

# **ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION**

**A Dissertation Submitted  
in Fulfilment of the Requirements**

**for the Degree of  
MASTER OF ARCHITECTURE**

**in  
Architecture**

**by  
Pragya Nigam**

**(Enrollment no.1200109009)**

**Under the Supervision of  
Prof. Keshav Kumar**

**School of Architecture & Planning, BBDU, Lucknow**



**School Of Architecture and Planning**

**BABU BANARASI DAS UNIVERSITY, LUCKNOW**

**June, 2023**

## **ANNEXURE II**

### **CERTIFICATE**

It is certified that the work contained in this dissertation entitled **“Architectural Interventions in Psychiatric Centre Towards Treating Social Isolation”**, by **Pragya Nigam** (Enrollment no.-1200109009), for the award of **Master of Architecture** from **Babu Banarasi Das University** has been carried out under my supervision and that this work has not been submitted elsewhere for a degree.

Pragya Nigam

(M.arch Student)

Prof. Keshav Kumar

School of Architecture & Planning

BBD University, Lucknow, 226028,

India

Date: 28<sup>th</sup> June, 2023



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3. Dissertation title: **“Architectural Interventions in Psychiatric Centre towards Treating Social Isolation”.**
4. Degree for which the dissertation is submitted: **Master of Architecture**
5. Faculty of the University to which the dissertation is submitted: **Prof. Keshav Kumar**
6. Dissertation Preparation Guide was referred to for preparing the Dissertation. ☐ YES ☐ NO
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Roll no.1200109007



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Prof. Keshav Kumar  
School of Architecture & Planning  
BBD University, Lucknow

Pragya Nigam  
Enrollment No.1200109009



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- Pragya Nigam

## **ABSTRACT:**

Tackling isolation is much more complex than bringing people's private space physically closer. Interventions need to consider all aspects of isolation.

Bullying and harassment among peers, adult abuse and neglect of children, and suicide as a kind of self-abuse are the primary cause of social isolation.

Isolation, mental illness, and fatigue are increasing day by day among all age groups and gender, and people's mental health problems some time so severe that they end up to suicide. To improve the overall well-being of human beings, mental health should be kept in the first place for that.

Since mental illness is sometimes stigmatized, sufferers may feel humiliated or embarrassed about needing treatment. Even worse, mental health facilities are stigmatized as depressing, institutional places where no one wants to spend time. So, this dissertation is made to study the other alternative to the treatment of mental health which includes architectural interventions.

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## Chapter 1 : INTRODUCTION

### 1.1. Introduction:

Isolation, mental illness, and fatigue are increasing daily among all age groups and gender, people's mental health problems some time so severe that they end up to suicide. To improve the overall well-being of human beings, mental health should be kept in the first place for that.

The goal of this study is to gain a better understanding of how isolation and its major problems depression and some other mental illness can be improved and treated through architecting interventions.

#### 1.1.1. Objective of the study-

- Mental health is considered as taboo most of the time, so to create an environment, where people don't face any hesitation to come over to treat their problems just like other health care premises.
- Study the nature and psychology of human beings to understand the reasons for mental problems, so that figure out how to treat them architecturally.

#### 1.1.2. Research question-

- How patients can be treated in a Psychiatric centre architecturally.

**How could a psychiatric centre cure the mental problems of people?**

- What are social isolation and depression
- What can cause depression
- What can be the solution to depression
  - Psychologically through treatment and medications
  - Architecturally through the campus design techniques

### 1.1.3. Methodology-

- Literature study to understand the social isolation and problem that arises due to that. Identify architecture scope in treating mental health.
- Case study on pre-existing health care institutes, to understand the treating techniques more deeply.

### 1.1.4. Scope-

Children and adolescents are probably more likely to experience high rates of depression due to social isolation and most likely anxiety during and after enforced isolation end. This may increase as enforced isolation continues.

## 1.2. Social isolation:

Social isolation is **the lack of social contacts and having few people to interact with regularly**. We can live alone and not feel lonely or socially isolated, and we can feel lonely while being with other people.

Loneliness and social isolation are now widely acknowledged as severe public health problems. There is strong evidence that social isolation hurts health, and there is an urgent need to increase the number of efficient treatments and policies to lessen isolation and its effects on health.

### What can cause social isolation?

Long-term illness, impairments, difficulties with mobility, layoffs, or exposure to interpersonal or community violence may all contribute to increased isolation from society and lonely.

#### 1.2.1. They could be signs of social isolation:

- Depression and anxiety
- Aggressive behavior
- Lethargy

- Insomnia or light sleep
- Memory loss
- Poor self-care



Figure 1: Causes of social isolation

### 1.3. Global Scenario of Mental Health:

According to WHO, **Depression** is one of the leading explanations for the disability. “Depression is a common illness worldwide, with an estimated 3.8% of the population affected, including 5.0% among adults and 5.7% among adults older than 60 years. Approximately 280 million people in the world have depression. Suicide is the fourth leading cause of death among 15-29-year-olds. Over 700000 people die due to suicide every year. People with severe mental health conditions die prematurely – as much as two decades early – due to preventable physical conditions. ”<sup>1</sup>

<sup>1</sup> World health organization, (2022), mental health

Individuals with mental health disorders frequently face significant human rights breaches, bias, and stigma regardless of developments in some different nations.

Although many mental health conditions can be successfully treated for comparatively moderate costs, there is still a wide disparity between those who require care and those who have access to it. Coverage of successful treatments is still quite low.

There is a need to feed more investment in every aspect of mental health, including awareness campaigns to encourage comprehension and lessen stigma, initiatives to improve access to effective psychiatric treatment, and research to find novel approaches and enhance those currently available for all psychiatric disorders.



## **Chapter 2 : LITERATURE STUDY**

Depression is a major problem that occurs because of social isolation.

### **2.1. Signs, causes, and consequences of Depression**

Many people are bound to experience depression at some point in their lives. 9.1 percent of respondents reported having significant or slight depression right now, according to the Centres for Disease Control and Prevention. If untreated, depression can make it significantly harder for you or someone you love to live life to the fullest and, regrettably, motivate a person to attempt suicide.

### **2.2. Depressions in their different manifestations**

- 1. Major Depressive Disorder** (Long-lasting emotions of grief, despair, or rage that interfere with day-to-day existence. In severe circumstances, it can result in suicide.)
- 2. Chronic Depression/Dysthymia** (Bad mood, although they're not quite as unpleasant.)
- 3. Atypical Depression** (Difficult to diagnose, and frequently persists for years.)
- 4. Bipolar or Manic Depression** (alternating between moments of depression and manic activity during which the person feels incredibly in control and optimistic).
- 5. Seasonal Affective Disorder (SAD)** (In the winter, SAD sufferers become irritable and lethargic due to a lack of direct sunlight, physical activity, and clean air.
- 6. Postpartum Depression** (happens to moms who have just given birth. It can vary from mild to severe.)

**7. Psychotic Depression** (display psychotic symptoms like delusions or hallucinations together with the depressive symptoms.)

### **2.3. Causes depressive disorders**

- It might be inherited.
- Depression can arise from personal trauma and stressors like failing relationships or a job layoff. Conflict with relatives and close friends can lead to social isolation, which may be a contributing cause.

### **2.4. Depression warning signs**

#### **Emotional signs:**

- Withdrawal from social activities
- Loss of interest in once-enjoyed pastimes
- Constant sorrow or irritation
- persistent negativity
- feelings of inferiority and self-hatred

#### **Physical signs:**

**2.5.** Depression has physical consequences as well as mental ones. Unpredictable sleep patterns, decreased hunger (or rise with atypical depression), persistent exhaustion, muscle pains, headaches, and back pain are a few of the physical symptoms.

### **2.6. Different types of mental health solutions**

No one method works for everyone in treating mental illness. Even persons having similar behavioral diagnoses can experience vastly different mental health issues. Alternative solution for mental health care include:

1. Psychiatric hospitalization

2. Inpatient or residential mental health treatment
3. Outpatient mental health treatment
4. Dual diagnosis treatment
5. Psychotherapy
6. Medication
7. Complementary and alternative treatments

## **2.7. Type of treatments and the scope of architecture intervention:**

### **2.7.1. Psychiatric Hospitalization:**

Any person is a potential patient for psychiatric inpatient care if they have:

- Serious mental health issues.
- Hallucinations or delusions of some sort.
- Homicide or suicidal thoughts.
- Lack of sleep or food for weeks.
- lost the capacity to take care of oneself as a result of mental health issues.

➤ **Scope of architecture intervention – Low**

### **2.7.2. Inpatient or Residential Mental Health Treatment:**

Inpatient therapy, often known as residential mental health therapy, is provided in a residential setting around-the-clock. The following methods of treatment are frequently used to treat mental illness in inpatient amenities:

- Individual counselling and psychotherapy
- Group counselling
- Medication
- Medical guidance

- Recreational therapy methods
- Alternative treatments, such as yoga or meditation
- Many healing centers may also offer luxury and executive options. Other than to the types of treatment listed above, these centers may include:
  - Individual private rooms.
  - Exquisite cuisine.
  - Massage and spa services
  - Fitness facilities.
  - Swimming pools.
  - Additional deluxe or executive features including workplaces, PCs, and Internet access.

➤ **Scope of architecture intervention – High**

### 2.7.3. Outpatient Mental Health Treatment

The best candidates for outpatient mental disorder therapy include:

- Slight to Severe symptoms.
- A strong support network.
- The capacity to carry out daily activities outside from the treatment setting.

A variety of mental health solutions are offered as outpatients. These consist of:

- Individual therapy
- Group therapy
- Family therapy
- Support groups
- Intensive outpatient care
- Partial hospitalization
- Psychiatric drugs and non-hospitalized medical care.

➤ **Scope of architecture intervention - Moderate**

#### **2.7.4. Dual Diagnosis Treatment**

For those battling both a mental health illness and an addiction or drug use disease, dual diagnosis treatment provides full mental health care. Treatment of dual diagnoses simultaneously addresses and treats both conditions.

➤ **Scope of architecture intervention – Low**

#### **2.7.5. Psychotherapy**

A variety psychological issues have been successfully treated using talking treatment in psychotherapy, which is available in outpatient and inpatient settings alike. In talk therapy, an individual or group talks about their problems with a professional counselor who can assist them in processing their emotions and discovering new coping mechanisms.

There are numerous varieties of psychotherapy accessible, including:

- Individual Therapy
- Group Therapy
- Family Therapy
- CBT, or Cognitive Behavioral Therapy
- DBT, or dialectical behaviour therapy
- Interpersonal Therapy
- Eye Movement Desensitization and Reprocessing Therapy (EMDR)

➤ **Scope of architecture intervention – Moderate**

#### **2.7.6. Medication**

It is possible to treat the signs of mental disease with medication. Both hospitalized and ambulatory mental health institutions offer medications, which are frequently combined with psychotherapy.

➤ **Scope of architecture intervention – Low**

### **2.7.7. Complementary and Alternative Treatments**

In addition to conventional treatments like counselling and medication, complementary and alternative mental health solutions may be used. The following are some of the most typical forms of complementary therapies:

- Yoga
- Meditation
- Nutrition
- Exercise
- Equine Therapy

➤ **Scope of architecture intervention – High**

## **2.8. Review of Inpatient Wards: for a better understanding of their placement and scope for the interventions.**

There are major 4 types of inpatient wards, categorized as per the severity of the treatment.

- 1. Intermediate/improved patients' unit-** is intended to assist individuals who have either recovered after prolonged treatment or whose therapy entails a shorter hospital stay and who will likely be relieved in a few weeks or months from now.
- 2. Acute-care unit-** Patients with severe mental illnesses who require extended hospital stays and specialized treatment are accommodated in acute-care units. Their Wards are **single-story** in design because such patients are not anticipated to move higher.
- 3. Forensic unit-** The Forensic Ward is designed to host criminals or offenders with mental illnesses who are hospitalized as a result of legal

admissions. To protect the rights of other patients and guarantee sufficient police security, such patients had to be housed in separate Ward blocks.

4. **Chronic-stay unit-** Chronic Stay Units have been designed to house those chronically-ill patients who are unable to sustain lifestyles on their own, and, therefore, need external help to perform their daily chores. The majority of these patients are unlikely to be recovered and hence need hospitalization throughout the remaining part of their life. Additionally, a private outdoor recreation area or court must be made available to patients.

## 2.9. How Architecturally achieve good mental health

- 2.9.1. **Biophilic design** is a term used in the construction industry to describe how to use direct, indirect, and space and place variables to promote occupant connectedness to the natural world.

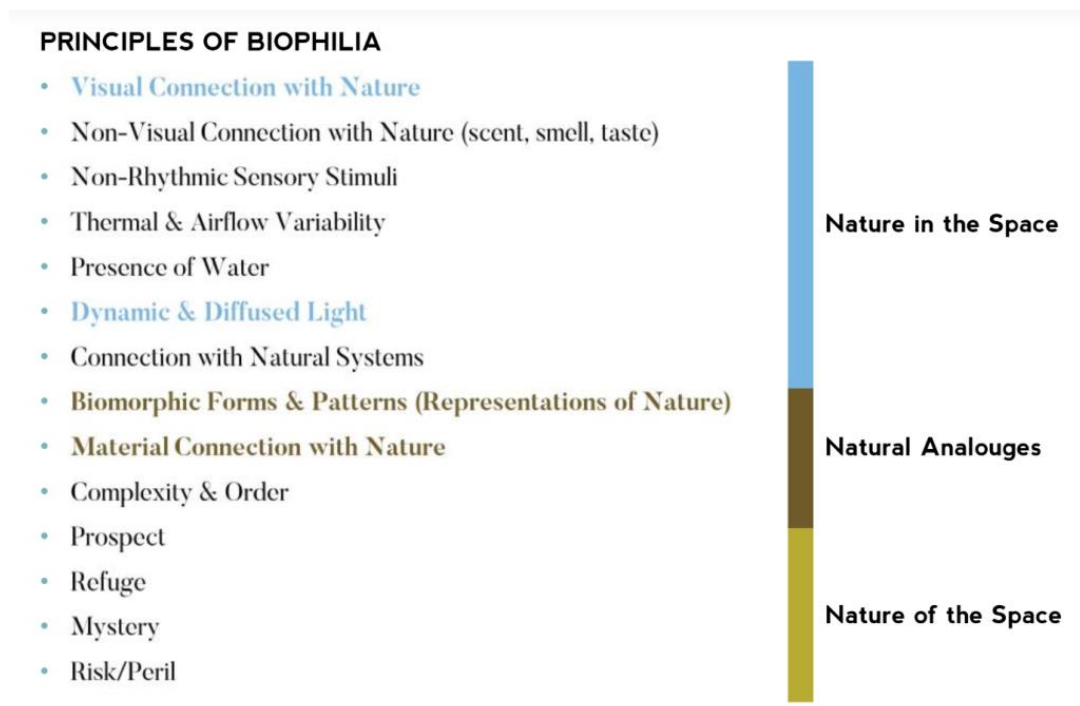
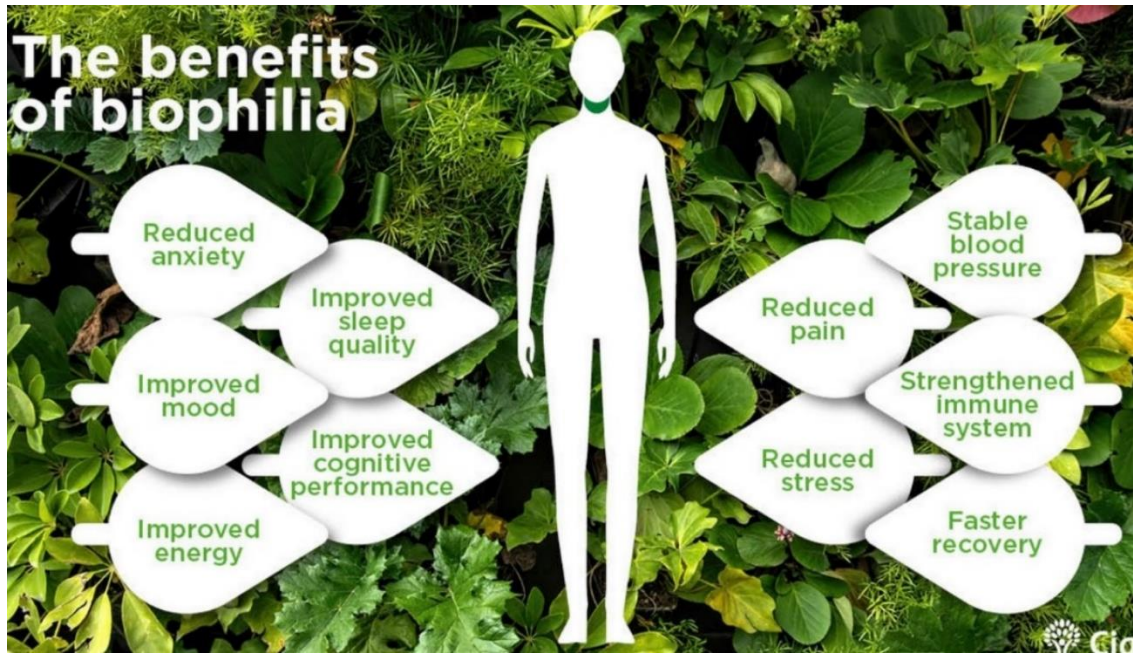


Figure 2: principles of biophilia



*Figure 3 benefits of biophilia*

**2.9.2. Listing and summarizing Architectural interventions, which can be implemented for the better treatment of patients and in achieving good mental health:**

- 1. Natural Light:** it is proven to be essential to our health and well-being. It also affect our hormones, metabolic functions, and immune system. In fact lack of daylight has been linked to sadness, fatigue, and mood disorder.
- 2. Easy access to the spaces:** it is important for the patient admitted to the inpatient ward, and also for OPD patients who visit the centre premises. Not finding easy access can result in more frustration and complications for the patient.



- 3. Use of Curvature:** throughout a variety of research studies conducted, it appears that our brain has associated the visual of curves as signifying, a lack of threat (Jaffe, 2013) `



*Figure 4: picture showing the curvature*

- 4. Use of calm interiors:** like installing buddha statues and other soothing pictures.
- 5. Sense of security:** it can be achieved through proper placement of blocks in the site w.r.t. to other spaces, especially if a patient is admitted to a hospital. For better treatment patient should think they are in a safe place with safe people around.
- 6. Use of colour psychology:** it is the study of how our brain perceives colour which can be linked to our feeling and emotion (Przybyla, 2016). While emotional responses to colours can vary based on culture, geographic location, personal experiences, and gender.



Pink	Compassionate, Encourages Creativity, Energetic, Fascinates, Motivating, Playful
Orange	Adventurous, Cheerful, Confident, Creativity, Fun, Optimistic, Stimulating, Unity, Youthful
Yellow	Alertness, Energizing, Enthusiasm, Happiness, Optimism, Positivity, Uplifting, Warmth, Youthful
Green	Balance, Encouraging, Growth, Healthy, Peaceful, Refreshing, Relaxing, Revitalizing
Blue	Calming, Loyal, Relaxing, Reliable, Responsible, Secure, Trusting (Avoleo, 2014)(Soegaard, Mads)

*Figure 5: colours and their association with mental well-being*

7. The provision of additional space for leisure activities, such as workshops, gyms, and games, for the socialization and rehabilitation of each individual patient. Additionally, these areas ought to be artistically engaging.

## Chapter 3 : CASE STUDY

### 3.1. Case Study–1: Vidya Sagar Institute of Mental Health at Amritsar



**ARCHITECT:** Sarbjit Singh Bahga, Chandigarh

**DESIGNED:** 2000

**COMPLETED:** 2004

**SITE AREA:** 45 acres

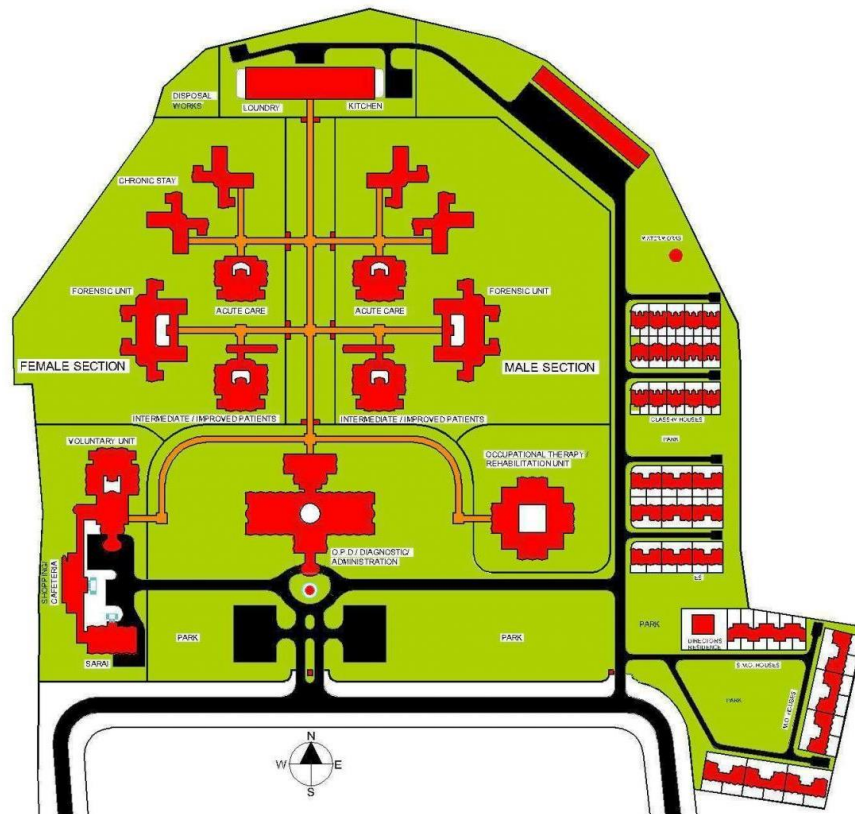
*Figure 6: entrance of VSIMH*

#### 3.1.1. Design Brief-

- Patients' stays at mental hospitals are typically substantially longer on average than those in other institutions, especially in the inpatient units. 3 types of activities involved in this unit are –
  1. Patients stay in a pleasant environment together performing their daily routine chores.
  2. The service of meals is done three times a day so requires trolley movement between the kitchen and the wards.
  3. The replacement of dirty linen with a fresh one, which also requires trolley movement between laundry and wards.
- The **outermost sphere** and the **middle sphere** are the two main zones. The structures such as the occupational therapy/ rehabilitation unit, voluntary patients' unit, serai, shopping/cafeteria, and services such as kitchen, laundry, and stores are located in the sphere on the outside.

