

QUEENSLAND HEALTH  
WAYFINDING DESIGN  
GUIDELINES

December 2010

## Acknowledgements

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# Glossary

<b>Contrast luminance</b>	the ratio of the brightness of ambient light to screen brightness, which affects the legibility of the display
<b>Wayfinding</b>	the term 'wayfinding' represents the natural cognitive processes people use to find their way through the built or natural environment. Every day people travel to unfamiliar environments and engage in wayfinding processes. It is commonly described as knowing where you are, knowing where you need to go, recognising when you are there and then being able to find your way out.
<b>Wayfinding design</b>	the coordinated design of wayfinding elements that assist wayfinding including elements in the built environment, wayfinding signage, pre-visit communications, staff interactions and new technologies.
<b>Wayfinding elements</b>	the specific elements (signage and new technologies, features in the built environment, pre-visit communication and staff assistance/interaction) that combine to form the wayfinding system.
<b>Wayfinding manual</b>	the document produced as outcome of a wayfinding project that describes standards used for wayfinding at a specific facility
<b>Wayfinding project</b>	the implementation project to develop effective wayfinding in a Queensland Health facility.
<b>Wayfinding signage</b>	the sign system used for effective wayfinding, including visual, tactile and auditory signage.
<b>Wayfinding strategy</b>	the overall strategic approach to develop effective wayfinding that has considered all user needs utilising all available wayfinding elements
<b>Wayfinding system</b>	the coordination of specific elements that are used together to develop effective wayfinding. This will include elements in the built environment, wayfinding signage and new technologies, pre-visit communication and staff interactions. The wayfinding scheme is both a building management and a communication system.
<b>Universal Design</b>	an approach to developing solutions that meet the needs of a wide spectrum of facility users through a non-discriminatory and inclusive approach to design. Referring to seven principles, Universal Design aims to develop broad spectrum design solutions for products and environments that will help everyone, to the greatest possible extent, without the need for adaptation or specialized design.

# 1 Introduction

## 1.1 What is wayfinding?

Wayfinding is the system that assists people to find their way from one place to another, often through a complex or new environment. A professional wayfinding system will identify the most effective way to direct people through a space, based on evidence collected from the particular space it relates to. The tools to assist people in wayfinding can include:

- printed information
- architectural features and design elements
- permanent signage
- existing landmarks
- human interactions.

## 1.2 Wayfinding at Queensland Health facilities

Wayfinding systems have developed to facilitate access in all types of environments. Many environments such as a health care facility need to be highly organised and systematic to operate effectively. A good wayfinding design solution meets the needs (and answers the questions) of patients and first-time visitors when navigating their way to and through a health care facility.

The key principles of the Queensland Health Wayfinding Policy ensure the wayfinding system will:

- be simple, intuitive and user friendly
- be functional, flexible and accessible
- integrate with the requirements of a safe and secure facility
- be easily maintainable
- be planned, designed and implemented in a manner that is compliant with Queensland Health governance practice
- consider the principles of universal design.

Queensland Health is also mindful of the key legislation, standards and policy documents (Appendix 1: Policy and Legislative Requirements), that require referencing when developing a wayfinding system.

## 1.3 Wayfinding matters

Patient experience is emerging as an important factor in overall patient satisfaction and care outcomes. Poor wayfinding systems can increase anxiety, confusion and dissatisfaction with a person's hospital experience. They can also represent a significant hidden cost to a hospital, often in the form of lost time of staff members giving directions to visitors and appointment delays.

The complexity of many hospital sites, combined with the varied mobility and cognitive needs of many patients and the impact of stress on their normal coping strategies, creates an opportunity to improve patient wayfinding in many of Queensland's public hospitals.

Queensland Health understands that poor wayfinding causes:

- an impression that the facility is not demonstrating the care and attention required for patients and visitors
- the unnecessary diversion of scarce resources.

## 1.4 Visitors and users of health care facilities

People come to a health care facility for a variety of reasons. The vast majority of people will be attending for health care services and may be accompanied by, or later visited by, support people and/or family members.

The facility workers are the other major group of people who arrive each day incorporating the clinical and support staff and those external contractors who deliver supplies or remove waste.

Each group of users of the facility will have different questions such as:

- Where is my appointment?
- Where do I admit myself for a hospital stay?
- Where is my family member?
- Where can I buy some flowers or a gift?
- Where is the education/training room?
- Where is the HR Department?
- Where is the delivery area?

To enable the development of a wayfinding system that best responds to the wide variety of needs and differing capacity of patients, visitors and staff, an analysis of the present community and consideration of the services required should be undertaken (Appendix 2: Project establishment and user group consultation).

*'the wayfinding system is designed from the perspective of the first time user. Assumptions of the first time user may include no familiarity with the location of the facility, the layout and environmental conditions'<sup>1</sup>*

In other words, if your wayfinding system is clear and easy to follow for first time users, then it should be appropriate for all users.

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<sup>1</sup> Queensland Health Wayfinding Implementation Standard, <http://qheps.health.qld.gov.au/paps/html/pol-register.htm>

## 2 Defining your wayfinding strategy

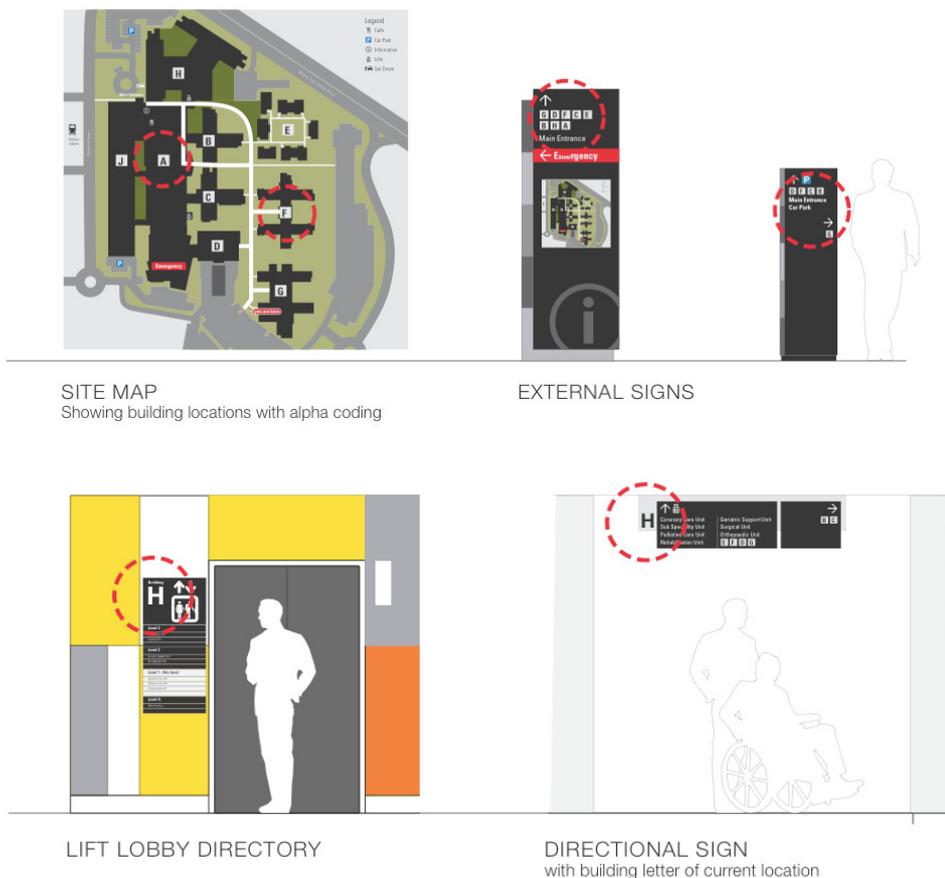
The wayfinding strategy is intended to be a succinct statement that demonstrates how wayfinding information will be presented and ordered. The strategy incorporates elements of the built environment, wayfinding signage and patient interactions. The key questions to ask in developing the strategy are:

- Does the wayfinding strategy respond to the logic and character of the built environment?
- Does the wayfinding strategy respond to the way all users are intended to be managed in the hospital?
- Is the information communicated in ways that are easily understood by all users?

