PSYCHIATRIC HOSTEL DESIGN GUIDELINES

September 1999

Department of **Health**
Government of **Western Australia**

FOREWORD

These guidelines specify the facility standards to be observed and procedures associated with the procurement process for Psychiatric Hostels. In addition, all relevant rules, codes, regulations, standards or other legislation adopted by the guidelines, are identified.

The guidelines will be reviewed and updated as required. Inquiries or questions on these guidelines may be addressed to the Commissioner of Health, attention Manager, Private Sector Licensing Unit, Health Department of WA, East Perth Government Offices, 189 Royal Street, East Perth WA 6004, telephone (08) 9222 4023 or (08) 9222 4027.

Additional copies of this document may be obtained from the Manager, Private Sector Licensing Unit, at the same address.

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ACKNOWLEDGEMENTS

Appreciation is extended to all those people and their respective organisations that have made these Psychiatric Hostel Design Guidelines possible. The special efforts of Claude Soraru, Architect, are particularly appreciated.

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1. INTRODUCTION

1.1 OVERVIEW

While many people suffering mental illness are able to reside at home, either on their own or with family, this is not a realistic option for all. For those that cannot manage that level of independence, other options are available. The Psychiatric Hostel system is one such option.

The system of Psychiatric Hostels came into being in Western Australia in the 1970s to accommodate people being discharged from State Government Psychiatric Hospitals.

Psychiatric Hostel accommodation caters for a very disadvantaged and vulnerable group within the community. Features of this community group include:

- chronic and severe mental illness
- take considerable quantities of psychotropic drugs
- inability to manage living independently in the community
- managed by local mental health team, Hostel team or General Practitioner
- very limited family involvement
- require 24 hour support and assistance with a range of daily activities.

Psychiatric Hostel accommodation is defined under The Hospitals and Health Services Act 1927, Part IIIB, Section 26P as:

"Private premises in which 3 or more persons who;

a) are socially dependant because of mental illness; and

b) are not members of the family of the proprietor of the premises,

reside and are treated and cared for."

For the purpose of these guidelines a Psychiatric Hostel is defined as a residential building providing accommodation for people suffering mental illness who need assistance with daily living and/or personal care, who for a variety of reasons are unable to remain in their own homes.

In broad terms Psychiatric Hostels fall into two classifications:

- Hostels and
- Group homes.

Hostels tend to be larger establishments and accommodate individuals who have a greater degree of chronicity.

Group homes are smaller residential establishments and accommodate individuals with a greater degree of independence. The group home may also have a rehabilitation function.

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1.2 GENERAL

These design guidelines describe the joint Private Sector Licensing Unit and Facilities and Assets Branch interpretation of the facility requirements for Psychiatric Hostels.

The guidelines are intended to generate discussion leading to further development and to foster innovation and/or

alternative approaches rather than hinder them.

The facility design philosophy is variable within a 'home-like' framework. This attempt to create a residential 'home-like' environment in a Psychiatric Hostel is part of the process called 'normalisation' (refer to Section 3.2 - Normalisation). Mandatory elements are those that relate to safety and the services to be provided for the resident.

To ensure the success of the Psychiatric Hostel, consideration **shall** be given to the way the Psychiatric Hostel is to be run including:

- staffing levels in accordance with State expectations
- the philosophy of the operating organisation.

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Early consultation with the HDWA during the design process is highly recommended to resolve any design problems at the outset.

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1.3 USE OF THIS DOCUMENT

The formatting of this document is designed to assist the user. The document has been organised into parts and sections for ease of use by architects and consultants, as well as by licensees and managers of Psychiatric Hostels.

The following notes should assist the reader:

- Text presented in a shaded box provides the central and most important design objective for a particular issue.
- Bold text (other than headings) identifies highly important or mandatory requirements.

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Prior to using this manual for a psychiatric hostel design project, please check with the Private Sector Licensing Unit, HDWA, to ensure that the manual is current. Please quote the issue date on the front cover or at the foot of each page.

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Shall and **Should**
In this document the word 'shall' means mandatory and the word 'should' means recommended.

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1.4 GLOSSARY

AS - Australian Standard.

BCA - Building Code of Australia (current edition with amendments).

BGA - Break glass alarm.

Central Facility - The central facility should contain services such as administration, main meeting room, the central kitchen and/or laundry, etc. This should be separated from the residential facilities.

Commissioner - Commissioner of Health, Health Department of Western Australia.

Disabled facility – A disabled facility contains toilet, hand basin and grip bars and is suitable for independent wheel chair use.

EWIS – Early Warning Intercom System.

F&RS – Fire and Rescue Services.

FIB - Fire Indicator Board.

FIP – Fire Indicator Panel.

Fully Assisted Facility – A fully assisted bathroom/toilet provides grip bars, bathing/toileting and hand washing facilities and is large enough to allow either one or two staff members assisting residents.

FRL - Fire Resistance Level (as required by the Building Code of Australia).

HDWA - Health Department of Western Australia.

Home-like environment - The Private Psychiatric Hostel should create an environment that is as near to residential as possible.

Normalisation (Social Role Valorisation) - Normalisation supports the use of culturally acceptable and valued means to enable people who are devalued by society to achieve and maintain valued social roles.

Partially Assisted Facility – A partially assisted bathroom/toilet provides grip bars, bathing/toileting and hand washing facilities and is large enough to allow one staff member to assist the resident.

Private Psychiatric Hostel - For the purpose of these guidelines Psychiatric Hostel shall mean Private Psychiatric Hostel.

RCD - Residual Current Device.

Residential Facility - Each residential facility should be treated as a single 'house' form, and read as such from the street. It should provide the facilities of a typical home with modifications to provide the necessary enabling environment.

RWP - Rain water pipe.

'shall' - means mandatory.

'should' - means highly recommended.

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1.5 GLOSSARY OF REFERENCED AUSTRALIAN STANDARDS

Within the Psychiatric Hostel Design Guidelines certain Australian Standards are referenced by number. Where the whole Australian Standard is not applicable, only the relevant part has been referenced within the text, for example AS 1428.1. All the Australian Standards noted within the text are listed below. To assist the reader, where a section or part of a standard is referenced the primary title is also listed here (in italics).

This list is not an exhaustive list of Australian Standards by any means, and should not be taken to mean that only these standards apply to the building or upgrading of a Psychiatric Hostel. Those involved in any Psychiatric Hostel project, should consult the Building Code of Australia (current edition) and the "Catalogue of Australian standards and Other Products" (current edition), to determine if there is an applicable Australian Standard for the work under consideration.

For additional information relating to standards and codes, the reader is directed to section 2.7 of the Psychiatric Hostel Design Guidelines, "Standards and Codes".

AS 1158 *The lighting of urban roads and other public thoroughfares.*

AS 1158.1 Performance and installation design requirements.

AS 1288 Glass in buildings – Selection and installation.

AS 1324 *Air filters for use in general ventilation and airconditioning.*

AS 1324.2 Methods of test.

AS 1345 Identification of contents of pipes, conduits and ducts.

AS 1428 *Design for access and mobility.*

AS 1428.1 General requirements for access – Buildings.

AS 1530 *Methods for fire tests on building materials, components and structures.*

AS 1530.2 Test for flammability of materials.

AS 1530.3 Simultaneous determination of ignitability, flame propagation, heat release and smoke release.

AS 1668 *The use of mechanical ventilation and airconditioning in buildings.*

AS 1668.1 Fire and smoke control.

AS 1668,2 Mechanical ventilation for acceptable indoor air quality.

AS 1670 Automatic fire detection and alarm systems – System design, installation and commissioning.

AS 1680 *Interior Lighting.*

AS 1680.1 General principles and recommendations.

AS 1680.2.0 Recommendations for specific tasks and interiors.

AS 1905 *Components for the protection of openings in fire-resistance walls.*

AS 1905.1 Fire-resistant doorsets.

AS/NZS 2208 Safety glazing materials in buildings.

AS/NZS 2293 Emergency evacuation lighting for buildings.

AS 2485 Water supply – Backflow prevention devices.

AS 3000 Electrical installations – Buildings, structures and premises (known as the SAA Wiring Rules).

AS 3003 Electrical installations – patient treatment areas of hospitals and medical and dental practices.

AS 3008 *Electrical installations – Selection of cables.*

AS 3008.1 Cables for alternating voltages up to and including 0.6/1 kV

AS 3009 Electrical installations – Emergency power supplies in hospitals.

AS 3439 *Low voltage switchgear and controlgear assemblies.*

AS 3439.1 Type-tested and partially type-tested assemblies.

AS 3500 National Plumbing and Drainage Code.

AS/NZS 3666 Air-handling and water systems of buildings – Microbial control.

AS 4146 Laundry practice.

AS 4254 Ductwork for air-handling systems in buildings.

PART 1: LEGAL CONSIDERATIONS.

2. GUIDELINE COMPLIANCE

2.1 HOSPITALS AND HEALTH SERVICES ACT 1927

Psychiatric Hostels are licensed and regulated under the Hospitals and Health Services Act 1927. Under section 26J, the Act empowers the Commissioner of Health to license Psychiatric Hostels and issue guidelines with respect to their construction, establishment and maintenance.

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2.2 GUIDE TO HDWA PROCESS FOR APPROVAL AND LICENSING

These guidelines apply to new facilities and modernisation of existing facilities. A flow chart, titled "Private Psychiatric Hostels – Guide to the HDWA Process for Approval and Licensing", (Appendix 1) clarifies the licensing process. The chart addresses both the facility and operational streams.

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2.3 COMPLIANCE

Compliance with these guidelines is a specific condition of being granted a licence by the Commissioner of Health to operate premises as a Psychiatric Hostel. Failure to comply with the guidelines will result in a breach of condition of licence unless the Commissioner of Health has given specific exemptions in writing.

It should be noted that under section 26K (1c) of the Act, no person may build, alter or extend any Psychiatric Hostel unless the Commissioner has approved of the building, alteration or extension as the case may be.

Any applicant requesting a licence **shall** be required to submit for approval any site plans, plans, specification, and any other documentation which the Commissioner may determine necessary, from time to time, to evaluate compliance with the guidelines. Approval will be issued in writing and may be conditional.

It is emphasised that compliance with these guidelines forms only one element of the Psychiatric Hostel licensing process. Conformity with other service planning criteria and relevant regulations is essential. It is assumed that other facets of the overall service planning process have already been finalised or are proceeding concurrently.

Compliance with these guidelines alone cannot be construed as an approval for proceeding with any development.

Formal written notification from the Commissioner or his/her nominated representative must be received prior to commencement of service.

2.3.1 Modernisation Compliance

Where it can be demonstrated that total compliance is impractical or impossible within

structural and spatial limitations, exceptions may be considered. However, this cannot be construed to mean that the granting of an exception is guaranteed, particularly where major improvements required for resident safety are in question.

Where it is proposed that a portion of an existing building be substantially redeveloped, the design **shall** comply with these guidelines as far as is practical within structural and spatial limitations.

2.3.2 Partial Modernisation Compliance

Concessions are possible where existing buildings are being modified. The final outcome **shall** be a result of negotiation with State officers and as formally determined by the Commissioner of Health.

When it is not financially viable to modernise the entire facility in accordance with these guidelines, the Commissioner may give approval for the renovation of certain areas of the facility only. The approval would be conditional upon the incorporation of the appropriate measures or features that would guarantee the safety and security of residents and staff, as well as access by the disabled and the effective operation of the facility.

The Commissioner may also make it conditional that the outstanding items be resolved progressively, as finances become available. A time frame might also be imposed.

When partially modernising a facility, fire barriers shall physically separate those areas that do not comply with these guidelines (in particular, Section 9 – Fire Safety), from modernised areas.

Fire barriers must be of not less than 120/120/120 FRL (fire resistance level), extending through the full height of the building. Doors in these barriers **shall** also be 2-hour fire rated.

2.3.3 Extension Compliance

New additions to any Psychiatric Hostel facility **shall** conform to these guidelines.

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2.4 THE RIGHT OF APPEAL

An applicant has the right of appeal.

When the Commissioner refuses to license or re-license a facility, due to an applicant's serious non-compliance with the guidelines, as interpreted by the Commissioner, the applicant may, under the Hospitals and Health Services Act 1927, lodge an appeal with the Minister for Health within 30 days of the refusal being formally notified, i.e. date of issue of the letter.

Minor issues, which do not impact on licensing, can only be resolved by negotiation between the applicant and the Commissioner or his/her nominated representative(s).

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2.5 EQUIVALENT DESIGN ALTERNATIVES.

The primary objective of the guidelines is to achieve a desired performance, result or service. Prescriptive limitations, such as exact minimum dimensions or quantities, describe a condition commonly recognised as a practical standard for normal operation. For example, the reference to minimum room area is understood as being the amount of room needed for resident and staff activities and the placement of furnishings. This avoids the requirement for complex descriptions of procedures for appropriate functional planning. However detailed planning of the various areas is most important. Consulting with the management, staff, HDWA and where possible the residents and their relatives should form part of the detailed planning process.

Where specific measurements, capacities or other standards are described, equivalent alternative solutions will be assessed. These may be deemed acceptable if the intent of the standards has been met.

It is important to note that the design principles contained in these guidelines should not be construed as a restriction to design innovation. Within the homelike framework, innovation that improves the living environment for residents and the effectiveness of staff is encouraged.

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2.6 STATUTORY AUTHORITY APPROVAL

The approval by the Commissioner of Health to create or continue to operate a Psychiatric Hostel under the Hospitals and Health Services Act 1927, does not exempt the owner, architect or builder from the necessity to comply with any statutory requirements established and controlled by other authorities. For example, the requirements of:

- Alinta Gas
- Building Code of Australia
- Disability Services Commission
- Local Authority
- Water Corporation
- Western Power
- Worksafe WA

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2.7 STANDARDS AND CODES

Codes, rules, standards, specifications, etc., of statutory organisations, or those specifically referred to in the text of this document, **shall** be deemed to be specific requirements of these guidelines. Standards Australia publications are referenced where appropriate. A glossary of the Australian Standards used within the Psychiatric Hostel Design Guidelines is detailed under section 1.5 - Glossary of Referenced Australian Standards.

Exclusions and special conditions applied to said codes, rules, standards and specifications by the Building Code of Australia, **shall** also apply.

2.7.1 Reference to Standards

Where a code or standard is listed or referred to within these guidelines and is not dated, the appropriate document **shall** be the latest edition of that code or standard, and **shall** incorporate all revisions. Where a completely different code or standard has replaced the referenced code or standard, the Commissioner of Health or his/her representative **shall** be consulted to ascertain its relevance and acceptability.

2.7.2 Difference between 'Guidelines' and 'Codes and Standards'

Where a difference occurs between the requirements of these guidelines and the relevant codes and standards, then the requirements of these guidelines **shall** be construed as being the preferred requirement.

2.7.3 Omitted Relevant Australian Standards

Where Standards Australia documents exist which are specifically applicable to the requirements of Psychiatric Hostel construction, equipment, service, and practice, but are not referred to in these guidelines, they should be adopted as being indicative of 'good practice'.

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PART 2: DESIGN PHILOSOPHY

3. PHILOSOPHICAL APPROACH

3.1 GENERAL

The aim is to create a Psychiatric Hostel environment that is as near to residential as possible. The specific needs of the target population should be recognised.

Naturally, the preferred residential facility for those with a mental illness is his or her own home, but until appropriate support networks and services are in place, many people suffering from mental illness will require the services of the quasi-institutional model. The opportunity to choose between different types of housing options must always be available. There will be a need for home-like Psychiatric Hostels for some time to come.

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3.2 NORMALISATION

Normalisation should be the goal of organisations when considering the character, image and operation of a Psychiatric Hostel.

The concept of normalisation (or Social Role Valorisation) challenges the negative roles and aspects of institutions. Normalisation supports the use of culturally acceptable and valued means to enable people who are devalued by society to achieve and maintain valued social roles.

The aim is to maximise independence, capabilities and individuality of each resident. Psychosocial and physical support should encourage residents to operate to their maximum potential (refer Section 3.3 – Enabling Model).

Implementation of the theory and principles of normalisation should be reflected in the Psychiatric Hostel design. Although a 'normalised' setting may not be exactly the same as a typical home, its internal spaces and furnishing should convey the message to the residents, relatives, friends and the community, that the residents are deserving, competent and valued people, who are a valued part of the community.

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3.3 ENABLING MODEL

A person living at home, with a disability or chronic illness that significantly impairs functioning, and without personal and social support, will obviously experience stress with its consequent problems.

The common solution has been to react to the individual's crisis by placement in a Psychiatric Hostel, or other institutional setting. In many of these places resident's needs are catered for in an over-compensatory manner that sets up a form of stressful dependency.

This situation can be as negative in its effect on the individual as the stress condition. It tends to remove independence, decision making and choices from the individual.

The Enabling Model

The goal is to achieve an environment that is suitable to the individual level of adaptability. Sufficient and subtle support should be provided to enable the individual to function at the highest level of independence. Challenges to improve and achieve, and an opportunity to control one's own life should also be incorporated.

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3.4 PHILOSOPHICAL PRINCIPLES

During the development of a Psychiatric Hostel, there are two distinct sets of philosophical guidelines that **shall** be considered.

The National Standards for Mental Health Services have a focus on the rights of consumers (residents) and the involvement of consumers in their own care. The guiding principles of these standards are detailed below in section 3.4.1. For further information the standards should be consulted.

The second set of principles have been adapted from the Hostel Design Guidelines (Kidd, B., 1988, *Hostel Design Guidelines*, Australian Government Publishing Service, Canberra.), that were developed for the former Commonwealth Department of Health and Family Services. The Hostel Design Guidelines have a focus on the design of the facility and its impact on the resident.

