

AUDITORIUM, ETAWAH, UP

A Thesis Submitted
in Partial Fulfillment for the Requirements
for the Degree of

BACHELOR OF INTERIOR DESIGN

BY

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ROLL.NO - 1180107013

Under the guidance of

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to the

SCHOOL OF ARCHITECTURE



BBD UNIVERSITY

BABU BANARASI DAS UNIVERSITY,

LUCKNOW

2021-2022

BABU BANARASI DAS UNIVERSITY

B. Arch Thesis 2020-2021.

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Remarks: Satisfactory / not Satisfactory (in case of not Satisfactory

Give comments):

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Sign of Thesis Guide

_____ **Sign of External Examiner 1**

_____ **Thesis coordinator**

_____ **Sign of External Examiner 2**

_____ **Sign of Head of Department**

_____ **Sign of Dean of School**

ACKNOWLEDGMENT

“In the name of god Who is most beneficial and merciful.”

Time demands that I express my gratitude to those who have been a part of my stay in B.B.D.U. It’s been great, all these years, but life moves on...and so do we...

I express my deepest gratitude to my thesis guide PROF. MOHIT KUMAR AGARWAL
AND AR. SHALINI DIWAKAR,

for his valuable dispassionate guidance, critical discussions, suggestions and continuous support all through my BID Thesis.

I express my gratitude to DEAN, AR. MOHIT KR AGARWAL, Department of Architecture, B.B.D.U. Lucknow, for being there to listen to and solve our problems.

I am grateful to our thesis Coordinator AR. SAURABH SAXENA and AR. ABHINAV KHARE, for providing his useful comments at the various stage submissions.

Thank You’ was not the exact phrase on my mind when I wrote this, it was something much deeper, but I am unable to find words for it.

My all teachers, your support, encouragement and guidance have given us the strength to embark on this rigorous journey.

CONTENT

- INTRODUCTION OF THE PROJECT
- SITE ANALYSIS
- LITERATURE STUDY
- CASE STUDY
- CONCEPT
- PROJECT BRIEF
- DRAWING
- ELECTIVES
- SWOT ANALYSIS
- CONCLUSION

INTRODUCTION

AUDITORIUM

- The Auditorium Theatre Is A National Historic Landmark Known Internationally For Its Perfect Acoustics, Innovative Architecture, And Stunning Design.
- The Auditorium. An Auditorium Is A Room Built To Enable An Audience To Hear And Watch Performances.

HISTORY AND BACKGROUD

- The Idea For The Auditorium Theatre Began With A Chicago Businessman Named Ferdinand Wythe Peck.
- The Famous Architectural Firm Of Adler And Sullivan Designed The Theatre, Which Officially Opened In 1889, Using The Most Modern Technology At The Time, Including Electric Lighting And Air Conditioning.

NEED AND SCOPE

- Education Facilities
- The Auditorium Is A Central And Important Space In Any High School Lucky Enough To Have One. The Auditorium Will Provide Many Students Their First Introduction To Performing Arts, Both As Audiences And As Performers.
- The Major *Scope* Of The Project Is To Study And Design Natya Academy And Cutral Complex.
- This Project Will Work As Center Of Excellence In Creative Arts And Or Impart Training To Young Talent.
- Provision For Outside Public The *Scope* Of The Project Is Also To Make People Aware Of Their Culture As They Being Stuck In The Fast Teck Life And Also, Introduce Them To The Ancient Indian Dance Which Were Performed In Temples.

OBJECTIVES

- Main Objective Of This Project Is To Connect People With My Interior Theme.
- To Study The Conceptual Patterns Of Erosion.
- To Identify And Study The Various Types Of Spaces Used In An Auditorium.,Studying Their Shapes, Viewing Surfaces And Construction Materials
- To Understand The Accostic Relation.

AIM

- My Aim To Learn Acoustic System, Lighting System Of Auditorium.
- To Provide A Hoistic Environment For Learning & Perforiming The Art.
- Low Ambient Noise
- We Help In Making You Get The Best Of The Sound Clarity So That You Are Able To Get The Perfect Sound System.
- Absorption Treatment Is Fully Integrated Such That The Transmission Can Be Done In The Well-Balanced Manner With Evenly Distribution.
- Echo Control
- Ecotone Systems Provide Various Acoustical Products For Wall And Ceiling For Echo Control In Auditorium, The Acoustical Products Are – Auditorium Acoustic Treatment, Acoustical Wall Cladding, Wooden Acoustic Panel, Acoustic Fabric Panel, Acoustic Wall Panel, Ceiling Acoustic Panel Etc.

LIMITATIONS

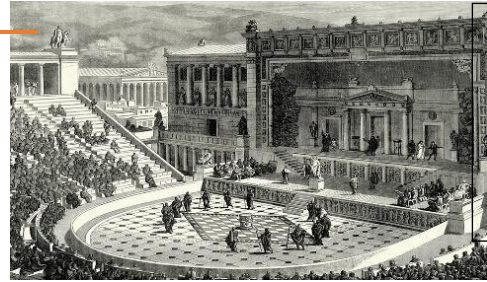
- Limited Flooring Material To Be Used As The Risk Of Injuries Is More In Dancing Area.
- Limitations Of This Project Is That The Main Focus Will Be Highlighting On The Conceptual Design And Circulation Space, Detailing Will Not Be Focussed In General , Second Structural Drawing Will Not Be Focussed.

EVOLUTION OF ARCHITECTURE OF THEATRE/ AUDITORIUM

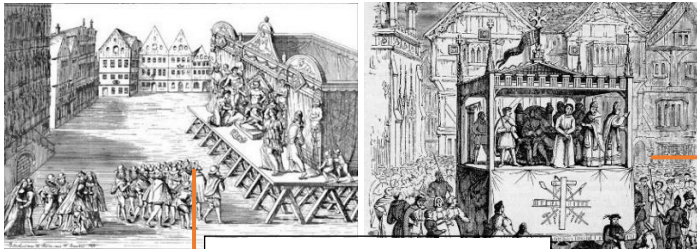
- The Idea For The Auditorium Theatre Began With A Chicago Businessman Named Ferdinand Wythe Peck. He Was Dedicated To Improving The City Of Chicago, And After The Haymarket Square Riot In 1886, He Began Plans For A Structure He Called The Auditorium Building.
- Over The Years This Expression Has Become More Nuanced And Diverged Into A Multitude Of Forms – From Classical Expressions To Modern Art To Avant-Garde.



Starting In Ancient Greece, Theatres Originated First As Temporary Installations, And Later Were Accommodated On The Sloping Sides Of Hills To Enhance The View Of The Performing Space, And Also Remove The Need For Creating A Substructure.



Ancient Greek Theatre Of Dionysus , Athens



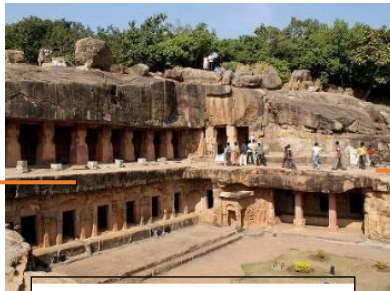
Medieval Theatres In Europe



Roman Theatre In Merida, Spain



Noh Theatre In Asia



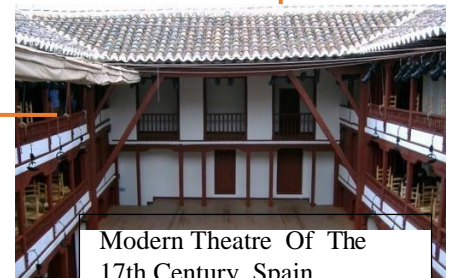
Udaygiri Caves In India



Teatro Olimpico



The Comédie-Française Theatre



Modern Theatre Of The 17th Century, Spain

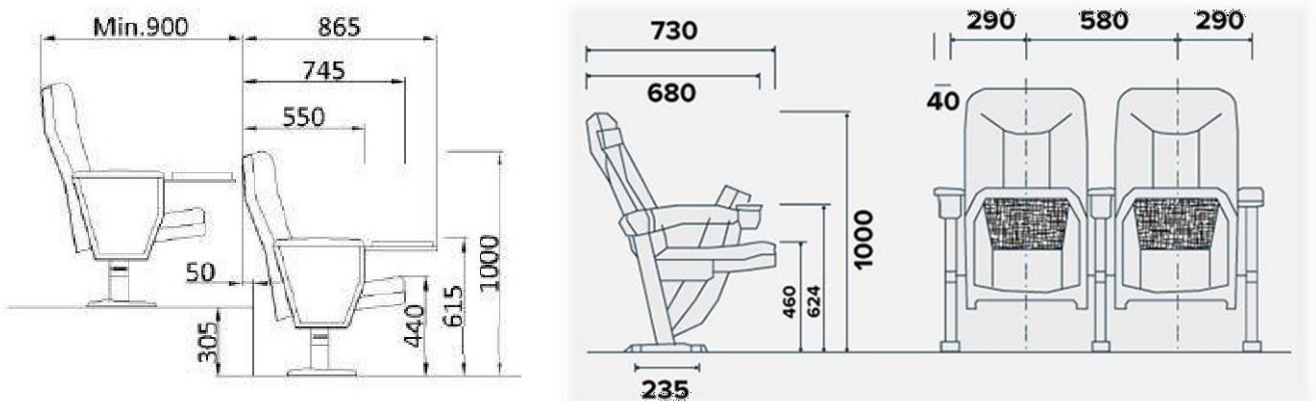
By The End Of The Modernist Period, Theatres Had All The Elements Of Greek, [Roman](#), Oriental, And Medieval Typologies. Elements And Characteristics Were Refined And Enhanced, And With The Advent Of Newer Technologies, Designs Started Adapting To Greater Needs.

TERMS USED IN AUDITORIUM

- **PROSCENIUM:** A proscenium is the area of a theatre surrounding the stage opening. A proscenium arch is the arch over this area. A proscenium plane divides the performer and spectators.
- **HOUSE:** It is the main seating area.
- **GANGWAYS:** A passage between two rows of seats. The minimum gangway should be 1100 mm.
- **AISLE:** The walkway between each area, row of seats to permit ease of passage. (≥ 45 mm)
- **DROP STAGE:** A stage floor that moves vertically on an elevator usually so that one set can quickly replace another.
- **TORMENTOR:** A curtain or framed structure used directly behind the proscenium at each side of the stage to screen the wings & sidelights from the audience. **APRON:** The part of the stage floor in front of curtain line.
- **ORCHESTRA PIT:** The space reserved for musicians usually in front. **BALCONY:** A gallery that projects over the main floor of a theatre. **WING:** The platform adjacent to the stage for keeping props.
- **BOX OFFICE:** Where tickets are sold.
- **CYCLORAMA:** It is the exterior of the backdrop. It is basically a distinction between backstage & main stage.
- **FIRE CURTAIN:** A curtain or asbestos or other fire-proof material that can be lowered just inside the proscenium arch in case of fire.
- **GREEN ROOM:** The green room is the space in a theatre, studio or similar venue which functions as a waiting room and lounge for performers before and after a performance, and during the show when they are not engaged on stage.

STANDARDS WITH RESPECT TO FURNITURE LAYOUT

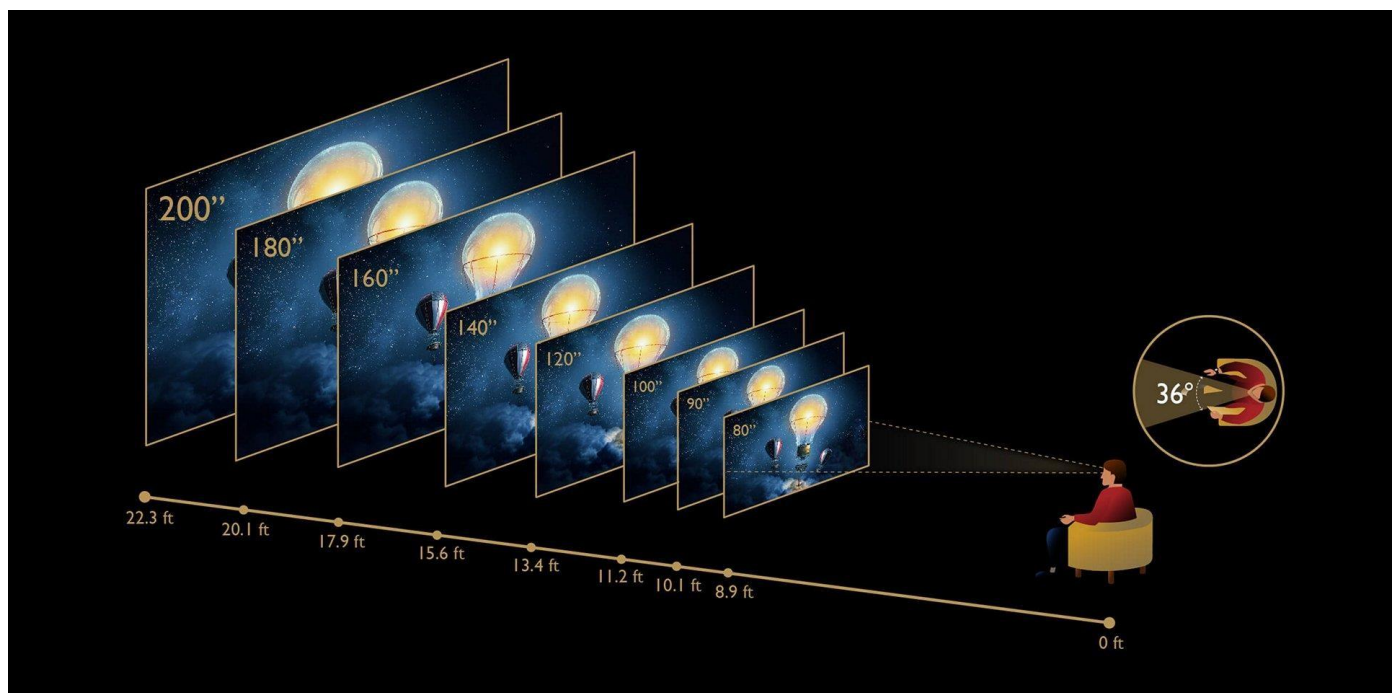
- 0.5 M.Sq Per Spectator For Seating Spectators.
- 1 Metre Space Behind Projector And At Operating Siet.
- 2.80 M High Ventilation , Noise Insulation To The Auditorium
- Film Width = 16mm / 35mm / 70mm
- Distance Frm Screen To Wall In Case Of Thx Is 120 Cm And According To Size It Is 50 Cm.



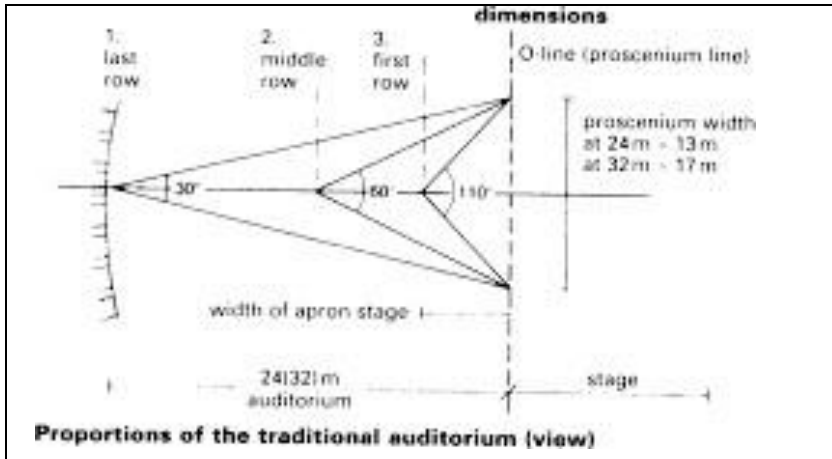
SEAT-TO-SCREEN DISTANCE FOR DIFFERENT PROJECTOR SCREEN SIZES

The Best Viewing Distance Has Less To Do With Resolution, And More To Do With How Much Your Eyes Can Take In Comfortably Without Moving Your Head. The Audio/Visual Company Thx Recommends The Ideal Viewing Angle Of 36 Degrees To Avoid Doing So. As A Result, With A Fixed Angle Such As This, The Bigger The Screen Size, The Farther You Should Be Seated.

Below Is A Chart That You Can Use For Reference

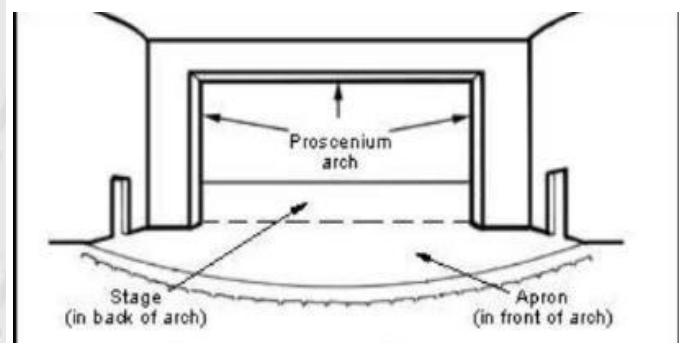
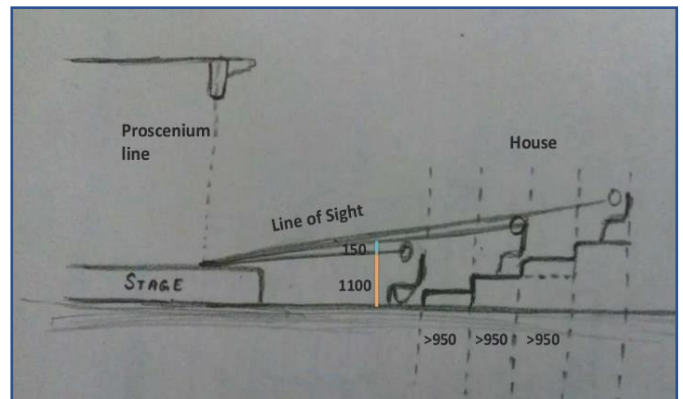
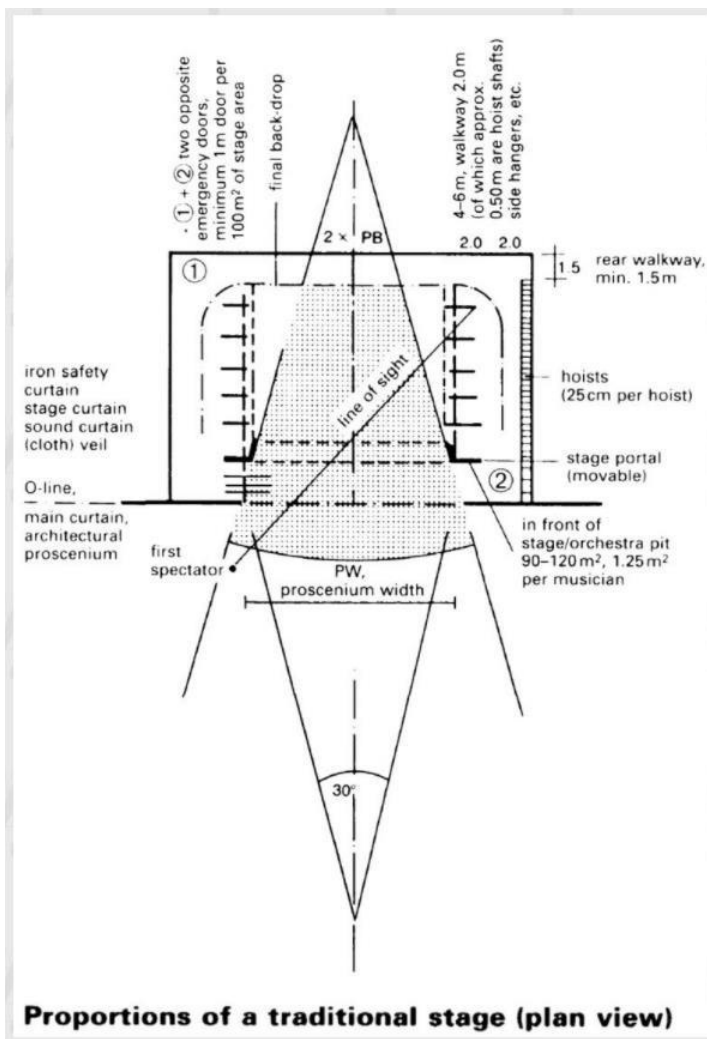


Screen Size(Measured Diagonally)	Seat-to-Screen Distance
80 inches	8.9 ft (273 cm)
90 inches	10.1 ft (307 cm)
100 inches	11.2 ft (341 cm)
120 inches	13.4 ft (409 cm)
140 inches	15.6 ft (477 cm)
160 inches	17.9 ft (545 cm)
180 inches	20.1 ft (613 cm)
200 inches	22.3 ft (681 cm)



These Are Obtained From The Spector's Psychological Perception And Viewing Angle, As Well As The Requirements For A Good View From All Seats. Head Movement Should According To Following:

30 Deg.- No Movement
60 Deg.- Slight Movement
110 Deg.- Slight Eye & Slight Shoulder Movement
360 Deg.- Full Movement



ACOUSTICAL REQUIREMENTS AND STANDARDS

ACOUSTICS

A Branch Of Science Dealing With Sound. Sound Also Called Acoustics Is A Form Of Energy That Can Be Transmitted From One Place To Another.

If The Mixture Of Sounds Creates An Unpleasant Impression, It Becomes Hard To Distinguish Individual Sounds With A Short Reverberation Time; Such A Type Of Sound Is Considered Noise. To Control These Unpleasant/Chaotic Sounds, We Must Understand The Importance Of Acoustics.