Additionally, staff accommodations have been placed on the outer sphere in the campus eastern edge.

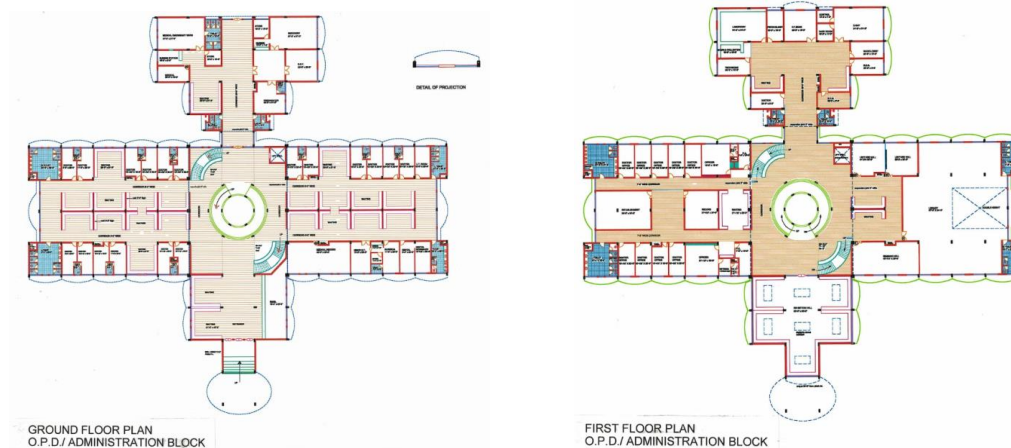
The **middle sphere**, which contains wards of various types, has also been separated into two sectors, one for men on the eastern side and one for women on the west. These areas are bordered by 6-foot-tall boundary walls with limited access. There are checkpoints at each entry point. For example, there are different ward blocks for forensic patients, acute care, intermediate/improved patients, and chronic patients in each area. The kitchen and laundry block are located at the back, or the northern side, while the opd-cum-administrative block is situated on the front, or the southern side. The opd/administrative block is flanked by an occupational therapy/rehabilitation unit on the east and a mini-complex of volunteer units, shops/café, and Sarai on the west.



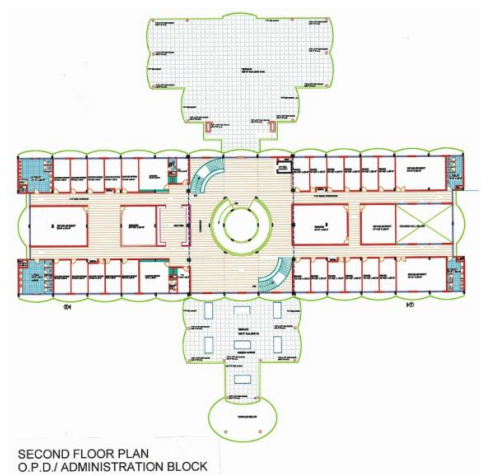
*Figure 7: site layout of Vidya Sagar Institute of Mental Health*

- A building-in-the-garden appearance is achieved by skillfully blending the built-up areas and the open areas. A vaulted tunnel connecting the entire healthcare compound runs autonomously through wide open areas with vegetation on both sides. There are built-up benches positioned at strategic points along the walkway for casual seating. Two corridor intersections have been transformed into 20 feet by 20 feet chowk with a tall ceiling.
- To give the inmates a calm, tranquil, and relaxing environment, the entire middle circle has been kept absolutely pedestrian. Vehicle traffic is only allowed on the outskirts. All of the construction blocks' designs were developed with consideration for the unique needs of various patient types. To make each block clearly recognizable by the patients, attempts have been taken to develop a different style architecture for different purpose building. Yet, by providing consistent exterior elements like red sandstone cladding and naked concrete, the two crucial characteristics of campus design—unity and consistency—have been addressed.

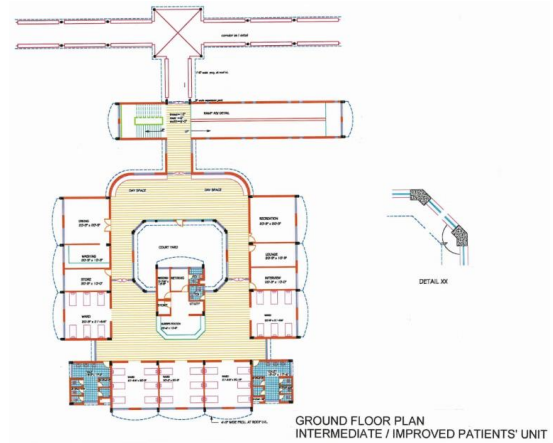
### 3.1.2. Floor Plans-



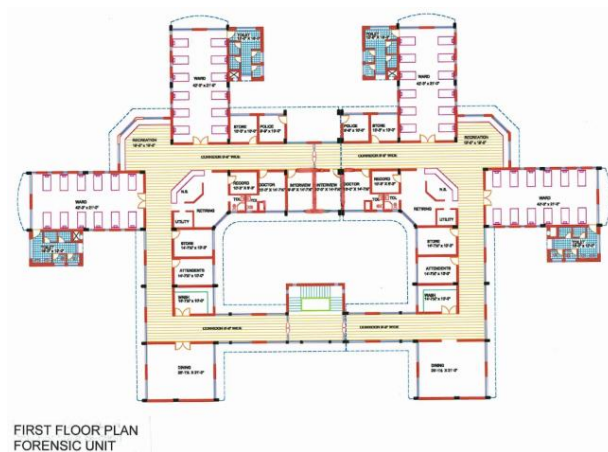




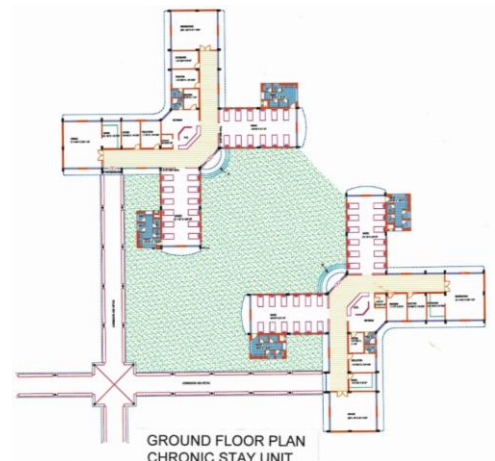
SECOND FLOOR PLAN  
O.P.D./ADMINISTRATION BLOCK



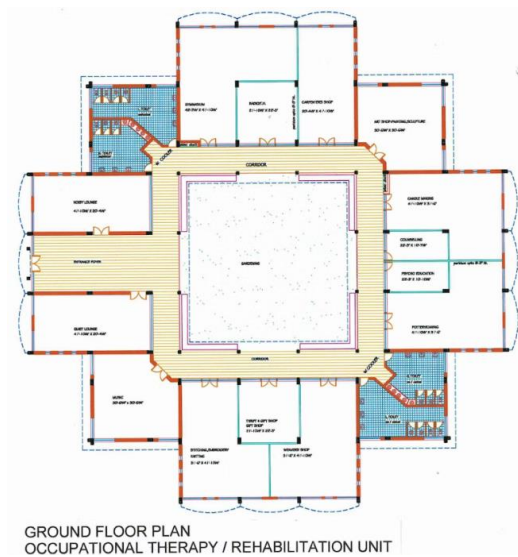
GROUND FLOOR PLAN  
INTERMEDIATE / IMPROVED PATIENTS' UNIT



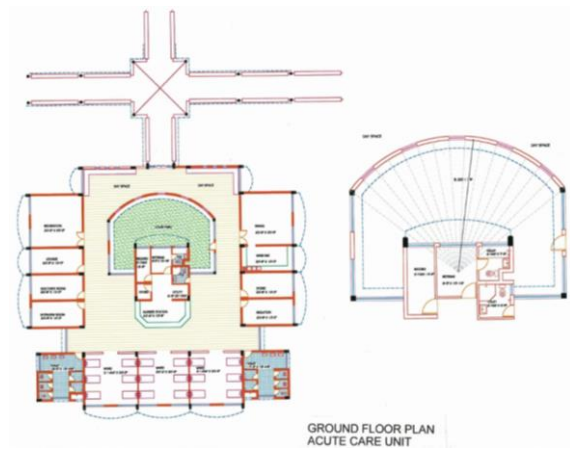
FIRST FLOOR PLAN  
FORENSIC UNIT



GROUND FLOOR PLAN  
CHRONIC STAY UNIT



GROUND FLOOR PLAN  
OCCUPATIONAL THERAPY / REHABILITATION UNIT



GROUND FLOOR PLAN  
ACUTE CARE UNIT

### 3.1.3. Inferences-

- Nurse's station always placed at a point where the dorms are visible from all ends.
- Starting hints of curvature can be seen in the interior shaping of spaces which is good for the inmates for passing by from both sides.
- For the **safety purpose, Forensic ward is kept separated** from rest of the units.
- Acute care unit, improved patients' unit and the chronic stay unit are connected linearly.
- **Connecting corridors** are provided for the linking of all different blocks for **easy movement**.
- **In-patient ward area is kept in the middle** with pedestrian path only, gives sense of security.
- **green parks** in between, which provide better healing to the patients.
- **Central Atrium** is provided in the main entrance of OPD block for better **natural lighting**.
- **Courtyard planning** for the good natural light and ventilation.

### 3.2. Case Study – 2: Vejle Psychiatric Hospital, Denmark



ARCHITECTS: Arkitema  
Architects

COMPLETED YEAR: 2017

SITE AREA: 4.2 acres  
(17000 sq m)

LEAD

ARCHITECT: Wilhelm  
Berner-Nielsen

LANDSCAPE: Arkitema

*Figure 8: site view of Vejle Psychiatric Hospital, Denmark`*

In the Danish city of Vejle, a new psychiatric hospital debuted in February 2017. The hospital has seen a 50% drop in physical restriction since it first opened, and it is well known for its healing architecture. This was highlighted in mid-June when the hospital defeated mental health facilities from all around the world to win the Mental Health Design category at the European Healthcare Design Awards 2018.



*Figure 9: interior view of lobby of Vejle Psychiatric Hospital*

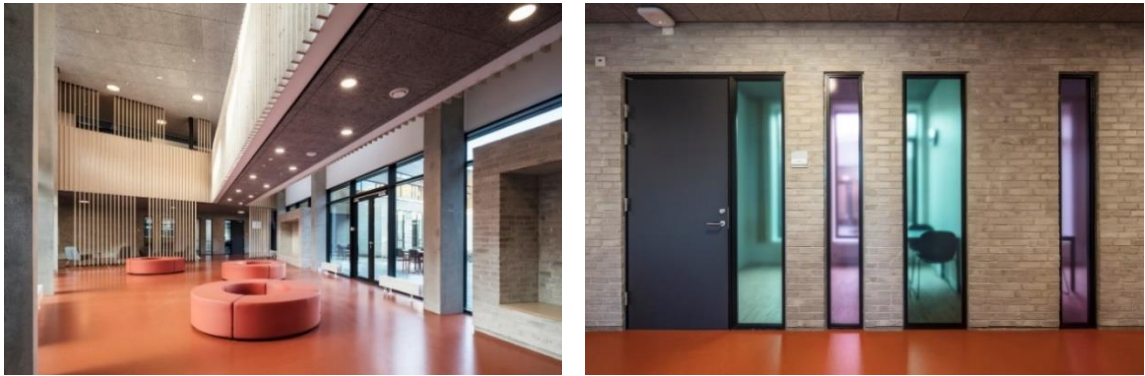


Arkitema Architects created the structure as part of a Public- Private Partnership, where the PPP team always responsible for designing, constructing, and operating the structure. The hospital's goal was to build a cutting-edge mental health facility with 91 beds, a children's ambulatory, a psychiatric emergency room, and ECT. The project's context is a regional emphasis on outpatient care. As a result, the new hospital facilitates the treatment of patients who have severe and complicated behavioral problems that need inpatient care.



*Figure 10: showing landscape and garden in the site plan of interior view of lobby of Vejle Psychiatric Hospital.*

The imaginative healthcare design that promotes physical activity and minimizes enforced intervention has been the key design focus. The goal of the design process was to provide the ideal settings for both patients and staff. To achieve this, make sure the building has enough of natural light, easy access to outdoor areas, transparent wards with clear views, and a thoughtful layout..



*Figure 11: interior view of Vejle Psychiatric Hospital (use of colour psychology)*

Wards are retreated within the facility, whereas extroverted operations like ER reception and children's psychiatry are situated as welcoming units upon entry. A ring structure that conveys a spatial divide and creates a glaringly hierarchical façade connects administration and discrete patient transport on the enclosed first floor.

### **Access to green space and lots of light**

The hospital is subtly positioned at the foot of a hill covered in trees. Smaller square brick building components that twist from one another make up the plan pattern, which allows for the extension of the natural environment into the spaces between the structures. The structure reduces its size, melds with the landscape, and blends in with its surroundings.



*Figure 12:Figure 9: view of Vejle Psychiatric Hospital*

The facility was specifically created with an emphasis on both natural and artificial light to maximize the healing effects of light on psychiatric patients. Ample natural light enters the structure through glass panels and indoor courtyards. The building is illuminated more extensively thanks to inside windows and recessed ceilings. Additionally, the wards incorporate colored light treatment 24 hours a day for staff and patients' natural circadian rhythm maintenance, sleep support, depression eradication, and relaxing recuperation.

The Region of Southern Denmark, which has agreed to use the facilities for the next 25 years, is in charge of running the Vejle Psychiatric Hospital in collaboration with the PPP-company established by Sam Pension, Pension DK, MTH, and DEAS as investors, owners, builders, and maintenance providers.



*Figure 13: view of Vejle Psychiatric Hospital showing raw form of site.*

### 3.2.1. Inferences-

- **Central Atrium** is provided in the main entrance of main building block for better **natural lighting**.
- Successfully **lowering aggressive behaviour in patients**, concept of **healing architecture** infused.
- Use of **colour psychology** and flexible interior, common spaces, also in the placement of wards on the premises.
- Mainly focus on landscaping for achieving better opening with green spaces.
- Inside, **curvilinear** forms were put to use.

### **3.3. Inferences of Case study 1& 2 –**

After analyzing both the case studies, listed below are the good outcome:

1. It is advantageous to add complexity, order, and aesthetic concerns to the setting.
2. Having access to nature can improve mental health, add complexity, and stimulate the mind.
3. Single rooms are generally preferred for the privacy of particular critical patients.
4. Smells: nice scents can lower blood pressure, slow breathing, and lessen pain perception, while unpleasant scents might increase stress, worry, and dread.
5. Exposure to nature through gardens, windows, and artwork might help people feel less stressed.
6. Interior curved forms assist the patient to interact more closely and effectively.
7. Use of natural materials, a soothing colour palette and residential character in the interior design of the facility.

## Chapter 4 : CONCLUSION:

Critics may claim that making social isolation a health priority will take precious resources away from other urgent problems (such as addiction, violence, and poverty), yet tackling social isolation and loneliness may also aid in addressing these and other issues.

After analyzing the literature reviews and case study's merits and demerits, here we summaries some strong recommendations for the healing of mental patients other than the traditional procedures-

- ✓ Recovery-focused mental health therapies are necessary.
- ✓ Treatments for mental health need to be given in a setting that is therapeutically stimulating.
  - Comfortable like home
  - Friendly & informal setting
  - Physical and visual access to nature to aid in recovery.
  - Patient privacy, respect, and independence.
- ✓ Services of mental health must able to be offered in a secure environment.
  - Reduce potential dangers.
  - Increase staff interaction and visibility with patients.
  - Using materials that can withstand damage.
  - Incorporate safety-enhancing technology.
- ✓ Services for mental health should be linked and coordinated.
  - Encourage cooperation among healthcare professionals
  - If at all possible, deal with the individual's numerous diagnoses at the same location.
- ✓ Services for mental health should be offered in environments that respect and can support a variety of patient populations and care requirements.
  - the dignity, safety, and privacy of female patients should not get compromised.

## Chapter 5: REFERENCE:

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14. <https://pillarsofwellness.ca/psychotherapy/what-are-the-7-components-of-good-mental-health/>
15. An overview of Biophilic architecture in India (<https://www.re-thinkingthefuture.com/architectural-community/a7575-an-overview-of-biophilic-architecture-in-india/>)



A background architectural rendering of a modern building with a large glass facade and a landscaped courtyard. The building has a grid-like window pattern and is surrounded by greenery and a paved walkway.

# SITE ANALYSIS



## SITE ANALYSIS :

### ABOUT CITY:

Noida, Sec-62 is a prime mixed-use location of Noida city. It is one of the best-planned sectors of Noida where residential and commercial areas are segregated effectively. Noida is a part of National Capital Region of India. Sector 62, Noida is a **popular commercial hub, home to various IT/ITeS companies, including IBM, Samsung, and TCS.**

### HISTORY:

New Okhla Industrial Development Authority, also known as Noida, is taken care by New Okhla Industrial Development Authority management. On April 17, 1976, Noida's administration came into existence.

### LOCATION:

Sector 62, Paramahansa Yogananda Marg, B-4, near Yogoda Satsang Ashram, Noida. The site is approachable from 12 meters wide road on south direction. Site is approached by a single road and other 3 sides of the site are covered by different entities.

### APPROACH TO THE SITE:

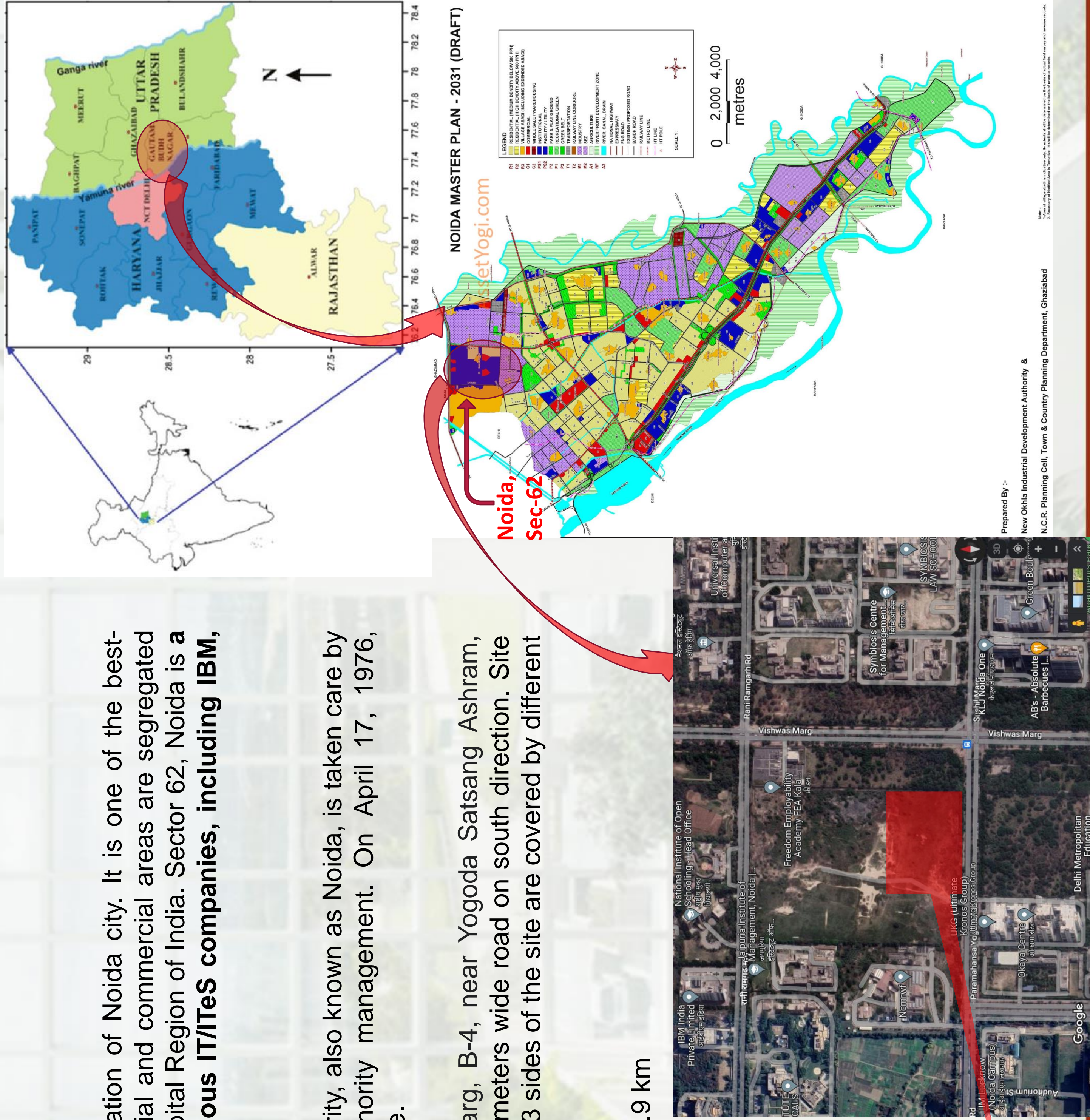
- Indira Gandhi international airport\_\_31.9 km
- Vaishali metro station \_\_\_\_19 km
- New delhi railway station \_\_\_\_ 20.4 km

Total land Area : **28.94 acres**

Considering area of site for the proposal = **6.50 acres** and rest of the site is considering for future extensions.

