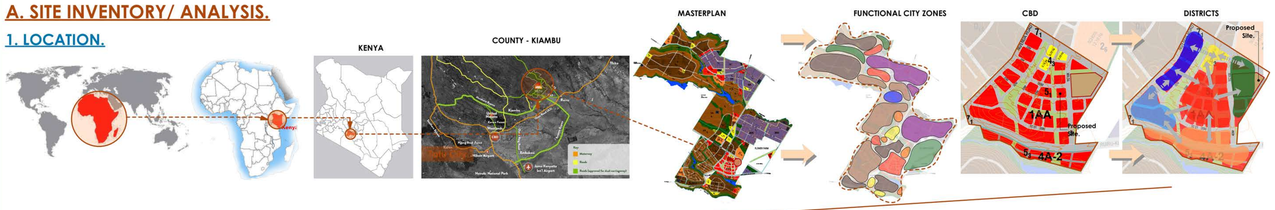
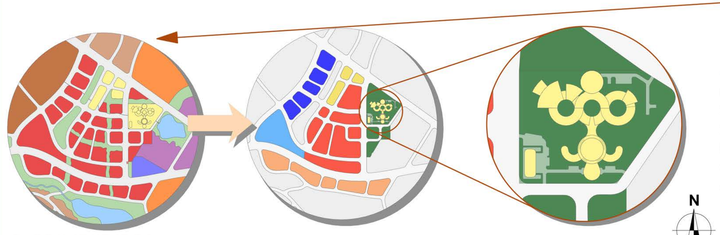
"FROM TENDRILS - A REGENERATIVE MICE CENTRE IN THE HEART OF AFRICA..."

A. SITE INVENTORY/ ANALYSIS.

1. LOCATION.





• **160-hectare** CBD with a mix of **Live**, **Work**, **Play** & world-class amenities. The CBD is divided into six smaller functional districts namely; **1. Live Sports Precinct -** stadium & live sports arenas. **2. Sustainability District -** eco-friendly facilities. **3. Public Purpose Section -** civic functions. **4. High-Density Retail & Entertainment Precinct -** shops, bars, restaurants, and entertainment venues. **5. Quick Retail Section -** light marketing and window shopping to attract traffic into Tatu City. **6. Business & MUD Section -** offices.

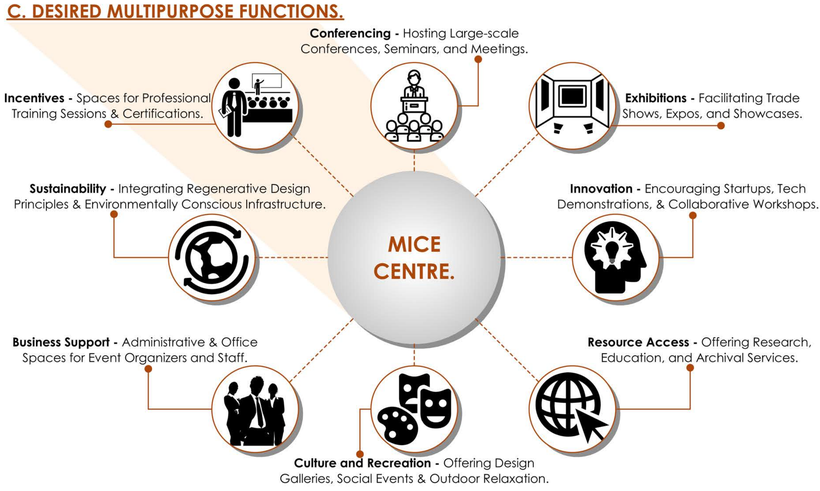
B. PROJECT IDEA.

The rapid growth of Kenya's business tourism sector presents an opportunity to rethink the role of Meetings, Incentives, Conferences and Exhibitions (MICE) facilities beyond their conventional function as event venues. Rather than becoming isolated commercial developments, these buildings can **actively restore ecosystems, strengthen communities and demonstrate new approaches to environmentally responsible architecture.** The proposed Tatu City MICE Centre explores **regenerative design** as the driving force behind a contemporary convention facility, transforming architecture from a consumer of natural resources into an active contributor to the surrounding landscape.

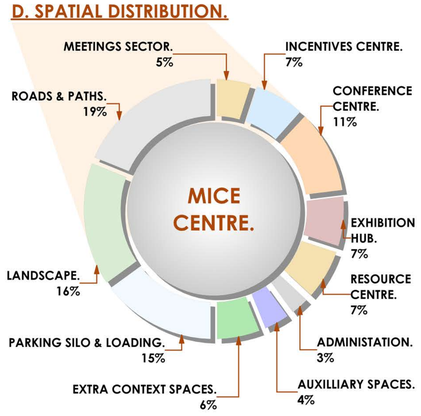
Located within Tatu City, one of Africa's fastest-growing mixed-use smart cities, the project responds to its evolving urban character while e**mbracing the site's existing stream, vegetation and natural topography as primary generators of form.** Instead of imposing a rigid architectural object on the landscape, the design grows organically from nature itself. **Inspired by tendrils wrapping around a central stem,** the building forms intertwine around landscaped courtyards and flowing water, creating an interconnected sequence of conference, exhibition, meeting and public spaces.

The proposal demonstrates how large public buildings can operate as living ecosystems. Green roofs, constructed wetlands, renewable energy systems, biodiversity corridors and productive landscapes are integrated into everyday user experience rather than concealed as technical infrastructure. **Visitors move through gardens, bridges, water features and shaded courtyards where architecture and landscape function as one continuous environment.**

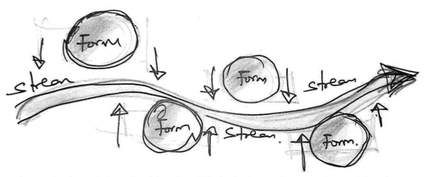
C. DESIRED MULTIPURPOSE FUNCTIONS.



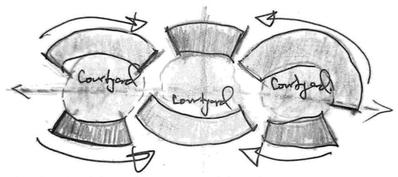
D. SPATIAL DISTRIBUTION.



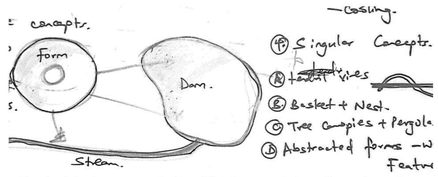
E. PLANNING CONCEPTS & PHYSICAL DESIGN CONCEPTS (Abstracted From Nature as Regenerative Design Dictates).



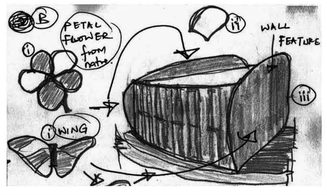
• Organic form is inspired by tendrils/ climbers from nature. Circular blocks (climbers) are oriented along the flow of the stream (stick).

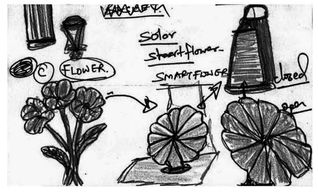


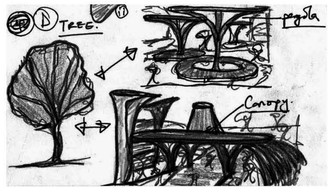
• The structure is based on courtyards to enhance open green spaces and offer natural lighting and ventilation.



• Physical design concepts (Tendrils Vines, Nest, Tree Canopies, Wings, etc) are abstracted from nature according to Regenerative Design.