Both sets of principles require consideration to achieve the most appropriate outcome for all stakeholders in the Psychiatric Hostel project.

3.4.1 National Standards for Mental Health Services

In January 1997, the National Standards for Mental Health Services document was released. This document sets forth standards to be met by those involved in the provision of mental health services, which are defined in the document as "...organisation that provides as its core business, primary, secondary and, in some cases, tertiary treatments and support to people with mental disorders..."

This definition of a mental health service encompasses psychiatric residential facilities ie, Psychiatric Hostels. Therefore, the following principles shall be considered when designing a Psychiatric Hostel.

The guiding principles of the standards are:

1. The promotion of optimal quality of life for people with mental disorders and/or mental health problems.

2. A focus on consumers and the achievement of positive outcomes for them.

3. An approach to consumers and carers that recognises their unique physical, emotional, cultural and spiritual dimensions.

4. The recognition of the human rights of people with mental disorders as proclaimed by the United Nations "Principles on the Protection of People with Mental Illness", and the Australian Health Ministers "Mental Health Statement of Rights and Responsibilities".

5. Equitable access to appropriate health services when and where they are needed.

6. Community participation in mental health service development.

7. Informed decision making by individuals about their treatment.

8. Continuity of care through the development of intersectoral links between mental health services and other organisations.

9. A mental health system which emphasises comprehensive, coordinated and individualised care.

10. Accountability to consumers, carers, staff, funders and the community.

11. Adequate resourcing of the mental health service.

12. Equally valuing the various models and components of mental health care.

3.4.2 The Hostel Design Guidelines

It should be noted that the Hostel Design Guidelines were specifically developed for the aged care sector. However, the philosophical principles are applicable to the development of a new Psychiatric Hostel and the modification of an existing facility. The Hostel Design Guidelines can be consulted for further information where they are deemed relevant.

It is essential to consider the operating philosophy and programme prior to the consideration of the architectural design. The key principles are:

1. In the Psychiatric Hostel, residents should be regarded with respect, to enable them to establish and/or maintain their valued social roles.

2. The physical environment for the Psychiatric Hostel resident should, as far as possible, be of a domestic scale and detailing, enabling residents to relate to a familiar setting.

3. The physical environment and the management program should encourage and foster individuality and enable the resident to maintain and/or develop his or her identity by having access to a normal set of choices.

4. Essential supports must be incorporated in a subtle (and not over-obvious) manner. The design must reduce hazards while inducing a feeling of competence and confidence in the resident. It must maximise the residual abilities of the residents and not over-emphasise their disabilities.

5. Environmental competence involves an understanding of the relationship between environmental support provided and the individual's capabilities, adaptive behaviour and adaptive range.

6. Management objectives and architectural design response must directly relate to the physical, social and psychological needs of the residents and staff.

   This principle includes the consideration of:

   - independence
   - options and choice
   - continuation of roles and lifestyles
   - social interaction
   - community outreach
   - personal space and private territory
   - privacy
   - minimal institutional characteristics
   - security
   - meals
   - orientation and mobility
   - safety.

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PART 3: DESIGN CONSIDERATIONS

4. PLANNING AND DESIGN OF A PSYCHIATRIC HOSTEL

4.1 GENERAL

The guidelines represent minimum standards and at the same time seek to encourage Psychiatric Hostel design innovation within the 'home-like' framework (refer Section - 2.5 Equivalent Design Alternatives).

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4.2 ACHIEVING APPROPRIATE OUTCOMES

To achieve the desired design outcome it is recommended that the following are taken into consideration:

- Experienced professional consultants (architects, engineers, interior designers, etc.) should be commissioned.
- Staff, residents and visitors should be consulted about their needs and priorities.
- On-going negotiation and discussion with the relevant State representatives **shall** occur.

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4.3 DESIGN PRINCIPLES

The design of the facility should take into consideration the specific needs of residents, particularly the need for personal space and areas for quiet reflection.

In the design of the Psychiatric Hostel, the following issues should be carefully resolved:

4.3.1 Security

Security issues that should be considered include:

- Entry and exit control to the facility and to resident bedrooms.
- Medication storage, in a central location or in resident bedrooms, must be secure.
- Appropriate unobtrusive external fencing will enhance the sense of security provided to the residents.

4.3.2 Impact on others

Site location should be considered in relation to street exposure and the impact on neighbours, in particular the audible impact on other Psychiatric Hostel residents and neighbours. The visual impact of anti-social activities should also be considered. This does not mean high solid fences to visually isolate, but thoughtful solutions to ensure the rights of both residents and the public are addressed.

4.3.3 Appropriate Location of Controls

Consideration should be given to the control of air conditioners/ evaporative coolers, ceiling fans and other appliances in resident areas, to enhance the resident's control of their environment. In common areas of the Psychiatric Hostel, control of these functions may best be delivered from a staff controlled area.

4.4 SMOKE FREE ENVIRONMENT

The right to a smoke free environment within the Psychiatric Hostel is to be guaranteed. However consideration should be given to the needs of residents, staff and visitors who smoke, i.e. provision of an appropriate smoking area. The design of the smoking area **shall** be consistent with current legislation related to smoking in the workplace and enclosed public areas.

4.5 OCCUPATIONAL HEALTH

The occupational health, safety and welfare of staff **shall** be considered in the design of a Psychiatric Hostel. Current Worksafe practices and legislation **shall** be adopted.

4.6 INFECTION CONTROL

All areas of the facility **shall** be designed, constructed, furnished and equipped in keeping with the principles of infection control.

Infection control involves the prevention of possible spread of infection by the minimisation of transfer of micro-organisms from person to person.

A number of strategies contribute to the control of infection, such as hand washing, careful aseptic technique and the observance of "universal precautions".

By far the most important of the infection control strategies is effective hand washing. Hand washing facilities **shall** be installed in all resident care areas, and also in all areas where careful attention to hygiene is essential, such as kitchens, laundries, utilities, etc. and staff amenities areas, such as bathrooms, toilets and change rooms. Hand basins for staff use **shall** be equipped with soap dispensers, hand drying facilities and lever action taps to allow hands free operation.

Hand basins in kitchens shall be equipped with foot or electronically operated taps, to allow totally hands free operation.

4.7 SAFETY

All detailing within the Psychiatric Hostel **shall** consider the special needs of a client group who, from time to time, may display high levels of expressed emotion. This may be manifested in the form of random acts of aggression, either self directed (in the form of self-harming behaviour) or directed at the facility. The design of the Psychiatric Hostel should reflect this possibility in its design and fit out.

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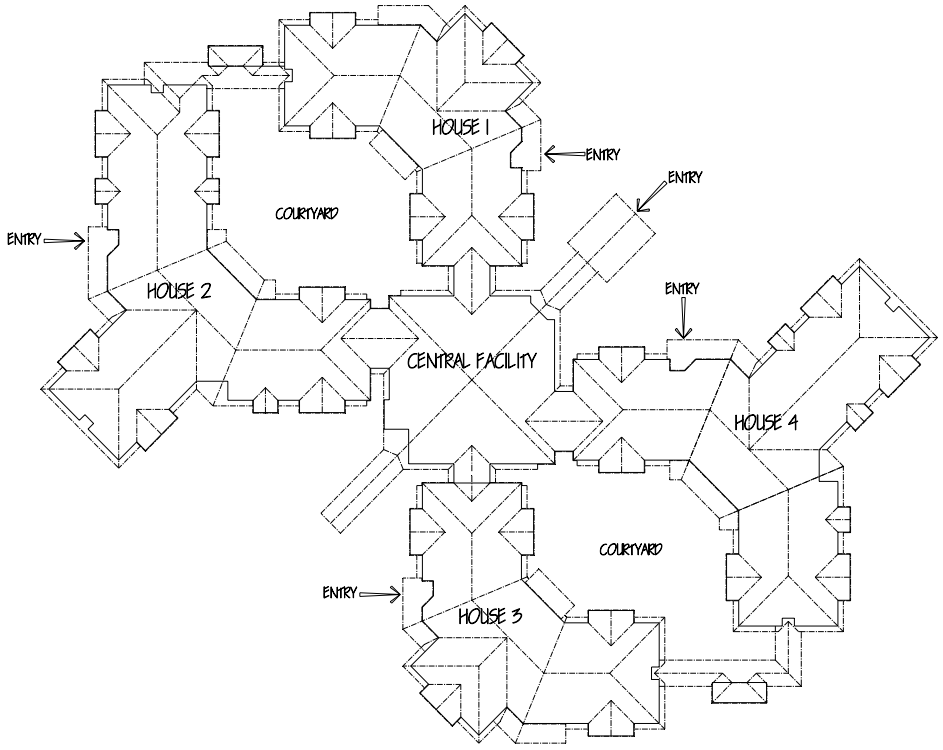
4.8 DESIGN OF A NEW PSYCHIATRIC HOSTEL

The design of a new Psychiatric Hostel involves the creation of 'home-like' residential facilities linked to a non-residential, central facilities building.

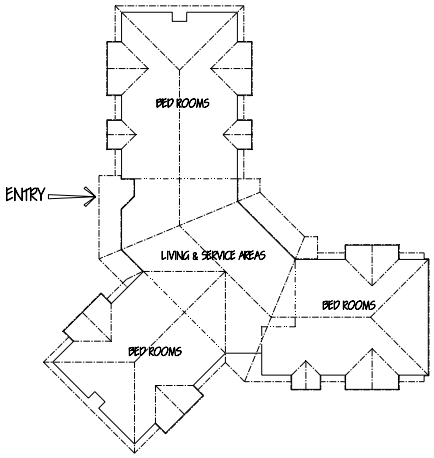
4.8.1 General

The configuration of the residential facility and the linkages to the central facility should give consideration to the particular resident requirements, the operational philosophy, staffing levels and projected operational costings.



- AN EXAMPLE OF A HOME-LIKE PSYCHIATRIC HOSTEL.

Consideration should be given to breaking the residential facility into two or three smaller resident modules. It is recommended that the individual resident modules accommodate no more than ten residents. The living and service areas within the residence can then be located at the centre of the modules.



- **ARRANGEMENT OF AN INDIVIDUAL RESIDENT MODULE**

The links between the residential and the central facility should be secure and weather proof. The links may include access to facilities that can be shared between residential facilities (e.g. Bathroom or additional storeroom). The link should connect into the living/service area or a passage servicing those spaces.

Each residential facility should be treated as a single 'house' form. It should have a separate entry treated as a front door, accessible from the street. Visitors should be encouraged to use the separate 'home' entry points rather than be channelled through a reception point. Vehicular and pedestrian access, and car parking at the house entry points, should also be incorporated. The multiple entry principle should not compromise the safety and security of the residents.

The architectural style should be sympathetic to the streetscape or adjacent buildings. Refer to Section 5 - Site, Section 6 – Building Design and Section 7 – Interior design for further architectural requirements.

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4.9 MODERNISATION AND EXTENSION OF AN EXISTING FACILITY

Although a residential scale and separation of the residential facility from the central facility is easier to create in a new building, the philosophy can be applied when modernising and extending an existing Psychiatric Hostel. An entire residential wing should be redeveloped or modified as a residential facility.

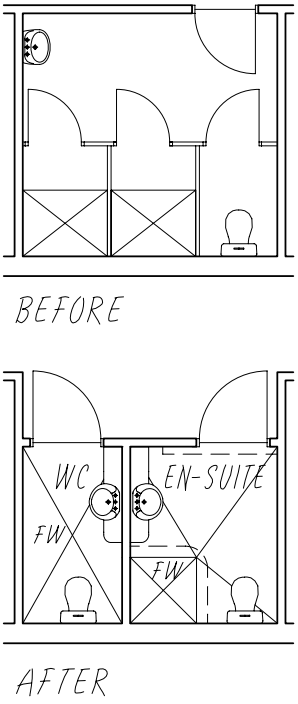
Requests for modernisation, partial modernisation and extension **shall** be submitted in writing to the Commissioner for approval.

Approval will be issued in writing (refer to Section 2 - Guideline Compliance).

4.9.1 General

Traditional Psychiatric Hostel models with large central Lounge/Dining rooms are no longer appropriate. Residential facilities that include domestic scaled living rooms promote a more homely environment. The modernisation of an existing facility should include the provision of a range of sitting spaces and alternative living/dining room areas.

When remodelling central shared shower and toilet areas, the original open plan and impersonal design can be replaced with separate rooms containing a shower, toilet and hand basin ('ensuite'). Even refurbishment can have a dramatic effect on the building environment. Roof-lights can be installed to improve internal natural lighting levels (refer to Section 6.1 - Residential Facilities).



- **BATHROOM MODERNISATION**

4.9.2 Practical Aspects of Modernisation

It should be noted that concessions are possible where existing spaces are involved.

Newly created bedrooms **shall** comply with current minimum sizes.

Where existing facility modernisation or replacement work is proposed all new work and/or additions **shall** comply, as far as practical, with these guidelines and any other codes, standards, regulations or legislation empowered by them.

Projects involving alterations and/or additions to existing buildings **shall** be programmed and phased to minimise disruption of retained existing functions.

Access exits and fire protection **shall** be so maintained that occupants' safety will not be jeopardised during construction.

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5. SITE

5.1 LOCATION

The site selected for the Psychiatric Hostel should facilitate community access and promote residents' independence and quality of life.

The proposed development should be compatible with the current and future land use and zoning. The site should enable the Psychiatric Hostel to blend with the local environment and to become a desirable place to live.

The location should enhance community service delivery. A range of services should be accessible for the benefit of the resident, their relatives, visitors and staff. These should include public transport, pharmacy, banking, dentist, hospital, department store, and library.

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5.2 SITE PLANNING

Site planning requires consideration of the needs of the users, the impact on neighbours and the presence of the facility within the community. Site planning also includes consideration of roadways, car parking, walkways, outdoor access, gardens, servicing and signage.

5.2.1 Needs of Users

When the general suitability of the site for a Psychiatric Hostel has been assessed, consideration should be given to detailed site planning with a focus on the needs of users (i.e. residents, staff, visitors and suppliers).

In considering the site, features such as topography, views, vegetation, drainage, access, orientation and micro-climate should be assessed and positive features incorporated into the design. Well-considered site planning can contribute to personal safety, property security, energy efficiency and water conservation.

Careful site planning can significantly enhance the living environment for the future users of the Psychiatric Hostel.

5.2.2 Impact on Neighbours

The interface between the Psychiatric Hostel and neighbouring areas should also be carefully considered. Privacy for neighbours and Psychiatric Hostel residents should be developed through careful placement of windows, fences and planting.

Pedestrian and vehicle access to the site **shall** be incorporated. Visual links to views or features of significance **shall** be considered.

If a site abuts or has view to a public open space or road with activity, then the site layout and building design should take these factors into account.

Neighbouring areas may expose the site to detrimental impacts (e.g. excessive traffic noise). These impacts **shall** be minimised to improve the environment for all users.

5.2.3 Community

Consideration should be given to the image the Psychiatric Hostel projects within the community. The image should demonstrate that residents are valued people. The Psychiatric Hostel should blend into the neighbouring environment and it should present a domestic residential appearance. The Psychiatric Hostel should fit within the surrounding neighbourhood's character.

5.2.4 Car parking

Car parking should be discretely located and should not dominate views. Sufficient car parking needs to be provided to satisfy applicable local authority requirements and the needs of staff and visitors. Parking should be dispersed around the site and associated with the entries to residential facilities. Transport arrangements for off-site travel should be considered. A covered drop-off point near the front door should be considered, e.g. carport.

5.2.5 Roadways

Roadways should be carefully planned to provide access for staff and visitors and for servicing and access for emergency vehicles to the Psychiatric Hostel. The location of internal roadways should be carefully considered in relation to bedrooms. The impact of internal roadways should be softened by using unit paving and planting trees and shrubs that, when grown, form a shade canopy.

5.2.6 Outdoor Access and Gardens

The Psychiatric Hostel **shall** provide access to useable external spaces, incorporating disabled access. The external spaces should include pathways, fixed and moveable seating in sheltered and exposed locations, barbecues and pergolas. Landscaping, both hard and soft, should provide as home-like an environment as possible.

Particular attention needs to be paid to the provision of adequate structured shade.

Plant types should be selected to provide a variety of colours during the year. Deciduous trees should also be incorporated as they provide an indication of the change in seasons.

Garden areas shall not incorporate toxic plants.

Adequate water service **shall** be provided for garden maintenance and for fire control purposes.

Outdoor areas should also have garden/security lighting to illuminate pathways and entrance areas.

External areas should take advantage of views and provide both a private backyard and a semi-public front garden. Visiting family and friends should also have access to these areas, as invited by the residents. External courtyard security is to be provided where appropriate (e.g. open tubular fencing). Continuous high solid walling with no visual relief is inappropriate.

5.2.7 Ramps

Where ramps are required for resident access or egress, minimum gradients, kerbs and handrails are to comply with the Building Code of Australia and AS 1428.1. Ramps in other areas, e.g. service roadways, **shall** comply with good design practice and be suitable for the task. Australian Standards, wherever applicable, **shall** be used.

Specific requirements of the St John Ambulance Association in relation to ramp gradients and ambulance park/loading area gradients should be noted.

St John Ambulance should be contacted to confirm current requirements.

5.2.8 Signage

Discreet external signage may be provided, however this should not detract from the home-like qualities of the Psychiatric Hostel.

5.2.9 Mail Delivery

It is desirable for each residential facility to have its own street frontage and letterbox in addition to the mailbox for the administration facility. Discussions should be held with Australia Post to ensure that the installation of mailboxes meets with their approval.

