



Part C – Access, mobility, OH & S

Issue 1 Release Notes

This release represents the first public issue of the new Victorian Guidelines for Hospitals and Day Procedure Centres (DGHDP). All previous releases were marked DRAFT for review and comment only.

Every effort has been made to check the new guidelines for errors and inconsistencies. Many difference stakeholders, proof-readers and reviewers have participated in this process. Nevertheless, As may be expected of issue 1 of a comprehensive set of new guidelines, errors and inconsistencies may still be found. These will be progressively corrected in future editions of the guidelines

Important Disclaimer

These Guidelines have been created as "Stand-alone" documents. Nothing in these Guidelines implies that compliance with them will automatically result in compliance with other Legislative or Statutory requirements. Similarly, nothing in these Guidelines implies compliance with the Australian Standards or the Building Code of Australia. Parts of these Guidelines such as Room Layout Sheets necessary show elements which may be subject of those Legislative or Statutory requirements. Every effort has been made to ensure such compliance, however no guarantees are made. It is the responsibility of each user to check and ensure compliance with other "Stand-alone" Legislative and Statutory requirements.

As the name suggests, the documents provided are "Guidelines". Users are advised to seek expert opinion on the important issue of Health Facility Design whilst considering these Guidelines. Many of the concepts covered by these Guidelines require a minimum level of knowledge of Health Facilities and Health Facility Design. Due to the generic nature of these Guidelines, all the individual circumstances can not be anticipated or covered. Furthermore, these Guidelines do not cover the operational policies of individual facilities. Delivery of excellence in health care as well as the provision of a safe working environment will depend on appropriate operational policies. The authors of these Guidelines as well as those involved in the checking or approval of these Guidelines accept no responsibility for any harm or damage, monetary or otherwise caused by the use or misuse of these Guidelines.

What is New?

These guidelines were specifically prepared by Health Projects International for Victoria using a specially customised database of health design knowledge. Over the last few years, thanks to a framework of cooperation between different State Departments of Health, the guidelines have been offered as the core of the proposed future National Health Facility Design Guidelines. The same database system is used to deliver the new NSW Health Facility Guidelines over the next few years. The delivery system, the structure and content database are shared, whilst each State initially has its own version meeting legislative and policy requirements. Over time, various State variations of the guidelines are expected to reduce to pave the way towards the future unified Guidelines.

Use of Other Guidelines

These Guidelines have been prepared after considering numerous other Guidelines available in Australia and overseas. Both words and concepts found in the other Guidelines have been used when appropriate, sometimes with changes to terminology or methods of measurement. Since very similar concepts and requirements are covered by many different guidelines, a clause by clause reference to other guidelines would be impractical. A short list of other Guidelines reviewed for the preparation of these Guidelines can be found under "References and Further Reading" in each section of the Guidelines. Nothing in these Guidelines implies or guarantees compliance with every requirement of those other Guidelines.

Credits

These Design Guidelines as well as the Guidelines Web Site have been prepared by:
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Corridors

- 710 .1.00 There are many schools of thought on minimum corridor widths and the underlying principles that should dictate them. The requirements set out in this section should be regarded as the minimum required. These requirements take into account the need to allow for the movement of trolleys, beds, wheelchairs and other mobile equipment, including the passing of such equipment.

The overriding principle in setting the minimum corridor width is the need to allow for a workable width that, in the event of an emergency evacuation procedure, does not impede egress.

Note 1: Designers should note that the Building Code of Australia (BCA) also specifies minimum corridor widths for Patient Care Areas. The requirements of these Guidelines for certain areas may be higher than the BCA as Fire Safety is not the only focus of these Guidelines.

Note 2: Most large Hospital Units include a range of patient and staff only corridors. If staff only areas are clearly designated by planning and are not required for patient access, then the guidelines for patient corridors do not apply.

Note 3: All corridor widths are clear of hand rails and/or crash rails. It is recommended that for design purposes (and considering construction tolerances) 100 mm be allocated to each hand rail.

- 710 .2.00 In areas where patient beds, trolleys and stretchers will be moved regularly, such as Inpatient Units, Operating Units, Obstetric Units and Intensive Care Units, the minimum clear corridor width shall be 2100 mm.

The recommended corridor width in areas where there is frequent bed and trolley movement is 2350 mm. This, however, is not mandatory. Even at this dimension, special consideration must be given to the width of doorways into adjacent rooms and widening corridors at the entry to the affected rooms to accommodate turning trolleys and beds.

Corridor widths in the above areas may be considered at lesser dimensions where an existing building is utilised, but special design and planning detail must be incorporated to overcome the problems of congestion and the potential risk to patients and staff in an emergency evacuation.

Note: In any event, the corridors may not be narrower than that required by the BCA for Patient Care Areas.

- 710 .3.00 In areas where irregular trolley or bed movement is expected, such as Radiology, corridor widths can be reduced to 1800 mm. Special consideration must be given to the door widths to ensure the movement of trolleys or beds from corridor to adjacent rooms is not restricted.

- 710 .4.00 In areas where there is no patient transportation requirement and where corridor runs are no longer than 12 metres, such as a corridor to a group of staff offices, corridor widths of 1200 mm are acceptable.

- 710 .5.00 Corridor widths of less than 1200 mm are unacceptable in patient care areas, except where forming part of an existing facility, and where written approval has been obtained for the lesser width.

Corridors

710 .6.00 The width of major inter-department arterial corridors and public corridors generally shall be as wide as is deemed necessary for the proposed traffic flow, but shall not be less than 2100 mm.

Note: In these Guidelines, the inter-departmental corridors are also referred to as 'travel'.

710 .7.00 The width of lobbies within corridors shall be as wide as deemed necessary for the proposed traffic flow, and shall comply with the 'Building Code of Australia'.

In addition to the above, corridor widths shall comply with the requirements of AS 1428 series - Design for Access and Mobility.

710 .8.00 Corridor widths shall mean clear, unobstructed widths. Items such as handrails, drinking fountains, handbasins, telephone booths, vending machines and portable/mobile equipment of any type shall not reduce the minimum width or impede traffic flow.

710 .9.00 Consideration shall be given to the elimination of potentially dangerous 'blind spots'.

710 .10.00 The minimum requirements for health facility corridor widths are summarised in the following table:

CATEGORIES	Conditions	Usage	Description	Width	Best Option	Mandatory	Remarks
CORRIDOR WIDTH	class 9a	patient	on trolley	2100 mm	2350 mm	yes	Clear width between any grab rails
CORRIDOR WIDTH	class 9a	patient	irregular use	1800 mm	2100 mm	no	Clear width between any grab rails
CORRIDOR WIDTH	services	trolley	regular use	2100 mm	2350 mm	yes	Clear width between any grab rails
CORRIDOR WIDTH	class 5&9a	patient	no trolley	1500 mm	1800 mm	yes	Clear width between any grab rails
CORRIDOR WIDTH	AS1428	staff	no patients	1000 mm	1200 mm	yes	Maximum 12 m long
WALL PROTECTION		low level	wheel chairs	150-350 mm	150-400 mm	no	Kick boards
WALL PROTECTION		mid level	for trolleys	900 mm	900 mm	no	Bed/ trolley protection
WALL PROTECTION		corners	for trolleys	150-900 mm	150-1500 mm	no	Bed/ trolley protection
HAND RAILS	AS1428	mid level	for patients	900 mm		yes	32 mm thick
EQUIPMENT BAYS			for equipment	recessed	one sided	yes	
REST BAYS		seating	3 people	every 40 m	every 30 m	no	
REST BAYS		wheel chairs	1 person	every 40 m	every 30 m	no	
DOORS IN CORRIDORS		in corridor	fire/ smoke	maximise	conceal	yes	Corridor width minus 250 mm
WALL PHONES IN CORRIDORS			height	1600 mm		no	

Ceiling Heights

- 710 .11.00 The minimum ceiling height in occupied areas shall be 2400 mm, but consideration should be given to the size (aesthetic consideration) and use of the room. 2700 mm is considered a more appropriate ceiling height in work areas such as Therapy Rooms, Conference Rooms, Intensive Care (open-plan) and Kitchens. Ceiling heights in Ensuites can be reduced to 2250 mm where required, to accommodate building services and structure.
- 710 .12.00 The minimum ceiling height in areas such as corridors, passages and recesses shall be 2400 mm. In portions of remodelled existing facilities, the corridor ceiling height may be reduced to 2250 mm, but only over limited areas such as where a mechanical duct passes over a corridor. A reduced ceiling height for no greater corridor length than 3000 mm is acceptable. The extent of any such variation from the above recommendations must be approved in writing.
- 710 .13.00 In areas where access is restricted such as a drinking fountain recess, a minimum ceiling height of 2250 mm is acceptable.
- 710 .14.00 Rooms with ceiling mounted equipment, such as X-ray Rooms and Operating Rooms may require increased ceiling heights. Heights should comply with equipment manufacturers' recommendations. The most common ceiling height in such areas is 3000 mm.
- 710 .15.00 Minimum ceiling (soffit) heights of external areas such as entry canopies, ambulance entries and delivery canopies should suit the requirements of the vehicles expected to use them. Special consideration is to be given to the impact of whip aerials fitted to emergency vehicles.
- 710 .16.00 Ceiling heights in Plant Rooms are to suit the equipment and allow safe access for service and maintenance. A minimum recommended height is 2400 mm.

Department Sizes

- 710 .17.00 Department sizes will depend upon the perceived facility role as set out in the Operational Policy and the organisation of services within the hospital. Some functions may be combined or shared provided that the layout does not compromise safety standards and medical and nursing practices.

Note: Departmental sizes also depend on design efficiency. For guidelines on this subject refer to Efficiency Guidelines and Schedule of Circulation Percentages in this section.

Efficiency Guidelines

- 710 .18.00 **GENERAL**
The concept of efficiency refers to the ratio between net Functional Areas and circulation space. Simplistic guidelines on efficiency tend to be misleading and should not be applied to vastly different functional briefs.

It is more appropriate to allocate different circulation percentages for generically different planning units. Such a guide has been provided under the Schedule of Circulation Percentages in this section.

