



**THESIS REPORT ON
“CONVENTION CENTER”
DELHI**

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

**BACHELOR OF ARCHITECTURE
BY**

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

CERTIFICATE

I hereby recommend that the thesis entitled “**CONVENTION
CENTER DWARKA SECTOR 25 ,DELHI**” 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.

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Recommendation

Accepted

Not Accepted

External Examiner

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1. INTRODUCTION

1.1 THE PROJECT

1

PROJECT NAME	Convention Center
CLIENT	Ministry Of Commerce And Industry
TYPE	Government Sector
LOCATION	Dwarka sector 25, Delhi
SITE AREA	18.66 acres

INTRODUCTION

A convention center is a large building that is designed to hold a convention, where individuals and groups gather to promote and share common interests. Convention centers typically offer sufficient floor area to accommodate several thousand attendees. Very large venues, suitable for major trade shows, are sometimes known as exhibition halls. Convention centers typically have at least one auditorium and may also contain concert halls, lecture halls, meeting rooms, and conference rooms. Some large resort area hotels include a convention center.

HISTORY AND BACKGROUND

The original convention centers or halls were in castles and palaces. Originally a hall in a castle would be designed to allow a large group of lords, knights and government officials to attend important meetings with the king. A more ancient tradition would have the king or lord decide disputes among his people. These administrative actions would be done in the great hall and would exhibit the wisdom of the king as judge to the general populace.

SCOPE AND LIMITATION OF THE PROJECT

To evolve a design with forms and spaces with distinct architectural characteristics focusing on space utilization and functions. This project deals with the design which is well adoptable in terms of typology, function and climatic conditions. The project will be design oriented and detailing of structural elements and services detailing are come under the limitations

TENTATIVE PROJECT REQUIREMENTS

- Library
- Conference Hall for 200 persons with Audio-Visual facilities and Media Centre of appropriate size.

- Auditorium with seating capacity of 1000 persons
- Facilities for holding work-shops & Exhibitions
- A display gallery of approx. 2000 sq. ft.
- Guest House

General Requirements:

Reception / waiting be provided separately for various components.

Area of various components / items not specified in the client's Brief but necessary for a particular purpose, may be purposed by the Architect and provided in the scheme.

The architectural design character of the project should be in harmony with the Chandigarh Architecture.

Parking lots should be un-obtrusive and designed to allow free pedestrian movement. Separate parking lots be provided for different activities based on the capacity of each facility.

Ramps, lifts and stairs may be provided where-ever necessary.

Public conveniences.

Service Areas:

All building areas except area under building services, circulation etc. are to be air-conditioned. Electrical sub –station, generator room, under ground water reservoir, A/C plant and workshop etc. are to be provided in the basement separately for Memorial and Centre for Performing & Visual Arts. We would be interested in making this an intelligent building complex.



1.2 CONVENTION CENTER

CONVENTION CENTRE, since its very inception has been the centre of learning and research. It draws scholars and researchers from all over the world. It provides a platform for the influx of visitors who come to avail the wealth of the knowledge thus providing an opportunity to interact with people of similar interests and pursuit.

NECESSITY OF CONVENTION CENTRE

A convention centre offers a pragmatic approach for creating a harmonious environment to hold meetings and enhance communication at personalized level, initiate program and encourage innovation. It caters the delegates representing top expertise in their respective fields and aimed to provide a conducive environment to hold conferences, exhibitions, etc.

NEED OF MEETINGS:

The main drawing factor which generates a continuing demand for meetings in a need for communication at a personalized level, the opportunity for individuals, particularly in those activities which involve problem solving and innovations to exchange views and ideas.

CONVENTIONS:

It is a forum of annual or total membership meeting. And usually general sessions, mostly information giving, often formed around a particular theme or subject matter of interest and accomplished by exhibition.

NEED OF PROJECT:

The need is to set up a permanent conference and business centre to give a boost to the trade and commerce of Indian industries.

REASON FOR TAKING UP THE TOPIC:

Though convention centre is considered as a place assigned for people to meet but there are several possibilities in this project which to have explored. This project is one which appeals to both my aesthetic and technical sensibilities. For e.g. while designing auditorium and conference hall I will have to pay attention to the acoustics as well as services and will also have to make sure that the surroundings should be such that people attending a conference should feel comfortable. Not only this various other requirements like library, exhibition hall, guest room, VIPs lounges etc. require different planning because they are designed for different purposes, thus give me a chance to understand different approaches required for these different structure and their interconnection with each other which will help me in the long run. Thus my reason to take up the project is its varied space requirement and it not only appeals to my senses as an architecture student but also gives me a chance to understand various possibilities of construction.

AIMS AND OBJECTIVES:

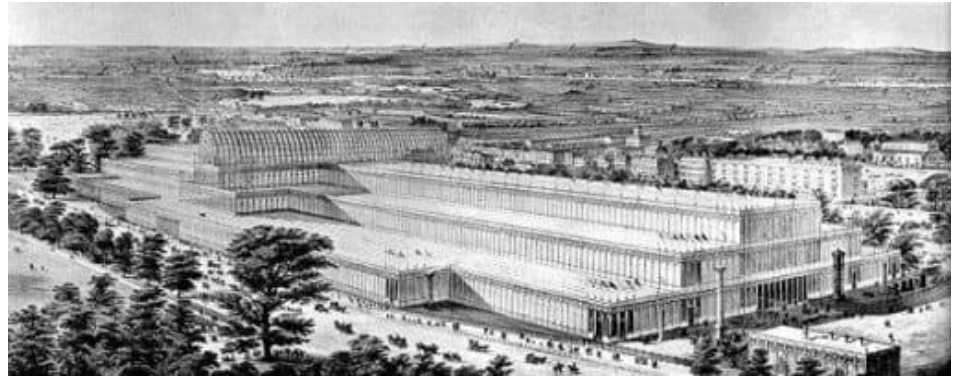
- Program consist of varied function having work which will require high level of detailing of services.
- To create inter relationship of different structure forms of different functions.
- The circulation of the project is very important at some times there will be need to segregate the V.I.P. and the other gentry.
- Exhibition, library etc. are some spaces where proper provision for natural lighting and ventilation should be assured along with artificial lighting.
- To promote a platform for interactions between various sections of society . This would lead to better understanding of each others trade and spread awareness among people which is a need of this era.
- To provide a conducive atmosphere for discussions this will help in efficient exchange of useful date and information.

METHODOLOGY:

- Detailed study in terms of features, climate etc.
- Detailed study of specific building typology in term of nature, quality and space requirements including services, equipment etc.
- The study of similar building types to familiarize the existing building solutions to similar related requirements.
- The study of context in which the project is to frame out.
- Framing of requirements, concept and finalization of design.

SPATIAL REQUIREMENTS:

1. Office Complex for Admin.
2. Multipurpose Hall (5000 Peoples)
3. Conference Rooms
4. Restaurants
5. Exhibition Spaces
6. Media Room
7. Banquet Hall
8. Mini Auditorium
9. Parking
10. library
11. Outside landscaping with tree plantation, garden area etc.



BACKGROUND AND HISTORY

The first convention centre can be traced back to mid-19th century Britain. Commonly known as exhibition halls, the centre were designed to bring together people to discuss and explore their mutual interest of a subject.

The convention center, designed by architect Charles Luckman, opened in 1971 and expanded in 1981, 1993 and 1997. It was originally built as a rectangular building, between Pico Boulevard and 11th Street.

THE HISTORY OF CONFERENCE CENTRES



The first convention centre can be traced back to mid-19th century Britain. Commonly known as exhibition halls, the centre were designed to bring together people to discuss and explore their mutual interest of a subject. These imposing Victorian buildings often covered several acres and were multi-functional incorporating lecture halls, libraries, galleries, theatres and exhibition areas.

They can be typically described as-

- **Trade Convention-** It typically Lays focus on a particular industry or industry segment, and feature Keynote speakers, Vendor displays, and other information and activities of interest to the event organizers and attendees.
- **Professional Conventions-** They focus on issue of concern to the profession and advancements in the profession. such conventions are generally organised by society's dedicated to promotion of the topic of interest.
- **Fan Convention-** they usually feature display shows, and sales based on pop cultures and guest celebrities.
- **Seminar-** They are meetings organised to celebrate major events and religious ceremonies. Common social event include - Anniversary's wedding and Birthdays.
- **Tradeshow/ Exhibitions** -They are an opportunity for companies to exhibit some of their latest products, as well as yet to be released prototypes to journalists as well as others in the industry.

SCOPE OF PROJECT:

- The project is layout/ planning oriented.
- The need of such type of spaces is provide for multi functional activity like conferences, seminars, and exhibitions etc.
- there are many technical aspects involved in the design of library , auditoriums and exhibitions etc.
- parking segregation is also very important for the purpose of security.
- To exchange ideas and views.

To bring people of different religions, language and social background together and to create a better understanding of each other personnel contact In splite of higher technological advancements in the field of science and technology.

The land has been allotted by DDA for the development of Hotel/Commercial use . The surrounded area is developed area. The site is well connected by road network and Metro also. The proposed project will result in the increase in the social infrastructure as the population related to commercial use in form of supporting staff, working staff and visitors will increases.

Soil

The soils of the Delhi area are mostly light with subordinate amount of medium texture soils. The light texture soils are represented by sandy, loamy, sand and sandy loam.

TOPOGRAPHY

THE SITE IS FLAT LAND, JUST LIKE THE SURROUNDING AGRICULTURE LANDS, AND NEED NOT TO BE REFILL.

VEGETATION:

The vegetation of Delhi is thorny scrub which are found in arid and semi arid Zone. The main forest i.e., Ridge Forest fall in the forest type as per classification of Champion and Seth in the category of 'Tropical Thorn Forest' and more especially as 'Semi Arid Open Scrub'.

Bye Laws

GROUND COVERAGE, FAR, HEIGHT CONTROL.

Building Regulation to be adhered to are given below: International Convention centre & Exhibition Centre will be built on a plot of 10Acres.

Climatic Data

New Delhi - the capital of India - is a land locked city.

The distance from the sea gives Delhi an extreme type of continental climate with the prevalence of continental air during major parts of the year. Only during the three monsoon months of July, August and September does the air of oceanic origin penetrate to this region and causes increased humidity, cloudiness and rain. The year can be broadly divided into four seasons.

Cold season - December to February

Hot weather season – March to June

Monsoon season – July to September

The two post monsoon months of October and November constitute a transition season from monsoon to winter conditions.

The temperature may rise up to about 45 degrees Celsius in summers, though the average temperature is around 39-40 degree Celsius. There are about 4-6 days of heat wave when the maximum temperature of a day rises 46 degree Celsius above the normal values.

The winters are not bitterly cold on most of the days, the temperatures may fall to 3-4 degree Celsius on for a few days in winters when the cold winds from the Himalayas prevail over the region making the winters chilly.

DESIGN CONSIDERATION IN COMPOSITE CLIMATE

Objectives

Physical Manifestation

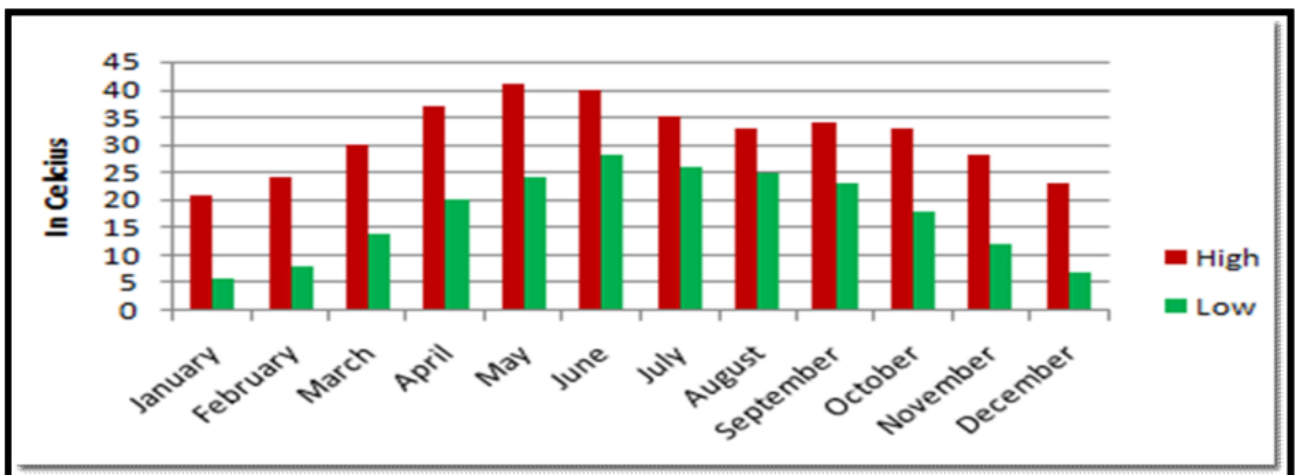
1) Resist Heat Gain In Summer And Resist Heat Loss In Winter

- Decrease Exposed Surface Area - Orientation And Shape Of Building.
- Use Of Trees As Wind Barriers
- Increase Thermal Resistance - Roof Insulation And Wall Insulation
- Increase Buffer Spaces - Air Locks/ Balconies
- Decrease Air Exchange Rate - Weather Stripping

• Increase Surface Reflectivity - Pale Colour, Glazed China Mosaic Tiles Etc.

2) Promote Heat Loss In Summer/ Monsoon

- Increase Air Exchange Rate - Courtyard/ Wind Tower/ Arrangement Of Openings
- Increase Humidity Levels -Trees And Water Ponds For Cooling Effect
- Decrease Humidity In Monsoon - Dehumidifiers/ Desiccant Cooling
- Vegetation - “Deciduous” These Type Of Trees Are Less Dense Than Evergreen Trees And Shed Their Leaves In Particular Season Of A Year.



AIR MOVEMENT

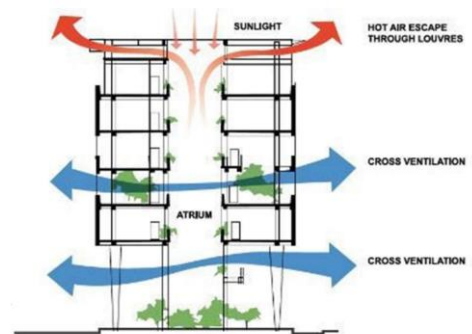
In taller buildings, STACK VENTILATION can be used to draw fresh air through a building, and IN deeper building, atriums or courtyards can be introduced to allow light into the center of the floor plan.

EARTH TUBES are often a viable and economical alternative or supplement to conventional central heating or air conditioning systems since there are no compressors, chemicals or burners and only blowers are required to move the air.

Light color coatings with high reflection.

Active Techniques which can be used are HVAC System.

Swot Analysis



STRENGTH:

Research and knowledge based city character-Presence of nearly 15 R&D Centres /PSUs, 21 MSEs.

Availability of quality sports Infrastructure-17 Stadiums, Sports university.

Availability of prominent schools/ pre-college facilities .

Presence of abundant natural spots.

Variety of flora, fauna, variety of horticulture and floriculture.

WEAKNESS:

Inadequate higher/technical education facilities.

Poor urban planning, road infrastructure, public transport system.

Lack of specialised medical facilities.

Poor road and rail connectivity. Low disaster management preparedness.

Absence of sewerage system.

OPPORTUNITY:

Opportunity to develop:

Knowledge hub/ Higher education facilities / Education hub.

Eco-tourism centre.

Sports hub.

Mineral related business hub.

Tribal tourism development culture centre / Herbal medicine hub.

Food processing hub.

THREAT:

Naxalism.

Erratic monsoon.

Depleting green cover / Indigenous plantation.

Depleting water table.

Thundering/lightning fatalities.

Ranchi has high migration rate.

CASE STUDY -1 (J.P.N.I.C. LUCKNOW)

JAYAPRAKASH NARAYAN INTERNATIONAL CENTRE

THE JAYAPRAKASH NARAYAN INTERNATIONAL CENTRE/ MUSEUM OF SOCIALISM IN LUCKNOW IS BUILT ON THE IDEA OF CREATING PUBLIC ARCHITECTURE, WHOSE DESIGN VOCABULARY ENDOWS A CONTEMPORARY VALUE TO PAST EVENTS, BUT STANDS ITS GROUND WITH ITS 'NEW-FOUND' INSTITUTIONAL IDENTITY REFLECTING THE POLARISED VIEWS OF CIVIC AUTHORITIES, CURATORS, HISTORIANS AND THE GENERAL PUBLIC. THE CONTEMPORARY NATURE OF THE MUSEUM'S ARCHITECTURE TAKES RESPONSIBILITY FOR CREATING WHAT WILL BE TOMORROW'S HISTORY WHILE NARRATING THE CURRENT ONE.

PROJECT DETAILS

JAYAPRAKASH NARAYAN INTERNATIONAL CENTRE
LUCKNOW, UTTAR PRADESH

ARCHITECT : STUDIO ARCHOHM.

DESIGN TEAM : SOURABH GUPTA, AMIT SHARMA,
SANJAY RAWAT ,DIPANKAR DUTTA, BHOOMIKA SINGHAL,
RAM SAGAR, NEHA AGARWAL ,SHAHZAD AHMAD

EXPERIENCE DESIGN : DESIGN FACTORY INDIA.

STRUCTURAL CONSULTANTS ROARK CONSULTING.

LANDSCAPE CONSULTANTS : SHAHEER ASSOCIATES SJA,
CONSULTANTS.

ELECTRICAL CONSULTANTS : STUDIO ARCHOHM.

MECHANICAL ENGINEERING,

HVAC PLUMBING : SUNIL NAYAR CONSULTANTS PVT. LTD

PRODUCT SPECIFICATIONS

TERRACOTTA CLADDING TERREAL

CONCRETE TILES : IVANKA

GATEWAY TO JPN INTERNATIONAL CENTRE

THE JAYAPRAKASH NARAYAN INTERNATIONAL CONVENTION CENTRE HAS BEEN CONCEIVED AS A PLACE THAT OFFERS THE CITIZENS OF LUCKNOW, MULTIPLE CHOICES OF LEISURE, BUSINESS, RECREATION, SPORTS & LEARNING. IT IS A PLACE WHERE PEOPLE FROM ALL WALKS OF LIFE-FROM THE LOCAL TO THE OVERSEAS VISITOR CAN HAVE A MEANINGFUL AND MEMORABLE INTERACTION AND EXPERIENCE. THE JPN INTERPRETATION CENTRE IS A GATEWAY FRAMING THE INTERNATIONAL CENTRE. IT IS PLACED AS A WEDGED-SHAPED MONUMENT WITH A MASSIVE ARCH CARVED OUT OF THE MASS; ITS NINE-METRE HEIGHT AND TWENTY METRE AMBITIOUS SPAN CLEARLY ATTEMPT TO PUSH THE LIMITS OF STRUCTURAL DESIGN AND CONSTRUCTION.

THE GATEWAY AS A VOID IS THE ENTRANCE TO THE INTERPRETATION CENTRE AND THE SILHOUETTE OF THE GRAND ARCH IN ITS ENTRANCE OFFERS A FRAMED VIEW OF ITS PARENT AT THAT POINT. A VOID THAT OPENS UP THE CENTRE. IT THEN TAKES A SEAT ON THE SITE IN A WAY THAT IS MAJESTICALLY JUXTAPOSED WITH THE INTERNATIONAL CENTRE, THUS CREATING ITS OWN IDENTITY EVEN WHILE OWING ALLEGIANCE TO IT.



THE JPN MUSEUM

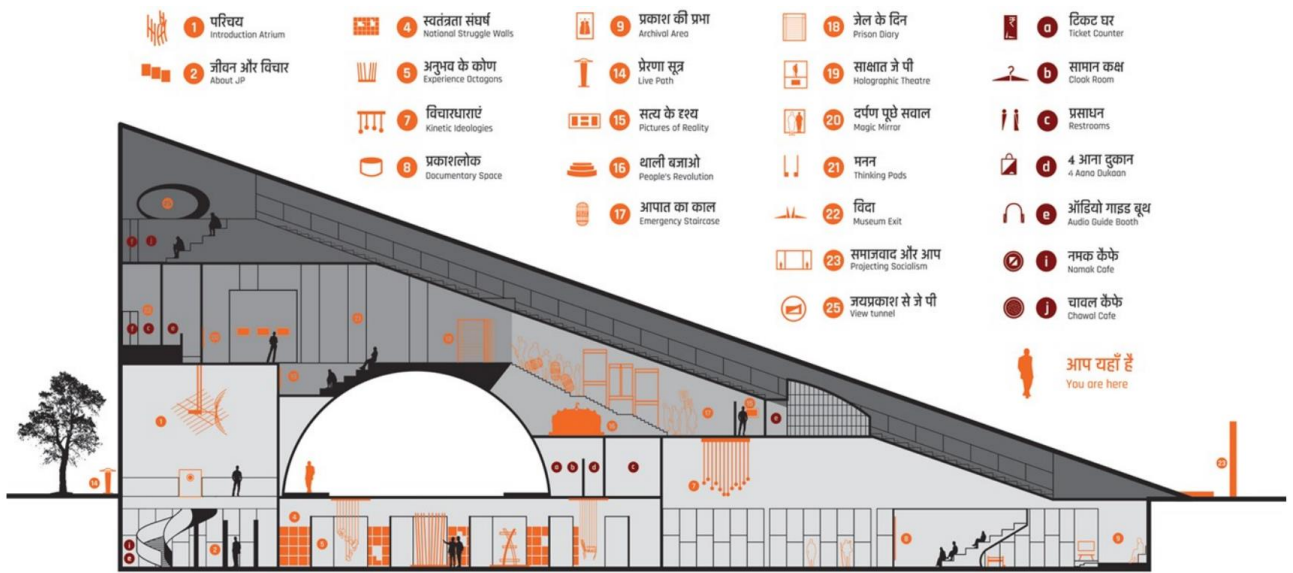
THE JPN MUSEUM IS A GATEWAY FRAMING THE CENTRE PLACED AS A WEDGED-SHAPED MONUMENT WITH A MASSIVE ARCH CARVED OUT OF THE MASS; ITS NINE-METRE HEIGHT AND TWENTY-METRE AMBITIOUS SPAN ARE CLEARLY ATTEMPTS TO PUSH THE LIMITS OF STRUCTURAL DESIGN AND CONSTRUCTION. ITS STEPPED ROOF TERMINATES IN A PAVILION THAT GIFTS A PANORAMIC VIEW OF THE R.M. LOHIA PARK AND THE CONVENTION CENTRE. THE MUSEUM WITHIN IS AN EXPERIENCE IN SPACE DESIGN WITH THE DEPICTION OF JAYAPRAKASH NARAYAN AS A CHRONOLOGICAL NARRATIVE OF A LINEAR JOURNEY. IT IS DIVIDED INTO TWO ZONES; THE ZONE OF ABSORPTION AND THE ZONE OF REFLECTION. AS THE NAMES SUGGEST, THESE SPACES ENABLE ABSORPTION OF INFORMATION TRIGGERING CURIOSITY AND CONTEMPLATION WHICH THEN IS EXPECTED TO LEAD TO REFLECTION AND ASSIMILATION. THUS THE MUSEUM IS NOT JUST A CONTAINER THAT PRESERVES FROZEN ALBEIT INSPIRING MOMENTS OF A PAST BUT BREEDS THEM AND ENSURES THAT THEY PERCOLATE INTO CURRENT REALITY, AND LAY THE FOUNDATION FOR THE FUTURE. THUS WHILE THE VARIOUS EXHIBITS AND NARRATIVES REMAIN CENTRE STAGE, THE BUILDING OFFERS SURFACES, VOLUMES AND ELEMENTS AS TACTILE BACKDROPS.

