

SPORTS COMPLEX

NEHA RAI DANUWAR

074BAE220

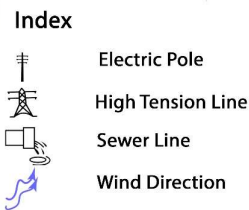
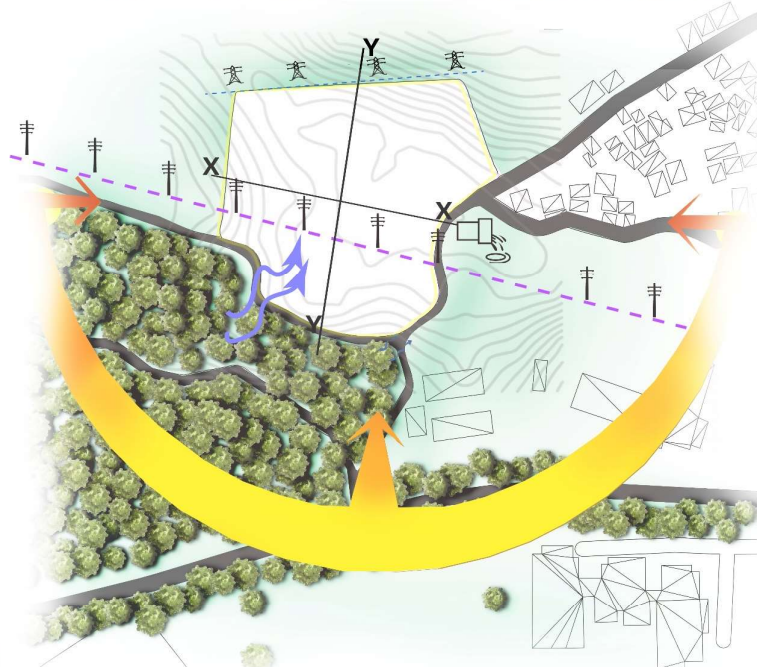
INTRODUCTION

INDOOR SPORTS COMPLEXES ARE LARGE HALLS FOR ENTERTAINMENT WHICH IS NOT ONLY A PUBLIC SPACE BUT ALSO AN ARCHITECTURAL LANDMARKS. VARIOUS GAMES SUCH AS BADMINTON, BASKETBALL, VOLLEYBALL, FOOTBALL CAN BE PLAYED IN SUCH COMPLEXES. SUCH COMPLEXES ARE A TYPE OF RECREATIONAL SPACES AND THEY ARE NECESSARY FOR PHYSICAL AND MENTAL HEALTH OF PEOPLE.

SITE INFORMATION
 LOCATION: KIRTIPUR, KATHMANDU
 SITE AREA: 15329 sq. m.
 APPROX. 30 ROPANIES

PLANNING BYE-LAWS:
 GROUND COVERAGE: 50%
 FAR: 2.5
 MAXIMUM BUILT-UP AREA: 38322.5 sq.m.

PARKING REQUIREMENT: 20%
 3065.8 sq.m.



Topography Profile

1. Along section x-x, the site seems to be sloping one way

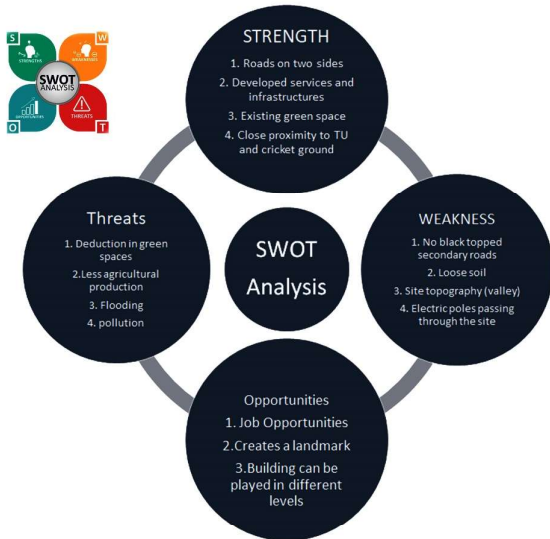
1. Along section y-y, the site seems to be creating a valley.

SITE ANALYSIS

s.no	particulars	Standard	dimension	area(sq. m)
1	parking			3000
2	games			
a	4 court hall	34.5 x 20	34.5 x 20	690
	3 court hall	28 x 17	28 x 17	476
	storage		0.125	170
b	Futsal	42 x 25	42 x 25	1050
	storage		0.125	131
c	table tennis(3)	9 x 5	9 x 5	135
d	swimming pool	33.33 x 17	34 x 17	578
	learner pool	16.66 x 8	17 x 8	136
				714
	locker units	1 clothing unit per 2 sq.m. pool area		357
	storage and facilities		0.125	131
3	Bathrooms		28.7 x 15.2	
	male	1 per 15-20 male: urinal minimum 2 water closet		
	female	1 per 15-20 female		
				200
4	first aid office			250
5	mechanical rooms			200
6	cafeteria	2.7 sq.m. per person:		675
	kitchen	50%of total area		337.5
	dining	30%of total area		202.5
	storage	10%of total area		67.5
	toilet	10%of total area		33.75
7	offices			50
	Coach Office			10
	Manager's office			20
8	laundry			100
				6043

AREA ANALYSIS

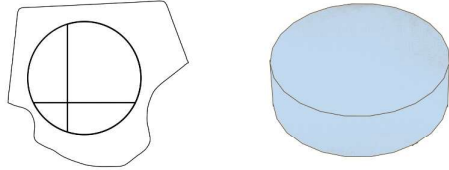
s.no	spaces	coverage	coverage in %
Ground floor			
1	Waiting area	250	2.21
2	Reception	25	0.22
3	Administration	65	0.57
4	Cafeteria	1200	10.60
	Dining	780	6.89
	Kitchen	240	2.12
	Store	80	0.71
	Toilet	100	0.88
5	Futsal	2500	22.08
6	Swimming pool	2200	19.43
7	Table tennis	180	1.59
8	lobby	500	4.42
	ground coverage	6920	61.13
	total ground floor coverage	45,1432	
first floor			
1	four court hall	1530	13.52
2	three court hall	1050	9.28
3	cafeteria	1000	8.83
5	meeting hall	202	1.78
4	circulation	618	5.46
	Total Built up area	11320	100.00



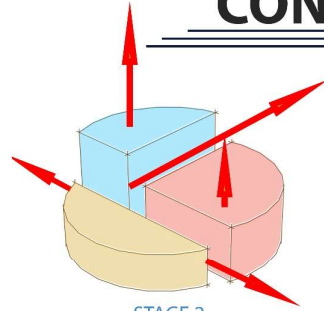
CONCEPT SHEET

STAGE 1

CIRCLE TAKEN AS INITIAL FORM AS IT SYMBOLIZES WHOLENESS, A TOTALITY. CIRCLE IS A FORM REPRESENTING INCLUSION

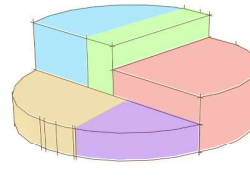


KEEPING WHOLENESS AND INCLUSION IN MIND, THIS SPORT COMPLEX IS DESIGNED WITH ALL THE FUNCTION UNDER A SINGLE ROOF IN A SINGLE BUILDING TO MINIMIZE THE HASSLE OF MOVING FROM FROM ONE BLOCK TO ANOTHER



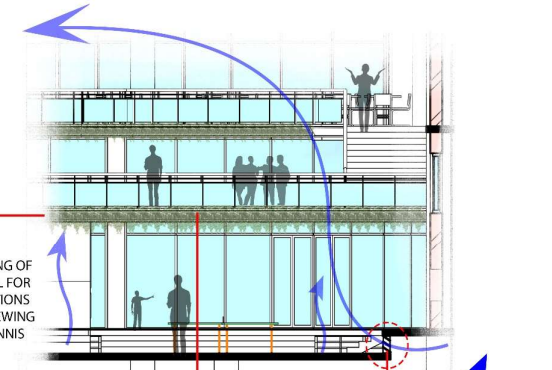
STAGE 2

SEGREGATING THE SINGLE BLOCK INTO THREE BASIC PARTS AS PER THE PROGRAM FORMULATION AND THE FUNCCTION.