Inadequate circulation allowance in briefing documents is not recommended. It can result in undue pressure on designers to reduce sizes and therefore functionality. It must also be noted that the circulation percentages are a guide only. They apply to the Health Planning Units (HPUs) included in these Guidelines under Generic Schedule of Finishes. For larger planning units, a

different percentage may be appropriate.

710 .19.00 NET FUNCTIONAL AREAS

In briefing documents, Net Functional Areas represent the sum of individual room areas without any corridors. Refer to Part A - How to Read for a description of how to measure areas off the plans.

710 .20.00 GROSS DEPARTMENTAL AREAS

Gross Departmental Areas are calculated by adding the Net Functional Areas and departmental corridors. These are corridors that are entirely within one department (or HPU). In calculating the departmental corridors the following should be taken into account:

- Service cupboards and passing risers are excluded.
- Corridor wall thicknesses are excluded as these are included in room areas.
- Columns are included.
- Fire stairs are excluded.
- Lifts and lift shafts are excluded.

710 .21.00 TRAVEL

'Travel' represents arterial corridors that connect the HPUs. Travel is required to allow passage from one unit to another without going through the internal corridors of another HPU. A target of 12.5 per cent is appropriate for Travel in a hospital of one to two storeys. Travel can be considerably reduced in high-rise buildings since in many instances corridors are replaced by vertical transportation.

In calculating travel, the following should be considered:

- Wall thicknesses are excluded as these are part of the Gross Departmental Areas.
- Fire stairs are included once for each floor to floor connection.
- External wall thicknesses are excluded.
- Lift shafts are excluded.
- Service cupboards are excluded
- Service shafts and risers are excluded.

710 .22.00 ENGINEERING

Engineering refers to the area of Plant Rooms and other service areas. In calculating the Engineering allowance the following areas should be included:

- Service cupboards
- Lift motor rooms
- Service shafts and risers.

Lift shafts should be excluded. The target of 12.5 per cent applied to Gross departmental Areas may be used for a typical one to two storey hospital building.

Schedule of Circulation Percentages

710 .23.00 Recommended Circulation Percentages for typical Hospital Planning Units (HPUs) are as follows:

DEPARTMENT	Circulation %
ACUTE PSYCHIATRIC UNITS	32
ADMINISTRATION UNIT	20
ALLIED HEALTH UNIT	25

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BIOMEDICAL ENGINEERING		20	
CATERING UNIT		25	
CENTRAL STERILE SUPPLY INOT		20	
CLEANING / HOUSEKEEPING UNIT		10	
CLINICAL INFORMATION UNIT		15	
CORONARY CARE UNIT		35	
DAY PROCEDURE UNIT		35	
DENTAL UNIT		20	
EDUCATION & TRAINING UNIT		15	
EMERGENCY UNIT		40	
ENGINEERING & MAINTENANCE UNIT		15	
INPATIENT ACCOMMODATION UNIT		32	
INTENSIVE CARE UNITS		40	
LAUNDRY/ LINEN HANDLING UNIT		10	
MEDICAL IMAGING UNITS		35	
MORTUARY UNIT		15	
NUCLEAR MEDICINE UNIT		30	
OBSTETRIC UNIT		35	
OPERATING UNIT		40	
PAEDIATRIC / ADOLESCENT UNIT		32	
PATHOLOGY UNIT		25	
PHARMACY UNIT		25	
PUBLIC AMENITIES UNIT		10	
RADIOTHERAPY UNIT		30	
REHABILITATION UNIT		32	
RENAL DIALYSIS UNIT		32	
SPIRITUAL/ MEDITATION UNIT		10	
STAFF AMENITIES UNIT		10	
SUPPLY UNIT		10	
WASTE MANAGEMENT UNIT		20	

General

720 .1.00 All facilities shall be designed and built in such a way that patients, staff, visitors and maintenance personnel are not exposed to avoidable risks of injury.

Badly designed common elements such as workstations and the layout of critical rooms have a great impact on the Occupational Health and Safety (OH&S) of staff as well as the welfare of patients.

The field of Ergonomics covers some aspects of the design of objects for common use. However, research indicates that experts disagree on some aspects of ergonomic standards such as the best sitting posture or angle of view for VDUs. On most ergonomics issues, however, there is broad agreement amongst the experts.

It is not appropriate for any standard to be regarded as ideal for every person. A writing bench or handbasin that is entirely suitable for one person may be inappropriate for another person. It is also unreasonable to expect all such objects to be designed in such a way that they can be adjusted for all users.

Given these limitations, the more practical role of ergonomics standards is to provide a reasonable common base for design. It is recommended that the actual design allows for various objects to be modified, if necessary to accommodate the special needs of the relevant staff.

Nothing in these standards is intended to create a situation where the needs of all possible preferences or indeed the highest possible standards are implemented in all situations.

The ergonomics standards included in these guidelines are those commonly debated in relation to Health Facilities. For items not covered in these guidelines, it is highly recommended that the Australian Standards for Ergonomics is followed. Refer to the following:

- SAA HB59 Handbook - Ergonomics - The human factor, A practical approach to work systems design
- AS 3590.2 Screen based workstations, Part 2: Workstation furniture
- AS/NZS 4443 Office panel systems - Workstations
- AS 1680.2.2 Interior lighting. Part 2.2: Office and screen-based tasks
- WorkSafe Publication: OfficeWise - A Guide to Health & Safety in the Office

Where a facility is designed for staff or patients with special needs, some deviation from these standards may be appropriate. In such circumstances, it is recommended that designers seek advice from specialist ergonomics experts or OH&S officers.

Disabled Access

720 .2.00 The Australian Standard AS 1428 - Design for access and mobility parts 1, 2, 3 & 4 cover the issues of access for people with disabilities. Particular attention is given to accessways and circulation and consistent linkages suitable for use by people who use wheelchairs and facilities for people with ambulatory disabilities and for people with sensory disabilities.

Parts of the AS 1428 series are a mandatory requirement of the BCA and must be complied with. For these requirements refer to the BCA and AS 1428.

It is a requirement of these Guidelines that sections of the Hospital or Day Procedure Centre designed for frequent use by people with disabilities should

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comply with the relevant sections of the AS 1428 series. It is, however, not a mandatory requirement of these guidelines to comply with every part of the AS 1428 series in every area of the Hospital or Day Procedure Centre. Parts of the facility may be specialised for use by patients (or staff) with particular disabilities. In such areas, the needs of the most common disabilities shall be considered and allowed for.

In short, 'specialisation' is not seen by these Guidelines as non-compliance in relation to AS 1428.

It is the requirement of these Guidelines that a minimum number of rooms be sized and designed for use by people with disabilities regardless of the anticipated number of patients with disabilities. These are covered in the relevant sections of the HPUs in part B. The balance of these ergonomic guidelines cover the average use of facilities by able bodied persons.

Standards Table

720 .3.00 For simplicity, the Ergonomics standards are presented in a table form under several categories. All items should be regarded as recommendations. Items which are mandatory are clearly noted.

ITEM	Condition	Depth mm	Height mm	Thickness mm	Mandatory	Remarks
WORK BENCH	Utility	600	900	32	No	No computer
WRITING BENCH 1	Typing	900	720	max 50	No	CRT monitor
WRITING BENCH 2	Typing	750	720	max 50	No	Flat monitor
HIGH COUNTER (PARCEL SHELF)	Over bench	250	1150	20-32	No	600 reach to the inside edge of counter
SHELVING	Over 900 h bench	350	1520-1810	20	No	2 shelves
SHELVING	Over 720 h bench	350	1370-1710	20	No	2 shelves
SHELVING UNIT	Full Height	350-400	150-1810	20	No	7 shelves, adjustable

Staff Station

720 .4.00 **GENERAL**
 A Staff Station may be used for a variety of purposes including:

- A clerical workstation
- Reception
- Staff base
- Reporting station or sub-station
- Dispensing counter
- Servery

Part of a typical Staff Station is used as a workbench or workstation. For the ergonomic standards of these functions, refer to the appropriate sections of these Ergonomics guidelines. The balance of the Staff Station standards are covered below:

HIGH COUNTER

This is used to shield objects, equipment and records from outside view. They also provide a convenient writing surface for visitors and staff alike. A high counter is also referred to as Parcel Shelf or Service Counter. A high counter used for direct interaction between staff and visitors or patients should be designed to avoid the need for excessive 'reach' across the work surface.

A high counter should be designed in such a way to permit the location of CRT type computer monitors whilst achieving an effective work surface width of 900 mm. Alternatively the high counter should allow for the location of a flat panel display whilst achieving an effective work surface width of 750 mm. Where staff need to reach to the high counter to pass or receive documents, the maximum reach to the edge of the high counter shall be 600 mm for the relevant section only

The recommended height of the top counter used against a work surface designed at 720 mm above the floor is 1130 mm above the floor. This height will allow a typical person to gain sufficient privacy for work whilst being able to look over the top to visitors, standing or sitting. The recommended height to the top counter used against a work surface designed at 900 mm to 1000 mm is between 1200 mm and 1250 mm above the floor level.

HIGH-LOW DESIGN

Where children or visitors using wheelchairs are expected at the Staff Station or Reception counters, a design incorporating a high section (for staff privacy) as well as a low section is recommended. The low section is typically at 720 mm above the floor or a height which matches the staff work surface.

SECURITY BARRIERS

In some situations it may be necessary to provide a security barrier at the counter. This may be in high quality plastics or one of a variety of security glass. These include laminated glass, toughened glass, laminated and toughened glass and glass with a special security film. In such situations, the barrier will include a vertical or horizontal slot that is sufficient to allow the passage of sound and small objects. A slot of 125 mm is recommended. If a glazed security barrier is provided at a counter used for public interaction, then an intercom system shall be provided to amplify the sound for the hearing impaired.

At Staff Stations such as Pharmacy Dispensing Counters, it may be necessary to pass larger objects from one side to the other. In such situations a two-way drawer or cupboard may be used. These should be lockable.