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6. BUILDING DESIGN

6.1 RESIDENTIAL FACILITIES

Each residential facility should be treated as a single 'house' form. It should provide the facilities of a typical home with modifications to provide the necessary enabling environment.

6.1.1 Entry and covered set-down

Each house should have a separate entry, preferably treated as a front door, accessible directly from the street. Visitors should not necessarily be channelled through a single reception point at the central facility but be encouraged to use the individual house entries.

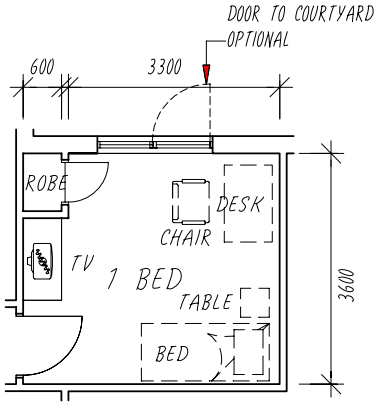
Consideration should also be given to a covered set-down area associated with the entry. A carport with undercover access to the entry would be appropriate.

6.1.2 Bedrooms

To a large extent the bedroom will be the only personal space the resident has. Design features must recognise the right to privacy, security and personal space of the resident. Bedrooms may accommodate one or two residents, but single bedrooms are preferred.

At least 50% of the residents **shall** be accommodated in single bedrooms. The bedrooms **shall** be sized to provide space for the bed, sitting space for personal and social activities and space for staff attendance, if required.

The **minimum** size of a single bed resident room is **3300mm by 3600mm.** This size may need to be increased dependent upon position of door(s) and window features, furniture layout, extent of additional furniture (book cases, desks, TV), etc. A bedroom must not be used as a thoroughfare to rooms other than ensuite toilets, closets, or dressing rooms that are for the exclusive use of the occupant(s) of that bedroom. They should not open directly into communal living areas, kitchen or other service areas. Bay windows are considered to be an advantage in that they provide additional useable floor space for sitting activities.



- **EXAMPLE OF A SINGLE BEDROOM**

In the planning of all residents' rooms it is important to develop a detailed room layout showing:

- lighting and switch locations
- windows and doors
- heating and cooling equipment and controls
- furniture layout (bed, chairs, robe, bedside table, drawers, television and other possible personal furniture, etc.).

The **minimum** size of a two bed resident room is **3600mm by 6000m.** As for single bedrooms, the size may need to be altered dependent upon layout and fitout. In the case of the two-bed rooms, detailed consideration should be given to the room arrangement to provide maximum possible privacy for each resident and their visitors.

In designing the two bed room, it is important to develop a detailed room layout showing, in addition to those features listed above, the following:

- separate furnishings for each resident i.e., beds, robes, desks, chairs, television shelf, etc.
- Individual views to external spaces for each resident.

Bedrooms designed for more than two beds **shall** not be permitted.

It is also important to consider staff access to ensuites. The arrangements **shall** be such that each resident has easy access to his/her bed and personal belongings. Residents and their relatives should be encouraged to personalise the residents' room. Shelving for the display of personal items should be provided.

6.1.3 Showers, Toilets, Basins and Baths – Generally

This section only describes **minimum** provision. The room sizes (accessibility) in AS 1428.1 are considered appropriate.

The retention of privacy and dignity is the most important aspect in the design of showering, toileting and bathing facilities in a Psychiatric Hostel.

The location of these facilities within the residential facility should promote privacy. The interior fitout should be as domestic as possible and should encourage residents to achieve their maximum level of independence.

The placement of showers, toilets and basins within the facility **shall** be considered. For the purposes of these guidelines, a room consisting of a shower, toilet and basin **shall** be known jointly as an 'ensuite'.

Minimum Ensuite Requirements

Minimum provision **shall** be one 'ensuite' (shower, toilet, and basin) for every 4 residents. A dedicated 'ensuite' for each bedroom, with direct access from the bedroom, is preferred. At least one pan, one washbasin and one shower **shall** be accessible to residents with disabilities, within each residential facility.

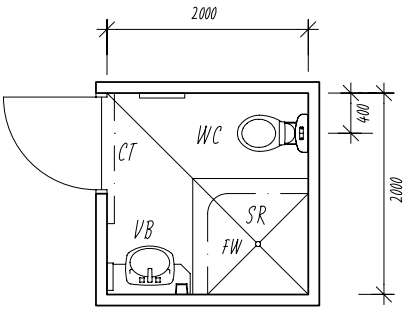
Placement of the 'ensuites' **shall** take into account the need to limit to 15 metres the distance of travel from each bed to the nearest toilet. Ensuites should not be considered as "communal" facilities for general use of all residents (refer section 6.1.5.2 – Resident Communal Toilet).

Individual storage of personal toiletries in the 'ensuite' should be considered. Multi-compartment storage cabinets are considered appropriate for use in shared 'ensuites'. Coat hooks should also be considered.

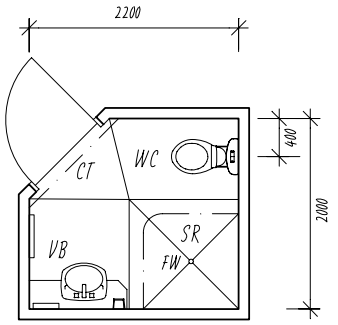
Acoustic privacy is important in shared facilities. Solid core doors fitted with acoustic seals **shall** be installed with air transfer ducts (not door grilles) for supply air.

A bath (with assisted toilet and basin) **shall** also be provided within the facility for those who prefer bathing to showering. Refer Section 6.1.7 – Bathrooms, for design information.

Detailing and fit out of showers, toilets, basins and baths **shall** consider resident safety as referred to in section 4.4



PLAN 1



PLAN 2

- **MINIMUM ENSUITE REQUIREMENT**

6.1.4 Showers

Showers should have a design focus consistent with the requirements of AS 1428.1. Staff assistance within the shower rooms (with toilet and basin) is a design consideration.

6.1.5 Toilets

The room should have a design focus consistent with the requirements of AS 1428.1, although the toilet installation requires special consideration.

In particular the dimension, from the rear wall to the front of the pan, in AS 1428.1 (800 mm) is excessive. The distance from the front of the cistern to the front of the pan **shall** be approximately 600mm (720mm from rear wall to front of pan).

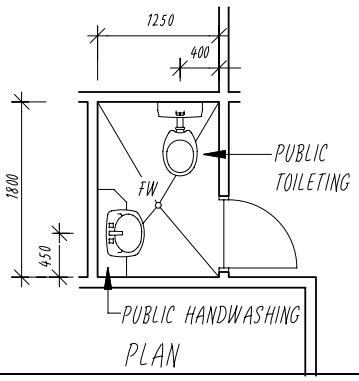
6.1.5.1 Staff/Visitor's Toilet

A toilet suitable for use by staff, visitors and disabled visitors **shall** be provided within each residential facility

Where modules are directly connected centrally located facilities for visitors are considered adequate.

6.1.5.2 Resident Communal Toilet

A resident communal-use toilet (with hand basin) **shall** be provided near the activity/meals area.



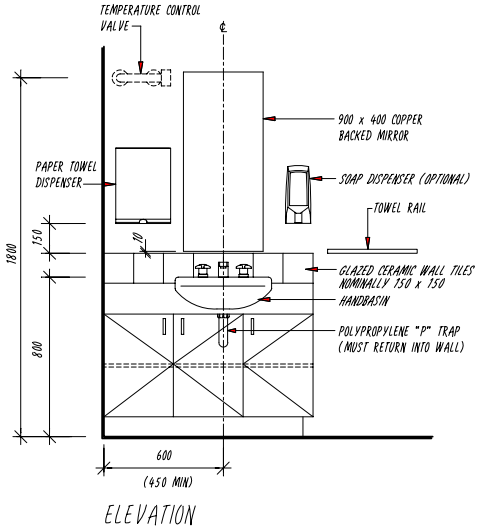
- **COMMUNAL TOILET LAYOUT**

6.1.6 Basins

Basin configuration according to AS 1428.1 is considered appropriate. Tapware should be chosen that is simple for residents to use (refer Section 6.1.9 - Plumbing Fittings).

Mirrors over the basins are also required. The bottom of the mirror **shall** be no higher than 900mm above the floor. Mirrors **shall** be securely fitted and resistant to excessive impact. A basin with a vanity unit should be incorporated as this enhances the residential quality of the bathroom.

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



- **BASIN CONFIGURATION – RESIDENT USE**

6.1.6.1 Staff Use Hand Basins

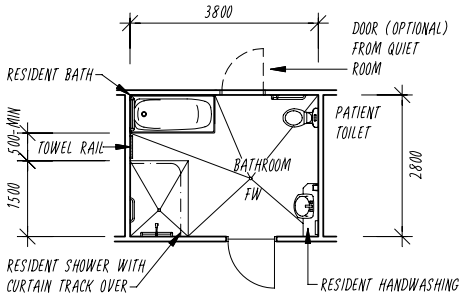
Each individual resident facility shall be provided with a hand basin for use by staff. The hand basin **shall** be equipped with lever action type taps, showing hot and cold markings, to allow for 'hands free' operation. Each basin shall also be provided with liquid soap and paper towel dispensers.

6.1.7 Bathrooms

A separate room containing a bath **shall** be provided.

The bathroom may be centrally located to allow access to all residents. In a new building, a toilet **shall** be provided within the room to allow dignified toileting of residents during the bathing process. A hand basin **shall** also be provided. Consideration may also be given to providing a resident shower.

Where the residential facilities are directly connected, a minimum of one bathroom per 30 residents **shall** be provided. Replication may be necessary for stand-alone modules, but where they are directly connected, a single bathroom in a central location would suffice. Consideration must be given to the distances travelled by the resident, the right to privacy when going to the bathroom and the general accessibility of the central bathroom to all residents.



- **BATHROOM LAYOUT - TYPICAL**

6.1.8 Grip Bars

Grip bars **shall** be detailed as described in AS 1428.1, except where otherwise noted in this document.

Grip bars, vertical adjustable shower supports, towel rails, soap holders, foot rests 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.

6.1.9 Plumbing Fittings

Location and arrangement of fittings for whatever purpose **shall** permit their proper use and operation.

Non-thermal transmitting handles are preferred with effective finger

grips. Hot and cold indicators **shall** be very clear and the turning action should not require excessive force. Vandal proof style is recommended.

6.1.10 Lounge

A home-like lounge room **shall** be provided for each residential facility.

Lounge Rooms should be sized to provide comfortable seating and circulation space for the total number of residents and visitors expected to use it at any one time. The minimum lounge floor area **shall** be no less than 20 square metres. The total area of these sitting rooms **shall** consist of a minimum of two square metres of sitting space per resident. Corridors and verandas **shall** not be included in the minimum area requirements.

Selection of furniture will have an obvious impact on floor area. Indicative furniture layouts should be developed during the planning of the building (refer to Section 7 - Interior Design).

6.1.11 Quiet Room.

A quiet room **shall** be provided in each residential facility for reading, writing and quiet pursuits. It **shall** contain reading material and be appropriately furnished. The area of the quiet room **shall** be a minimum of 12 sq/m. A quiet room may also be used as overnight accommodation for relatives.

This overnight accommodation might consist of a couch/bed in the quiet room, a hand basin, shower and visitor's toilet nearby.

6.1.12 Family/Meals

A home-like family/meals room **shall** be provided for each residential facility. It **shall** be sized to provide space for normal residential type day activities (e.g. Meals, morning/afternoon tea, cooking, craft, games, etc.).

Selection of furniture will have an impact on floor area. Indicative furniture layouts should be developed during the planning of the building (refer to Section 7 - Interior Design).

Family and Dining Areas

The following areas **shall** be accommodated:

Family: 2.8m^2 per resident (minimum of 20m^2 total)

Dining: 1.5m^2 per resident (minimum of 16m^2 total).

6.1.13 Kitchen/Pantry/Tea Preparation Area (Residential Unit)

Food service provision should be given early consideration. The operational arrangements and associated facility requirements

need to be fully resolved prior to construction to facilitate a high quality food service.

A kitchen, pantry or tea preparation area **shall** be provided for each residential unit, depending on the facility type and food service policy.

The kitchen **shall** be capable of preparing or reconstituting main meals for the maximum number of occupants of the residential facility. The kitchen should include pantry provision, serving and clean up facilities. There may also be a small tea preparation area for use by residents and visitors.

Main meals prepared from a central production kitchen should be plated and served in the residential unit kitchen area to enable individual selection.

Visiting relatives or friends may also use the kitchen to prepare meals for individual residents. Adequate refrigeration and dry-goods storage within each house, and an oven sized to accommodate large containers (particularly where serviced from a central kitchen), **shall** be considered.

The kitchen/pantry should have direct access to the dining/meals area. It should also be designed for partial access by the disabled, at least for morning and afternoon tea preparation, e.g. pull out shelf or partially open under bench, lower height bench, etc. The Independent Living Centre can advise.

The hot plate and oven should be electric, should have on/off lights for each hotplate and have front located controls. Staff controlled key isolators may also be considered.

Design of the kitchen/pantry area shall consider resident safety as referred to in section 4.4.

6.1.14 Sitting Areas

Consideration should be given to the provision of alternative sitting areas, e.g. a corridor nook with views to the outside.

6.1.15 Smoke free environment.

The right to a smoke free environment within the Psychiatric Hostel is to be guaranteed. However, consideration should be given to the needs of residents and visitors who smoke, i.e. provision of an appropriate smoking area. The design of the smoking area **shall** be consistent with current legislation related to smoking in the workplace and enclosed public areas.

6.1.16 Dirty Utility

A dirty utility room **shall** be provided for each residential facility. Replication may be necessary if the facility layout

requires long distances to be covered.

Facilities for pan sanitising **shall** be considered. An electric or steam heated pan sanitiser is recommended for the safety of staff. A slophopper is required for initial disposal of pan/urinal contents before disinfection. The slophopper **shall** be fitted with a flexible hand-spray nozzle (refer to section 8.5.2.3 – Back Flow Prevention). A stainless steel sink and drainer and a separate basin for staff hand washing **shall** also be provided. Cupboards and/or racks **shall** be provided for bedpan, bowl and urine bottle storage.

6.1.17 Dirty Linen

A separate mechanically ventilated cupboard or storeroom **shall** be provided for the holding of dirty linen, prior to transfer to the laundry or a central holding area.

Containment of odours so that they do not disturb residents, staff and visitors is of utmost importance. Convenient pickup of the dirty linen for transfer to an off-site laundry, central holding area or on-site laundry should influence the final location of the dirty linen store, i.e. prevent crossing of resident areas with bags or trolleys of dirty linen.

6.1.18 Laundry (Residential)

A small laundry, for the washing of personal items, should be included as a separate room with convenient access to each residential facility. The laundry should provide space for a washing machine and clothes dryer and contain a trough, bench and space for an ironing board. External drying areas **shall** also be provided.

6.1.19 Storage

6.1.19.1 Clean Linen Store

A clean linen store shall be provided in each residential facility. The clean linen store can be either a storeroom or a storage cupboard.

6.1.19.2 Equipment Store

It is important that careful analysis is made of the equipment requirements. Provision **shall** be made to accommodate equipment when not in use

An equipment store **shall** be provided for the storage of items of equipment such as spare beds, furniture etc.

For some equipment, suitable out of the way parking areas within bathrooms is preferable, however other items require dedicated spaces.

6.1.19.3 Residents' Store

Storage of seldom-used items belonging to residents should be accommodated in the resident's room.

6.1.19.4 Cleaner's Store

A cleaner's store **shall** be provided in a location convenient to each residential facility. The cleaner's store **shall** have a cleaner's sink, room to accommodate a trolley and storage shelving and hanging racks. Mechanical ventilation shall be provided to the cleaner's store (refer to section 8.1.4 - Ventilation Rates).

6.1.19.5 Medication Store/Preparation

The storage of Schedule 4 and Schedule 8 drugs **shall** also be considered. Schedule 4 drugs are prescription drugs. Schedule 8 drugs are also prescription drugs and are drugs of addiction. They require additional security and dispensing control. Storage should be according to the Poisons Act (WA) 1965 (as amended) or the relevant HDWA standard.

In general, the storage of medications, dressings and surgical supplies is required to be in a locked cupboard in a locked room. Where the delivery of medication is by trolley, secure storage of the trolley must be considered.

6.1.20 Windows, Screens and Grilles

All rooms occupied by residents and 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.

Resident bedrooms **shall** have windows overlooking external areas. An external area is a perimeter space around a building, a naturally ventilated and lit atrium or a courtyard.

Each external window and/or external glazed door panel area **shall** be not less than 10% of the floor area of the room concerned. An opening component equal to not less than 5**%** of the floor area of the same room should be provided. These requirements together will ensure natural light and ventilation in the event of an electrical or air handling system failure (refer Section 8.1 - Mechanical Services).

External windows **shall** be fitted with flyscreens and consideration should be given to the installation of security screens/grilles.

In addition windows **shall** have blinds and/or curtains. External shading devices should also be considered.

These measures should provide effective control of direct sunlight and glare from external sources. Windows are not to be obstructed by furniture, partitions, etc.

6.1.21 Doors

The minimum dimension of clear door openings to resident bedrooms/corridors etc. in new areas **shall** be in accordance with BCA requirements.

All corridor doors **shall** swing in the direction of fire egress. Doors, except those to spaces such as ducts to which access is required infrequently, **shall** not swing into corridors in a manner that might obstruct traffic flow or reduce the required corridor width.

Glazed panels **shall** be provided in doors where observation for reasons of safety or security for residents and staff is required. Glazing in fire doors **shall** comply with the AS 1905.1.

Hardware **shall** be provided to suit the requirements of privacy, safety, security and function, e.g. indicator sets on toilets, showers, etc.

