4.0 Planning

4.1 Introduction

The planning of Health Facilities requires general knowledge of the appropriate relationships between the various components. Certain components (also referred to as Functional Planning Units or FPUs) need to be adjacent or close to other components. Most components must be accessible independently without having to go through other components. In short, the planning of a Health Facility requires a certain logic which is derived from the way the facility functions.

4.2 Planning

4.2.1 Good Planning Relationships

- Increase the efficiency of operation
- Promote good practice and safe health care delivery
- Minimise recurrent costs
- Improve privacy, dignity and comfort
- Minimise travel distances
- Support a variety of good operational policy models
- Allow for growth and change over time.

4.2.2 Inappropriate Planning Relationships:

- Result in duplication and inefficiency
- May result in unsafe practices
- Increase running costs
- May result in reduced privacy, dignity and comfort
- Increases travel distance or force un-necessary travel
- Result in lack of flexibility to respond to future growth and change
- May limit the range of operational possibilities.

Planning of a complex Hospital of Day Procedure Centre depends on commonly recognised "good relationships" as well as site constraints and conformity with various codes and guidelines. In theory it is possible to go back to the basics every time. In practice, however, designers soon discover that this is an inefficient way of arriving at appropriate planning solutions. Just as in other buildings types e.g. Hotels and Shopping Centres, Health Facilities have overtime evolved around a number of workable Planning Models. These can be seen as templates, modules, prototypes or patterns for the design of new facilities.

A skilled designer will use these planning models to assemble the requirements of a health facility on the site without compromising functionality. Some of the key relationships are indicated or implied in the Functional Relationship Diagrams included in these guidelines.

4.2.3 Local Design Regulations

Typical Design factors for Health facilities depending on local customs and traditions should include the following

- Access to Recovery areas for relatives
- Separation of male and female recovery areas
- Separation of male and female waiting areas
- Larger family waiting areas
- Prayer room on each floor
- Independent male and female Inpatient Unit accommodation

PRAYER ROOMS

The typical hospital facility should respect the local customs of the population. Prayer rooms

on each floor may be required. Separate prayer rooms for male and female may be required. The following consideration should be given to prayer rooms.

- Location of the prayer room should be in an accessible area but away from noise, distraction and heavy clinical traffic.
- Orientation of the prayer room is important; appropriate location of entry into the prayer room is essential.
- Airlock to the prayer room is desirable; this may accommodate hand basin for ablution, shoe racks, bag lockers and coat hooks as deemed necessary.
- Appropriate finish on the floor and walls is desirable
- Windows are desirable.

4.3 Area Measurement Methodology

Within these Guidelines, Room areas, Departmental boundaries, Circulation, Travel and Engineering are defined and calculated according to the following standards.

4.3.1 How to Measure Drawings

To measure drawings, the following measurement technique will apply.

FOR ROOMS

- Areas are measured to the inside face of outside walls,
- To centre of walls to adjoining rooms,
- To the full thickness of corridor walls facing rooms,
- To the centre of departmental boundary walls (except where boundary wall adjoins a corridor).

Areas not included are:

- Circulation % (represented by Departmental corridors)
- Service risers, Service cupboards and Plant Rooms
- Fire Hose Reels, Fire Stairs, Lift Shafts

FOR DEPARTMENTAL CORRIDORS REPRESENTING CIRCULATION %

- Areas are measured to the face of corridor walls
- To the inside face of outside walls

Areas not included are:

- Service Risers, Service Cupboards and Plant Rooms
- Fire Hose Reels, Fire Stairs Lift Shafts

FOR 'TRAVEL'

- Corridors between departments (HPUs) to the face of corridor walls
- To the inside face of outside walls
- Stairs including Fire Stairs
- Internal Fire Stairs and ramps.

Areas not included are:

- Service risers and cupboards
- Fire Hose Reels, Lift Shafts
- Plant Rooms.

FOR ENGINEERING

- Plant Rooms, Fire Hose Reels and Service Cupboards to the centre of adjoining walls,
- To the inside face of outside walls,
- To the full thickness of riser walls.