If the Staff Station or counter is the only barrier between a department and outside areas, it may be necessary to provide after-hours security. If a full height barrier such as security glazing has been provided as described, this may be sufficient. Alternatively, a lockable security grille or similar device should be provided. The grill or similar device should be operable by the staff from the normal standing height.

Workbench

720 .5.00

GENERAL

Workbenches may be designed for two typical work practices; sitting position or standing position. For example, some nursing staff prefer the workbench in a Staff Station to be used in the standing position whilst some staff prefer the sitting position. Both options are equally valid and acceptable. However, the ergonomic standards for the two will vary.

SITTING POSITION

A workbench used in the sitting position should be at 720 mm above the floor. The typical minimum depth is 600 mm. This should be increased to 900 mm for the use of conventional CRT computer monitors or 750 mm for the use of flat panel computer displays.

STANDING POSITION

This position suggests that the primary use of the work bench will be in the standing position. However allowance may be made for the use of this type of work bench while sitting.

If the bench is almost exclusively used in the standing position with a requirement for occasional typing, then the bench height of 1000 mm above the floor is recommended. If the bench is mostly used in the standing position with the occasional typing in the sitting position, then a bench height of 900 mm is recommended.

The first option (1000 mm) is most often requested for Staff Stations, Reporting Stations and smaller Reception counters. The second option (900 mm) is most often used in Utility Rooms, Laboratories, tea benches, kitchens and similar areas.

FOOT SUPPORT

Shorter staff may use foot rests in the sitting position to lift the feet to the optimum ergonomic position. Chairs used at work benches used in the standing position should have foot support rings and be height adjustable. Standing height work benches where high stools are used should be constructed with built-in foot rests. The footrest should be located 700 mm below the height of the counter, and recessed by about 150 mm to prevent striking by shins.

BENCH SUPPORT

Many people tend to sit on the edge of the bench from time to time. It is important to support the bench with robust materials to avoid the collapse of the bench and danger to users. The support may be gained by using sufficiently thick and sturdy materials such as 32 mm fibre board or thinner materials such as 25 mm fibre board supported by a steel frame. In any event, the maximum thickness of the bench including any support over the user's knee should be no more than 50 mm. Supports should be designed to minimise contact with the user's knees.

ADJUSTABLE KEYBOARD SHELVES

If a fixed height workstation is selected, adjustable keyboard shelves can provide some flexibility in the provision of height adjustment. The advantages can be summarised as follows:

- Lower keyboard location results in the hands and fingers being straight or leaning slightly forward; This typing posture is considered ergonomically preferred to hands and fingers leaning upward to reach the keyboard.
- Lower keyboard can better accommodate shorter staff without changing the height of the entire work surface.

Note: Ideally the keyboard shelf should be large enough to accommodate the computer mouse.

The following potential problems should be acknowledged:

- Placement of the keyboard is restricted to one area
- The adjustment mechanism below may snag clothing and compromise knee space
- The adjustable support may be too small to accommodate both the mouse and the keyboard, resulting in the mouse being placed on the desk, requiring constant reaching.

On balance, keyboard shelves are recommended for sustained typing only.

Workstation - Typical

720 .6.00 These guidelines apply to the typical 'L' shaped workstation as well as desks with or without a return.

A workstation intended for working, writing or typing while in seated position should be 720 mm high.

If a computer with a conventional CRT type monitor is used, the depth of the

main work surface containing the CRT should be 900 mm. If the CRT is positioned in the corner, the 900 mm depth is measured diagonally.

If a computer with a flat panel display is used, the depth of the main work surface containing the display should be 750 mm. This option is preferred due to the reduced need for the staff to 'reach' across the work surface.

The depth of the return to the main work surface may be between 450 mm and 750 mm with 600 mm being the optimum recommendation. This will allow for underbench storage, file or drawer units.

The optimum recommended configuration for a workstation includes one work surface of 750 mm, one work surface of 600 mm with the computer position in the corner.

If a computer is positioned in the corner, then the corner should be angled with a minimum dimension of 400 mm.

The workstation should be designed to allow for adequate knee space. The space must be large enough so that the action of turning to use underbench units does not result in hitting the knees against these units.

One end of the workstation may be shaped to form a meeting table. For this purpose rounded edges are recommended.

If visitors are expected to sit across the workstation, then a modesty panel may be considered appropriate.

Workstations should have provision for safe cable management. The simplest system will involve an open tray under the work surface.

In proprietary workstations, GPOs and data points may be internally run with outlets above the work surface. Alternatively these outlets may be on the adjoining wall at a height of 300 or 550 mm above the floor level with access to the work surface via the cable tray and a plastic cable access cap.

Computers

720 .7.00 GENERAL

People tend to use computers in a variety of ways. It is difficult to dictate a particular position to suit all people. The following guidelines represent the most typical preferences and standards.

COMPUTER MONITOR

The type of monitor will dictate the depth of the work surface. Typically, conventional CRT (Cathode Ray Tube) monitors require greater depth to permit a comfortable distance from the user's eyes. Most IT specialists believe that in the near future almost all CRTs will be replaced by economical flat panel displays using liquid crystal, gas plasma or similar technology. These will require less depth of surface. They are also easier on the eye as they almost eliminate the flicker that is present in CRT monitors. If a choice is available, flat panel displays should be preferred to CRT monitors.

MONITOR POSITION

Within the work surface depth defined in these Guidelines, the exact horizontal location of the monitor should be adjustable to suit different users. The vertical position of the monitor will depend on the height of the user. The best option is for an adjustable monitor arm. These are, however expensive and are not recommended for all conditions. For most users, a fixed monitor is acceptable. The angle of view to the centre of the monitor should be within a range defined by a horizontal line taken from the user's eye down to 15 degrees depending on the user's preference.

LAPTOPS

Nothing in this section prevents the use of laptop computers as desktop replacements. This type of computer is acceptable for occasional typing and is recommended for maximum space saving.

Shelves

720 .8.00 GENERAL

The design of shelves should consider issues of depth, reach, spacing and strength. Shelves described in this section may be in the form of joinery shelf units, strip shelving, upright book cases, metal racks or similar devices. These standards also apply to shelves within a cupboard.

DEPTH (FRONT TO BACK)

The recommended depth for shelves below a work bench is the approximate full width of the bench. The recommended average depth for wall mounted shelves is 350 mm. This will suit wall cupboards in Utility Rooms or over workstations. If a door is provided over the shelf unit, then 350 mm will be the total depth.

The recommended depth of shelves for medical records shelving units is 400 mm. This depth also allows for metal dividers.

REACH AND SPACING

A shelf may be installed as low as 150 mm above the floor or as high as 1810 mm above the floor. Any surface above 1810 mm should be regarded as inaccessible without the use of a safe step ladder.

The recommended starting point of wall mounted shelves above a work surface designed at 720 mm above the floor is 1370 mm above the floor. This brings the underside of the shelf to 1350 mm above the floor.

The recommended starting point of wall mounted shelves above a work surface designed at 900 mm - 1000 mm above the floor is 1520 mm above the floor. This brings the underside of the shelf to 1500 mm above the floor.

A typical Medical Records storage unit will be a joinery or metal unit 2100 mm high with 7 shelves starting from 150 mm above the floor and finishing with a top shelf at 1800 mm.

The recommended depth for wall shelves used for the storage of linen is 450 mm spaced 400 mm apart vertically.

Where possible and practical, all shelving should be adjustable. Typically the first and last shelf in a joinery unit will be fixed.

Note: In heavy use areas of hospitals, the conventional metal pins inserted into joinery walls often fail. In such situations, proprietary metal strips are recessed into the joinery walls to hold shelf support pins.

STRENGTH

Shelves must be designed to suit the weight of the objects most likely to be stored upon them. It should be noted that adjustable shelves are not as strong as fixed shelves. Additional strength may be gained by using thicker and stronger material or by providing an edge downturn.

DISABLED ACCESS

Shelves designed for use by disabled patients or staff should comply with the requirements of AS 1428 parts 2 or 3 as appropriate. It should be noted that it is not the mandatory requirement of these Guidelines to comply with the ergonomics standards of AS 1428 parts 2 or 3 for all areas and all users.

General

- 730 .1.00 The subject of Human Engineering covers aspects of the design which permit effective, appropriate, safe and dignified use by people including those with disabilities.

The Australian Standard AS 1428 series covers certain aspects of design for Access and Mobility for people with disabilities. These are often referred to in these Guidelines and should be followed in relevant areas. Human Engineering for able bodied persons also requires careful consideration. Some of the common issues are covered in this section.

- 730 .2.00 There is increased public awareness of barriers that make reasonable utilisation of facilities difficult or impossible for the physically impaired. A hospital facility will have a high proportion of occupants, patients and visitors, who are unable to function without some form of assistance. Some staff may also be impaired. To ensure minimum patient dependence on staff, consideration should be given to design provision for optimum patient independence.

Consideration must be given to the wide range of disabilities including:

- Mobility impairment
- Visual impairment
- Hearing impairment.

Planning

- 730 .3.00 To minimise overall costs and to avoid the need for expensive modification of finished work, initial designs shall include specific consideration of the needs of the physically impaired. The majority of requirements can be easily accommodated during the planning stage at little or no additional cost; modifications required at a later time may be prohibitively expensive or impractical.

Fixtures & Fittings

- 730 .4.00 Grab rails, handrails, vertical adjustable shower supports, towel rails, soap holders, footrests and any other fixture which may be used for support, shall have sufficient anchorage and strength to resist the sustained concentrated load of a falling heavy human.

Note: This effectively means that towel rails should be designed in a similar manner and strength to grab rails

Handwashing - Staff

- 730 .5.00 Location and arrangement of fittings for hand-washing shall permit their proper use and operation. Particular care should be given to the clearances required for elbow action type handles. Non-thermal transmitting standard handles are preferred, with effective finger grips. Heights are to suit the particular function, such as paediatric, disabled and standard.

- 730 .6.00 Hand-washing facilities shall be securely anchored to withstand an applied vertical load of not less than 115 kg on the front of the fixture.

