



# STUDY OF COMMON MINIMUM FACILITIES FOR DIFFERENT TYPES OF VETERINARY HOSPITALS

**Technical committee:-**

MHD 13 - Veterinary Hospital Planning And Surgical  
Instruments Sectional Committee

**Mentor :- Mr. Prasanth Vinjamuri**

**Submitted by:- Bibhu Prasad Sahoo**

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# Veterinary hospitals

- **Advanced Animal Care**: Veterinary hospitals offer comprehensive medical care for pets, like human hospitals, with qualified vets, advanced equipment, and often surgery and emergency services.
- **One-Stop Solution**: They provide a convenient and comprehensive approach to pet healthcare, handling everything from checkups to critical situations.
- **Expertise & Facilities**: Veterinary hospitals combine the skills of veterinarians with advanced facilities for specialized care beyond a typical clinic.





Companion Animal Hospitals



Large Animal Hospitals



Reptiles Animal Hospitals



Equine Hospitals



Avians Hospital

**Types (based  
on the kind of  
animals)**

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Sub Centre/Clinic



Primary Veterinary Clinical Complex



Community Veterinary Clinical Complex



District Hospital



State Hospital/Super Specialty  
Hospital/Medical College

**Types (based  
on the kind of  
location and  
services)**

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# Current scenario in veterinary hospital

## Government Hospitals:

**Resource Constraints:** These hospitals may lack staff, advanced equipment, and diagnostics.

**Long Wait Times:** Staff shortages can lead to overworked personnel and longer wait times for pet owners.

## Private Clinics:

**Better Equipped:** Private clinics tend to have more staff, specialists, and advanced technologies.

**Higher Costs:** Private care can be expensive and may not be accessible to everyone.

**Wider Range of Services:** They offer a broader range of services compared to government hospitals.

# Problems of not having proper standards



**Animals:** Stressed by noise, disease spread, and safety hazards due to poor design.



**Staff:** Inefficient workflow leads to fatigue and injuries from awkward layouts and lack of safety features.



**Pet Owners:** Frustrated by long waits, unclear communication, and uncomfortable environments.

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# VISITS

Tata Trusts Small  
Animal Hospital,  
Mumbai

ICAR- Indian  
Veterinary Research  
Institute (IVRI),  
Izatnagar, Bareilly,  
UP

Andhra Pradesh  
Medtech  
Zone (AMTZ),  
Visakhapatnam,  
Andhra Pradesh

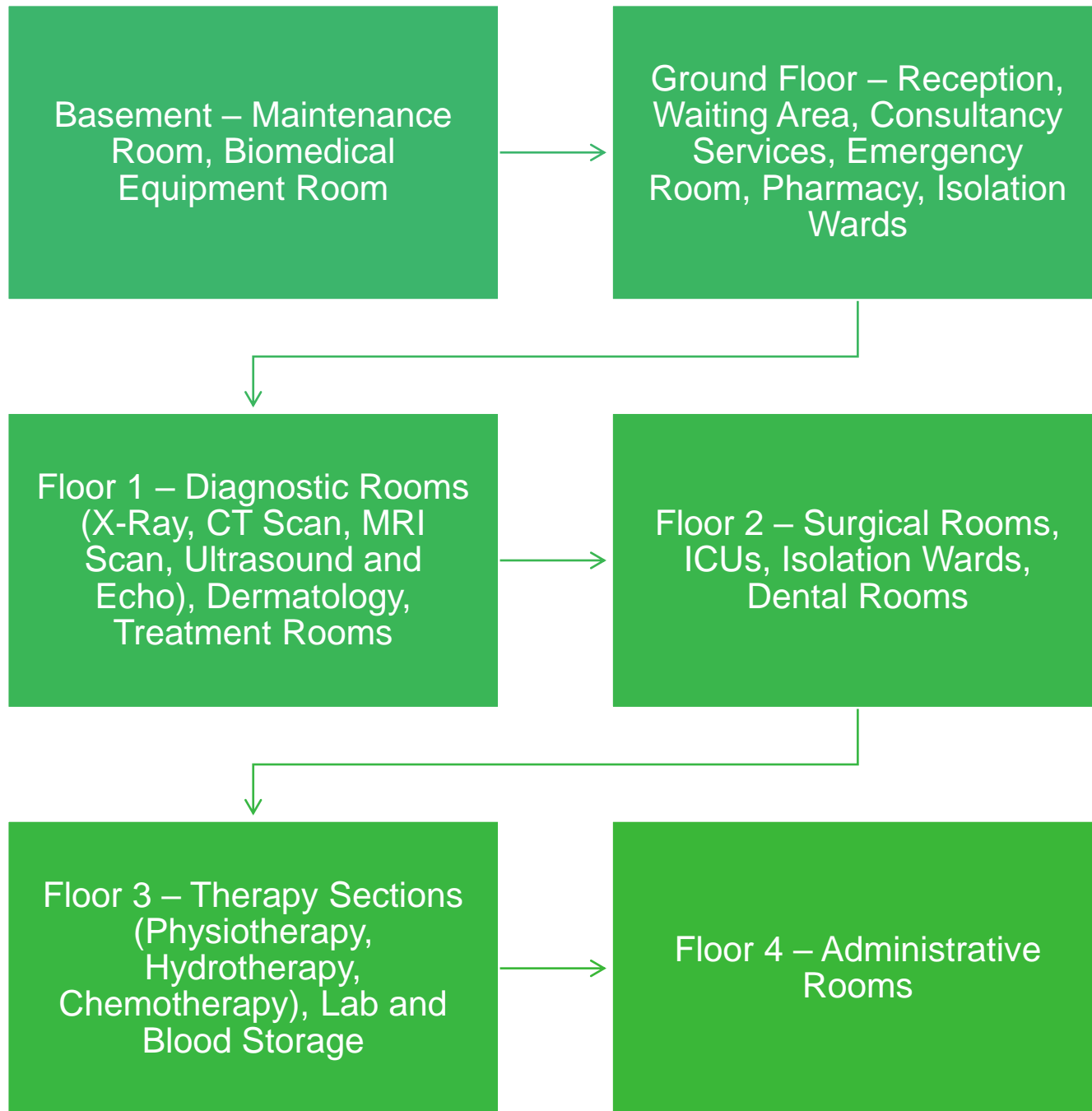


## Tata Trusts Small Animal Hospital, Mumbai

- Spoke to Dr. Sandeep Yadav, Head of Planning
  - It is a multi-floor facility providing various kinds of veterinary services to small animals (currently only cats and dogs).
  - The facility is divided into two parts –
    - I. Surgery and Emergency Services
    - II. Welfare Services (Managed by NGOs)
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# Tata Trusts Small Animal Hospital, Mumbai





# Kernels Used by them

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# Incubation and treatment facilities



# ICAR- Indian Veterinary Research Institute(IVRI), Izatnagar, Bareilly, UP



Spoke to Dr. Kiranjeet Singh, Senior Scientist and Surgeon and Dr. Sanjeev Mehrotra, Principal Scientist and Gynaecologist



It is considered the best veterinary facility in India



Here, various types of small (cats, dogs) and large animals (cows, horses) are treated

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# ICAR- Indian Veterinary Research Institute (IVRI), Izatnagar, Bareilly, UP

- Teaching Veterinary Clinical Complex
- Common OPD, examination divided into 3 sections –
  - I. Physiological
  - II. Surgical
  - III. Gynaecology
- Equipped with both small and large animal surgical rooms
- Equipped with modern diagnostic equipment (X-Ray, Ultrasound, Laparoscopy )