Land type : Institutional

**Proposed site**









## S.W.O.T. ANALYSIS :

### ▪ **STRENGTH –**

The site has rectangular shape, close proximity to metro station, developing sub city at this point of time thus provide scope for advancement. Location of the site near green belt provides healthier and fresher environment.

### ▪ **WEAKNESS –**

There is no such potential weakness in terms of location. But untreated sewerage drain close to the site and currently used as a dumping zone which can give rise to water born disease. And also garbage is thrown in the site.

### ▪ **OPPORTUNITIES –**

There is no such this type of mental health Centre present in the vicinity. This building will be able to enhance the social and cultural lives of humans.

### ▪ **THREATS –**

Traffic is likely to get heavy on the roundabout. Sewage system is mismanaged.

## SITE INFERENCES FOR DESIGN:

- The site will be primarily affected by summer heat waves, so we can use techniques like courtyard planning, the use of louvers, jaali on the south façade, and the placement of the blocks so that more openings will be in the north and east direction to create naturally cool environments inside the building and campus
- We'll make use of the existing trees along the south boundary of the site to shield the campus from heat waves and to block outside noise from the hectic road.

## SITE PICTURES:



FEW VEGETATION ON SITE



INSIDE BOUNDARY PHOTOS



MAIN GATE &  
BOUNDARY



## SITE INFORMATION:

Permissible F.A.R. = 1.5  
Permissible Ground Coverage = 30%  
Minimum setback:  
Front = 15m  
Side and rear = 9m  
Height restriction = 20m





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# STANDARDS & AREA REQUIREMENTS



S.NO.	REQUIREMENTS	STANDARDS (SQ M)	QUANTITY	AREA (SQ M)	TOTAL AREA (SQ M)	REMARKS
ADMINISTRATION						
1	RECEPTION CUM WAITING	35	1	40	40	IPHS & MENTAL HEALTH DESIGN GUIDE
2	DIRECTOR'S OFFICE	25	1	25	25	CASE STUDY
3	DIRECTOR'S SECRETARY ROOM	12	1	15	15	IPHS & MENTAL HEALTH DESIGN GUIDE
4	DEPUTY DIRECTOR'S OFFICE	15	1	20	20	IPHS & MENTAL HEALTH DESIGN GUIDE
5	DIRECTOR'S ASSISTANT	12	1	15	15	IPHS & MENTAL HEALTH DESIGN GUIDE
6	MEDICAL SUPRINTENDENT'S OFFICE	35	1	35	35	IPHS & MENTAL HEALTH DESIGN GUIDE
7	DEPUTY MEDICAL SUPRINTENDENT'S OFFICE	21	1	25	25	IPHS & MENTAL HEALTH DESIGN GUIDE
8	MEDICAL SUPRINTENDENT ASSISTANT	12	1	15	15	IPHS & MENTAL HEALTH DESIGN GUIDE
9	ACCOUNT'S OFFICER	12	1	15	15	IPHS & MENTAL HEALTH DESIGN GUIDE
10	RECORD ROOM KEEPER	15	1	15	15	IPHS & MENTAL HEALTH DESIGN GUIDE
11	RECORD ROOM	25	1	35	35	IPHS & MENTAL HEALTH DESIGN GUIDE
12	MAINTENANCE OFFICER	12	1	15	15	IPHS & MENTAL HEALTH DESIGN GUIDE
13	CCTV MONITORING ROOM	15	1	20	20	IPHS & MENTAL HEALTH DESIGN GUIDE
14	SECURITY HEAD OFFICE	12	1	12	12	IPHS & MENTAL HEALTH DESIGN GUIDE
15	LIBRARY CUM CONFERENCE HALL	35	1	35	35	IPHS & MENTAL HEALTH DESIGN GUIDE
16	CAFETERIA	50	1	60	60	IPHS & MENTAL HEALTH DESIGN GUIDE
17	PANTRY	-	1	15	15	-
18	TOILET (M, F& HANDICAPPED)	-	1	30	30	-
	<b>TOTAL</b>				<b>482.0</b>	
	<b>WITH 30% CIRCULATION</b>				<b>574.6 SQ M</b>	

S.NO.	REQUIREMENTS	STANDARDS (SQ M)	QUANTITY	AREA/ ROOM (SQ M)	TOTAL AREA (SQ M)	REMARKS
OCCUPATIONAL THERAPY ROOMS						
1	HANDICRAFT ROOM	120	1	150	150	IPHS & MENTAL HEALTH DESIGN GUIDE
2	ART & PAINTING	120	1	150	150	IPHS & MENTAL HEALTH DESIGN GUIDE
3	DANCING ROOM	100	1	100	100	IPHS & MENTAL HEALTH DESIGN GUIDE
4	MUSIC ROOM	100	2	100	200	IPHS & MENTAL HEALTH DESIGN GUIDE
5	GARDENING	25	1	30	30	IPHS & MENTAL HEALTH DESIGN GUIDE
6	POTTERY	120	1	120	120	IPHS & MENTAL HEALTH DESIGN GUIDE
7	STICHING	100	1	100	100	IPHS & MENTAL HEALTH DESIGN GUIDE
8	CARPENTRY	120	1	150	150	IPHS & MENTAL HEALTH DESIGN GUIDE
9	FABRICATION	120	1	150	150	IPHS & MENTAL HEALTH DESIGN GUIDE
10	PHOTOGRAPHY	55	2	60	120	IPHS & MENTAL HEALTH DESIGN GUIDE
11	CANDLE MAKING	30	2	35	70	IPHS & MENTAL HEALTH DESIGN GUIDE
12	THERAPIST ROOM	13	12	13	156	IPHS & MENTAL HEALTH DESIGN GUIDE
	<b>TOTAL</b>				<b>1496.0</b>	
	<b>WITH 30% CIRCULATION</b>				<b>1944.8 SQ M</b>	

S.NO.	REQUIREMENTS	STANDARDS (SQ M)	QUANTITY	AREA (SQ M)	TOTAL AREA (SQ M)	REMARKS
OUTPATIENT DEPARTMENT						
1	RECEPTION CUM WAITING	-	1	130	130	IPHS & MENTAL HEALTH DESIGN GUIDE
2	OFFICE	25	1	25	25	IPHS & MENTAL HEALTH DESIGN GUIDE
3	DOCTOR ROOM (GENERAL PHYSICIAN)	17.5	10	15	150	IPHS & MENTAL HEALTH DESIGN GUIDE
4	PSYCHIATRIC CONSULTANT ROOMS	17.5	19	15	285	IPHS & MENTAL HEALTH DESIGN GUIDE
5	RECOVERY ROOM	45	8	50	400	IPHS & MENTAL HEALTH DESIGN GUIDE
6	NURSE STATION	15	4	15	60	IPHS & MENTAL HEALTH DESIGN GUIDE
7	CLEAN UTILITY	12	2	12	24	IPHS & MENTAL HEALTH DESIGN GUIDE
8	DIRTY UTILITY	12	2	12	24	IPHS & MENTAL HEALTH DESIGN GUIDE
9	SOUVENIER SHOP	-	3	8	24	TO BE PROPOSED
10	PHARMACY	-	2	20	40	TO BE PROPOSED
11	LABORATORY FOR VARIOUS TESTINGS	-	2	35	70	TO BE PROPOSED
12	TOILET (M,F,& H)	-	2	20	40	TO BE PROPOSED
13	NURSE REST AREA	-	3	20	60	TO BE PROPOSED
14	DOCTOR REST AREA	-	3	20	60	TO BE PROPOSED
15	STAFF REST AREA	-	4	20	80	TO BE PROPOSED
16	TOILET(VISITORS)	-	2	30	60	IPHS & MENTAL HEALTH DESIGN GUIDE
17	TOILET(STAFF)	-	2	20	40	IPHS & MENTAL HEALTH DESIGN GUIDE
	<b>TOTAL</b>				<b>1572.0</b>	
	<b>WITH 30% CIRCULATION</b>				<b>2043.6 SQ M</b>	

S.NO.	REQUIREMENTS	STANDARDS (SQ M)	QUANTITY	AREA (SQ M)	TOTAL AREA (SQ M)	REMARKS
INPATIENT DEPARTMENT (200 BEDS)						
1	EMERGENCY WARDS					
	TREATMENT ROOM (1 PERSON)	9.3	4	15	60	IPHS & MENTAL HEALTH DESIGN GUIDE
	OBSERVATION ROOM (4 PERSON)	50	3	75	375	IPHS & MENTAL HEALTH DESIGN GUIDE
2	UTILITY ROOMS	30	3	45	135	IPHS & MENTAL HEALTH DESIGN GUIDE
	LAUNDRY STAFF ROOM	21	2	25	50	IPHS & MENTAL HEALTH DESIGN GUIDE
	LAUNDRY SUPERVISOR ROOM	17.5	1	20	20	IPHS & MENTAL HEALTH DESIGN GUIDE
3	LAUNDRY & HOUSEKEEPING	30	2	30	60	IPHS & MENTAL HEALTH DESIGN GUIDE
4	VISITORS ROOM	28	3	35	105	IPHS & MENTAL HEALTH DESIGN GUIDE
5	DOCTOR ON DUTY (GENERAL PHYSICIAN)	12	5	17.5	87.5	IPHS & MENTAL HEALTH DESIGN GUIDE
6	PSYCHIATRIST ON DUTY	12	10	17.5	175	IPHS & MENTAL HEALTH DESIGN GUIDE
7	PSYCHOLOGIST ON DUTY	12	5	15	75	IPHS & MENTAL HEALTH DESIGN GUIDE
8	DIETITIAN ON DUTY	13	5	15	75	IPHS & MENTAL HEALTH DESIGN GUIDE
9	MENTOR ON DUTY	14	5	15	75	IPHS & MENTAL HEALTH DESIGN GUIDE
10	NURSE STATION	12	10	15	150	IPHS & MENTAL HEALTH DESIGN GUIDE
11	ISOLATION WARD	15	4	15	60	IPHS & MENTAL HEALTH DESIGN GUIDE
12	DELUXE ROOM	25	24	30	720	IPHS & MENTAL HEALTH DESIGN GUIDE
13	SINGLE BEDED ROOM	25	40	25	1000	IPHS & MENTAL HEALTH DESIGN GUIDE
14	SEMI-PRIVATE ROOM (WITH COMMON ROOM)	38	30	50	1500	IPHS & MENTAL HEALTH DESIGN GUIDE
15	COMMON LIVING AREA	50	3	50	150	IPHS & MENTAL HEALTH DESIGN GUIDE
16	GENERAL WARD (M, F & CHILDREN)	9.29 SQ M/ PATIENT	7 ROOM (72 BEDS)	15SQ M/ PATIENT	1080	IPHS & MENTAL HEALTH DESIGN GUIDE
17	ELECTRICAL ROOM	-	1	20	20	
18	TOILET(M,F,& H)	-	2	35	70	
	<b>TOTAL</b>				<b>6042.5</b>	
	<b>WITH 30% CIRCULATION</b>				<b>7855.25 SQ M</b>	

## AREA REQUIREMENTS

## ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION



S.NO	REQUIREMENTS	QUANTIT Y	AREA/ ROOM (SQ M)	TOTAL AREA (SQ M)	REMARKS	S.NO.	REQUIREMENTS	QUANTITY	AREA/ ROOM (SQ M)	TOTAL AREA (SQ M)	REMARKS
RECREATIONAL FACILITIES											
1	LIBRARY	1	150	150		1	FAMILY THERAPY ROOM	4	22	88	TO BE PROPOSED
2	YOGA & MEDITATION HALL	1	150	150	TO BE PROPOSED	2	BIO SOUND THERAPY ROOM	4	22	88	TO BE PROPOSED
3	CONTEMPLATION HALL	1	75	75	TO BE PROPOSED	3	GROUP COUNSELLING ROOM	4	35	140	TO BE PROPOSED
4	MULTIPURPOSE ROOM	1	100	100	TO BE PROPOSED	4	COGNITIVE BEHAVIORAL THERAPY ROOM	4	18	72	TO BE PROPOSED
5	SEMINAR HALL	2	100	200	TO BE PROPOSED	5	AROMA THERAPY ROOM	2	18	36	TO BE PROPOSED
6	AUDIO-VISUAL ROOM	2	40	80	TO BE PROPOSED	6	PSYCO DYNAMIC THERAPY ROOM	3	24	72	TO BE PROPOSED
7	INDOOR GAMES	1	75	75	TO BE PROPOSED	7	HUMANISTIC THERAPY ROOM	5	13	65	TO BE PROPOSED
8	GYMNASIUM	1	75	75	TO BE PROPOSED	8	DIALECTICAL BEHAVIORAL THERAPY ROOM	2	18	36	TO BE PROPOSED
9	KITCHEN WITH STORE	1	70	70	IPHS & MENTAL HEALTH DESIGN GUIDE	9	THERAPIST ROOM	6	13	78	TO BE PROPOSED
10	DINING AREA (FOR PATIENT)	3	125	375	IPHS & MENTAL HEALTH DESIGN GUIDE	10	TOILET	2	30	60	TO BE PROPOSED
11	TOILET (M,F & H -FOR PATIENT)	2	30	60	IPHS & MENTAL HEALTH DESIGN GUIDE	TOTAL				735.0	
12	TOILET (M & F-STAFF )	2	20	40	IPHS & MENTAL HEALTH DESIGN GUIDE	WITH 30% CIRCULATION				955.5 SQ M	
	TOTAL			1450.0							
	WITH 30% CIRCULATION			1885.0 SQ M							

AREA CALCULATION:

SITE AREA = 6.50 ACRE  
(26315.41SQ M)

Permissible F.A.R. = 1.5

Permissible G.C. = 30%  
= 30 X 26315.41 / 100  
= 7894.62 SQ M

F.A.R. = total built up area on all floors / site area

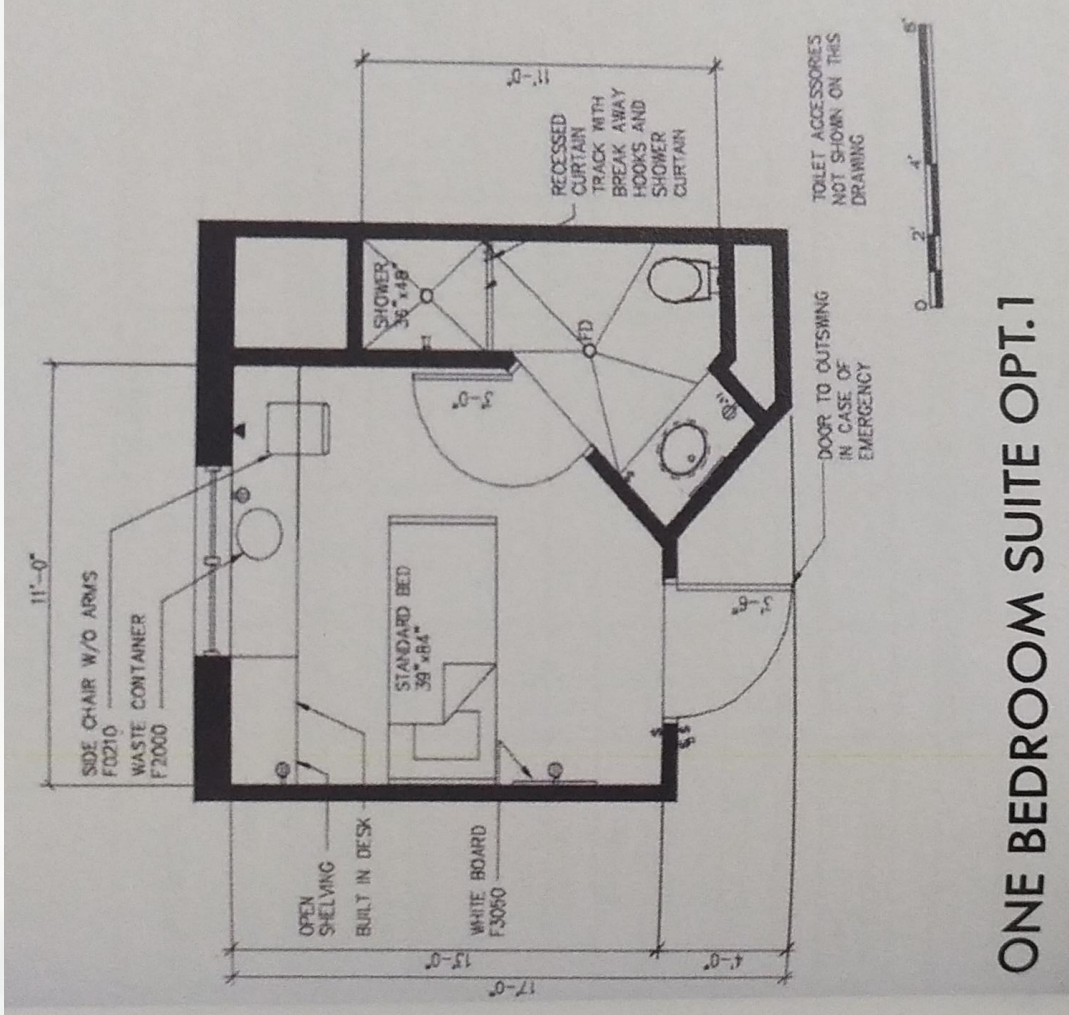
Total built up area on all floors  
= 1.5 x site area  
= 1.5x 26315.41  
= 39473.12 sq m

No. of floors = 39473.12 / 7894.62  
= 5 floors

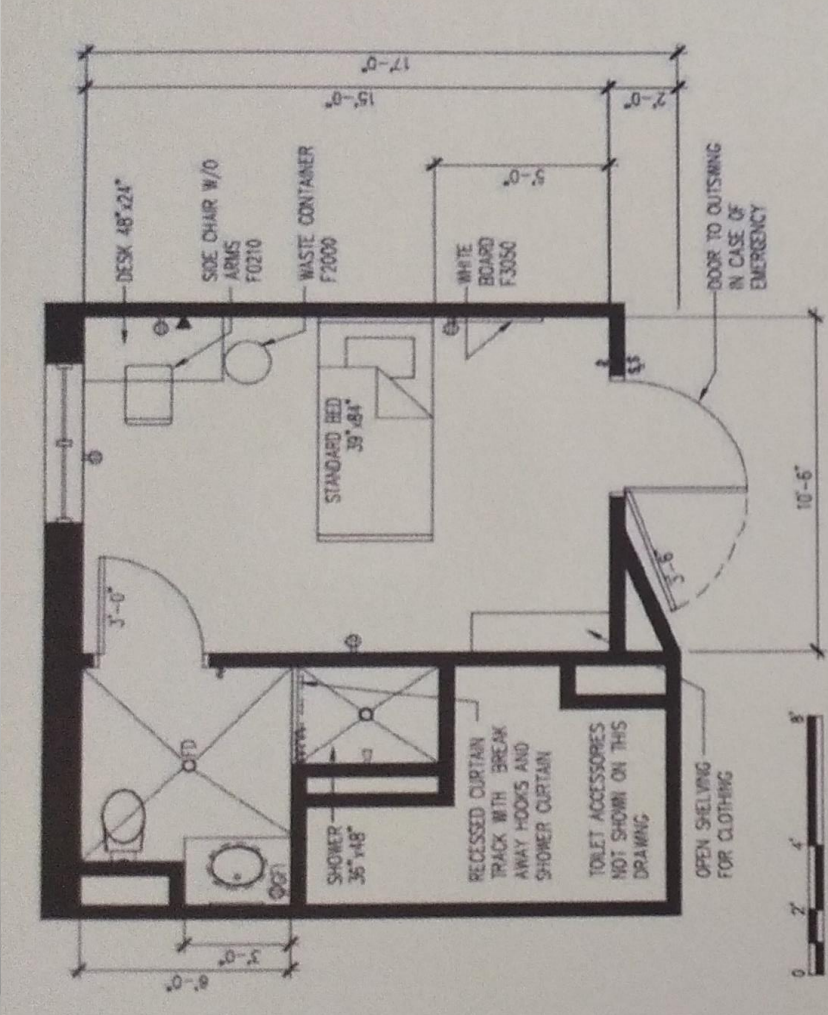
PARKING :