Staircases and Ramps

- 730 .7.00 Where ramps are required for patient access, minimum gradients are to

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comply with the requirements of the Building Code of Australia.

Ramps in other areas such as service roadways shall comply with good design practice and be suitable for the task. Australian Standards, wherever applicable, shall be used.

If a ramp is unavoidable, the floor covering must be carefully chosen to reduce forces required to move wheeled equipment.

750 SIGNAGE

General

- 750 .1.00 Appropriate and comprehensive signposting shall be provided for all Hospitals and Day Procedure Centres. Signposting shall clearly identify staff, patient and visitor areas, and draw attention to restricted areas.
- 750 .2.00 The preferred lettering style is 'Helvetica Medium' upper and lower case generally. Upper case only is recommended for the building Main Entry Sign. This is not mandatory.
- 750 .3.00 Internationally recognised symbols (pictograms) in lieu of room titles are acceptable.
- 750 .4.00 Sizes of letters in relation to reading distances, mounting heights etc. shall comply with the relevant standards. Refer also to NSW Health; Technical Series 2: 'Signposting for Health Care Facilities' for assistance.
- 750 .5.00 Braille and Tactile signage are recommended for all signs within reach range (refer to AS 1428). There should be a luminance contrast of 30% minimum between the lettering and the background of all signs.

Bed Numbers

- 750 .6.00 Bed numbers shall be shown outside the patient bedroom. These shall be one number per bed. This is to assist in finding patients, and licensed beds, when appropriate.

In bedrooms with more than one bed, all bed numbers or the range of numbers should be shown on the sign outside the room for example:

Beds 78 & 79 or
Beds 78 to 81.

In bedrooms with more than one bed, each bed number shall be displayed at the bed head also.

Bed numbers outside the room must be clearly visible from the corridor and not be obscured by other objects or wall returns.

The provision of a room number is optional. When provided, it should not visually compete with the bed numbers.

Each bed bay in groups of two or more shall have a number which is clearly visible, even with privacy bed screens closed.

Patient Information

- 750 .7.00 It is no longer recommended to display signs containing information about a patient, such as patient details, doctor identification and special instruction at the patient bed head or in a visible place within the patient bedroom.

This is considered inappropriate due to the requirement for the privacy and confidentiality of patient records. Designers and managers wishing to install patient information holders in the rooms are advised to fully consider the impact on patient privacy.

Room Signs

- 750 .8.00 Non-illuminated, internal and external room-function identification signs that are located on doors require the following considerations:
- The format used should allow easy replacement of the sign or sign inset when the room function changes.
 - It may be appropriate to deliberately omit signs on certain doors used only by staff.
 - Special notes may be installed to identify restricted access to certain rooms or departments.

Note 1: Vinyl-cut signs have proved to be a practical and economical option and capable of easy changing over time. However removing them can damage some surfaces.

Note 2: Some signs using removable slats can be easily stolen unless a locking cap is used.

Note 3: Door signs in general are not mandatory.

Egress Signs

- 750 .9.00 Egress signs shall be installed in accordance with relevant statutory codes.

External Directional Signs

- 750 .10.00 External directional signs shall have white reflective letters on a blue background. The signs shall preferably be of steel or aluminium construction.

External Illuminated Signs

- 750 .11.00 External illuminated signs for an Emergency Unit shall have white letters on a red background.

External illuminated signs for the Main Entry and Night Entry shall have white letters on a blue background.

Note: Emergency department is referred to as Emergency unit in these Guidelines. The sign, however should refer to "Emergency".

Fire Services Signs

- 750 .12.00 Fire services signs shall be installed in accordance with the following:
- Fire Extinguishers: AS 2444 Portable Fire Extinguishers Selection and Location
 - Fire Hose Reel Cabinets: According to the BCA
 - Hydrants: AS 2419 Part 1 'Fire Hydrant Installations, Systems Design, Installation and Commissioning'.

Internal Signs

- 750 .13.00 DIRECTIONAL SIGNAGE
Non illuminated directional and area identification signs should be as follows:
- Ceiling or wall mounted
 - Text on contrasting background - dark lettering on light background preferred
 - A guide for the patient or visitor until they reach a room or door sign for the intended destination
 - Not obscure other critical ceiling fixtures such as emergency lighting or fire exit signs.

Serious consideration should be given to the provision of alternate low level signs in Braille (as well as plain text) in Hospital Entrance Foyers leading to major departments, lifts and public amenities. It is recommended that such signs be installed immediately above the hand rail required by AS1428.

750 .14.00 DOOR NUMBERS

Door/Frame Numbering or tags may be required by the management for easy maintenance. This is a separate concept to room signage showing the function of the room. Door numbering is not mandatory. Unlike room signs, door numbering may be small and unobtrusive.

Miscellaneous Signs

750 .15.00 Miscellaneous signs, illuminated and non-illuminated are to be provided as required. These could include illuminated 'X-ray Room in Use' signs. The colours used should meet the requirements of the relevant code or regulating authority.

Road Markings

750 .16.00 Road markings such as parking bays, arrows, symbols and instructions should be white generally, blue for disabled and yellow for restricted zones.

Street Signs

750 .17.00 Street signs shall be in accordance with the requirements of the Local Council and/or the appropriate section of the state roads and traffic authority. Accreditation Standards require that the facility has street directional signs sufficient to enable it to be easily located from the major access road in the area.

The Emergency Unit, if provided, will require an illuminated sign that is clearly visible from the entrance to the Hospital site.

760 DOORS

Door Swing

- 760 .1.00 Doors shall not swing into corridors in a manner that might obstruct traffic flow or reduce the required corridor width. This applies only to doors subject to constant patient or staff usage.

Where doors need to swing out into corridor they should be set in a recess.

- 760 .2.00 DOORS IN THE PATH OF FIRE EGRESS
All doors on the path of fire egress shall be single or double swing type. These shall comply with the requirements of the BCA (Note: if such doors also form part of a fire or smoke compartment, they shall maintain those properties in the closed position).

Sliding doors may be used for exit doors opening directly to the outside if an approved failsafe system is provided to open the door in case of fire.

DOORS USED BY PATIENTS

Doors to rooms that are likely to be used by patients without staff assistance should be single or double swing type.

Swing doors should generally open from corridors and distribution spaces into rooms. The exceptions are as follows:

- Doors to small patient ensuites should generally open out.
- Doors to disabled toilets and showers should open out.
- Doors to small change cubicles should open out.
- Doors subject to the requirements of "Emergency Access" shall open out or open in both directions.

Door Width

- 760 .3.00 Clear door openings between two sections of a corridor or from one corridor to another shall be as specified by the BCA for doors in the path of fire egress. In effect, for the purpose of these Guidelines all corridors are on the path of egress.

- 760 .4.00 The minimum dimensions of clear door openings to Patient Bedrooms in new areas shall be 1400 mm wide and 2030 mm high. This is to ensure clearance for the movement of beds. Existing doors of lesser dimensions may be considered acceptable where function is not adversely affected and replacement is impractical.

- 760 .5.00 In general, clear door openings to rooms that may be accessed by stretchers, wheeled bed stretchers, wheelchairs or handicapped persons, shall be a minimum of 900 mm. For situations such as hoists and shower trolleys 1000 mm is recommended.

- 760 .6.00 While these standards are intended to facilitate access by personnel and mobile equipment, consideration must be given to the size of furniture and special equipment that is to be delivered via these access ways.

Emergency Access

- 760 .7.00 Certain rooms that are used by patients shall be equipped with doors and hardware that will permit emergency access from the outside. These rooms can be defined broadly as follows:
- Rooms that are used independently by patients, have only one door and are smaller than six m²
 - Rooms where there is less than 2.5 m of clear space behind the single door

- Patient Bedrooms, Bathrooms and Ensuites in Mental Health facilities, or Mental Health components of other health facilities
- Secure rooms in mental health facilities.

When such rooms have only one opening the door shall be capable of opening outwards or in a manner that will negate the need to push against a patient who may have collapsed within the room. In other words, if the door normally opens inwards, in case of emergency, the staff must be able to open the door outwards without any need to use a key, Allen key or special device.

These Guidelines recommend the use of retractable door stops within flat metal door frames together with coin operated door snibs. The snib can be opened with a coin while the door can be opened outward by simply pushing the door stop into the frame.

Important note: This requirement can not be satisfied by any of the following alternatives:

- Cavity sliding doors
- Sliding doors on the inside of the room.

In all areas except mental health secure rooms, surface sliding doors installed on the outside of the room may satisfy the requirements of this clause. This can be achieved if:

- The door can be easily and safely removed off the track
- Door removal is not prevented by the door locking mechanism.

Notwithstanding the above possibility, manual sliding doors are not recommended by these Guidelines for any area of Hospitals or Day Procedure Centres.

In mental health secure rooms, the following configuration is mandatory:

- One standard door, opening in
- One adjacent door minimum 450 mm wide, opening out
- Both doors with external locks and fully recessed internal handles.

Door Handles

760 .8.00 GENERAL

The following considerations shall be given to the particular hardware requirements and special fittings needed for certain areas:

DOOR HANDLES GENERALLY

In areas where staff frequently pass doors, serious consideration should be given to the shape of the door handle so that it is not caught by the pockets in overalls. Handles with a full return are recommended.

MENTAL HEALTH

Door handles in a Mental Health Unit shall prevent self-harm by not providing a supporting point. This can usually be achieved by using recessed, concealed or flush hardware. Alternatively, specially formed knobs are available which do not allow 'hanging'.

SHARED ENSUITES

Ensuites that are shared by two patients shall incorporate hardware to automatically lock one door and indicate 'room occupied' if the other door is operated. Both doors shall be unlocked once one of the doors is opened from inside.

PAEDIATRIC ROOMS

In Paediatric Rooms consideration should be given to providing two sets of door handles one at high level and one at low level.

LOCKS

Door handles may incorporate locks, snibs, push buttons and indicators. Designers and specifiers should be advised to consider flexible hardware systems where the functionality of the door may be changed without necessarily changing the hardware.

The type of locking function shall be appropriate for the use of the room. In any event, the locking device shall prevent a person being inadvertently locked in a room, and shall be openable from inside with a single action.