PICTURES OF JPN MUSEUM



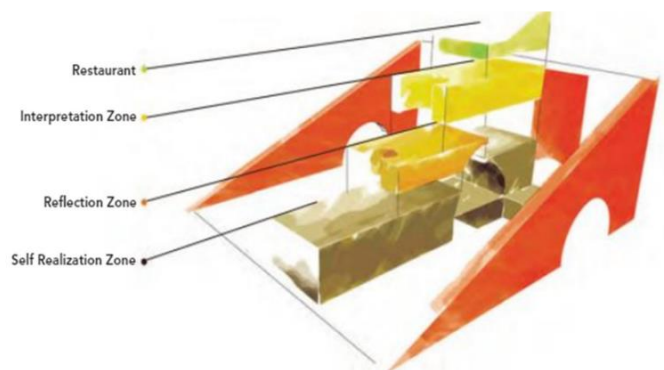
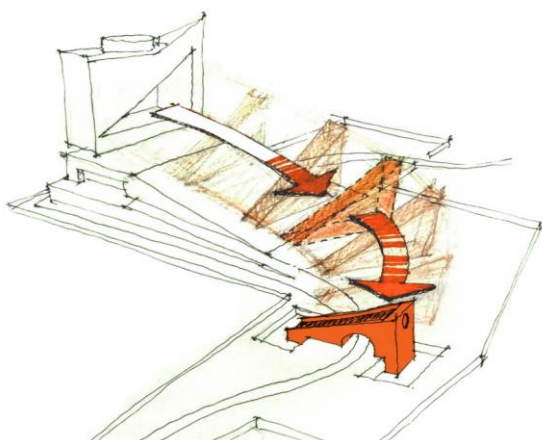
(THE ELEMENTS - WATER,
LIGHT AND AIR)





MASS AND VOID ARE LIKE THE TWO SIDES OF A COIN, POSITIVE AND NEGATIVE, BUILT AND UN-BUILT, THE METAPHORIC STRENGTHS AND WEAKNESSES; TOGETHER INCARNATE ARCHITECTURE. THE WEDGE SHAPED MUSEUM IS ACTUALLY A SLICE OF THE SAME SHAPE AND SIZE CARVED OUT FROM THE MASS OF THE INTERNATIONAL CENTRE BUILDING.

CONCEPT BEHIND WEDGED SHAPE



THE PAVILION SITS IN A BODY OF WATER IN THE SUNKEN COURTYARDS. CONSEQUENTLY, IT SEEMS TO FLOAT AND GIFTS ITSELF A SURREAL CHARACTER, A LIGHTNESS THAT MAKES LIGHT OF THE MASSIVENESS.

WATER IS USED AS A MEDIUM OF REFLECTION; REFLECTION OF THE BUILDING REITERATING ITS MISSION AND OF ONESELF IN AN INTROSPECTIVE MOOD. HOWEVER, WATER HAS BEEN USED AS A LANDSCAPE ELEMENT FROM AN ECOLOGICAL POINT OF VIEW AS WELL; IT IS A SIMPLE AND PASSIVE MEANS OF COOLING AIR; THE AIR COOLED AS A RESULT OF CONTACT WITH WATER RISES AND VENTILATES THE SPACES ENVIRONMENT WITHOUT MUCH ADO.

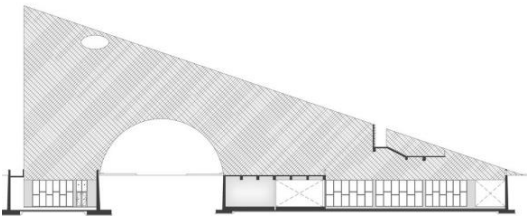
MATERIALS (MATERIALS AND FAÇADE)

THE TRIANGULAR SHAPE OF THE FACADE WHICH IS CLEARLY VISIBLE EVEN FROM A DISTANCE IS DERIVED FROM THE WEDGE THAT WAS CARVED OUT OF JPN INTERNATIONAL CENTRE AS MUCH AS FROM THE FACT THAT IT BEST DIAGRAMMATICALLY REPRESENTS THE TRIAD OF OBJECTIVES OF SOCIALISM AS CONCEIVED BY JPN FREEDOM, EQUALITY AND BROTHERHOOD. THREE OF THESE WORDS ARE CELEBRATED AND ETCHED IN MULTIPLE LANGUAGES ON THE TERRACOTTA PANELS.

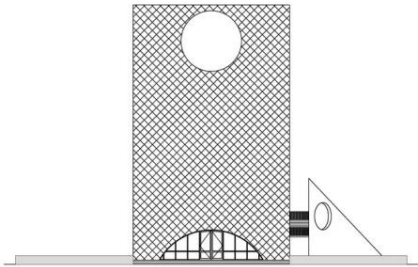
DETAIL OF TERRACOTTA FACADE

THE CUSTOM DESIGNED TERRACOTTA TILES ARE DRY-CLAD WITH AN AIR-GAP BETWEEN THIS LAYER AND THE TRUE WALL. THIS SPACE FILLED WITH ROCK WOOL OFFERS A MEASURABLE DEGREE OF THERMAL AND SOUND INSULATION. WHILE THE FORMER KEEPS THE MUCH VISITED PLACE COOL AND COMFORTABLE.

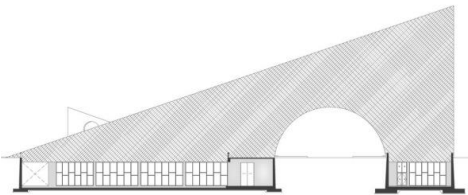
ELEVATIONS SECTIONS AND VIEWS



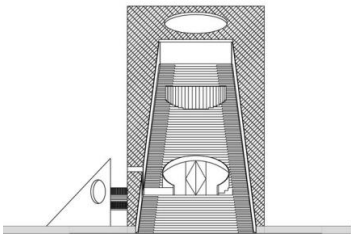
SOUTH ELEVATION



WEST ELEVATION



NORTH ELEVATION



EAST ELEVATION

INDIRA GANDHI PRATISHTHAN (IGP), Lucknow

Location- Kathauta Chauraha Road, Vibhuti
Khand Gomti
Nagar Lucknow

Architect-Sikka Associates

Client-Lucknow Development Authority (L.D.A.)

Area - 10 Acres

Construction Status -Completed (Restaurants,
Gym, Club,
Library) Proposed



Introduction:

Indira Gandhi Pratishthan is one of the largest convention centre in the city of Lucknow. The venue has been host to various national and international meetings, summits and gatherings, the venue consists of three auditoriums, lawns, banquets, meeting rooms, art gallery, exhibition space etc. Named after the former prime minister smt. Indira Gandhi the project began in 2002. This 10 acre campus has parking for 2000 cars and is accessible from all parts of the city. Many facilities have been proposed for proper utilization Of venue and increase the footfalls. The proposals include setting up gymnasium, swimming pool, library, club, restaurants etc. The venue has catered events like meetings, gatherings, seminar, product launches, business summits, exhibitions, award functions, concerts, entertainment events.

Purpose

The convention venue has served various purposes over the year from local to national to international events the venue is capable of all the events. Some of the events hosted by Indira Gandhi Pratishthan.

- 1) Meetings
- 2) Seminars
- 3) Product Launches
- 4) Business Summits
- 5) Marriage Functions
- 6) Exhibitions
- 7) Award Ceremonies
- 8) Entertainment Events
- 9) Concerts



Features of IGP:

IGP has been designed for hosting various events there are various block in the venue

- 1) Earth (5 Moon Halls, Vip Lounge 1 Media Centre)
- 2) Mercury 400 Pax
- 3) Mars 600 Pax
- 4) Jupiter 1500 Pax
- 5) Saturn Banquet Hall
- 6) Art Gallery
- 7) Exhibition Ground



Services:

- 1) Fire hose pipes installed on site with
- 2) primary and secondary pumps
- 3) Two 320 KV generator
- 4) Three transformers installed
- 5) 12 mt wide access road



Features:

- 1) Banquet hall with 600 capacity
- 2) Separate kitchen space provided
- 3) A hall for mini function
- 4) AHU store and other area provided
- 5) Landscaping provided for good aesthetic
- 6) Solar panel installed
- 7) Service road for loading and unloading
- 8) Centrally air conditioned banquet.

Jupiter (Auditorium):

- 1) 1500 people capacity
- 2) Grand entry foyer
- 3) Lift and staircase access to first floor
- 4) Green room, control room, practice hall, Vip rooms
- 1) Basement parking for visitor
- 2) Separate VVIP entry provided to the building
- 3) Stone finishing provides lavish aesthetics
- 4) 10.8 mt wide corridor on each side
- 5) 7.2 mt wide backstage corridor
- 6) Solar panel installed on roof
- 11) 1.2 mt gangway in auditorium for proper circulation.

FACILITIES AND FEATURES:

- 4 auditoriums
- 5 meeting rooms
- Outdoor exhibition space
- 7) Banquet hall
- Art gallery , Neptune , Mercury , Mars, Saturn , Earth , Venus , Jupiter.

ABOUT EARTH: The earth block consists of 5 moon halls (meeting rooms 100,60,40 capacity)

Vip/Vvip lounge

Media centre

Pluto auditorium (200 pax)



DETAILS:

The ground floor of earth block consists of administration, moon 1 hall, VIP/VVIP lounge

The first floor consists of moon 2, 3,4, 5 and staff rooms

The second floor of moon block consists of pluto auditorium, executive room, media centre

AHU and electrical rooms provided on each floor.

MERCURY:

Mercury is a 400 capacity auditorium

MARS:

Mars is a 600 capacity auditorium

VENUS: Venus is a 1000 capacity pavilion

NEPTUNE: Neptune is the exhibition block

ART GALLERY: The art gallery has indoor space for display of exhibits with spacious halls

JUPITER: Jupiter has following features

Jupiter is auditorium in IGP with maximum 1500 people capacity

It is typical balcony which has balcony and a projection room

The auditorium has grand foyer.

Green room, VIP room, practice room, control room, in the backstage for artists and officials.

Fire hose pipes and lifts provided with proper lobby.

Basement parking provided for visitors.
Separate VIP entry provided for artists and guest
Stone finishing provides lavish aesthetics with
Solar panels installed on roof.

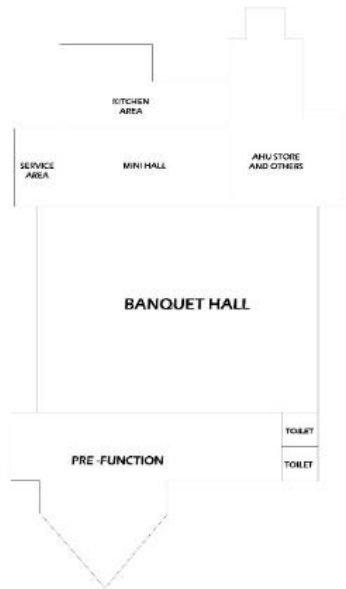
FLOOR PLAN



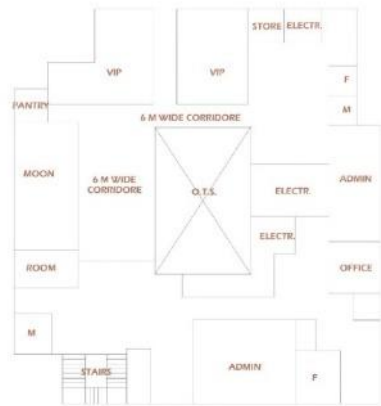
MERCURY

JUPITOR

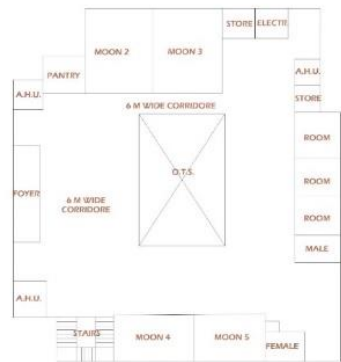
FIRST FLOOR PLAN



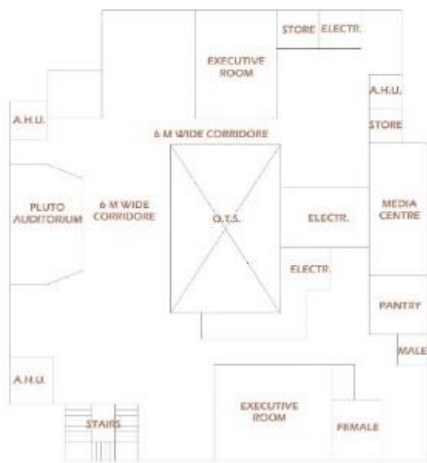
BANQUET HALL



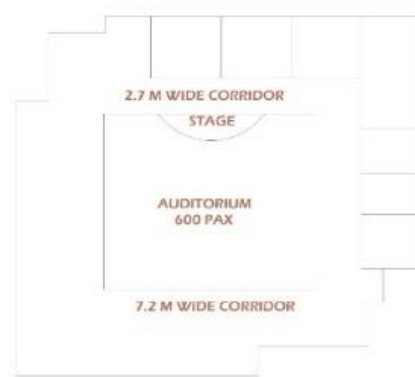
GROUND FLOOR PLAN



SECOND FLOOR PLAN



THIRD FLOOR PLAN



MARS

SERVICES

● LIGHTING:-

THERE IS NO CAT WALK AREA PROVIDED FOR THE LIGHTING ON THE STAGE, WALL HUN FOCUS LIGHTS AND CEILING LIGHTS PROVIDED FOR THE LIGHTING ON THE STAGE.

FIRE:-

- FOR THE SAFTY FROM THE FIRE THE FIRE ALARM AND FIRE SAFTY SYSTEM ARE PROVIDED AND THE CYLINDER OF CO2 GAS IS ALSO KEPT IN THE AUDITORIUM.
- SMOKE DETECTER AND SPRINKLER ARE PROVIDED IN THE CEILINGS.

ACOUSTICS:-●

THE WOODEN CLADING IS USED ON THE INTERIOR WALLS OF THE AUDITORIUM WHICH IS MORE AUDIO REFLECTIVE THAN THE FABRIC.

- THE CEILING IS DESIGNED IN THE CURVED FORM FOR THE ACOUSTIC PURPOSE.
 - THE FABRIC IS USED BEHIND THE STAGE WALL.
- MAT IS LAID ON THE FLOOR OF HOUSE AREA AND ORCHESTRA PIT.

● SPEAKERS:-

- THE SOUNDS ARE PROVIDED ON THE VERTICAL SURFACE OF STAGE AND WALL HANGING SPEAKERS.

AIR CONDITIONING SYSTEM:-

THE CENTRALISED AC IS USED IN THE WHOLE BUILDING.

- THE AC DUCTS ARE PROVIDED IN THE CEILINGAND WALLS.

THE AIR HANDELING UNIT ROOM IS PROVIDED ON THE FIRST FLOOR.

MATERIALS:-

THE STONE AND GALSS IS USED IN ELEVATION.

- TILES, MAT AND WOODEN FLOORING IS USED IN THE FLOORING.

GRANITE IS USED AT THE STAIRS.

WOODEN CLADDING IS USED AT THE INTERIOR WALLS.

- CEMENT MORTAR FINISH AND STONE TERRACING IS USED AT THE TARRECE FLOOR.



	STANDARD	COMPARISON	IGP MERCURY
CELLING	THE VOLUME PER PERSON REQUIRED TO BE PROVIDE SHOULD NORMALLY RANGE BETWEEN 3.5 TO 5.5 CU.M.		HEIGHT OF THE CELLING IS AROUND 10 M.
STAGE	THE SIZE OF THE STAGE DEPENDS UPON THE TYPE OF PERFORMANCE THE HALL IS TO CATER FOR. IT WOULD BE LARGE FOR THEATRES, WHILE IT WOULD BE COMPARATIVELY SMALL FOR CINEMA HALLS WHICH AGAIN DEPENDS ON THE SIZE OF THE SCREEN		HEIGHT: 900 MM FLOORING : WOODEN (VINYL SHEET) (400X800MM) BACK STAGE DOOR : 1800X2100
REAR WALL	THE AUDITORIUM REAR WALL(S) SHOULD BE EITHER FLAT OR CONVEX IN SHAPE . THIS SHOULD NOT BE CONCAVE IN SHAPE, BUT WHERE IT CANNOT BE AVOIDED, THE ACOUSTICAL DESIGN SHALL INDICATE EITHER THE SURFACE TO BE SPLAYED OR CONVEX CORRUGATIONS GIVEN IN ORDER TO AVOID ANY TENDENCY FOR THE SOUND TO FOCUS INTO THE HALL.		REAR WALL IS FLAT
FLOOR	FOR GOOD VISIBILITY AS ALSO FOR GOOD LISTENING CONDITIONS, THE SUCCESSIVE ROWS OF SEATS HAVE TO BE RAISED OVER THE PRECEDING ONES WITH THE RESULT THAT THE FLOOR LEVEL RISES TOWARDS THE REAR. THE ELEVATION IS BASED ON THE PRINCIPLE THAT EACH LISTENER SHALL BE ELEVATED WITH RESPECT TO THE PERSON IMMEDIATELY IN FRONT OF HIM SO THAT THE LISTENER 'SHEAD IS ABOUT 12 CM ABOVE THE PATH OF SOUND' WHICH WOULD PASS OVER THE HEAD OF THE PERSON IN FRONT OF HIM. IT IS POSSIBLE TO REDUCE THIS TO 8 CM, IF THE SEATS ARE STAGGERED .AS AN EMPIRICAL RULE THE ANGLE OF ELEVATION OF THE INCLINED FLOOR IN AN AUDITORIUM SHOULD NOT BE LESS THAN 8 DEGREES.		
SEAT	THE WIDTH OF A SEAT SHOULD BE BETWEEN 45 CM AND 56 CM.11		LXB : 450X450MM HEIGHT OF CHAIR :900MM
FLOOR AREA	THE FLOOR AREA OF THE HALL INCLUDING GANGWAYS (EXCLUDING THE STAGE) SHOULD BE CALCULATED ON THE BASIS OF 0.6 TO 0.9 SQ.M. PER PERSON.		2025SQ M 45X45 M

TOPOGRAPHY

The site is flat land, just like the surrounding agriculture lands, and need not to be refill.

VEGETATION

The vegetation of Delhi is thorny scrub which are found in arid and semi arid Zone. The main forest i.e., Ridge Forest fall in the forest type as per classification of Champion and Seth in the category of 'Tropical Thorn Forest' and more especially as 'Semi Arid Open Scrub'.

SERVICES

BUILDING SETBACKS:

- the setback from the main boulevard must be no less than 10 meters, in order to create a small square.
- the distance between buildings and the side street shall be no less than 2 meters; there shall be no building concession directly to squares, greens, streets or public spaces, without the 2 meters' setback.
- the setback from the neighboring lot shall be no less than 3 meters.
- the distance between buildings shall comply with fire control requirements.

HEIGHT OF BUILDINGS:

- the height of the covered part of exhibition space (or building height) must be less than 12 meters.
- the height limit for any additional architectural elements (such as skylights, roof elements, vertical connections to the roof, sunscreens, signals, etc.) is 17 meters.

Internal staircase:

- .All assembly buildings having area more than 500 m² on each floor shall have a minimum of two staircases.

- The minimum width for a staircase in an assembly building shall be 1500mm. The formula for most staircases of twice the rise .plus the going lies between 600 and 630mm will give a suitable relationship. The rise should .not exceed 190 mm, and the going should not be less than 250 mm.
- The top of the handrail should be between 900 and 1000 mm above the pitch line
- The minimum headroom in a passage under the landing of a staircase and under the staircase shall be 2.2 m.

Fire safety norms by the National Building Code of India

Every building shall be so constructed, equipped, maintained and operated to avoid undue danger to the life and safety of the occupants from fire, smoke, fumes or panic during the time period necessary for escape.

General Exit Requirements

An exit may be a doorway, to an Internal staircase, or external staircase, or terrace(s), which have access to the street, or to the roof of a building or a refuge area.

All exits shall provide continuous means of egress to the exterior of a building or to an exterior open space leading to a street.

Exits shall be so arranged that they may be reached without passing through another occupied unit.

LANDSCAPE:

- Trees for shading.
- Green parking minimizing the hard surface.
- Plantation of evergreen trees and native trees for low maintenance.

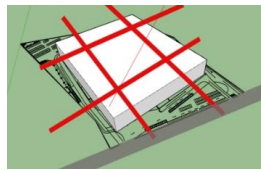


- Solid waste segregation for bio degradable and non bio degradable waste.
- A diverse variety of indigenous evergreen and ornamental trees would be planted. As the project site for construction consists of trees, herbs and shrubs it will require cutting of trees for construction purpose Total number of trees planted will be 6,713. However no of trees retained will be 913.
- The plant species will be selected on the basis of Urban Standard plantation norms and CPCB guidelines.

