



THESIS REPORT ON
“GORAKHPUR CRICKET STADIUM”

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT
FOR THE DEGREE OF:

BACHELOR OF ARCHITECTURE

BY
HRISHIKESH SHUKLA
(1190101015)

THESIS GUIDE
Dr. MOHIT KUMAR AGARWAL

SESSION
2023-24

TO THE
SCHOOL OF ARCHITECTURE AND PLANNING
BABU BANARASI DAS UNIVERSITY
LUCKNOW.

**SCHOOL OF ARCHITECTURE AND PLANNING
BABU BANARASI DAS UNIVERSITY, LUCKNOW (U.P.).**

CERTIFICATE

I hereby recommend that the thesis entitled “**GORAKHPUR CRICKET STADIUM**” under the supervision, is the bonafide work of the students and can be accepted as partial fulfillment of the requirement for the degree of Bachelor’s degree in architecture, school of Architecture and Planning, BBDU, Lucknow.

**Prof. Mohit
Kumar Agarwal**

Dean of
Department

**Prof. Sangeeta
Sharma**

Head of
Department

Recommendation Accepted

Not Accepted

External Examiner

External Examiner

BABU BANARASI DAS UNIVERSITY, LUCKNOW (U.P.).

Certificate of thesis submission for evaluation

1. Name :

2. Roll No. :

3. Thesis Title :

4. Degree for which the thesis is submitted:.....

5. Faculty of University to which the thesis is submitted: Yes / No

6. Thesis preparation guide was referred to for preparing the thesis Yes / No

7. Specification regarding thesis format have been closely followed. Yes / No

8. The content of the thesis have been organized based on the guidelines. Yes / No

9. The thesis has been prepared without resorting to plagiarism Yes / No

10. All the sources used have been cited appropriately Yes / No

11. The thesis has not been submitted elsewhere for a degree. Yes / No

12. Submitted 3 hard bound copied plus one CD Yes / No

.....
(Signature(s) of the supervisor)

Name:

.....
(Signature of the Candidate)

Name:

ACKNOWLEDGEMENT

First and foremost gratitude towards the almighty God for his blessings.

I am thankful to Prof. Mohit Agarwal (Dean), Ar. Sangeeta Sharma (Hod) and all my faculty members who have been extremely co-operative since the very beginning and who helped me to utilize my skills and creativity to the utmost. Sincere thanks to our thesis coordinators (Prof. Mohit Agarwal , Ar. Shailesh Yadav), who left no stone unturned to shape our thesis in the best possible way and also for their untimely help whenever required.

I express my deepest gratitude to my thesis guide Prof. Mohit Agarwal, for his valuable dispassionate guidance, critical discussions, suggestions and continuous support all through my B. Arch thesis. Each one of them has contributed towards making me a better person and the time I spent with all of them will always be cherished. At last but not the least, I have no words to express my gratitude for the love and affection of my parents.

-HRISHIKESH SHUKLA

SCOPE AND LIMITATION

- The scope of cricket ground within the stadium must meet specific dimensions and conditions as per international cricket regulations. This includes the pitch, outfield, and boundary ropes.
- Regular upkeep of the stadium and its facilities to ensure they meet required standards and remain in good condition..
- Areas for sponsors, vendors, and merchandise sales contribute to the revenue generation of the stadium.

METHODOLOGY

- SITE ANALYSIS
- SITE & SURROUNDINGS
- SITE CLIMATE
- CASE STUDY
- LITERATURE STUDY
- REQUIREMENT SHEET
- AREA ANALYSIS
- STANDARD SHEET
- CONCEPT SHEET
- DESIGN
- ELECTIVE
- VIEW

INDEX:

METHODOLOGY

1. INTRODUCTION
2. LITERATURE STUDY 1: RAJIV GANDHI INTERNATIONAL
CRICKET STADIUM
LITERATURE STUDY 2: DR.Y.S.RAJASEKHARAREDDY.ACA.VDCA
INTERNATIONAL CRICKET STADIUM:
3. COMPARITIVE ANALYSIS
4. SITE SELECTION AND ANALYSIS
5. PRE DESIGN STUDY
6. CONCEPT SHEET
7. DESIGN
8. CONCEPT SHEET
9. VIEW
10. ELECTIVE
11. BIBLOGRAPHY

LITERATURE STUDY

LITERATURE STUDY – 01 RAJIV GANDHI

INTERNATIONAL CRICKET STADIUM

LOCATION:

Hyderabad

KEY POINTS OF THE STADIUM:-

Owner	: Hyderabad Cricket Association
End Names	: N.Shivlal Yadav Pavilion, Mohammed Azharuddin stand
Home Team	: Sunrisers Hyderabad
Establishment	: 2003
Seating Capacity	: 55000
Media Box Capacity	: 250
Media Conf Capacity	: 250
No of stands	: 14
Flood lights	: 06
No gates	: 12
Architect	: Shashi Prabhu STADIUM

ACCESSIBILITY:

Airport	: 31Kms
Railway	: 7.3Kms (Secunderabad junction)
Local Transport	: Blue line metro stadium(stadium)
Landmark	: Survey of India

SITE CONDITION:

1.Rajiv Gandhi International Cricket Stadium is situated in Uppal and known for the best Green grass outfield and has one of the most well maintained stadium in India.

2.The stadium has long span canopy on south and north stands which gives aesthetical good view of the stadium .

3.The stadium has the best water drainage facilities.

4.Rajiv Gandhi International Cricket Stadium is a exclusively only for international cricket Matches stadium in Visakhapatnam. India.

5.The stadium has a two-tier architecture and designed in such a way that view of the match in action is not obstructed regardless of the seating location. This ground has one of the best batting tracks in the world and a most preferred ground of BCCI to host 1and other league.

PROJECT INTRODUCTION:

- HCA's previous home ground was the Lal Bahadur Shastri Stadium in the Fateh Maidan sports complex at Basheer Bagh in central Hyderabad. The ground belonged to the Sports Authority of Telangana State and HCA had limited operating autonomy over this ground.
- Moreover, due to its smaller size, it soon came to be known as a high-scoring ground and so Hyderabad was not considered for many high-profile cricket matches in India.
- In 2003, the proposal for a new stadium was submitted by HCA to the government of erstwhile Andhra Pradesh, then headed by N. Chandrababu Naidu. The proposal was quickly cleared and HCA was allocated a budget for the same. The government also identified a large piece of land suitable for the project at Uppal.

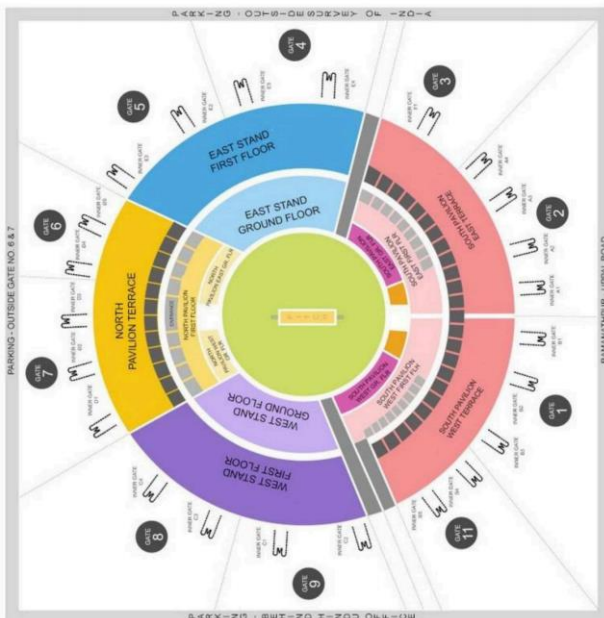
PLAN:



Parking facilities:-

- 1.They have total of 550 car parking spaces.
- 2.They have total of 2500+ bike parking spaces.
- 3.They have provision for visitor's parking during non-match days and parking for staff of cricket stadium and also for players bus parking.

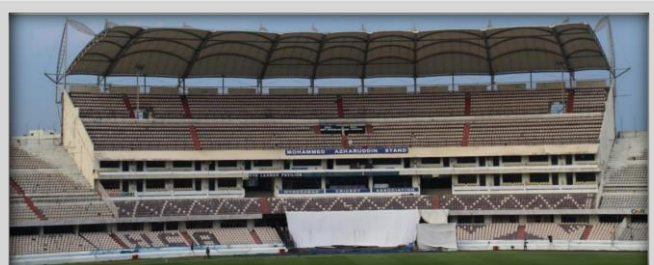
STADIUM LAYOUT:



North side has 8 boxes in ground floor and 12 boxes in first floor level.

South side has 18 boxes in ground floor and 24 boxes in first floor level.

There are total of 6 flood lights and two more flood light at 2nd tier of south side pavilion.

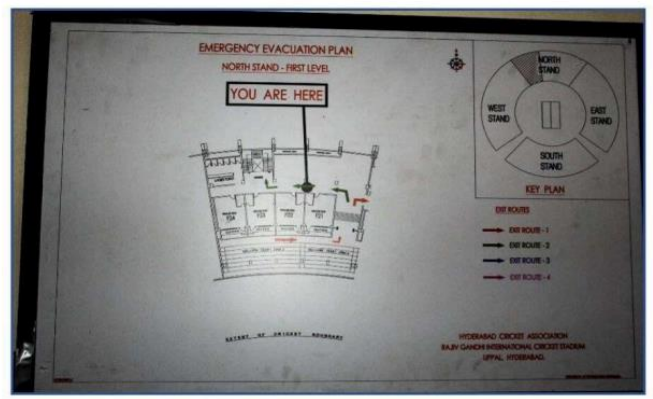
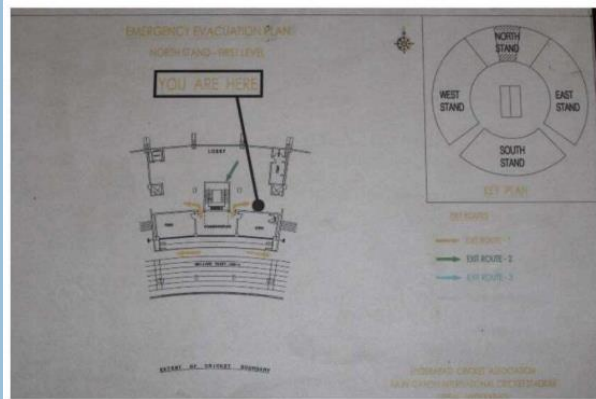


The Mohammed Azharuddin stand and VVS Laxman Pavilion consists of :-

It has ground level seating , gallery level seating , first and second level VIP boxes seating , and first and second tier seating .

It has a canopy for the both the tier as well.

It as commenter's box &. North side has 8 boxes in ground floor and 12 boxes in first floor level.



Commenter's box with lounge area the belowlevel has party hall.reel 3 nos. and a wet riser with fire alarm.

The Eastern stands consists of :-They have the gallery area in the ground floor. They four entry points to access the next tier above the gallery tier .

1. S.ABID ALI EXIT
2. KENIA JAYANTILAL EXIT
3. P.KRISHNAMURTHY EXIT
4. V.NARASIMHA RAO EXIT

- It has 5 stairway to access the stands which breaks the sequence of seating.
- The stairway and entry points is located for 28-30seats,which makes the crowd congestion less.
- there is maximum people entering the stadium at the same time.
- This stand also has the digital score board as well.
- This stand as 4 internal gates to access the stand.
- It has 2 flood lights as well with generator for power backup.
- The ground level has curator staffs and ground staffs rooms,pantry,parking and soil preparing.

Fire escape plan of north side stands ,for every 25 mts they have fire safety measures like hose.

The Eastern stands consists of :-They have the gallery area in the ground floor. They four entry points to access the next tier above the gallery tier .



The **Western stands** consists of:- They have the gallery area in the ground floor. They have four entry points to access the next tier above the gallery tier .

- MOHAMMED HUSSAIN EXIT
- ABBAS ALI BAIG EXIT
- GUL MOHAMMED EXIT
- M.A.K. PATUDI EXIT
- It has 5 stairway to access the stands which breaks the sequence of seating.
- The stairway and entry points is located for 28-30 seats, which makes the crowd congestion less when there is maximum people entering the stadium at the same time .
- This stand also has the manual score board as well .
- This stand has 4 internal gates to access the stand.
- It has 2 flood lights as well with generator for power backup.
- They have staircase located on either ends of the stands which is also used as fire exits , connected these staircase with corridor at back of the seats.



The **N.Shivlal Yadav Pavilion** consists of :-

Players dressing room

Admin block

VIP lounge with party hall

President VIP box

Secretary cabin , CEO cabin

HCA conference hall

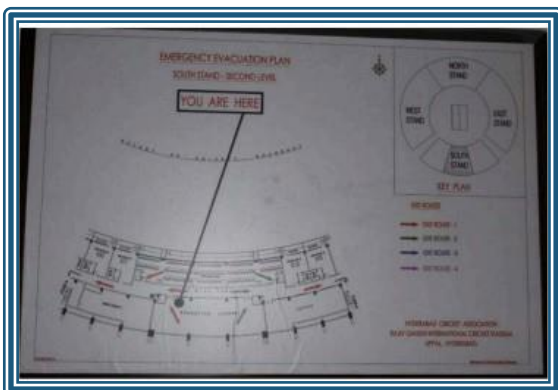
VVIP individual boxes capacity of (20 people).



- This stand total 4 level with one terrace ,6 lifts in this stand , which is access still 2 level.
- The cellar floor has admin parking with Chief Security Officer cabin.
- The ground floor as Players dressing room, VIP lounge with party hall and gallery seating area.
- The first floor had admin floor which manages the stadium with 18 individual boxes for VIP's.
- The second floor as 24 individual boxes for VIP's.
- The third floor has the first tier seating which as 5 entry points of width 2.5mts wit snacks counter.
- The third floor second tier has 4 entry points of width 2.5mts and has 6 stairways to access the seats by the spectator.



- F16 Second floor where the VIP boxes are located which 24 in nos



Second floor where executive lounge with media box of capacity 250.

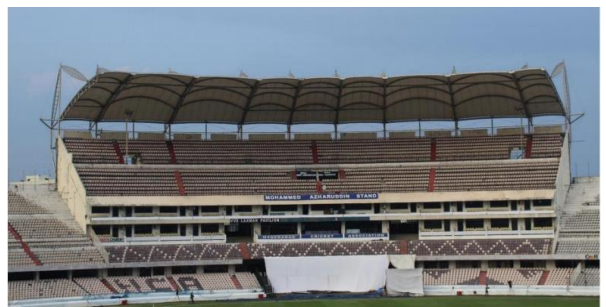
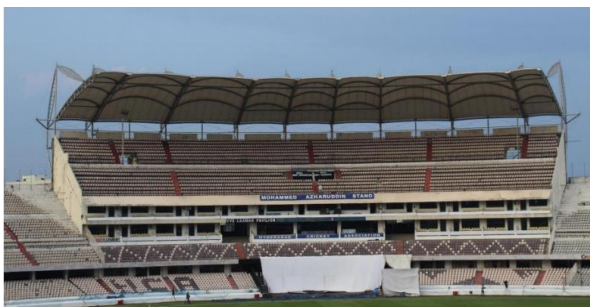
Waiting area of admin block in level one

FLOOD LIGHTS:-

- The diameter at the base is 1.3 meter hollow member, 6 in nos .
- It has 5 rows of lights , each row consisting of 8 lights each.
- They secondary flood lights 2 in number which has 2 rows of lights.



Roof structure:-



The stadium is open on west and east stands and as roof cover only on north-south stand, which as the tensile canopy.

It has individual wings of spans of 25mts and has 3 arches to support the each member and truss work on either ends of each wing.

The roofing material they used is **Teflon Fibre** , which was designed by Architect Shashi Prabhu.

JOINERY DETAILS:-

- RCC column c/c 10 mts at the peripheral of the stadium in north-south stands , to support the tensile structure.
- The joints of the tensile structure had junctions of 4,6,8 respectively



TURF OUTFIELD:-



It has a checks pattern of outfield which look good from top view:

- The turf grass is maintained by using the cutter machine which cuts the turf grass with equal level throughout the outfield.
- The cutter cuts the grass to certain amount leaving 2mm to 4mm of grass on the field.
- They cut the grass every 2 days once to maintain the level of grass in the ground.

The above image show how the mix the manure with the red soil for the outfield. For the pitch they use red and black soil in proportion.



LITERATURE STUDY – 02

DR.Y.S.RAJASEKHARAREDDY.ACA.VDCA INTERNATIONAL CRICKET STADIUM

LOCATION:

Visakhapatnam, Andhra Pradesh

Owner : Sports Authority of
Andhra Pradesh
End Names : Pavilion End, North
Block End
Home Team : Sunrisers Hyderabad
Establishment : 2003
Seating Capacity : 28300
Media Box Capacity : 150
Media Conf Capacity : 150
No of stands : 19
Flood lights : 04
No gates : 06

STADIUM ACCESSIBILITY:

Airport : 13 Kms
Railway : 10.6 Kms
Local Transport : 9Kms
Andhra pradesh
state road transport
corporation
Landmark : Indira Gandhi
Zoological Park

SITE :

The Visakhapatnam District Cricket Association. popularly known as VDCA, came into being in August 1963, was inaugurated by the then Governor of Andhra Pradesh Gen. S.M. Srinagesh and is now in its 50th year.

VDCA hosted the first ever Ranji match in Vizag in December 1964.

M. L. Jayasimha led the Hyderabad side against Andhra at the Railway ground.



KEY POINTS OF THE STADIUM:

ACA-VDCA Cricket Stadium is situated on the outskirts of Visakhapatnam amidst scenic hills and known for the best green grass outfield and has one of the most well maintained stadiums in India.

The grass for out-field was specially brought from the Caribbean.

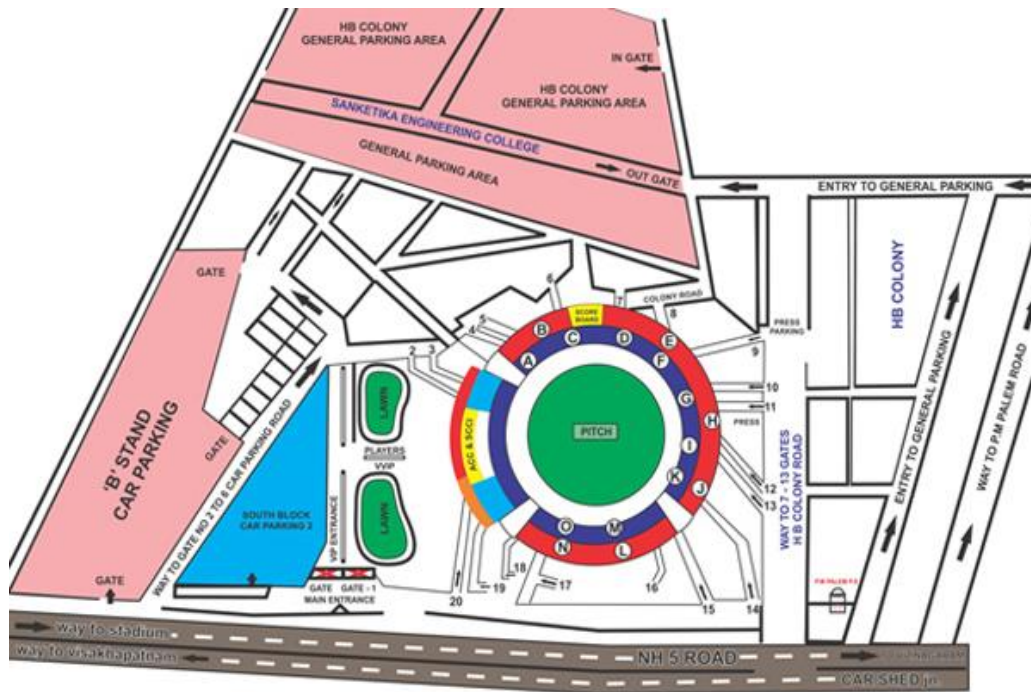
The stadium has the country's best water drainage facilities.

ACA-VDCA Cricket Stadium is exclusively only for international cricket matches stadium in Visakhapatnam, India.

The stadium has a two-tier architecture and designed in such a way that view of the match in action is not obstructed regardless of the seating location.

This ground has one of the best batting tracks in the world and a most preferred ground of BCCI to host ODI and other league Matches.

SITE PLAN



Parking facilities:-

They have total of 1100+ car parking spaces. They have total of 2500+ bike parking spaces.

They have provision for visitor's parking during non-match days and parking for staff of cricket stadium and also for players bus parking.