PUSH / PULL PLATES

In many instances a door lock or latch is not necessary. Rooms that do not require locking may work well with only push/pull plates and a self closer. Push/pull plates are recommended in rooms that are used frequently by staff holding objects in their hands. Dirty Utility Rooms are a good example.

Door Grilles and Undercuts

- 760 .9.00 The Heating, Ventilation and Air-Conditioning (HVAC) design may require door grilles or undercuts. These are usually required for return air, makeup air or pressure relief.

Door grilles or undercuts may be used in areas which do not compromise the requirements of the BCA and other requirements of these Guidelines. These may include:

- Areas with a particular air-pressurisation scheme
- Isolation rooms
- Room requiring acoustic isolation
- Rooms requiring radiation shielding

The following non-mandatory recommendations also apply to grilles and undercuts:

- Door grilles are not recommended for areas used by people in wheelchairs due to potential impact and damage
- Door grilles are not recommended for bathrooms or ensuites
- Large undercuts close to bathroom showers are not recommended as they can result in water leaking outside to adjoining rooms
- As an alternative to a door undercut, designers may consider an inward sloping door slot approximately 200 mm above the floor to reduce water egress whilst providing the same functionality as a door undercut.

Hold Open Device

- 760 .10.00 Door hold-open devices should also be considered for doors that should remain open, such as doors on main traffic routes and delivery doors.

The following requirements shall apply:

- Hold open devices shall be capable of activation and de-activation without any need for the staff to bend down.
- Hold open devices shall not be fitted to doors where this compromises fire doors, smoke doors or other doors that are required to achieve a specific air pressurisation or isolation scheme by these Guidelines.
- Hold open devices shall not be fitted to the side of a door which may permit a disturbed patient to lock the door from inside.

In areas frequently used by staff holding objects or pushing trolleys, the use of delayed action combined self closer/hold open device is recommended.

Self Closers

- 760 .11.00 GENERAL
Self closers are required for fire and smoke doors nominated in the BCA and shall comply with its requirements. This section covers other door types.

Self closers shall be provided for the following doors:

- Doors required to achieve a certain airflow or air pressurisation scheme required by these Guidelines
- All air locks, with or without an air pressurisation scheme
- Entrance doors to any area nominated as a restricted area by these Guidelines including:
 - Operating Unit
 - CSSU
 - Catering Unit
 - Sterile Stock Room
- Isolation Rooms
- Birthing Rooms
- Dirty Utility Rooms

Apart from the above doors, self closers are not required or encouraged. Indeed an over-provision of self closers can lead to unnecessary capital and maintenance costs.

Self closers to the following rooms are discouraged:

- Offices
- Patient rooms
- Bathrooms and Ensuites
- Rooms used independently by people with disabilities
- Meeting Rooms and Interview Rooms.

HARDWARE

Self closers shall be designed and installed to allow for the door opening a full 90 degrees. The nib space required for the self closer arm should be considered.

Self closers used in double doors shall be accompanied by suitable sequencer hardware to allow the doors to be closed in the right sequence. Self closers that duplicate the functionality of a hold open device may also be considered.

Observation Glass

760 .12.00 Glazed panels, installed in accordance with AS 1288 - Glass in Buildings - Selection and Installation, shall be provided in doors where visual observation for reasons of safety, security or patient observation is required. However, in fire doors the size must comply with AS 1905.1 Components for the Protection of Openings in Fire Resistant Walls - Part 1 - Fire Resistant Door Sets.

760 .13.00 Observation glass is recommended in the following areas:

- Entry/exit doors to Operating Rooms or Procedure Rooms
- Doors from Scrub Room to Operating Room
- Doors to air-locks
- Doors to Clean and Dirty Utility
- Work rooms frequently used by staff
- Doors to rooms used to interview mental health or disturbed patients
- Doors to rooms requiring an observation window but with no physical possibility of providing a window
- Doors to Kitchens and Pantries.

Observation glass is not recommended in the following areas:

- Doors to Patient Bedrooms generally
- Doors to rooms requiring acoustic isolation
- Doors to mental health secure rooms
- Doors to rooms resulting in an invasion of patient or staff privacy

Observation glass shall have a mechanism, device or material to protect the glass in the following areas:

- Operating Rooms and Procedure Rooms where laser may be in use

- Rooms requiring X-ray or other radiation shielding
- Rooms requiring electromagnetic shielding (such as a Faraday Cage)

Observation glass may be semi-frosted in areas where a clear vision of the room is not required. This type of glass or applied film may suit rooms where the primary concern is to avoid danger to staff passing through the door. Semi-frosted glass is usually adequate to enable staff to avoid the danger. Semi-frosted glass is recommended in doors to the following rooms:

- Clean Utility
- Dirty Utility.

Automatic Doors

- 760 .14.00 Beam activated automatic sliding or swing doors are considered highly desirable in high traffic areas such as Main Entrances and delivery points. They may also be used successfully in areas where 'hands-off' access is necessary, such as entries to an Operating Unit. Where installed, they are to satisfy the requirements of emergency egress and to close at a rate that provides sufficient time for disabled and frail patients and visitors to enter/exit. Automatic doors are not mandatory.

Sliding Doors

- 760 .15.00 Sliding doors may be used subject to compliance with the BCA and the following mandatory requirements.

Cavity sliders may not be used in the following areas

- Planning units containing Patient Care Areas or Treatment Areas
- Planning units containing sterile equipment
- Planning units containing patient diagnostic equipment
- Catering Facilities
- Laboratory Areas
- Mental Health Facilities

Surface sliding doors may be used subject to the requirements of 'Emergency Access'.

Note 1: Generally, these Guidelines do not recommend the use of sliding doors in Health Facilities due to a number of reasons including hygiene concerns, maintenance problems and potential for locking in place.

Note 2: Sliding doors, if used should be of solid core or metal frame type to resist warping and therefore locking. Sliding doors should have tracks on top and bottom to ensure safety of operation.

Insect Control

- 760 .16.00 External doors that open directly into food preparation areas and are used for service deliveries or regular access, shall be fitted with air curtains, flexible doors or an equal control system to restrict the ingress of insects. Flyscreen doors, which can be propped open, and electronic insect traps within the kitchen, are not suitable as the only means of insect control.

765 GRAB RAILS & HAND RAILS

General

765 .1.00 Grab rails shall be detailed as described in AS 1428.1 - Design for Access and Mobility.

765 .2.00 CONTINUITY

In corridors accessed by patients, a grab rail to one side is mandatory. Depending on the plan the following will apply:

- The hand rail should be on the side of the wall leading to the majority of rooms or areas related to patients
- If the continuity of the grab rail is interrupted due to a large number of doors placed in close proximity, a grab rail should be provided to the opposite wall, at least for the length of corridor affected.

765 .3.00 PREVENTION OF SELF HARM

In certain areas such as Mental Health Units, grab rails may present the possibility of self harm by providing points of ligature.

Depending on the Operational Policy, corridor handrails in Mental Health Units shall be designed in such a way that the space between the base of the handrail profile and the wall is blocked. The top of the handrail should be designed to meet the requirements of AS 1428. This arrangement does not totally eliminate the ligature point, but it makes it impossible to tie an object around the rail.

765 .4.00 OUTSIDE CORNERS

Handrails meeting outside wall corners should be either continuous around the corner or set back from the corners by approximately 100 mm. This is to minimise the chance of the rail grabbing onto clothing, especially large pockets. Any handrails continuing around 90 degree corners shall be rounded to avoid a dangerous sharp edge.

770 WINDOWS AND GLAZING

General

770 .1.00 All rooms occupied by patients or staff on a regular basis shall have glazed windows or doors to achieve external views and/or make use of direct or borrowed natural light, where practical.

770 .2.00 All Patient Bedrooms shall have external windows overlooking external areas. An external area is defined as the perimeter space around a building as well as naturally ventilated and lit atriums and courtyards.

Note 1: It is also a requirement of the BCA that all overnight Patient Bedrooms must have an external window. This however does not apply to the Operating Unit, Emergency Unit, ICU and similar areas.

Note 2: For the purpose of this clause, an internal atrium with artificial ventilation will be accepted if the area is more than 220 m² with a minimum dimension of 14 m and suitable permanent landscaping.

770 .3.00 The requirement for windows to patient areas is summarised in the following schedule:

ROOM / SPACE	External Window	Alternatives	Alternatives	Mandatory	Remarks
OVERNIGHT BEDROOM	Yes			Yes	
BIRTHING ROOM	Yes			Yes	
CCU BEDROOM / BED BAY	Yes			Yes	A group of bed bays may share available windows
ICU BEDROOM / BED BAY	Yes	Skylight	Internal	No	A group of bed bays may share available windows
PATIENT BAY - PRE-OP HOLDING	Yes	Skylight		No	A group of bed bays may share available windows
PATIENT BY - RECOVERY	Yes	Skylight		No	A group of bed bays may share available windows
NURSERY	Yes			Yes	A group of bed bays may share available windows
PATIENT LOUNGE	Yes			Yes	
PATIENT ACTIVITY ROOM	Yes	Skylight	Internal	No	
PATIENT DINING ROOM	Yes		Shared	Yes	May be shared with Patient Lounge or Activity Room

Window Types

770 .4.00 In multi-level hospitals with ducted air-conditioning systems, or in buildings in cyclone prone areas, it is not always possible to include an openable window component. In these circumstances, fixed windows are acceptable, although access for external window cleaning should be considered.

770 .5.00 Openable windows should have provision to restrict the degree of opening. Locks should be heavy duty, affixed to both sides of hopper windows and fixed securely through the frame with tamper proof fixings.

Window Types

- 770 .6.00 Hopper windows should not be used in multi-storey buildings because they can act as smoke/heat scoops from fires in storeys below.

Note: Hopper windows are also known as 'awning' windows. These refer to windows hinged from the top.

Size

- 770 .7.00 Each required external window and/or external glazed door shall have a net glazed area of not less than 10 per cent of the floor area of the room concerned. An opening component not less than five per cent of the floor area of that same room is considered highly desirable but not mandatory. These requirements together will ensure natural light and ventilation in the event of an electrical or air handling system failure.