IMPORTANCE OF ACOUSTICS

The Techniques/Methods We Use To Absorb Undesirable Sounds By Using Soft-Porous Surfaces Is Called Acoustic Protection.

For Example, You Are Working In The Steel Industry, And Machines Are Producing Large Noises. To Reduce This Noise, What You Can Do Is, Insert Any Soft Material Into The Valves Of The Machine, Then The Noise From That Machine Minimizes. It's Because The Smooth And Plain Surfaces Produce Large Noise And Soft-Porous Materials Avoid The Echoing Of The Sound Because Of Which The Sound-Level Reduces. That's Why Porous Materials Are Used In Noise Control Industries.

OUTLINES OF AUDITORIUM ACOUSTICS REQUIREMENTS AND MATRICES OF MEASURING SOUND QUALITY

Its Important To Understand Proper Acoustics Terms, Otherwise The Purpose Of Space Might Can Be Lost.

OUTLINES OF ACOUSTIC REQUIREMENTS

- Adequate Loudness- Reaching Remote Seats
- Diffused Sound Level- Uniformly Distributed Energy
- Optimum Reverberation- Liveliness
- Free From Defects- Shapes And Size
- Isolation From Noise And Vibration- Inside And Outside
- Large Volume- Medium To Large Auditori

Hall Volume Influences Both The Reverberation And Room Gain.

- ENERGY LOSSES- Travelling Sound Waves, Audience Absorption.

MEASURING OF SOUND QUALITY

LOUDNESS- Strenght Factor (G), Measured In Decible

Loudness Can Affect The Perception Of Other Acoustic Quailities.

At Low Capacity A High Volume Per Seat –Necessary To Control Exessive Loudness.

At High Capacity A Low Volume Per Seat –Helps Preserve Acoustic Energy

Room Gain Is Computed From The Ratio Of Reverberation Time To The Room Volume, Both Easily Measured Quantities. To Start If Room Gain And Rt Is Known, Volume Can Be Obtained From Baranek Computational Chart.

ROOM GAIN= THE MEASURMENT SOUND PRESSURE LEVEL(SPL) OF THE SOURCE AT THE POSITION IN THE EMPTY HALL – SPL OF THE SAME SOURCE IN A FREE FIELD MEASURED 10m AWAY

SPATIAL IMPRESSION - When Total Reflected Energy From The Lateral Reflection Is > The Total Energy From Overhead Reflection , The Hall Is Said To Achieve A Desirable Spatial Impression.

INTIMACY- It Refers To The Feeling Of Being Close To The Source Of Soun Or Music. Can Be Achived Better In Small Halls.

Can Be Measured By The Initial Time Decay Gap (It dg) Between Source And First Reflection.

Earlier The Better., So Small Space Are More Intimate.

Middle Of Hall Volme Of It dg Is Idealy 12 To 25 M.Sec.

EARLY DECAY TIME (REVERBERATIO TIME)- DECAY OF SOURCE SOUND INITIALLY BY 10db OF SOUND IS EARLY DECAY TIME .

REVERBERATION TIME- Reverberation Time (Rt) Is **The Time Required For The Sound In A Room To Decay Over A Specific Dynamic Range, Usually Taken To Be 60 Db, When A Source Is Suddenly Interrupted.**

SABINE FORMULA FOR REVERBERATION TIME

Sabine's Reverberation Equation Was Developed In The Late 1890s In An Empirical Fashion. He Established A Relationship Between The Rt_{60} Of A Room, Its Volume, And Its Total Absorption (In Sabins). This Is Given By The Equation:

Sabine Equation

$$T_{RT60} = \frac{0.161V_m}{S \bar{a}} = \frac{0.049 V_f}{S \bar{a}}$$

T_{RT60} = RT 60 Reverberation Time, [seconds]

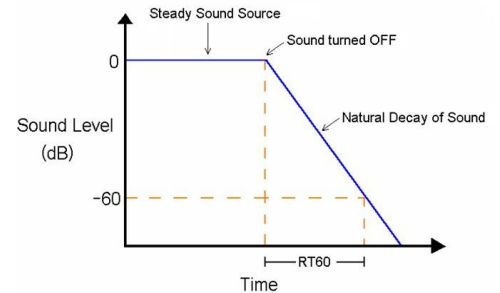
V_f = Volume of Room, [cu ft]

V_m = Volume of Room, [cu m]

S = Total Surface Area of Room, [sq ft] or [sq m]

\bar{a} = Average Absorption Coefficient of Room Surfaces

$S \bar{a}$ = Total Absorption, [Sabins]



Calculation Of Reverberation Time Allow Us To Understand The Amount Of Material To Add To The Space To Achieve Our Noise Reduction Goal.

SOUND ABSORPTION- Coefficient At Given Given Frequency.

Sum Of Surface Area Multiply By Absorption Area.

$$a = \square \square \square$$

\square = Sabin (Total Area Of Absorption)

S = Surface Area Of Material (FT.SQ)

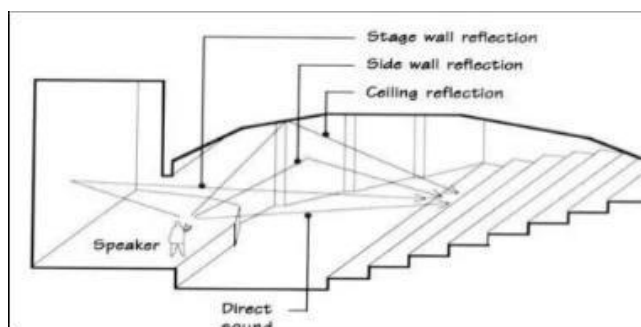
CLARITY- Refers To Hearing Avery Saperate Note , Greater Clarity Leads To Better Speech Intelligibility.

Clarity Is Produced When A Room Has Ratio Of Early Energy(Upto 80ms) To Later Reverberation Energy(Beyond 80ms.)

CLARITY DECAY OR C80 = log (EARLY SOUND ENERGY / LATE SOUND ENERGY) db

C80= Average Clarity At 3 Frequencies 500HZ, 1000HZ, 2000HZ

FOR BETTER CLARITY- Late Reflaction Are To Be Reduced , Suggested Absorbers At Back Side Wall.



AUDITORIUM LIGHTING



Meeting Mode



Performance Mode

- **MEETING MODE:**

High-Brightness Ultra-Quiet Meeting, No Strobe Light, No Glare.

- **PERFORMANCE MODE:**

Make The Stage Beautiful, The Interaction Of The Main And Auxiliary Lighting, Rendering The Atmosphere.

TYPES OF LIGHTING



MOVING HEAD LIGHT



PAR LIGHT



EFFECT LIGHT



FOLLOWLIGHT



WATER WAVE LIGHT



LASER LIGHT



STROBE LIGHT



FILM LIGHT

LED Step & Stair Lighting



STEP LIGHT

THERE ARE THREE MAIN COMPONENTS TO AUDITORIUM DESIGN PROJECTS:

1. THE MAIN SEATING AREA

- Seating Is Based On Approximately 18 S.F. Per Person.
- The Guideline Of 18 S.F. Per Person Allows For Aisle Ways, Sound And Light Control Areas, And Entries That Trap The Light When Late-Comers Arrive.
- View Angles Are Critical Components Of Seating Layouts; Every Seat Should Have A Great One.
- Acoustical Control Is A Science, And The Use Of 3d Computer Models Is Essential To Develop The Optimum “Sound Environment”.

2. THE STAGE

- The Stage Is Sized To Accommodate The Largest Group To Be Featured. How Big Is Your Biggest Band? Do You Anticipate A Band And Choir Performing Together? Allow For Your Largest Group In The Design Instead Of Being Sorry Later!
- Assume That The Typical Stage Is 30-35 Feet Deep With A Proscenium Opening Of 40-50 Feet Wide And Up To 30 Feet Tall. The Side Stage Should Be At Least Half The Size Of The Proscenium Opening On Each Side.
- Ideally, Access To The Stage Is Handicap Accessible. You Can Accomplish That With Side Aprons On The Same Level As The “Cross-Aisle.”
- Computer-Controlled Stage Rigging And Led Theatrical Lighting Have Become Standards In Most Performance Venues.

3. SUPPORT SPACES

- One Of The Most Important Support Areas Is The Set Construction Area. This Is A Combination Of Storage, As Well As Space To Build Sets.
- Don’t Forget The Dressing Rooms.
- Plan For A Ticket Booth, A “Green Room” That Can Double As Rehearsal And Instructional Space, And A General Storage Area.

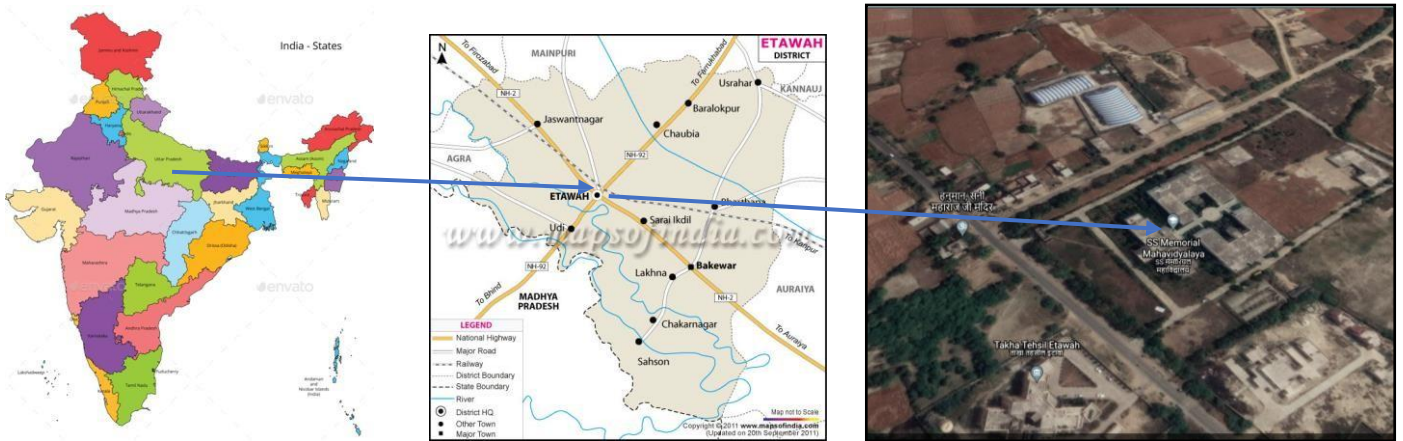
SITE ANALYSIS

PROPOSED AUDITORIUM AT S.S MEMORIAL MAHAVIDYALAYA AT SUTYANI MOD, NEAR TAKHA, DIST: ETAWAH

INTRODUCING ETAWAH CITY

- Etawah is a city on the banks of Yamuna River in the state of Western Uttar Pradesh in India.
- Etawah is 118 m above sea level and located at 26.80° N 79.10° E. Etawah has a population of 257448

Cotton, oilseeds, Potato and other agricultural produce are grown and exported.^[6] Special breed of goat [Jamunapaari](#) and special breed of buffalo [Bhadawari](#) are raised and exported.



LANDMARKS TO THE SITE

- Takha Tehsil Etawah
- Hanuman Sani Maharaj Ji Mandir

SITE SURROUNDING IMAGE

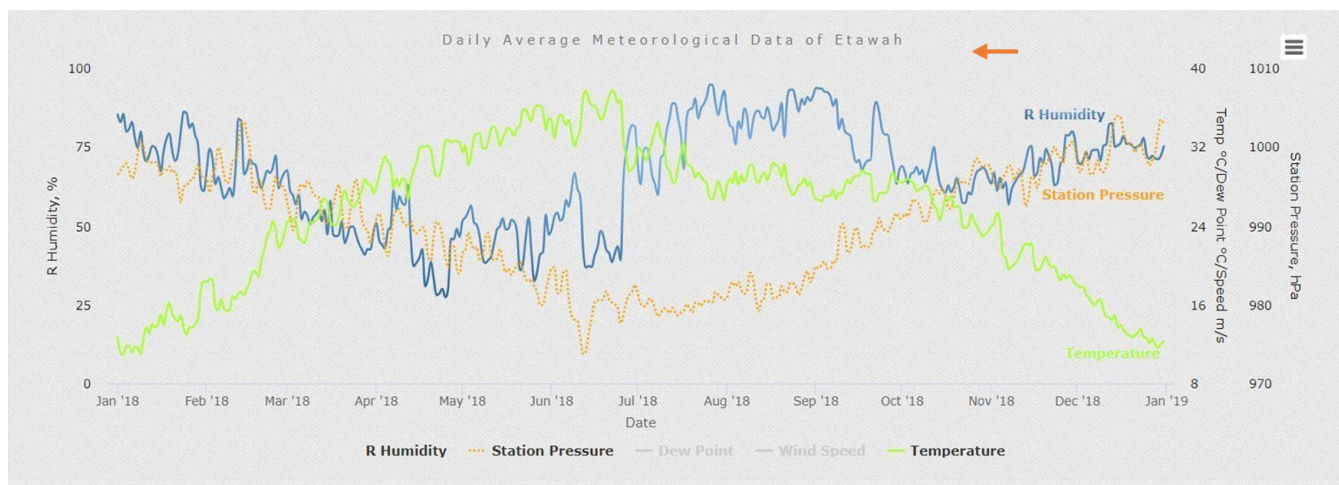


ACCESSIBILITY TO THE SIITE

- The Nearest Bus Stand To The Site Is : 36.6km
- The Nearest Railway Station To The Site:38 Km
- The Nearest Airpost: Chaudhari Charan Singh
- Airport, Lko: 194 Km

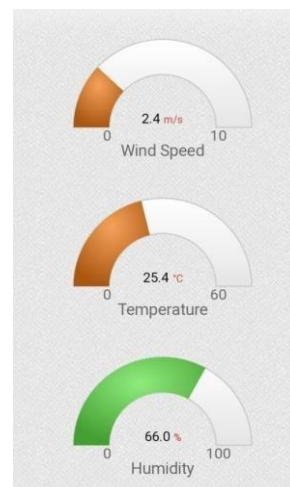
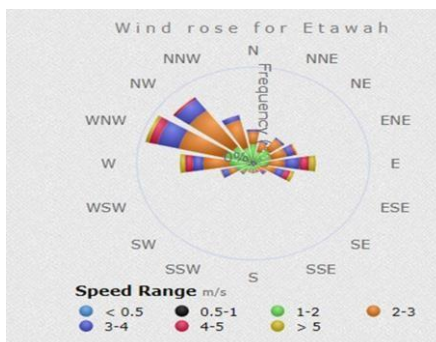
CLIMATE AND WEATHER AVERAGES IN ETAWAH:-

- CLIMATE: The climate of **ETAWAH** is particularly **humid in** the year
- The Average Temperature Of Etawah Is Around 25°C Although It Vary From Around 14°C During Winter (January) To 35°C During The Monsoon (June). The Hottest Month Of The Year Is June With Temperature Varies From 28.0°C To 42.2°C. The Coolest Month Is Of The Year Is January, With Temperature Varies From 5.6°C To 24.0°C.



The Graph Below Shows The Daily Variation Of Meteorological Parameters Over The Year In Etawah.

Quick Climate Info	
Hottest Month	May (35 °C avg)
Coldest Month	January (15 °C avg)
Wettest Month	August (166.5 mm avg)
Windiest Month	June (4 km/h avg)
Annual precip.	599.7 mm (per year)



The Annual Wind Rose Below Showing How Wind Speed And Direction Are Typically Distributed In Etawah

The Graph Below Shows The Average Values Of Various Meteorological Paramateres Over The Year In Etawah.

- **WIND SPEED:** The average wind speed in Etawah is 2.4 m/s with the maximum wind speed of around 9 m/s.
- **TEMPERATURE:** The average ambient temperature remains 25.4°C, varies from 5°C to 43.3°C.
- **HUMIDITY:** He average reletive humidity remains around 66%, varies from 14.8% to 98.9%.

ETAWAH, UP, INDIA LATITUTDE & LONGITUDE COORDINATION INFO:

The Latitude Of Etawah, Uttar Pradesh, India Is 26.811712, And The Longitude Is 79.004692. Etawah, Uttar Pradesh, India Is Located At India Country In The Cities Place Category With The Gps Coordinates Of 26° 48' 42.1632" N And 79° 0' 16.8912" E.



LITRATURE STUDY

1

HANCHER AUDITORIUM

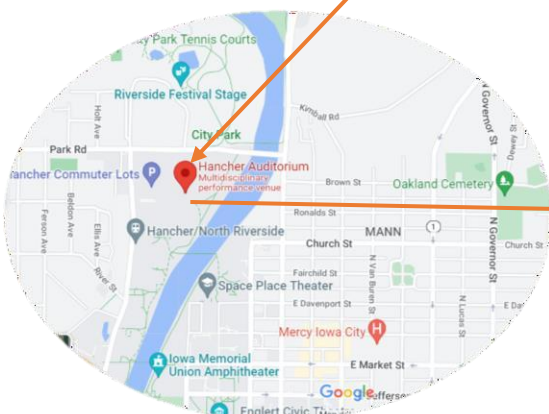
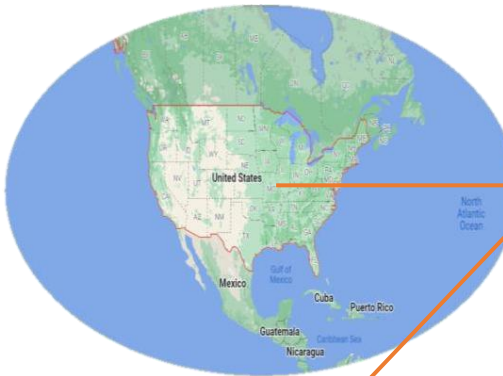
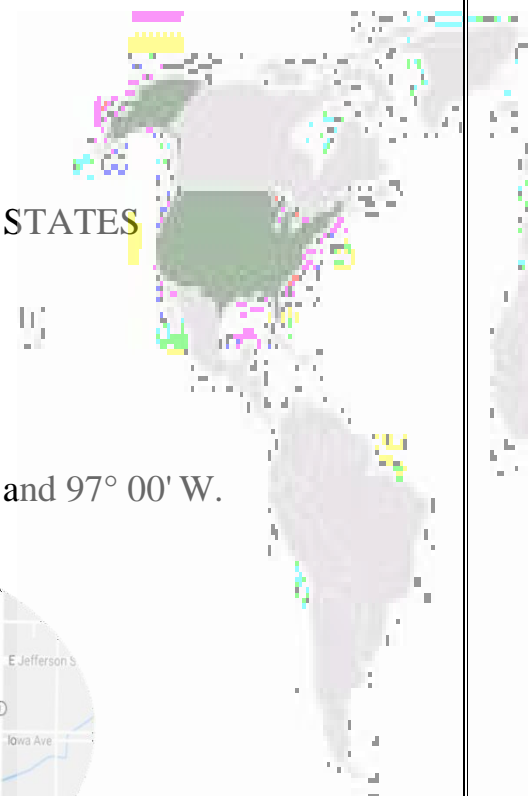
INTRODUCTION

- Since 1972, Hancher Auditorium Has Been A Landmark Presence In Iowa City, As The Largest Performance Space For The University Of Iowa School Of Music.
- The Design Responds To Its Site And Context On The Exterior, And To Its Program And Planning Adjacencies On The Interior. The Exterior Building Design Is Specifically Influenced By The Iowa River To Its East, Park Road And City Park To Its North, The Levitt Center To Its West, And The Arts Campus To Its South.
- The New Hancher Auditorium Opened In 2016, Serving The Same Broad Mix Of Uses In A More Intimate 1,800-Seat House.

SITE LOCATION DETAIL

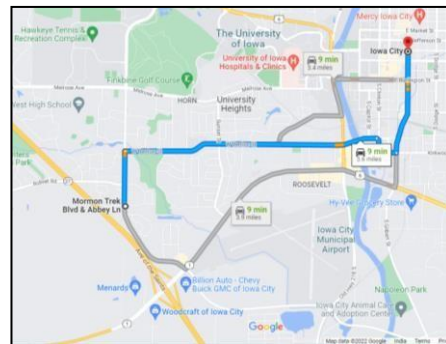
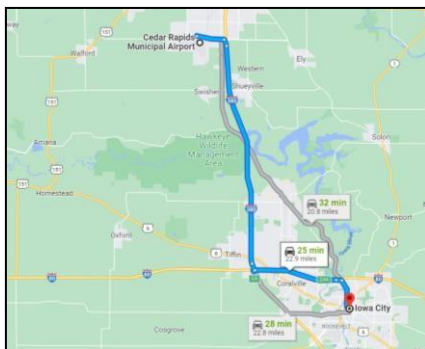
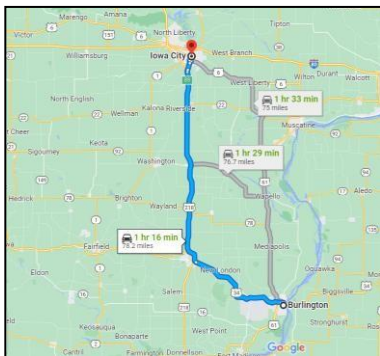
HANCHER AUDITORIUM / Pelli Clarke Pelli Architects

- LOCATION : 141PARK RD, IOWA CITY, UNITED STATES
- ARCHITECTS : Pelli Clarke Pelli Architects
- AREA : 190000 ft²
- YEAR : 2016
- LATITUDE AND LONGITUDE of USA is 38° 00' N and 97° 00' W.

