

Senior citizen center

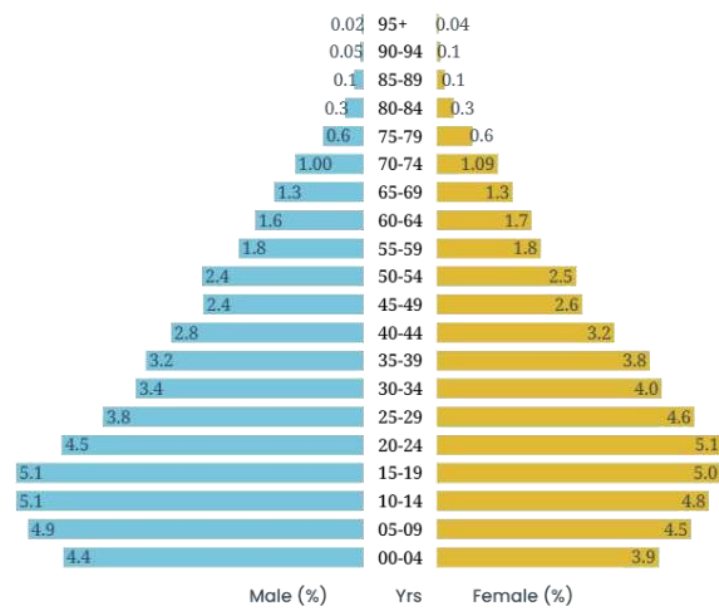
Introduction

A Senior Citizen Center is a facility designed to provide care, support and services.In Nepal as the number of senior citizen increase, there is growing need for such space.

The proposed project is a Senior Citizen Center designed to address the needs of elderly individuals aged 60 and above. It aims to create a space that provides medical care, social interaction, and mental well-being in a secure and nurturing environment. It seeks to create a space that offers physical care, emotional well-being, and opportunities for social interaction, all within a culturally significant and accessible environment.

In Nepal, such initiatives are scarce and primarily limited to old-age homes that lack modern design approaches and holistic care systems. Locally few examples exist, which struggles with overcrowding and insufficient infrastructure.

According to Nepal's 2021 National Population and Housing Census, the total population was 29,164,578. Of this, 10.21% were aged 60 years or above, amounting to approximately 2,977,318 individuals.



Here is a chart showing Nepal's population distribution according to the 2021 census. It highlights that 10.21% of the population is aged 60 and above, while the remaining 89.79% is below 60 years

Background

The concept of senior citizen centers (old age homes) in Nepal began formally with the establishment of Pashupati Briddhashram in 1977 B.S. during the Rana regime. It was initiated by Bhim Shumsher making it Nepal’s first government-supported old age home. There are about 70 organizations registered with the government spread all over Nepal. These organizations vary in their organizational status (government, private, NGO, CBO, personal charity), capacity, facilities, and the services they provide.



Project Justification

The proportions of the older population are increasing rapidly in Nepal too. There are 2.97 million older people in Nepal as of the 2021 census which is a 38.2% increase compared to the previous census of 2011. The proportion of the older population reached 10.21% of the total population of Nepal.

Age Group	Total Number	Total Percent	Male Number	Male Percent	Female Number	Female Percent
60-64 Yrs	6,980	2.29%	3,273	2.11%	3,707	2.48%
65-69 Yrs	5,781	1.90%	2,736	1.77%	3,045	2.03%
70-74 Yrs	4,251	1.40%	1,986	1.28%	2,265	1.51%
75-79 Yrs	3,135	1.03%	1,486	0.96%	1,649	1.10%
80-84 Yrs	1,524	0.50%	678	0.44%	846	0.56%
85-89 Yrs	815	0.27%	353	0.23%	462	0.31%
90-94 Yrs	249	0.08%	97	0.06%	152	0.10%
95+ Yrs	104	0.03%	26	0.02%	78	0.05%

fig: census of 2011 showing age above 60 years

Age Group	Total Number	Total Percent	Male Number	Male Percent	Female Number	Female Percent
60-64 Yrs	12,669	2.93%	6,154	2.82%	6,515	3.05%
65-69 Yrs	9,435	2.18%	4,495	2.06%	4,940	2.31%
70-74 Yrs	6,554	1.52%	2,920	1.34%	3,634	1.70%
75-79 Yrs	4,936	1.14%	2,172	0.99%	2,764	1.29%
80-84 Yrs	2,457	0.57%	1,084	0.50%	1,373	0.64%
85-89 Yrs	1,433	0.33%	596	0.27%	837	0.39%
90-94 Yrs	482	0.11%	188	0.09%	294	0.14%
95+ Yrs	180	0.04%	65	0.03%	115	0.05%

fig: census of 2021 showing age above 60 years

Objective

- 1. Offer regular medical check-ups, treatments, and specialized care for age-related illnesses.
- 2. Provide physiotherapy, yoga, and wellness programs to maintain physical health.
- 3. Organize recreational activities such as games, cultural programs, and excursions.
- 4. Provide mental health support and counseling to combat loneliness and depression.
- 5. Encourage seniors to participate in hobby-based activities like art and music.
- 6. Establish daycare and part-time support programs to integrate with the community

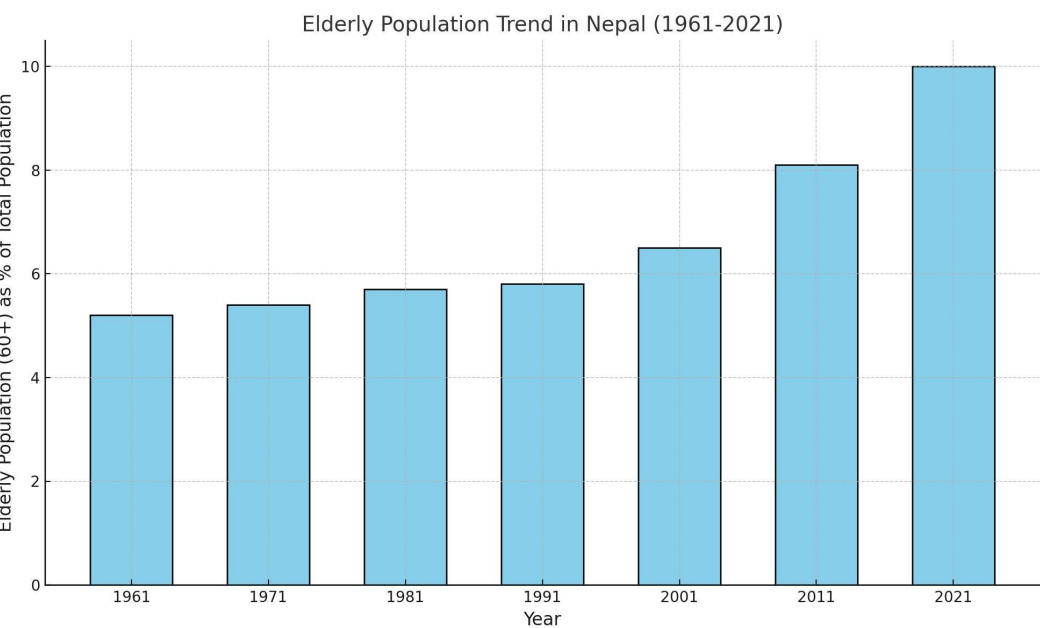


fig: bar graph of people age above 60 years during different census

Percentage of peoplr above 60 during 2011 and 2021

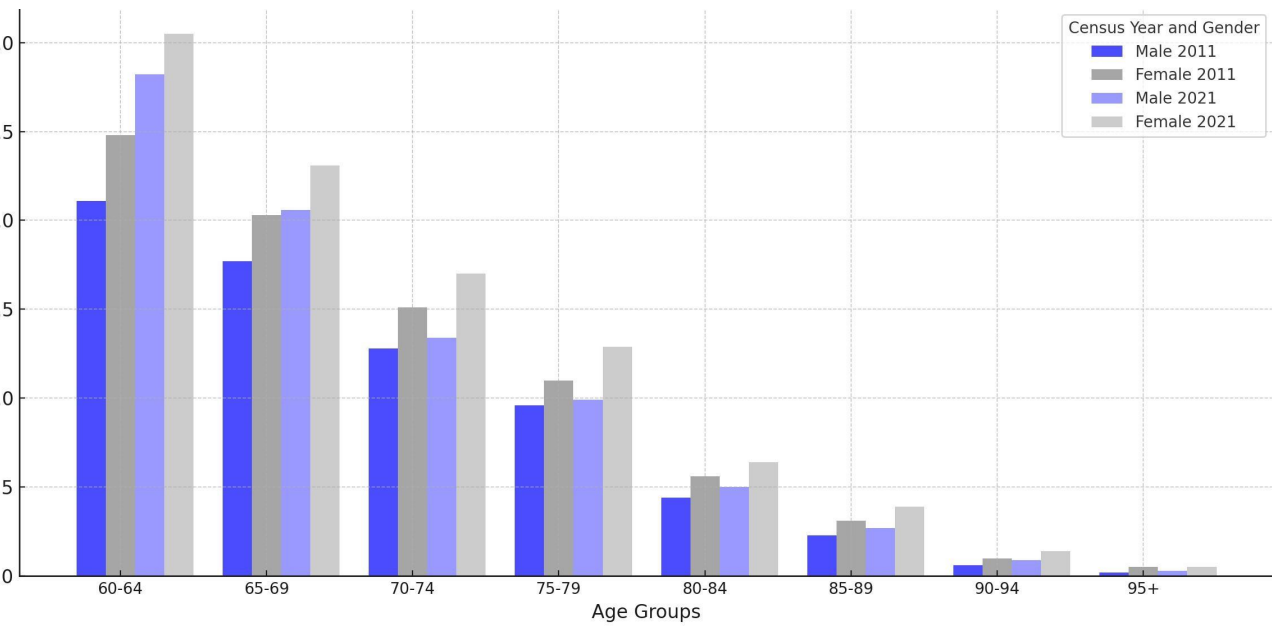


fig: bar graph of people age above 60 years during 2011 and 2021 census

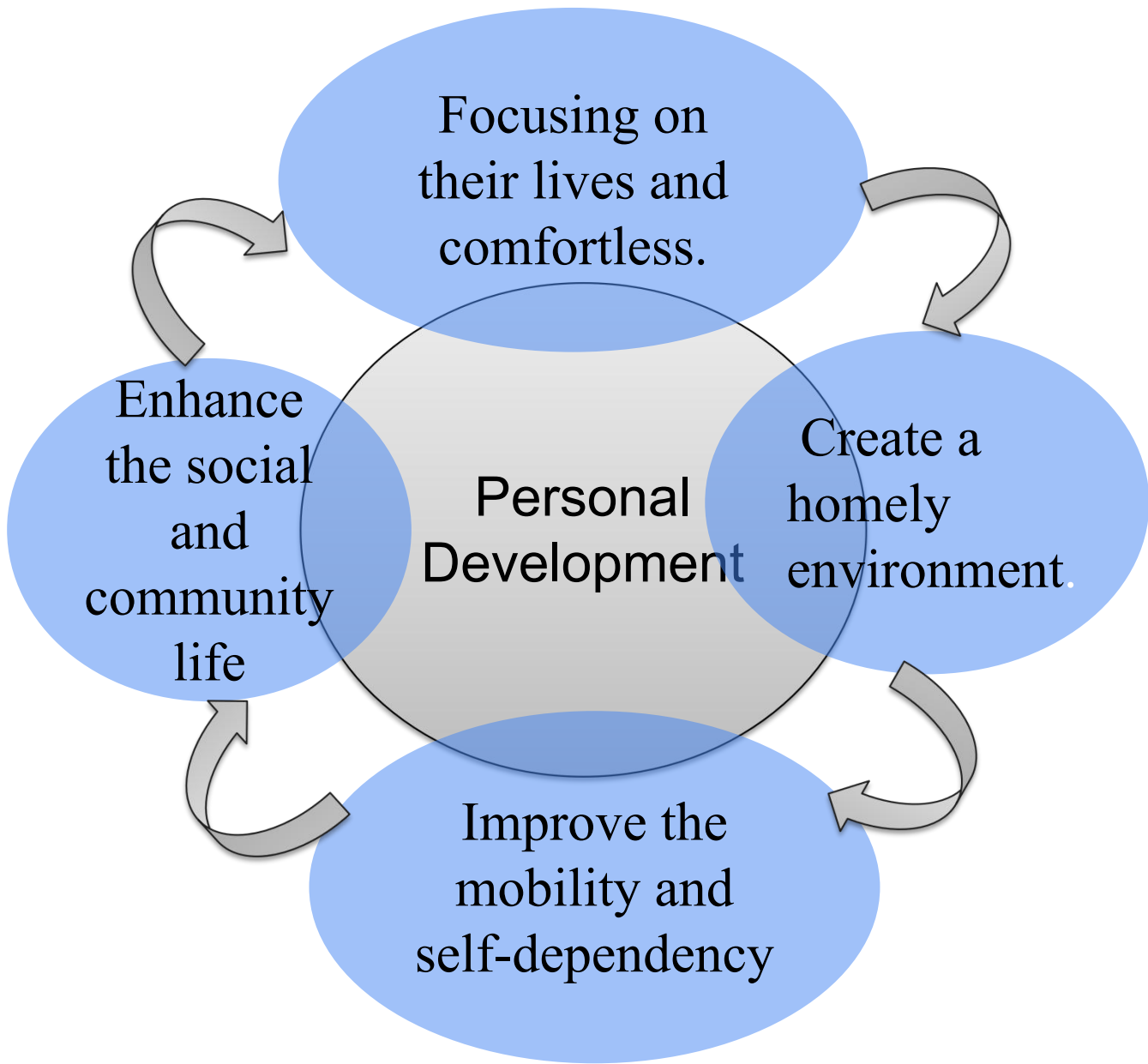
LITERATURE REVIEW

INTRODUCTION

A Senior Citizen Center is a community facility that provides social, recreational, and wellness activities for active seniors. It promotes engagement, reduces loneliness, and supports independent living.

A Day Care Center offers supervised care, medical assistance, and daily support for elderly individuals. It helps families by ensuring seniors receive proper care during the day before returning home.

Objectives:



Statistics on Aging Population:

Global context:

Aging populations are increasing worldwide due to improved healthcare, lower mortality rates, and declining birth rates

By 2050, the number of people aged 60 and above is expected to double, reaching nearly 2.1 billion (UN, 2022).

In 2020, for the first time in history, the number of people aged 60+ surpassed the number of children under 5 years (WHO, 2021).

By 2050, one in six people globally will be over 65 years old, compared to one in eleven in 2019 (UN, 2019).

Context of Nepal:

According to Nepal's 2021 National Population and Housing Census, the total population was 29,164,578. Of this, 10.21% were aged 60 years or above, amounting to approximately 2,977,318 individuals.

There are 2.97 million older people in Nepal as of the 2021 census which is a 38.2% increase compared to the previous census of 2011. The proportion of the older population reached 10.21% of the total population of Nepal.

Types of senior citizen center

Type	Description	Best For
Assisted Living	Provides help with daily activities but not full-time medical care.	Seniors needing some assistance while maintaining independence.
Nursing Homes	24/7 medical supervision and nursing care.	Seniors with chronic illnesses or disabilities.
Daycare Centers	Daytime care with social activities and basic healthcare.	Seniors needing supervision while families work.
Independent Living	Housing for active seniors without medical needs.	Healthy seniors seeking a social community.

History

Global History

- Ancient Times: Elderly care was family-based, with older adults living with relatives.
- 18th - 19th Century: Industrialization led to nursing homes and poorhouses as families moved to cities.
- Early 20th Century:State-run pension schemes and formal care homes began in Western countries.
- Mid-20th Century - Present: Focus shifted to assisted living, retirement communities, and daycare centers for active aging.
- The first recorded retirement home was in the early 18th century in England, designed for aging military veterans.

History in Nepal

- Early Times: Elderly care was traditionally handled by families and the community.
- Late 20th Century: First old age homes (Briddhashram) were established due to urbanization.
- 21st Century: The government and NGOs developed more senior care centers, including daycare and assisted living.
- The concept of senior citizen centers (old age homes) in Nepal began formally with the establishment of Pashupati Briddhashram in 1977 B.S.

Why Senior Citizen e Centers in bhaktapur

Comparision between census of 2011 and 2021

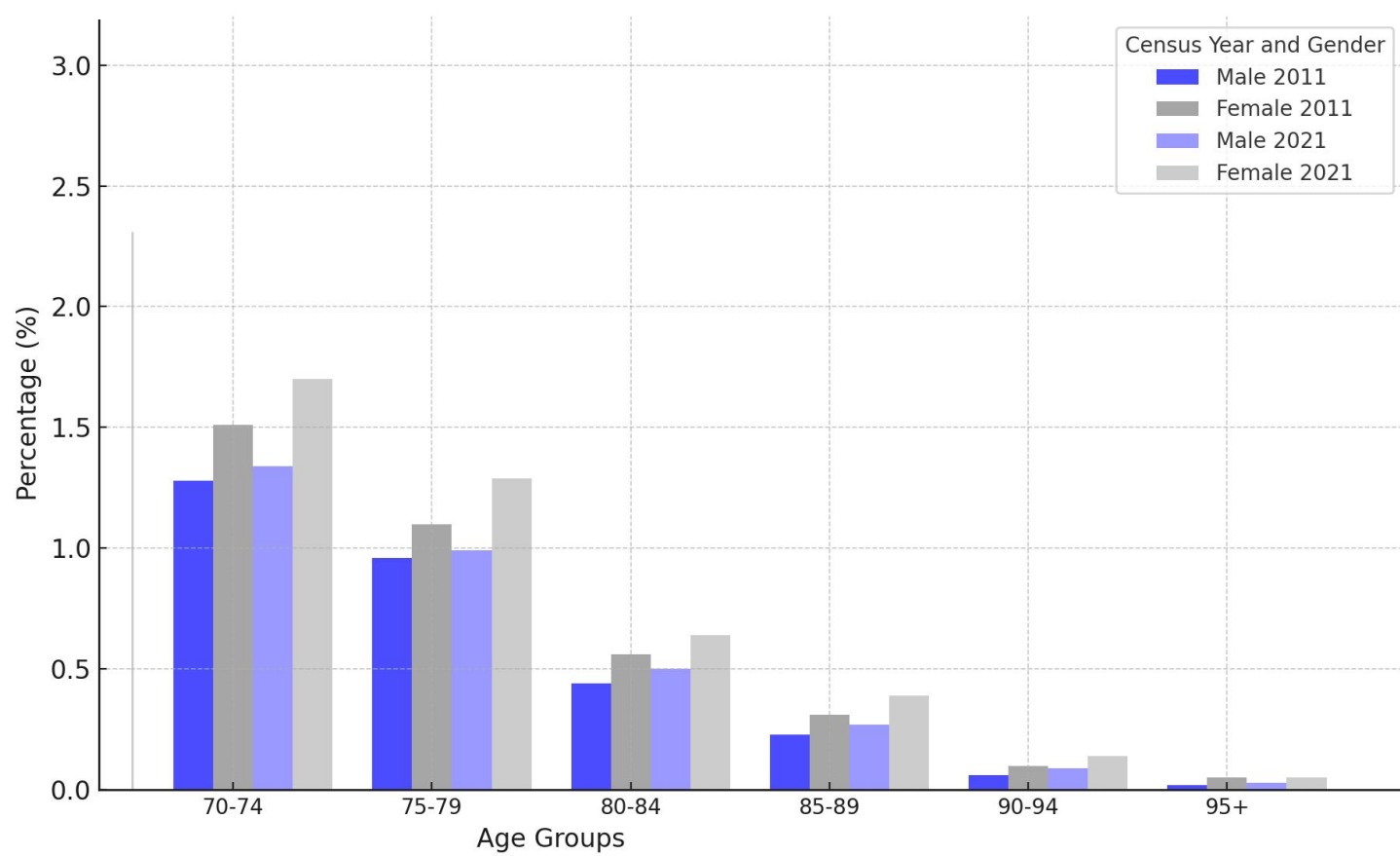


fig: bar graph of people age above 60 years during 2011 and 2021 census

Design Considerations for Senior Citizen Care Centers

Spatial planning

involves strategically designing the layout of a facility to prioritize accessibility, safety, comfort, and social interaction for elderly residents.

SENIOR CITIZEN CENTER

LITERATURE REVIEW

Key aspects of spatial planning for senior care centers:

Universal Design:

The concept of universal design was first used in 1970’s. In 1985, it is reinterpreted by the American architect Ronald Mace.

Universal design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. It is also called design for-all and lifespan design.

Biophilic Design

Biophilic design is a concept used within the building industry to increase occupant connectivity to the natural environment through the use of :

1. Direct experience of nature
2. Indirect experience of nature
3. Experience of space and place:

Passive Design

Orientation: South-facing for optimal solar gain.

Design: Open planning, shaded courtyards, and water bodies regulate climate.

Roof & Openings: Roofs block summer sun, allow winter sun; large windows enable ventilation.

External Spaces: Pavements store heat; trees and water provide shade and cooling.