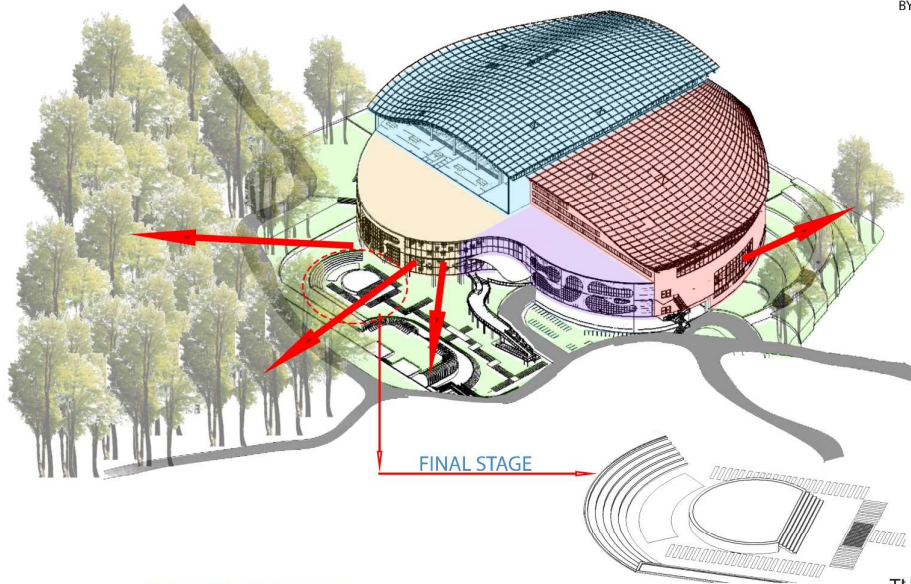


STAGE 3

JOINING THE SEGREGATED BLOCK BY INTRODUCING A CORRIDOR IN BETWEEN AND ASSIGNING THE FUNCTION IN EACH BLOCK BY ALSO INTRODUCING ADMINISTRATION BLOCK



THE LONG AND WIDE LANDING OF THE STAIRCASE AS THE LEVEL FOR CREATING VISUAL CONNECTIONS AND IT ALSO ACTS AS THE VIEWING POINT TO WATCH TABLE TENNIS



FINAL STAGE

LOCATION OF CAFETRIA

CAFETRIA IS IN THE LOCATION WHERE YOU CAN NOT ONLY SEE THE NATURAL EXISTING LANDSCAPE BUT ALSO THE LANDSCAPE IN THE FRONT OF THE COMPLEX WHICH MAKES THE DINING AREA MORE LIVELY.

PERMEABLE PAVERS

USING PERMEABLE PAVERS FOR PAVING THE GROUND TO PRESERVE THE GROUND WATER TABLE.

OPEN AIR THEATRE

OPEN AIR THEATRE IS ALSO PROVIDED IN THE FRONT OF THE COMPLEX AS A COMMUNAL PLACE FOR CELEBRATIONS AND MASS GATHERING



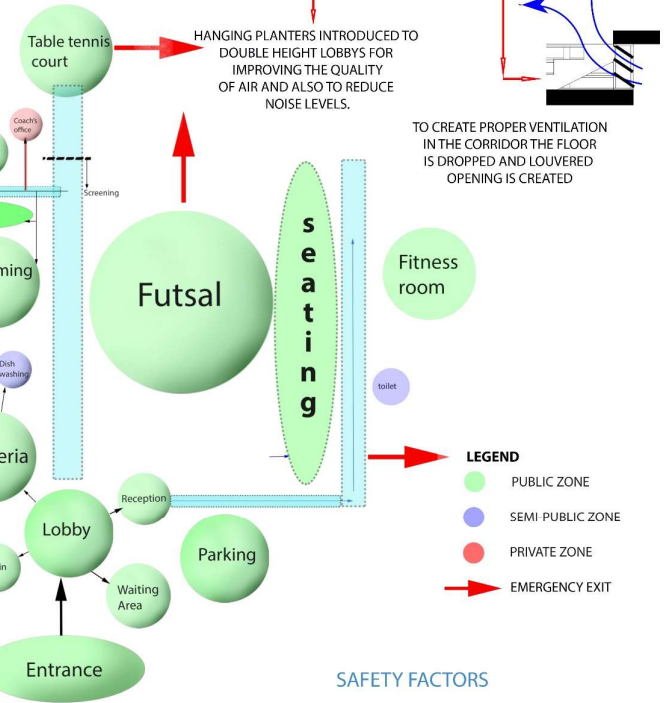
LANDSCAPE DESIGN

THE LANDSCAPING IS DONE IN DIFFERENT LEVELS AND SHAPE IN THE FORM OF ORIGINAL TOPOGRAPHY TO PRESERVE THE NATURAL TOPOGRAPHY

INCLUSIVE DESIGN

PROVISION OF RAMPS AND ELEVATORS TO CONNECT DIFFERENT LEVEL FOR THE DIFFERENTLY-ABLED PEOPLE

PROVISION OF DIFFERENT W/C FOR DIFFERENTLY-ABLED PEOPLE



HANGING PLANTERS INTRODUCED TO DOUBLE HEIGHT LOBBYS FOR IMPROVING THE QUALITY OF AIR AND ALSO TO REDUCE NOISE LEVELS.

TO CREATE PROPER VENTILATION IN THE CORRIDOR THE FLOOR IS DROPPED AND LOUVERED OPENING IS CREATED

SAFETY FACTORS

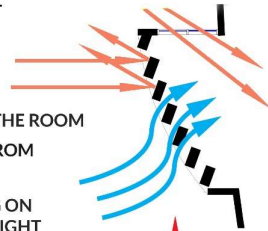
1. FIRE-EXTINGUISHERS ARE PLACED IN DIFFERENT PARTS OF BUILDING
2. PROVISION OF EMERGENCY EXIT
3. WIDE DOORS FOR THE EMERGENCY ESCAPE

LOUVRE DETAILS

WEST FACADE OF THE BUILDING IS PROVIDED WITH A PROJECTION HAVING LOUVRES ON THE WEST SIDE

- i. FOR THE PROPER VENTILATION OF THE ROOM
- ii. TO BLOCK THE DIRECT SUNLIGHT FROM WEST AND SOUTH DIRECTION

THE PROJECTION ALSO HAS OPENING ON THE NORTHERN SIDE FOR DIFFUSED LIGHT FOR PROPER LIGHTING IN THE MULTIPURPOSE HALL.



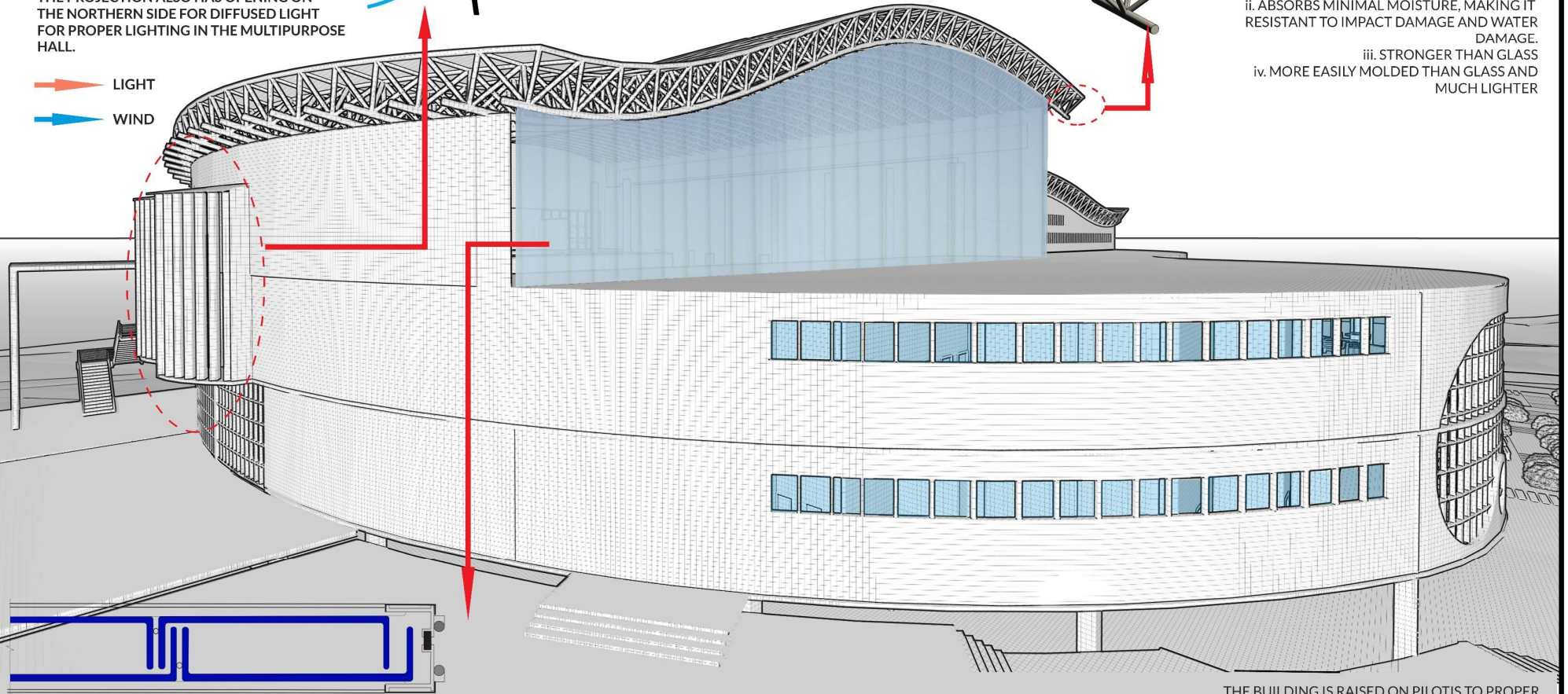
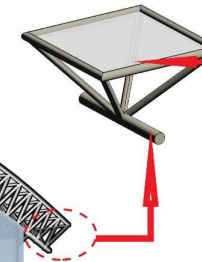
CONCEPT SHEET

ROOF DESIGN

TO COMPLEMENT THE CIRCULAR PLAN OF THE BUILDING, THE ROOF PROVIDED IS ALSO CURVILINEAR. TO CREATE A LONG SPAN ROOF IN THE CURVILINEAR FORM, SPACE FRAME (3D TRUSS) IS USED WHICH USES POLYCARBONATE SHEETS AS A ROOFING MATERIAL.