# Some Equipments

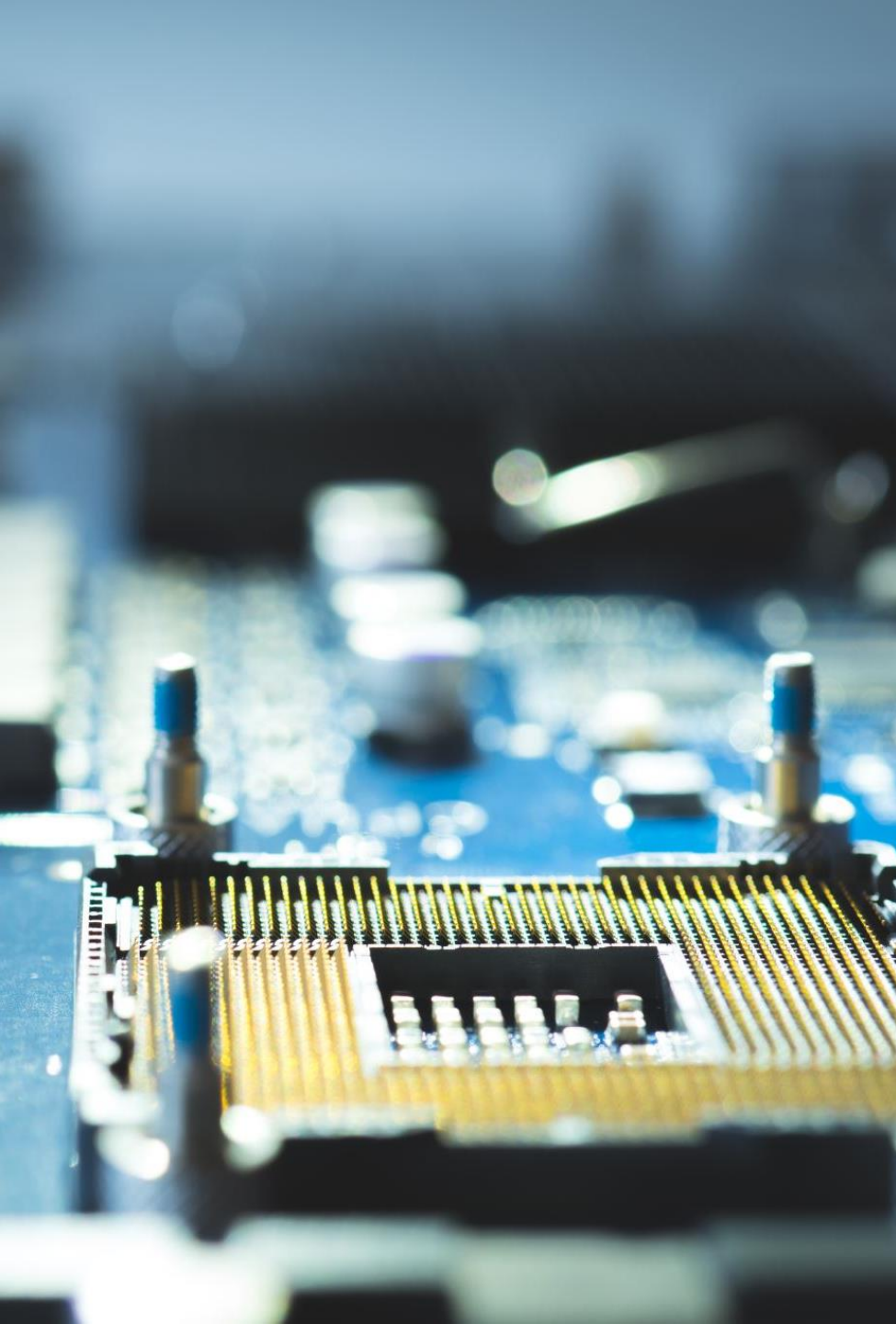


# Andhra Pradesh Medtech Zone(AMTZ), Visakhapatnam, Andhra Pradesh

**TÜV Rheinland** conducts electromagnetic compatibility (EMC) testing using an anechoic chamber to assess radiated emissions and susceptibility. They also perform microbiological testing for antibacterial and antifungal properties.

**Orange Koi** specializes in the metal injection molding (MIM) process for producing metal parts, including debonding, sintering, and secondary processes such as polishing and coining for finishing.

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## Andhra Pradesh Medtech Zone(AMTZ), Visakhapatnam, Andhra Pradesh

- At **Think3D Labs Pvt. Ltd.**, we learned about additive and subtractive manufacturing techniques for creating prototypes and final products.
  - They use stereolithography (SLA) and selective laser sintering (SLS) for precise 3D printing. Additionally, they convert CAD designs into printable formats for mass production through injection molding.
-



# Andhra Pradesh Medtech Zone(AMTZ), Visakhapatnam, Andhra Pradesh



At **Molbio**, we observed in vivo urine and saliva tests using cartridges that separate RNA and DNA, gaining insight into their significance in medical diagnostics.



At **Cobalta**, we discussed the use of gamma radiation for sterilizing medical devices, understanding its crucial role in ensuring device safety.



At **TransAsia**, we witnessed the manufacturing of biochemical testing kits used for various health tests, such as sugar levels and lipid profiles, highlighting the kits' durability and efficiency.

# SCOPE

- This document outlines the minimum common facilities required for various types of multi-bedded veterinary hospitals, including clinical, community, specialized, emergency, and teaching hospitals. It covers essential areas such as reception, consultation, diagnostic, treatment, and inpatient units etc. The goal is to standardize facilities to ensure comprehensive and high-quality veterinary care for all animal patients across different hospital settings.
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# REFERENCE STANDARDS

- IS-11942 – 1986
- Scope- This standard recommends layout and constructional details of a cattle shed meant for GAUSHALA and other organized milk producer.





The building should be constructed with respect to rules set by the National Building Code of India.



All electrical installation systems should be as per the National Electrical Code of India.



All the facilities should have jointless flooring (e.g., PU flooring) with curved edges, so that the animals should have enough grip to move gently on the floor and avoid any unnecessary injuries.

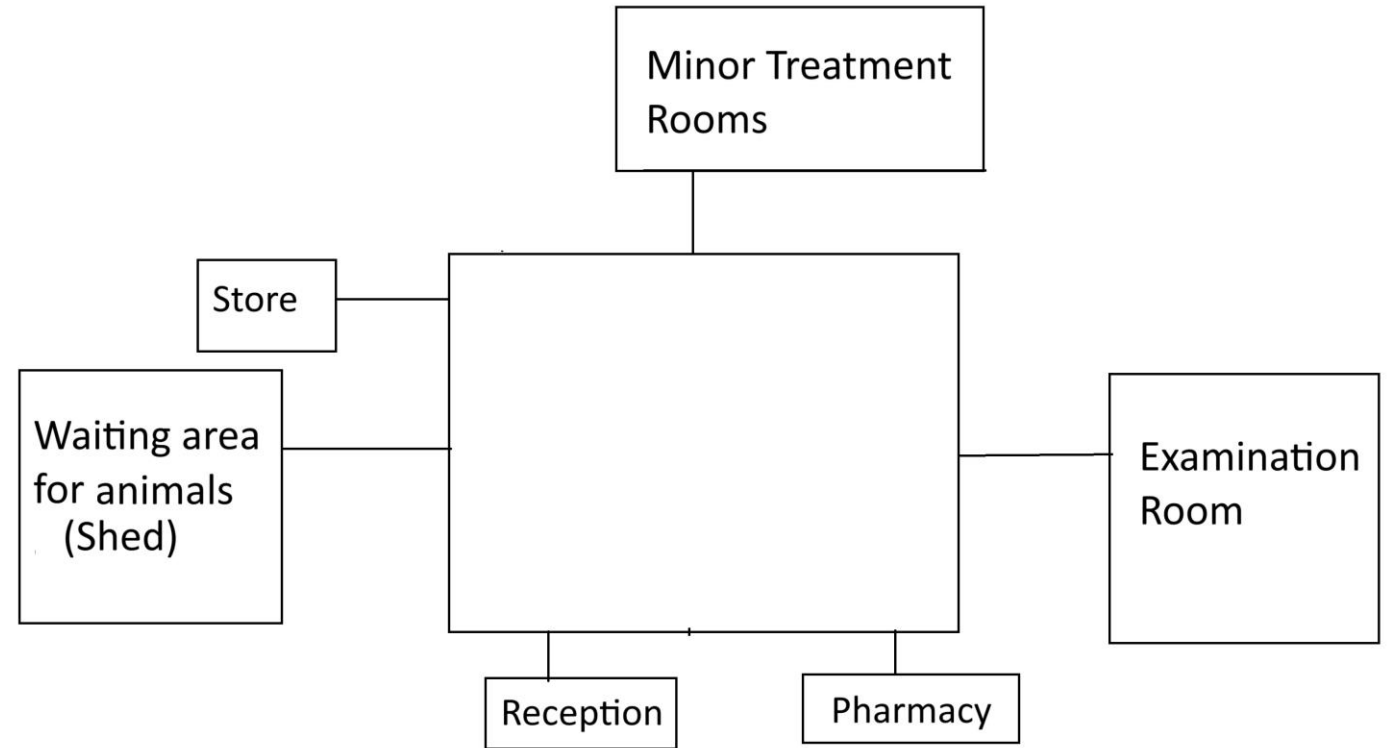


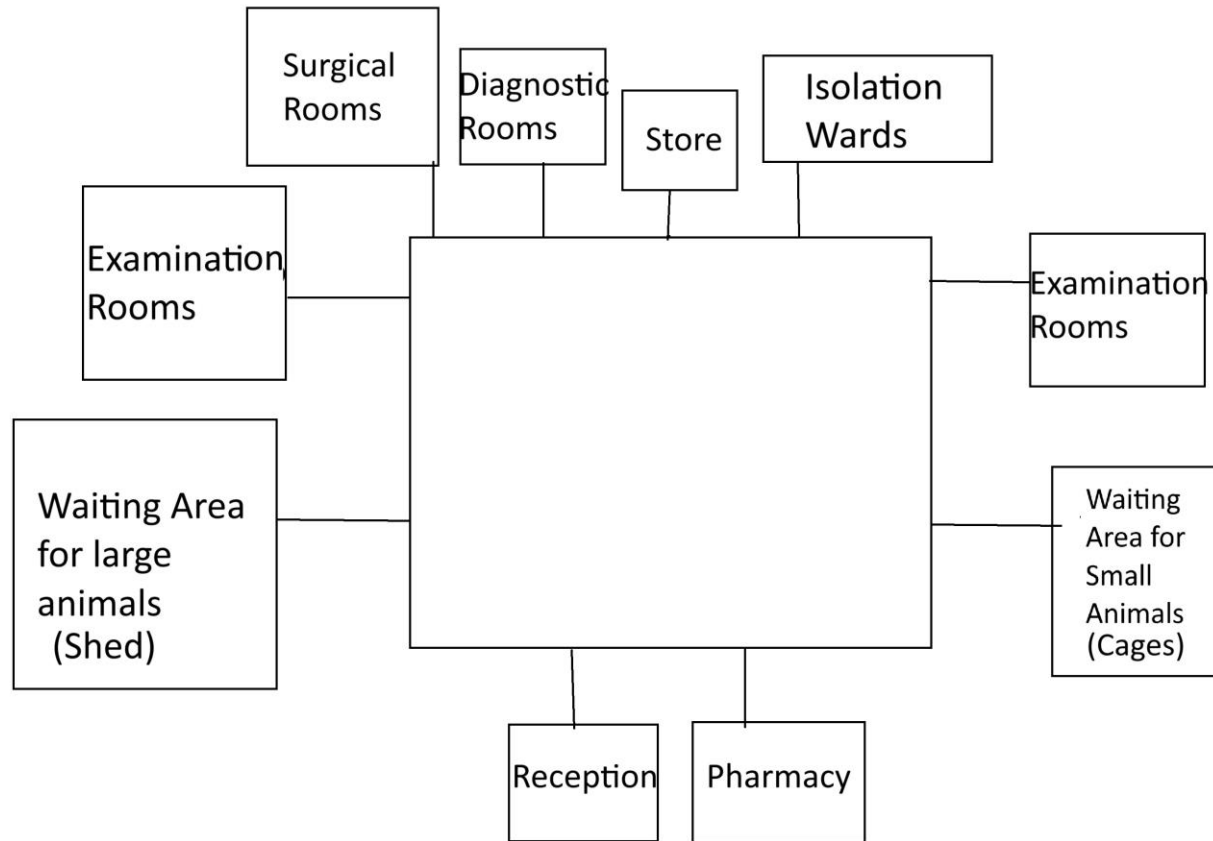
All the buildings should have adequate spaces for vehicle parking.

