

# **PEOPLE WITH DISABILITIES ACT** **SUBMISSION ON THE DRAFT DISABILITY** **ACCESS TO PREMISES STANDARD**

## **PART 2 SCOPE OF STANDARDS**

### **Class 2 Buildings (Unit Blocks)**

- There is a failure to cover Class 2 buildings (Unit Blocks)

#### **Recommendation**

- Class 2 buildings (multi-unit blocks of home units) must be covered either by the Access to Premises Standard or by the “Access to Accommodation” provisions of the DDA,
- Many Class 2 buildings are offered for rent, but cannot be rented by people with disabilities due to lack of access, including to building common areas,
- To mandate access to common areas and that a percentage (we suggest 10%) of units be constructed to AS4299 would simply reflect what many local government bodies currently require in their Development Control Plans (DCP),
- There would be no additional cost in those Local Government Areas already covered by appropriate DCPs, and little impact in other areas,
- To continue to exclude Class 2 buildings from coverage in the Access to Premises Standard may see Councils amend DCPs to remove the access requirements for these buildings.

### **Class 1b Buildings**

- There needs be inclusion of purpose built cabins in caravan parks or in eco villages with small B&Bs (specified Class 1b buildings).

#### **Recommendation**

- A trigger of four (4) or more bedrooms would mean almost all B&Bs and cabins would continue to have no accessible rooms. This would reduce rights currently contained in the DDA.
- The disability community can accept that a case of economic difficulty may be able to be made out for existing homes being converted for use as small B&B type buildings (Class 1b), following a claim of unjustifiable hardship. We can accept a threshold of three (3) bedrooms before access is required in these small, existing, converted premises,
- However, newly built B&Bs, new cabins in caravan parks and new eco lodges are generally purpose built and we can see no reason why new B&Bs, new cabins and new eco lodges and the like (also specified Class 1b buildings) cannot be required to be accessible on the same basis as Class 3 buildings (i.e. 1 to 10 cabins, at least one to be accessible, etc.).

## **Part 2.1**

### **Trigger for the Premises Standards**

- Given that the trigger for the Premises Standards is a requirement for a building approval is there variation around Australia concerning when that trigger would occur. If so, how does this variation impact on when the Premises Standards provisions would be triggered?

### **Recommendation**

- We support a national approach.

### **Green Building Upgrades**

- Would new work on buildings in relation to ‘green building’ upgrades really result in triggers that would also require access upgrades as suggested by industry,
- Clarification is needed in regards to whether:
  - The current ‘green building upgrades’ as discussed by industry require a DA or BA;
  - The ‘green building’ requirements’ are nationally consistent;
  - The ‘green building’ upgrades allow for exclusions from complying with other relevant legislation.
  - The ‘green building’ upgrade cycle and requirements are codified in some way.

### **Recommendation**

- If “green building upgrades” are shown not to trigger other work – particularly Access to Premises Standards, other methods must be adopted to ensure buildings are upgraded within reasonable timeframes.

## **Part 2.2 (1)**

### **Compliance**

- This section does not specifically state that “building owners” are responsible for ensuring compliance with the provisions of the Premises Standard.

### **Recommendation**

- ‘Building owner’ should be included in 2.2(1) to avoid any possibility of confusion.

## **Part 2.2**

### **Definitions**

- Definitions of “building certifier”, “building developer” and “building manager” each have lists of who “could be” included.

### **Recommendation**

- Part 2.2 (2, 3 and 4) should all be amended to clarify that the list “includes but is not limited to ...” those who might be a “building certifier”, “building developer” and “building manager”.

### **Part 2.2 (2)**

#### **Approval Bodies**

- This section only gives as examples of a building certifier as private certifiers, building surveyors and local councils. There are other bodies that give approvals such as special authorities, including State, Territory and Commonwealth Governments.

### **Recommendation**

- This would be clearer if Part 2.2 (2) referred to ‘any consent authority’.

## **PART 4 EXEMPTIONS AND CONCESSIONS**

### **Part 4.1(f)**

#### **Regional and Remote Locations**

- This section refers to “regional and remote” locations.
- These terms seem to imply that the location of a building in a regional or remote area somehow reduces the need for access or inherently makes it more expensive to comply with the Access Code.

### **Recommendation**

- Many people with disability live, work and travel to and within regional and remote locations.
- Section 4.1(f) must make it clear that simply by a building being in a regional or remote location does not, of itself, indicate that a claim of unjustifiable hardship is made out.

### **Part 4.1 (k)**

#### **Heritage Features**

- This section (possible grounds for unjustifiable hardship) appears to allow a successful claim on the basis of “essential” or “incidental” significance of heritage features. There is concern that inconsequential heritage issues may become excuses for not providing access.