WHY POLYCARBONATE SHEETS?

- i. TOUGH TRANSPARENT/ TRANSCULENT SHEET
- ii. ABSORBS MINIMAL MOISTURE, MAKING IT RESISTANT TO IMPACT DAMAGE AND WATER DAMAGE.
- iii. STRONGER THAN GLASS
- iv. MORE EASILY MOLDED THAN GLASS AND MUCH LIGHTER



CHANNEL GLASS SECTION

- CHANNEL GLASS IS USED ON THIS WALL FOR.
- i. MINIMIZES GLARE AND PROVIDES DIFFUSED LIGHT
 - ii. SEAMLESS WITH NO NEED OF VERTICAL MEMBERS CREATING NO SHADOWS OF THE STEEL SECTIONS

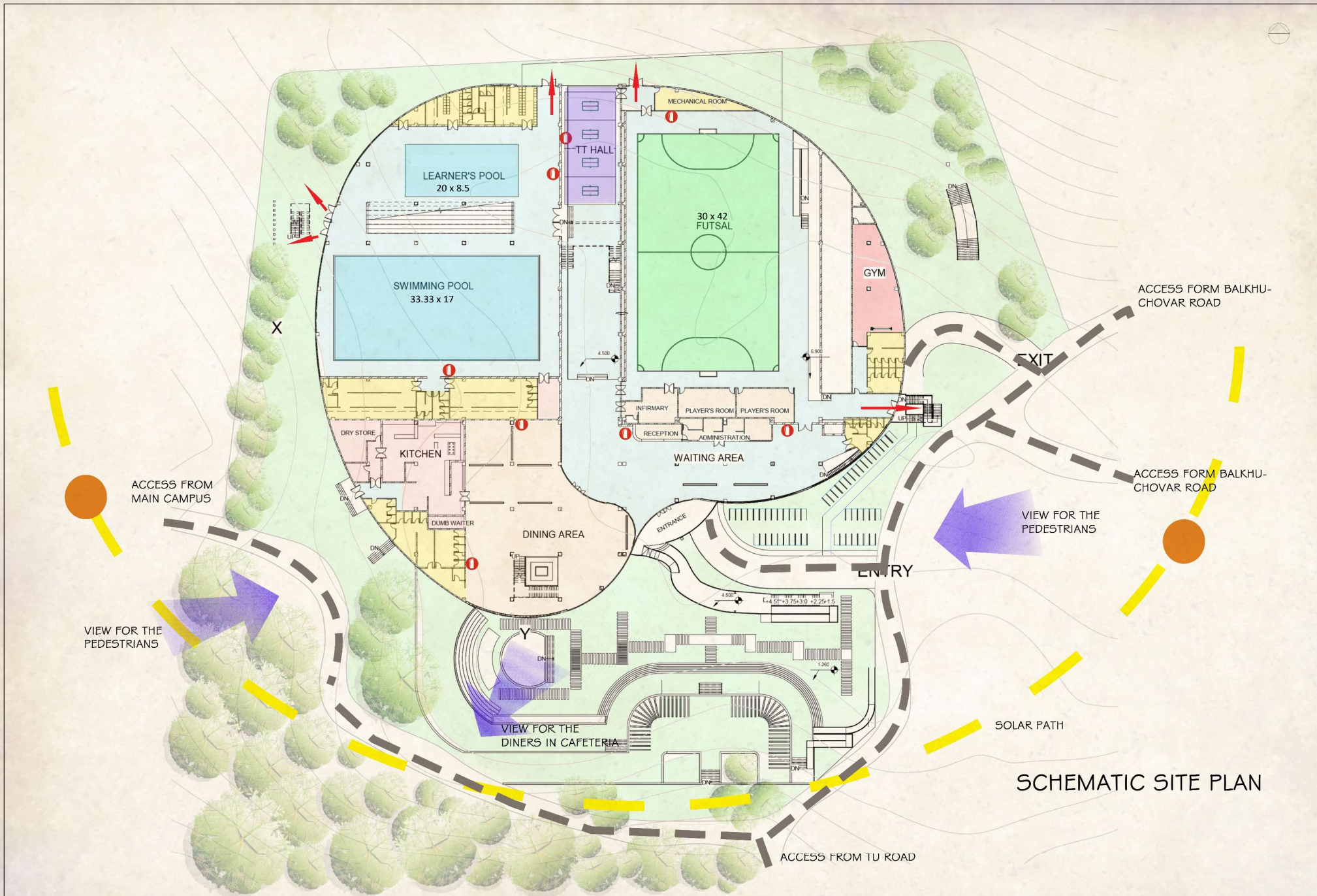
THE BUILDING IS RAISED ON PILOTS TO PROPER AIR CIRCULATION AND ALSO TO AID TO PRESERVE THE GROUND WATER TABLE.

THE BASEMENT IS ALSO RAISED FROM THE GROUND TO PREVENT FLOODING

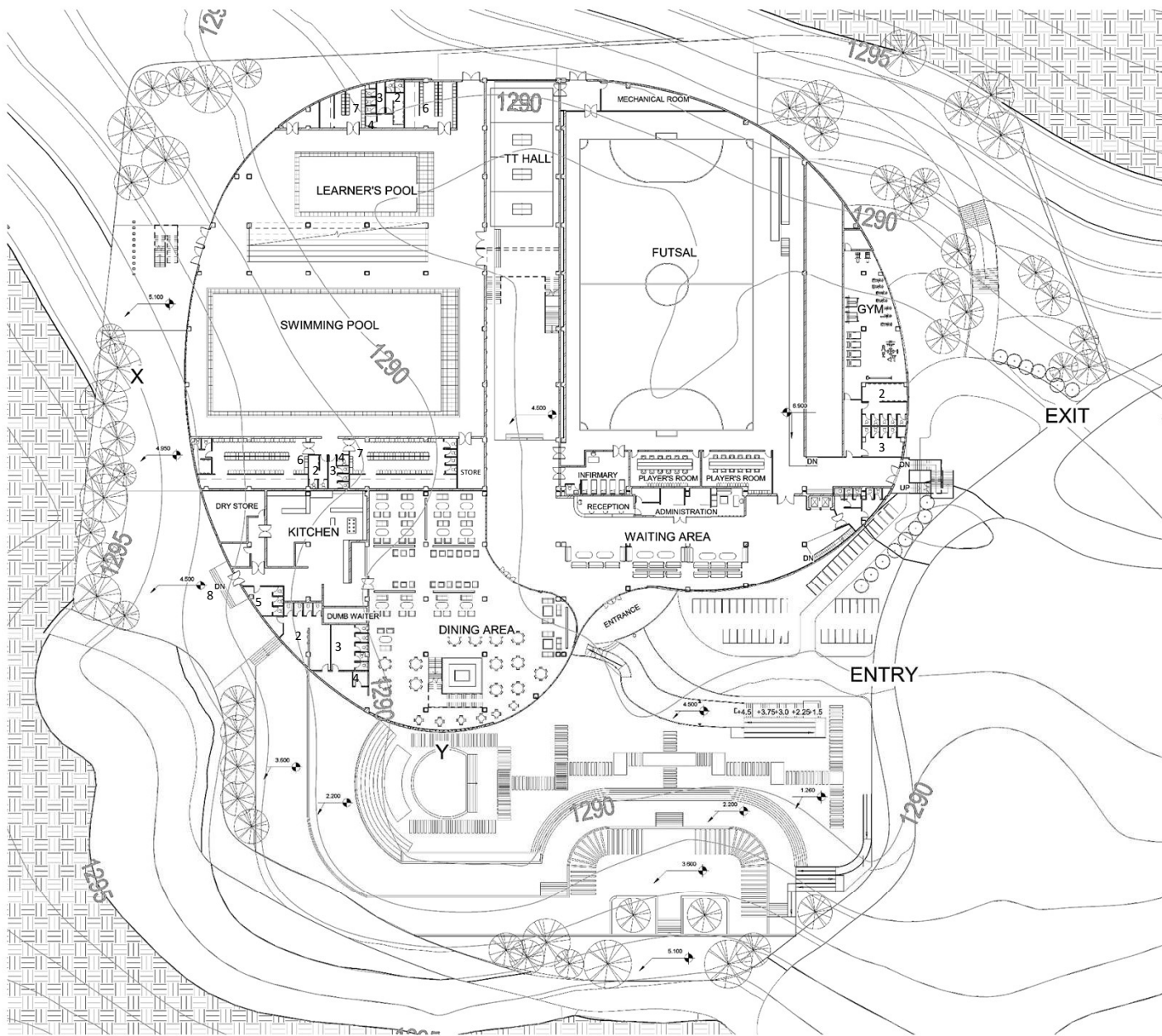
IT ALSO PROVIDED AID IN PRESERVING THE ORIGINAL TOPOGRAPHY OF THE LAND.