Rooms that contain baths, showers or toilets **shall** be equipped with door hardware that will permit emergency access from the outside.

As these rooms are generally only small in size, and particularly where door openings are narrow, the doors **shall** be capable of opening outwards or in a manner that negates the need to push against the resident who may have collapsed or secured themselves within the room.

All Psychiatric Hostels **shall** have a rational master key system. Locks **shall** be provided to staff rooms, bedrooms, drug stores, offices etc., as appropriate.

Door closers should be considered for doors that should remain closed, e.g. external doors, corridor doors, etc. Note that closers on doors can cause access problems for disabled people, and as such, their installation should be carefully considered.

Door hold-open/closers should also be considered for doors that should remain open, e.g. doors on main traffic routes, delivery doors, etc. Free swing door closers may also be incorporated where appropriate.

Delayed action hold-open/closer may be considered where regular trolley movement by single operators might cause door damage, e.g. doors in corridors and into kitchens.

Security flyscreen doors where installed, **shall** not compromise emergency egress.

6.1.22 Corridors/Passageways

The corridors **shall** be designed for disabled persons. A clear width (minimum) of 1200mm **shall** be provided.

Emergency evacuation routes **shall** be provided in accordance with the Building Code of Australia 1996. Corridors **shall** be designed in short runs or have wall variation.

Where possible, natural light **shall** be allowed to penetrate into the internal corridor spaces via roof lights or internal window walls, e.g. glazing or glass blocks.

'Visual keys' or cues should also be considered when designing both the residential and the central facilities in the Psychiatric Hostel - e.g. different feature entry doors/porticoes/arches into each residential module.

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6.2 CENTRAL FACILITIES

In line with the philosophy of creating a more home-like environment, services such as administration, main meeting room, the central kitchen and/or laundry etc., **shall** be separated from residential facilities.

6.2.1 Enclosed Walkways

The links between the central facility and residential facilities **shall** be enclosed and secure. The length of the walkways should be minimised to provide maximum staff efficiency. As a minimum the walkways **shall** provide shelter and security particularly for access at night. The walkways may incorporate rest spots, storage areas and facilities that are shared between the residential facilities, such as the bathroom.

6.2.2 Administration

A separate administration area should be provided in the Psychiatric Hostel. The administration area may include reception, waiting, manager's office, staff office and staff facilities, etc. A staff/visitors toilet may also be required. Consultation with staff as to their particular detailed requirements should be undertaken where possible.

6.2.3 Amenities Room

A room for large functions should be provided. This room can be used for entertainment or events that involve residents.

6.2.4 Staff Facilities

Staff facilities, e.g. shared lunch room, male and female change rooms, showers, toilets, etc. **shall** be provided, all in accordance with the Occupational Health Safety and Welfare Regulations 1996.

6.2.5 Service Delivery Point

A service delivery point **shall** be included for delivery to, and pickup from, service areas such as the central kitchen, laundry and storage areas.

6.2.6 Central Laundry

If a facility for on-site laundering of linen is to be provided, then it **shall** comply with AS 4146 and be visually and acoustically isolated from the residential areas (i.e. not directly attached). Attachment to a central administration facility is acceptable.

Provision **shall** be made for a mechanically ventilated dirty linen store and clean linen sorting area. Refer to the 'Laundry Guidelines' extract at appendix 3 for further detail on central on-site laundry facilities.

Where the central laundry utilises gas appliances, an emergency gas isolation valve **shall** be installed in a location that is easily accessible during emergency egress.

If laundering is to be handled off-site, then a holding/pickup/delivery facility, attached to the central

administration block, **shall** be provided. The dirty linen store **shall** be mechanically ventilated.

6.2.7 Central Production Kitchen

A central production kitchen or localised reconstitution kitchen (as deemed appropriate) **shall** be designed and operated in accordance with the requirements of the Food Hygiene Regulations 1993 and relevant Worksafe WA requirements.

The design of the central kitchen and associated storage areas should be carefully considered to ensure a high quality food service.

Where the central production kitchen utilises gas appliances, an emergency gas isolation valve **shall** be installed in a location that is easily accessible during emergency egress.

Where central kitchens provide meals to other facilities, the Code of Practice for Meals on Wheels services **shall** be observed.

6.2.8 Storage

Adequate, accessible and secure storage areas **shall** be provided for the storage of supplies and records. Where possible, storage requirements should be discussed with the management of the Psychiatric Hostel.

6.2.9 Bin Areas and Rubbish Collection

Provision **shall** be made for the storage and collection of rubbish. Bins should be stored in a bin enclosure or ventilated storeroom. An associated facility for washing bins **shall** be provided.

Discussions should be held with the local authority regarding bin store requirements, rubbish collection, manoeuvrability of rubbish trucks and bin provision.

6.2.10 Plant and Equipment Spaces

Provision **shall** be made for the necessary rooms or cupboards for plant and equipment. This includes spaces for the location of concealed fire hose reels, electrical and telecommunications equipment, mechanical plant and plumbing services.

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6.3 CONSTRUCTION

Construction should be appropriate to suit the desired home-like architectural style. The materials and detailing should emphasise the home-like nature of the Psychiatric Hostel.

Construction materials and detailing **shall** comply with the requirements of the Building Code of Australia.

The construction materials and detailing shall enhance the home-like qualities of the Psychiatric Hostel and reflect the needs of the intended resident. Resident safety shall be a prime consideration in the construction of the Psychiatric Hostel (refer to section 4.4 - Safety).

The construction materials and detailing should adopt a maintenance minimisation approach within the given cost parameters.

Care should be given to the joining of materials to ensure smooth junctions to prevent injury.

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6.4 SECURITY

Resident and staff security **shall** be considered. The movement of staff between buildings at night requires special attention.

A Psychiatric Hostel is a 24 hour operation with staff entering and leaving at various times. At these times the potential for unauthorised entry into the building exists. Attention should be given to home-like fencing, lighting (internal and external), locking systems, enclosed walkways, drug storage and security systems generally.

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6.5 GLAZING

All glazing **shall** be in accordance with the requirements of AS 1288 and AS/NZS 2208. Due to the nature of the resident group (who may have unsteady gait or blurred vision due to psychotropic medication), the use of full height glazed door and window panels, low level glazing and large mirror panels are generally not recommended.

If large glazed panels are utilised then consideration **shall** be given to increasing the safety margin in relation to the Australian Standard, and the placement of a visual cue on the glass panel.

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6.6 MAINTENANCE

The Building Code of Australia Section E5 covers briefly the need to maintain the building so that it does not deteriorate to the extent of endangering residents. Section E5 also gives consideration to maintenance in the areas of:

- safety installations
- mechanical ventilation and warm water systems compliance with AS/NZS 3666.

In designing and detailing a Psychiatric Hostel facility, the recurrent costs involved in maintaining the building stock are an important consideration. Psychiatric Hostel proprietors should consider the establishment of an asset management program to ensure that building stock is maintained to an appropriate standard.

The architect and engineers should minimise the impact of maintenance on the life cycle costs of the facility, with consideration to the proprietor's capital commitment. Selection of building materials, finishes, fitments, plant, etc., and maintenance access, are all-important considerations.

The aim of the above is to prevent the building from deteriorating. The Commissioner of Health, under the Hospitals and Health Services Act 1927, may need to consider the withdrawal of the Psychiatric Hostel licence if the building stock is deemed in any way to be unsafe.

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7. INTERIOR DESIGN

7.1 GENERAL

A home-like interior **shall** be created in the development of new Psychiatric Hostels and the remodelling of existing Psychiatric Hostels.

Careful consideration **shall** be given to the selection and co-ordination of furnishings, fittings, finishes and internal detailing to enhance the home-like qualities of the Psychiatric Hostel. Attention should also be given to the importance and impact of the use of colour.

Décor involves style, atmosphere, colour, materials, textures, forms and the effects of light. The appeal or lack of appeal to the individual of a particular décor is based upon that individual's perception of the collective whole and is highly subjective.

Historically, in Psychiatric Hostel design, there have been rigid commitments to particular selections or avoidance in the area of décor, especially with regard to colour. Interior design, when empirically tested, has proven to be beneficial to the overall well being of the resident.

The Hostel designer is advised to show fresh initiative in décor selection, keeping in mind the following points:

- the dimensions of colour: hue, intensity, tone, temperature
- the differing effects of various types of light upon colour and vice versa
- potential to provide variety through change of texture and surface
- visual dynamics and balance
- proportion and its effects
- re-decoration is not a budgetary priority so care in selection of materials and colour is important
- extremes of colour should be avoided.

The ease of cleaning, ongoing costs, efficient maintenance and safety of residents are important considerations.

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7.2 FINISHES

Design Objective

Finishes should be of an appropriate character. Whilst consideration needs to be given to maintenance, the selected finishes and detailing should not give an institutional feel of indestructibility.

Floor finishes **shall** be impervious and slip-resistant in wet areas (e.g. mosaic ceramic tiles or slip resistant vinyl in bathrooms/toilets, sheet vinyl in service areas, etc.) and as deemed appropriate in the resident living and relaxation areas (e.g. carpet or a residential patterned vinyl). In wet areas, coved skirting shall be provided.

Carpet provides benefits with regard to comfort and home-like appearance.

However, consideration must be given to the ease with which it can be cleaned and its ability to contain liquid spills (to prevent contamination of the sub floor).

Carpets, vinyls, curtains and other wall and floor finishes installed in all Psychiatric Hostels **shall** be inherently fire retardant and have Early Fire Hazard Indices in accordance with section C1.10 of the Building Code of Australia.

Note that floor finishes affect the acoustic performance of the building interior. The Facilities and Assets Branch of the Health Department of Western Australia can provide advice on all of the above, as required.

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7.3 FURNITURE AND EQUIPMENT

The selection of loose furniture and equipment **shall** take into account the needs of the residents, and the preferred domestic nature of the building environment.

When purchasing furnishings for use in the Psychiatric Hostel the following points shall be considered:

- Ergonomics and comfort, in particular ease of mounting and dismounting (chairs and beds, etc.).
- Domestic appearance where possible, but not to the exclusion of function. A compromise is often necessary.
- Co-ordination with the remainder of the interior design.
- Worksafe WA requirements.
- Tables with legs that maximise stability.
- Adequate floor area, corridor and door widths for selected beds etc. Large lounge chairs may also require consideration of additional floor area.
- Low fire risk.

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PART 4: TECHNICAL CONSIDERATIONS

8. ENGINEERING SERVICES

8.1 MECHANICAL SERVICES

The certification of the Mechanical Services installation **shall** be undertaken by a professional consulting Engineer experienced in residential home services design, with Corporate Membership of the Institution of Engineers, Australia and relevant NPER-3 Registration, or **shall** have demonstrated competence to this level as assessed by the HDWA on previous projects. The professional Engineer **shall** certify all test data and that the design complies with all statutory requirements and these guidelines.

The mechanical contractor or consulting engineer **shall** certify that the installation complies with the documentation and the mandatory requirements established or implied with the "Approval to Construct".

Special consideration should be given to the following items in mechanical service design:

- reliability of operation
- ease of maintenance and selection of systems with a minimum of components requiring maintenance
- effective system management
- select equipment with minimum noise and vibration characteristics
- select equipment with stable operating points and below their maximum limits for capacity speed, temperature and pressure within bounds of energy management
- energy conservation
- the safety of residents (refer to section 4.4 - Safety)

8.1.1 Heating/Cooling/Ventilation - Generally

Heating, cooling and ventilation **shall** be provided as required under this section to ensure reasonable comfort in all resident service areas.

Controls are to be readily accessible and easily used by residents in areas such as residents' rooms. In communal areas it is desirable to have these controls under the control of staff.

Unless otherwise required, areas should ideally be maintained within the range of 20 degrees Celsius to 25 degrees Celsius. The winter set point **shall** generally be 22 degrees $\pm$ 1 degree Celsius. The summer set point **shall** generally be 24 degrees Celsius $\pm$ 1 degree Celsius. These may be adjusted to suit local preferences. Air conditioning, with appropriate fresh air provision as stated herein, is the most effective means of providing acceptable environmental conditions for residents.

8.1.2 Heating

An adequate and safe heating system **shall** be provided for all facilities, including bath and shower areas, in locations where the average minimum temperature in any month falls below 10 degrees Celsius.

Heating is recommended where inside temperatures will not remain within accepted comfort levels at all times.

Bedrooms **shall** have, as a minimum a wall mounted strip heater. Refer to section 8.2.6 – Electric Room Heaters, for details.

A mantle piece and hearth with appropriate heater insert in the lounge is considered desirable to recreate the residential lounge environment.

Gas heaters **shall** be installed where the equipment is visible, readily accessible and easily maintainable. Gas heaters **shall** have flues to the outside.

Where gas heaters are not installed in such locations they **shall** be enclosed in a structure that **shall** not hinder maintenance and inspection but which **shall** provide a minimum fire resistance level of 60/60/60. In such cases, the enclosure **shall** be protected by a smoke alarm connected to the Fire Indicator Board (FIB).

8.1.3 Cooling

Air conditioning is recommended for all occupied areas.

Lounge rooms, day/dining spaces, the study, etc. **shall** be provided with both heating and cooling. Air conditioning is recommended, although alternatives will be considered.

Where evaporative cooling is used, the systems **shall** be readily and safely accessible for cleaning and arranged to have dry sumps when switched off to minimise Legionella risk. The sanitation procedure for bacterial control in accordance with AS/NZS 3666 **shall** be detailed in the Maintenance Manual provided to the client.

Bedrooms **shall** have as a minimum circulating fans providing adequate air movement.

Ceiling sweep fans **shall** be provided as described in Section 8.2.7 – Wall and Ceiling Fans. Fans may be used in conjunction with heating and cooling equipment for economy of operation in mid season.

8.1.4 Ventilation Requirements

8.1.4.1 Outdoor Air

Outdoor air intakes **shall** be located in accordance with AS 1668.2 Clause 2.2 to ensure the supply is of adequate quality.

Except as otherwise required in these guidelines, outdoor air provisions **shall** be in accordance with the Building Code of Australia (BCA) and AS 1668.2.

Where class of occupancy is not specifically listed in Table A.1 under "Health Care", an equivalent class of occupancy from other areas of the Table **shall** be used.

Where not required for positive air flow control, induced make-up air may be considered equivalent to fresh air, provided the source is not contaminated and complies with the BCA requirements for "borrowed" air.

Forced fresh air **shall** be provided in accordance with these guidelines to all occupied spaces regardless of whether the area is served via openable windows.

8.1.4.2 Exhaust Air

Exhaust air provisions **shall** be in accordance with the BCA and AS 1668.2, Table B1.

Exhaust air discharges **shall** be in accordance with AS 1668.2 Clause 3.7.

Clean areas **shall** not be ventilated by systems serving sanitary compartments, dirty utility rooms and similar spaces. However, laundries and cleaners' rooms may be served from either clean or dirty systems.

Other enclosures that are similar in nature may be served by common exhaust systems in accordance with AS 1668.2 Clause 3.6.

Contaminated exhaust systems, including those serving toilets, and those necessary to attain positive air flow from clean to dirty areas **shall** be fitted with differential pressure switches to provide visual indication of fan failure in a continuously occupied area or by remote alarm. Alternatively, dual motor or dual fans with automatic changeover on fan failure may be provided.

Exception to the above provision **shall** apply to independent toilet exhaust systems serving single toilet/shower or bath areas.

Acoustic isolation and transfer ducts **shall** be provided for make-up air supply for shared use ensuite toilets and where toilets have doors which open

directly onto public areas or thoroughfares.

Kitchen areas **shall** be ventilated in accordance with Health (Food Hygiene) Regulations of the Health Act and AS 1668.2.

8.1.4.3 Ventilation Rates

The following areas **shall** have exhaust ventilation rates that are the greater of either those shown below or the requirements of AS 1668.2 Table B.1.

Ensuites
(incorporating showers):

Single Resident:	10 L/s. m²
Shared Resident:	15 L/s. m²
Resident Bathrooms:	15 L/s. m²
Dirty Utility Rooms:	10 L/s. m²
Cleaners' Rooms:	5 L/s. m²
Smoking Room:	15 L/s. m²
Soiled Linen Holding Rooms:	15 L/s. m²
Soiled Linen Cupboards:	20 air changes/ hour.

Corridors may require exhaust ventilation to remove odours associated with incontinent residents, e.g. through naturally or mechanically ventilated roof lights.

8.1.4.4 Air Handling Systems

All air handling systems **shall** be designed and operated in accordance with AS 1668.1. Where systems fall outside the jurisdiction of this standard, all supply air systems, except for unitary equipment, **shall** automatically shut down on any fire alarm signal in the area served by that system.

Ductwork **shall** comply with the requirements of the BCA, AS 1668.1 and AS 4254.
Flexible ductwork **shall** comply with the requirements of the Building Code of Australia and have test certification to AS 1530.2 and AS 1530.3 for the following minimum indices:

Spread of Flame	0
Smoke Developed	3
Flammability	5

8.1.4.5 Legionella Prevention

Air conditioning systems **shall** be designed, operated and maintained to prevent Legionella and microbes from developing in the systems.

The recommendations and requirements of AS/NZS 3666 **shall** apply.

8.1.4.6 Air Filtration

Two main levels of air filtration are required in Psychiatric Hostel systems. These exclude special requirements for removal of grease from kitchen hoods, and other special purpose applications for which filters **shall** be selected for that particular function.

When outside air provisions are reduced from that tabulated in AS 1668.2 table A1, filters **shall**, in addition to complying with these guidelines, satisfy AS 1668.2 Appendix D.