F. CONCEPT/ FORM DEVELOPMENT.

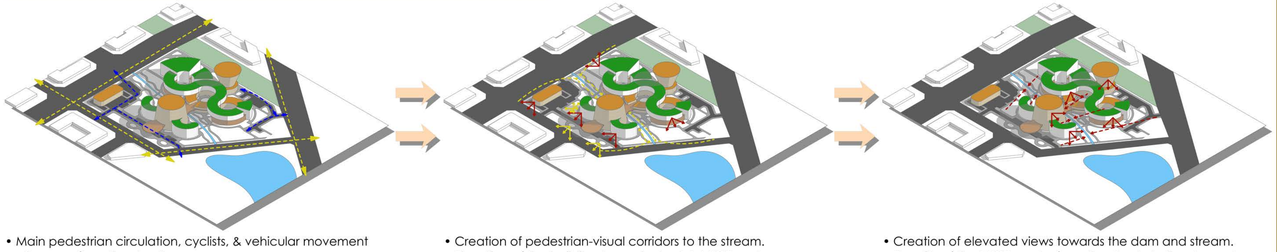
• Creation of circular courtyards along the stream with separation of functions.

• Horizontal linkage of the twining forms to form one connected building along common axes.

• Vertical & horizontal adding and subtraction with alternating forms tapering in elevation.

• Final Form.

G. STREET & PEDESTRIAN ARTICULATION WITH THE MICE CENTRE.



• Main pedestrian circulation, cyclists, & vehicular movement and access from the streets.
• Pedestrian porosity of the centre for unrestricted movement.

• Creation of pedestrian-visual corridors to the stream.
• Elevation of the building towards street & MICE centre users.
• Plaza next to the street encourages activity near the centre.

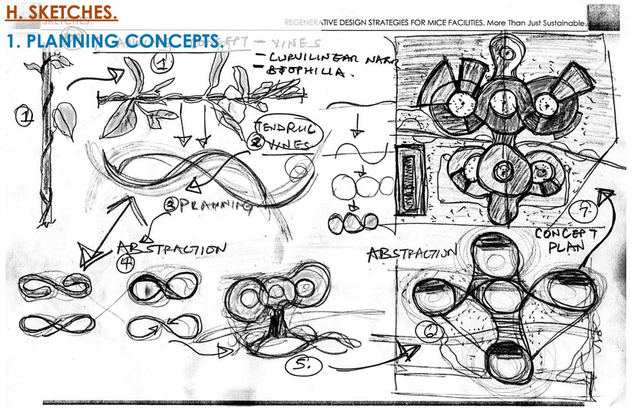
• Creation of elevated views towards the dam and stream.
• Porosity of the MICE centre from the streets to the stream to encourage activity near water features for productivity.

ORUNDA KENNEDY JULIUS.
INSPIRELI AWARDS.

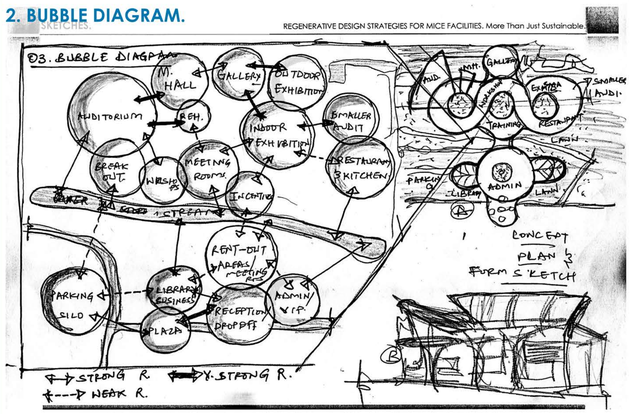
"FROM IDEAS IN SKETCHES TO WORKABILITY/ THE VISUALS..."

H. SKETCHES.

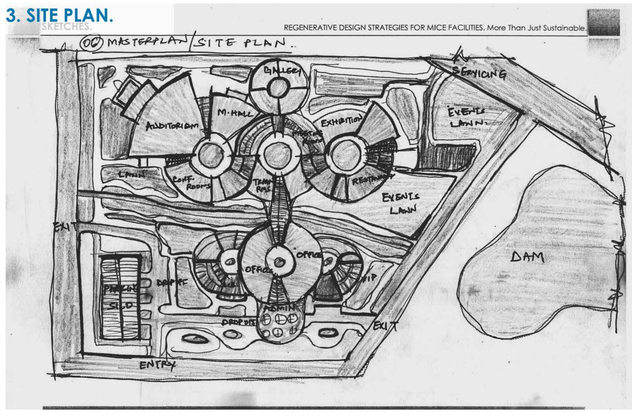
1. PLANNING CONCEPTS.



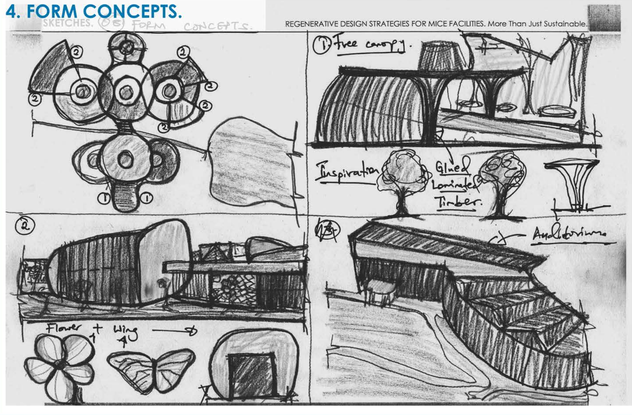
2. BUBBLE DIAGRAM.



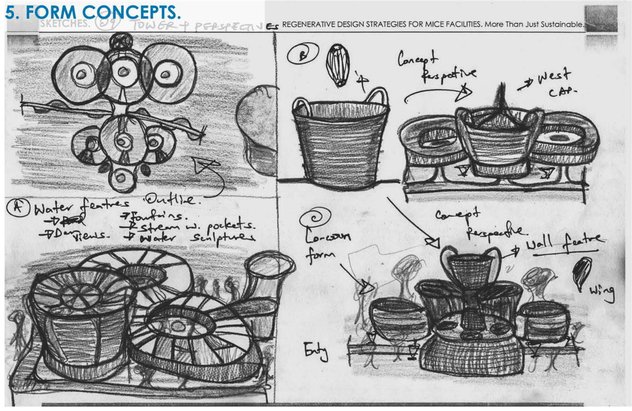
3. SITE PLAN.



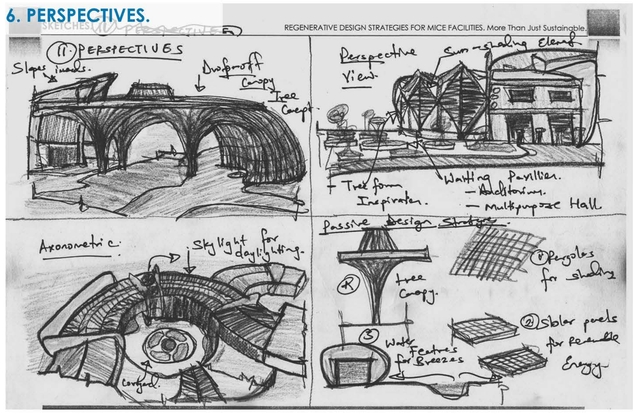
4. FORM CONCEPTS.



