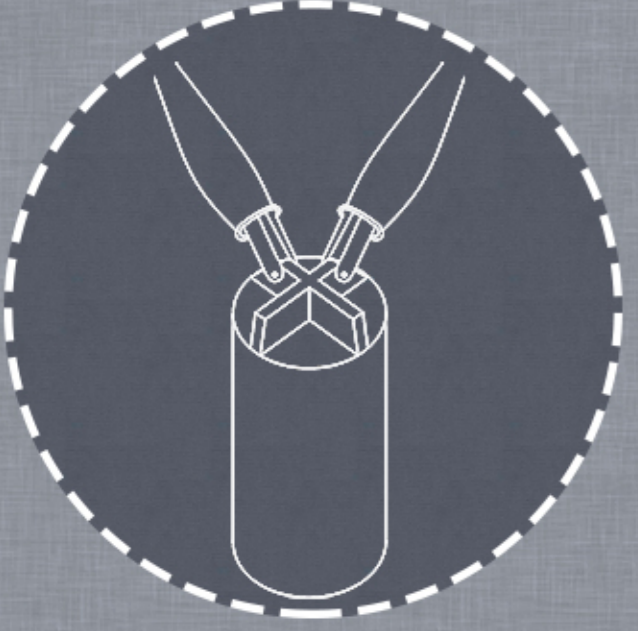
BANYAN TREE HAS A BRANCH SUPPORTING PILLARS, THEY ARE OTHERWISE CALLED COLUMN ROOTS. THESE ARE UNUSUAL ROOTS THAT CREATE FROM THE ENORMOUS EVEN BRANCHES IN TREES, HANG DOWNWARDS AND LASTLY ENTER THE GROUND.

LIKewise,

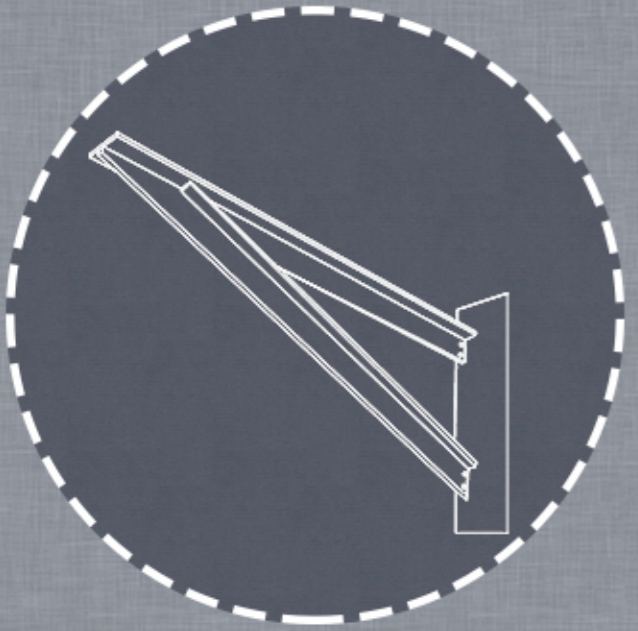
THE STRUCTURE IS SUPPORTED BY ONE COLUMN (TRUNK) IN CENTRE [WHICH IS CREATED AS A ATRIUM SPACE AND THAT SPACE IS COVERED BY SKYLIGHT (CROWN)]. AND THREE CURVED TUBULAR MEMBERS (BRANCHES) IN EACH CORNER END. THE LOAD WILL BE CARRIED THROUGH THESE CENTRE COLUMN AND THE END COLUMN SUPPORT