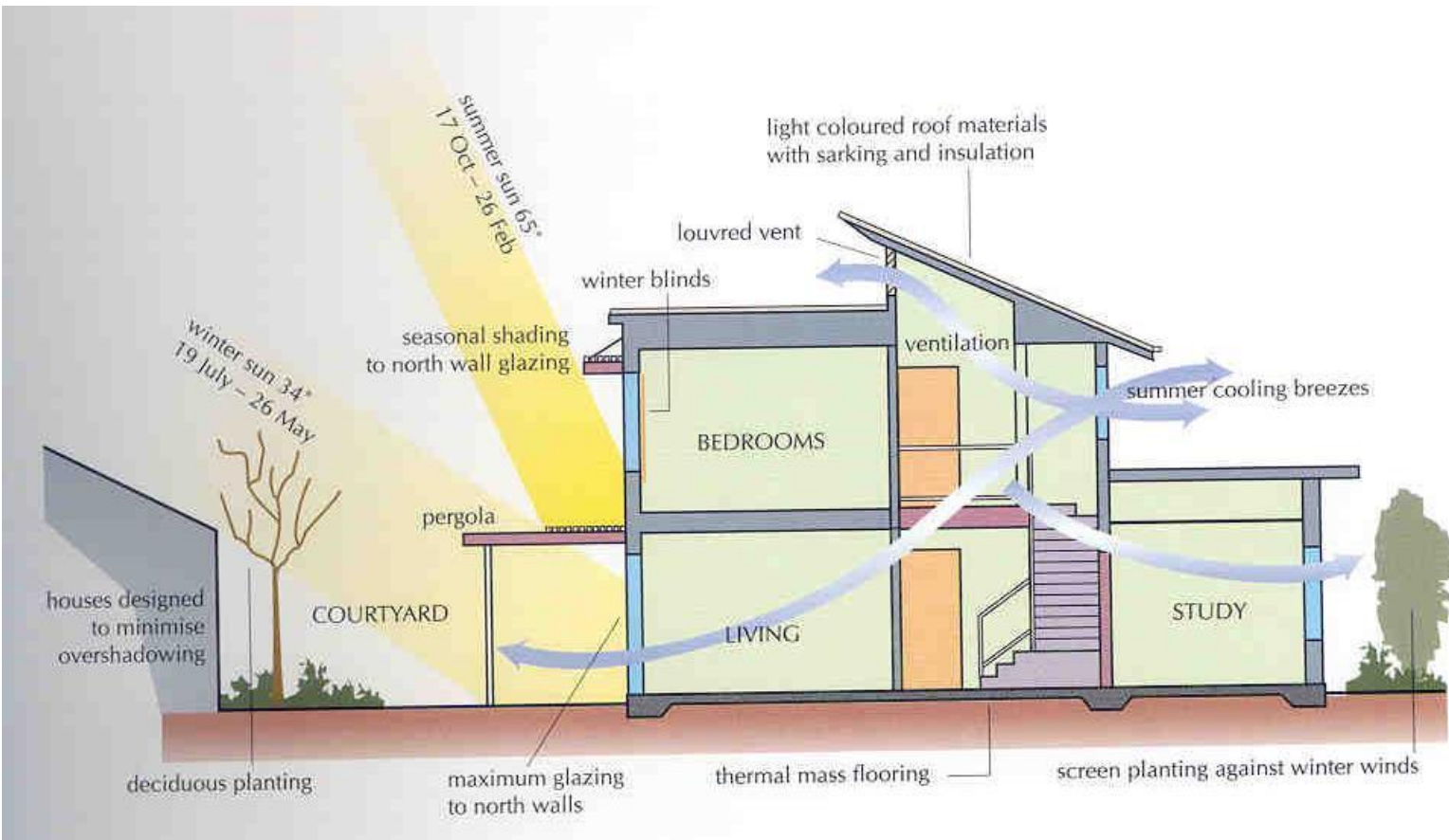


Fig: Method Of Passive Design

Sensory Design Consideration

Light

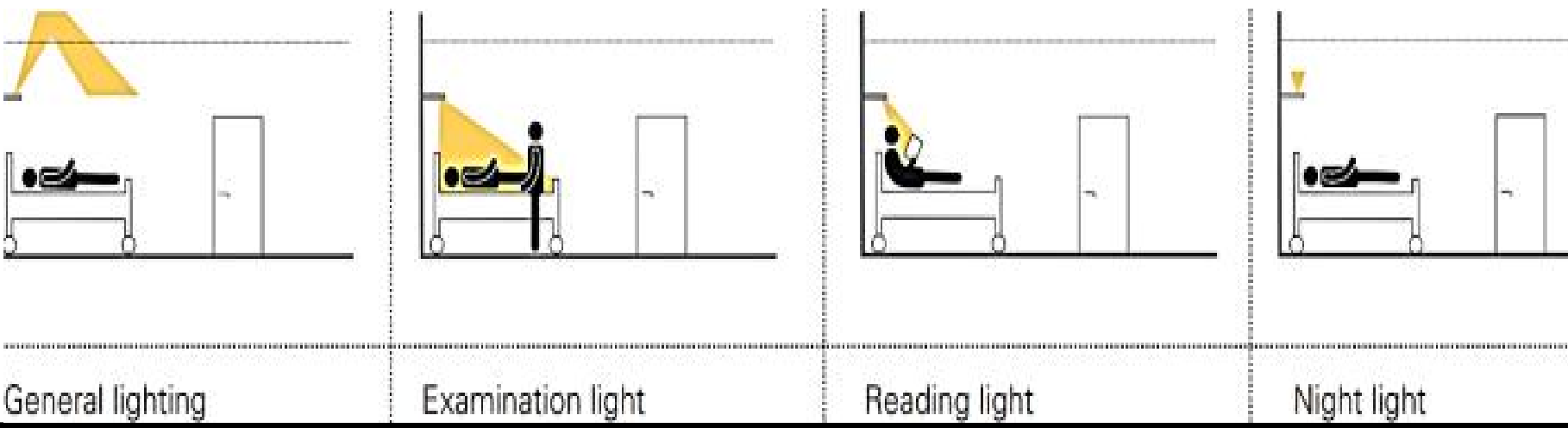
- With the arrival of old age, eyesight deteriorates due to age or illness..
- The sharp transition of shadow interpreted as obstacles.



Figure Negative Light



Figure Positive Light



General lighting

Examination light

Reading light

Night light

Visibility of spaces

The spaces must be designed in such a way that there must be a view of active and passive areas from pathways.

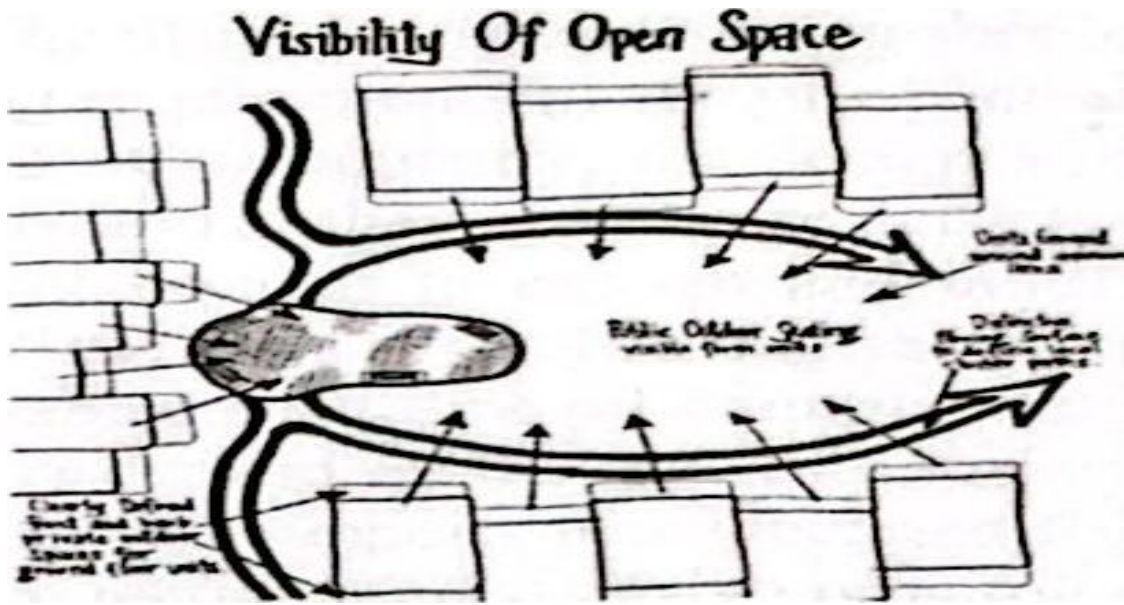


Fig: Visibility and space

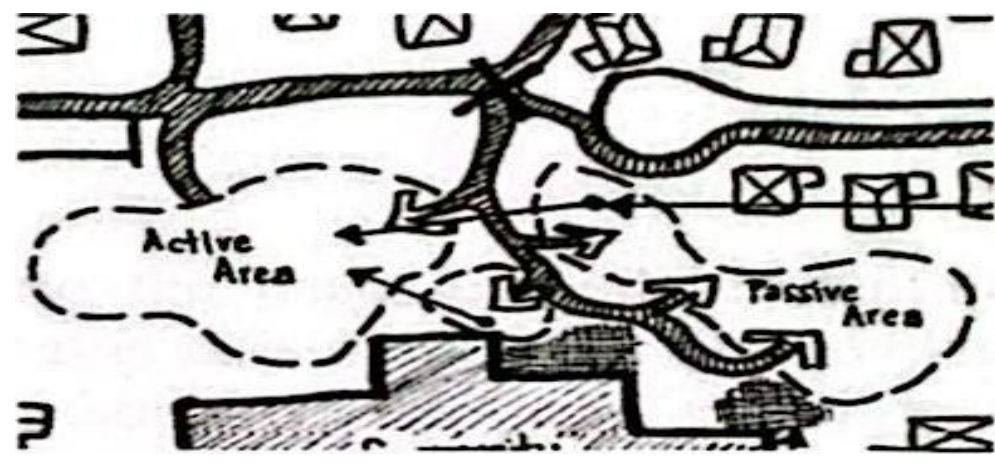


Fig: Distribution of path

Sound

Planning: Arrangement of the layout of the rooms

Interior design consideration: Soft furnishings and sound absorptive finishes.

Landscaping: Planting beds and other soft landscaping located close to windows

30-35 dB in bedrooms and resting areas

35-40 dB in common areas like dining and lounges

Colors

COLOR	BENEFITS	BEST FOR
Soft Blue	Calming, reduces stress & BP	Bedrooms, lounges, Meditation areas
Warm Beige	Cozy, Home like atmosphere	Living rooms, hallways, dining area
Soft Green	Refreshing, improve focus	Outdoor spaces, therapy & Reading areas
Lavender	Soothing, reduces anxiety	Bedrooms, activity rooms
Muted Yellow	Uplifting, increase appetite	Dining areas, social spaces

Temperature

Room Type	Recommended Temperature	Remarks
Living Areas	20–23°C (68–74°F)	Helps prevent hypothermia and ensures comfort.
Bedroom	18–21°C (64–70°F)	Cooler temperatures can improve sleep quality.
Bathroom	24–27°C (75–81°F)	Warmer temperatures reduce the risk of cold-related stress.

Circulation

Stairs

- Tread shall not be less than 300mm wide
- Staircase shall not be less than 1350mm
- Riser is not less than 150mm-170 mm
- Nosing shall project no more than 40 mm.

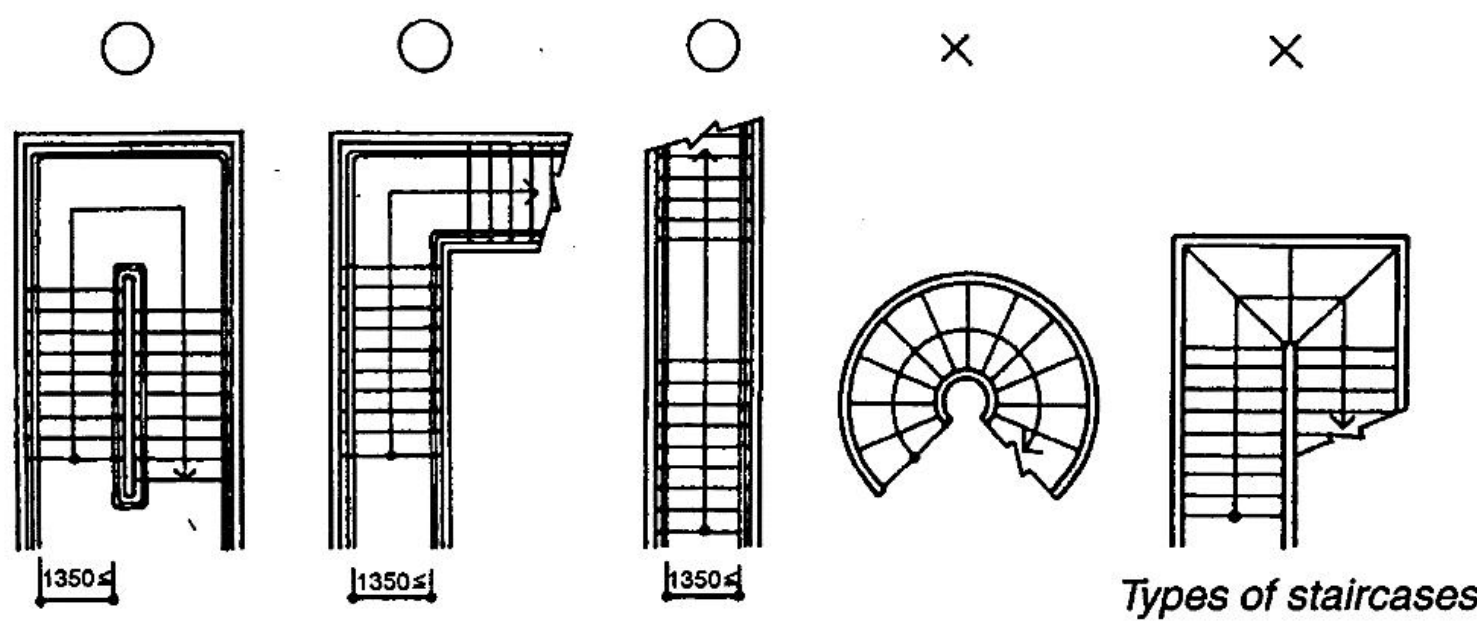


Fig :Staircase and its detailing

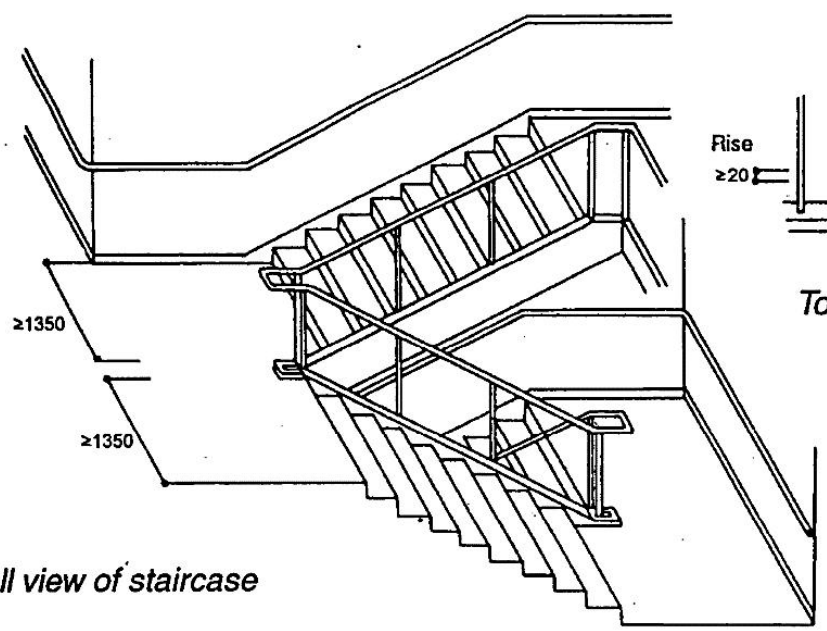
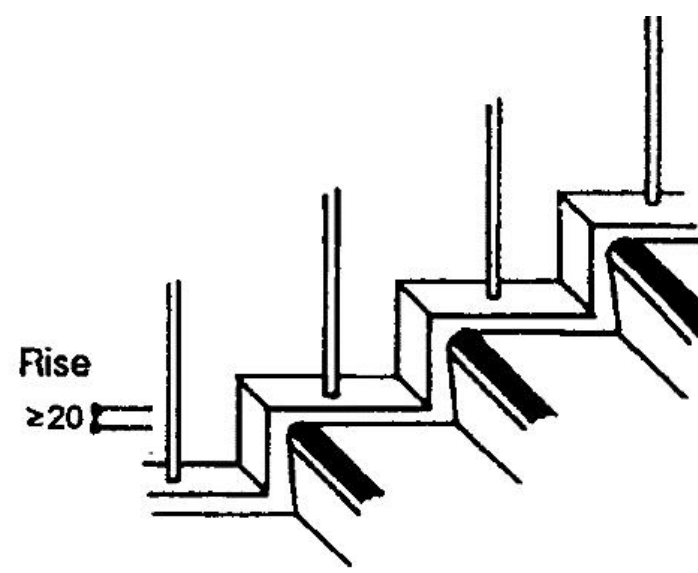


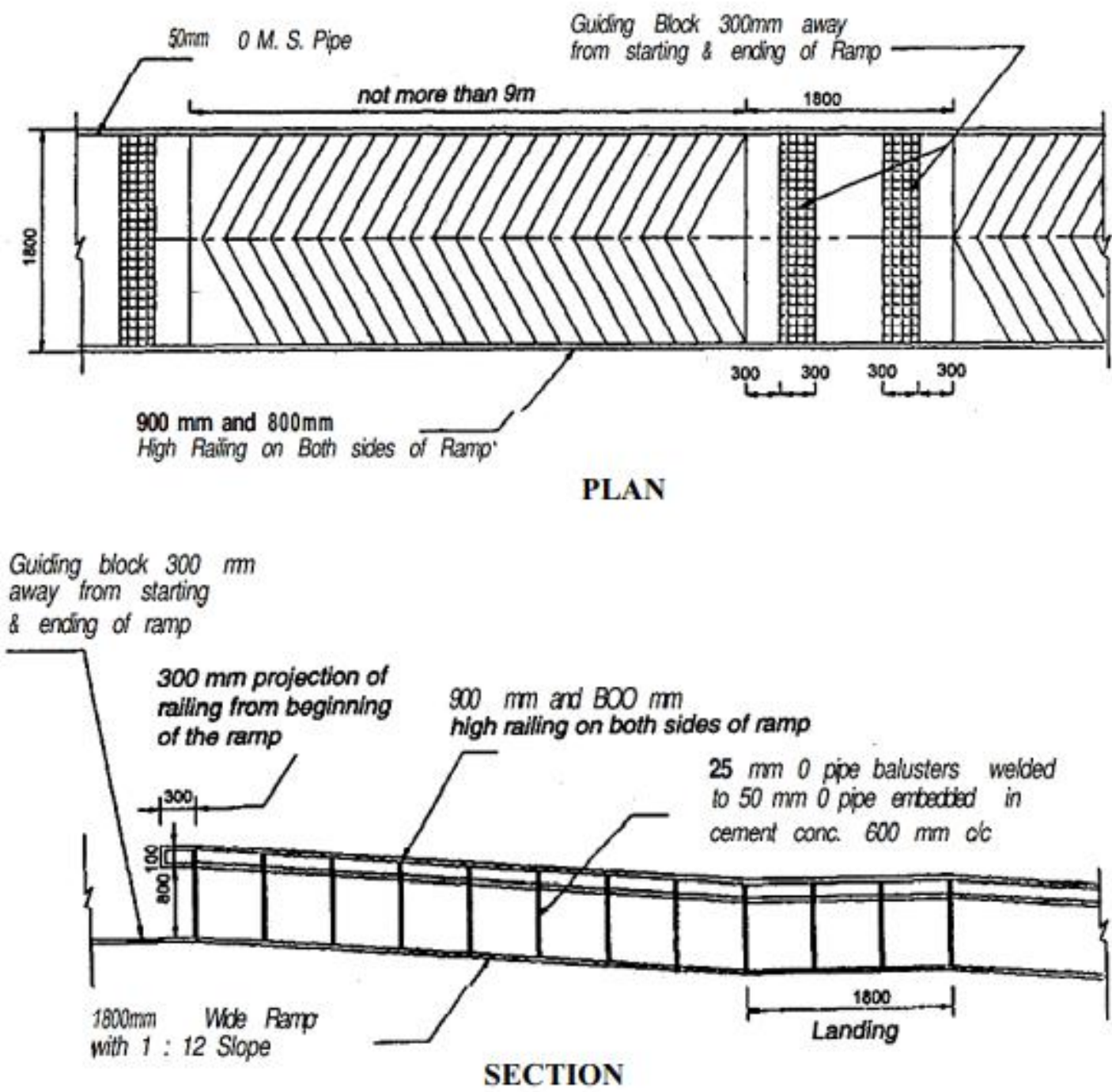
Fig :Staircase and its detailing

PURBANCHAL UNIVERSITY KHWOPA ENGINEERING COLLEGE DEPARTMENT OF ARCHITECTURE LIBALI ,BHAKTAPUR	SUBJECT - THESIS	NAME - ANU CHHUKAN	DATE -2081-11-21	
	TITLE - CASE STUDY	ROLL NO.-760107		
		SUPERVISOR - Ar. ANJU MALLA PRADHAN		

LITERATURE REVIEW

Ramp

Elderly people feel comfortable using ramps compared to staircases
Finished with non-slip material to enter the building
Minimum width or ramp shall be 1800 mm.
Maximum gradient 1:12, length of ramp shall not exceed 9.0 M.



Corridor

Steps should not be introduced into corridors.
The minimum corridor width should be 1200 mm.
The wheelchair body itself is about 650 mm wide.
The passage must be as wide as 900 mm or more.