# GENERAL REQUIREMENTS



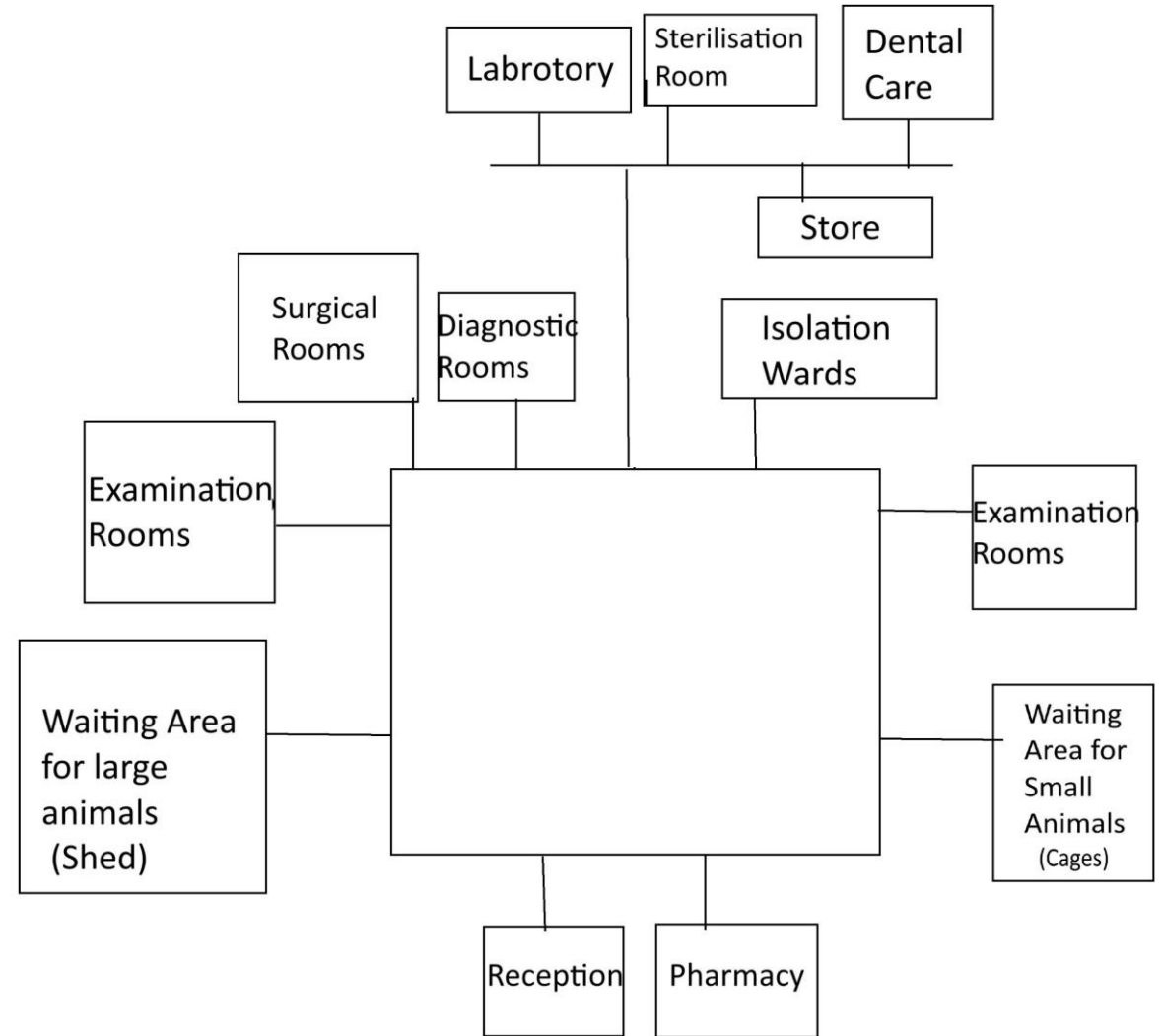
# Level 1: Sub-Centre/Clinic (Village Level)