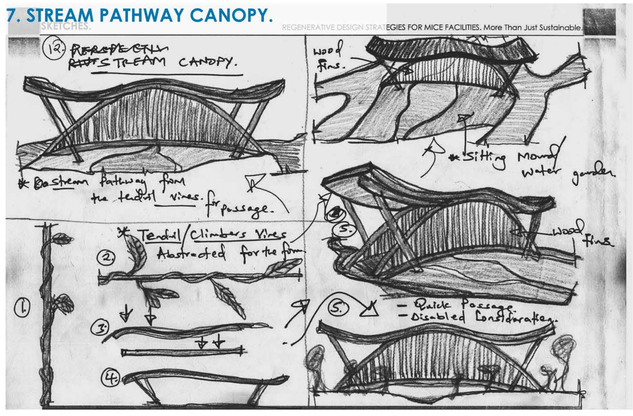
5. FORM CONCEPTS.



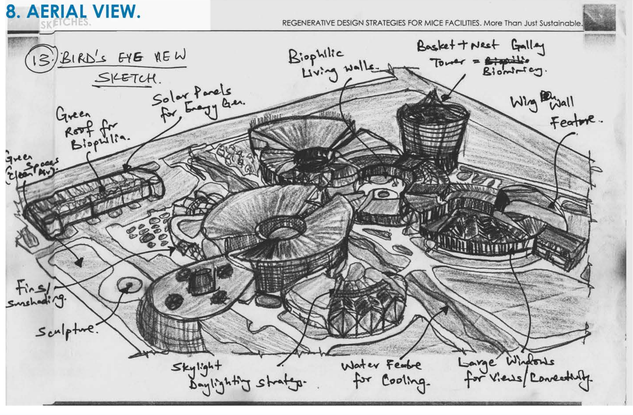
6. PERSPECTIVES.



7. STREAM PATHWAY CANOPY.



8. AERIAL VIEW.

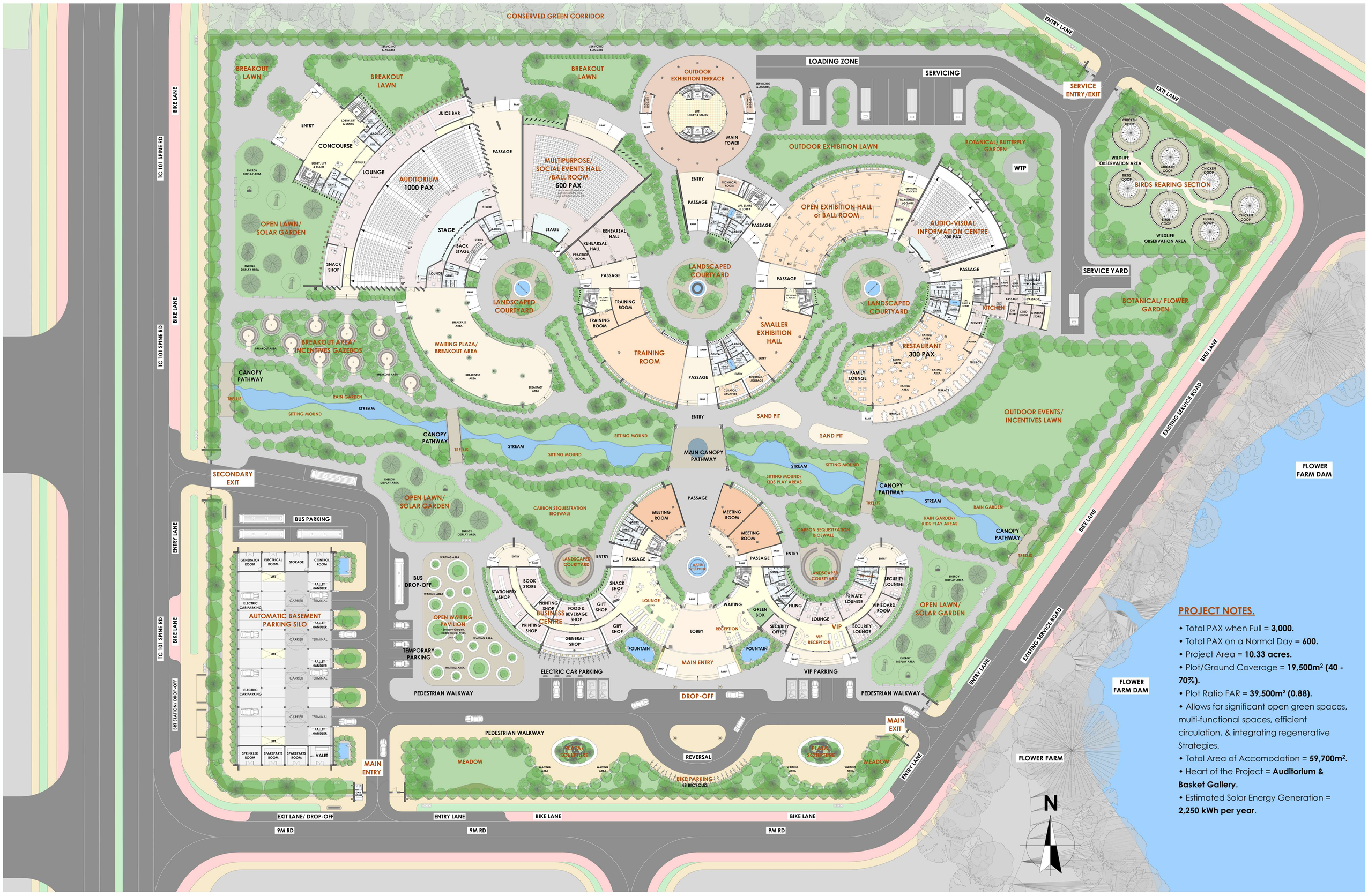


VIEW FROM THE STREET - CO-WORKING SPACES, LIBRARY, ADMIN, VIP.

VIEW FROM THE STREET - AUDITORIUM, BASKET GALLERY.

AERIAL/ BIRD'S EYE VIEW.

