

**THESIS REPORT ON**  
**“ECO RESORT”**

**GOA, INDIA**

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

**BACHELOR OF ARCHITECTURE**  
**BY**  
**KUMAR DIVYAM**  
**(1170101018)**

**Under the guidance of**  
**PROF. KESHAV**  
**KUMAR**

**SESSION**  
**2021-22**

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

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

**CERTIFICATE**

I hereby recommend that the thesis entitled “ **ECO RESORT, GOA**” 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

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External Examiner

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# ACKNOWLEDGEMENT

First and foremost gratitude towards the almighty "GOD" for his blessings.

I am thankful to **Ar. SANGEETA SHARMA, Ar. SATYAM SRIVASTAV, Prof. KESHAV KUMAR** and all my faculty members who have been extremely co-operative since the very beginning and who helped me to utilize my skills and creativity to the utmost.

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Thanks to all my juniors specially **KARTIKEY, HITESH, ANVIT** for their help in the thesis.

At last but not the least, I have no words to express my gratitude for the love and affection of my parents who gave me support at every step of my life. So, this thesis is dedicated to them.

-KUMAR DIVYAM





**SYNOPSIS I**

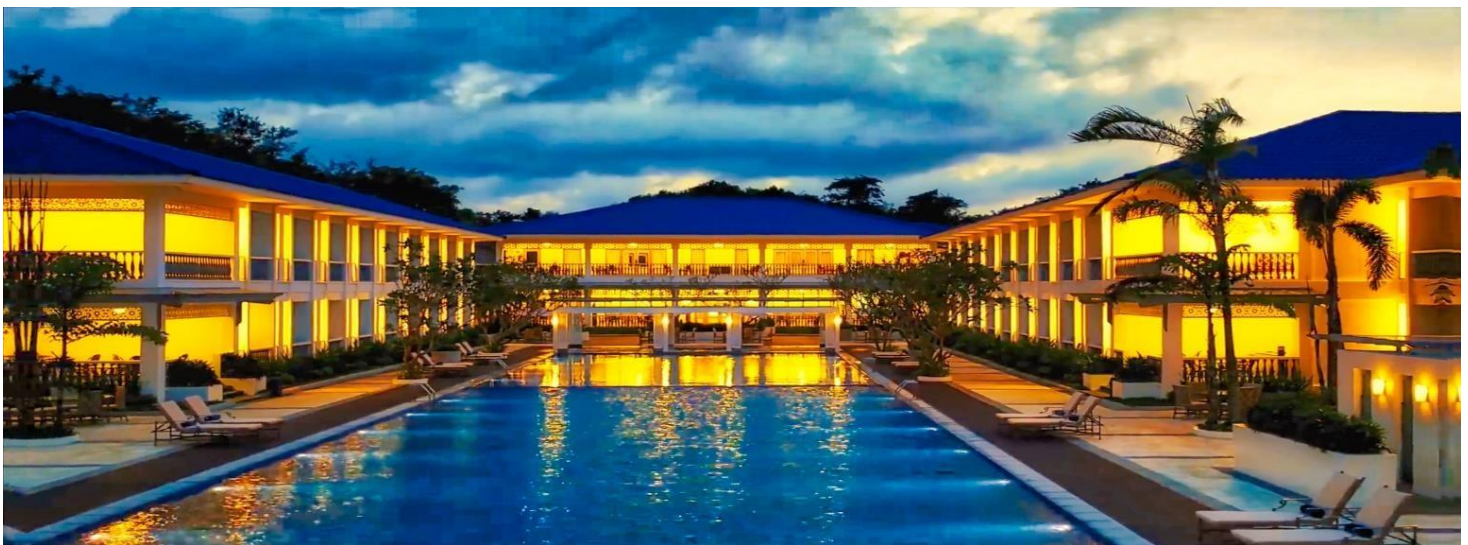
**ECO RESORT**



## **INTRODUCTION**

Resort is a place to spent holiday for relaxation and recreation so that, one can give dynamism to their leisure time. Oxford's dictionary defines resort as place that is frequented for holidays or recreation or for a particular purpose. One can go and swim in resort, can have lunch, can go just to pass time, plan an overnight stay and lit campfire, artist can complete their portrait, novelist can finish novel, a poet can create his poem and tourist can have charming stay there.

A resort can function as a conference center, as a meeting center, as a banquette, a restaurant, as a health club and various other functions. There may be numerous form of resort like,-Sports Resort, Adventure Resort, Nature Resort, Eco Resort, Agro-Resort, etc.



Variously known as "Pearl of the Orient" and a "Tourist Paradise", the state of Goa is located on the western coast of India in the coastal belt known as Konkan. The magnificent scenic beauty and the architectural splendors of its temples, churches and old houses have made Goa a firm favorite with travelers around the world. But then, Goa is much more than just beaches and sea. It has a soul which goes deep into unique history, rich culture and some of the prettiest natural scenery that India has to. Much of the real Goa is in its interiors, both inside its buildings and in the hinterland away from the coastal area. The state of Goa, India, is famous for its beaches and places of worship, and tourism is its primary industry. Goa's beaches cover about 125 kilometers (78 mi) of its coastline. These beaches are divided into North and South Goa. North Goa is more commercial and touristy with an abundance of mostly low and medium budget tourist accommodations; whereas South Goa is where most higher-end hotels and private beaches are located. Colva falls into the South Goa.

A Beach Resort is a place used for relaxation or recreation: Attracting visitors for holidays or vacations. A resort attempts to provide for most of vacationer's wants while remaining on the premises: such as food, drinks, lodging, sports, entertainment and shopping. A casino may be an additional feature in a beach resort

## **AIMS AND OBJECTIVES –**

The main objective of the project is to design a recreational facility away from hustle of the city by keeping minimum destructive impact on the surrounding and also to serve the peaceful environment for the guests. The resort shall serve both as a calm get away and also as a fulfilled recreational center. • To study the design requirements of a star rated resort on the basis of literature, survey and case studies. • To study the prescribed requirements as per the development controls implicated on the site. • To analyze the relationship between the use and the users. • To study the architectural features of goa and draw appropriate guidelines for designing a resort with a comfortable and conducive environment. The main objective of the project will focus on the development of various spaces in resort and associate services in accordance with the primary functions and the site and its surrounding in order to have least environmental and surrounding disruption.

## **METHODOLOGY**

### **Data Collection –**

Survey and information collection from primary and secondary sources about the project and the promoting body.

Literature Study related to Project

Study of Site and analysis of information

### **Case Study –**

Selection of Case Study

Analysis of the features of the studies undertaken

Derive conclusions from the analysis, which would help in framing the design requirements of the project.

### **Concept Design –**

From the Literature Study, case studies and site analysis develop an appropriate design language.

To develop an integrated solution, fulfilling all the requirements.

### **Final Design –**

Refinement of Concept Design

Detailing of the Project

Final design Solution

## SITE ANALYSIS

### INTRODUCTION:

The following Beach Resort site is located in Salcete District, Goa.

The project is proposed by I.T.C Group Ltd. Spread over an area of over **11.5 acre** the site is located about 5 kms from Colva Town in Goa.

It has two beaches nearby (Colva beach, Betalbetim beach).

The site is situated in the rural area, thus the true ambience of peaceful environment for resort can be achieved.

It is a rectangular plot having contours in the center of the plot giving site a special feature for designing. The entry to the site is through a 9M wide road.



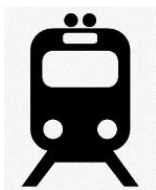


## **SITE SURROUNDINGS:**

The site has two three star resorts nearby. One is Bollywood Sea Queen Beach Resort which is adjacent to the site in southern direction. The other resort is Beleza-By The Beach in the northern direction. Eastern side is an agricultural land till date whereas the western side has the Beach view



## **FEATURES:**



Madgaon Railway Station – 11 km (25 min)



Goa International Airport - 24 km (35 min)



Betalbatim Beach – 3.5 km

**GEOLOGY:**

The site is composed mainly of Laterite soil. Laterites are soil types rich in iron and aluminium, formed in hot and wet tropical areas. Nearly all laterites are rusty-red because of iron oxides. They develop by intensive and long-lasting weathering of the underlying parent rock.

The soil bearing capacity of the area is extremely good due to the hard rock Laterite formation which means the foundations are not very deep or spread out (about 75-90 cms. deep), and has a load bearing capacity of approximately 30 tonnes/sq.m. Soft soil on beach sand is moist and tends to cling the body. Quality of beach is safe for swimming and water recreation. An isolated footing foundation is adequate for building up to two floors

**VIBRATIONS, INCLUDING SEISMIC DISTURBANCES:**

No heavy traffic or industries exist nearby, thus there are no vibrations, which can be detrimental to resort operations.

**FUMES:**

No industry exists nearby so there is not such kind of problem. In any case the wind direction is mainly from the sea.

**VEGETATION:**

Presently the site has medium size trees and shrubs located on the contour at the center of the plot. Apart from this there are thick shrubs and grass on the site, due to rains and backwaters. Coconut trees are present along E-W direction in two rows dividing the site in three parts and some mango trees are also present.

**WATER SUPPLY:**

In these types of resorts and hotels, the main source of water is boring. From boring we can get sufficient amount of water for needs of resort. Also water connection is available on the site.

**ELECTRIC AND TELEPHONE LINES:**

These services are available on the site. There are electric poles on the road side and transformer is also there.

**SEWERAGE:**

The most common form of sewage disposal found in the Goa has been the septic tank system. This system of sanitation is seen in the private resorts, hotels and also in private houses

## **REFERENCES:**

1. GOOGLE .
2. <https://earth.google.com/web/>
3. PREVIOUS YEAR THESIS REPORTS.



#### CONNECTIVITY:

Dabolim international airport - 18 km

Margao Konkan railway station - 10 km

Bus stand - 7km

#### INTRODUCTION:

9 hectares of lush beautiful green landscape adjacent to

a 300m long endless silver sand shoreline, surrounded

by warm azure blue Arabian Sea.

Built up area – 25%

Open Area – 75%

#### CLIMATIC ANALYSIS:

Goa features a tropical monsoon climate under the Köppen climate classification. Goa, being in the tropical zone and near the Arabian Sea, has a hot and humid climate for most of the year. There is very little seasonal variation for the whole year



#### RECEPTION

Reception and waiting lounge is also well lighted through courtyard and use of fiber sheet in some part of roof.

#### ACCOMMODATION

120 spacious rooms:

100 standard rooms

10 suites

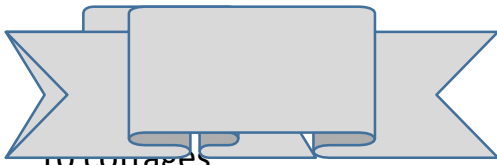
10 cottages

The rooms have individually controlled air- conditioning, luxurious baths, well stocked mini bar and safe.

Rooms offer a private balcony with spectacular views of either the ocean or the tropical gardens.