CONSTRUCTION STAGE PHOTOS:-



PLINTH BEAM CASTING



SECOND TIER CONSTRUCTION STAGE

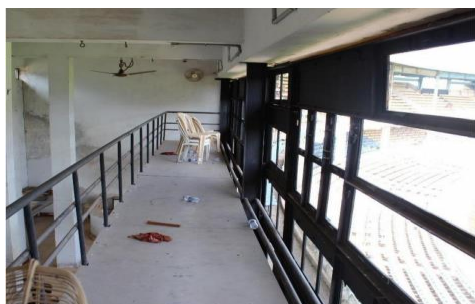
STADIUM LAYOUT

PITCH IS ORIENTED NORTH-SOUTH DIRECTION TO ALLOW THE AIR FLOW OF SOUTH-WEST WINDS THEY HAVE A STANDS BREAK SO THAT THE AIR FLOW IS BETTER INSIDE THE STADIUM.

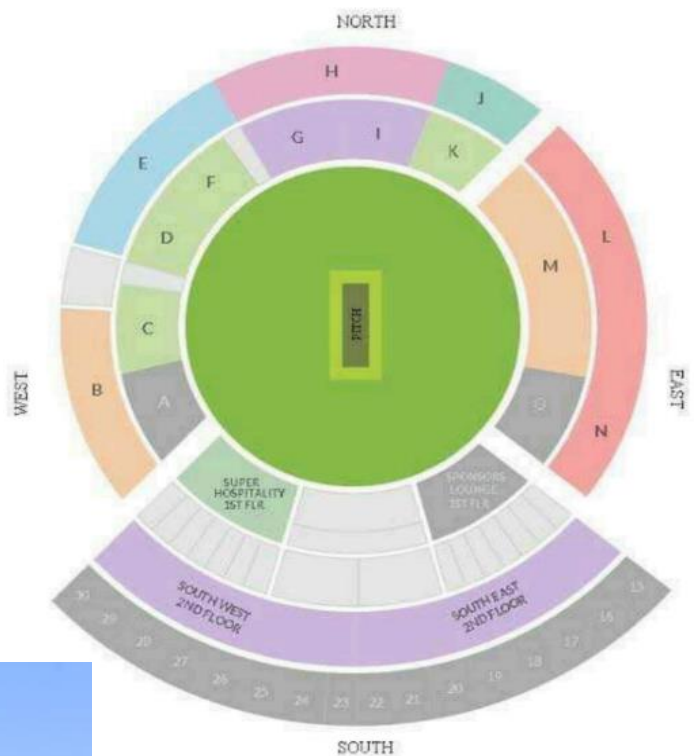
MAIN ENTRANCE TO THE STADIUM:



View of Manual Score board



Manual Score board room

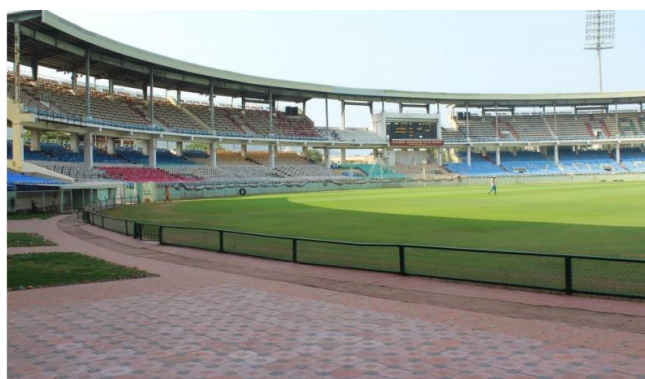


The P.ASHOK GAJAPATI RAJU STAND

consists of:- A, B, C, D, E, E1, F Stands.

Manual Score board room.

Ground staff rooms.



The D.V.SUBBARAO END consists of :- G , H , I , J , K Stands. Media room for 150 people. Equipment rooms. 2 flood lights.



Rollers to level the ground.



Super sapper machine



Generator room for flood lights.

FLOOD LIGHTS:-



The diameter at the base is 1.3 meter hollow member, 4 in nos . It has 11 rows of lights , each row consisting of 8 lights each.

ROOF STRUCTURE:-

The stadium as PEB structure truss work to hold the roof structure span of 25mts.



JOINERY DETAILS:-

Each steel column spans 10 mts.



- PITCH:**
- The grass for out-field was specially brought from the Caribbean.
 - They used red soil for the entire ground except the pitch.
 - For the pitch they have used black soil mixed with red soil.



TURF OUTFIELD:-

- The turf grass is maintained by using the cutter machine which cuts the turf grass with equal level throughout the outfield.
- The cutter cuts the grass to certain amount leaving 8mm to 12mm of grass on the field .
- They cut the grass every 2 days once to maintain the level of grass in the ground.



CUTTING
OF TURF
GRASS
EVERY 2 -3
DAYS.

COMPARITIVE ANALYSIS

ASPECTS	RAJIV GANDHI INTERNATIONAL CRICKET STADIUM	DR.Y.S.RAJASE KHARAREDDY. ACA.VDCA INTERNATIONAL CRICKET STADIUM		
LOCATION AND CLIMATE:	Hyderabad. The climate of Hyderabad is tropical , with a rainy season from June to October, due to the monsoon, and a dry season from November to May.	Visakhapatnam, Andhra Pradesh. The climate of Visakhapatnam (also known as Vizagapatam, Vizag or Waltair) is tropical .		
PASSIVE DESIGN STRATEGIES:	Orientation, Natural Ventilation, Shading Devices, Roof Design, Thermal Mass, Water Management, Landscaping.	Orientation and Layout:The stadium is likely oriented to optimize natural ventilation and daylighting.This includes positioning the stadium to capture prevailing winds for natural cooling and minimizing direct solar heat gain.		
RENEWABLE ENERGY INTEGRATION:	The building may incorporate solar panels and other renewable energy sources to reduce its dependence on conventional energy.	Integration of solar photovoltaic systems and efficient lighting solutions might contribute to energy savings.		
WATER MANAGEMENT:	Rainwater harvesting and efficient water use could be essential components to address water scarcity.	The design may include water conservation measures, such as permeable surfaces and water recycling systems.		
VEGETATION AND GREENERY:	The stadium might feature green roofs and landscaped areas to enhance thermal insulation and contribute to biodiversity.	Incorporation of green spaces and indigenous plants can help regulate temperature and improve air quality.		

Site Area	Approximately 16 acres	Approximately 20 acres		
Built Up Area	16,000 square meters	50,000 square meters		
F.A.R.	1.5	1.5		
No. Of Parking	550 Car, 2500 Bike	1100 Car, 2500 Bike		
WATER MANAGEMENT:	Rainwater harvesting and efficient water use could be essential components to address water scarcity.	The design may include water conservation measures, such as permeable surfaces and water recycling systems.		
VEGETATION AND GREENERY:	The stadium might feature green roofs and landscaped areas to enhance thermal insulation and contribute to biodiversity.	Incorporation of green spaces and indigenous plants can help regulate temperature and improve air quality.		

Name	Y.S.R Vizag Stadium	Rajiv Gandhi Stadium
Location	Visakhapatnam in Andhra Pradesh	Hyderabad in Telangana
Site Area	43 acres	24.2 acres
Owner	Andhra Cricket Association	Hyderabad Cricket Association
Establishment	2003	2003
Stadium Capacity	28,300	55,000
Ground dimensions	155x141mts	155x145mts
End Names	Pavilion end ,North block end	Pavilion ,VVS end
Home Team	Sunrisers Hyderabad	Sunrisers Hyderabad
No of Gates	6	12
No of Internal Gates	20	23
No of stands	19	14
No of Flood lights	4	6
Height	40mts	45mts
Diameter	1.2mts	1.3mts
Media box Capacity	125	250
Media box Conf hall	125	250
Parking		
Bike / Cars	2500/1100	2500/550
Roof Structure Type	PEB Structure	Teflon fibre Tensile
Span	25mts	25mts
Manual Score Board	Present	Present
Digital Score Board	Present	Present
Outfield Type	Checks box	Checks box
Pitch Type	Red and Black soil	Red and Black soil
Soil Type	Red soil	Red soil
No of Pitches	4	5
Seating		
Tread length	0.9mts	1mts
Riser height	0.25mts	0.25mts
No of Gangways	35	21
Gangways width	2.5mts	2.5mts
No of Tiers	2	2
No of Gallery stands	0	4
No of VIP Boxes	16	66
Practice Pitches	Present	Present
No of Matches Hosted		
Test	2	5
ODI	9	6
T20	2	3

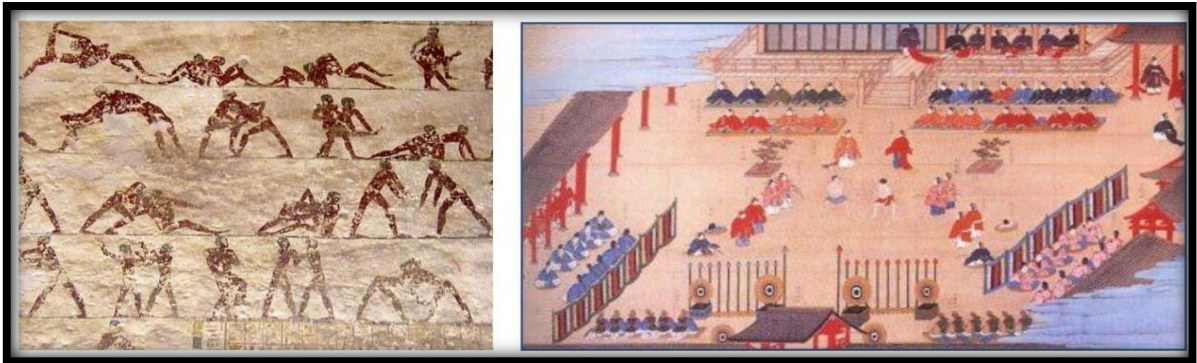
PRE DESIGN STUDY

History Of Stadiums And Introduction To Cricket And Its Evolution

History of oldest sports

Why sports was played ?

Sports have always been an important part of everyday life. People have been participating in sports for enjoyment and health for centuries, and even in the early days sports were considered viable careers. Some of the most ancient sports are still popular today. Here are some of the world's oldest sports in the world's history like Wrestling, Javelin Throwing, Running, Polo, Hockey etc.



History of Stadium

History of Stadium

What is origin name of stadium?

"Stadium" is the Latin form of the Greek word "stadion".

a measure of length equalling the length of 600 human feet. As feet are of variable length the exact length of a stadion depends on the exact length adopted for 1 foot at a given place and time. Although in modern terms 1 stadion = 600 ft (180 m), in a given historical context it may actually signify a length up to 15% larger or smaller.

What is difference between stadium arena?

The difference between an arena and a stadium, although an arena is enclosed and a stadium sometimes has an open roof. Football is usually played in a stadium, while basketball and other sports typically hold their games in arenas.

International Cricket Stadium
Timeline of stadium and its evolution
The oldest known stadium is the Stadium at Olympia in Greece, where the Olympic Games of antiquity were held from 776 BC. Initially the Games consisted of a single event, a sprint along the length of the stadium.



History of cricket

What is origin name of cricket ?

In the earliest definite reference, it was spelled creckett. The name may have been derived from the Middle Dutch krick(-e), meaning a stick; or the Old English "cricc" or cryce meaning a crutch or staff, or the French word criquet meaning a wooden post. The Middle Dutch word krickstoel means a long low stool used for kneeling in church; this resembled the long low wicket with two stumps used in early cricket. According to Heiner Gillmeister, a European language expert of the University of Bonn, "cricket" derives from the Middle Dutch phrase for hockey.

How did cricket start as sport ?

It is generally believed that cricket survived as a children's game for many generations before it was increasingly taken up by adults around the beginning of the 17th century. Possibly cricket was derived from bowls, assuming bowls is the older sport, by the intervention of a batsman trying to stop the ball from reaching its target by hitting it away. Playing on sheep-grazed land or in clearings, the original implements may have been a matted lump of sheep's wool (or even a stone or a small lump of wood) as the ball; a stick or a crook or another farm tool as the bat; and a stool or a tree stump or a gate (e.g., a wicket gate) as the wicket.

Gambling and press coverage -16th century

Cricket certainly thrived after the Restoration in 1660 and is believed to have first attracted gamblers making large bets at this time. In 1664, the "Cavalier" Parliament passed the Gaming Act 1664 which limited stakes to £100, although that was still a fortune at the time, equivalent to about £15 thousand in present-day terms .

Cricket had certainly become a significant gambling sport by the end of the 17th century. There is a newspaper report of a "great match" played in Sussex in 1697 which was 11-a-side and played for high stakes of 50 guineas a side.

Patronage and players • 17th century

Gambling introduced the first patrons because some of the gamblers decided to strengthen their bets by forming their own teams and it is believed the first "county teams" were formed in the aftermath of the Restoration in 1660, especially as members of the nobility were employing "local experts" from village cricket as the earliest professionals. The first known game in which the teams use county names is in 1709 but there can be little doubt that these sort of fixtures were being arranged long before that. The match in 1697 was probably Sussex versus another county.

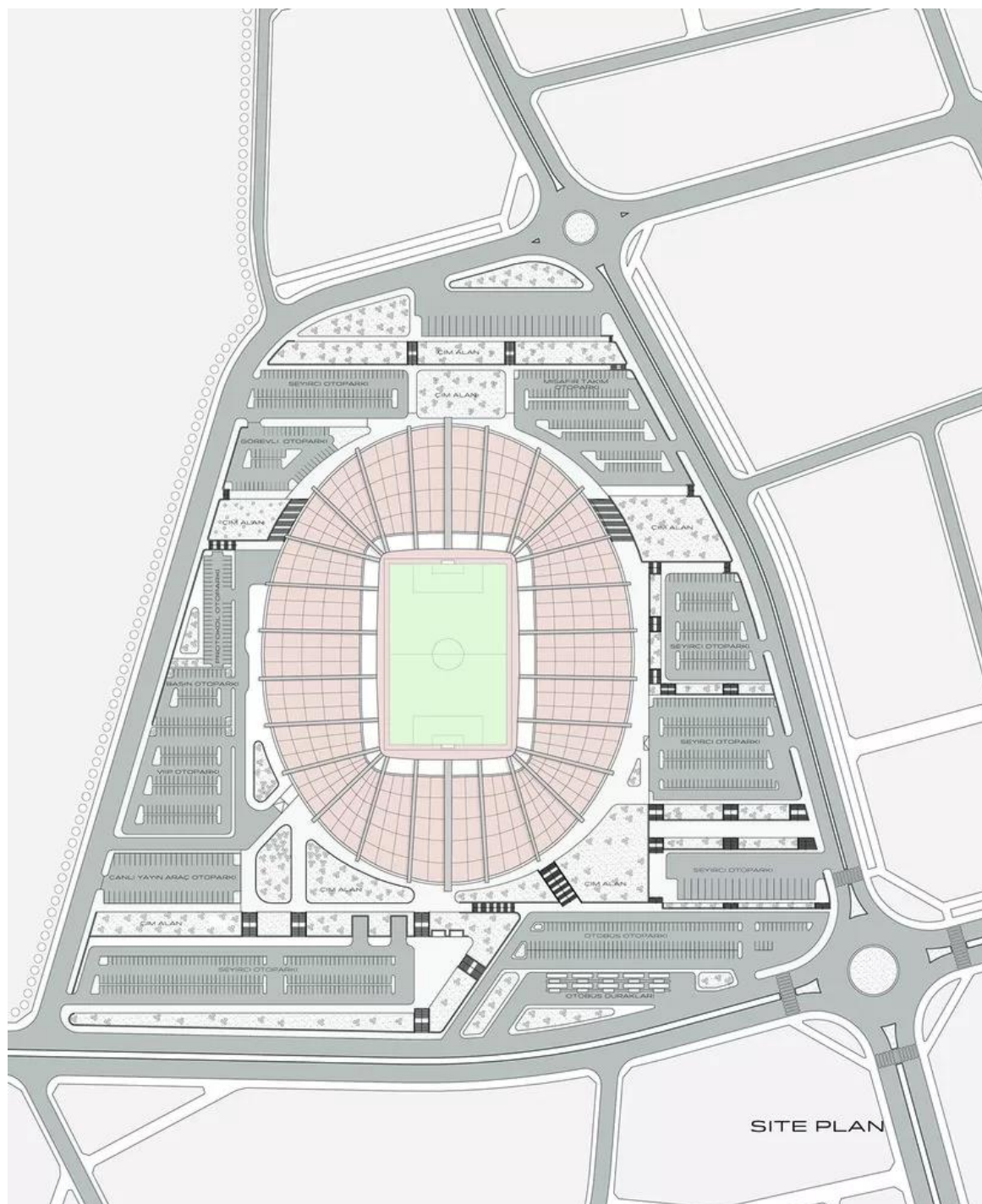
Cricket moves out of England 17-18th century

Cricket was introduced to North America via the English colonies in the 17th century, probably before it had even reached the north of England. In the 18th century it arrived in other parts of the globe. It was introduced to the West Indies by colonists and to India by British East India Company mariners in the first half of the century. It arrived in Australia almost as soon as colonisation began in 1788. New Zealand and South Africa followed in the early years of the 19th century.

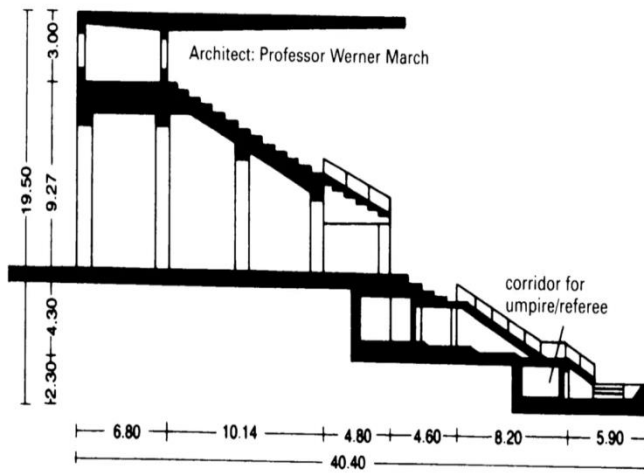
Guidelines For Designing A Sports Stadium:

Designing a sports stadium involves a careful consideration of various factors to create a facility that is functional, safe, and enjoyable for both athletes and spectators. Here are some basic guidelines to consider when designing a sports stadium:

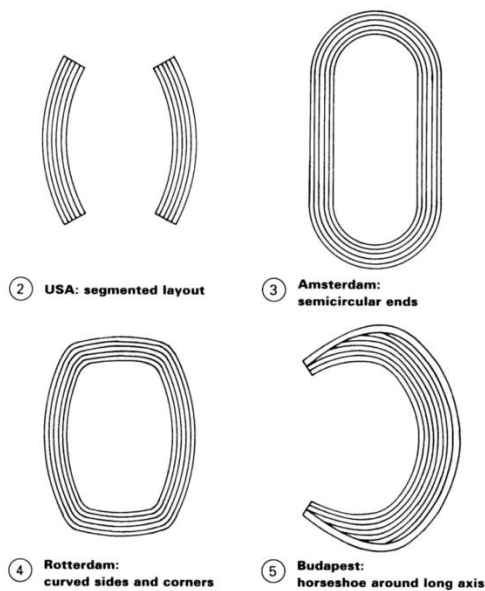
1. Site Selection and Planning:



2. Design of the Field, Seating Capacity and Layout:

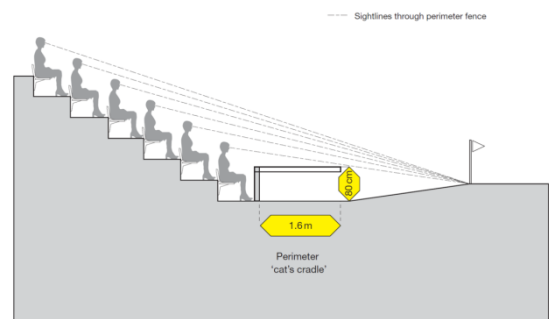
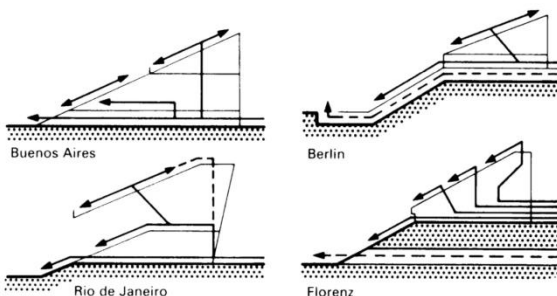


Section Through Olympic Stadium



Design the playing field or court to meet the specifications of the sports it will host. Consider the quality of the playing surface, drainage systems, and lighting. Determine the seating capacity based on the anticipated attendance for different events. Plan the layout to provide optimal sightlines for spectators, considering the nature of the sports the stadium will host.