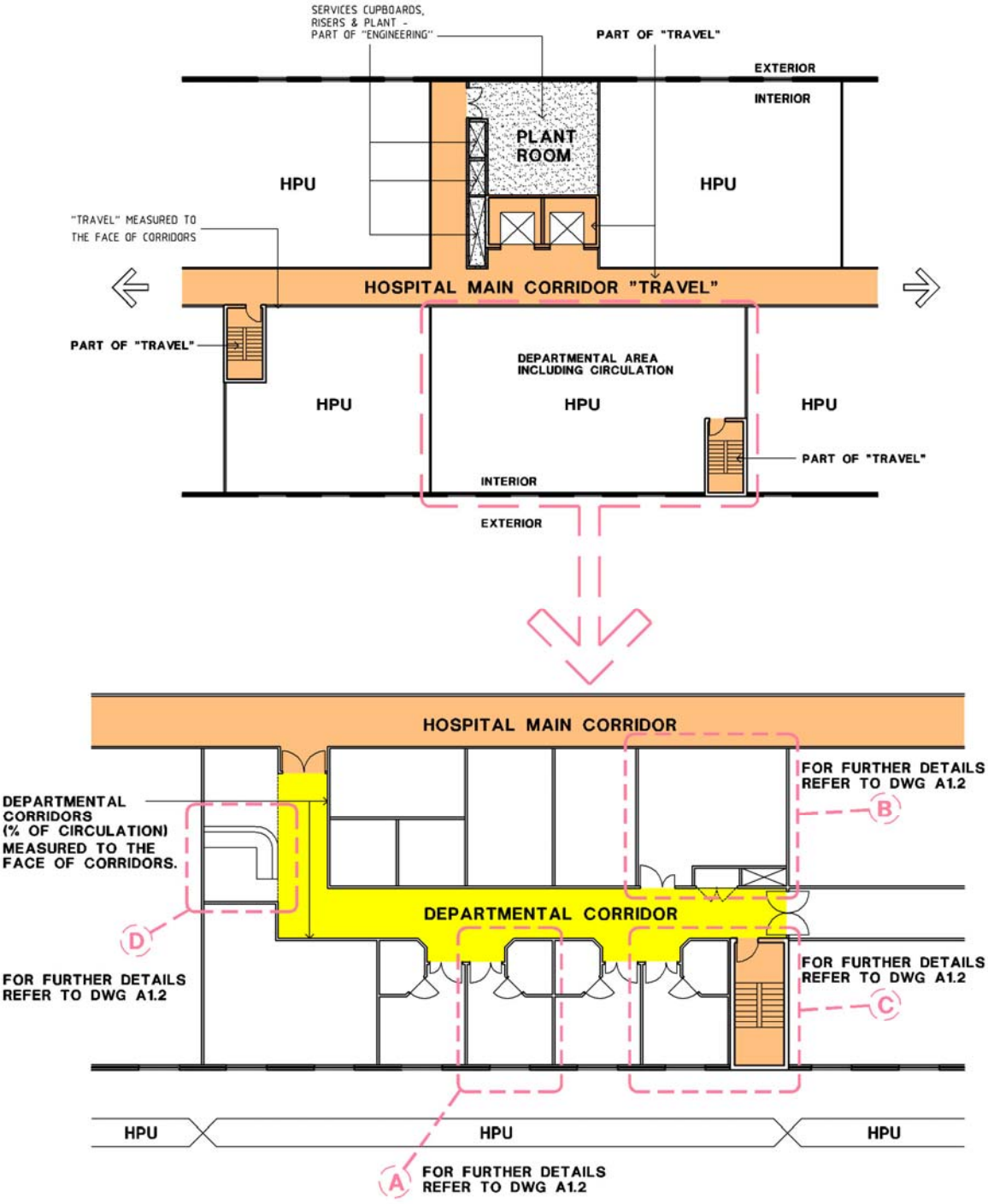
Areas not included are Lift Shafts (the void area).