No. of bed x .5 = 200x.2  
= 100

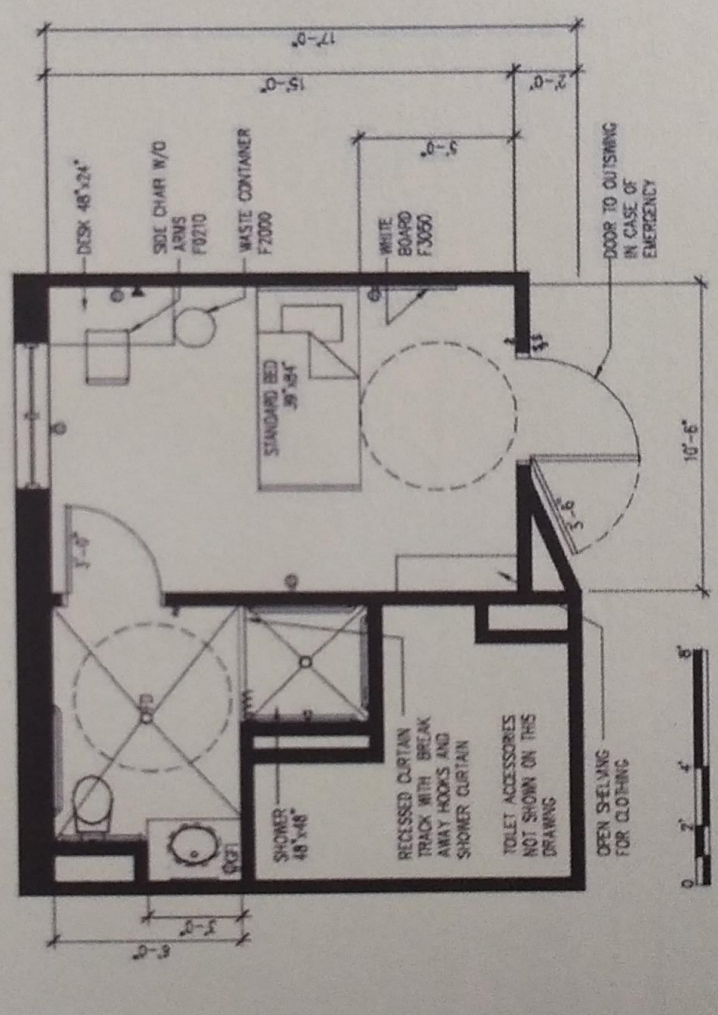




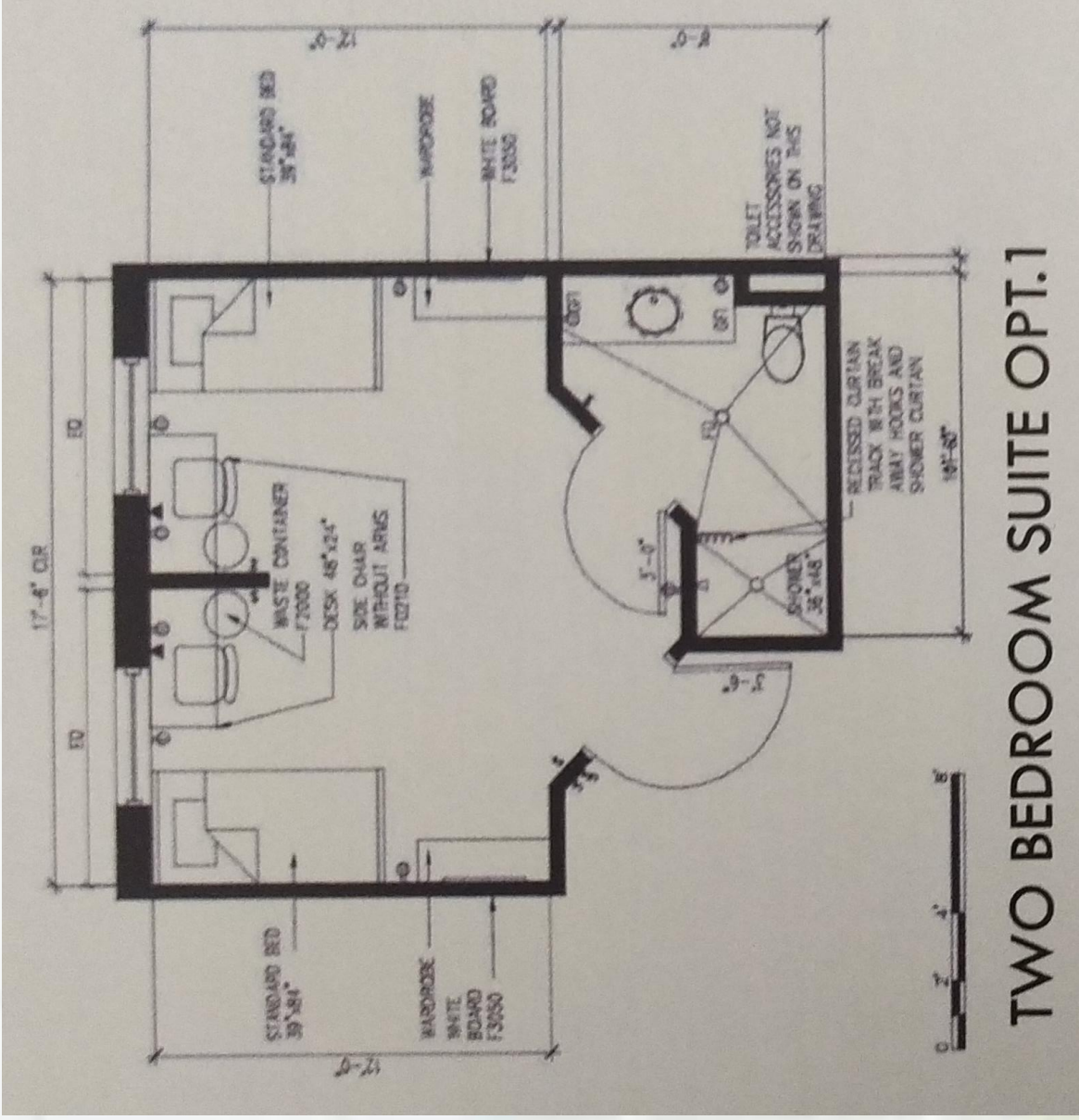
ONE BEDROOM SUITE OPT.1



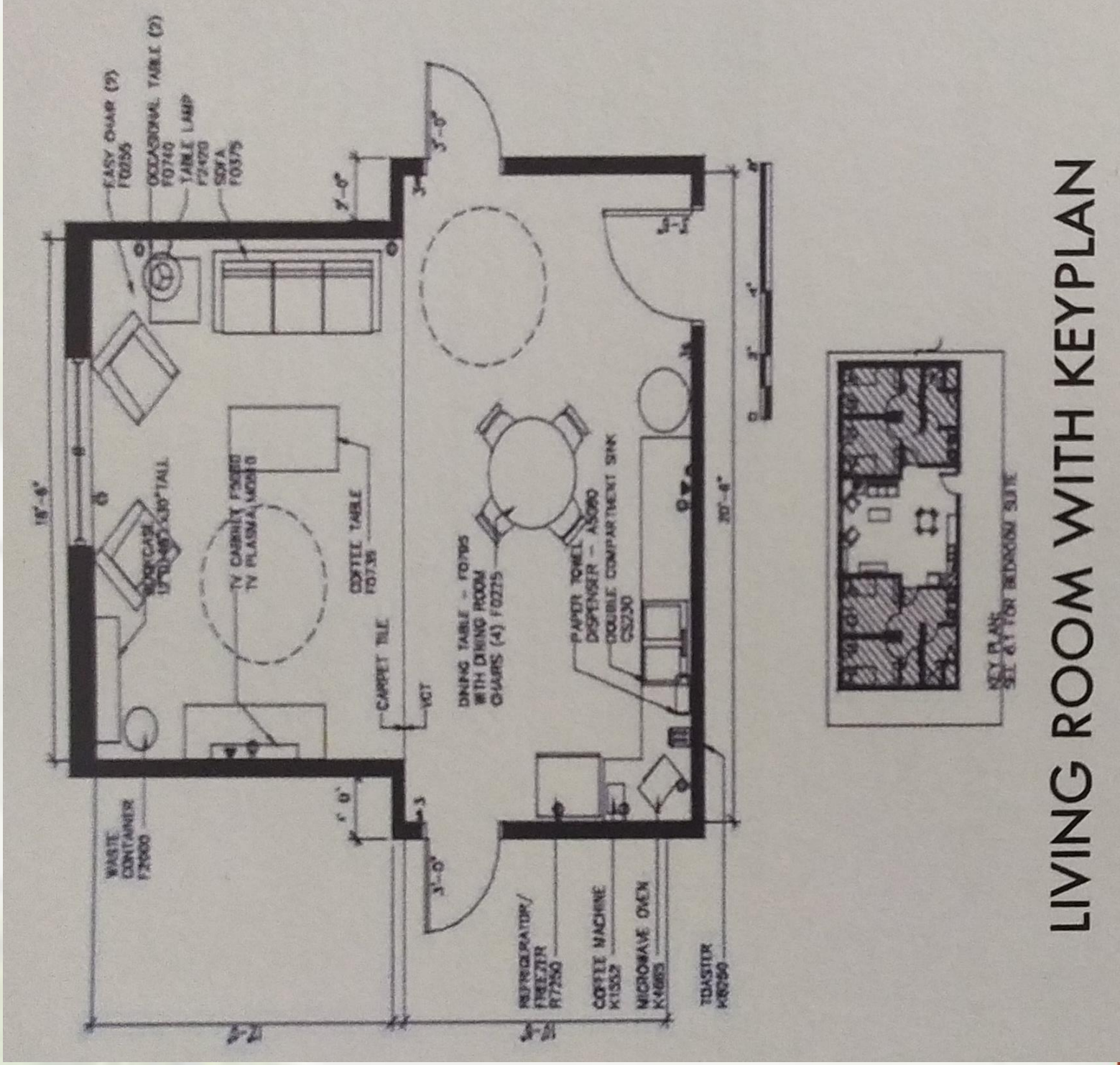
ONE BEDROOM SUITE OPT.2



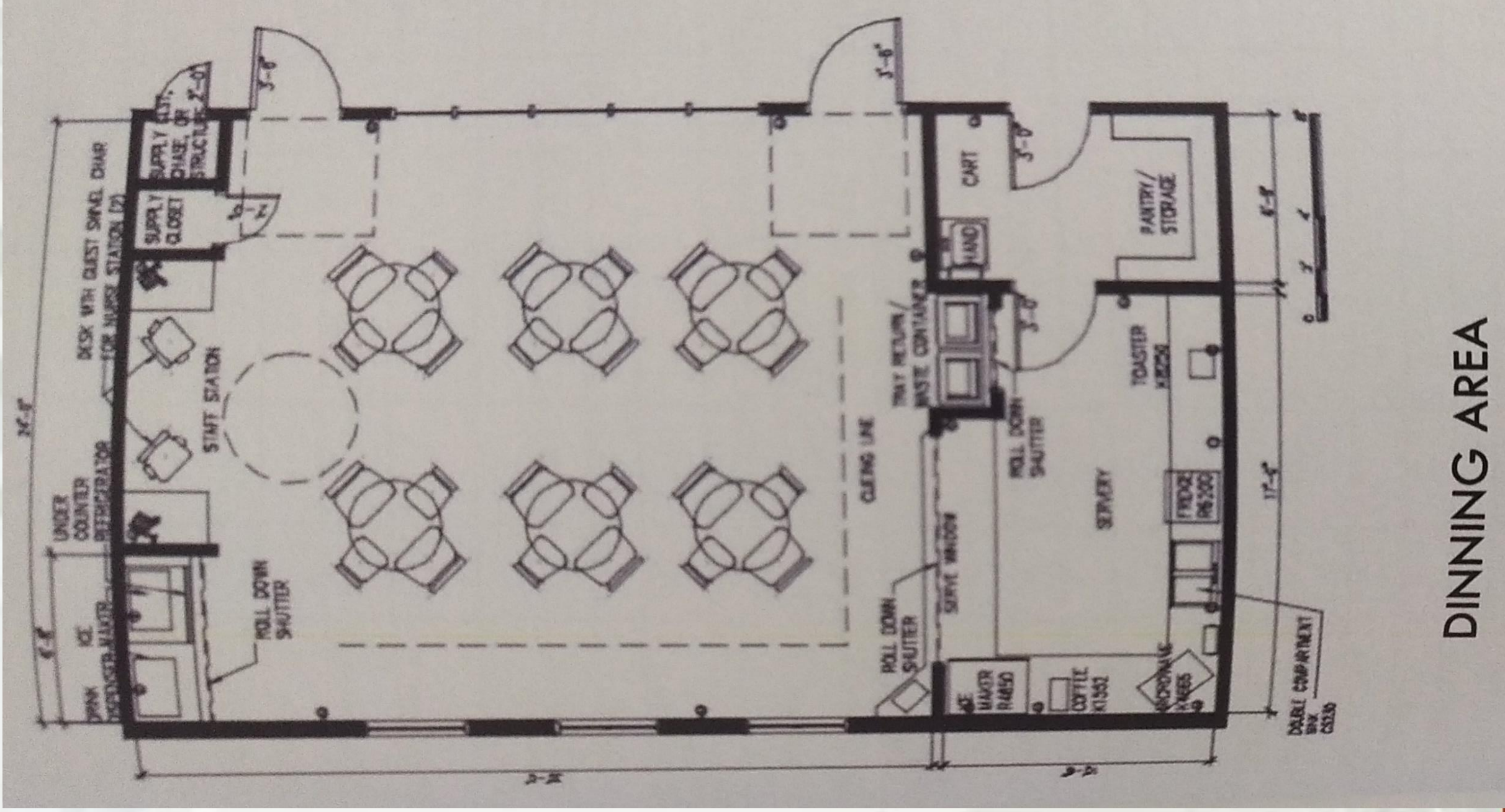
ONE BEDROOM SUITE OPT.3



TWO BEDROOM SUITE OPT.1



LIVING ROOM WITH KEYPLAN



DINNING AREA

# STANDARD NORMS & DESIGN GUIDELINES FOR MENTAL HEALTH:



A high-angle architectural rendering of a modern building with a glass facade and a landscaped courtyard. The building features a grid-like pattern of windows and balconies. The courtyard is filled with greenery, including trees and shrubs, and is bordered by a low wall. The overall scene is bright and airy, with a clear sky.

# CONCEPT & DESIGN DEVELOPMENT



After analyzing different techniques of biophilic design and other aspects of building design, I conclude on following Architectural interventions, which can be implemented for enhancing the treatment of patients and in achieving good mental health:

- Connection with nature (greenery, water body, natural material, smell)
- Natural Light and Ventilation
- Easy access to the spaces
- Use of Curvature
- Use of calm interiors
- Use of colour psychology
- Sense of security



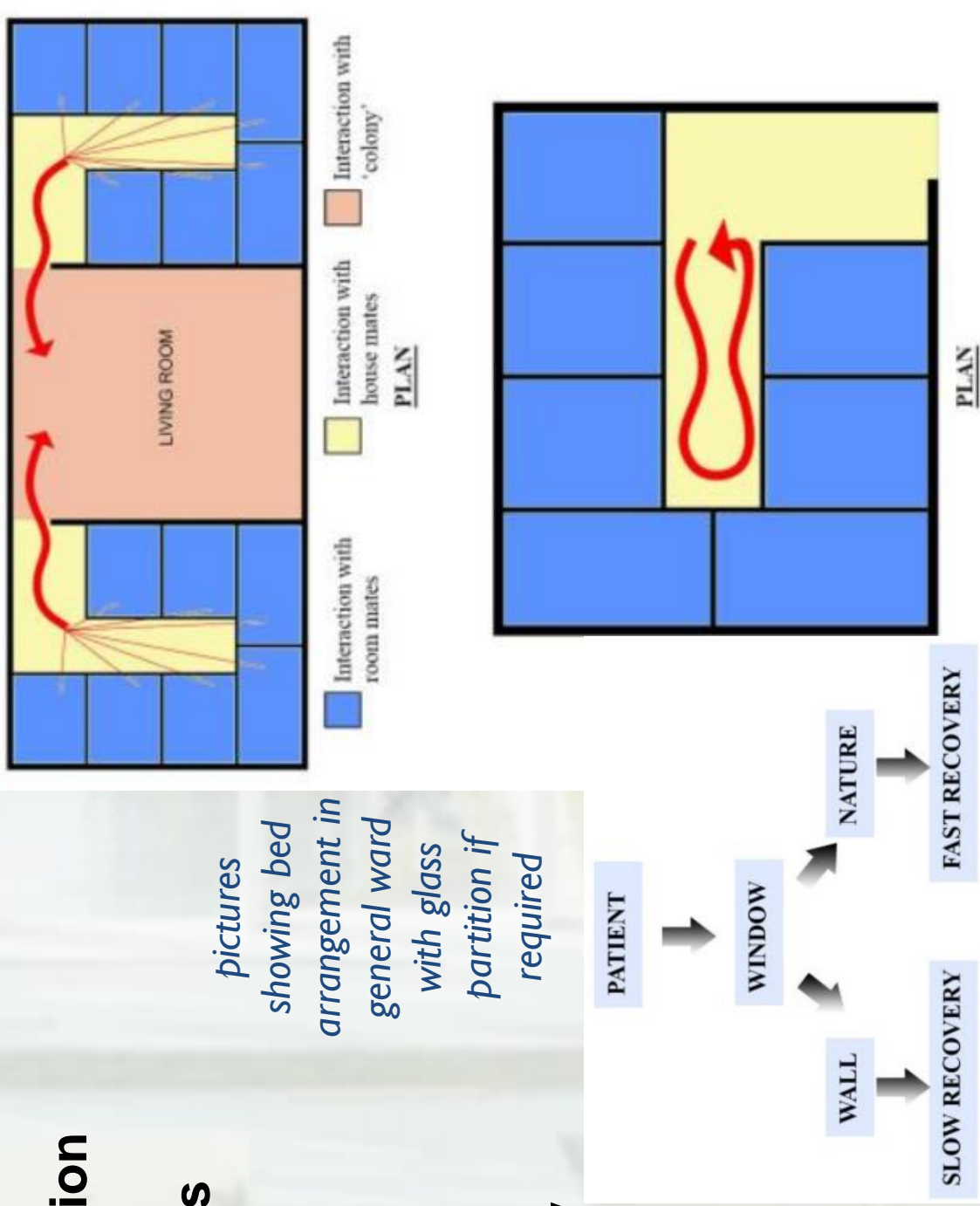
More Single bed room with large windows in inpatient ward for reduction of crowding stress & aggression, also facilitates privacy.



picture showing nature with water body



Placing “Buddha” statue give positive energy and peace from mental stress



pictures showing bed arrangement in general ward with glass partition if required



pictures showing the curve & calmness in interiors



## CONCEPT & DESIGN DEVELOPMENT

## Cross referencing of architecture elements with psychological factors:

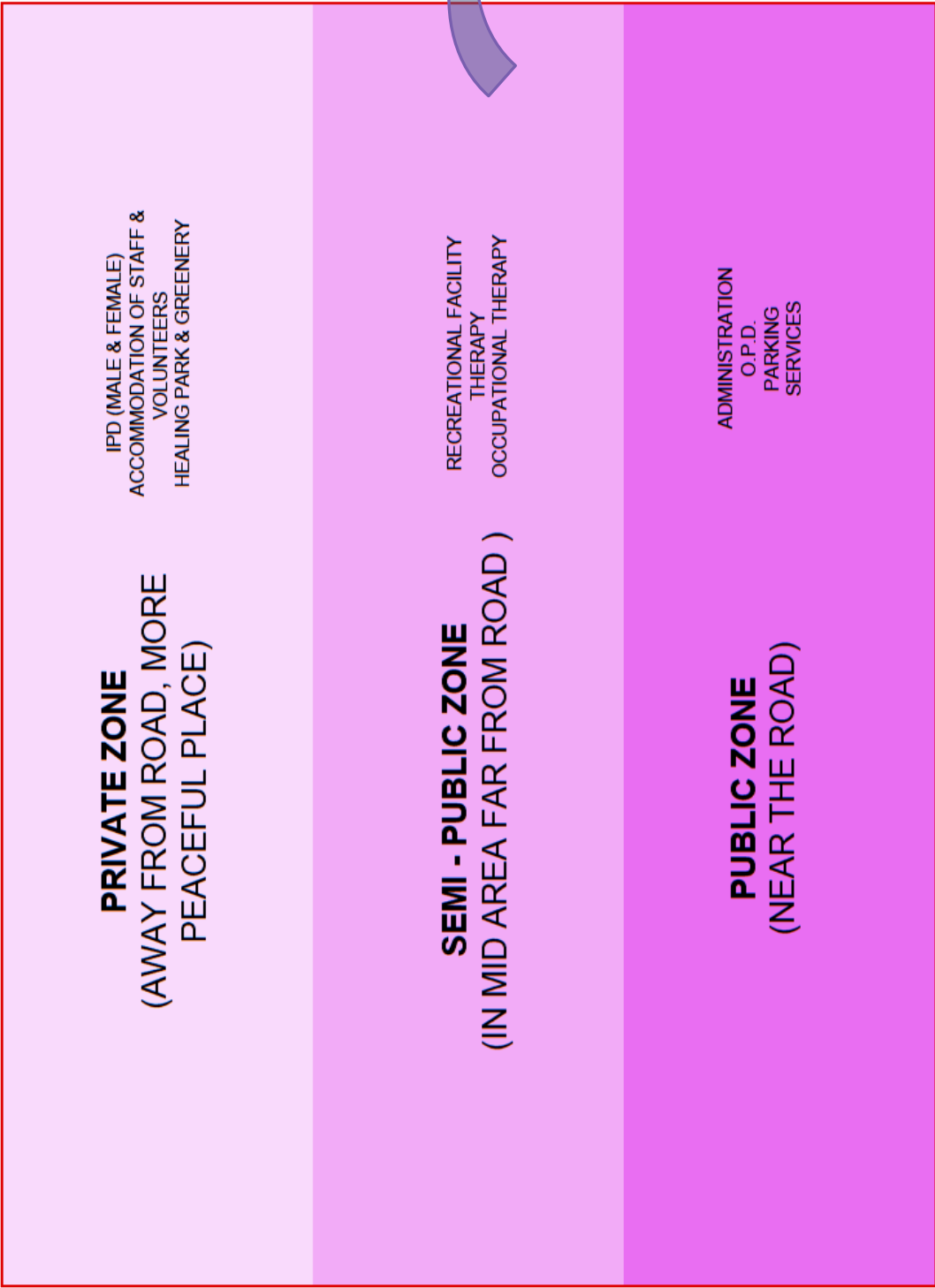
	ANXIETY	STRESS	DISORDER	HOMELINESS	DEPRESSION
LANDSCAPE	The constant connection to landscape areas reduce the anxiety in patients.	Landscape that reaches out to patients help in reducing stress level in patients.	Patients afflicted with drug addiction have a sense of disorder in their lives, keeping them engaged to other things goes a long way to help keeping order in their lives.	Landscape spaces allow patients to connect with nature and makes them feel safe in a greater power.	Keeping landscaped areas with certain interactive elements reduce chances of patients slipping into depression.
LIGHT	Well lit areas make patients feel less anxious.	A naturally well lit space can go a long way to de-stressing a patient.	Uniform warm lighting reduces the feeling of disorder.		Creating interest by playing with light and shadows allows patients never to feel like they a leading a mundane life keeping depression at bay.
COLOURS	Warm colours reduce anxiety in patients.	Warm colours with a touch of loud colours distract patients from their conditions and help them reduce their stress levels.	Creating sense of calmness with colours allows patients to regain order in their minds.		Creating interest through colours help creating an engaging environment and reduce depression.
FORMS	A variety of forms but in a human scale is shown to help anxiety.	Giving patients a view of a variety of forms can serve to create an interest in other things other than their illness.	A soothing composition of forms gives a sense of organization and order in a patients mind without it becoming too mundane.	A variety of familiar forms helps patients feel at home.	Keeping the mind distracted from the patients predicament using a variety of forms is good for keeping depression at bay.
INTERIOR SPACES	Spaces which patients can look at can help reduce anxiety.	Spaces such as these help patients de stress by giving them a new dimension to look at.		Giving dimensions in interior open spaces help make patients feel at home.	Volumes in interior spaces creates interest keeping patients engaged.