10 cottages

Fully furnished with beautiful interiors  
Fully glazed wall to provide natural light,  
ventilation and spectacular view  
Private outdoor sitting  
Sloping roof

## RESORT AMENITIES:

Access ramps  
Banquet facilities  
Beauty services  
Casino  
Discotheque  
Fire safeguards  
Health club  
Laundry facilities  
Money changer  
Shopping arcade  
Parking  
Squash  
Tennis  
Swimming pool  
Water sports

## RESTAURANTS AND BARS

Majorda Beach Resort has 5 restaurants that satisfy every appetite from morning until night. It offers specialties in seafood, continental, Indian, Chinese and Goan cuisines.

## CAFÉ DEL MAR

Overlooking indoor pool Coffee shop  
Seating : 80

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## TEA LOUNGE AND BAR

Lobby bar Seating: 41

Large size windows to provide natural light

GARDEN CAFE By the outdoor pool Seating: 180

Red tiled sloping roof

LAGUNA

Cuisines: Continental, Goan, Indian Seating: 92

SEA SHELL

On the beach

Cuisines: Chinese, Kebabs, Curries Seating: 44

S.NO	UNIT	AREA	SYMBOL
1	SINGLE BEDROOM		
2	DOUBLE BEDROOM	13.76SQM	B
3	SUITS	16.25SQM	C
4	PRESIDENTIAL SUIT	45.46SQM	D
5	COMMON TOILET	32SQM	E
6	DORMITORY	20SQM	F

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## ARCHITECTURAL STYLE

It blends the rich tapestry of its Portuguese – Goan heritage

Use of Goan and oriental elements from sloping red tiled roof to the rustically furnished cottages.

## CIRCULATION

The horizontal circulation is through corridors which are getting sufficient natural light from courtyards

The vertical circulation is through stairs



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## MATERIAL:

LOCALLY AVAILABLE MATERIALS ARE USED FOR CONSTRUCTION.  
 THE SUN DRIED MUD BRICKS FOR THE WALLS WERE MADE ON SITE  
 LOCAL SANDSTONE WAS USED FOR DOOR AND WINDOW FRAME AS WELL AS BRACKETS.  
 LINTEL. AND ROOF SLAB  
 CONCENTRIC CIRCLE WITH BAMBOO STRIPS HOLDING THE STRAW TOGETHER.  
 TIMBER.  
 THATCHED ROOF.  
 STONE SLAB POLISHED AND PAINT.  
 WOODEN DOOR AND WINDOWS.  
 THE INDIGENOUS COOLING SYSTEM KHAS TATI



## DESIGN CONCEPT

IN THIS PROJECT, MUD WAS MAINLY USED. MUD WAS NOT ONLY CHEAPER BUT ALSO THE MOST APPROPRIATE-BOTH CLIMATICALLY AND AESTHETICALLY. LOCALLY AVAILABLE MATERIALS WERE USED FOR CONSTRUCTION. THE SUN DRIED BRICKS CAME FROM THE BED OF A DRIED OUT TANK ADJACENT TO THE HILLOCK. THE THATCH CAME FROM THE GRASS GROWING ON THE SITE ITSELF, THE STONE FOR THE FOUNDATIONS SILLS. LINTELS BRACKETS AND ROOF-TI  
 ING SLABS AND OTHER BUILT IN FURNITURE CAME FROM RAGHUNATHGARH(25 KM AWAY). THE WOODEN LATHE WORKERS FROM LAXMANGARH WERE TO MAKE A PEG AND OTHER SMALL FIXTURES.



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## LANDSCAPE

ALL THE PATHWAYS ARE PAVED IN BRICKS AND FLANKED BY HEDGES 1M HEIGHT ON EACH SIDE. NO BIG TREES ARE SEEN IN THE RESORT DUE TO POOR SOIL CONDITIONS. ONLY OLD TREES ARE PRESENT WHICH GIVE A FEELING OF BEING SCULPTED. AN OPEN DINING AREA PRESENTS A MAGNIFICENT VIEW OF THE LANDSCAPE STRETCHING AHEAD FOR MILES. LIGHT FIXTURES ARE PLACED IN THE GARDEN & COURTYARD TO SIT AND ENJOY IN NIGHT.

## PLANNING AND SPATIAL ORGANISATION

THE ENTRY TO THE COMPLEX IS THROUGH A GATEWAY SORT OF CUT-OUT FROM WHERE ONE CAN SEE THE CLUSTER OF MUD HUTS IN THE FRAMEWORK OF A TYPICAL SHEKHAWATI STYLE GATEWAY. THE 3 M WIDE PATHWAY LEADS TO THE HUTS. AFTER ONE ENTER THE ENTRANCE LOBBY, THE RECEPTION AND OFFICE IS JUST ADJACENT TO THE MAIN ENTRY FROM WHERE VISITORS CAN EASILY ACCESS THE RESTAURANT, BAR AND HUTS



# LITERATURE STUDY 2- (ANANT RESORT, UDAIPUR)

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## SITE APPROACH

- LOCATION: VILLAGE -BUJHDA, TEHSIL- GIRWA, KODI-YAT ROAD, UDAIPUR. RAJASTHAN
- DISTANCE FROM MAHARANA PRATAP AIRPORT: 35 KM
- DISTANCE FROM UDAIPUR RAILWAY ST.: 10 KM.
- DISTANCE FROM UDAIPUR CITY: 7KM

## ABOUT ANANT RESORT

- SPREAD ACROSS 75 ACRES OF LUSH GREENERY THE RESORT ENCOMPASSES. 182 CONTEMPORARY VILLAS.
- ITS PREMIUM GATEWAY RESORT SURROUNDED BY THE ARAVALLIS.
- ANANTA UDAIPUR HAS INTERNATIONAL STANDARD SPA NATUROPATHY, SWEDISH SPA THERAPIES. ORIENTAL SPA YOGA, MEDITATION ETC.
- TWO ECLECTIC DINING OUTLETS.
- SPECIAL KID'S ACTIVITY AREA.
- OUTDOOR POOL
- SPA AND FITNESS CENTER.
- LARGEST DIVISIBLE BANQUET HALLS IN RAJASTHAN.



1 BHK UNIT



BEDROOM



LOUNGE

TOTAL AREA OF SINGLE UNIT : 96.8 SQMT  
BEDROOM: 27.3SQMT  
LOUNGE: 27.3 SQMT  
TOILET : 7.7 SQMT

DOUBLE FLOOR VILLA



CHILDREN  
PLAY AREA



JUNIO SUIT PLAN



POOL DECK AREA



PLAY AREA



BEDROOM

TOTAL AREA :  
133.9 SQMT  
BEDROOM:  
27.3SQMT  
TOILET :



TOILET

2 BEDROOM PRIVATE VILLA



POOL



DINING



PRESIDENTIAL SUIT

TOTAL AREA : 411 SQMT  
3 BEDROOM+TOILET  
KITCHEN  
DRAWING & DINING  
SWIMMING POOL

COURTYARD  
VERANDA  
PRIVATE LAWN



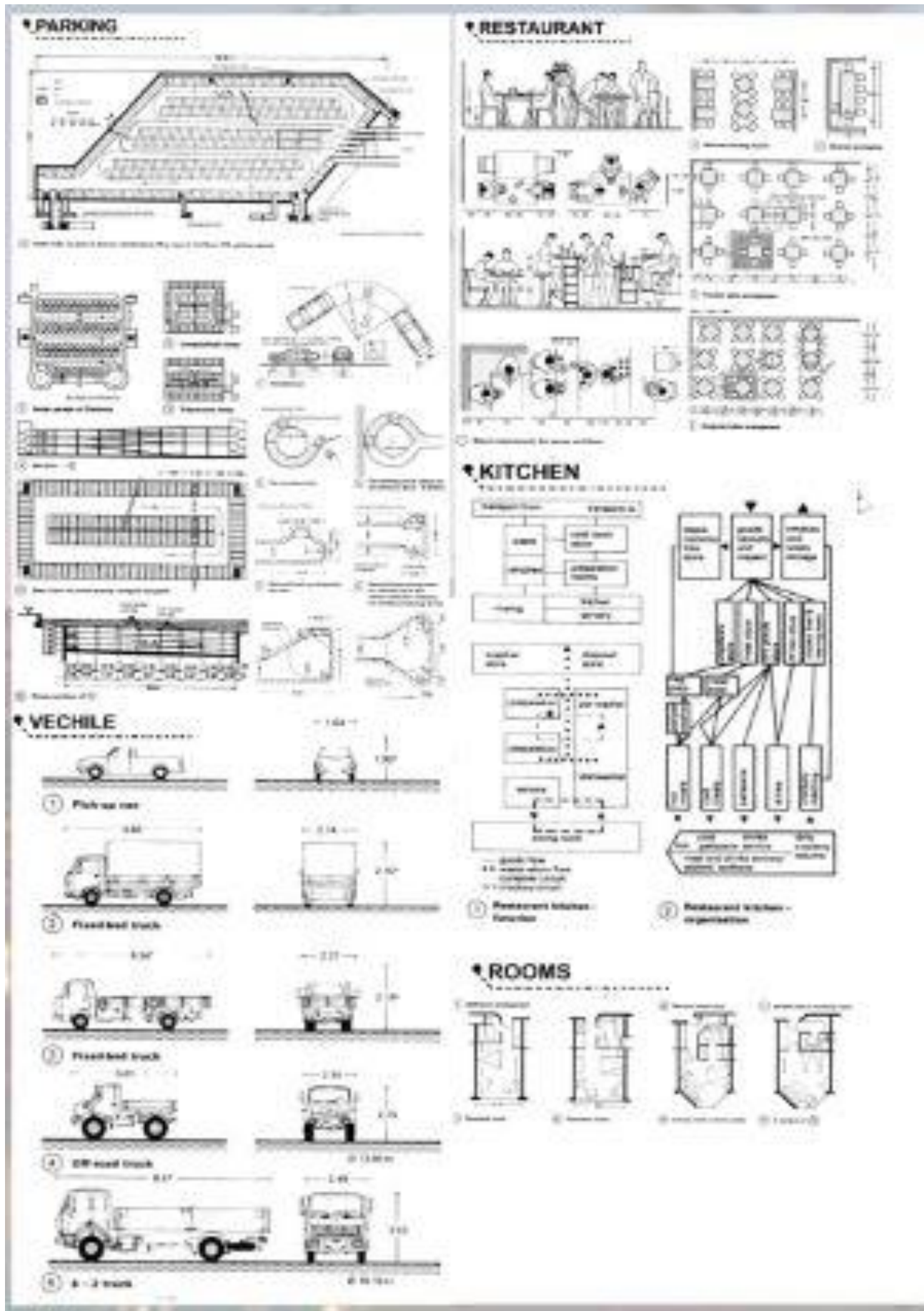
ENTRANCE

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# COMPARATIVE ANALYSIS / STANDARDS:



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## COMPARATIVE ANALYSIS / STANDARDS:

S. NO.	REQUIREMENT	CASE STUDY	LITERATURE STUDY-1	LITERATURE STUDY-2
1.	SITE LOCATION	PANJIM, GOA	MUNDARA	UDAPIR
2.	SITE AREA	120 ACRE	33 ACRES	75 ACRE
3.	BUILTUP AREA	10 ACRES	3 ACRES	38%
4.	GROUND COVERAGE	21%	20%	4.4 ACRES
5.	CLIMATE	HOT AND HUMID	HOT AND DRY	HOT SEMI-ARID
6.	ACCOMMODATION	21%	74 COTTAGES	182 VILLAS
7.	STRUCTURE	LOAD BEARING	LOAD BEARING	LOAD BEARING
8.	BUILDING MATERIAL	SUN BURNT BRICKS BAMBOO WOOD	MUD BRICKS, SANDS TONES, COWDUNG THATCHED ROOF BAMBOO STRIPS	SANDSTONE, COBBLED STONE THATCHED ROOF
1.	RECEPTION/WAITING	145 SQMT	120 SQMT	246.21 SQMT
2.	DELUXE ROOM	-	40-45 SQMT	58 SQMT
3.	JUNIOR SUITS	35-40 SQMT	40-45 SQMT	58 SQMT
4.	GRAND SUITS	75 SQMT	50 SQMT	139 SQMT
5.	PRESIDENTIAL SUITS	-	130 SQMT	418 SQMT
6.	ADMIN	200 SQMT	240 SQMT	248 SQMT
7.	KITCHEN	150 SQMT	200-220 SQMT	391 SQMT
8.	BAR	-	120 SQMT	160 SQMT
9.	BANQUET HALL	-	-	3126 SQMT
10.	TOILETS	7.5 SQMT	7 SQMT	7.8 SQMT
11.	LOUNGE	-	22 SQMT	28 SQMT
12.	SPA	600 SQMT	-	1467 SQMT
13.	JACUZZI	-	-	83 SQMT
14.	RESTAURANT	200 SQMT	220 SQMT	970 SQMT
15.	SWIMMING POOL	250 SQMT	150 SQMT	268 SQMT
16.	AMPHITHEATER	-	380 SQMT	786 SQMT
17.	SHOPS/BAZAR	150 SQMT	140 SQMT	138 SQMT
18.	STAFF QUARTER	40-160 SQMT(EACH)	480 SQMT	708 SQMT
19.	ELECTRICAL SUBSTATION	150 SQMT	120 SQMT	230 SQMT
20.	MAINTENANCE AREA	-	750 SQMT	1000 SQMT
21.	WATER TANK & PUMP ROOM	200 SQMT	65 SQMT	304 SQMT
22.	PARKING	200 CARS	125 CARS	345 CARS

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## **INTRODUCTION PROJECT - BEACH RESORT**

### **LOCATION – COLVA BEACH, GOA**

Resort is a place to spent holiday for relaxation and recreation so that, one can give dynamism to their leisure time. Oxford's dictionary defines resort as place that is frequented for holidays or recreation or for a particular purpose. One can go and swim in resort, can have lunch, can go just to pass time, plan an overnight stay and lit campfire, artist can complete their portrait, novelist can finish novel, a poet can create his poem and tourist can have charming stay there.

A resort can function as a conference center, as a meeting center, as a banquette, a restaurant, as a health club and various other functions. There may be numerous form of resort like,-Sports Resort, Adventure Resort, Nature Resort, Eco Resort, Agro- Resort, etc.

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But then, Goa is much more than just beaches and sea. It has a soul which goes deep into unique history, rich culture and some of the prettiest natural scenery that India has to offer. Much of the real Goa is in its interiors, both inside its buildings and in the hinterland away from the coastal area. The state of Goa, India, is famous for its beaches and places of worship, and tourism is its primary industry. Goa's beaches cover about 125 kilometers (78 mi) of its coastline. These beaches are divided into North and South Goa. North Goa is more commercial and touristy with an abundance of mostly low and medium budget tourist accommodations; whereas South Goa is where most higher-end hotels and private beaches are located. Colva falls into the South Goa.

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## **SITE ANALYSIS**

### **INTRODUCTION:**

The following Beach Resort site is located in Salcete District, Goa. The project is proposed by I.T.C Group Ltd. Spread over an area of over 11.5 acre the site is located about 5 kms from Colva Town in Goa. It has two beaches nearby (Colva beach, Betalbatim beach). The site is situated in the rural area, thus the true ambience of peaceful environment for resort can be achieved.

It is a rectangular plot having contours in the center of the plot giving site a special feature for designing. The entry to the site is through a 9M wide road.

### **LOCATION:**



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### FEATURES:



Madgaon Railway Station – 11 km (25 min)



Goa International Airport - 24 km (35 min)



Betalbatim Beach – 3.5 km



### SITE SURROUNDINGS:

The site has two three star resorts nearby. One is Bollywood Sea Queen Beach Resort which is adjacent to the site in southern direction. The other resort is Beleza-By The Beach in the northern direction. Eastern side is an agricultural land till date whereas the western side has the Beach view.



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## LOCAL BYE LAWS CONSIDERATION:

According to the Coastal Regulation Zone, Colva Beach comes under category 3 of C.R.Z (which is meant for the coastal lands in rural areas).

No construction within 200 m from high tide line. But however, temporary

structures may be allowed within this 200 m of no development zone. No permanent walls or compound walls are to be made under this areas but fencing and hedging is allowed.

F.S.I. (Floor Space Index) shall not be exceed 33% of the total plot area.

Front set back must be not less than 9 meters. And side setbacks must be minimum to 6 meters.

Max permissible height is 9m.

Basement allowed only after acquiring NOC from state ground water authority.

Ground water cannot be tapped within 200 m of high tide line.

## GEOLOGY:

The site is composed mainly of Laterite soil. Laterites are soil types rich in iron and aluminium, formed in hot and wet tropical areas. Nearly all laterites are rusty-red because of iron oxides. They develop by intensive and long-lasting weathering of the underlying parent rock.

The soil bearing capacity of the area is extremely good due to the hard rock Laterite formation which means the foundations are not very deep or spread out (about 75-90 cms. deep), and has a load bearing capacity of approximately 30 tonnes/sq.m.

Soft soil on beach sand is moist and tends to cling the body. Quality of beach is safe for swimming and water recreation. An isolated footing foundation is adequate for building up to two storey's.

## VIBRATIONS, INCLUDING SEISMIC DISTURBANCES:

No heavy traffic or industries exist nearby, thus there are no vibrations, which can be detrimental to resort operations.

## FUMES:

No industry exists nearby so these is not such kind of problem. In any case the wind direction is mainly from the sea.

## VEGETATION:

Presently the site has medium size trees and shrubs located on the contour at the center of the plot. Apart from this there are thick shrubs and grass on the site, due to rains and backwaters. Coconut trees are present along E-W direction in two rows dividing the site in three parts and some mango trees are also present.

## WATER SUPPLY:

In these types of resorts and hotels, the main source of water is boring. From boring we can get sufficient amount of water for needs of resort. Also water connection is available on the site.

## ELECTRIC AND TELEPHONE LINES:

These services are available on the site. There are electric poles on the road side and transformer is also there.

## SEWERAGE:

The most common form of sewage disposal found in the Goa has been the septic tank system. This system of sanitation is seen in the private resorts, hotels and also in private houses.

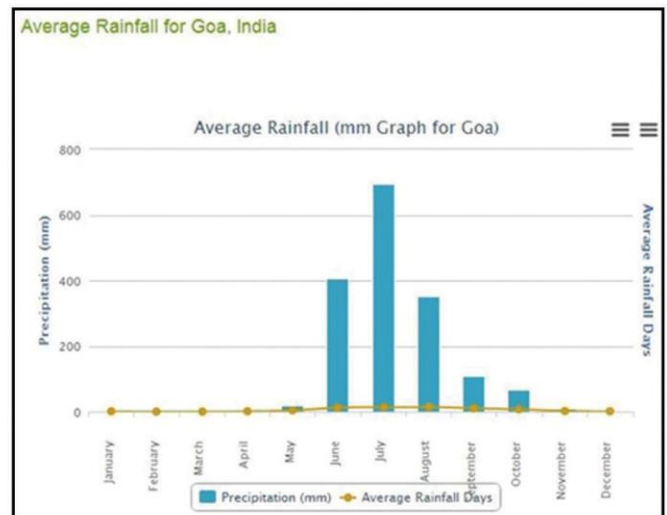
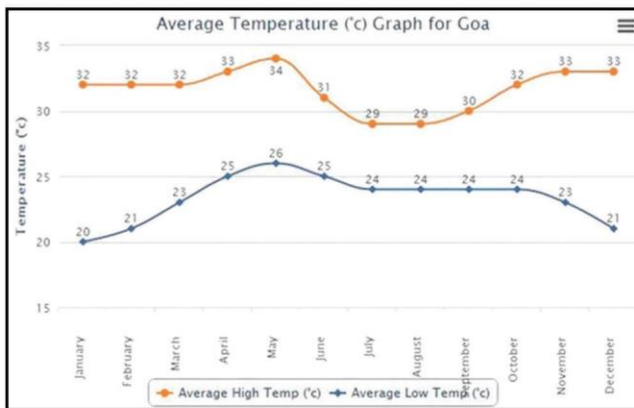
### CLIMATIC ANALYSIS:

Goa features a tropical monsoon climate under the Köppen climate classification. Goa, being in the tropical zone and near the Arabian Sea, has a hot and humid climate for most of the year. There is very little seasonal variation for the whole year.

The only punctuation's being that of periods with more or less rain and occurrence of gusty winds.

### AIR TEMPERATURE:

D.B.T. in the shade reaches a mean maximum during the day between 27 °C and 32°C. But occasionally it may exceed later value. At night the mean minimum varies between 21 °C and 27 °C.



### RAINFALL:

From June till September Goa goes through the monsoon season. The city receives abundant of precipitation during this monsoon months. July is the wettest month of the year .During this time the city receives a reduced level of sunshine as July gets not more three hours of sunshine per day. Heavy rainfall often causes flash flooding and also pushes humidity up. Although the heat decreases, tourists don't desire to visit Goa during this season. Due to heavy rainfall in Goa, relative humidity is increased, which reduced evaporation and causes uncomfortable conditions.

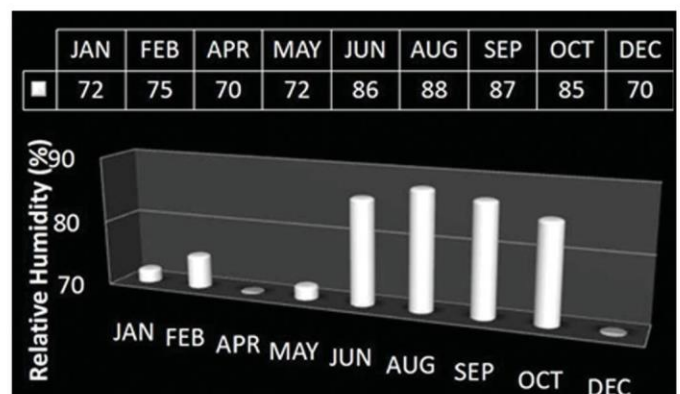
### RELATIVE HUMIDITY:

Relative humidity remains high, at about 75% for most of the time, but it may vary from almost 55% to 95%.