SITE
DRAWINGS

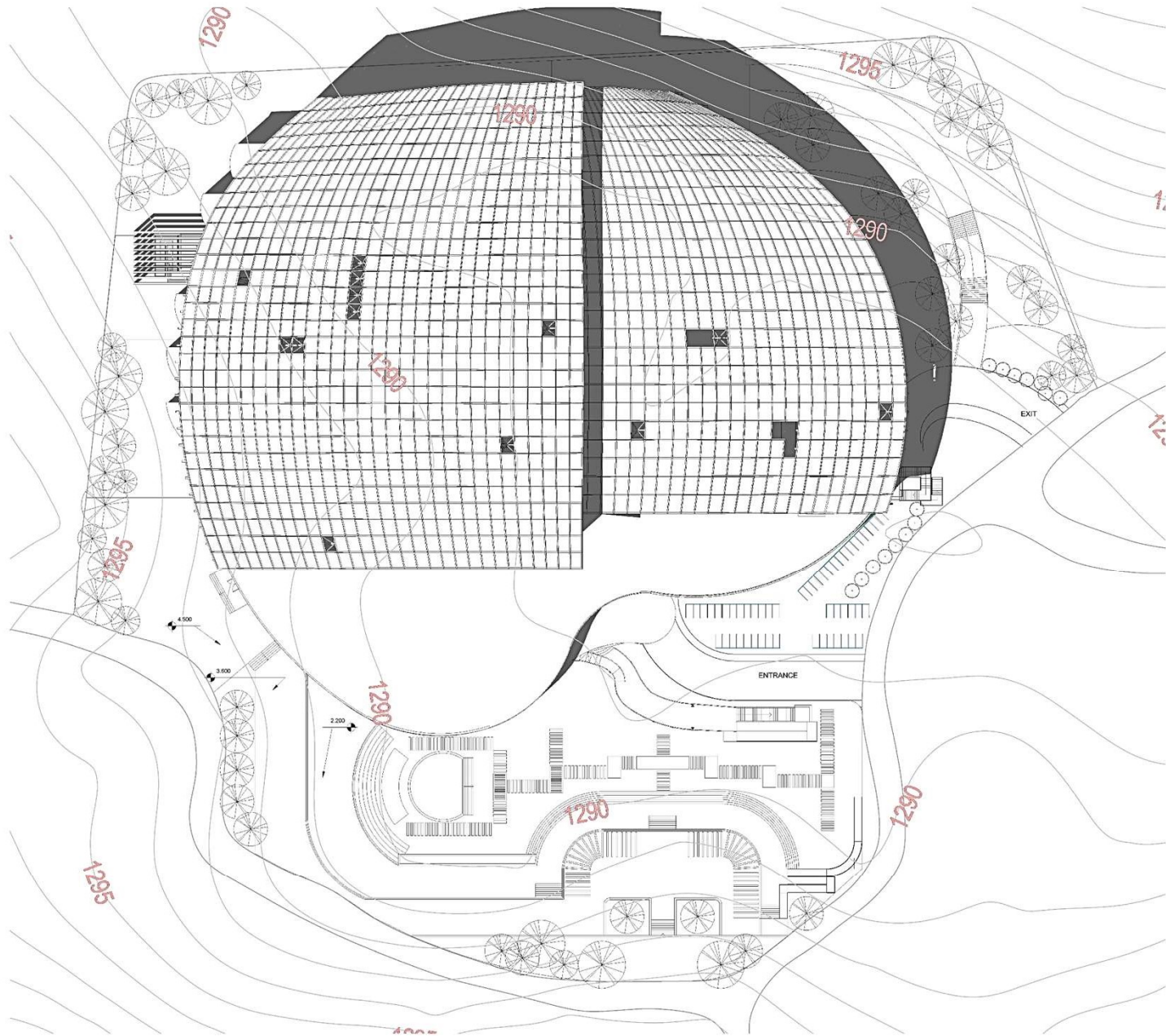


SCHEMATIC SITE PLAN

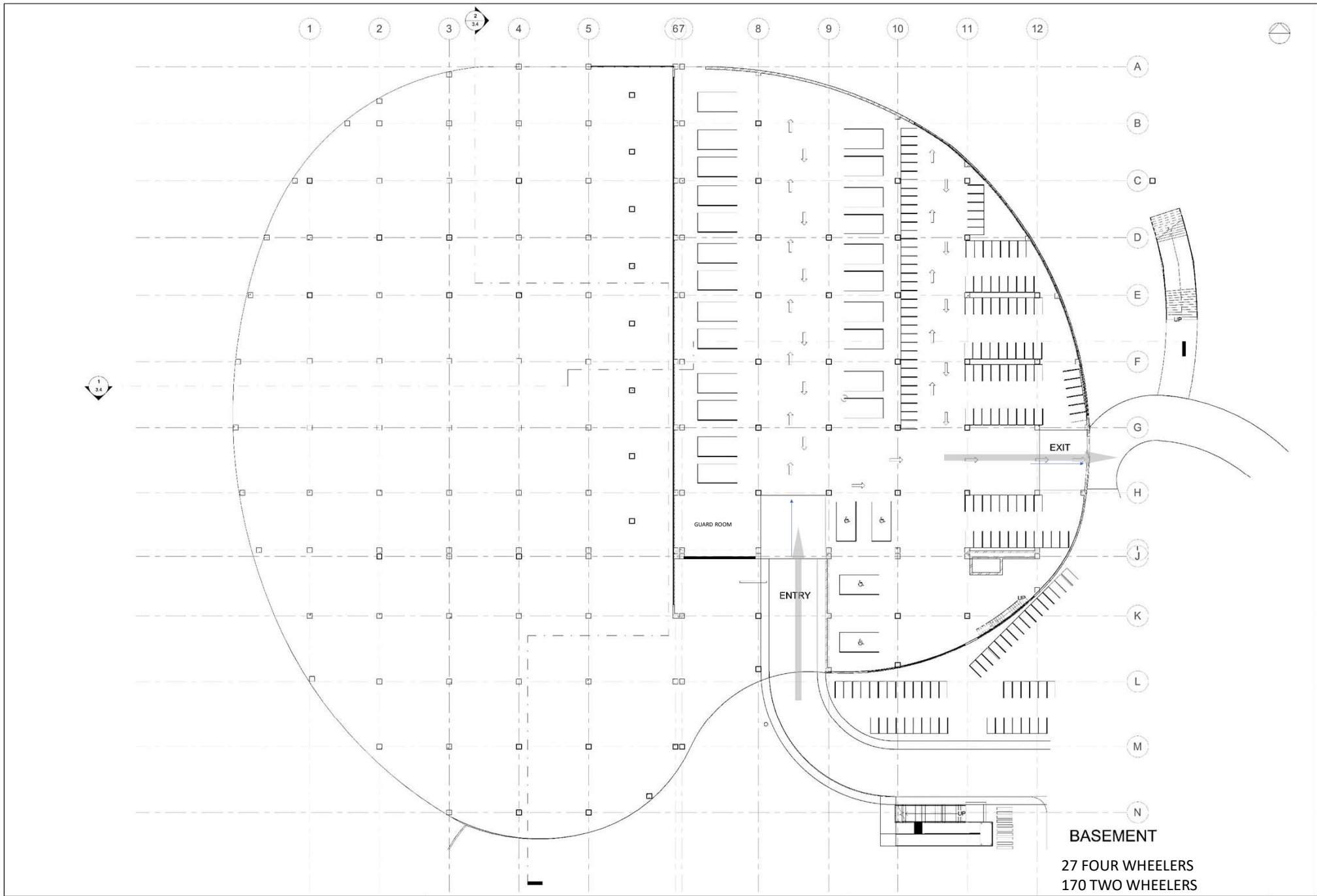


1	EMERGENCY EXIT
2	MALE W/C
3	FEMALE W/C
4	DIFFERNTLY ABLED W/C
5	STAFF W/C
6	MALE SHOWER, CHANGING & LOCKER ROOM
7	FEMALE SHOWER, CHANGING AND LOCKER ROOM
8	SERVICE ENTRY