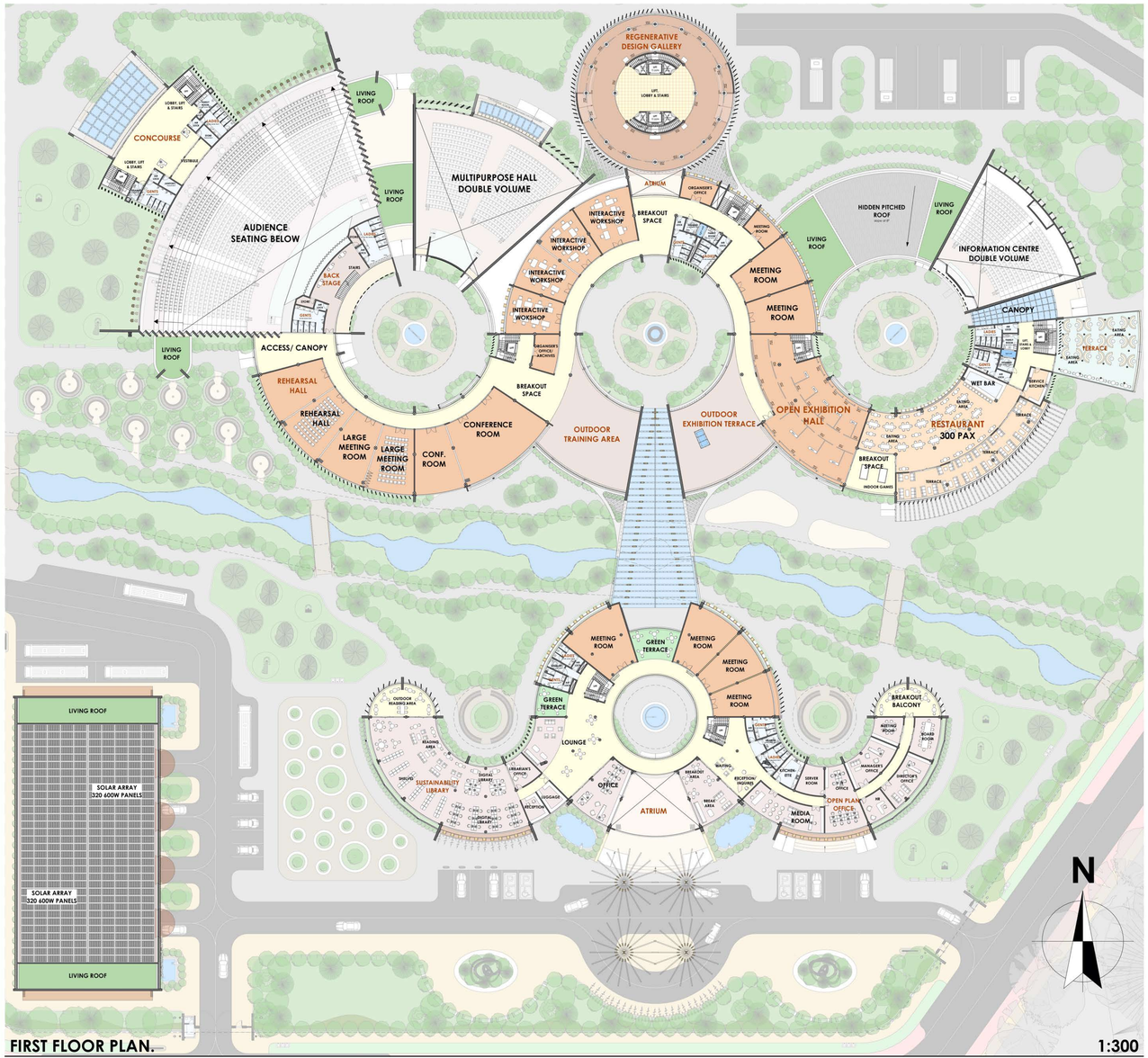
"THE GROUND FLOOR PLAN..."



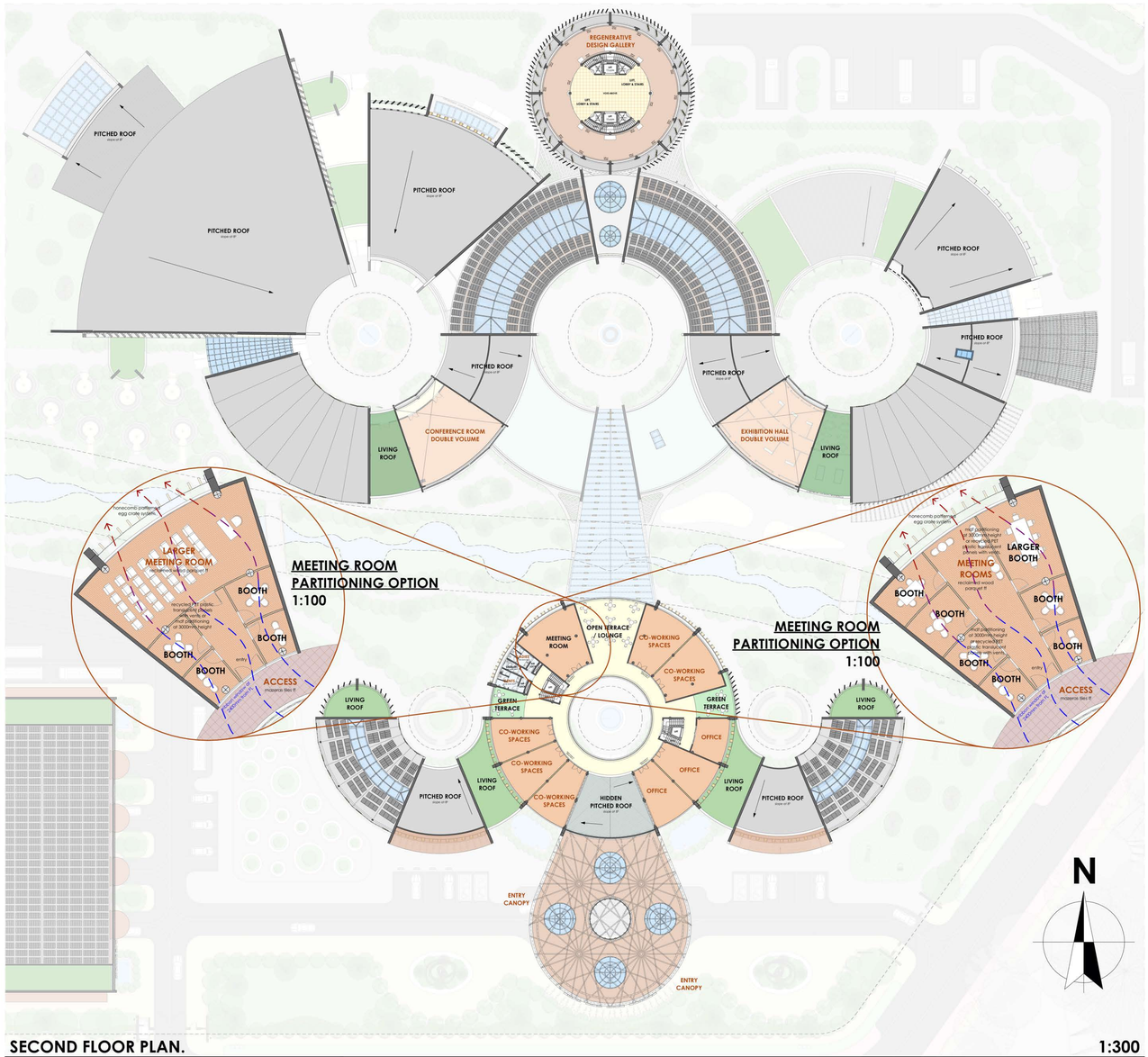
PROJECT NOTES.

- Total PAX when Full = **3,000.**
- Total PAX on a Normal Day = **600.**
- Project Area = **10.33 acres.**
- Plot/Ground Coverage = **19,500m² (40 - 70%).**
- Plot Ratio FAR = **39,500m² (0.88).**
- Allows for significant open green spaces, multi-functional spaces, efficient circulation, & integrating regenerative Strategies.
- Total Area of Accomodation = **59,700m².**
- Heart of the Project = **Auditorium & Basket Gallery.**
- Estimated Solar Energy Generation = **2,250 kWh per year**.

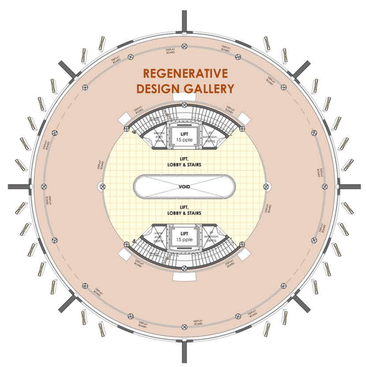
"THE OTHER FLOOR PLANS..."