If it is considered undesirable to allow patients to open windows, for reasons such as avoiding potential problems with the central air-conditioning, then the opening section of the windows should be operated with a lock or allen key held by the staff.

Note 1: Any opening section of the window or door as described above shall be provided with a fly screen.

Note 2: The provision of opening windows also facilitates energy management and conservation as artificial lighting and air-conditioning systems may not be necessary at certain times of the day and year.

Cleaning

- 770 .8.00 Window cleaning shall be considered and appropriate provisions made. The following options are provided for information:
- Inward opening windows allow for the cleaning of the outside surface in a safe manner while standing inside the building.
 - With alternate outside opening windows it is possible to open one window to reach and clean the next window; however this type of window will require secure harness anchor points for the cleaner.
 - A window cleaning ledge or balcony may be provided only for window cleaning with no patient access. If no hand rail is provided, a continuous harness system shall be provided with a harness cable or rail that must reach a safe access point.
 - A window cleaning cradle that typically descends from the roof may be used. Cradles must be accessible from a safe position on the roof and comply with all safety legislation.
 - Extension arms may be used to clean windows that are one level above the ground or accessible terrace.
 - Hospital management may enter into a window cleaning contract with a contractor who uses a mobile Cherry Pickers or similar lifting device.

Note: For safety reasons cleaning windows using a ladder is not recommended.

Glazing

- 770 .9.00 Glazing shall be in accordance with Australian Standard 1288 as applicable to public buildings except that:
- All glazing in balustrades shall comply with Part 1 Section 4.3.9 of the above standard, irrespective of the area or support of the glazing
 - Fully framed glazing to windows, doors partitions and screens, designed so that any part of the glass is less than 750 mm above the finished floor level, shall have such part glazed with safety glazing materials as defined under Clause 1.3.3 and in accordance with the size requirements of table 4.1 of the above standard.

Glazing

- 770 .10.00 Doors, sidelights, borrowed lights and windows in which the glazing extends to within or below 450 mm above the floor, and are subject to possible breakage, shall be glazed with safety glass that will not create dangerous cutting edges when broken. Refer to AS 2208 - Safety Glazing Materials for Use in Buildings (Human Impact Considerations).
- 770 .11.00 Safety glass shall also be used for wall openings in activity areas such as recreation and exercise rooms and for shower screens, internal doors and full height windows, including those in Paediatric and Psychiatric areas.

Floor Finishes

780 .1.00 GENERAL

Floor finishes have an impact on various requirements of these Guidelines. Part D covers those aspects which affect Infection Control issues. This section (Part C) covers those aspects which affect Access, Mobility, Occupational Health & Safety.

780 .2.00

The selection of floor finishes is very important. It has direct impact on the safety of patients, staff and visitors. The choice also has potential legal implications if not correctly addressed such as Workers Compensation and Tort Law.

Fire safety compliance is also a special consideration. A 'duty of care' exists where professionals such as architects and interior designers are involved in the selection of products and responsibility must be addressed by purchasing officers and retailers/agents when purchasing replacement products. Floor finishes also have a direct impact on the whole of life costs of any building where cleaning and maintenance is concerned. This is especially true in a Hospital. Low capital cost may result in high whole of life costs.

780 .3.00 BALANCE OF CONSIDERATIONS

A number of issues should be considered and balanced when making the choice of floor finish. Designers are encouraged to investigate alternative materials and if necessary organise for realistic onsite tests before making major decisions. The following are general guides to making this decision.

MOVEMENT OF OBJECTS

The floor finishes chosen should make the movement of such objects as trolleys, bed trolleys and wheelchairs sufficiently easy to minimise the potential for back injury to staff.

The following should be considered when selecting floor finishes:

- Standard vinyl and similar products are the easiest materials for the movement of trolleys and wheelchairs.
- Carpet, if used should be direct stick, commercial density with short piles, preferably loop piles; a 90/10 or 80/20 wool/nylon mix is recommended.
- Flocked carpet should be considered where the 'look and feel' of carpet is desired with the ease of movement over vinyl.
- Many hospital staff consider that it is harder to move objects over cushioned vinyl. However, cushioned vinyl may still be preferred to standard vinyl for its sound absorption qualities.

NOISE GENERATION AND SOUND ABSORPTION

Carpet type finishes not only minimise noise generation, they also dampen the noise generated by other sources. Carpet is particularly effective in corridor areas outside Patient Bedrooms where a great deal of noise can be generated. This quality should be balanced against the ease of movement by trolleys, bed trolleys and wheelchairs.

Cushioned vinyl is also effective in minimising noise generation but it does not dampen other noises as effectively as carpet.

Ceramic tiles, Terrazzo and similar hard surfaces generate noise from walking staff and visitors.

EASY ON THE FOOT

Surfaces such as carpet and vinyl, both standard and cushioned are

considered easy to stand on for long periods of time. Most OH&S experts consider surfaces such as ceramic tiles and Terrazzo too hard to stand on for more than a few hours. These are therefore not recommended in hospital work areas. However, they may be used in public areas such as foyers and courtyards.

780 .4.00 Floor materials shall be easy to clean and have wear resistance appropriate for the location involved.

780 .5.00 Floor finishes that are subject to traffic whilst wet such as showers and bath rooms, kitchens and similar work areas shall be capable of maintaining a non-slip surface.

Note: The same applies to dry floors subject to the presence of fine powder such as baby powder.

Anti-static / Conductive Flooring

780 .6.00 A distinction must be made between antistatic and conductive flooring. Antistatic flooring reduces the risk of static occurring while conductive flooring absorbs the electrical charge. However, if rubber soled shoes are worn on conductive flooring the effect is negated.

780 .7.00 In the past, anti-static flooring was required in Operating Rooms because of the use of flammable anaesthetic agents. These types of anaesthetics are no longer in use, so the requirement for this type of specialised flooring no longer applies.

780 .8.00 In addition, anti-static flooring is expensive, both to install and maintain. Most public and staff areas do not pose a problem with respect to generation of an electrical charge. Where there is any possibility of such an event, for example a computer technician working inside a computer or a worker in a specialised micro-electronics laboratory, use is made of anti-static mats which more than adequately provide the necessary barrier.

780 .9.00 If there are areas and rooms in which flammable anaesthetic agents are stored or administered to patients, floors shall comply with AS 1169 - Minimizing of combustion hazards arising from the medical use of flammable anaesthetic agents

780 .10.00 Conductive flooring may be omitted in anaesthetising areas where flammable anaesthetic agents will not be used and appropriate notices are permanently and conspicuously affixed to the wall in such areas and rooms. Otherwise, appropriate conductive flooring shall be provided.

780 .11.00 In summary, anti-static or conductive flooring are not mandatory in any part of the hospital. Any special requirement may be noted specifically on the Project Brief.

Slip Resistance

780 .12.00 Slip resistance is governed by the nature of the anticipated activity. In equating safety, consideration must be given to all the relevant variables; slip potential is a function of footwear, activities, gait, contamination, environment and other factors.

780 .13.00 The choice of floor finish shall consider the slip resistance appropriate for different conditions. The following can be used as a guide:

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- Standard vinyl is suitable for dry areas where patients and staff are expected to wear shoes (Standard - Dry).
- Standard Textured Vinyl is similar to standard vinyl but provides greater dry-condition slip resistance (Standard / Slip resistant)
- Studded vinyl flooring balances slip resistance with ease of cleaning, and is suitable for wet areas such as patient showers where water, soap and body fat are present (Non-Slip).
- Safety vinyl flooring that suits wet areas without soap or body fat where trolley movement is also expected, such as CSSU Decontamination Areas and Dirty Utilities (Extra Non-Slip).
- Ceramic tiles can be used for Ensuites and Bathrooms, but not clinical areas requiring seamless finishes. Smaller ceramic tiles generally provided greater slip resistance. The best combination of slip resistance and easy cleaning is commonly referred to as 'Orange Peel'.
- Stone and terrazzo are sometimes used in entrance foyer areas; however, on rainy days these finishes may present a danger to staff and visitors and in such circumstances proprietary non-slip chemical treatments shall be used to increase slip resistance.

780 .14.00 The following slip resistance levels as defined by the Standards Australia Handbook 197 - 'An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials', are mandatory:

ROOMS / AREAS	Resistance Level	Wet Pendulum Test	Ramp Test
BATHROOMS/ ENSUITES - PATIENT	R10	X	
CLEAN-UP ROOM (OPERATING UNIT)	R10	X	
CONSULT ROOMS	R9	Z	
CORRIDORS	R9	Z	
DECONTAMINATION ROOMS (CSSU)	R11	V	
DIRTY UTILITIES	R10	X	
HYDROTHERAPY AREAS	R11		B
IMAGING ROOMS	R9	Z	
MORTUARY FACILITIES (AUTOPSY)	R10	X	
OPERATING ROOMS	R9	Z	
OUTPATIENT AREAS / CLINICS	R9	Z	
PATIENT BAY	R9	Z	
PATIENT BEDROOMS	R9	Z	
PATHOLOGY LABORATORIES	R9	Z	
PHARMACY AREAS	R9	Z	
PLASTER ROOMS	R10	X	

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STERILISATION ROOMS	R10	X	
TREATMENT AREAS (INCL PHYSIOTHERAPY)	R9	Z	

780 .15.00 Note: Refer to AS/NZS 4586 for details of the Wet Pendulum Test and Ramp Test classifications.

- 780 .16.00 Design considerations include:
- Floor finishes and floor finish characteristics (wear resistance and cleanability)
 - The amount and type of expected traffic (vehicles, trolleys people hurrying, elderly, disabled people with or without walking aids and children)
 - Consequences of exposure to contaminants including environmental design factors (visibility issues and contamination minimisation)
 - Management policy and maintenance practised (frequency, type and effectiveness of cleaning equipment)
 - Compliance with Occupational Health & Safety requirements
 - Special provision for slip hazards (guards and rails)
 - Alternative information sources (use of contrasting colours, tactile indicators and warning signs).