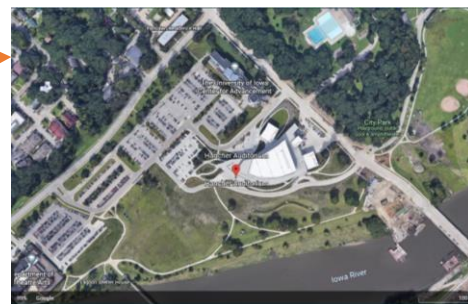
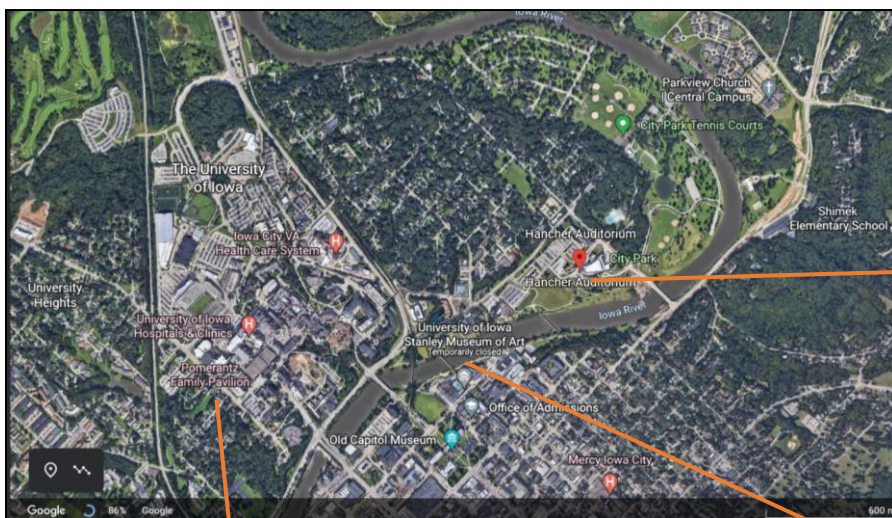


ASSESSIBILITY TO SITE

- NEAREST RAILWAY STATION - Burlington 120 KM.
- NEAREST AIRPORT- Cedar Rapids Airport 30KM.
- NEAREST BUS STAND- Mormon Trek 6KM.



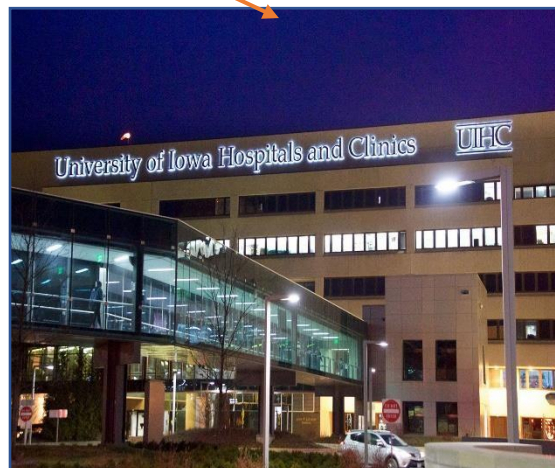
LANDMARKS



GOOGLE EARTH IMAGE OF THE LOCATION

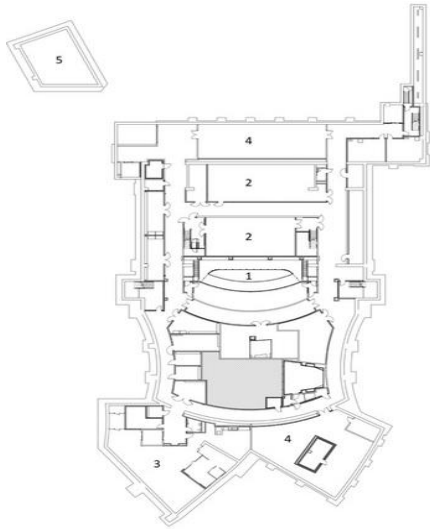


PAMERANTZ FAMILY PAVILION



UNIVERSITY OF IOWA

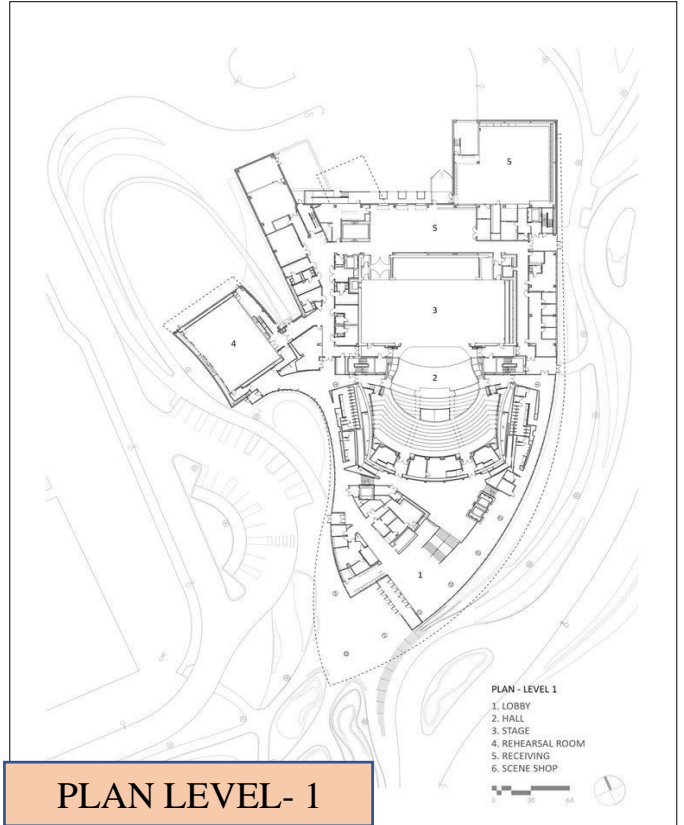
ZONING AND SITE PLAN



- PLAN - BASEMENT**
1. ORCHESTRA PIT
 2. STORAGE
 3. CATERING
 4. MECHANICAL
 5. TRANSFORMER VAULT



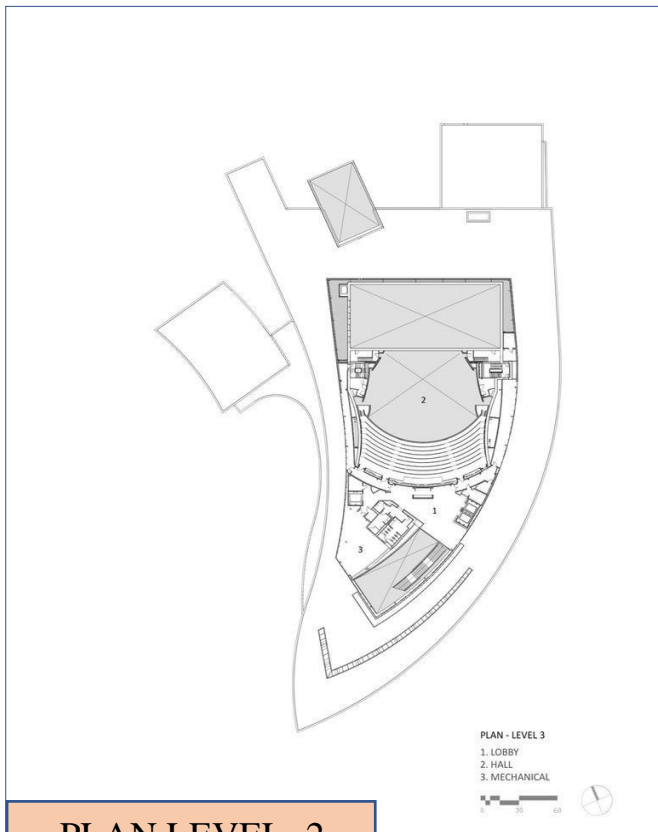
PLAN BASEMENT



- PLAN - LEVEL 1**
1. LOBBY
 2. HALL
 3. STAGE
 4. REHEARSAL ROOM
 5. RECEIVING
 6. SCENE SHOP



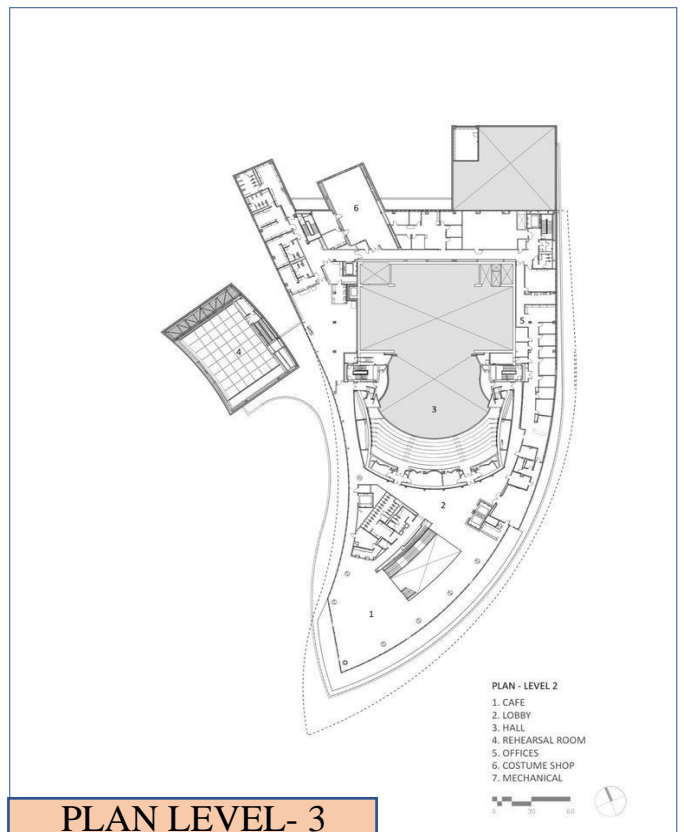
PLAN LEVEL- 1



- PLAN - LEVEL 3**
1. LOBBY
 2. HALL
 3. MECHANICAL



PLAN LEVEL- 2



- PLAN - LEVEL 2**
1. CAFE
 2. LOBBY
 3. HALL
 4. REHEARSAL ROOM
 5. OFFICES
 6. COSTUME SHOP
 7. MECHANICAL

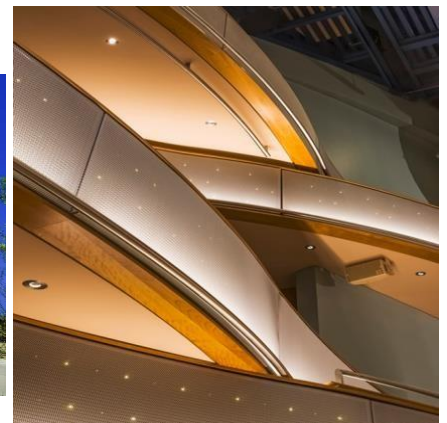


PLAN LEVEL- 3



Since 1972, Hancher Auditorium Has Been A Landmark Presence In Iowa City, As The Largest Performance Space For The University Of Iowa School Of Music And As The Premier Civic Performing Arts Center For Southeast Iowa. For Decades Hancher Presented A Varied And Ambitious Slate Of Artists, Including Major Orchestras And Broadway Tours, With Particular Strength In Dance. In 2008 A Major Flood Severely Damaged The Building, And Fema Determined That It Should Be Replaced With A New, Comparable Facility On Higher Ground.

The New HANCHER AUDITORIUM, Replacing The Flood-Damaged Facility, Serves As The Largest Performances Space For The Music, Theater, And Dance Programs At The University Of Iowa, While Also Providing The Community Of Iowa City With A First Class Venue For Touring Performances. This 1,800-Seat Multi-Purpose Hall Forms The Heart Of The Facility, While A Rehearsal Room, Expansive Lobby, Cafe, And A 200 Seat Flexible Performance Room.



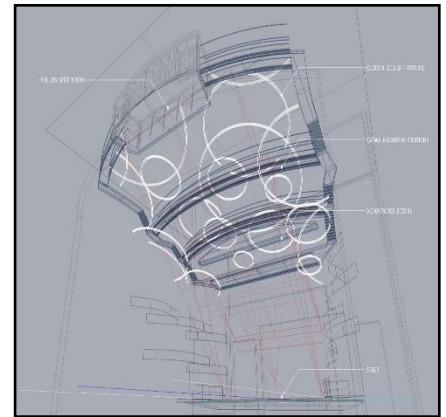
There Are Two Ada Accessible, Pubic Entrances At The South East And South-West Corners Of The Building. The Loading Dock And Loading Court Off Of Park Road Was Designed To Accommodate Large Turning Radii Required By Semi-Trucks. Three Berths/Truck-Docks Load Into The Scene Dock/Transfer Area, Which Is Directly Adjacent To The Main Stage. The Dressing Rooms, The Production Offices, Crew Rooms Are All Designed For Maximum Efficiency And Convenient Stage Relationships.



LOBBY



The Exterior Stainless Steel Panel System Was Custom Manufactured By Aws, Architectural Wall Systems, Of Iowa. This Rain Screen Panel System Is Made Of 18”X60” 2mm Thick Stainless Steel Panels. The Panels Utilize A Non-Directional Brushed Finish That Diffuses The Light And Reflection. They Are Installed In A Staggered Pattern And Are Non-Sequential, Allowing Individual Panels To Be Changed At Any Time. Architecturally, This Results In A Taught And Subtly Textured Skin That Sublimely Reflects The Ever-Changing Sky, Sunlight, And Landscape.

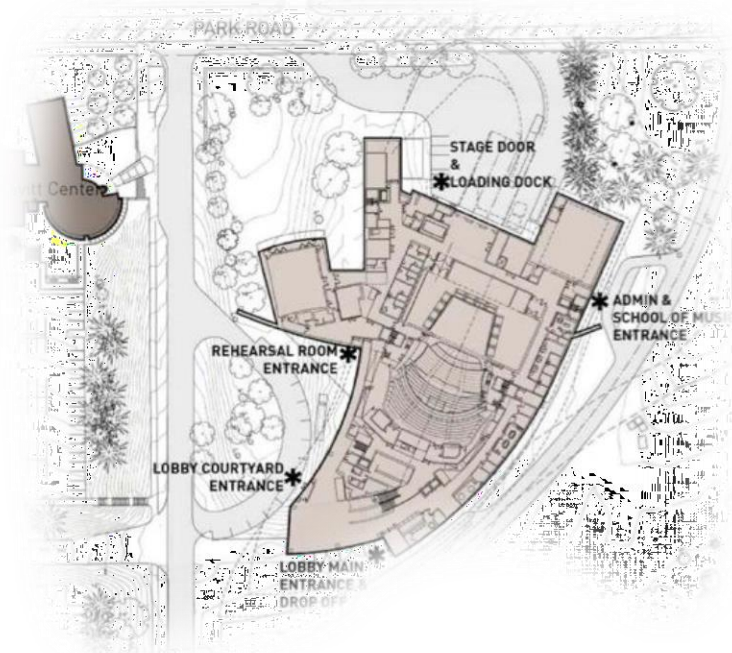
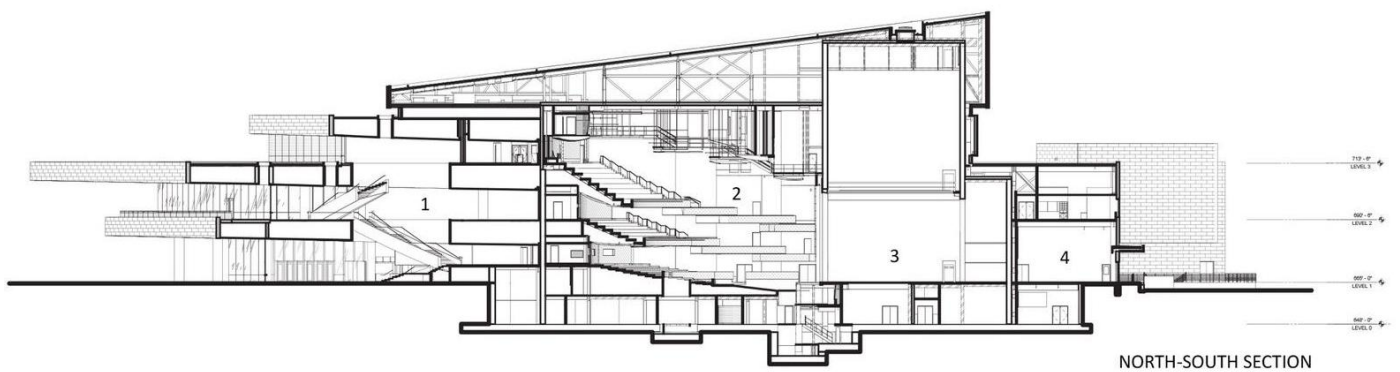
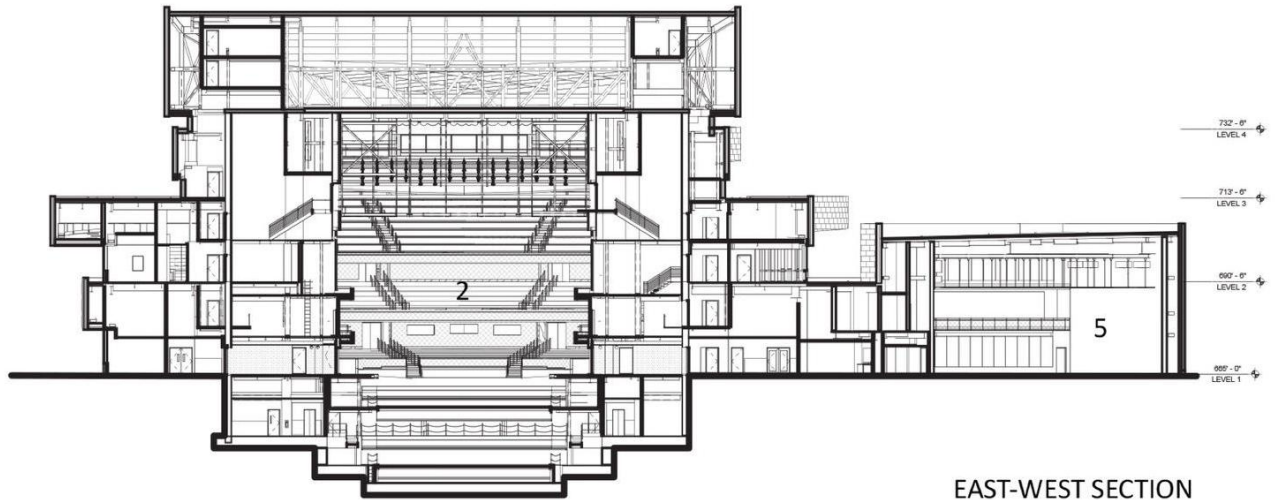


The New Auditorium Creates An Intimate Experience Between The Patrons And The Performers On Stage. The Curved, Sweeping Balconies And Terraces Continue The Idea Of The Exterior Ribbons Throughout The Interior Of The Hall. The Individually Adjustable Arced Led Lighting Fixtures Reinforce The Shape And Geometry Of Both The Building And The Hall And Creates A Dramatic Theatrical Experience. A Collapsible Orchestra Shell, Adjustable Acoustics, Av Systems And Production Lighting Allow The Hall To Be Tailored Specifically For Performances Ranging From Orchestra And Opera To Broadway Presentations And Dance.

Capacity- 1,800-Seat House.

Lights- Adjustable Arced Led Lighting

Recessed light



LITRATURE STUDY

2

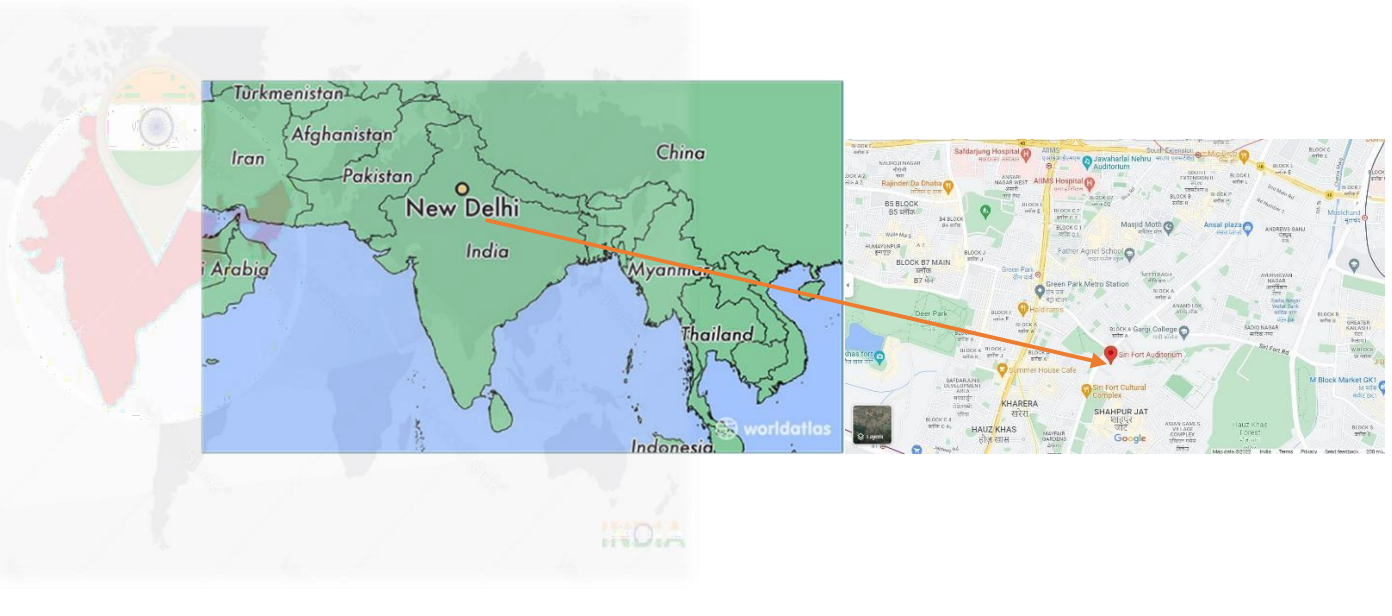
SIRI FORT AUDITORIUM, DELHI

INTRODUCTION

- **Siri Fort Auditorium** Is Premier Multi-Auditorium Complex Of Government Of India. Situated In The Siri Fort In New Delhi,
- It Is Also The Headquarters Of The Directorate Of Film Festivals (Dff), Ministry Of Information And Broadcasting, Which Also Run The Complex. Also Close By Is The Siri Fort Sports Complex.
- It Was A Combined Seating Capacity Of 2500, Spread Over Its Four Auditorium, Making It The Largest Such Complex In Delhi.
- Besides The National Film Festival Organized By Dff Wherein Public Screening Of National Film Award Winning Films Is Held, It Also Hosts Musical Concerts, Cultural Performances, And Plays.
- Built In The Historic Siri Fort Area, The 14th-Century Settlement Of Delhi Built By Alauddin Khalji
- The Main Auditorium No. I Was Built By The Delhi Development Authority (Dda) During 1982 Asian Games Held In Delhi. In 1986, The Auditorium Was Taken Over By The Ministry Of Information And Broadcasting At Cost ₹98,147,000 (Us\$1.3 Million).
- Opened: 1982
- Owner: Directorate Of Film Festivals, Ministry Of Information And Broadcasting
- Main Contractor: Delhi Development Authority
- Floor Area: 8,312.44 M2 (89,474.4 Sq Ft)

SITE LOCATION DETAIL

- ADDRESS: Khel Gaon Road, Siri Fort, New Delhi – 110049
- LATITUDE AND LANGITUDE:- The Latitude Of New Delhi, Delhi, India Is 28.644800, And The Longitude Is 77.216721.