The strategy should always try to use the existing logic of the site, however there may be a need to introduce a new system to bring order and assist understanding of the site (Appendix 2: Project establishment and user group consultation).

A clear logic should be developed that shows the timely provision of appropriate information during visitor journeys including approaching, arriving, travelling through and departing from the hospital. The strategy should clearly show how the different elements will combine to produce an intuitive wayfinding system.

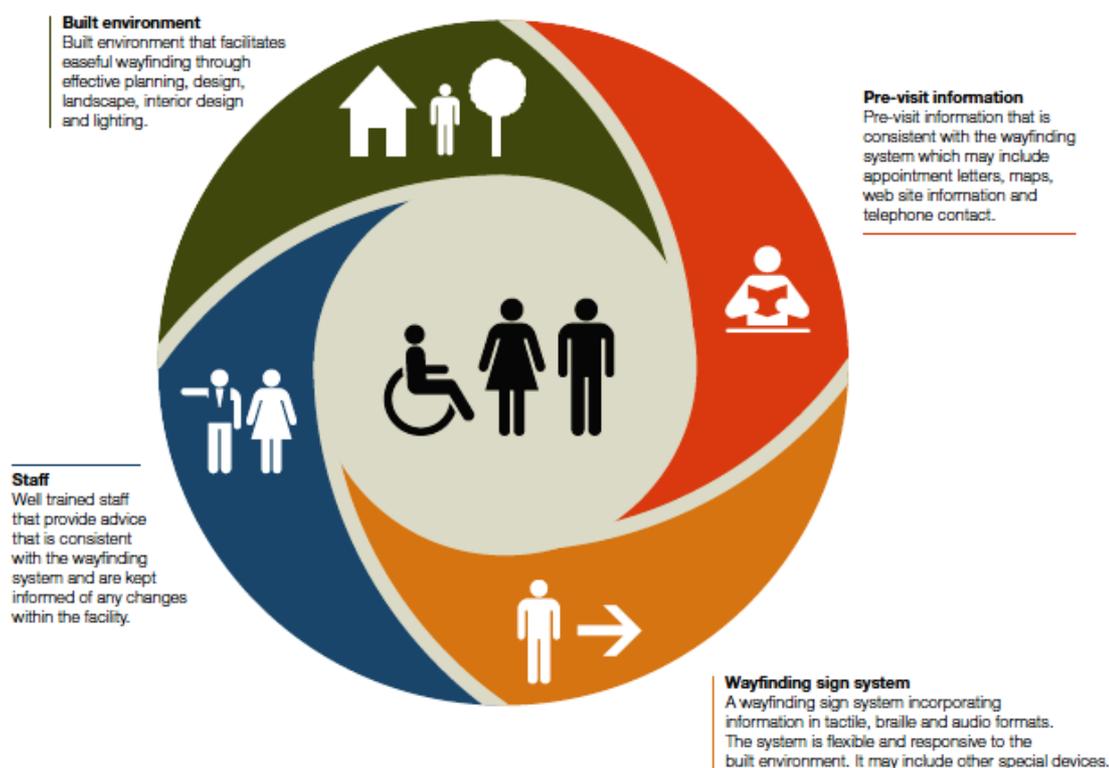
Figure 1: Elements of a wayfinding strategy



### 3 Queensland Health – designing a wayfinding system

Once the users of your site have been identified and an understanding of their diversity, both cultural and physical aspects, has been achieved, and a review of Queensland Health Policy and relevant Legislation has been undertaken, there is a need to develop design responses to four elements of wayfinding. These are recognised as integral in the development of a successful wayfinding system. Each element stands alone, but is influenced by and is integrated with the other e.g. pre visit information and staff use terms consistent with signage, signage placement is informed by the built environment. Each element reflects the needs of the people using the service.

Figure 2: Four elements of a Queensland Health wayfinding system



#### 3.1 Built environment

The built nature of a facility can strongly influence the capacity to understand and effectively navigate the facility. The aim is to create for the visitor, a high level of clarity of where to go and an ease of understanding of the built environment that intuitively facilitates a path of travel and orientation. Consideration of wayfinding in the built environment can be achieved by noting some key aspects that define a space and offer directional guidance such as:

- layout and logical space planning of different services that promote direct and efficient travel
- changes to volumes of spaces to emphasise key arrival or gathering spaces

- variance in lighting to attract visitors to key areas or landmarks
- changes in interior finishes and colours that may highlight key services such as lift foyers
- the introduction of sensory landmarks and cognitive markers such as fountains, sculptures and artworks that provide memorable mental images, or views to the natural environment e.g. mountain ranges.

### **3.1.1 A safe and secure environment**

In 2007, the Crime Prevention through Environmental Design Guidelines<sup>2</sup> (CPTED) were launched supporting a proven crime prevention approach which has been shown to reduce opportunities for crime and incivility. The fundamental idea of CPTED is that it is possible to use knowledge and creativity to design environments in ways that lessen or prevent the incidence of crime.

Some issues that occur when developing a wayfinding system may include:

- wayfinding signage should not obscure evacuation routes or signs
- wayfinding signage should not impair line of sight of persons or security monitoring systems
- designation of a pathway as the preferred route simply because it is the shortest way to a point is not always an ideal situation
- lighting should be appropriate and aid, rather than impair, safety/security measures.

For further information and specific considerations see Appendix 3: Built environment design.

## **3.2 Pre-visit information**

For all planned visits to a Queensland Health facility there will be opportunities to provide information to assist visitors in preparing for their journeys. Availability of clear and consistent pre-visit information can be an important first step encouraging effective wayfinding to and within a facility for patients and visitors.

Pre-visit information should advise visitors on issues such as transport to the site, parking locations, public transport stops and the preferred entry into the site and buildings within the site. It will require input from corporate service managers, information technology departments, patient administration system managers and patient booking staff. The design of the appropriate range and format of pre-visit information will reflect the target audience for whom it is developed (Appendix 4: Appointment letters).

## **3.3 Wayfinding sign system**

Signage has historically been understood to be the main or only component of a wayfinding system. While it is the most obvious element, it will usually not provide an ideal or optimal solution if it is implemented in isolation. Signage works best in a coordinated approach with consideration of all four elements of wayfinding.

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<sup>2</sup> Crime Prevention through Environmental Design (CPTED) Guidelines for Queensland  
<http://www.police.qld.gov.au/programs/crimePrevention/cpted.htm>

The wayfinding signage should incorporate a consistent family of sign types that starts when first approaching the facility and will form continuous threads of information that addresses all journeys throughout the site.

Information shown on wayfinding signage should be based on a clear strategy that incorporates a number of factors:

- the wayfinding journey
- signs in plain sight
- type of sign
- sign graphics
- sign terminology
- numbering conventions
- sign location plan and schedule.