## **Recommendation**

- The text of Part 4.1(k) should reflect the terminology used in within the Heritage industry for determining the appropriateness of access upgrades wherein discussion refers to the impact on the ‘elements of heritage significance’. Suggested wording is:

*(k) if detriment under paragraph (j) involves loss of heritage values that are of high heritage significance and/or that where new building works to facilitate access for people with disabilities would cause a significantly adverse and irreversible impact on the heritage significance of the place and/or its fabric.*

## **Part 4.1(l)**

### **Unjustifiable Hardship**

- Section 4.1(l) suggests unjustifiable hardship should be considered in the light of, inter alia, achieving compliance by ‘less onerous’ means.

## **Recommendation**

- This section needs to make it clear that ‘less onerous’ means (to those required in the Access Code) should be considered only when unjustifiable hardship is reached in meeting the Code.

## **Part 4.3**

### **Accessible New Work**

- Concern re lessees in multi-tenant buildings when doing upgrade work, not being required to also ensure access to the new work (i.e. the affected part).

## **Recommendation**

- This situation could result in a building with two tenants, where one tenant who has control of all floors bar the ground floor, undertaking work on all floors bar the ground floor (which work must meet the requirements of the Access to Premises Standard) but not being required to also provide access to the lifts (which might be up several steps from the street entrance).
- If any work by any tenant (requiring a building application) were to require an access corridor to be provided (by the tenant), this would most likely trigger an arrangement between the building owner and the tenant, relieving the tenant of the responsibility and achieving an outcome where new work is accessible and can be reached by an accessible path of travel.

## **PART 5 REVIEW**

- Part 5 is inadequate in setting out how the Access Code implementation will be reviewed.

For example:

- It needs to be clearer in terms of how the review will measure the effectiveness of the Premises Standards on achieving their objects.
- How will new and existing building be assessed?
- Which elements will be reviewed?
- How can the work that was done at the DARG meeting on this issue be incorporated?
- How can this be looked at further?

### **Recommendation**

- Part 5 needs to be redrafted so it adequately addresses the issues of review to ensure appropriate outcomes are achieved.
- In particular, a protocol should be included in Part 5 which sets out the criteria
- A review must occur five (5) years after the Premises Standard is enacted. The review would serve to assess whether the natural building upgrade cycle in existing buildings had in fact triggered the requirement for the owner to upgrade the building to the Premises Standards.
- The review would assess whether the agreed compliance target for existing buildings had been met (i.e 50% of existing buildings having undertaken works which resulted in the inclusion of all 'critical building access elements'.
- Note: Critical building access elements are defined in 1.1, 1.2 (a-d), 1.3 and 1.4. below
- If the review found that neither the natural building upgrade cycle or the major building works trigger had resulted in the application of the Premises Standards, specific to the 'critical building access elements', building owners would be required to submit a Building Upgrades Plan to a State based Access Panel.
- The 'Building Upgrades Plan' was originally discussed in Article 7 of the ABCB's Administrative Protocol (2004). In this proposal, building owners would be required to submit a Plan which details how and when the 'critical building access elements' would be upgraded over the next five years to provide compliance with the Premises Standards.
- Owners would be required to submit a yearly update on the progress of the access improvements to the Access Panel.
- The Building Upgrades Plan would not provide a safe-haven from a disability discrimination complaint. It would however exist as a valued and submittable document against such a claim.
- Suggested Mechanism**

The review and compliance schedule proposed is as follows:

- An accessibility compliance target for existing buildings will be developed. Similar to the Disability Standards for Accessible Public Transport (2002) the

Premises Standards could set a compliance target for existing buildings. For example:

“ 50% of existing buildings to include all ‘critical building access elements’ within 5 years of the Premises Standard being enacted.”

The ‘critical building access elements’ would include:

- 1.1 the principle entrance being made accessible.
- 1.2 a clear and accessible path of travel was provided to each common access building element including, but not limited to:
  - a. carparking facilities (if open to the public) and the access pathway/s from the parking area into the building
  - b. at least one unisex accessible toilet facility and the access pathway/s to the amenity. (At a minimum, this amenity should be available on the entrance floor of the building).
  - c. lift accesses and the access pathway/s to the lifts from the principle entrance/s.
- 1.3 presence of Braille and tactual signage as detailed in the BCA
- 1.4 inclusion of hearing augmentation as detailed in the BCA

To assess compliance a formal review of the accessibility status of existing buildings would be undertaken five (5) years after the Premises Standard is enacted. The formal review would assess the presence of the ‘critical building access elements’:

Note: The formal review could become a function of each State’s Access Panel.

- In the event that the five (5) year review found:
  1. the upgrade cycle of existing buildings had not met the compliance target set for the ‘critical building access elements’, and/or
  2. no major works had been undertaken by the owner to trigger the requirements of the Premises Standard and/or
  3. no works had been undertaken to improve the ‘critical building access elements’,

The building owner would be required to upgrade the ‘critical building access elements’ within the five (5) years which follow the review. Owners would be required to submit a Building Upgrade Plan (similar to the current DDA Action Plan). The Building Plan would detail how and when the ‘critical building access elements’ would be upgraded over the next five years to provide compliance with the Premises Standards.