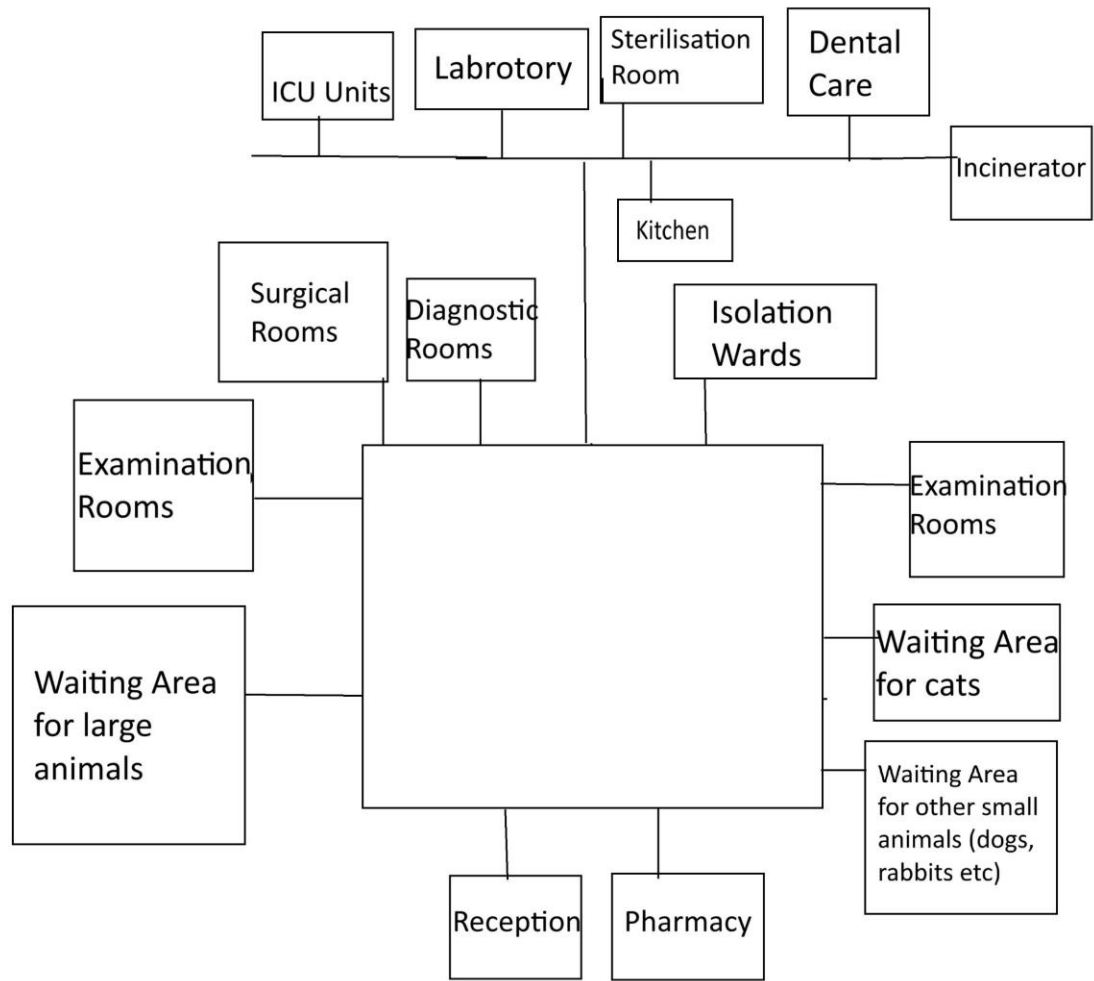




# Level 2: Primary Veterinary Healthcare Centre (Mandal Level)

# Level 3: Community Veterinary Health Centre (Sub- District Level)



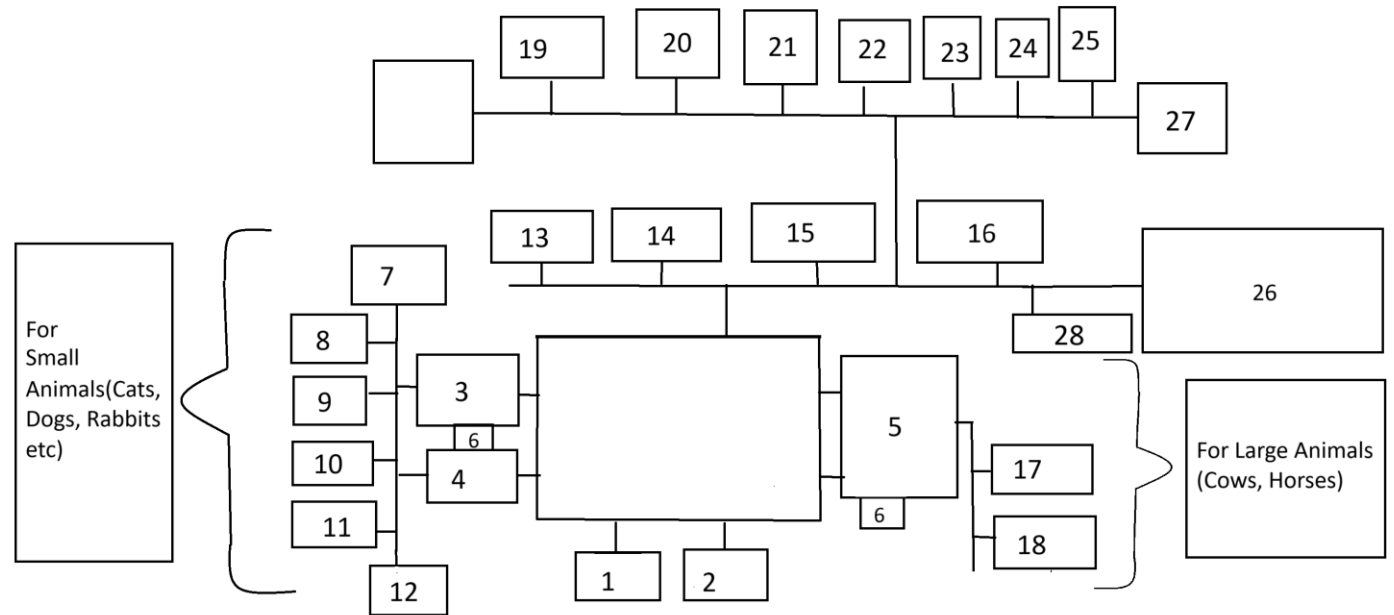


# Level 4: District Hospital (District Level)





# Level 5: State Referral Hospital/ Super Speciality Hospital/ Medical College Hospital



- |                                  |   |                                  |
|----------------------------------|---|----------------------------------|
| 1.Reception                      | 14.Diagnostic Area  |                                  |
| 2.Pet Store/ Pharmacy            | 15.Examination Area                                       |                                  |
| 3.Other Animals Waiting Area     | 16.ICUs and OTs   |                                  |
| 4.Cat only waiting area          | 17.Milk Treatment Facility                                |                                  |
| 5.Cattle and Horses Waiting Area | 18.Physical Issues Treatment (Dental, Hoof)               |                                  |
| 6.Nursing Station                | 19.Central Sterilization Chamber                          |                                  |
| 7.Playing Area                   | 20.Kitchen/Cafeteria                                      |                                  |
| 8.Grooming area                  | 21.Laundry  |                                  |
| 9.Behavioural Consultancy Area   | 22.Workshop   | 27. Biomedical Engineering Dept. |
| 10.Kernal Area                   | 23.Sub-Station  | 28. Birdcage Area                |
| 11.Dental Clinic                 | 24.Mortuary   |                                  |
| 12.Waste Management              | 25.Incinerator  |                                  |
| 13.Surgical Suites               | 26.Ambulance, Mobile Veterinary and Mobile Cages Services |                                  |

An aerial photograph of a multi-lane highway bridge spanning across a body of turquoise water. The bridge has several lanes in each direction, with white lane markings and a few vehicles visible. On the right side of the image, there are several decorative white-outlined circles of varying sizes, some overlapping the bridge and water. A solid teal circle is also present in the upper right corner.

**Thank You**



**PRE-**

**STANDARDIZATION REPORT**

**Topic:** Study of common minimum facilities for different types of veterinary hospitals

Submitted by- Bibhu Prasad Sahoo

College: Nit Rourkela

Department: Biotechnology

**Mentor – Mr Prasanth Vinjamuri**

## **1. FORWARD**

- In recent years, the field of veterinary medicine has undergone significant evolution, paralleling advancements in human healthcare. As veterinary hospitals continue to play a crucial role in animal welfare and public health, understanding the essential facilities required at different levels of these institutions becomes paramount.
- This document aims to provide a comprehensive framework for the infrastructure, services, and equipment necessary across various levels of veterinary care facilities. It serves as a guiding resource for policymakers, administrators, and healthcare professionals striving to enhance veterinary healthcare delivery.

## **2. SCOPE**

- This document outlines the minimum common facilities required for various types of multi-bedded veterinary hospitals, including clinical, community, specialized, emergency, and teaching hospitals. It covers essential areas such as reception, consultation, diagnostic, treatment, and inpatient units etc.

## **3. REFERENCES**

- IS-11942 – 1986 - This standard recommends layout and constructional details of a cattle shed meant for GAUSHALA and other organized milk producer.

## **4. GENERAL REQUIREMENTS**

- The building should be constructed with respect to rules set by the National Building Code of India.
- All electrical installation systems should be as per the National Electrical Code of India.
- All the facilities should have jointless flooring (e.g., PU flooring), so that the animals should have enough grip to move gently on the floor and avoid any unnecessary injuries.
- All the buildings should have adequate spaces for vehicle parking.

## **5. CLASSIFICATION**

### **Level 1: Sub-Centre/Clinic (Village Level)**

- **Services:**

- The Sub-centre Veterinary Health Centre provides basic veterinary services, including vaccination, first aid, and treatment of minor ailments for common livestock and pets.
- It also offers advice on animal nutrition and husbandry practices.
- The centre conducts regular outreach programs to educate villagers on disease prevention and animal care.
- It coordinates with higher-level centres for referral cases and ensures the availability of essential veterinary supplies.

- **Infrastructure - Location and Structure:**

- I. **Location**

- The Sub-centre Veterinary Health Centre should be situated within accessible distance for the village community, ideally near the main residential area to ensure easy access for villagers.
- It should be connected to main roads to facilitate the transport of animals and supplies.
- The location should also have sufficient space for future expansion and be free from environmental hazards.

- II. **Building Structure (Refer to Figure 1)**

- 1. **Reception**

- **Facilities**
  - The reception area should include a registration desk with seating arrangements for attendants accompanying the animals, computers for record-keeping, telecommunication facilities, and informational brochures about hospital services.
  - It should have dedicated area for storing records.
  - This area should also have basic public utilities (toilets, drinking water).
  - It should have adequate lighting and ventilation.

- 2. **Pet Store/Pharmacy**

- **Facilities**
  - The pet store and pharmacy area should include shelving units for displaying products, a transaction counter, and secure storage areas for medications, equipment, and other perishable items.

### **3. Animals Waiting Area**

#### **○ Facilities**

- This area should have comfortable seating arrangements for attendants, a check-in counter, and an informational board with relevant notices and updates.
- It should also have a dedicated space for kennels.
- This area should also have public utilities (toilets, drinking water) and dedicated pet potties for various kinds of animals.
- The waiting area for cattle and horses should have large, secure pens or stalls, adequate ventilation, and a non-slip flooring to ensure safety. (IS-11942 – 1986)
- The sheds should be cleaned and sanitized periodically.
- Separate water supply for each animal should be provided.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.
- Adequate Adaptil and other pheromones should be maintained.

### **4. Minor Treatment Room**

#### **○ Facilities**

- The minor treatment room should have a clean and well-ventilated space with easy-to-clean surfaces.
- There should be adequate lighting to ensure visibility during procedures.
- It should also contain comfortable seating for pet owners and an examination table for animals.
- Separate storage for clean and dirty utilities should be provided.
- Proper waste disposal bins for biological and non-biological waste should be provided.
- Access to clean water and sanitation facilities for handwashing and cleaning equipment should be present.

#### **○ Equipment**

- Thermometers
- Stethoscopes
- Multiparameter Monitor

### **5. Examination Area**

#### **○ Facilities**

- The examination rooms should have multiple examination tables with access to necessary supplies.
- It should have sufficient space for the veterinary team to operate comfortably and include an adjustable examination table for various animal sizes.
- The room should be equipped with proper tables, cabinets for storage of medical supplies and basic diagnostic tools.

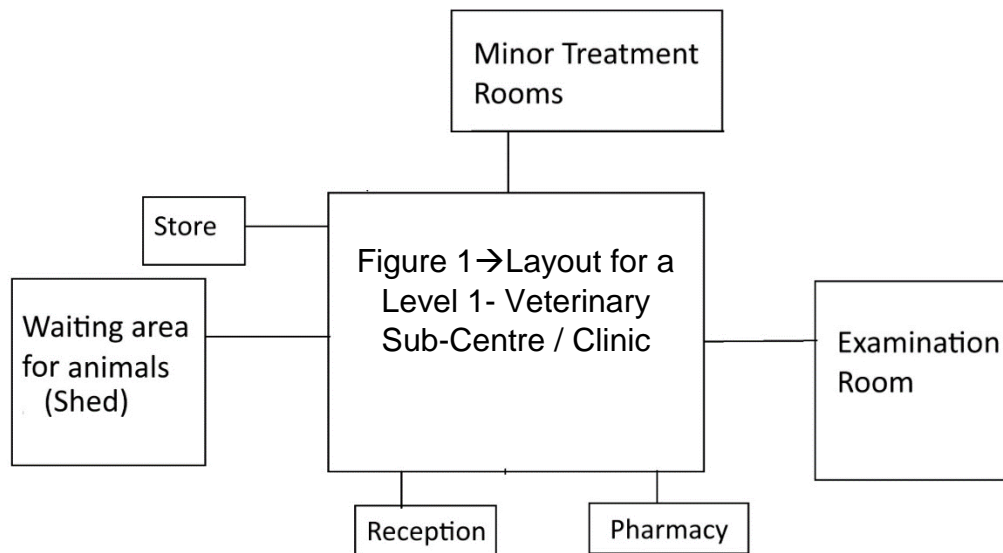
- Equipment

- Anaesthetics
- Vaccines
- Thermometers
- Stethoscopes
- Sample Collection and Handling Equipment

6. **Store**

- Facilities

- This area should have sufficient supply of medication, equipment, and other necessities with availability of proper storage.
- There should be availability of proper storage and refrigeration.





## **Level 2: Primary Veterinary Healthcare Centre (Mandal Level)**

### **I. Services:**

- The Primary Veterinary Health Centre offers comprehensive veterinary services, including diagnostic tests, treatment of common diseases, minor surgical procedures, and reproductive health services.
- It provides vaccination drives and health camps in surrounding villages.
- The centre also has facilities for animal husbandry extension services, training farmers on best practices, and conducting awareness programs on zoonotic diseases.
- Referral services to higher-level centres for complex cases are also available.

### **II. Infrastructure - Location and Structure:**

#### **I. Location**

- The Primary Veterinary Health Centre should be located centrally within the mandal to serve multiple villages efficiently.
- It should be well-connected by major roads and public transport facilities.
- The area should be large enough to accommodate separate zones for several types of animals and include parking space for vehicles transporting animals.
- Additionally, it should be situated in a safe and non-polluted environment, away from industrial activities.

### **II. Building Structure (Refer to Figure 2)**

#### **1. Reception**

- Facilities
  - The reception area should include a registration desk with seating arrangements for attendants accompanying the animals, computers for record-keeping, telecommunication facilities, and informational brochures about hospital services.
  - It should have dedicated area for storing records.
  - This area should also have basic public utilities (toilets, drinking water).
  - It should have adequate lighting and ventilation.