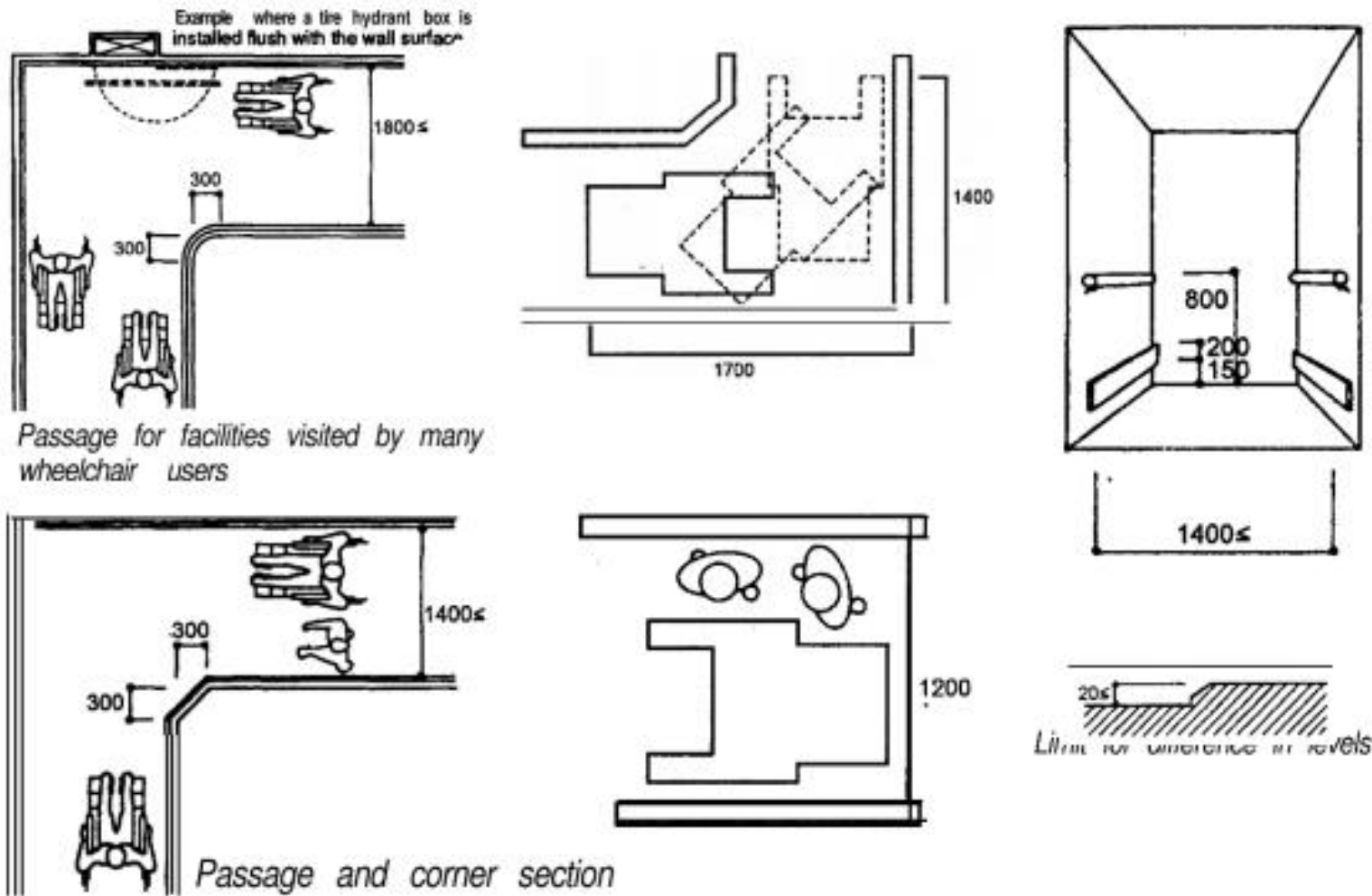


Fig: Passage and Corner Section

Entrance Landing

The minimum dimension 1800 x 2000 mm.
Landings shall be at least 1000 mm wide, 150 mm long and
at least 1300mm clear of any door swing.

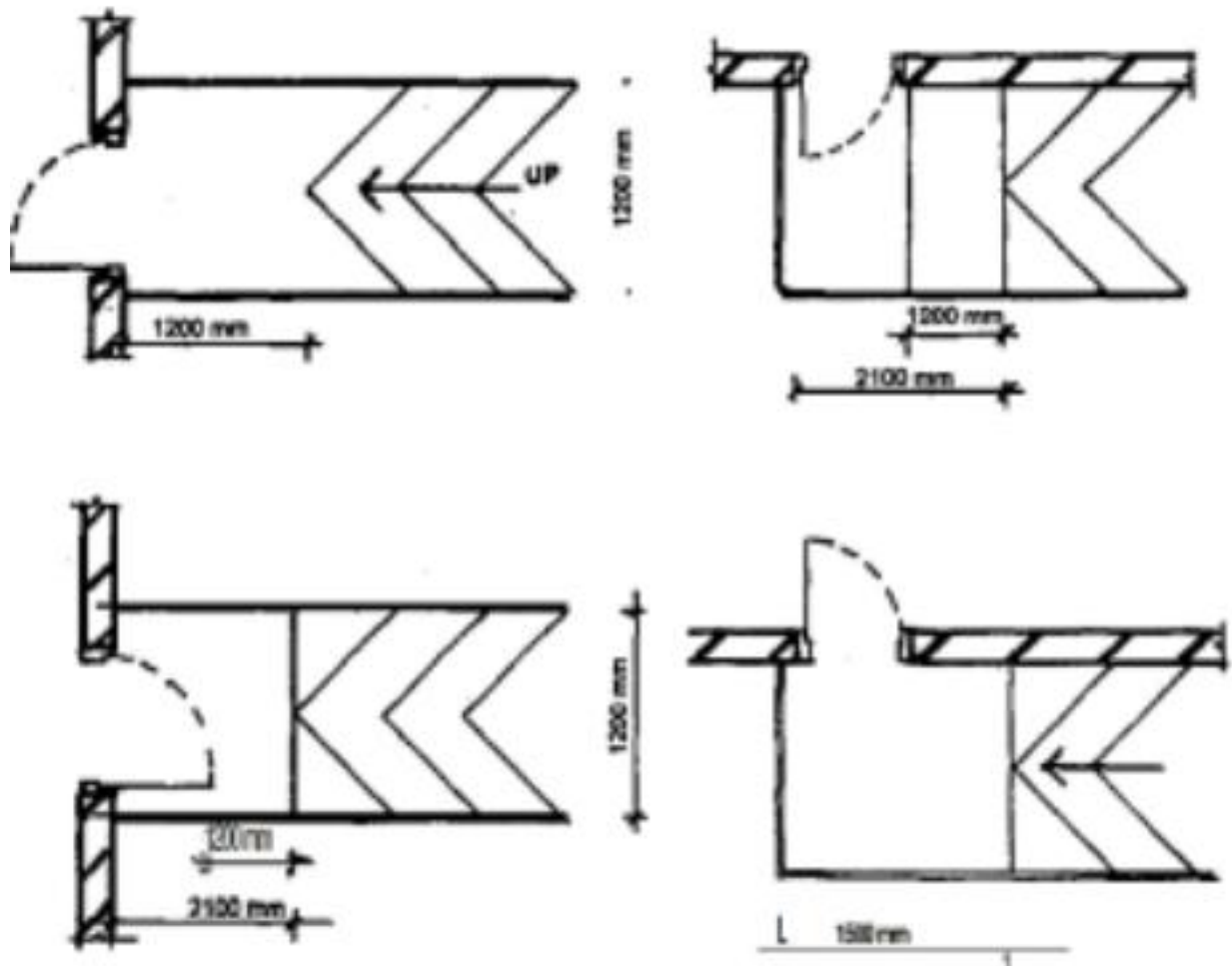


Fig: Entrance Details

Openings
Entry/Exit door

The maximum travel distance to exits or stairways from any point within the single floor level shall not be more than 30m
Except when external corridor of 15m or more is part of the route
Clear opening of the entrance door shall be 900 mm.

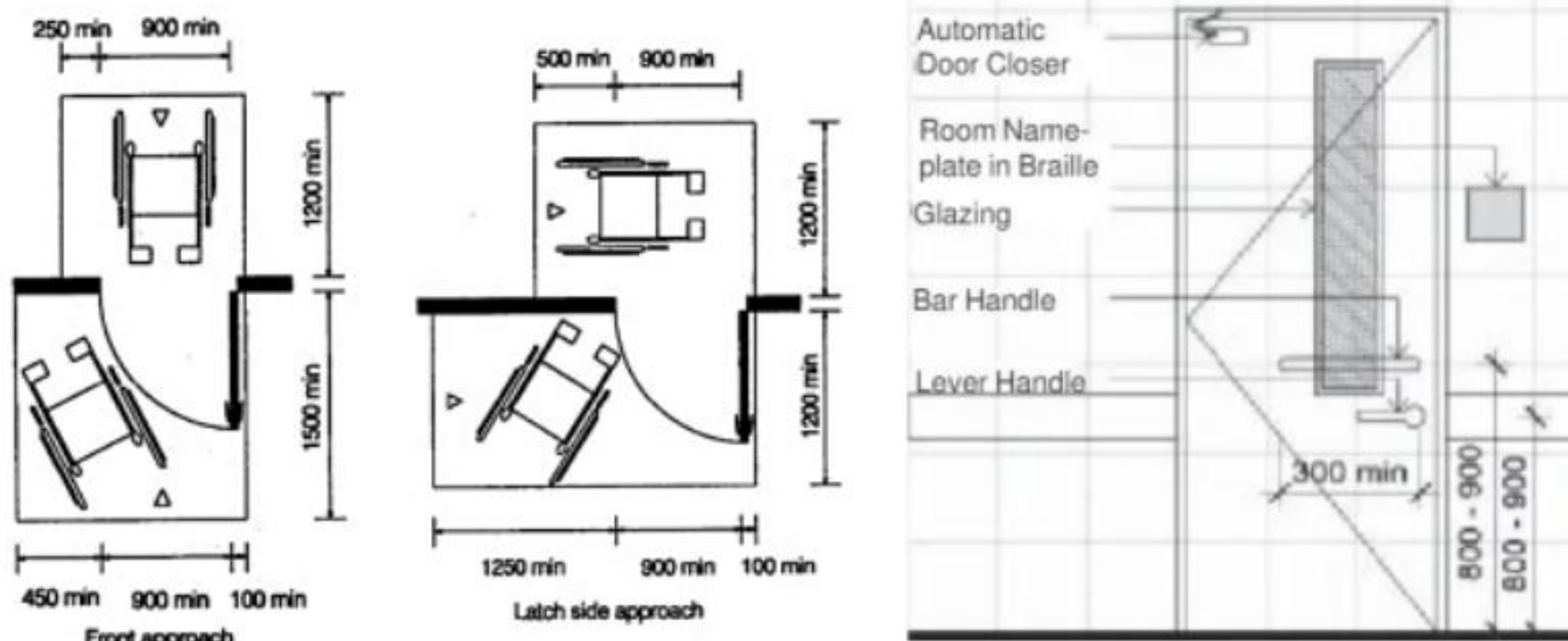


fig :Entry and Exit door detailing

Window

A window should have an unobstructed viewing zone for wheelchair users.
Auxiliary hardware such as blinds and locking devices for shutters must be placed between a height of 900mm – 1200mm.
If any window is placed below the 900mm then it must be non – open able.

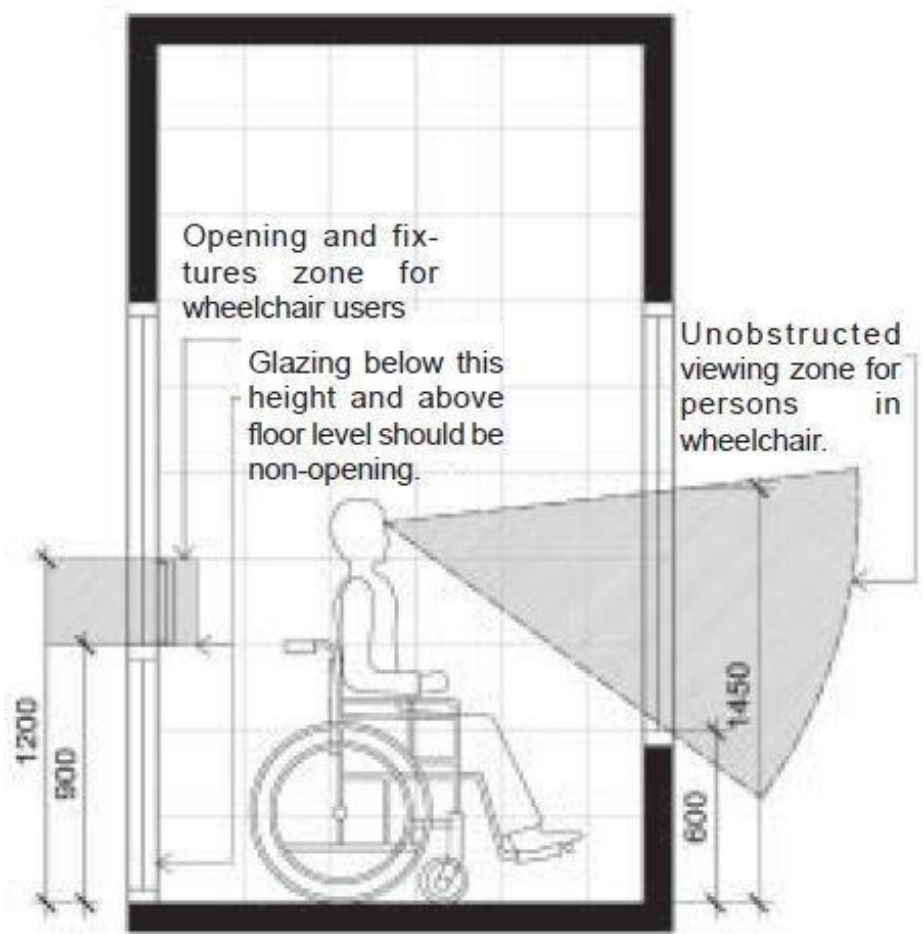


Fig: Window Detailing

Parking

Parking spaces shall be at least 2400 mm wide.
Parking spaces and access aisles shall be level with surface slopes not exceeding 1:50 (2 per cent) in all directions.

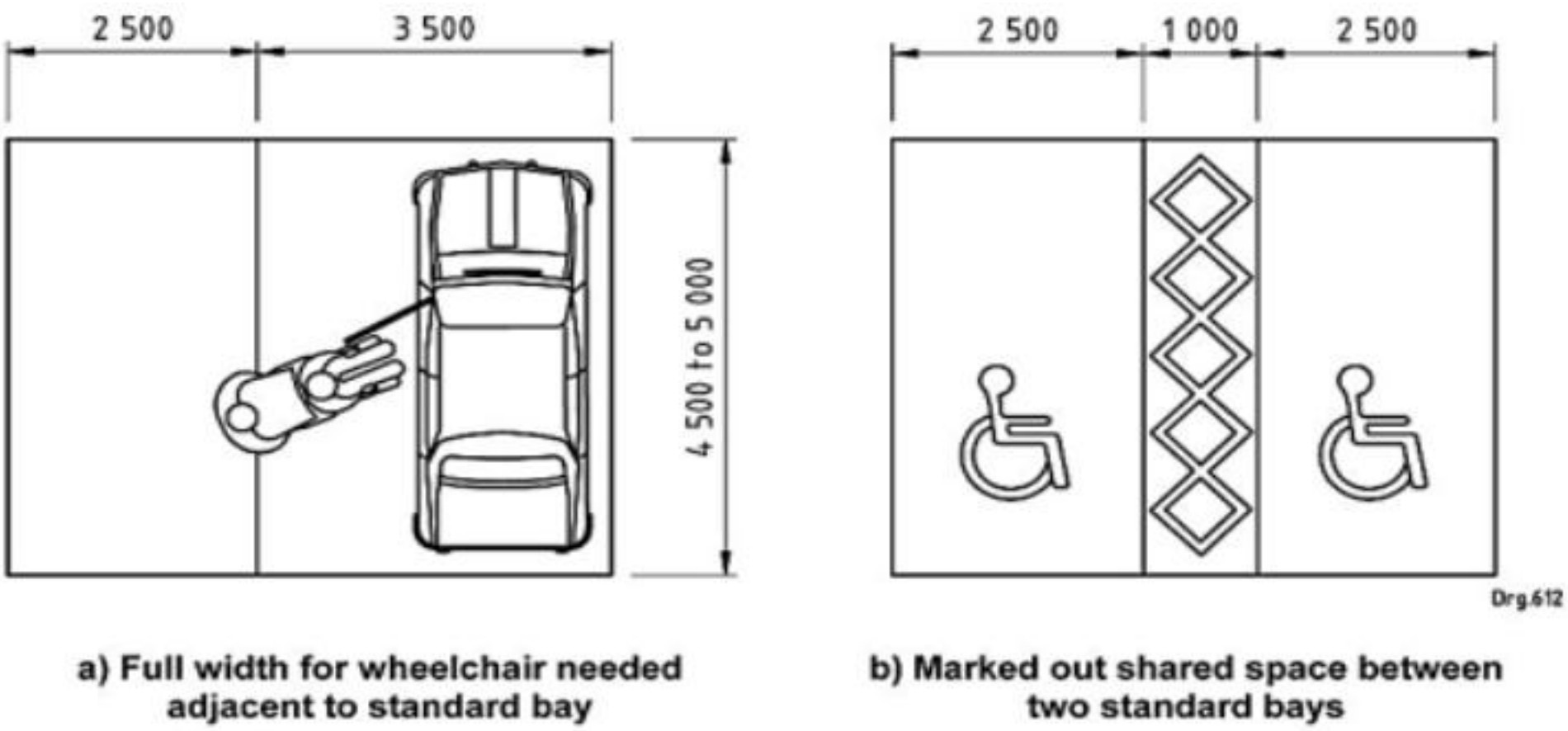
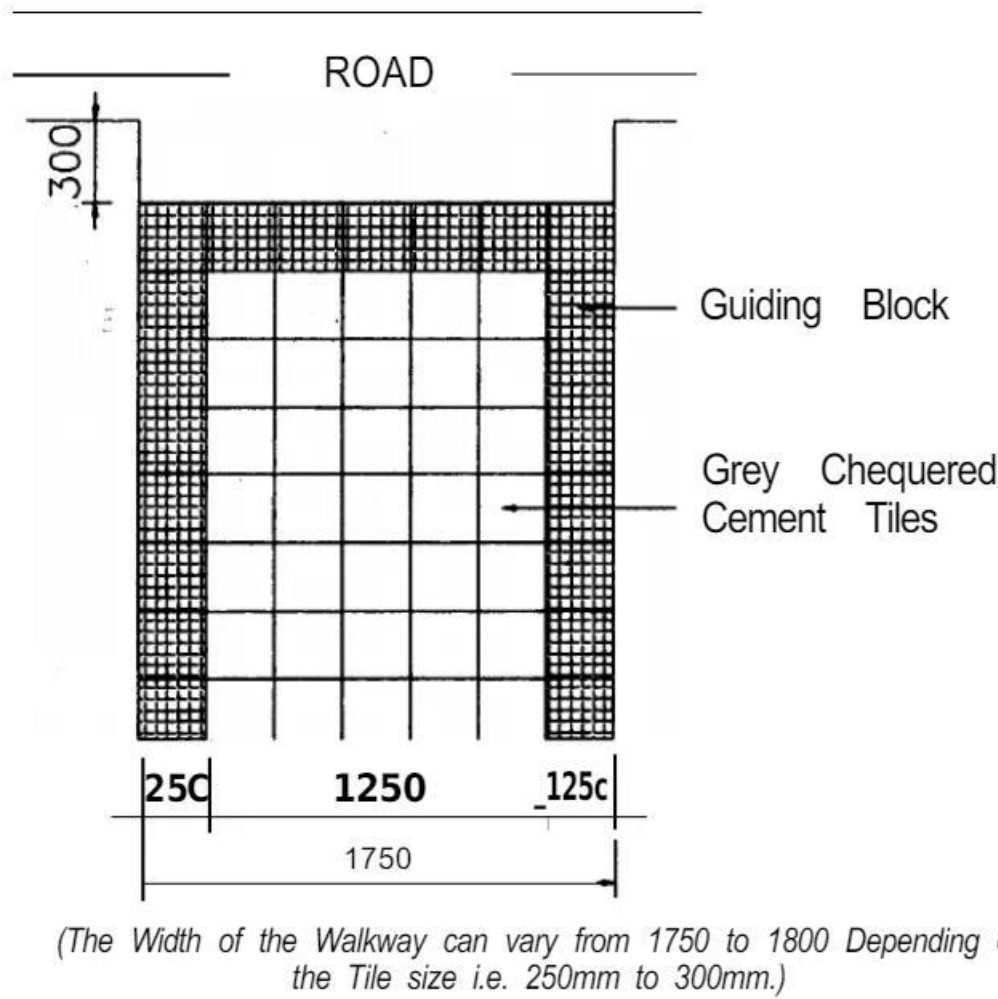


Fig: Parking detailing

Walkways

The land should have enough space for walkways as the residents would like to take a stroll during leisure times.