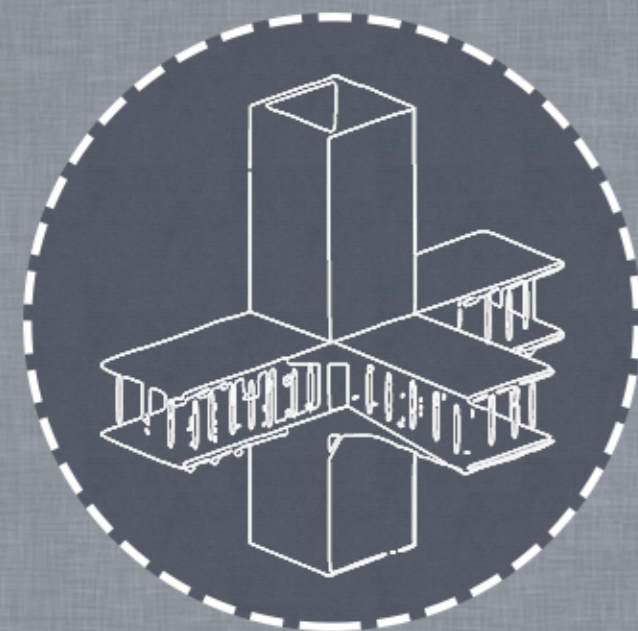
FOUNDATION



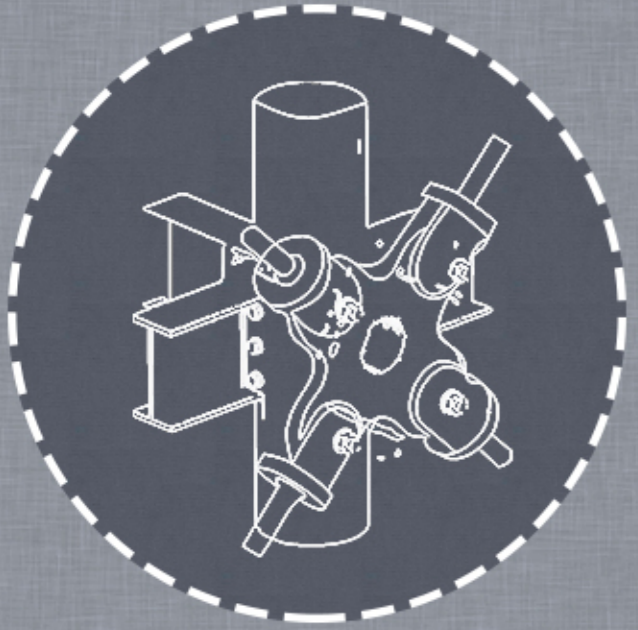
TREE COLUMN BRANCH CONNECTION



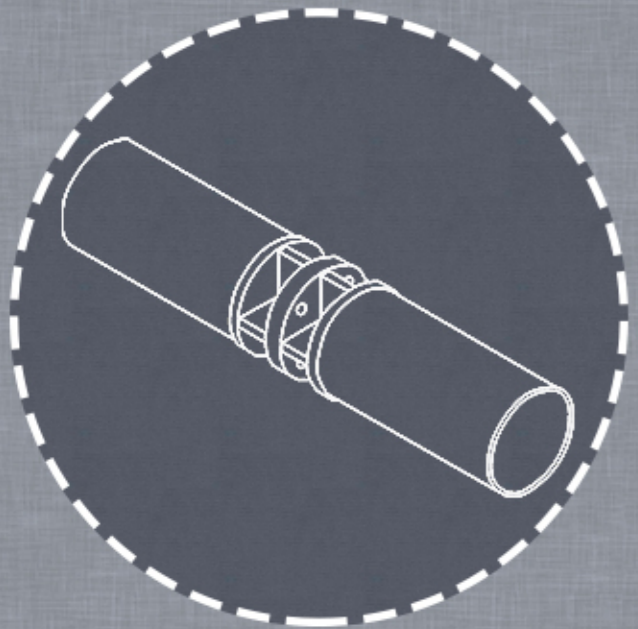
SLAB TO TREE COLUMN CONNECTION



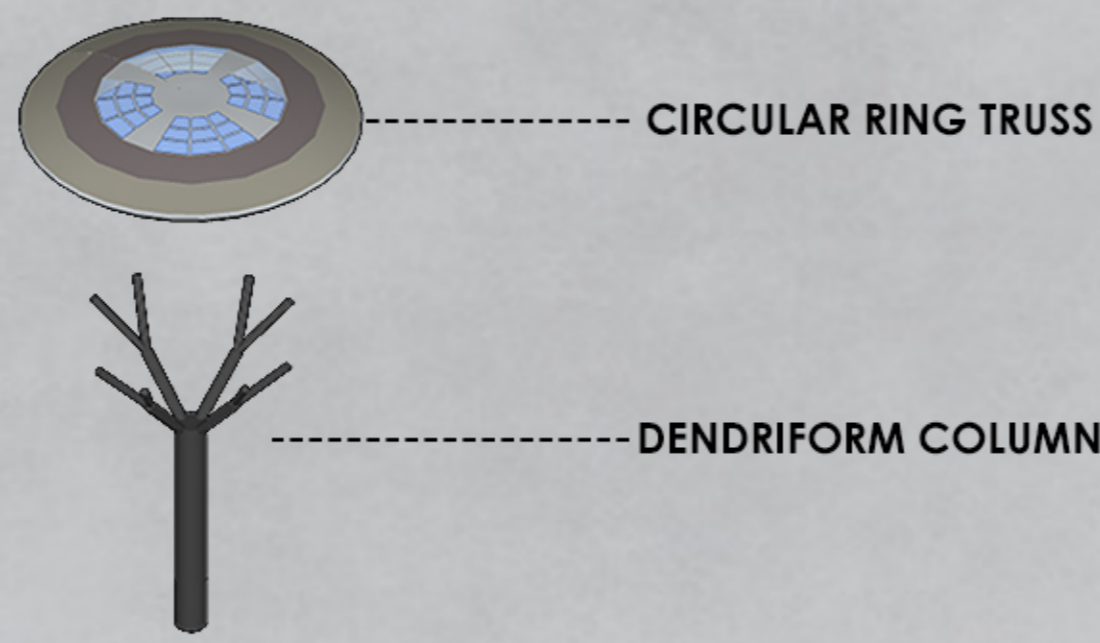
THREE CURVED COLUMN TO SLAB CONNECTION



COLUMN TO FACADE CONNECTION

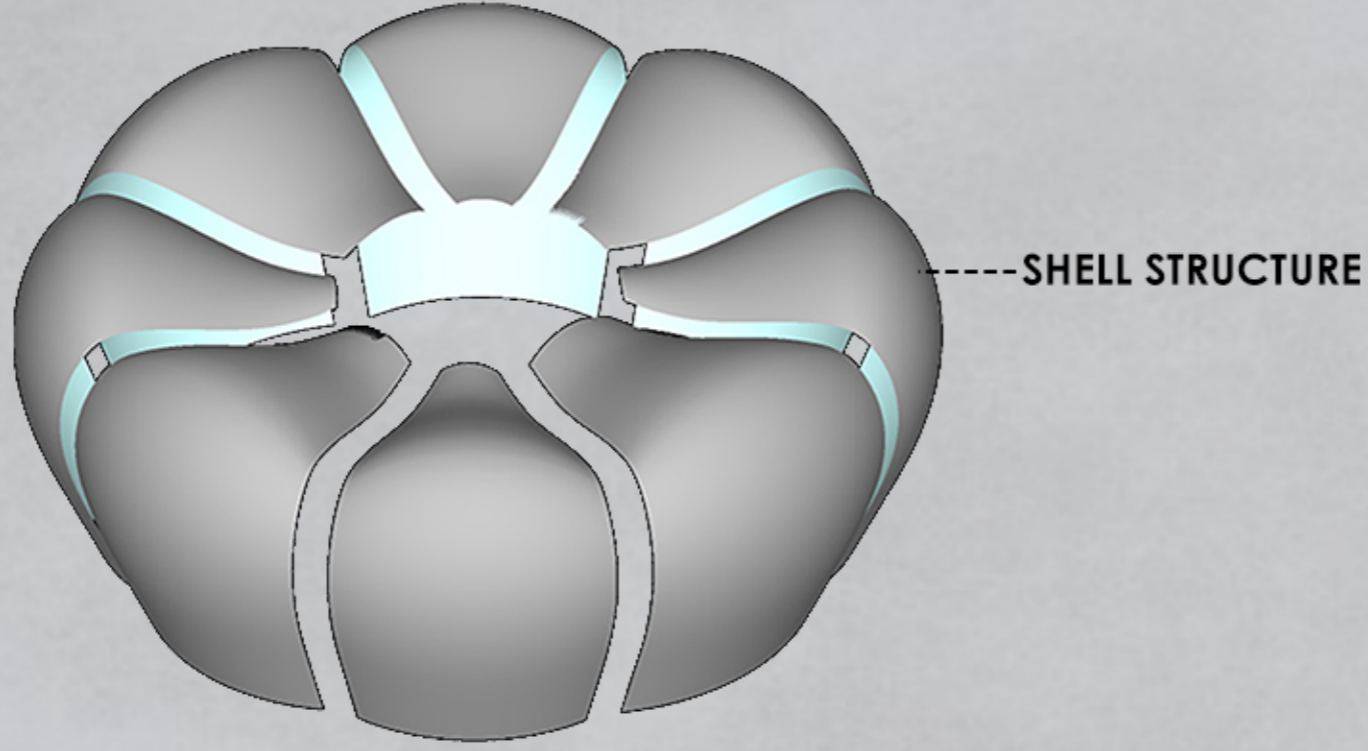


PIPE TO PIPE CONNECTION

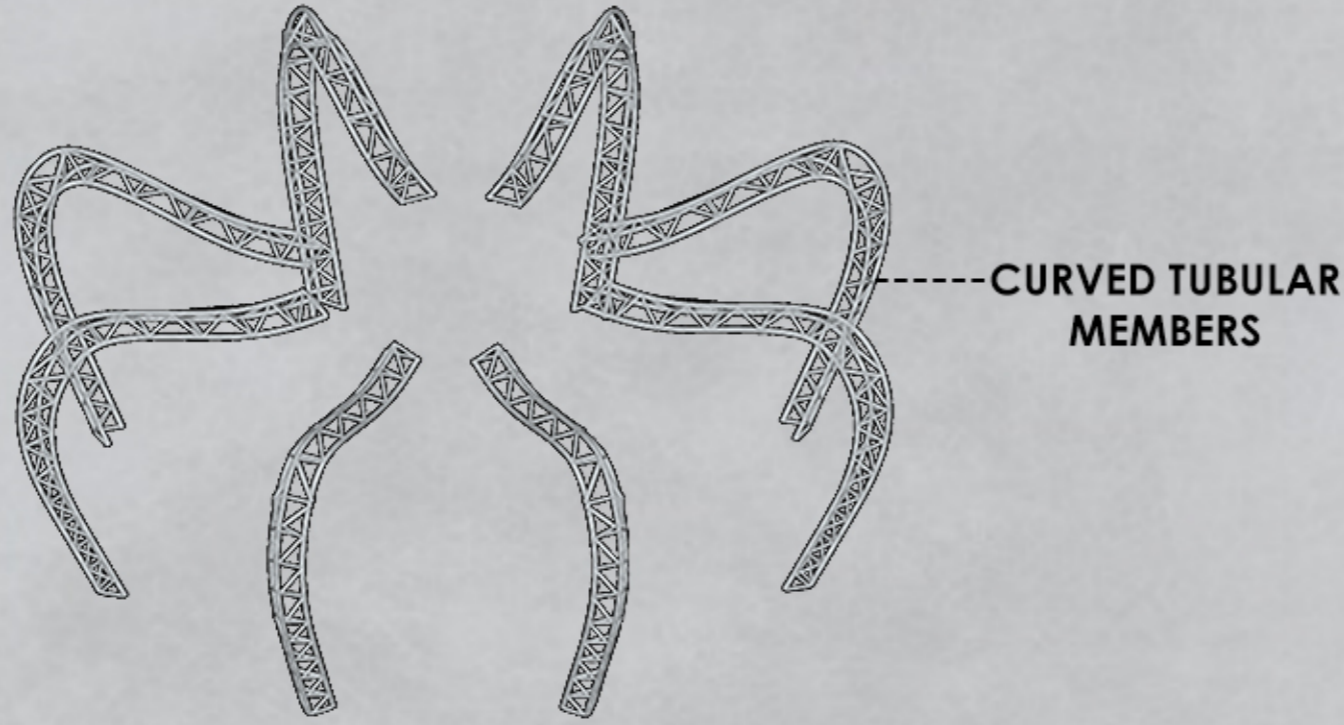


CIRCULAR RING TRUSS

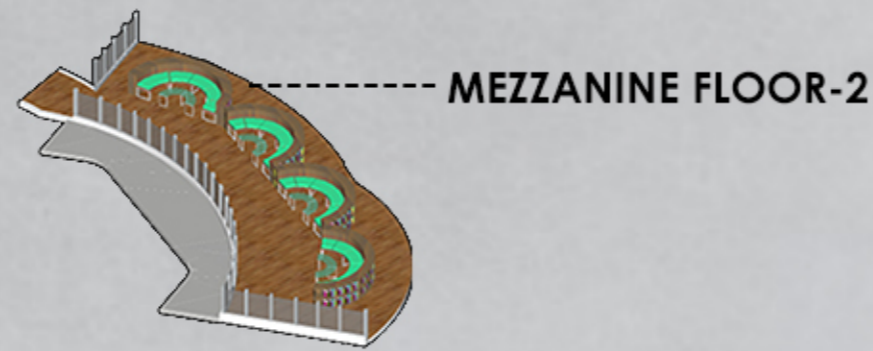
DENDRIFORM COLUMN



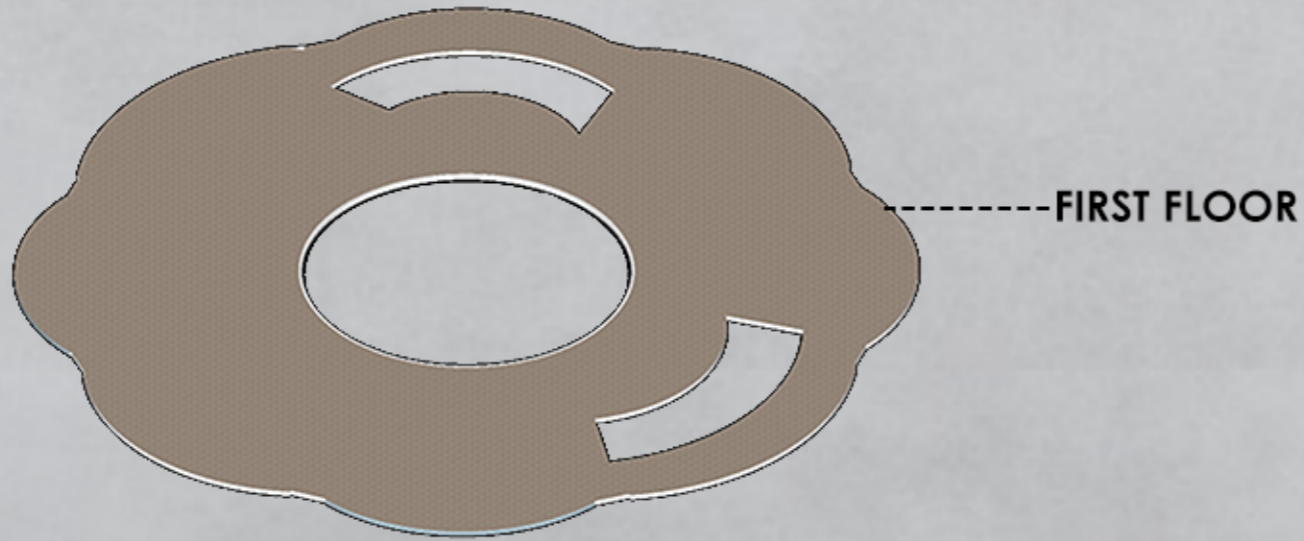
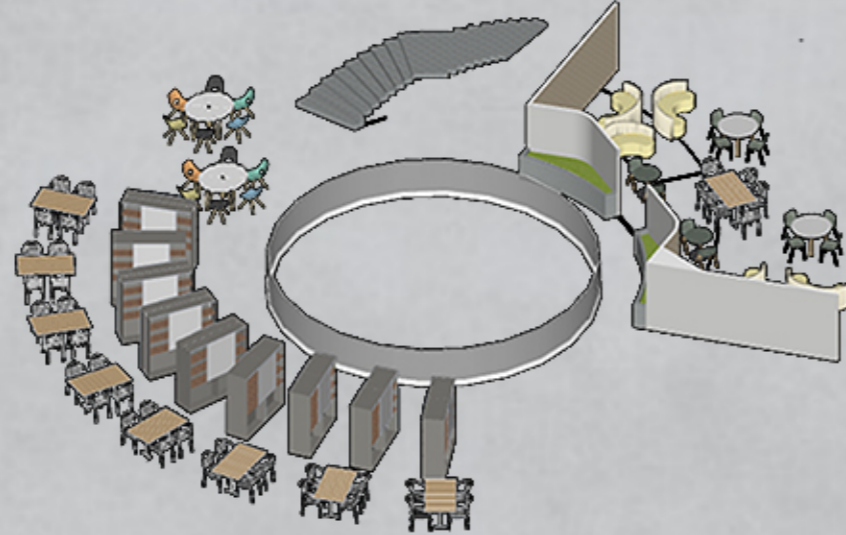
SHELL STRUCTURE



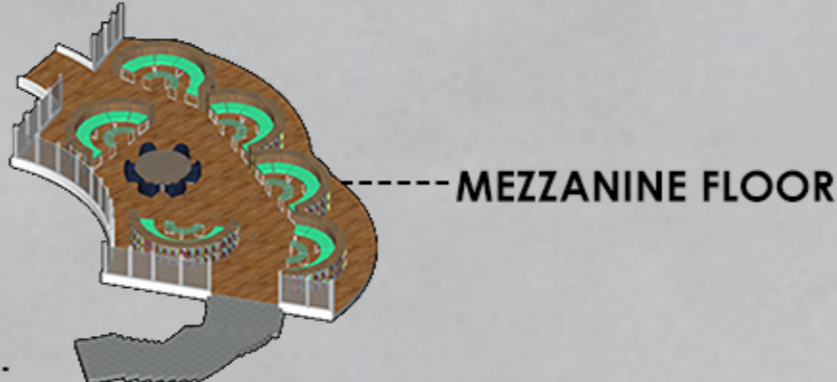
CURVED TUBULAR MEMBERS



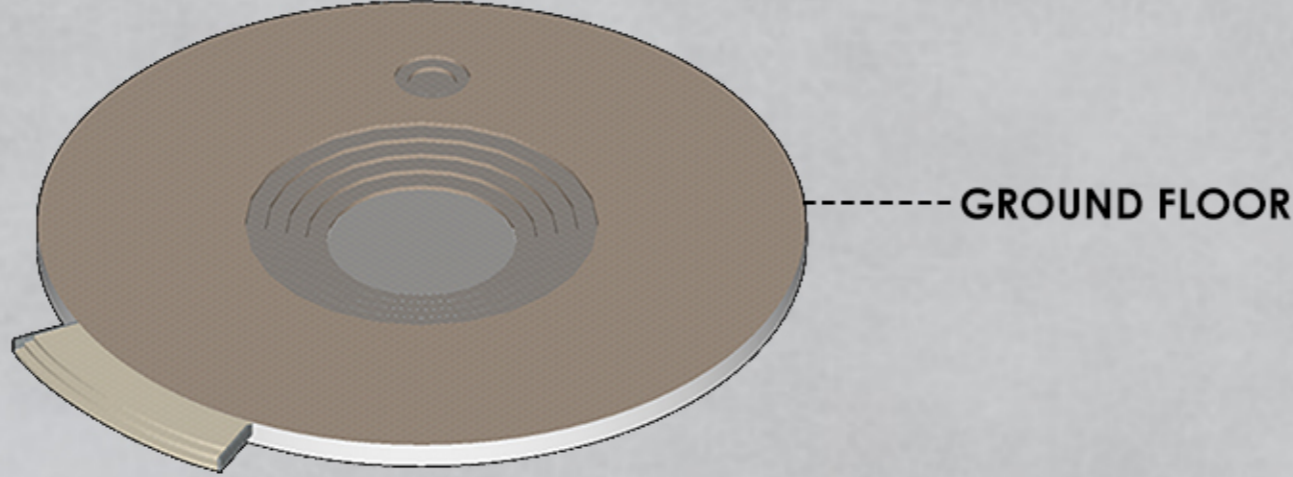
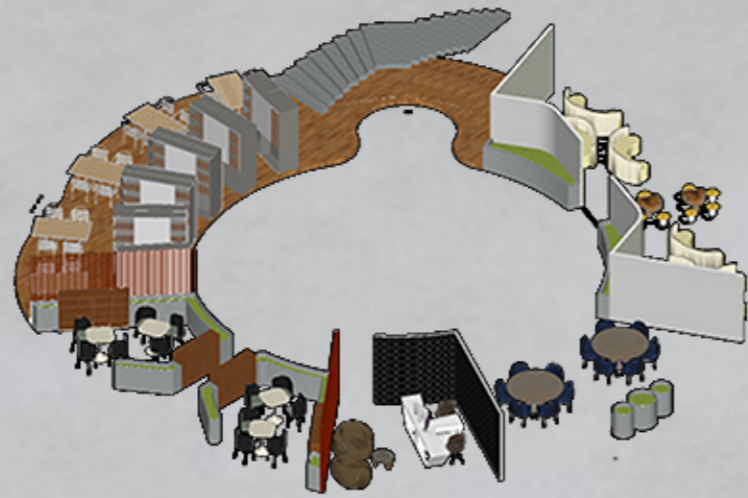
MEZZANINE FLOOR-2