CONCEPT



BUILT FORM



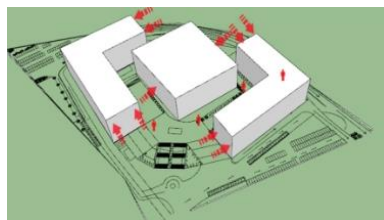
DEVIDE THE WHOLE
CUBE ACCORDING TO
AREA PROGRAM



SEPARATE EACH FORM
FROM EACH OTHER



PLAY WITH LEVELS



EQUAL DISTANCE
FROM EACH
OTHER



FORMATION
OF STREETS

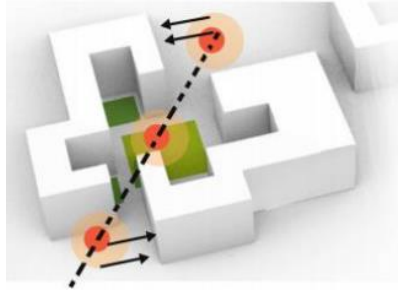


VISUALLY CONNECTING IT

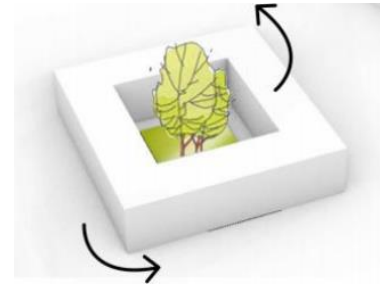
DESIGN CONSIDERATION



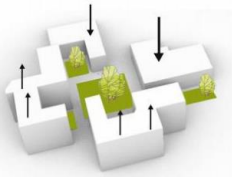
BUILDING AROUND GREENS TO CONNECT INDOORS WITH THE OUTDOORS.



SPLITTING THE BUILT MASS INTO TWO PARTS IN ORDER TO GENERATE A CENTRAL SPINE FOR PUBLIC ACTIVITIES.

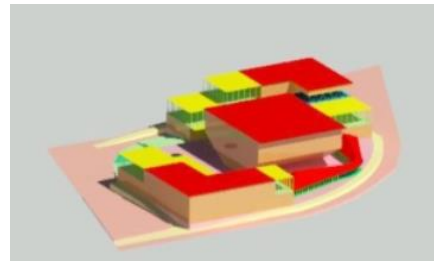
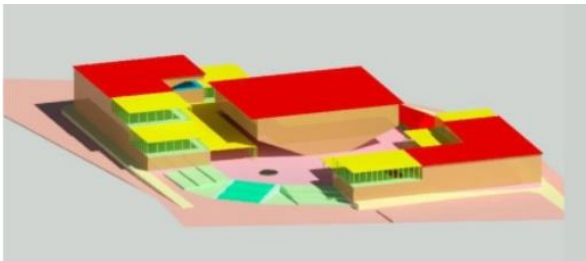
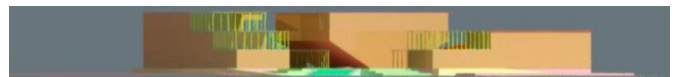
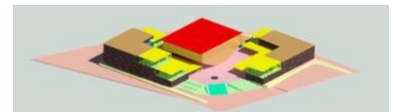


TILTING TOWARDS NORTH DIRECTION IN ORDER TO MINIMISE HEAT GAIN AND MAXIMISE DAYLIGHT.



VARYING THE HEIGHT OF THE BLOCKS IN ORDER TO BLOCK THE HEAT FROM THE WEST DIRECTION AND TO GENERATE TO WELL SHADED COURTS WITH ADEQUATE NORTH LIGHTING.

FORM EVOLUTION



ZONING:

Zones may be defined for a single use, they may combine several compatible activities by use, or in the case of form based zoning, the different regulations may govern the density, size and shape of allowed buildings whatever their use.

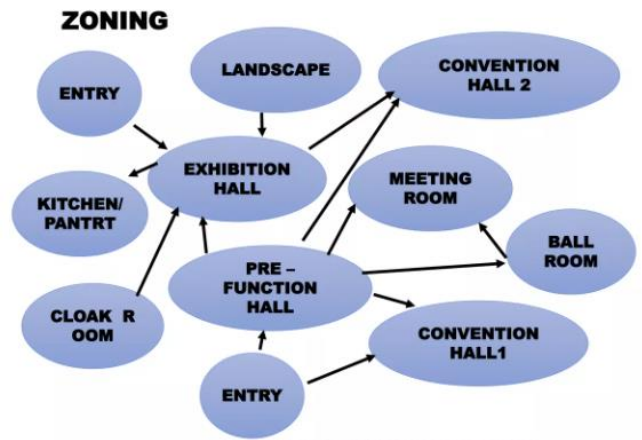
CONNECTIVITY

Is the state of being connected or interconnected. This can relate to direct connectivity between physical things such as people via proximity or transport networks, or indirect connectivity via communications networks.

SERVICES:

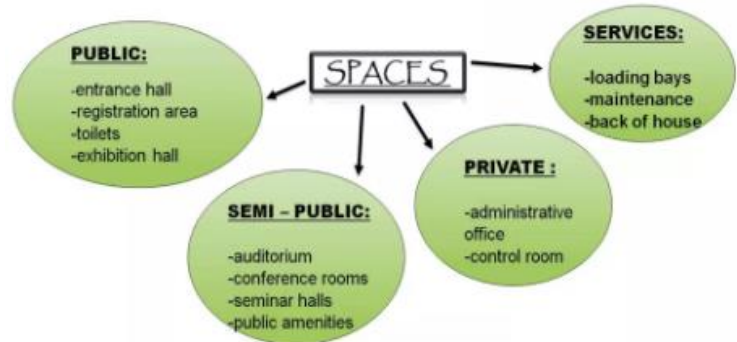
services are the systems installed in buildings to make them comfortable functional, efficient and safe.

- Acoustics
- AHU
- Electrical supply
- Water supply
- Vertical circulation
- Storage
- Control room



SPACES OF CONVENTION CENTER:

- meeting spaces
- functional areas
- Ballrooms
- multi-purpose spaces
- exhibit halls



CONVENTION CENTER:

A convention center is a large building that is designed to hold convention, where individuals and groups gather to promote and share common interests.

CIRCULATION:

CIRCULATION AREA Primary circulation is the main circulation route connecting to the building core and common spaces, such as elevators and exit stairs. Secondary circulation includes the aisles between individual spaces, such as offices and cubicles, and support spaces.

PRE-FUNCTION HALL:

The Pre-Function Area is an open, naturally lighted gathering space outside the Auditorium and the Theater. With a seated capacity of 80-100 and standing room capacity of 150-200, the Pre-Function Area is most commonly used for receptions before and after events and meals during the day..



MAJOR FACILITIES:-

- Multi purpose hall

Hall capacity of 5000 people.

Flexible usage-Convention, exhibition spaces & ball rooms, etc.
Conference room, Executive Board rooms, Corporate lounges.

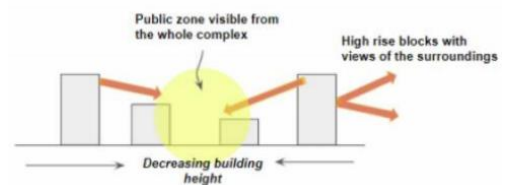
- Media rooms.

Mini Auditorium.

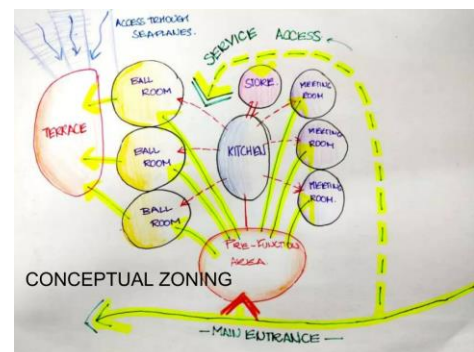
- Food court & beverage outlets

Sufficient space for pre-function storage, kitchen & catering and other service spaces. Underground Parking to accommodate all parking needs (1040 car parking + 641 two wheeler parking).Outside landscaping with tree plantations, Garden area etc

- THIS OPENINGS GIVES LIGHT VENTILATION TO THE BASEMENT FLOOR
- WINDOWS PROVIDING NATURAL LIGHT AND ELIMINATE HOT AIR, ACT AS A SUSTAINABLE ELEMENT
- 3M ABOVE GROUND LEVEL ,THIS CANTILEVERED STRUCTURE ACT AS A MODERN ELEMENT.

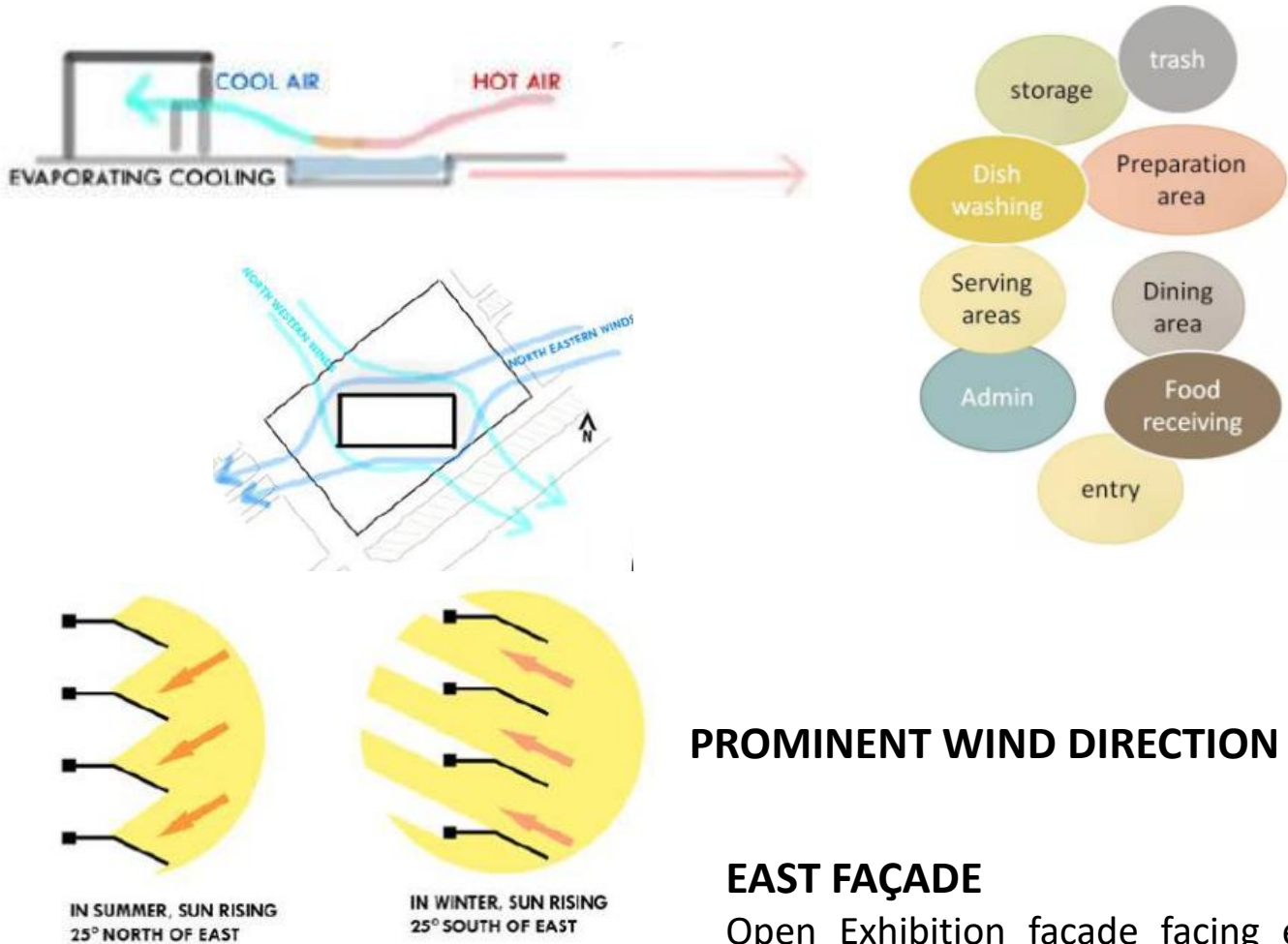


- Placing complementary functions together.
The Hotel and the convention facilities need to lie in close adjacency and similarly the offices and the retail stores should be located in proximity to each other.



INFERENCE

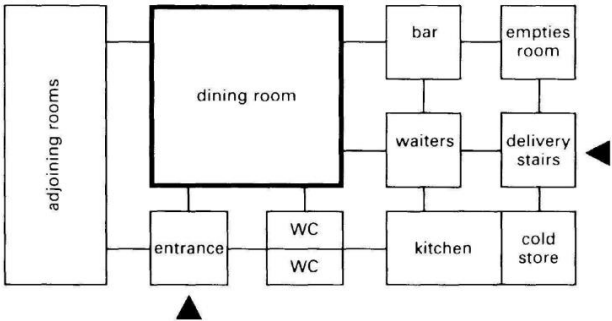
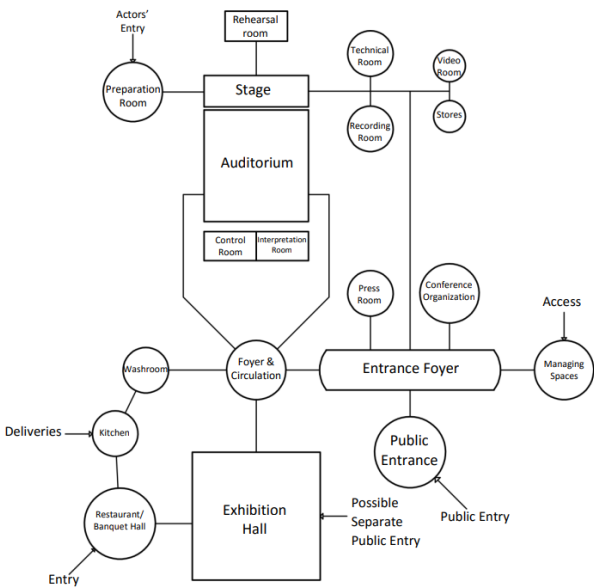
Trees can be used as a part of landscaped feature which will furthur add scenic beauty of the location. Roads and Pavements can be developed without cutting of those trees.



PROMINENT WIND DIRECTION

EAST FAÇADE

Open Exhibition facade facing east need to be well treated to avoid sunlight in summer to pass through facade while sunlight in winter should be allowed.



MATERIALS USED

Local materials used including locally harvested Douglas fir and Hemlock wood finishes .

• GLASS



- CURTAIN WALLS
- WINDOWS
- DOORS
- RAILINGS

- COLUMNS
- FRAME
- TRUSS
- FINISHING MATERIAL



• STEEL

• WOOD



- INTERIOR WALLS
- FINISHING MATERIAL
- BEAMS



Legend

1. Hotel Lobby
2. Reception
- 3.All-day dining
4. BOH
5. Core
- 6.Plenary Hall
7. Convention centre foyer
8. Restaurant
9. Kitchen
10. Retail street
11. Auditorium
12. Pre- function foyer
13. Office Lobby
14. Craft shops
15. Live demonstration court
16. Electric Substation

Legend:

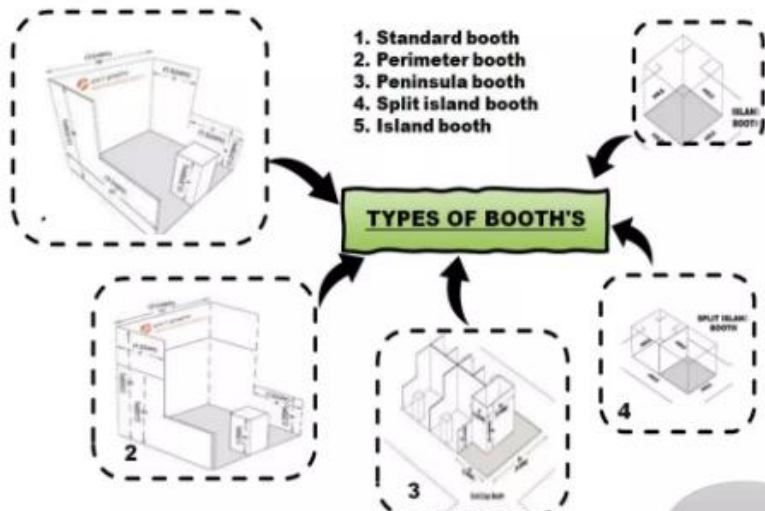
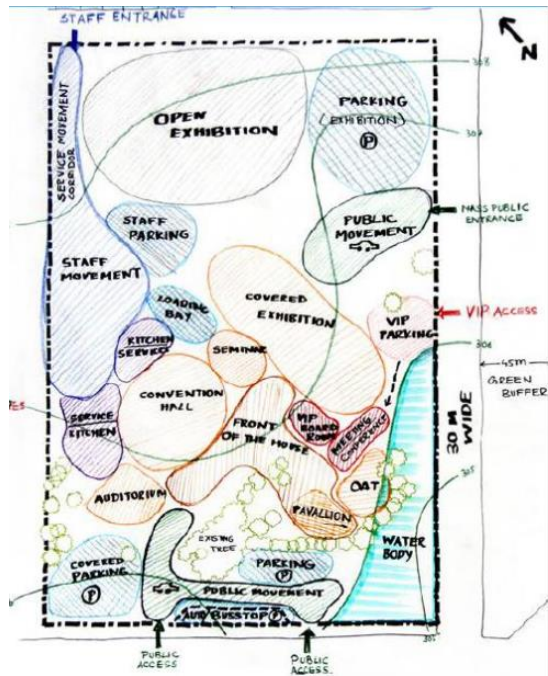
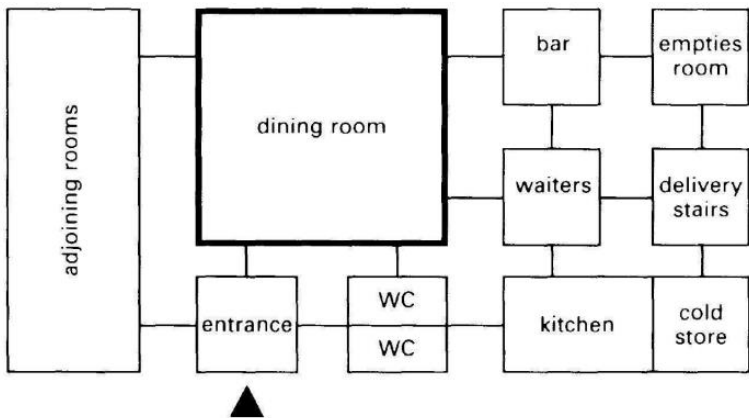
- | | |
|----------------------------------|-----------------------------|
| 1. Auditorium pre-function foyer | 9. Spill-out terrace- hotel |
| 2.Restaurant | 10. Service floor |
| 3. Restaurant kitchen | 11. Conference room |
| 4.Stepped seating | 12. Hotel room |
| 5. Spill-out terrace | 13. Hotel suite |
| 6. Outdoor dining | 14. Pool |
| 7. Stepped plaza | 15. Hotel- back office |
| 8. Outdoor exhibition | 16. Retail shops |

Legend:

- | | |
|--|---|
| 1. Entrance lobby- office | 10. Stepped plaza |
| 2. Retail court | 11. Outdoor exhibition space |
| 3. Retail store | 12. Pre-function foyer |
| 4.Co-working office | 13. Plenary Hall |
| 5. Food court terrace | 14. Exhibition hall- pre function foyer |
| 6. Spill-out terrace- office | 15. Business centre- lounge area |
| 7. Temporary craft shops + live demonstration podium | 16. Meeting rooms |
| 8. Overhead bridge | 17. Lecture hall |
| 9. Outdoor dining- food court | 18. Informal gathering space/ workshop area |

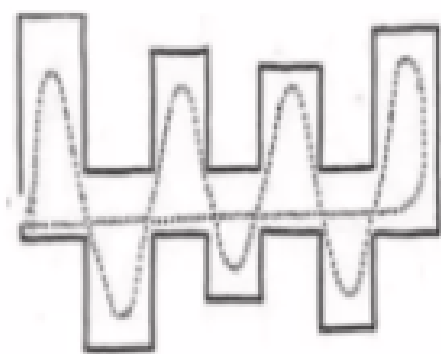
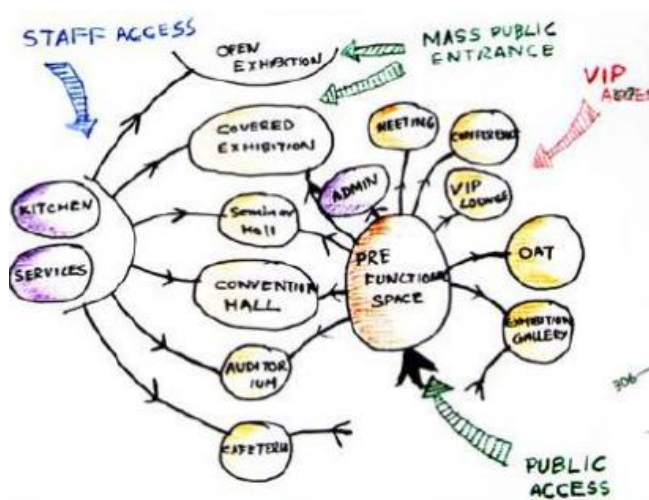
Legend:

- | | | |
|--------------------------------------|----------------------------------|--------------------------------|
| 1. Entrance foyer- convention centre | 9.Spill-out terrace- suite rooms | 16. Medical room- staff |
| 2. Registration counter | 10. Lobby- for luxury suites | 17. Entry porch- Hotel |
| 3. Plenary Hall | 11. Hotel room | 18. Court |
| 4. Pre-function foyer | 12.. Hotel Suite | 19. Sunken outdoor event space |
| 3. Restaurant kitchen | 13. Service floor | |
| 6. Speciality Restaurant | 14. All day dining | |
| 7. interpreter's room | 15. Outdoor dining | |
| 8. Outdoor exhibition | | |



Considerations while displaying:

	MEN	WOMEN	CHILDREN
HEIGHT	5'9"	5'3"	5'2"
EYE LEVEL	5'4"	4'11"	3'5"



NORMS:

Public movement pattern for convention centres:

Communication and functionality can be improved by implementing efficient circulation patterns in a convention centre. People visiting or working in a convention centre can be divided into 5 broad user categories:

- Public flow
- Delegate flow
- VIP flow ●
- Journalist flow
- Staff flow

Delegates flow:

Delegates form the most important group of users for a convention centre. The parking shall lead them to the main entrance foyer which further directs them to their destination. An unobstructed delegate movement is very important.

Public flow:

Dignified personalities are invited depending on the nature of conference. It can also have relatives and public guests invited by the organization. The public guests also have access to the exhibition areas and hence these areas shall have a separate access to manage the public flow during peak hours efficiently.

VIP flow:

They shall either directly lead to the dais of the main hall or shall enter through the VIP entrance which is connected to a VIP lounge.