Filters **shall** be located in accessible non-occupied areas wherever possible for ease of maintenance.

The two main air filtration levels are:

Basic Level - the basic level of filtration is that applicable to unitary equipment for recirculation of air in a single room. Filters **shall** be Dry Panel filters of minimum 60% efficiency to No. 4 Dust as specified in AS 1324.2.

Standard Filters - standard filters **shall** be fitted in ducted systems to general, service and administration areas. Filters **shall** be Dry Panel on extended surface of minimum 70% efficiency to No. 4 Dust as specified in AS 1324.2.

8.1.4.7 Linen Processing Areas - Special Requirements

Excessive exposure to lint dust generated in the folding and handling of linen can cause irritation of the upper respiratory system. Psychiatric Hostels incorporating a staff operated laundry **shall** have the following issues addressed:

The filtration, mechanical ventilation and air conditioning systems servicing this area **shall** be designed to ensure appropriate lint dust control viz. high level laminar supply combined with low level exhaust with lint filters.

The mechanical services systems **shall** also be designed to deal with the heat generated by the laundry drying process, e.g. exhaust registers over the dryers and/or dryers ducted direct to outside air with lint collection provision on all exhaust discharges.

Provision **shall** be made for regular maintenance to prevent the excessive build-up of lint dust, which can be the source of a fire hazard.

Spot cooling with air-conditioned or evaporatively cooled supply air should be considered to provide adequate operator comfort in laundries.

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8.2 ELECTRICAL SERVICE

Electrical installations **shall** comply with the requirements of AS 3000, the Supply Authority, the Building Code of Australia, these guidelines and other relevant Australian Standards.

The design, witnessing of all relevant tests and certification of the Psychiatric Hostel's electrical installation **shall** be undertaken by an appropriately qualified and experienced professional Engineer with Corporate Membership of the Institution of Engineers, Australia and/or relevant NPER-3 Registration. The professional Engineer **shall** certify all tests and that the design complies with all statutory requirements and with these guidelines.

The electrical contractor or consulting engineer **shall** certify that the installation complies with the documentation and the mandatory requirements established or implied with the "Approval to Construct".

Particular emphasis **shall** be placed on the safety and reliability of the installed service.

8.2.1 Switchboards

The main switchboard and main distribution board **shall** be at least Form 2 in accordance with AS 3439.1, with additional separation such that the incoming units, including incoming conductors, are segregated from outgoing units and outgoing conductors. The site main switchboard and building main distribution board **shall** be separated from any other part of the building by construction having an FRL of no less than 120/120/120. Where the board is within the building, any doorway in that construction **shall** be protected with a fire door having an FRL of not less than -120/120/30. Where the building is single storey of Type C construction, building elements **shall** be not less than FRL 90/90/90. Refer to BCA C2.12, C2.13 and Specification C1.1 Table 5.

These measures in conjunction with mains and sub-mains protection **shall** minimise disruption to the facility in the case of fire.

Switchboards distributing electricity within a Psychiatric Hostel installation **shall**:

- be located in readily accessible, well illuminated areas where they cannot obstruct means of emergency egress
- be mounted in a secure location, be accessible only to authorised Psychiatric Hostel personnel and comply with the requirements of AS 3003 for protective devices
- be constructed to adequately withstand, without damage, the prospective short circuit currents at the installed location
- be provided on the basis of at least one distribution board per required fire compartment. Fire or smoke isolated areas within major fire compartments are exempt from this requirement
- have main switch or switches controlling the incoming supply

- be fully enclosed in an enclosure of adequate fire resistant materials to achieve FRL of 60/60/60, or installed in a similarly rated duct

- include isolation from the roof space in single storey construction

- have all equipment on the switchboard mounted in a manner so as to permit ready comprehension for identification and control

- be suitably protected against unauthorised access, vandalism and vehicular damage

- have 3 spare fuse carriers with fuse elements intact, kept at all times at each switchboard for each rating or type of fuse installed on that board. They **shall** be retained in special clips or racks for ready identification and use

- consideration should be given to the use of centre trip position circuit breakers for ease of identification of tripped circuits.

8.2.2 Cabling (General)

All electrical cabling installed in a private Psychiatric Hostel **shall** comply with the requirements of AS 3008.1 and AS 3009.

Consideration should be given to running of cabling with a 25 percent spare capacity over the calculated maximum demand.

8.2.3 Lighting

All areas of the hostel **shall** be adequately illuminated by natural or artificial means, to afford safe movement commensurate with the purposes of each area. Artificial lighting **shall** be by means of electricity.

The level of general lighting provided throughout **shall** be not less than the recommended service illuminance levels listed in AS 1680.1.

Light and power switches **shall** be of robust construction with heavy-duty mechanisms.

Circuit and phase number **shall** be suitably identified at every light switching position.

Where working positions are fixed, advantage may be taken of the AS 1680.2.0, task lighting provisions.

8.2.3.1 External Lighting

Where entrances and exits are used by residents and the public after dark and do not abut a public thoroughfare, the pathway from each entrance or exit to a public thoroughfare **shall** be illuminated to a minimum average horizontal illuminance of not less than one lux for the

whole of the "after dark" resident visiting times.

All other external paths of travel **shall** be illuminated to a level not less than that detailed in AS 1158.1.

As stated in Sections 4 and 5, external lighting design **shall** take into account the need to maintain personal safety and security.

Entry points, carparks and unattended areas must get special attention. Impact (glare, etc.) on resident areas **shall** be minimised.

8.2.3.2 Lighting: Electrical Installation

Where automatic control of lighting is provided, a separate manual ON switch must be provided to override all of the automatic control. External lighting **shall** be connected to circuits separate from those supplying the lighting in foyers, entry porches, emergency escape passageways and similar areas providing means of entry or egress.

Where two or more lights are `required to illuminate external or internal stairs or exit paths, luminaries **shall** be connected over at least two circuits and arranged so that all sections remain illuminated if one circuit fails. Required exit paths **shall** have emergency lighting.

Luminaries installed less than 2400mm from a floor or ground or similar surface on which persons may normally stand **shall** be suitably constructed or protected by guards against accidental damage and so that bare lamps are not directly exposed.

Mixed power and lighting circuits are not permitted other than single phase extraction fans in single toilet, shower, bathroom or other approved areas, which may be connected and switched with the light fitting.

8.2.4 Emergency Lighting and Illuminated Exit Signs

Emergency lighting and illuminated exit signs **shall** be provided in accordance with the minimum requirements of AS 2293 and as follows:

8.2.4.1 Illuminated Exit Signs

Exit signs **shall** be provided above or adjacent to each exit providing preferred public access to a road or open space. Additional directional signs **shall** be provided in corridors and lobbies as necessary to indicate the location of these exits, where they are not clearly visible.

8.2.4.2 Emergency Lighting

Emergency lighting **shall** be provided in corridors, stairways, toilets, ensuites, utility rooms, treatment areas and other critical use areas for the safe management of resident care.

8.2.5 General Purpose Power Outlets

An adequate number of general purpose power outlets **shall** be provided for all anticipated uses.
One outlet **shall** be provided for every appliance in use at any one time, or if appliances are left plugged in, one outlet for each appliance. Piggyback plugs, double adapters and power boards **shall** not be utilised.

Where non-standard voltages or frequencies are reticulated, the sockets or connections **shall** not be interchangeable with the standard voltage connectors and the operating voltage **shall** be clearly and indelibly indicated on or adjacent to each socket.

Circuit number and phase **shall** be suitably identified on every power outlet.

8.2.6 Electric Room Heaters

The installation of electric room heaters **shall** comply with the requirements of AS 3000 and the Health (Public Buildings) Regulations.

Where radiant type heaters are provided, they **shall** be located in fixed positions and installed so that any part of a heating element is at least 2150 mm above the floor and positioned in accordance with AS 3000, Section 1.15. Consideration should be given to fitting strip heaters with time delay switches to ensure that they are not accidentally left on, resulting in wasted energy and unnecessary operating cost.

Oil filled, fan type and similar low surface temperature heaters may be installed either as portable or fixed appliances, provided they are fitted with over temperature protection. Fan type heaters **shall** not be used where excessive airborne lint, powder, or dust is expected.

Consideration should be given to the installation of neon indicators to switch positions for all electric room heaters.

8.2.7 Wall and Ceiling Fans

The installation of electric wall and ceiling fans **shall** comply with the requirements of AS 3000 and the Health (Public Buildings) Regulations.

Where wall mounted fans are provided they **shall** be installed in permanent positions with the blades at least 2100mm above the floor and adequately protected by guards of robust construction.

Ceiling mounted fans **shall** be installed with the blades at least 2400mm above the floor, unless adequately protected from accidental physical contact.

The potential for strobing where fans are installed in rooms with fluorescent lighting **shall** also be a design consideration.

Consideration should be given to the matching of electronic fan controllers to the fans to reduce electrical 'hum'.

Consideration should be given to the limitations of the number of fans controlled by one controller to ensure matching of individual fan speeds.

8.2.8 Alarm Systems

Alarm systems for Fire, Alert and Evacuation, and others required to suit the Psychiatric Hostel functions, **shall** be connected to an appropriate battery backup system.

Details of system requirements are covered under their respective sections.

8.2.9 Maintenance of Installation

All equipment required by these guidelines **shall** be regularly inspected and maintained to ensure that the installations are operable at all times.

Wherever Australian Standards cover the maintenance of relevant systems, maintenance **shall** be in accordance with those standards. Particular attention should be given to:

- AS 1670 "Automatic fire detection and alarm systems – System design, installation and commissioning"
- AS 2293.

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8.3 COMMUNICATIONS

8.3.1 Telephone System

An efficient internal and external telephonic communication system **shall** be provided to administration and any other area deemed necessary within the Psychiatric Hostel.

Facilities **shall** be available for the reception of calls 24 hours per day. Night switching to alternative staffed areas after normal administrative hours is considered acceptable.

Primary external communication **shall** be maintained in the event of a major power failure.

Provision **shall** be made for residents to make external calls, at any time, in an area convenient to the resident, either through a Psychiatric Hostel handset in the

administration area, or a suitable pay telephone.

Such provisions **shall** be accessible to disabled residents.

8.3.2 Paging System

A paging system may be used to supplement the Psychiatric Hostel telephone system for contact with key staff members.
This facility may include arrangements for assistance call and other emergency signals.

Where a paging system is installed, automatic interface with the fire alarm system is recommended.

Paging may be of the public address or self-contained radio frequency type, which produces full alpha/numeric message information.

Paging facilities **shall** be maintained in the event of a major power failure.

8.3.3 Public Address System

A public address system may be installed in the Psychiatric Hostel and may incorporate evacuation warning (tones or messages), area paging, intercommunication facilities, background music and other communications services as considered appropriate.

Where installed, such systems should not be unduly intrusive to residents in rooms.

When functioning as a part of the facility's emergency evacuation system it **shall** continue to operate during periods of major power failure.

An Emergency Warning Intercom System (EWIS) **shall** be provided where required by the BCA. The installation of an EWIS in other cases is highly recommended.

8.3.4 Staff Assistance Call

A suitable call system may be provided to allow calls for staff assistance in such areas as lounge and consulting rooms etc.

Staff assistance call systems are also recommended in other areas where staffing levels may be inadequate to handle emergency situations, should they occur.

The system may utilise local or remote audible and visual alarm indication and may be interfaced to a radio frequency paging facility. Alarm indications must clearly identify the location of the emergency for which assistance is required. Signals for this system **shall** be distinctive and not confused with other installed call and alarm systems. Call buttons **shall** be appropriately positioned and of suitable design for easy use in an emergency situation.

Each call point **shall** incorporate a reassurance light to be illuminated when the call is lodged and facilities, either electrically or mechanically, for cancelling the call at the point of origin only. Call points in wet areas **shall** be splash proof and the mounting plates sealed with a non-hardening anti fungal silicone sealant to prevent the ingress of moisture.

The operation of the system **shall** not be affected by electrical power failure.

8.3.5 Resident Entertainment

Provision should be made for suitable and appropriate resident entertainment facilities in resident recreation areas (e.g. television, video, radio, music etc.).

Trolley mounted television sets are not recommended due to the Occupational Health and Safety implications of obstruction, collision and toppling.

8.3.6 Door Security

It is recommended that an effective system of door communication and/or monitoring be provided to allow after hours visitors to be remotely assessed from an appropriate area, prior to personal contact. This precaution provides staff security reassurance.

The need for this facility will be determined by the anticipated after hours activity and method of Psychiatric Hostel management.

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8.4 LIFTS

All Psychiatric Hostels with resident facilities (such as bedrooms, dining rooms, recreation rooms etc.) located on other than the ground level entrance floor (single level, direct flat or ramp egress to open external spaces), **shall** have one (or more) electric or electro hydraulic lifts as specified in the Health Department of WA Private Hospital Guidelines.

Cabin size **shall** accommodate the length of an occupied emergency trolley as used by St Johns Ambulance.

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8.5 HYDRAULICS

The certification of the Hydraulic Services installation **shall** be undertaken by a professional hydraulic consultant with experience in Psychiatric Hostel or Nursing Home hydraulics design. The consultant **shall** certify all test data and that the design complies with all statutory requirements and these guidelines.

The hydraulic consultant or licensed contractor **shall** certify that the installation complies with the documentation and the mandatory requirements established or implied with the "Approval to Construct".

The following general provisions **shall** be satisfied:

- All hydraulic services **shall** comply with AS 3500 as a minimum standard requirement.
- All materials **shall** be suitable for their intended service.
- All brass **shall** be de-zincification resistant (DR) grade.
- Where dew point can be reached, insulation **shall** be provided to pipework to prevent condensation.
- Pipe materials **shall** be compatible with the nature and temperature of discharge.

8.5.1 Hot Water Supply

An adequate supply of clean hot water **shall** be reticulated to all resident treatment, staff work and resident and staff ablution facilities.

Provision **shall** be made to limit the supply temperature of hot water to all resident use fittings to eliminate the risk of scalding. Maximum temperature at outlets **shall** not exceed 46°C for adult residents except that where warm water circuits are used, control of circuit temperature to 50°C maximum is acceptable.

Systems **shall** be fail safe such that the maximum temperature at the outlet is not exceeded at any time, including when the cold water or power supply fails.

Where residents are expected to have difficulty in adequately adjusting a comfortable showering or bathing temperature, local thermostatic control is recommended. Such controls are to be installed at high level to eliminate the chance of accidental resetting of the water temperature.

Domestic hot water provision for the washing of crockery, glassware and cutlery **shall** be as described in the Health (Food Hygiene) Regulations.

The requirements are summarised as follows:

- rinse water **shall** be at a temperature of not less than 50°C and contain not less than 50 mg/kg of sodium hypochlorite; or
- rinse water temperature **shall** not be less than 75°C.

Where hot water is reticulated at low temperature (below 55 degrees Celsius), provision **shall** be made for suitable sanitising of the system and circuit pipework to prevent the growth of Legionella Bacterium. Aerators, shower roses and other such fittings **shall** be cleaned and sanitised at regular intervals.

Operation of the system at a temperature above 70° Celsius for one hour each month is one method of protecting warm water systems from the contamination risk, provided the associated operational and healthcare management requirements are complied with. Dual temperature thermostats are suggested for this purpose. Suitable warning signs **shall** be displayed at all impacted outlets during this process. Alternatively, an approved chemical disinfection system can be utilised. Proprietary systems such as Rheem Warm Water and Treatment System and Edwards Hot Water could be considered. Alternative arrangements require specific approval.

Refer to section 8.5.2.3 – Backflow Prevention and AS/NZS 3666 for further information.

8.5.2 Cold Water Supply

The Psychiatric Hostel **shall** be provided with an adequate and safe cold water supply suitable for consumption, ablution and engineering purposes.

The water supply system **shall** be installed in accordance with the requirements of the Water Corporation of Western Australia. Pipework **shall** have permanent identification in accordance with AS 1345.

Provision **shall** be made for the isolation of fixtures, tapware and equipment in logical groupings for service purposes. Records **shall** be kept of locations of all isolation valves (refer to Section 8.6 - Building and Engineering Manuals). All isolating valves **shall** be tagged. Resilient seated ball valves are recommended.

The cold water supply system design **shall** reflect a capacity statement from the supply authority giving minimum (200kPa) and maximum (650kPa) available pressures at probable simultaneous flow of bathroom and other fixtures, plus full flow of continual operating equipment. Excessive dead legs (non recirculatory) normally longer than 6 metres **shall** have flushing points.

8.5.2.1 Water Treatment

The quality of water throughout Western Australia varies greatly from area to area and each project must be considered as unique - a thorough investigation of the quality of water and of its effect on health may be appropriate.

Where the quality of water is poor, consideration **shall** be given to providing a water treatment/filtration plant to maintain the integrity of hot water equipment, tapware, specialist health equipment, air conditioning plant and pipework.

8.5.2.2 Legionella Prevention

Hydraulic systems **shall** be designed, operated and maintained to prevent Legionella and microbes from developing in the systems.

The recommendation and requirements of AS/NZS 3666 **shall** be complied with.

8.5.2.3 Back Flow Prevention

Backflow prevention of Hot & Cold Water Supplies **shall** be provided to both existing systems and new installations wherever there is a risk of backflow contamination occurring within the facility's potable water supply.

Backflow prevention **shall** be provided in accordance with AS 3500, AS 2845 and the Regulations and Bylaws of the Water Corporation.

Backflow prevention should be provided where possible by the use of air gaps. Preference should be given to the use of outlets to provide an air gap and thus eliminate the requirement for other forms of backflow prevention. However, where air gaps cannot be provided, back flow prevention devices **shall** be fitted to provide protection to the building occupants and to the Minister's Supply System.