### WIND:

The region experience land and sea breezes circulation. During October and November sea breezes are normally weak and mean speed is varied from 4 to 5 km/hour during monsoon months. The land and sea breeze circulation becomes less important as the local climate get dominated by seasonal wind.

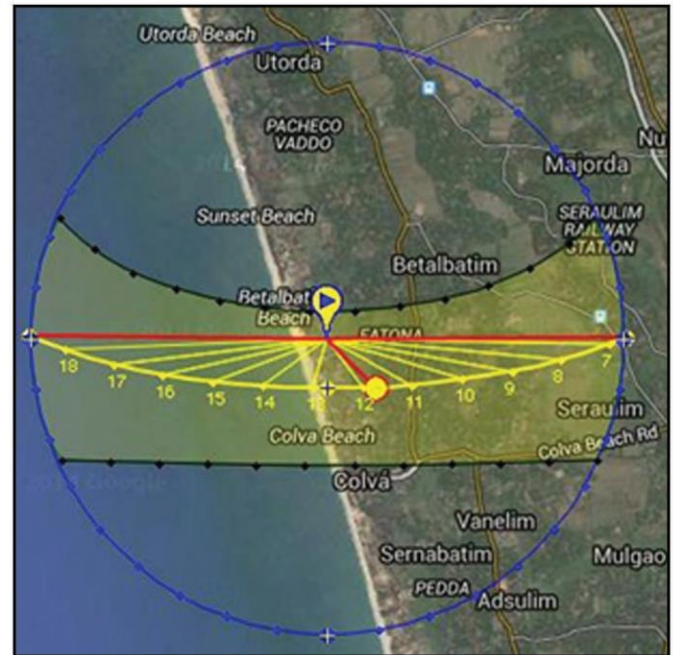
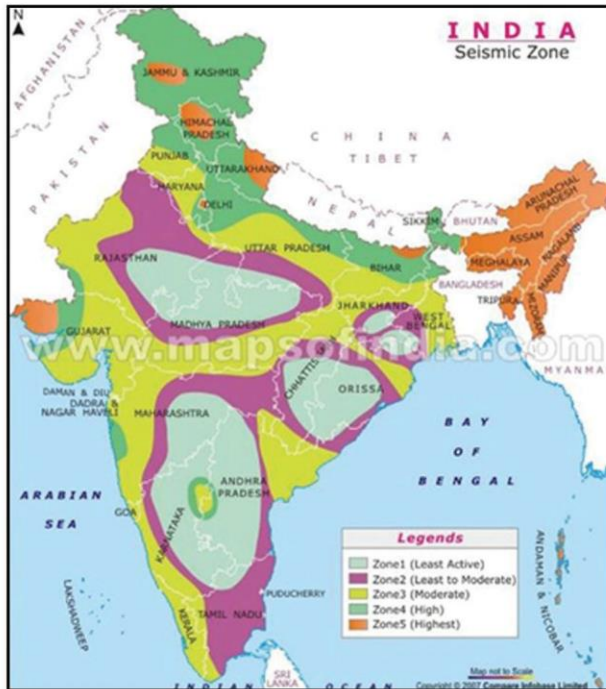
**Wind direction is N-E in summers and S-W in winters.**



### SEISMIC ZONE ANALYSIS:

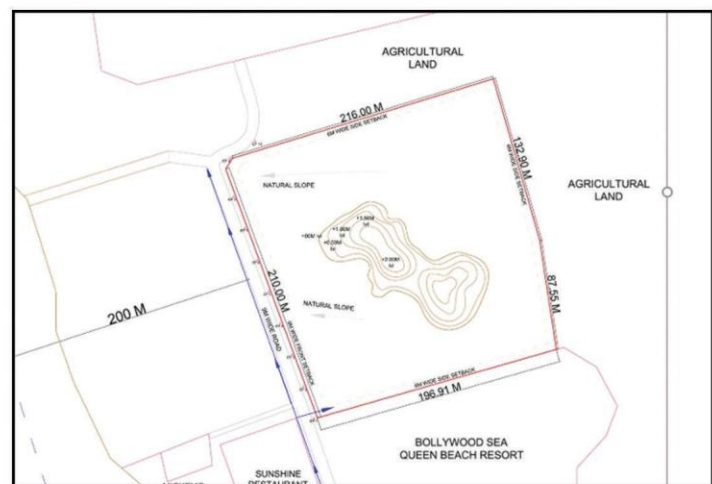
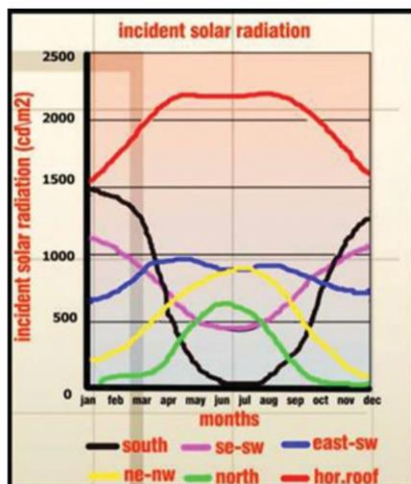
Goa comes in the Zone III of the Seismic Earthquake Prone Areas which is Moderate Zone.

Month of year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	SUM
Dominant Wind dir.	01	02	03	04	05	06	07	08	09	10	11	12	1-12
Wind probability ≥ 4 Beaufort (%)	2	3	3	7	11	14	17	9	5	2	1	1	6
Average Wind speed (m/s)	5	6	6	6	7	7	8	7	6	5	5	4	6
Average air temp. (°C)	28	29	30	32	32	29	28	28	28	30	30	29	29
Select month (Help)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year



### SOLAR RADIATION:

Solar radiation is partly reflected and partly scattered by the cloud blanket or the high vapor content of the atmosphere, therefore the radiation reaching the ground is diffuse, but strong, and can cause painful sky glare. Cloud and vapor content also prevents or reduces outgoing radiation from the earth and sea to the night sky, thus the accumulated heat is not readily dissipated.



**KUMAR DIVYAM**

1170101018

B.ARCH 5<sup>TH</sup>YR

SCHOOL OF ARCHITECTURE, BBD UNIVERSITY, LUCKNOW



## CONTOUR LINE:

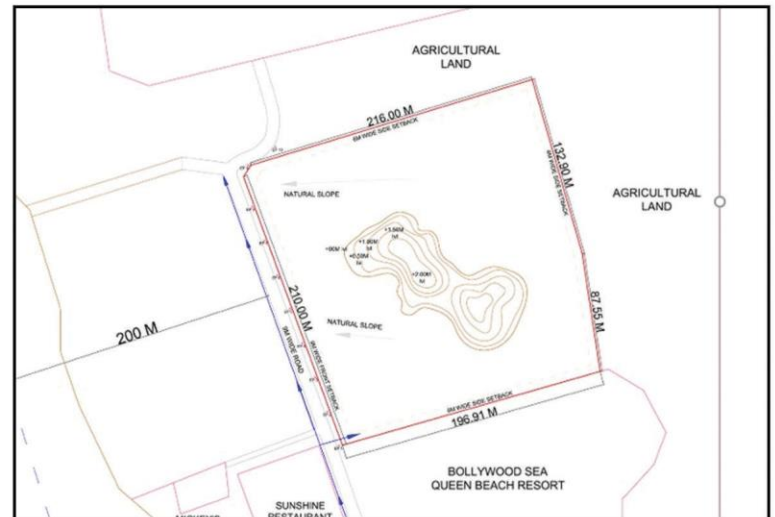
A contour line is a line drawn on a topographic map to indicate ground elevation or depression. A contour interval is the vertical distance or difference in elevation between contour lines. Index contours are bold or thicker lines that appear at every fifth contour line.

## ROAD CONNECTIVITY:

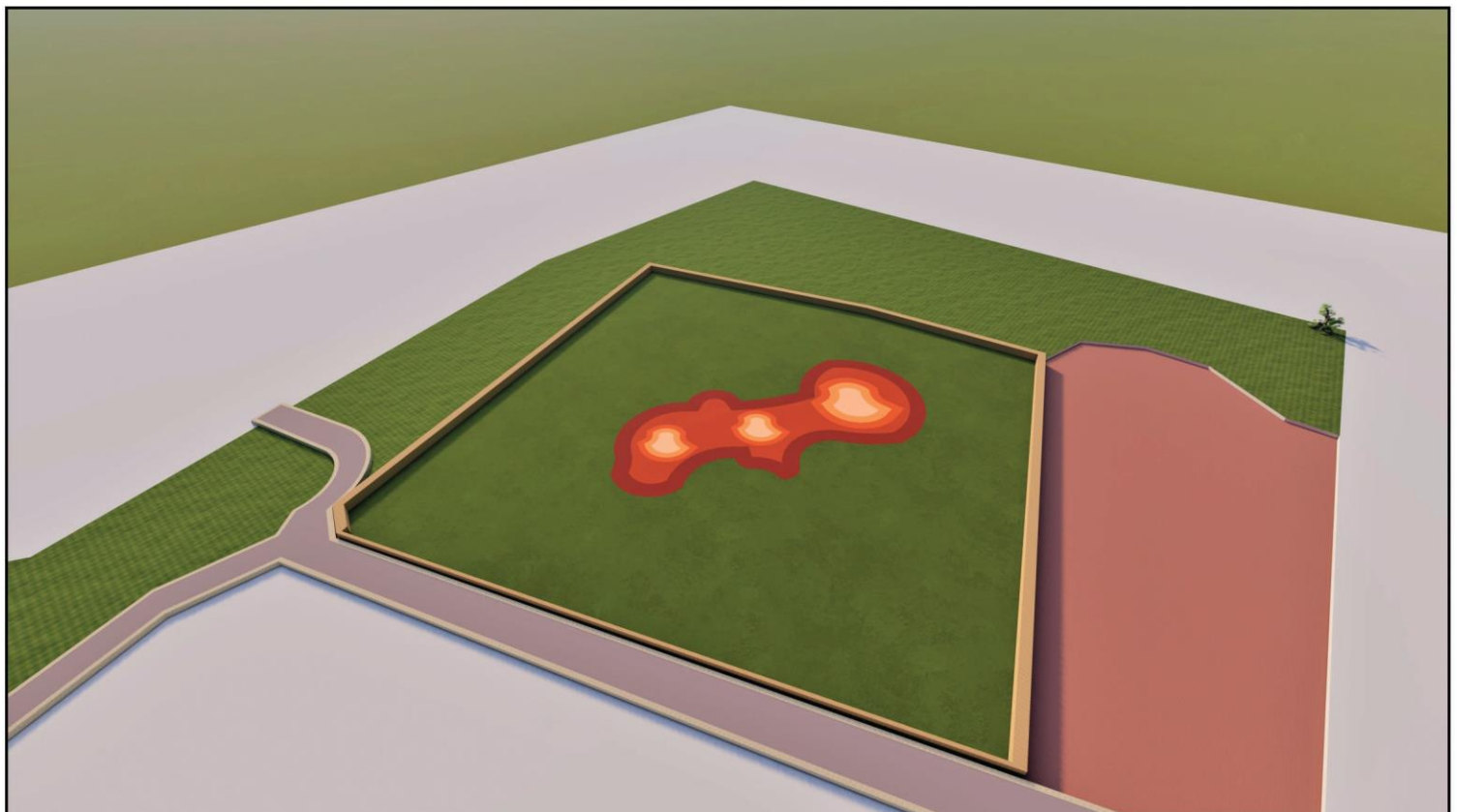
THE FRONT OF SITE HAS A 9M WIDE ROAD WITH GOOD CONNECTIVITY FROM THE TOWN