## **2. Pet Store/Pharmacy**

### Facilities

- The pet store and pharmacy area should include shelving units for displaying products, a transaction counter, and secure storage areas for medications, equipment, and other perishable items.

## **3. Other Animals Waiting Area**

### Facilities

- This area should have comfortable seating arrangements for clients, a check-in counter, and an informational board with relevant notices and updates.
- It should also have a dedicated space for kennels.
- This area should also have public utilities (toilets, drinking water) and dedicated pet potties for various kinds of animals.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.
- Adequate Adaptil, feliway and other pheromones should be maintained.

## **4. Bovines and Equines Waiting Area (IS-11942 – 1986)**

### Facilities

- The waiting area for cattle and horses should have large, secure pens or stalls, adequate ventilation, and a non-slip flooring to ensure safety.
- There should be comfortable seating arrangements for the attendants.
- The sheds should be cleaned and sanitized periodically.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.
- Separate water supply for each animal should be provided.

## **5. Nursing Station**

### Facilities

- The nursing station should be centrally located with easy access to all treatment areas, including comfortable seating and workstations for the nursing staff.
- It should have cabinets and refrigerators for proper storage of medications and supplies.

### Equipment

- Anaesthetics
- Vaccines
- Thermometers
- Stethoscopes
- Multiparameter Monitor

## **6. Isolation Wards**

- Facilities
  - The Isolation Wards should have secure, clean, and comfortable kennels with adequate ventilation and temperature control.
  - Each kennel should undergo regular cleaning and sanitation procedures.
- Equipment
  - Kennel
  - Bedding
  - Ventilation System

## **7. Operation Theatre**

- Facilities
  - The surgical suites should be sterile, well-equipped rooms with controlled environments for performing surgeries, with adjacent preparation and recovery areas.
- Equipment
  - Surgical instruments
  - Surgical Supplies
  - Anaesthesia Equipment
  - Hydraulic beds for small animals
  - Hydraulic beds for large animals
  - Shadowless OT lights
  - Urinary Catheters

## **8. Diagnostic Area**

- Facilities
  - Laboratory for blood tests, urinalysis, and other diagnostics should be present.
  - The diagnostic area should include separate spaces for various diagnostic tests with proper lighting and ventilation.
- Equipment
  - X-ray machine
  - Ultrasound machine
  - Blood Analysers
  - Urine Analysers
  - Sample Collection and Handling Equipment

## **9. Examination Area**

- Facilities
  - The examination area should have multiple examination rooms with access to necessary supplies.
  - It should have sufficient space for the veterinary team to operate comfortably and include an adjustable examination table for various animal sizes.
  - Each room should be equipped with proper tables, cabinets for storage of medical supplies and basic diagnostic tools.
- Equipment

- Thermometers
- Stethoscopes
- Multiparameter monitor
- Microscope
- Centrifuge
- pH Meter
- Weighing Scale
- Incubator
- Biochemical Analyzer
- Haematology Analyzer
- Centrifuge
- Sample Collection and Handling Equipment

## 10. ICUs

### ○ Facilities

- Intensive Care Units (ICUs) should be sterile, highly controlled environments with individual cubicles designed for critical care patients.
- It should be equipped with proper equipment required for monitoring the patients.
- Each unit should have appropriate lighting, ventilation, and access to emergency exits.
- The area should also have space for family members to visit and private consultation rooms for discussions with veterinary staff.

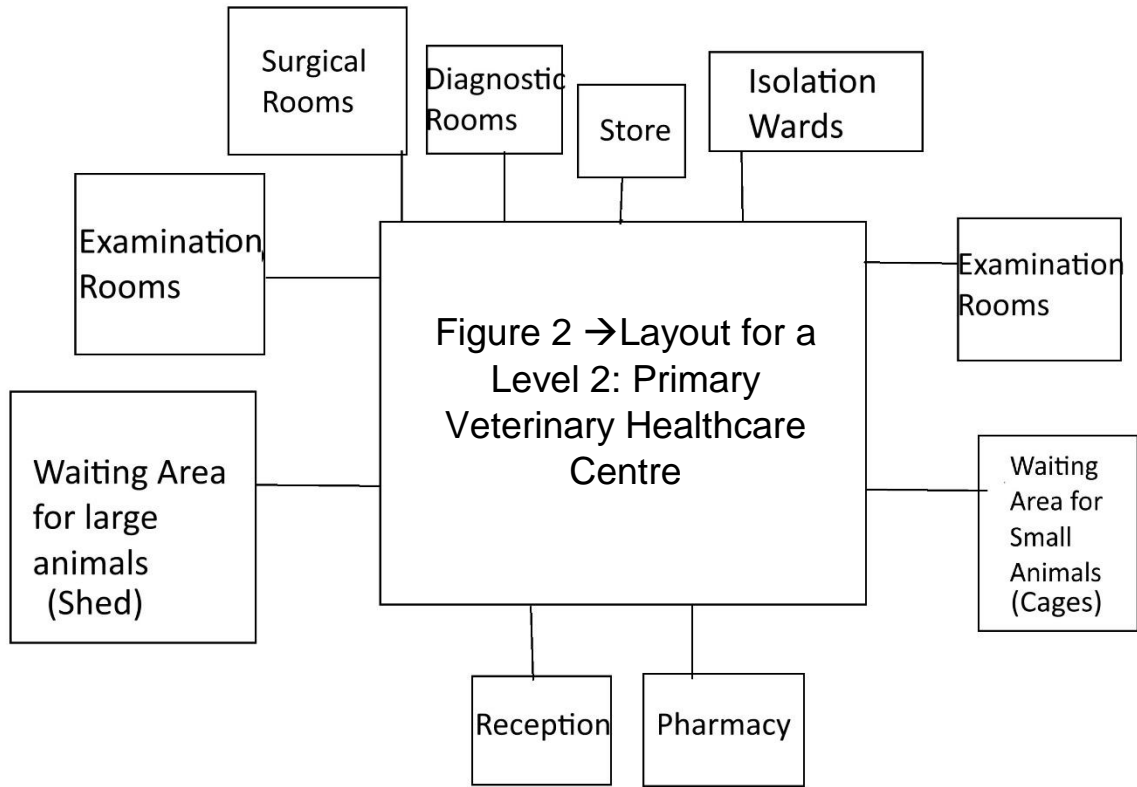
### ○ Equipment

- Thermometers
- Stethoscopes
- Ventilators,
- Infusion pumps
- ICU beds
- Defibrillators
- Multiparameter Monitor
- intravenous (IV) stands.
- oxygen supply systems

## 11. Store

### ○ Facilities

- This area should have sufficient supply of medication, equipment, and other necessities with availability of proper storage.



## **Level 3: Community Veterinary Health Centre (Sub-District Level)**

- **Services:**

- The Community Veterinary Health Centre provides advanced veterinary services, including specialized diagnostics, complex treatments, and emergency care.
- It has facilities for minor and major surgical procedures, intensive care for critical cases, and reproductive technologies such as artificial insemination.
- The centre conducts regular training programs for farmers and local veterinarians, offers consultancy services on animal management, and organizes large-scale vaccination and disease prevention campaigns.

- **Infrastructure - Location and Structure:**

- I. **Location:**

- The Community Veterinary Health Centre should be placed in a strategic location within the mandal to ensure accessibility for a larger population, including multiple villages and small towns.
- Proximity to local markets and main transportation routes is crucial.
- The site should have adequate land to house various facilities, including large animal treatment areas and administrative buildings.
- It should also be situated in a hygienic and secure environment to provide a safe and conducive atmosphere for both animals and staff.

- II. **Building Structure (Refer to Figure 3)**

- 1. **Reception**

- **Facilities**
  - The reception area should include a registration desk with seating arrangements for attendants accompanying the animals, computers for record-keeping, telecommunication facilities, and informational brochures about hospital services.
  - It should have dedicated area for storing records.
  - This area should also have basic public utilities (toilets, drinking water).
  - It should have adequate lighting and ventilation.

- 2. **Pet Store/Pharmacy**

- **Facilities**
  - The pet store and pharmacy area should include shelving units for displaying products, a transaction counter, and secure storage areas for medications, equipment, and other perishable items.

### **3. Other Animals Waiting Area**

#### Facilities

- This area should have comfortable seating arrangements for clients, a check-in counter, and an informational board with relevant notices and updates.
- It should also have a dedicated space for kennels.
- This area should also have public utilities (toilets, drinking water) and dedicated area for various kinds of animals.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.
- Adequate Adaptil and other pheromones should be maintained.

### **4. Bovines and Equines Waiting Area (IS-11942 – 1986)**

#### Facilities

- The waiting area for cattle and horses should have large, secure pens or stalls, adequate ventilation, and a non-slip flooring to ensure safety.
- There should be comfortable seating arrangements for the attendants.
- The sheds should be cleaned and sanitized periodically.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.
- Separate water supply for each animal should be provided.

### **5. Nursing Station**

#### Facilities

- The nursing station should be centrally located with easy access to all treatment areas, including comfortable seating and workstations for the nursing staff.
- It should have cabinets and refrigerators for proper storage of medications and supplies.

#### Equipment

- Anaesthetics
- Vaccines
- Thermometers
- Stethoscopes
- Multiparameter Monitor

### **6. Behavioural Consultancy Area**

#### Facilities

- This area should be a quiet, private room where consultations can take place without disturbances, with comfortable seating for pet owners and a calming environment for animals.