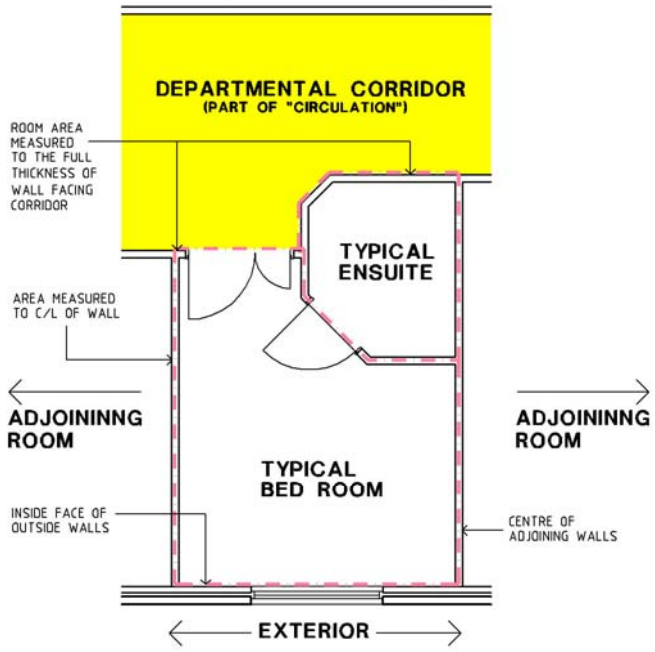
The minimum room sizes in these Guidelines assume wall thicknesses of 100mm. For wall

thicknesses of more than 120 mm, the minimum area of the room (as measured in accordance with these Guidelines) shall be increased to compensate for the greater wall thickness. Refer to Area Measurement Diagrams attached below for a visual representation of these area measurements.