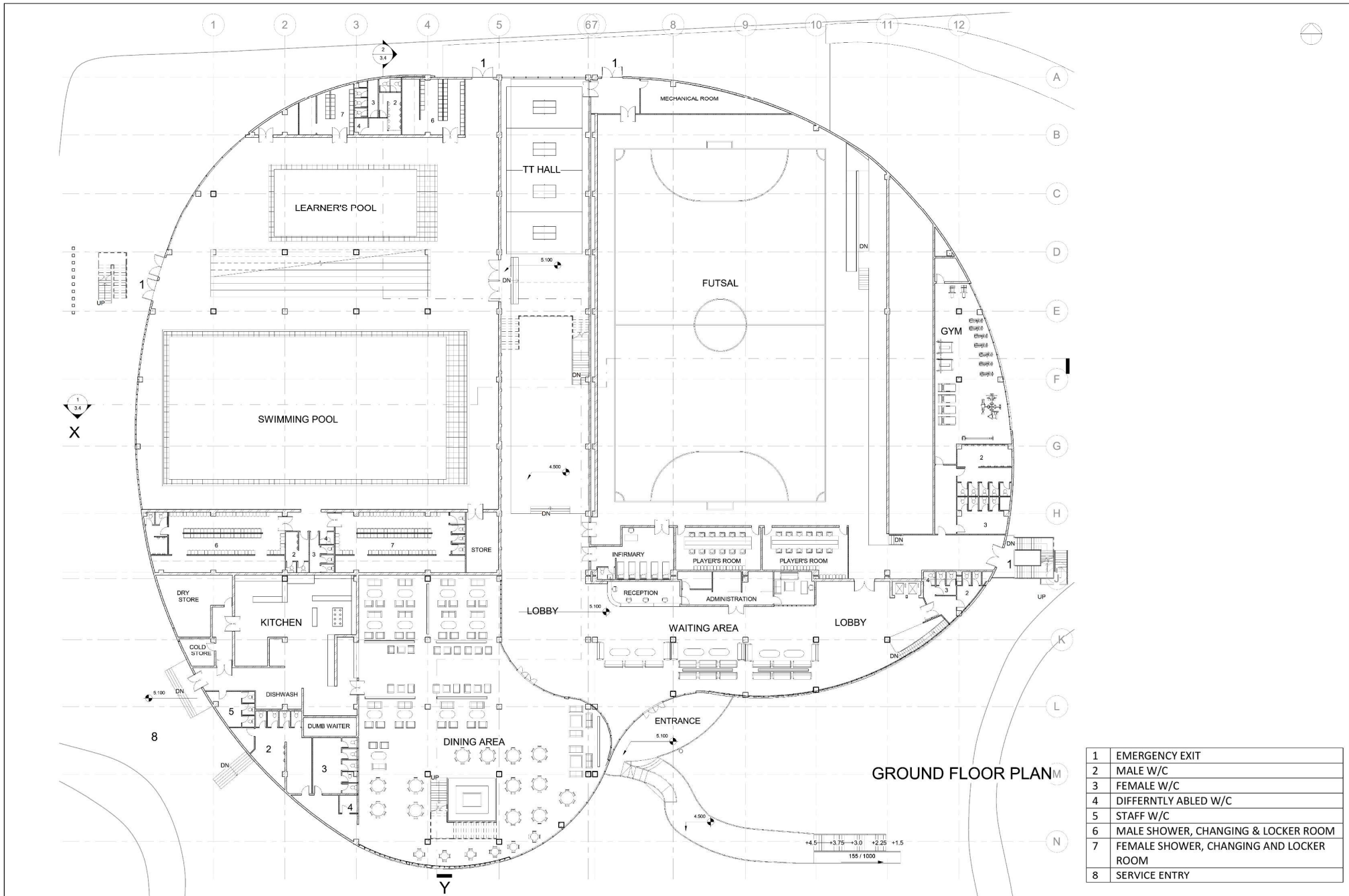
SITE PLAN WITH GROUND FLOOR PLAN



SITE PLAN WITH ROOF PLAN

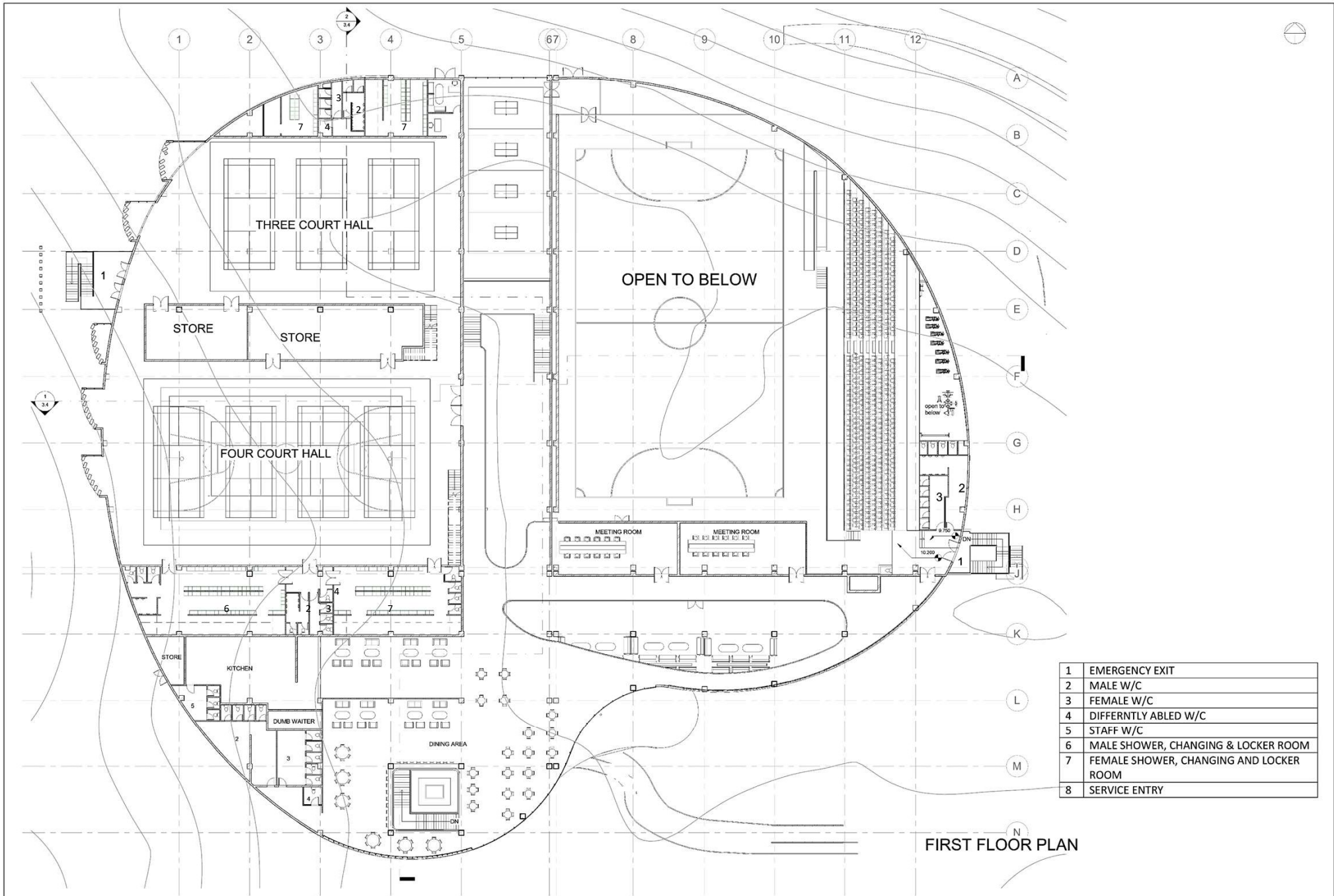


BASEMENT
 27 FOUR WHEELERS
 170 TWO WHEELERS



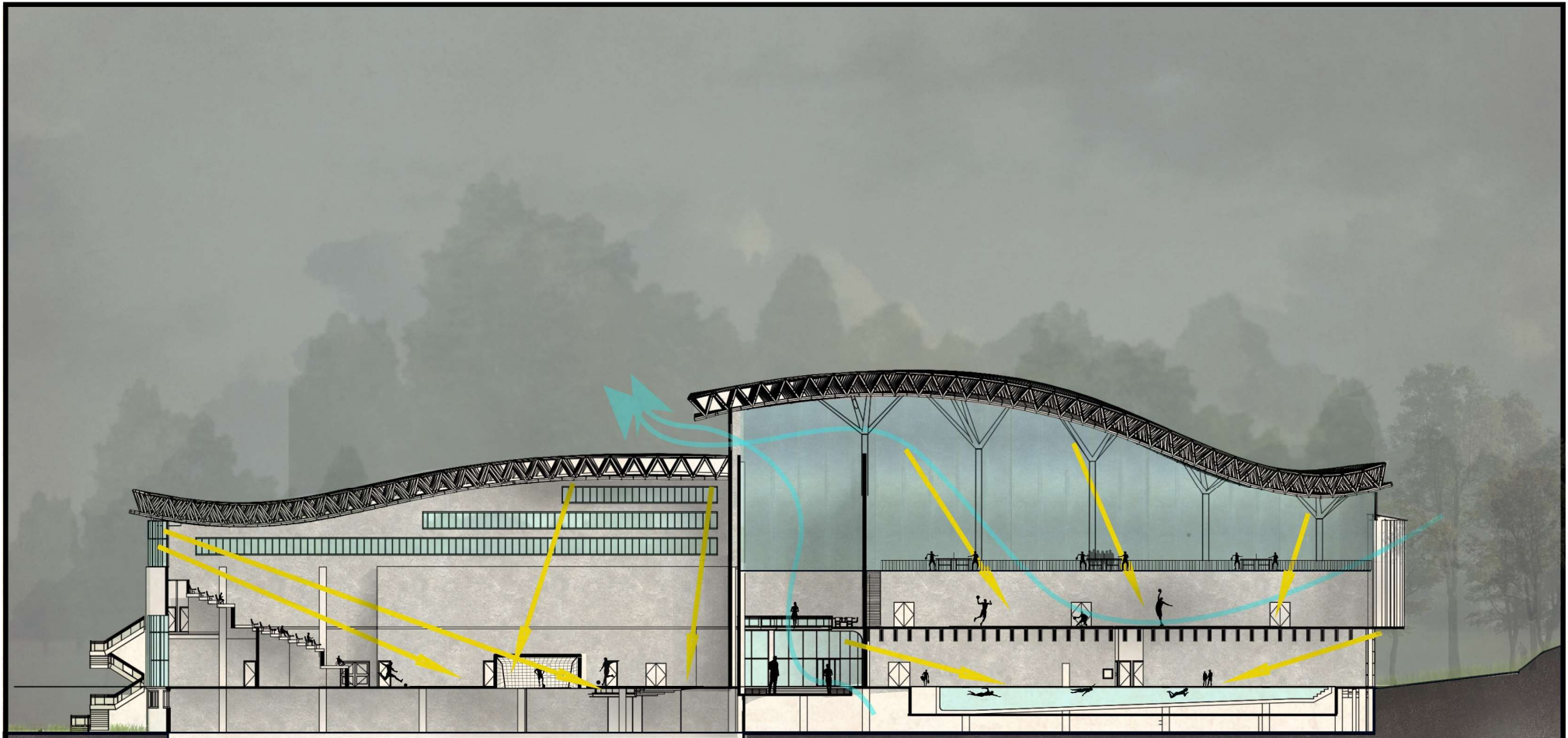
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7	FEMALE SHOWER, CHANGING AND LOCKER ROOM
8	SERVICE ENTRY