Protection **shall** be agreed with the Water Corporation and be in accordance with the Regulations and By-laws of the Water Corporation and AS 3500.

Prevention of back-flow **shall** be achieved in shower and bath areas, where an adjustable hand shower is utilised and is in a position where the shower head might sit on the floor of the shower or bath.

Zone protection **shall** be provided to hand sprays over slophoppers (dirty utility rooms) and pre-rinse sinks (kitchens) with a reduced pressure zone device (RPZD) and individual protection at the hose outlet by the installation of a double check valve or vacuum breaker (e.g. Dorf S8).

Zone protection devices **shall** be installed in such a manner so as not to cause a nuisance or inconvenience from water discharge or noise.

8.5.2.4 Mechanical Backflow Devices: Annual Testing

Where mechanical backflow prevention devices are used they **shall** be tested every 12 months by a technician with certification recognised by the Water Corporation of WA.

Each individual mechanical device **shall** be fitted with a tag identifying the due test date.

The responsible engineer for the Psychiatric hostel ***shall*** maintain the test certification certificates for later reference.

8.5.2.5 Identification and Signage: Non Potable Water

All pipework and outlets with non-potable water **shall** be identified to comply with the relevant Australian Standards. The non-potable water pipework (hot and cold) **shall** be clearly identifiable in both exposed and concealed positions.

Identification **shall** comply with Australian Standard AS 1345 in both colour and letter form.

Signage on non-potable water supply outlets **shall** be provided in a visible position over or adjacent to non-potable water supply outlets.

8.5.3 Fire Service

The fire service **shall** be as detailed in the BCA and to the requirements of the Fire and Rescue service (F&RS).

Fire hydrants and/or hose reel cabinets **shall** be bunded and it is recommended that enclosed cabinets incorporate a minimum 50mm diameter floor drain.

8.5.4 Sewerage and Sanitary Plumbing

All Psychiatric Hostels **shall** be provided with an adequate sewerage and sanitary plumbing system, either connected to the town sewerage and drainage scheme, or, where specific approval is given, a system conforming to the regulations for Bacteriolytic Treatment of Sewerage and the disposal of effluent and liquid waste under the Health Act.

All sewerage and sanitary plumbing systems **shall** be designed to comply with the requirements of AS 3500, the Water Corporation of WA bylaws & Regulations and these Guidelines.

All polluted water discharges **shall** be connected to sewer and not storm water (e.g. treated heating water, cooling water in plant room). Access **shall** be provided at all changes of direction and junctions for easy maintenance.

Inspection and cleaning facilities **shall** be positioned external to the building fabric wherever possible. Where this is not possible, inspection and cleaning facilities **shall** be positioned in ducts or within the wet areas served, wherever possible.

Inspection covers located flush with floor finishes **shall** be chip resistant. WC pans shall be designed for the easy removal of personal objects flushed into the system by residents, i.e. flannels, slippers, etc.

All plant rooms containing water vessels/substances **shall** be bunded and sufficient drainage provided to accommodate an uncontrolled leak within the plant room. Tundishes **shall** be provided adjacent to air conditioning condensate discharge lines i.e. no condensate drains **shall** run across the top of the plant room floors.

Access pits with appropriate covers to suit loadings are recommended in industrial areas in lieu of cleanouts, with locations adjacent to vehicular access for cleaning/pumping out. Inspection and cleaning facilities generally **shall** not be positioned in ceiling spaces.

8.5.4.1 Drains and Gullies

Adequate overflow relief gullies **shall** be provided to minimise back flow into buildings. Floor waste gullies, shower wastes and the like should connect to overflow relief gullies or disconnector gullies, wherever possible.

Drains **shall** be provided with adequate manholes and clean out points at ground level for efficient and quick maintenance.

Floor waste gully grates and surrounds, industrial floor waste grates and surrounds and cleanouts and surrounds should be made of brass, with heavy-duty chrome plating or stainless steel.

Baths **shall** have adequate floor drains adjacent to the edge of the bath.

Wastes and drainage cleanouts in vinyl floor areas **shall** have clamp rings fitted.

Puddle flanges **shall** be installed to all above ground level pipework penetrations of wet areas. Puddle flanges **shall** have 3mm diameter drain holes.

8.5.5 Storm Water

The storm water drainage systems **shall** be designed generally in accordance with AS 3500.3, and chapter 2 of the Institute of Engineers Australia publication "Australian Rainfall and Runoff" 1987 edition.

Storm water from buildings and paved areas **shall** be disposed of in a manner acceptable to the Local Government Authority.

Roof drainage systems **shall** incorporate separate overflow relief discharge to minimise roof

gutter overflow and consequent building damage and service interruptions. Consideration **shall** also be given to ways of preventing leaf build up in gutters, which in turn has the potential for building damage and service interruption, again due to gutter overflow.

Consideration **shall** be given to the use of hail guards and the method of connecting rain water pipe (RWP) to gutters to allow for expansion/contraction.

RWPs **shall** incorporate relief grates at connection between RWP and storm water drain. All RWPs to have cleaning access at base.

Consideration **shall** be given to storm water and soakwell drainage systems also incorporating relief grates, for air and storm water relief.

Storm water drainage grates **shall** be cross-webbed in car parks and paths and not be located in wheel chair access areas or trolley areas.

Paving areas **shall** be designed to the intensities nominated in AS 3500.

Channel grates for road or footpath cross over drains **shall** be of lateral or longitudinal bar design.

Consideration **shall** be given for pollutant traps to be installed prior to connection to the authority drainage system.

All storm water drainage systems should be gravity systems and pumping used only where gravity connection cannot be obtained. Pumps, if required, **shall** be as previously specified for sewer pumps.

8.5.6 Natural Gas Service

Where a natural gas service is to be used, it **shall** be designed and installed to the relevant statutory authority's requirements and/or regulations. Internal services **shall** be designed to have a maximum pressure of 1.25 kPa from gas meter to gas outlets, unless approval from statutory authority and HDWA is obtained.

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8.6 BUILDING & ENGINEERING MANUALS

There **shall** be an Officer appointed to manage Building Facilities. The Officer **shall** undertake planning and make management decisions for the building and its services so that the facilities are appropriate for the functions they serve.

The building and its engineering services **shall** be appropriately managed to:

- manage facility related risks, and
- ensure the facility remains appropriate for its intended purpose.

Drawings and manuals **shall** be created and maintained, and contain all design and construction information required for the effective operation, maintenance and upgrade of the facility through its lifetime.

8.6.1 As-Constructed Drawings

The Psychiatric Hostel **shall** maintain an up-to-date set of "as constructed" drawings of the facility. They **shall** be held in an accessible location at the hostel for reference by maintenance personnel, fire authorities and other parties having need to reference this information.

The drawings **shall** show all construction, fixed equipment and mechanical, electrical, structural and hydraulic systems, as installed or built. The position of all buried and concealed services **shall** be included, with particular reference to isolating valves and cleaning and service points.

Electrical "as constructed" drawings **shall** be line diagrams which accurately illustrate all circuits, switchboards, and control schematics of all systems and major equipment.

In addition, a schedule of all circuits **shall** be permanently displayed inside all switchboards.

Structural "as constructed" drawings **shall** be maintained including a drawing showing working design structural loads for all floor areas in the buildings.

The drawings **shall** be accurately maintained throughout the life of the psychiatric hostel. All changes **shall** be incorporated.

The drawings **shall** be made available to the Commissioner, as required, to enable an accurate assessment of any proposed work, in particular, remodelling or additions, as part of the licensing procedure. All borrowed drawings will be returned.

8.6.2 Equipment Manuals

The Psychiatric Hostel **shall** maintain an up-to-date and complete set of installation, operation and maintenance manuals for installed services and equipment.

Manuals **shall** contain all quantities, pressures, set points etc., as determined at the time of commissioning, unless adequately shown on the "as constructed" drawings. All commissioning test data **shall** be retained for reference.

Full operational and maintenance data **shall** be included on all services and equipment including manufacturer information, parts lists, service agent information, etc.

Manuals **shall** be accurately maintained through the life of the Psychiatric Hostel. All changes **shall** be incorporated.

As for 8.6.1 (as Constructed Drawings), the manuals **shall** be made available to the Commissioner, as required, to enable an accurate assessment of any proposed work, in particular, remodelling or additions, as part of the licensing procedure. All borrowed manuals will be returned.

8.6.3 Certification

The 'Approval to Occupy Checklist' details the requirements for certification by engineers and contractors prior to Health Department of Western Australia granting "Approval to Occupy". Documents and data **shall** be presented and/or be available in the format as indicated in this checklist.

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9. FIRE SAFETY

9.1 DESIGN REQUIREMENTS

Psychiatric Hostel buildings, services and equipment shall be designed and constructed in accordance with the requirements outlined in the Building Code of Australia (BCA). The reference classification is **Class 3 for Hostels**, although other sections may also be appropriate. As such, the design shall include, but not necessarily be limited to, the following:

- Compartmentation (smoke/fire as required, refer BCA Part C2).
- Fire hose reels are to be provided where the total floor exceeds 500 m². Hose reels are to be located within 4 metres of an exit and are not to pass through any fire or smoke wall. Fixed waterways are recommended and any hose reel located in a cabinet or in a cupboard is to be swing reel mounted. Hose reels are to be so located as to provide total coverage of the floor area.
- Hydrant locations (external) as required by the Fire and Rescue Services (F&RS) and the BCA Clause E1.3.
- Suitable extinguishers to suit hazards. Refer AS 2444. Co^2 extinguishers are recommended for those locations where health care is an issue.
- Fire Indicator Panel (FIP), in a location endorsed by the F&RS.
- Suitable alarm and detection system, in accordance with the provisions of BCA Clause E2.2.
- Emergency lighting (guaranteed power supply) and Exit signs **shall** be provided in accordance with BCA Part E4.
- Break glass alarms (BGA), in each module. Where possible, the BGA, fire hose reel, and extinguisher should be located together.
- Egress routes are to be guaranteed. Access and egress are to comply with the provisions of BCA Part D.
- Access for F&RS fire fighting operations.
- A system of smoke hazard management appropriate to the size and design of the facility. Refer BCA Part E.
- A building occupant warning system in accordance with BCA specification E2.2A.
- Sprinkler systems where required by the BCA.
- Selection of ceiling, wall and floor finishes to be in accordance with BCA requirements for Early Fire Hazard Indices (Specification C1.10). Selection of furniture and fitments should also consider spread of flame, smoke development, toxicity and flammability with the aim of preventing ignition, reducing the spread of fire and the development of smoke and attendant toxic gases.

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9.2 STAFF AWARENESS

A Fire Safety Committee should be formed in all Psychiatric Hostels. The committee should meet regularly and submit written reports to the management team. The Fire Safety Committee may be a subsidiary of the Occupational Health and Safety Committee.

Fire evacuation drills **shall** be carried out every six months.

A Fire safety Training Program is also recommended. It shall be conducted for all staff at least annually and must include an introduction and training package for new staff.

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9.3 MAINTENANCE

Unit management **shall** ensure all fire fighting equipment, together with fire detection and alarm systems, are maintained in good order, and where appropriate, in accordance with the relevant Australian Standard.

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9.4 CONSULTANCY AND INSPECTION

The Fire and Security Unit of the Health Department of WA can provide a consultancy and inspection service to assist in the implementation of fire safety measures.

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PART 5: GROUP HOME DESIGN CONSIDERATIONS

10. PLANNING AND DESIGN OF GROUP HOMES

10.1 GENERAL

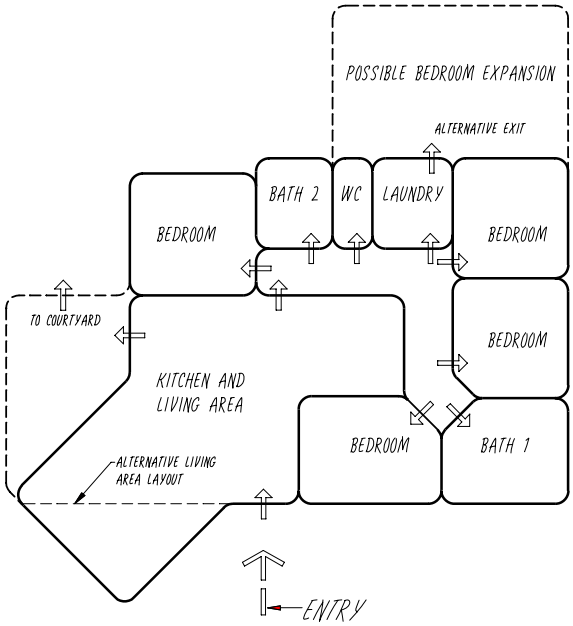
The guidelines represent minimum standards for the establishment of Group Homes.

Group Homes are domestic type accommodation, for between 3 and 6 residents who suffer from a mental illness and who do not need 24 hour a day supervision.

The focus of Group Home design is to encourage individuals to establish or maintain independence within the community. While staff members are available to offer psychosocial support, residents are responsible for the running of the household including cooking, cleaning and budgeting. The group home is often a 'stepping stone' for the residents, enabling them to develop the necessary living and interpersonal skills that will equip them for living independently in the wider community.

10.2 DESIGN OF A GROUP HOME

The Design of the Group Home is essentially a typical residential dwelling, with consideration given to the specific needs of the client group being serviced.



- **BUBBLE DIAGRAM OF GROUP HOME – TYPICAL LAYOUT**

The architectural style should be sympathetic to the streetscape or adjacent buildings and should not 'single out' the premises as other than a residential facility.

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10.3 ACHIEVING APPROPRIATE OUTCOMES

It is recommended that in order to achieve the desired design outcome the following are taken into consideration:

- Experienced professional consultants (architects, engineers, interior designers, etc.) should be commissioned.
- Staff and residents should be consulted about their needs and priorities.

- On-going negotiation and discussion with the relevant State representatives **shall** occur.

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10.4 DESIGN PRINCIPLES

These principles should be considered for Group Home design. The following issues should be carefully resolved:

- **Security** - including entry/exit control to the facility and to resident bedrooms. Medication storage in resident bedrooms must be secure.

- **Location** - Site location should be considered. In particular, proximity to services such as banks, shops, public transport and other core services is an important aspect of promoting independence.

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10.5 SMOKE FREE ENVIRONMENT

The right to a smoke free environment within the Group Home is to be guaranteed. However, consideration should be given to the needs of residents and visitors who smoke, i.e. provision of an appropriate smoking area. The design of the smoking area **shall** be consistent with current legislation related to smoking in the workplace and enclosed public areas.

Refer also to section 12.8 – Smoking Areas.

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10.6 OCCUPATIONAL HEALTH

The occupational health, safety and welfare of staff **shall** be considered in the design of a Group Home. Current Worksafe practices and legislation **shall** be adopted.

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10.7 SAFETY

All detailing within the Group Home **shall** consider the particular needs of a client group who, from time to time, may display high levels of expressed emotion. This may be manifested in the form of random acts of aggression, either self directed (in the form of self-harming behaviour) or directed at the facility.

The design of the Group Home should reflect this possibility in its design and fit out.

A first aid kit should be available in the group home for use by residents and staff.

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11. SITE

11.1 LOCATION

The site selected for the Group Home should facilitate community access and encourage residents' independence and promote quality of life.

The proposed development should be compatible with the current and future land use and zoning. The site should enable the Group Home to blend with the local environment and to become a desirable place to live.

The location should enhance community service delivery. A range of services should be accessible within the local community to enable the resident to maintain community ties and foster independence. Services should include public transport, pharmacy, banking, dentist, hospital, department store, and library.

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11.2 SITE PLANNING

Site planning requires consideration of the needs of the users, the impact on neighbours and the presence of the facility within the community. Site planning also includes consideration of roadways, car parking, walkways, outdoor access, gardens, servicing and signage.

11.2.1 Needs of Users

When the general suitability of the site for a Group Home has been assessed, consideration should be given to detailed site planning with a focus on the needs of users (i.e. residents, staff, visitors and suppliers).

In considering the site, features such as topography, views, vegetation, drainage, access, orientation and micro-climate should be assessed and positive features incorporated into the design. Well-considered site planning can contribute to personal safety, property security, energy efficiency and water conservation.

Careful site planning can significantly enhance the living environment for the future users of the Group Home.

11.2.2 Impact on Neighbours

The interface between the Group Home and neighbouring areas should also be carefully considered. Privacy of neighbours and residents should be developed through careful placement of windows, fences and planting.

- Pedestrian and vehicle access to the site **shall** be incorporated.

- Visual links to views or features of significance **shall** be considered.

- Car parking should be discretely located and should not dominate views. Sufficient car parking needs to be provided to satisfy the needs of residents, staff and visitors. The provision of car parking should not visually impact on neighbours.

  Provision of disabled parking **shall** be provided as required by the Building Code of Australia.

- Neighbouring areas may expose the site to detrimental impacts (e.g. excessive traffic noise). These impacts **shall** be minimised to improve the environment for all users.

11.2.3 Community

Consideration should be given to the image the Group Home projects within the community. The image should demonstrate that residents are valued people. The Group Home should blend into the neighbouring environment and it should fit within the surrounding neighbourhood's character.

11.2.4 Outdoor Access and Gardens

The Group Home **shall** provide access to useable external spaces, incorporating disabled access. The external spaces should include pathways, seating and pergolas. Landscaping, both hard and soft, should provide as home-like an environment as possible.

Particular attention needs to be paid to the provision of adequate structured shade.

Outdoor areas should also have garden/security lighting to illuminate pathways and entrance areas.

11.2.5 Disabled Access

Disabled access **shall** be provided to the premises in accordance with the relevant Australian Standard.