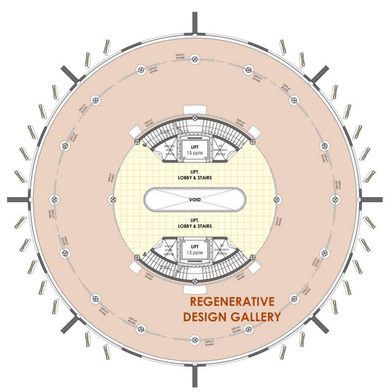
FIRST FLOOR PLAN. 1:300



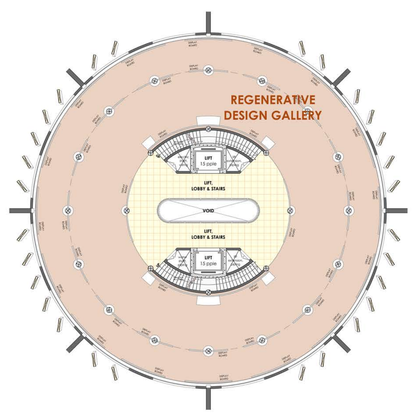
SECOND FLOOR PLAN. 1:300



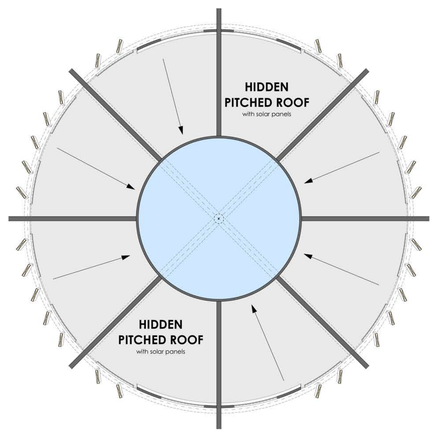
THIRD FLOOR PLAN. 1:200



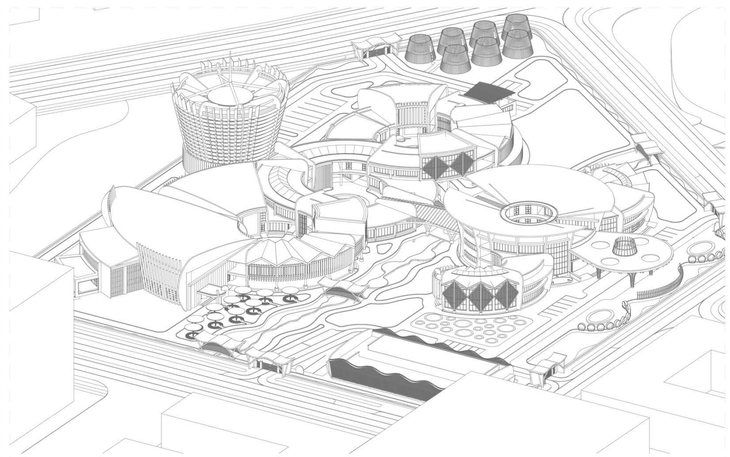
FOURTH FLOOR PLAN. 1:200



FIFTH FLOOR PLAN. 1:200



ROOF PLAN. 1:200



3D MASSING. 1:750

PROJECT: PROPOSED TATU CITY MICE (MEETINGS, INCENTIVES, CONFERENCES, & EXHIBITIONS/ EVENTS) CENTRE.
BACHELOR OF ARCHITECTURE YEAR 6 THESIS PROJECT.

ORUNDA KENNEDY JULIUS.
INSPIRELI AWARDS.

"MORE 3D VISUALISATION... *apologies*"

VIEW FROM THE STREET - PARKING SILO, GALLERY.

VIEW FROM THE PARK - BASKET GALLERY, INFO. CENTRE, MULTIPURPOSE HALL.

AERIAL VIEW - WAITING AREA, DROP-OFF, RECEPTION, OFFICES.

AERIAL VIEW - TOWERS, STREAM, SPIRAL CONCEPT.

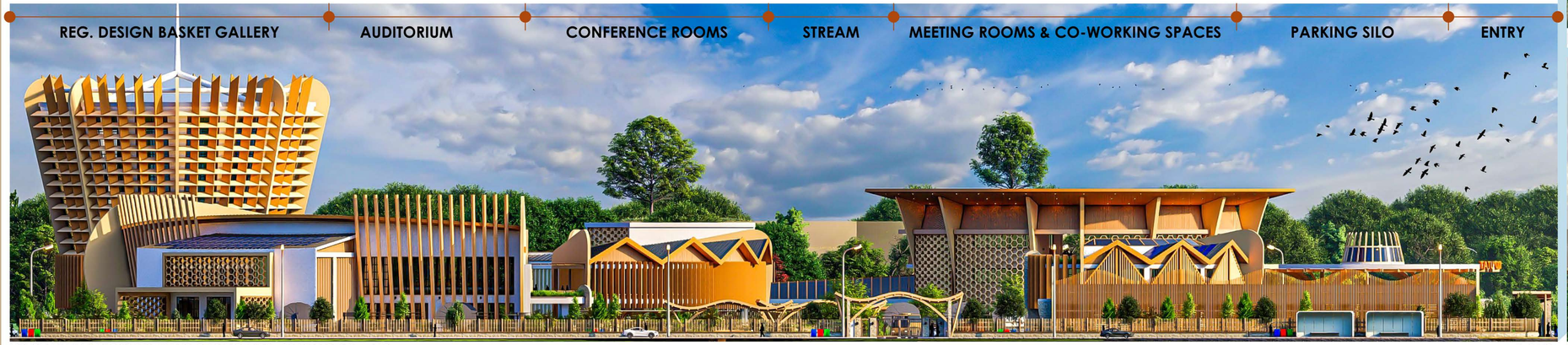
INTERNAL VIEW - PARKING SILO.

INTERNAL VIEW - ENTRY/ DROP-OFF CANOPY.

INTERNAL VIEW - COURTYARD.

"SOME ELEVATIONS, perhaps?...WE ALL DO ALSO LOVE A GOOD SECTION, DON'T WE?..."

SOUTH/ FRONT ELEVATION VIEW - E1. 1:250



WEST ELEVATION VIEW FROM TC 101 40M ROAD - E2. 1:250

INTERNAL VIEW - MULTIPURPOSE HALL.

INTERNAL VIEW - AUDITORIUM, BREAKOUT AREA.

"***Want* some more breathing space?**...Don't worry, there's a lot to go around..."

ENTRY

600mm thick roof canopy overhang over the drop-off area held by light gauge steel girders to detail.

DROP-OFF/ PARKING SILO

200mm x 150mm thick glued laminated timber ribs holding the entrance canopy to detail.

MEETING ROOMS/ CO-WORKING SPACES

200mm thick structural masonry cavity walls filled with 200mm thick structural EPS insulation core in between.

1200mm high laminated bamboo railing nailed to mild steel supports for safety, views, & rusticity to detail.

200mm x 100mm thick treated glued laminated timber struts pergola spaced at 600mm c/c for light sun shading.

STREAM

Treated wood canopy pathway over the stream nailed to horizontal members fixed to R.C. concrete beams.

WORKSHOPS, TRAINING, & CONFERENCE ROOMS

Double-panel hinged aluminium casement double door with two sidelights to door schedule.

Stacked local natural stone floor finish on the passages and courtyards ramped for inclusivity & universal access.

Water sculpture & fountain at a convergence point of the courtyard as a relaxation & interactive feature.