GROUND FLOOR PLAN M

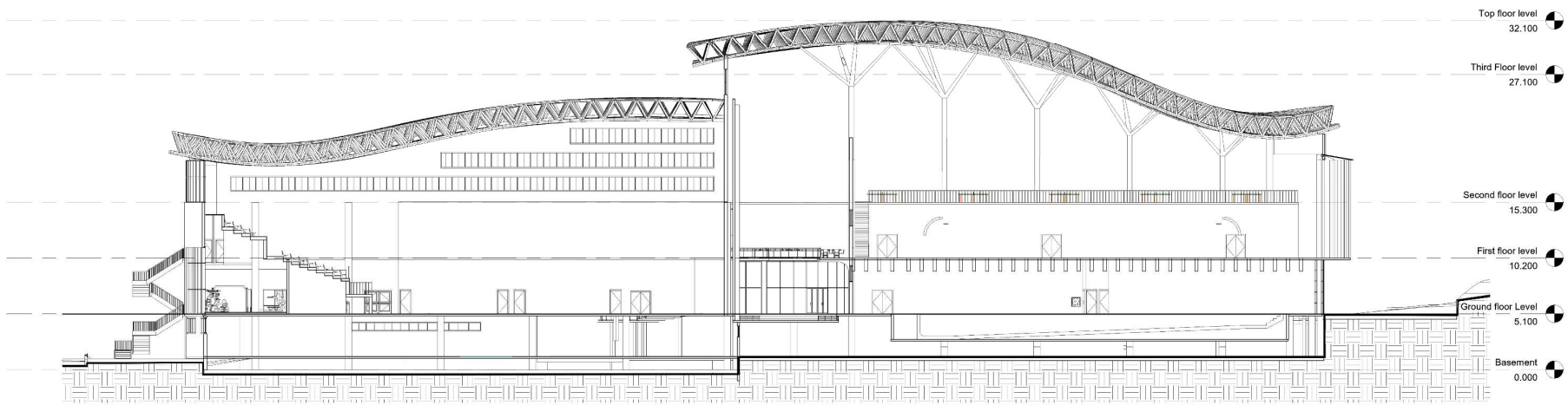


1	EMERGENCY EXIT
2	MALE W/C
3	FEMALE W/C
4	DIFFERNTLY ABLED W/C
5	STAFF W/C
6	MALE SHOWER, CHANGING & LOCKER ROOM
7	FEMALE SHOWER, CHANGING AND LOCKER ROOM
8	SERVICE ENTRY

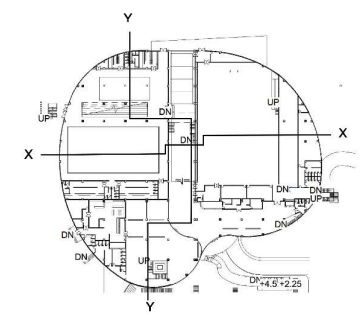
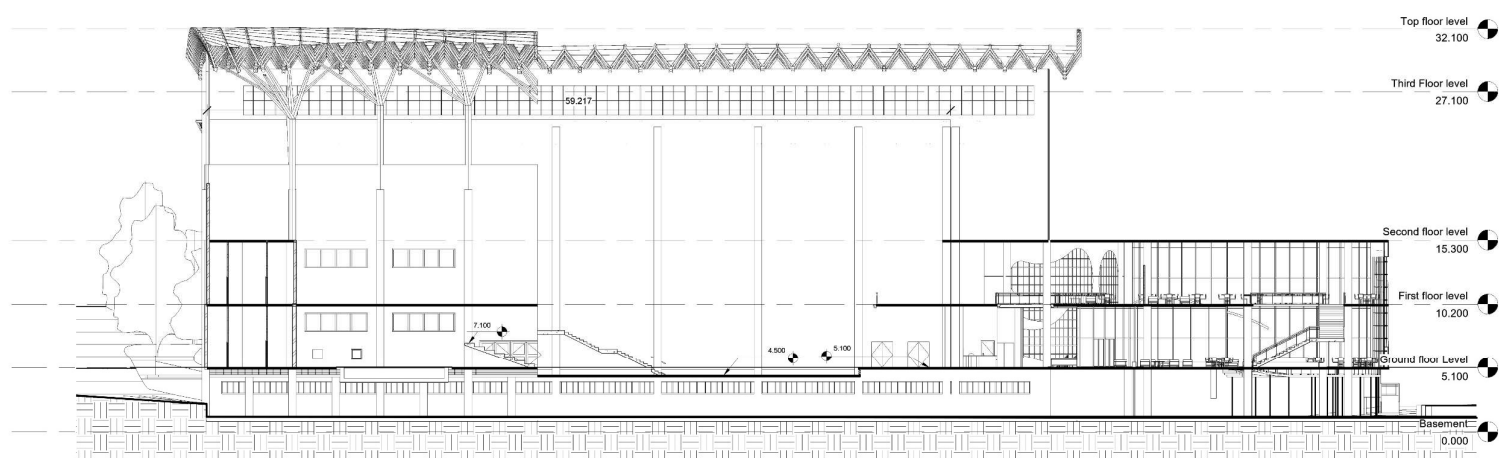
FIRST FLOOR PLAN