4. Owners would be required to submit a yearly update on the progress of the access improvements.

## **PART A3 ACCESS CODE – DOCUMENTS ADOPTED BY REFERENCE**

### **A3.1 DOCUMENTS ADOPTED BY REFERENCE**

#### **Schedule 1 - Part A3.1**

##### **Standard Amendments**

- Draft Access to Premises Standard references Australian Standards which are under review by Standards Australia have been released to the public but are in Draft form.
- There is particular concern that the current draft AS1428.1 has specifications that will not enable access by 90% of wheelchair users (i.e. the dimensions currently in AS1428.2) in some critical areas.
- Particularly concerning is the adoption of 1000mm wide passageways, where 1200mm is required to accommodate the A90 wheelchair.
- AS2890.6 (Parking Facilities – Off street parking for people with disabilities) allows a headroom height of 2200mm which is inadequate for 4wds and commuter vans.
- In addition, AS1428.5 Design for access and mobility - Communication for people who are deaf or hearing impaired should be referenced and made public.
- The Australian Standards referenced but not public are:
  - AS1428.1 (Design for Access and Mobility – General Requirements for Access – New building work)
  - AS1428.4 (Design for Access and Mobility – Tactile indicators)
  - AS2890.6 (Parking Facilities – Off street parking for people with disabilities)

##### **Recommendation**

- AS1428.1 must be amended to require 1200mm wide passageways.
- AS2890.6 must be amended to require headroom of 2300mm in car parks.
- AS1428.5 must be released and referenced in the Standard.
- All Australian Standards referenced in the draft Access to Premises Standard (plus AS1428.5) must be released to the public as “adopted” and then at least six weeks comment time allowed prior to the Access to Premises Standard being formally considered by the Review Committee and put to Parliament.

## **PART D3 ACCESS FOR PEOPLE WITH A DISABILITY**

### **D3.1 GENERAL BUILDING ACCESS REQUIREMENTS**

#### **Table D3.1 Class 9c**

- The Table requires the same numbers of accessible sole occupancy units as in Class 3 buildings,
- This is most inadequate given that the people likely to be admitted to an aged care facility are much more likely to have a severe mobility disability than occupants of motels.

### **Recommendation**

The numbers of accessible sole occupancy units in a Class 9c building must be increased by at least a factor of 3 in each number of units range. That is: 1-10 – 3 units accessible, 11 -40 – 6 units accessible, etc.

### **Table D3.1 Class 9c Common Areas**

- The table seems to indicate that, in buildings with access only to the ground floor access is required only “To and within not less than one of each type of room or space for use in common by the residents ...” whereas, if a level is served by a ramp or lift, “(b) to and within rooms or spaces for use in common by the residents, “. That is, more access is required on upper levels than on the ground floor.
- This could mean that, in a one floor residential, only one meeting room, therapy pool or gymnasium (for example) need be accessible, whereas if the residential had several floors serviced by lift and had several meeting rooms, pools or gymnasiums, all on the upper floor(s) would have to be accessible.

### **Recommendation**

The wording needs to be amended to make it clear that all facilities on an accessible level must be accessible, including at least one of each type that is also located on an inaccessible level.

### **Table D3.1 Class 7a**

- The Table requires access only to floors of a car park where there are accessible parking bays.
- The numbers of required accessible parking bays is inadequate to meet the demand (in NSW the number of Mobility Parking Authorities issued represents 13% of registered vehicles).
- Consequently many people with disability are forced to park in non-accessible bays. Many of these people use vans with rear access which can use a regular sized parking bay.
- Denying these people the opportunity to park on any level will significantly reduce their ability to use the facility associated with the parking area.

### **Recommendation**

Lift access must be required to all levels of Class 7a buildings.

### **Table D3.1 Class 9b**

- This Table does not make it clear that theatres and other Class 9b buildings need to ensure that access is provided to the stage, dressing rooms, refreshment areas etc (although this is covered in the Guidelines).

#### **Recommendation**

- The Table should be amended to ensure clarity on the need for access to all areas of Class 9b buildings (except those areas exempted – tiers and platforms with no accessible seating).

## **D3.2 ACCESS TO BUILDINGS**

### **Part D3.2 (5)**

#### **Leaf Doors**

- Wording leaves it open for a two leaf door to have an *active* leaf of less than 850mm.

#### **Recommendation**

- Part D3.2 (5) must be amended to make it clear that the *active* leaf must be 850mm or more wide.

### **Part D3.2 Access to Buildings**

- Part D3.2 (2) (b) refers to the location of accessible entrances respective to inaccessible entrances.
- However, there is no reference to the need for an accessible path of travel between these two building elements.