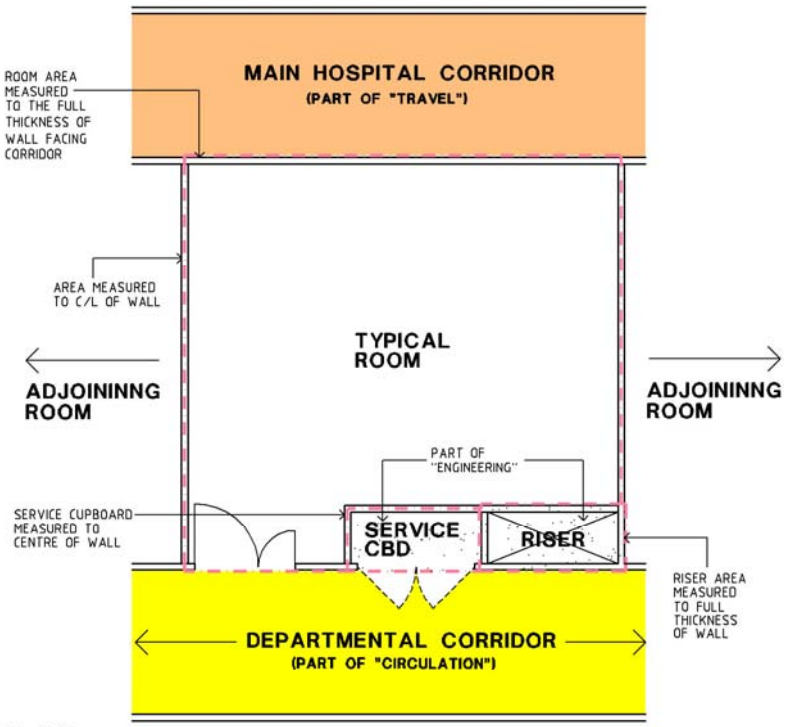
4.4 Area Measurement Diagrams

4.4.1 Area Measurement Methodology

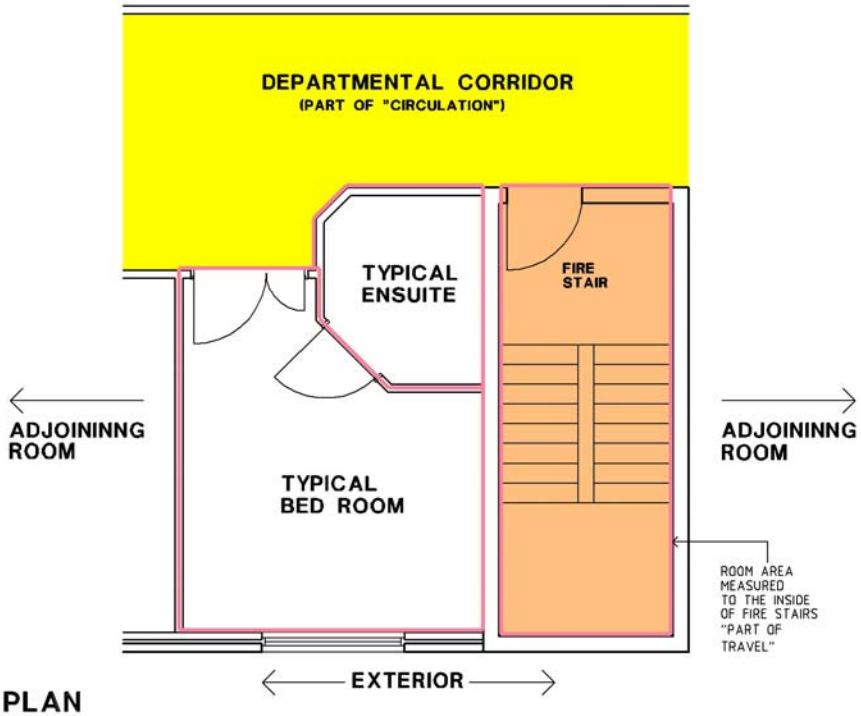




C. PART PLAN



D. PART PLAN



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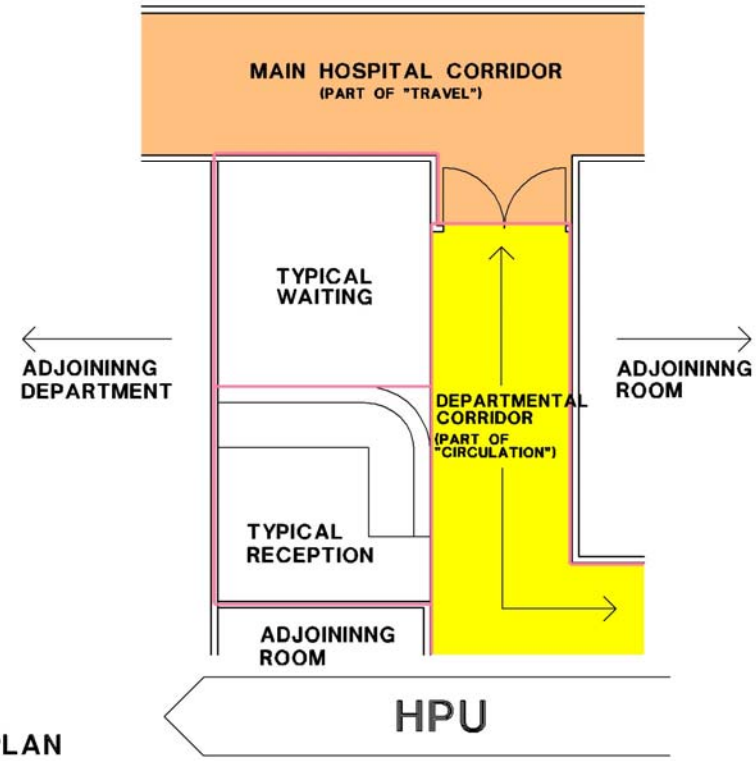


D. PART PLAN

4.5 Parking and Vehicular Access

4.5.1 Introduction

In a new hospital development, planned parking and vehicular access is essential and should be provided based on hospital functions, available staff, community needs and space available. The parking should provide an adequate number of spaces for vehicles including cars, commercial vehicles, emergency vehicles and 2-wheelers such as motorcycles, scooters and bicycles. Access to and from parking areas should meet disability standards and other relevant local and safety standards.

4.5.2 General Design Guidelines

PHYSICAL LOCATION

Various circumstances may dictate the location of the parking such as

- Location of Emergency department
- Location of the Main Waiting area
- Proximity to Staff, patients and other users.
- Practicality of consolidated parking versus spread out parking.
- Transport policy objectives laid by the local Road Transportation authority.
- Any other specific services offered at the Medical facility.

PHYSICAL CHARACTERISTICS

The physical characteristics of a car park must meet the needs of the different types of vehicles in use or expected to be in use.

For private and emergency vehicles, the car park or drop off areas should adhere to local building authority guidelines. For emergency areas, designated ambulance drop-off and parking is essential for the safety and well-being of patients and staff. Clear access ways and designated parking spots may need to demarcated to avoid misuse.

For commercial and service vehicles such as delivery and waste management trucks, loading docks should be designed compatible with the type of vehicles to be used or expected to be used in the future. Traffic controls may need to be provided to segregate vehicles according to their use. For example loading/ unloading areas for a ‘Clean’ delivery truck and a ‘Dirty’ waste management truck. Similarly access points and access ways through the site need to be designed such that patient access does not interfere with emergency and service vehicle access.