SECTION THROUGH X-X

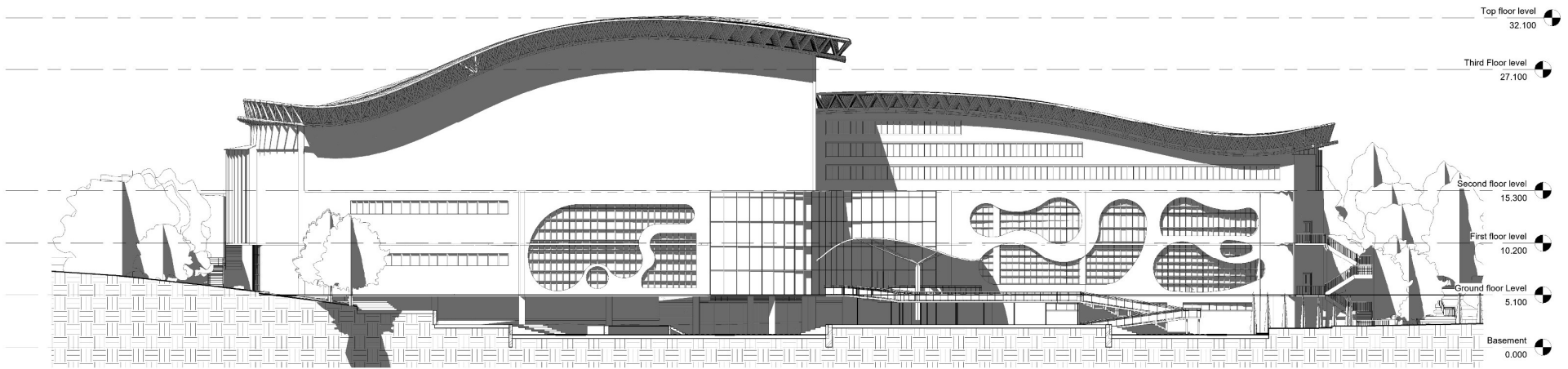


1 SECTION X-X
1 : 200

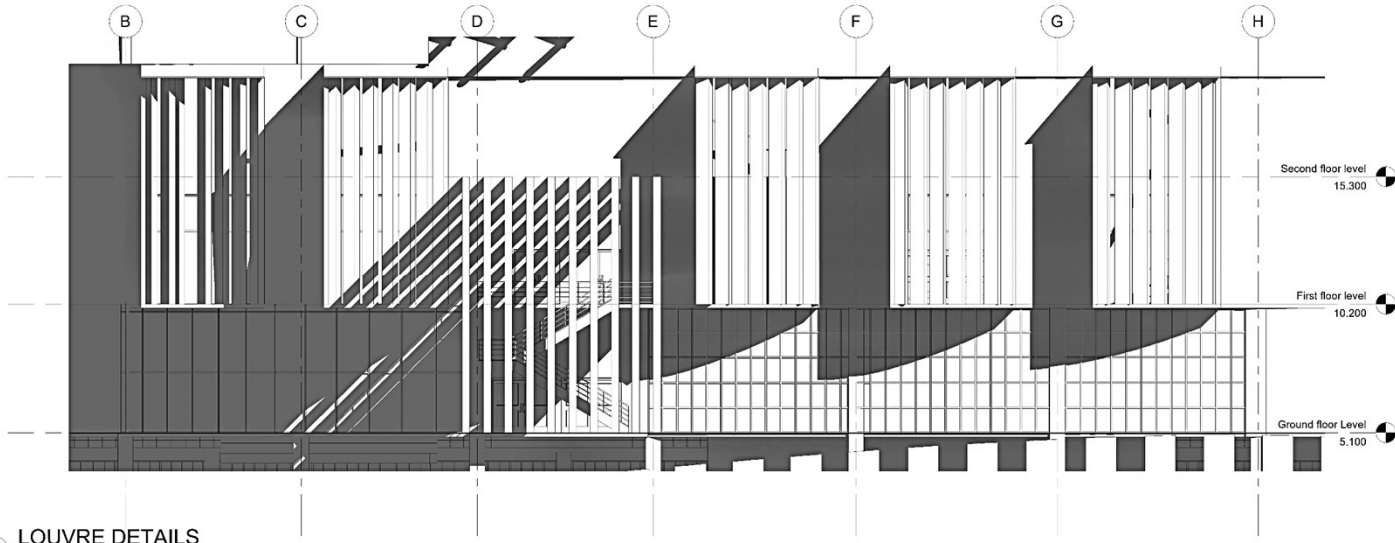


KEY PLAN

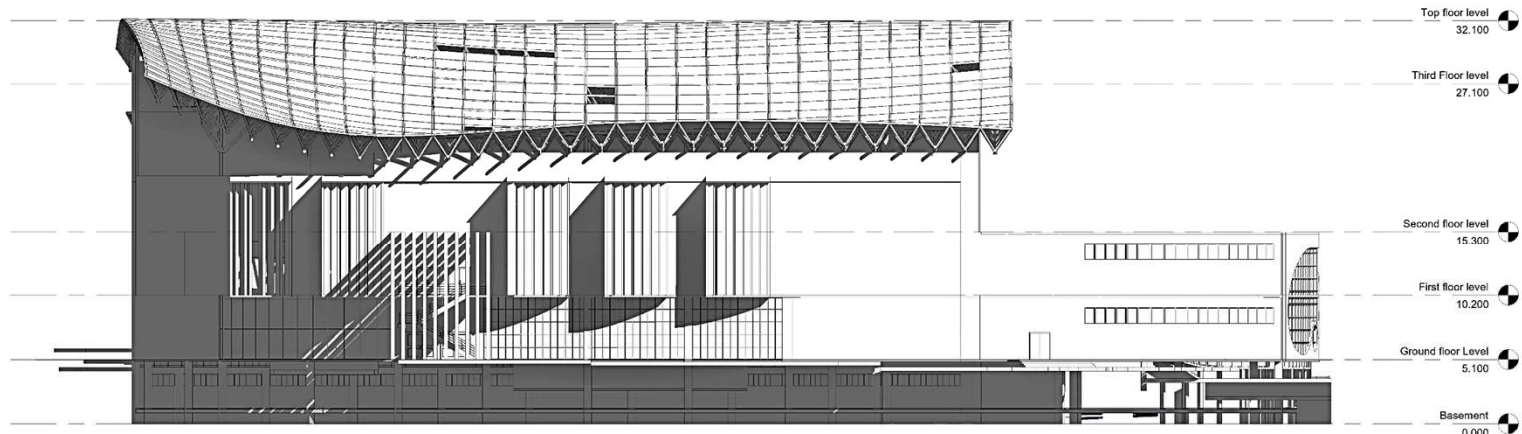
2 Section Y-Y
1 : 200



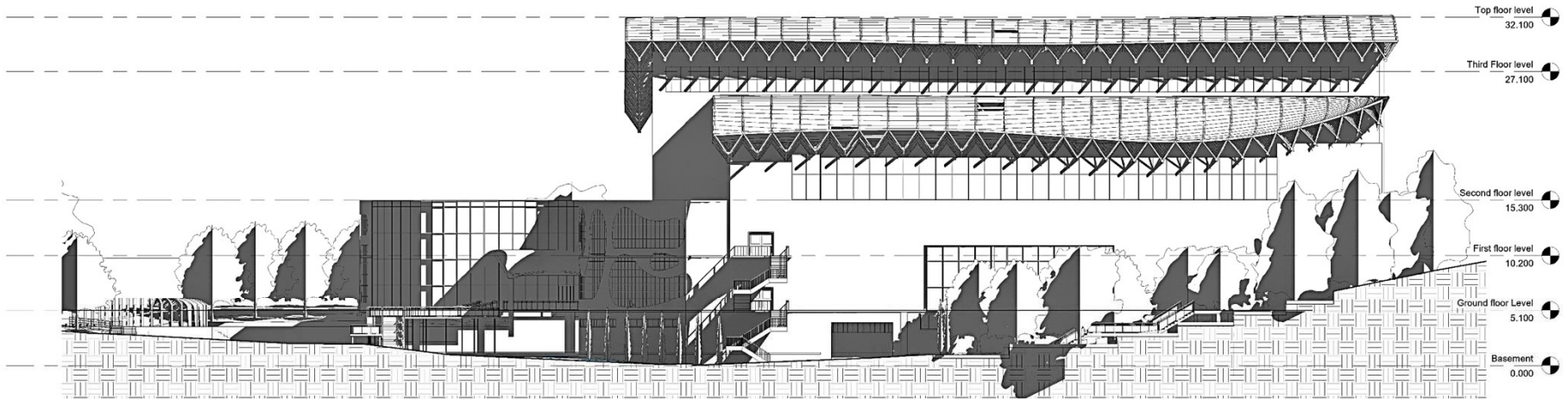
1 FRONT ELEVATION
1 : 200



2 LOUVRE DETAILS
1 : 100



1 WEST ELEVATION
1 : 200

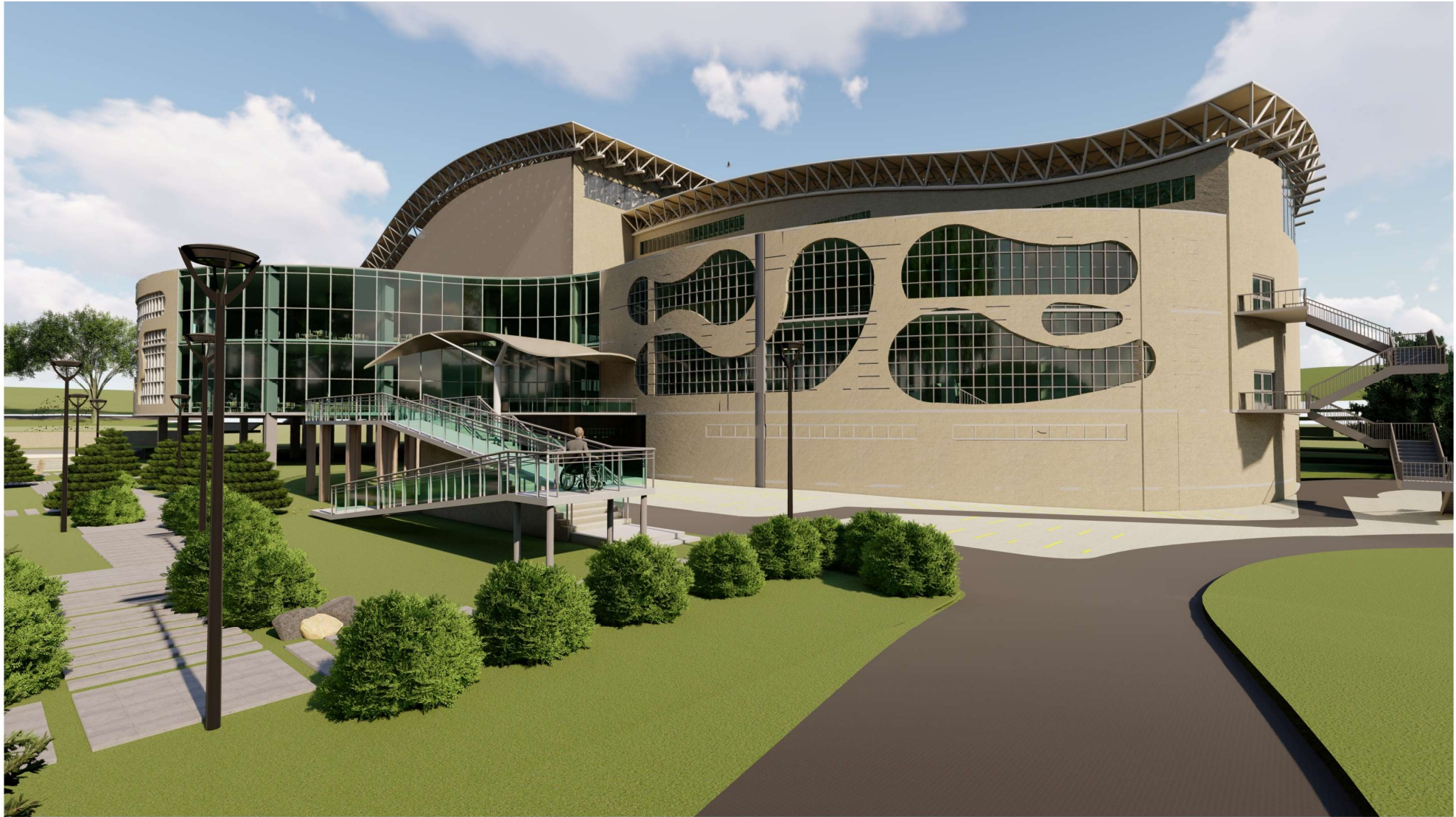


1 EAST ELEVATION
1 : 200

<p>TRIBHUVAN UNIVERSITY, INSTITUTE OF ENGINEERING PULCHOWK CAMPUS DEPARTMENT OF ARCHITECTURE PULCHOWK, LALITPUR</p>	<p>DESIGN STUDIO VI EAST ELEVATION</p>	<p>NAME: NEHA RAI DANUWAR DATE: 2077/08/26 CHECKED BY:</p>	<p>1 : 200 ROLL NUMBER: 074BAE220</p>	<p>3.9</p>
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ADDITIONAL DRAWINGS



NORMAL EYE VIEW FROM THE ENTRANCE

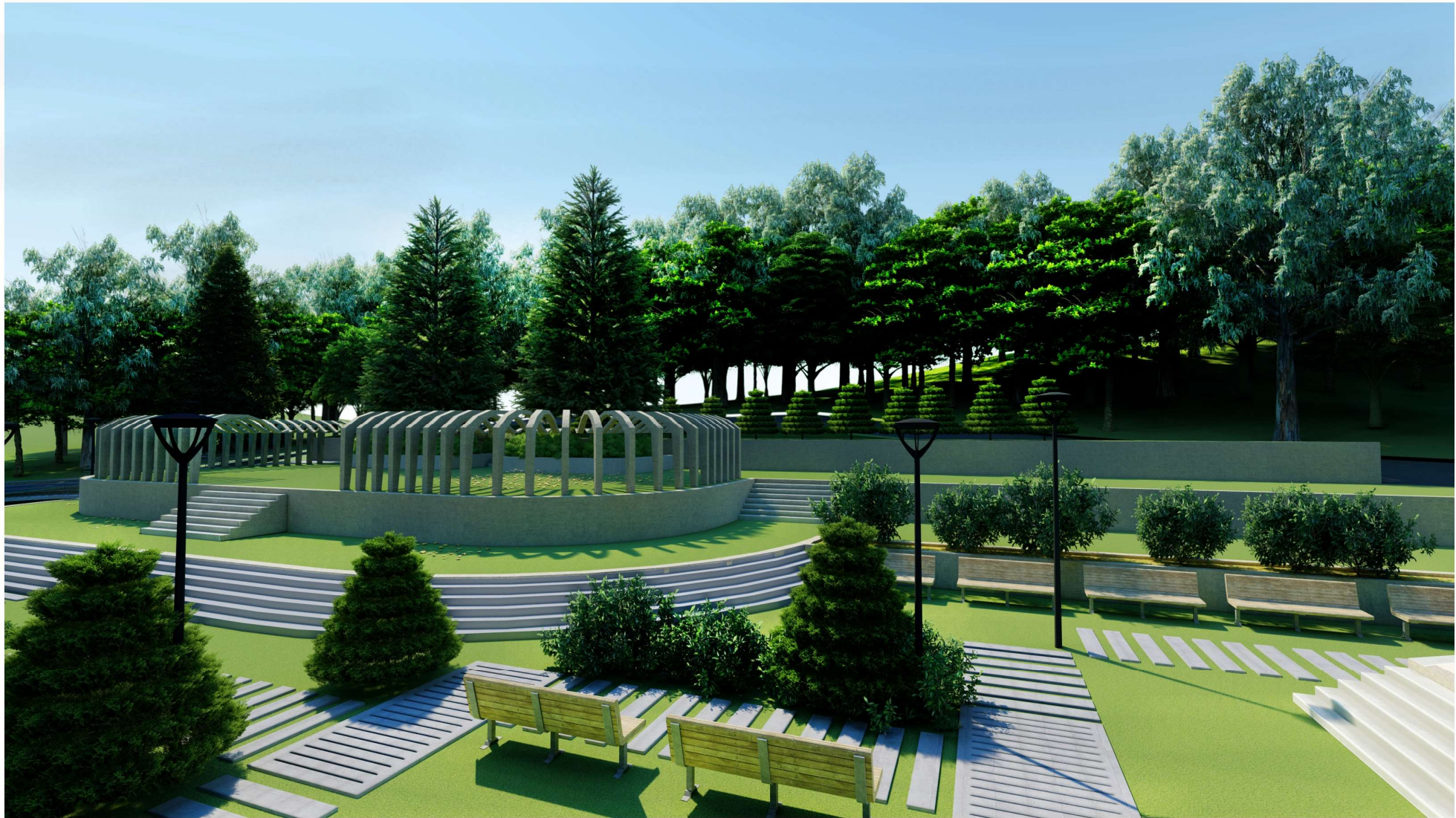


EXTERIOR FRONT VIEW