3. Safety and Accessibility:



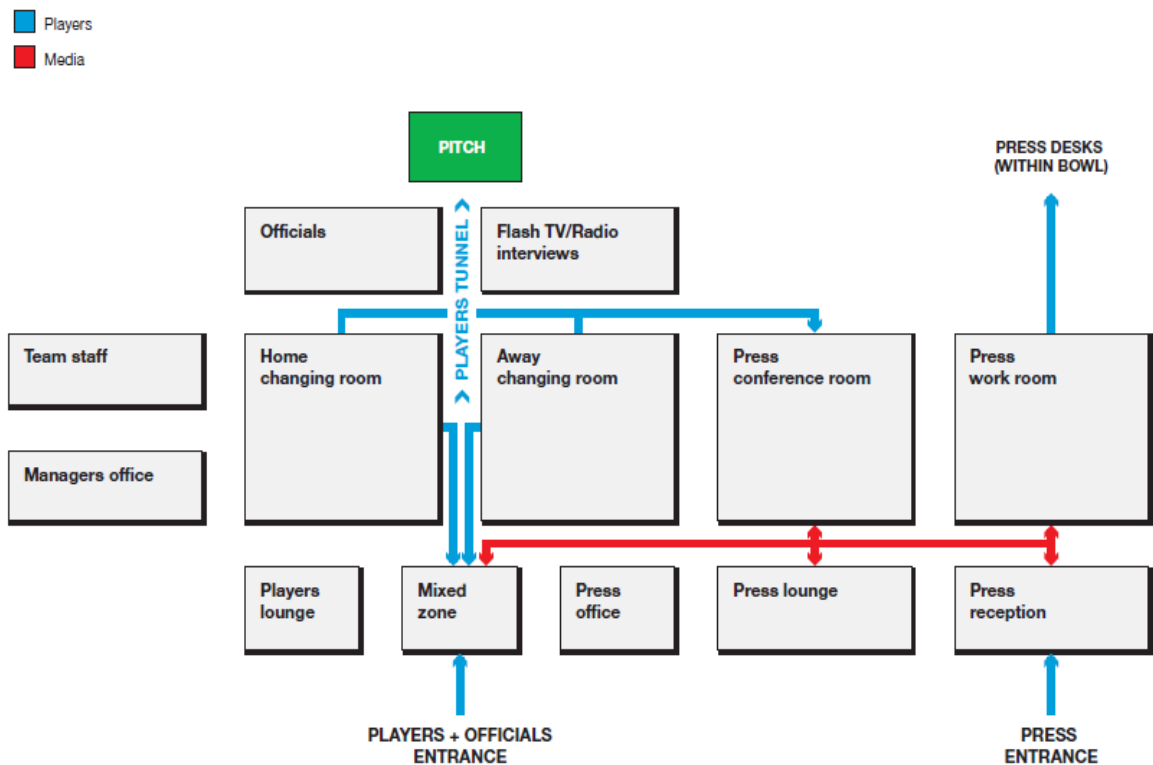
Prioritize safety features, including emergency exits, evacuation plans, and compliance with building codes and regulations. Ensure accessibility for people with disabilities, incorporating ramps, elevators, and designated seating areas.

4. Form and Structure:

Crafting the form and structure of a stadium demands a thoughtful blend of aesthetic finesse and engineering precision. For example, whether choosing a cantilevered roof design for unobstructed views or incorporating a retractable feature in it for adaptability, the roof will become a signature element.

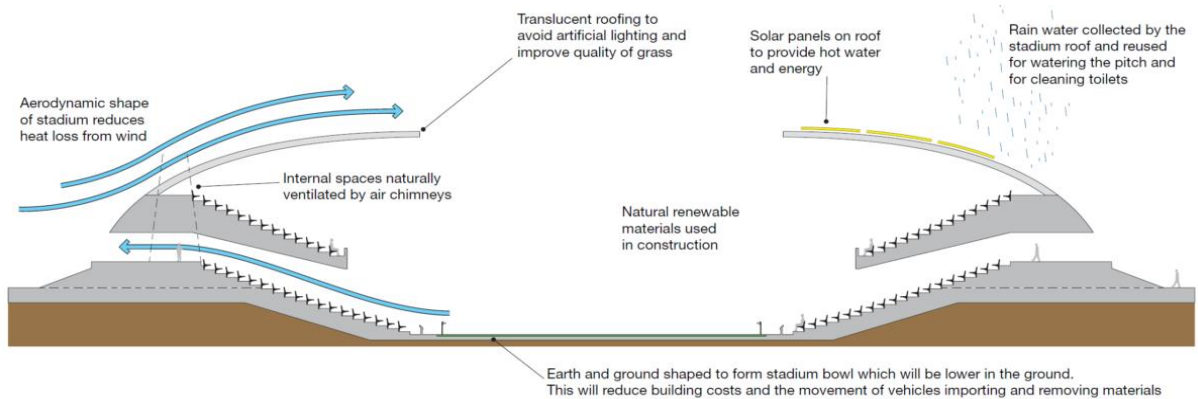


5. Infrastructure and Facilities:



Plan for necessary infrastructure, including locker rooms, changing areas, medical facilities, media rooms, restrooms, and other amenities for spectators.

6. Environmental Considerations:



Implement sustainable design practices, such as energy-efficient lighting, rainwater harvesting, and waste management systems. Consider the impact on the local ecosystem and explore [eco-friendly building materials](#).



7. Technology Integration and Environmental Considerations:



8.Future Expansion:



Design the stadium with future expansion in mind, allowing for the addition of seating, facilities, or technological upgrades. Take, for example, the seating capacity in Eden Gardens in Kolkata, which was expanded from 40,000 to 100,000 spectators in 1987, following a renovation. Further, it was reduced to 66,000 to accommodate facilities for a better experience.

Impact of the Stadiums on the Cities

Stadiums in Indian cities are playing a significant role in transforming the urban landscape in various ways.

Here are some key aspects of how stadiums contribute to urban development:

- 1. Economic Impact**
- 2. Infrastructure Development**
- 3. Cultural and Social Integration**
- 4. Image of the City**
- 5. Environmental Sustainability**
- 6. Building a Community**
- 7. Health and Well-being**

Continued growth in England

The game continued to spread throughout England and, in 1751, Yorkshire is first mentioned as a venue. The original form of bowling was superseded sometime after 1760 when bowlers began to pitch the ball and study variations in line, length and pace. Scorecards began to be kept on a regular basis from 1772 and since then an increasingly clear picture has emerged of the sport's development.

Lord's Cricket Ground

The oldest cricket stadium in the world was established in 1814 and the name of the stadium is Lord's Cricket Ground located in St. John's Wood, London England. The second oldest cricket stadium-Trent Bridge Ground (Trent Bridge), was established in 1830s and is located in Nottinghamshire, England.

International cricket begins

The first ever international cricket game was between the US and Canada in 1844. The match was played at the grounds of the St George's Cricket Club in New York.

In 1877, an England touring team in Australia played two matches against full Australian Xis that are now regarded as the inaugural Test matches. The following year, the Australians toured England for the first time and the success of this tour ensured a popular demand for similar ventures in future. No Tests were played in 1878 but more soon followed and, at The Oval in 1882, the Australian victory in a tense finish gave rise to The Ashes. South Africa became the third Test nation in 1889.

National championships

A significant development in domestic cricket occurred in 1890 when the official County Championship was constituted in England. This organisational initiative has been repeated in other countries. Australia established the Sheffield Shield in 1892-93. Other national competitions to be established were the Currie Cup in South Africa, the Plunket Shield in New Zealand and the Ranji Trophy in India.

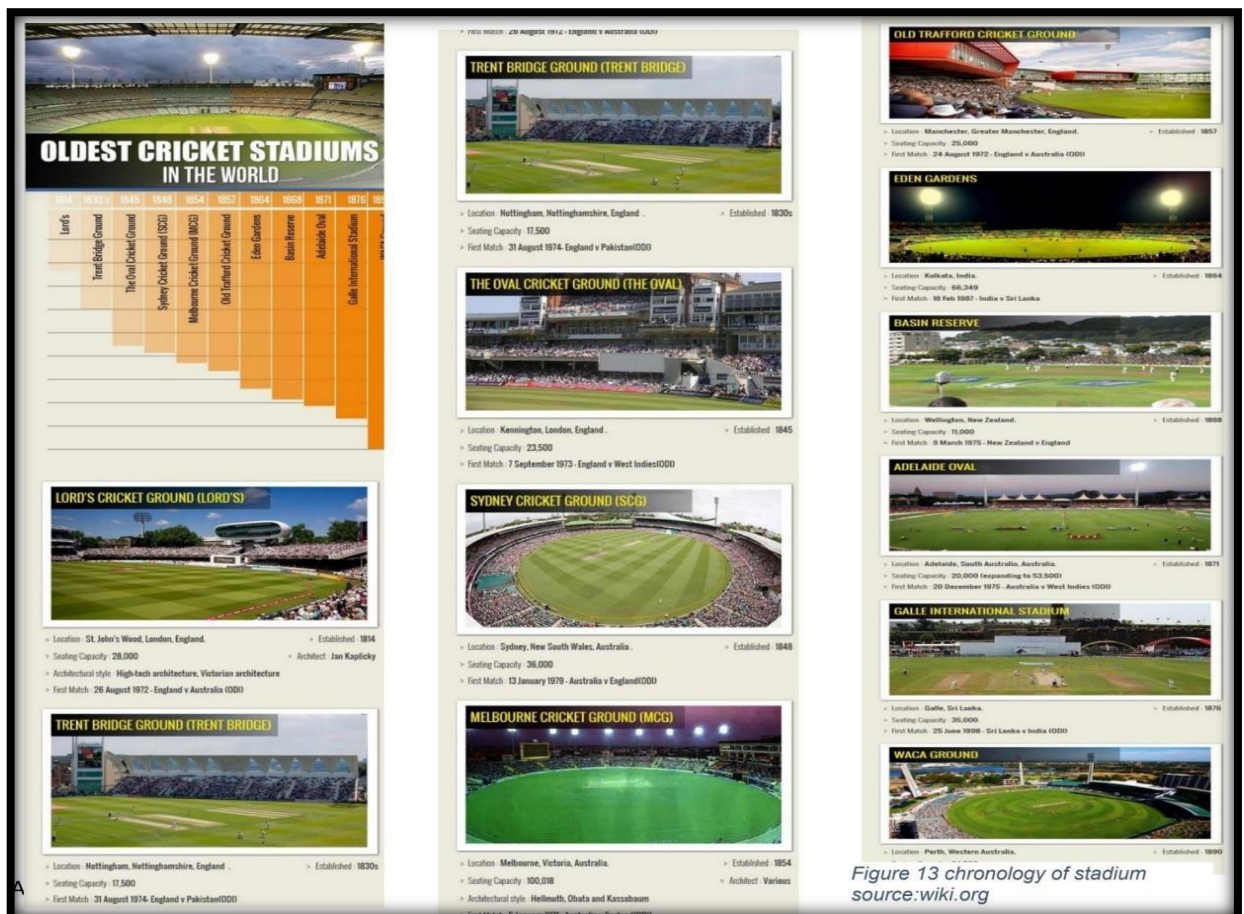
Limited-overs cricket

The first limited-overs international match took place at Melbourne Cricket Ground in 1971 as a time-filler after a Test match had been abandoned because of heavy rain on the opening days. It was tried simply as an experiment and to give the players some exercise, but turned out to be immensely popular. limited-overs internationals (LOIs or ODIs-one-day internationals) have since grown to become a massively popular form of the game, especially for busy people who want to be able to see a whole match. The International Cricket Council reacted to this development by organising the first Cricket World Cup in England in 1975, with all the Test-playing nations taking part.

Field size

The ICC Standard Playing Conditions define the minimum and maximum size of the playing surface for international matches. Law 19.1.3 of ICC Men's Test Match Playing Conditions as well as ICC Men's One Day International Playing Conditions states:

The aim shall be to maximize the size of the playing area at each venue. With respect to the size of the boundaries, no boundary shall be longer than 90 yards (82.29 meters), and no boundary should be shorter than 65 yards (59.43 meters) from the centre of the pitch to be used.



Firelifts

Where applicable, fire lifts shall be provided with a minimum capacity for 8 passengers and fully automated with emergency switch on ground level. In general, buildings 15 m in height or above shall be provided with fire lifts



Lighting

-Broader openings may also be equally or more efficient, provided their sills are raised by 300 mm to 600 mm above the working plane.

-Unilateral lighting from side openings will, in general, be unsatisfactory if the effective width of the room is more than 2 to 2.5 times the distance from the floor to the top of the opening.

WATER SUPPLY, DRAINAGE AND SANITATION

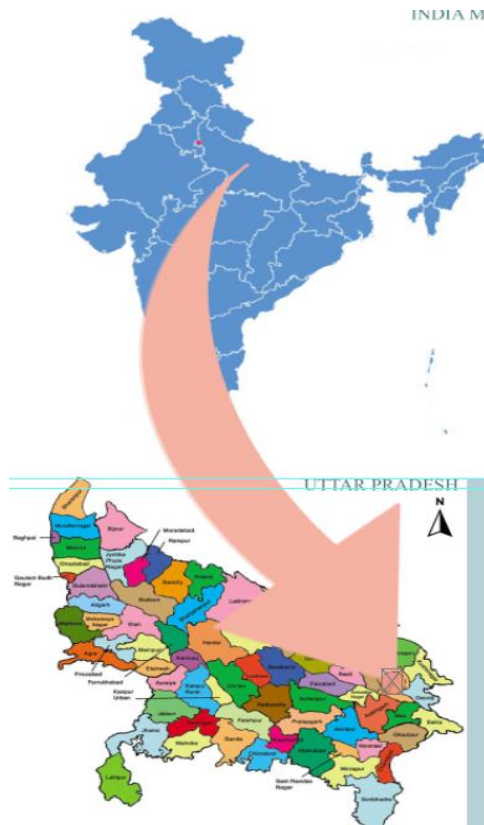
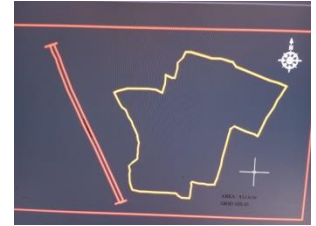
WATER REQUIRED IN STADIUM

SITE SELECTION

ABOUT THE CITY

Site Area 111 acres

- Location Tal Nadaur Mau- Gorakhpur Road, Gorakhpur U.P.
- Longitude 26.6541335,83.3701308
- Land Type Flat surface land with no contours.
- Access Road is 15m wide. The subject land has road to the south.
- Site Context Location in the institutional area giving a clam and silent Environment to study. The area is quite green environmental friendly and pollution free.



GORAKHPUR, U.P. (CITY PROFILE (2011))

Gorakhpur is a located in Eastern U.P. Gorakhpur is an important district. There are 3448 villages and 9 tehsils in Gorakhpur.

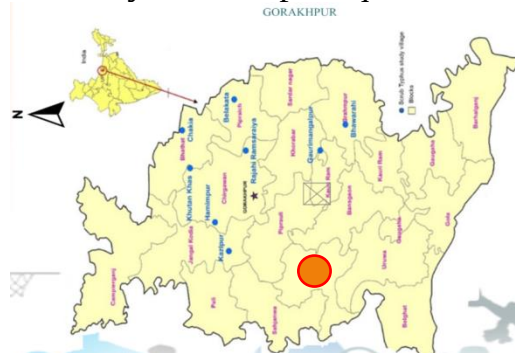
Geomorphological Location -

26°39'6.83"N and 83°22'24.65"E

Population - 1million approx

Area - 22600 Ha

Density - 5800 per sq.km



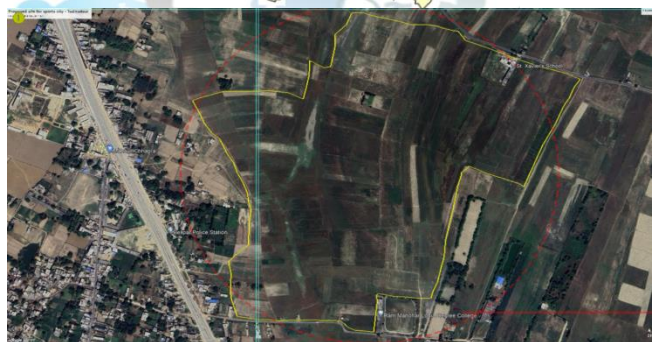
SITE CONTEXT:

Access System:

Mau- Gorakhpur Road

Geographical Location:

- Airport 14km
- Railway Station 17km
- Bus Station 5.9km
- Hospital 19km
- Fire Station 16km
- Police Station Rohilkhand 100m
- Development Authority 15km



DESTINITIONS TARGET

CLIMATE

- Gorakhnath Temple
- Ambedkar Park
- Railway Museum
- Kushmi Forest
- Vidyavasini Park
- Baba Munjeshwar Nath
- Mandir One of Main
- Religious Place
- Gita Press
- Neernikunj Water Park
- Ramgarh Taal
- Nauka Vihar Fountain

THE LANDMARKS



GROUND WATER LEVEL

The groundwater level of Bareilly in 2021 was recorded at 7.18 metres.

RELIGION POPULATION

HINDU	77.88 %
MUSLIM	20.61 %
SIKH	0.18 %
OTHERS	0.33%

THE PROPOSED POPULATION IS TO MILLION INCLUDING THAT OF THE EXISTING SETTLEMENTS

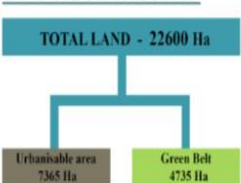
NARELA BOUNDRIES

NORTH: Kalabag Road
SOUTH: Ram Manohar Lohia Degree College
EAST : Plots
WEST : Mau- Gorakhpur NH24

SEX WISE DISTRIBUTION



LAND USE DISTRIBUTION



URBANSIABLE AREA DISTRIBUTION

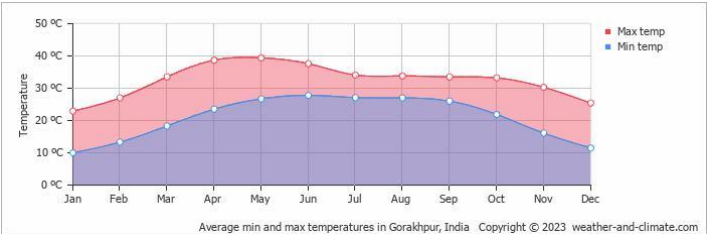


REASON OF GROWTH

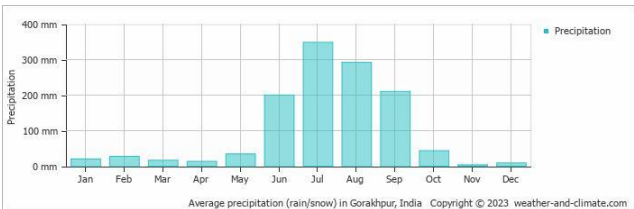
MPD 2021 has proposed a series of innovative concepts such as:
Local area planning, Redevelopment of villages, Restructuring around major transport corridors, metro corridor, a network of green & sports infrastructure, Industrial Zones.

- RESIDENTIAL
- COMMERCIAL
- PSP
- MANUFACTURING
- TRANSPORTATION
- RECREATIONAL

Gorakhpur, located in the state of Uttar Pradesh, experiences a subtropical climate characterized by hot summers, cool winters, and a monsoon season. During the sumto June, temperatures soar, often reaching highs of 40°C (104°F) or more, accompanied by mer months from April dry and dusty conditions. Relief comes with the onset of the monsoon season in July, bringing much-needed rainfall and moderating the temperatures. Winters, from December to February, are cool and pleasant, with temperatures averaging around 10-15°C (50-59°F). Overall, Gorakhpur climate presents a mix of seasonal variations, offering residents and visitors alike a diverse experience throughout the year.