Pink	Compassionate, Encourages Creativity, Energetic, Fascinates, Motivating, Playful
Orange	Adventurous, Cheerful, Confident, Creativity, Fun, Optimistic, Stimulating, Unity, Youthful
Yellow	Alertness, Energizing, Enthusiasm, Happiness, Optimism, Positivity, Uplifting, Warmth, Youthful
Green	Balance, Encouraging, Growth, Healthy, Peaceful, Refreshing, Relaxing, Revitalizing
Blue	Calm, Loyal, Relaxing, Reliable, Responsible, Secure, Trusting

colours and their association with mental well-being

## ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION

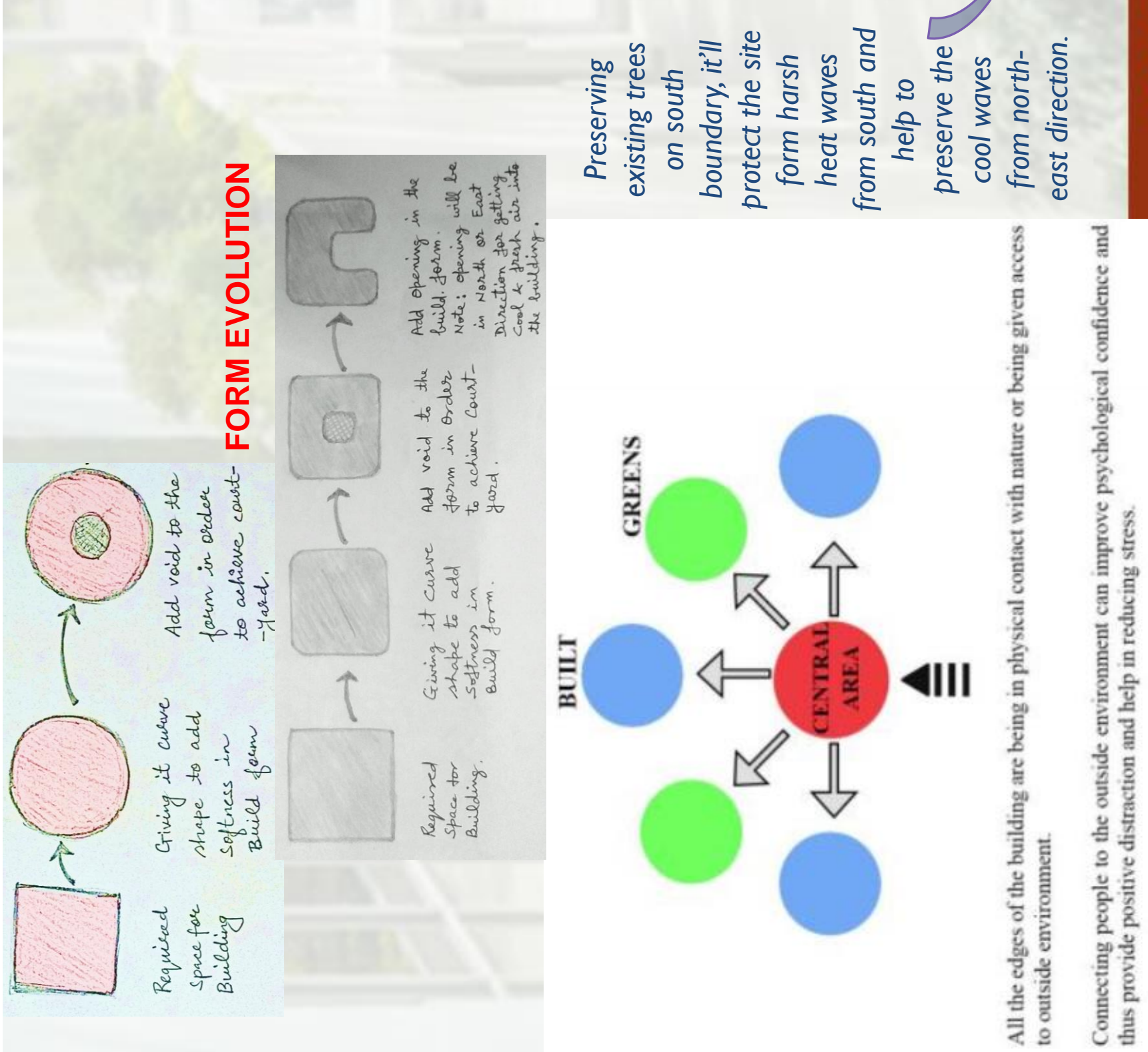




- Two separate entry to the site, one for main entry & other is for services, for better vehicular movement.
- Parking is kept near to the exit (public zone) so that there is no extra vehicle movement on site.
- Staff accommodation block is kept at the corner of the site, with opening toward east, so that there is no hindrance for staff. And there is a separation in site and accommodation block also.
- Main recovery blocks are placed toward N-E with a separate private garden, which will help the patient heal with the connect of nature, smell, privacy, & away from outside noise.
- IPD block is kept in between private to semi-public zone, & their opening will be from north or east side.
- Open Cafeteria is also placed NE direction for better recovery.

Water body present at N-E area, which helps the air flow get more cooler & fresh.

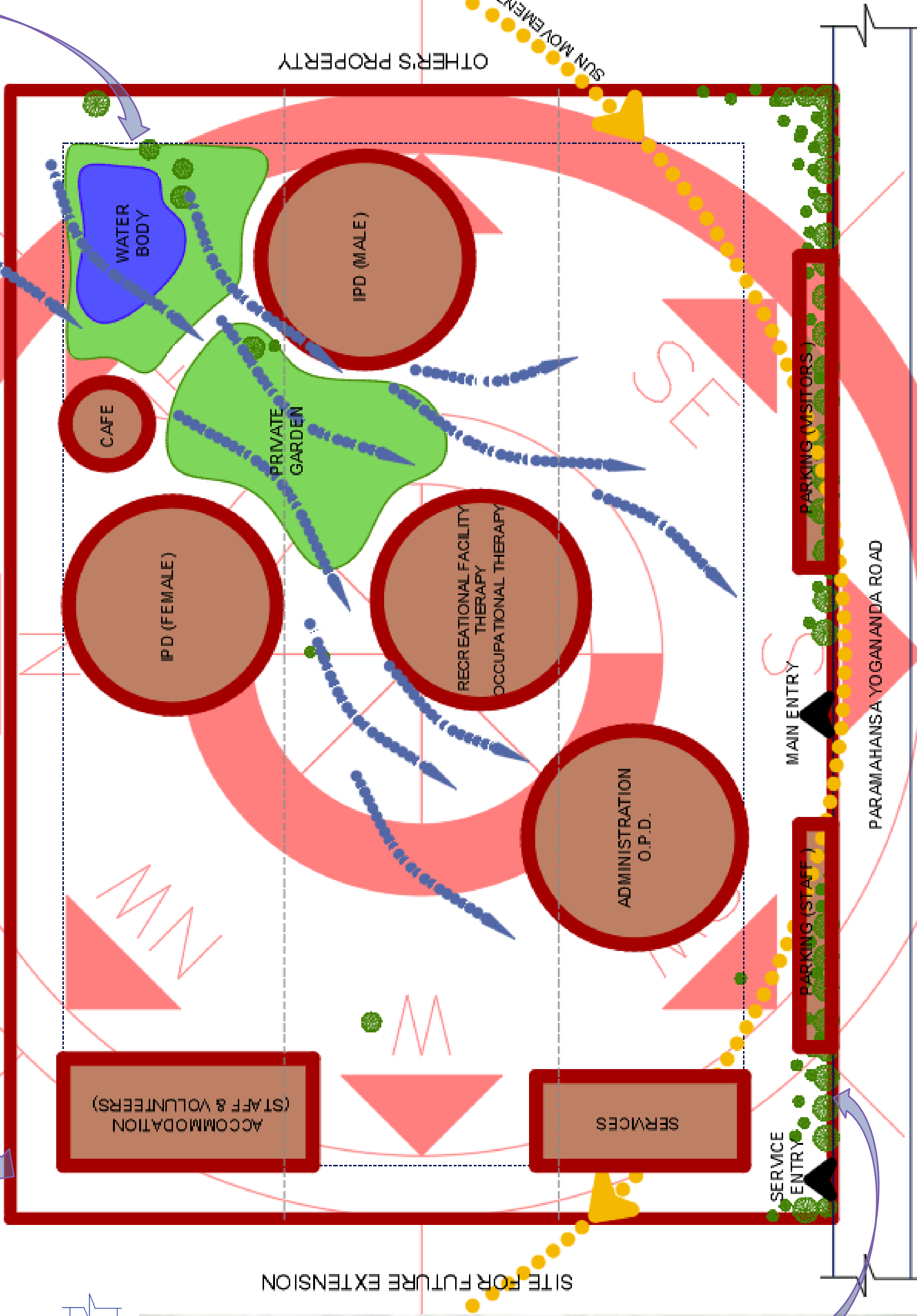
### CATEGORIZING THE SITE INTO 3 ZONES



### FORM EVOLUTION

Preserving existing trees on south boundary, it'll protect the site from harsh heat waves from south and help to preserve the cool waves from north-east direction.

Connecting people to the outside environment can improve psychological confidence and thus provide positive distraction and help in reducing stress.



### CLUBING BLOCKS PLACEMENT W.R.T. CLIMATIC CONDITION & ZONES

## ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION

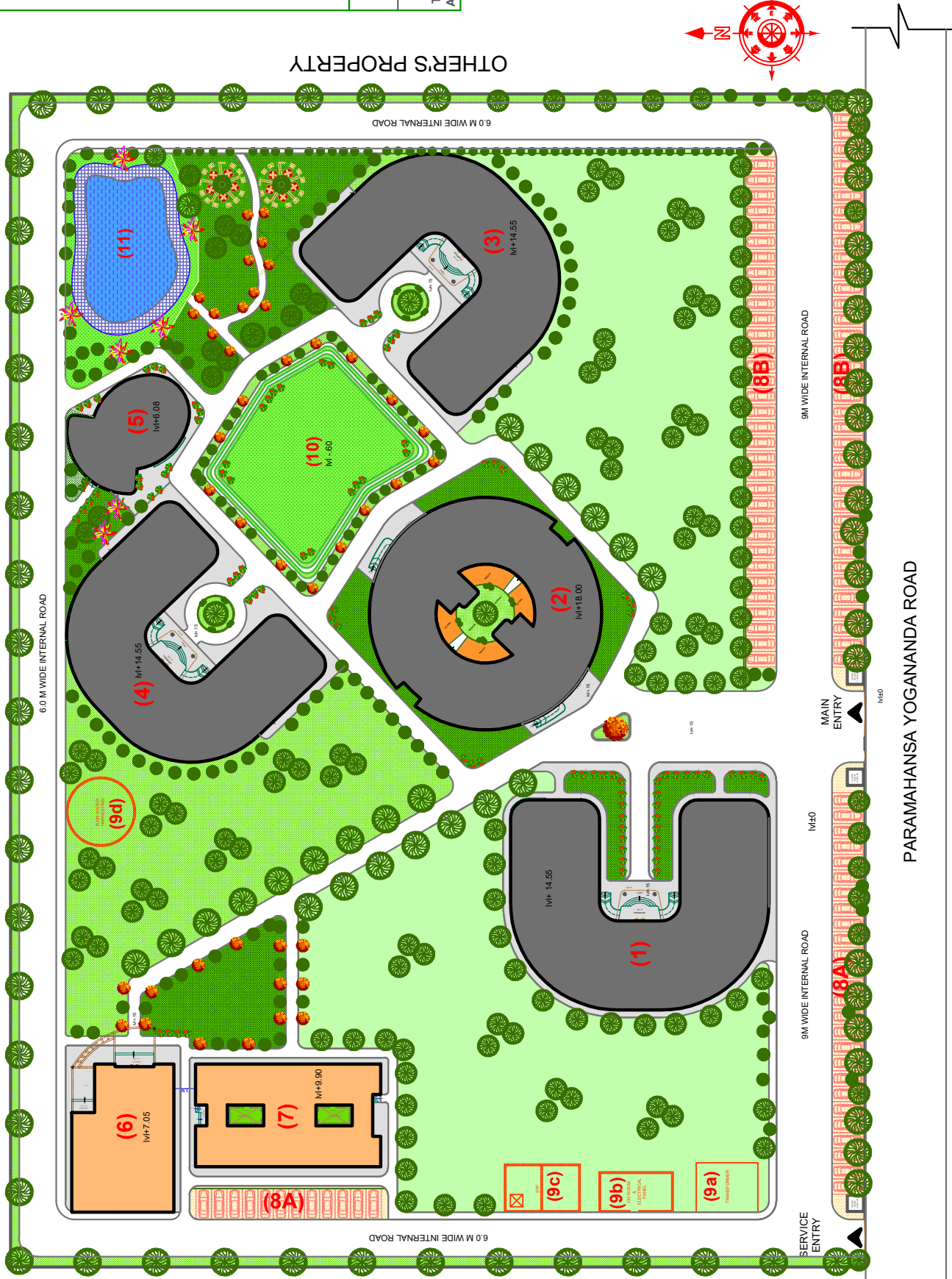
## CONCEPT & DESIGN DEVELOPMENT



SITE FOR FUTURE EXTENSION

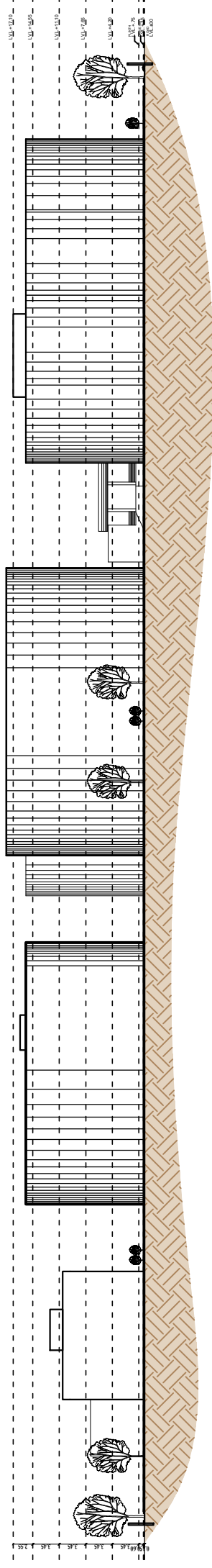
AREA CALCULATION	
O.P.D. & ADMINISTRATION BLOCK	
TOTAL BUILT UP AREA = 3527.83 SQ M	
OCCUPATIONAL THERAPY, PSYCHOTHERAPY & RECREATIONAL FACILITY	
TOTAL BUILT UP AREA = 4151.77 SQ M	
I.P.D. BLOCK (MALE)	
TOTAL BUILT UP AREA = 3877.74 SQ M	
I.P.D. BLOCK (FEMALE)	
TOTAL BUILT UP AREA = 3877.74 SQ M	
CAFETERIA BLOCK	
COVERED AREA= 250.00 SQ M	
STAFF GUEST HOUSE BUILDING	
TOTAL BUILT UP AREA = 853.30 SQ M	
QUARTERS FOR STAFF & VOLUNTEERS	
TOTAL BUILT UP AREA = 1369.56 SQ M	
TOTAL SITE AREA = 26315.41 SQ M	
PERMISSIBLE F.A.R. = 1.5	
PERMISSIBLE GROUND COVERAGE = 30 %	
TOTAL BUILT UP AREA = 17,907.94 SQ M	
ACHIEVED F.A.R. = 0.68	
TOTAL GROUND COVERAGE = 4880.92 SQ M	
ACHIEVED GROUND COVERAGE = 18.54 %	

SITE FOR FUTURE EXTENSION




REQUIREMENTS GIVEN :

- 1) O.P.D. & ADMINISTRATION BLOCK
- 2) OCCUPATIONAL THERAPY, PSYCHOTHERAPY & RECREATIONAL FACILITY BLOCK
- 3) IPD (MALE) BLOCK
- 4) IPD (FEMALE) BLOCK
- 5) CAFETERIA
- 6) STAFF GUEST HOUSE BUILDING
- 7) STAFF & VOLUNTEERS QUARTERS
- 8) A- PARKING (STAFF & SERVICE)  
B- PARKING (VISITORS)
- 9) SERVICES  
a- transformer  
b- D.G. room & electrical panel  
c- S.T.P.  
d- rain water harvesting
- 10) AMPHITHEATER
- 11) SWIMMING POOL

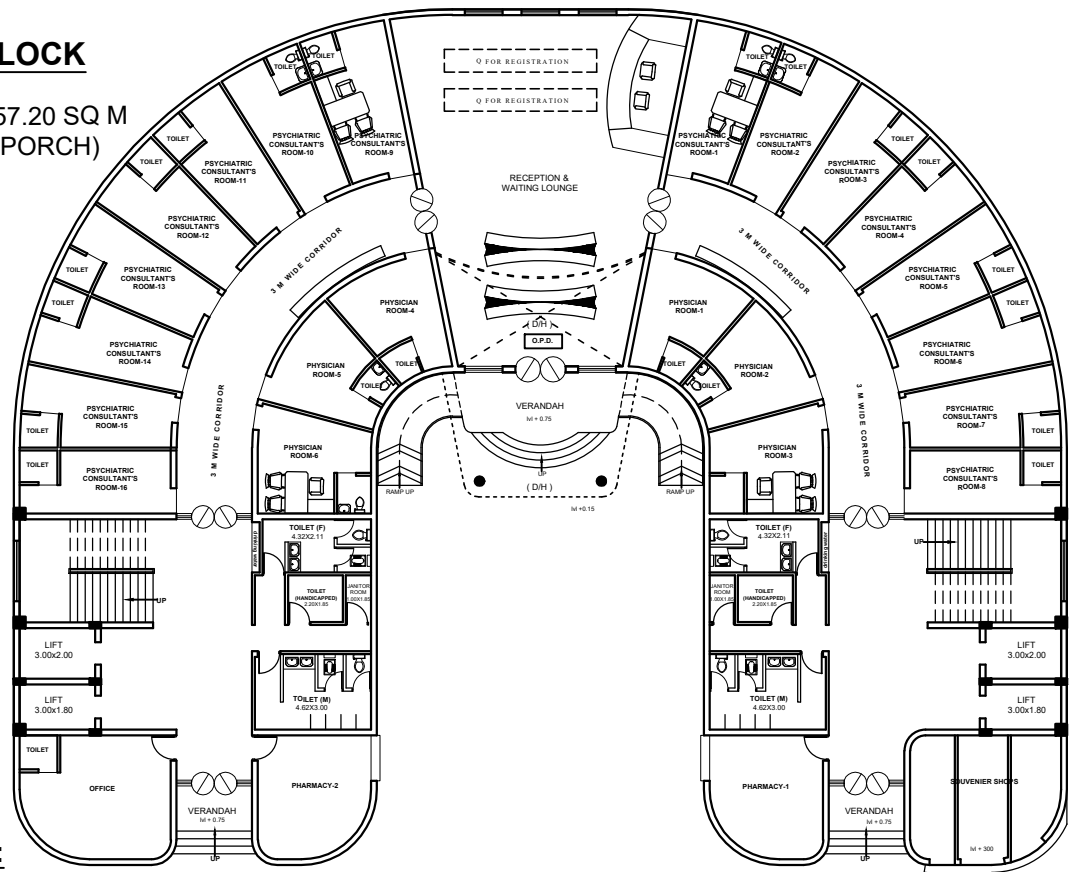


SITE SECTION

ARCHITECTURAL THESIS ON:-		DWG. TITLE:-	DWG. NO:-	DATE:-	SCALE:- N.T.S.		NORTH:-		THESIS GUIDE:-	SUBMITTED BY:-
ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION		SITE SECTION 3D VIEW	1(b)	28-june-2023	UNIT:- M				PROF. KESHAV KUMAR	PRAGYA NIGAM 1200109009 M.ARCH - 6 <sup>TH</sup> SEM. (P.T.)