LITERATURE REVIEW

Rooms

Bedroom

Thus, following standard requirement shall be followed:

- At least 1500 mm turning in space for wheel chair should be kept near all entry points to the living area.
- The bedroom layout should be such that the bed should not be in a corner of a wall.
- A min. 900 mm width should be kept in front of bedroom closet and any other

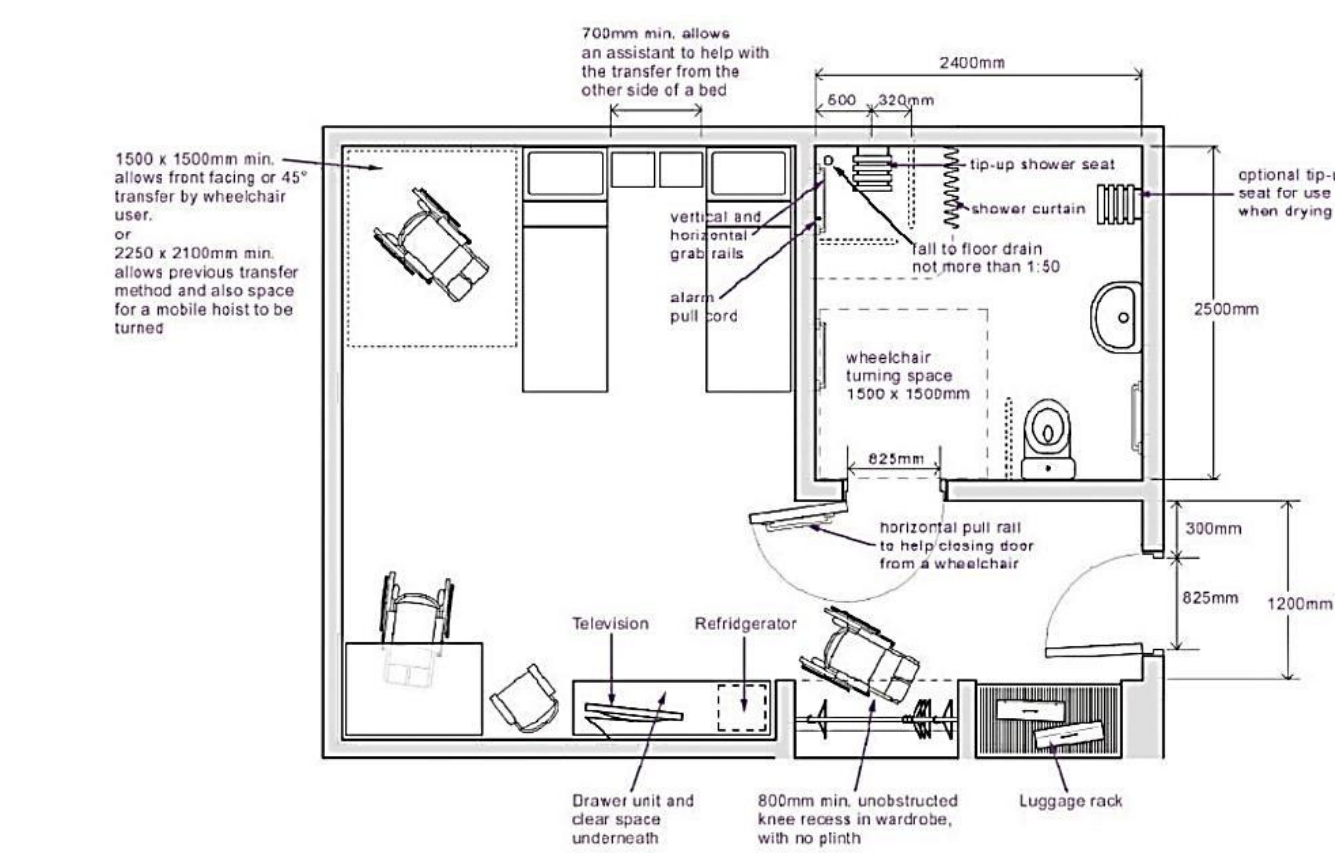


Fig : Bedroom detailing

Living Room

More or less every residing unit shall have an area or areas which are organized and furnishable

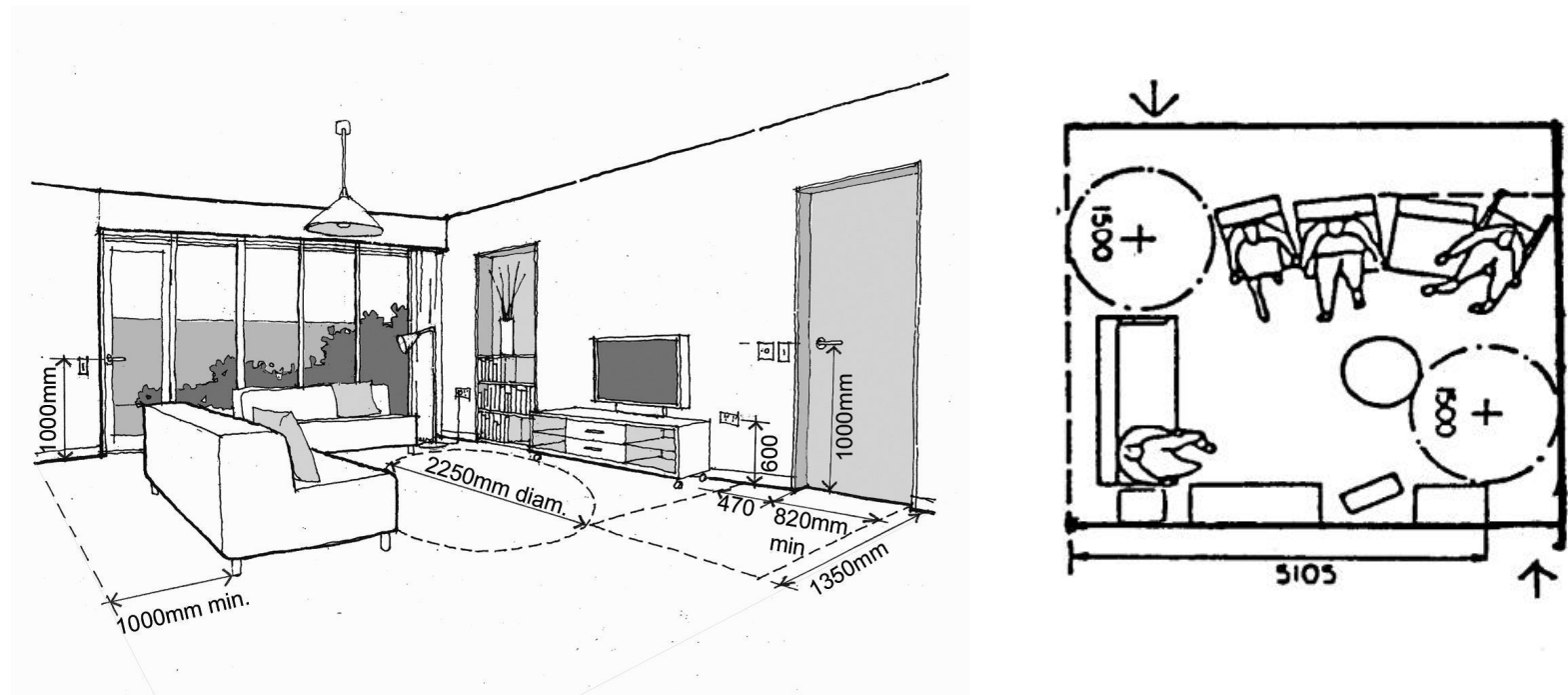


Fig :Living room Detailing

Kitchen and Dining

Kitchens are potentially as dangerous as bathrooms; equal care should be given to their layout and design.

- Floor space should allow easy wheelchair movement between worktop, sink and cooking stove.

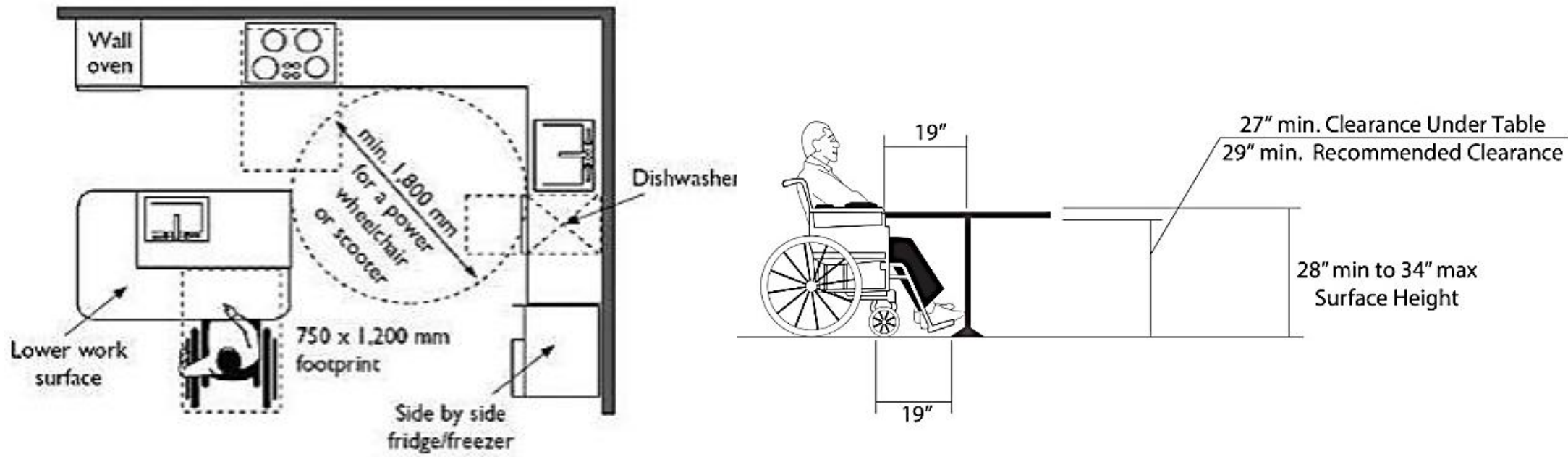


Fig : Detailing of kitchen and Dining

Detailing

1. Cornice and Detailing:

The focus needs to be provided in the corners of furniture and edges of wall. The sharp and pointy edges need to be avoided as far as possible to reduce the accident and hazards to occur.

Furniture

The edges of the furniture's such as bed, table, sofa, chair, wardrobe needs to be rounded and the materials used should be soft and flexible.



Fig : Furniture detailing

Wall

The edges of the walls are guarded by the use of plastics and wood. Also, it is finished by using pop or plaster with rounded corners.



Fig : Wall Detail

• Toilet and Bathroom

The toilet and bathroom area are the accident-prone area.

- The minimum size shall be 1500 x 1750 mm.
- Minimum clear opening of the door shall be 900 mm. and the door shall swing out.
- The W.C. seat shall be 500 mm. from the floor
- Toilet floor shall have a non-slip surface without any level difference

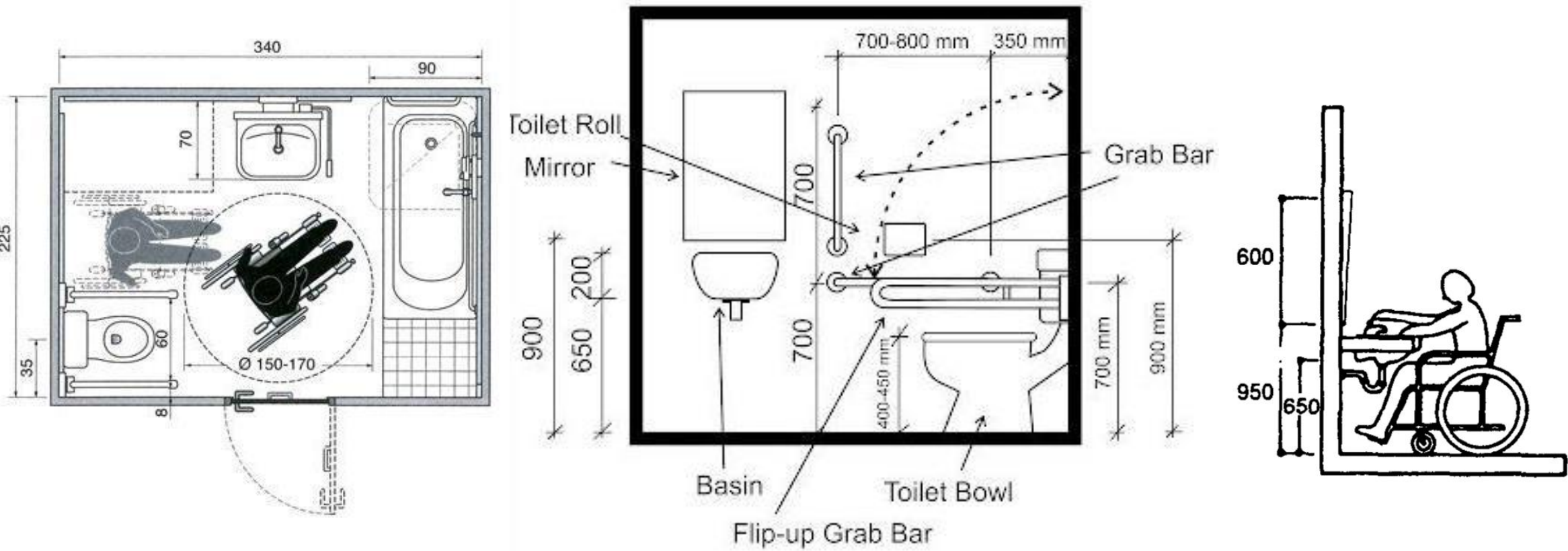


Fig :Toilet and Bathroom Detailing

2. Materials

The materials used should be anti-slip and resilient. The materials for the outdoor spaces and indoor spaces should be carried out as follows:

• Outdoor spaces:

Pavement, Walkways: Use of non-slip paved materials in the pavement, walkways such as smooth concrete, brick, stone, etc.

• Indoor spaces:

Living room : Wood, Rigid LVT, Laminate

Bedroom : Carpet, Wood flooring, Laminate flooring

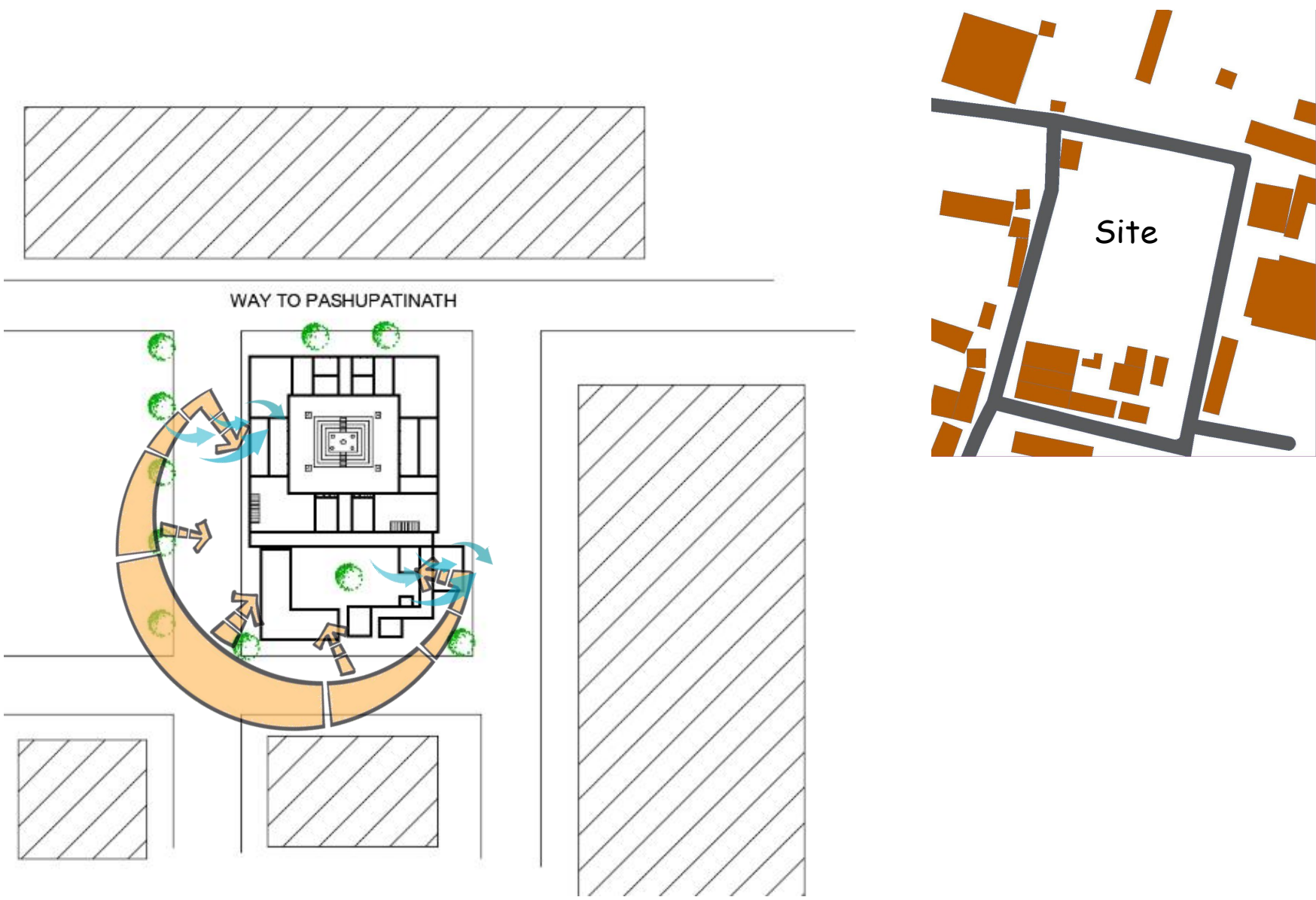
Dining and kitchen room : Hardwood flooring, Tiles, Marbles

Toilet and bathroom : Porcelain, Ceramic, Vinyl tiles

SENIOR CITIZEN CENTER

SOCIAL WELFARE CENTER , ELDERLY’S HOME

SITE LOCATION AND SURROUNDINGS



The Social Welfare Centre Elderly Home is a government-run old age home located within the sacred premises of Pashupatinath Temple in Kathmandu, Nepal. It provides shelter, food, and medical care to elderly citizens who are homeless or abandoned. Established to support Nepal's aging population, the facility operates under the Ministry of Women, Children, and Senior Citizens.

- Location: Pashupati, Kathmand
- Total Area: Around 5,080 sq.m.
- Built Year: Around 2035
- Total Capacity : 230
- Target population : 60+ in yrs.
- Type : Male/ Female (Free)
- Working Staff : 18

Occupancy report

Total	No.
Capacity	230
Total living	70
Male	26
Female	44

Disable people	
Total	No.
Capacity	40
Total living	28
Male	10
Female	18

MASTER PLAN

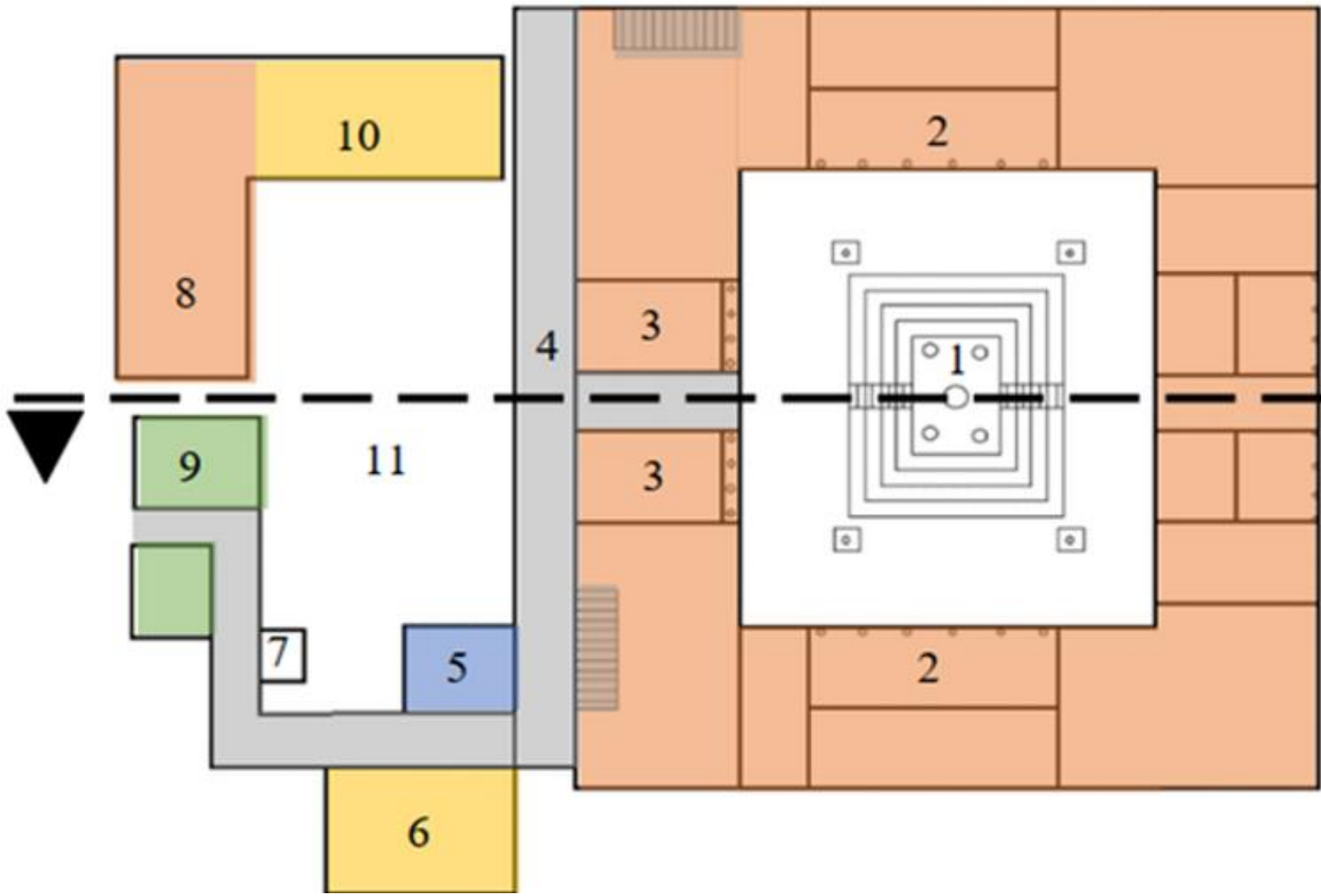
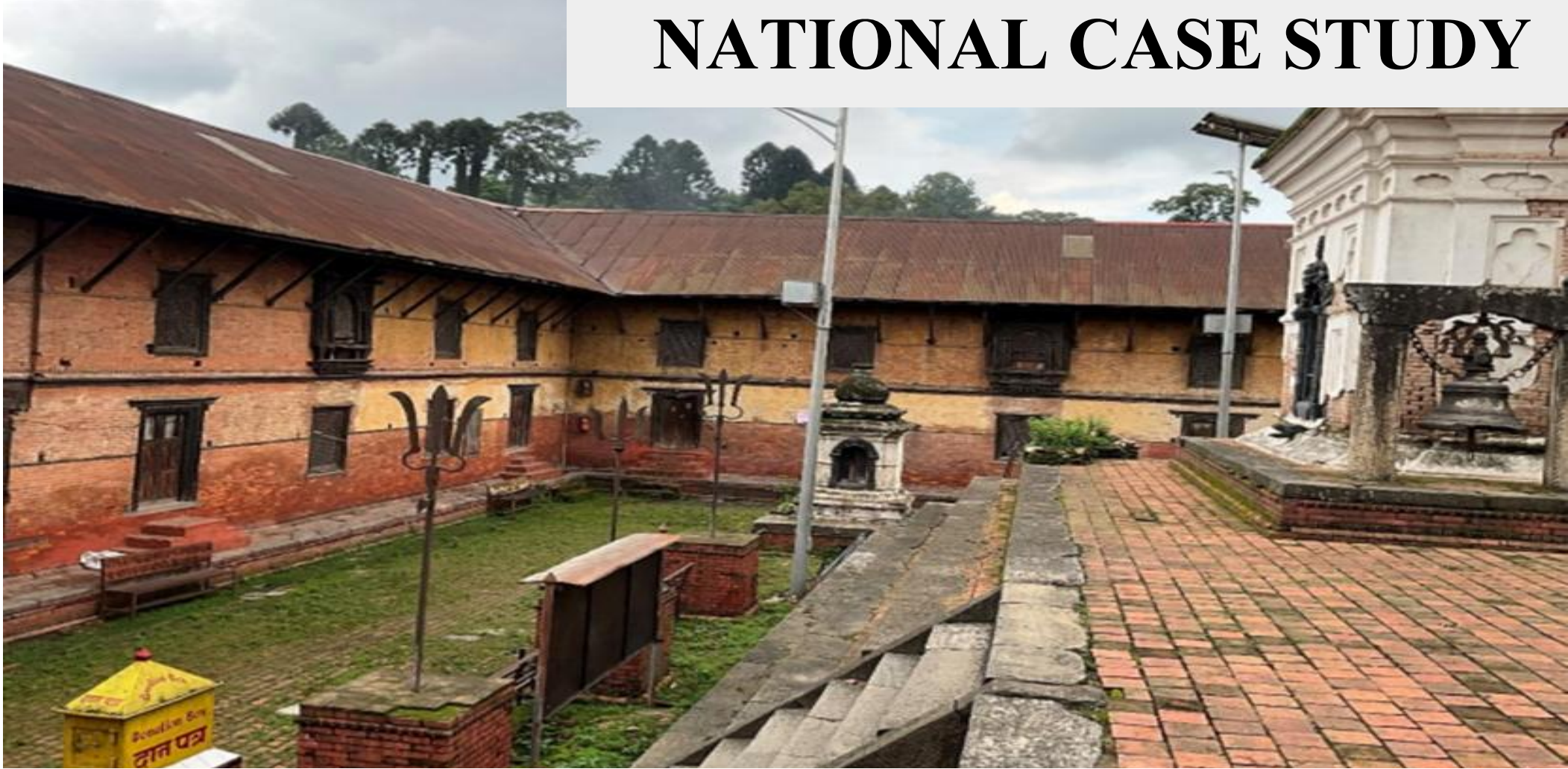