## **7. Isolation Wards**

- Facilities
  - The Isolation Wards should have secure, clean, and comfortable kennels with adequate ventilation and temperature control.
  - Each kennel should undergo regular cleaning and sanitation procedures.
- Equipment
  - Kennel
  - Bedding
  - Ventilation System

## **8. Dental Clinic**

- Facilities
  - The dental clinic should be a sterile, well-lit area dedicated to dental procedures, with easy access to anaesthesia and monitoring equipment.
- Equipment
  - Mouth mirrors.
  - Explorers
  - Periodontal probes
  - Dental X-ray machine

## **9. Operation Theatre**

- Facilities
  - The surgical suites should be sterile, well-equipped rooms with controlled environments for performing surgeries, with adjacent preparation and recovery areas.
- Equipment
  - Surgical instruments
  - Surgical Supplies
  - Anaesthesia Equipment
  - Hydraulic beds for small animals
  - Hydraulic beds for large animals
  - Shadowless OT lights
  - Ophthalmoscope
  - Laryngoscope
  - Urinary Catheters
  - Otoscope

## **10. Diagnostic Area**

- Facilities
  - Laboratory for blood tests, urinalysis, and other diagnostics should be present.
  - The diagnostic area should include separate spaces for various diagnostic tests with proper lighting and ventilation.
- Equipment
  - X-ray machine for small animals



- X-ray machine for large animals
- Ultrasound machine for small animals
- Ultrasound machine for large animals
- MRI Scan
- CT scan
- Blood Analysers
- Urine Analysers
- Sample Collection and Handling Equipment

### **11. Examination Area**

- Facilities
  - The examination area should have multiple examination rooms with access to necessary supplies.
  - It should have sufficient space for the veterinary team to operate comfortably and include an adjustable examination table for various animal sizes.
  - Each room should be equipped with proper tables, cabinets for storage of medical supplies and basic diagnostic tools.
- Equipment
  - Vaccines
  - Thermometers
  - Stethoscopes
  - Multiparameter Monitor
  - Microscope
  - Centrifuge
  - pH Meter
  - Weighing Scale
  - Incubator
  - Biochemical Analyzer
  - Haematology Analyzer
  - Centrifuge
  - Sample Collection and Handling Equipment

### **12. ICUs**

- Facilities
  - Intensive Care Units (ICUs) should be sterile, highly controlled environments with individual cubicles designed for critical care patients.
  - It should be equipped with proper equipment required for monitoring the patients.
  - Each unit should have appropriate lighting, ventilation, and access to emergency exits.
  - The area should also have space for family members to visit and private consultation rooms for discussions with veterinary staff.
- Equipment
  - Thermometers

- Stethoscopes
- Ventilators,
- Infusion pumps
- ICU beds
- Defibrillators
- Multiparameter Monitor
- intravenous (IV) stands.
- oxygen supply systems

### **13. Physical Issues Treatment (Dental, Hoof)**

- Facilities
  - This area should have specialized treatment rooms for dental and hoof care, with proper flooring and lighting.
  - Comfortable restraining systems for large animals
  - It should have proper storage for treatment supplies.

### **14. Central Sterilization Chamber**

- Facilities
  - The central sterilization chamber should be a dedicated area for sterilizing medical instruments, with controlled access.
- Equipment
  - Autoclave
  - Ultrasonic cleaners
  - Storage Cabinets

### **15. Kitchen/Cafeteria**

- Facilities
  - The kitchen should be designed to meet hygiene and safety standards, with separate areas for food preparation, cooking, and cleaning.
  - The cafeteria should provide a comfortable space for staff to dine and relax, with adequate seating and amenities.

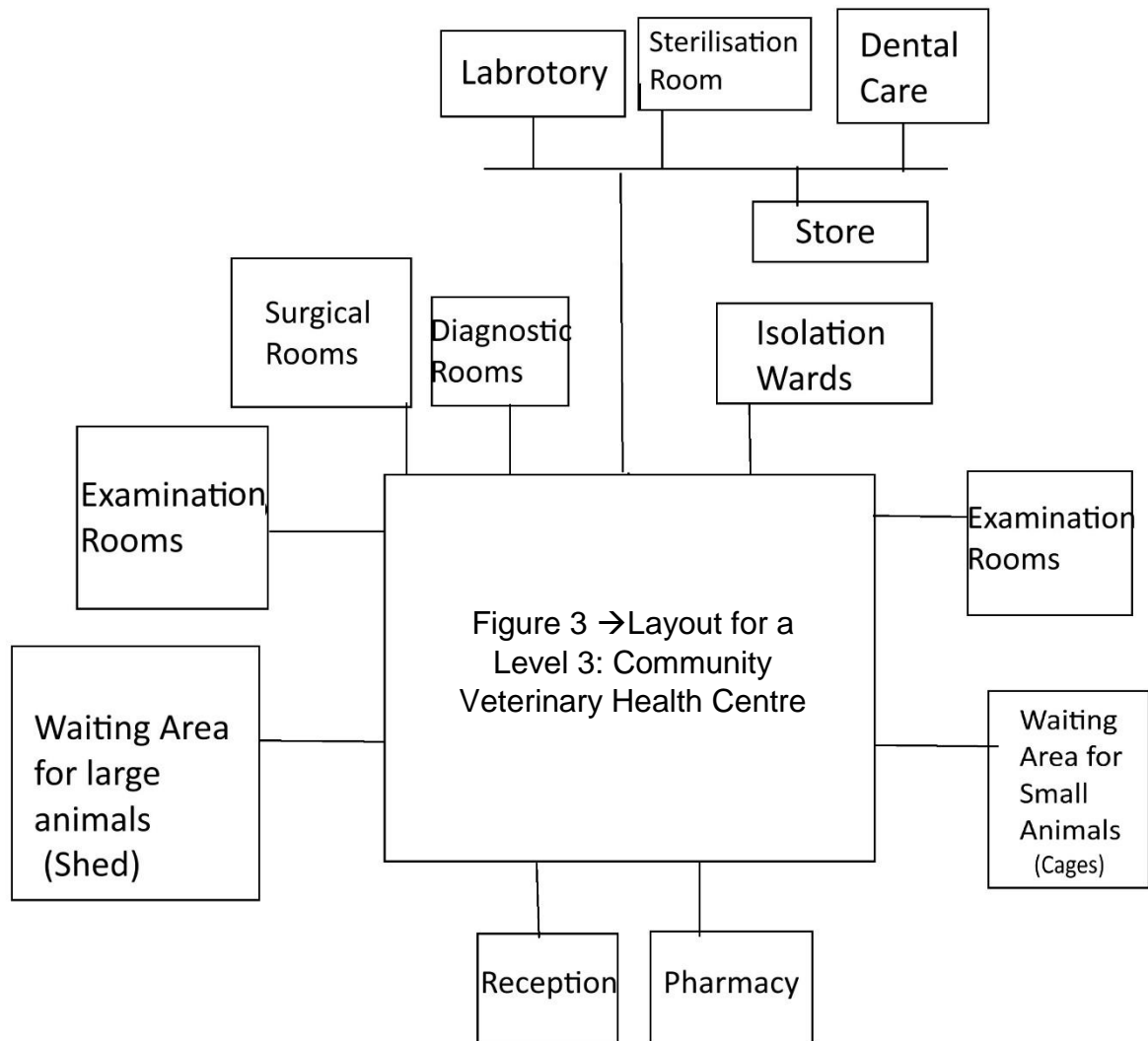
### **16. Animal Food Area**

- Facilities
  - The kitchen should be designed to meet hygiene and safety standards, with separate areas for food preparation, cooking, and cleaning.
  - It should have ample counter space for preparing several types of animal diets and a designated storage area for dry and wet food supplies.
  - It should also have dedicated feeding area with proper equipment.

### **17. Store**

- Facilities

- This area should have sufficient supply of medication, equipment, and other necessities with availability of proper storage.



## **Level 4: District Hospital (District Level)**

- **Services:**

- The District Level Veterinary Hospital offers a wide range of specialized veterinary services, including advanced diagnostics, major surgeries, intensive care units (ICUs), and specialized treatment for various animal species.
- It provides emergency services, rehabilitation for injured animals, and advanced reproductive technologies.
- The hospital also has facilities for research and development in veterinary science, conducts training and capacity-building programs for veterinarians and para-veterinary staff, and serves as a referral centre for lower-level veterinary facilities.

- **Infrastructure - Location and Structure:**

### **I. Location:**

- The District Level Veterinary Hospital should be in the district's central or major urban area to maximize accessibility for the district's population.
- It should be easily reachable via major highways and public transport systems.
- The hospital should be situated on a large plot of land to accommodate extensive facilities, including specialized treatment units and research areas.
- The location should also ensure a clean, safe, and pollution-free environment to maintain high standards of veterinary care.

### **II. Building Structure (Refer to Figure 4)**

#### **1. Reception**

- Facilities
  - The reception area should include a registration desk with seating arrangements for clients, computers for record-keeping, telecommunication facilities, and informational brochures about hospital services.
  - This area should also have basic public utilities (toilets, drinking water).
  - It should have adequate lighting and ventilation.

#### **2. Pet Store/Pharmacy**

- Facilities

- The pet store and pharmacy area should include shelving units for displaying products, a transaction counter, and secure storage areas for medications.

### **3. Other Animals Waiting Area**

#### ○ Facilities

- This area should have comfortable seating arrangements for clients, a check-in counter, and an informational board with relevant notices and updates.
- This area should also have public utilities (toilets, drinking water) and dedicated pet potties for various kinds of animals.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.
- Adequate Adaptil and other pheromones should be maintained.

### **4. Cat Only Waiting Area**

#### ○ Facilities

- This area should have comfortable seating arrangements for clients, a check-in counter, and an informational board with relevant notices and updates.
- This area should be a quiet and stress-free environment tailored for cats, with cat-friendly furniture and separate seating for cat owners.
- This area should also have public utilities (toilets, drinking water) and dedicated pet potties for cats.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.
- Adequate Adaptil and other pheromones should be maintained.

### **5. Bovines and Equines Waiting Area (IS-11942 – 1986)**

#### ○ Facilities

- The waiting area for cattle and horses should have large, secure pens or stalls, adequate ventilation, and a non-slip flooring to ensure safety.
- There should be comfortable seating arrangements for the attendants.
- The sheds should be cleaned and sanitized periodically.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.