#### **Recommendation**

- Part D3.2 must be amended to ensure that an accessible path of travel is available between any inaccessible entrance and at least one accessible entrance which must be no more than 50m from the inaccessible entrance.

### **D3.3 PARTS OF BUILDINGS TO BE ACCESSIBLE**

#### **Part D3.3(d) Parts of buildings to be accessible – Passing Spaces**

- With respect to the requirements for *passing spaces* it is common for corridors within the core area of multi-storey office buildings to be limited in length to much less than 20 metres due to requirements for maximum distances to fire exits and hence the provisions in the current draft would mean a 1000mm width corridor which increases slightly to 1250mm-1450mm at doorways (depending on orientation) and a *turning space* 1540mm X 2070mm at the end of the hallway with no means for two people in a wheelchair to pass as there would be no 1800mm X 2000mm minimum area regardless of sightlines.
- This inequity is unacceptable.

#### **Recommendation**

- Paragraph D3.3(d) That *accessways* must have:
  - *passing spaces* complying with AS1428.1 at lift landings, maximum 9 metre intervals, or a *T-junction* be provided in accordance with AS1428.1 to enable two people in a wheelchair to pass.

**Part D3.3(b) Parts of buildings to be accessible - Egress**

- To achieve compliance with Part 7 of the Guidelines and the Performance Requirements, provisions to safely evacuate people with disabilities including people who use a wheelchair must be developed within the Deemed to Satisfy requirements of the BCA/Premises Standard.
- In addition to the above recommendations to make fire isolated ramps and stairways comply with AS1428.1 and other references in Part H relating to alarm systems to suit people with hearing impairment and access paths to exist to accommodate people with vision impairment the relevant sections of the BCA/Premises Standard should include the following.

**Recommendation**

- Fire isolated stairs, ramps and lobbies must provide *places of rescue assistance* that are of an appropriate size to accommodate a person in a wheelchair.
- Places of rescue assistance* shall incorporate a communication system to access emergency services.
- Provision of a fire isolated lift will satisfy the performance requirements.

**Part D3.3(b) Parts of buildings to be accessible**

- Fire isolated stairs are exempt from requirements for access features that would assist people to evacuate safely. This will jeopardise evacuees (including blind people, vision impaired people and people with ambulant disability) and the people assisting them in a crisis who are forced to use the fire isolated stairs.

**Recommendation**

- Fire isolated stairs and ramps must be required to meet AS1428.1.

## **D3.4 EXEMPTIONS**

### **Part D3.4 Exemptions**

- This part lists parts of buildings which are not required to be accessible.
- This implies that no person with a disability might need to work in or visit such parts of buildings.
- We are concerned about the message this section gives regarding the capacity of people with a disability to work in a variety of areas. There is possible conflict with the intent and objectives of the Commonwealth Disability and Mental Health Employment Strategy.
- In particular section D3.4 (d) is of concern because of the inclusion of the term 'logistic/distribution' areas. The concern is that developers will try to avoid providing access to an office which is described as a logistics centre or distribution centre when in reality they are simply administrative offices.
- Fire isolated stairs are exempt from requirements for access features that would assist those with vision impairment. What happens to people in a crisis if they are forced to use the fire isolated stairs?

### **Recommendation**

- The list of exemptions should be limited to those areas clearly not able to be made accessible such as windmills or lighthouses.
- Other areas/buildings should rely on the unjustifiable hardship provisions

## **D3.5 ACCESSIBLE CAR PARKING**

- This part D3.5 (b) states (in part) that accessible parking need not be provided where a parking (valet) service is provided.
- The concern is that the provision ignores the fact that many of the modifications undertaken to enable vehicles to be independently driven by a person with a disability may prevent other people from driving the vehicle. For example: the driver's seat may be removed to enable automatic wheelchair locking systems to be

installed, specific hand operated control systems and extended foot control pedals.

- Most hotels have some space on their driveway where a vehicle can be left. This should be explored particularly with the major hotel/motel chains.

### **Recommendation**

- Part D3.5(b) must be amended to require alternative arrangements when parking is provided by valet service.

### **Number of Accessible Spaces**

- The number of accessible spaces required is inadequate given the number of Mobility Parking Authorities (NSW nomenclature) that have been issued.
- In NSW the number of Mobility Parking Authorities that have been issued is equivalent to 13% of registered vehicles.
- Clearly 1 or 2% of spaces being accessible is inadequate.
- In particular, the complicated formula for computing the number of required spaces in Class 3 buildings is a ridiculous. Almost all people legitimately using an accessible SOU will be travelling by car.
  
- It is also apparent from the holders of Mobility Parking Permits that the overwhelming majority of users do not use a wheelchair.
- Nonetheless they will have a legitimate right to obtain a Mobility Parking Permit.
  
- In the interest of meeting the needs of the population demographics and their physical needs we propose a two tiered parking scheme of widebay spaces for wheelchair users at the same rate as currently shown in Table D3.5 and narrow width regular spaces marked for people with ambulant physical disabilities at a rate **two to four times** the proportion shown in Table D3.5. See attached paper at Appendix A for further discussion and example signage.