RAINFALL



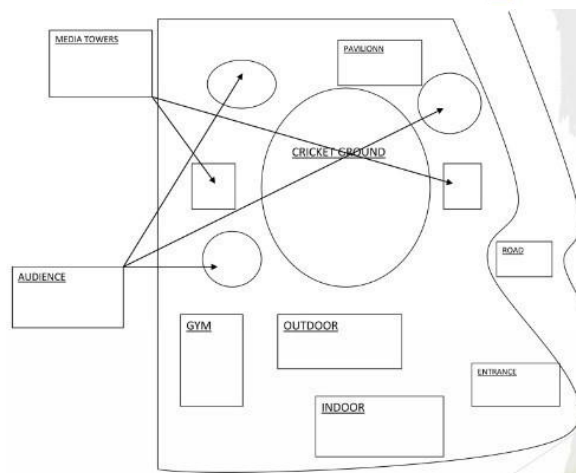
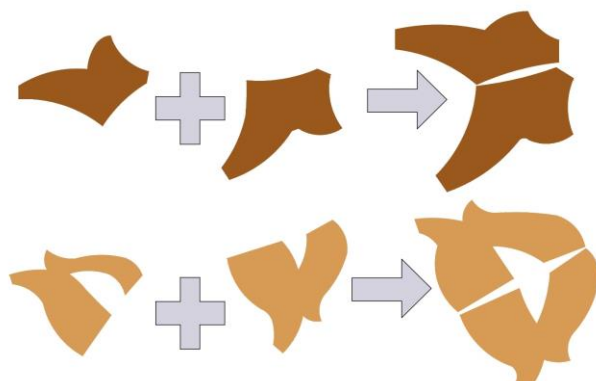
The average annual rainfall in Gorakhpur, Uttar Pradesh, typically ranges from 800 to 1000 millimeters. Rainfall patterns can vary from year to year due to factors such as monsoon fluctuations and climate change.

Monsoon Season (June to September): During this period, the city receives the highest amount of rainfall Pre-Monsoon Season (March to May): Rainfall during this period is relatively lower compared to the monsoon months but can still contribute to the overall precipitation.

Post-Monsoon Season (October to November): During this period, rainfall gradually decreases as the region enters the dry season. Winter Season (December to February): Rainfall is infrequent during this period, with occasional light showers.

DESIGN CONCEPT

CONCEPT OF THE STADIUM FORM:

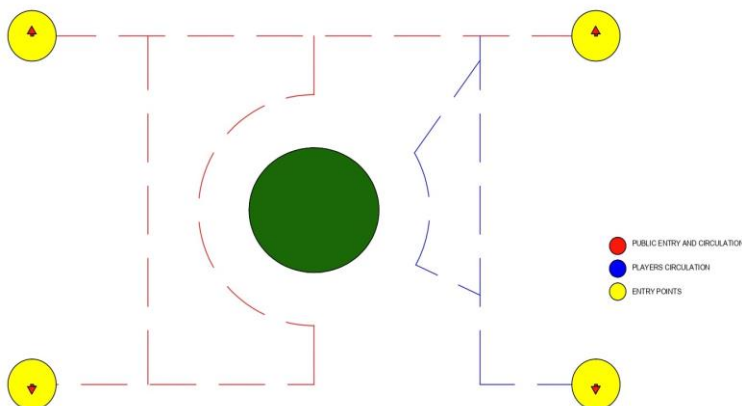


The concept of the stadium is the India Cricket Team logo.

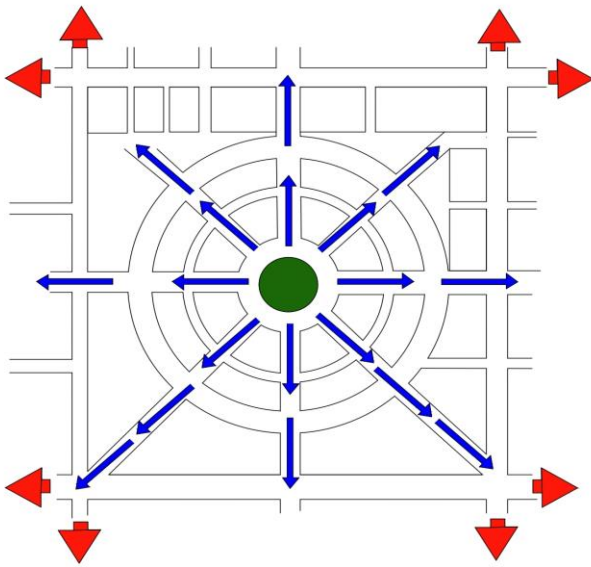
Breaking down the logo outer most sector to derive stadium's outer core .

The same sector is used as vertical member as roof structure as well to get the roof profile .

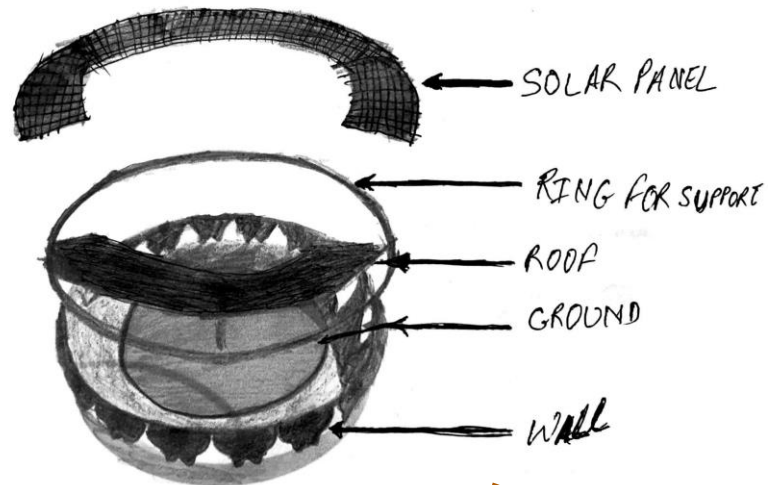
There 18 units of the individual wedges which is used as the vertical members for the stadium forming the outer shell of the stadium .



CIRCULATION OUTSIDE STADIUM



CIRCULATION OUTSIDE STADIUM



REFERENCE IMAGE

BIBLIOGRAPHY

BIBLIOGRAPHY:

Ben Vickery, G. J. (2007). STADIA. Burlington, MA: British Library Cataloguing
BMICPA. (2006). Master plan. Retrieved from
BMICPAcricket, L. (n.d.). Lord's cricket site plan. Retrieved from lora's
cricket stadium.

Cricket, m. (n.d.). melbourne cricket stadium site plan. Retrieved from
melbourne cricket stadium.fielding position of cricketers. (n.d.).
Retrieved from aitiustictionary.com.floodlights. (2006).

Retrieved from cricket stadium floodlights.stadium, h. c. (2005, 03
13). Rajiv Gandhi cricket stadium. Retrieved from hyderabad cricket
stadium.Read morewikipedia. (2001, 01 15). history of cricket.
Retrieved from Wikipedia

[Stadium Design: Guidelines And Impact On The Urban level
\(thearchitectsdiary.com\)](http://thearchitectsdiary.com)



S P O R T S S T A D I U M



CASE STUDY

1. RAJIV GANDHI INTERNATIONAL CRICKET STADIUM BRIEF HISTORY

HCA's previous home ground was the Lal Bahadur Shastri Stadium in the Fatch Maidan sports complex at Basheer Bagh in central Hyderabad. The ground belonged to the Sports Authority of Telangana State and HCA had limited operating autonomy over this ground.

Moreover, due to its smaller size, it soon came to be known as a high-scoring ground and so Hyderabad was not considered for many high-profile cricket matches in India.

In 2003, the proposal for a new stadium was submitted by HCA to the government of erstwhile Andhra Pradesh, then headed by N. Chandrababu Naidu. The proposal was quickly cleared and HCA was allocated a budget for the same. The government also identified a large piece of land suitable for the project at Uppal. Most of the funding for the project came after an open auction of the stadium's title was held. Visakha Industries Limited won the auction with a bid price of Rs. 65CR. A sum of Rs. 43CR was paid in advance

KEY POINTS OF THE STADIUM:-

1. Rajiv Gandhi International Cricket Stadium is situated in Uppal and known for the best Green grass outfield and has one of the most well maintained stadium in India.

2. The stadium has long span canopy on south and north stands which gives aesthetical good view of the stadium.

3. The stadium has the best water drainage facilities.

4. Rajiv Gandhi International Cricket Stadium is an exclusively only for international cricket Matches stadium in Visakhapatnam, India.

5. The stadium has a two-tier architecture and designed in such a way that view of the match in action is not obstructed regardless of the seating location. This ground has one of the best batting tracks in the world and a most preferred ground of BCCI to host land other league.

KEY POINTS OF THE STADIUM:-

Owner	: Hyderabad Cricket Association
End Names	: N.Shivlal Yadav Pavilion, Mohammed Azharuddin stand
Home Team	: Sunrisers Hyderabad
Establishment	: 2003
Seating Capacity	: 55000
Media Box Capacity	: 250
Media Conft Capacity	: 250
No of stands	: 14
Flood lights	: 06
No gates	: 12
Architect	: Shashi Prabhu

STADIUM ACCESSIBILITY:

Airport	: 31Kms
Railway	: 7.2 Km(Secunderabad junction)
Local Transport	: Blue line metro stadium (station)
Landmark	: Survey of India

PARKING FACILITIES:-



1. They have total of 550 car parking spaces.
2. They have total of 2500+ bike parking spaces.
3. They have provision for visitor's parking during non-match days and parking for staff of cricket stadium and also for players bus parking.

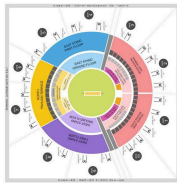
STADIUM LAYOUT:

Pitch is oriented north-south direction.

To allow the air flow of south-west winds they have a stands break so that the air flow is better inside the stadium.

The stadium has 4 sub entrances to different stands.

The stadium has ground floor seating, gallery floor seating, first tier seating and second tier seating as well.



STADIUM LAYOUT:

North side has 8 boxes in ground floor and 12 boxes in first floor level.

South side has 18 boxes in ground floor and 24 boxes in first floor level.

There are total of 6 flood lights and two more flood light at 2nd tier of south side pavilion.



Commenter's box with lounge area the balcony has party hall of 1 nos and a net tier with fire alarm.

The Eastern stands consists of :- They have the gallery area in the ground floor. They four entry points to access the next

1. SABID ALI EXIT
2. KENIA JAYANTHAL EXIT
3. PERKINAMURTHY EXIT
4. VNARASIMHA RAO EXIT

It has 5 stairway to access the stands which breaks the sequence of seating.

The stairway and entry points is located for 28-30 seats, which makes the crowd congestion less. There is maximum people entering the stadium at the same time.

This stand also has the digital score board as well.

This stand has 4 internal gates to access the stand.

It has 2 flood lights as well with generator for power backup.

The ground level has curator staffs and ground staffs rooms, pantry, parking and soil preparing.

The Western stands consists of :- They have the gallery area in the ground floor. They four entry points to access the next tier above the gallery tier.

1. MOHAMMED HUSSAIN EXIT
2. ABBAS ALI BAIG EXIT
3. GUL MOHAMMED EXIT
4. M.A.K. PATUDI EXIT

It has 5 stairway to access the stands which breaks the sequence of seating.

The stairway and entry points is located for 28-30 seats, which makes the crowd congestion less when there is maximum people entering the stadium at the same time.

This stand also has the manual score board as well.

This stand has 4 internal gates to access the stand.

It has 2 flood lights as well with generator for power backup.

They have staircase located on either ends of the stands with is also used as fire exits, connected these staircases with corridor at back of the seats.



The Mohammed Azharuddin stand and VVS Laxman Pavilion consists of :-

It has ground level seating, gallery level seating, first and second level VIP boxes seating, and first and second tier seating.

It has a canopy for both the tier as well.

As commentator's box & North side has 8 boxes in ground floor and 12 boxes in first floor level.



This stand total 4 level with one terrace, 6 lifts in this stand, which is access still 2 level. The cellar floor has admin parking with Chief Security Officer cabin.

The ground floor has Admin parking, VIP lounge with party hall and gallery seating area.

The first floor had admin floor which manages the stadium with 18 individual boxes for VIP's.

The second floor as 24 individual boxes for VIP's.



FLOOD LIGHTS:-

The diameter at the base is 1.3 meter hollow member, 6 in nos.



ROOF STRUCTURE:-

The stadium is open on west and east stands and as roof cover only on north-south stand, which as the tensile canopy.

It has individual wings of spans of 25mts and has 3 arches to support the each member and truss work on either ends of each wing.

The roofing material they used is Teflon Fibre, which was designed by Architect Shashi Prabhu.



TURF OUTFIELD:-

It has a chequered pattern of outfield which look good from top view.

The turf grass is maintained by using the cutter machine which cuts the turf grass with equal level throughout the outfield.

The cutter cuts the grass in certain amount leaving 2mm to 4mm of grass on the field.

They cut the grass every 2 days once to maintain the level of grass in the ground.

The image show how the mix the manure with the red soil for the outfield. For the pitch they use red and black soil in proportion.

The N.Shivlal Yadav Pavilion consists of :-

Players dressing room

Admin block

VIP lounge with party hall

President VIP box

Secretary cabin, CEO cabin

HCA conference hall

VVIP individual boxes capacity of (20 people).



- F16 Second floor where the VIP boxes are located which 24 in nos



Second floor where executive lounge with media box of capacity 250.

JOINERY DETAILS:-

RCC column c/c 10 mts at the peripheral of the stadium in north-south stands, to support the tensile structure.

The joints of the tensile structure had junctions of 4x6x8 respectively.

It has 5 rows of lights, each row consisting of 8 lights each.

They secondary flood lights 2 in number which has 2 rows of lights.





S P O R T S S T A D I U M

CASE STUDY

2. DR.Y.S.RAJASEKHAREDDY.ACA.VDCA INTERNATIONAL CRICKET STADIUM:

The Visakhapatnam District Cricket Association, popularly known as VDCA, came into being in August 1963, was inaugurated by the then Governor of Andhra Pradesh Gen. S.M. Srinagesh and is now in its 50th year. VDCA hosted the first ever Ranji match in Vizag in December 1964. M. L. Jayasinha led the Hyderabad side against Andhra at the Railway ground.

KEY POINTS OF THE STADIUM:-

ACA-VDCA Cricket Stadium is situated on the outskirts of Visakhapatnam midst scenic hills and known for the best green grass outfield and has one of the most well maintained stadium in India. The grass for out-field was specially brought from the Caribbean. The stadium has the countries best water drainage facilities. ACA-VDCA Cricket Stadium is a exclusively only for international cricket matches stadium in Visakhapatnam, India. The stadium has a two-tier architecture and designed in such a way that view of the match in action is not obstructed regardless of the seating location. This ground has one of the best batting tracks in the world and a most preferred ground of BCCI to host ODI and other league Matches.

KEY POINTS OF THE STADIUM:-

Owner : Sports Authority of Andhra Pradesh
End Names : Pavilion End, North Block End
Home Team : Sunrisers Hyderabad
Establishment : 2003
Seating Capacity : 28300
Media Box Capacity : 150
Media Conf Capacity : 150
No of stands : 19
Flood lights : 04
No gates : 06

STADIUM ACCESSIBILITY:

Airport : 13 Kms
Railway : 10.6 Kms
Local Transport : 9Kms Andhra Pradesh state road transport corporation(APRTC)
Landmark : Indira Gandhi Zoological Park

PARKING FACILITIES:-



They have total of 1100+ car parking spaces. They have total of 2500+ bike parking spaces. They have provision for visitor's parking during non-match days and parking for staff of cricket stadium and also for players bus parking.



STADIUM LAYOUT:

Pitch is oriented north-south direction to allow the stand flow of south-west winds they have a air break so that the air flow is better inside the stadium.

MAIN ENTRANCE TO THE STADIUM:



The Dr.Vizzy End consists of:

Players dressing room.
Match officials room.
Umpire room.
3rd umpire cabin.
Admin block.
VIP seating with AC rooms.
The Dr.PVG RAJ U STAND consists of:- L,M,N , O stands.



Two gates as well namely:-



M.S.K PRASAD GATE Y. VENUGOPALA RAO GATE

THE PASHOK GAJAPATI RAJU STAND



View of Manual Score board



Manual Score board room

The D.V.SUBBARAO END consists of :- G , H , I , J , K Stands.
Media room for 150 people. Equipment rooms.
2 flood lights .



PITCH:

The grass for out-field was specially brought from the Caribbean. They used red soil for the entire ground except the pitch. For the pitch they have used black soil mixed with red soil.



SUPER SAPPER MACHINE



GENERATOR ROOM FOR FLOOD LIGHTS



FLOOD LIGHTS:-

The diameter at the base is 1.3 meter hollow member, 4 in nos. It has 11 rows of lights , each row consisting of 8 lights each.



ROOF STRUCTURE:-

The stadium as PEB structure truss work to hold the roof structure span of 25mts.



JOINERY DETAILS:-

Each steel column spans 10 mts.



ROLLERS TO LEVEL THE GROUND



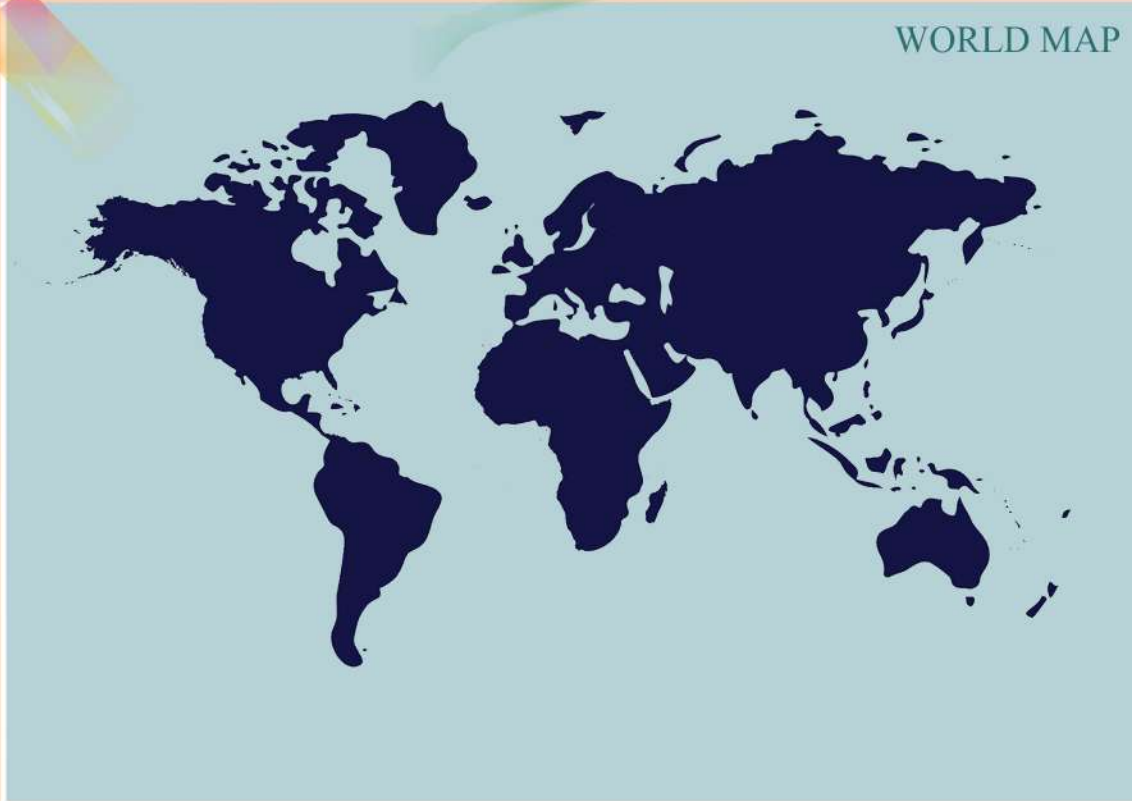
CUTTING OF TURF GRASS EVERY 2-3 DAYS.