Floor Joints

780 .17.00 Thresholds and expansion joint covers shall be flush with the floor surface to facilitate the use of wheelchairs and trolleys. Expansion and seismic joints shall be constructed to resist passage of smoke.

785 ACOUSTICS

General

- 785 .1.00 The design and construction should address acoustic aspects of the work environment. The major design issues to be considered include:
- Workplaces should be designed to minimize the occupant's exposure to noise; noisy machines and activities should be remote or isolated from other work areas.
 - Noisy equipment should be acoustically enclosed where practicable
 - Noisy work areas such as workshops should have acoustically absorbent ceilings to reduce the amount of noise other staff working nearby are exposed to
 - Noise levels of equipment should be an integral part of equipment selection /purchasing procedures
 - Consideration should be given to the impact of ultrasonic noise generation. (Refer to AS 2243 - Part 5)

Specialist advice from a qualified Acoustic Engineer is recommended.

Minimum Standards

- 785 .2.00 The Engineering Services and the building components should be selected to achieve an acceptable noise level. Unless other requirements are stated in other parts of these Guidelines, the ambient sound levels should not exceed those stated in AS/NZS 2107 'Acoustics - Recommended design sound levels and reverberation times for building interiors', and AS 1055 - 'Acoustics - Description and measurement of environmental noise'.

Duct work is to be designed to maintain the sound transfer coefficient (STC) levels as identified in Technical Standard 12 - Internal Walling Systems for health Care Buildings, available from NSW Health.

- 785 .3.00 REQUIRED MINIMUM CONSTRUCTION STC RATINGS:

AREA	Minimum STC	Recomm'd STC	Recomm'd Wall Types
CENTRAL STERILE SUPPLY UNIT	50	55	Type 5
CONSULT ROOM	40	45	Type 3
CORRIDORS / LOBBIES	40	50	Type 4
DENTAL SURGERY	40	45	Type 3
EMERGENCY UNIT	40	45	Type 3
ICU / SPECIAL CARE	35	40	Type 2
INPATIENT BED ROOMS	35	45	Type 3
INTERVIEW ROOM		45	Type 3
KITCHEN	50	55	Type 5
LABORATORIES	45	50	Type 4

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LOUNGES		40	Type 2
MEETING / CONFERENCE ROOMS		45	Type 3
OFFICES - EXECUTIVE	40	45	Type 3
OFFICE - GENERAL	35	40	Type 2
OBSTETRIC UNIT	45	50	Type 4
OPERATING UNIT	40	45	Type 3
OPERATING UNIT STERILISING AREA	40	45	Type 3
PHARMACY UNIT	45	50	Type 4
QUIET ROOMS		45	Type 3
RECEPTION	40	50	Type 4
RECOVERY AREAS		45	Type 3
REHABILITATION UNIT	40	45	Type 3
SPEECH THERAPY		45	Type 3
STAFF STATIONS	40	45	Type 3
TREATMENT ROOMS	40	45	Type 3
TUTORIAL ROOMS		45	Type 3
WAITING AREAS	40	50	Type 4

Typical Wall Types

785 .4.00 Typical dry wall types capable of achieving the above ratings are listed below; these are not mandatory and are subject to correct detailing and construction.

785 .5.00 TYPE 1 STC RATING - 35

Standard grade plasterboard 13 mm thick (minimum mass); 8.5 g/ m2 each side of 92 mm steel studs.

785 .6.00 TYPE 2 STC RATING - 40

Two options are available:

- Two layers of 13 mm thick standard grade plasterboard one side of 92 mm steel studs, one layer of 13 mm thick standard grade plasterboard on the other side
- One layer 13 mm thick standard grade plasterboard on each side of 92 mm steel stud. Cavity infill of:
 - 60 mm (500 g/ m2) polyester
 - 50 mm (10 kg /m3) glasswool

785 .7.00 TYPE 3 STC RATING - 45

Two layers of 13 mm thick standard grade plasterboard on one side of 92 mm steel studs, one layer of 13 mm thick standard grade plasterboard on the other

side. Cavity fill of:

- 60 mm (500 g/m²) polyester
- 50 mm (10 kg/ m³) glasswool, or
- Light or heavy Masonry.

785 .8.00 TYPE 4 STC RATING - 50

Two layers of 13 mm thick standard grade plasterboard each side of 92 mm steel studs. Cavity fill of:

- 70 mm (600 g/m²) polyester
- 75 mm (10 kg/ m³) glasswool.

785 .9.00 TYPE 5 STC RATING - 55

Staggered stud system using two layers thickness of standard grade plasterboard each side of 92 mm studs and 92 mm tracks. Cavity infill of:

- 70 mm (600 g/m²) polyester
- 75 mm (10kg/ m³) glasswool.

785 .10.00 Where a high degree of impact / abrasion resistance is required, eg. Hospital corridors, 9 mm thick fibrous cement sheeting may be substituted for 13 mm thick standard grade plasterboard. The acoustical performance for 9 mm fibrous cement sheet approximates that of 16 mm thick fire grade plasterboard.

785 .11.00 The maximum sound rating achievable for partition construction to the underside of a continuous plasterboard ceiling in STC 40. If a layer of 75 mm thick polyester or glass wool 2400 mm wide is provided over the ceiling on the partition below, a sound rating of STC 45 is achievable.

Partitions with sound ratings above STC 45 must be constructed full height from floor slab to underside of floor slab.

General

- 800 .1.00 The issue of security is raised throughout the Guidelines in areas such as hardware and external lighting. However, consideration shall also be given to the overall solution with good initial planning and detail design to overcome the principal problems of concealment of, and ease of access by the undesirable element, and containment of certain categories of patients.
- 800 .2.00 A hospital, even without an Emergency Unit, is a 24 hour operation. Visitors and staff enter and leave the building at all times, often on an informal and unscheduled basis. At these times, there is greater potential for unauthorised entry into the building and attacks on visitors and staff when walking to and from car parks and bus stops, especially at night.
- 800 .3.00 The work environment may increase or decrease the risks associated with occupational violence and aggression depending on a range of issues.
- 800 .4.00 Issues that require consideration with respect to security are:
- Areas of the building that are difficult to monitor after dark
 - Service entries where traffic might not be controlled
 - External illumination generally, in particular around car parks and entry points
 - Landscaping that might shield intruders
 - Building features that allow easy ingress of intruders
 - The role of security systems (closed circuit TV etc.)
 - Fencing
 - Drug storage location and security
 - Night staffing levels and protocol for receiving emergency or night visitors (after-hours)
 - Restricted after-hours vehicular access
 - containment of difficult, disturbed or demented patients
- This list is not intended to cover all issues, but to stimulate the designer to consider security as an important part of the design process.
- 800 .5.00 Hospital units such as Day Procedure Centres that are limited to daytime operation, especially if located in stand alone buildings, shall be well secured against unauthorised entry after-hours.
- 800 .6.00 Consideration shall be given to any additional facility requirements that result in a secure and safe environment for staff, patients and visitors.

Lockable Windows

- 800 .7.00 Opening windows create security problems. All openable external building perimeter windows and doors shall be lockable.

Lockable Doors

- 800 .8.00 All openable external building perimeter doors shall be lockable, so that they can not be opened from the outside.
- Fire Exit doors should freely open from the inside except the following:
- Mental Health, Dementia, Paediatric and Neonatal areas may require locked fire exit doors. Appropriate Operational Policies supporting alternative solutions to the BCA requirements will be required.
 - Some doors may be locked from the inside but automatically unlocked

upon a fire or smoke signal.

Entry / Exit

- 800 .9.00 The workplace design should minimise public access to all areas of the workplace. Ideally, visitors should have access to one main entrance and security should be placed at this entrance if necessary. However, support services such as emergency response teams should have maximum access to all areas of the workplace to facilitate their intervention in emergencies. Staff should also have ready access to exits as escape routes if an aggressive incident occurs. All staff, including sessional specialists and casual staff should be provided with training on emergency response procedures.

Security Office

- 800 .10.00 In hospitals, Security Office/s adjacent to the Main Entrance and Emergency Units is recommended.. Emergency Units should be designed to allow secure separation of treatment areas from public areas.

Note 1: Security barriers may include glass fronted counters and access doors with card or keypad access.

Note 2: In Main Entrance and Emergency Units the provision of video security is recommended.

Note 3: Any ambulance entrance should have the same level of security protection as the main entrance.

Parking

- 800 .11.00 Staff parking should be provided under or within close range of the workplace. The area should be well lit and protected from the elements. Layout and landscaping should exclude dark spots or hiding places. Dedicated parking areas for evening and night staff should be close to the entrance/exit of the workplace. In high risk areas the car park may need to be monitored by security personnel or cameras.

Reception / Waiting

- 800 .12.00 Reception and Waiting Areas should be easily identifiable and accessible to patients and visitors. The design and layout should provide reception staff with a clear view of all persons in the Waiting Area. The activities of clinical staff should not be visible from the Waiting Room or Reception Area.
- 800 .13.00 Personal space is especially important in waiting areas particularly in Emergency Units where clients are more stressed. There is some evidence which indicates that persons experiencing high tension need greater interpersonal distance than others. Reception areas should be spacious and quiet with comfortable seating. Seating should be either individual or bench type. To reduce boredom, activities such as television, toys, books and games should be provided. Public telephones should be provided to enable ready communication with friends, relatives and employers.
- 800 .14.00 Furniture should be attractive and comfortable but should be selected with regard to its safeness and the possibility that it may be used as a weapon. Colour is an important factor and should be selected for its calming rather than stimulating qualities. Climate control will help maintain a comfortable and calming environment. Provision of Public Toilets is important to enhance comfort.
- 800 .15.00 In Emergency Units, unless a glass barrier is provided, counters should be high enough to discourage an adult climbing over them. They should also be wide enough to make it difficult for a client to strike a staff member. Vertical partitions or high counters should be provided to the extent required, to allow

for some privacy when people are discussing private matters with staff. Each counter should be provided with a duress alarm system.

In Emergency Units, the provision of security glass barriers to a minimum height of 1820 mm AFFL is recommended.