### **Recommendation**

- Proportion of spaces in all categories should be increased by a factor of 5. I.e. where 1% is required it should be increased to 5%.

### **Boom gates and Pay Machines in Car Parks (Not covered in Code where Car Parking covered)**

- Many people with disability have difficulty extracting a ticket from an entry boom gate if the ticket is held tightly by the machine, the ticket projection is less than 35mm and it needs to be torn off, or the boom gate is located on an incline or bend in a driveway ramp (putting the machine out of reach).
- Many people with disability cannot access parking pay machines due to the height of the controls and functional design of the controls.
- Accessible parking requirements should be considered in conjunction with the work occurring on the National Accessible Parking Strategy

#### **Recommendation**

- That boom gates and pay machines must be accessible and be made mandatory and be included in the Code.

### **D3.6 SIGNAGE**

- Part D3.6 (e) requires no more than the international symbol for access and an arrow.
- More information is required. Signage should include written information on what feature the sign was directing an individual to (i.e. accessible toilet, entrance, ramp, or parking).
- Any directions towards an accessible entrance need also to ensure the person is being sent on an accessible path to that entrance.

#### **Recommendation**

- Part D3.6 must be amended to require information about the facility one is being directed to, and a requirement that such pathway be an accessible one.

### **D3.7 HEARING AUGMENTATION**

#### **Recommendation**

- meeting areas in Class 9C buildings (aged care buildings) need to be included in areas to have hearing augmentation
- at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider there needs to be a definition of "screening" as currently a screen

with a 150mm gap is considered to not be screened. Also include ALL bank teller's booths irrespective of gap size

- when a hearing augmentation system *required* by subclause (1) is an induction loop, it must be provided to not less than 80% of the *floor area* of the room or space served by the inbuilt amplification system
  - when a system requires the use of receivers or the like, it must be available to not less than 95% of the *floor area* of the room or space served by the inbuilt amplification system accessories such as neckloops, stetoclips and headphones may be used if needed
  - if the room or space accommodates up to 500 persons, 1 receiver for every 25 persons (or part thereof), or 2 receivers, whichever is the greater is inadequate as this is only 4% receivers which is too low. 10% is recommended.
  - if the room or space accommodates more than 500 persons but not more than 1000 persons, 20 receivers plus 1 receiver for every 33 persons (or part thereof) in excess of 500 persons is inadequate as this is only 3.5% receivers which is too low. 10% is recommended.
  - if the room or space accommodates more than 1000 persons but not more than 2000 persons, 35 receivers plus 1 receiver for every 50 persons (or part thereof) in excess of 2000. This is inadequate as this is only 2.75% receivers which is too low. 10% is recommended.
  - The number of persons accommodated in the room or space served by an inbuilt amplification system must be calculated according to clause D1.13 of the *BCA*.
  - Any screen or scoreboard associated with a Class 9b building and capable of displaying public announcements must be capable of supplementing any public address system, other than a public address system used for emergency warning purposes only.
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### **D3.9 WHEELCHAIR SEATING SPACES IN CLASS 9B ASSEMBLY BUILDINGS**

- There is concern that some theatres are putting removable seating into wheelchair accessible spaces and then allowing them to be booked rather than leaving them empty until all bookings are made before putting seating in.

#### **Recommendation**

- This needs to be better addressed in the Guidelines.

## **Cinemas and Theatres**

- **D3.9 (b)** refers only to cinemas (excluding live theatre, concert halls, etc.). There is concern that in cinemas, people could be forced to sit in the front row – so not allowing that is supported.
- However, front row seating in live theatre is considered desirable, as is front row seating at some sporting venues.

### **Recommendation**

D3.9(b) can be left as is if a new D3.9(c) is drafted as follows:

D3.9(c) in a theatre or other venue (excluding Cinemas):

- (i) with not more than 300 seats — wheelchair seating spaces may be located in the front row of seats; and
- (ii) with more than 300 seats — not less than 75% of *required* wheelchair seating spaces must be located in rows other than the front row of seats; and
- (iii) the location of wheelchair seating is to be representative of the range of seating provided.

## **D3.10 SWIMMING POOLS**

- This Table (Class 10b buildings (swimming pools)) excepts the need for access to a pool which is for the exclusive use of residents of SOUs in Class 9b buildings.
- This would mean some Class 9b buildings with more than 3 rooms or cabins would not be required to make the swimming pool accessible, denying residents with disabilities access to a facility.

### **Recommendation**

- The Table needs to be amended to make it clear that swimming pools must be accessible in all Class 9b buildings that are required to have accessible rooms and facilities.
- In addition there was concern about this 40m trigger as it could mean many facilities quite capable of providing access to smaller pools are exempted from doing so.
- A popular form of chair lift is excluded from the DDA Premises Standard, which seems inequitable.