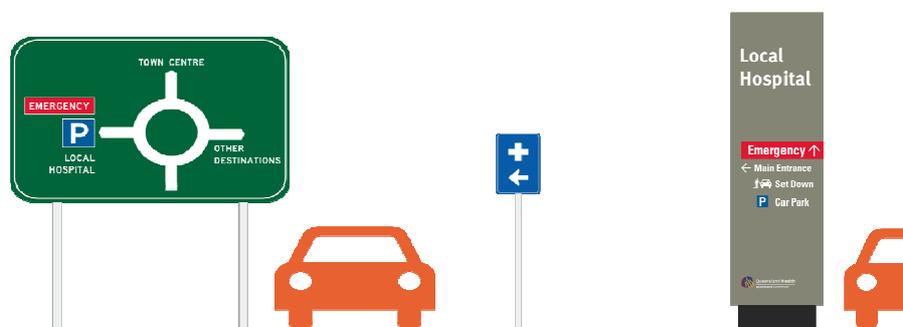
### 3.3.1 The wayfinding journey

The first stage of developing a signage system is to consider the journey – where are people moving to, and from where are they coming. The key journeys within a healthcare campus taken by all users are mapped and assist in developing a framework for the on-site wayfinding system (Appendix 5: Circulation routes). Some key stages of a journey to be considered include:

#### Approaching the site

Vehicular directions to health care facilities on public roads are required in both small communities and large cities to ensure a high level of public awareness and direct access to key entries to the site. Road signs will incorporate the white cross symbol and hospital name on a blue background using the standard symbols and signs in the Uniform Manual of Traffic Control Devices<sup>3</sup>. Approvals will be required from local councils and the Queensland Department of Transport and Main Roads prior to the deployment of such signage.

Figure 3: Approaching the site, road signs



#### Entering the site

As the visitor arrives at a site there must be clear identification and directions for pedestrians

<sup>2</sup> Uniform Manual of Traffic Control Devices  
<http://www.mainroads.qld.gov.au/web/partnersCR.nsf/DOCINDEX/Manual+of+uniform+traffic+control+devices>

and vehicles. The hospital name must be clearly visible and include concise directions to emergency departments. For cars, directions to passenger set down points and car parks (including accessible parking) should be provided. Vehicular directions for all users including staff, taxis and deliveries should be provided. Pedestrian site entry points and directions to the main entry or different facilities should be available.

### **Travelling to buildings**

Pedestrians will travel from car parks and possibly use lifts or links to enter a building. Site maps showing 'you are here' positions give visitors clear orientation of the site showing the configuration of a number of buildings and facilities. All entry points into buildings should be clearly identified from car parks, main entry and public transport routes and ideally include directions to clear destinations in each building.

### **Entering Buildings**

Upon entering the facility a number of wayfinding signs should be visible. They include the following:

- Welcome
- Directory - the directory will list the major departments and other destinations and clearly show their locations by level at a minimum.
- Level identification - for multi level buildings, the level of the building should be identified near the entry Directional - there should be clearly placed directional signage to indicate the main paths of travel to services and facilities.
- Information desk identification - the information desk should be in direct line of sight from the entry point and be clearly identified.

#### **DIRECTORIES**

In major hospitals, directories can be large and complicated. These Guidelines support a view that Directories should not have more than 40 entries. Where directories require more than 40 entries, investigation of alternative information sources is required.

- It is impractical to provide directory signage in a raised tactile and Braille format in excess of 40 entries.
- The cost of maintaining a large hospital directory is significant.
- Language can be confusing for readers as similar medical terms are mixed together in a large and complicated list of information.
- Touch screen interactive systems are real time, provide multiple levels of information, promote accessibility for all people, and convey messages in a number of languages.

### **Travel within buildings**

Travel within buildings may involve quite complex journeys with a number of destinations to

be reached involving changing levels, if not buildings, within the facility. In general, the three key types of information (orientation, direction, and identification) will be required to aid a person's wayfinding process.

- Orientation - 'you are here' maps may be required on each floor showing the floor layout in simple clear terms giving priority to the most commonly used services. This may not be required for smaller facilities where the only reception point is close to the lift or building entry
- Directional - On each floor there should be clearly placed directional signage to indicate the main paths of travel to key clinical services within the facility and other services such as lifts, cafeteria, toilets and exits
- Identification – The facility requires clear identification of its many parts including department, wards, rooms and beds. As the visitor travels through a building, each level of the building should be identified at all arrival points such a lift lobbies, escalators, stairs or links from other buildings.

### **Departing journey**

Maps should clearly show exits, as well as entries, with directions to building exits or services, such as lifts, that take you to the exit level.

### **3.3.2 Signs in plain sight**

Sign systems are based on the timely placement of specific types of information to assist effective wayfinding. It is critical in the design of the sign system that the signs are distinct elements in the landscape and that they have consistency so that sign recognition is based on immediate memory. Many aspects affect the visual impact of signage including location relative to the viewer, size, sign materials and colour, light availability and position in the environment.

### **3.3.3 Type of sign**

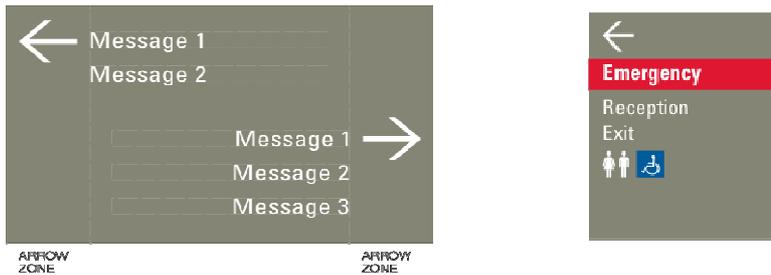
Sign types should be considered to fall into categories that relate to the types of information that they convey. The primary functions break up into:

- Orientation (maps with directories)
- Direction (directions to destinations).

Directional signs will direct to different destinations in different directions on the one sign. Destinations should be grouped according to direction so that one directional arrow can represent a number of destinations. Destinations may then be ordered based on greatest need or proximity.

- Identification (naming of destinations)

*Figure 4: Examples of directional signs*



### 3.3.4 Sign graphics

The use of graphic elements such as topography, maps and diagrams, pictograms and symbols, use of image and colour in message layout assists in the comprehension of wayfinding signage.

**Typography** involves the selection of typeface, the size and luminance contrast all chosen to provide maximum legibility for the reader.

A critical factor in legibility is the type sizes used on signage. The viewing distance and speed of travel will primarily determine the type size. The visual acuity of visitors including people with vision impairments should also be taken into consideration when assessing type sizes.

The Australian Standard, AS1428.2 – 1992 Design for Access and Mobility<sup>4</sup> demonstrates the recommendations for minimal heights of letters on signs and the distance from which they can be read by sight.

In line with the Queensland Government Corporate Identity Manual<sup>5</sup> the typeface Meta is that required for all external signs that utilise the Queensland Government corporate identity.

Figure 5: Examples of typography

Message 1

Helvetica

Message 1

Avenir

Message 1

Univers

Message 1

Meta

TYPOGRAPHY

**Maps and Diagrams** shall be used in facilities that have multiple buildings or complex circulation routes within buildings. The design of maps should ensure that they are orientated

<sup>4</sup> Australian Standard AS1428.2 (1992) Design for Access and Mobility  
<http://www.saiglobal.com/PDFTemp/Previews/OSH/as/as1000/1400/14282.pdf>

<sup>5</sup> Queensland Government Corporate Identity Manual v6.0 (2009)  
<http://premiers.govnet.qld.gov.au/logos/manual.html>

to match the orientation of the viewer.