2SIDES OF THE SITE HAS AGRICULTURAL LAND TO MAINTAIN GREENRY AND AMBIENCE OF THE RESORT

REMAINING SIDE IS THE PROPERTY OF ANOTHER RESORT NAMED BOLLYWOOD SEAQUEEN BEACH RESORT

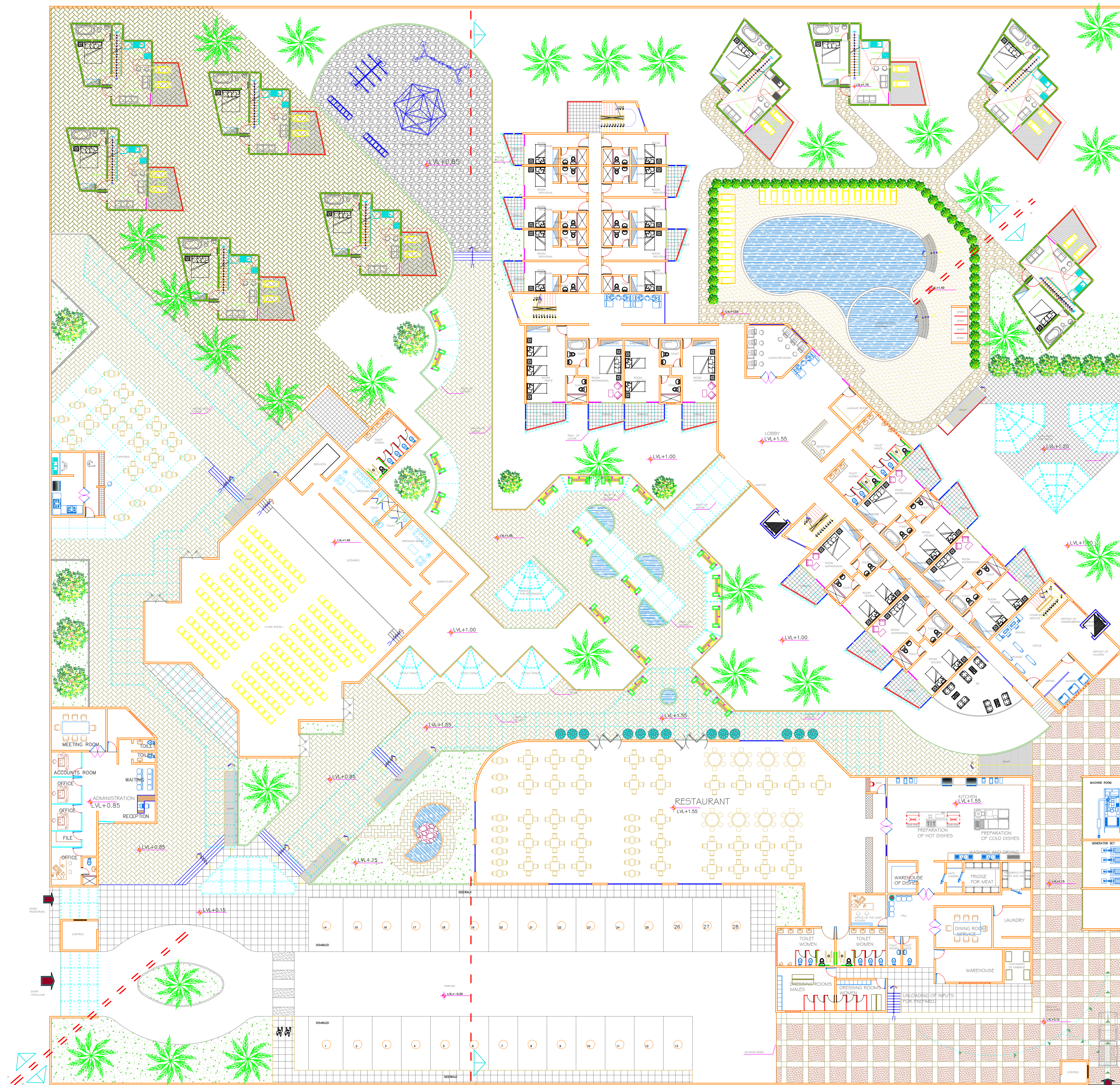


CONTOUR'S DIMENTIONS

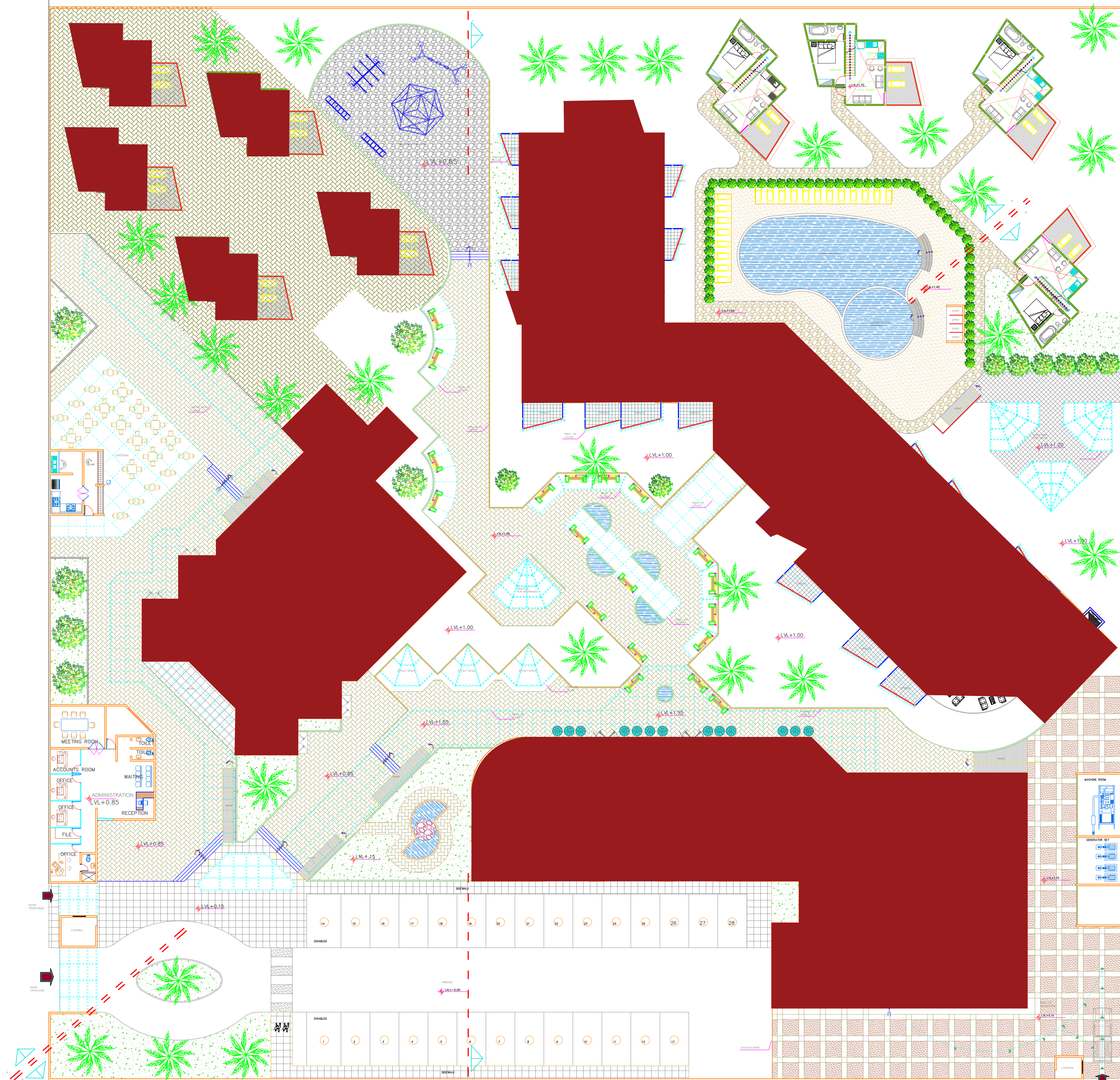


CONTOUR'S VISUAL









12 M WIDE ROAD

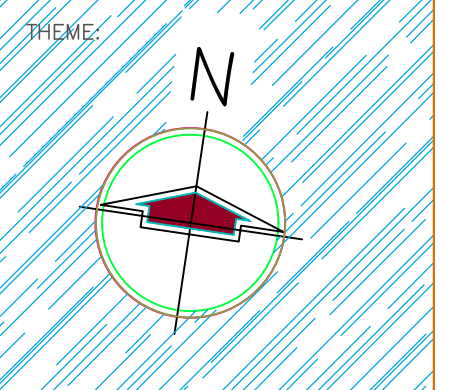
BABU BANARAS  
DAS UNIVERSIT

S.A.P — ARCHITECTURE

GUIDE: AR. KESHAV KUMAR

ECO RESORT

SUBMITTED BY: DIVYAM K



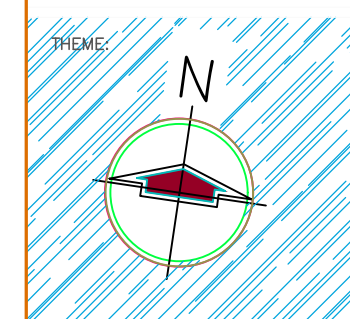
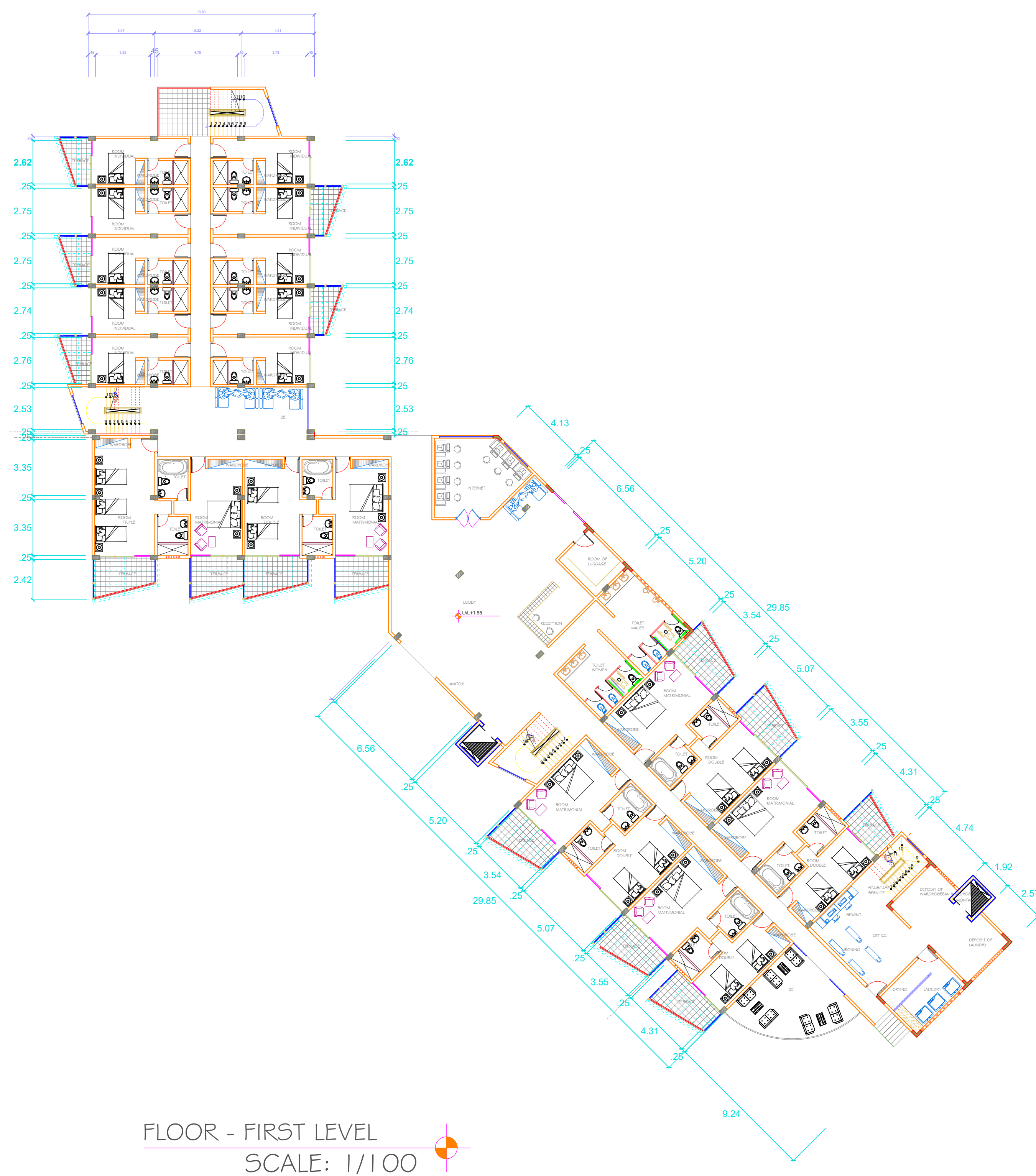
PLAN:

SITE PLAN

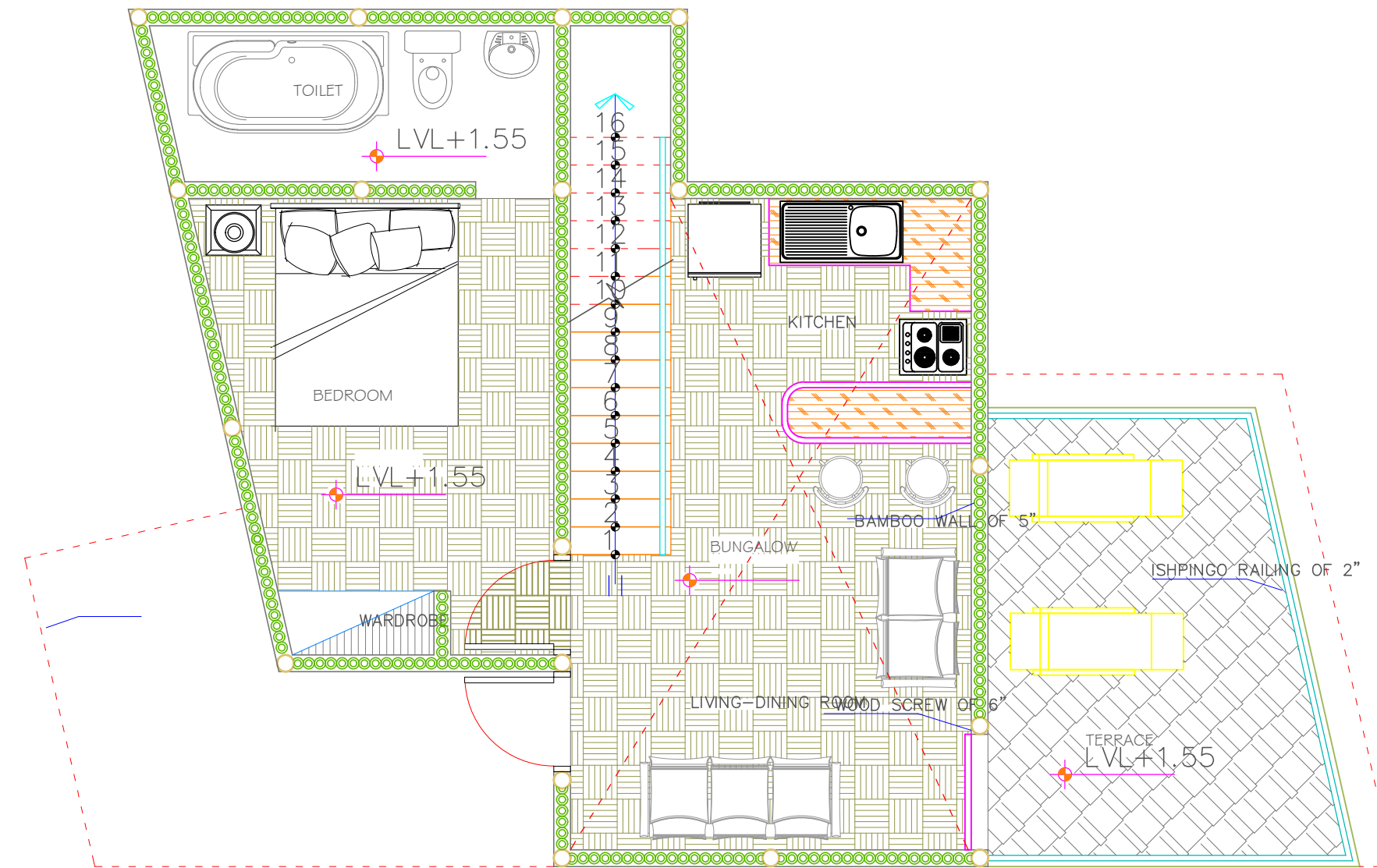
SCALE: DATE:  
20/04/2022

SHEET NUMBER

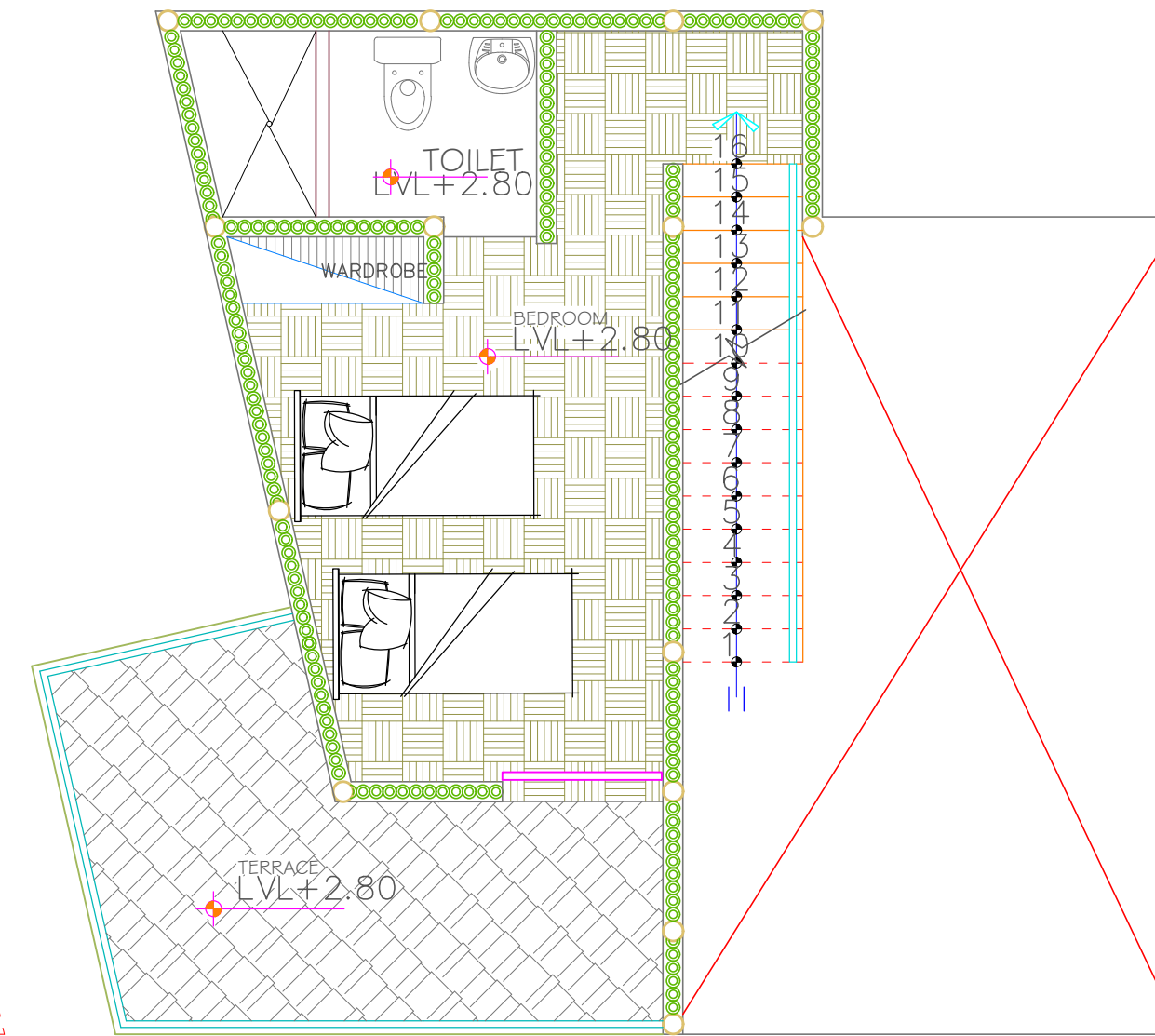




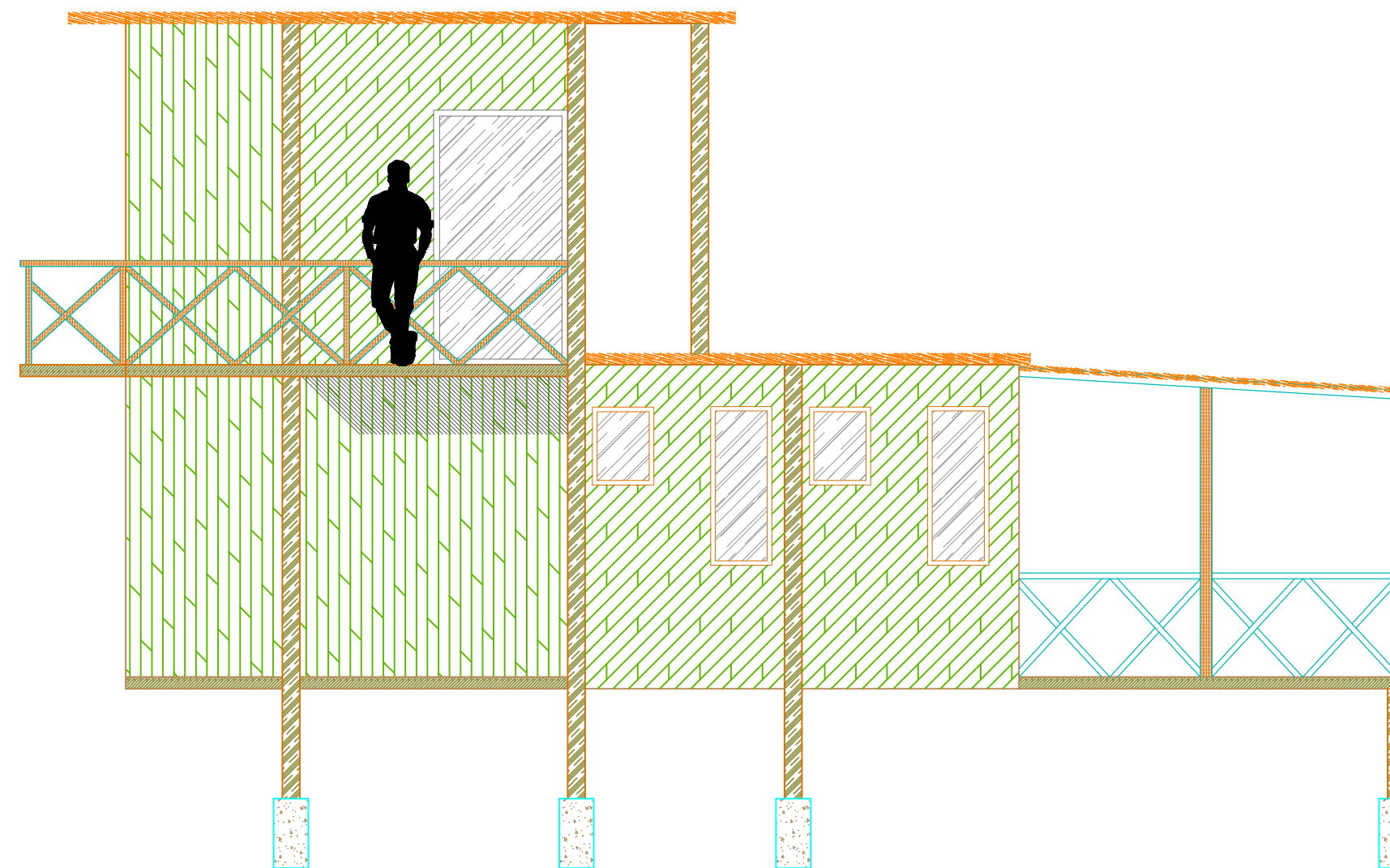




BUNGALOW FLOOR - FIRST LEVEL

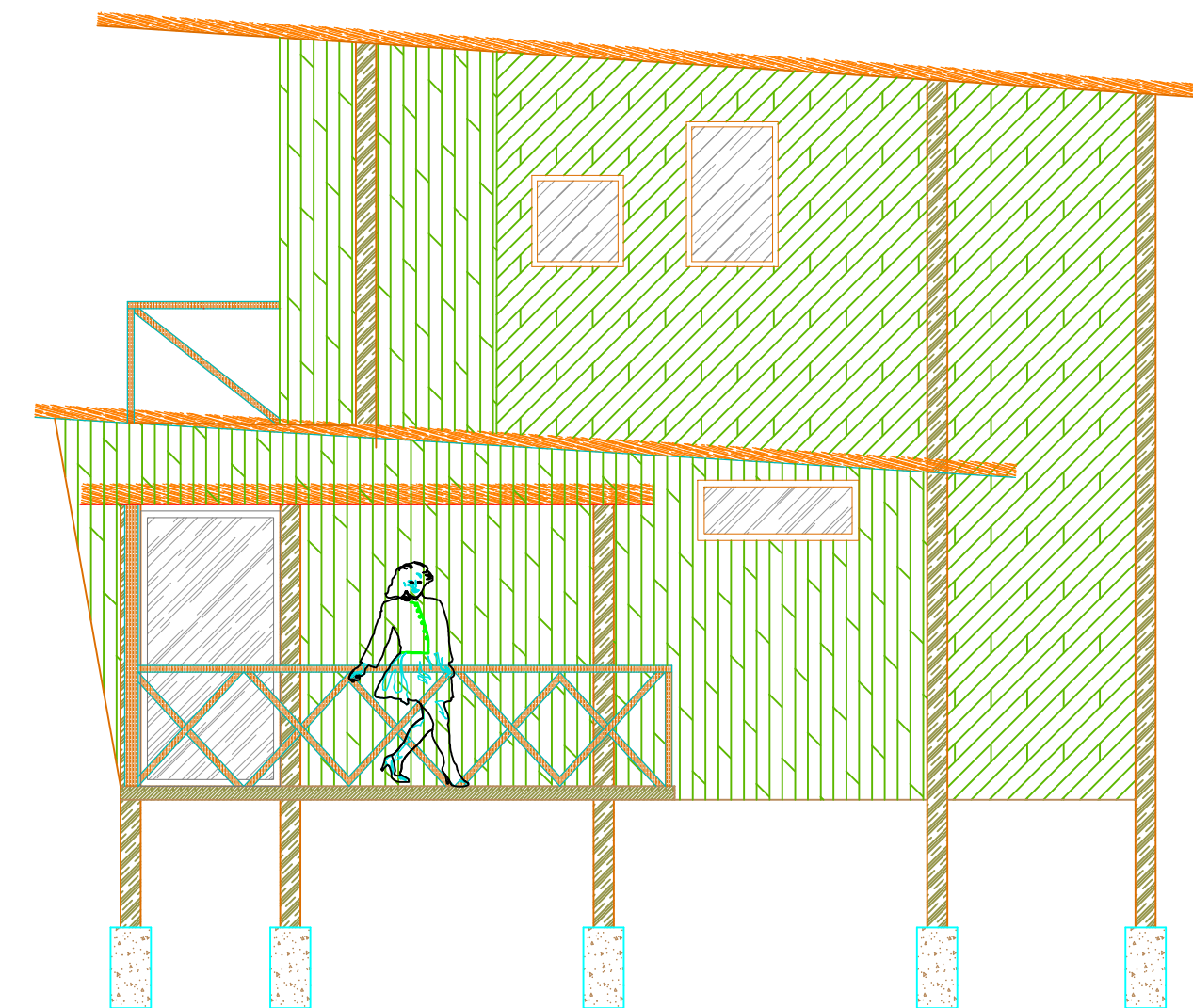


BUNGALOW FLOOR - SECOND LEVEL



BUNGALOW - MAIN ELEVATION

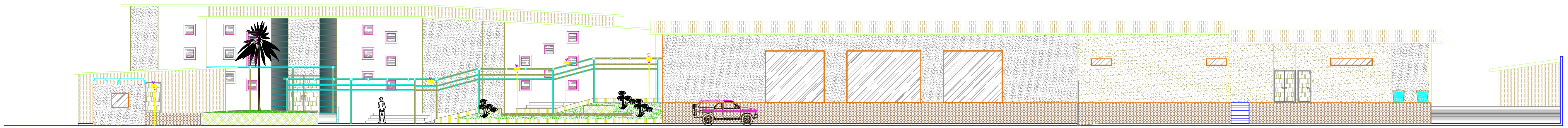
SCALE: 1/25



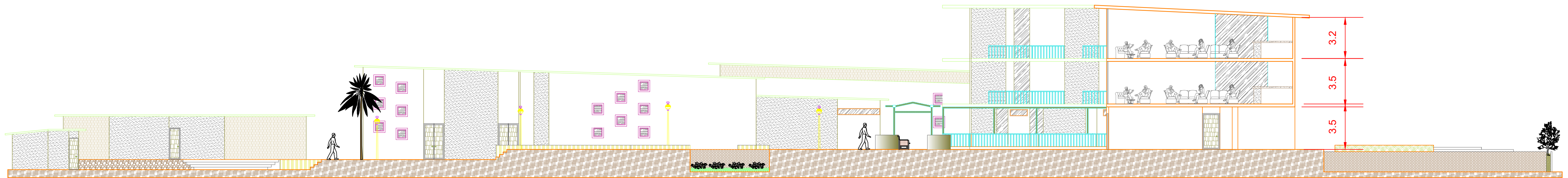
BUNGALOW EAST - WEST

SCALE: 1/25

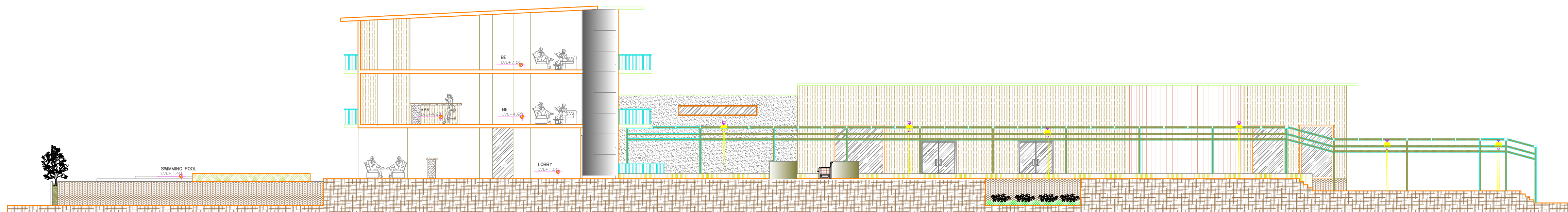




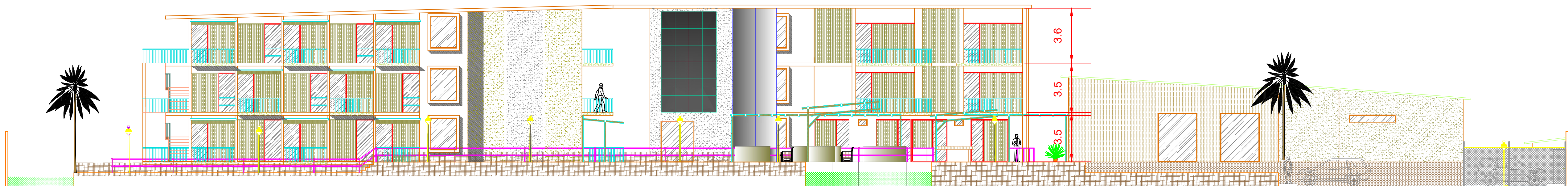