- 800 .16.00 The ends of the Reception counter should be closed to prevent clients walking into staff areas. These may be full height or half height.

Screens & Grilles

- 800 .17.00 In general, openable external windows, vents and doors shall be fitted with flyscreens. Doorways that are used on a regular basis such as service and main entries need not be flyscreened but shall be fitted with a self-closing device. Other exceptions to the above are windows in multi-storey or fully air-conditioned buildings, that are used for service access, or pivot/swing/tilt for cleaning purposes.
- 800 .18.00 Security grilles, and appropriate impact resistant glass or electronic security system should be installed wherever high security areas have external windows, such as Pharmacy Stores and Workrooms; and Medical Records Stores.
- 800 .19.00 Security flyscreened doors, where installed, shall not compromise emergency egress.

Treatment / Interview

- 800 .20.00 Separate rooms should be provided to isolate distraught or emotionally disturbed patients, families or friends; people with acute behavioural psychiatric problems; and intoxicated or very noisy people.
- 800 .21.00 Treatment, Interview and Consultation Rooms that are likely to be used by Mental Health or disturbed patients should be fitted with two doors opposite each other to allow easy escape by staff. One door is to lead in from the public area and the other from the staff area, another similar room or the outside. The door to the staff area or similar room should be secure.
- 800 .22.00 Treatment and Interview Rooms likely to be used by Mental Health or disturbed patients should incorporate duress alarms and glass viewing panels on at least one door to allow observation by colleagues.

Multi-purpose treatment rooms that may be used for holding of Mental Health patients shall have secure roller doors or a similar lockable device to cover any medical service panels and sensitive wall mounted objects.

Intruder Alarm

- 800 .23.00 Intruder alarm systems are highly recommended for parts of Hospitals as well as Day Procedure Units that are closed after-hours.

Intruder alarm systems are mandatory for the following areas:

- Pharmacy Units where dangerous drugs (schedule 8) are kept
- All Satellite Pharmacy Rooms where dangerous drugs (schedule 8) are kept
- All drug safes where dangerous drugs (schedule 8) are kept
- Mortuary areas where bodies are stored
- External doors or windows to baby nurseries including NICU and Paediatric Units

- Clinical Information Unit and any remote archival areas.

800 .24.00 Many different intruder alarm systems are available. The required intruder alarm systems shall be equal to or better than, in terms of coverage and functionality the following:

- Reed Switches for doors and windows
- Movement detectors to cover spaces which can be used for access.

A required intruder alarm should adequately indicate the location where security has been breached. The acceptable systems may indicate the location by:

- A local audible alarm
- A remote indicator panel with a readout
- A security signal sent to 24 hour Security Room or Staff Station computers
- A general audible alarm and security pager signal indicating the location
- Another system with equal or better functionality.

800 .25.00 In larger facilities with sophisticated nurse call systems it is advisable to integrate the security systems including the intruder alarm, duress alarm and video with the nurse call system.

Ideally, the system will send a security signal to a dedicated Security Office or the 24 hour Staff Stations. The signal as well as video surveillance images may be seen on standard computer monitors which also pinpoint the location of the intrusion.

Duress Alarm

800 .26.00 A duress alarm system is intended for a number of purposes:

- To seek assistance for staff who may be directly exposed to a threat of violence
- To indicate inappropriate or aggressive behaviours by visitors or patients.

800 .27.00 A duress alarm system is mandatory in the following areas:

- All Staff Stations
- All Reception Counters
- All Examination / Consult / Treatment Rooms which are likely to be visited by mental health or otherwise disturbed or aggressive patients
- All Consultation Rooms in Psychiatric Units
- Emergency Unit Triage/ Clerical Reception areas.

In acute Psychiatric Units, a Mobile-Locator system shall be installed and mobile sets made available to all staff who deal directly with the patients.

800 .28.00 The requirement for duress alarms is also noted in various sections of these Guidelines including the Standard Components Room Data Sheets and Room Layout Sheets.

800 .29.00 There are three generic types of duress alarm:

AUDIBLE AND VISIBLE

This type of duress alarm is intended to immediately attract attention in the hope that the threat of violence may cease at once. The alarm is either heard or seen close to the point of activation. The alarm may also send a signal to a central security office or 24 hour Staff Station.

SILENT

This type of duress alarm is intended to call for discreet assistance without causing local alarm to the aggressor or others who may be present. The signal is sent to a Security Office or 24 hour Staff Station.

MOBILE-LOCATOR (MAN-DOWN)

This type of duress alarm is similar to a silent duress alarm. The alarm device is mobile and is worn by the staff. The device sends a signal to a Remote Security Office or 24 hour Staff Station. The device is automatically activated if the staff member collapses to the floor. The system must indicate the location of the staff member at the time of the signal activation.

- 800 .30.00 Duress alarm systems shall be installed to meet the requirements set out below:

AUDIBLE AND VISIBLE SYSTEMS

The trigger button should be close to the staff work area such as under the reception desk or a nearby wall on the staff side. Since this type of alarm relies on startling the aggressor, the trigger button may be deliberately located in a highly visible area close to the staff and if necessary, sign-posted. The trigger button itself acts as a deterrent. The audible alarm should be close to the general area where the staff are located.

The visible alarm (if provided) should be on the ceiling or nearby wall, clearly pointing attention to the problem area. The visible alarm may be similar to a flashing blue or red light. This type of alarm ideally suits busy Emergency Units.

SILENT ALARM SYSTEMS

The trigger button should be close to the staff at the time of dealing with patients or visitors. The best location tends to be under the bench or desk. The trigger button should not be visible from the patient/ visitor side of the Staff Station or desk. This type ideally suits Consult / Treatment Rooms where staff members are alone with patients.

MOBILE-LOCATOR SYSTEMS

The trigger sets are worn by the staff, typically on the belt. The central control device/s shall be in secure staffed areas.

- 800 .31.00 In certain areas with a high likelihood of disturbed patients or visitors such as Emergency Unit Waiting areas, audible and visible alarms within the same space are recommended if staff are already protected behind a security glass barrier. Such alarms may startle the violent person and result in an immediate behaviour modification. A decision to provide an audible and visible alarm in the same space should be taken in consultation with security officers and/ or the Police.

Video Security

- 800 .32.00 Video security should be considered for all areas that may be used after-hours. Video security is mandatory in the following areas:
- Emergency Unit after hours patient entrance
 - Ambulance Bay after hours entrance
 - Any entrance used for access to a Birthing Unit after hours
 - Any other entrance which is used for the above purposes after-hours
 - Corridors, courtyards and Secure Rooms in an Acute Psychiatric Unit which can not be adequately observed from a Staff Station.

The video security system required at entrance points shall have the following features:

- Show those who intend to enter
- Include an intercom system to communicate with those who intend to enter
- Provide a remote signal to open the door.

The video security system required in Psychiatric Units shall have the following features:

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- Adequately cover hidden areas
- Camera protected and discrete
- The direction of the camera should not be obvious.

The monitoring point for video security may be a dedicated Security Office or a 24 hour Staff Station.

Note: The provision of video security at the main entrance of Hospitals is not mandatory but is recommended.

Part C - Access, Mobility, OH&S

COMPLIANCE CHECKLIST

Name of HPU: _____ (Print and complete one per HPU)

Agreed Role Delineation Level: _____

No	Item	Yes	No
1.0	Space standards & Dimensions:		
1.1	Corridors: Have corridors been designed with the minimum required clearance?	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Ceiling Heights: Are ceiling heights in rooms and corridors appropriate? Have the ceiling mounted items of equipment been allowed for?	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
2.0	Ergonomics		
2.1	Does the facility comply with the nominated Standards in regard to access for people with disabilities?	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Are fixed equipment and furniture appropriately designed and located?	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Are desk and benches suitable for the people using them and the tasks they are performing, i.e. height and depth?	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Where shelving is indicated, is the depth and height appropriate?	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Has sufficient space been provided in patient rooms and bed bays for movement of objects and patients around the bed?	<input type="checkbox"/>	<input type="checkbox"/>
3.0	Human Engineering		
3.1	Have Human Engineering issues been considered and addressed?	<input type="checkbox"/>	<input type="checkbox"/>
4.0	Signage		
4.1	Is the signposting specified appropriate and sufficient?	<input type="checkbox"/>	<input type="checkbox"/>
5.0	Doors		
5.1	Have the door/s swings and clear door widths been checked for compliance?	<input type="checkbox"/>	<input type="checkbox"/>
6.0	Grab Rails & Hand Rails		
6.1	Do all grab rails and handrails comply with AS 1428?	<input type="checkbox"/>	<input type="checkbox"/>
6.2	In corridors accessed by patients, are sufficient grab rails provided?	<input type="checkbox"/>	<input type="checkbox"/>
7.0	Windows		
7.1	Have all patient rooms used for overnight stay been provided with external windows?	<input type="checkbox"/>	<input type="checkbox"/>
7.2	Do all external windows have restricted access?	<input type="checkbox"/>	<input type="checkbox"/>
7.3	Do all external windows have access for cleaning?	<input type="checkbox"/>	<input type="checkbox"/>

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No	Item	Yes	No
8.0	Floors		
8.1	Are the floor finishes for each room and corridor appropriate for the usage of the area?	<input type="checkbox"/>	<input type="checkbox"/>
8.2	Do the floor finishes specified have the appropriate slip resistance level?	<input type="checkbox"/>	<input type="checkbox"/>
9.0	Acoustics		
	Is the design capable of compliance with the Acoustic guidelines?	<input type="checkbox"/>	<input type="checkbox"/>
10.0	Security		
10.1	Are all external perimeter doors lockable?	<input type="checkbox"/>	<input type="checkbox"/>
10.2	Are security provisions in Entry, Carparking, Reception and Waiting areas appropriate?	<input type="checkbox"/>	<input type="checkbox"/>
10.3	Are duress alarms provided to the specified areas?	<input type="checkbox"/>	<input type="checkbox"/>

Checked and certified by:

Name: _____

Date: _____

Company: _____

Position: _____

Signature: _____