FIRST FLOOR

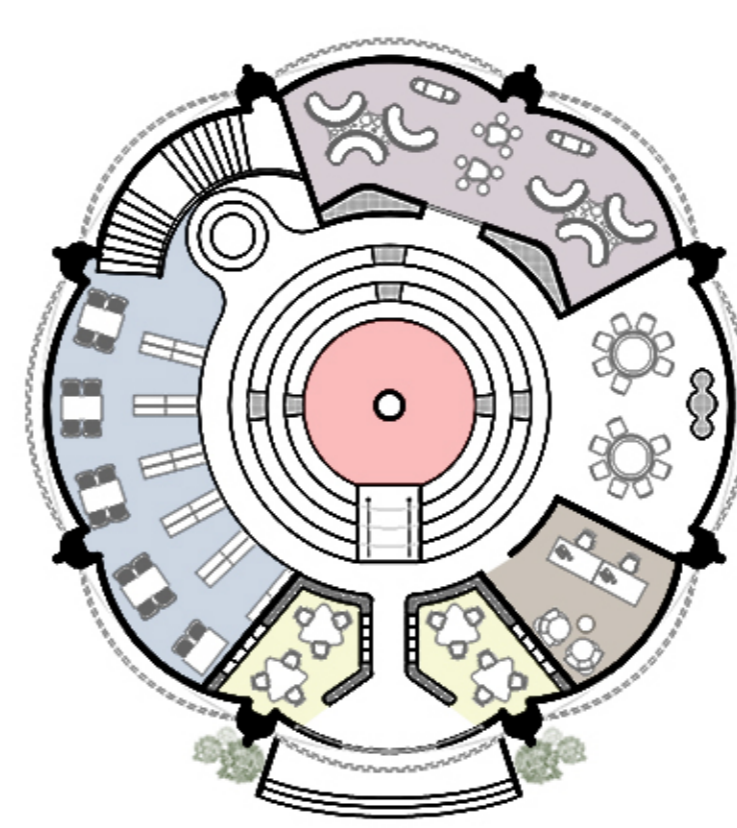


MEZZANINE FLOOR

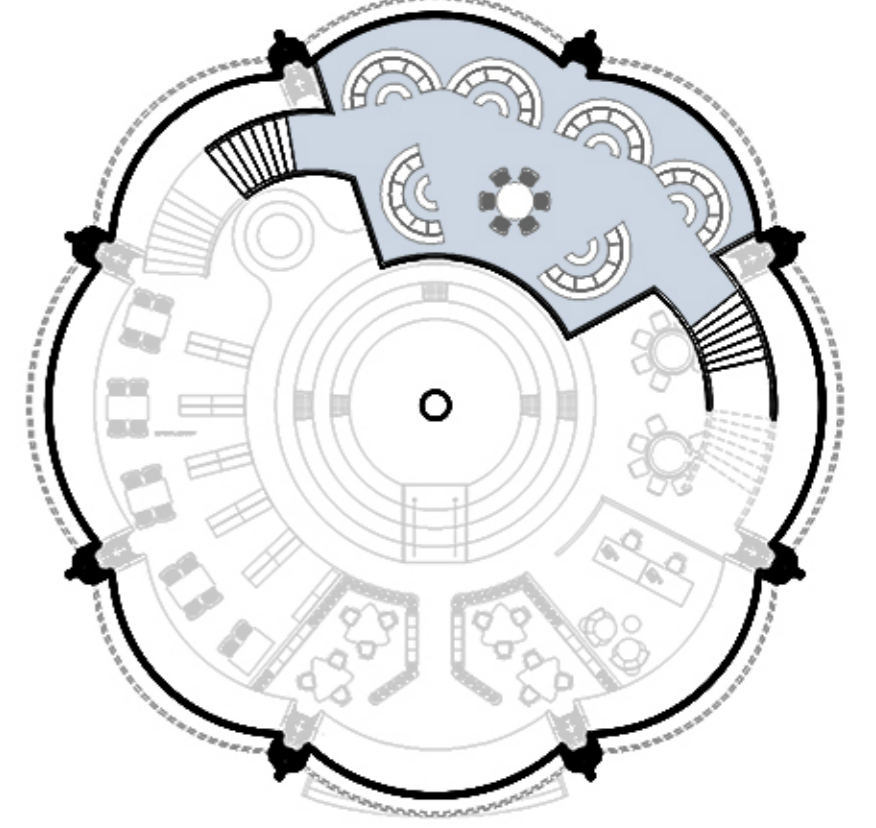


GROUND FLOOR

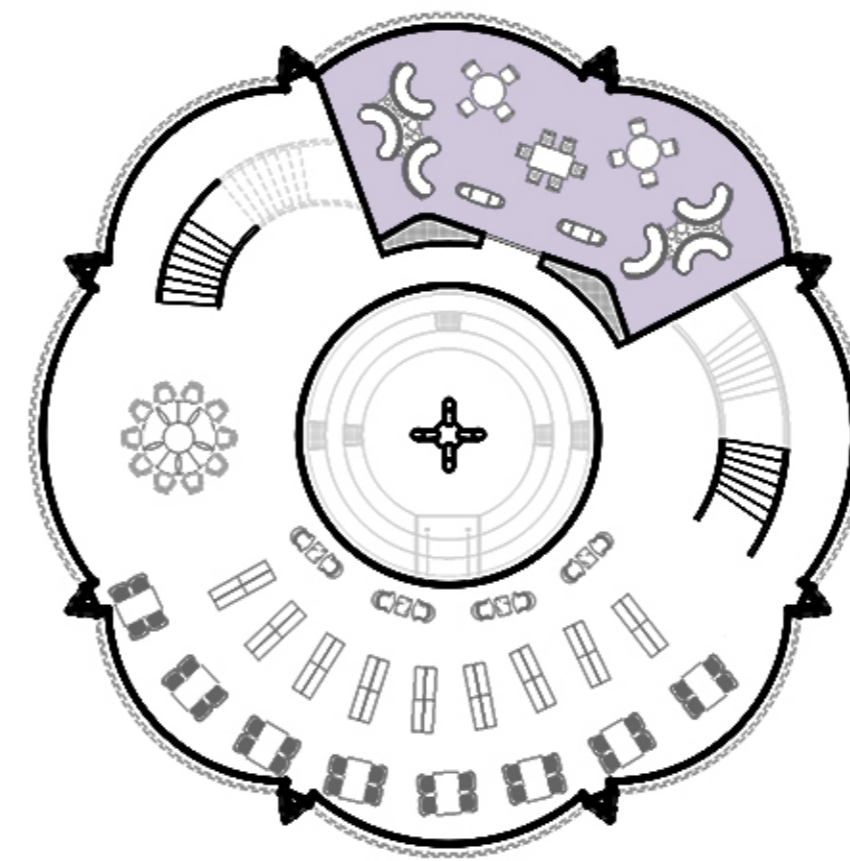
EXPLODED ISOMETRIC VIEW



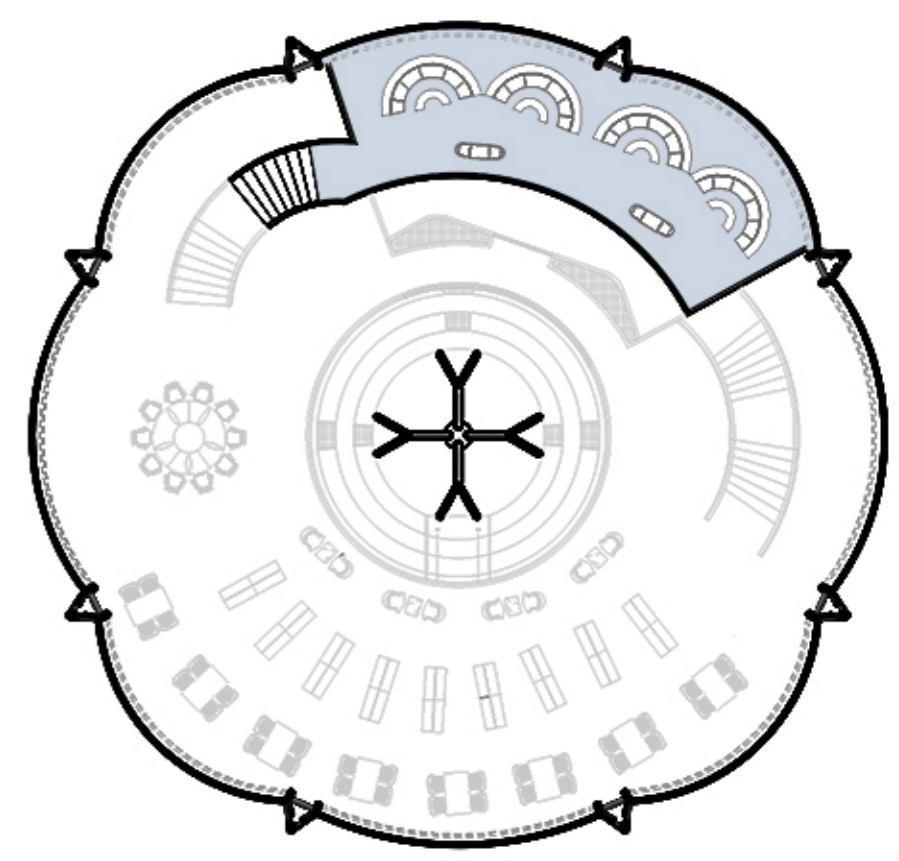
GROUND FLOOR



MEZZANINE FLOOR 1

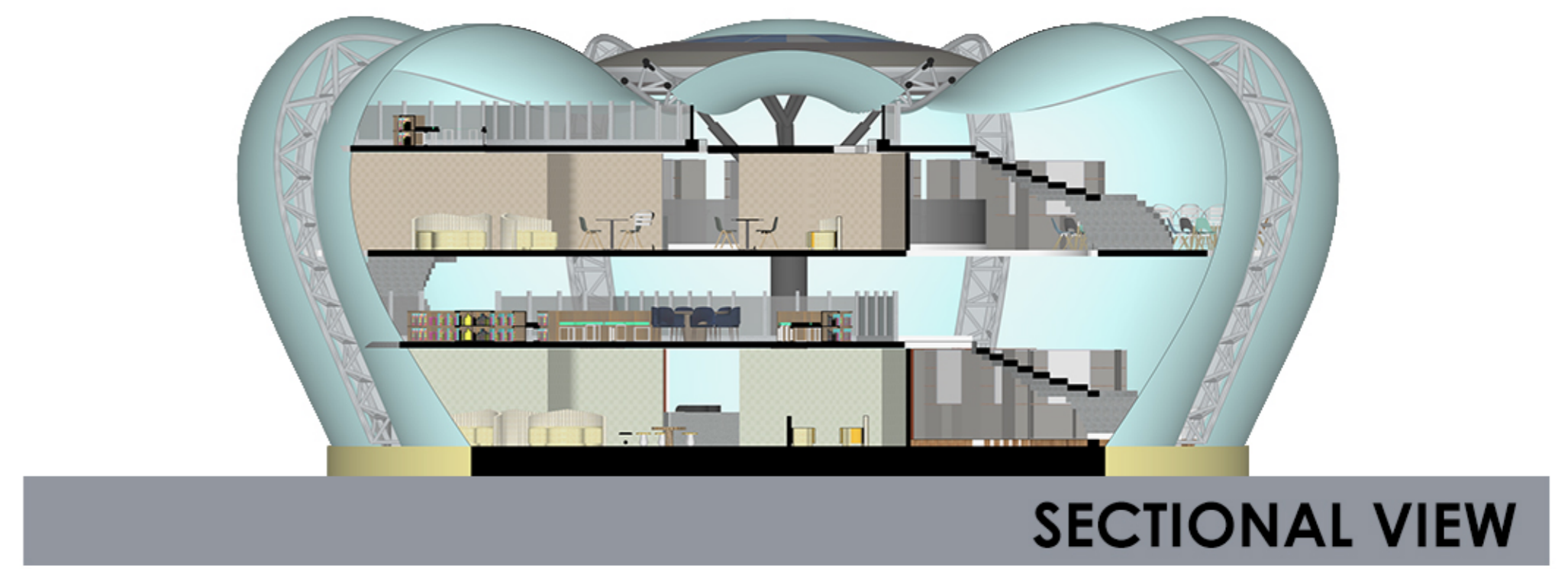


FIRST FLOOR

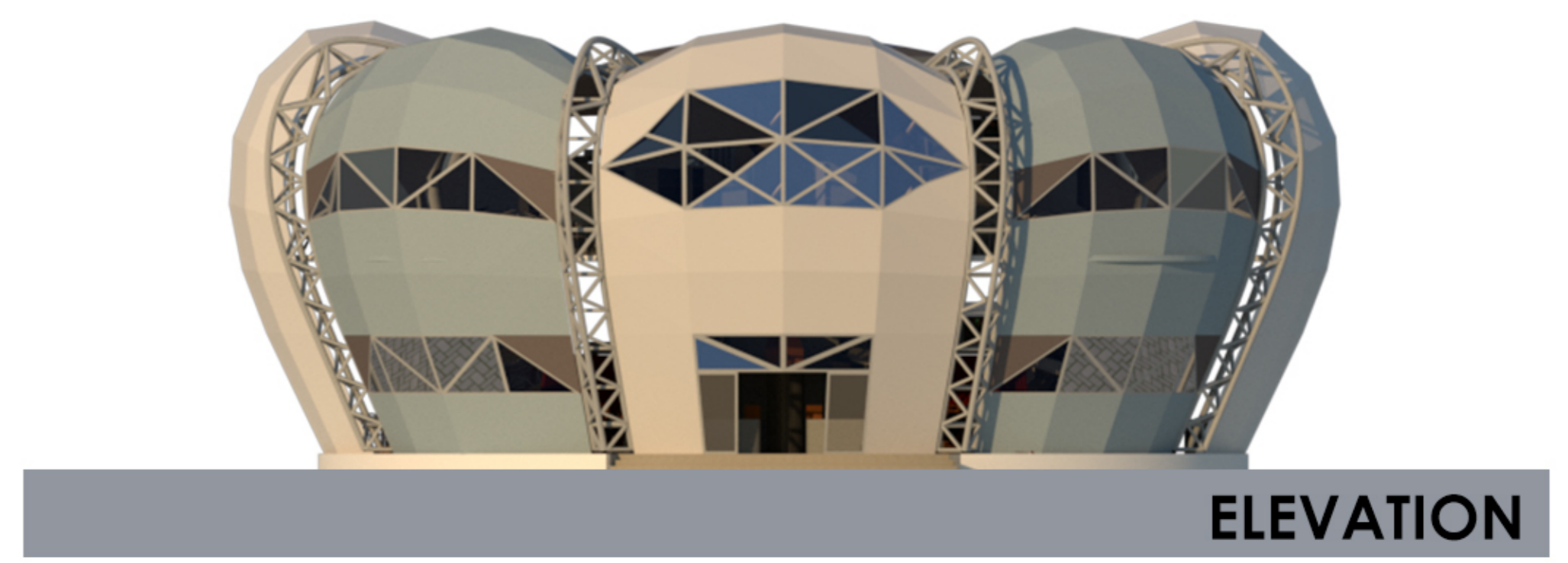


MEZZANINE FLOOR 2

- GENERAL LIBRARY
- KIDS LIBRARY
- QUICK READ LOUNGE
- OFFICE
- TEENS LIBRARY
- ATRIUM



SECTIONAL VIEW



ELEVATION



VIEW



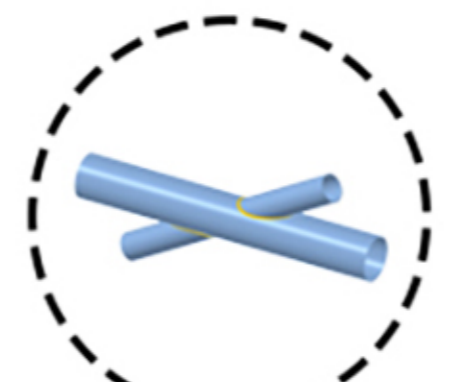
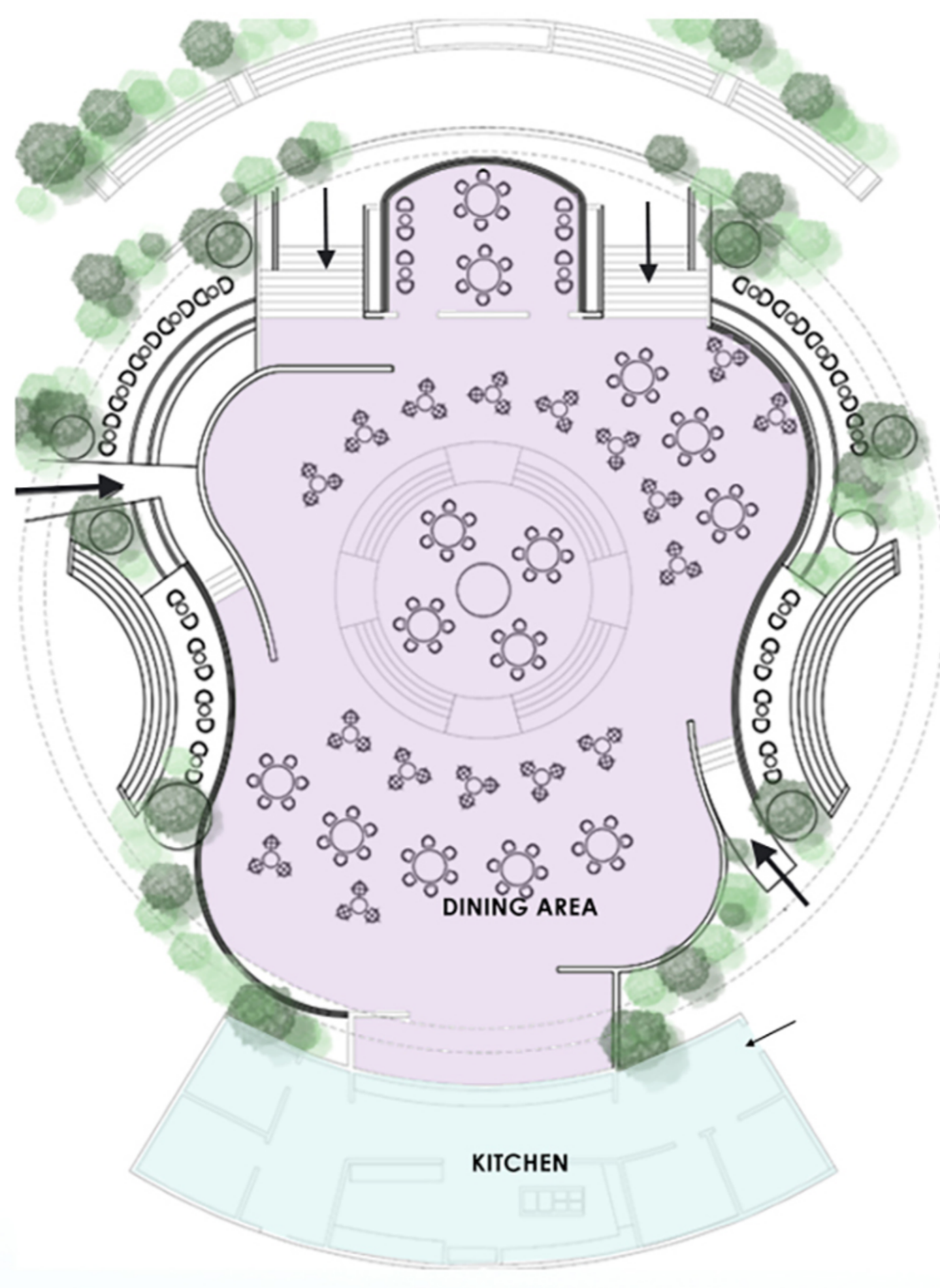
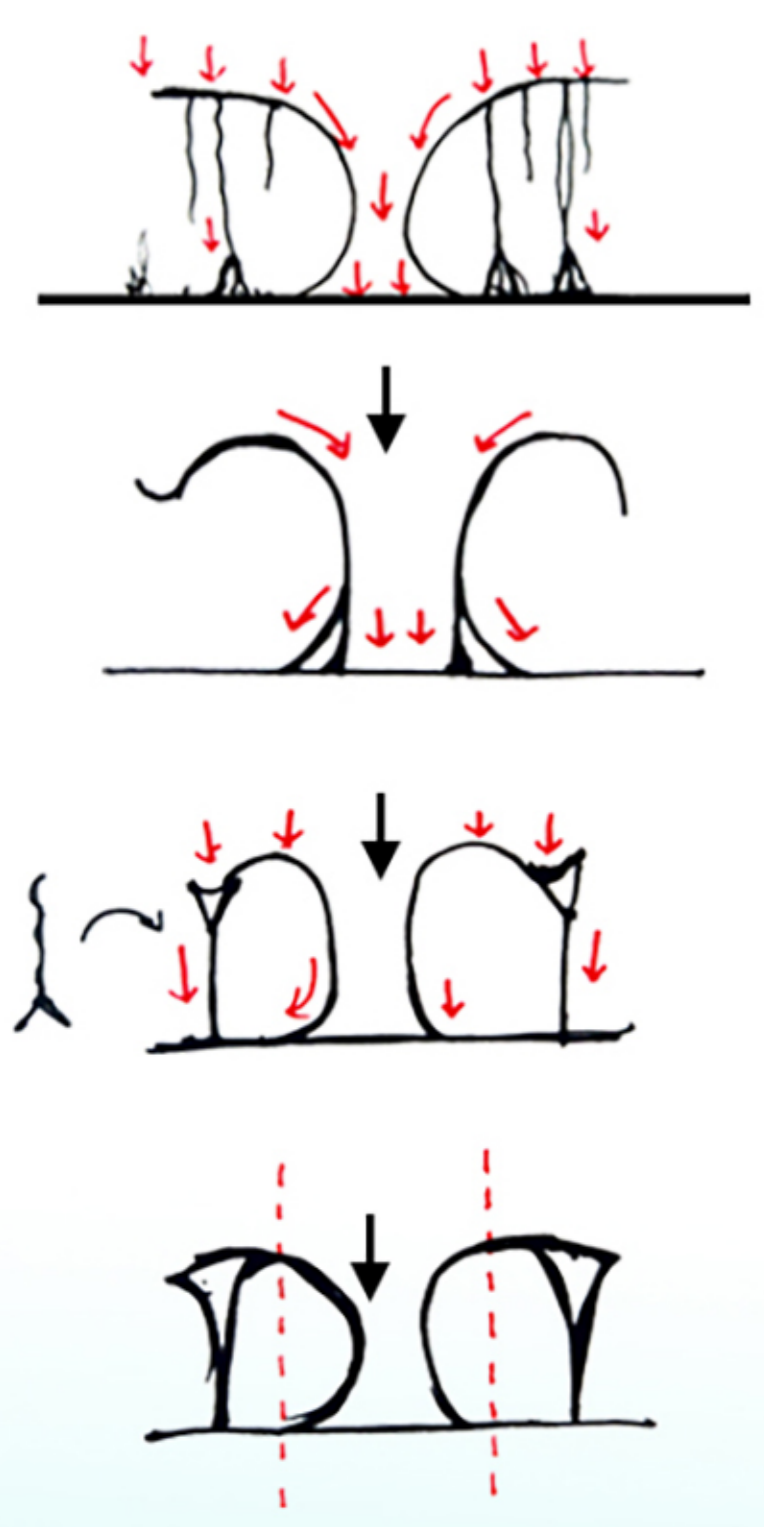