### **Recommendation**

- While many people with physical disabilities prefer ramp entry this Part must be amended to at least allow the installation of chair lifts with fold-up arms and appropriate backrest support and independent controls from water and pool deck.
- Add paragraph (e) “a chair-lift with fold-up arms and appropriate backrest support and independent controls from water and pool deck.”
- Part D3.10 (1) does not make it clear that its provision refers to swimming pools with a perimeter of 40m or more when associated with a Class 1b, 3, 5, 6, 7, 8 or 9 building required to be accessible.

### **Recommendation**

- Part D3.10 (1) must be amended to clarify which pools (i.e. the trigger of 40m pool circumference when associated with certain buildings) may use all nominated entry devices.
- Part D3.10 could be simplified to state requirements for pools with a total perimeter of >40m but <= 70m and pools with a total perimeter of >70m

## **D5.4 PLATFORM SWIMMING POOL LIFT**

### Part 5.4 of the Guidelines

- The Part needs to be re-worded as the circulation space dimensions refer only to the wheelchair circulation space requirements and do not account for the encroachment of fixtures and fittings into that space (i.e. washbasin placement, doorway circulation spaces, change tables etc).
- This Part is rather ambiguous in that it does not prescribe the size of the platform or how it should function or be controlled by the user.

### **Recommendation**

- This Part must be amended to require a minimum platform size of 1400 X 1100 and with appropriate controls that can be used at the pool deck or from within the water by people with disabilities.

## **D5.5 SLING-STYLE SWIMMING POOL LIFT**

- Many people with physical disabilities report a dislike for these types of lifts due to the indignity of being hoisted into mid-air in a public environment.
- Furthermore a more popular form of chair lift is excluded from the DDA Premises Standard, which seems inequitable.

### **Recommendation**

- While many people with physical disabilities prefer ramp entry this Part must be amended to at least allow the installation of chair lifts with fold-up arms and appropriate backrest support and independent controls from water and pool deck.

## **D5.6 AQUATIC WHEELCHAIR**

- This Part does not require that an aquatic chair be able to be pushed by the occupant.

### **Recommendation**

- This Part must be amended to make it mandatory that aquatic chairs must be capable of being propelled by the occupant i.e. the rear wheels must be large enough to allow a person to self propel.

## **PART E3 LIFT INSTALLATIONS**

### **Part E3 – Lift Installations**

## **AS1735 Lifts, escalators and moving walks**

### **Issues**

It should be noted that while there were people with disabilities included on the Standards Australia ME04 Committee working group for development of this suite of Standard, no people with disabilities were on the Committee which had voting rights for final publishing.

## 1. Table E3.6(a) – Limitations on the use of passenger lifts

### AS1735.7 Stairway Platform Lift

- In our opinion these types of lifts provide inadequate dignity, poor reliability, lack independent use due to lockable controls and are inappropriate in new buildings where other types of lifts can be readily installed.
- These lifts should be limited to upgrading existing buildings.

### **Recommendation**

- A new paragraph (a) should read; *“Must not be used in new buildings and a limited to installation in existing buildings.”*
- With respect to the existing paragraph (a) it is apparent that clause D1.13 of the BCA provides huge variation in calculated floor area from 100 M<sup>2</sup> for Cafes, Bars, Churches to 1,000 M<sup>2</sup> for office space and 1,500M<sup>2</sup> for hotels/motels. In our opinion this degree of variation is inequitable and the maximum floor area that can be serviced by a stairway platform lift should be limited to 500M<sup>2</sup>, which is consistent with retail malls, showrooms, etc.

### **Recommendation**

- Paragraph (a) be renumbered to (b) and should read; *“Must not be used to serve a place in a building accommodating more than 100 persons calculated according to clause D1.13 of the BCA or 500 square metres, whichever is the lesser;*

## Table E3.6(b) – Applications of features to passenger lifts

- Emergency hands-free communication
- With respect to this section of Table E3.6(b) it is ludicrous to exclude AS1735.7 lifts from providing emergency communication, especially when these are the most unreliable form of lift.
- While the form of emergency communication may differ between types of lifts it is completely inappropriate to exclude AS1735.7 stairway platform lifts from providing an emergency communication system.
- Clause 26 of AS1735.7 (1998) already requires emergency communication systems and to exclude the requirement within the DDA Premises Standard and reduce the level of access is unacceptable and untenable.

## **Recommendation**

- There shall be no exceptions for lifts in terms of providing emergency communication devices.