Fig - Master Plan

- INDEX:**
- 1 : Pancha Deval
 - 2 : Pati
 - 3 : Clinic
 - 4 : Dining hall
 - 5 : Admin
 - 6 : Kitchen
 - 7 : Reception
 - 8 : Dormitories for disable men
 - 9 : Toilet
 - 10: Dormitories for disable women
 - 11: Courtyard

NATIONAL CASE STUDY



ZONING

Zone Type	Description	Included spaces
Public Zone	Areas accessible to all visitors and users.	Entrance, Reception, Lobby, Waiting Area, Garden, Courtyard
Semi-Public Zone	Spaces with controlled access, used for communal activities.	Dining Hall, Library, Activity Rooms, Prayer Hall
Private Zone	Restricted areas for residents or specific users.	Dormitories, Private Rooms, Restrooms, Staff Rooms, Administrative Offices
Service Zone	Utility and functional spaces supporting the facility.	Kitchen, Pantry, Storage, Laundry, Maintenance Room, Waste Management Area
Circulation Zone	Areas designated for movement and accessibility.	Corridors, Staircases, Ramps, Pathways



Fig - Pancha Deval

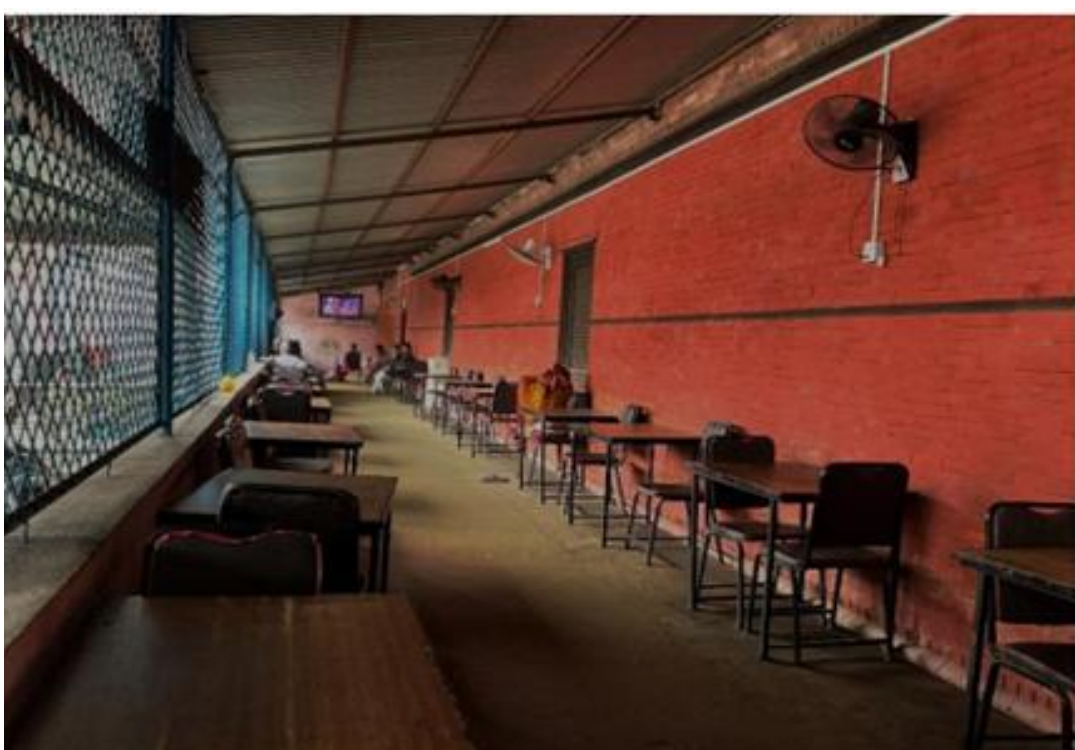


Fig - Dining hall



Fig - Dormitories



Fig - courtyard

Circulation

Circulation Type	Description	Examples
Horizontal Circulation	Movement within the same level.	Corridors, Hallways, Walkways, Open Passages
Vertical Circulation	Movement between different levels.	Stairs, Ramps
Primary Circulation	Main movement routes connecting key areas.	Main Corridors, Lobby Walkways, Major Aisles
Secondary Circulation	Smaller routes leading to specific spaces.	Hallways to Rooms, Service Passages

SOCIAL WELFARE CENTER , ELDERLY’S HOME

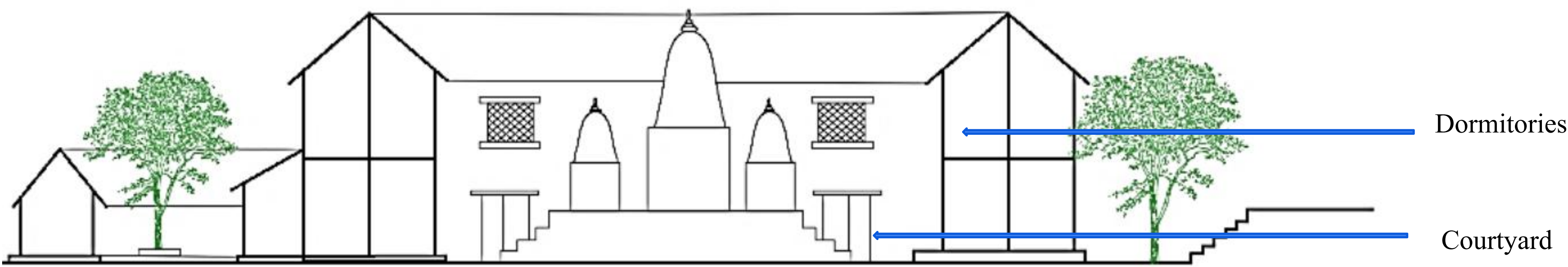


Fig - Profile section

Services Provided by the Elderly Home

- 1. Basic Needs – Provides shelter and food for elderly residents.
- 2. Healthcare – Offers medical treatment and maintains a clean environment.
- 3. Special Care – Has a dedicated ward for disabled elderly individuals seperately for both male and female.
- 4. Clothing – Residents receive a new pair of clothes twice a year.
- 5. Festivals & Cultural Activities – Celebrates various festivals according to tradition.



Fig - ward for disabled elderly .

Activities include:

- 1. Watching TV.
- 2. Performing devotional songs
- 3. cultural program occassionally
- 4. Outdoor picnic



Fig - Watching TV.



Fig - activities in courtyard



Fig - activities in courtyard



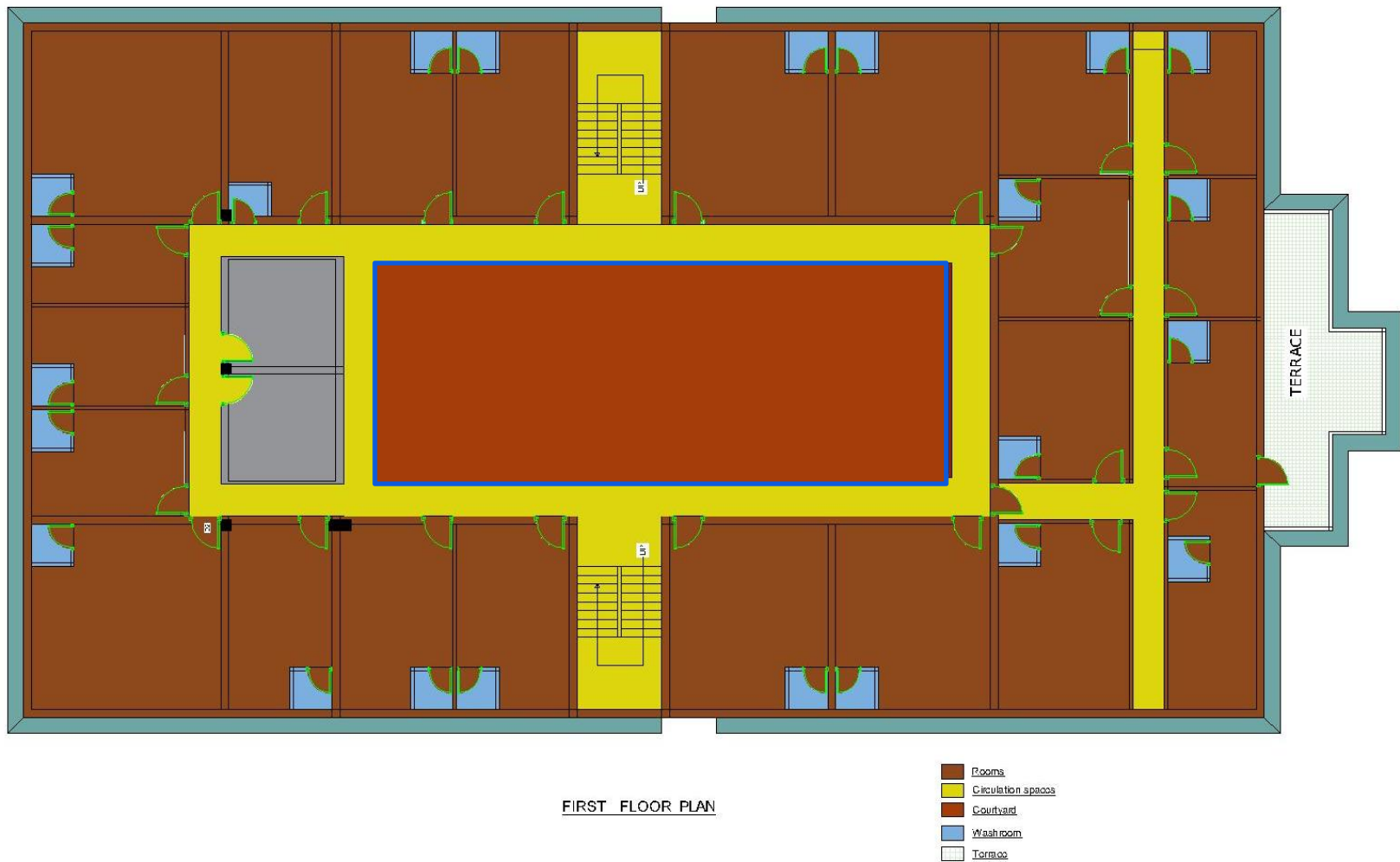
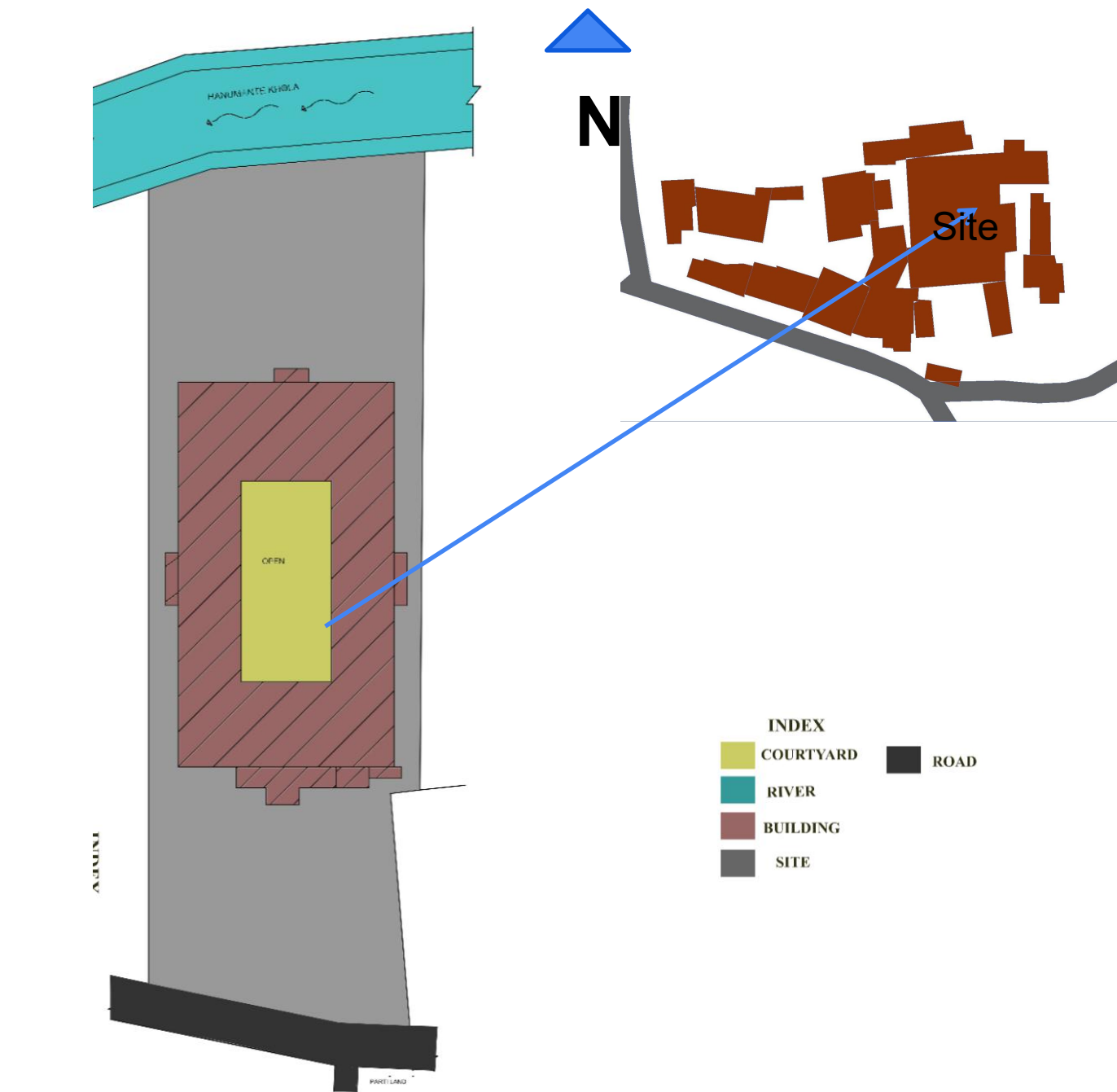
Fig -Space for Performing devotional songs

Materials used:

- Brick and Mortar – Used for the main structural walls, ensuring strength and stability.
- Cement and Concrete – Applied in the foundation, floors, columns, and beams.
- Timber (Wood) – Found in doors, windows, and roof supports, often reflecting traditional Nepalese craftsmanship.
- Stone – Used in flooring, staircases, and exterior pavements.
- Clay Tiles and Slate – Seen on the roof, enhancing the traditional architectural
- Metal – Utilized for railings, reinforcement bars (rebar) in concrete, and roofing sheets in some areas.
- Glass – Incorporated in windows and partitions to allow natural light and ventilation.
- Plaster and Paint – Used for wall finishing, providing protection and a smooth appearance.

SIDDHI SHALIGRAM BRIDHASHRAM

SITE LOCATION AND SURROUNDINGS



- Location: Bhimsensthan, Bhaktapur
- Total Area: Around 1400 sq.m.
- Built Year: Around 2005
- Total Capacity : 50
- Target population : 60+ in yrs ,50+(situational)
- Type : Male/ Female
- Working Staff : 1(doctor),6(staff nurse),5(helpers)

Occupancy report

Total	No
Capacity	50
Total living	37
Male	11
Female	26

CONCEPT

Human-Centered Design – Prioritizes comfort, safety, and accessibility for elderly residents.

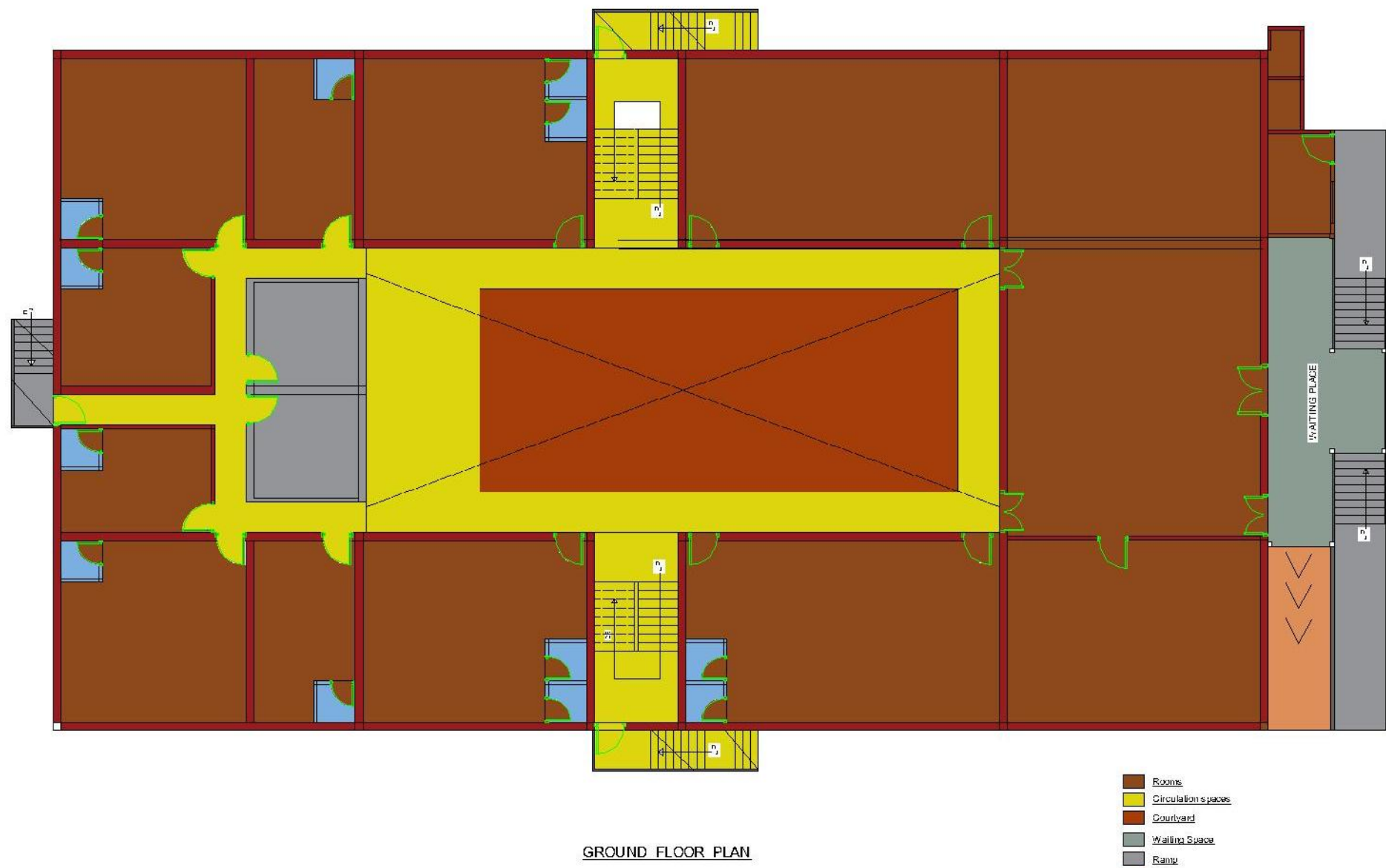
Universal Accessibility – Incorporates ramps, wide corridors, and accessible bathrooms.

Functional Zoning – Well-defined spaces for residents, staff, and communal activities.

Natural Light & Ventilation – Maximizes daylight and airflow for a healthy environment.

Integration with Nature – Courtyards and greenery provide a peaceful atmosphere.