PEOPLE WITH DISABILITIES

All access to and from the car park will need to adhere to local disability guidelines. Parking spaces for use by people with disabilities should be in accordance such guidelines. A parking space for a person with disability should consist of an unobstructed area having a firm, plane surface with a fall not exceeding minimum requirements of the local disability code. Space width and overlap allowances also need to be in accordance with such codes. A continuous, accessible path of travel should be provided between each parking space to an accessible entrance/lift. Parking spaces should be identified by a sign incorporating the international symbol of access for people with disabilities.

COMMUNITY SAFETY

Car parking and vehicular access ways should provide a safe environment for its users. Clear sightlines should be provided throughout the car parking areas to enhance safety and avoid confusion. Car parks should be directly linked to accessible pedestrian pathways linking directly to the main building or reception areas. Adequate lighting is essential after hours for patients and staff to access their vehicles. Communication and security systems may be

installed in large car parks depending on the location, function and layout. Adequate traffic controls may be required to safely navigate pedestrian and vehicular traffic through the parking area. This could be achieved through signage or other electronic controls.
Access ways and parking spots for emergency vehicles should kept clear of any public interference for the well being of both patients and the general public. Loading and unloading areas should follow minimum local standards for Occupation and Health Safety. This may include adequate lighting, clear access ways and designated parking spots. Communications and security systems may be installed to monitor such areas that have low frequency of visitors or vehicular access.

LANDSCAPING AND SIGNAGE

Car parks should generally be attractive and pleasant spaces that are aesthetically designed for public and private use. To avoid unattractive expanses of paving, vegetation may be used to soften the visual impact. The landscaping should generally respect the terrain of the land. Trees may be utilised to provide greenery as well as shade during summer months. Plants should be selected that have vigorous growth, longevity, minimal maintenance and ample shade. Care should be taken that sub-soil drainage is provided for all trees and adequate drainage is provided for surface water run-off from paved areas.

Way finding and signage are important elements that safely guide patients and staff to and from the hospital building. Signage should prominently highlight pedestrian/disabled access ways. Clear directions to the nearest stairwell or lift well should be posted at prominent locations or at proper intervals. Proper signage also helps visitors to identify a particular location so that they are able to access their vehicles in an easy and timely manner. Care should be taken that exit and direction signs are clearly visible to avoid incidents. Security systems may be installed to discourage miscreants.

MAINTENANCE

The design of car parks and vehicular access ways should aim to achieve minimum maintenance. Elements such as signs, landscape, barriers etc should be designed to ensure minimal maintenance and discourage vandalism. For example sealed pavement may be used instead of gravel that requires constant maintenance.