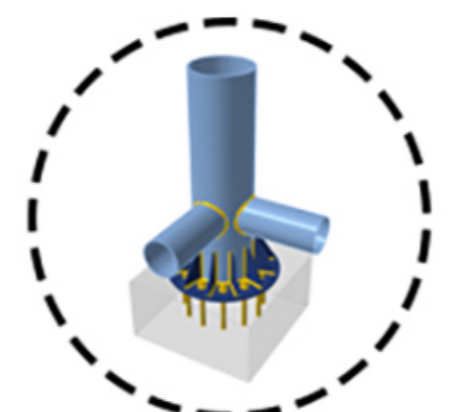
CONCEPT

The canteen block is designed according to the loading system of a bay tree. The total load from the stem and roots is distributed by the supports surrounded by the roof. The same way this structure supports are transferred to the roof by the supports surrounded by the tubular steel columns which is connected to the ground.

FORM EVOLUTION



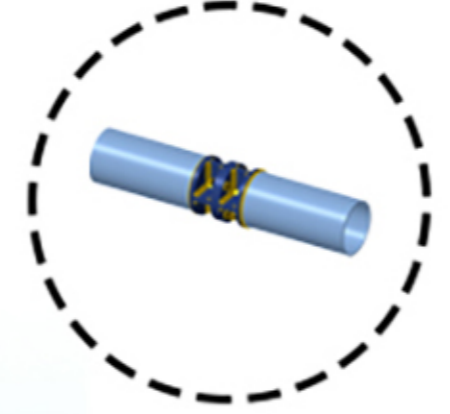
x tubes joinery with tubes



Tubular column to foundation connection

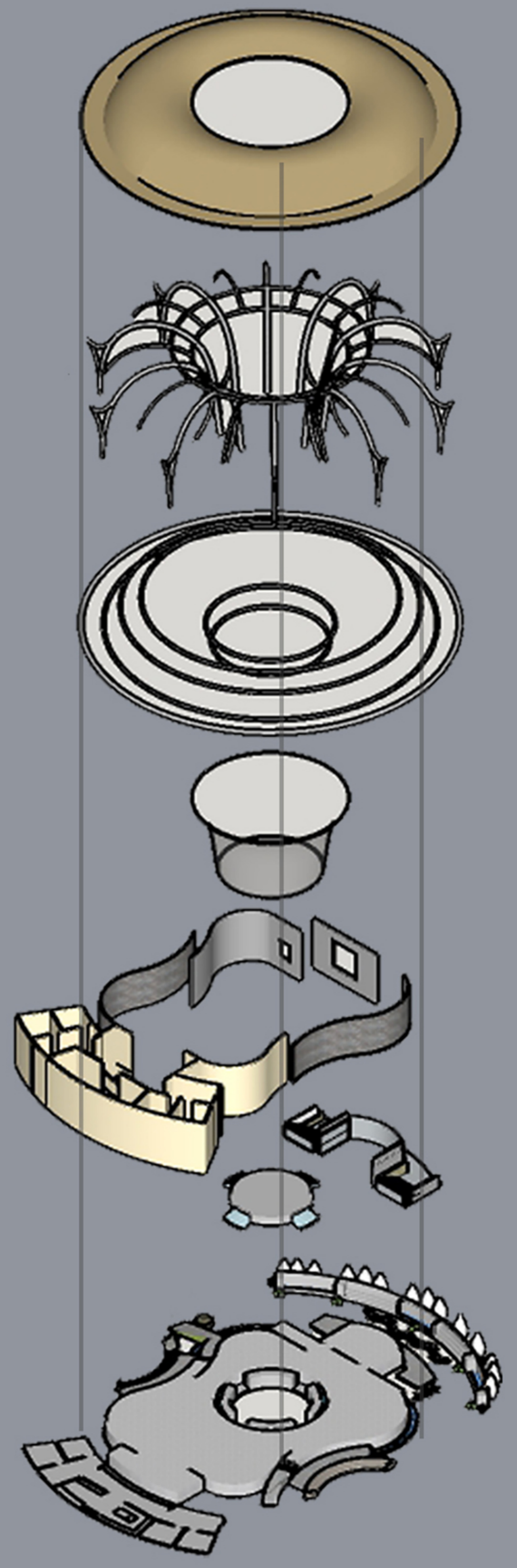


connecting plate with notches

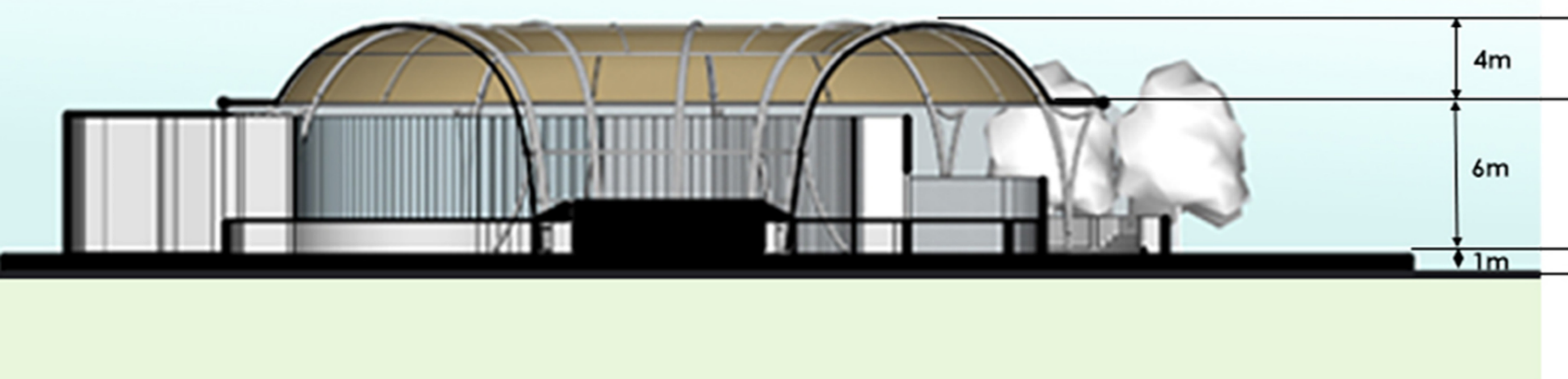


connecting tube with stiffeners

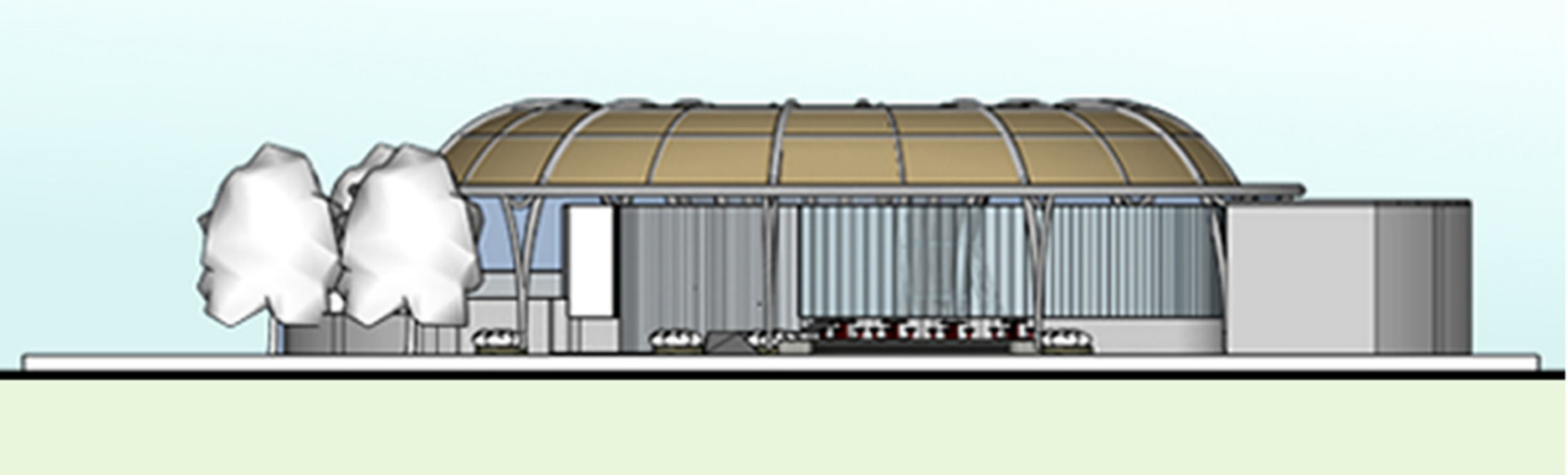
VIEW



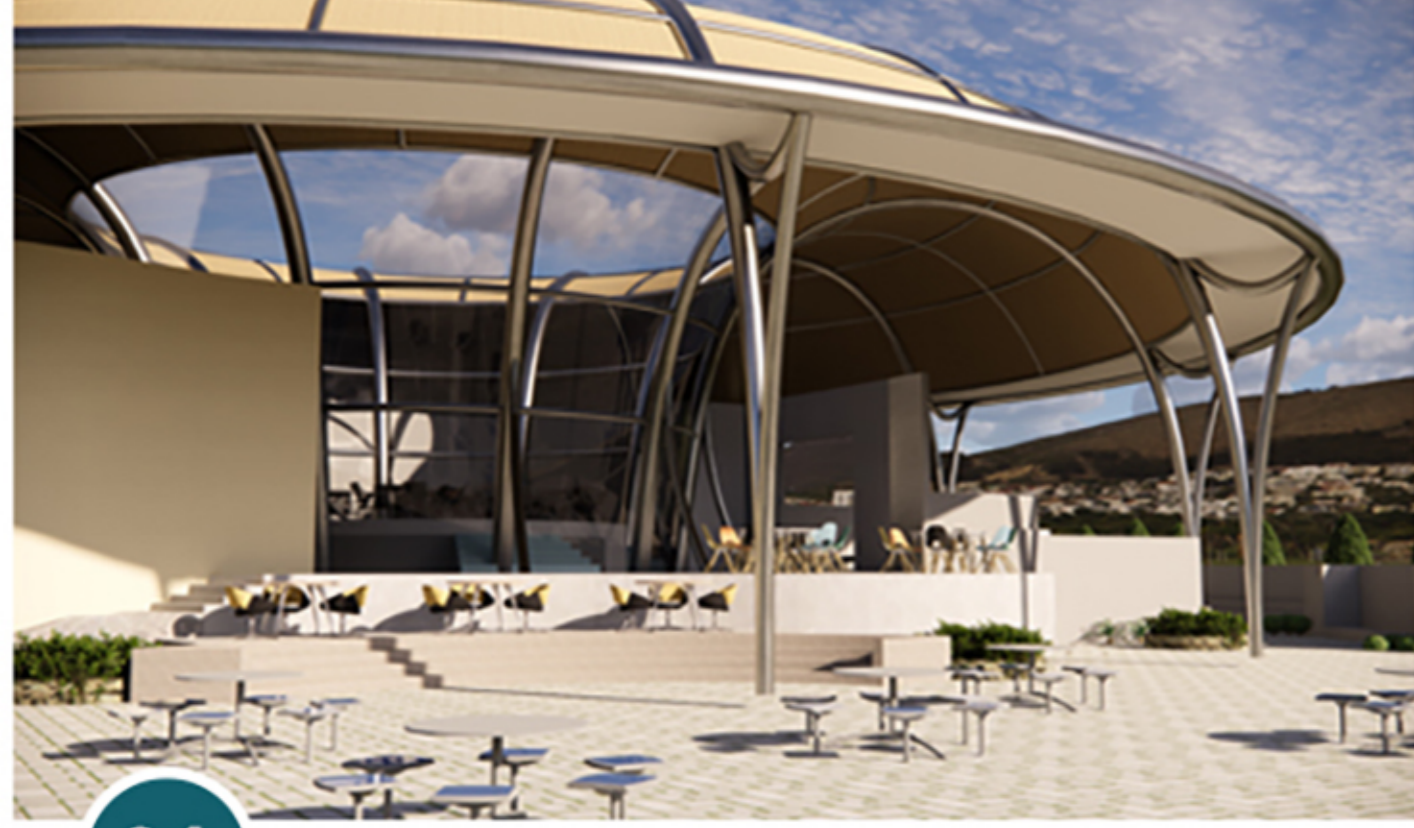
EXPLODED ISO VIEW



SECTION



ELEVATION





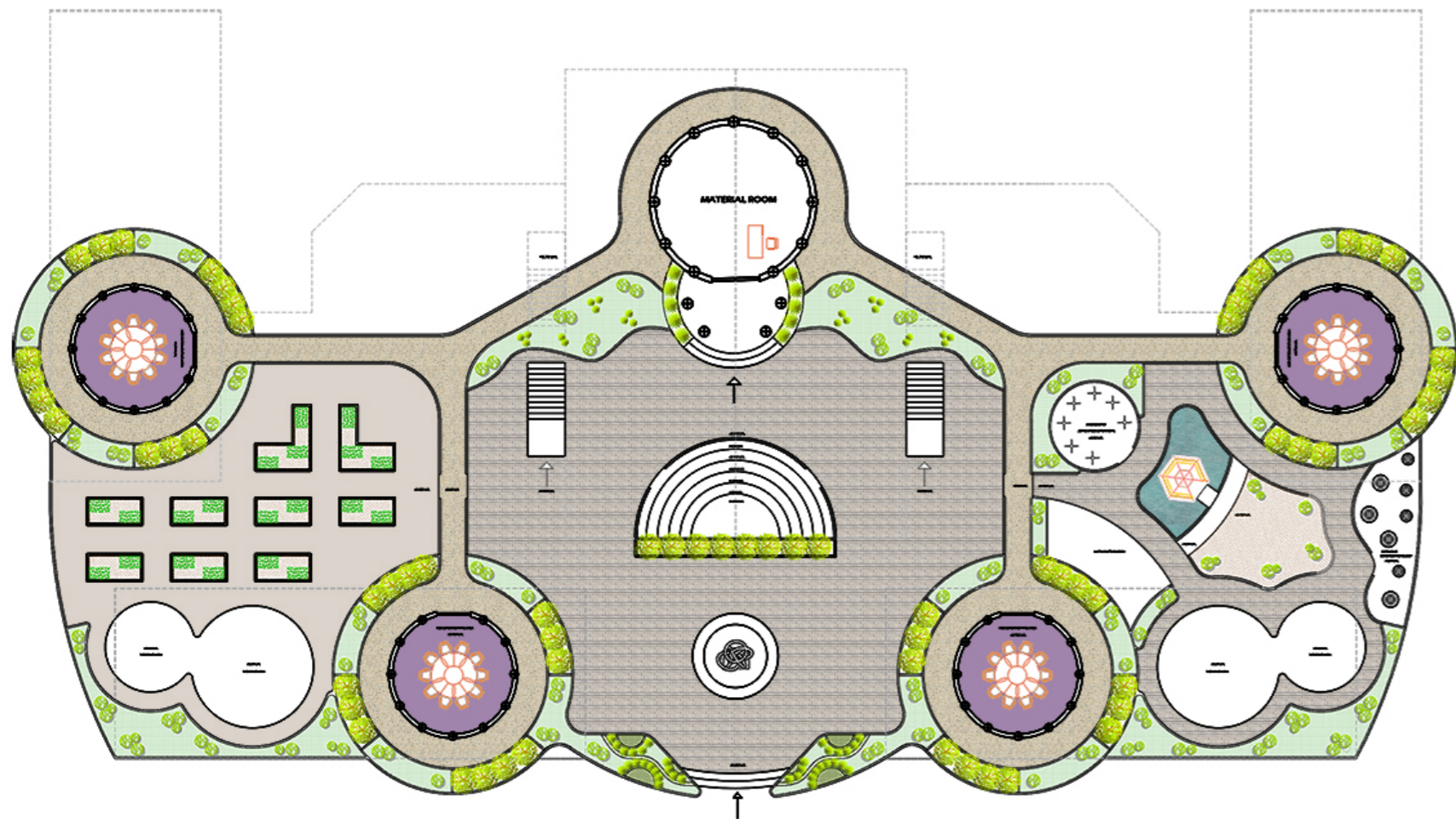
CONCEPT & FORM EVOLUTION



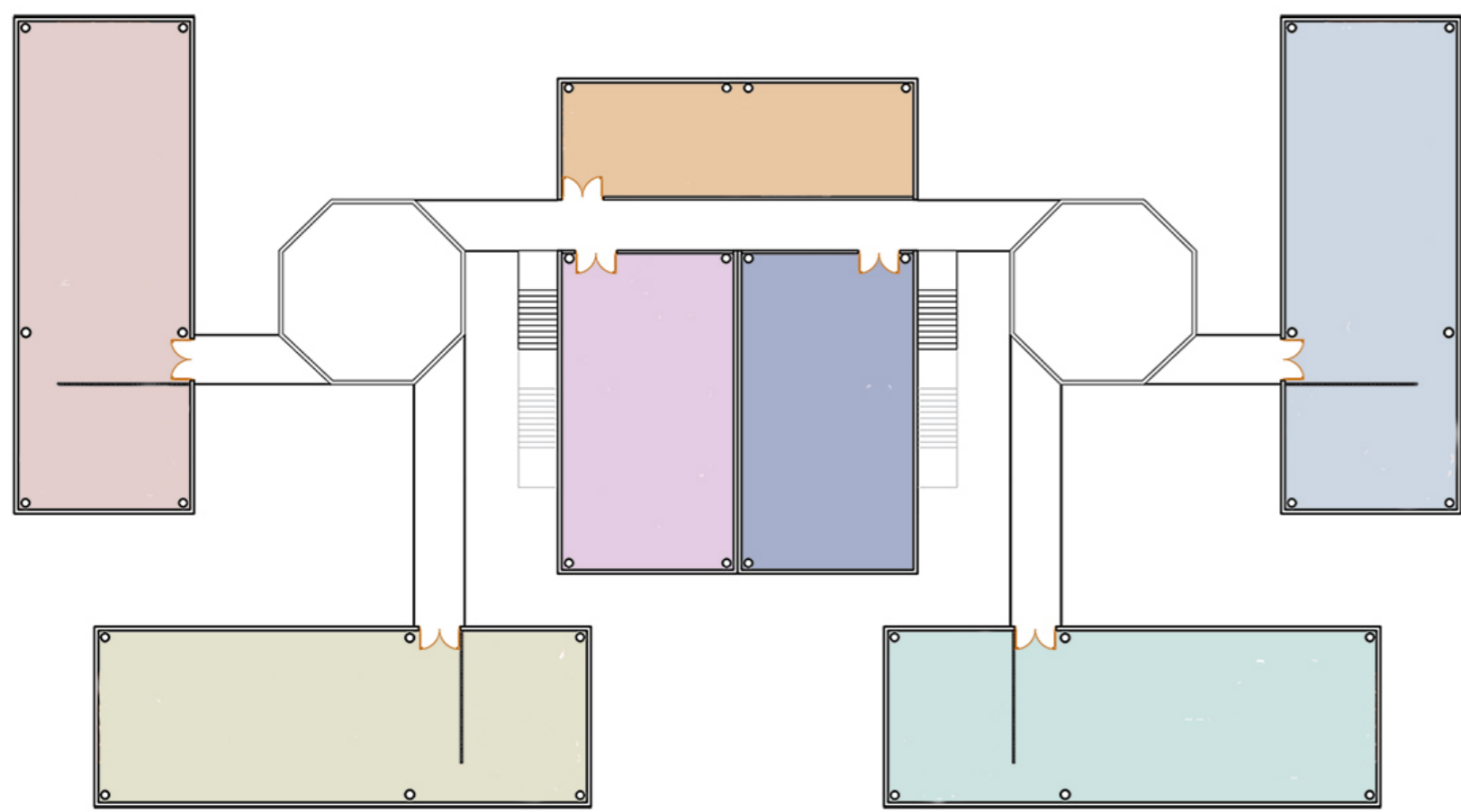
**TRUNK**  
CONNECTS LEAFY CROWNS WITH ITS ROOTS. **LIKEWISE**, THE STRUCTURE IS SUPPORTED BY SO MANY COLUMNS ACT AS A SINGLE SUPPORT.

**BRANCHES**  
GROWS FROM THE TRUNK IN TYPICALLY HORIZONTAL. **LIKEWISE**, THE STRUCTURE IS SUPPORTED AT ONE END, LOAD WILL BE CARRIED OVER THE OVERHANGING.

**LEAVES**  
LEAVES USUALLY BORNE (CARRIED OR TRANSPORTED) ABOVE GROUND. **LIKEWISE**, THE STRUCTURE WILL HAVE A SMALL SPACE AND A CONNECTING BRIDGE WHICH IS SUPPORTED BY THE SINGLE SUPPORT (TRUNK).



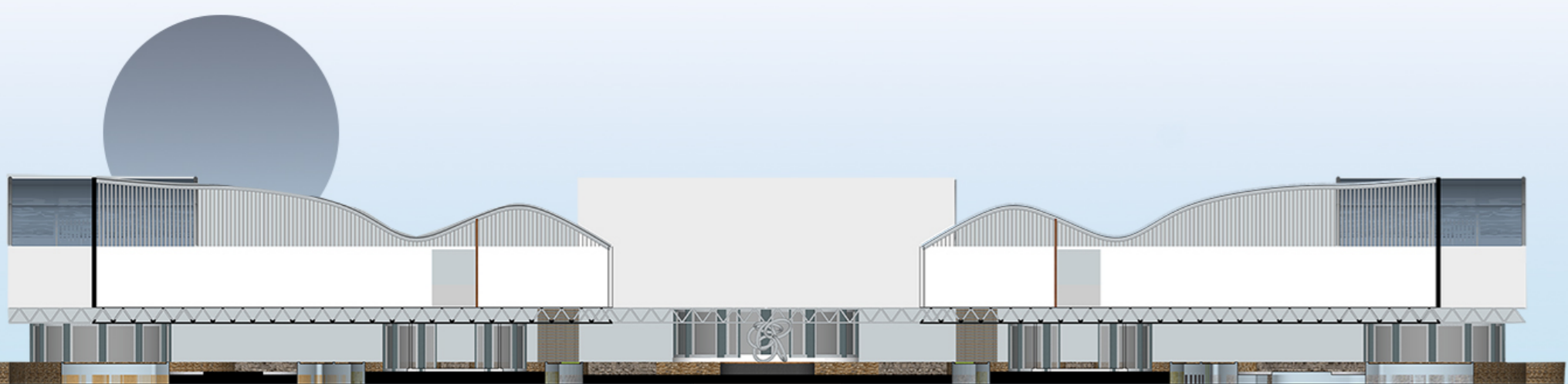
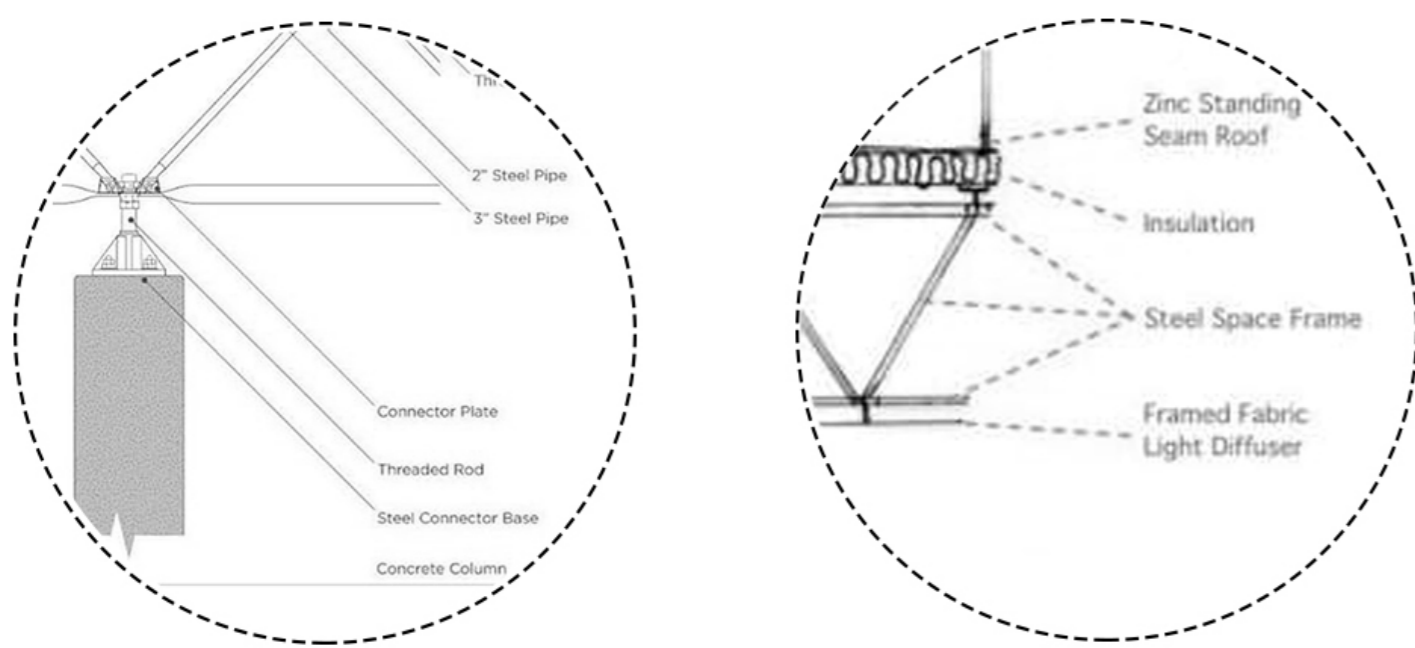
GROUND FLOOR