GOOGLE EARTH EMAGE OF THE SITE



ASSEESIBILITY TO THE SITE

- The nearest station of [Delhi Metro](#) is [Hauz Khas metro station](#) located on the [Yellow Line](#)
- The Nearest Bus Stop- Khel Gaon Bus Stop (3 min (700.0 m) via August Kranti Marg)
- International Airport 15 KMS. 30mins.
- Indira Gandhi International Airport 4.5KM
- Connaught Place 05 KMS. 07mins
- India Gate 03 KMS. 05mins.
- Diplomatic Enclave 05 KMS. 07mins.
- Jor Bagh Metro Station 1.6 KMS.

SITE SURROUNDING IMAGES



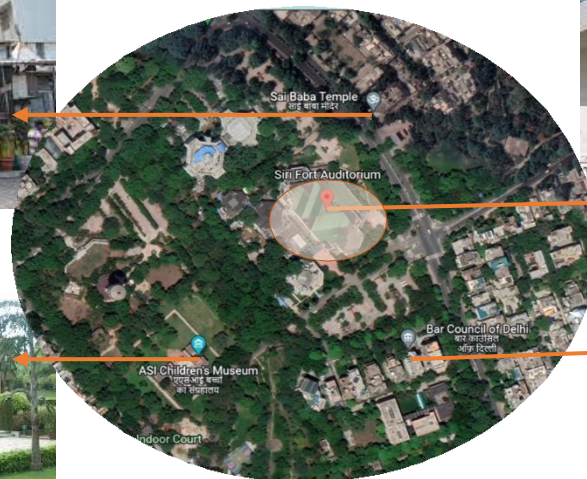
SAIBABA MANDIR



SIRI FORT AUDITORIUM



ASI CHILDREN MUSEUM



BAR COUNCIL OG DELHI

SITE PLAN



Sirifort Auditorium Was Commissioned By The Late Prime Minister Of India, Rajiv Gandhi. It Is One Of The Biggest Auditorium In Delhi And It Offers Many Mega Cultural Events Like Music, Dance, Theatre, Film Festivals Etc. By Private Organizers.

The Auditoriums At Siri Fort Has Seating Capacity Of Around 2500 Which Is Distributed In The Following Four Auditoriums As Follows :

- Auditorium - I : Capacity - 1865 Seats.
- Auditorium - II : Capacity - 396 Seats.
- Auditorium - III : Capacity - 270 Seats.
- Auditorium - IV : Capacity - 67 Seats



INTERIOR FEATURES:



ENTRY GATE



ENTRY HALL



HOUSE SITTING



CEILING



ENTRY GATE

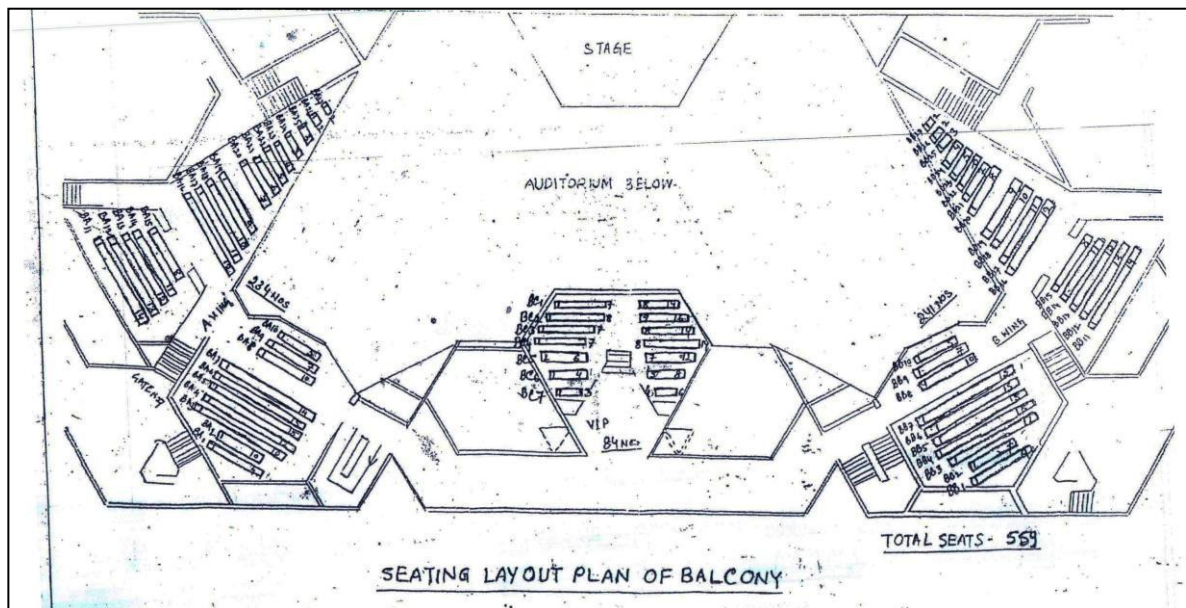
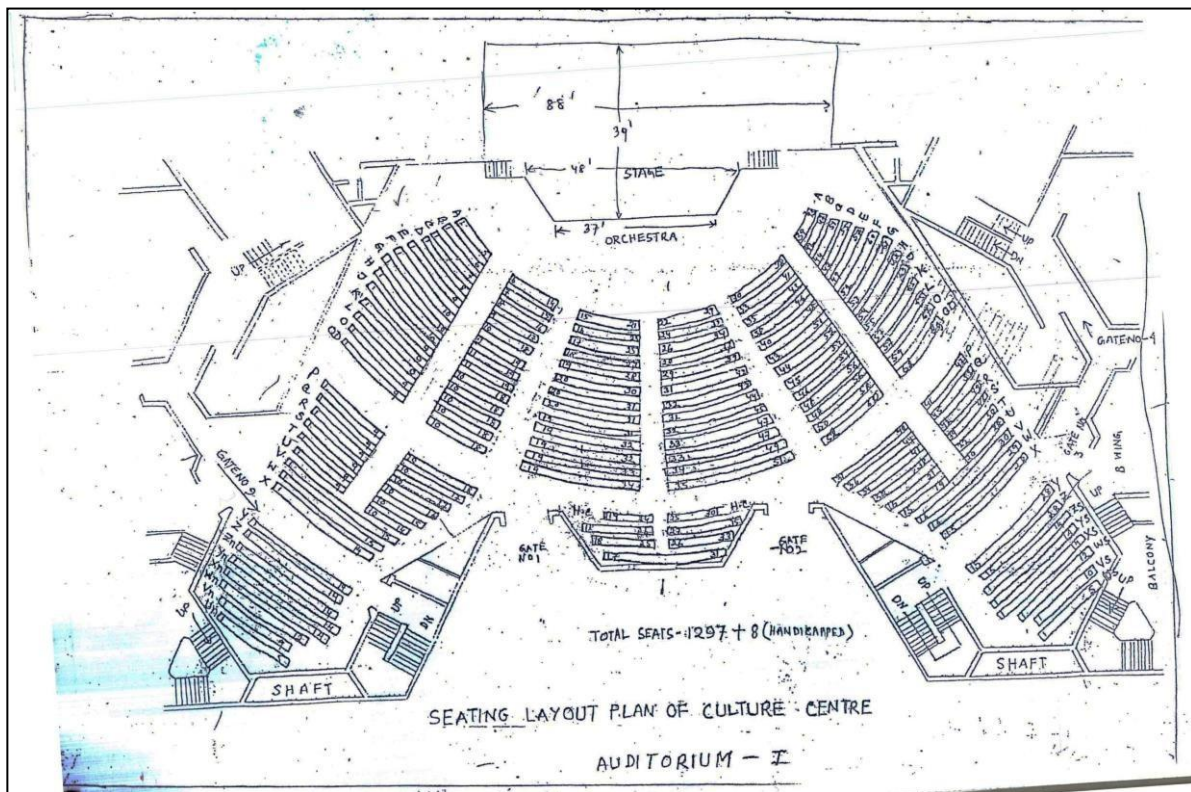
INTERIOR FEATURES

AUDITORIUM - I : CAPACITY - 1865 SEATS.

WOOD WALL FINISH

CARPET FLOORING

HIGHLY DEIGNED SUSPENDED CEILING OF WOOD



CASE STUDY 1

INDIRA GANDHI PRATISTHAN, LUCKNOW

INTRODUCING LUCKNOW CITY

Lucknow, A Large City In Northern India, Is The Capital Of The State Of Uttar Pradesh. It Is An Old Settlement Established At Least In The 14th Century. Having A Population Of 2.8 Million As Per 2011 Census, It Is The Eleventh Most Populous City And The Twelfth-Most Populous Urban Agglomeration Of India. Lucknow Has Always Been A Multicultural City That Flourished As A North Indian Cultural And Artistic Hub, And The Seat Of Power Of Nawabs In The 18th And 19th Centuries. Historical Landmarks And Points Of Interest In Lucknow Include Bara Imambara, Regional Science City, The Residency, Safed Baradari, Husainabad Clock Tower, Lucknow Charbagh, Philatelic Museum, Picture Gallery, Chakra Tirth Temple, Satkhanda, Ambedkar Memorial Park, Janeshwar Mishra Park, And Manyawar Kanshiram Ji Smarak Sthal.

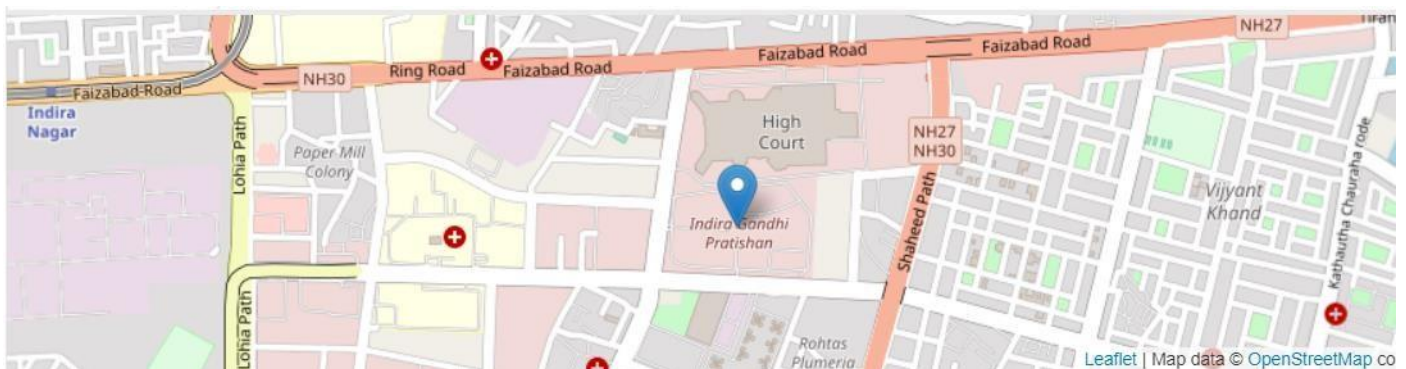
INDIRA GANDHI PRATISTHAN, LUCKNOW

Its A Huge Place With Greenery Massive Lawns And Auditoriums Of Various Capacity With Beautifully Designed Semi Circular Seating Capacity With Soundproof Halls, Spacious Corridors, Display Space For Standies, Posters & Cutouts Etc. Clean Toilets In Differently Situated Auditoriums. Lawns Are Also Booked For Furniture Exhibitions And Marriage Parties.

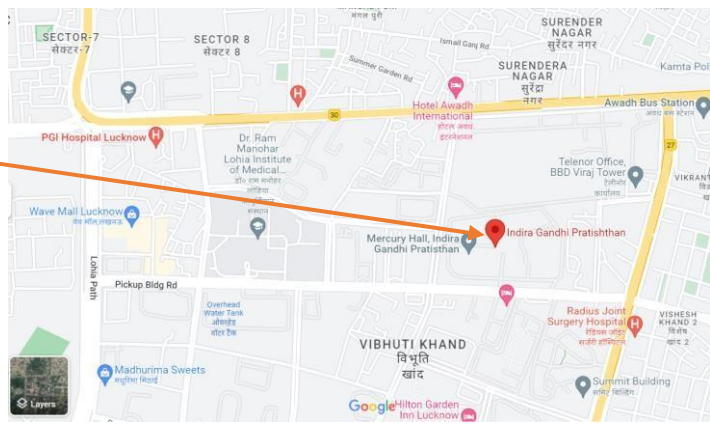


SITE LOCATION DETAIL

ADDRESS- Kathauta Chauraha Rd, Vibhuti Khand, Gomti Nagar, Lucknow, Uttar Pradesh
226010



LATITUDE AND LONGITUDE COORDINATES ARE: DMS Lat- 26° 51' 0.0000" N, Long- 26° 51' 0.0000" N



CLIMATE AND WEATHER AVERAGES IN LUCKNOW:-

Lucknow Has A Warm Humid Subtropical Climate With Cool, Dry Winters From December To February And Dry, Hot Summers From April To June.

WEATHER: 36 °C,

Wind E at 13 km/h,

62% Humidity

- Lucknow Are In The Northern Hemisphere.
- Summer Starts Here At The End Of June And Ends In September.
There Are The Months Of Summer: June, July, August, September.
- The Best Time To Visit Are March, October.
- The Month With The Highest Relative Humidity Is August (81.82 %). The Month With The Lowest Relative Humidity Is April (29.59 %).
- The Month With The Highest Number Of Rainy Days Is July (24.17 Days). The Month With The Lowest Number Of Rainy Days Is November (0.63 Days).

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature °C (°F)	14.9 °C (58.9) °F	18.6 °C (65.4) °F	24.3 °C (75.7) °F	30.3 °C (86.6) °F	32.8 °C (91.1) °F	32.3 °C (90.2) °F	29 °C (84.1) °F	28.4 °C (83.1) °F	27.7 °C (81.8) °F	25.5 °C (77.9) °F	21.2 °C (70.1) °F	16.4 °C (61.6) °F
Min. Temperature °C (°F)	9.1 °C (48.3) °F	12.2 °C (54) °F	16.9 °C (62.4) °F	22.6 °C (72.6) °F	26.1 °C (78.9) °F	27.5 °C (81.5) °F	26.2 °C (79.2) °F	25.8 °C (78.4) °F	24.5 °C (76.2) °F	20 °C (68) °F	14.9 °C (58.8) °F	10.3 °C (50.6) °F
Max. Temperature °C (°F)	21.3 °C (70.3) °F	25.2 °C (77.4) °F	31.5 °C (88.8) °F	37.7 °C (99.9) °F	39.2 °C (102.6) °F	37.1 °C (98.9) °F	32.3 °C (90.2) °F	31.7 °C (89) °F	31.4 °C (88.5) °F	31.1 °C (88) °F	27.7 °C (81.9) °F	23.1 °C (73.5) °F
Precipitation / Rainfall mm (in)	19 (0)	25 (0)	14 (0)	9 (0)	17 (0)	129 (5)	310 (12)	265 (10)	165 (6)	34 (1)	2 (0)	10 (0)
Humidity(%)	67%	60%	44%	30%	38%	54%	79%	82%	80%	66%	58%	64%
Rainy days (d)	2	2	2	2	3	8	18	18	13	2	0	1
avg. Sun hours (hours)	8.4	9.6	10.6	11.5	11.9	10.7	8.4	8.0	8.4	9.6	9.6	9.0

LANMARKS

- The Mall Of Lucknow 0.1 Km
- Allahabad High Court, Lucknow Bench 0.3 Km
- Rohtas Plumeria 0.4 Km
- Hyatt Regency Lucknow 0.5 Km
- CII Office 0.6 Km
- Kalindi Ville 0.6 Km
- Vishesh Khand-2 0.7 Km
- RML Institute And Hospital 0.8 Km
- Indira Nagar Colony 2.5 Km
- Gomti Nagar 4.3 Km



HIGH COURT



RML INSTITUTE AND HOSPITAL

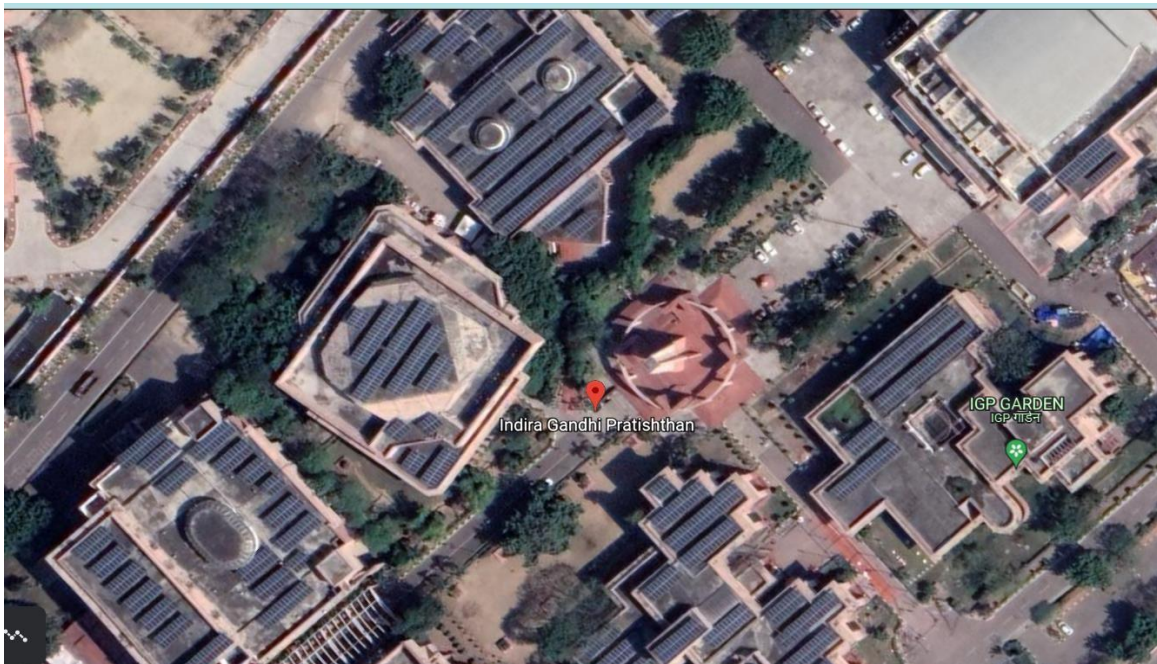
ASSEESIBILITY TO THE SITE

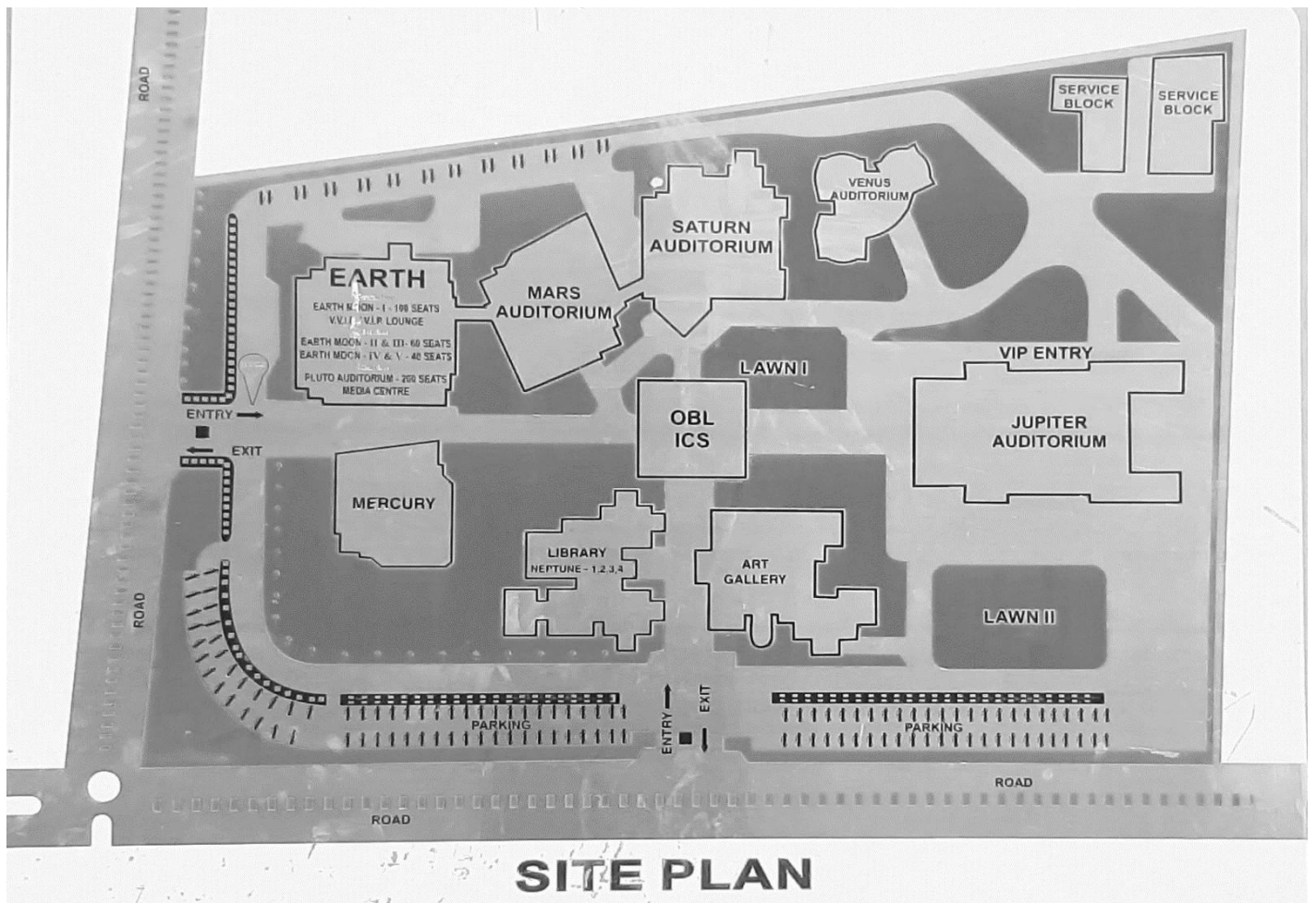
- The Closest Airports Of Lucknow Are: Chaudhary Charan Singh Airport (Lko) 9.61km,
Lal Bahadur Shastri Airport (Vns) 246.01km