FLOOR PLAN

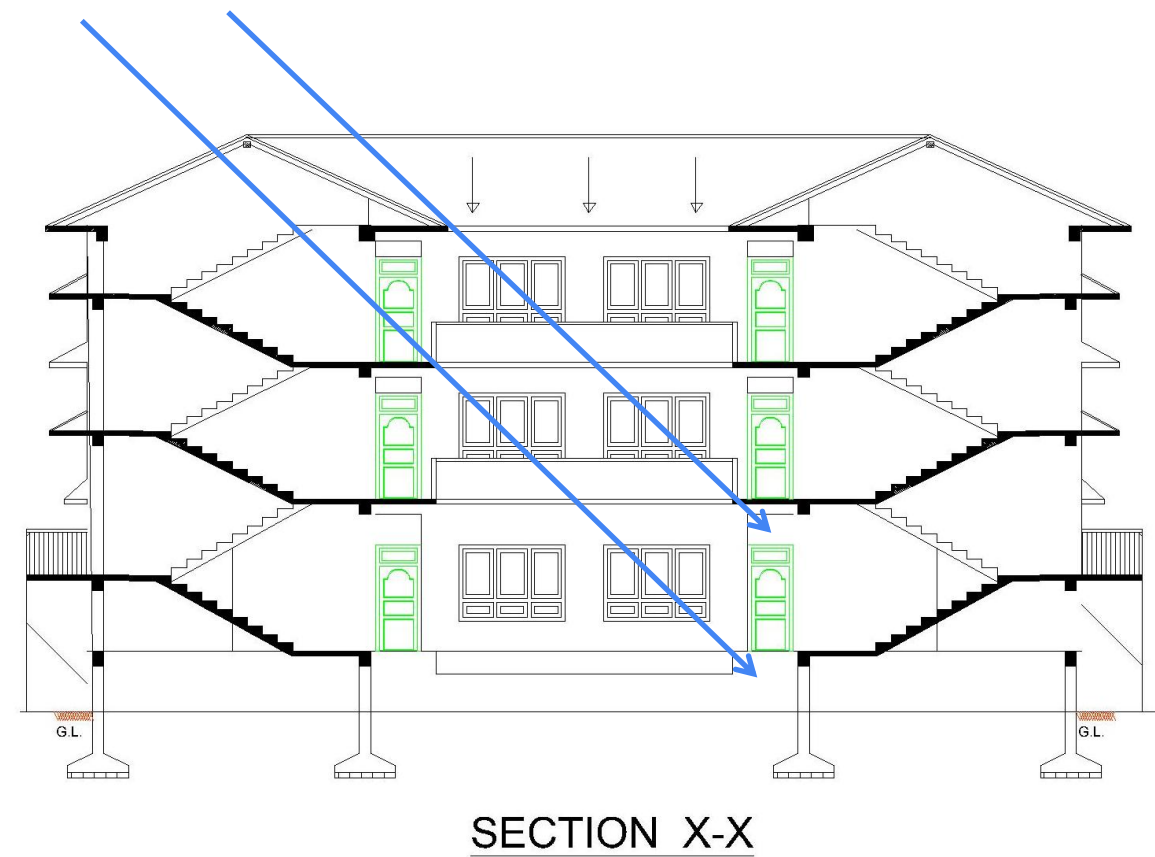


Zone	Spaces Inculded	Function
Public Zone	Reception Area, Courtyard, Walkways	Welcoming visitors, interaction, and movement
Residential Zone	Rooms for Disabled, Toilets/Bathrooms	Accommodation and personal care for elderly residents
Service Zone	Kitchen, Dining Space, Storage Room	Food preparation, dining, and storage
Staff Zone	Staff Room	Space for staff to rest and manage operations
Spiritual/Relaxati on Zone	Prayer/Meditation Room, Courtyard	Space for spiritual activities and relaxation

Circulation Space	Description
Main Entrance/Exit	Primary access point for visitors and staff, connecting the outside to the building. It leads into the reception area.
Corridors	Hallways connecting various rooms and spaces on the ground floor, allowing free movement for residents, staff, and visitors. These corridors also ensure accessibility, especially for disabled residents.
Walkways	Outdoor paths that connect the courtyard and other outdoor spaces. These walkways allow residents to move between different outdoor areas or reach the dining and other spaces.
Walkways	Separate or shared paths for staff to move between workspaces, including the kitchen, staff room, and storage, to avoid overlap with resident spaces.
Connecting Areas	These include doors and passageways that link key areas like the dining space, staff room, storage areas, and toilets, ensuring smooth transitions between functional zones.

Services Provided:

- Basic Needs – Provides shelter and food for elderly residents.
- Healthcare – daily ,weekly ,monthly ,eye campaign
- Special Care – Has 4 dedicated ward for disabled elderly individuals seperately for both male and female.
- Festivals & Cultural Activities – Celebrates various festivals according to tradition.
- Library



Activities include:

- Watching TV.
- Occasionally Performing devotional songs
- cultural program occassionally
- Playing Cards



Fig -Cultural program



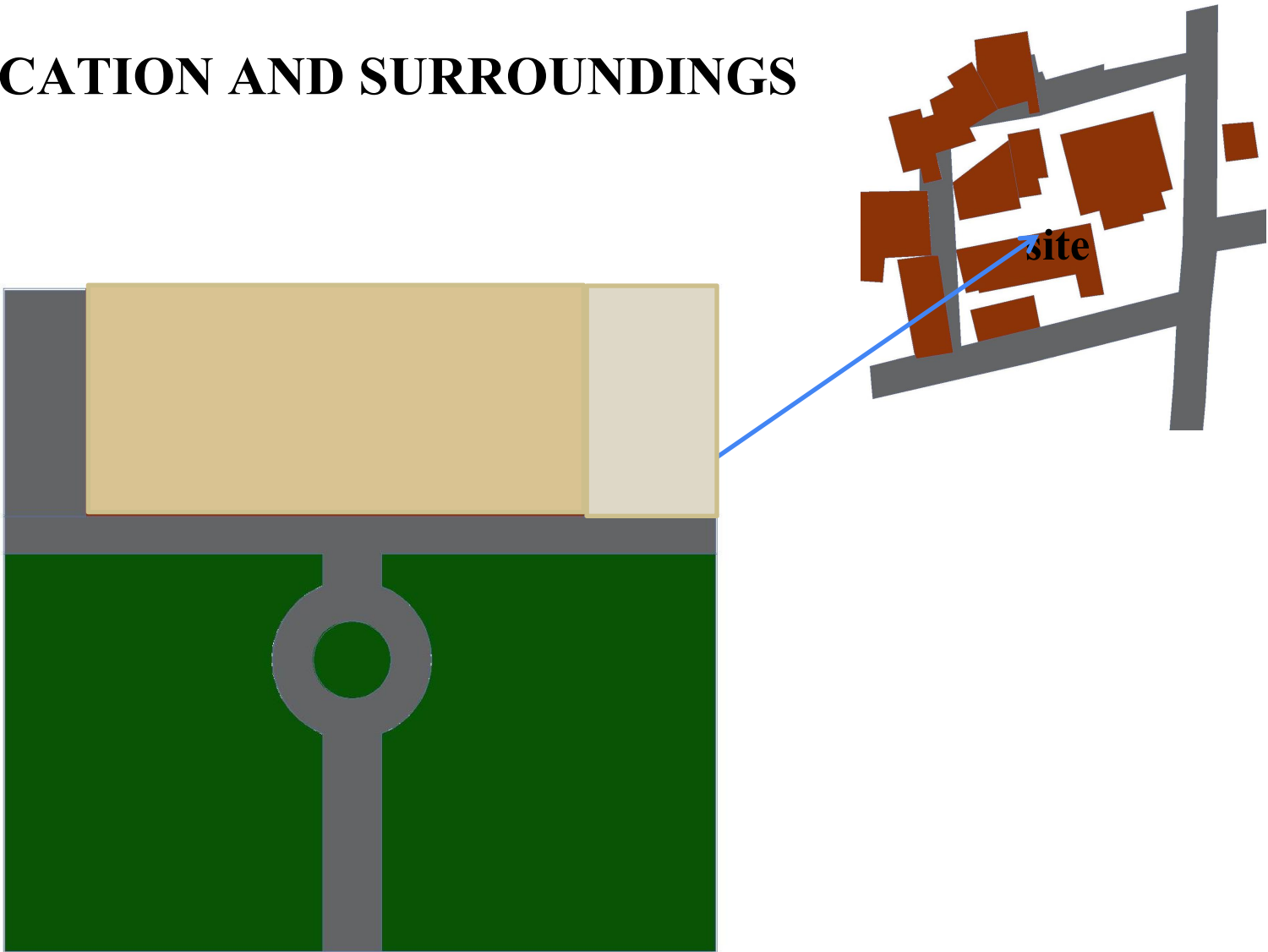
Fig - Regular health checkup

Materials used:

Purpose/Area	Material Used
Walls (Interior)	Plaster, Paint, Concrete Blocks
Exterior Finishes	Stone, Brick Cladding, Paint
Flooring	Ceramic Tiles, Vinyl Flooring, Wood/Laminate
Roofing	Concrete Slab, RCC Roof, Metal Sheets/Tiles
Windows and Doors	UPVC/Aluminum, Wooden, Glass Panels
Furniture and Fixtures	Wood, Metal, Plastic, Resin
Sustainability Features	LED Lighting, Solar Panels
Landscaping/Outdoor	Stone, Gravel, Green Plants, Grass

BHAKTAPUR AADAR NIKETAN

SITE LOCATION AND SURROUNDINGS



Zoning and Circulation

Category	Space	Function
Entry	Entrance pathway	Leads visitors into the main building
Public Zone	Garden & seating area	Open space for relaxation and socializing
Semi-Public Zone	Ground floor veranda	Transition space between outdoor and indoor areas
Private Zone	Indoor rooms (ground floor)	Living spaces for occupants

Bhaktapur Aadar Niketan is a day care center for the elderly



of elderly residents.
Accessibility: Ramps, wide corridors, and accessible bathrooms.
Natural Light: Maximizes daylight and ventilation.
Functional Zoning: Clear areas for socialization, dining, and private spaces.
Social Interaction: Common areas encourage community engagement.

Services

- Health and Care Services:Medical Assistance: Regular health check-ups and monthly checkup .
- Recreational and Social Activities:Indoor activities Board games,Performing devotional songs,waving, and other activities to keep residents engaged.
- TV and Entertainment: Viewing areas with television programs, particularly tailored to the interests of the elderly.
- Comfort and Living Spaces:Common Areas: Social spaces such as a living room, garden, and recreational spaces for group activities.
- Accessibility Features:Ramps : For easy movement, particularly for residents with mobility challenges.



Fig - Activities

Space	Material Used
Walls	Exposed red bricks
Roof	Metal sheets with red coating
Doors & Windows	Wooden frames with glass panels
Porch & Veranda	Wooden railings and columns
Outdoor Pathway	Black stone tiles
Seating Area (Garden)	Concrete with red brick finishing

MANTRI'S PRIMUS EDEN

SITE LOCATION AND SURROUNDINGS



Fig: Mantri's Primus Eden

Circulation

Circulation Type	Spaces Involved	Features/Description
Vertical Circulation	Elevators, Staircases, Ramps	Wide, low-speed elevators for easy access - Well-lit staircases with handrails - Gentle ramps for wheelchair users
Horizontal Circulation	Corridors, Pathways, Indoor-Outdoor Flow	Spacious, wide corridors for easy movement - Clear, marked pathways - Seamless transition between indoor and outdoor areas
Public to Private Circulation	Public areas (Dining, Clubhouse, etc.), Private Residential Units	Restricted access to private spaces - Easy access from common to public areas - Clear zoning for privacy
Emergency Circulation	Fire Exits, Emergency Evacuation Routes	Strategically placed fire exits - Clear directional signage and emergency lighting

Mantri's Primus Eden is a premium senior living community in India, designed for a comfortable and independent lifestyle. It features barrier-free architecture, 24/7 medical support, wellness and recreational facilities, curated dining, and housekeeping services.

PROJECT BRIEF

- Location: Kanakapura Road, Bangalore
- Total Area: 4.5 Acres
- Architect : Adarsh Narahari ,Mantri Developers
- Project Year: 2014
- Total Capacity : 75
- Target population : 55+ in yrs.
- Type : Male/ Female

zoning

Space Type	Zones	Spaces Included
Private Spaces	Residential Zone	Apartments, Assisted Living Units, Private Balconies
Semi-Public Spaces	Healthcare & Service Zones	Medical Center, Pharmacy, Housekeeping, Laundry, Security Offices
Public Spaces	Recreational, Dining & Outdoor Zones	Clubhouse, Library, Yoga Room, Cafeteria, Gardens, Walking Tracks

Aminities

1. Main Entrance
2. Health & Wellness Center
3. Entrance Porch
4. Landscaped Front Garden
5. Parking Area
6. Pedestrian Walkways
7. Pyramid-Shaped Meditation Hall
8. Outdoor Badminton Court
9. Shuffleboard Court
10. Relaxation Seating Areas
11. Putting Green
12. Swimming Pool
13. Spiritual Temple Complex
14. Scenic Lawn Mound
15. Stepping Stone Walkway
16. Herbal & Aromatic Garden
17. Reflexology Pathway
18. Flower Pavilion
19. Gardening & Hobby Zone
20. Serene Lily Pond
21. Backdrop Plantation Area
22. Spa & Wellness Center



Fig: Atrium and detailing



Fig: Dinning

Concept

Community Spaces: Centralized areas like the clubhouse and dining encourage socialization.

Private and Connected: Apartments provide privacy while staying visually connected to public spaces.

Nature Interaction: Indoor-outdoor flow with gardens and walkways fosters informal socializing.

Accessibility: Barrier-free design ensures easy movement and interaction for all residents.



Fig: Indoor Landscape



Fig: Golf Court



Fig: Meditation Centre



Fig: Entrance Garden

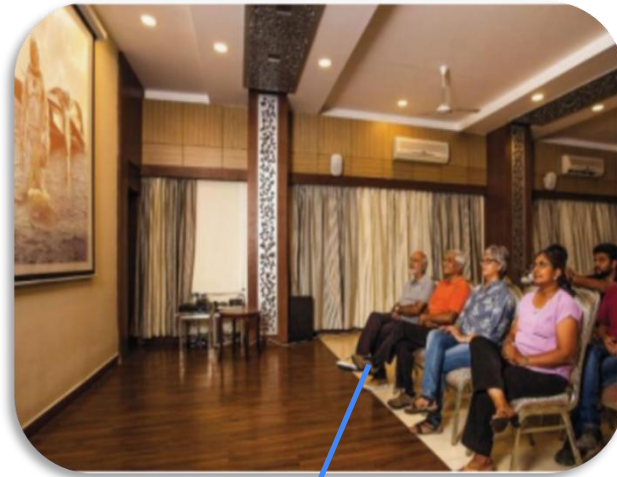


Fig: Health Centre



Fig: Ganesh Temple



Fig: Hobby Garden



Fig: Main Building



Fig: Swimming Pool

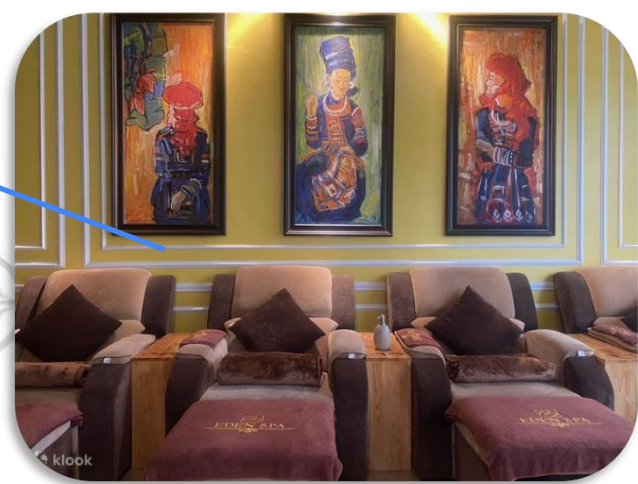


Fig: Massage center

NURSING AND RETIREMENT HOME

SITE LOCATION AND SURROUNDINGS

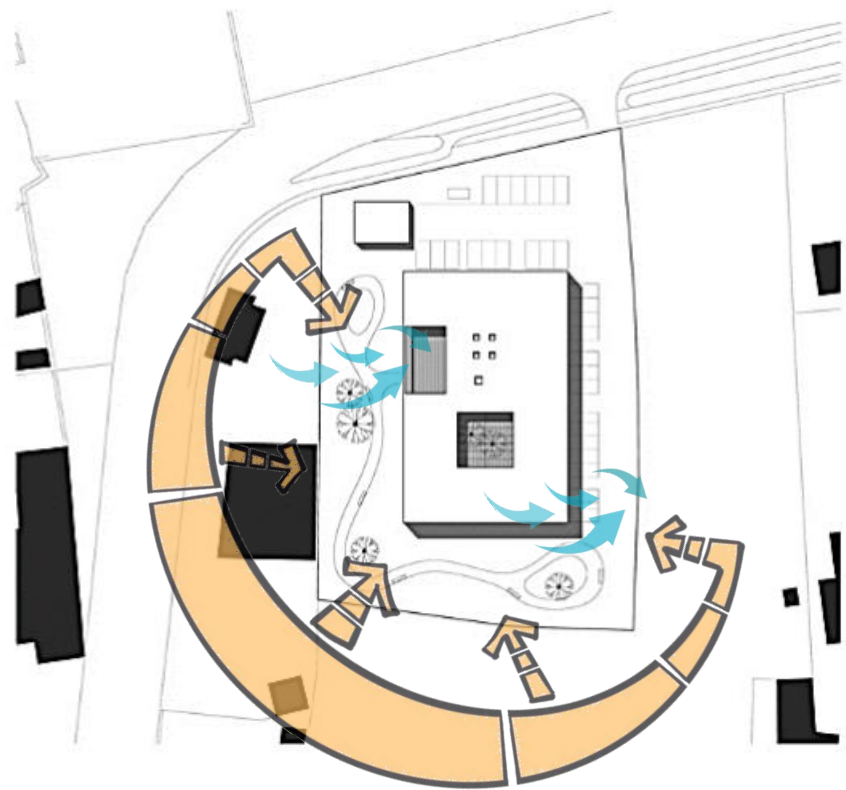


Fig : Nursing and Retirement

The nursing and retirement home of Leoben, Austrian is a three-storey building with a partial basement and was constructed a solid concrete structure with wood-frame elements and a different space allocation on each floor. The building complex consists of the outdoor walkways and indoor covered atrium.

Project Brief

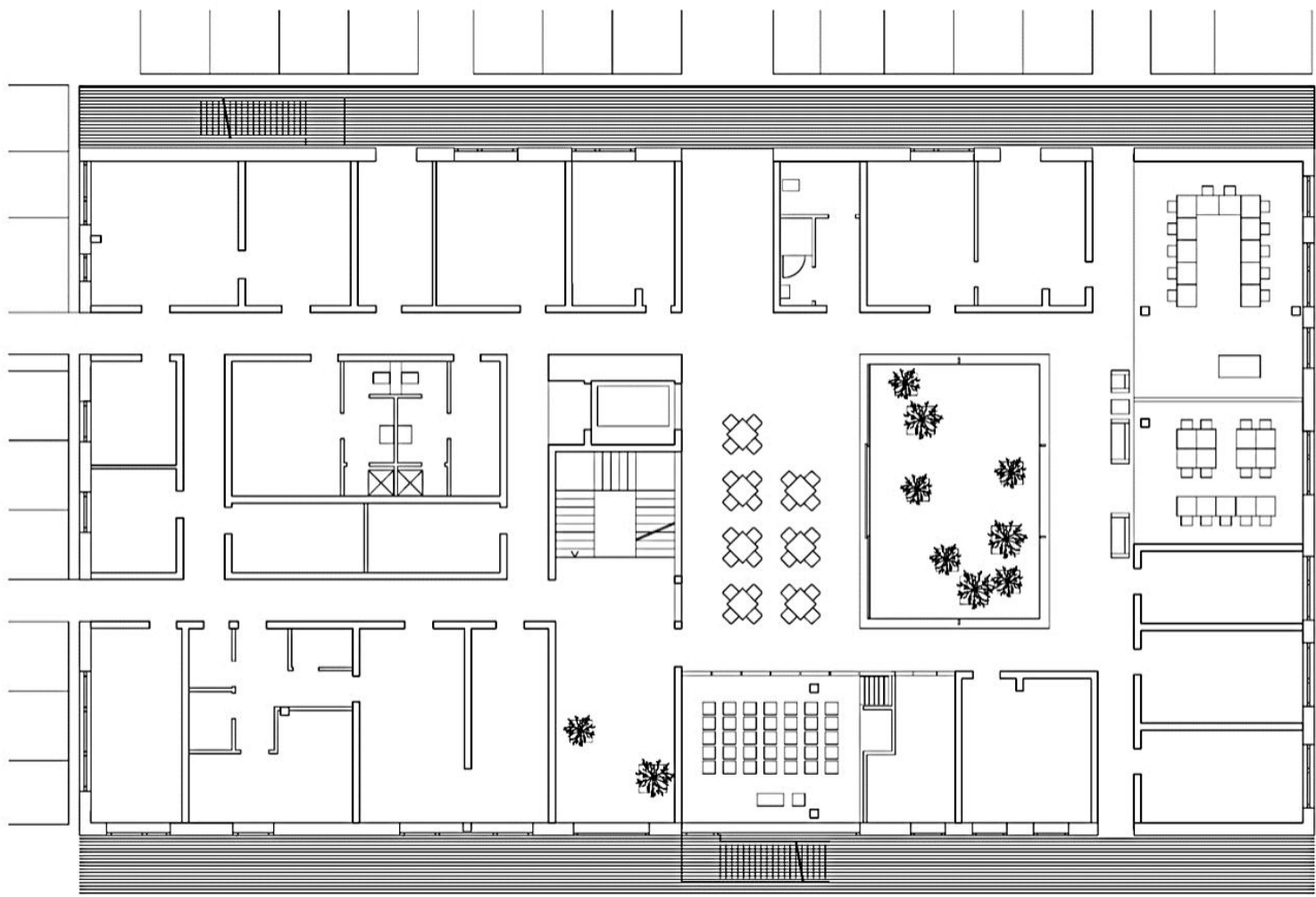
- Location: Leoben, Austria
- Total Area: 3024 sq.m
- Project Year: 2014
- Total cottage : 49
- Architect : Dietger Wissounig Architekten



Fig: Bedroom



Fig: Building and surrounding



Grundriss Erdgeschoss / Ground floor plan

Fig : Ground floor plan

Design Focus

- Natural illumination and unobstructed views
- Avoidance of dark, artificially lit spaces
- Strategic daylight through conservatory, terraces, and corridor openings



Fig: Planned outdoor spaces

Materials used

- Plastered solid structural elements: solid walls covered with plaster, giving a clean and smooth finish.
- Untreated larch wood: The building has parts made from larch wood that hasn't been treated, showing the natural grain and color of the wood, especially on the ground floor.
- Wood and light-colored surfaces inside: The interior is designed with a lot of wood and light-colored surfaces to create a warm and inviting atmosphere.
- Ash wood in the chapel: The chapel is lined with ash wood, which adds a calming, natural feel.
- Slat screen: chapel provides soft light, helping to create a peaceful and reflective space.