### **6. Nursing Station**

#### ○ Facilities

- The nursing station should be centrally located with easy access to all treatment areas, including comfortable seating and workstations for the nursing staff.
- It should have cabinets and refrigerators for proper storage of medications and supplies.
- Equipment
  - Anaesthetics
  - Vaccines
  - Thermometers
  - Stethoscopes
  - Multiparameter Monitor

## 7. Isolation Wards

- Facilities
  - The Isolation Wards should have secure, clean, and comfortable kennels with adequate ventilation and temperature control.
  - Each kennel should undergo regular cleaning and sanitation procedures.
- Equipment
  - Kennel
  - Bedding
  - Ventilation System

## 8. Dental Clinic

- Facilities
  - The dental clinic should be a sterile, well-lit area dedicated to dental procedures, with easy access to anaesthesia and monitoring equipment.
- Equipment
  - Mouth mirrors.
  - Explorers
  - Periodontal probes
  - Dental X-ray machine

## 9. Waste Management

- Facilities
  - The waste management area should be a secure, designated space for handling and disposing of medical and animal waste, complying with health and safety regulations.

## 10. Operation Theatre

- Facilities
  - The surgical suites should be sterile, well-equipped rooms with controlled environments for performing surgeries, with adjacent preparation and recovery areas.
- Equipment
  - Surgical instruments
  - Surgical Supplies

- Anaesthesia Equipment
- Hydraulic beds for small animals
- Hydraulic beds for large animals
- Shadowless OT lights
- Ophthalmoscope
- Laryngoscope
- Urinary Catheters
- Otoscope

### **11. Diagnostic Area**

- Facilities
  - Laboratory for blood tests, urinalysis, and other diagnostics should be present.
  - The diagnostic area should include separate spaces for various diagnostic tests with proper lighting and ventilation.
- Equipment
  - X-ray machine for small animals
  - X-ray machine for large animals
  - Ultrasound machine for small animals
  - Ultrasound machine for large animals
  - MRI Scan
  - CT scan
  - Blood Analysers
  - Urine Analysers
  - Sample Collection and Handling Equipment

### **12. Examination Area**

- Facilities
  - The examination area should have multiple examination rooms with access to necessary supplies.
  - It should have sufficient space for the veterinary team to operate comfortably and include an adjustable examination table for various animal sizes.
  - Each room should be equipped with proper tables, cabinets for storage of medical supplies and basic diagnostic tools.
- Equipment
  - Vaccines
  - Thermometers
  - Stethoscopes
  - Multiparameter Monitor
  - Microscope
  - Centrifuge
  - pH Meter
  - Weighing Scale
  - Incubator
  - Biochemical Analyzer
  - Haematology Analyzer

- Centrifuge
- Sample Collection and Handling Equipment

### 13. ICUs

#### ○ Facilities

- Intensive Care Units (ICUs) should be sterile, highly controlled environments with individual cubicles designed for critical care patients.
- It should be equipped with proper equipment required for monitoring the patients.
- Each unit should have appropriate lighting, ventilation, and access to emergency exits.
- The area should also have space for family members to visit and private consultation rooms for discussions with veterinary staff.

#### ○ Equipment

- Thermometers
- Stethoscopes
- Ventilators,
- Infusion pumps
- ICU beds
- Defibrillators
- Multiparameter Monitor
- intravenous (IV) stands.
- oxygen supply systems

### 14. Physical Issues Treatment (Dental, Hoof)

#### ○ Facilities

- This area should have specialized treatment rooms for dental and hoof care, with proper flooring and lighting.
- Comfortable restraining systems for large animals
- It should have proper storage for treatment supplies.

### 15. Central Sterilization Chamber

#### ○ Facilities

- The central sterilization chamber should be a dedicated area for sterilizing medical instruments, with controlled access.

#### ○ Equipment

- Autoclave
- Ultrasonic cleaners
- Storage Cabinets

### 16. Kitchen/Cafeteria

#### ○ Facilities

- The kitchen should be designed to meet hygiene and safety standards, with separate areas for food preparation, cooking, and cleaning.
- The cafeteria should provide a comfortable space for staff to dine and relax, with adequate seating and amenities.



## 17. Animal Food Area

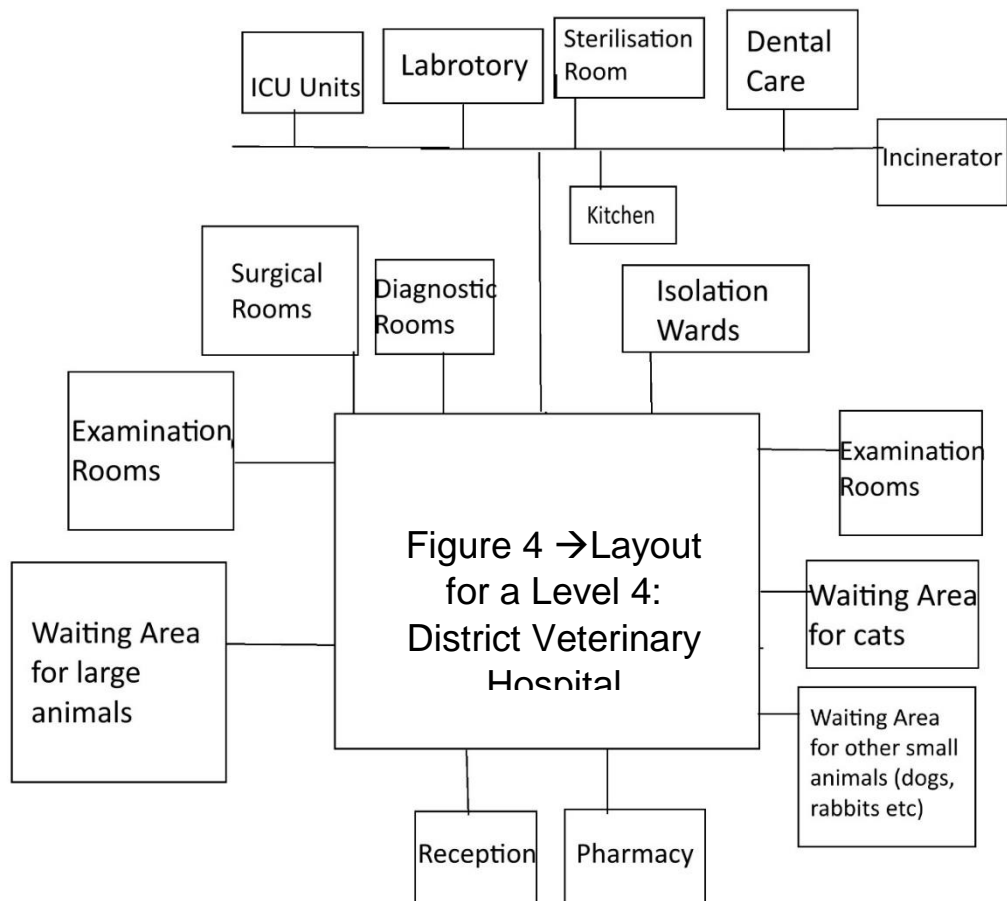
### ○ Facilities

- The kitchen should be designed to meet hygiene and safety standards, with separate areas for food preparation, cooking, and cleaning.
- It should have ample counter space for preparing several types of animal diets and a designated storage area for dry and wet food supplies.
- It should also have dedicated feeding area with proper equipment.

## 18. Store

### ○ Facilities

- This area should have sufficient supply of medication, equipment, and other necessities with availability of proper storage.



## **Level 5: State Referral Hospital/ Super Speciality Hospital/ Medical College Hospital**

### **Services**

- The State Referral Hospital or Super Specialty Veterinary Hospital provides innovative veterinary services, including state-of-the-art diagnostics, complex surgical procedures, and specialized treatments for rare and challenging cases.
- It features advanced ICUs, resolute units for different species, and facilities for specialized treatments such as oncology, orthopaedics, and neurology.
- The hospital offers comprehensive emergency services, rehabilitation, and physiotherapy for animals.
- It also engages in extensive research and development, collaborates with academic institutions, and provides advanced training programs for veterinarians, researchers, and students.
- The hospital serves as a centre of excellence and referral point for veterinary services across the state.

### **Infrastructure – Location, Structure, and equipment**

#### **I. Location**

- The State Referral Hospital or Super Specialty Veterinary Hospital should be positioned in a central, well-connected urban area to serve a broad population across the state.
- Proximity to major highways, airports, and railway stations is essential to facilitate easy access for referral cases and emergencies.
- The site should be expansive to house advanced facilities and accommodate future growth.
- It should be in a secure and environmentally safe area, with considerations for high-standard infrastructure and amenities.

#### **II. Building Structure (Refer to Figure 5)**

##### **1. Reception**

- Facilities
  - The reception area should include a registration desk with seating arrangements for attendants accompanying the animals, computers for record-keeping, telecommunication facilities, and informational brochures about hospital services.
  - This area should also have basic public utilities (toilets, drinking water).
  - It should have adequate lighting and ventilation.

##### **2. Pet Store/Pharmacy**

- Facilities

- The pet store and pharmacy area should include shelving units for displaying products, a transaction counter, and secure storage areas for medications, equipment, and other perishable items.

### **3. Other Animals Waiting Area**

- Facilities

- This area should have comfortable seating arrangements for clients, a check-in counter, and an informational board with relevant notices and updates.
- It should also have a dedicated space for kennels.
- This area should also have public utilities (toilets, drinking water) and dedicated pet potties for various kinds of animals.
- This area should have adequate lighting and ventilation.
- This area should have adequate food storage and distribution system for both animals and clients.
- Adequate Adaptil and other pheromones should be maintained.

### **4. Cat Only Waiting Area**

- Facilities

- This area should have comfortable seating arrangements for clients, a check-in counter, and an informational board with relevant notices and updates.
- This area should be a quiet and stress-free environment tailored for cats, with cat-friendly furniture and separate seating for cat owners.
- This area should also have public utilities (toilets, drinking water) and dedicated pet potties for cats.
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- This area should have adequate food storage and distribution system for both animals and clients.
- Adequate feliway should be maintained.

### **5. Bovines and Equines Waiting Area (IS-11942 – 1986)**

- Facilities

- The waiting area for cattle and horses should have large, secure pens or stalls, adequate ventilation, and a non-slip flooring to ensure safety.
- There should be comfortable seating arrangements for the attendants.
- The sheds should be cleaned and sanitized periodically.
- This area should have adequate lighting and ventilation.