You Can Reach Lucknow From This Cities By Plane: Mumbai (Bom), New Delhi (Del), Dubai (Dxb), Kathmandu (Ktm), Muscat (Mct), Dehradun (Ded), Riyadh (Ruh), Bengaluru (Blr), Patna (Pat), Jeddah (Jed)

- Indira Nagar Metro Station 2KM
- Bhootnath Market Metro Station 2KM
- Munsipuliya Metro Station 2KM
- Lko Railway Station 3km
- Alambagh Bus Stop 32 Min (15.0 Km) Via Lohia Path

GOOGLE EARTH EMAGE OF SITE





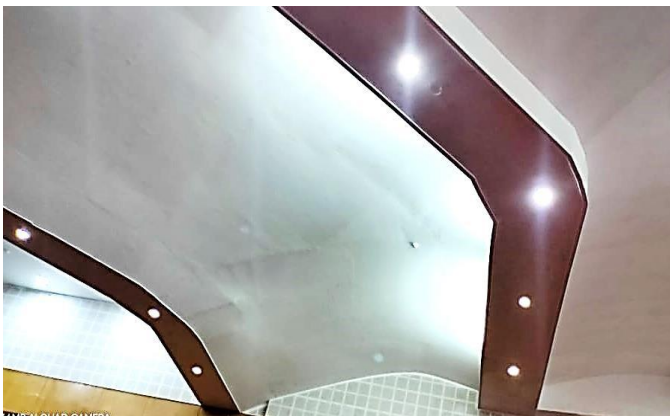
- Capacity 400
- 1 Entry / 4 Exit
- 2 Backstage Door
- 1 Center Aisle
- 2 Side Aisle
- 4 Green Room With Common Washroom
- Stage Height Is 900mm.
- Stage Steps : Tread 360 Mm, Riser 220 Mm, And Width Of Flight Is 1000mm.



Auditorium



Entry/Exit



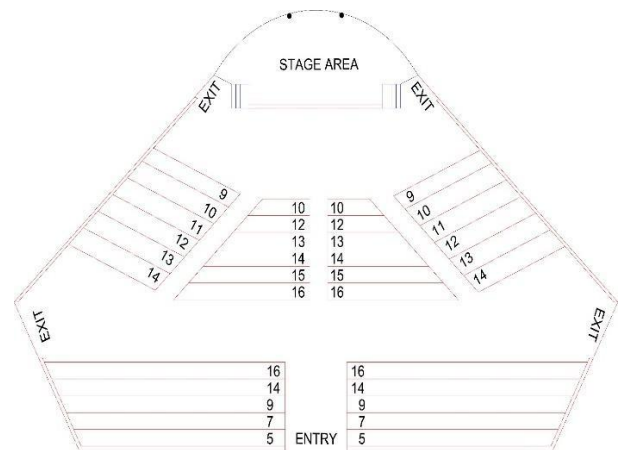
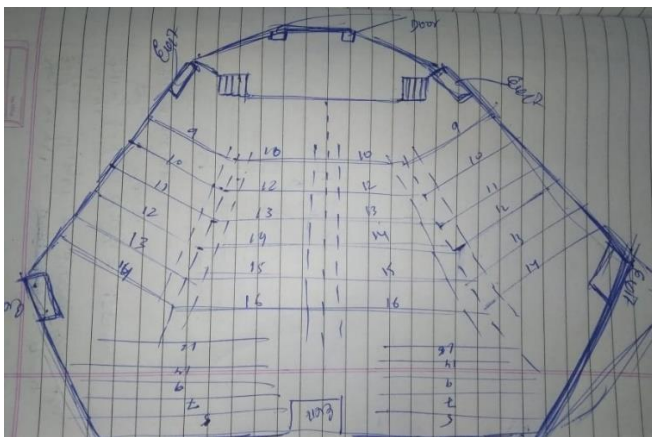
Ceiling



Stage

- Stage size: 12mx12.6m
- Side Stage width is 1350mm.
- Wooden flooring stage
- Control room height is 2800mm.
- Width of wings is 1200mm.
- Plinth height is 1500 mm.

- Stage Height 900mm
- Screen Height From The Stage 2100mm
- Sitting Lounging Width 1350mm
- Riser 150





- Three Side Passage (Aisle).
- Aisle Width 1350mm.
- Projector Room Hight 3000mm.
- Space Of Balcony Side 900mm.
- Hight Of Fire Exit Door Is 1950mm.
- False Ceiling Hight Of 2700mm From Floor Level To False Ceiling Level.
- Corridor Ceiling Height Of 5400mm , Ground To 1st.
- Ramp Will Be Not Provided.

CAS E STUDY

2

INDIAN HABITATE CENTRE, DELHI

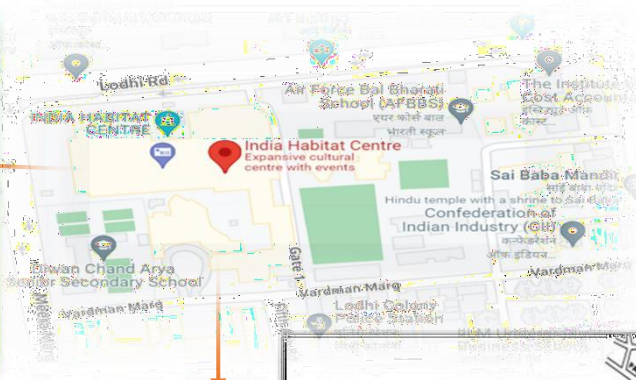
INTRODUCING DELHI CITY

The Introduction Of The Delhi Sultanate Marks The Period When Various Muslim Dynasties Ruled In India (1210-1526). It All Started With The Campaigns Of Muhamed Bin-Sams And His Lieutenant Qutub-Ud-Din Aibak Between 1175-1206. It Was The Victory Against The Rajput Kings Which Marked The Foundation Of Delhi Sultanate.

- City Population : 16.8 Million
- City Area : 1484 Sq. Km
- Elevation : 200–250 M (650–820 Ft)
- Literacy : 86.21%
- Sex Ratio : 868 Female / 1000 Male_

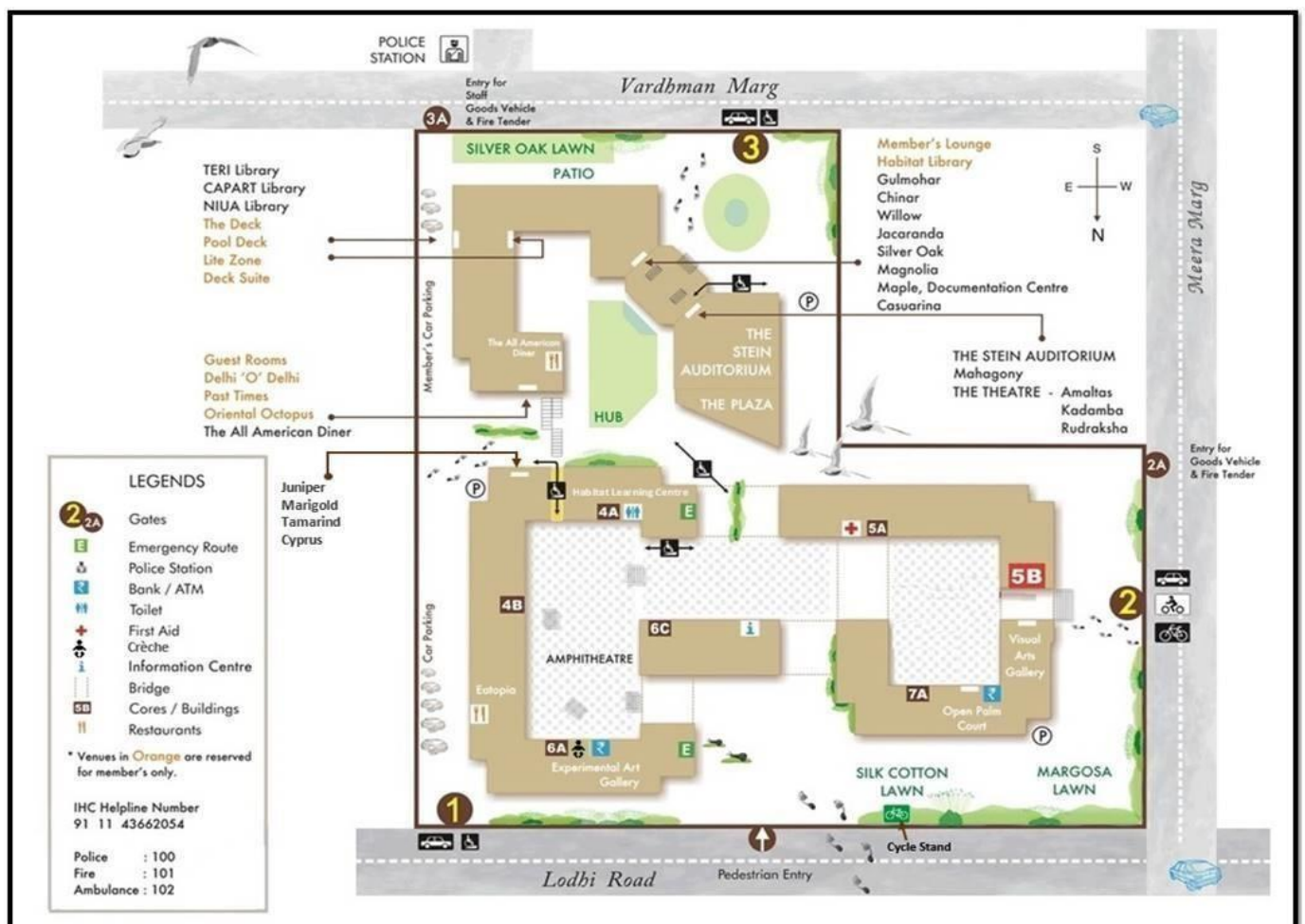
LOCATION DETAIL:

- Address:- Lodhi Road Near Airforce Bal Bharati School, Lodhi Rd, Lodhi Estate, New Delhi, Delhi 110003
- Latitude And Longitude:- The Latitude Of New Delhi, Delhi, India Is 28.644800, And The Longitude Is 77.216721.



ACCESSEBILITY TO THE SITE:

- International Airport 15 Kms. 30mins.
- Domestic Airport 12 Kms. 20mins.
- New Delhi Railway Station 07 Kms. 15mins.
- Old Delhi Railway Station 16 Kms. 30mins
- Connaught Place 05 Kms. 07mins
- India Gate 03 Kms. 05mins.
- Diplomatic Enclave 05 Kms. 07mins.
- Jor Bagh Metro Station 1.6 Kms.
- J.L.N. Metro Station 1.5 Kms.



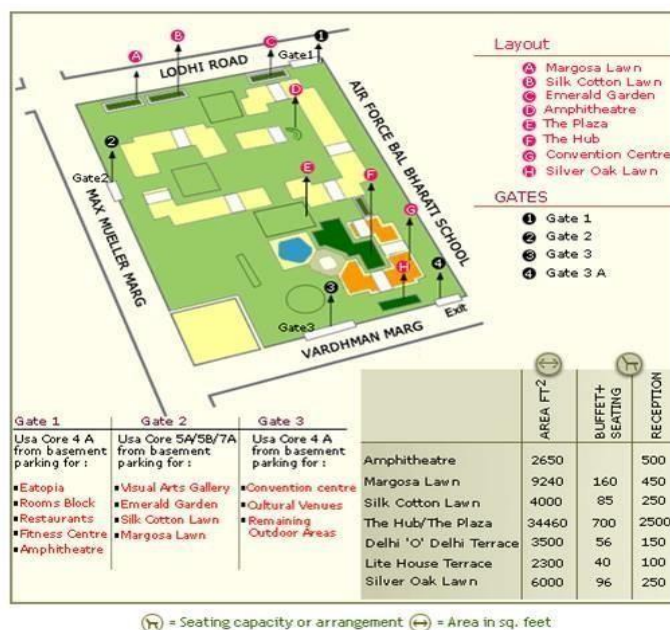
SITE PLAN

The India Habitat Centre Is A Multipurpose Building In The City Of New Delhi, India.

- The India Habitat Centre Is One Of India's Most Comprehensive Convention Centers That Is Aimed At Bringing Individuals And Institutions Working In Diverse Habitat And EnvironmentRelated Areas Together.
- It Is Divided Into Five Blocks Which Are Connected With Aerial Walkaways Serving VariousFunctional Facilities.
- It Has A Visual Art Gallery, Library And Resource Center, Learning Center, Amphitheater,Conference & Banquet Halls And Restaurants.
- **ARCHITECT:** JOSEPH ALLEN STEIN
- **FUNCTION:** CONVENTIONAL CENTRE
- **BUIDUP AREA:** 97000 SQ.M
- **HIEGHT OF BUILDING:** 30M

FACILITIES

- 40,000 Sq.M. Of Office Accomodation Facility Conference Room
- Conference Room
- Cafeteria
- Restaurant
- Private Dinning Rooms To Handle 1500 Persons Approximately At A Time
- 700 Sq.M Exhibition Area
- Amphitheatre- 250 Capacity
- Auditorium- 50 Capacity
- Library
- Art Gallery
- Gift Shop



THE MISSION

To Bring A Holistic Approach To Problem Solving In Areas Of Environmental And Regional Planning, Energy Efficiency, Appropriate Technology Options, Transport And Communication, Lifestyle Choices, Socio-Cultural Linkages And Information Technology.

LANDMARKS:

- Air Force Balbharti School
- Indian Ports Assosiation
- Art District
- Diwan Chand Arya Senior Secondary School



AIR FORCE BAL BHARTI SCHOOL



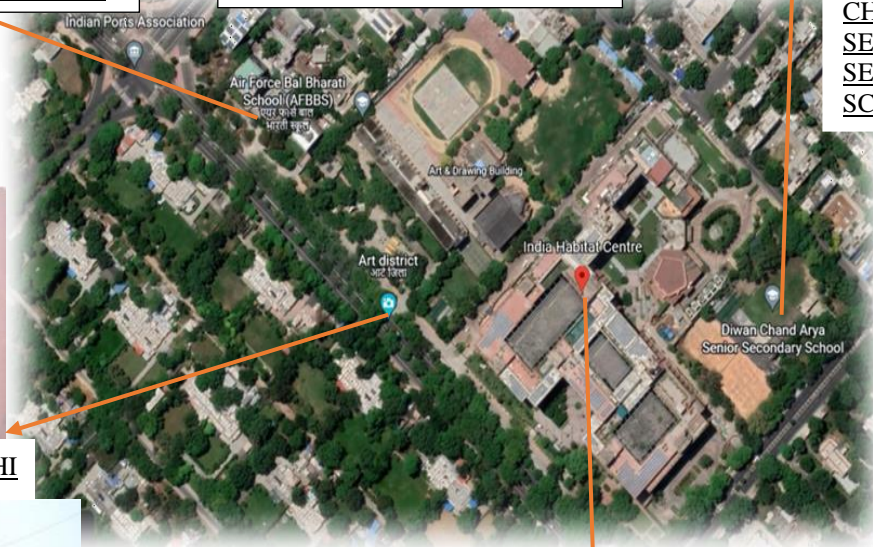
INDIAN PORTS ASSOSIATION



DIWAN
CHANDRA ARYA
SENIOR
SECONDARY
SCHOOL



ART DISTRICT, LODHI, DELHI



INDIAN HABITATE CENTER



INTERIOR FEATURE

Sunlight Stream

Sunlight Into Nthe Complex Creating Beatiful Patterns On The Textured Surface With The Time Of The Day.



- The Entire Façade Is Cladded With Red Bricks Giving Amajestic Look.
- The Courtyard Being Green Creates An Image Of A Tropical Rainforest With Constant Airy Flow Though The Spaces.



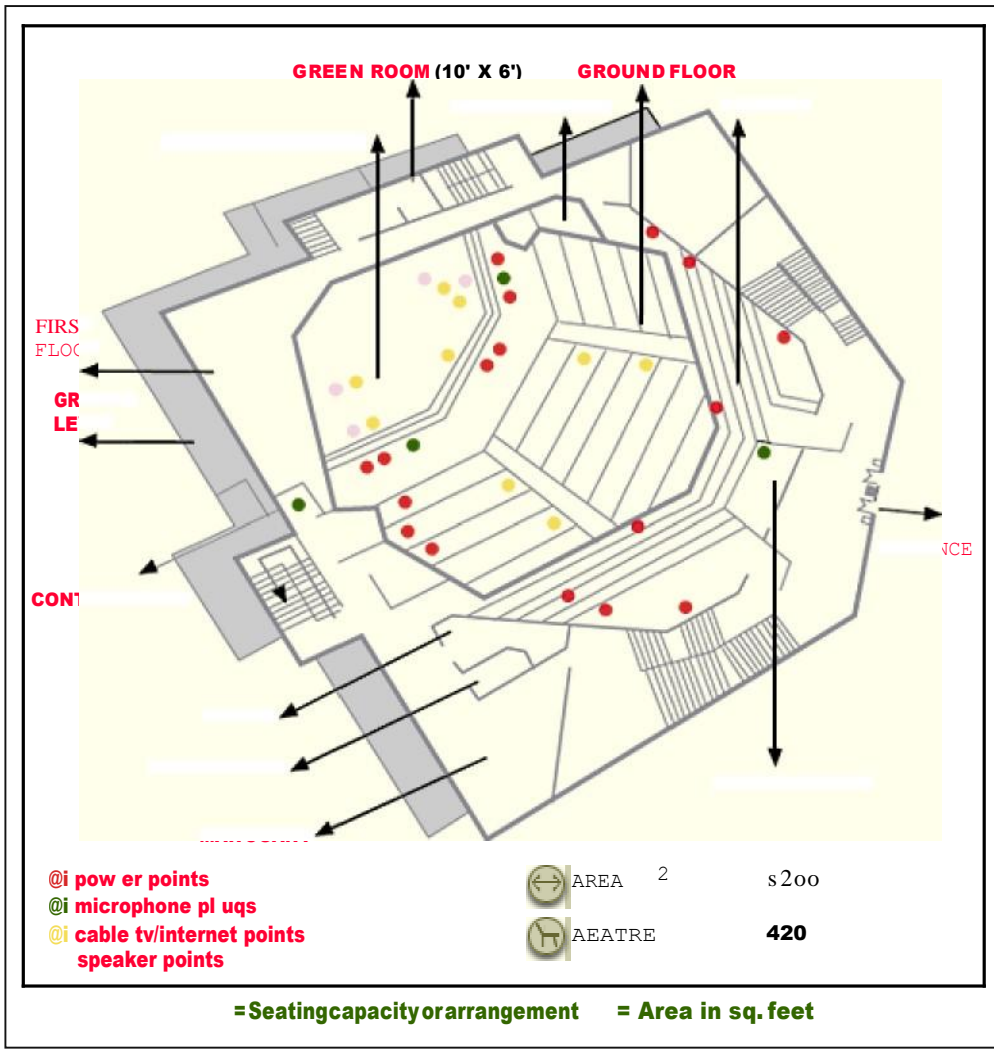
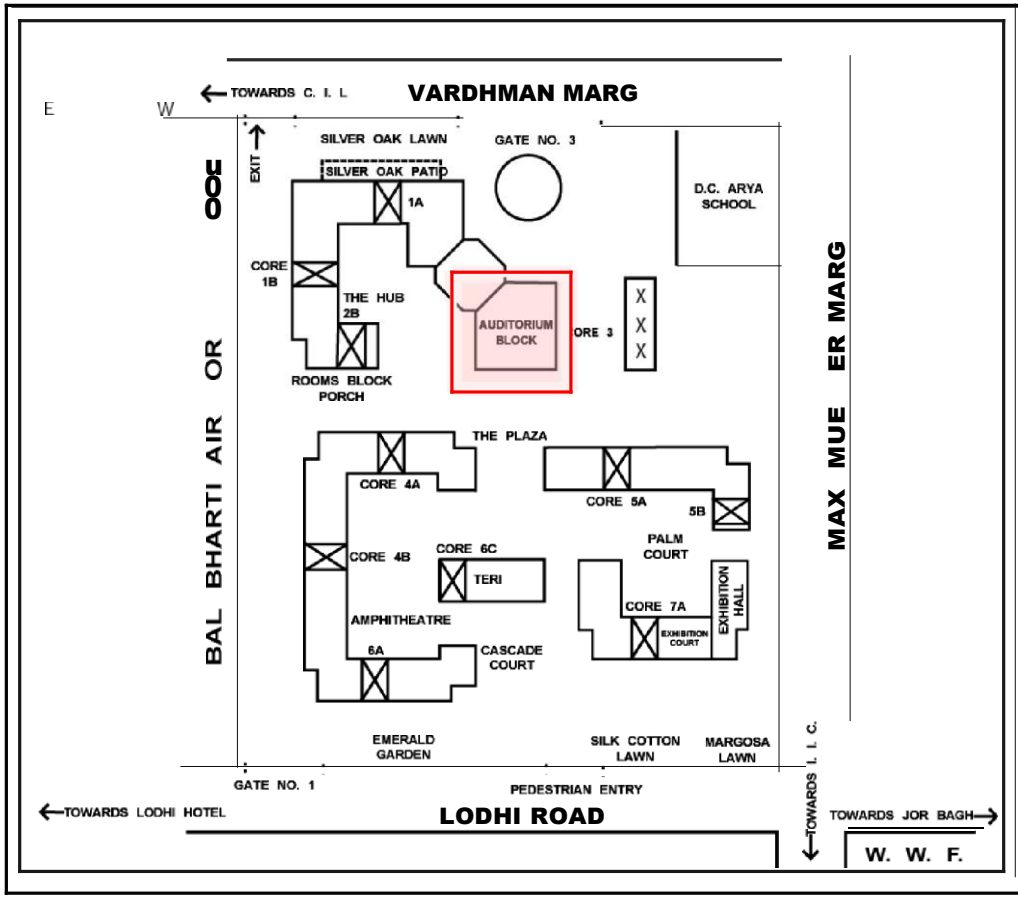
- The Spaces Are Quite Expects For The Sounds The Gargling Fountains That Relieves Surrounding With The Heat.