There should be a clear visual distinction on the maps between the buildings and the main paths of travel, entry points into buildings, accessible paths and car parks. (Appendix 5: Circulation routes)

Exterior maps should show reference points for the whole site such as boundary streets, major entrances, roads, car parks, building masses and paths for pedestrian travel. Whereas interior maps should show building entries, lift foyers, information points, and key destinations including support services such as toilets and cafes.

Where maps are intended to be read by sight and touch (tactile map), care must be taken to ensure that the information is legible using both senses, rather than designing a specific or separate map.

**Pictograms and Symbols** are intended to provide visual information that is easy to recognise and interpret regardless of the user's ability to read written language. Pictograms represent a range of services and facilities found in any public environment and can include car parking, information, toilets, accessible services, telephone, cafe, stairs and lifts.

Queensland Health recommends the use of the international standard pictograms<sup>6</sup> in signage design where it is considered by the project manager that additional information to English is required. (Appendix 6: Pictograms).

Another consideration to assist visitors who use languages other than English to gain a broader understanding of the health facility, may be to develop symbols (possibly supported by names and colours) to categorise particular levels, wards or zones within a facility.

**Colour** in signage is already used in the health care setting (red and white emergency signs, yellow and black hazard signs), to great effect.

To distinguish specific spaces, levels or departments within a health care facility colour is often used both on signage and within the built environment on floors, walls and around entrances. However, colour should not be the sole wayfinding aid but used to support other information.

There is also a limitation as to the number of colours available as only those that can be visually differentiated and easily described should be used for colour-coding an environment e.g. red, yellow, blue, pink, orange, green, purple, and brown.

### **3.3.5 Sign terminology**

Queensland Health facilities are required to reference the list of basic terms to be used in the wayfinding system (Appendix 7: Terms used in a wayfinding system).

Facilities will also need a preferred range of terms used for clinical services. These terms will promote optimal comprehension and support effective wayfinding. It is recommended that they are developed through analysis of current evidence and tested with user group consultations; a number of examples are included in Appendix 7.

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<sup>6</sup> The Official Signs & Icons 2, Published by Ultimate Symbol Inc. [www.ultimatesymbol.com](http://www.ultimatesymbol.com)

The wayfinding terms are intended to be used consistently in all public applications including wayfinding signage, printed material, web content and verbal communications.

### 3.3.6 Numbering conventions

Wayfinding systems identify a range of destinations including entry gates, car park areas, buildings, entrances, levels and rooms. Based on existing conventions buildings are named as 'Blocks' and in conjunction with the alpha numeric systems the resulting naming conventions often resemble 'Block B'.

Individual levels within buildings should be intuitive but unfortunately issues such as site topography, links to existing buildings and the need to integrate with the lift numbering can all disturb what should be a logical sequential process.

The number or name of a room or space is the key feature of recognising the destination; the numbering system should start at the major arrival points onto the floor and have a consistent application across the whole building.

The numbering system should be considered as a sequence and used as an address, a typical destination could be: **Block C, Level 3 Room 15** or alternatively **C.3.15**.

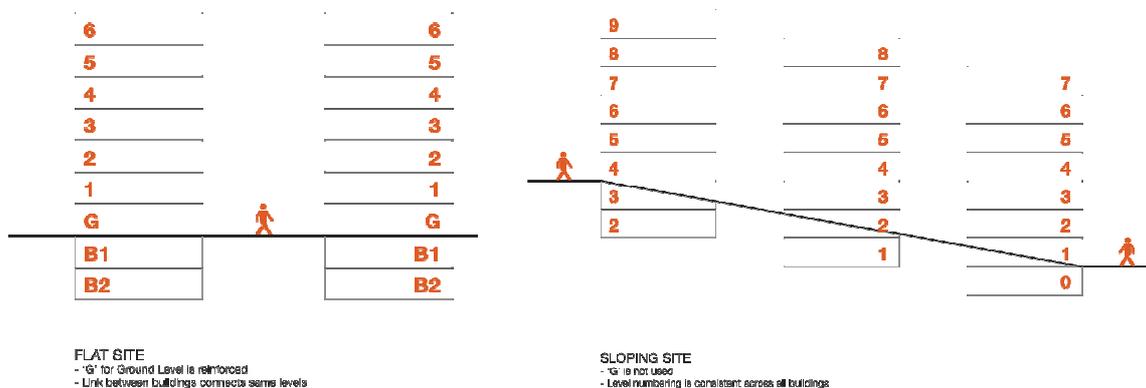
#### TEST CASE: Numbering floors above ground level.

A simple and typical model may be a multi level building where the level on Ground is 'G' and considered the main or natural entry to the building or the hospital campus. Levels rise from G numerically to the top level. Use of numbers provides simplicity for people with vision impairment, cognitive disabilities or for those with difficulty with the use of English and is more widely understood in Australia.

Terminology for the naming of the level at ground entrance has been widely explored. 'Ground' is widely recognised as the terminology for the ground floor level in Australia.

**It is not recommended to use an alphabetical system for level numbering.** Numbers have quantifiable values e.g. "7 is more than 3 and therefore Level 7 is higher than Level 3 (4 floors higher)". The use of letters can also be difficult for people to distinguish where English is not the primary language or alphabet.

Figure 6: Examples of level numbering on two different sites



### 3.3.7 Sign location plan and schedule

A sign location plan shows the location and orientation of all signs and is based on an accurate architectural plan of the site and takes reference from the developing understanding of the circulation routes (see Appendix 5) of the health care facility.

A sign location plan should clearly show the type of sign, the orientation of the sign, and the number of faces to the sign. Each sign should be identified with a unique number on the plan.

A sign schedule is basically a listing of all the signs shown on the sign location plan. The schedule may be generated as a database document and should provide minimum information that allows for the list to be prepared for manufacture. Information provided should include sign number and type, message on the sign, any pictograms directional arrows required, and specific notes about the sign.

Figure 7: Sign schedule example

Sign Schedule				
Sign Number	Sign Type	Message Side 1	Message Side 2	Notes
<b>S1</b>	Directional	[U] (Arrow pointing ahead) Message 1 [R] (Right arrow) Message 2 [M] (Male Toilet pictogram)	[L] (Left arrow) Message 2 [F] (Female Toilet pictogram)	Message to be confirmed
	North East			
	No of Sides	2		
<b>S2</b>	Regulatory	[NS] (No smoking pictogram)		
	Ground Level			
	No of Sides	1		

## 3.4 Staff

The knowledge and expertise of staff and volunteers to provide the right information and the ongoing development of specific training to assist with wayfinding is an important element of a comprehensive wayfinding system. Training should be designed in the light of the specific interaction staff or volunteers are likely to encounter as part of their daily duties.

Key information to be conveyed to staff could include:

- layout of facility, services and transport stops
- the correct language and terms for the facility
- specific assistance available for those with special needs.

All staff should act as representatives of the health care facility and be able to provide appropriate and informed assistance to those arriving at an unfamiliar environment for the first time.

## Appendix 1

### Policy and Legislative requirements

Reference tool for: Project Director

During development of the wayfinding system there are key policies and legislative directions that require referencing. An overview of these key documents follows, however it is not a complete listing of relevant legislation, policy and standards. It is important to note that the key documents below are those available at the time of publication and users should take care to seek the most recent or relevant versions. Actual documents should be referenced and where in doubt expert opinion sought, particularly in relation to determining compliance.