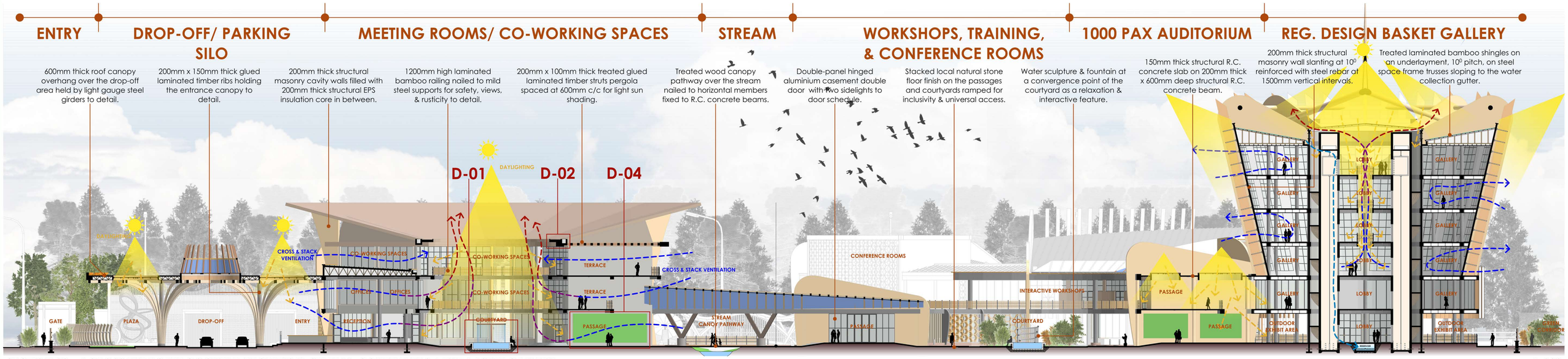
1000 PAX AUDITORIUM

150mm thick structural R.C. concrete slab on 200mm thick x 600mm deep structural R.C. concrete beam.

REG. DESIGN BASKET GALLERY

200mm thick structural masonry wall slanting at 10^0 reinforced with steel rebar at 1500mm vertical intervals.

Treated laminated bamboo shingles on an underlayment, 10^0 pitch, on steel space frame trusses sloping to the water collection gutter.



SECTION S2 - ACROSS THE PORTE COCHERE, RECEPTION, STREAM, COURTYARDS & THE BASKET GALLERY. 1:200

"WHAT EXACTLY IS REGENERATIVE ABOUT THIS MICE CENTRE, we all wonder?..."

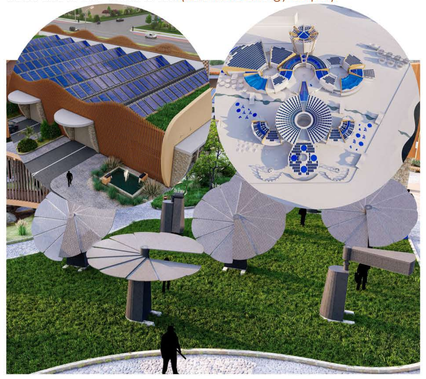
REGENERATIVE DESIGN STRATEGIES FOR THE MICE CENTRE.

A. DESIGNING & ADAPTING THE SITE & CONTEXT.

⊙ **GREEN ROOFS & LIVING WALLS** - that compesate for the ground cover consumed, maintain a stable IEQ, & support ecology.
⊙ **ANIMAL REARING ZONES** - aquaponic ponds along the stream, butterfly gardens, & bird-friendly elements - exotic birds' rearing zone.
⊙ **PRESERVATION OF ENDEMIC ECOSYSTEMS** - conservation of trees along the boundaries & stream and re-planting new trees. The site also maintains its natural topography to inform drainage patterns.

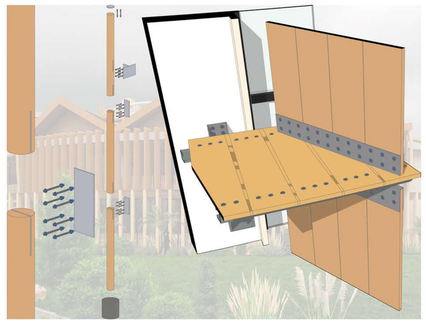
B. ENSURING ENERGY EFFICIENCY.

⊙ **PHOTOVOLTAIC SOLAR PANELS** - 3,750 600W monocrystalline panels that meet the energy needs.
⊙ **SMARTFLOWERS ON THE GROUND** - solar sculptures components that track and rotate with the sun (40% more energy output).



C. MATERIALS INTELLIGENCE.

⊙ **LOCALLY SOURCED & RENEWABLE MATERIALS** - timber and reclaimed wood has been used for sun shading, flooring & furniture; bamboo for decoration & local natural stone cladding for walkways.
⊙ **LOCAL ARCHITECTURAL FORMS, ELEMENTS, & FINISHES** - the infinity organic design form was inspired by tendrils along a stick. The beige ruff & tuff and timber-like finishes & look also showcases local finishes.
⊙ **DFD TECHNIQUES** - demountable partitions in interior spaces.



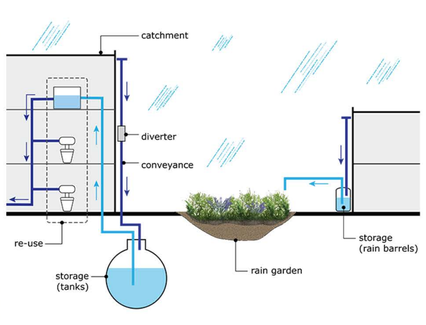
INTERNAL VIEW - ADMIN, VIP, MEETING ROOMS.

D. ADOPTING BIOPHILIC DESIGN ELEMENTS.

⊙ **WATER FEATURES** - ponds, stream, and fountains that MICE users can interact with. They inhabit marine plants, insects, and marine animals like edible fish also as regenerative food sources.
⊙ **USER INTERACTION & EDUCATIONAL ELEMENTS** - the design features smartflower technologies & exotic birds' viewing areas.
⊙ **BIOMIMICRY** - photosynthesis-inspired solar cells, natural form entry canopies & pergolas e.g., resembling the normal tree pattern. Open spaces & walking trails that promote health and wellness of users.

E. AIMING FOR WATER SUFFICIENCY.

⊙ **RAIN GARDEN, WETLAND, & STREAM** - directs water flow, slows down & absorbs natural surface runoff in the MICE centre.
⊙ **ENLARGED PONDS ALONG THE STREAM** - these have been featured to create micro-climates providing habitats for plants, fish & birds.
⊙ **RAIN WATER HARVESTING** - gutters & voids for water collection.
⊙ **PITCHED ROOFS** - increased surface for water catchment.
⊙ **BIOSWALE** - filters and retain surface runoff for reuse in irrigation, flushing toilets, and replenishing the stream to make it permanent.



F. DESIGNING FOR CARBON ELIMINATION.

⊙ **LOW CARBON MATERIALS** - hempcrete, mycelium-based materials that have been used in interior sound absorption and insulation.
⊙ **CLEAN ENERGY SYSTEMS** - the MICE centre features electric vehicle charging stations, bike storage facilities to encourage cycling, walking trails to reduce motorization, and automated underground parking silo for carpooling.
⊙ **CARBON SEQUESTRATION ZONES** - green roofs, living walls & carbon reduction tree re-planting zones scattered throughout the design.

INTERNAL VIEW - STREAM WALK.

LANDSCAPE DESIGN.

I. CIRCULATION & CONNECTIVITY.

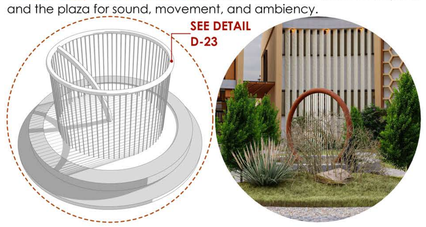
Function: The design has enabled smooth & accessible movement through outdoor spaces through spatial hierarchy & user orientation.
• Meandering pedestrian pathways connect the key nodes and elevated walkways & bridges allow movement over the stream.
• The periphery features nature trails & paths for slow exploration.