- The Ventilation Shafts Are Well Designed Providing Sunlight To The Base Ments.
- Well Designed Drainage System Eliminates Us Eof Rain Water Pipes And Adds To The Beauty Of The Structure.

THE STEIN AUDITORIUM

- One Of The Best **Auditorium** In The Country, The Auditorium At Habitat World Is Equipped With State-Of-The-Art Infrastructure Enabling Direct Telecast And **35mm Projection**.
- The Hall Is Ideal For Large Conferences, Seminars, Film Screenings, Presentations, Theatre And Cultural Performances Of All Kinds.
- **Function: Convention Centre**
- **Area: 6200 Sq.Ft**
- The Conventional Block Is Divided Into Two Built Structure An Auditorium And The Convention Center. This Segretion Heips In Better Handeling Of Crowd And There Is Separate Entry To The Convention Center That Avoids Disturbance
- The Conventional Block Is Divided Into Two Built Structure An Auditorium And The Convention Center. This Segretion Heips In Better Handeling Of Crowd And There Is Separate Entry To The Convention Center That Avoids Disturbance.



SITE IMAGES





HOUSE STAGE VIEW



THE VARIOUS MATERIAL USED ARE:-

- Wood Panels
- Fabric For Floor
- Glass Wool For Insulation
- Acoustic Panels
- Steel Doors

OVERALL PLANING:

- The Theatre Is Of A Fan Shaped Typology
- The Auditorium Is Surrounded By 2 Foyers Each Of 130 Sqm.
- Two Staircases Occupying Area Of 30 M2 Each Is Located On Both Sides
- Toilets On Both Sides Are Located Adjoining The Foyer Each With 6 Cubicles(Men And Women) And An Area Of 70 Sqm
 - The Back Stage There Is A 6m Wide Corridor .
 - Beside This Corridor Various Spaces Such As
 1. Conference Rooms
 2. Lift Lobby

DETAILS:

- Distance Between Seats And Stage: 4.2 M
- Height Of The Ceiling :**
3.5 M In The Last Row
7.2 M From The First Row
6.5 M From The Stage
- Distance Between Each Row (Seating):**
0.50 M
- Slope Angle :** 10 Deg.
- Aisle Width :** 1.5 M At The First Row 2.1 M At The Middle Row
- Balcony :** Nil
- False Ceiling Height :** 0.75m
- Duct Spacing :**2.5 M
- Speaker Spacing :** 2m

MATERIALS

SOUND ABSORBING CARPET

- A SOUND ABSORBING CARPET IS SIMPLE YET OFTEN ONE OF THE MOST EFFECTIVE WAYS TO MANAGE EXCESS NOISE IN A ROOM.
- AS ONE OF THE LARGEST CONTINUOUS SURFACES IN ANY AUDITORIUM, THE FLOOR MAKES A SIGNIFICANT CONTRIBUTION TO ANY ROOM'S REVERBERATION TIME.
- CLEARLY, A DEGREE OF FLOOR LEVEL ACOUSTIC ABSORPTION IS NECESSARY, YET NOT JUST ANY TILE.
- THE ABILITY OF COMFORT PLUS TO ABSORB SOUND HELPS TO REDUCE

INTERFLOOR NOISE AND MAKESRAISED ACCESS FLOORS SOUND MORE SOLID.

GLASS WOOL

- GLASS WOOL INSULATION IS ONE OF THE MOST WIDELY USED FORMS OF INSULATIONS WORLD-WIDE BECAUSE OF ITS THERMAL AND ACOUSTIC PROPERTIES, LIGHT WEIGHT, HIGH TENSILE STRENGTH AND EXCEPTIONAL RESILIENCE.
- GLASS WOOL IS ONE OF THE MOST DOMINANT TYPES OF INSULATIONS PREFERRED IN APPLICATIONS WITH SERVICE TEMPERATURES RANGING UP TO 250°C.
- TOGETHER BY HIGH TEMPERATURE BINDER. THESE FIBERS (EACH OF APPROX. 6 -7 MICRONS DIAMETER) ARE DISTRIBUTED TO TRAP MILLIONS OF TINY POCKETS OF AIR IN IT THEREBY CREATING IT AN EXCELLENT THERMAL AND ACOUSTIC INSULATION.

SOUND ABSORBING CARPET

- A SOUND ABSORBING CARPET IS SIMPLE YET OFTEN ONE OF THE MOST EFFECTIVE WAYS TO MANAGE EXCESS NOISE IN A ROOM.
- AS ONE OF THE LARGEST CONTINUOUS SURFACES IN ANY AUDITORIUM, THE FLOOR MAKES A SIGNIFICANT CONTRIBUTION TO ANY ROOM'S REVERBERATION TIME.
- THE ABILITY OF COMFORT PLUS TO ABSORB SOUND HELPS TO REDUCE INTERFLOOR NOISE AND MAKES RAISED ACCESS FLOORS SOUND MORE SOLID.



CARPET FLOOR



COURTYARD FLOORING
TERACOTTA



CHAIR FINISHES
FABRIC



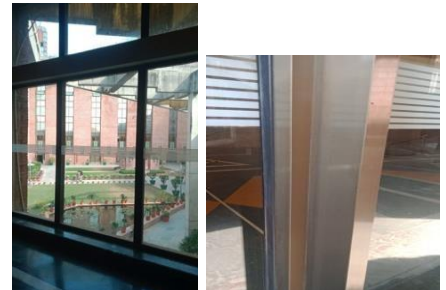
WALL FINISH IN
AUDITORIUM



CEILING



MARBLE FLOORING IN LOBBY



ALUMINIUM COVERING IN
WINDOW FRAME

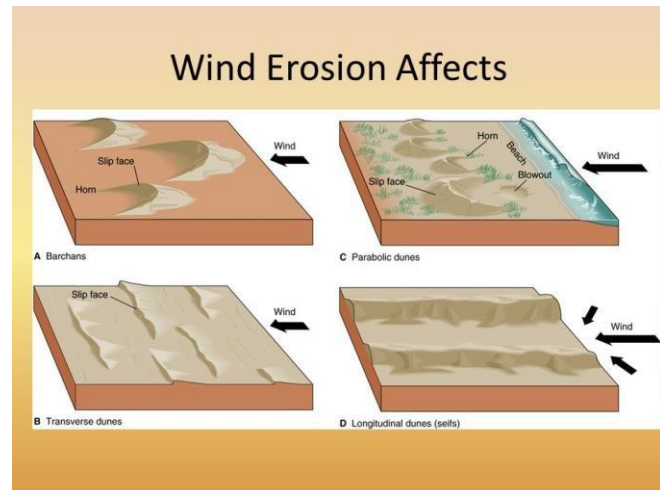
CONCEPT

CONCEPT:- SOIL EROSION

WHAT IS EROSION?

EROSION Is A Natural Process Which Causes Displacement Of Topsoil By Natural Forces Such As Wind Or Water. A Similar Process, Weathering, Breaks Down Or Dissolves Rock, But Does Not Involve Movement.

Soil Erosion Occures Arround The World, Such As Europe, North America, South America, Africa, Asia, Australia/New Zealand.



Most Erosion Is Performed By Liquid Water, Wind, Or Ice (Usually In The Form Of A Glacier). If The Wind Is Dusty, Or Water Or Glacial Ice Is Muddy, Erosion Is Taking Place. The Brown Color Indicates That Bits Of Rock And Soil Are Suspended In The Fluid (Air Or Water) And Being Transported From One Place To Another. This Transported Material Is Called Sediment.

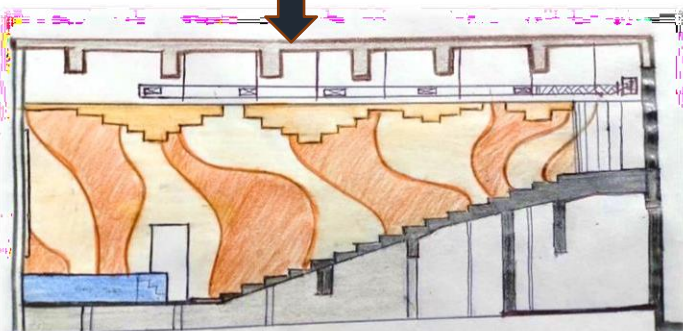
In [Earth Science](#), **Erosion** Is The Action Of Surface Processes (Such As [Water Flow](#) Or [Wind](#)) That Removes [Soil](#), [Rock](#), Or Dissolved Material From One Location On The [Earth's Crust](#), And Then [Transports](#) It To Another Location Where It Is [Deposited](#).

HOW I AM USING EROSION AS CONCEPT?

THE CONCEPT OF MY AUDITORIUM IS INSPIRED BY NATURE.

- The Self Organisation Characteristics Of Erosion Had A Particular Intrest On Us.
- Working Countinuously In Macro And Micro Scale In Form And Patterns Generation Through Deposition Or Subtraction Of Material.
- I Am Using Repetative Patterns From Soil Erosion For Ceiling And Wall And Different Shades As Colour Pallete
- In Interior Of Auditorium.
- That Repetative Patter Will Be Show With Wooden Panels Of Different Colour Scheme, With Led Lighting.

Concept



Theme

The Theme Of My Auditorium Is Inspired By Natural Process Of Environment Is Erosion.

The Self Organisation Characteristics Of Erosion Had A Particular Intrest On Us.

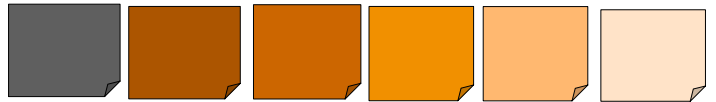
PATTERN:-

- Working Countinuously In Macro And Micro Scale In Form And Patterns
- Generation Through Deposition Or Subtraction Of Material.



Colour:-

The Neutral Palette Of Wood Is Complemented By Grey And Orange Auditorium Chairs Laid Out.

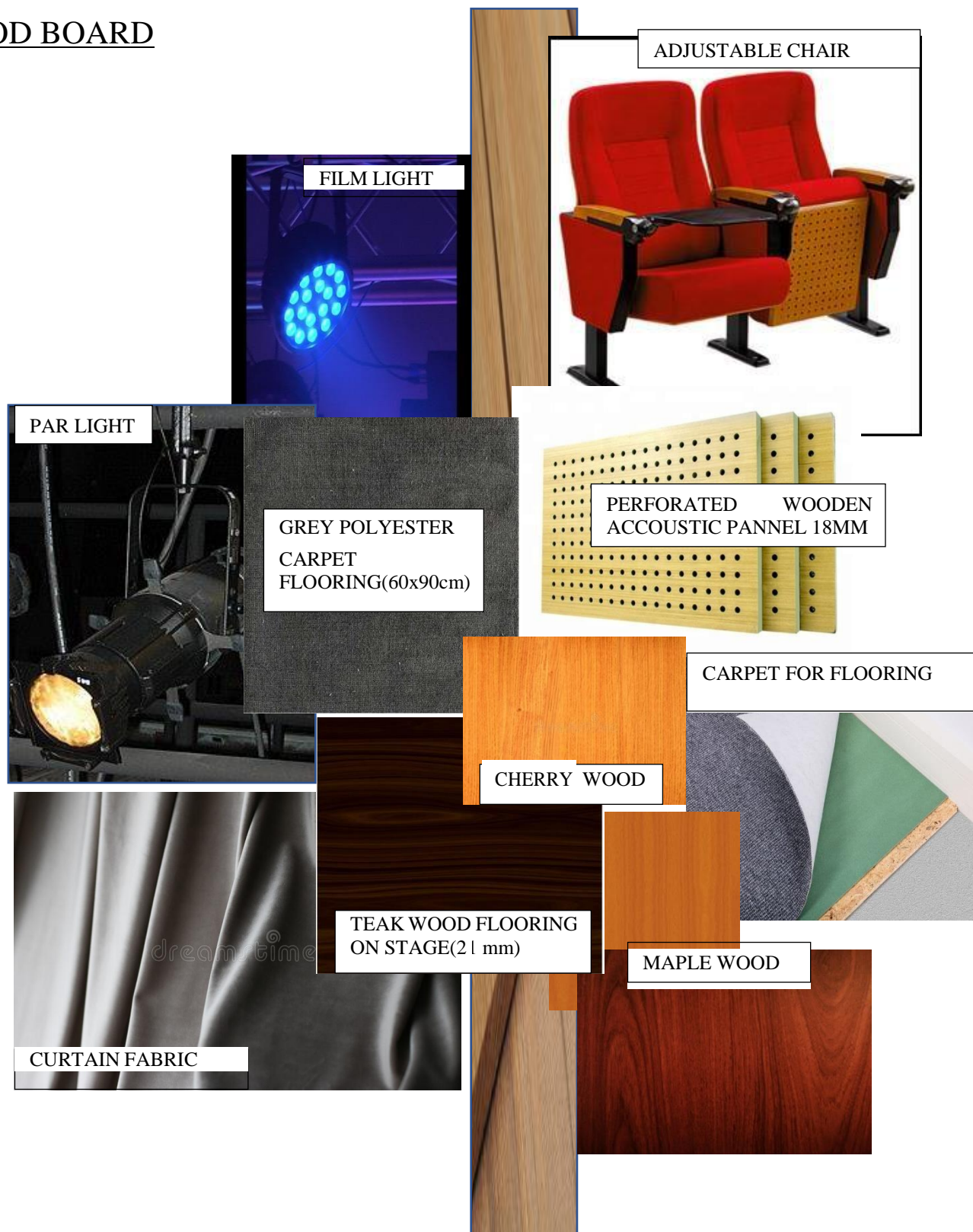


Material:-

- Acoustic Plaster
 - A) Plaster Which Includes Granulated Insulation Material With Cement };
 - B) Compressed Cane Or Wood Fibreboard, Unperforated And Perforated;
 - C) Wood Particle Board;
 - D) Compressed Wood Wool);
 - E) Mineral/Glass Wool Quilts And Mats;
 - F) Mineral/Compressed Glass Wool Tiles;
 - G) Composite Units Of Perforated Hardboard Backed By Perforated Fibreboard;
 - H) Composite Units Of Perforated Board (Hardboard, Asbestos Board Or Metal Sheet) Backed By Mineral Or Glass Wool Quilt Or _ Slab; And
 - I) Special Absorbers Constructed Of Hardboard, Teak Ply, Etc, Backed By Air.
- Sound Insulation Materials Used In Auditoriums.

- **Wood Ceilings** In Auditoriums, Theatres And Conference Centres Are Key Elements In Room Acoustics. The Wood Ceilings Of These Buildings Are Really Wood Acoustic Ceilings Made With Acoustic Panels Made With sound-Absorbent Wood That Control Reverberation Inside Rooms. Not All Wood Acoustic Panels Are The Same.
- Most Sound Panels Consist Of Fluffy, Porous Material That Trap Sound apply Acoustic Material To Stage Areas, Side Walls, Back Walls And Balcony Faces. This Prevents Sound From Reflecting Back Into The Room By Absorbing The Sound's Energy.