## O.P.D. & ADMINISTRATION BLOCK

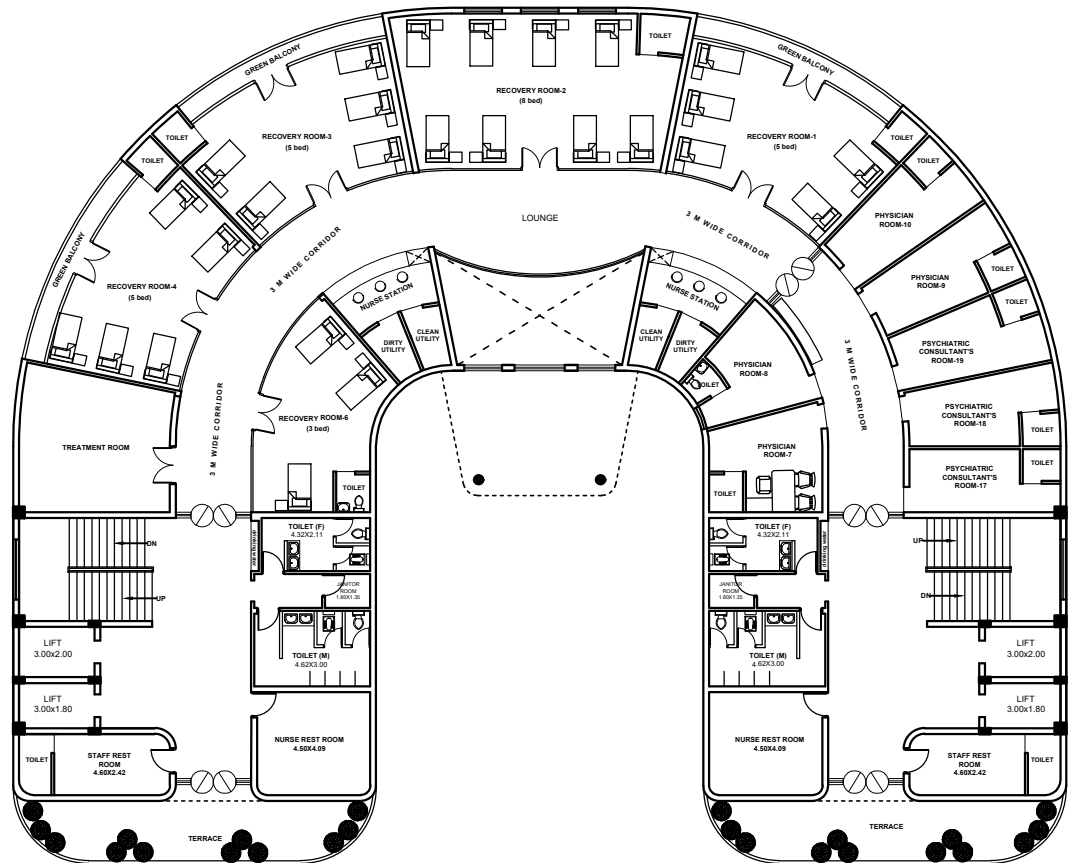
TOTAL BUILT UP AREA = 3357.20 SQ M  
+ 136.80 (MUMTY) +33.83 (PORCH)  
= 3527.83 SQ M



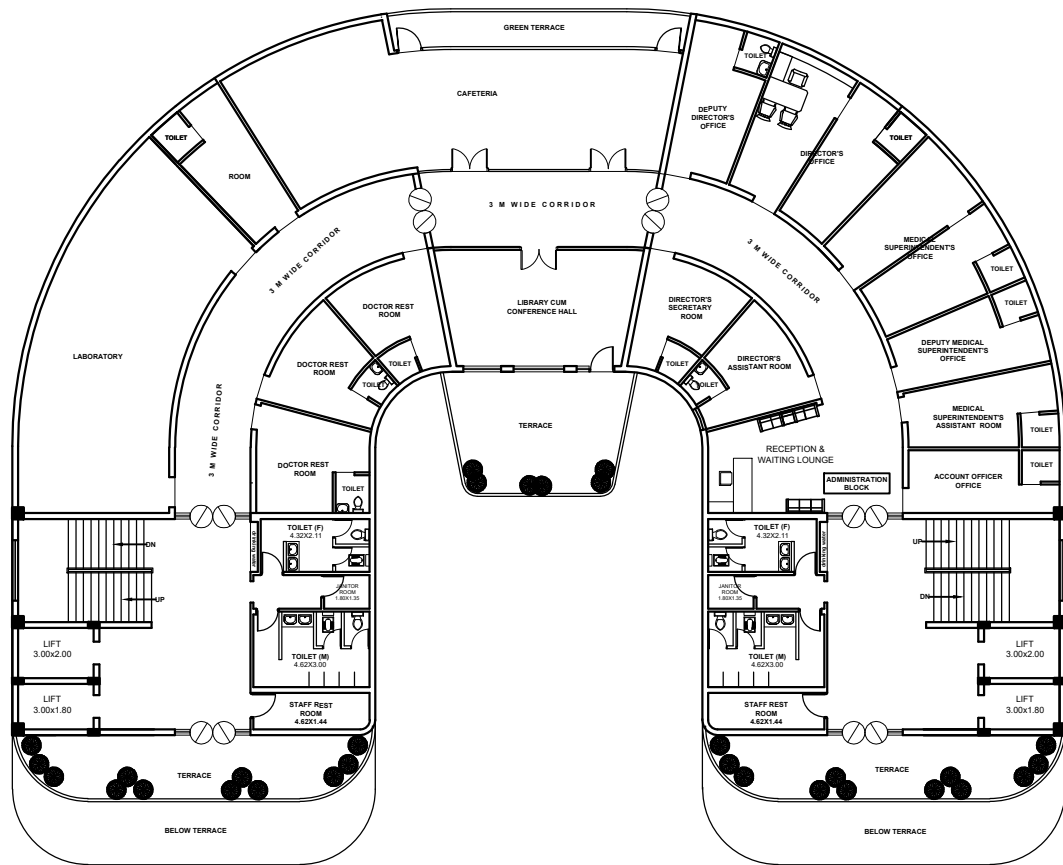
### REQUIREMENTS GIVEN :

OUTPATIENT DEPARTMENT	
1	RECEPTION CUM WAITING
2	OFFICE
3	DOCTOR ROOM (GENERAL PHYSICIAN)
4	PSYCHIATRIC CONSULTANT ROOMS
5	RECOVERY ROOM
6	NURSE STATION
7	CLEAN UTILITY
8	DIRTY UTILITY
9	SOUVENIR SHOP
10	PHARMACY
11	LABORATORY FOR VARIOUS TESTINGS
12	TOILET (M, F & H)
13	NURSE REST AREA
14	DOCTOR REST AREA
15	STAFF REST AREA
ADMINISTRATION	
1	RECEPTION CUM WAITING
2	DIRECTOR'S OFFICE
3	DIRECTOR'S SECRETARY ROOM
4	DEPUTY DIRECTOR'S OFFICE
5	DIRECTOR'S ASSISTANT
6	MEDICAL SUPERINTENDENT'S OFFICE
7	DEPUTY MEDICAL SUPERINTENDENT'S OFFICE
8	MEDICAL SUPERINTENDENT'S ASSISTANT
9	ACCOUNTS OFFICER
10	RECORD ROOM
11	RECORD KEEPER
12	MAINTENANCE OFFICER
13	CITY MONITORING ROOM
14	SECURITY HEAD OFFICE
15	LIBRARY CUM CONFERENCE HALL
16	CAFETERIA
17	PANTRY
18	COMMON TOILET

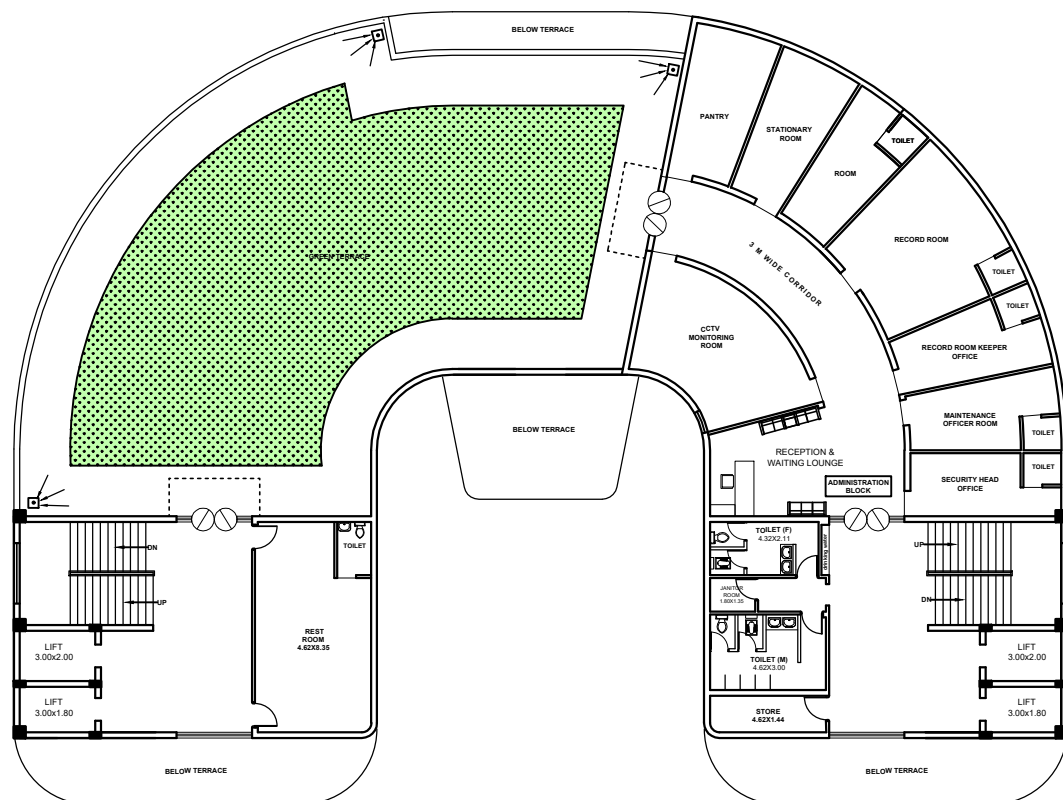
GROUND FLOOR PLAN  
COVERED AREA = 1033.91 SQ M



FIRST FLOOR PLAN  
COVERED AREA = 941.46 SQ M



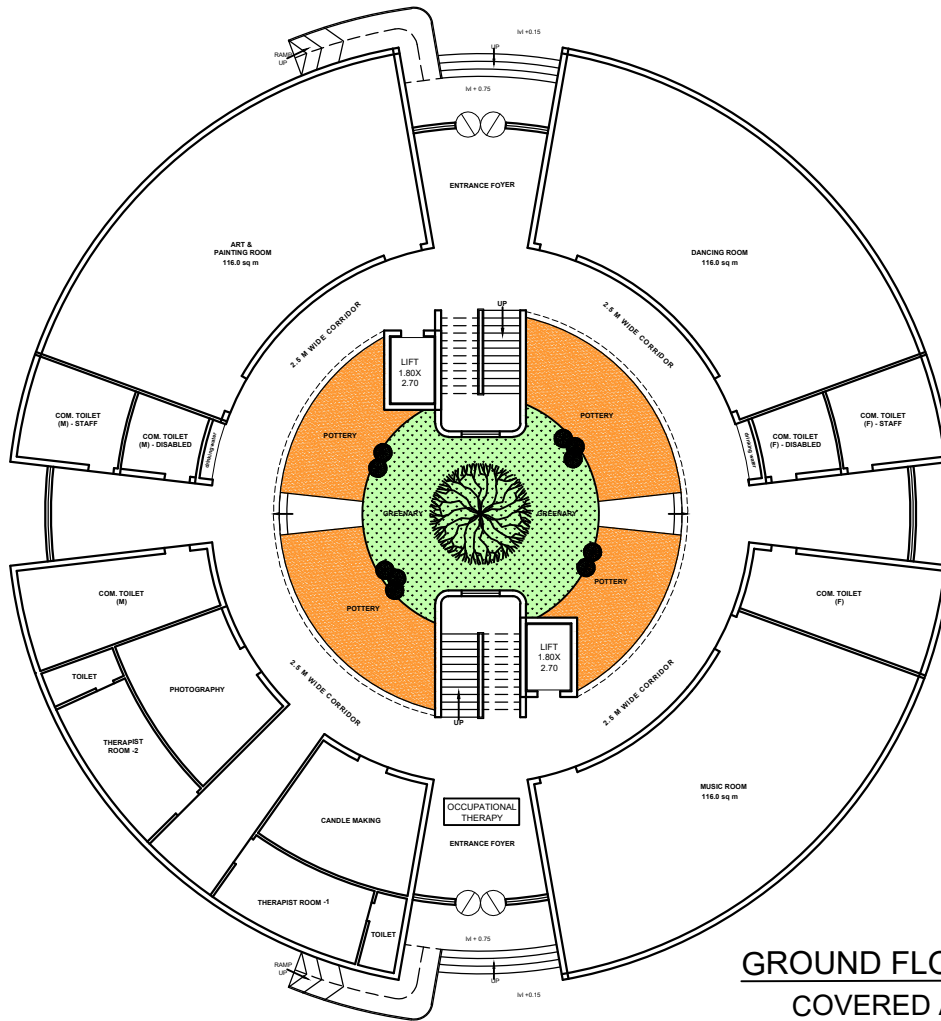
**SECOND FLOOR PLAN**  
COVERED AREA = 875.24 SQ M



**THIRD FLOOR PLAN**  
COVERED AREA = 506.59 SQ M

ARCHITECTURAL THESIS ON:-	DWG. TITLE:-	DWG. NO:-	DATE:-	SCALE:- N.T.S.	NORTH:-	THESIS GUIDE:-	SUBMITTED BY:-
ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION	O.P.D. & ADMINISTRATION BLOCK	2 (b)	28-june-2023	UNIT:- M		PROF. KESHAV KUMAR	PRAGYA NIGAM 1200109009 M.ARCH - 6 <sup>TH</sup> SEM. (P.T.)





**GROUND FLOOR PLAN**  
COVERED AREA  
= 946.55 SQ M

**OCCUPATIONAL THERAPY,**  
**PSYCHOTHERAPY**  
**&**  
**RECREATIONAL FACILITY**

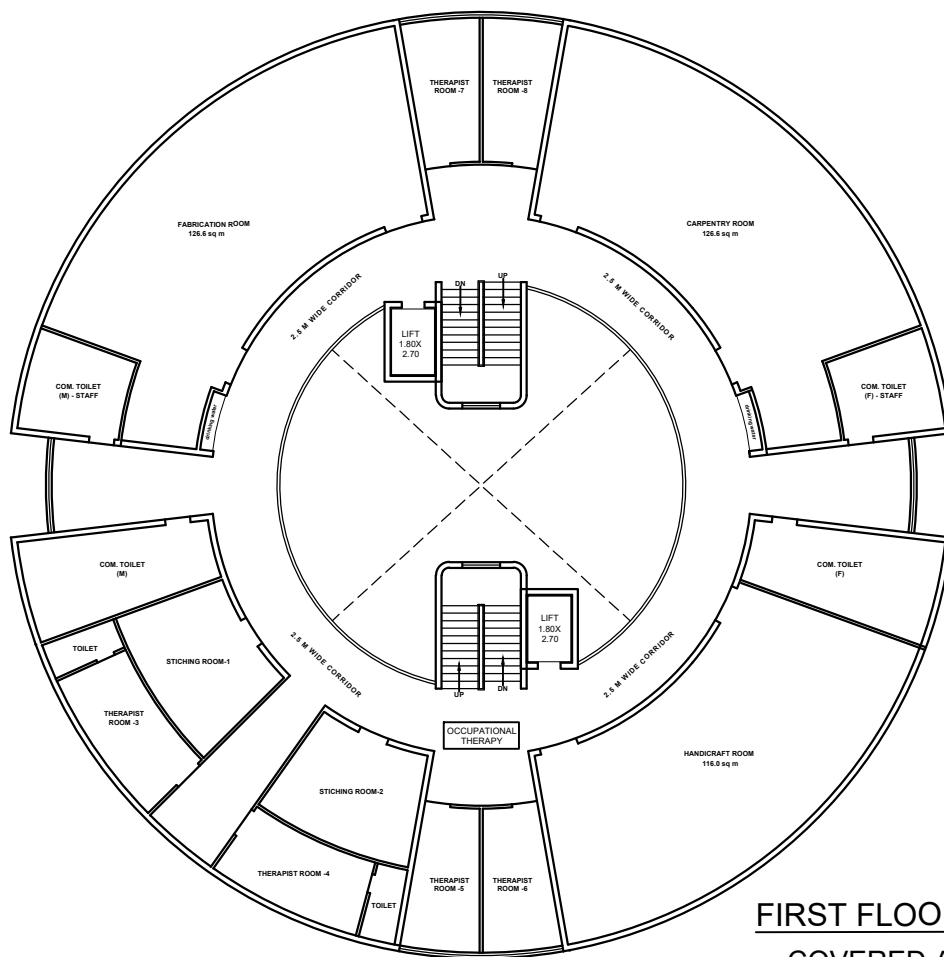
TOTAL BUILT UP AREA = 4151.77 SQ M

**REQUIREMENTS GIVEN :**

OCCUPATIONAL THERAPY ROOMS	
1	HANDICRAFT ROOM
2	ART & PAINTING
3	DANCING ROOM
4	MUSIC ROOM
5	GARDENING
6	POTTERY
7	STITCHING
8	CARPENTRY
9	FABRICATION
10	PHOTOGRAPHY
11	CANDLE MAKING
12	THERAPIST ROOM

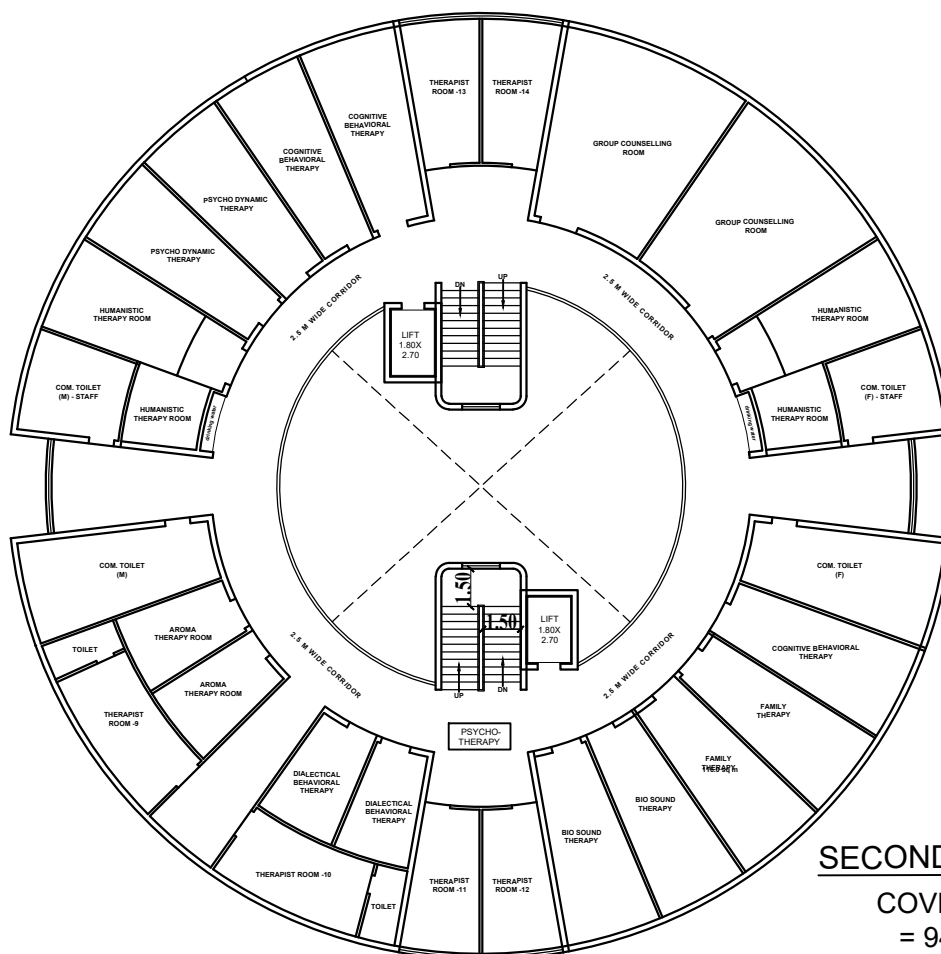
RECREATIONAL FACILITIES	
1.	LIBRARY
2.	YOGA & MEDITATION HALL
3.	CONTEMPLATION HALL
4.	MULTIPURPOSE ROOM/
5.	SEMINAR HALL
6.	AUDIO-VISUAL ROOM
7.	INDOOR GAMES
8.	GYMNASIUM
9.	PANTRY
10.	STORE