ELEVATION SOUTH - NORTH  
SCALE: 1/100



ELEVATION A - A  
SCALE: 1/100



ELEVATION B - B  
SCALE: 1/100



ELEVATION C - C  
SCALE: 1/100

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S.A.P - ARCHITECTURE

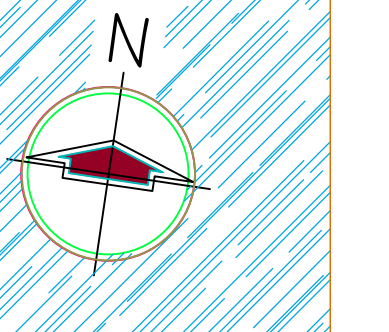
GUIDE: AR. KESHAV KUMAR

ECO RESORT

THEME:

ECO RESORT

SUBMITTED BY: DIVYAM KUMAR



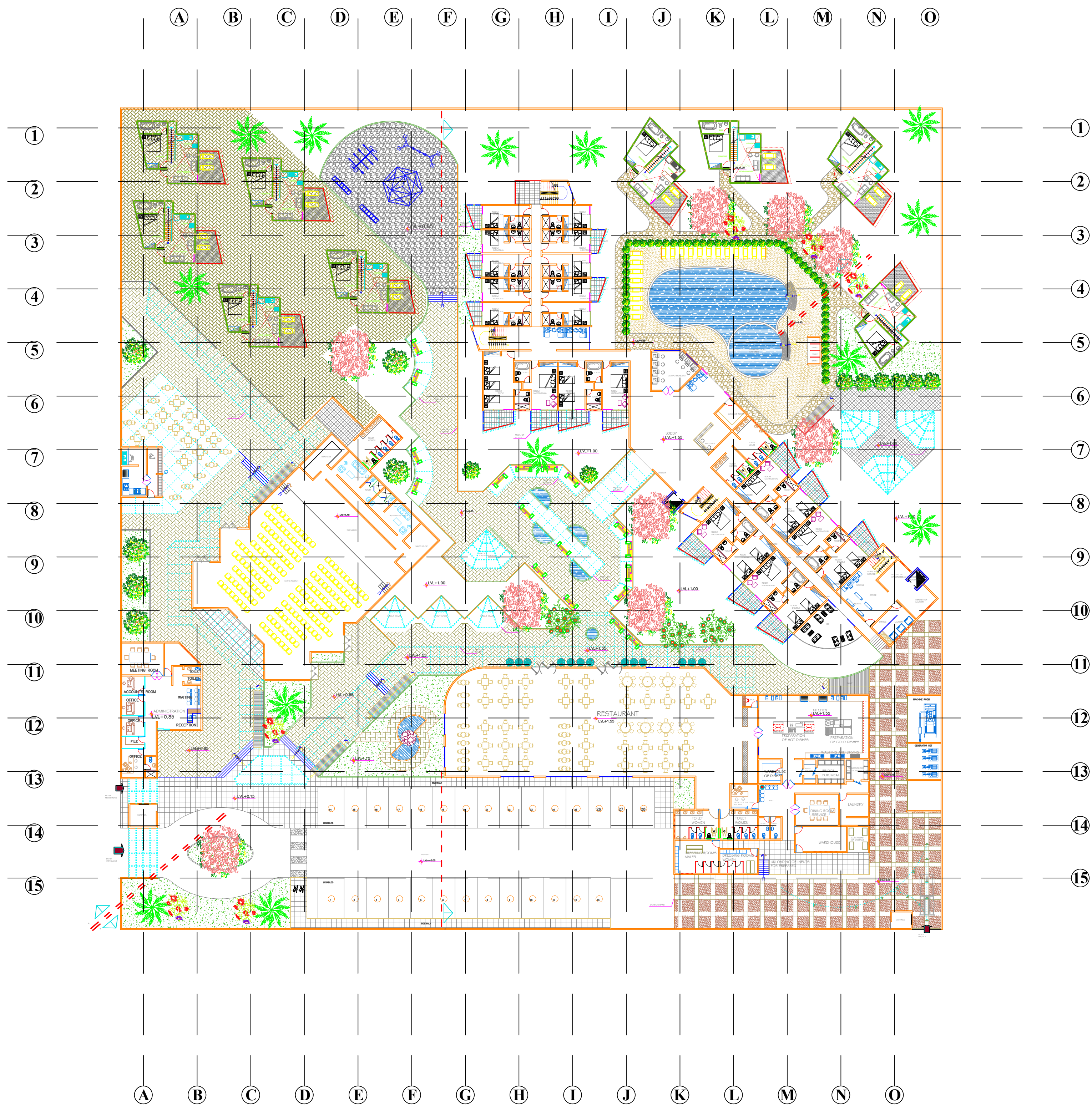
PLAN:

GENERAL FLOOR

SCALE: DATE:  
20/04/2021

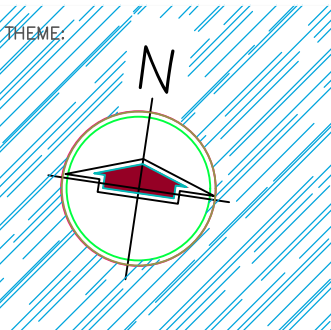
SHEET NUMBER



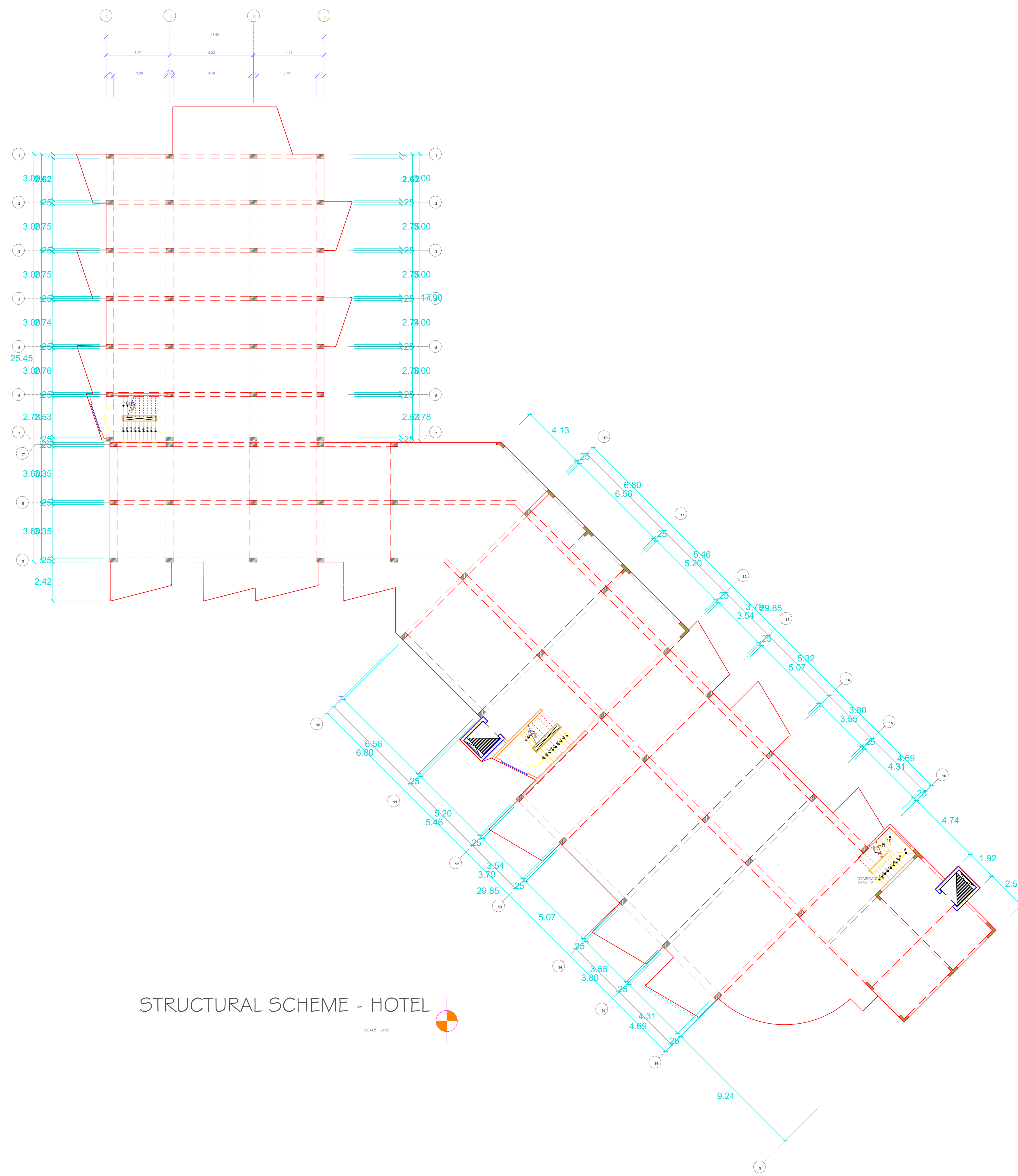


LEGENDS:

SYMBOL	DESCRIPTION
SHADING TREES	
	YELLOW OLEANDER Cascabela thevetia
	GULMOHAR Royal poinciana
	PALM TREE Areca triandra
SHRUBS & HEDGES	
	Golden duranta
	Tecoma capensis
	Latana
LIGHTS	
	Pole Lights
	Street lights







STRUCTURAL SCHEME - HOTEL

SCALE: 1/100

SANKU UNIVERSITY KADU UNIVERSITY	
FACULTY OF ENGINEERING	
E.A.P. - ARCHITECTURE	
GUIDE: AN KESHAV KUMAR	
ECO RESORT	
THEME:	
ECO RESORT	
SUBMITTED BY: DIVYAN KUMAR	
PLAN	
STRUCTURAL SCHEME DEL HOTEL	
SCALE:	DATE:
1/125	2024/05/02
SHEET NUMBER:	
A-03	