HRISHIKESH SHUKLA
1190101015



CRICKET STADIUM

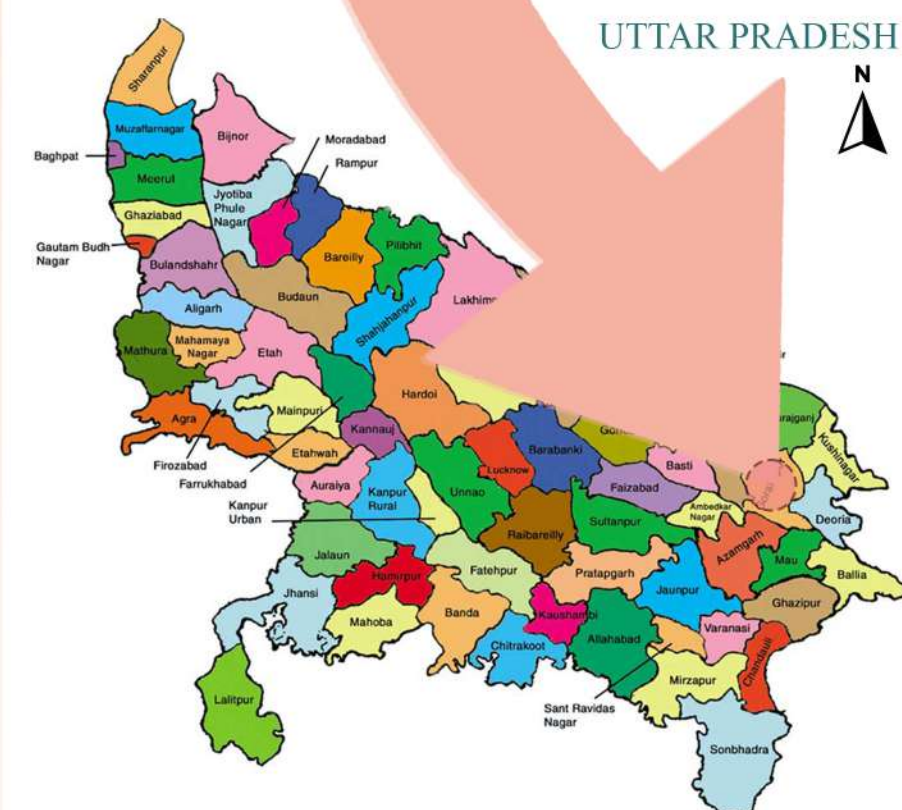
SITE ANALYSIS



WORLD MAP



INDIA MAP



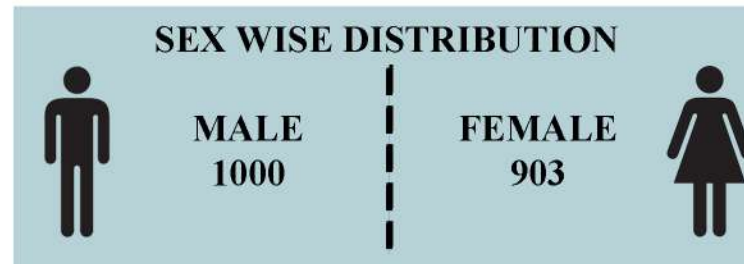
UTTAR PRADESH

GORAKHPUR

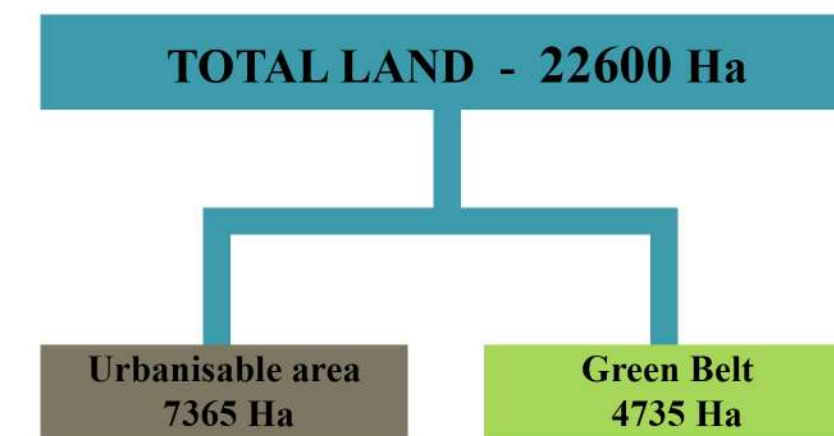
GORAKHPUR, U.P. CITY PROFILE (2011)

- Gorakhpur is located in Eastern U.P. Gorakhpur is an important district.
- There are 3448 villages and 9 tehsils in Gorakhpur.

- Geomorphological Location - 26°39'6.83"N and 83°22'24.65"E
- Population - 1 million approx
- Area - 22600 Ha
- Density - 5800 per sq.km

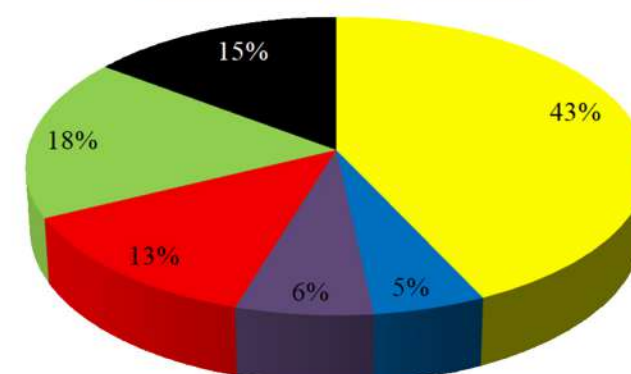


LAND USE DISTRIBUTION



REASON OF GROWTH
MPD 2021 has proposed a series of innovative concepts such as:
Local area planning, Redevelopment of villages, Restructuring around major transport corridors, metro corridor, a network of green & sports infrastructure, Industrial Zones.

URBANISABLE AREA DISTRIBUTION



- RESIDENTIAL
- COMMERCIAL
- PSP
- MANUFACTURING
- TRANSPORTATION
- RECREATIONAL

DESTINATIONS TARGET

- Goraknath Temple
- Ambedkar Park
- Railway Museum
- Kushmi Forest
- Vidyavasini Park
- Baba Munjeshwar Nath Mandir One of Main Religious Place
- Gita Press
- Buddha Museum
- Neernikunj Water Park
- Ramgarh Taal
- Nauka Vihar Fountain

GROUND WATER LEVEL

The groundwater level of Bareilly in 2021 was recorded at 7.18 metres.

SITE CONTEXT:

- Access System:
Mau- Gorakhpur Road
Geographical Location:
- Airport 14km
 - Railway Station 17km
 - Bus Station 5.9km
 - Hospital 19km
 - Fire Station 16km
 - Police Station Rohilkhand 100m
 - Development Authority 15km

ABOUT THE SITE :

- Site Area 111 acres
- Location Tal Nadaur Mau- Gorakhpur Road, Gorakhpur U.P.
 - Longitude 26.6541335, 83.3701308
 - Land Type Flat surface land with no contours.
 - Access Road is 15m wide. The subject land has road to the south.
 - Site Context Location in the institutional area giving a clam and silent Environment to study. The area is quite green environmental friendly and pollution free.

RAINFALL

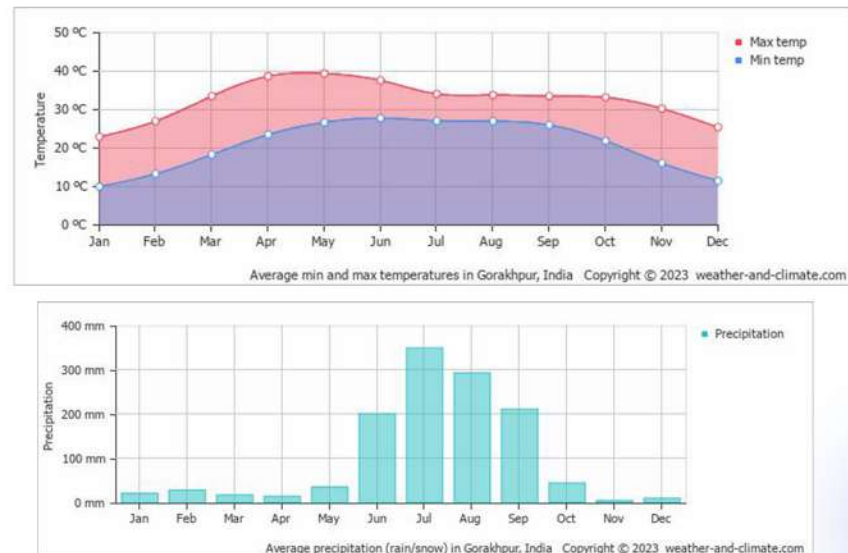
The average annual rainfall in Gorakhpur, Uttar Pradesh, typically ranges from 800 to 1000 millimeters. Rainfall patterns can vary from year to year due to factors such as monsoon fluctuations and climate change.

Monsoon Season (June to September): During this period, the city receives the highest amount of rainfall Pre-Monsoon Season (March to May): Rainfall during this period is relatively lower compared to the monsoon months but can still contribute to the overall precipitation.

Post-Monsoon Season (October to November): During this period, rainfall gradually decreases as the region enters the dry season. Winter Season (December to February): Rainfall is

CLIMATE

Gorakhpur, located in the state of Uttar Pradesh, experiences a subtropical climate characterized by hot summers, cool winters, and a monsoon season. During the summer months, temperatures soar, often reaching highs of 40°C (104°F) or more, accompanied by months from April dry and dusty conditions. Relief comes with the onset of the monsoon season in July, bringing much-needed rainfall and moderating the temperatures. Winters, from December to February, are cool and pleasant, with temperatures averaging around 10-15°C (50-59°F). Overall, Gorakhpur climate presents a mix of seasonal variations, offering residents and visitors alike a diverse experience throughout the year.



THE LANDMARKS



Goraknath Temple



Nauka Vihar Fountain



Kushmi Forest



BABA MUNJESHWAR NATH



BUDDHA MUSEUM

WHAT IS CRICKET STADIUM ?

- A cricket stadium is a large sports venue specifically designed for the game of cricket. It usually consists of a field surrounded by a perimeter fence with seating for spectators. The stadium often includes facilities such as changing rooms for players, media boxes, and concession stands.

SPORTS benefit us in the following ways :

- They provide relaxation and entertainment
- They increase the physical fitness and the mental alertness of an individual.
- It helps develop the overall personality of a person

EXAMPLES OF CRICKET STADIUM ARE:



Manikganj Stadium



Motera Cricket Stadium

PROPOSED SITE FOR SPORTS COMPLEX

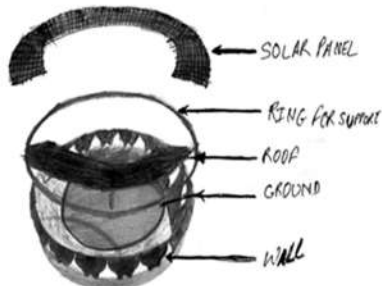


HRISHIKESH SHUKLA

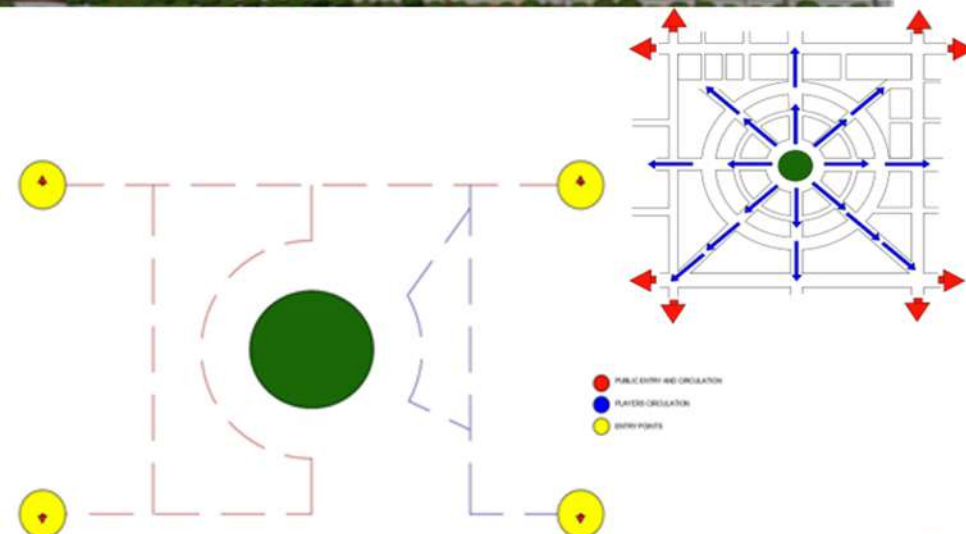
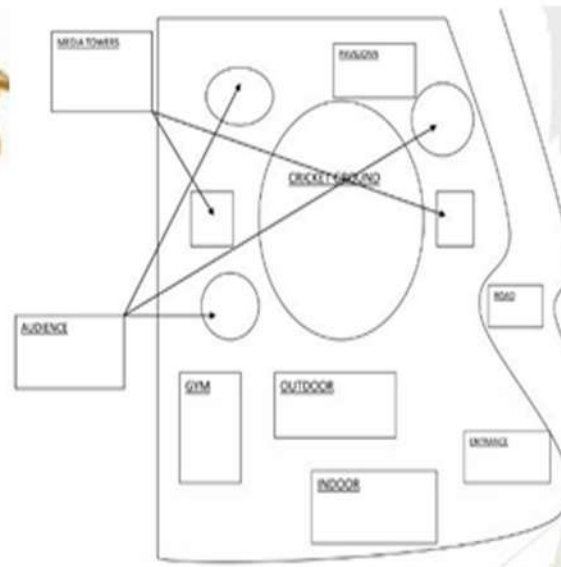
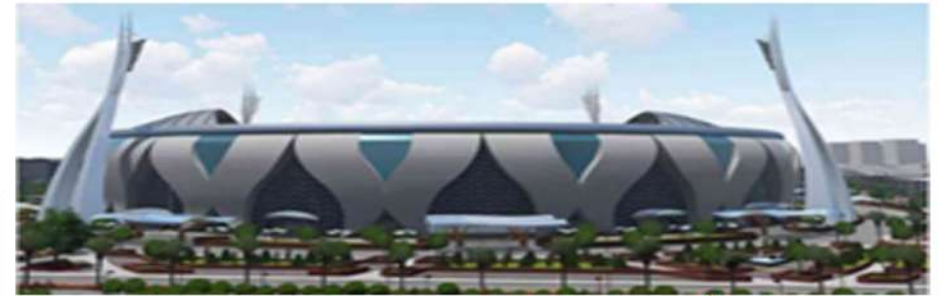
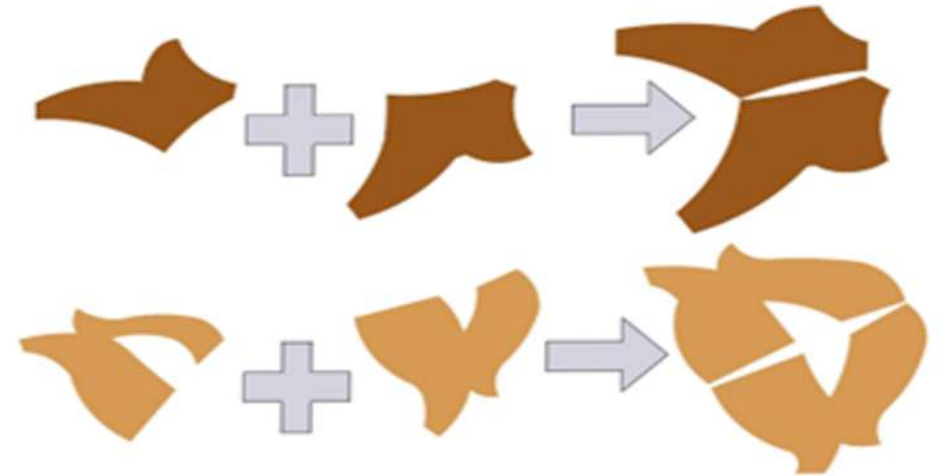
1190101015

CRICKET STADIUM

SITE ANALYSIS

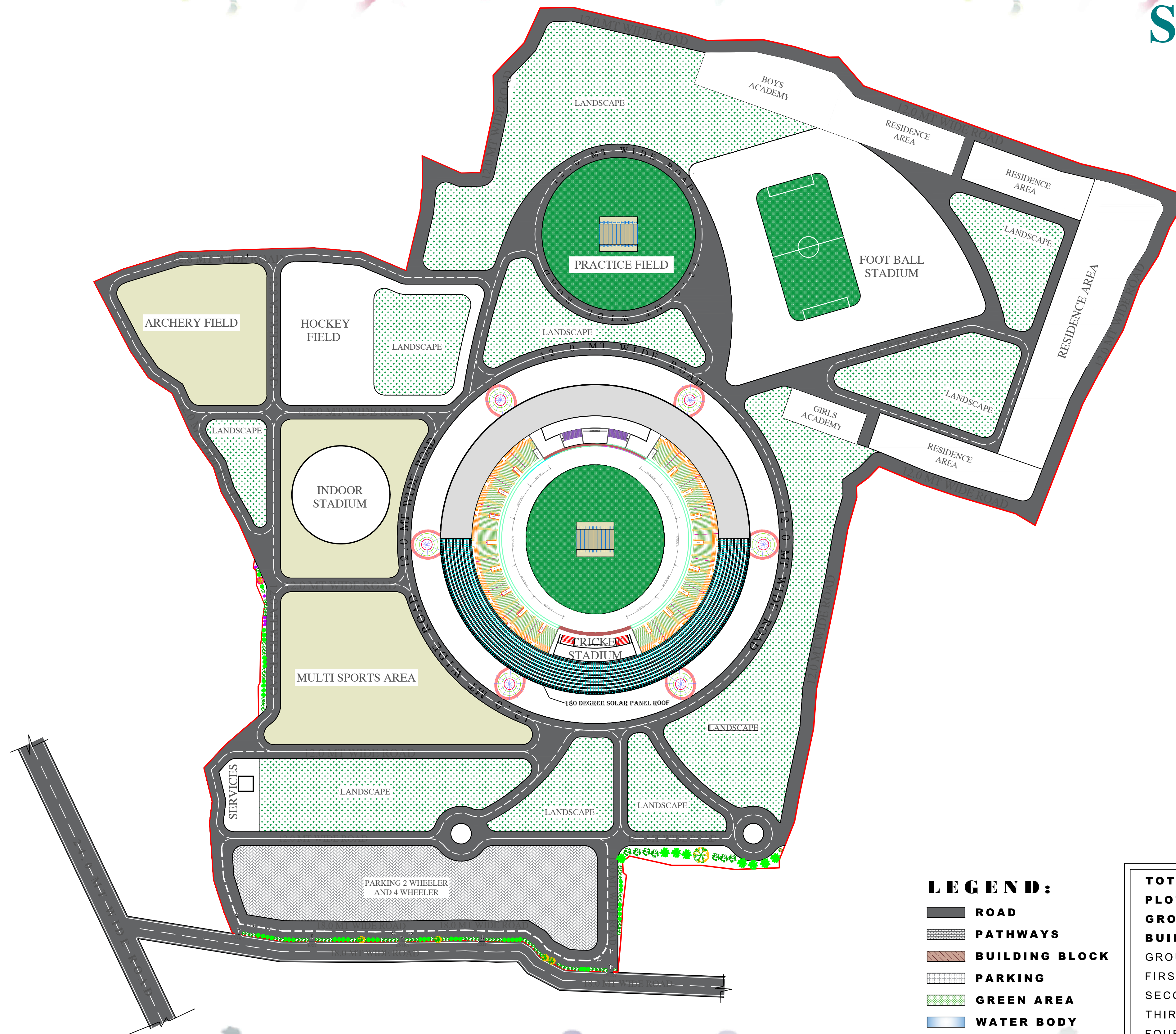


The concept of the stadium is the India Cricket Team logo. Breaking down the logo outer most sector to derive stadium's outer core . The same sector is used as vertical member as roof structure as well to get the roof profile . There 18 units of the individual wedges which is used as the vertical members for the stadium forming the outer shell of the stadium .