II. LANDSCAPED COURTYARDS.

Function: Six courtyards face the stream forming a spatial break between buildings. They promote natural ventilation, daylighting, and create quiet zones protected from external noise and activity.
• These feature a central water feature, wooden seating & greenery.
• Their mounds create gentle landforms that define edges and views.

III. INTERACTIVE WATER FEATURES.

• A stream flows through the site forming a central ecological spine.
• Enlarged ponds along this stream create pockets for stormwater retention, evaporation cooling, and biodiversity support.
• Water sculptures and fountains have been used within courtyards and the plaza for sound, movement, and ambiency.



INTERNAL VIEW - COURTYARD.

IV. SEATING ARRANGEMENTS - BENCHES...

Function: Various seating arrangements have been integrated to support rest, social interaction, and informal meetings.
• Timber seats, benches, and modular pods have been placed under tree-like canopies, beside courtyards, and near event spaces.
• Some are sculptural in form as functional art & informal elements.

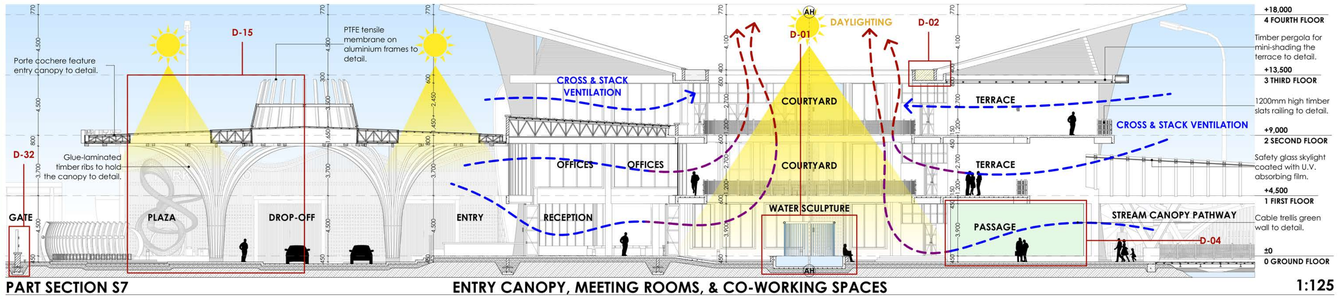
V. GREENERY.

• Plants/ trees have been restored in the design for cooling/ shading.
• Different types of greenery like grass, flowers, shrubs, and tall trees create soft edges and transitions. Green zones clean the air reducing CO_2, noise, wind, and heat. They also support birds, insects & animals.
• Buffer zones at the periphery use dense planting for noise reduction.

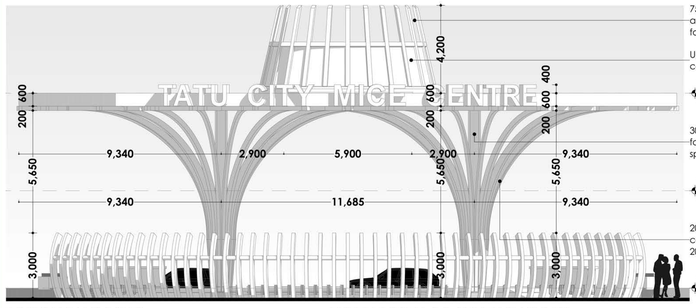
VI. FUNCTIONAL SCULPTURES.

Art is integrated as form and function to blending sculpture with utility.
• Solar smartflowers are featured in the open lawns as energy sources & educational elements.
• Sculptures mark key entrances, courtyards, and turning points.
• Shaded structures and furniture are also expressive design elements.

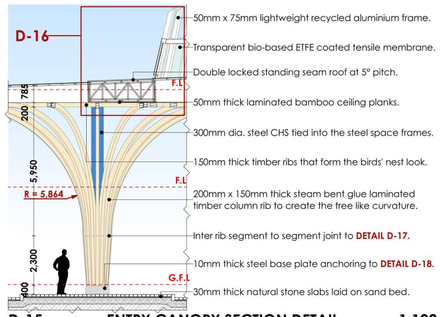
*"YOU ASKED FOR IT!...here are **some** construction details..."*



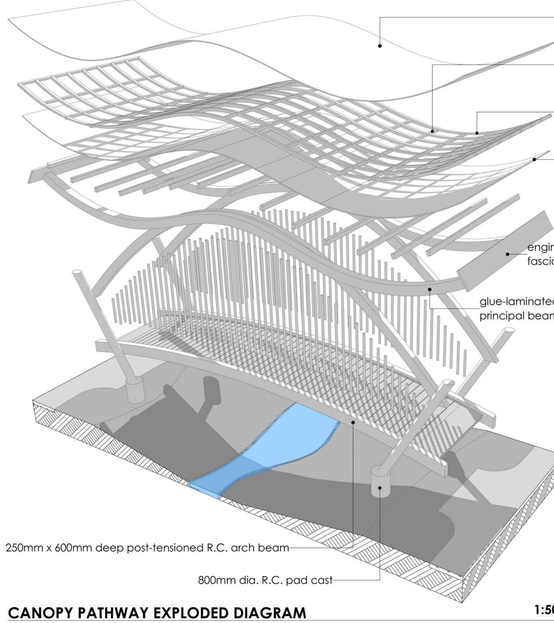
PART SECTION S7 — **ENTRY CANOPY, MEETING ROOMS, & CO-WORKING SPACES** — 1:125



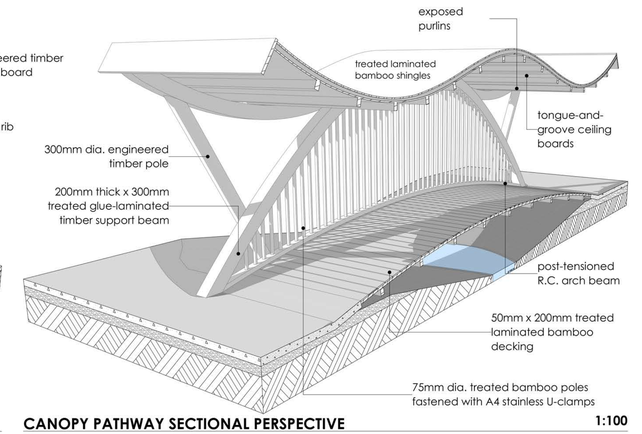
PART ELEVATION E6 — **ENTRY PORTE COCHERE CANOPY** — 1:100