#### **Accessibility**

The Commonwealth Disability Discrimination Act 1992 (DDA)<sup>7</sup> prohibits a person being discriminated against on the grounds of their disability. This includes a broad range of interactions such as employment, goods, services, public transport and public premises.

Public premises are described in the act as “any premises that the public, or a section of the public, is entitled or allowed to enter or use”. The DDA states that the objects of the act as follows:

*(a) to eliminate, as far as possible, discrimination against persons on the ground of disability in the areas of:*

*(i) work, accommodation, education, access to premises, clubs and sport; and*

*(ii) the provision of goods, facilities, services and land; and*

*(iii) existing laws; and*

*(iv) the administration of Commonwealth laws and programs; and*

*(b) to ensure, as far as practicable, that persons with disabilities have the same rights to equality before the law as the rest of the community; and*

*(c) to promote recognition and acceptance within the community of the principle that persons with disabilities have the same fundamental rights as the rest of the community.*

The design of the built environment and the wayfinding signage must respond to the objectives of the DDA, and Queensland Health encourages this through the policy principle that states ‘the wayfinding system will be under pinned by the principles of universal design’.

Reference to the principles of universal design in the planning of a wayfinding system will assist to achieve a broad spectrum design solution that accommodates the needs of a wide spectrum of people.

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<sup>7</sup> Commonwealth Disability Discrimination Act 1992  
[http://www.austlii.edu.au/au/legis/cth/consol\\_act/dda1992264/](http://www.austlii.edu.au/au/legis/cth/consol_act/dda1992264/)

The principles of universal design are:

**Equitable use.** All four wayfinding elements in the wayfinding system are designed to be accessible to people with diverse abilities.

**Flexible in use.** The wayfinding system accommodates a wide range of individual preferences and abilities.

**Simple and intuitive.** The wayfinding system is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

**Perceptible information.** The wayfinding system communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

**Tolerance for error.** The wayfinding system minimises hazards and the adverse consequences of accidental or unintended actions.

**Low physical effort.** The wayfinding system can be used efficiently and comfortably and with a minimum of fatigue.

**Size and space for approach and use.** The wayfinding system allows for appropriate size and space for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

### **Australian Standard for Design, Access and Mobility (AS 1428 series)**

The Australian Standard for Design Access and Mobility<sup>8</sup> sets out requirements for the design of buildings and facilities for access for people with disabilities. These standards cover the minimum requirements, Part 1, to an enhanced standard, Part 2, which incorporates a signage standard.

### **Australasian Health Facility Guidelines**

Queensland Health has endorsed use of the Australasian Health Facility Guidelines<sup>9</sup>. These guidelines are a tool to assist planners, designers and builders in the design of future health facilities. They reflect hospital design acquired from existing facilities that have been assessed to provide appropriate environments, support health service delivery and facilitate a consistent standard of building design across all jurisdictions.

Wayfinding is considered in Part C: Access, Mobility, Occupational Health and Safety and Security in the Australasian Health Facility Guidelines.

### **Building Code of Australia**

The Building Code of Australia (BCA)<sup>10</sup> is produced by the Australian Building Codes Board on behalf of the Australian Government and each State and Territory Government. The BCA is a uniform set of technical provisions for the design and construction of buildings and other structures throughout Australia.

The aim of the BCA is to enable the achievement of nationally consistent, minimum standards of health, safety, amenity and sustainability. The BCA is given legal effect by building

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<sup>8</sup> Australian Standard AS1428.2 (1992) Design for Access and Mobility  
<http://www.saiglobal.com/PDFTemp/Previews/OSH/as/as1000/1400/14282.pdf>

<sup>9</sup> Australasian Health Facility Guidelines [www.healthfacilityguidelines.com.au](http://www.healthfacilityguidelines.com.au)

<sup>10</sup> Building Code of Australia, Australian institute of Building <http://www.aib.org.au/buildingcodes/bca.htm>

regulatory legislation in each State and Territory.

There are specific requirements for signage in the BCA particularly in relation to fire safety and accessibility which will need to form part of the overall wayfinding signage system.

### **Disability (Access to Premises – Buildings) Standards 2010**

These standards commence on 1 May 2011.

The objects of the standards are to ensure that dignified, equitable, cost-effective and reasonably achievable access to buildings, facilities and services within buildings, is provided for people with a disability. In addition they are developed to give certainty to building certifiers, building developers and building managers that, if access to buildings is provided in accordance with these Standards, the provision of that access, to the extent covered by these standards, will not be unlawful under the act.

### **Ecologically sustainable design policy**

The Ecologically Sustainable Queensland Health Facilities Policy<sup>11</sup> articulates the commitment and approach in undertaking all necessary measures towards ensuring that the impact of the physical facilities, clinical and business operations on the environment is minimised and the delivery of health services is ecologically, socially and economically sustainable.

Policy objectives and outcomes reflect these key areas including:

- projects will achieve the most economical life cycle costs for Queensland Health facilities consistent with other ecologically sustainable objectives and outcomes
- material selection should be based on environmental impact, lifespan, modularity, disassembly and reuse
- sustainability is incorporated into the procurement of goods, services and construction while achieving value for money.

Some specific areas of consideration with respect to Ecologically Sustainable Design (ESD) principles and objectives include:

- the role of signage to support the use of public transport through identification of modes of transport, pre-visit information and other journey supports including end of trip amenities (e.g. showers, bike lockers)
- the design criteria and technical specifications for signage or pre-visit information regarding the selection of media and material to reduce waste, minimise energy and allow re-use
- signage should be based on the use of sustainable materials in manufacture
- design should be based on future reuse including modularity in design and ease of disassembly during demolition
- outside of the wayfinding system, specific signage may be required to indicate relevant ESD information such as the reuse of water for landscape maintenance.

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<sup>11</sup> Ecologically Sustainable Queensland Health Facilities Policy  
[http://qheps.health.qld.gov.au/capital\\_works/pdf/policies/esqhf\\_policy.pdf](http://qheps.health.qld.gov.au/capital_works/pdf/policies/esqhf_policy.pdf)

## **Queensland Government Corporate Identity Manual and External Signage**

The Queensland Government corporate identity is an integrated system for branding the operations of the Queensland public sector. In addition to the benefits at the whole-of-government level, this branding provides consistency across sites in Queensland Health and may help patients and visitors recognise health services and feel a level of familiarity and comfort within the health care facility.

Queensland Health facilities are required to comply with Queensland Government and Queensland Health policy regarding signage and branding as outlined in the Queensland Government Corporate Identity Manual v6 (2009)<sup>12</sup> and the Queensland Health Asset Naming Policy<sup>13</sup>.

## **Queensland Health Wayfinding Policy**

The Queensland Health Wayfinding series of documents, policy, implementation standard, protocol and guidelines provides additional information to inform wayfinding in Queensland Health facilities.

## **Vehicular and traffic signage**

Apart from vehicular directional signage, traffic control signage will be required where internal roads occur within a hospital campus. These signs include a range of driver instructions including speed limits, stop, give way and other regulatory signs. The planning and design of these shall conform to the Manual of Uniform Traffic Control Devices<sup>14</sup> issued by the Queensland Department of Transport and Main Roads.