Fig: Corridor spaces

SENIOR CITIZEN CENTER

COMPERATIVE ANALYSIS

Aspect	Location	Planning	Elevation	Form	Connectivity	Zoning	Built Form	Circulation	Sustainability Strategies
Social Welfare Centre, Kathmandu	Pashupati, Kathmandu, within sacred premises for spiritual and serene environment.			Low-rise with multiple courtyards for community interaction.	Well-connected to main roads and religious sites.	Courtyard-based with separate public, semi-public, and private zones.	Low-rise, interconnected buildings with courtyards.	Clear horizontal and vertical circulation with ramps and wide paths.	Passive cooling, rainwater harvesting, and green roofs.
Siddhi Shaligram Briddhashram, Bhaktapur	Bhimsensthan, Bhaktapur, near local communities.			Compact with central courtyards for traditional interactions.	Integrated with local paths for easy community access.	Zoning for privacy and community spaces with green areas.	Row housing with central courtyards for interactions.	Horizontal corridors and walkways for ease of movement.	Open courtyards, natural ventilation, and solar panels.
Bhaktapur Aadar Niketan, Bhaktapur	Chyamasingh, Bhaktapur, in a residential setting.			Horizontal spread with green pockets for relaxation.	Connected to residential roads for convenient access.	Clear zoning for social, dining, and private spaces.	Single-story spread with verandas for relaxation.	Horizontal circulation with verandas and paved paths.	Shaded walkways, rainwater collection, and natural ventilation
Mantri's Primus Eden, Bangalore	Kanakapura Road, Bangalore, surrounded by nature.			Clustered buildings with open greens for a resort-like feel.	Well-connected by highways and city roads.	Zoning for public, semi-public, and private with nature integration.	Multi-story with separate blocks for privacy and community	Vertical and horizontal with elevators and ramps	Solar energy, water recycling, and green roofs for sustainability.
Nursing and Retirement Home, Austria	Leoben, Austria, in a suburban setting with greenery.			Linear with intersecting balconies for spatial variation.	Suburban roads with access to local amenities.	Zoning for public, semi-public, and private with functional efficiency.	Multi-story with atriums and terraces for natural light.	Vertical circulation with elevators and wide corridors.	Natural light, rainwater systems, and energy-efficient materials.

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DEPARTMENT OF ARCHITECTURE
LIBALI, BHAKTAPUR

FINAL PRESENTATION
TITLE - CASE STUDY COMPERATIVE

NAME: ANU CHHUKAN
ROLL NO: 760107
DATE:

SENIOR CITIZEN CENTER

GENERAL INFORMATION

- **Location:** Bramayani, Bhaktapur
- **Latitude(deg/min):** 27°35'8.35"N
- **Longitude(deg/min):** 85°31'7.54" E
- **Site area:** 27 ropani
- **Orientation:** Along South -West
- **Current Use :** Agriculture

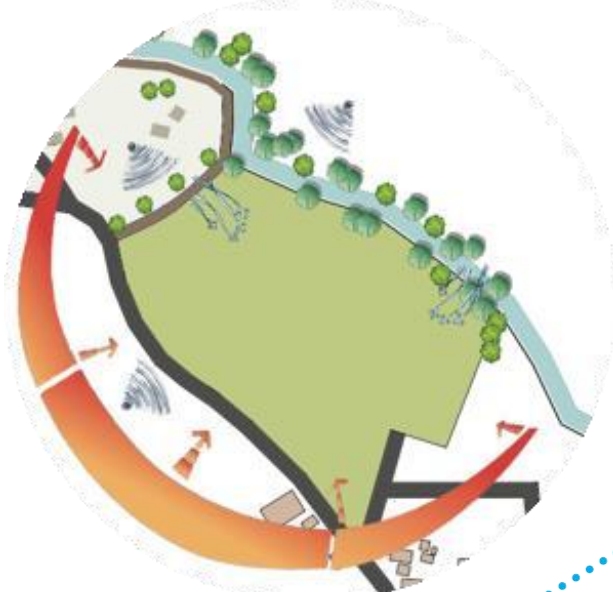
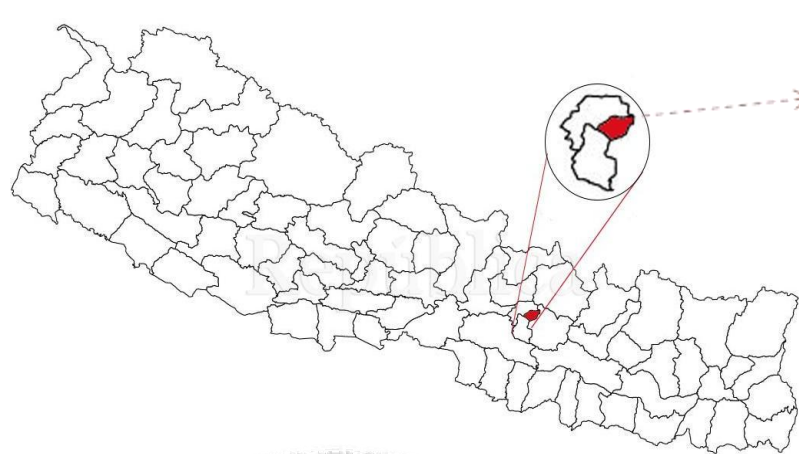
SITE SELECTION CRITERIA

- Located new settlement with migrants and no interaction spaces.
- Quick and easy linkage to hospital facility.
- Secluded from bustling city noises but not too far from amenities.
- Proper area for cultural and social interaction.
- Near religious place.

SOCIO CULTURAL ASPECT

- **Community Structure:** Newar community
- **Demographics:** Newar [approx. 70%], Chettris, Tamang, Brahmin, Rai
- **Public Spaces:** Temple, pati
- **Religious Entities:** Hindu [80%] and Buddhists
- **Occupation:** Agriculture

NEARBY LANDMARK



Kamal Pokhari
900m Away



Khwopa Hospital ,bramayani
220m Away



Bramayani party palace
160m Away



Chyamasingha bus park
200m Away



Chyamasingha Gate
700m Away



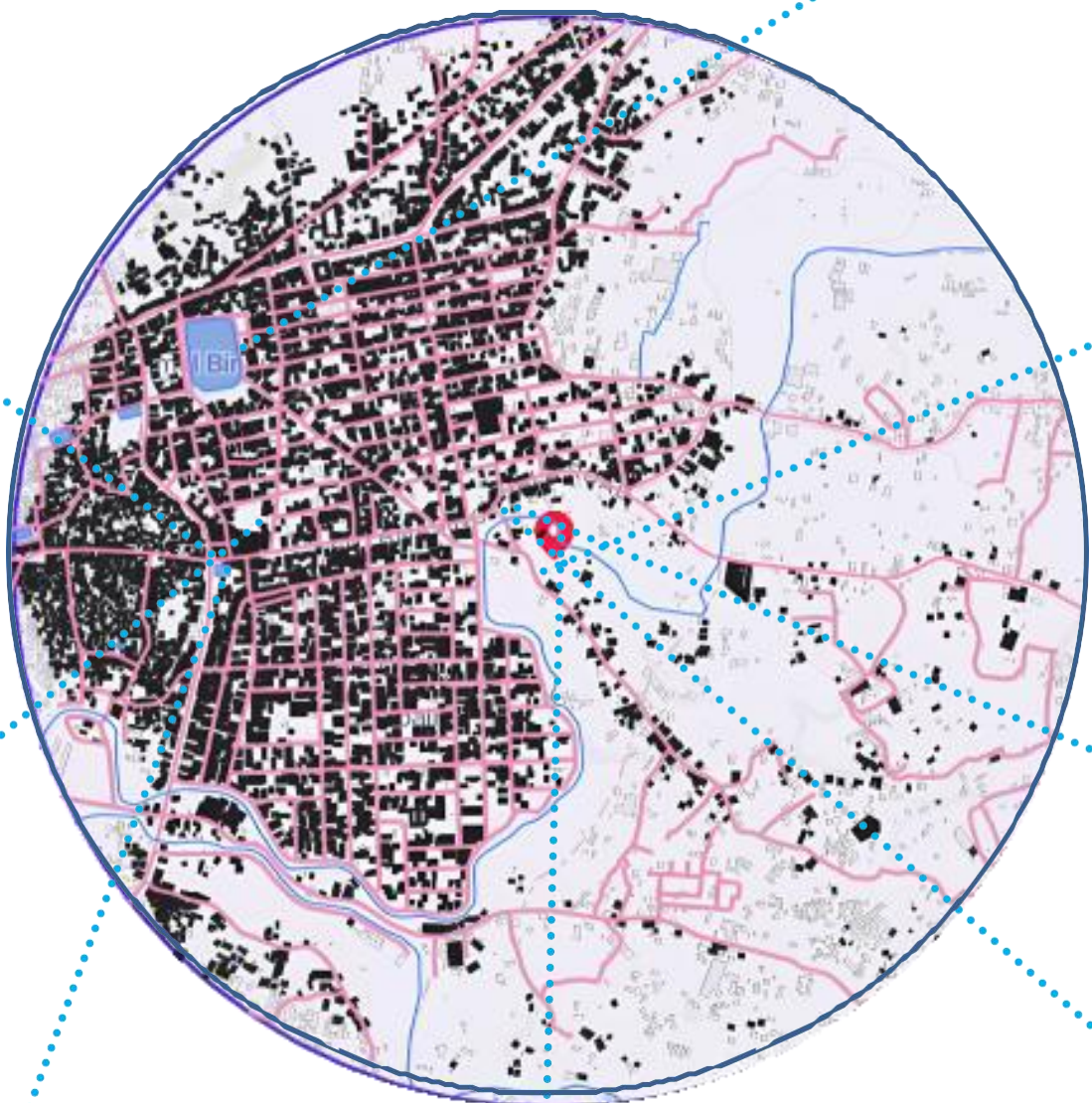
Khwopa hospital ,Chyamasingha
700m Away



Chyamasingh Pokhari
700m Away



Bramayani temple
62m Away



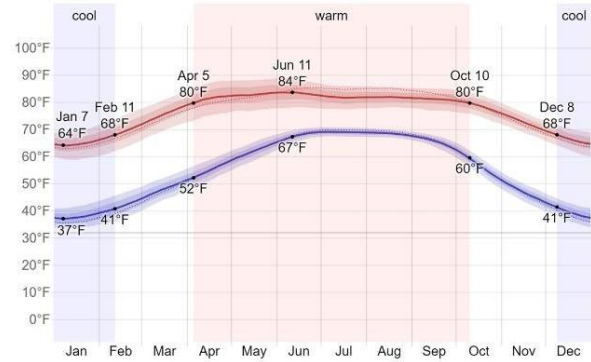
SENIOR CITIZEN CENTER

SITE SURROUNDING

SITE ANALYSIS

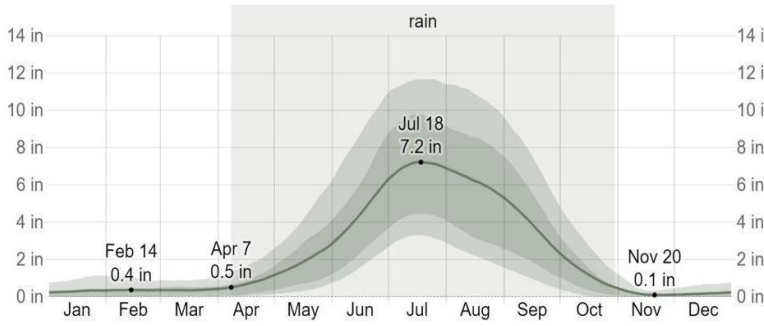
PHYSICAL ASPECTS

Temperature



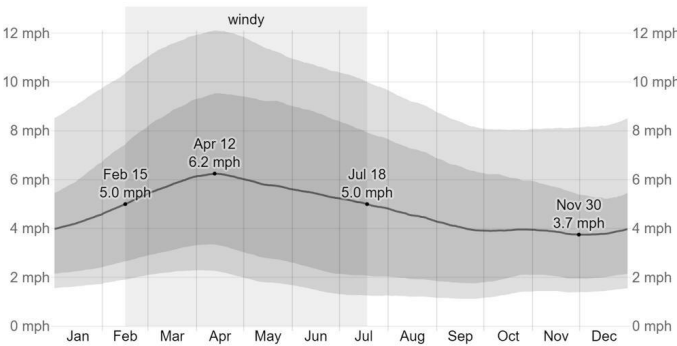
Max temp:- 29 degrees (Jun)
Min. temp:- 4.6 degrees (Jan)

Wind Speed



Max:>8km/hr [Apr]
Min:>4.9km/hr [Aug]

Monthly Rainfall

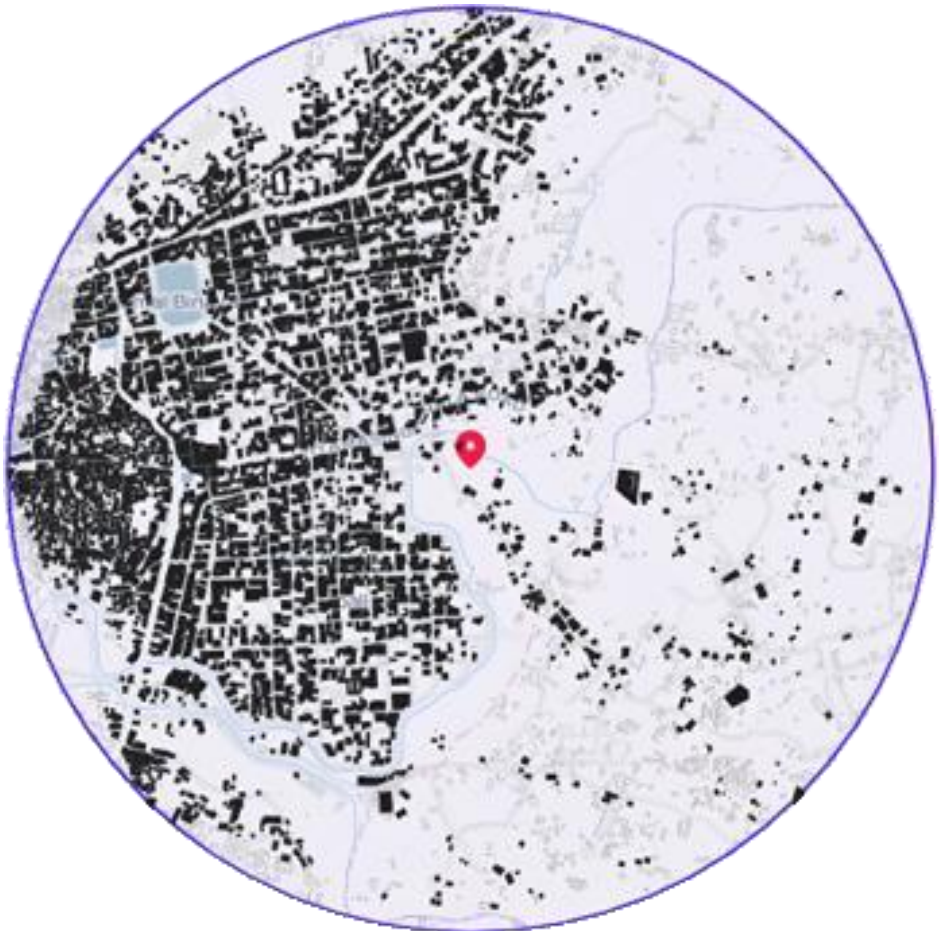
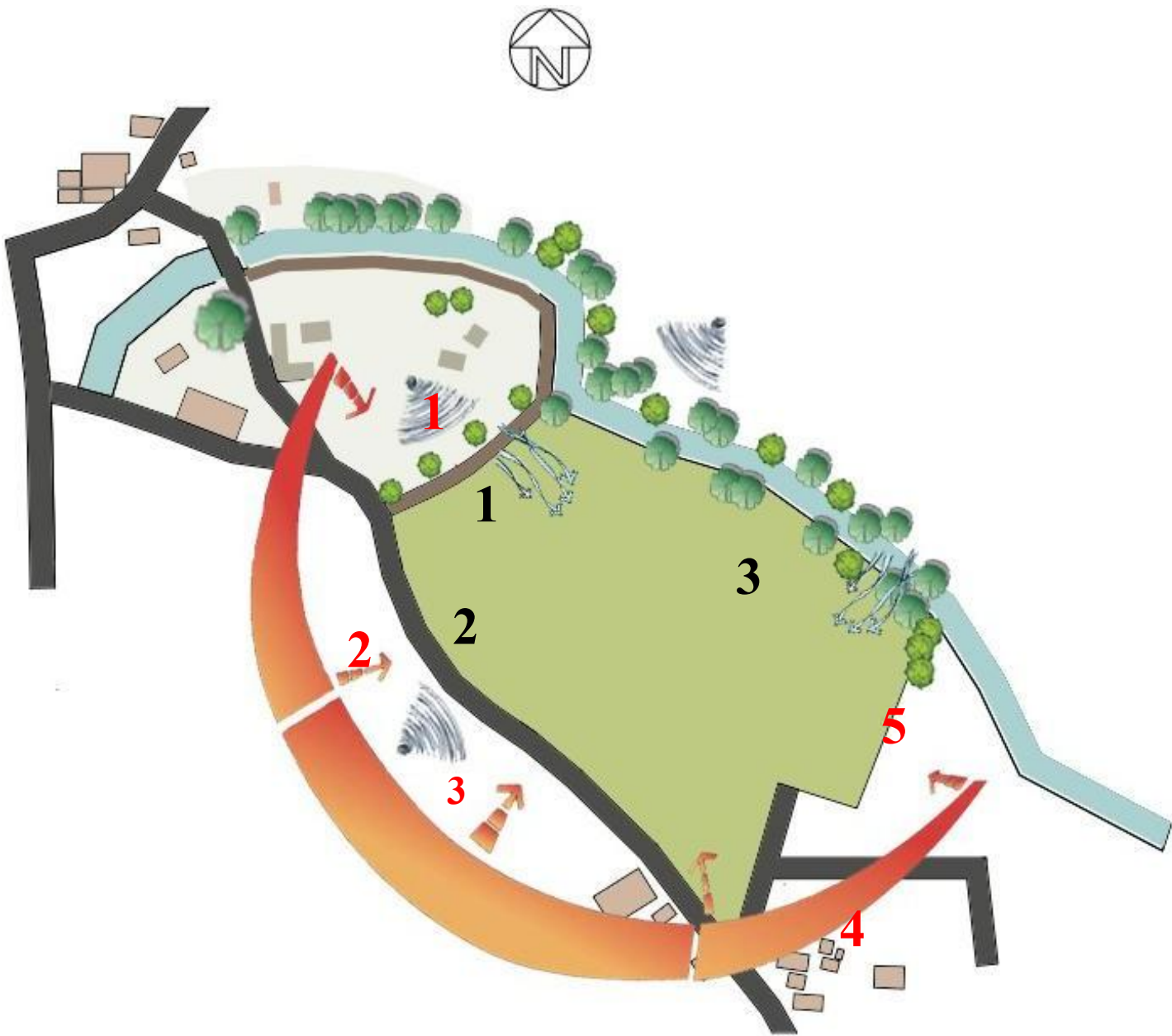


Max:30.8 days [Jul] 519mm
Min:4 days [Dec] 8mm

Humidity Comfort Level



Max:87% [July-Aug]
Min:40% [Mar]



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SUBJECT:SENIOR CITIZEN CENTER
TITLE: SITE ANALYSIS

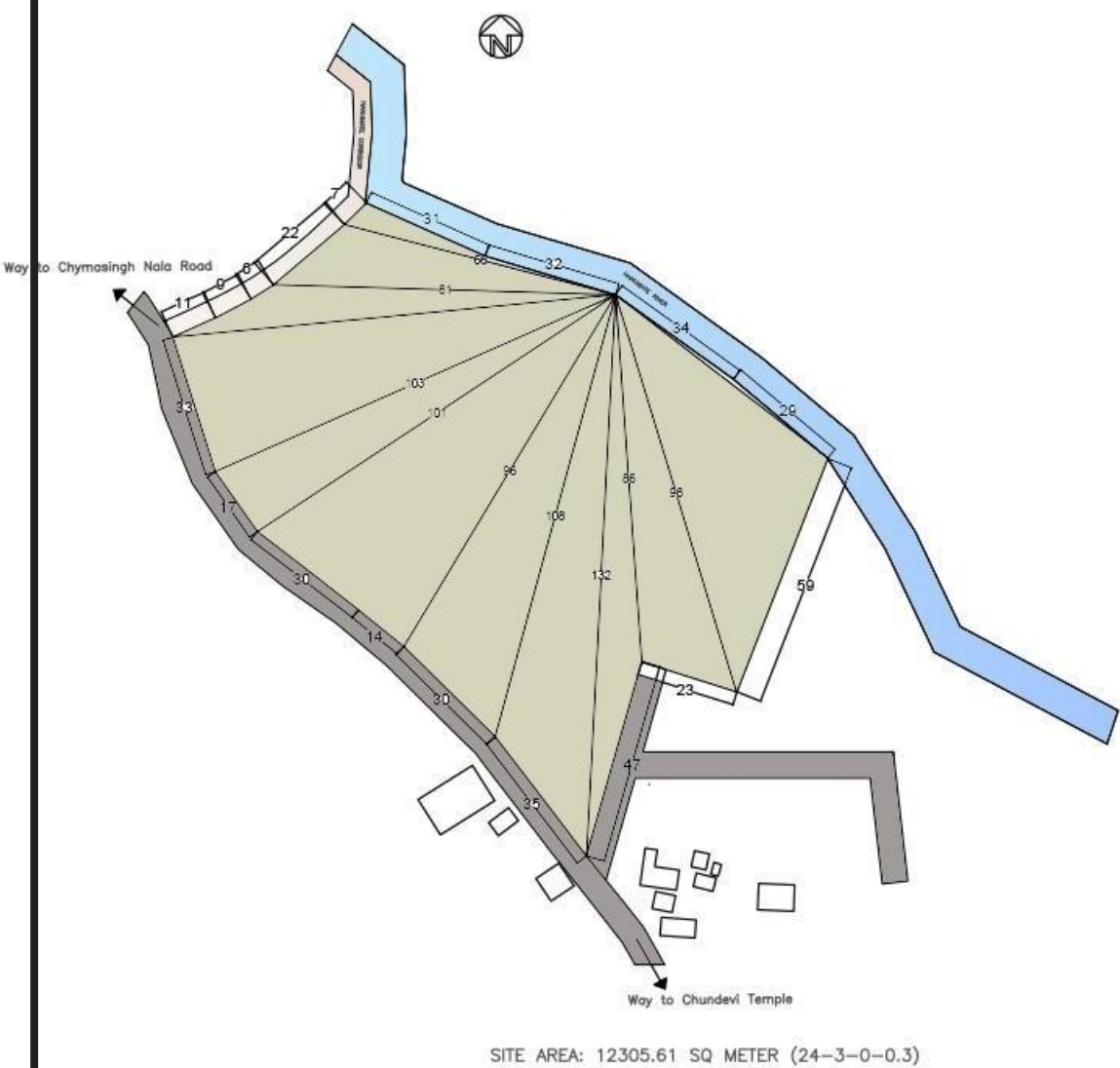
NAME: ANU CHHUKAN
ROLL NO: 760107

DATE: 2081-12-20

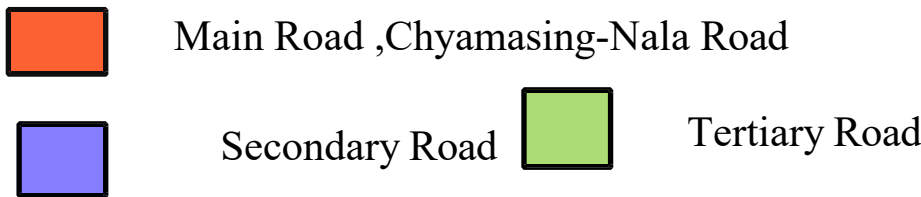
SENIOR CITIZEN CENTER

SITE ANALYSIS

DETAILED MEASURED DRAWING OF SITE



ACCESSIBILITY



BYE LAWS

- **Right of Way (ROW):**3 meters
- **Setback Requirements:**
- Neighbor's Boundary: 3 meters
- Roadside Setbacks: 3 meters
- **Ground Coverage:**50%
- **Floor Area Ratio (FAR) :** 2
- **Building Height:** 17 meters.
- **River setback :** 20 meters fom centerline.
- **Parking:** 20% of the built up area

SWOT ANALYSIS

STRENGTH

- Spiritual and Cultural revelance.
- Defined boundries.
- Urban Expansion

WEAKNESS

- Risk to seasonal Flooding
- Narrow and indirect road access.