Staff flow:

The staff can be divided into two categories namely the technical staff who are responsible for the efficient working of the convention centre while the others are the administrative staff who are exposed to the people coming to the centre. The paths of the technical and administrative staff diverge at the staff entrance.

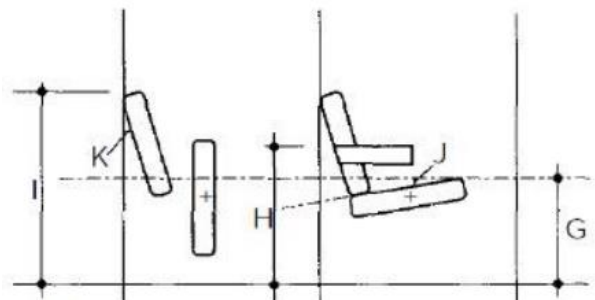
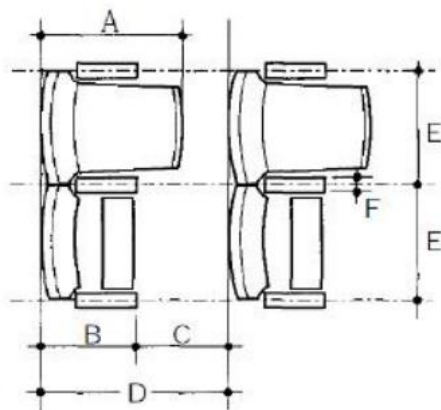
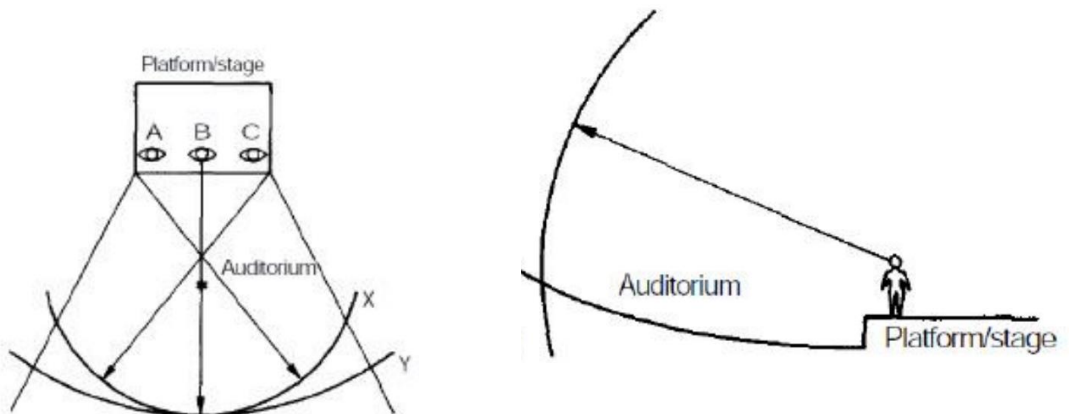
Journalist flow:

it includes press people, cameraman and diplomats. They shall have a direct access to the documentation centre and the TV studio of the convention centre.

The Auditorium:

The three-dimensional volume of an auditorium is conditioned by the need for all members of the audience to be able to see the whole of the platform or stage; and to hear the actor, singer, musician or speaker. Seating density, floor rake and seating layout are partly determined by this, partly to give the audience an appropriate level of comfort and essentially to ensure a means of escape in an emergency, such as a fire, within the time required by safety considerations and by legislation.

Seating:



Writing surface

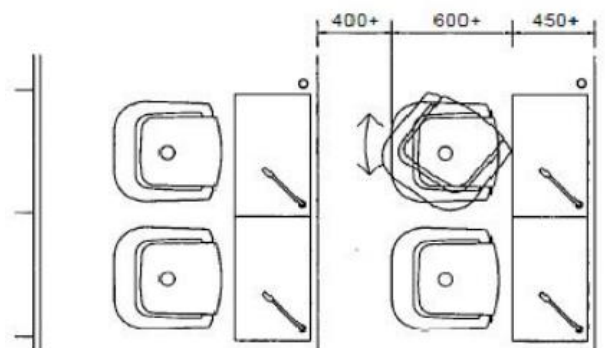
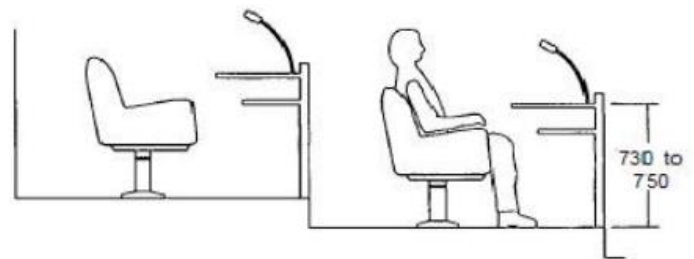
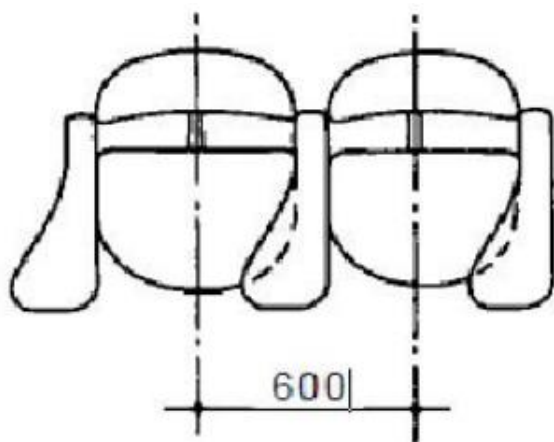
Conference use may require a writing surface for note-taking. The writing surface may be:

A tablet fixed to each seat, 20.10

A fixed table with fixed pivoting or sliding seat

Dimension	Description	Minimum(mm)	Maximum(mm)	Drawnn as
A	Overall seat depth	600	720	650
B	Tipped seat depth	425	500	450
C	Seatway	305	-	400
D	Back to back seat spacing	760	-	850
E	Seat width for seat with arms	500	750	525
F	Annrest height	50	-	50
G	Seat height	430	450	440
H	Armrest height	600		600
I	Seatback height	800	850	800
J	Seat inclination	17	9	7
K	Back inclination	15	20	15

Dimension of auditorium seats



Auditorium Design:

Audience requirements:

Every member of the audience should be able to see and hear clearly whatever is happening on every part of the stage or platform. The greater the encirclement of the audience of platform or stage, more people can be accommodated within the aural and visual limitations up to 180° encirclement. With a full encirclement, the distance from platform or stage is restricted to six rows.

Number of seats in a row:

With traditional seating the maximum number is 22 if there are gangways at both ends of the row, and 11 for gangway at one end. Rows with more than 22 seats are permitted if the audience is not there by imperiled.

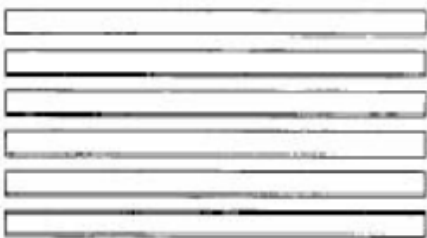
• Row to row spacing:

Spacing is controlled by the clearway between the leading edge of the seat and the rear of the seat in front. For traditional seating the minimum clearway for people to pass along the row is 300 mm and this dimension increases with the number of seats in a row. For continental seating the clearway is not less than 400 mm and not more than 500 mm.

• Gangways:

As gangways are essential escape routes, their widths are determined.

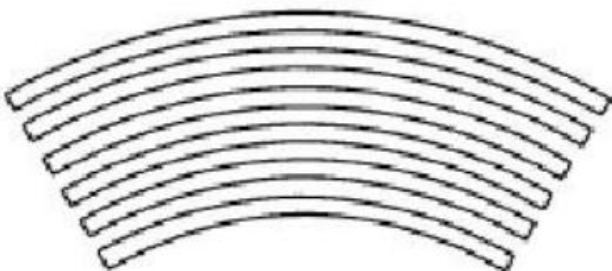
by the number of seats served. The minimum is 1100 mm. They can be ramped up to 10%. If the seating rake is steeper, gangways must have steps extending the full width and these must have consistent treads and risers in each run.



**Straight rows on flat
or sloping floor**

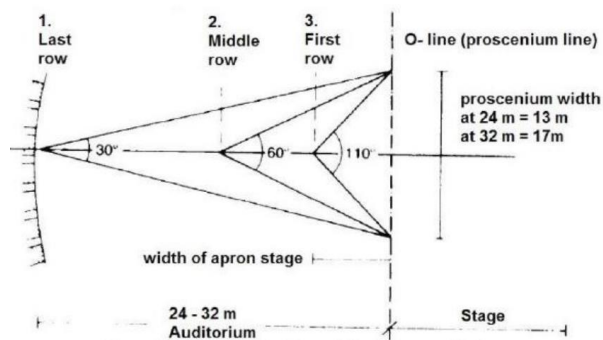
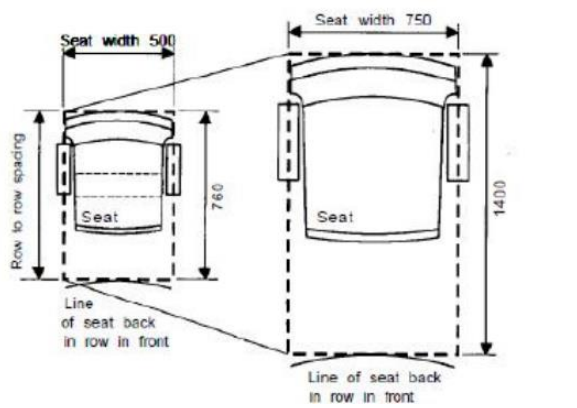


**Straight rows with separate
angled side blocks on flat or
sloping floor**

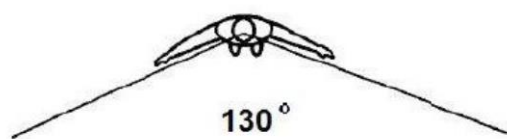
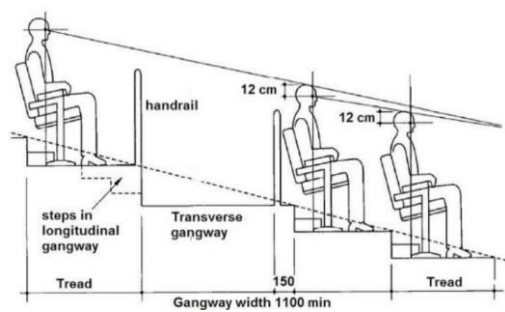


**Curved rows on flat
or sloping floor**

Seating density: Seats with arms and tippable seat can occupy a space as small as 500 mm wide with a row-to-row dimension of 760 mm; but can be as large as 750 mm wide by 1400 mm. The area per seat therefore varies between 0.38 m² and 3.05 m².

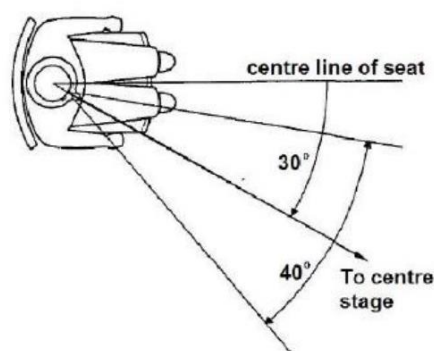


Graphic representation of vertical sightlines at a transversal gangway



(a.) The maximum comfortable amount the head can be turned from the seat centreline is 30°.

(b.) Horizontal sightlines of the performer



Number of people	Minimum total exit widths (m)
upto 200	2.2
201-300	2.4
301-400	2.8
401-500	3.2
751-1000	6.4
1001-2000	14.4

Means of escape

• Travel distance:

The maximum travel distance from seat to exit within the auditorium is determined by the need to evacuate from each level of the auditorium within 2½ minutes. For traditional seating the maximum travel distance is 18 m measured from the gangway, for continental seating 15 m from any seat.

Exits:

From each level of the auditorium two separate exits must be provided for the first 500 seats with an additional exit for each further 250 seats.

● Stairs:

Staircase flights should have at least two risers and not more than 16. All treads should be 275 mm and risers 180 mm.

● Ramps:

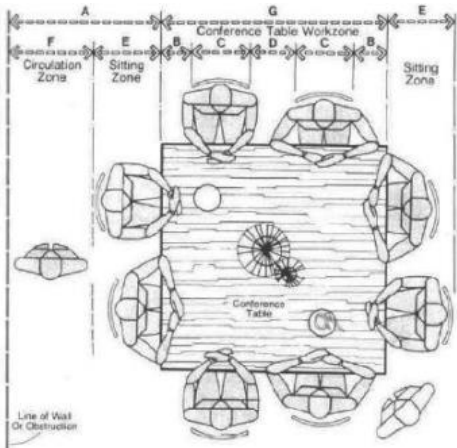
Wheelchair users should be provided with flat or ramped escape routes which may be separate from other routes. Ramps should not be longer than 4.5 m or steeper than 8.5%.

Conference Rooms

A conference hall or conference room is a room provided for singular events such as business conferences and meetings. Sometimes other rooms are modified for large conferences such as arenas or concert halls. Conference rooms can be windowless for security purposes.

Types of seating

Type	Description	Layout
1. U shaped	<ul style="list-style-type: none">Seating around three sides of the room.It is good for presentations from front.Presentation space in the middle of the room.Can be used for up to 50 persons.Per seat area is 3.25m².	
2. Boardroom style	<ul style="list-style-type: none">Centrally located table.Classic layout ideal for debate and discussion.Seating capacity 5-30 persons.Per seat area is 3.71m².	
3. Cabaret style	<ul style="list-style-type: none">All delegates facing front-center on round tables.Large space in the middle of the room.Ideal for small-group work.Per seat area is 1.57m².	
4. Theater style	<ul style="list-style-type: none">Used for product launches, presentations, displays.Used to present to large numbers of delegates.Can be used for 100-250 persons.Per seat area is 0.83 m².	



Type	Dimension
A	1210-1520
B	100-150
C	510-610
D	150-255
E	460-610
F	790-910

Space standards

Consideration must be given to clearances and circulation around the larger conference table, as indicated in the adjoining figure.

Exhibition Galleries:

An Exhibition is an organized presentation and display of a selection of items in practice, exhibitions usually occur within museums, galleries and exhibition halls, and World's Fairs. . Exhibitions can include many things such as art in both major museums and smaller galleries, interpretive exhibitions, natural history museums and history museums, and also varieties such as more commercially focused exhibitions and trade fairs.

General Planning

The relationships between functions are common to all museums and art galleries. Figure 23 shows collection item movements in the operation of collection services, but note that not every operation necessarily requires a separate space, and some services may be provided by outside agencies. As far as possible, collection movement and public circulation should be kept separate. Figure 24 shows one approach to zoning and expansion based on this principle.

Flow diagram of collection item movements in the operation of collection services: exhibitions, conservation and collections management.

Space Standards

a. Aisles:

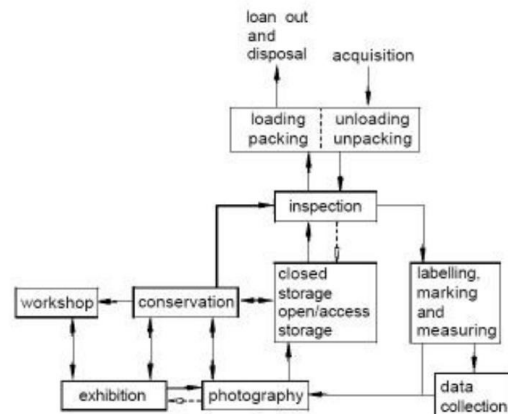
- Must be a minimum width of 3 meters.
- Must equal total width of existing exits.
- Must have 2 exits.
- Must have no dead ends.

b. Fire exits / Clearways:

Designated fire exits and clearways cannot be encroached upon under any circumstance. Storage of materials or equipment in these areas is not permitted. It is the responsibility of the event organizer to ensure that stand holders comply with this requirement.

Restaurants

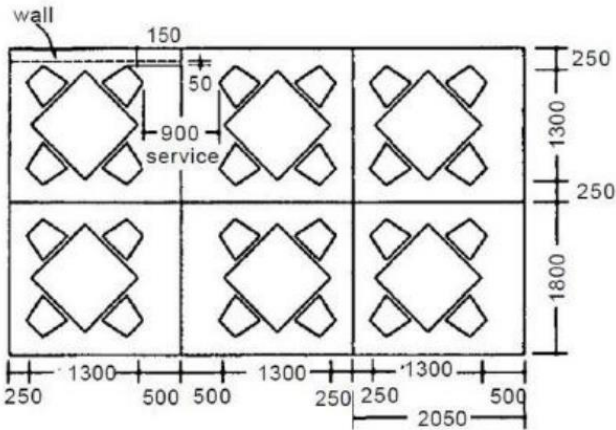
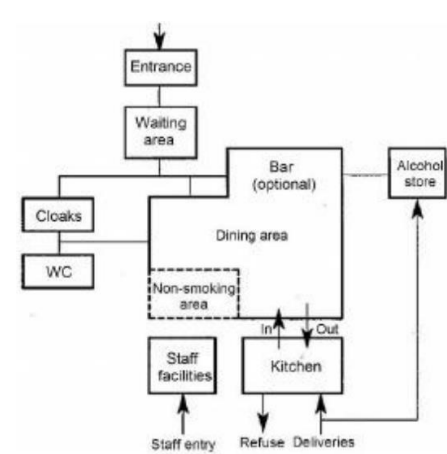
A place where people pay to sit and eat meals that are cooked and served on the premises. Various types of restaurants are classified based upon menu style, preparation methods and pricing.



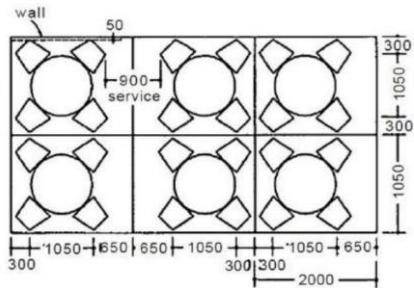
Types of restaurants

	Type	Description
1.	Fine dining restaurants with bar	<ul style="list-style-type: none">• These are full service restaurants with specific dedicated meal courses.• Décor of such restaurants features high-quality materials, with an eye towards the "atmosphere".
2.	Casual dining restaurants	<ul style="list-style-type: none">• A casual dining restaurant is a restaurant that serves moderately-priced food in a casual atmosphere.• Except for buffet-style restaurants, casual dining restaurants typically provide table service.

Relationship between major spaces



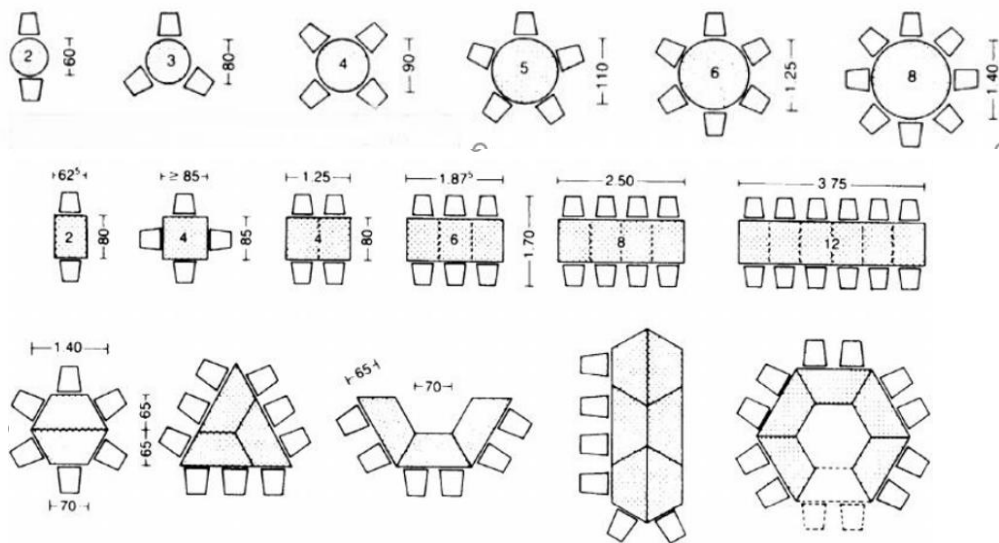
Circular tables with diagonal layout



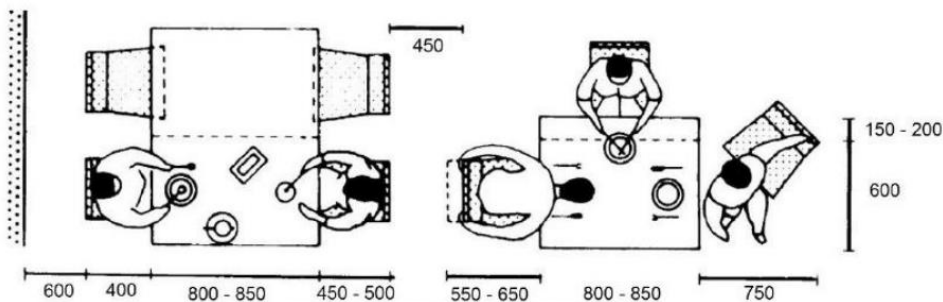
Square tables with diagonal layout

Space standards:

Restaurants should be planned so that a variety of seating arrangements is possible (e.g. tables for two and four). To eat comfortably, one person requires a 600mm wide and 400mm deep table.



Circulation space requirement



Bar Service

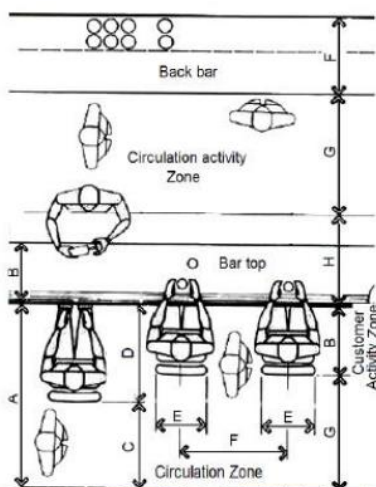
To encourage business from non-diners the main bar may have an external entrance.

. A fairly long bar counter supported by bar store and place for seating should be provided.

Cocktail lounge (comfortable) 1.8-2.0m² per person.

General bar (some standing and on stools) 1.3-1.7m² per person.