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<sup>12</sup> Queensland Government Corporate Identity Manual v6.0 (2009)

<http://premiers.govnet.qld.gov.au/logos/manual.html>

<sup>13</sup> Queensland Government Asset naming Policy

[http://qheps.health.qld.gov.au/capital\\_works/pdf/guidelines/gdl013\\_asset\\_name\\_pol.pdf](http://qheps.health.qld.gov.au/capital_works/pdf/guidelines/gdl013_asset_name_pol.pdf)

<sup>14</sup> Department of Transport and Main Roads, Manual of Uniform Traffic Control Devices

<http://www.tmr.qld.gov.au/Business-and-industry/Technical-standards-and-publications/Manual-of-uniform-traffic-control-devices.aspx>

## Appendix 2

### Project establishment and user group consultation

Reference tool for: Project manager or delegate

There are two primary groups that will provide guidance and information to the development of a wayfinding system on any particular site in Queensland. The initiation of conversations with these groups needs to occur at the development stage as this is where all ideas, needs and specific local requirements can be incorporated into the wayfinding system. These two groups are:

- a team of Queensland Health representatives and consultants that will be responsible for the development of the health infrastructure project and ongoing management of the facility, Wayfinding Project Group. This group is directed to reinforce the holistic philosophy of wayfinding and the manner in which it will influence many aspects of the capital works project as well as the facility operations.
- the various user groups that will access the new facility. These groups include a range of patient and community groups as well as those responsible for facility operations. Below is a list of possible user groups that may contribute to the development of the project based on their specific needs:
  - hospital management, staff and technical services
  - communications or public relations staff
  - health planners
  - hospital guides or volunteers
  - service specific groups such as cardiac care, mental health, and the emergency department
  - hospital patients and visitors
  - people with disabilities
  - multicultural groups
  - Aboriginal and Torres Strait Islanders.

## Appendix 3

### Built environment design

Reference tool for: Design team / Project director

#### **Macro site planning**

The early Infrastructure Planning or Master Planning of a hospital project shall establish clear requirements for key planning issues such as site accessibility, public transport options, appropriate site arrival, car parking strategies, pedestrian arrival, managing topography, as well as responding to a range of physical criteria and functional expectations.

Visitors and staff usually arrive by public transport, private vehicle or by walking. Each of these has distinctly separate requirements.

- Public Transport access should allow close proximity of set down and pick up points and yet should not intrude into complex site operations.
- Private Vehicle users expect to park close to the hospital. The efficient placement, planning and operation of car parking are an essential part of good campus planning for any size facility. It is critical that the addition of car parking is actively addressed in all stages of the planning process.
- Pedestrian Access includes the relationship to public transport set down points, topographic considerations such as a hilly site and a separation of pedestrian and vehicular routes wherever possible (for safety and convenience).

In addressing all these objectives the outcome shall be one of achieving a clear sense of arrival at the hospital and thereafter a clear sense of intuitive access to a destination.

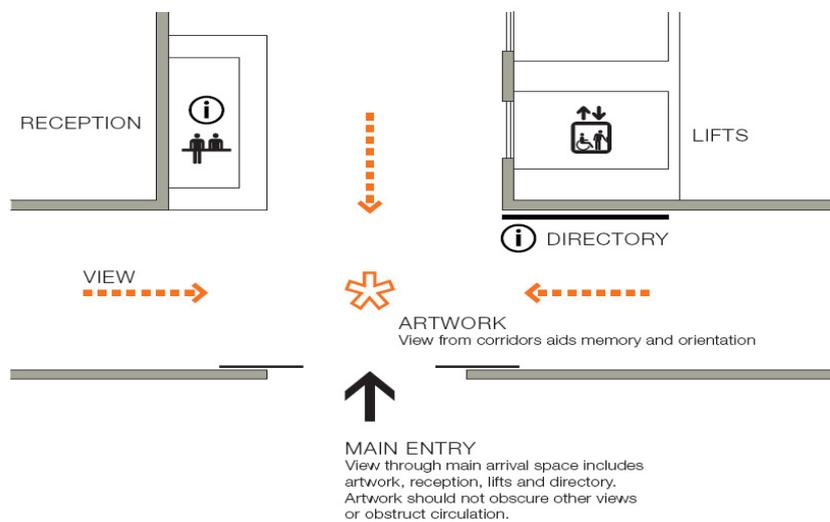
#### **Design issues in the built environment**

An important consideration in the design of the environment is to make key locations or services memorable to the visitor thus making wayfinding journeys more intuitive. A number of key design considerations follow:

- The main entrance must be clearly defined as the destination, a place to receive further direction and be introduced into the building
- Alternate points of arrival also require clear definition
- Connection from the car park into the hospital should be clearly defined and direct
- The arrival space should provide a clear sense of orientation
- It is in this arrival environment that the visitor shall feel comfortable and confident. From this point the following should be visible and apparent:
  - the information desk
  - main signage directory boards
  - the location of public lifts and stairs
  - a sense of connection to surrounding facilities and services

- high level destination information conveyed in simple visual terms
- information to supplement or reinforce pre-planned visitor information at arrival points.
- The planning of the hospital in the sense of establishing clear and separate zones for public access and staff access is a fundamental requirement
- The strategic placement of windows to the exterior in common and repetitive locations at subsequent floors will assist in maintaining a sense of orientation
- Department entries, reception areas and directory boards should all be prominent from their surroundings.

Figure 1: Artwork can assist at key strategic points to create a landmark.



## Appendix 4

### Appointment letters

Reference Tool for: Project manager/Corporate service manager

Appointment letters should be laid out in a clear and legible manner using the following information and design guidelines:

- a minimum 10 pt type face
- emphasise key information using type size or bold weight
- clearly group information e.g. appointment with, date and time, location, transport, what to bring, other instructions
- the location should clearly spell out the address e.g. room name or number, department, level, building, hospital and full street address
- transport information should include such details as the preferred entrance (if there are multiple entries) and available car parking or set down zones
- use consistent terms with the wayfinding signage
- ideally use other graphic devices such as symbols or pictograms and colour
- contact details if the patient needs to make changes
- assistance or enquiry point, if available at the main entry
- produced in other formats where necessary including large print or Braille.

Below is an example of a patient appointment letter highlighting the pertinent facts allowing smooth navigation to the destination of choice.

LOGO

Patient Name  
Patient Address  
Patient Suburb, State, Postcode

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**Your appointment**

When: **Monday 25<sup>th</sup> April 2011**  
At: **8.30am** (0830hrs)  
Where: Happytown Hospital Private Practice Clinics  
Level 3, Main Block  
Happytown Hospital, Happytown  
For: Dr Susan Soother  
Fracture Clinic

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**Changing or cancelling your appointment**

Contact: Name Telephone:

*Please call at least 24 hours prior to change or cancel your appointment.  
Please quote your reference number provided above*

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**What to do before your appointment:**

Do not eat for 12 hours

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**What to bring to your appointment:**

this letter  
any xrays/ scans  
any blood tests results  
your medicare card  
your pensioner or health care card

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**How to get to Happytown Hospital**

Happytown Hospital is located on **Main St, Happytown.**  
The site entrance is off Main St

By car: Take Hospital exit from Bruce Highway  
Turn right at traffic lights to Main St  
Main Entrance is 500m on left hand side  
Drop off/Pick Up: near the Main Entrance  
Parking: Hospital carpark near Main Entrance costs \$5 day  
By bus: Route 505 and 500 stop is a 2 minute walk  
By train: Happytown station is a 10 minute walk

**You need to go to:**

Building: Main Block (the biggest building through the Main Entrance)  
Level: Take the **Orange** lifts to Level 3  
Department: Present at the Private Practice Clinic reception desk

*More detailed instructions and maps are attached.*

## Appendix 5

### Circulation routes

Circulation routes are the major paths taken by all users on a specific site, a plan is prepared of these major pathways forming a framework for developing the on-site wayfinding system. It may address a hospital campus including existing and new sections of the site and it may address travel throughout building interiors.