- This area should have adequate food storage and distribution system for both animals and clients.

## **6. Nursing Station**

### ○ Facilities

- The nursing station should be centrally located with easy access to all treatment areas, including comfortable seating and workstations for the nursing staff.
- It should have cabinets and refrigerators for proper storage of medications and supplies.

### ○ Equipment

- Anaesthetics
- Vaccines
- Thermometers
- Stethoscopes
- Multiparameter Monitor

## **7. Playing Area**

### ○ Facilities

- The playing area should be an open, safe, and enclosed space for animals to exercise and socialize, with proper fencing and soft ground cover.

## **8. Grooming Area**

### ○ Facilities

- The grooming area should have separate spaces for washing, drying, and trimming with non-slip flooring and good ventilation.
- It should also have proper cabinets for storage for grooming tools and supplies.

## **9. Behavioural Consultancy Area**

### ○ Facilities

- This area should be a quiet, private room where consultations can take place without disturbances, with comfortable seating for pet owners and a calming environment for animals.

## **10. Isolation Wards**

### ○ Facilities

- The Isolation Wards should have secure, clean, and comfortable kennels with adequate ventilation and temperature control.
- Each kennel should undergo regular cleaning and sanitation procedures.

### ○ Equipment

- Kennel
- Bedding
- Ventilation System

## **11. Dental Clinic**

### ○ Facilities

- The dental clinic should be a sterile, well-lit area dedicated to dental procedures, with easy access to anaesthesia and monitoring equipment.
- Equipment
  - Mouth mirrors.
  - Explorers
  - Periodontal probes
  - Dental X-ray machine

## **12. Waste Management**

- Facilities
  - The waste management area should be a secure, designated space for handling and disposing of medical and animal waste, complying with health and safety regulations.

## **13. Operation Theatre**

- Facilities
  - The surgical suites should be sterile, well-equipped rooms with controlled environments for performing surgeries, with adjacent preparation and recovery areas.
- Equipment
  - Surgical instruments
  - Surgical Supplies
  - Anaesthesia Equipment
  - Hydraulic beds for small animals
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## **14. Diagnostic Area**

- Facilities
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  - The diagnostic area should include separate spaces for various diagnostic tests with proper lighting and ventilation.
- Equipment
  - X-ray machine for small animals
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  - Ultrasound machine for small animals
  - Ultrasound machine for large animals
  - MRI Scan
  - CT scan
  - Blood Analysers
  - Urine Analysers
  - Sample Collection and Handling Equipment

## **15.Examination Area**

- Facilities
  - The examination area should have multiple examination rooms with access to necessary supplies.
  - It should have sufficient space for the veterinary team to operate comfortably and include an adjustable examination table for various animal sizes.
  - Each room should be equipped with proper tables, cabinets for storage of medical supplies and basic diagnostic tools.
- Equipment
  - Vaccines
  - Thermometers
  - Stethoscopes
  - Multiparameter Monitor
  - Microscope
  - Centrifuge
  - pH Meter
  - Weighing Scale
  - Incubator
  - Biochemical Analyzer
  - Haematology Analyzer
  - Centrifuge
  - Sample Collection and Handling Equipment

## **16.ICUs**

- Facilities
  - Intensive Care Units (ICUs) should be sterile, highly controlled environments with individual cubicles designed for critical care patients.
  - It should be equipped with proper equipment required for monitoring the patients.
  - Each unit should have appropriate lighting, ventilation, and access to emergency exits.
  - The area should also have space for family members to visit and private consultation rooms for discussions with veterinary staff.
- Equipment
  - Thermometers
  - Stethoscopes
  - Ventilators,
  - Infusion pumps
  - ICU beds
  - Defibrillators
  - Multiparameter Monitor
  - intravenous (IV) stands.
  - oxygen supply systems

## **17. Milk Treatment Facility**

- Facilities
  - The milk treatment facility should have a clean, temperature-controlled environment for processing and storing milk.
  - This area should also have adequate equipment for testing purposes.

## **18. Physical Issues Treatment (Dental, Hoof)**

- Facilities
  - This area should have specialized treatment rooms for dental and hoof care, with proper flooring and lighting.
  - Comfortable restraining systems for large animals
  - It should have proper storage for treatment supplies.

## **19. Central Sterilization Chamber**

- Facilities
  - The central sterilization chamber should be a dedicated area for sterilizing medical instruments, with controlled access.
- Equipment
  - Autoclave
  - Ultrasonic cleaners
  - Storage Cabinets

## **20. Kitchen/Cafeteria**

- Facilities
  - The kitchen should be designed to meet hygiene and safety standards, with separate areas for food preparation, cooking, and cleaning.
  - The cafeteria should provide a comfortable space for staff to dine and relax, with adequate seating and amenities.

## **21. Animal Food Area**

- Facilities
  - The kitchen should be designed to meet hygiene and safety standards, with separate areas for food preparation, cooking, and cleaning.
  - It should have ample counter space for preparing several types of animal diets and a designated storage area for dry and wet food supplies.
  - It should also have dedicated feeding area with proper equipment.

## **22. Laundry**

- Facilities
  - The laundry area should be equipped with industrial washers and dryers, with proper ventilation and storage for clean and soiled linens.

## **23. Workshop**

- Facilities

- The workshop should be a versatile space for maintenance and repairs, with adequate workbenches and storage.

#### **24.Sub-Station**

- Facilities

- The sub-station should be a secure area for housing electrical and mechanical systems of the hospital.

#### **25.Mortuary**

- Facilities

- The mortuary should be a discreet, temperature-controlled area for handling deceased animals with respect and dignity.

#### **26.Incinerator**

- Facilities

- This area should have proper equipment for safe disposal of biological waste.
- It should be in a secure, ventilated area, compliant with environmental regulations.

#### **27.Ambulance, Mobile Veterinary and Mobile Cages Services**

- Facilities

- This area should be equipped with well-equipped ambulances for animal transport, mobile veterinary units with basic medical supplies and mobile cages for safe transport of animals.

#### **28.Biomedical Engineering Dept.**

- Facilities

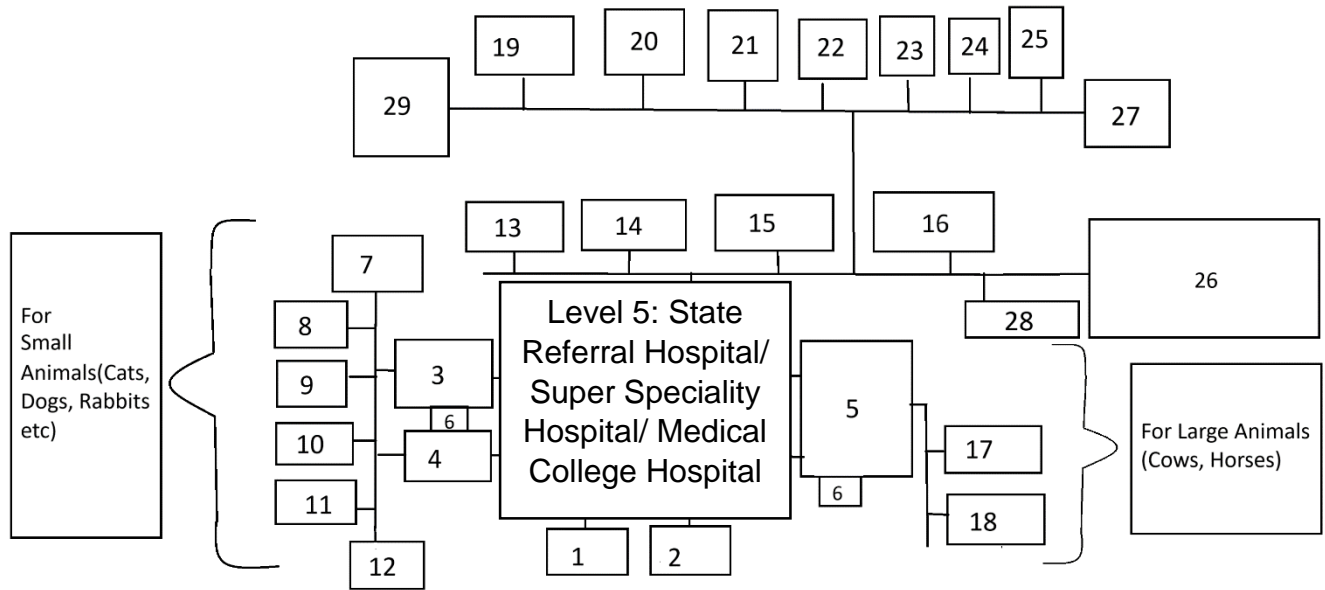
- This department should have a secure and controlled environment for the maintenance and repair of medical equipment.
- It should have qualified personnel.

#### **29.Birdcage**

- Facilities

- The birdcage area should be an aviary-like space with proper ventilation, lighting, and secure enclosures for different bird species.





- |                                  |   |                                  |
|----------------------------------|---|----------------------------------|
| 1.Reception                      | 14.Diagnostic Area  |                                  |
| 2.Pet Store/ Pharmacy            | 15.Examination Area                                       |                                  |
| 3.Other Animals Waiting Area     | 16.ICUs and OTs   |                                  |
| 4.Cat only waiting area          | 17.Milk Treatment Facility                                |                                  |
| 5.Cattle and Horses Waiting Area | 18.Physical Issues Treatment (Dental, Hoof)               |                                  |
| 6.Nursing Station                | 19.Central Sterilization Chamber                          |                                  |
| 7.Playing Area                   | 20.Kitchen/Cafeteria                                      |                                  |
| 8.Grooming area                  | 21.Laundry  |                                  |
| 9.Behavioural Consultancy Area   | 22.Workshop   | 27. Biomedical Engineering Dept. |
| 10.Kernal Area                   | 23.Sub-Station  | 28. Birdcage Area                |
| 11.Dental Clinic                 | 24.Mortuary   | 29. Animal Feeding Area          |
| 12.Waste Management              | 25.Incinerator  |                                  |
| 13.Surgical Suites               | 26.Ambulance, Mobile Veterinary and Mobile Cages Services |                                  |