MOOD BOARD



DRAWINGS

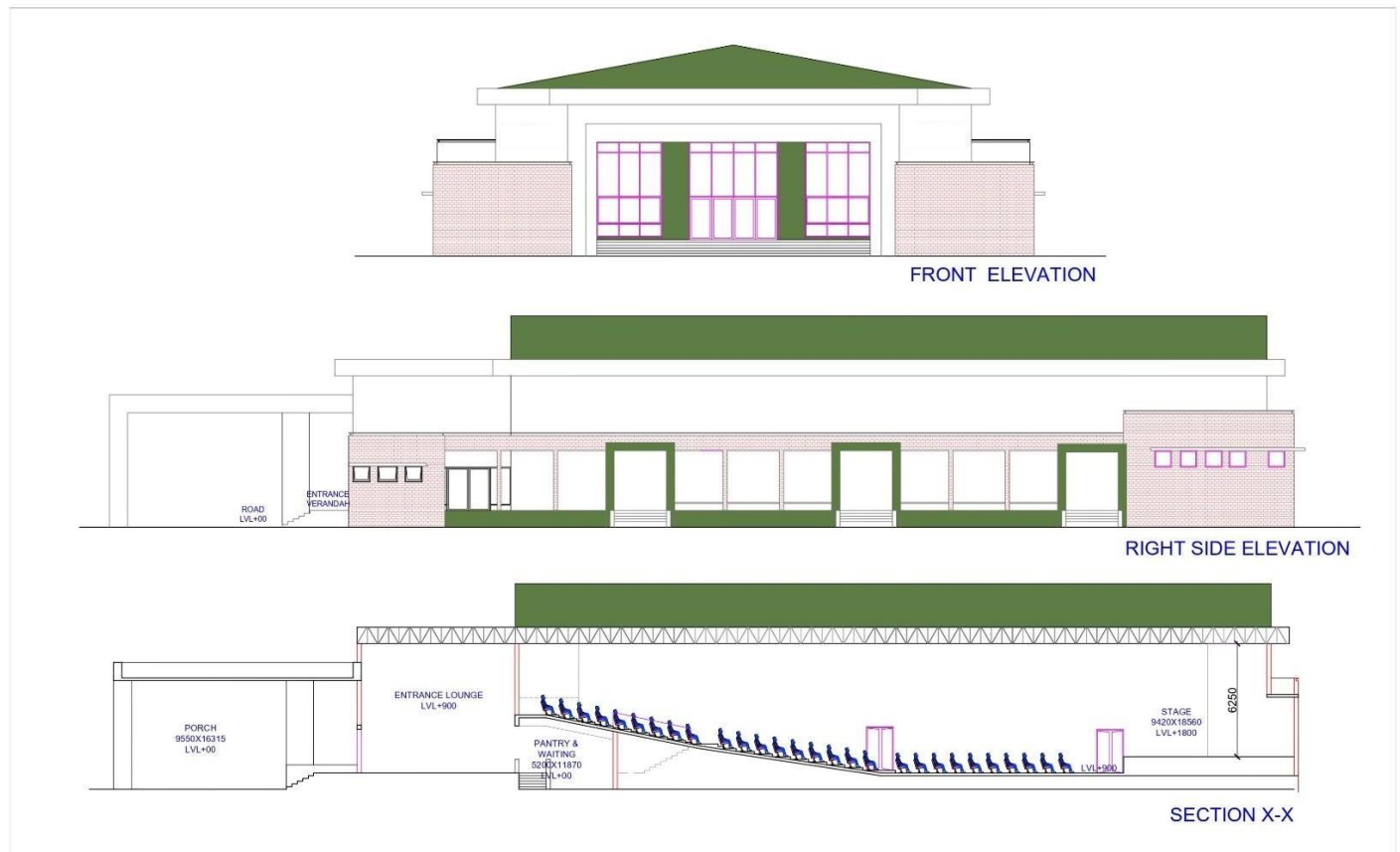
AREA ANALYSIS OF AUDITORIUM

TOTAL AREA:-1922SQ.M

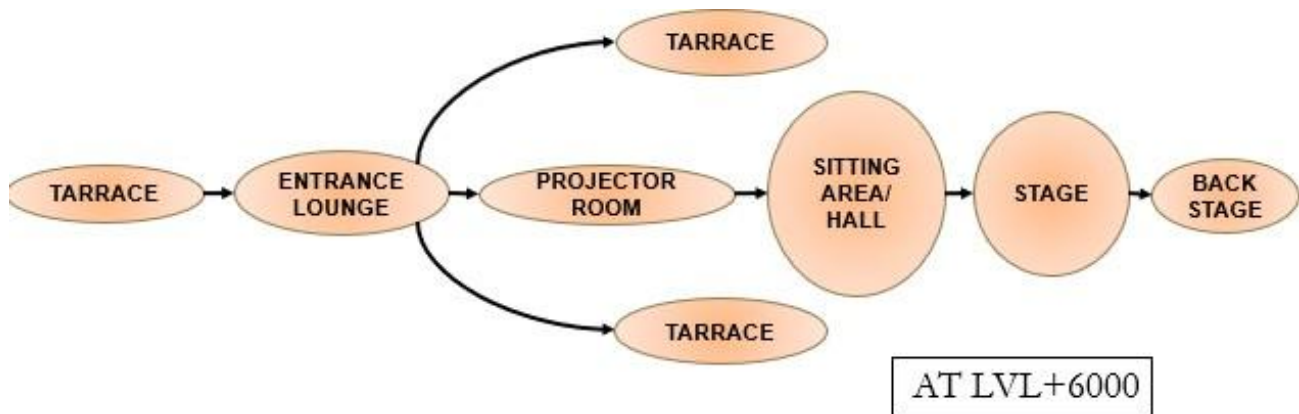
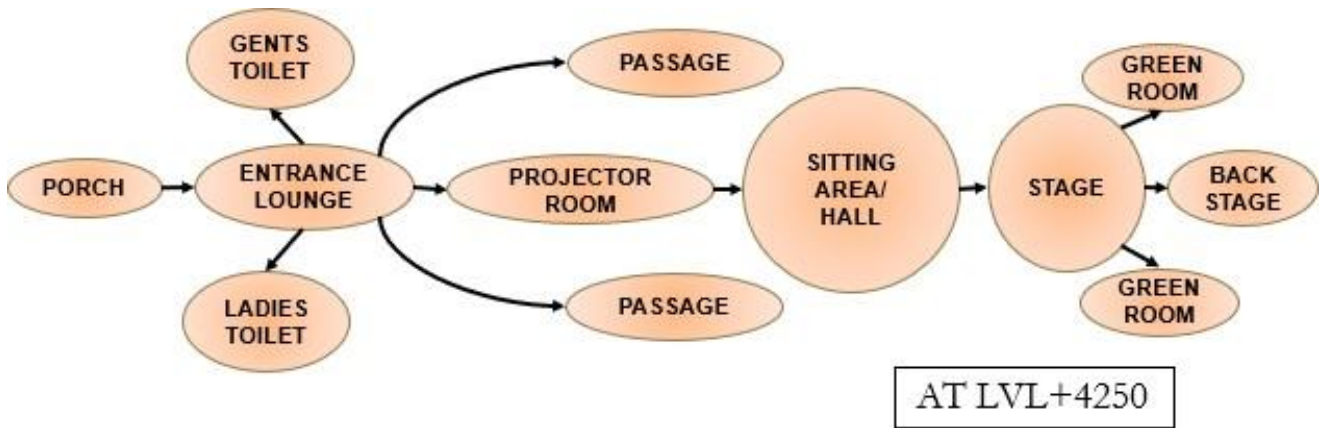
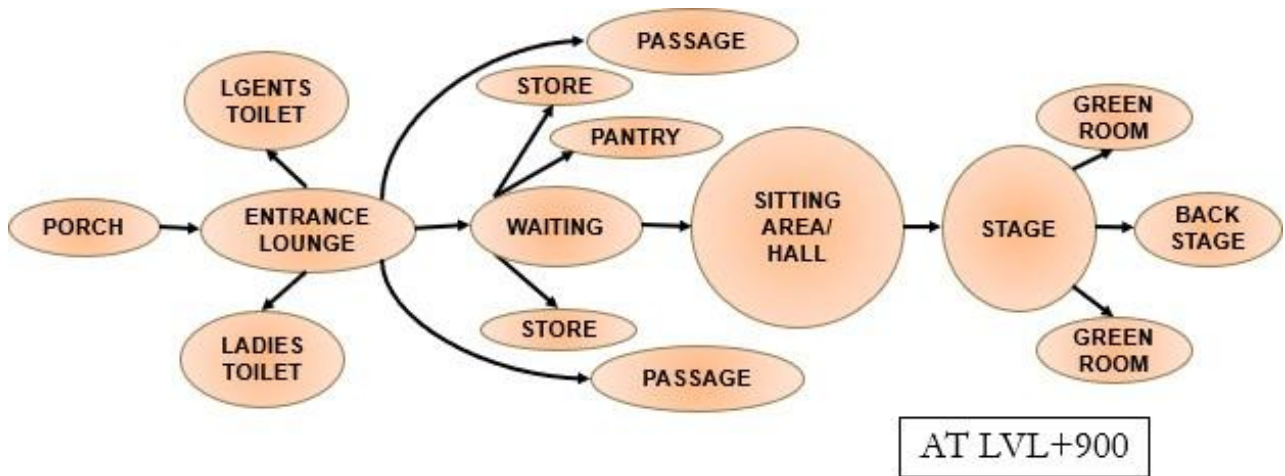
CAPACITY:- 960

1. PORCH	9550X16,315	LVL+00
2. ENTRANCE LOUNGE	17,870X8490	LVL+900
3. WAITING	5200X11870	LVL+00
4. PANTRY	3470X3000	
5. STORE	5200X3760	
6. SITTING AREA/ AUDITORIUM	26300X28200	
7. PROJECTOR ROOM	3885X3300	LVL+5050
8. STAGE	9420X18560	LVL+1800
9. GREEN ROOM	7460X7400	LVL+1800
10.WASHROOM(GENTS/LADIES)	7440X4065	