PSYCHOTHERAPY	
1	FAMILY THERAPY ROOM
2	BIO SOUND THERAPY ROOM
3	GROUP COUNSELLING ROOM
4	COGNITIVE BEHAVIORAL THERAPY ROOM
5	AROMA THERAPY ROOM
6	PSYCO DYNAMIC THERAPY ROOM
7	HUMANISTIC THERAPY ROOM
8	DIALECTICAL BEHAVIORAL THERAPY ROOM
9	THERAPIST ROOM
10	TOILET ( PATIENT & STAFF)



**FIRST FLOOR PLAN**

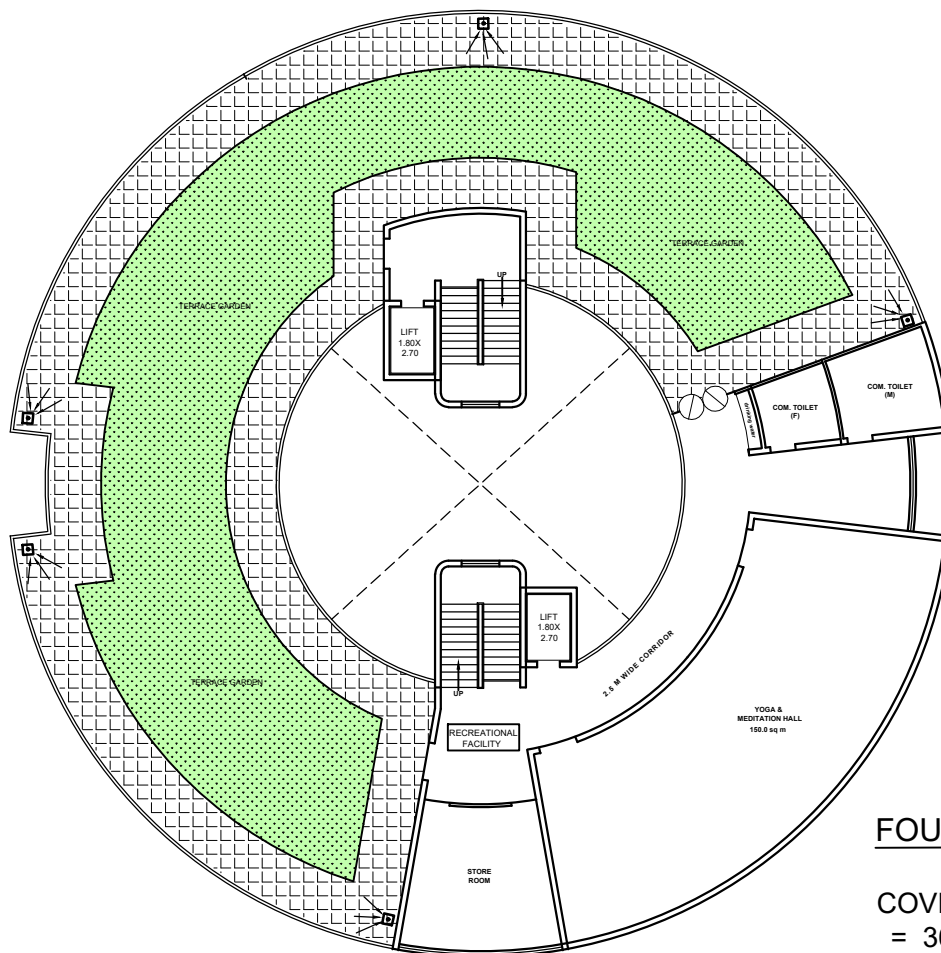
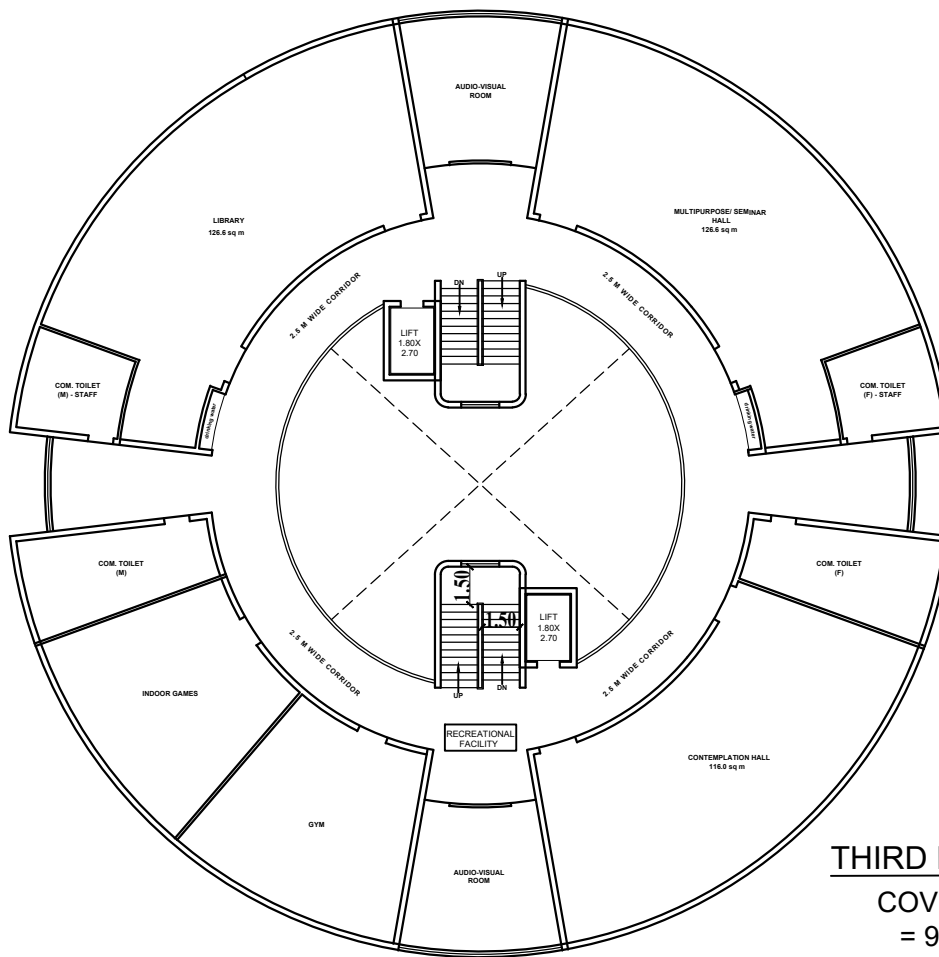
COVERED AREA  
= 946.55 SQ M

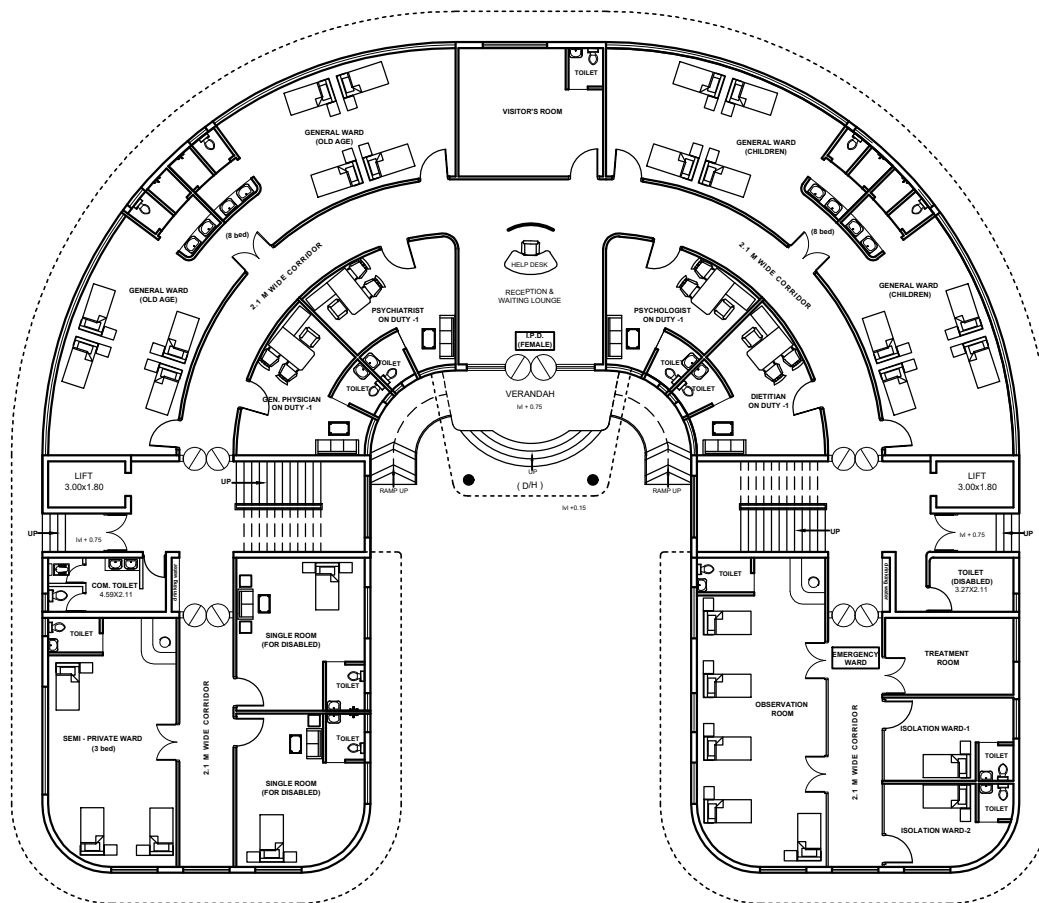


**SECOND FLOOR PLAN**

COVERED AREA  
= 946.55 SQ M







**GROUND FLOOR PLAN**  
COVERED AREA = 875.10 SQ M  
BED = 28

### I.P.D. BLOCK (FEMALE)

TOTAL BUILT UP AREA = 3753.51 SQ M  
+ 90.88 (MUMTY) +33.35 (PORCH)  
= 3877.74 SQ M

TOTAL BED IN FEMALE WARD= 87

### I.P.D. BLOCK (MALE)

TOTAL BUILT UP AREA = 3753.51 SQ M  
+ 90.88 (MUMTY) +33.35 (PORCH)  
= 3877.74 SQ M

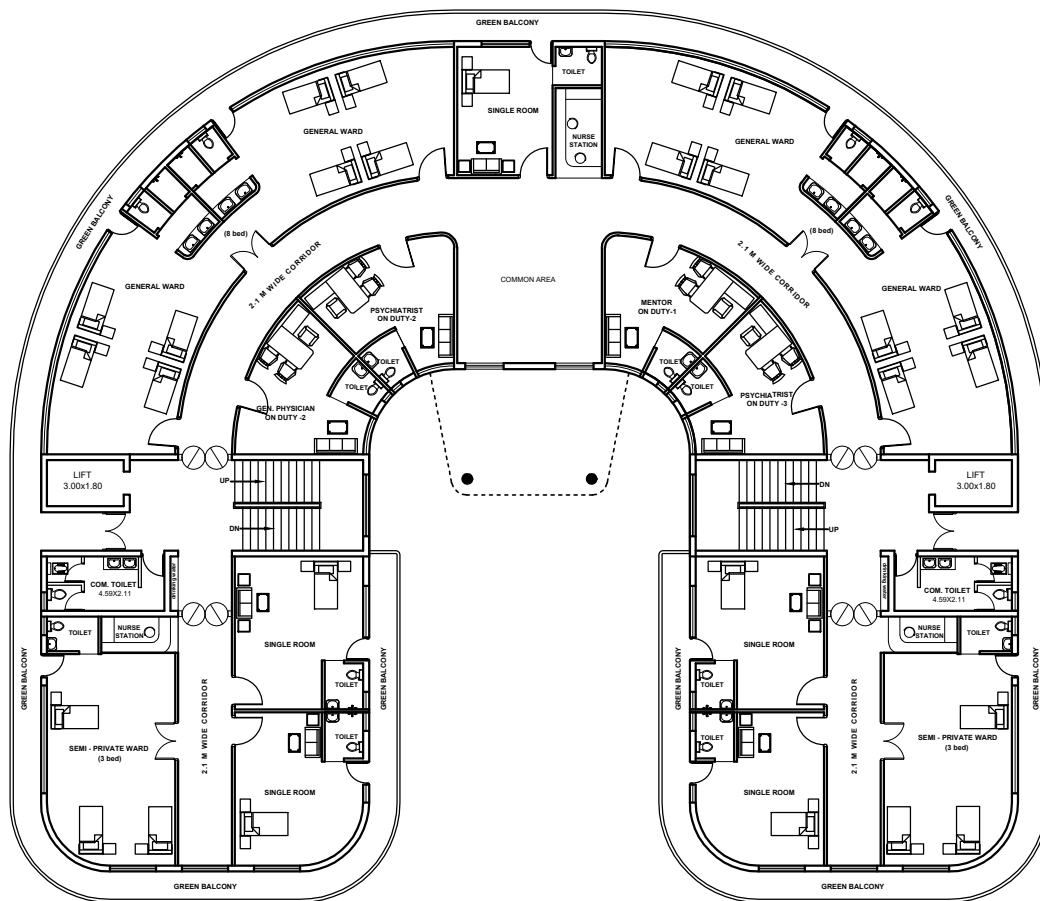
TOTAL BED IN FEMALE WARD= 87

### REQUIREMENTS GIVEN :

➤ RECEPTION & WAITING AREA
➤ VISITORS ROOM
➤ EMERGENCY WARDS
-TREATMENT ROOM
-OBSERVATION ROOM
➤ ISOLATION WARD
➤ DOCTOR ON DUTY (GENERAL PHYSICIAN)
➤ PSYCHIATRIST ON DUTY
➤ PSYCHOLOGIST ON DUTY
➤ DIETITIAN ON DUTY
➤ MENTOR ON DUTY
➤ NURSE STATION

➤ SINGLE BEDED ROOM (19)
➤ DELUXE ROOM (4)
➤ SEMI-PRIVATE ROOM (3 room of 3 per. & 4 room of 4 per.)
➤ COMMON LIVING AREA
➤ GENERAL WARD (4 ward for 8 per.)
➤ TOILET (COM., & HANDICAP)
➤ UTILITY ROOMS
➤ LAUNDRY STAFF ROOM
➤ LAUNDRY SUPERVISOR ROOM
➤ LAUNDRY & HOUSEKEEPING



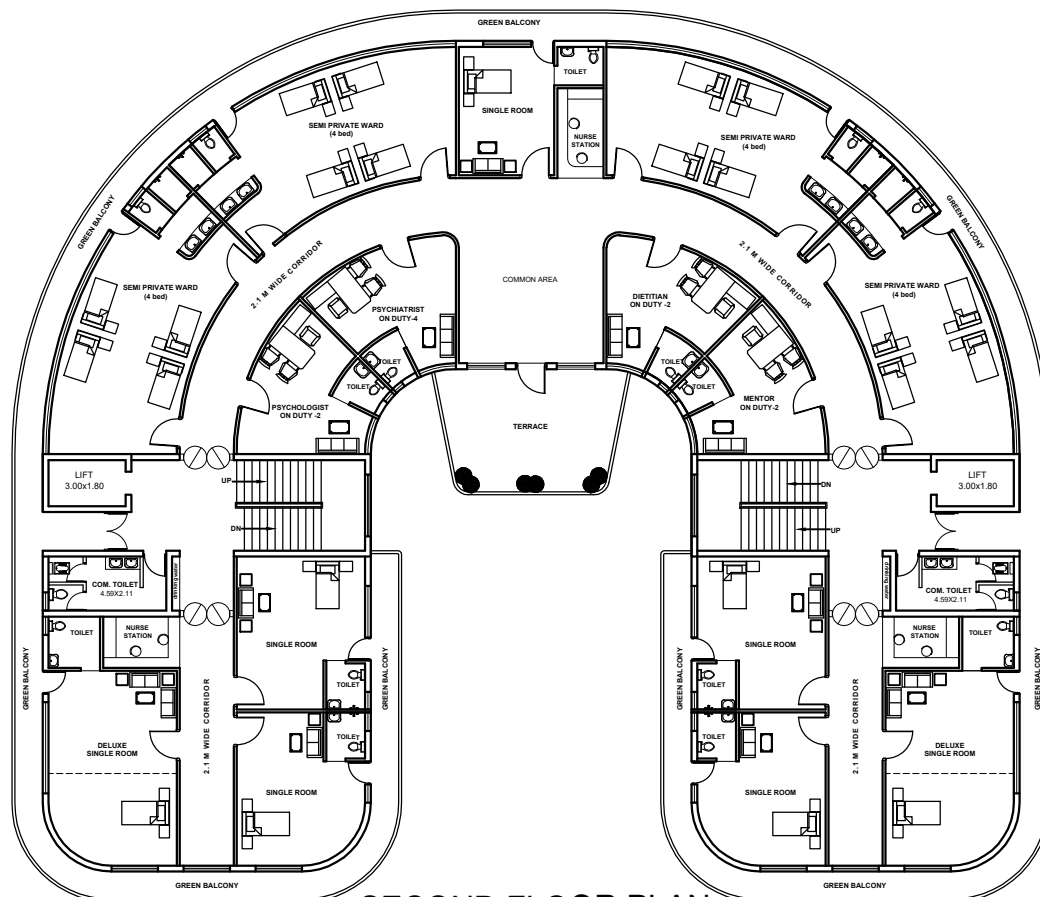


### FIRST FLOOR PLAN

COVERED AREA = 959.47 SQ M

PORCH AREA = 33.35 SQ M

BED = 27

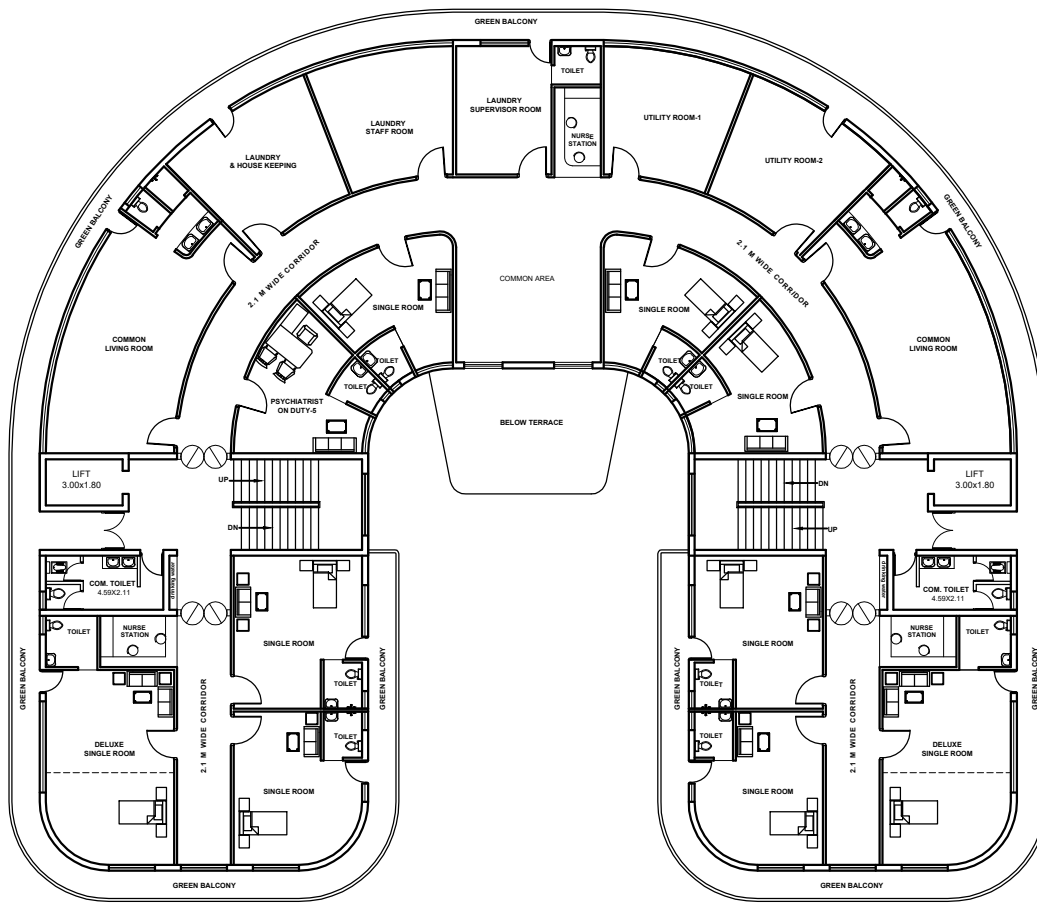


### SECOND FLOOR PLAN

COVERED AREA = 959.47 SQ M

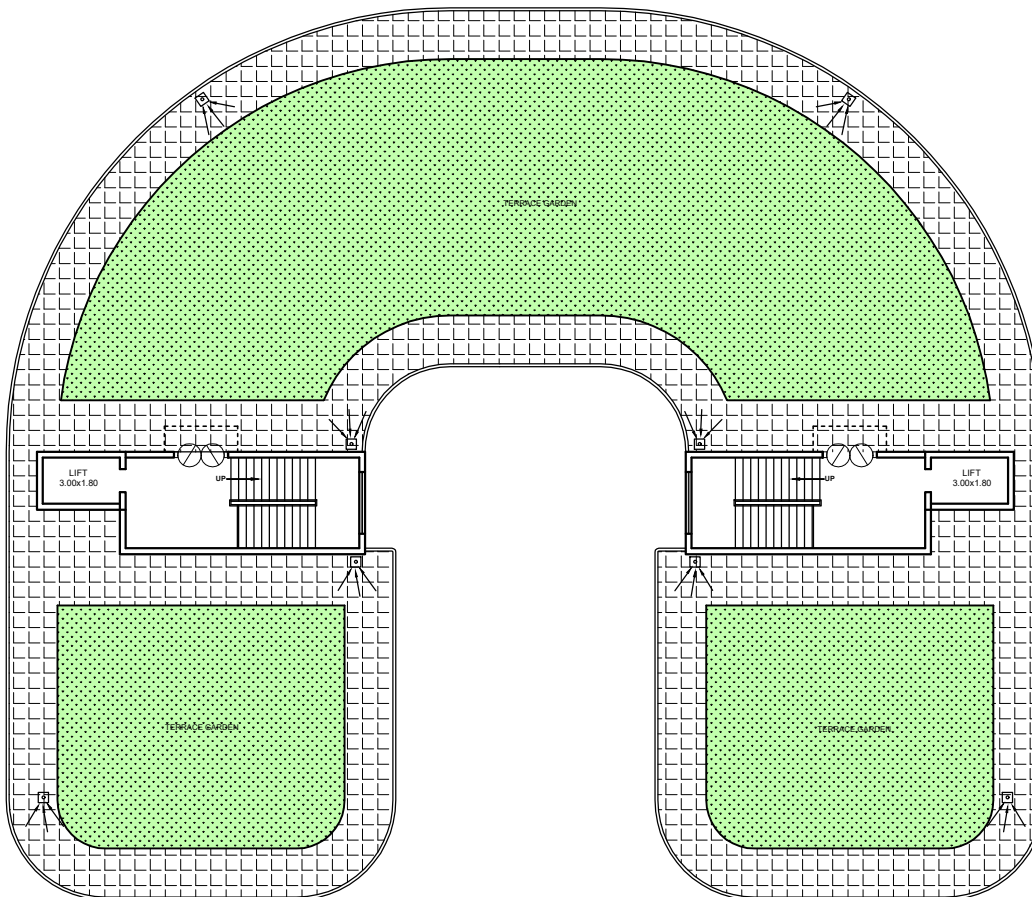
BED = 23

ARCHITECTURAL THESIS ON:-	DWG. TITLE:-	DWG. NO:-	DATE:-	SCALE:- N.T.S.	NORTH:-	THESIS GUIDE:-	SUBMITTED BY:-
ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION	I.P.D. BLOCK (FEMALE) & I.P.D. BLOCK (MALE)	4 (b)	28-june-2023	UNIT:- M		PROF. KESHAV KUMAR	PRAGYA NIGAM 1200109009 M.ARCH - 6 <sup>TH</sup> SEM. (P.T.)