OPPORITY

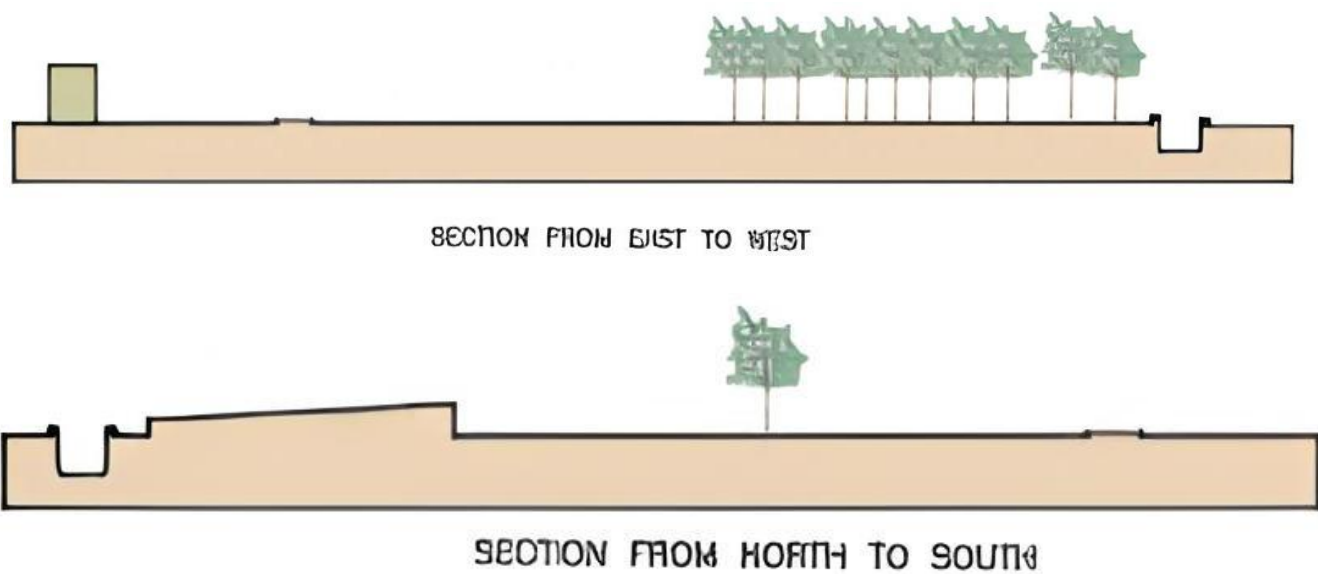
Nearby health care facilities.

Easily accessible of construction material.

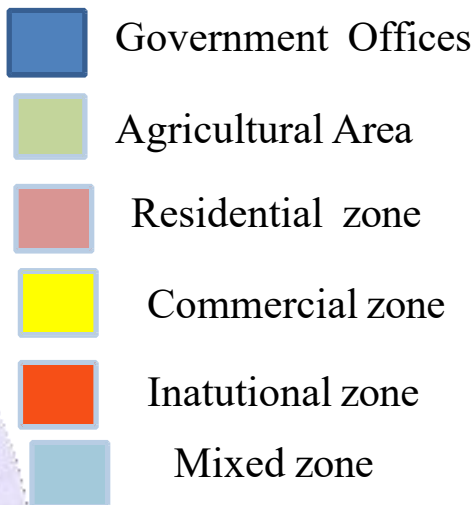
THREAT

- Direct odour from cremation ground.

SECTION



Zoning around site



INFERENCES

- The site's adjacency to an occasional flood-prone zone necessitates resilient design strategies and flood mitigation measures to ensure long-term safety and functionality.
- The site is strategically place at throutskirt of core area .

SENIOR CITIZEN CENTER

PROGRAM FORMULATION

Total population-16040
Capacity –0.032% of total population
=52
Day scholar – 100

Full Time - 52
Male no. - 35% =19
Female no. - 65% =33

PUBLIC SPACES

GUARD HOUSE

S.N	Particular	NO. of Units	Total Area(sq.m)
1	Guard house	2	30

SEMI-PUBLIC SPACES

ADMINISTRATIVE BLOCK

S.N	Particular	NO. of Units	Capacity	Area per preson	Total Area(sq.m)
1	Reception	1	2	4	8
2	Account office	1	2	8	16
3	Manager’s office	1	1	-	25
4	Meeting room	1	11	2.5	42
5	Counseling room	1	2	2	30
6	Computer’s room	1	2	2	30
7	Pantry	1		-	8
8	Restroom	4		1.2	20
	Total				179

HEALTH CLUB AND DAYCARE

S.N	Particular	NO. of Units	Capacity	Area per preson	Total Area(sq.m)
1	Meditation room	1	15	2.5	52
2	Yoga room	1	20	3.5	75
3	Gym	1	15	5	75
4	Sauna	3	3	5	15
5	Living space	2	40	1.2	100
6	Day care room	3	30	10	300
7	Staff room	1	-	-	25
8	Rest room	3	14	1.5	65
	Total				707

CAFETERIA

S.N	Particular	NO. of Units	Capacity	Area per preson	Total Area(sq.m)
1	Kitchen	1	-	-	70
2	Dining	2	180	1.2	300
3	Dish washing	1	-	-	30
4	Dry Store	1	-	-	12
5	Cold Store	1	-	-	9
6	Staff room	1	-	1.2	25
7	Preparation area	1	-	-	30
8	Restroom	2	4	1.5	20
	Total				496

MEDICAL BLOCK AND DORMITORY

S.N	Particular	NO. of Units	Capacity	Area per preson	Total Area(sq.m)
1	Waiting	1	16	1.2	30
2	Examination room	1	1	15	15
3	Doctors room	1	-	5	25
4	Physiotherapy	1	10	5	50
5	Store	1	-	-	12
6	Sick bay	2	5	11	55
7	Nurse station	1	3	1.2	10
8	Single room	12	1	25	300
9	Twin room	8	2	40	320
10	Quarter room	6	4	60	360
11	Living area	8	-	-	280
12	Laundry	3	2	3	54
13	Library	3	10	3	105
	Total				1616

TOTAL BUILT-UP AREA

Category	Area (sq.m)
Guard house	9
Administrative Block	179
Health Club & DayCare Center	707
Medical Block & Dormitory	1616
Cafeteria	496
Total built up area	2998
circulation (30%)	899
TOTAL AREA	3897

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SUBJECT:SENIOR CITIZEN CENTER
TITLE: PROGRAM FORMULATION

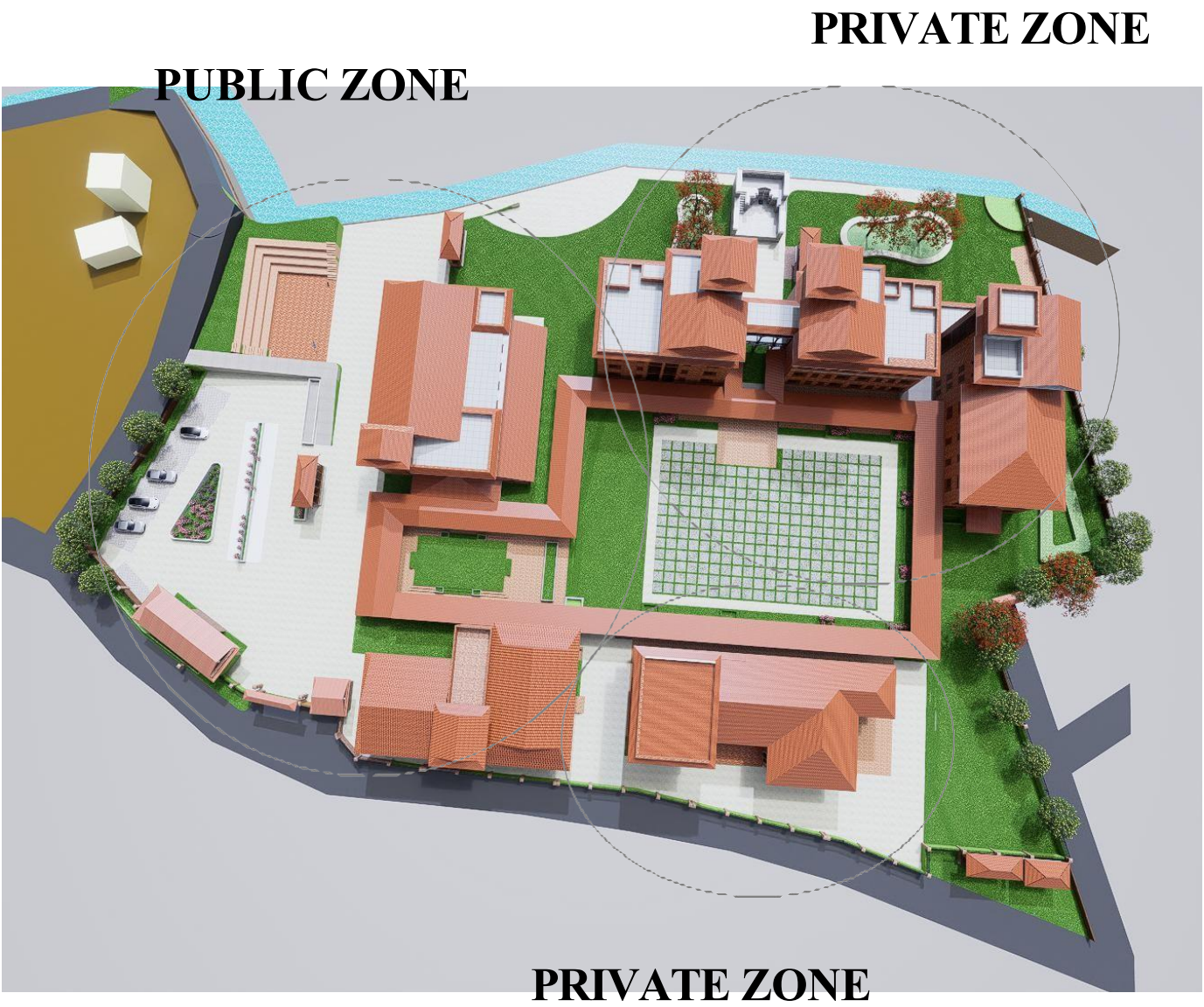
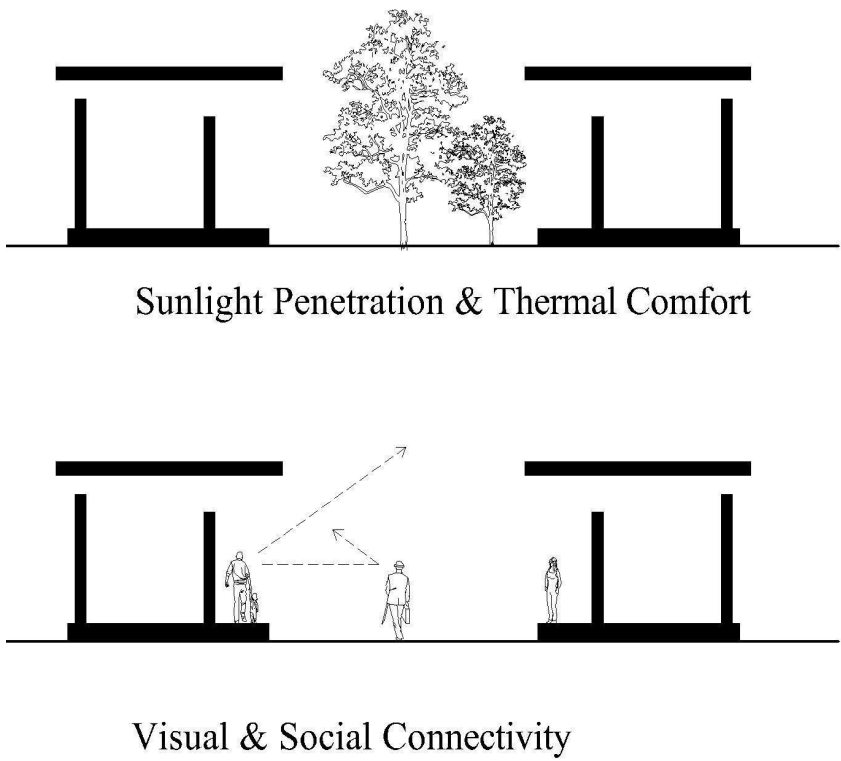
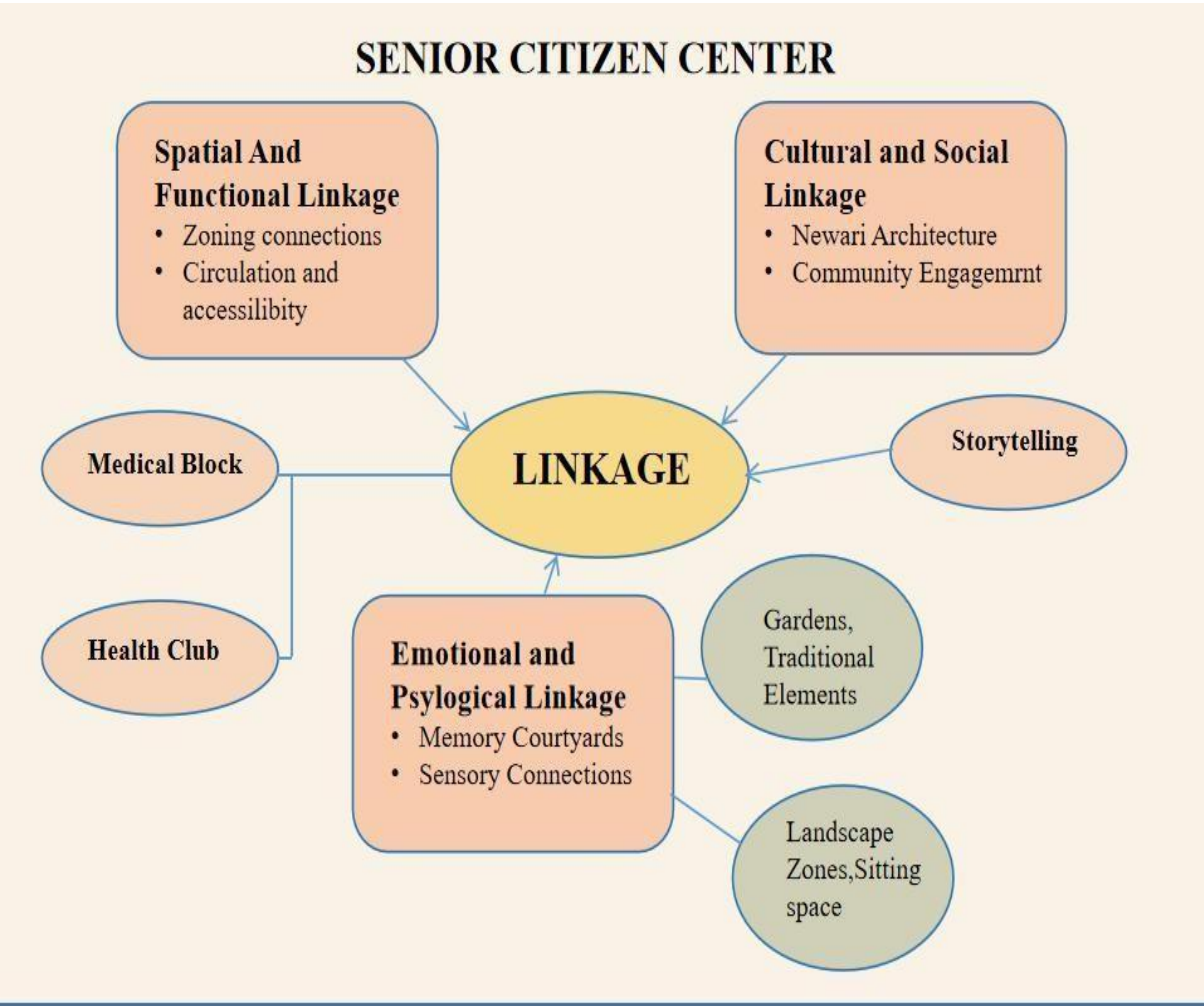
NAME: ANU CHHUKAN
ROLL NO: 760107
DATE: 2081-12-20

SENIOR CITIZEN CENTER

BRAHMAYANI ,BHAKTAPUR

CONCEPT

LINKAGE



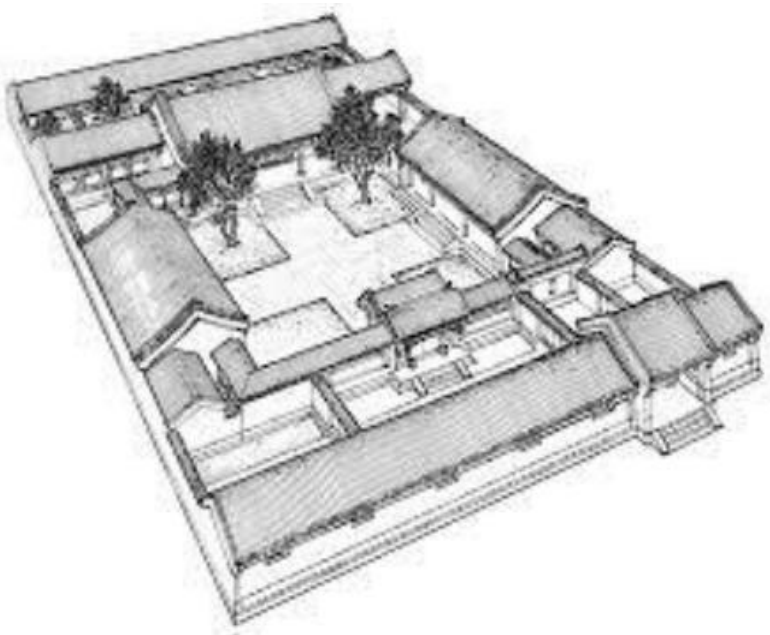
Spatial Linkage – The courtyard acts as the central core, connecting all functional spaces for easy access.

Community Interaction – The courtyard serves as a communal hub for activities and gatherings.

Functional Linkage – All the Block are interlinked from public to private.

Sense of Belonging

Sense of belonging" is about feeling connected, accepted, and valued in a group, community, or place. Space invites people to actively participate and engage, it naturally fosters that sense of belonging



Courtyard Design House



Socializing Space

SENIOR CITIZEN CENTER
BRAHMAYANI ,BHAKTAPUR



3D VIEW OF DORMITORY



SICK BAY



RESTROOM



SINGLE BED ROOM



EXAMINE ROOM

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SENIOR CITIZEN CENTER
BRAHMAYANI ,BHAKTAPUR



3D VIEW



3D VIEW



3D VIEW



3D VIEW



3D VIEW

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SENIOR CITIZEN CENTER
BRAHMAYANI ,BHAKTAPUR



3D VIEW



3D VIEW



3D VIEW OF DORMITORY



3D VIEW

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