S P O R T S S T A D I U M

SITE PLAN



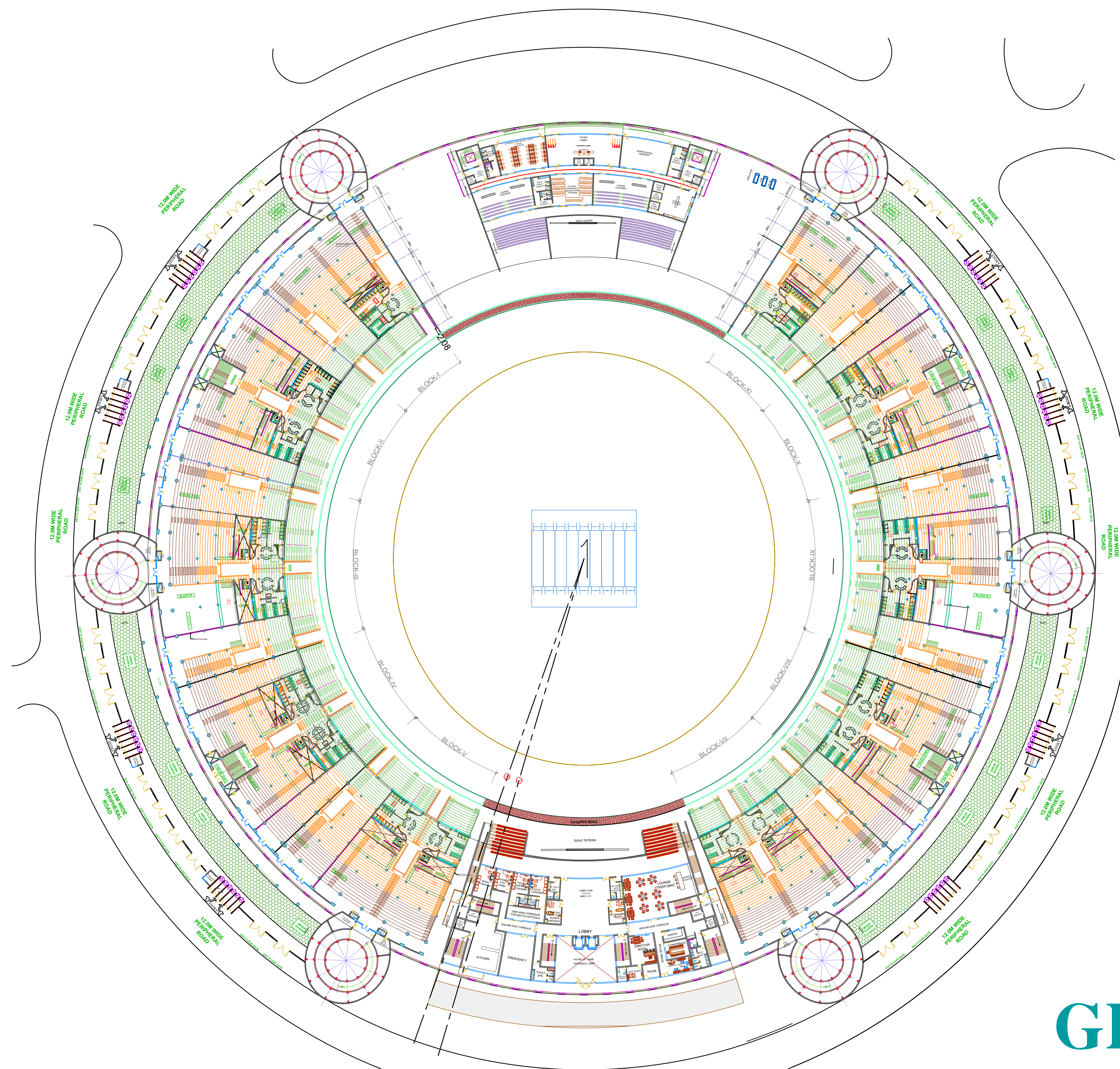
LEGEND:

- ROAD
- PATHWAYS
- BUILDING BLOCK
- PARKING
- GREEN AREA
- WATER BODY

TOTAL PLOT AREA	-4,49,328 SQ.MT.
PLOT PROPOSED FOR STADIUM	-93,843.56 SQ.MT.
GROSS PLOT AREA	-93,843.56 SQ.MT.
BUILT UP AREA:	
GROUND FLOOR AREA	- 31441.8364 SQ.MT.
FIRST FLOOR AREA	- 20957.033 SQ.MT.
SECOND FLOOR AREA	- 20957.033 SQ.MT.
THIRD FLOOR AREA	- 20957.033 SQ.MT.
FOURTH FLOOR AREA	- 16012.3554 SQ.MT.
TOTAL BUILT-UP AREA	- 110325.2904 SQ.MT.

HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)

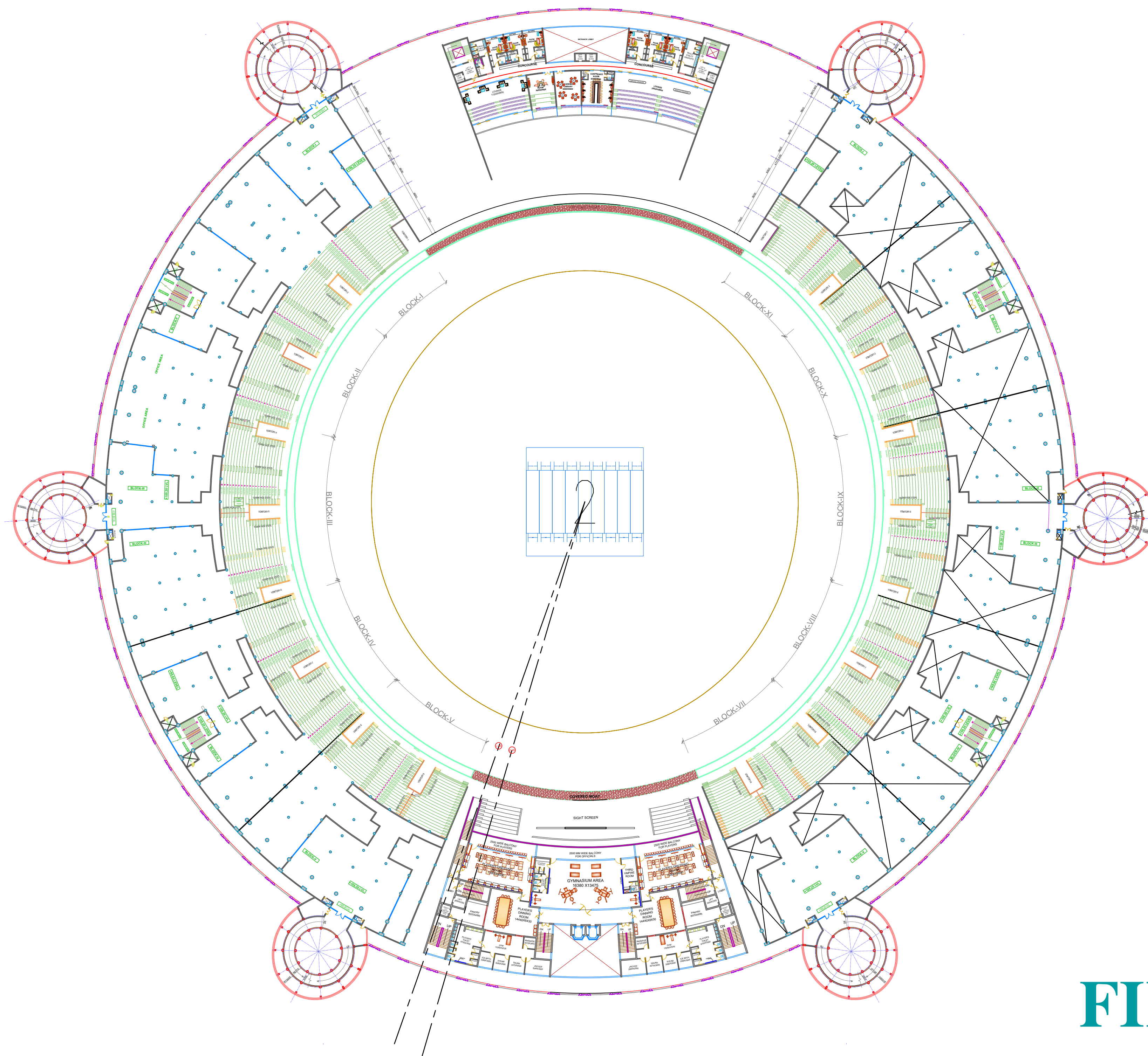
S P O R T S S T A D I U M



GROUND FLOOR PLAN

HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)

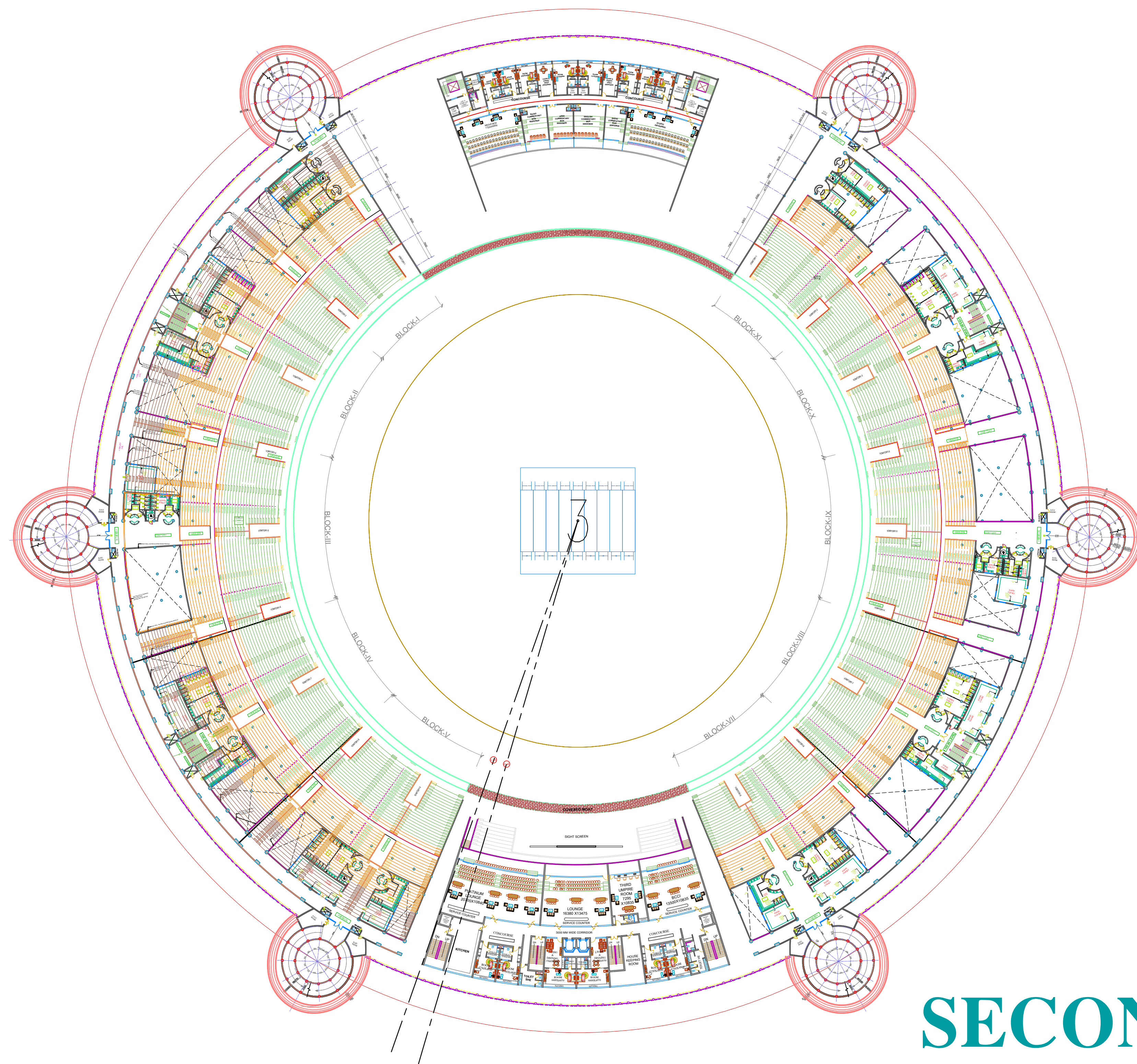
S P O R T S S T A D I U M



FIRST FLOOR PLAN

HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)

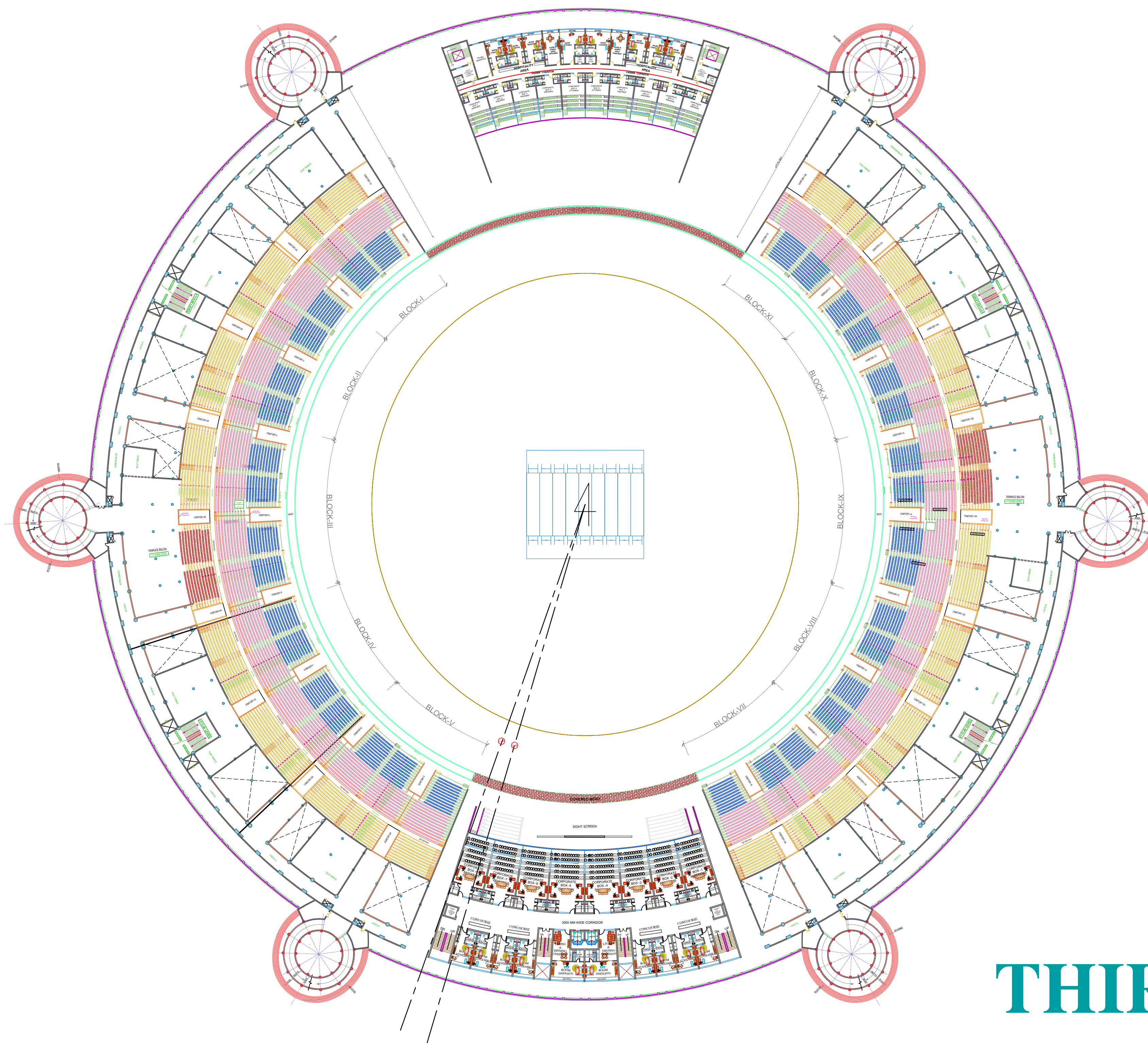
S P O R T S S T A D I U M



SECOND FLOOR PLAN

HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)

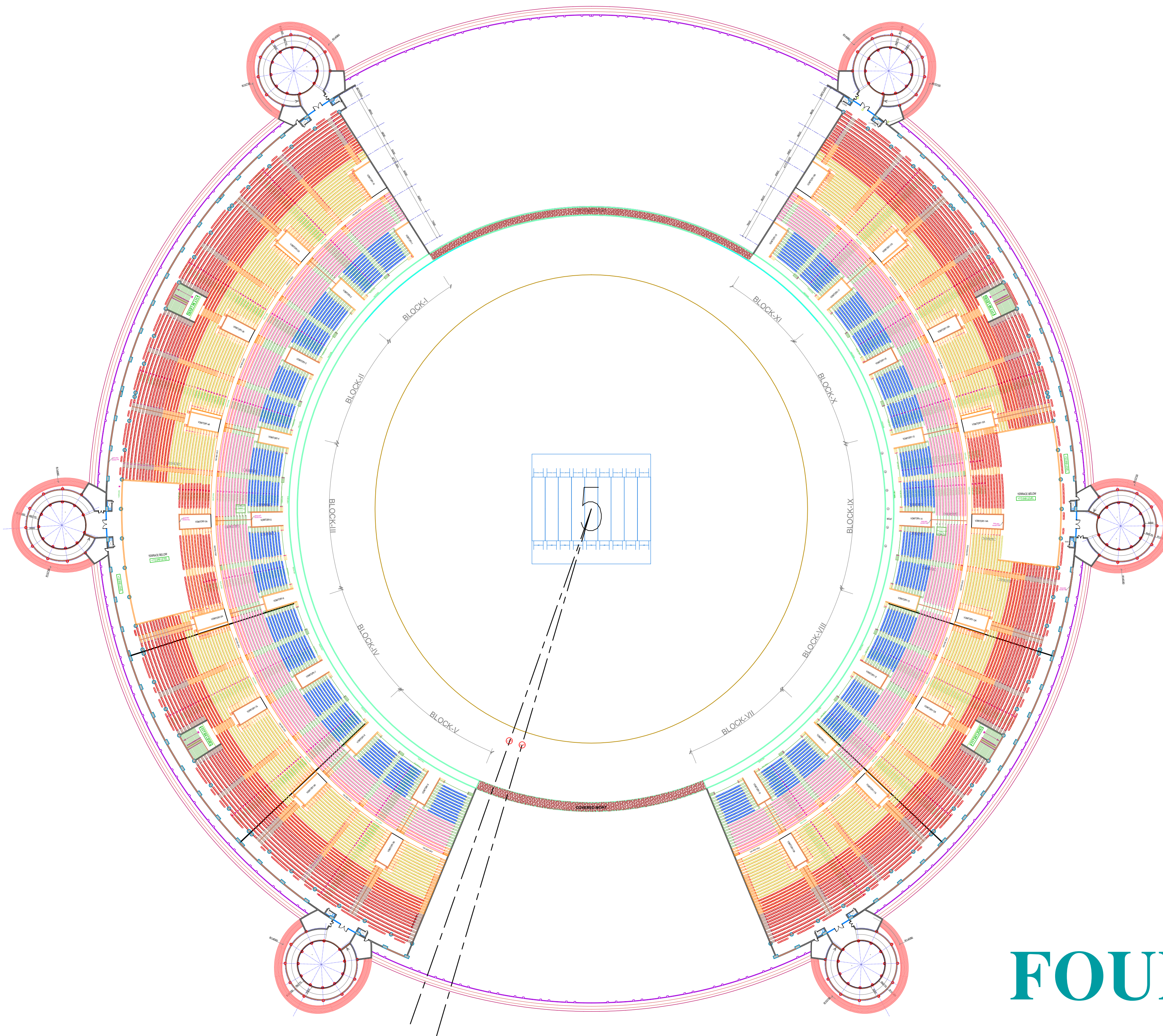
S P O R T S S T A D I U M



THIRD FLOOR PLAN

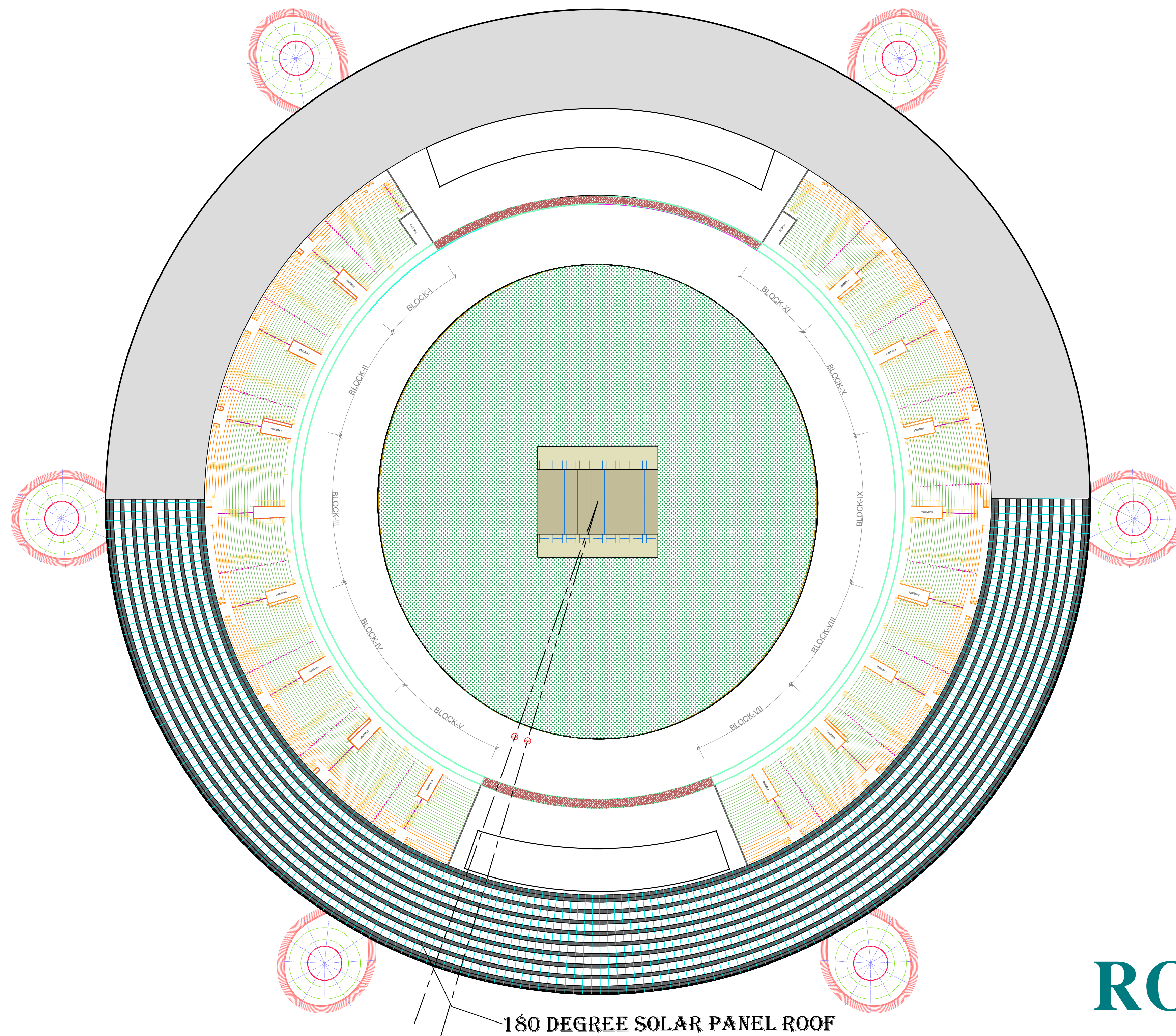
HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)