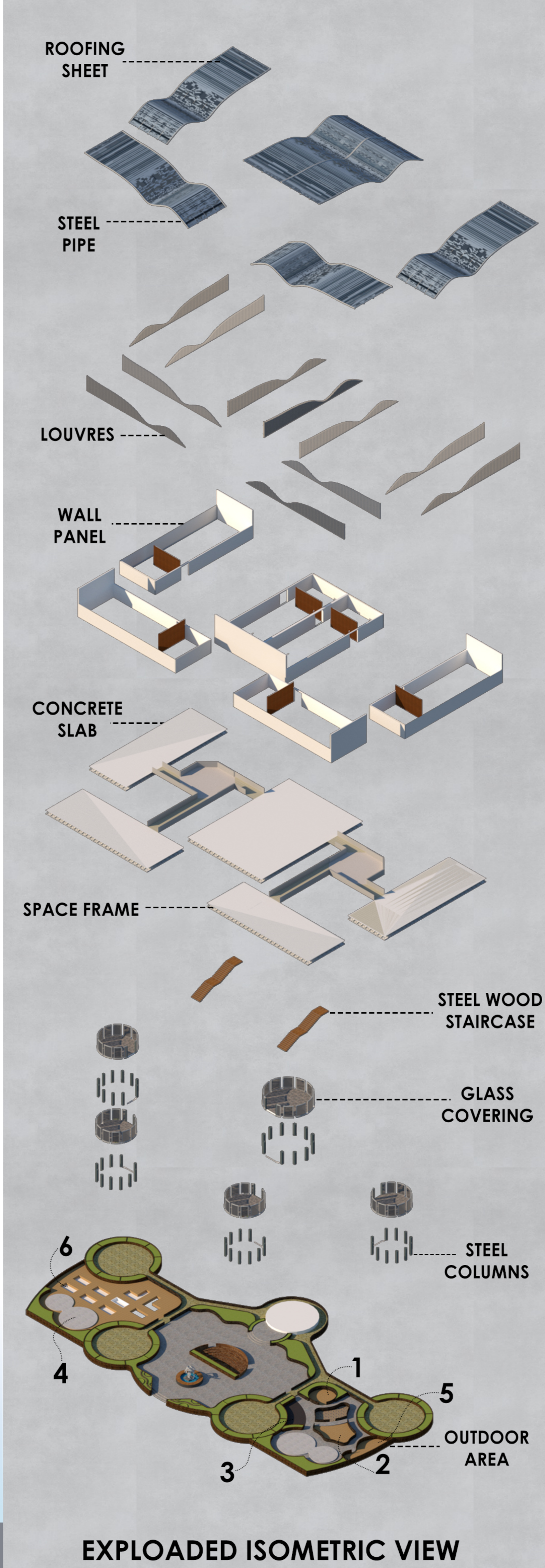
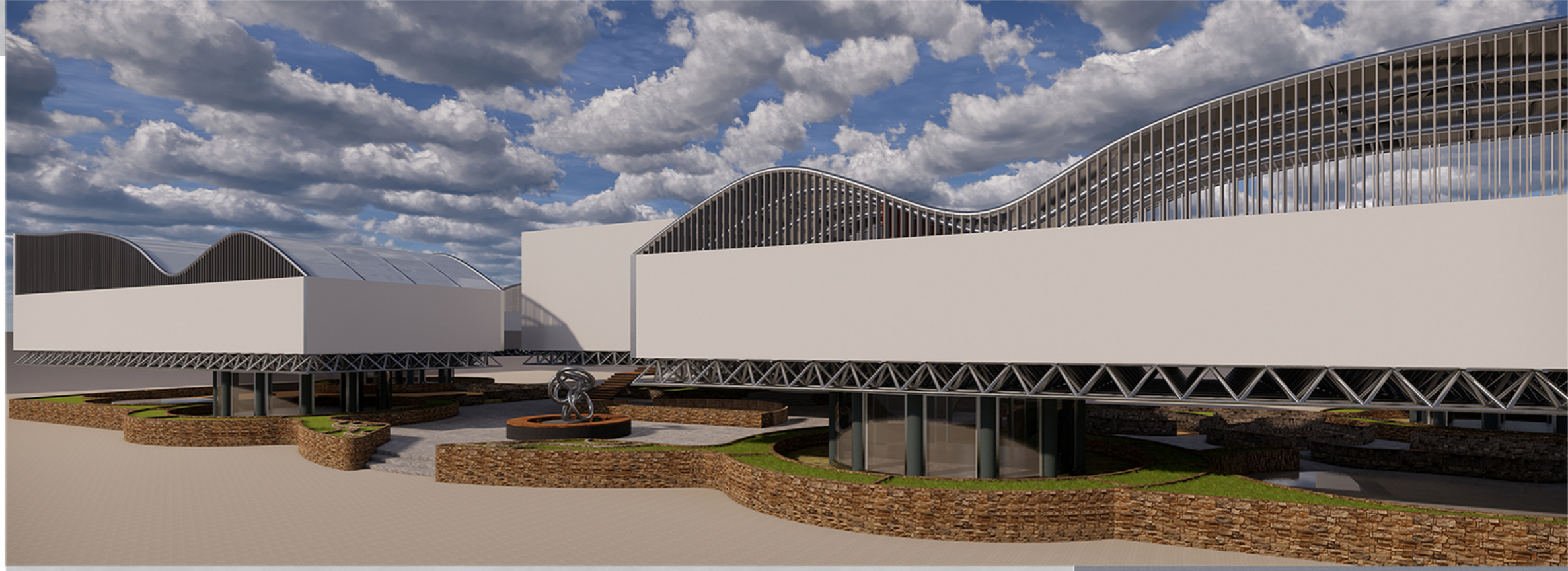
FIRST FLOOR