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12. GROUP HOME CONSTRUCTION

12.1 GENERAL

Construction materials and detailing **shall** comply with the requirements of the Building Code of Australia.

The construction materials and detailing shall reflect the needs of the intended resident. Resident safety shall be a prime consideration in the construction of the Group Home (refer to section 4.4 - Safety).

The construction materials and detailing should adopt a maintenance minimisation approach within the given cost parameters.

12.2 BEDROOMS

Bedrooms in Group Homes may accommodate one or two residents, but single bedrooms are preferred. Bedrooms designed for more than two beds **shall** not be permitted.

The bedrooms **shall** be sized to provide for both bed and sitting space, thereby allowing for personal and social activities

In the Group Home, the **minimum** size of a single bed resident room should be 12 sqM. Size may need to be varied dependent upon position of door(s) and window features, furniture layout, extent of additional furniture (book cases, desks, TV), etc. A bedroom **shall** not be used as a thoroughfare to rooms other than ensuite toilets, closets, or dressing rooms that are for the exclusive use of the occupant(s) of that bedroom. Bedrooms should not open directly into communal living areas, kitchen or other service areas. Bay windows are considered to be an advantage in that they provide additional useable floor space for sitting activities.

12.3 SHOWERS, TOILETS, BASINS AND BATHS – GENERALLY

This section only describes **minimum** provision for showers, toilets, basins and baths.

Showers, toilets, basins and baths **shall** be residential in fitout and detailing, and consideration **shall** be given to resident safety as referred to in section 10.7.

Acoustic privacy is also very important in shared facilities. Solid or medium core doors **shall** be installed with air transfer ducts, not door grilles, for supply air.

In the group home with one shower/toilet provided, the design focus should be consistent with AS 1428.1. Where the group home has more than one shower/toilet facility provided, only one shower/toilet needs to meet AS 1428.1.

A bath **should** be considered within the facility for those who prefer bathing to showering.

12.3.1 Toilets

The toilet for residents with disabilities should have a design focus consistent with the requirements of AS 1428.1, although the toilet installation requires special consideration.

In particular the dimension, from the rear wall to the front of the pan, in AS 1428.1 (800 mm) is excessive. The distance from the front of the cistern to the front of the pan **shall** be approximately 600mm (720mm from rear wall to front of pan).

12.3.2 Basins

Basin configuration according to AS 1428.1 is considered appropriate. Tapware should be chosen that is simple for residents to use (refer Section 12.4 - Plumbing Fittings).

Mirrors over the basins are also required. The bottom of the mirror **shall** be no higher than 900mm above the floor. Mirrors **shall** be securely fitted and resistant to excessive impact. A basin with a vanity unit should be incorporated.

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

12.3.3 Grip Bars

Where fitted, grip bars **shall** be detailed as described in AS 1428.1, except where otherwise noted in this document. Grip bars, vertical adjustable shower supports, towel rails, soap holders, foot rests 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.

12.4 PLUMBING FITTINGS

Location and arrangement of fittings for whatever purpose **shall** permit their proper use and operation.

Non-thermal transmitting handles are preferred with effective finger grips. Hot and cold indicators **shall** be very clear and the turning action should not require excessive force.

All plumbing installation shall comply with all relevant codes and standards.

12.5 LOUNGE

Lounge Rooms should be sized to provide comfortable seating and circulation space for the total number of residents and visitors expected to use it at any one time.

Selection of furniture will have an obvious impact on floor area. Indicative furniture layouts should be developed during the planning of the building (refer to Section 13 - Interior Design).

12.6 FAMILY/MEALS

A home-like family/meals room **shall** be provided for each residential facility. It **shall** be sized to provide space for normal residential type day activities (e.g. Meals,

morning/afternoon tea, craft, games, etc.).

Selection of furniture will have an impact on floor area. Indicative furniture layouts should be developed during the planning of the building (refer to Section 13 - Interior Design).

12.7 KITCHEN

The kitchen **shall** be capable of preparing meals for the maximum number of occupants of the Group Home. The kitchen should include pantry provision, serving and clean up facilities.

It should also be designed for partial access by the disabled, e.g. pull out shelf or partially open under bench, lower height bench, etc. The Independent Living Centre can advise.

The hot plate and oven should be electric, should have on/off lights for each hotplate and have front located controls.

Design of the kitchen shall consider resident safety as referred to in section 10.7.

12.8 LAUNDRY

The laundry should provide space for a washing machine and clothes dryer and contain a trough, bench and space for an ironing board. External drying areas **shall** also be provided.

Consideration **shall** be given to the size and durability of appliances used.

12.9 MEDICATION STORAGE

The storage of medication **shall** be considered. Adequate lockable storage shall be provided in each individual's room or within the group home and shall comply with the relevant HDWA standard. Staff shall hold a master key for all storage areas.

12.10 WINDOWS, SCREENS AND GRILLES

All rooms **shall** have glazed windows or doors to achieve external views and/or make use of direct or borrowed natural light.

Resident bedrooms **shall** have windows overlooking external areas.
An external area is a perimeter space around a building, a naturally ventilated and lit atrium or a courtyard.

Each external window and/or external glazed door panel area **shall** be not less than 10% of the floor area of the room concerned. An opening component equal to not less than 5**%** of the floor area of the same room should be provided. These requirements together will ensure natural light and ventilation in the event of an electrical failure.

External windows **shall** be fitted with flyscreens and consideration should be given to the installation of security screens/grilles. In addition windows **shall** have blinds and/or curtains. External shading devices should also be considered. These measures should provide effective control of direct sunlight and glare from external sources.

Windows are not to be obstructed by furniture, partitions, etc.

12.11 DOORS

The minimum dimension for clear door openings to resident bedrooms/corridors etc. **shall** be in accordance with BCA requirements.

Rooms that contain baths, showers or toilets **shall** be equipped with door hardware that will permit emergency access from the outside. As these rooms are generally only small in size, and particularly where door openings are narrow, the doors should be capable of opening outwards or in a manner that negates the need to push against the resident who may have collapsed or secured themselves within the room.

All Group Homes **shall** have a rational master key system. Locks **shall** be provided to bedrooms, stores, offices etc., as appropriate.

Security flyscreen doors where installed, **shall** not compromise emergency egress.

12.12 GLAZING

All glazing **shall** be in accordance with the requirements of AS 1288 and AS/NZS 2208. Due to the nature of the resident group (who may have unsteady gait or blurred vision due to psychotropic medication), the use of full height glazed door and window panels, low level glazing and large mirror panels is generally not recommended. If large glazed panels are utilised then consideration **shall** be given to increasing the safety margin in relation to the Australian Standard, and the placement of a visual cue on the glass panel.

12.13 MAINTENANCE

The Building Code of Australia Section E5 covers briefly the need to maintain the building so that it does not deteriorate to the extent of endangering residents. Section E5 also gives consideration to maintenance in the areas of:

- safety installations
- mechanical ventilation and warm water systems compliance with AS/NZS 3666.

In designing and detailing a Group Home, the recurrent costs involved in maintaining the building stock are an important consideration. Proprietors should consider the establishment of an asset management program to ensure that building stock is maintained to an appropriate standard.

The architect and engineers should minimise the impact of maintenance on the life cycle costs of the facility, with consideration to the proprietor's capital commitment. Selection of building materials, finishes, fitments, and maintenance access, are all-important considerations.

The aim of the above is to prevent the building from deteriorating.

The Commissioner of Health, under the Hospitals and Health Services Act 1927, may need to consider the withdrawal of the Group Home licence if the building stock is deemed in any way to be unsafe.

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13. INTERIOR DESIGN

13.1 GENERAL

Careful consideration **shall** be given to the selection and co-ordination of furnishings, fittings, finishes and internal detailing of the Group Home.

Décor involves style, atmosphere, colour, materials, textures, forms and the effects of light. The appeal or lack of appeal to the individual of a particular décor is based upon that individual's perception of the collective whole and is highly subjective.

The designer is advised to show fresh initiative in décor selection, keeping in mind the following points:

- the dimensions of colour: hue, intensity, tone, temperature
- the differing effects of various types of light upon colour and vice versa
- potential to provide variety through change of texture and surface
- visual dynamics and balance
- proportion and its effects
- re-decoration is not a budgetary priority so care in selection of materials and colour is important
- extremes of colour should be avoided
- low fire risk.

The ease of cleaning, costs and efficient maintenance and safety are important considerations.

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13.2 FINISHES

Floor finishes **shall** be consistent with usage. Living and bedroom areas should have floor finishes as would a residential home, (e.g. carpet or a residential patterned vinyl). In kitchen and wet areas, floor finishes **shall** be impervious and slip-resistant (e.g. mosaic ceramic tiles or slip resistant vinyl in bathrooms/toilets, sheet vinyl in kitchens). In wet areas, coved skirting shall be provided.

Carpets, vinyls, curtains and other wall and floor finishes installed in all Group Homes **shall** be inherently fire retardant and have Early Fire Hazard Indices in accordance with section C1.10 of the Building Code of Australia.

Note that floor finishes affect the acoustic performance of the building interior. The Facilities and Assets Branch of the Health Department of Western Australia can provide advice on all of the above, as required.

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13.3 FURNISHINGS

Furnishings and fittings **shall** be domestic in nature and should be consistent with the following design principles.

- Furnishings shall be co-ordinated with the interior design of the group home
- Have a low fire risk

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14. ENGINEERING SERVICES

14.1 MECHANICAL SERVICES

The certification of the Mechanical Services installation **shall** be undertaken by a professional consulting Engineer experienced in residential home services design, with Corporate Membership of the Institution of Engineers, Australia and relevant NPER-3 Registration, or **shall** have demonstrated competence to this level as assessed by the HDWA on previous projects. The professional Engineer **shall** certify all test data and that the design complies with all statutory requirements and these guidelines.

The mechanical contractor or consulting engineer **shall** certify that the installation complies with the documentation and the mandatory requirements established or implied with the "Approval to Construct".

Special consideration should be given to the following items in mechanical service design:

- reliability of operation
- ease of maintenance and selection of systems with a minimum of components requiring maintenance
- effective system management
- select equipment with minimum noise and vibration characteristics
- select equipment with stable operating points and below their maximum limits for capacity speed, temperature and pressure within bounds of energy management
- energy conservation
- the safety of residents (refer to section 10.7 - Safety)

14.2 HEATING, COOLING AND VENTILATION – GENERALLY

Heating, cooling and ventilation **shall** be provided as required under this section to ensure reasonable comfort for residents within the Group Home.

Controls are to be readily accessible and easily used by residents.

Air conditioning, with appropriate fresh air provision as stated herein, is the most effective means of providing acceptable environmental conditions for residents.

14.2.1 Heating

An adequate and safe heating system **shall** be provided for all facilities, including bath and shower areas, in locations where the average minimum temperature in any month falls below 10 degrees Celsius. Heating is recommended where inside temperatures will not remain within accepted comfort levels at all times.

Bedrooms **shall** have, as a minimum a wall mounted strip heater (refer to section 8.2.6 – Electric Room Heaters for details).

Gas heaters **shall** be installed where the equipment is visible, readily accessible and easily maintainable. Gas heaters **shall** have flues to the outside.

Where gas heaters are not installed in such locations they **shall** be enclosed in a structure that **shall** not hinder maintenance and inspection but which **shall** provide a minimum fire resistance level of 60/60/60. In such cases, the enclosure **shall** be protected by a smoke alarm connected to the Fire Indicator Board (FIB).

14.2.2 Cooling

Where evaporative cooling is used, the systems **shall** be readily and safely accessible for cleaning and arranged to have dry sumps when switched off to minimise Legionella risk. The sanitation procedure for bacterial control in accordance with AS/NZS 3666 **shall** be detailed in the Maintenance Manual provided to the client.

Bedrooms **shall** have as a minimum circulating fans providing adequate air movement.

Ceiling sweep fans, where provided, **shall** be as described in the Psychiatric Hostel Guidelines, Section 8.2.7. Fans may be used in conjunction with heating and cooling equipment for economy of operation in mid season.

14.2.3 Ventilation Requirements

14.2.3.1 Outdoor Air

Outdoor air intakes **shall** be located in accordance with AS 1668.2 Clause 2.2 to ensure the supply is of adequate quality.

Except as otherwise required in these guidelines, outdoor air provisions **shall** be in accordance with the Building Code of Australia (BCA) and AS 1668.2.

Where class of occupancy is not specifically listed in Table A.1 under "Health Care", an equivalent class of occupancy from other areas of the Table **shall** be used.

Where not required for positive air flow control, induced make-up air may be considered equivalent to fresh air, provided the source is not contaminated and complies with the BCA requirements for "borrowed" air.

Forced fresh air **shall** be provided in accordance with these guidelines to all occupied spaces regardless of whether the area is served via openable windows.

14.2.3.2 Exhaust Air

Exhaust air provisions **shall** be in accordance with the BCA and AS1668.2, Table B1.

Exhaust air discharges **shall** be in accordance with AS 1668.2 Clause 3.7.

Acoustic isolation and transfer ducts **shall** be provided for make-up air supply for shared use ensuite toilets and where toilets have doors which open directly onto public areas or thoroughfares.

Kitchen areas **shall** be ventilated in accordance with Health (Food Hygiene) Regulations of the Health Act and AS 1668.2.

14.2.3.3 Ventilation Rates

The following areas **shall** have exhaust ventilation rates that are the greater of either those shown below or the requirements of AS 1668.2 Table B.1.

Ensuites
(Incorporating showers):

Single Resident:	10 L/s. m²
Shared Resident:	15 L/s. m²
Resident Bathrooms:	15 L/s. m²
Smoking Room:	15 L/s. m²

14.2.3.4 Air Handling Systems

All air handling systems **shall** be designed and operated in accordance with AS 1668.1. Where systems fall outside the jurisdiction of this standard, all supply air systems, except for unitary equipment, **shall** automatically shut down on any fire alarm signal in the area served by that system.

Ductwork **shall** comply with the requirements of the BCA, AS 1668.1 and AS 4254.

Flexible ductwork **shall** comply with the requirements of the Building Code of Australia and have test certification to AS 1530.2 and AS 1530.3 for the following minimum indices:

Spread of Flame	0
Smoke Developed	3
Flammability	5

14.2.3.5 Legionella Prevention

Air conditioning systems **shall** be designed, operated and maintained to prevent Legionella and microbes from developing in the systems.

The recommendation and requirements of AS/NZS 3666 **shall** be complied with.

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14.3 ELECTRICAL SERVICE

Electrical installations **shall** comply with the requirements of AS 3000, the Supply Authority, the Building Code of Australia, these guidelines and other relevant Australian Standards.

The design, witnessing of all relevant tests and certification of the Group Home electrical installation **shall** be undertaken by an appropriately qualified and

experienced professional Engineer with Corporate Membership of the Institution of Engineers, Australia and/or relevant NPER-3 Registration. The professional Engineer **shall** certify all tests and that the design complies with all statutory requirements and with these guidelines.

The electrical contractor or consulting engineer **shall** certify that the installation complies with the documentation and the mandatory requirements established or implied with the "Approval to Construct".

Particular emphasis **shall** be placed on the safety and reliability of the installed service.

14.3.1 Switchboards

Switchboards, where required, shall comply with the requirements outlined in section 8.2.1.

14.3.2 Cabling (General)

All electrical cabling installed in a private Group Home **shall** comply with the requirements of AS 3008.1, AS 3009.

Consideration should be given to running of cabling with a 25 percent spare capacity over the calculated maximum demand.

14.3.3 Lighting

All areas of the Group Home **shall** be adequately illuminated by natural or artificial means, to afford safe movement commensurate with the purposes of each area. Artificial lighting **shall** be by means of electricity.

The level of general lighting provided throughout **shall** be not less than the recommended service illuminance levels listed in AS 1680.

Light and power switches **shall** be of robust construction with heavy-duty mechanisms.

Mixed power and lighting circuits are not permitted other than single phase extraction fans in single toilet, shower, bathroom or other approved areas, which may be connected and switched with the light fitting.

Where working positions are fixed, advantage may be taken of the AS 1680.2.0 task lighting provisions.

14.3.4 General Purpose Power Outlets

An adequate number of general-purpose power outlets **shall** be provided for all anticipated uses.
One outlet **shall** be provided for every appliance in use at any one time, or if appliances are left plugged in, one outlet for each appliance.

Piggyback plugs, double adapters and power boards **shall** not be utilised.

Circuit number and phase **shall** be suitably identified on every power outlet.

Residual Current Devices (RCDs) **shall** be mounted on distribution boards or integral within outlets. Power outlets supplying equipment that is connected by a flexible cord and is not physically fixed in place **shall** be RCD protected as required by WA Workplace Safety and Health Regulations.

RCD protection **shall** be provided to the following areas:-

- Ensuites, toilets and bathrooms
- Kitchens
- Laundries.

14.3.5 Electric Room Heaters

The installation of electric room heaters **shall** comply with the requirements of AS 3000 and the Health (Public Buildings) Regulations.

Where radiant type heaters are provided, they **shall** be located in fixed positions and installed so that any part of a heating element is at least 2150 mm above the floor and positioned in accordance with AS 3000, Section 1.15. Consideration should be given to fitting strip heaters with time delay switches to ensure that they are not accidentally left on, resulting in wasted energy and unnecessary operating cost.

Oil filled, fan type and similar low surface temperature heaters may be installed either as portable or fixed appliances, provided they are fitted with over temperature protection. Fan type heaters **shall** not be used where excessive airborne lint, powder, or dust is expected.

Consideration should be given to the installation of neon indicators to switch positions for all electric room heaters.

14.3.6 Wall and Ceiling Fans

The installation of electric wall and ceiling fans **shall** comply with the requirements of AS 3000 and the Health (Public Buildings) Regulations.