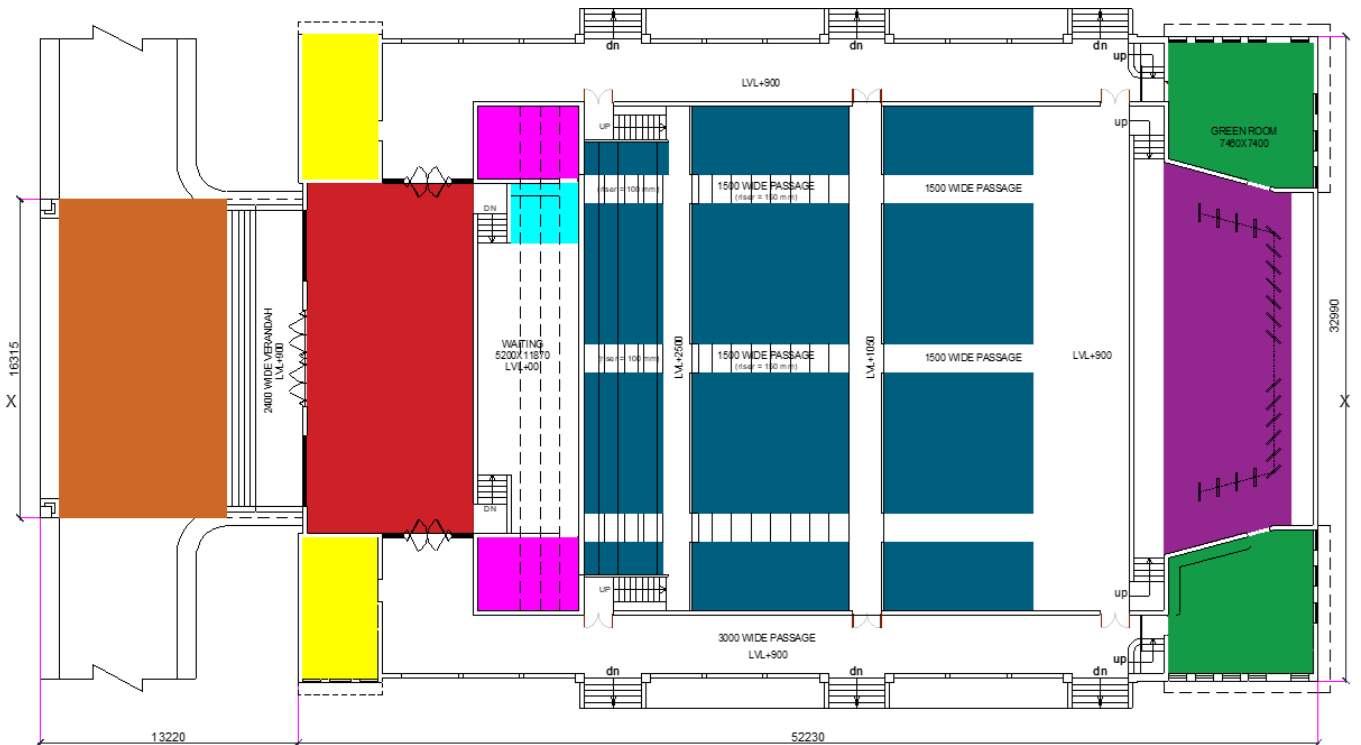
DRAWINGS



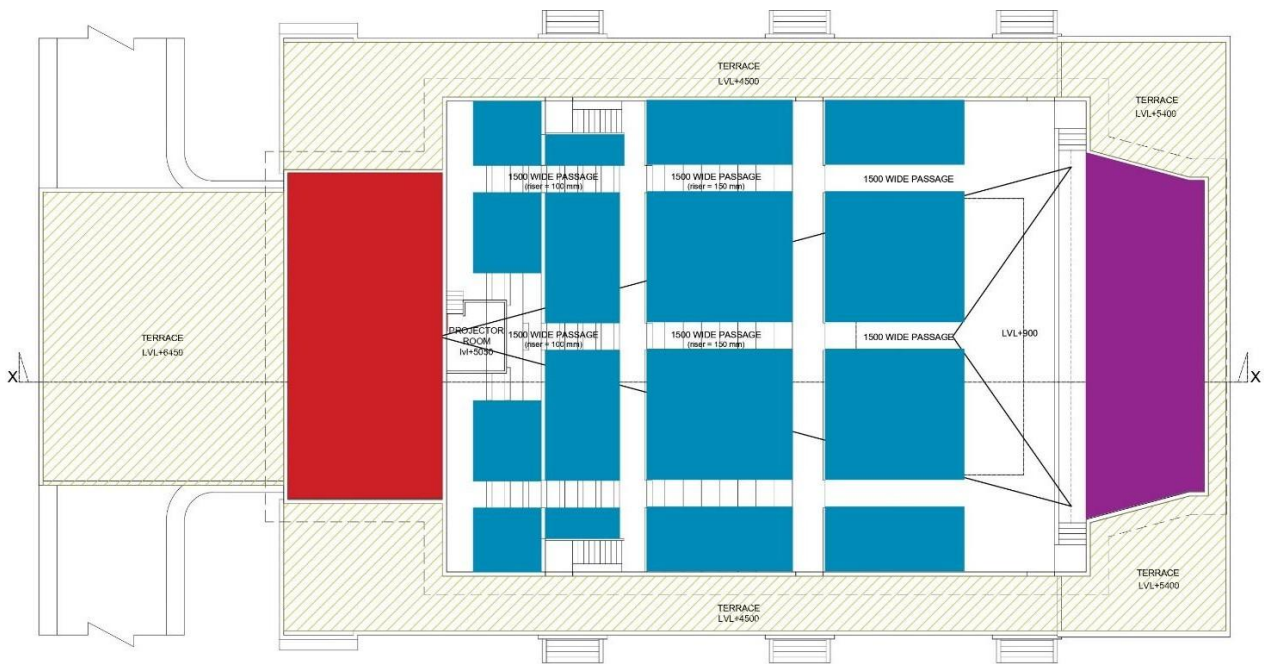
BUBBLE DIAGRAM



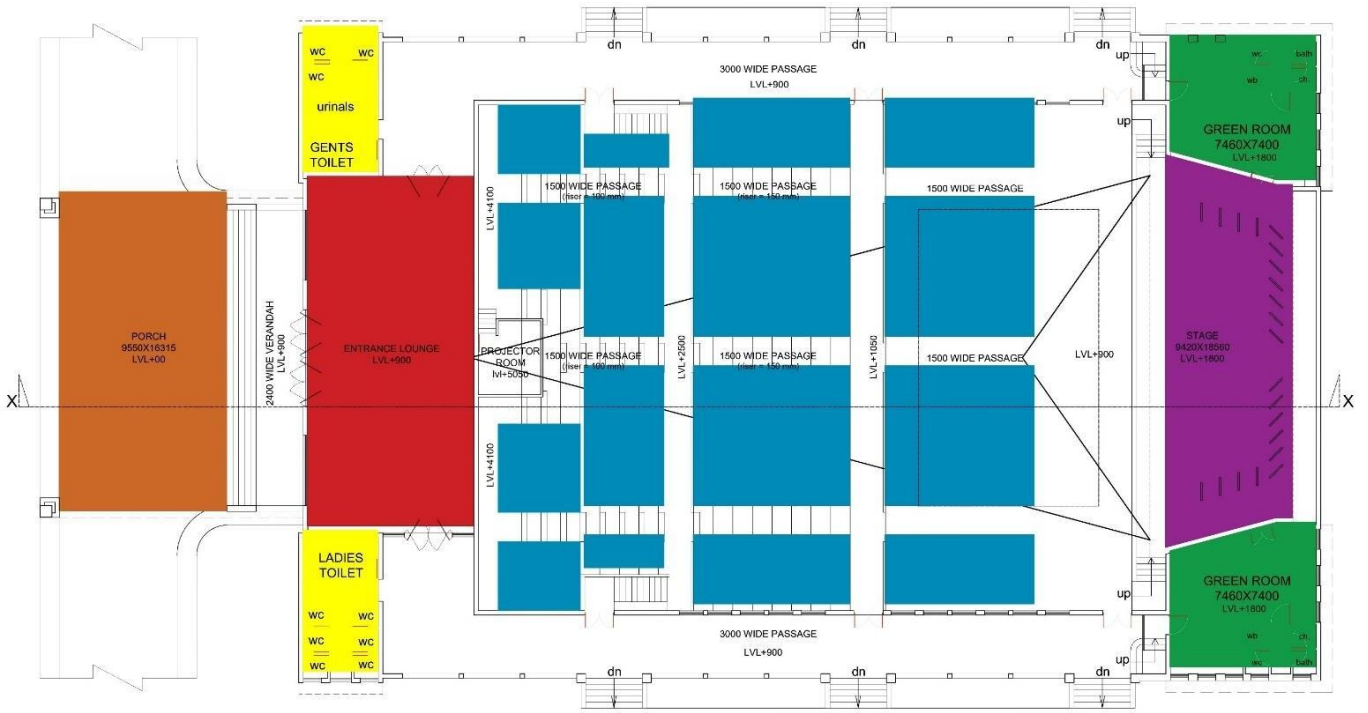
ZONING



PLAN AT LVL+900

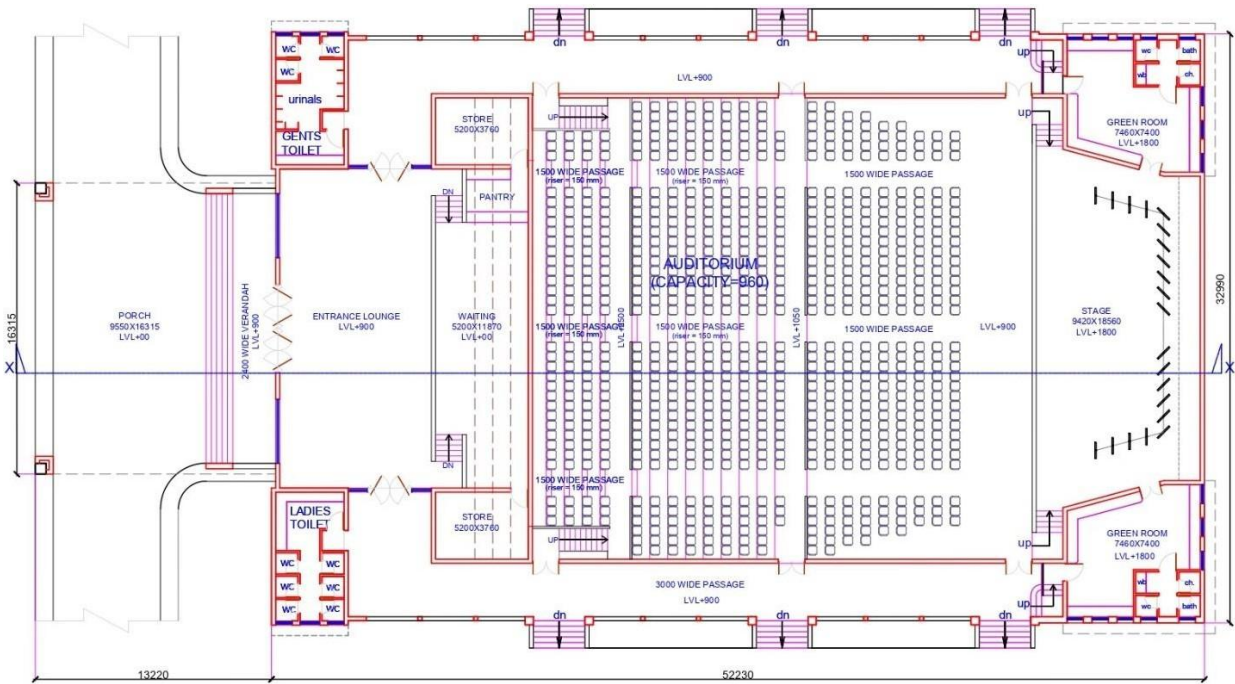


PLAN AT LVL+4250



PLAN AT LVL+6000

PLANNING



PLAN at lvl+900

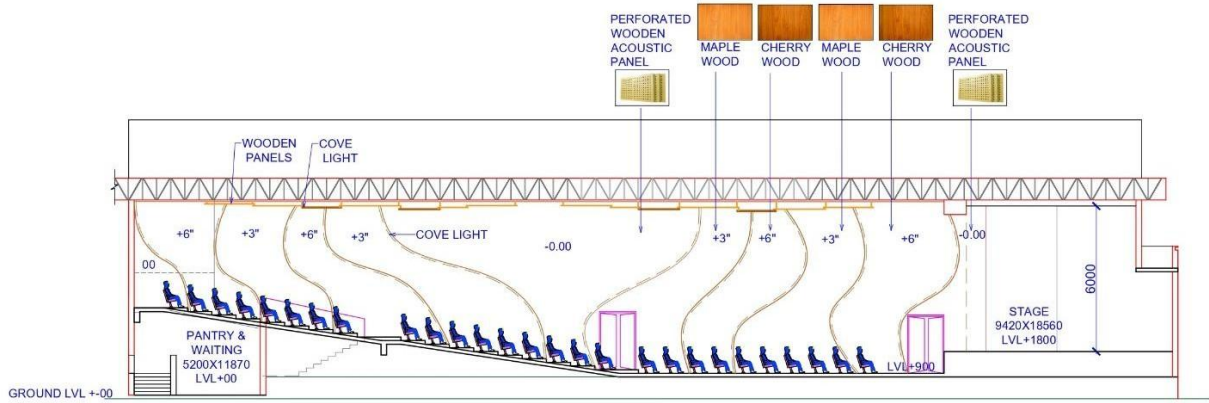


PLAN at lvl*4250

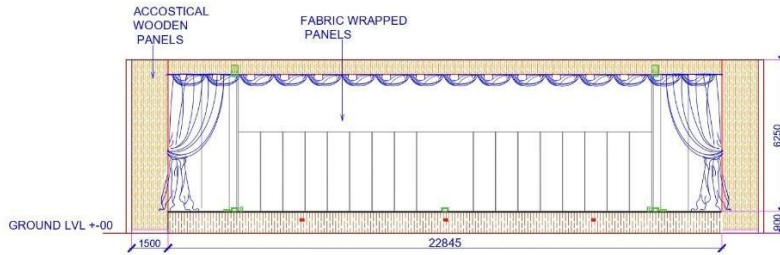


PLAN at lvl 6000

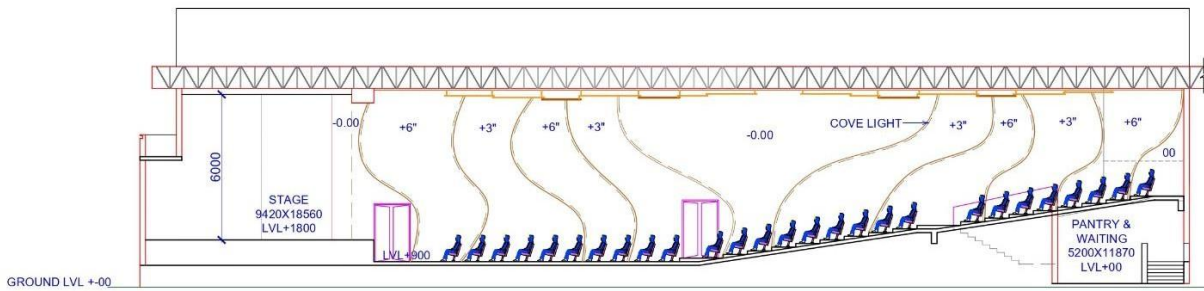
ELEVATIONS



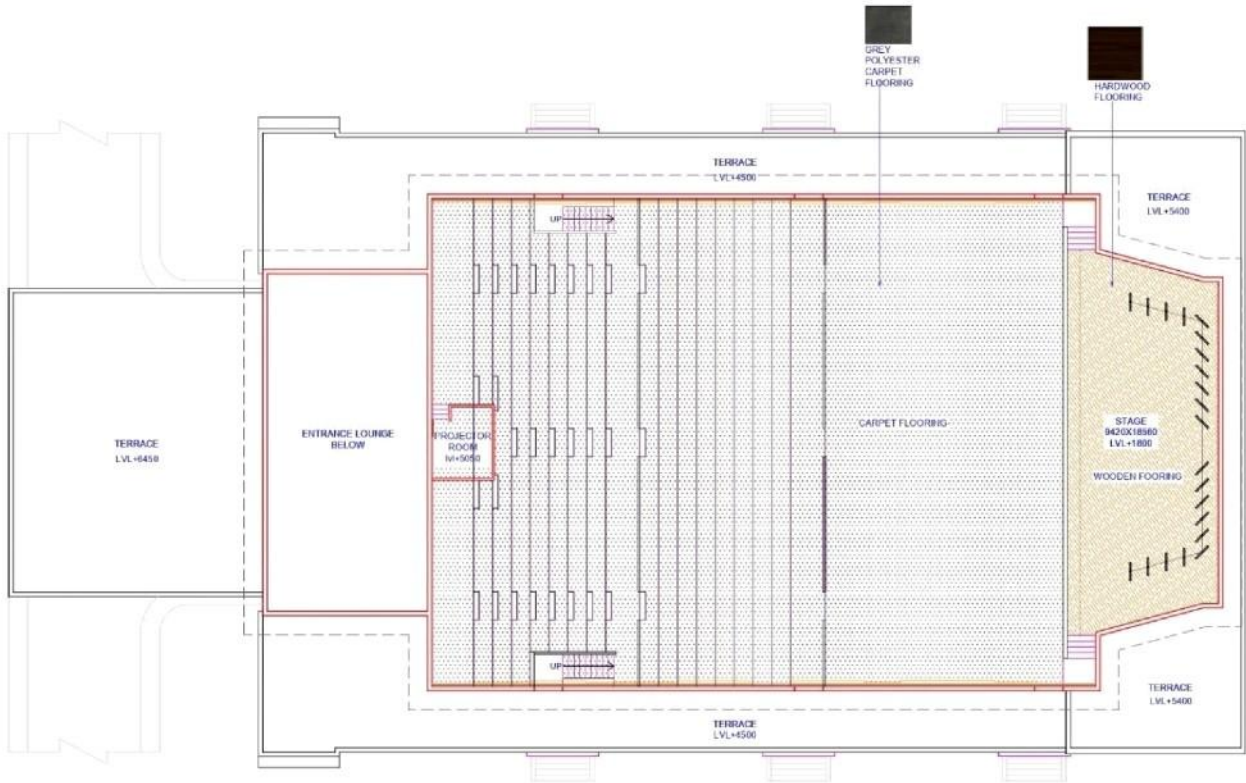
SECTIONAL ELEV.- AA'



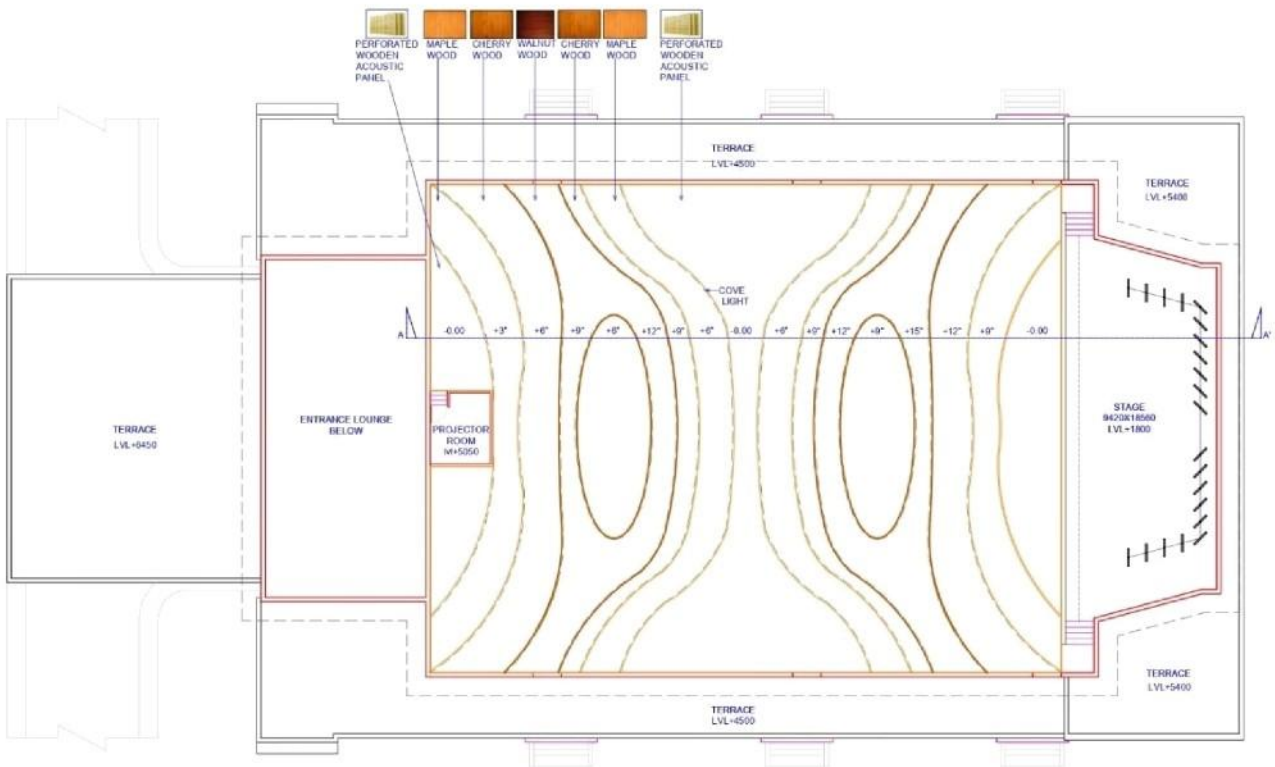
ELEVATION-B



SEC. ELEVATION- C



FLOORING PLAN

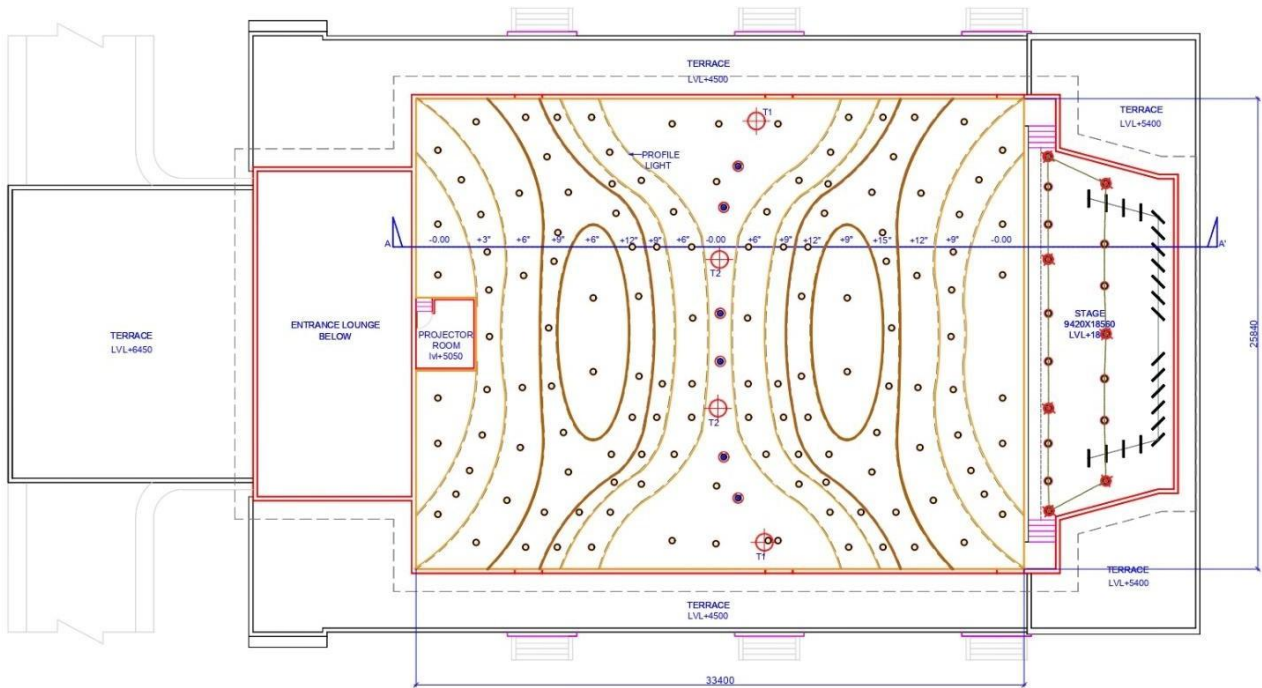


CEILING PLAN



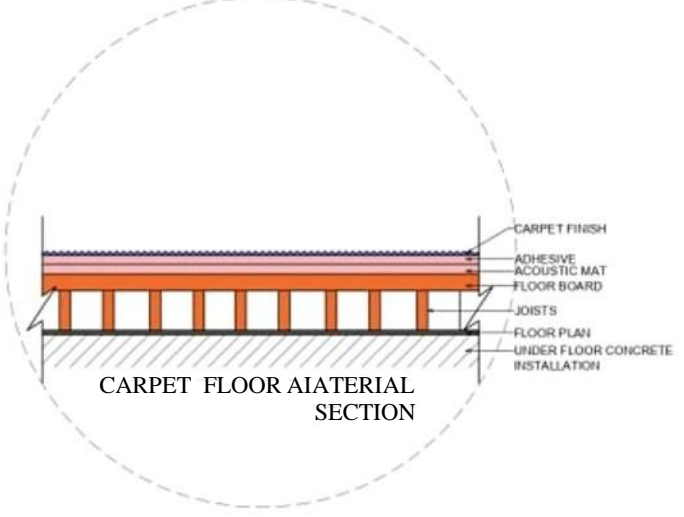
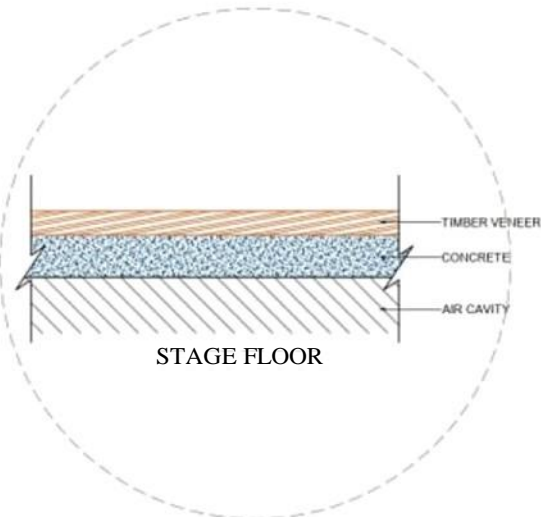
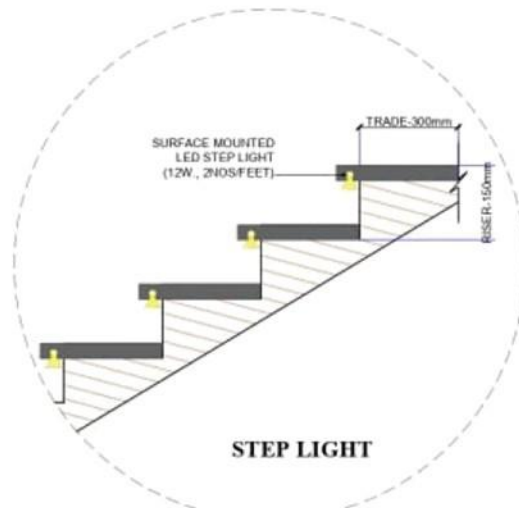
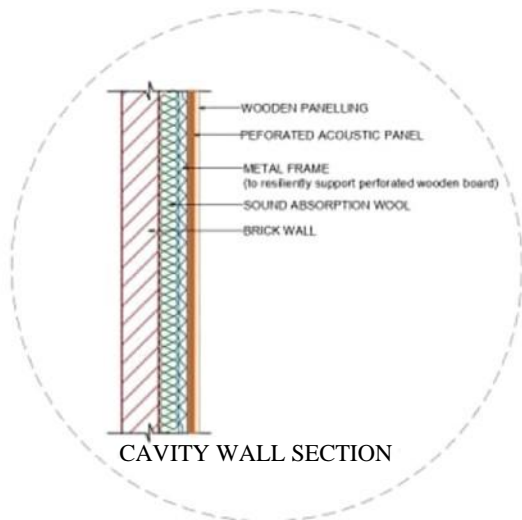
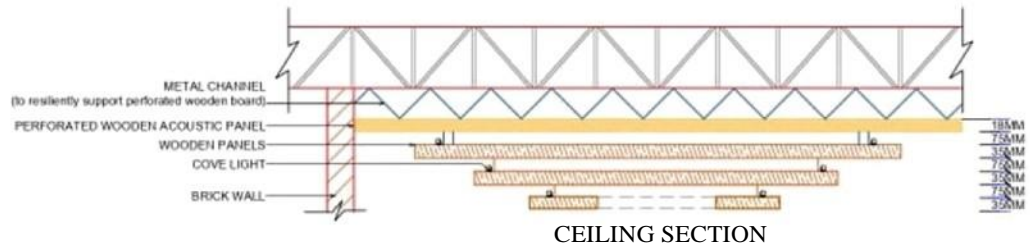
CEILING SECTION

LIGHTING PLAN



LEGEND

	300W LED Focusing Image-Forming Light
	54W LED PAR Light
	10R Moving Head Beam Light
	COVE LIGHT
	RECESSED LIGHT
	STEP LIGHT
	300W Flat Soft LED Light



ELECTIVE

AUDITORIUM FURNITURE DETAIL



- Highly Adaptable, Durable And Easy To Maintain Auditorium Seating Which Are Amazingly Affordable To Optimize Value.
- ① Armrest Cover : Imported Timber Externally Applied With Polyester Coating.
- ② Back & Seat Sponge : High-Density PU, Molded By Cold Foaming, No Distortion For A Long Time.
- ③ Side Pad Fabric : Stain And Discoloration Resistant Premium Fabric With Three Proofings.
- ④ & ⑥ Back & Seat Cover : Injection Molded With Multiple Composite Material (Pp), Anti-Impact, Anti-Aging.
- ⑤ Writing Tablet : Imported Timber.
- ⑦ Leg: Made From Top Quality Steel After Precise Pressing And Welding, And Gone Through Procedures Of Polishing Anti-Rusting, Phosphing, Spraying And Powder Coating With Pp Side Pads By Injection Molding In One Time.
- Cushion Recovery: Spring Or Gravity Returning Mechanism.
- Screw: Steel Hexagon Socket Cap Screws And Expanding Nut.

DIMENSIONAL REFERENCE:

- Backrest height: 1010MM; Armrest height: 610MM;
- Seat width: 465MM; Armrest length: 530MM;
- Writing board length: 850MM; Seat height: 460MM.

WOODEN ACOUSTIC DOORS

DESCRIPTION: – Acoustic Door's Are Useful To Control Noise Transfer From One Room To Other Room / Meeting Room , Conference Room , Outside Noise Control, Studio Purpose , Cinema Hall And At Many Other Places .

The Wooden Acoustic Door Will Be With Door Frame And Shutter, Single / Double Leaf Also Having STC – 35 To 50 STC



WOODEN ACOUSTIC DOOR: – 55mm To 72mm Thick Sandwich Type Composite Sound Reducing Flush Door Shutters. The Combined Assembly Set Of Door Frame And Door Shutters To Be As Per Following Details:

(A) Door Frame Shall Be Of Teak / Hard Wood Of Size – 110 Mm X 100 Mm, Including Making Necessary Grooves In The Frame For Fixing Of Hollow Bulb Type EDPM Gaskets On Rebates To Block Noise Leakage From Gap In Between Door Frame And Shutter.

(B) The Frame Of Shutter Shall Be Made From 40 Mm Thick Teak / Hard Wood Stiles And Top & Bottom Rails Of Size 94 Mm And Core Made Of Lock Rail 100 Mm Wide And 40 Mm Thick And Three Additional Strips 50 Mm Wide And 25 Mm Thick (Minimum)

(C) The Core Of Door Shutter Shall Be Filled With Acoustic Insulation Material , Sound Absorbing And Damping Material .

(D) Face Panels Shall Be Of 12 Mm Thick Marine Ply Boards Of Approved Make Conforming To Relevant IS Codes / International Standards On Both Sides Of The Core Of The Shutter With Required Primer At The Unexposed Surface . One Side Of Ply Board Shall Be Fixed To The Core Of The Shutter Along With A 5 Mm Thick Neoprene Rubber Sheet On Its Inner Face.

(E) 01 Mm Mica OR 04 Mm Thick Teak Veneer Of Approved Make Shall Be Bonded With 12 Mm Thick Marine Plyboard On Both Face Of Shutter By Using High Strength Cross Linked PVAC Based Adhesive .

(F) Dropdown Seal: – Excellent Quality Range Of Internal Automatic Dropdown Seal, Which Are Manufactured From High Grade Quality Raw Materials. These Internal Automatic Dropdown Seal Can Be Customized As Per Our Precious Customers Specifications. These Internal Automatic Dropdown Seal Are Widely Known For Its Durability And Quality. Internal Automatic Dropdown Seal Can Be Aailed At Industrial Leading Price. Resists Sound Upto 37db, Air, Insects, Cold Smoke, Light. Designed For Timber (Wooden) Doors.

(G) Hardware- The Door Assembly Shall Be Fixed To The Door Frame With Heavy Duty Stainless Steel Hardware I.E. Door Lock, SS Bal Bearing Hinges , SS Door Handle ‘D’ Type Back To Back, SS Tower Bolt ,

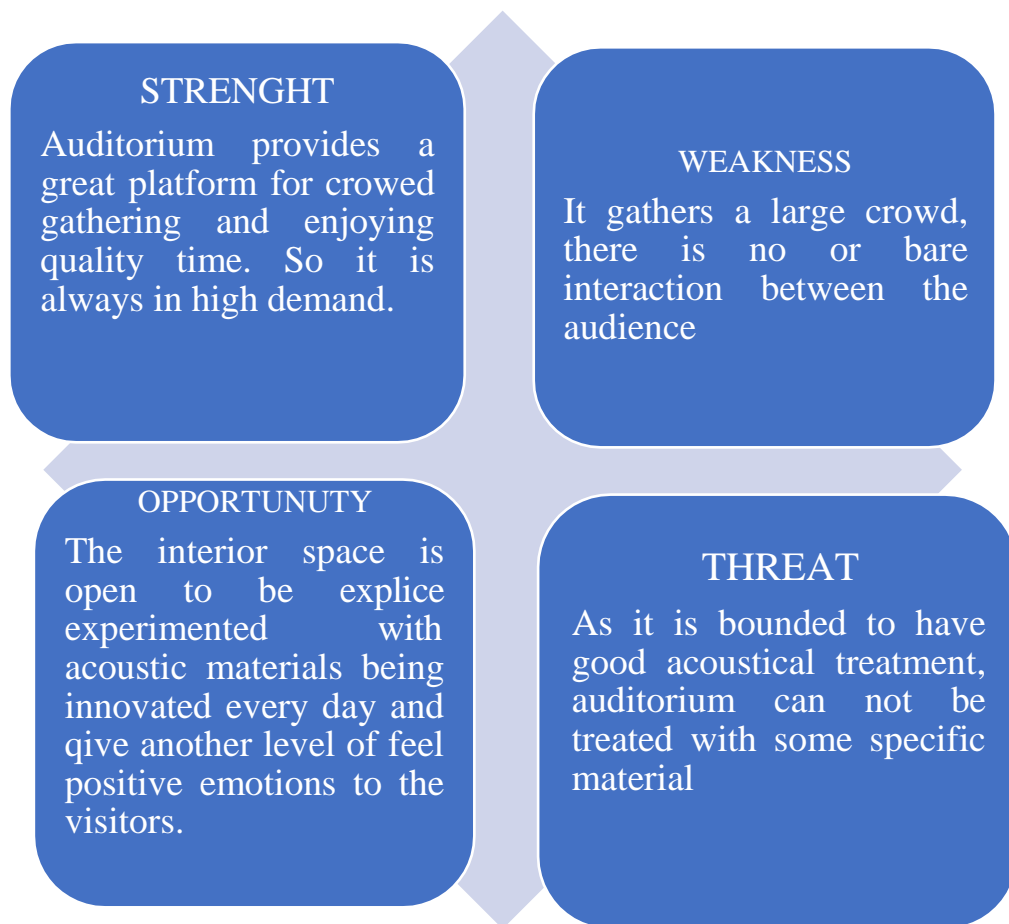
3D VIEWS







SWOT ANALYSIS



CONCLUSION

Keeping The Need Of Acoustical Treatment In Mind, I Have Concluded That A Specific Kind Of Material Will Be Used In Order To Give A Good Experience.