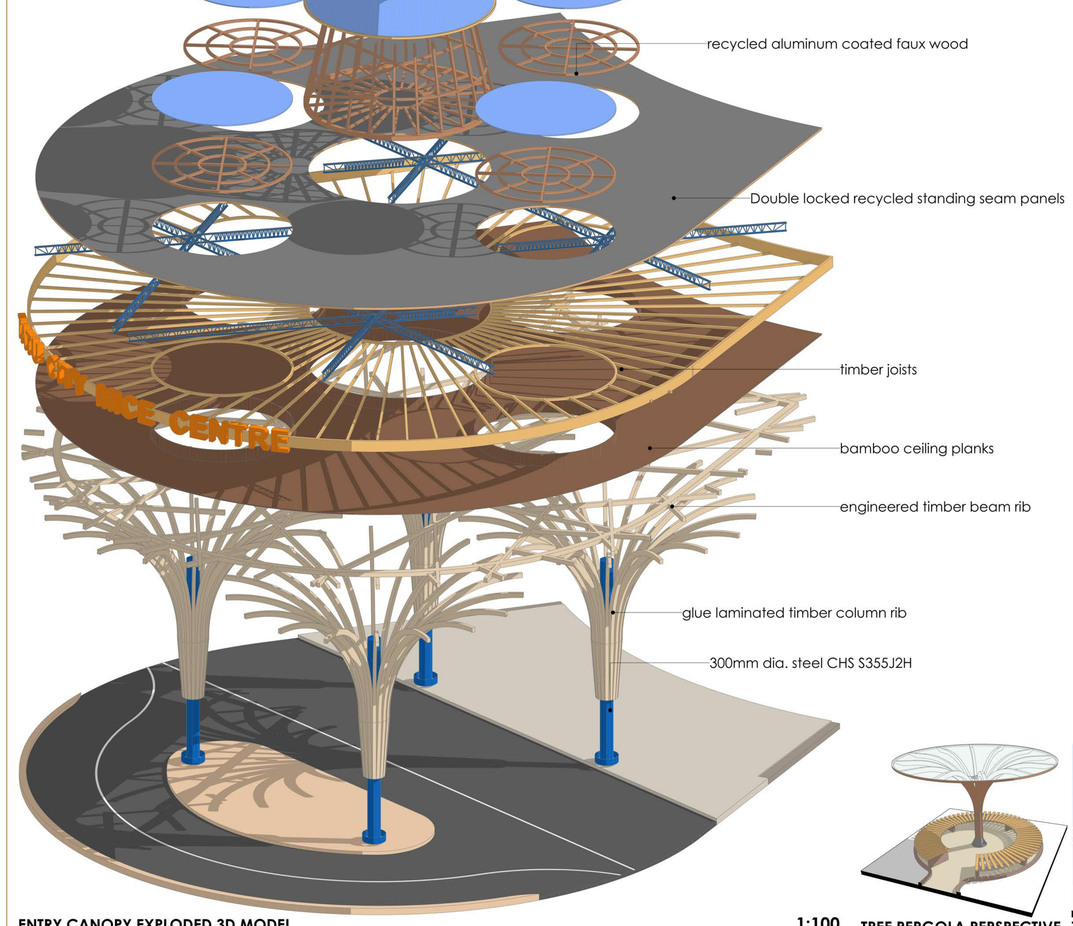
D-15 — **ENTRY CANOPY SECTION DETAIL** — 1:100



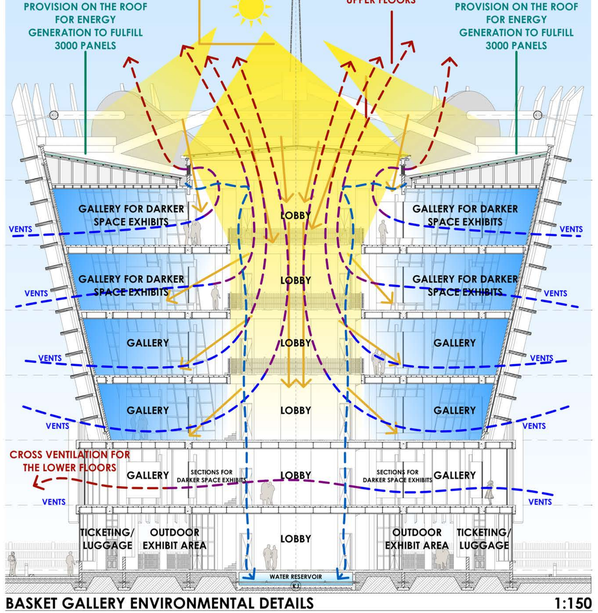
CANOPY PATHWAY EXPLODED DIAGRAM — 1:50



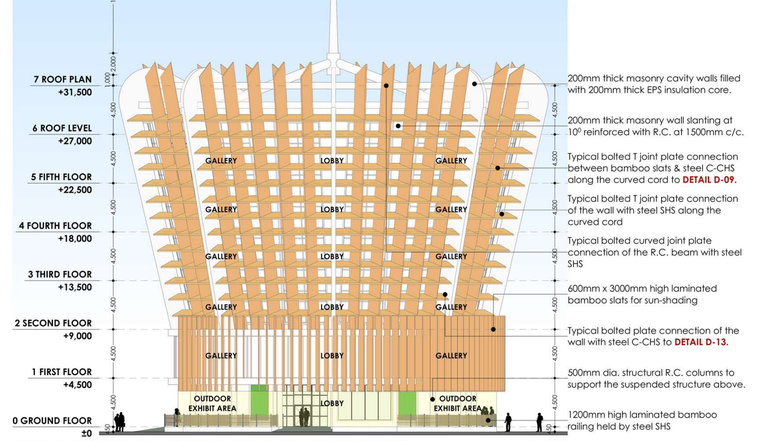
CANOPY PATHWAY SECTIONAL PERSPECTIVE — 1:100



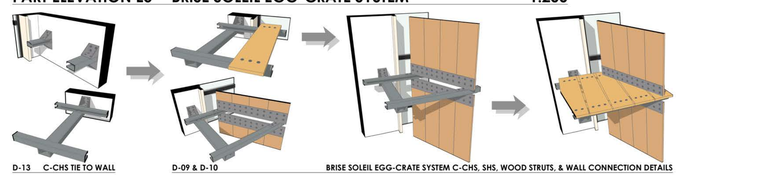
ENTRY CANOPY EXPLODED 3D MODEL — 1:100

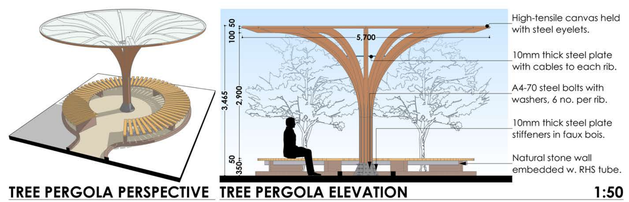


BASKET GALLERY ENVIRONMENTAL DETAILS — 1:150



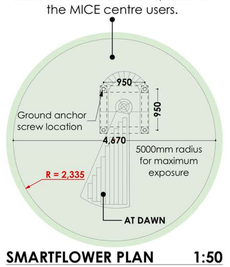
PART ELEVATION E5 — **BRISE SOLEIL EGG-CRATE SYSTEM** — 1:200



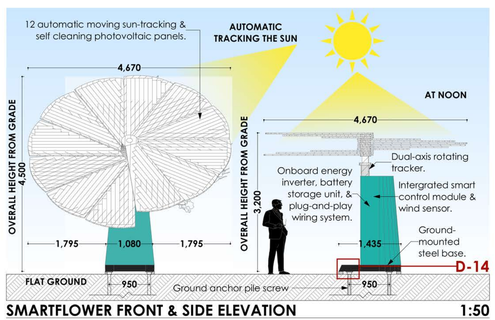


TREE PERGOLA PERSPECTIVE — **TREE PERGOLA ELEVATION** — 1:50

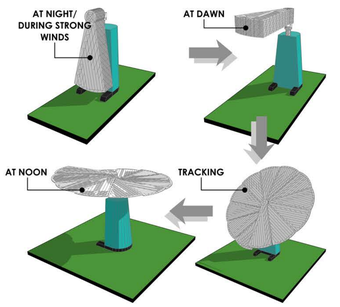
Radius around the smartflower sculptures can be used for outdoor recreation & relaxation space for the MICE centre users.



SMARTFLOWER PLAN — 1:50



SMARTFLOWER FRONT & SIDE ELEVATION — 1:50



PROJECT: PROPOSED TATU CITY MICE (MEETINGS, INCENTIVES, CONFERENCES, & EXHIBITIONS/ EVENTS) CENTRE.
BACHELOR OF ARCHITECTURE YEAR 6 THESIS PROJECT.

THANK YOU, INSPIRELI.

ORUNDA KENNEDY JULIUS.
INSPIRELI AWARDS.