Toilet Facility



Type	Dimension
A	1370
B	450-610
C	610
D	760
E	400-450
F	610-760
G	760-910
H	710-960

Bar Circulation Dimensions

Fire safety norms by the National Building Code of India

Every building shall be so constructed, equipped, maintained and operated as to avoid undue danger to the life **General Exit Requirements**

- An exit may be a doorway: to an internal staircase, or external staircase, or terrace(s), which have access to the street, or to the roof of a building or a refuge area.

All exits shall provide continuous means of egress to the exterior of a building or to an exterior open space leading to a street.

Exits shall be so arranged that they may be reached without passing through another occupied unit.

Capacity of exits

The unit of exit width, used to measure the capacity of any exit, shall be 500 mm. A clear width of 250 mm shall be counted as an additional half unit. Clear widths less than 250 mm shall not be counted for exit width.

In an assembly building (convention centre), the capacity per storey per unit width of exit of stairways, ramps and doors is 40.50 and 60 respectively.

The travel distance to an exit from the dead end of a corridor shall not exceed 30m in case of assembly buildings.

Doorways

- No exit doorway shall be less than 1000 mm in width except assembly buildings where door width shall be not less than 2000 mm. Doorways shall be not less than 2000 mm in height.

Horizontal exits

For buildings more than 24 m in height, refuge area of 15 m² or an area equivalent to 0.3 m² per person to accommodate the occupants of two consecutive floors.

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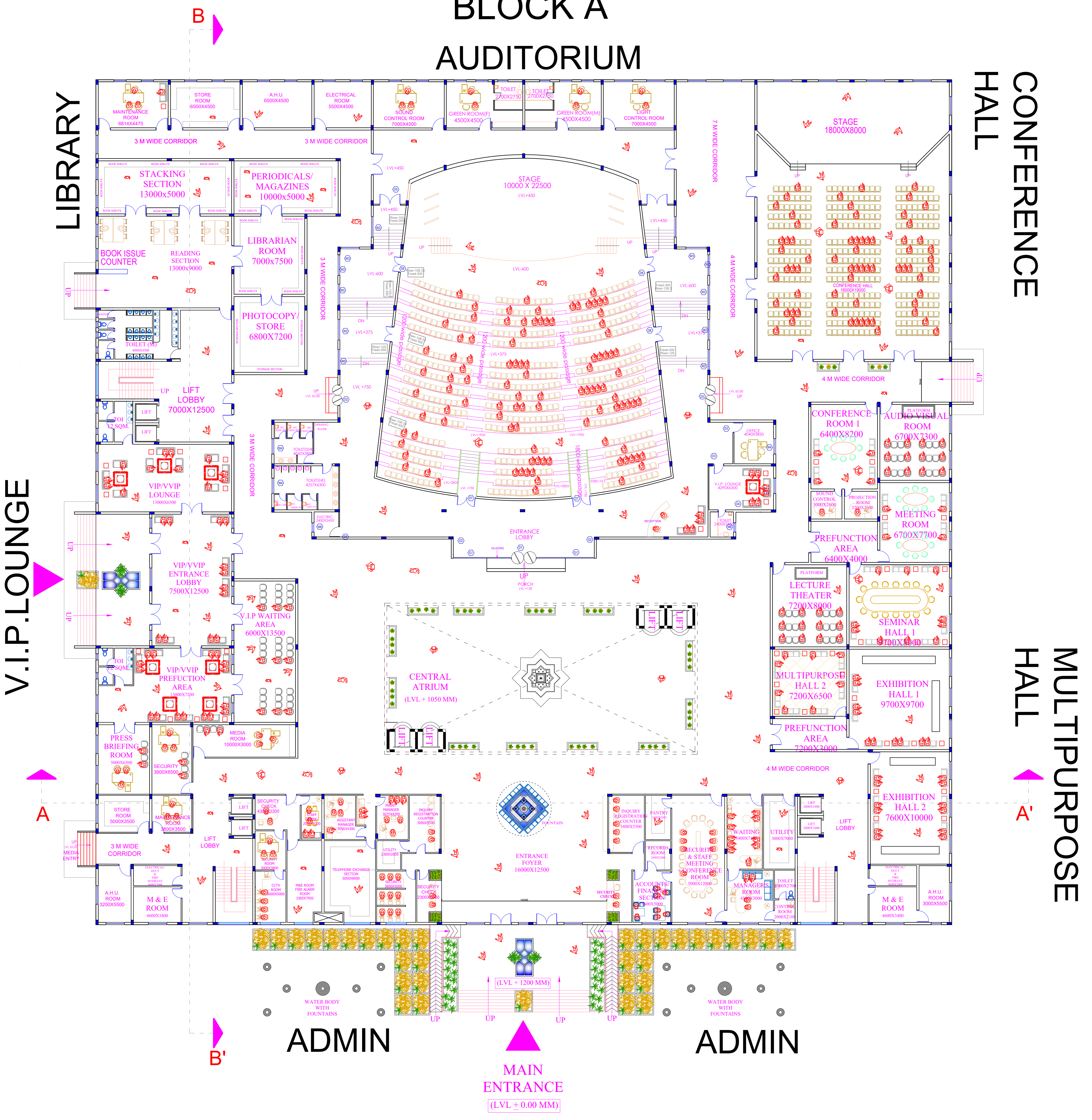
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SECTOR 25 DWARKA EXPRESSWAY ROAD

SECTOR 25 DWARKA EXPRESSWAY ROAD

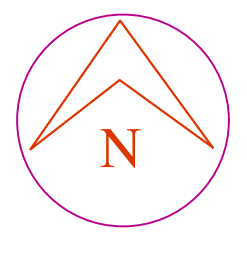
THESIS

BLOCK A AUDITORIUM



GROUND FLOOR PLAN

NOTE : ALL DIMENSIONS ARE IN MM

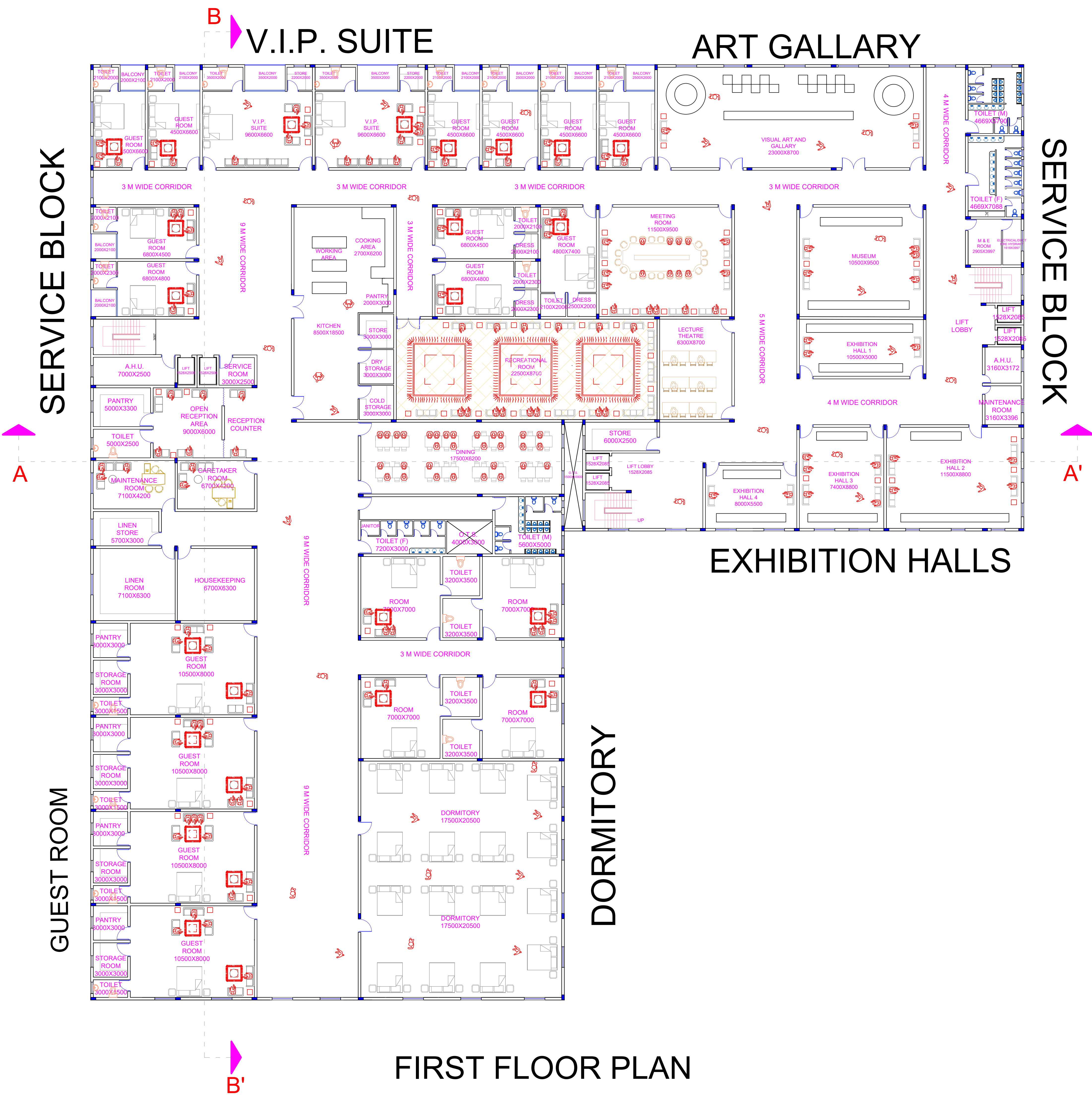


CONVENTION CENTRE

OMKAR CHAURASIYA
R.NO. -1180101035
B.ARCH - VTH YR.

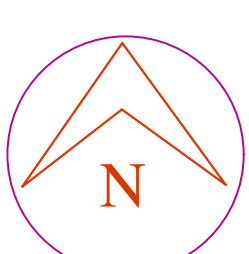
THESIS

BLOCK B



FIRST FLOOR PLAN

NOTE : ALL DIMENSIONS ARE IN MM



CONVENTION CENTRE

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THESIS

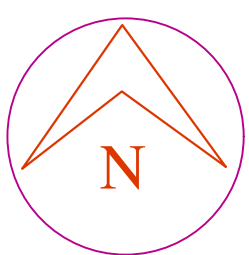
BLOCK B

RECREATIONAL
AREA

CAFETERIA



NOTE : ALL DIMENSIONS ARE IN MM



CONVENTION CENTRE

OMKAR CHAURASIYA

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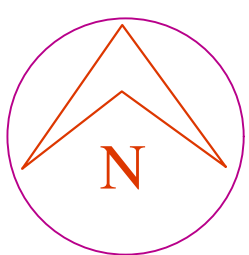
B.ARCH - VTH YR.

THESIS

BLOCK C



NOTE : ALL DIMENSIONS ARE IN MM



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THESIS

BLOCK C

BANQUET HALL

EXHIBITION HALL

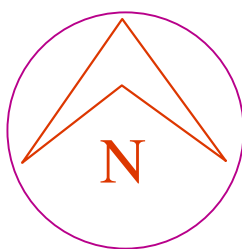
SERVICE BLOCK

SERVICE BLOCK



GROUND FLOOR PLAN

NOTE : ALL DIMENSIONS ARE IN MM



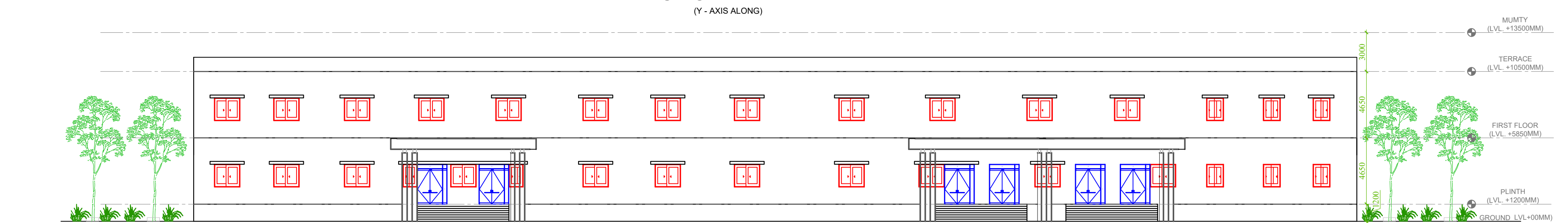
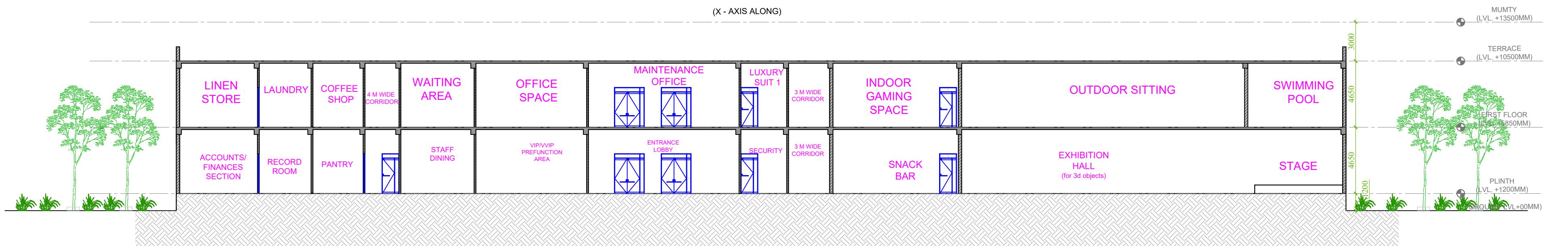
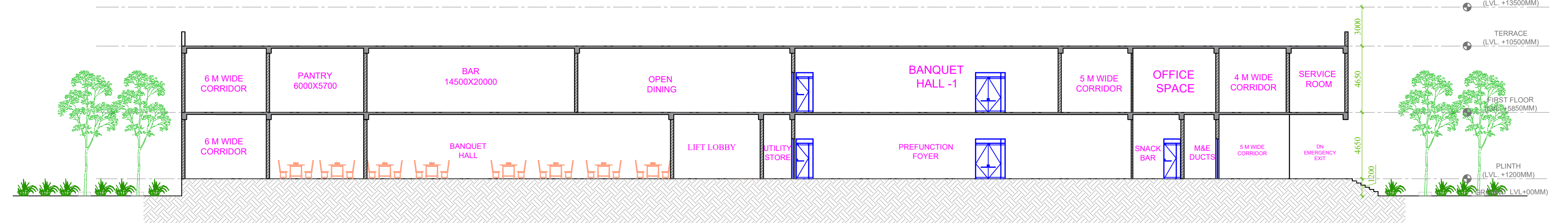
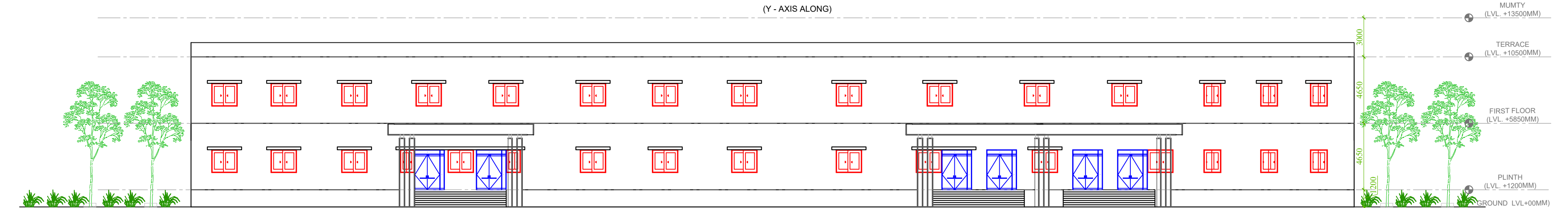
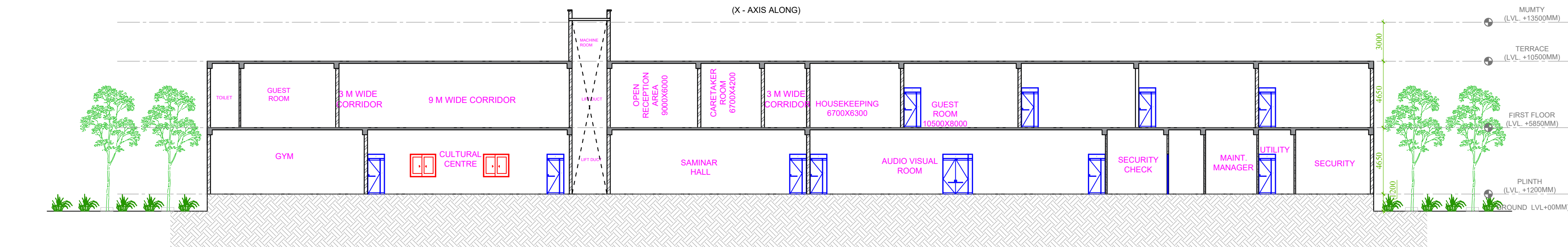
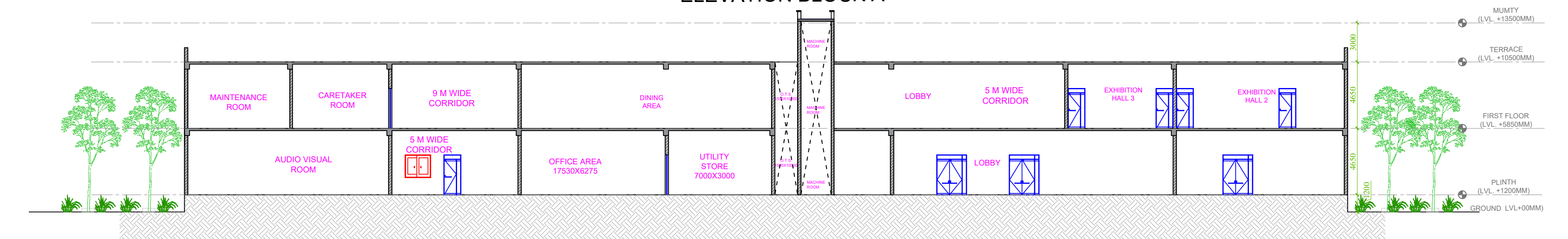
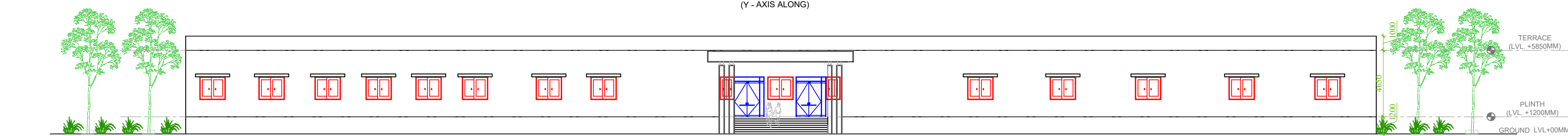
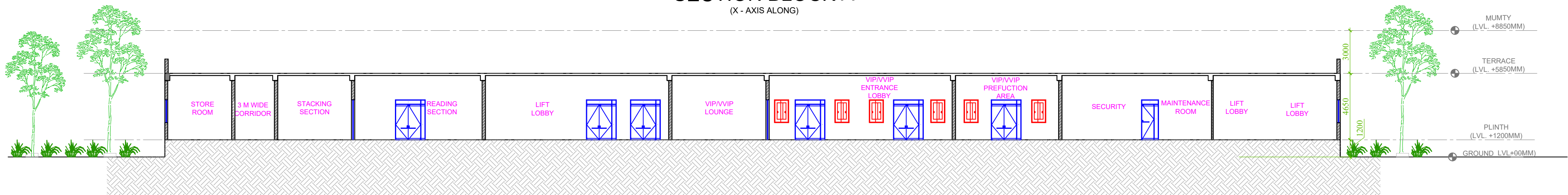
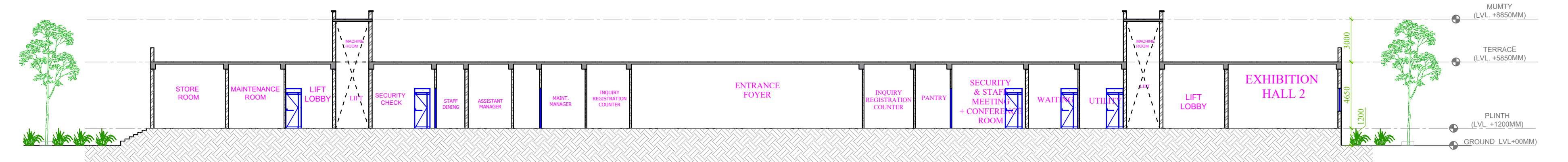
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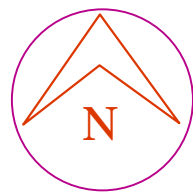
B.ARCH - VTH YR.

THESIS



SECTION & ELEVATION

NOTE : ALL DIMENSIONS ARE IN MM



CONVENTION CENTRE

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R.NO. -1180101035

B.ARCH - VTH YR.