DESIGN STUDIO VI GROUND FLOOR PLAN	NAME: NEHA RAI DANUWAR	1 : 200	3.2	<small>TRIBHUVAN UNIVERSITY, INSTITUTE OF ENGINEERING</small> PULCHOWK CAMPUS DEPARTMENT OF ARCHITECTURE <small>PULCHOWK, LALITPUR</small>		<small>TRIBHUVAN UNIVERSITY, INSTITUTE OF ENGINEERING</small> PULCHOWK CAMPUS DEPARTMENT OF ARCHITECTURE <small>PULCHOWK, LALITPUR</small>	DE GRO
	DATE: 2077/08/26	ROLL NUMBER: 074BAE220					
	CHECKED BY:						

<small>TRIBHUVAN UNIVERSITY, INSTITUTE OF ENGINEERING</small> PULCHOWK CAMPUS DEPARTMENT OF ARCHITECTURE <small>PULCHOWK, LALITPUR</small>	DESIGN STUDIO VI EXTERIOR AERIAL VIEW	NAME: NEHA RAI DANUWAR DATE: 2077/08/26 CHECKED BY:	ROLL NUMBER: 074BAE220	4.3
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EXTERIOR LANDSCAPE VIEW



INTERIOR FUTSAL VIEW



VIEW FROM CAFETERIA



INTERIOR FOUR COURT HALL VIEW



INTERIOR OF CAFETERIA

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THANK YOU!!!