Where wall mounted fans are provided they **shall** be installed in permanent positions with the blades at least 2100mm above the floor and adequately protected by guards of robust construction.

Ceiling mounted fans **shall** be installed with the blades at least 2400mm above the floor, unless adequately protected from accidental physical contact.

The potential for strobing where fans are installed in rooms with fluorescent lighting **shall** also be a design consideration.

Consideration should be given to the matching of electronic fan controllers to the fans to reduce electrical 'hum'.

Consideration should be given to the limitations of the number of fans controlled by one controller to ensure matching of individual fan speeds.

14.3.7 Alarm Systems

Alarm systems for Fire, Alert and Evacuation, and others required to suit the Group Home functions, **shall** be connected to an appropriate battery backup system.

Details of system requirements are covered under their respective sections.

14.3.8 Maintenance of Installation

All equipment required by these guidelines **shall** be regularly inspected and maintained to ensure that the installations are operable at all times.

Wherever Australian Standards cover the maintenance of relevant systems, maintenance **shall** be in accordance with those standards.

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14.4 COMMUNICATIONS

14.4.1 Telephone System

An efficient telephonic communication system **shall** be provided within the Group Home.

Provision **shall** be made for residents to make or receive calls, at any time, in an area convenient to the resident, within the Group Home. This can be achieved by installation of a domestic phone or by installation of a pay phone.

Such provisions **shall** be accessible to disabled residents.

14.4.2 Resident Entertainment

Provision should be made for suitable and appropriate entertainment facilities in resident living areas (e.g. television, video, radio, etc.).

Trolley mounted television sets are not recommended due to the Occupational Health and Safety implications of obstruction, collision and toppling.

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14.5 HYDRAULICS

The certification of the Hydraulic Services installation **shall** be undertaken by a professional engineering consultant with experience in Residential Home or Nursing Home hydraulics design. The designer **shall** certify all test data and that the design complies with all statutory requirements and these guidelines.

The hydraulic consultant or licensed contractor **shall** certify that the installation complies with the documentation and the mandatory requirements established or implied with the "Approval to Construct".

The following general provisions **shall** be satisfied:

- All hydraulic services **shall** comply with AS 3500 as a minimum standard requirement.
- All materials **shall** be suitable for their intended service.
- All brass **shall** be de-zincification resistant (DR) grade.
- Where dew point can be reached, insulation **shall** be provided to pipework to prevent condensation.
- Pipe materials **shall** be compatible with the nature and temperature of discharge.

14.5.1 Hot Water

An adequate supply of clean hot water **shall** be reticulated to all resident ablution facilities.

Provision **shall** be made to limit the supply temperature of hot water to all resident use fittings to eliminate the risk of scalding. Maximum temperature at outlets **shall** not exceed 46°C for adult residents except that where warm water circuits are used, control of circuit temperature to 50°C maximum is acceptable.

Systems **shall** be fail safe such that the maximum temperature at the outlet is not exceeded at any time, including when the cold water or power supply fails.

Where hot water is reticulated at low temperature (below 55 degrees Celsius), provision **shall** be made for suitable sanitising of the system and circuit pipework to prevent the growth of Legionella Bacteria. Aerators, shower roses and other such fittings **shall** be cleaned and sanitised at regular intervals.

Operation of the system at a temperature above 70° Celsius for one hour each month is one method of protecting warm water systems from the contamination risk, provided the associated operational and healthcare management requirements are complied with. Dual temperature thermostats are suggested for this purpose. Suitable warning signs **shall** be displayed at all impacted outlets during this process.

Alternatively, an approved chemical disinfection system can be utilised. Proprietary systems such as Rheem Warm Water and Treatment System and Edwards Hot Water could be considered. Alternative arrangements require specific approval.

Refer to Section 14.5.2.2 - Backflow Prevention and AS/NZS 3666 for further information.

14.5.2 Cold Water Supply

The Group Home **shall** be provided with an adequate and safe cold water supply suitable for consumption and ablution purposes.

The water supply system **shall** be installed in accordance with the requirements of the Water Corporation of Western Australia. Provision **shall** be made for the isolation of fixtures, tapware and equipment in logical groupings for service purposes. Records **shall** be kept of locations of all isolation valves (refer to Section 14.7 - Building and Engineering Manuals). All isolating valves **shall** be tagged. Resilient seated ball valves are recommended.

The cold water supply system design **shall** reflect a capacity statement from the supply authority giving minimum (200kPa) and maximum (650kPa) available pressures at probable simultaneous flow of bathroom and other fixtures, plus full flow of continual operating equipment. Excessive dead legs (non recirculatory) normally longer than 6 metres **shall** have flushing points.

14.5.2.1 Legionella Prevention

Hydraulic systems **shall** be designed, operated and maintained to prevent Legionella and microbes from developing in the systems.

The recommendation and requirements of AS/NZS 3666 **shall** be complied with.

14.5.2.2 Back Flow Prevention

Backflow prevention of Hot & Cold Water Supplies **shall** be provided to both existing systems and new installations wherever there is a risk of backflow contamination occurring within the facility's potable water supply.

Backflow prevention **shall** be provided in accordance with AS 3500, AS 2845 and the Regulations and Bylaws of the Water Corporation.

Backflow prevention should be provided where possible by the use of air gaps. Preference should be given to the use of outlets to provide an air gap and thus eliminate the requirement for other forms of backflow prevention.

However, where air gaps cannot be provided, back flow prevention devices **shall** be fitted to provide protection to the building occupants and to the Minister's Supply System. Protection **shall** be agreed with the Water Corporation and be in accordance with the Regulations and By-laws of the Water Corporation and AS 3500.

Prevention of back-flow **shall** be achieved in shower and bath areas, where an adjustable hand shower is utilised and is in a position where the shower head might sit on the floor of the shower or bath.

The responsible engineer for the Group Home shall maintain the test certification certificates for later reference.

14.5.2.3 Identification and Signage: Non Potable Water

All pipework and outlets with non-potable water **shall** be identified to comply with the relevant Australian Standards.

The non-potable water pipework (hot and cold) **shall** be clearly identifiable in both exposed and concealed positions. Identification **shall** comply with Australian Standard AS 1345 in both colour and letter form.

Signage on non-potable water supply outlets **shall** be provided in a visible position over or adjacent to non-potable water supply outlets.

14.5.3 Fire Service

The fire service **shall** be as detailed in the BCA and to the requirements of the Fire and Rescue service (F&RS).

Fire hydrants and/or hose reel cabinets **shall** be bunded and it is recommended that enclosed cabinets incorporate a minimum 50mm diameter floor drain.

14.5.4 Sewerage and Sanitary Plumbing

All Group Homes **shall** be provided with an adequate sewerage and sanitary plumbing system. The system **shall** be either connected to the town sewerage and drainage scheme, or, where specific approval is given, a system conforming to the regulations for Bacteriolytic Treatment of Sewerage and the disposal of effluent and liquid waste under the Health Act.

All sewerage and sanitary plumbing systems **shall** be designed to comply with the requirements of AS 3500, the Water Corporation of WA bylaws & Regulations and these Guidelines.

Inspection and cleaning facilities **shall** be positioned external to the building fabric wherever possible. Where this is not possible, inspection and cleaning facilities **shall** be positioned in ducts or within the wet areas served, wherever possible. Inspection covers located flush with floor finishes **shall** be chip resistant.

14.5.4.1 Drains and Gullies

Adequate overflow relief gullies **shall** be provided to minimise back flow into buildings. Floor waste gullies, shower wastes and the like should connect to overflow relief gullies or disconnector gullies, wherever possible.

Drains **shall** be provided with adequate manholes and clean out points at ground level for efficient and quick maintenance. Floor waste gully grates and surrounds, industrial floor waste grates and surrounds, and cleanouts and surrounds should be non-slip and of either brass with heavy-duty chrome plating or stainless steel construction.

Baths **shall** have adequate floor drains adjacent to the edge of the bath.

14.5.5 Storm Water

The storm water drainage systems **shall** be designed generally in accordance with AS 3500, and chapter 2 of the Institute of Engineers Australia publication "Australian Rainfall and Runoff" 1987 edition.

Storm water from buildings and paved areas **shall** be disposed of in a manner acceptable to the Local Government Authority.

Roof drainage systems **shall** incorporate separate overflow relief discharge to minimise roof gutter overflow and consequent building damage and service interruptions. Consideration **shall** also be given to ways of preventing leaf build up in gutters, which in turn has the potential for building damage and service interruption, again due to gutter overflow.

Consideration **shall** be given to the use of hail guards and the method of connection of Rain Water Pipe (RWP) connections to gutters to allow for expansion/contraction.

RWP's **shall** incorporate relief grates at connection between RWP and storm water drain. All RWPs are to have cleaning access at the base.

Consideration **shall** be given to storm water and soakwell drainage systems also incorporating relief grates, for air and storm water relief.

Storm water drainage grates **shall** be cross-webbed in car parks and

paths and not be located in wheel chair access areas or trolley areas.

Paving areas **shall** be designed to the intensities nominated in AS 3500.

Channel grates for road or footpath cross over drains **shall** be of lateral or longitudinal bar design.

14.5.6 Natural Gas Service

The gas service **shall** be designed in accordance with the Gas Installation code A6601/19992 and the relevant statutory authority requirements.

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14.6 BUILDING & ENGINEERING MANUALS

The building and its engineering services **shall** be appropriately managed to:

- manage facility related risks, and
- ensure the facility remains appropriate for its intended purpose.

Drawings and manuals **shall** be created and maintained, and contain all design and construction information required for the effective operation, maintenance and upgrade of the facility through its lifetime.

14.6.1 As-Constructed Drawings

The Group Home **shall** maintain an up-to-date set of "as constructed" drawings of the facility. They **shall** be held in an accessible location at the Group Home for reference by maintenance personnel, fire authorities and other parties having need to reference this information.

The drawings **shall** show all construction, fixed equipment and mechanical, electrical, structural and hydraulic systems, as installed or built. The position of all buried and concealed services **shall** be included, with particular reference to isolating valves and cleaning and service points.

Electrical "as constructed" drawings **shall** be line diagrams which accurately illustrate all circuits, switchboards, and control schematics of all systems and major equipment.

In addition, a schedule of all circuits **shall** be permanently displayed inside all switchboards.

The drawings **shall** be accurately maintained throughout the life of the Group Home. All changes **shall** be incorporated.

The drawings **shall** be made available to the Commissioner, as required, to enable an accurate assessment of any proposed work, in particular, remodelling or additions, as part of the licensing procedure. All borrowed drawings will be returned.

14.6.2 Equipment Manuals

The Group Home **shall** maintain an up-to-date and complete set of installation, operation and maintenance manuals for installed services and equipment.

Manuals **shall** contain all quantities, pressures, set points etc., as determined at the time of commissioning, unless adequately shown on the "as constructed" drawings. All commissioning test data **shall** be retained for reference.

Full operational and maintenance data **shall** be included on all services and equipment including manufacturer information, parts lists, service agent information, etc.

Manuals **shall** be accurately maintained through the life of the Group Home. All changes **shall** be incorporated.

As for 14.6.1 (as Constructed Drawings), the manuals **shall** be made available to the Commissioner, as required, to enable an accurate assessment of any proposed work, in particular, remodelling or additions, as part of the licensing procedure.
All borrowed manuals will be returned.

14.6.3 Certification

The 'Approval to Occupy Checklist' details the requirements for certification by engineers and contractors prior to Health Department of Western Australia granting "Approval to Occupy". Documents and data **shall** be presented and/or be available in the format as indicated in this checklist.

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15. FIRE SAFETY GUIDELINES FOR GROUP HOMES

15.1 DESIGN REQUIREMENTS

Group Homes shall be designed and constructed in accordance with the requirements of the Building code of Australia. The reference classification is Class 1B. The design **shall** include, but not necessarily be limited to, the following requirements:

- Occupants must be provided with automatic warning on the detection of smoke so that they may evacuate in the event of fire to a place of safety.

- Smoke alarms must be installed on or near the ceiling:

  - in every bedroom

  - in every corridor or hallway associated with a bedroom, or if there is no corridor or hallway, in an area between the bedrooms and the remainder of the building and

  - on each other storey.

  Smoke alarms installed in Group Homes are to be 240 volt, interconnected type. Approval of the smoke alarm from a recognised testing authority, eg. Scientific Services Laboratory (SSL) is required.

- Lighting must be installed to assist evacuation of occupants in the event of a fire and:

  - Be activated by the smoke alarm and consist of:

  - A light incorporated in the smoke alarm, or

  - The lighting in the corridor, hallway or area served by the smoke alarm.

- Fire extinguishers with a minimum classification and rating of 1A: 5B: (E) or 5B: 1F: (E) are to be installed in each Group Home.

  The walking distance to each extinguisher in the home is not to exceed 15 metres.

  Each Group Home is to be provided with a fire blanket to deal with cooking type fires.

  Extinguishers and fire blankets are to be located in conspicuous and accessible positions appropriate to the fire risk.

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PART 6: DESIGN QUALITY

16. FACILITY DESIGN CHECKLIST

16.1 FACILITY CHECKLIST

The following is provided as the basis for the development of a schedule for a new or remodelled facility.

Residential Facility:

- Bedrooms
- Assisted Shower/WC Rooms (Ensuites)
- Formal Entry
- Lounge/Sitting Room
- Family/Meals
- Kitchen/Pantry
- Alternative Sitting (optional)
- Disposal/Dirty Utility/Dirty Linen Room
- Medication Store
- Laundry
- Clean Linen Store
- Case Storage
- General Storage
- Cleaner's Store
- Corridors/Circulation Spaces
- Fire Hose Reel Cabinets (concealed)
- Plant Rooms (as required)
- Telephone for Residents use
- Staff/Visitors Toilet (disabled type)
- Lockable storage for medications in:-
- Residents room (if Resident responsible for own medication)
- A locked cupboard within a locked room (for medication controlled by staff)

Central Facilities:

- Quiet Room
- Smokers Room
- Administration
- Staff Toilets/Showers/Lockers
- Staff Dining/Lounge Room
- Storage (as appropriate)
- Laundry (central, as determined by operational policy)
- Soiled Linen Pick-up
- Clean Linen Delivery
- Bathroom
- Visitors' Toilet (disabled type)
- Cleaners Store
- Corridors with Sitting Nooks (for resident resting)
- Amenities Room(s) (optional, for large functions)
- Pantry (optional)
- Production Kitchen (and associated spaces)
- Enclosed Walkways (optional, but highly desirable for security reasons)
- Fire Hose Reel Cabinets (concealed)
- Plant Rooms (as required)
- Service Delivery Point

Other External Considerations:

- Carport (for covered set-down)
- Pathways
- Roadways
- Rubbish Bin Enclosures/Garbage Pickup and bin wash area
- Letterboxes (one per house)
- Landscaping (resident accessible, with non toxic plants)
- Lighting (for resident access and security)
- Fencing (only where required, and open type preferred)
- External Seating
- Fly Screening
- Pergolas (for external sitting)
- Clothes Drying Areas
- Gardeners Store
- Verandas (optional, for "sitting out")
- Service Delivery Courts (as required, separate from resident areas)
- Fire Brigade Access/Hardstanding

16.2 COMMON OVERSIGHTS

The following are a number of common oversights.

- The use of ramps is to be minimised, but where they exist, they are to be designed to the Building Code of Australia.

- Door thresholds to the outside to be level with external paving. Bottom tracks of sliding doors to be flush with finished floor levels. Internal ramping of floors up to the sliding door track is not acceptable.

- Sill heights to external windows are to be no greater than 750 mm above finished floor level to guarantee views to the outside when the resident is in the sitting position. This does not apply to ensuites, staff or service areas.

- Toilet seats should be of the rigid type to provide support.

- Corner guards and low-level wall and door protection should be provided wherever possible to prevent building damage.

- Non slip floor finishes are to be proven non-slip, even when wet.

- Transitions between different floor finishes to be fitted with appropriate diminishing strips or levels made the same. If the levels are different, and the selected floor colours are similar, the transition detail **shall** be a contrast colour to enable sight impaired residents to register the difference in levels.

- Door handles to be appropriate for the disabled. The Independent Living Centre can advise.

- Sign posting to be kept to a minimum.

- Protruding features to be eliminated to prevent resident or staff injury.

- Acoustic privacy to be considered when locating and designing shared ensuites, day rooms, plant rooms and other spaces where acoustic isolation might be considered appropriate.

- When using sweep fans for cooling, ceiling heights should be dimensioned accordingly e.g. 2700mm recommended. This ensures that the blades of the fan are a minimum of 2400mm above the floor.

- The height above finished floor level of all light, fan, strip heater switches, GPOs, door handles, etc. should be between 900mm and 1100mm (1000mm preferred), in accordance with AS 1428.1.

- External paving **shall** be such that residents experiencing ambulatory problems are not inconvenienced or put at risk i.e. brick type paving to be flat and even, not raised cobblestone type. Broom finished concrete paving is an acceptable alternative.

- Gas fired in-duct heaters located in the roof space **shall** be housed in an enclosure with an FRL of 60/60/60. Maintenance staff access **shall** be considered and provided.

- The leading edge of the 'tread' of steps (where provided) **shall** be in a contrast colour, to enable the sight impaired to register the steps.

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PART 7: APPENDICES

APPENDICES.

APPENDIX 1 – GUIDE TO THE HDWA PROCESS FOR APPROVAL AND LICENSING.

APPENDIX 2 – LEGIONNAIRES' DISEASE.

APPENDIX 3 – LAUNDRY FACILITY GUIDELINES.

APPENDIX 4 – APPROVAL TO OCCUPY INSPECTION CHECKLIST.