S P O R T S S T A D I U M



FOURTH FLOOR PLAN

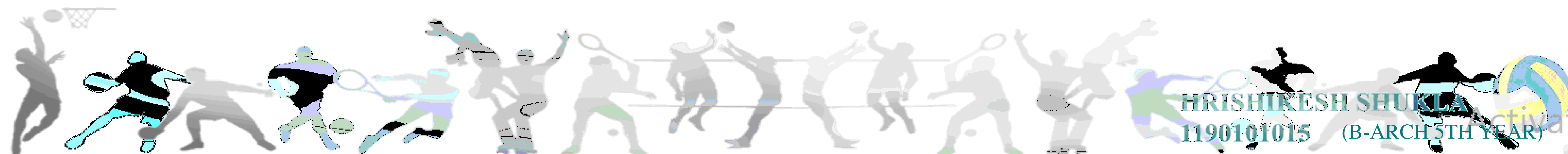
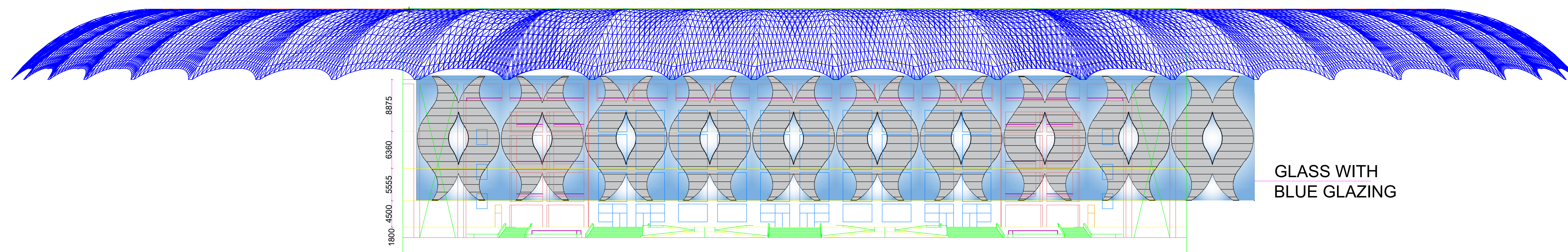
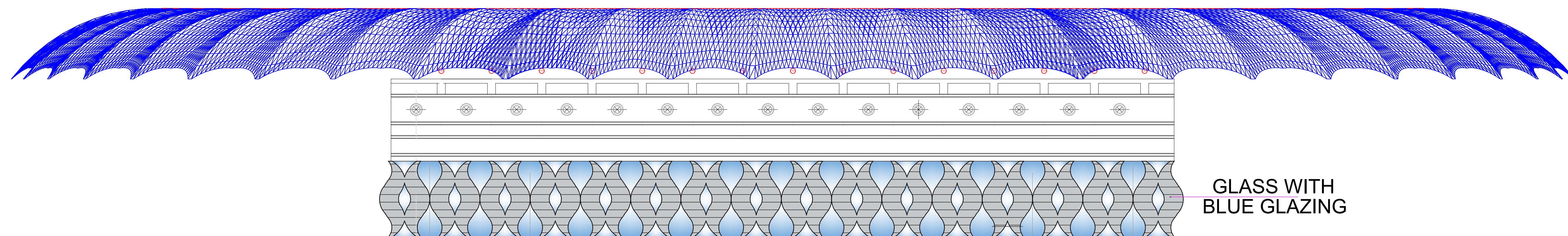
HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)



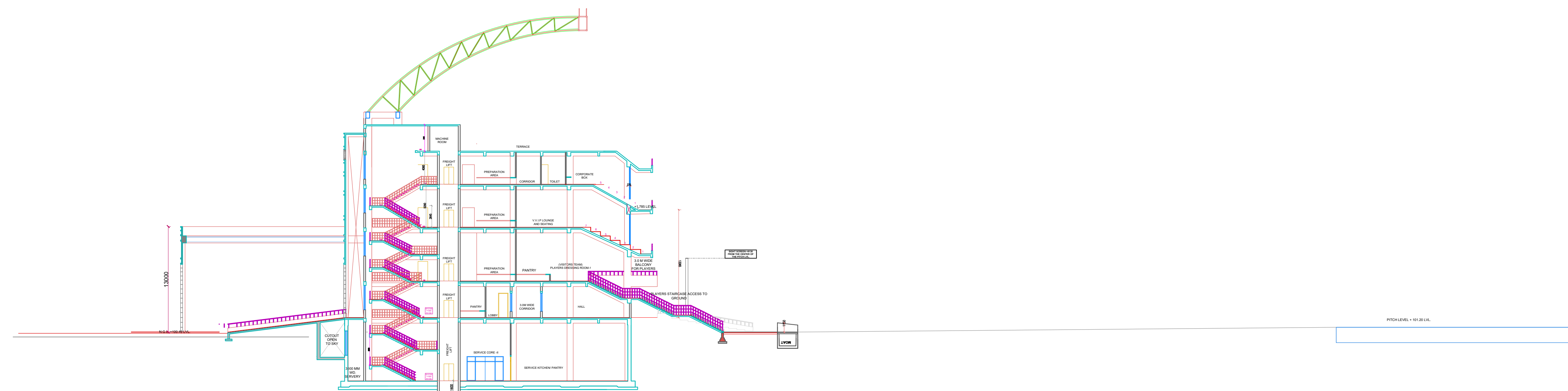
ROOF FLOOR PLAN

HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)

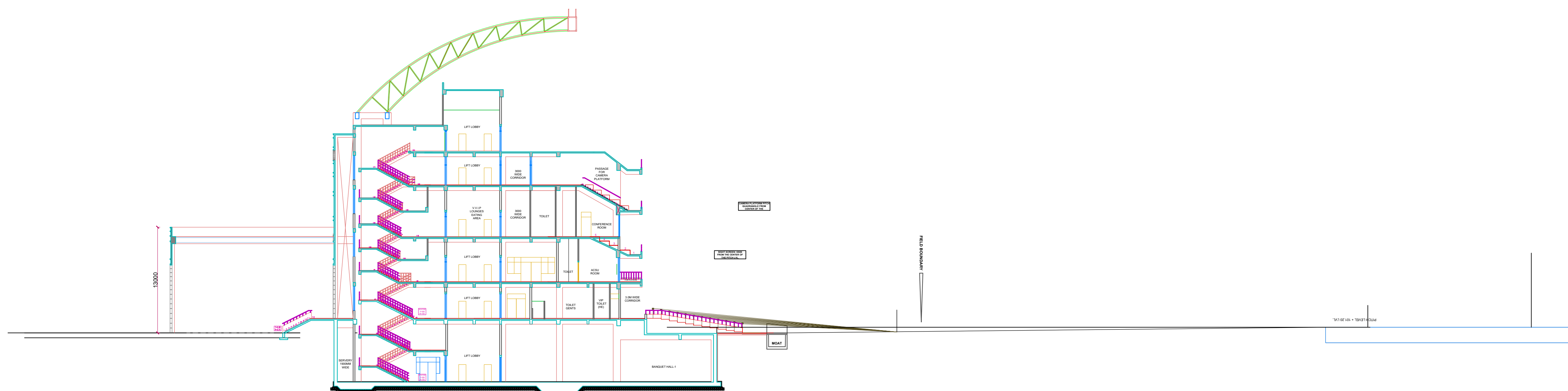
SPORTS STADIUM



S P O R T S S T A D I U M

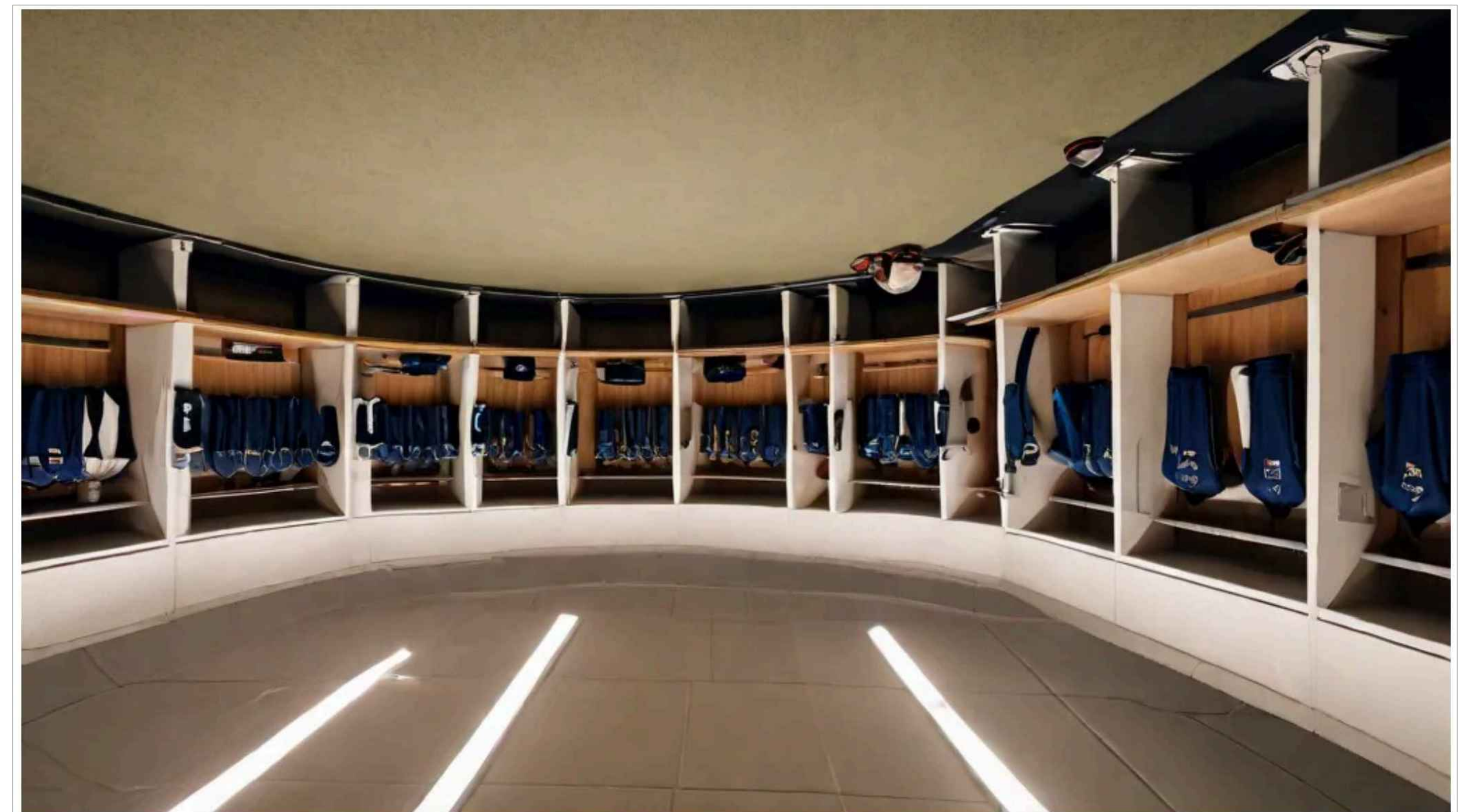
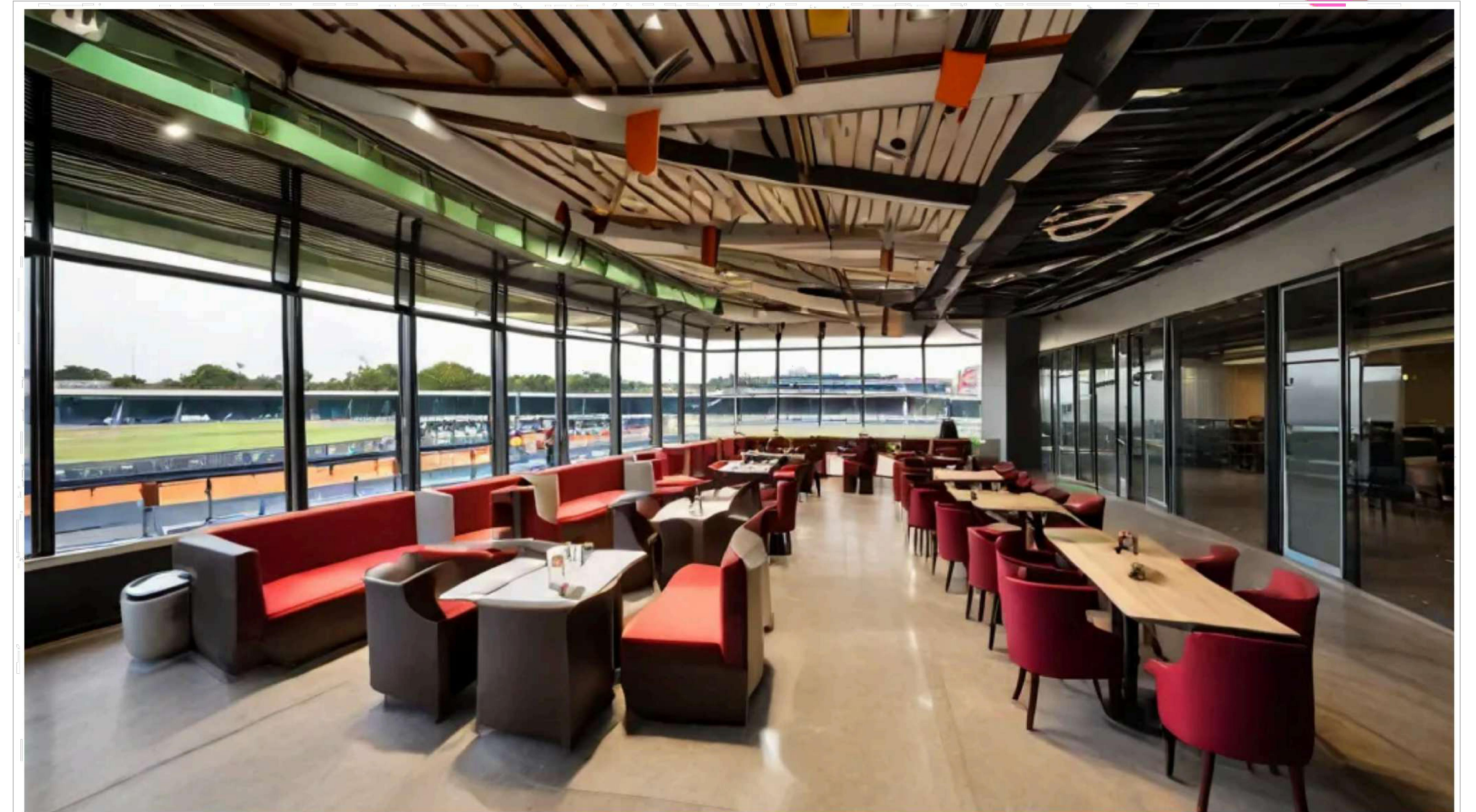


SECTION THROUGH SOUTH PAVILION



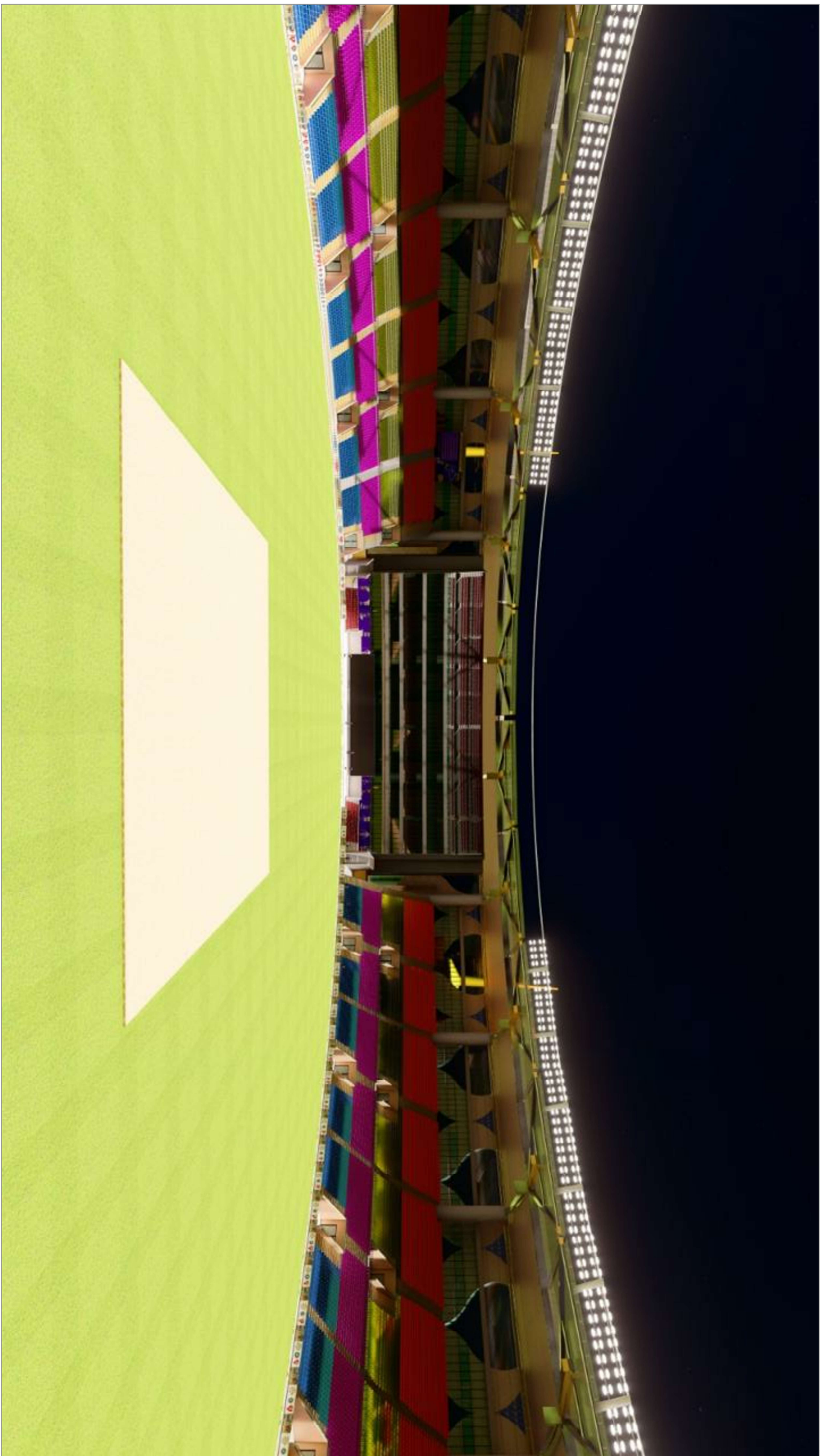
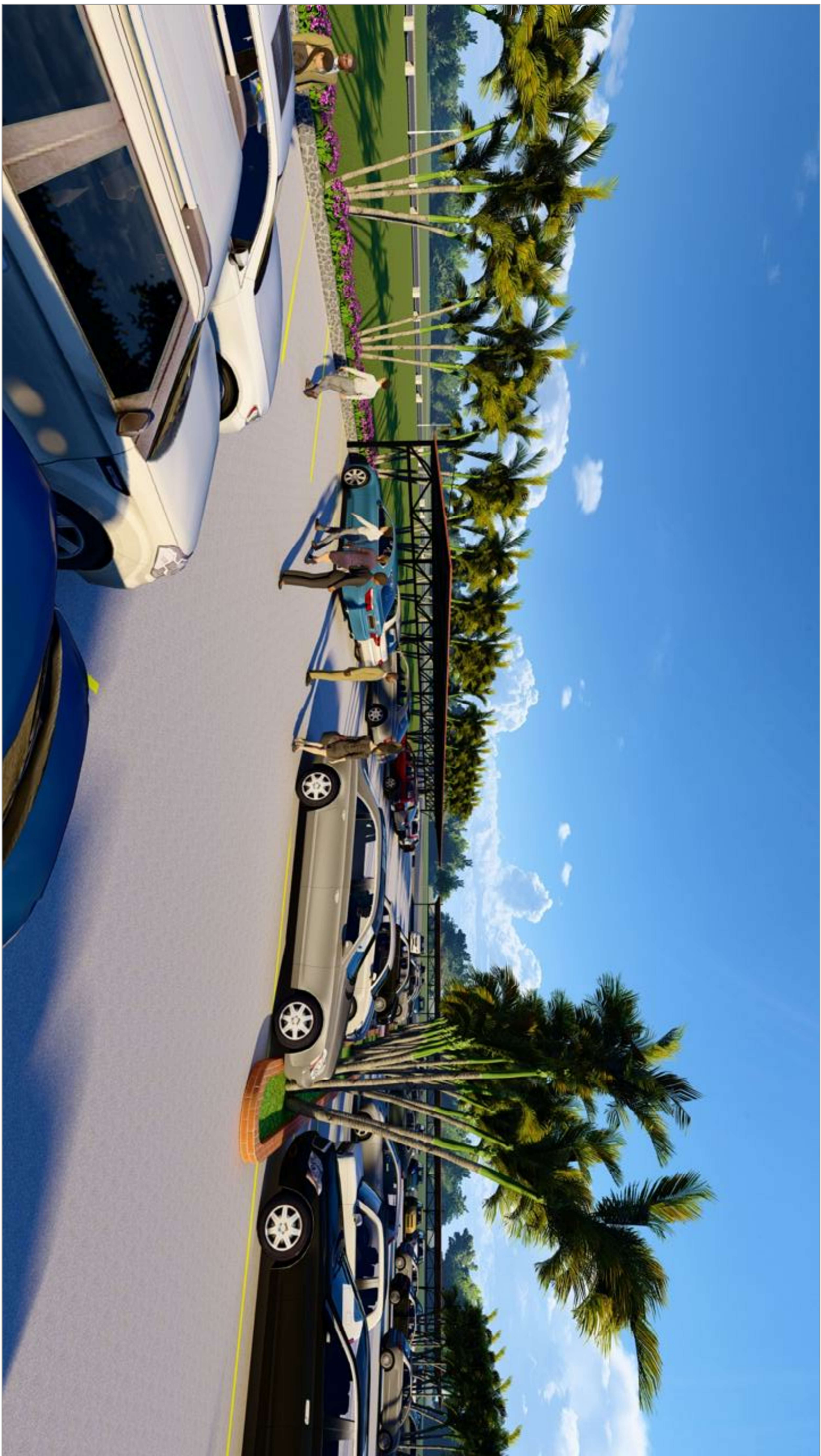
SECTION THROUGH SOUTH PAVILION -02