- PHYSICS LAB
- COMPUTER LAB
- CHEMISTRY LAB
- BIOLOGY LAB
- MATHS LAB
- GS LAB
- STAFF AREA
- KIDS EXPERIMENTING AREA

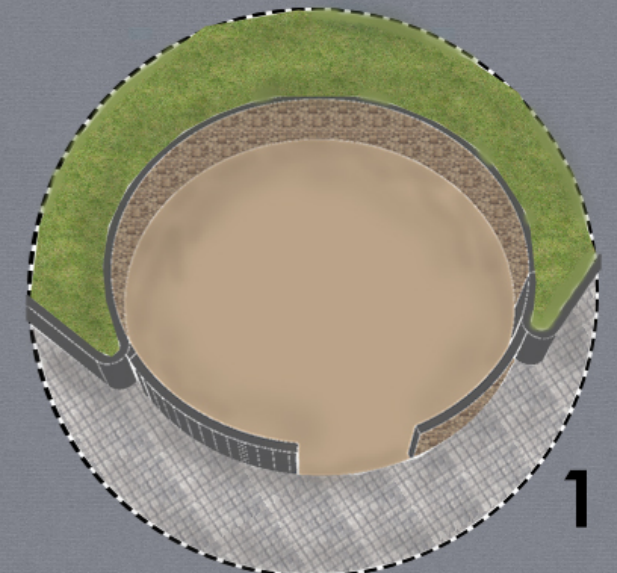
DETAIL



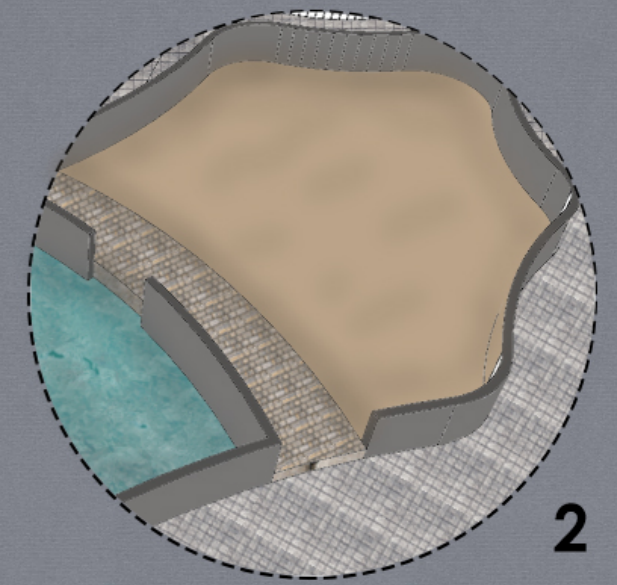
SECTIONAL VIEW



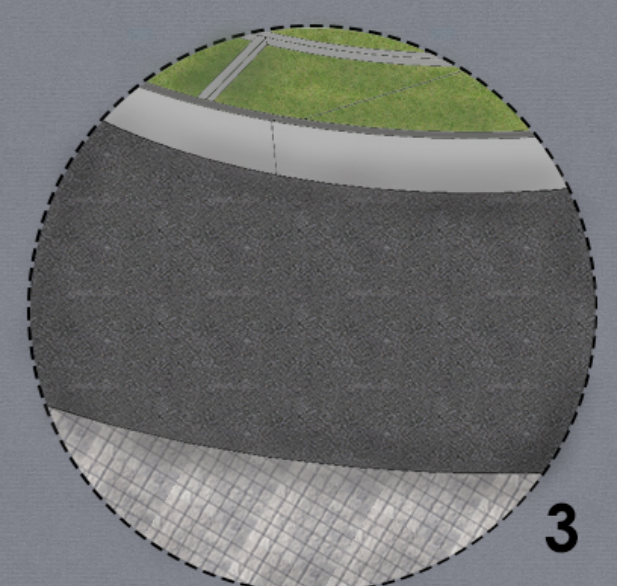
EXPLODED ISOMETRIC VIEW



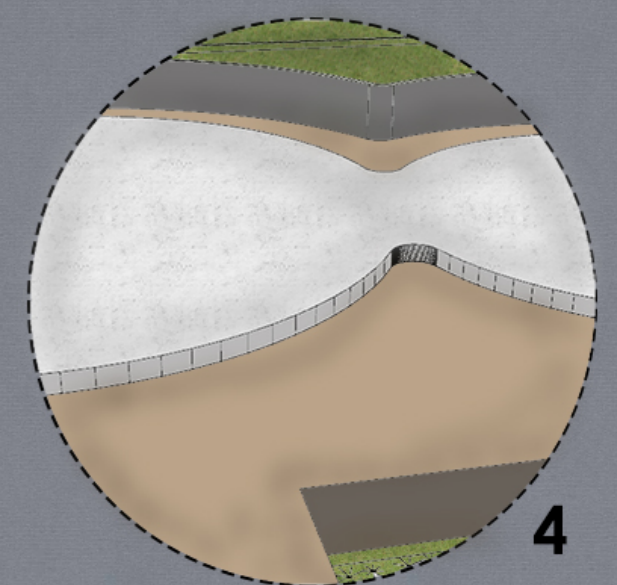
1 WIND EXPERIMENT AREA



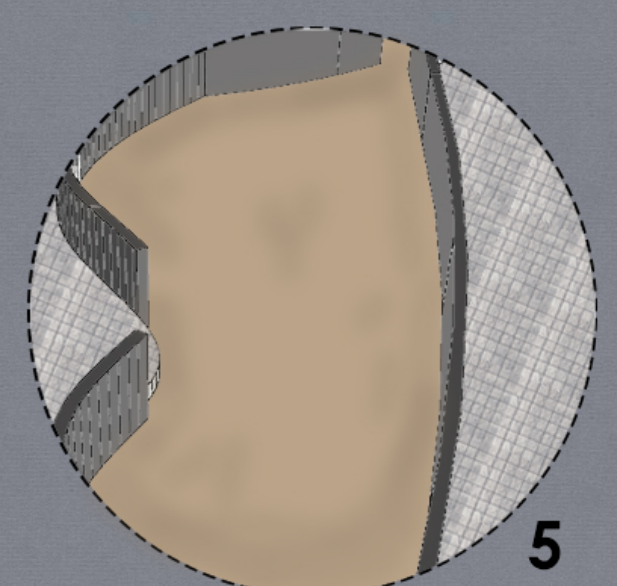
2 SAND PIT



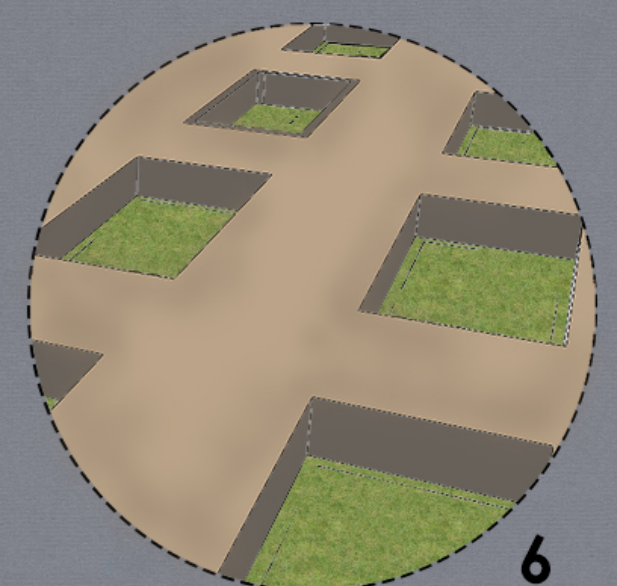
3 MATHS FACT GARDEN



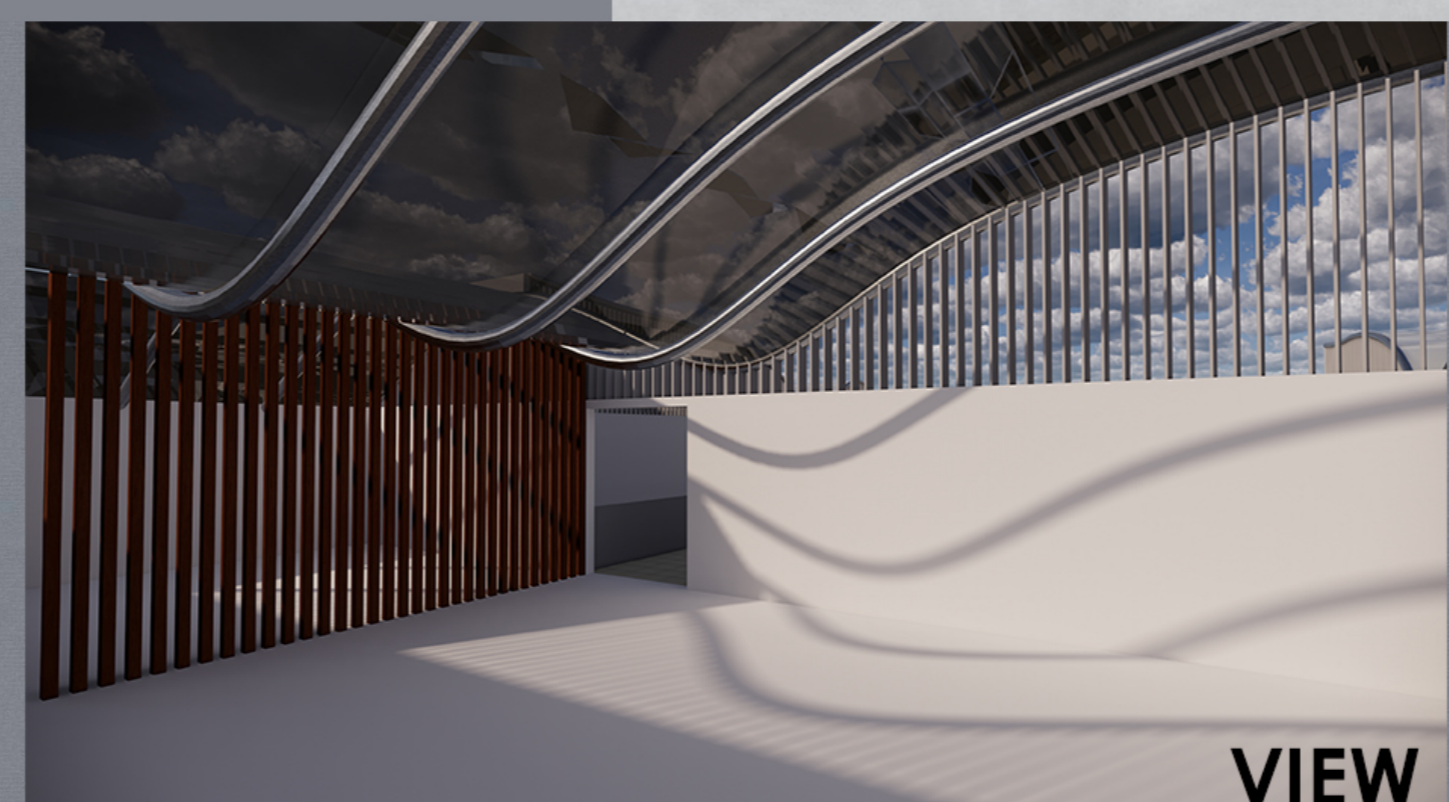
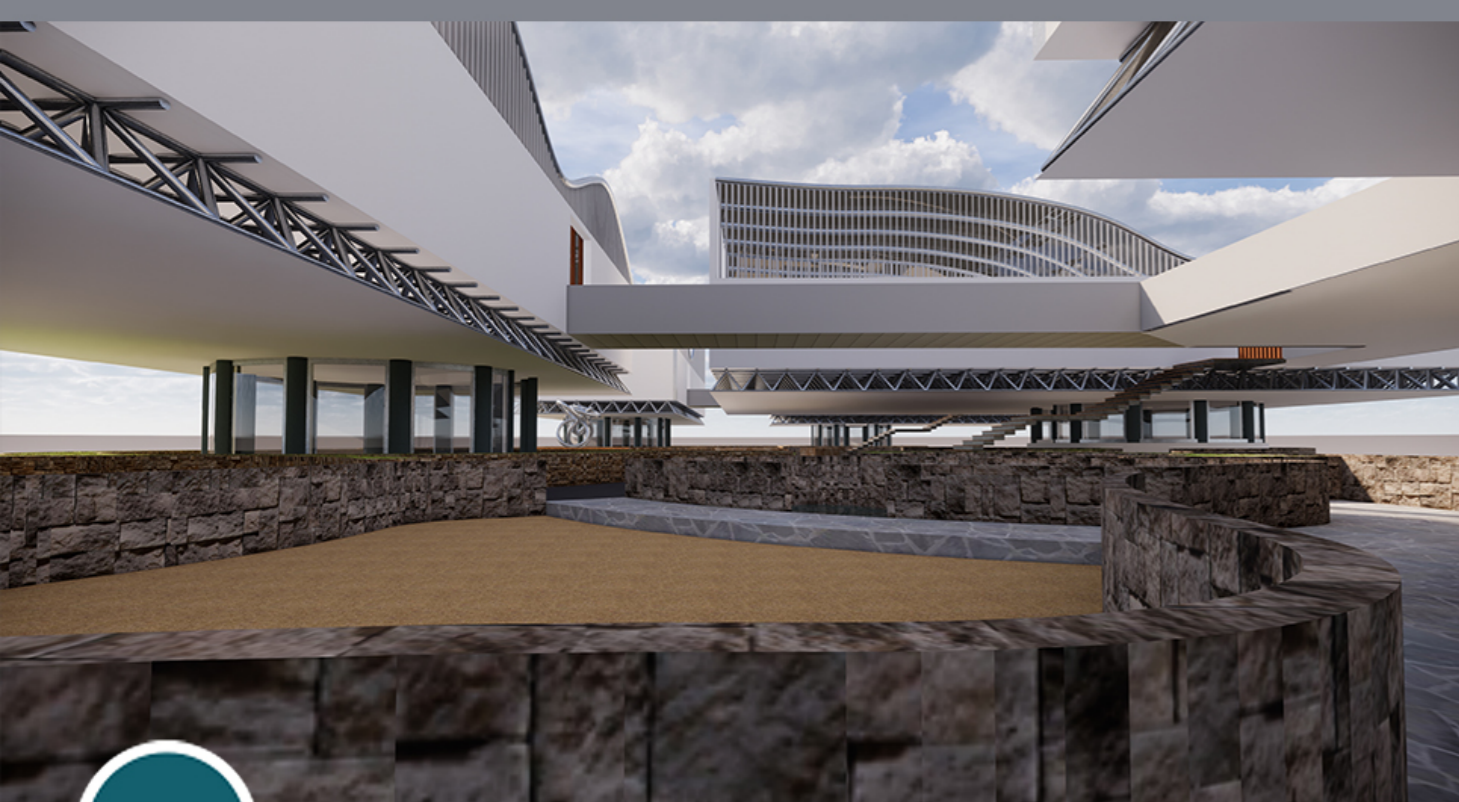
4 WORKING AREA



5 EXPLORING DENDROCHRONOLOGY



6 PLANTING

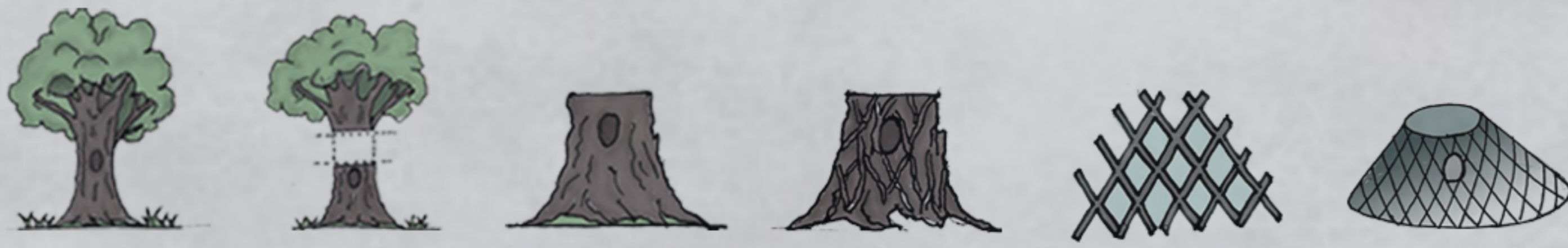
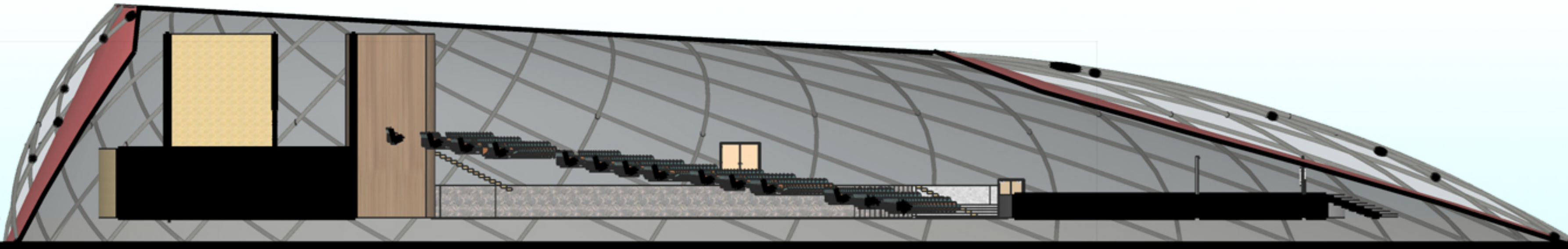


VIEW





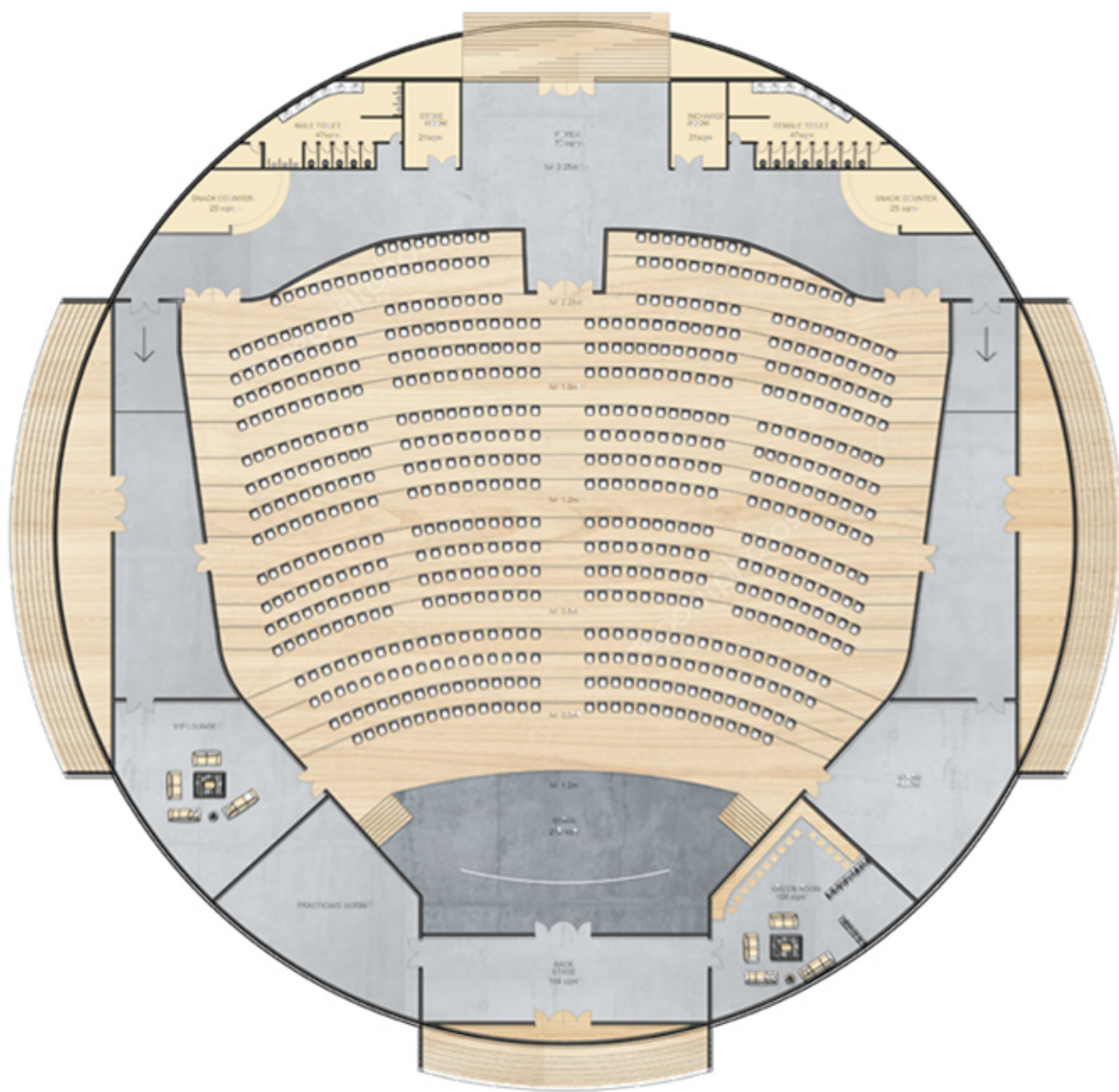
SECTIONAL VIEW



Trunk – generally a single “stem,” but can be multiple-stemmed.  