4.5.3 Community and Healthcare Facility Land use Policies

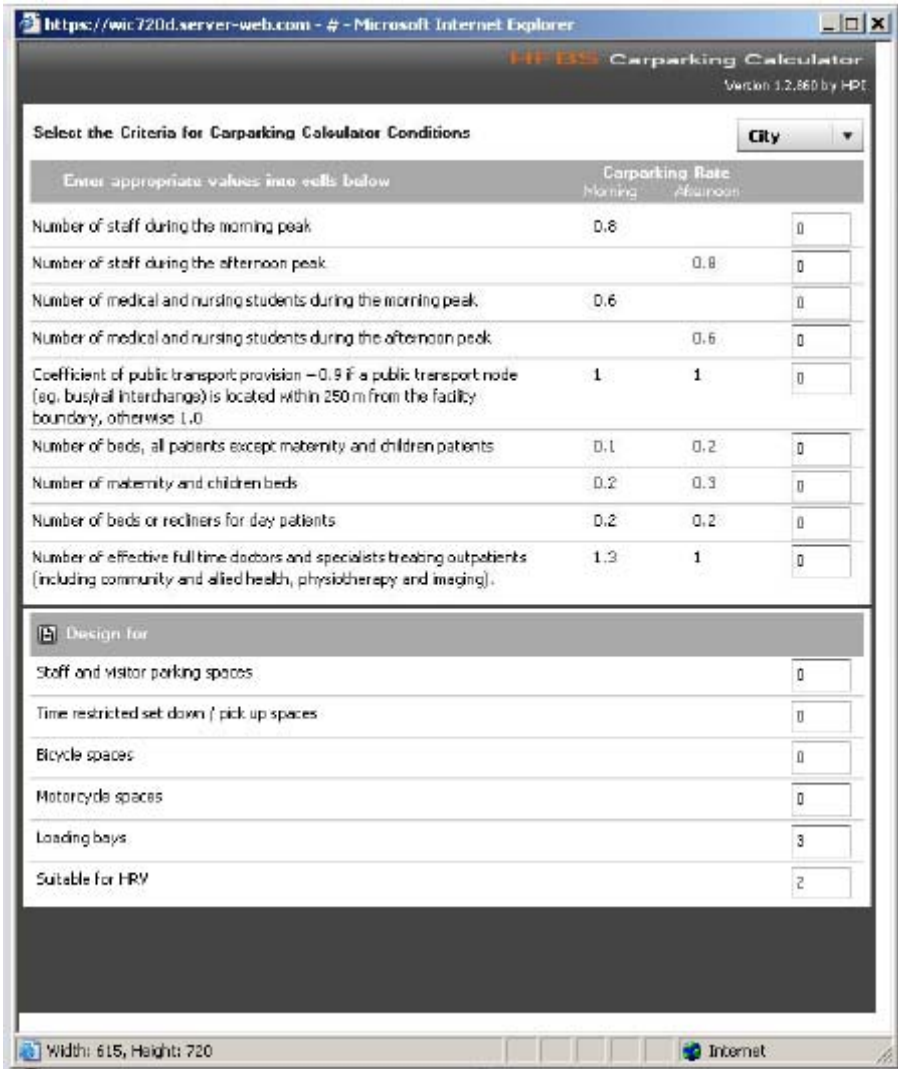
Community and Healthcare Facility Land Use Policies may apply to a variety of areas for a hospital building. Travel associated with community and health facilities land use therefore covers a range of purposes including the journey to work, personal business and recreation. Base on these the modes of travel vary depending on the prevalent functions associated with the health facility. For example the local authority may require a drop-off/ pick up area for public transportation. Some communities encourage sustainable lifestyles and may require bicycle parking or direct pedestrian access from main arterial roads. Ready access to public transport is often particularly important because of the absence of viable alternatives for the community.

The design of the health facility should ensure that due consideration is given to policies laid by the local community council with regard to community land use and the amenities required for such land use. The safety of all users at all times is essential and care should be taken that no safety hazards are created by the provision of access and parking facilities for a development.

4.5.4 Car Parking Calculator

Designers of health facilities should use local guidelines for calculating the number of parking required for the facility. In the absence of such guidelines, the Health Facility Briefing System (HFBS) provides a tool that designers can rapidly and accurately estimate the number of parking required for cars, trucks and other vehicles. The tool is based on algorithms devised by transportation experts and is used by designers all over Australasia. Based on a set of 8

questions, the tool is able to accurately predict the estimated car parking load for the Health Facility. Despite this, the tool should be used in conjunction with the appropriate local Bye Laws to ensure full local compliance.



Car Parking Calculator – Health Facility Briefing System (HFBS)

4.5.5 *Additional Reading and References*

- Guidelines for Design and Construction of Health Care Facilities, The Facility Guidelines Institute, 2010 Edition.
- AS 2890.1: Parking Facilities. Part 1: Off street car parking, Standards Australia.
- ACT Parking and Vehicular Access Guidelines, Planning and Land Management, Department of Urban Services, Canberra, 2000
- Design Standards for Urban Infrastructure, Section 10 Parking Areas, Department of Urban Services, Canberra, Australia, Edition 1.
- AS 2890.6: Parking Facilities. Part 6: Off-street parking for people with disabilities, Standards Australia

HFG India

The Indian Health Facility Guidelines recommends the use of HFBS "Health Facility Briefing System" to edit all room data sheet information for your project.

HFBS provides edit access to all HFG India standard rooms, departments, and more than 40 report templates.

HFBS **Health Facility Briefing System**

Briefing Module

The Health Facility Briefing System (HFBS) has numerous modules available via annual subscription. It suits healthcare Architects, Medical Planners, Equipment Planners Project Managers and Health Authorities.

Use the HFBS Briefing Module to quickly drag in health facility departments or pre-configured room templates from the HFG standard, edit the room features such as finishes, furniture, fittings, fixtures, medical equipment, engineering services. The system can print or download as PDF more than 100 custom reports including room data sheets, schedules, and more…

To learn more about the HFBS web-based Healthcare Briefing and Design Software and to obtain editable versions of the "Standard Components" including Room Data Sheets (RDS) and Room Layout Sheets (RLS) offered on the HFG website, signup for HFBS using the link below.

Get Started Now:
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