## **Part 12: Facilities for persons with disabilities**

### **Preface, Scope and Application:**

- While the Preface to the 1999 edition states that the Standard is applicable to public buildings only and is compatible with the Building Code of Australia (BCA), the Scope states that the document sets out requirements for facilities in passenger lifts that are specifically designed to assist persons with disabilities. Further, the Application states that the Standard applies to new lifts in the public access path and in new lift wells in buildings other than private dwellings, and specifically where the building authority stipulates provision of facilities for people with disabilities.
- Although from the Application it might be interpreted that the Standard applies only to passenger lifts with a fully enclosed lift car (i.e. Parts 1, 2, 3, and 16), this neglects the need for guidance with regard to facilities necessary to permit people with disabilities to use all lifts, i.e. it must apply to all passenger lifts including Part 7, 8, 14, or 15 lifts. Obviously if a functional element is necessary to drive a high-rise lift, then it also must be necessary to drive a low-rise lift.

## **Recommendation**

- It is recommended that Part 12 Application be amended to indicate that it applies to all passenger lifts.
- With introduction of the Disability Discrimination Act (DDA) Standard on Access to Premises (Premises Standard), Clause 1.1.2 will become redundant.

## **Recommendation**

- It is recommended that Clause 1.1.2 be deleted.

### **Lift Landings:**

- Part 12 is silent with regard to the required size of landings serving lifts. Because the circulation space provided by the lift landing is critical to the user's ability to access the lift car, it is recommended that Part 12 give guidance regarding the minimum size of lift landings.
- Because there are many situations in which the user must reverse from a lift, e.g. when the other occupants prevent manoeuvring of the wheelchair within the lift car. Upon exiting the lift car, the user of the wheelchair will be required to make a 90° or 180° turn before proceeding from the lift landing. Because AS1428 Part 2-1992 Clause 6.2 prescribes the minimum space necessary to turn an occupied wheelchair through 180° is 1540 x 2070mm, it is recommended that AS1735 Part 12 be amended to require lift landings to be a minimum size of 1540mm x 2070mm.

### **Recommendation**

- It is recommended that a new Section to address Lift Landings be added to Part 12 which states that each public passenger lift shall be provided with a minimum landing circulation space of 1540mm x 2070mm to allow access by all.

### **Lift Car Size:**

- Section 2 states that the minimum lift car internal dimensions shall be 1100mm wide by 1400mm deep. The draft Disability Discrimination Act Standards on Access to Premises (Premises Standard) was originally prepared to provide access for 90% of people with disabilities. Table E3.6(b) of this Premises Standard requires the minimum lift car floor size to be 1400mm x 1600mm for all lifts with travel in excess of 12 m. Therefore although Table E3.6(b) allows exceptions to this required lift car floor size for low-rise lifts, it must be noted that these are concessions as a lift car with internal dimensions of 1100mm x 1400mm will fall short of the access needs required for 90% of people with disabilities. It is suggested that with the release of the draft Premises Standard, current wording in Section 2 is incorrect.

### **Recommendation**

- It is recommended that Section 2 be re-drafted to reflect the new requirements, i.e. that the minimum lift car internal dimensions shall be 1400mm wide by 1600mm deep.
- Section 2 should also note the exceptions allowed by the draft Premises Standard.

## Recommendation

- It is recommended that Section 2 be re-drafted to indicate the exceptions allowed by the draft Premises Standard, namely that minimum lift floor dimensions may be reduced to 1100mm x 1400mm for all low-rise lifts (travel no more than 12 m), while the minimum lift floor dimensions may be reduced further to 810mm x 1200mm for AS1735-7 stairway platform lifts.
- As discussed under Lift Landings above, the minimum space required to turn a wheelchair through 180° is 1540 x 2070mm. Therefore a lift car of 1400mm x 1600mm would not permit a wheelchair user to perform a 180° turn within the lift car. The minimum internal dimensions of a lift car necessary to permit a wheelchair user to make a 180° turn within the lift car would be 1540mm x 2070mm. The nearest standard sized lift car shown in ISO/DIS 4190-1 would have an inner dimension of 1600mm x 2100mm. The ability to perform a 180° turn within the lift car will have an impact on the ability of the occupant to exit the car (see Levelling of Lift Cars below) and the required number of control panels within the car (see Controls below).

## Recommendation

- It is recommended that Section 2 be amended to include a statement that the minimum size of lift car necessary to permit a wheelchair user to make a 180° turn within the lift car shall be 1540mm x 12070mm.

Although the minimum clear opening required by AS1428-1 for doors along an accessible path is 850mm, the minimum clear opening required by Section 2 for lift doors must remain as 900mm. The greater clear opening dimension required for lift doors is necessary to permit a wheelchair user to reverse from a lift car because it is not possible to reverse a wheelchair from a lift car along the same path as was used to enter the lift car.

### Doors:

- Section 4 Doors, Clause 4.1 Types states that lift car and landing doors shall be horizontally sliding, power operated, and automatically controlled. While this requirement is most appropriate for all lifts with enclosed lift cars, the horizontally sliding requirement is difficult to comply with for low-rise lifts serving two stops only and using open cars. Such lifts should still be required to use doors, gates, or ramps which are power operated and automatically controlled. Such operation is necessary to comply with the passenger protection requirements.