**THIRD FLOOR PLAN**

COVERED AREA = 959.47 SQ M  
BED = 9



**TERRACE FLOOR PLAN**

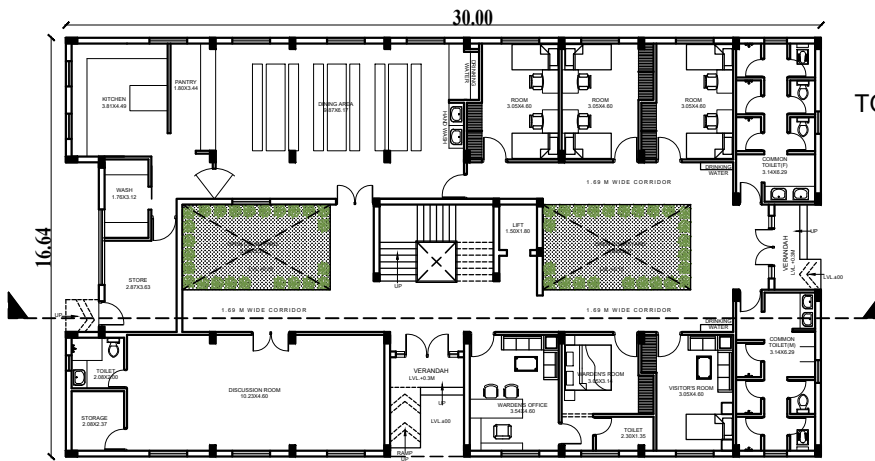
COVERED AREA = 90.88 SQ M

## QUARTERS FOR STAFF & VOLUNTEERS

TOTAL BUILT UP AREA = 1333.26 + 36.30 (MUMTY)  
= 1369.56 SQ M

### REQUIREMENTS GIVEN :

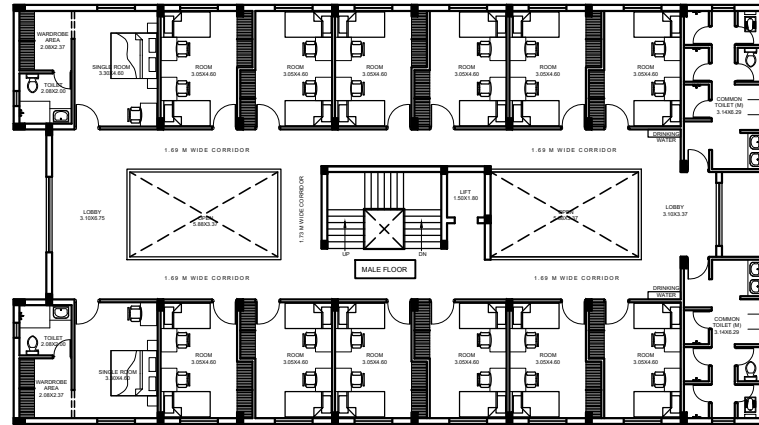
- 1) TWIN SHARING ROOM = 27
- 2) SINGLE ROOM = 4
- 3) COMMON TOILET
- 4) DINING
  - KITCHEN
  - PANTRY
  - STORE
  - WASH
  - DINING SPACE
- 5) DISCUSSION ROOM & OFFICE
- 6) VISITOR'S ROOM



### GROUND FLOOR PLAN

COVERED AREA= 444.42 SQ M

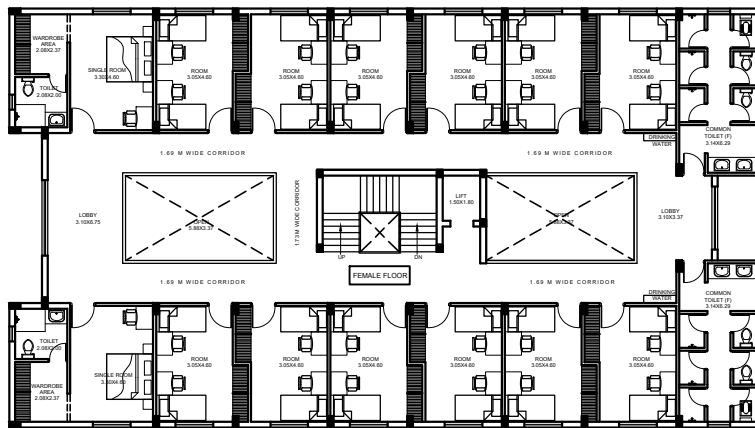
TOTAL ROOMS ON GROUND FLOOR = 3



### FIRST FLOOR PLAN

COVERED AREA= 444.42 SQ M

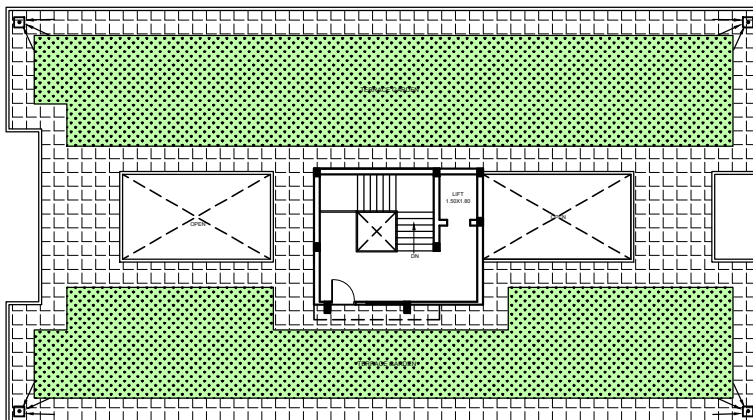
TOTAL ROOMS ON EACH FLOOR = 14



### SECOND FLOOR PLAN

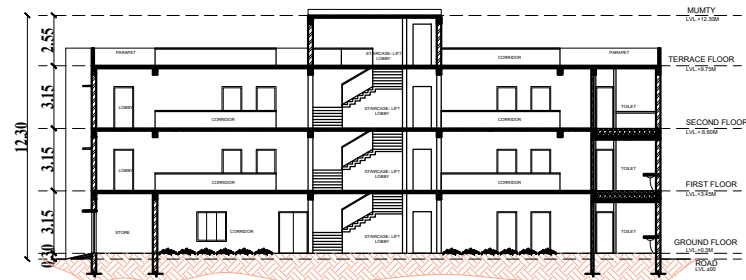
COVERED AREA= 444.42 SQ M

TOTAL ROOMS ON EACH FLOOR = 14



### TERRACE FLOOR PLAN

COVERED AREA= 36.30 SQ M

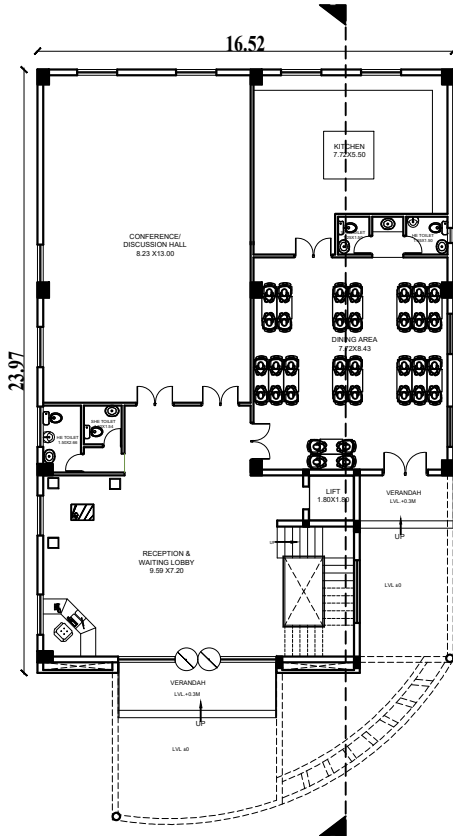


### SECTIONAL DETAIL OF STAFF & VOLUNTEERS QUARTER

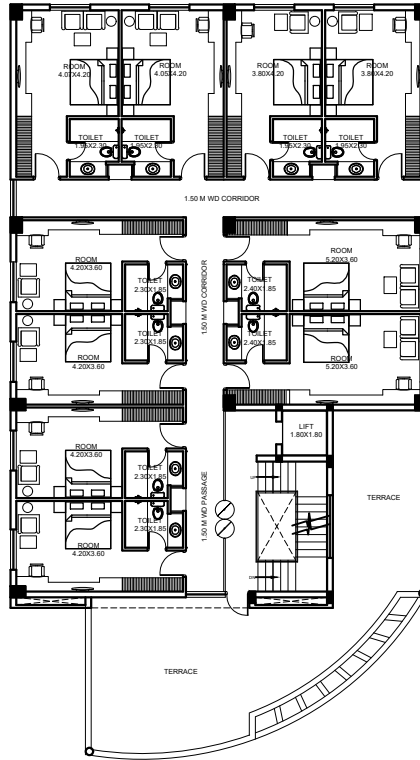
ARCHITECTURAL THESIS ON:-	DWG. TITLE:-	DWG. NO:-	DATE:-	SCALE:- N.T.S.	NORTH:-	THESIS GUIDE:-	SUBMITTED BY:-
ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION	STAFF & VOLUNTEERS QUARTERS	5 (a)	28-june-2023	UNIT:- M		PROF. KESHAV KUMAR	PRAGYA NIGAM 1200109009 M.ARCH - 6 <sup>TH</sup> SEM. (P.T.)

# STAFF GUEST HOUSE BUILDING

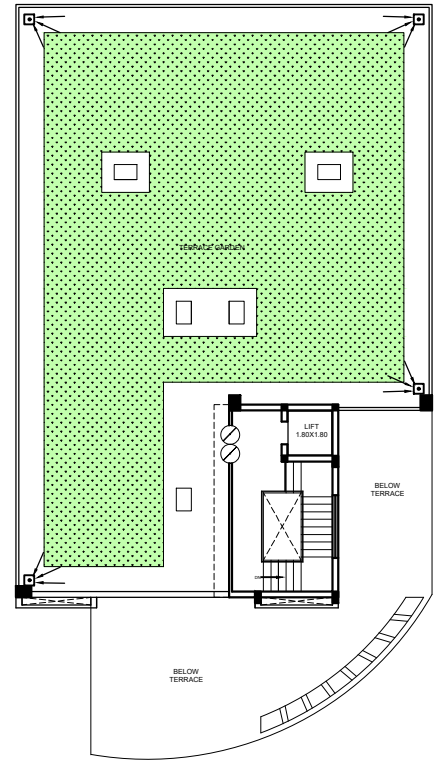
TOTAL BUILT UP AREA = 820.02 + 33.28 (MUMTY)  
= 853.30 SQ M



GROUND FLOOR PLAN  
COVERED AREA= 455.84 SQ M



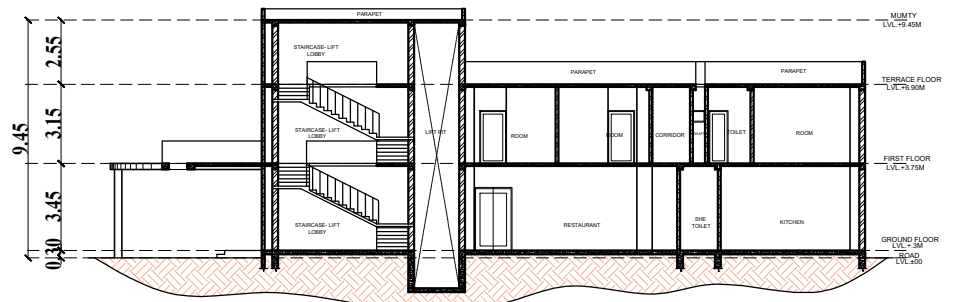
FIRST FLOOR PLAN  
COVERED AREA= 364.18 SQ M



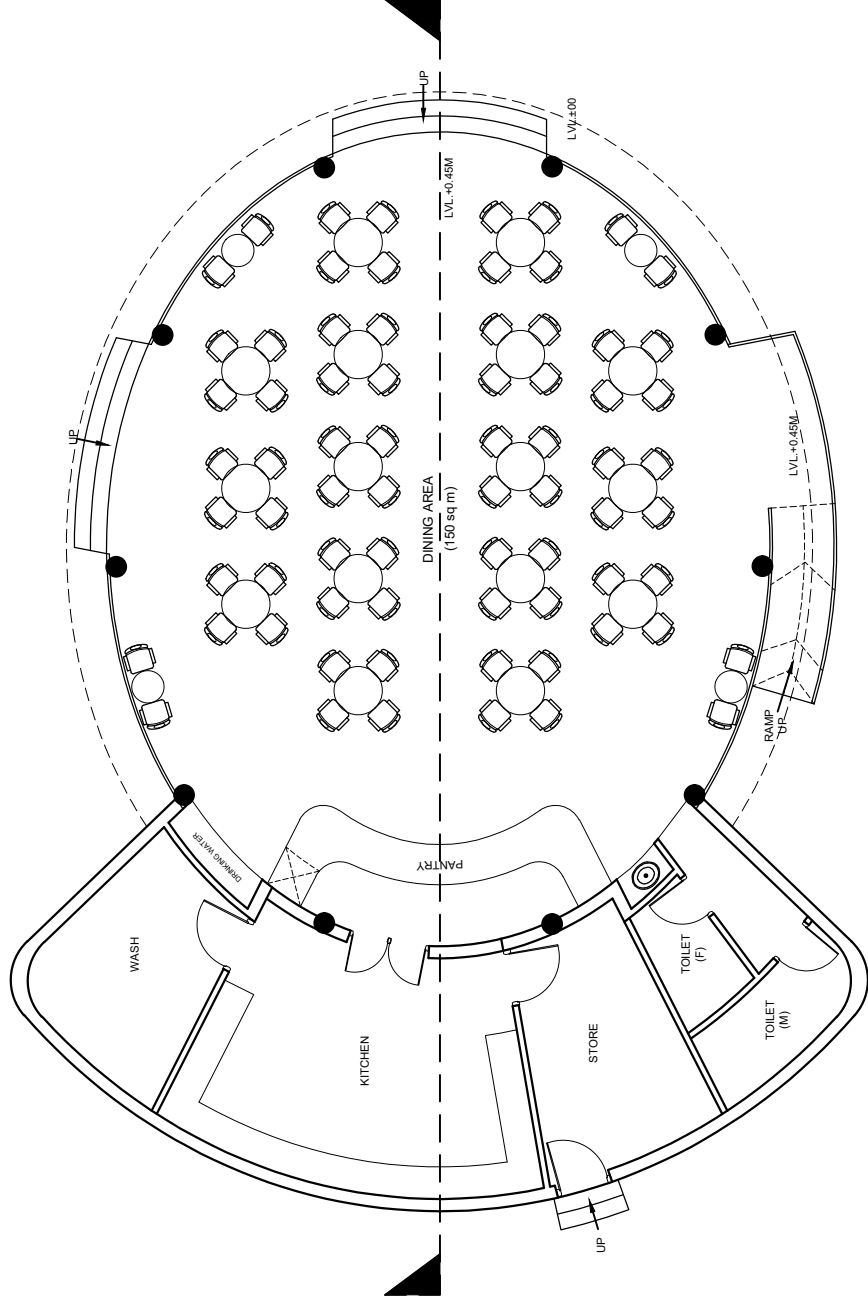
TERRACE FLOOR PLAN  
COVERED AREA= 33.28 SQ M

## REQUIREMENTS GIVEN :

- 1) RECEPTION & WAITING LOBBY
- 2) COMMON TOILET
- 3) DINING
  - KITCHEN
  - DINING SPACE
- 5) DISCUSSION / CONFERENCE ROOM
- 6) SINGLE ROOM WITH ATTACHED TOILET = 10



SECTIONAL DETAIL OF STAFF GUEST HOUSE



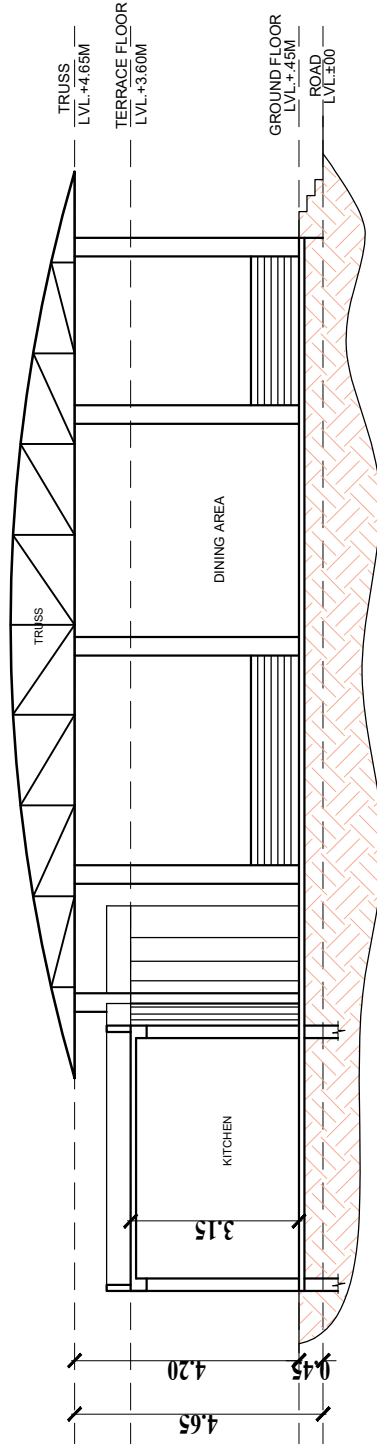
GROUND FLOOR PLAN

# CAFETERIA BLOCK


COVERED AREA= 250.00 SQ M

## REQUIREMENTS GIVEN :

1. SHADED DINING SPACE  
(for 100 person)
2. KITCHEN
3. PANTRY
4. STORE
5. WASH
6. TOILET (M & F)



SECTIONAL DETAIL OF CAFETERIA

ARCHITECTURAL THESIS ON:- ARCHITECTURAL INTERVENTIONS IN PSYCHIATRIC CENTRE TOWARDS TREATING SOCIAL ISOLATION	DWG. TITLE:- CAFETERIA BLOCK		DWG. NO:- 6	DATE:- 28-june-2023	SCALE:- N.T.S. UNIT:- M		NORTH:- 	THESIS GUIDE: PROF. KESHAV KUMAR	SUBMITTED BY: PRAGYA NIGAM 1200109009 MARCH - 6 <sup>TH</sup> SEM. (P.T.)	





**3D VIEW OF OPD & ADMINISTRATION BLOCK**



**3D VIEW OF IPD BLOCK**



**3D VIEW OF  
GAZEBO IN OPEN  
GREEN AREA**



**3D VIEW OF  
OCCUPATIONAL,  
PSYCHOTHERAPY &  
RECREATIONAL BLOCK**