S P O R T S S T A D I U M

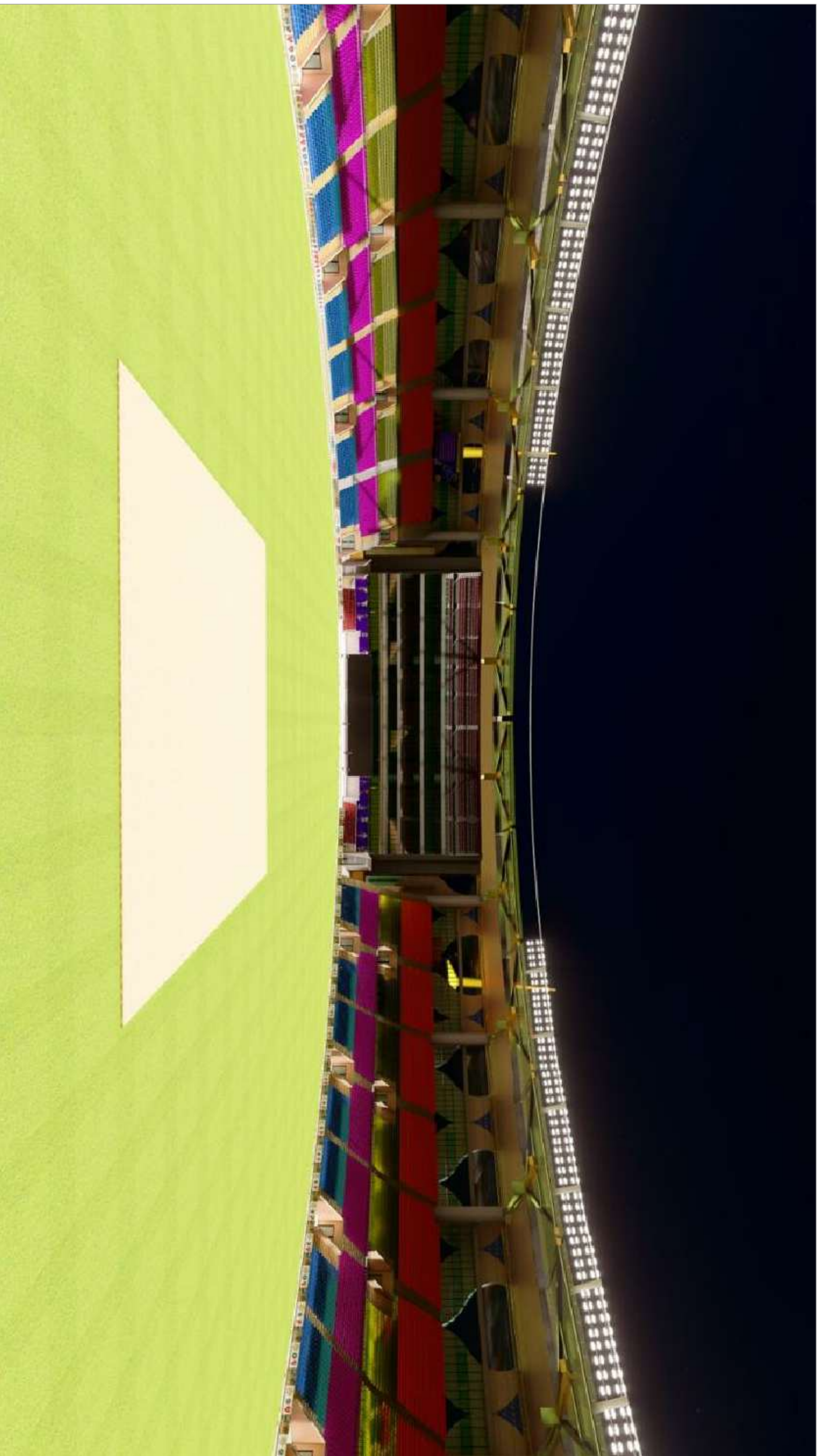
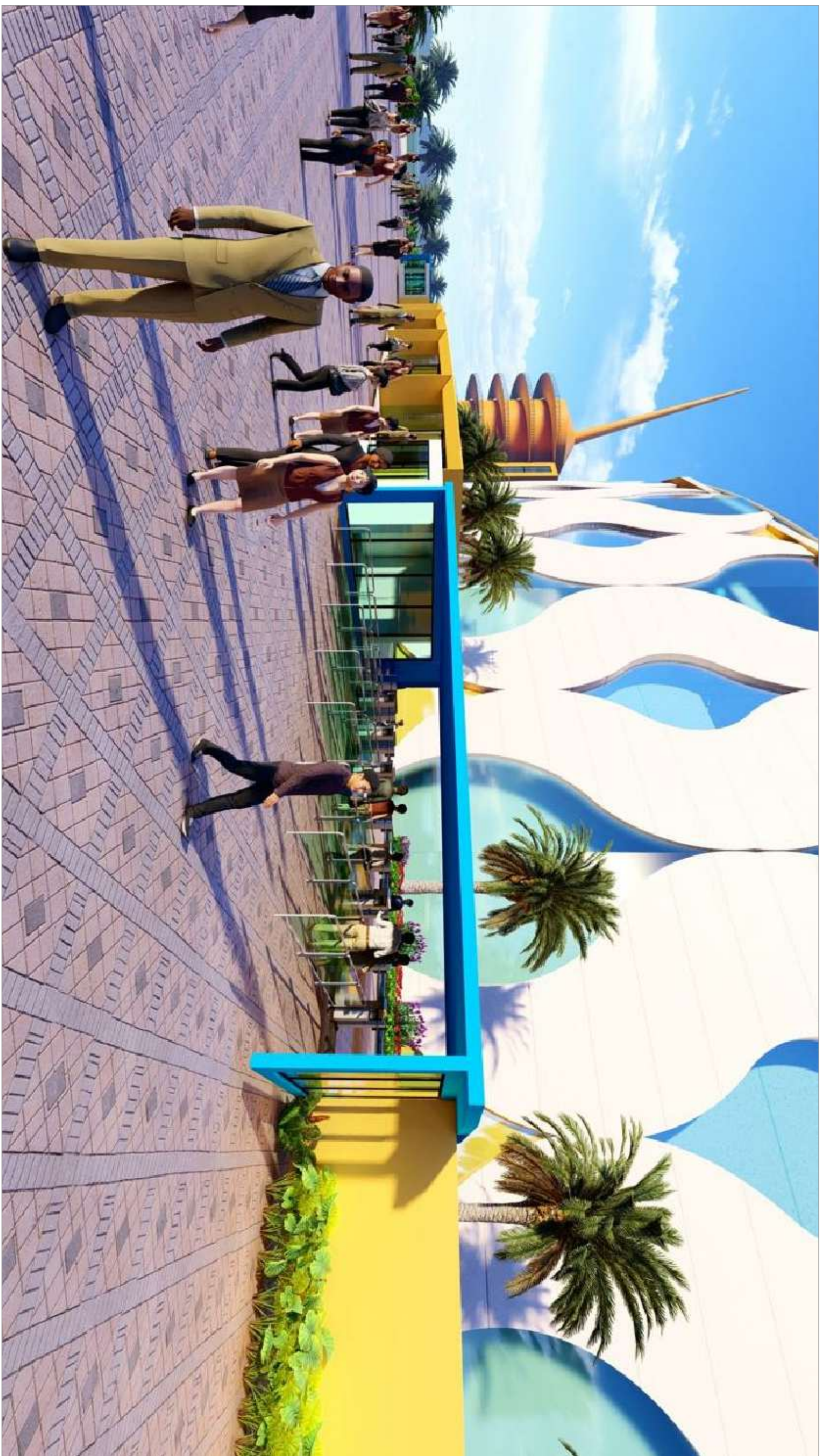


INTERIOR DESIGN

HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)

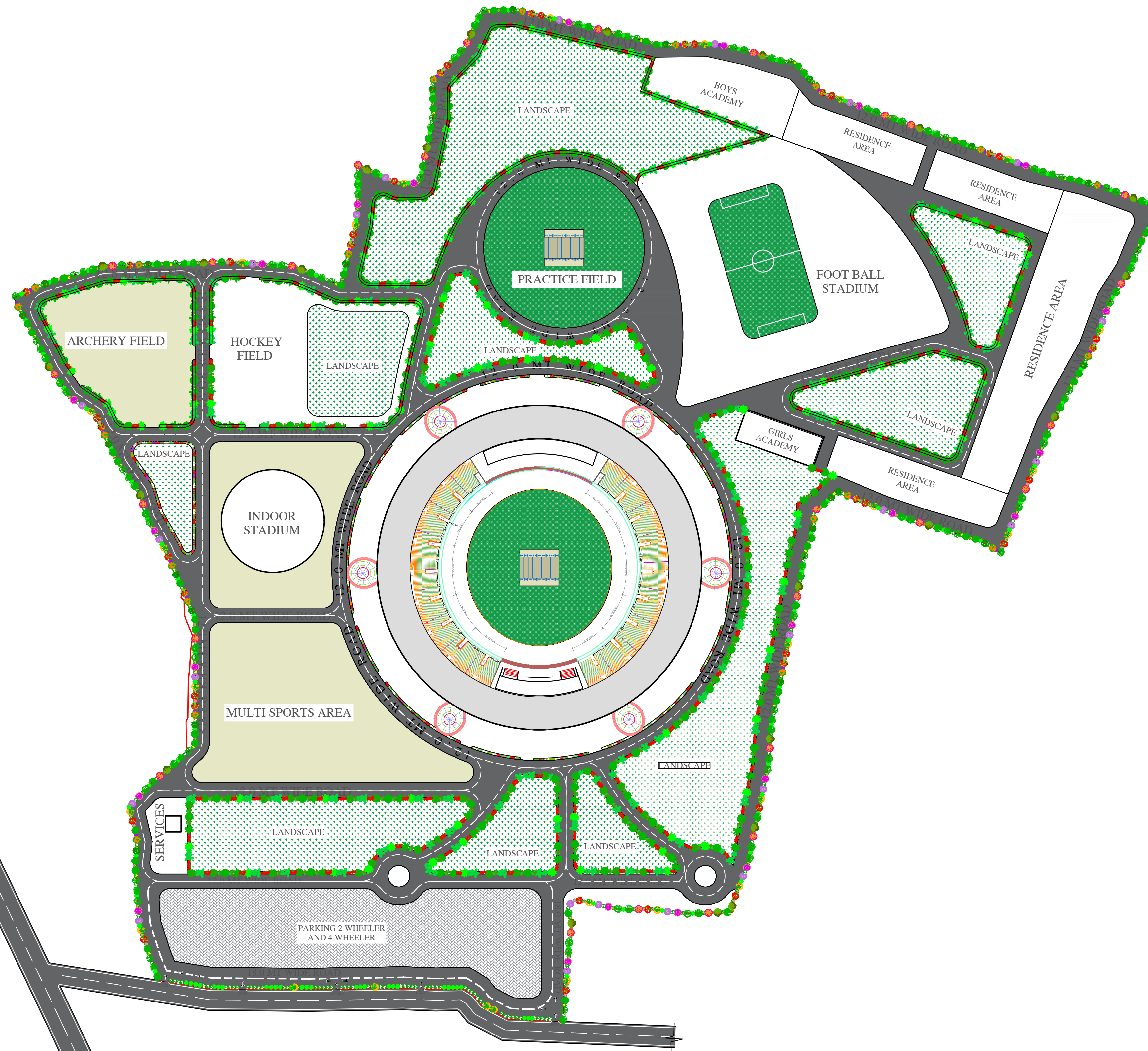


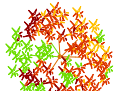
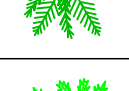
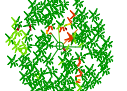
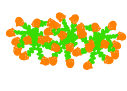
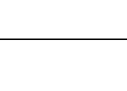
VIEWS



VIEWS

S P O R T S S T A D I U M



	ARJUN BINOMIAL NAME- TERMINALIA ARJUNA HEIGHT - 18- 24 MT.		MUSSAENDA BINOMIAL NAME- MUSSAENDA ERYTHROPHYLLA CENTER / CENTER 4 MT. DISTANCE		JUNIPERUS BINOMIAL NAME - JUNIPERUS COMMUNIS
	PALASH BINOMIAL NAME- BUTEA MONOSPERMA HEIGHT - 10- 15 MT.		IXORA BINOMIAL NAME- IXORA CENTER / CENTER 4 MT. DISTANCE		ARAUCARIA BINOMIAL NAME - ARAUCARIA
	SITA ASHOK BINOMIAL NAME- SARACA ASOCA HEIGHT - 7- 10 MT.		FURCRAEA BINOMIAL NAME- FURCRAEA CUBENSIS CENTER / CENTER 4 MT. DISTANCE		FOXTAIL PALM BINOMIAL NAME - WODYETIA BIFURCATA
	ASHOK PENDULA BINOMIAL NAME- MONOON LONGIFOLIUM HEIGHT - 15- 20 MT.		DESI ROSE BINOMIAL NAME- ROSA MOSCHATA		WASHINGTONIA PALM BINOMIAL NAME - WASHINGTONIA
	ALOSTONIA BINOMIAL NAME- ALSTONIA SCHOLARIS HEIGHT - 25-30 MT.		HYBRID TEA ROSE YELLOW BINOMIAL NAME- ROSA OREGOLD		CYPRESS BINOMIAL NAME - CUPRESSUS
	KADAMBA BINOMIAL NAME- NEOLAMARCKIA CADAMBA HEIGHT - 35-45 MT.		MINIATURE ROSE BINOMIAL NAME- ROSA CHINENSIS MINIMA		CYCAS BINOMIAL NAME - CYCALES
	MAULSARI BINOMIAL NAME- MIMUSOPS ELENGI HEIGHT - 10- 16 MT.		RED ROSE BINOMIAL NAME- ROSA RUBIGINOSA		FUCHSIA BINOMIAL NAME - FUCHSIA MAGELLANICA
	NEEM BINOMIAL NAME AZADIRACHTA INDICA HEIGHT - 15- 20 MT.		PURPLE BOURBON ROSES BINOMIAL NAME- ROSA FLORIBUNDA 'PURPLE HEART'		PHOENIX PALM BINOMIAL NAME - PHOENIX CANARIENSIS
	PAKAR BINOMIAL NAME- FICUS VIRENS HEIGHT - 20- 30 MT.		KASHMIRI ROSE PINK BINOMIAL NAME- PHYLLSTACHYS AUREA		
	TABOBUJA ROSEA BINOMIAL NAME- TABEUBIA ROSEA HEIGHT - 20- 30 MT.		POINSETTIA BINOMIAL NAME- EUPHORBIA PULCHERRIMA		
	FICUS BENJAMIN BINOMIAL NAME- FICUS BENJAMINA HEIGHT - 20- 30 MT.		CHRYSANTHEMUM BINOMIAL NAME- CHRYSANTHEMUM INDICUM		SADABAHAR BINOMIAL NAME - CATHARANTHUS ROSEUS
	PARIJAT BINOMIAL NAME- NYCTANTHES ARBOR-TRISTIS HEIGHT - 8- 10 MT.		BELA BINOMIAL NAME- JASMINUM SAMBAC CENTER / CENTER 3 MT. DISTANCE		SUPARI BINOMIAL NAME - ARECA CATECHU CENTER / CENTER 5MT. DISTANCE
	LAREGSTONIA BINOMIAL NAME- LAGERSTROEMIA SPECIOSA HEIGHT - 10- 15 MT.		CHAMPA BINOMIAL NAME- MAGNOLIA CHAMPACA CENTER / CENTER 3 MT. DISTANCE		BLACK PEPPER BINOMIAL NAME - PIPER NIGRUM CENTER / CENTER 3 MT. DISTANCE
	JACARANDA BINOMIAL NAME- JACARANDA MIMOSIFOLIA HEIGHT - 20- 30 MT.		KAMINI BINOMIAL NAME- MURRAYA PANICULATA CENTER / CENTER 3 MT. DISTANCE		HALDI BINOMIAL NAME - CURCUMA LONGA CENTER / CENTER 3 MT. DISTANCE
	AMALTAS BINOMIAL NAME- CASSIA FISTULA HEIGHT - 10- 20 MT.		RAAT KI RANI BINOMIAL NAME- CESTRUM NOCTURNUM CENTER / CENTER 3 MT. DISTANCE		ALOE VERA BINOMIAL NAME - ALOE VERA
	GULMOHAR BINOMIAL NAME- DELONIX REGIA HEIGHT - 10- 12 MT.		ALTERNANTHERA BINOMIAL NAME- ALTERNANTHERA SESSILIS		
			GOLDEN DURANTA BINOMIAL NAME- DURANTA ERECTA		
			WEDELIA BINOMIAL NAME- SPHAGNETICOLA TRILOBATA		

LANDSCAPE DRAWING

HRISHIKESH SHUKLA
1190101015 (B-ARCH 5TH YEAR)