The circulation route will indicate specific paths taken by different modes or users, eg car, pedestrian, bicycle as well as all accessible paths. The plan will also indicate the paths of specific users, for instance access to a car park for staff only.

After the paths have been established, key locations for the introduction of signage can also be considered in light of the architectural and landscape design strategies. The three primary sign types should be considered:

**Identification signs** These signs are required to identify the whole site, buildings, entry points, car parks as well as interior services, or spaces. The planning of these sign types should be based on two factors:

- ensuring that the signs relate directly to the element that they identify e.g. building name is on or beside the building
- placing the sign within the line of sight from the major approaches.

**Orientation signs** include maps and/or associated directories. These signs should be placed at key external and internal arrival or gathering areas to highlight the surrounding facilities and services

**Directional signs** placed at decision points, intersections and where sight lines to identification signs are restricted.

#### **Approaching the hospital**

All paths from major roads and transport stops should be shown. These paths may also lead to different entry points such as the main entry, service entry or emergency or visitor car park. Once all paths are established key signage locations should be planned as follows:

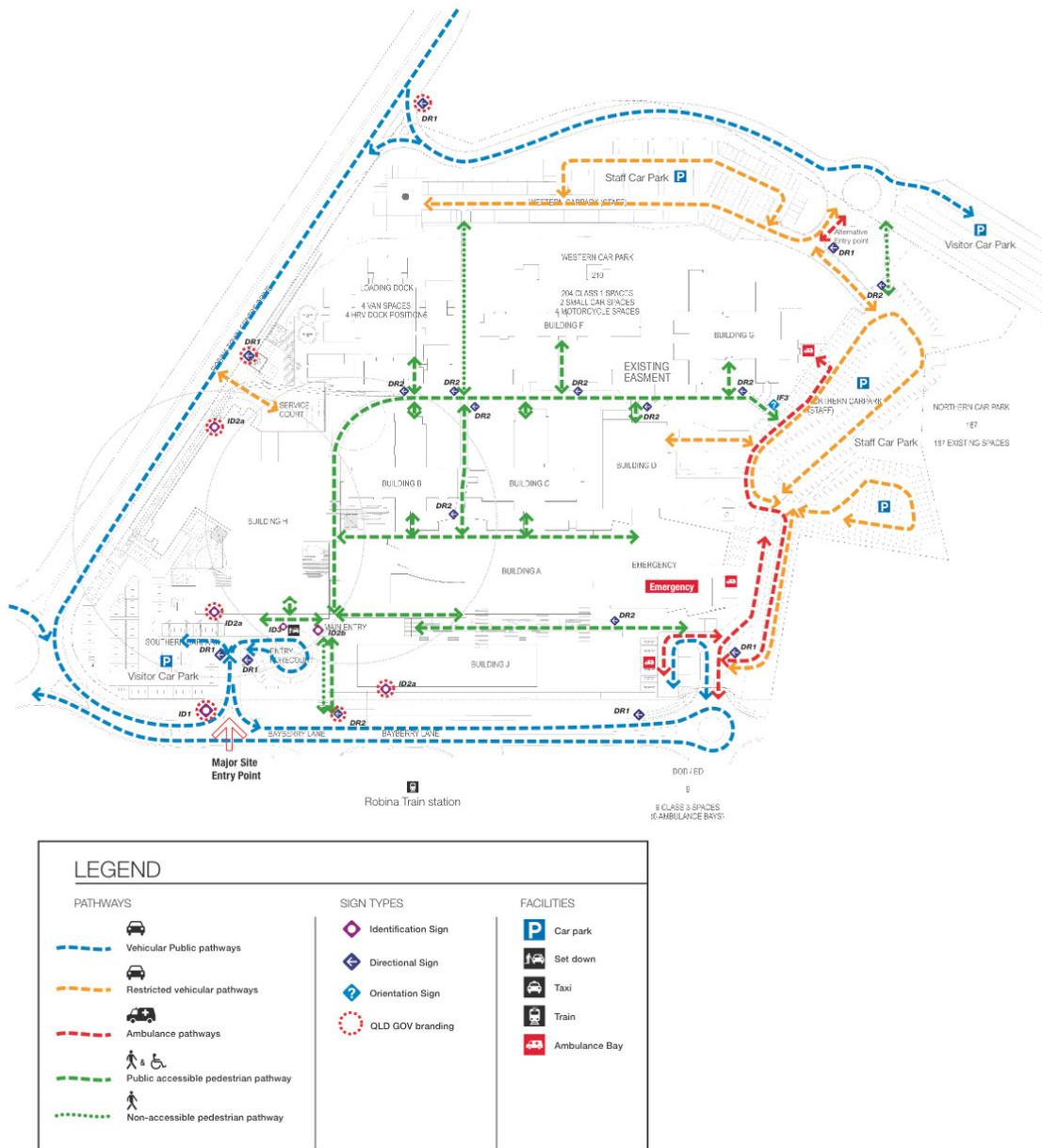
- Vehicular directional signs are located on main roads leading to the hospital prior to the turning point. There may be both large signs at major arterial roads or freeways followed by smaller reinforcement signs nearer the arrival point. The sizes, locations and design of these signs will be as shown in the Manual of Uniform Traffic Control Devices (Queensland Department of Main Roads)<sup>15</sup>. As these signs are introduced onto the road reserve they must be negotiated and agreed by the Department of Main Roads or the local authority
- Pedestrian directional signs are located at key set down points for public transport including bus, train or ferry. These signs should be visible as the visitor is departing the transport stop or terminal. The directional message may be part of the transport sign

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<sup>15</sup> Queensland Government, Department of Main Roads, Manual of Uniform Traffic Control Devices (Queensland), 2003, available at: <http://www.mainroads.qld.gov.au/Business-and-industry/Road-builders/Technical-publications/Manual-of-uniform-traffic-control-devices.aspx>

system directing to a range of exit destinations, or alternatively may be part of an independent public wayfinding system that is visible as people leave the transport stop.

Figure 1: An example of a circulation route plan.



MACRO AND CAMPUS CIRCULATION  
Robina Hospital Expansion

### On the campus

Campus circulation routes should reflect the intent of the overall design using major spines of travel. Discussion with the project architects as well as the hospital management is required to confirm the intended use of the site.

A range of sign types will be required to circulate within the campus:

- entry identification – located at each entry, this may include directional information to other entries eg Emergency

- vehicular directional – direct to parking, set down areas, exits
- pedestrian directional – direct to major building entries from car parks on pedestrian paths
- orientation maps –for pedestrians and only required if the site needs a visual explanation beyond the capacity of directional signs.

**In the building**

Where applicable, circulation within each building should be shown starting from all arrival points into the building. It may be useful for the wayfinding project to define specific journey types based on models of care or health services in the facility. The range of methods of vertical travel should also be shown as visitors may use lifts, escalators or stairs.

## Appendix 6

### Pictograms

Queensland Health recommends the use of international standard pictograms<sup>16</sup>, as shown in Figure 8.0; International standard pictograms, on signs as well as other related visual applications such as pre-visit information if relevant. Some pictograms which have been specifically developed for this project can be supplied by Queensland Health (shown with a QH code).