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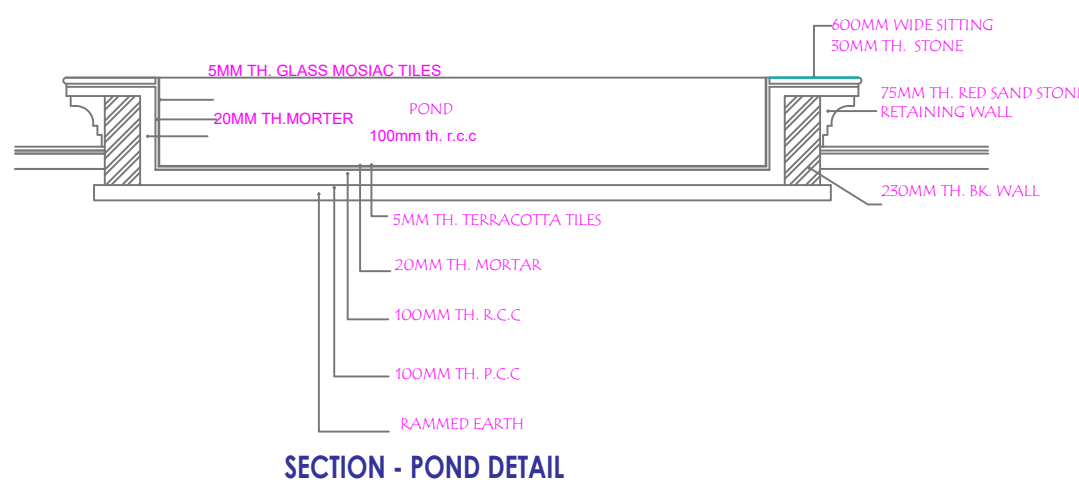
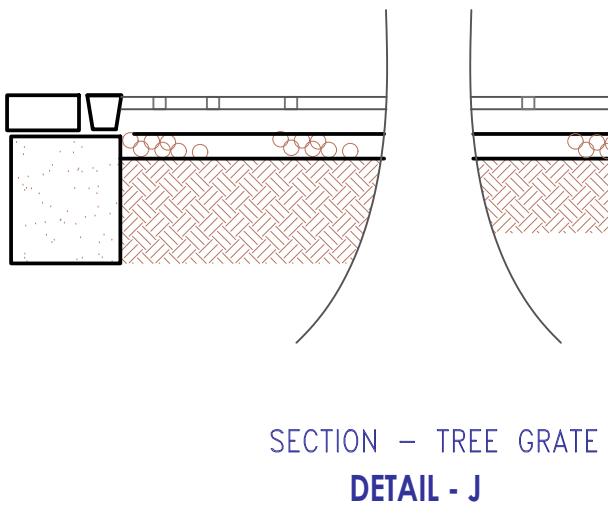
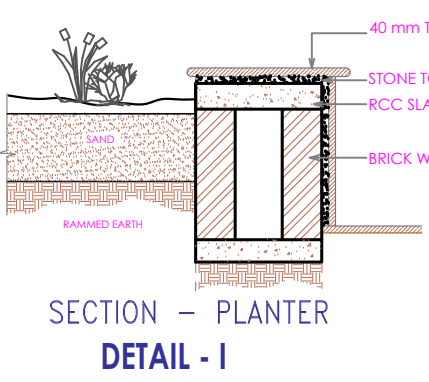
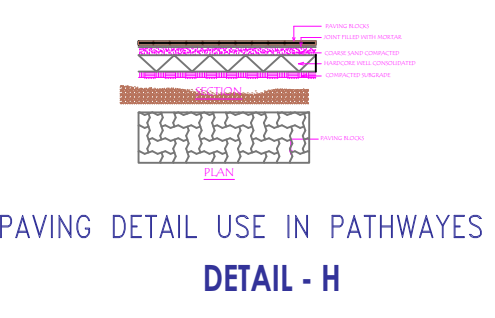
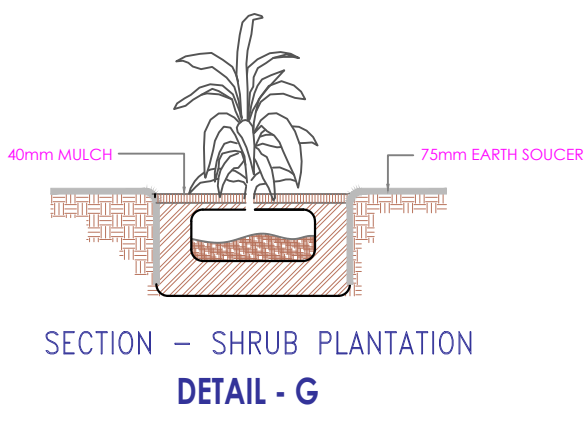
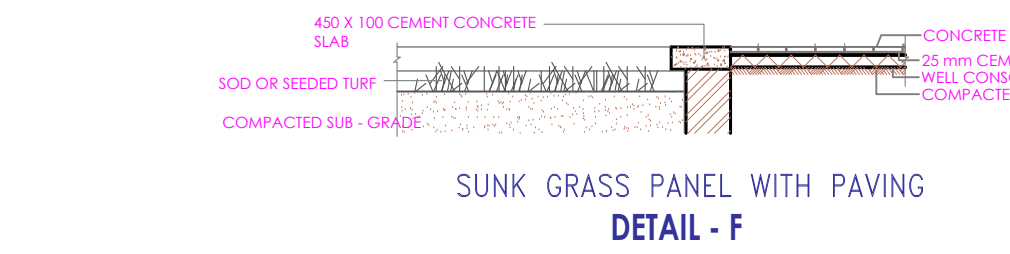
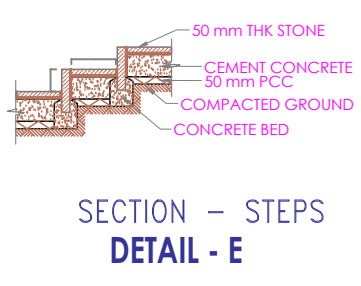
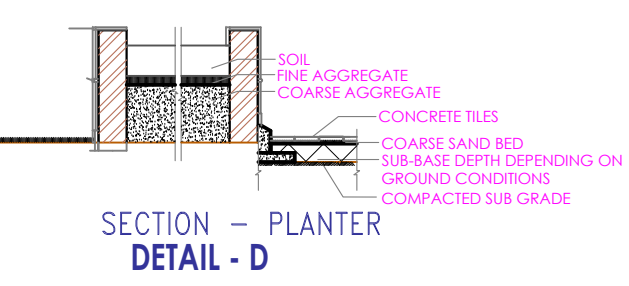
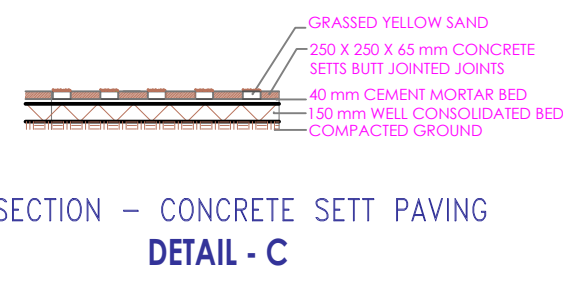
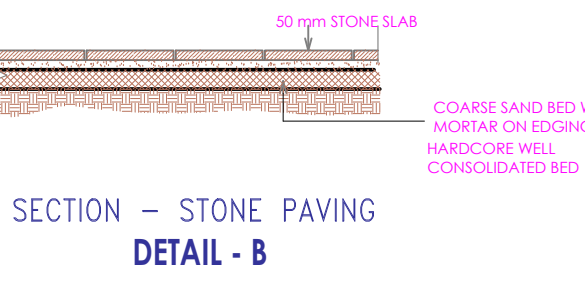
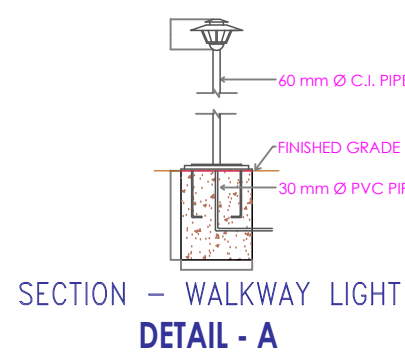


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THESIS

ELECTIVE -1

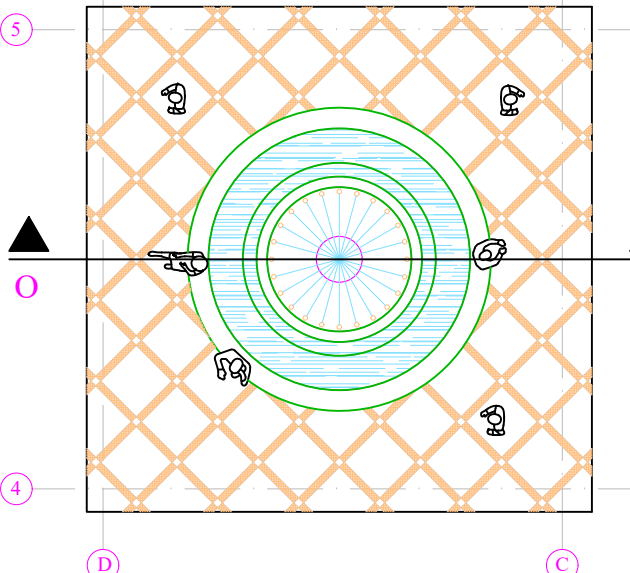
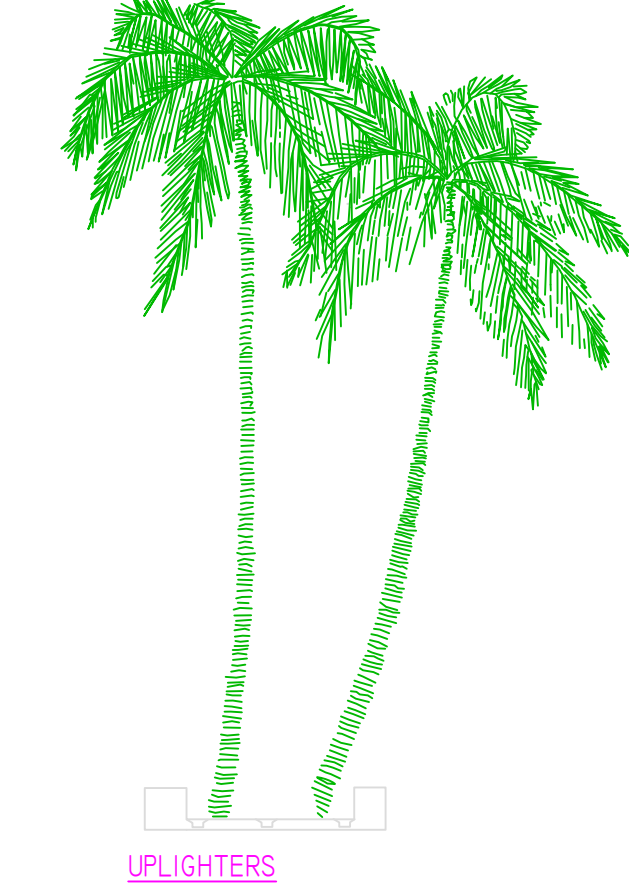
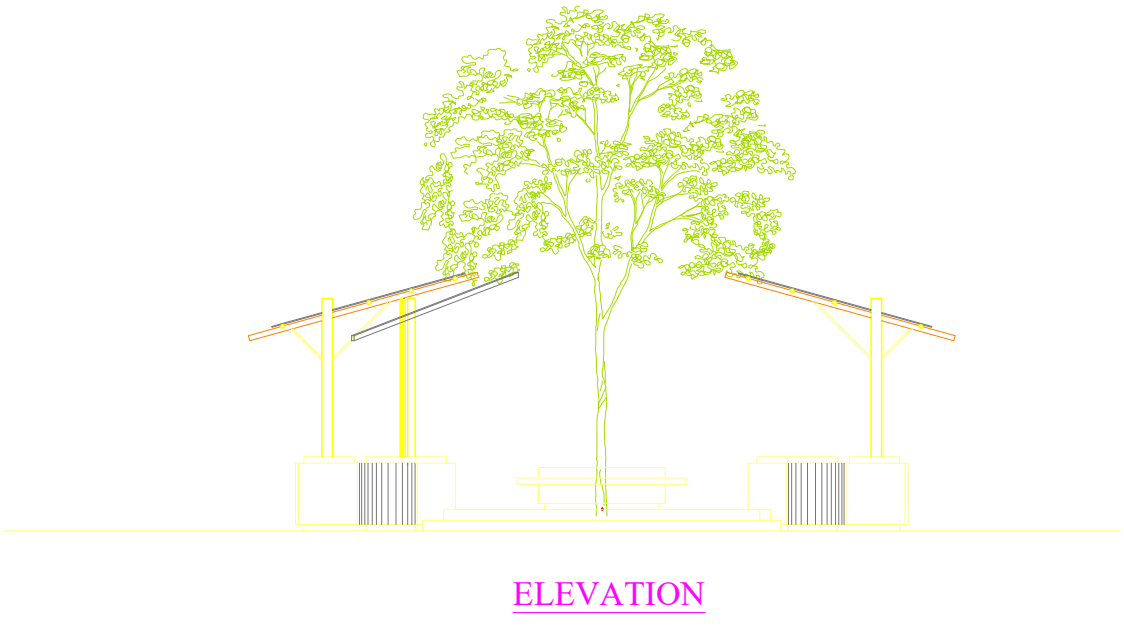
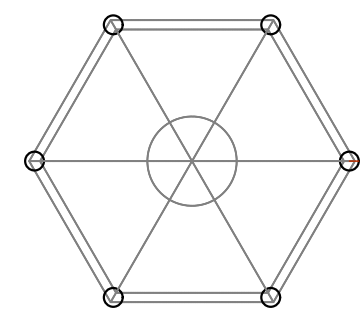
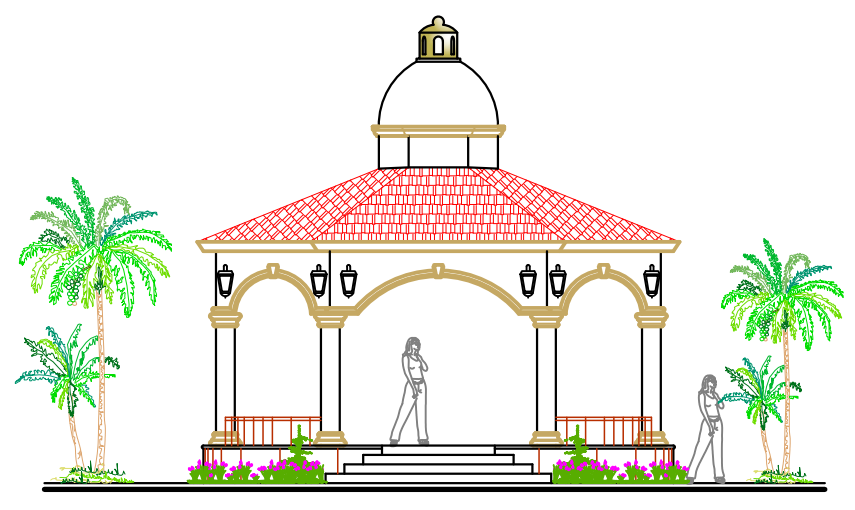
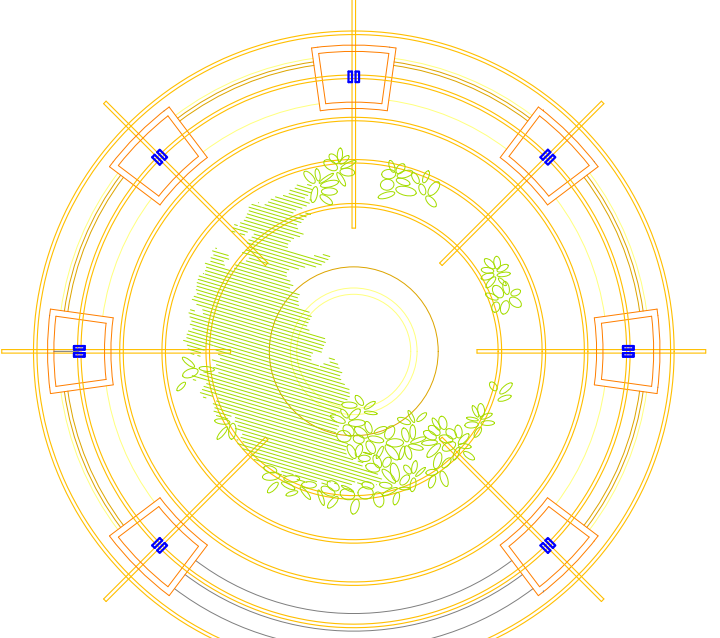
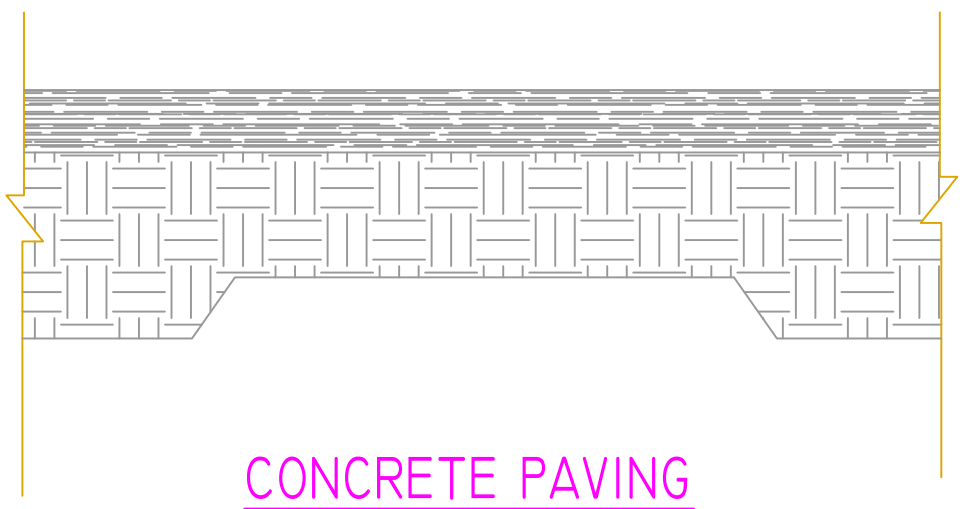
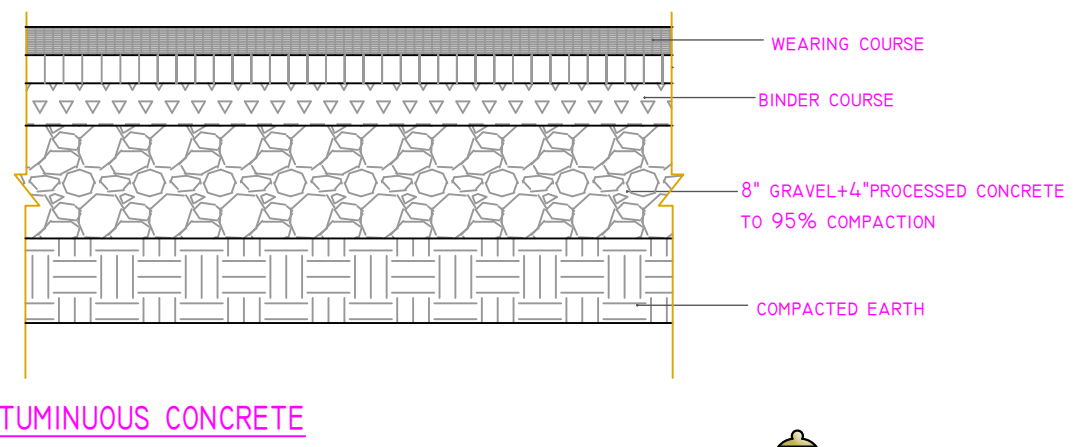
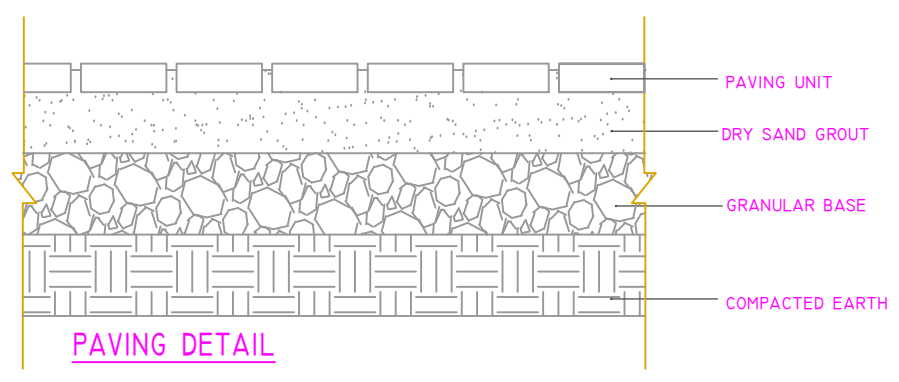
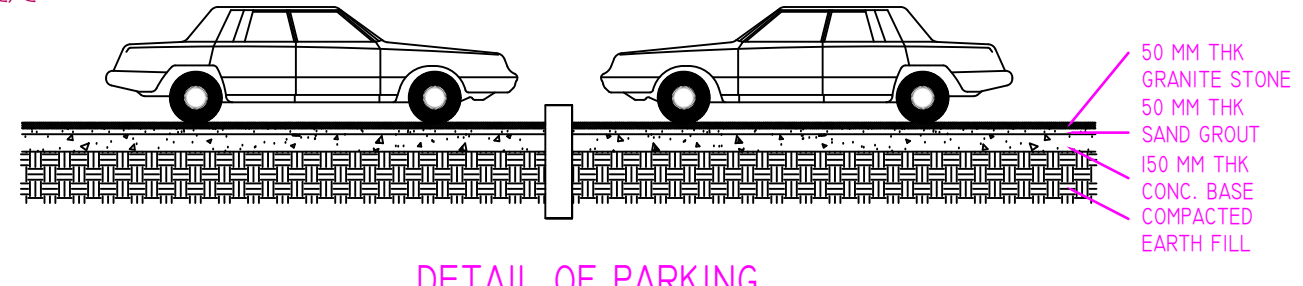
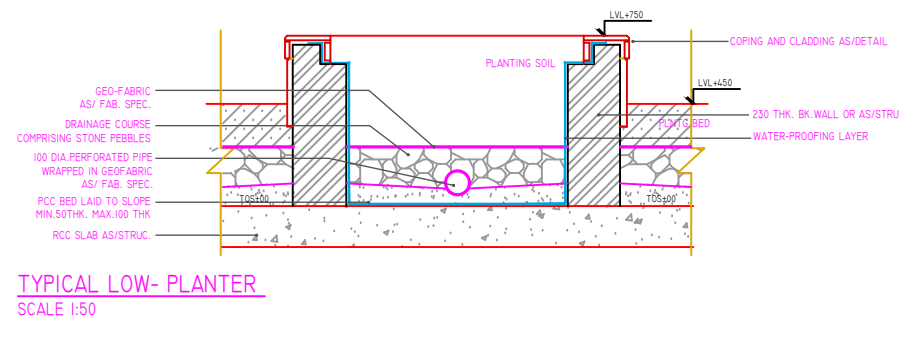
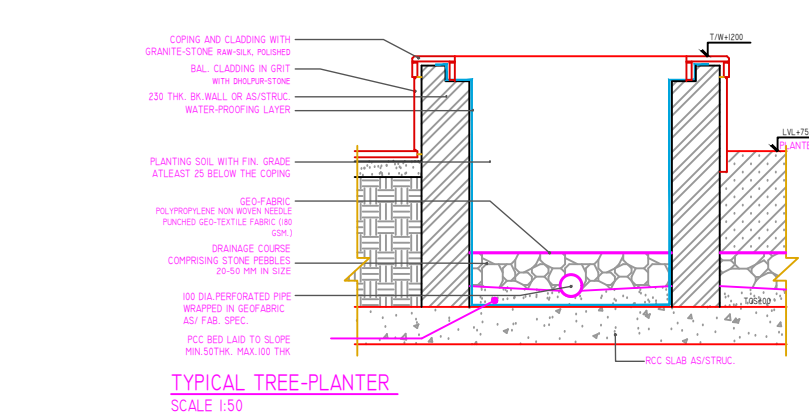
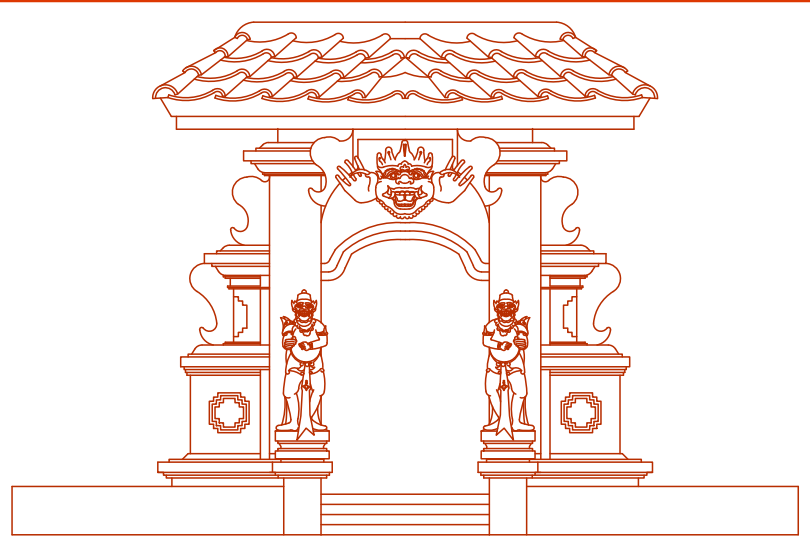
LANDSCAPE DETAILS