 Main functions are materials transport and support.  
 Bark – main function is to protect from damage.  
 Roots – two main functions: (1) collect nutrients and water and 2) anchor the tree.

CONCEPT & FORM EVOLUTION

A multi-purpose venue has been wrapped by living trees so that the venue can be configured in different ways to support the The trunk is the part of a tree that connects the leafy crown with its roots. ... This allows the leaves to obtain water and nutrients that are necessary for the manufacture of food from light energy (photosynthesis). Food made in the leaves is then transported down to the roots and to other parts of the tree for growth.



PLAN

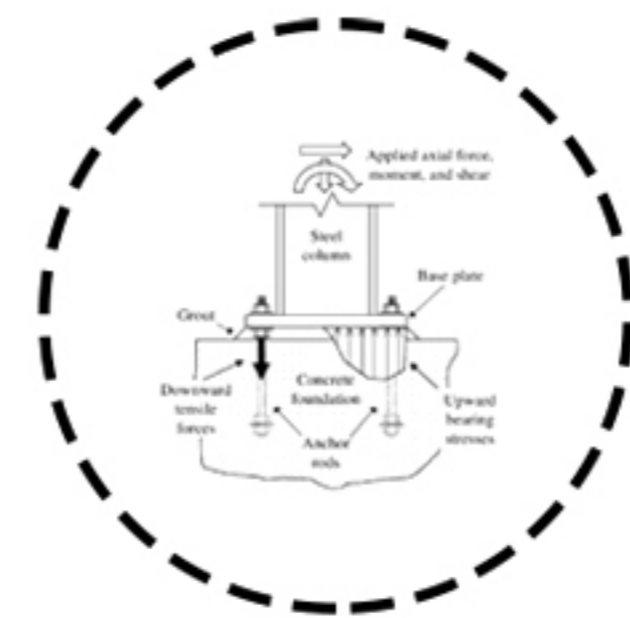
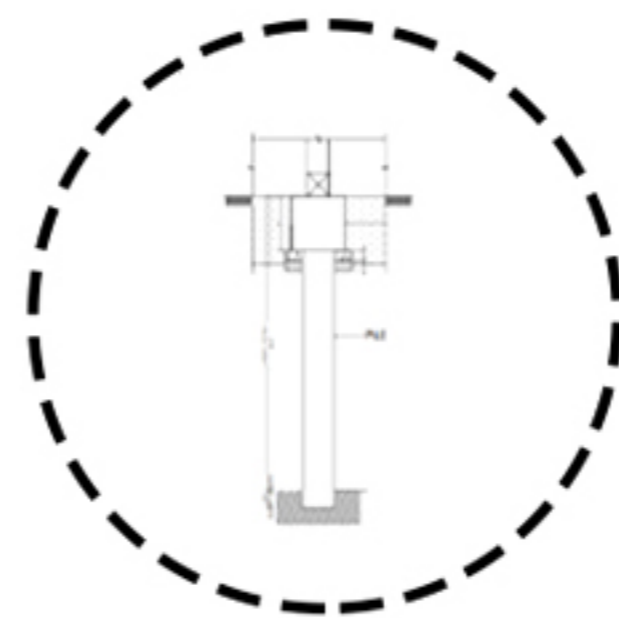
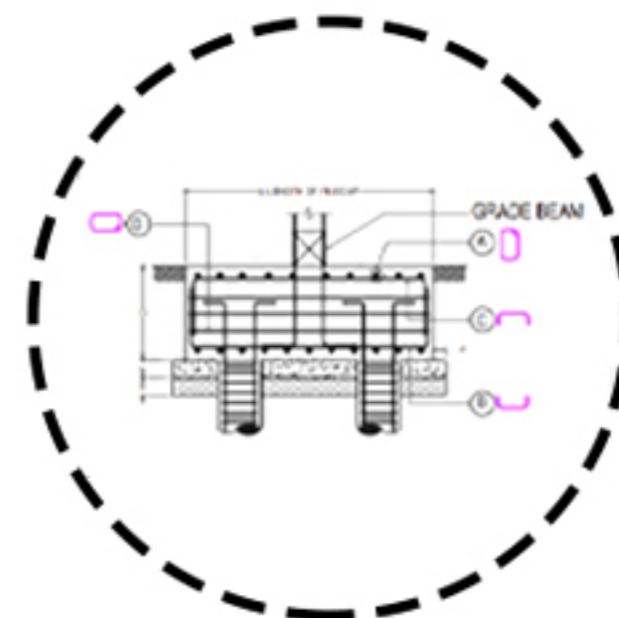