It is suggested that facilities considering the use of pictograms for health care services explore the benefits and identify potential issues prior to the delivery of a pictogram signage strategy. It is critical to ensure that any pictograms are tested for comprehension with patient and community user groups.

#### Tactile pictograms

Current standards state that, in every building required to be accessible, clear and legible Braille and tactile signage must identify each sanitary facility and accessible space with a hearing augmentation system. Each accessible entrance or lift and the path of travel from the principal public entrance to these features and facilities, where the location is not apparent, must be identified.

It is currently unclear whether the inclusion of tactile pictograms, in addition to the use of Braille and raised tactile text, is appropriate on tactile maps or other tactile applications.

*Figure 1: International standard pictograms*



#### **Transport**

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Pictograms are shown as dark figures on white background (except where coloured elements are used to meet Australian Standards). This relationship can be reversed, that is, light figures on dark backgrounds, if needed, to suit the application onto different coloured signage panels or other media.

<sup>16</sup> Ultimate Symbol (2005) Official Signs and Icons 2, 2nd ed, <http://www.ultimatesymbol.com/>



Video Surveillance



No Smoking



No Entry



No Food or Drink



No Mobile Phone Use



Wash Hands



Liquid Nitrogen



Warning



Radiation Warning



Cytotoxic Warning



Pregnant Warning

## Regulatory

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Toilets - Male



Toilets - Female



Toilets - Access (QH)



Toilets - Unisex



Change Room



Parents Room



Baby Change



Hearing Assistance Provided (QH)

## Facilities Standard

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Pictograms are shown as dark figures on white background (except where coloured elements are used to meet Australian Standards). This relationship can be reversed, that is, light figures on dark backgrounds, if needed, to suit the application onto different coloured signage panels or other media.



Stairs



Lifts



Escalator



Escalator Down



Escalator Up



Telephone



ATM



Cashier



Waiting Room



Drinking Fountain



Taxi Phone



Information



Reception



Shops



Spiritual Care (QH)



Cafe



Lost & Found



Kids Play Area



Interpreter (QH)

## Facilities Service

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Pictograms are shown as dark figures on white background (except where coloured elements are used to meet Australian Standards). This relationship can be reversed, that is, light figures on dark backgrounds, if needed, to suit the application onto different coloured signage panels or other media.

## Appendix 7

### Terms used in a wayfinding system

Wayfinding terms are intended to be used consistently in all public applications including wayfinding signage, printed material, web content and verbal communications.

Promoting comprehension primarily involves 'keeping it simple'. In a wayfinding system, text should be in concise messages and use words that are generally understood.

Terminology in Queensland Health signage will reflect English as the primary language. Queensland Health provides guidance information for writing in Plain English<sup>17</sup>. A generally accepted definition of Plain English is:

*Clear straightforward expression, using only as many words as are necessary. It is language that avoids obscurity, inflated vocabulary and convoluted sentence construction. It is not baby talk, nor is it a simplified version of the English language<sup>18</sup>.*

In order to support health care facilities to use appropriate and consistent (where possible) terminology in signage and wayfinding, the following information is provided:

- a statewide standardised list of general terms for health facilities (Table 1)
- a statewide standardised list of terms for clinical services (Table 2)

Hospitals with complex medical services may require additional terminology.

- a list of complex terms to use sparingly (Table 3).

It is recommended that clinical groups requiring complex and technical terminology for departmental signage adequately consult with a variety of consumers and assess the effects of any options.

There is a chance that local community characteristics may further impact on the user's understanding of the terms. One example is the use of a term in a small facility serving a predominantly indigenous community that reflects a local term for a gathering place instead of a waiting room.

Wayfinding signs are not the place to provide the full title of a department, nor a mechanism to introduce new terms for changes in medical professions or specialists. Clinical terminology, however, will remain appropriate in formal correspondence and professional communications. It is also recommended to reduce the excessive use of capitals to increase readability. The use of Sentence Case is preferred which includes a capital at the start of the sentence term only. However, for tactile legibility, use of Title Case assists with readability. The tactile reading process involves reading the first and last letter of each word first and trying to fill in the gaps from other spatial orientation information.

*Table 1: General terms recommended for use in all Queensland Health facilities*

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<sup>17</sup> Queensland Health, Information Division – Plain English writing tips  
[http://qheps.health.qld.gov.au/id\\_comms/docs/plain\\_eng\\_write\\_tips.pdf](http://qheps.health.qld.gov.au/id_comms/docs/plain_eng_write_tips.pdf)

<sup>18</sup> Eagleson, Robert D. 1990 *Writing in Plain English*. AGPS. Canberra.

Recommended Term	To replace:	Pictogram available
Administration	Executive Offices	
Ambulance		yes
ATM		yes
Baby change		yes
Bicycle parking		yes
Bus		yes
Cafe	Cafeteria, Dining Room, Coffee Shop	yes
Cashier		yes
Change room		yes
Cytotoxic warning		yes
Drinking fountain		yes
Escalator		yes
Ferry		yes
Hearing Assistance provided		yes
Information	Help, Enquiries	yes
Interpreter		yes
Exit	Way Out, Main Exit	
Kids play area		yes
Lifts		yes
Liquid Nitrogen		yes
Lost and found		yes
Main Entry (MAIN ENTRY)	Main Entrance	
No entry		yes
No food or drink		yes
No mobile phone use		yes
No Parking		yes
No Smoking		yes
Parents room		yes
Parking	Carparking, Carpark	yes
Pregnant warning		yes
Set down	Pick up/ Drop off	yes
Radiation warning		yes
Reception		yes
Spiritual care	Chapel, multi-faith room	yes
Stairs		yes
Shops	Retail	yes
Shower		yes
Taxi		yes
Taxi phone		yes
Telephone		yes
Toilets		yes
Train		yes
Video surveillance		yes
Vending machines		
Waiting room		yes
Warning		yes
Wash hands		yes

Table 2: Clinical terms recommended for use in Queensland Health facilities

Preferred Term	To replace:	Comment
Adult special care	Intensive Care Unit, ICU	
Baby special care	Neonatal Intensive Care Unit, NICU, SCN, SCBU	
Breast screening	Mammography	
Birth centre	Maternity Unit, Obstetrics	
Children's health	Paediatrics	
Cancer services or Cancer care	Oncology	
Clinics	Outpatients	
Emergency (EMERGENCY)	Accident and Emergency, A & E, ED, Casualty, DEM	Sub functions with internal signage – Fast Track, Children's health, special care, short stay – may be appropriate for staff audience.
Go here first	Triage	See example of Emergency Department Signage – DHS Victoria
Infectious diseases		
Mental health	Psychiatry	
Operations	Operating Theatres, Operating Suites, OT, OR, Operating Unit	Sub functions with internal signage – Admissions, Anaesthetics, Recovery would be appropriate for staff audience.
Pharmacy	Chemist	
Rehabilitation		
Research	Clinical research	
Short stay surgery	Day Surgery	
Sleep studies		
Surgery	General Surgery	
Women's health	Maternity Unit, Obstetrics, Gynaecology	

*Table 3: Complex clinical terms recommended for use in Queensland Health facilities*

Suggested term*:	To replace:	Comments
Heart scans	Angiography	
Kidney care	Renal/ dialysis	
Heart health	Cardiology	
Brain health	Neurology	
Brain surgery	Neurosurgery	
Body scans	MRI	

\* This is not a complete list and care should be taken to assess comprehension and usefulness with relevant user groups.