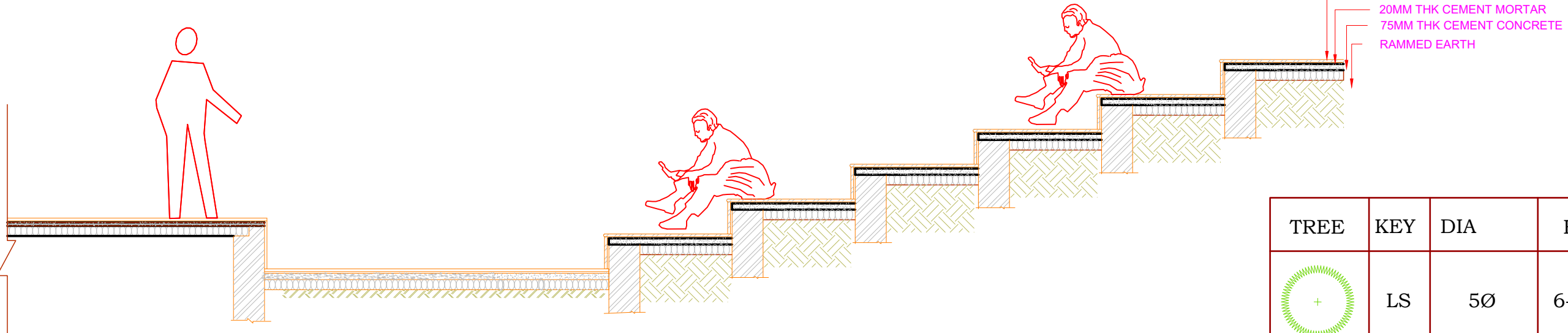
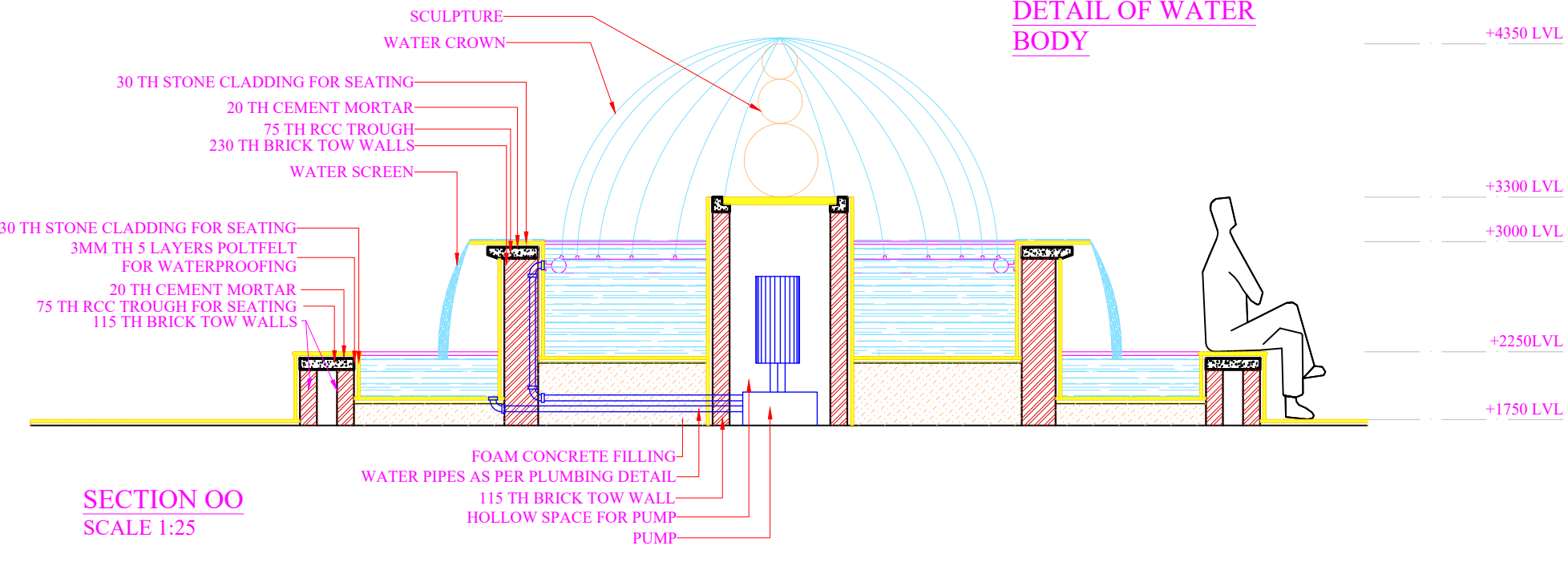
- LARGE TREES
- TERMINALIA ARJUNA (ARJUN Tree)
AVERAGE HT:12 TO 20 M
SPREAD : 8 TO 10 M
PLANTING: 8M C/C

- SMALL TREES
- PLUMERIA RUBRA (CHAMPA)
AVERAGE HT:5 TO 6 M
SPREAD : 3 TO 5 M
PLANTING: 5M C/C
 - FICUS BENJAMINA
AVERAGE HT:4 TO 6 M
SPREAD : 3 TO 6 M
PLANTING: 3 M C/C
 - ALSTONIA SCHOLARIS
AVERAGE HT:8 TO 10M
SPREAD : 6 TO 8 M
PLANTING: 6 M C/C

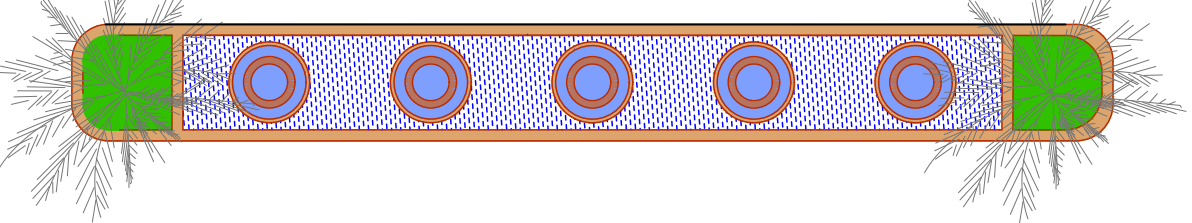
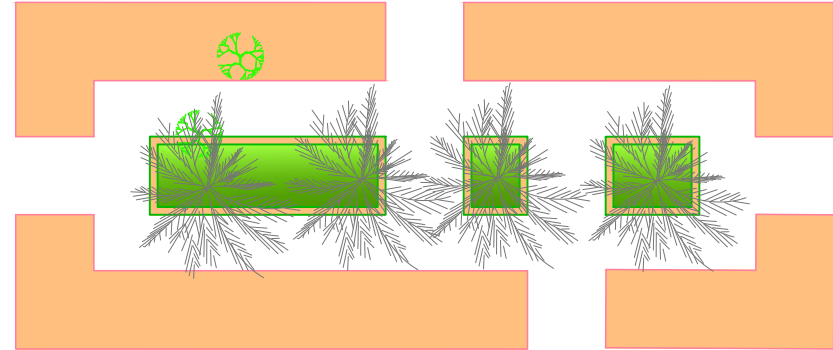
- SHRUBS
- PLUMERIA ALBA
AVERAGE HT:2 TO 4 M
SPREAD : 2 TO 4 M
PLANTING: 1.5 TO 2 M C/C
 - THUJA ORIENTALIS (Morpankhi)
AVERAGE HT:6 TO 1 M
SPREAD : 6 TO 12 M
 - HIBISCUS(GURHAL)
AVERAGE HT:2 TO 4 M
SPREAD : 2 TO 4 M
PLANTING: 1.5 TO 2 M C/C



DETAIL OF WATER BODY

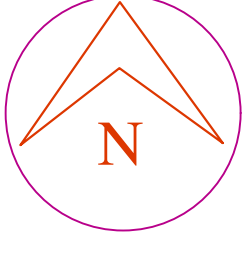


TYPICAL SECTION THROUGH OAT



NOTE : ALL DIMENSIONS ARE IN MM

TREE	KEY	DIA	HT	BOTANICAL NAME	COMMON NAME	REMARK
	LS	5Ø	6-7 MT	LARGESTROEMEA SP.	PRIDE OF INDIA	ORNAMENTAL FOLIAGE
	PR	5Ø	5-6 MT	PELTOPHORUM INERMI	GULMOHAR	EG DENSE FOLIAGE, TALL HEAVY YELLOW FLOWERING
		9-14 MT		BAUHIMA VARIEGATA	VARIEGATA/ KACHNAR	DECIDUOUS, GOOD FOR LANDSCAPING
	AS	5Ø	6-7 MT	ALASTONIA SCHOLARIS		
		1-1.5Ø	5-6 MT	COCONUCHERA	COCONUT TREE	
	Dr		1-1.5 MT	DRACAENAS	DRACAENAS	EG, ORNAMENTAL VARIEGATED FOLIAGE
	Ar		1-1.5 MT	ARALIAS	ARALIAS	EG, ORNAMENTAL SHINING GREEN PATCHY LEAVES
	CR		1-1.5 MT	CREEEPING ROSES	CREEEPING ROSES	PROFUSE SMALL FLOWER IN BUNCH
	Ac		0.3-0.6 MT	ACALYPHAS	ACALYPHAS	EG, PRETTY FOLIAGE GREEN/ CREAMY YELLOW, SHINING
	Ep		0.15-0.25 MT	EPITORIA SP.		TRIMMED EDGING

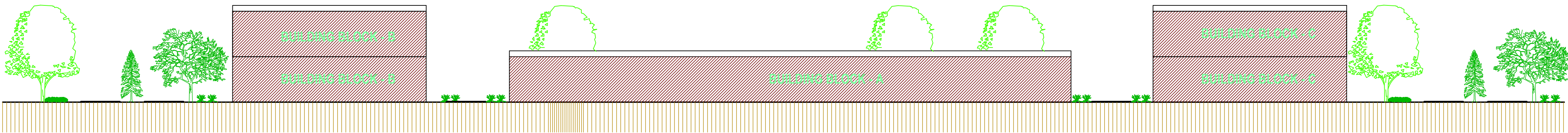


CONVENTION CENTRE

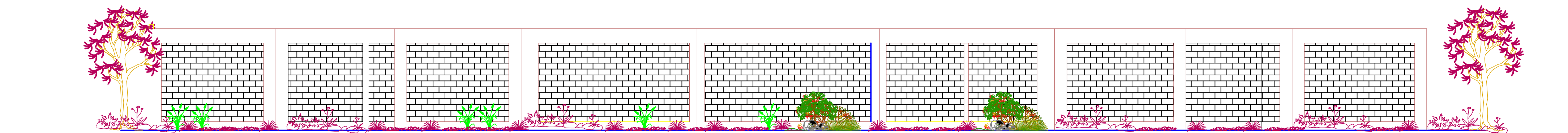
OMKAR CHAURASIYA
R.NO. -1180101035
B.ARCH - VTH YR.

THESIS

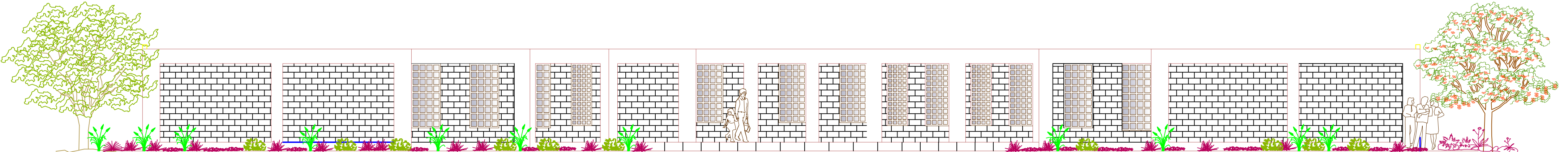
ELECTIVE -2



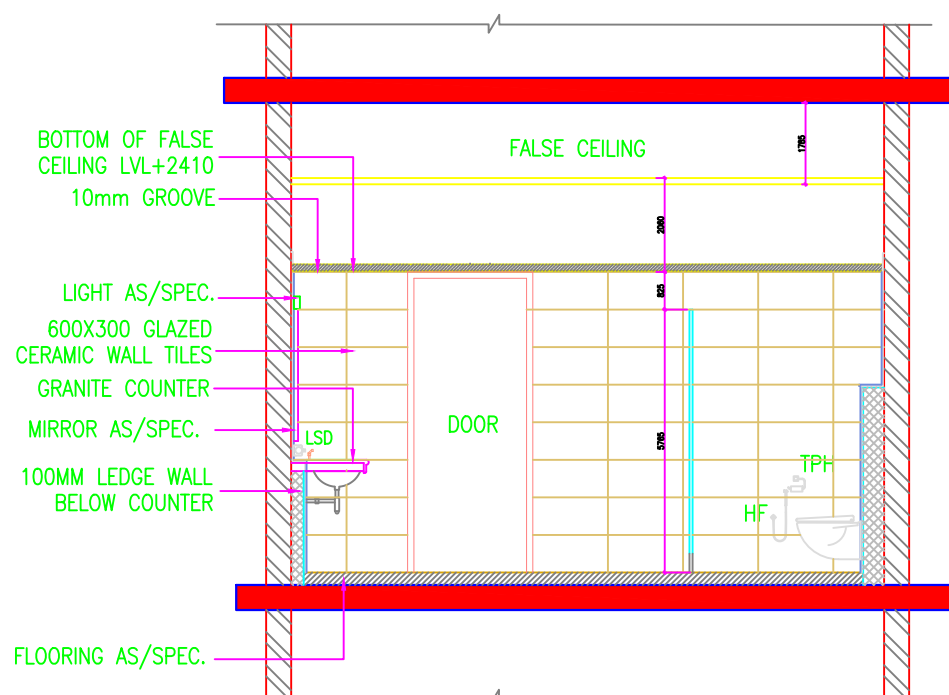
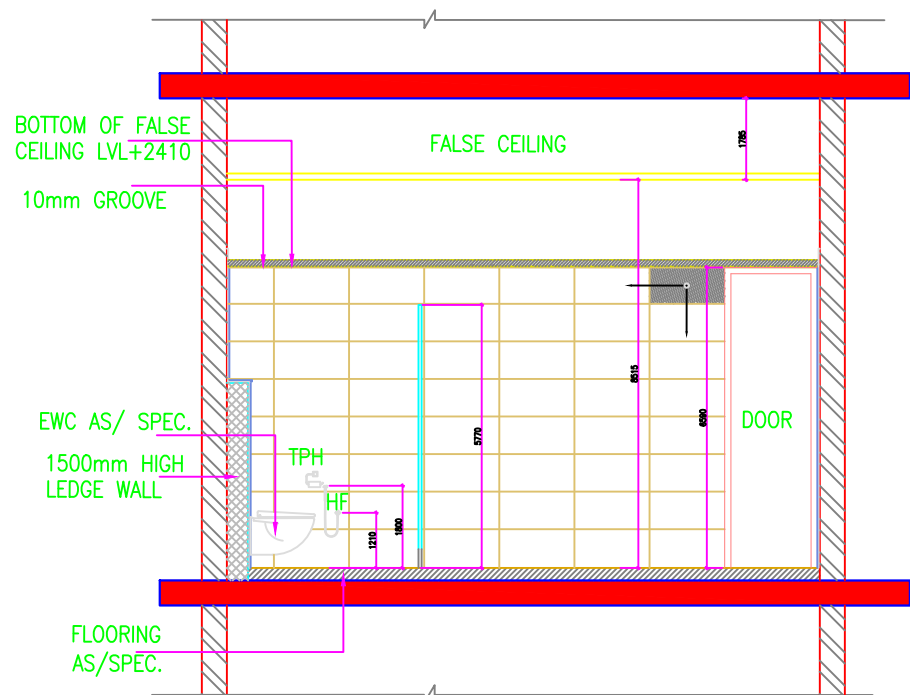
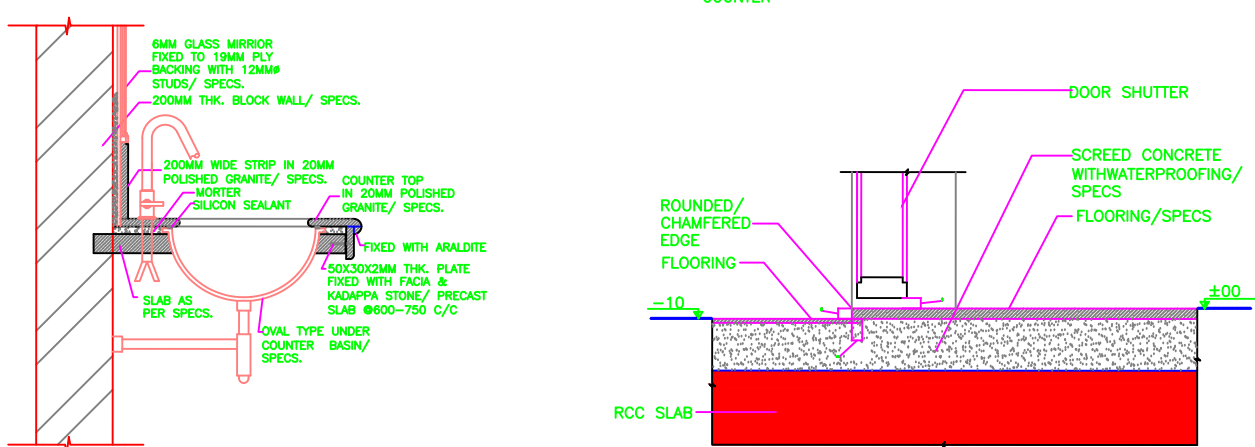
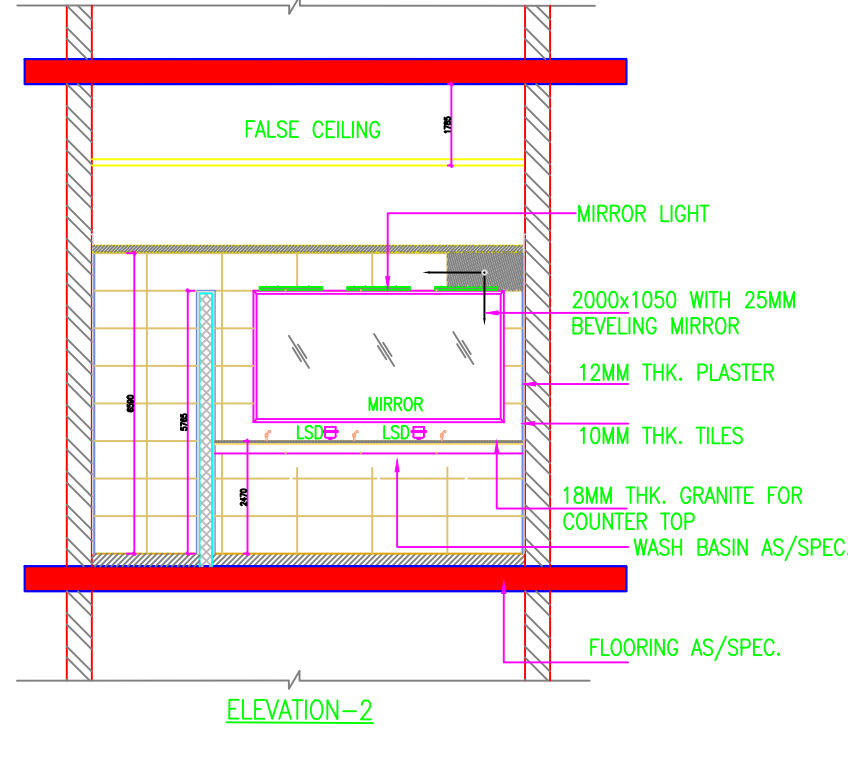
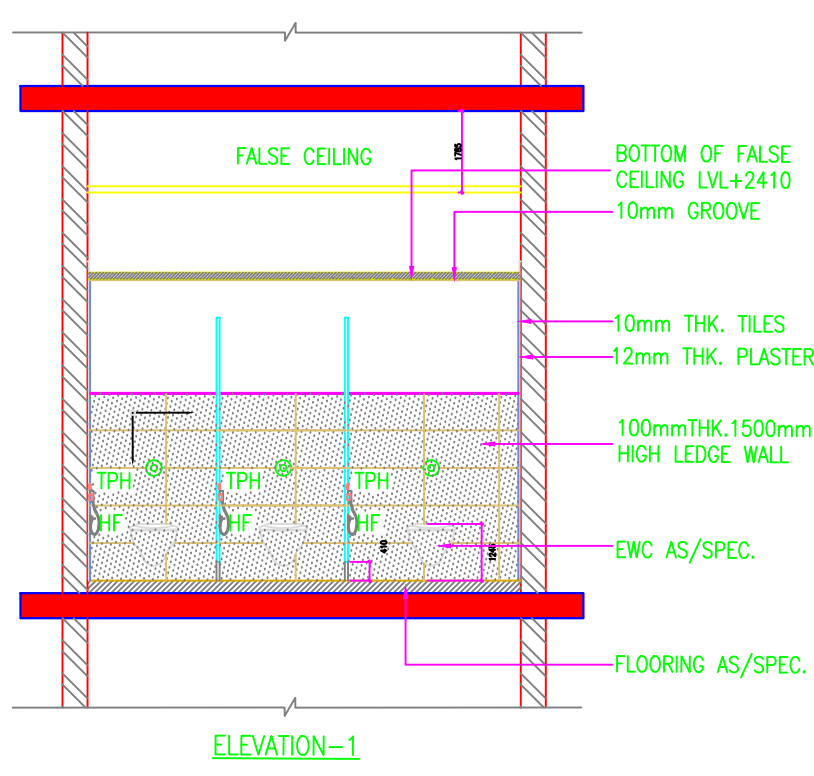
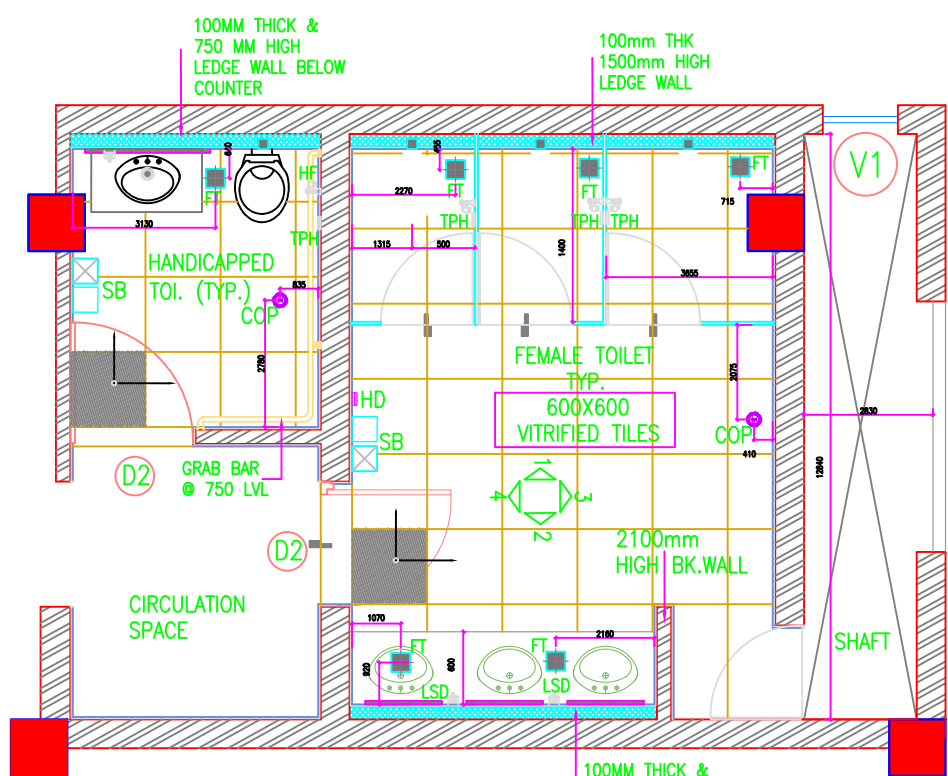
SITE SECTION AA'