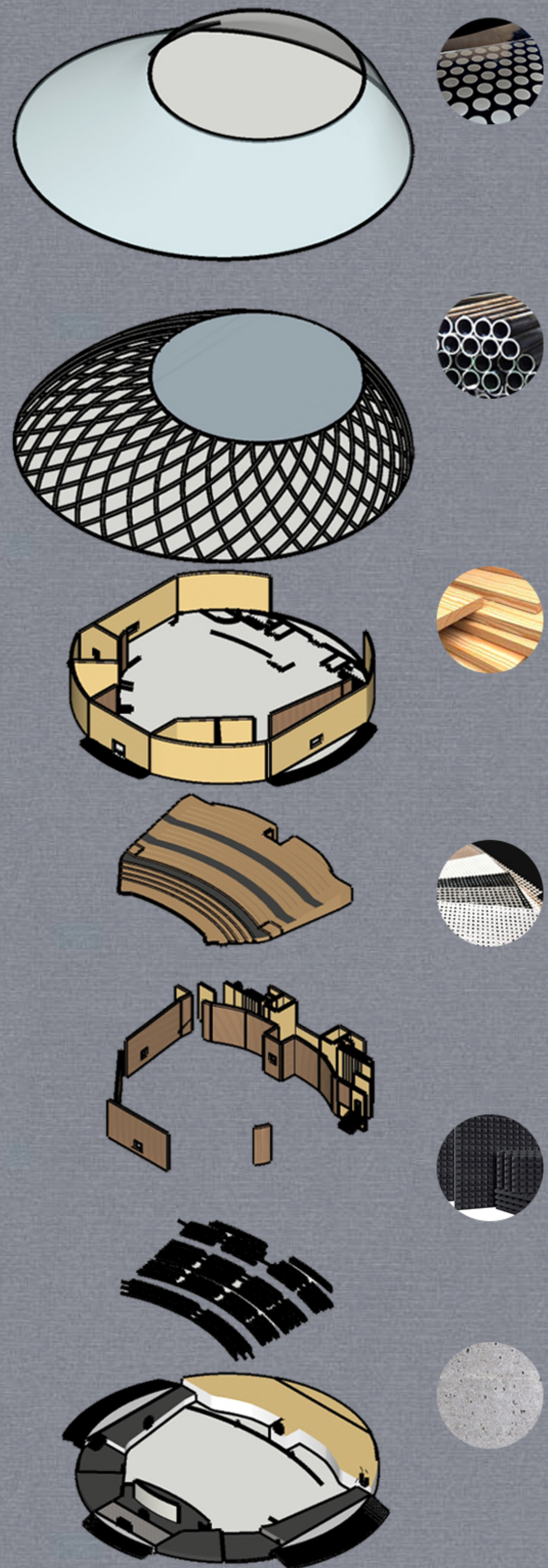
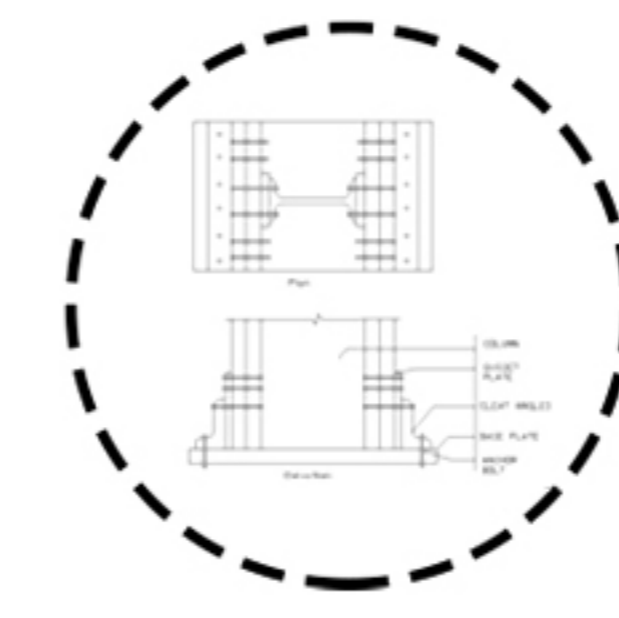
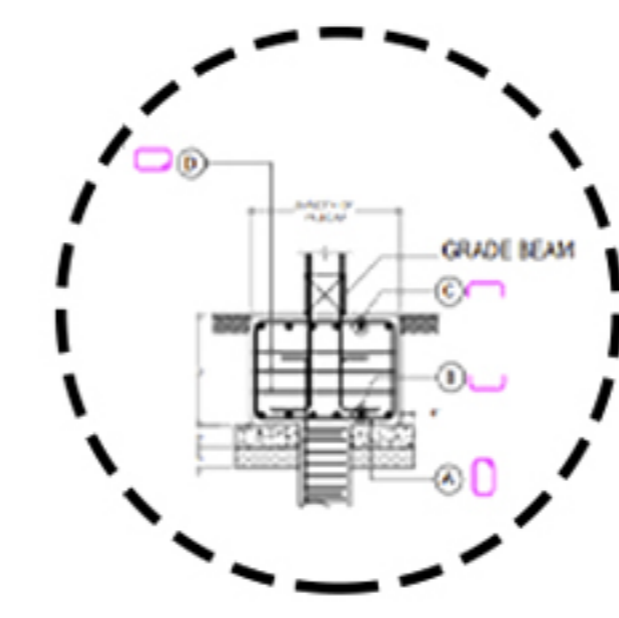
PLATE CONNECTIONS



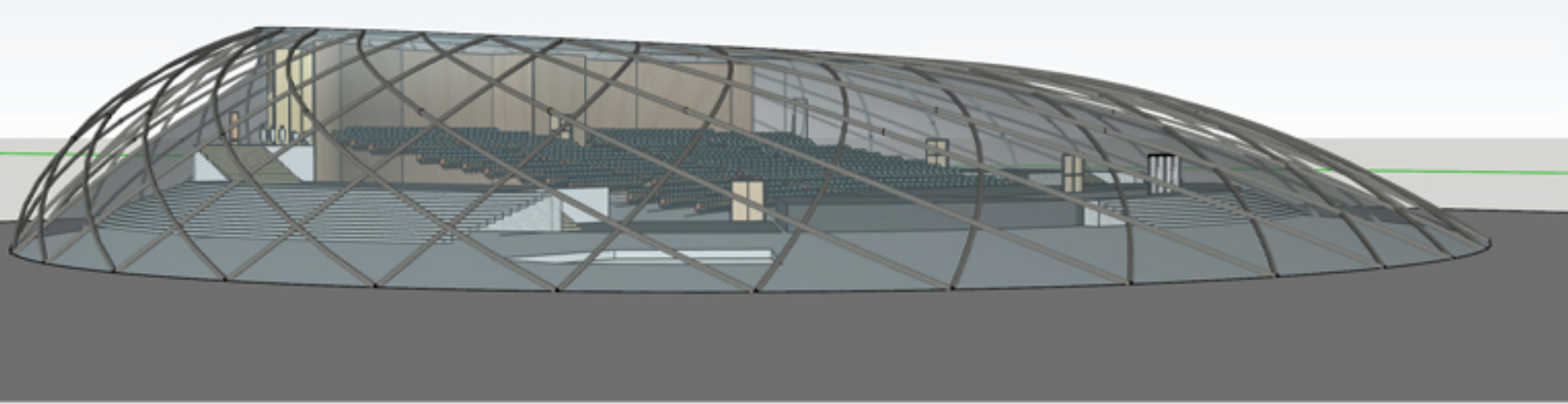
PILE FOUNDATION



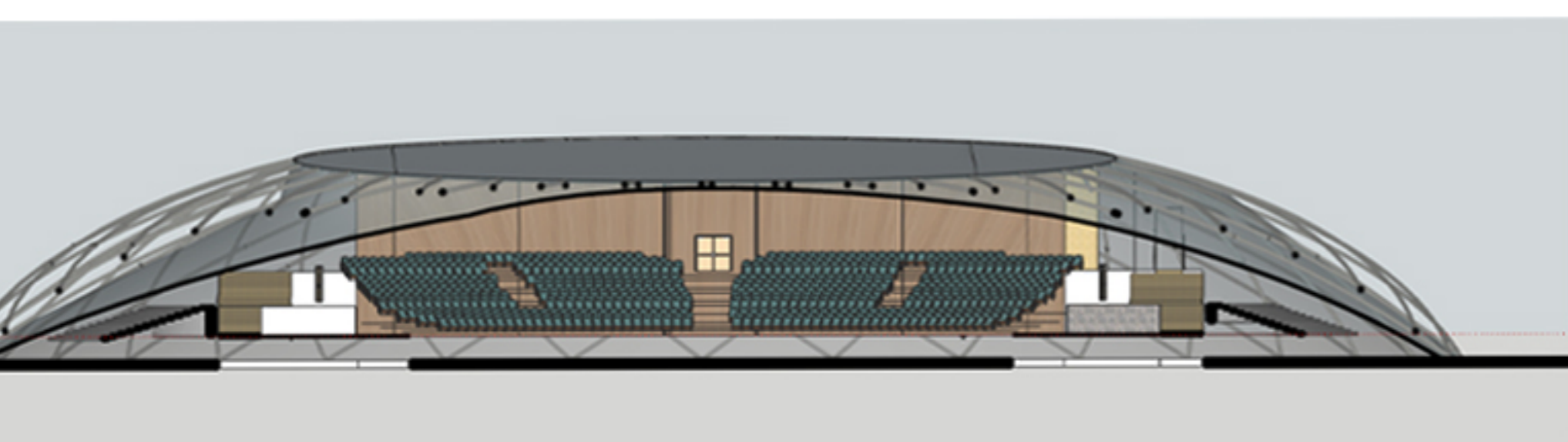
CROSS SECTIONAL VIEW OF PILE



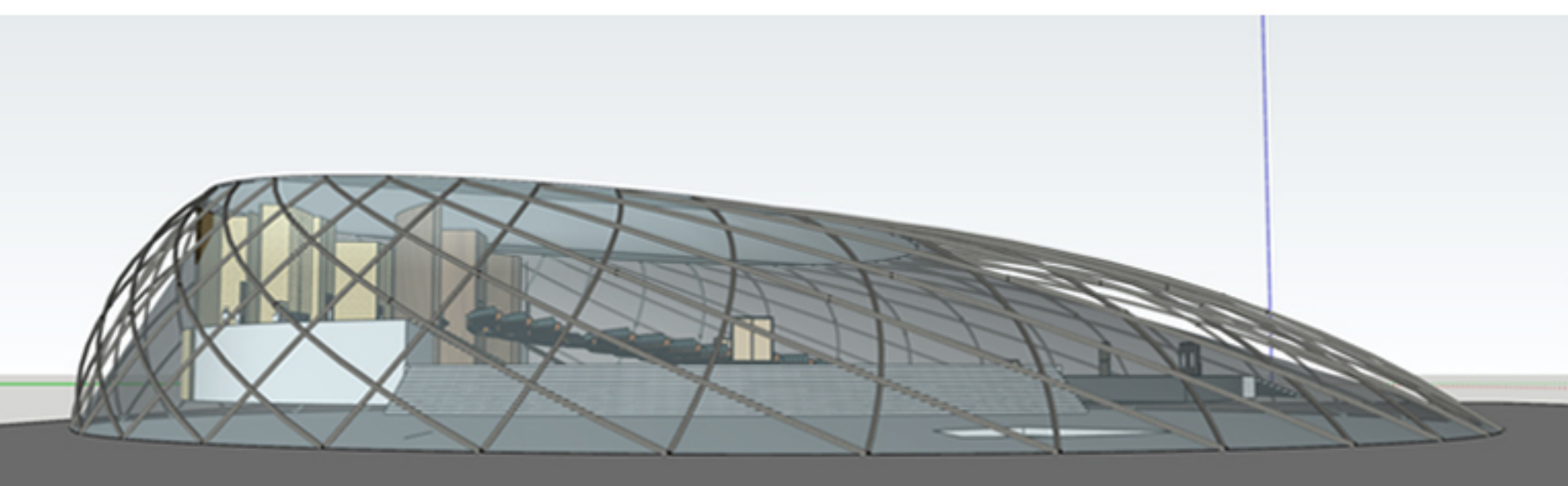
EXPLODED ISO VIEW



ELEVATION A



SECTION A



ELEVATION B



# DECLARATION FORM

**NAME OF EDUCATIONAL INSTITUTION**

: RVS PADMAVATHY SCHOOL OF ARCHITECTURE

**STUDENTS NAME**

: 1.SINDHU.G    2.GUNASEKAR.M  
3.DEVISHREE.N    4.LASHIGA A ASWATHY

**STUDENTS MAIL ID**

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2.gunasekar.1114@gmail.com  
3.devishree1011@gmail.com  
4.lashulatha@gmail.com

**YEAR OF STUDY**

: 4TH YEAR

**NO.OF.ENTRY SHEETS**

: 6

**DECLARATION,**

WE DECLARE THAT THIS WORK FOR THE INSDAG DESIGN PROJECT IS SUBMITTED BY US.IT IS OUR OWN WORK AND THAT THE DRAWINGS AND SHEETS HAVE BEEN PREPARED BY OURSELF.

WE THE UNDERSIGNED CERTIFY THAT THE CONTENTS OF THE ENTRY SUBMITTED BY US IS ENTIRELY OUR WORK AND ANY MATERIAL (QUOTATIONS, PHRASES, IMAGES, DRAWINGS ETC.) SOURCED FROM PUBLISHED AND UNPUBLISHED WORK OF OTHERS HAS BEEN DULY ACKNOWLEDGED.

**SIGNATURE(S) :**

1. 

2. 

3. 

4. 

**DATE : 15/12/2021**