BOUNDARY WALL ELEVATION - A

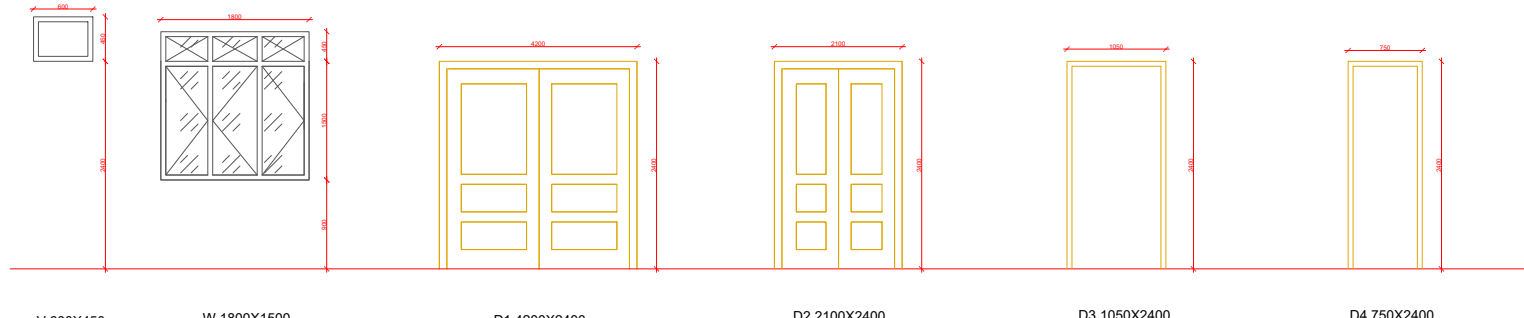
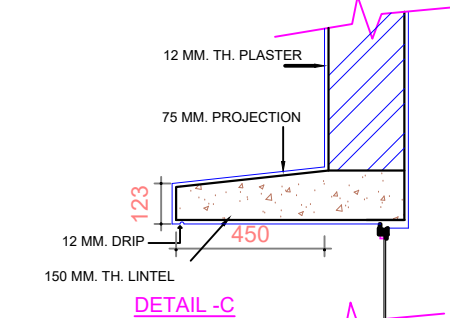
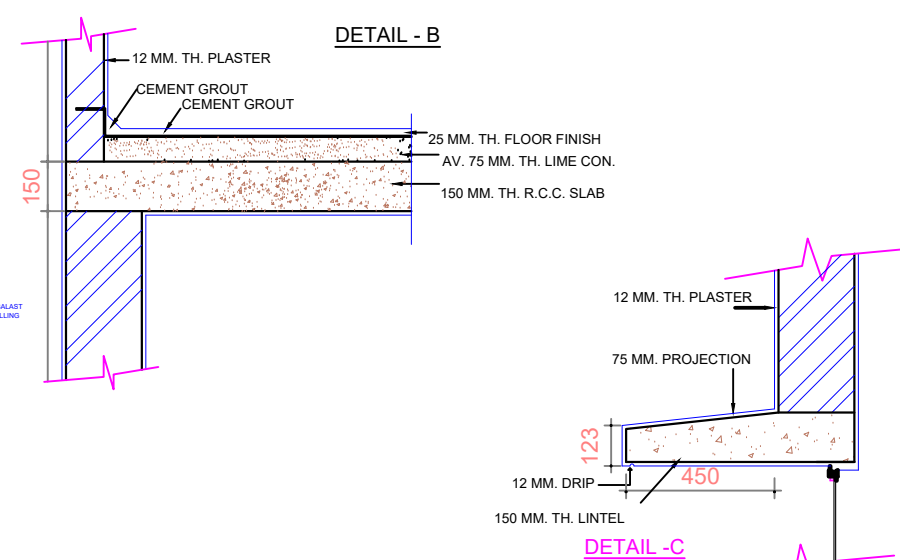
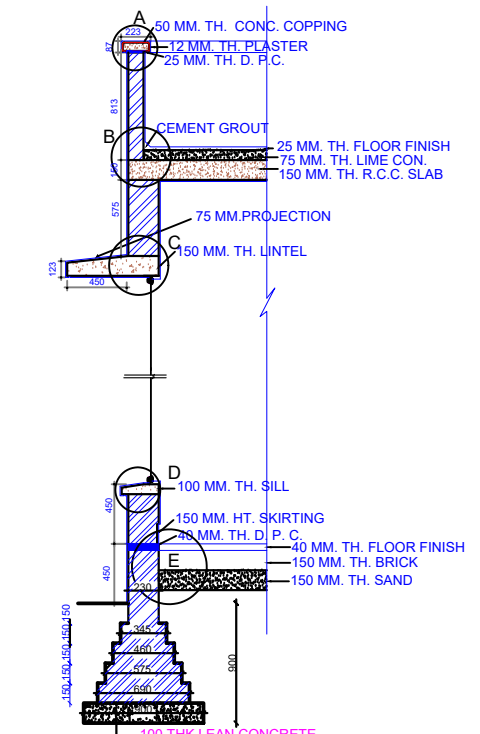
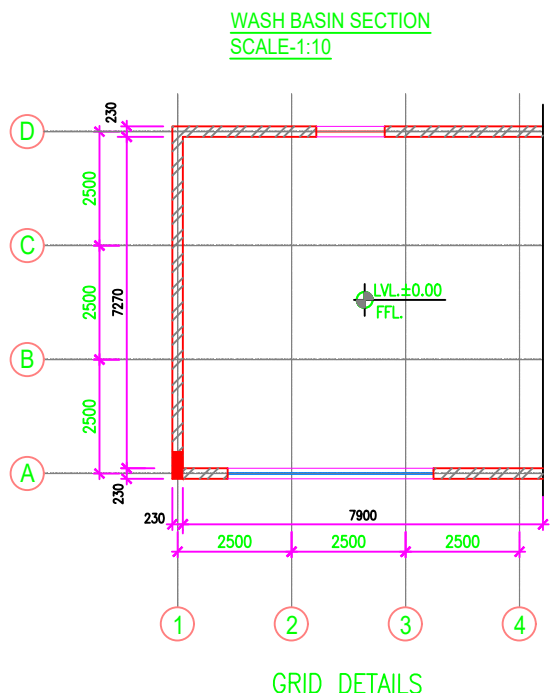


BOUNDARY WALL ELEVATION - B



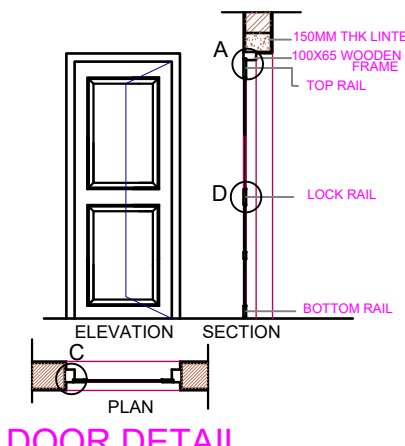
LEGEND:-

COP	CLEAN OUT PLUG
FT	FLOOR TRAP
HF	HEALTH FAUCET
TPH	TOILET PAPER HOLDER
LSD	LIQUID SOAP DISPENSER
SD	SOAP DISPENSER
TR	TOWEL RAIL
FV	FLUSH VALVE
HD	10mm DROP IN FLOOR FINISH
MIRROR LIGHT	MIRROR LIGHT
CORE-CUT	CORE-CUT

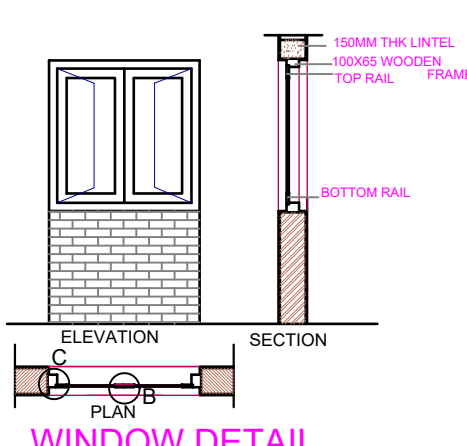


DOOR WINDOW SCHEDULE

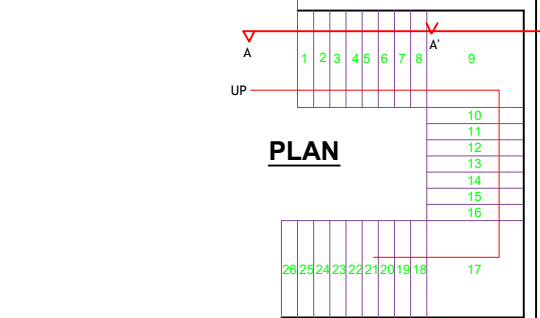
SCHEDULE OF OPENINGS						
TYPE	WIDTH	HEIGHT	SILL LVL	LINTEL LVL	LOCATION	
1 D1	4200	2400	---	2400	CORE, STAIRS/FIRE EXIT	
2 D2	2100	2400	---	2400	ROOMS/TOILETS	
3 D3	1050	2400	---	2400	ROOMS	
4 D4	750	2400	---	2400	TOILETS	
5 W1	1800	1500	900	2400	ROOMS	
6 V1	600	450	900	2400	TOILETS	



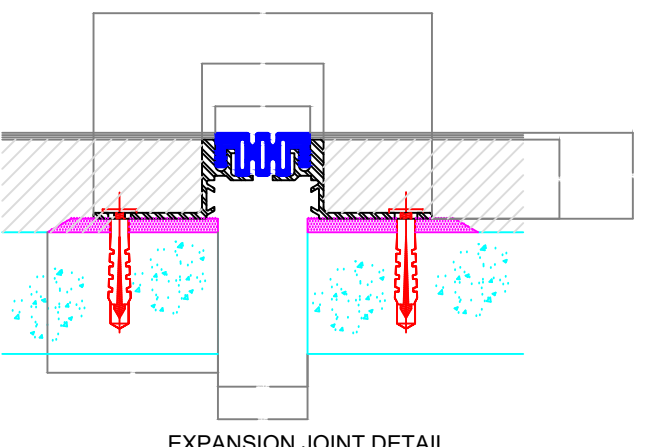
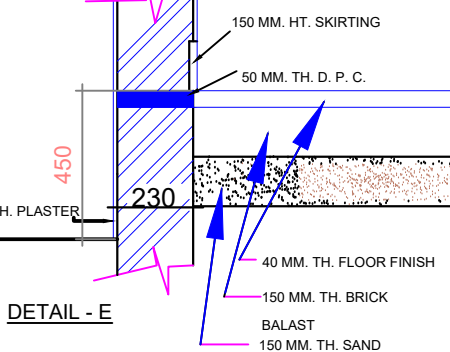
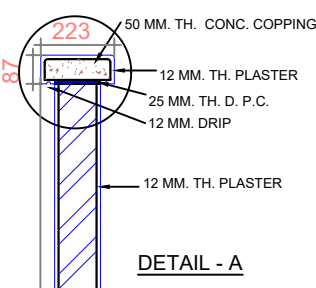
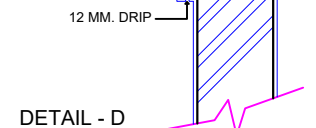
DOOR DETAIL



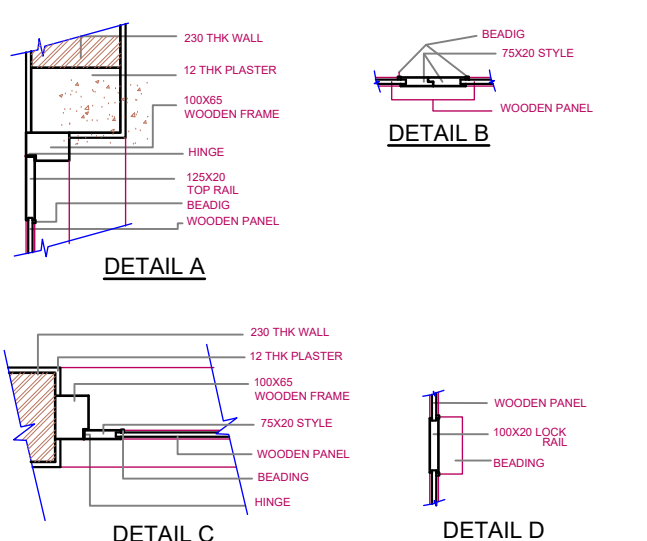
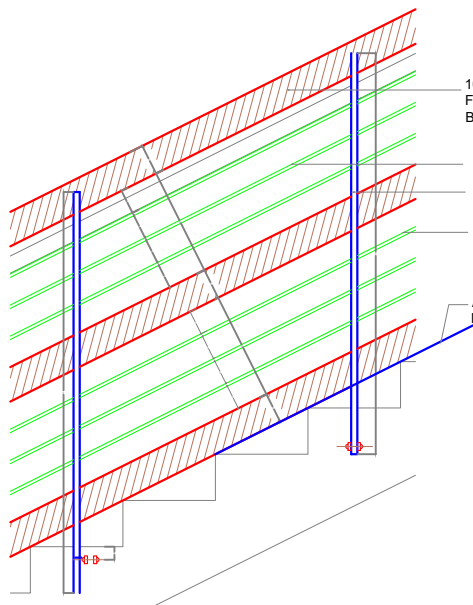
WINDOW DETAIL



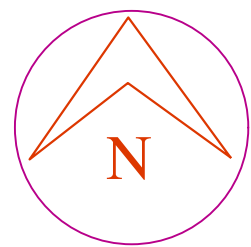
WALL SECTION



EXPANSION JOINT DETAIL



NOTE : ALL DIMENSIONS ARE IN MM



CONVENTION CENTRE

OMKAR CHAURASIYA

R.NO. -1180101035

B.ARCH - VTH YR.

CONVENTION CENTRE (DELHI) 3D VIEWS

SUBMITTED BY –
OMKAR CHAURASIYA



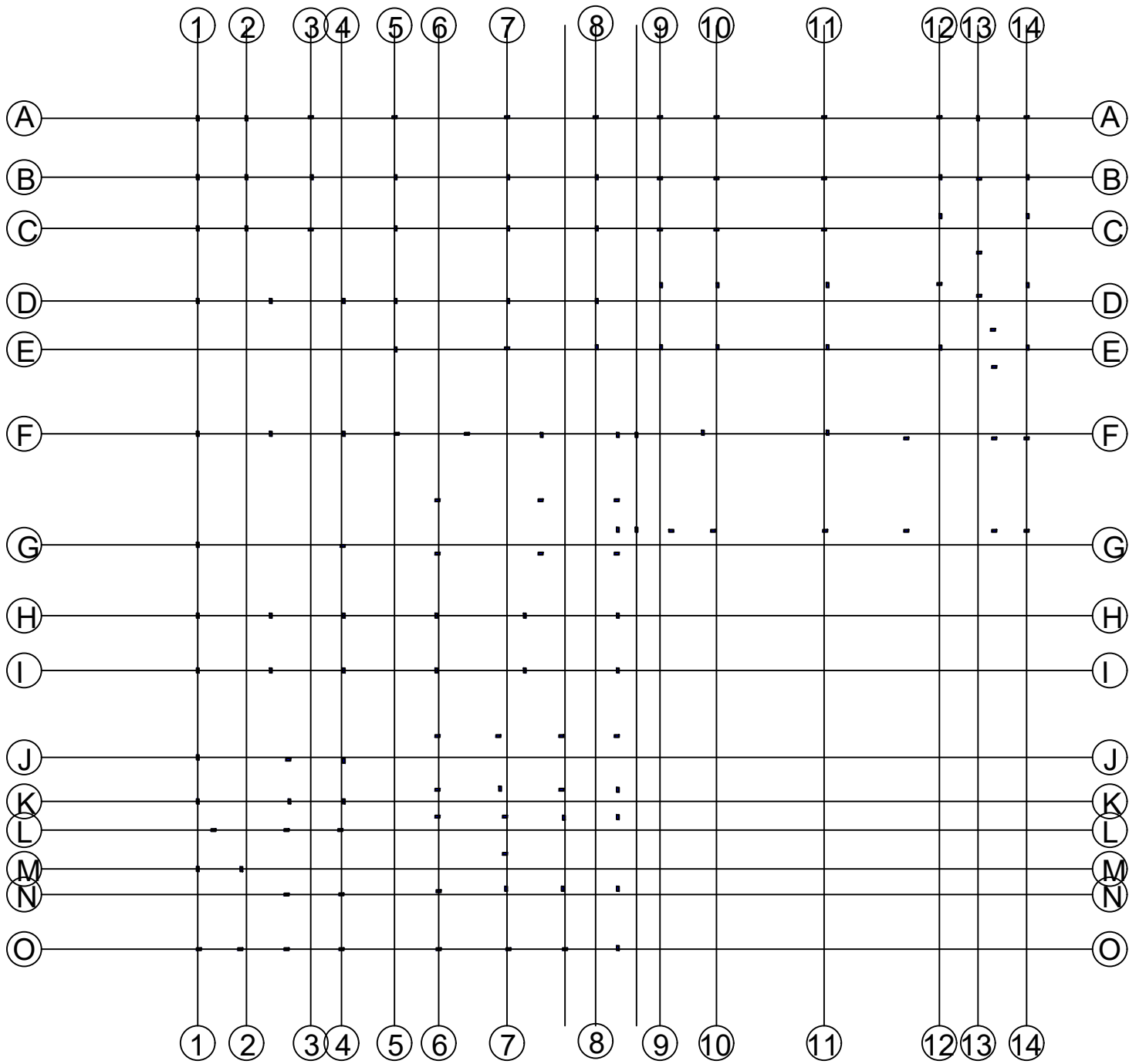
CONVENTION CENTRE (DELHI) 3D VIEWS



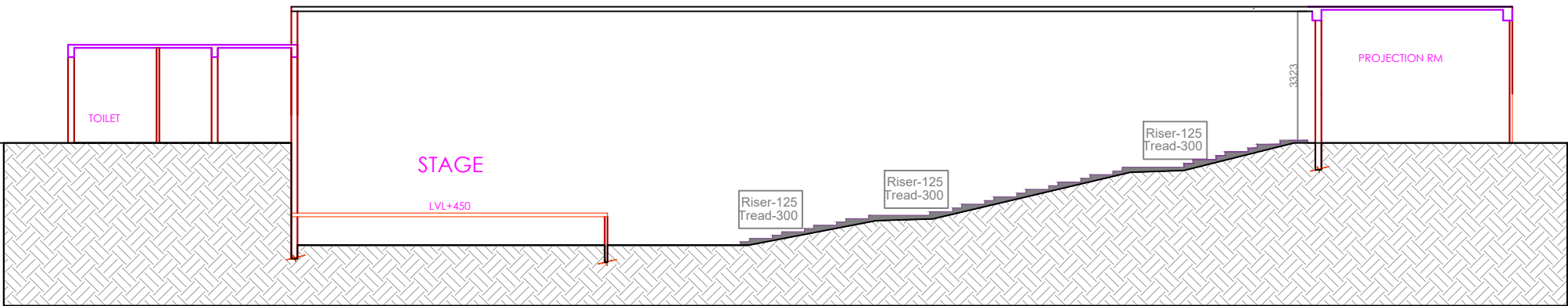
THESIS

ELECTIVE -1

BLOCK B



GRID LINE PLAN



SECTION X-X'
AUDITORIUM SECTION

NOTE : ALL DIMENSIONS ARE IN MM



CONVENTION CENTRE

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