## Recommendation

- It is recommended that Section 4, Clause 4.1 be re-drafted to exempt low-rise lifts using open cars and serving no more than two stops from the requirement to install horizontally sliding doors.

- Section 4, Clause 4.2 requires lift car doors to be fitted with passenger-protection devices. However Clause 4.2(a) refers to both lift car doors and lift landing doors Therefore it is recommended that the first paragraph should be amended to include landing doors.

#### **Recommendation**

- It is recommended that Clause 4.2 be amended to make it clear that passenger-protection devices shall be fitted to all lift landing doors as well as to lift car doors.
- The meaning of Clause 4.2(a) is not clear. It needs to be clear that both a safety shoe and a series of light beams are required on the lift car doors. Further it needs to be clear that the dual system is required for both car doors and landing doors. It also needs to be clear that for car doors, each light beam originates in the closing edge of the door on one side and is detected in the closing edge of the door on the opposite side. It also should clarify that the same system is used for the landing doors. Clause 4.2(a) should be further clarified. The reference to its longitudinal axis should be deleted and that the 12mm diameter was held vertically.

#### **Recommendation**

- It is recommended that Clause 4.2(a) to be amended to state that both a safety shoe and a series of light beams are required on the lift car doors, and duplicated on the landing doors.
- It is recommended that Clause 4.2(a) be amended to clarify that each light beam originates from the closing edge of the door on one side of the entrance opening and travels horizontally to the detector on the closing edge of the door on the opposite side of the entrance opening.
- It is recommended that Clause 4.2(a) be amended to delete reference to the longitudinal axis and state that the 12mm diameter must be held vertically.
- Clause 4.2(b) which requires a series of beams across the lift car door to a height to 1550mm above the lift car door sill, presents an alternative to the system described in Clause 4.2(a). However as the sides of low-rise lifts with open lift cars are usually less of 1550mm in height, it is recommended that Clause 4.2(b) be amended to take account of low-rise lifts with open lift cars.

### **Recommendation**

- It is recommended that Clause 4.2(b) be amended to take account of low-rise lifts with open lift cars by requiring the light beams 75mm apart from 50mm above the floor to the top of the lift car walls or 1550mm whichever ever is the lower.
- With the introduction of destination directed control systems, the built-in door open dwell times need to be revisited. The requirements presented in Clause 4.3 may no longer be sufficient for all users particularly people with vision impairment.

### **Recommendation**

- It is recommended that the door open dwell times presented in Clause 4.3 be revisited and if extended times are found necessary, Clause 4.3 be amended to reflect the extended times.

### **Levelling of Lift Cars:**

- Within a pedestrian path of travel, any vertical rise greater than 6mm is considered a trip hazard. In addition, any vertical rise of 6mm or greater will present an impassable barrier to many reversing wheelchair users. Therefore the tolerance on levelling accuracy of plus or minus 12mm permitted by AS1735 Part 12 Section 6 is not appropriate under today's OH&S expectations.
- As is noted in Section 6, the levelling accuracy is measured as part of the acceptance test and results may exceed 12mm on occasions during the life of the lift equipment. This places greater emphasis on reducing the tolerance for levelling accuracy at the acceptance test. It is strongly recommended that the tolerance for levelling accuracy at the acceptance test be reduced to plus or minus 5mm. If this requires all passenger lifts to be fitted with automatic re-levelling facilities, this should be done.

### **Recommendation**

- It is recommended that Section 6 be amended to require the tolerance for levelling accuracy at the acceptance test be reduced to plus or minus 5mm for all passenger lifts.
- It is recommended that Section 6 be amended to require all passenger lifts incapable of meeting the plus or minus 5mm tolerance on levelling accuracy be fitted with automatic re-levelling facilities.

### **Control Buttons:**

- Section 7 Clause 7.2.1 details the circumstances which determine when more than one lift car control panel is required. The clause states that when either depth or width of the lift car is less than 1400mm, not less than two accessible control panels are required, one to the left and one to the right of a person entering the lift car. Because persons using lifts differ with respect of the side to which they are capable of operating control buttons, when only one control panel is provided, it will be necessary for many people to turn through 180° in order to operate the lift.
- As noted above under Lift Car Size, the minimum lift car internal dimensions that permit a 180° turn are 1600mm x 2100mm. Therefore it is recommended that Clause 7.2.1 be amended to require two lift car control panels in all lift cars with internal dimensions less than 1600mm x 2100mm.

### **Recommendation**

- It is recommended that Clause 7.2.1 be amended to require two accessible lift car control panels in all lift cars with internal dimensions less than 1600mm x 2100mm.
- Clause 7.2.2(b) states that the communication control button shall be identified by a visible symbol on the button face. The clause must state that this symbol will be in addition to the required tactile symbol and Braille equivalent (which must not be on the face of the button – see below).
- Clause 7.2.2(c) states that the emergency stop control need not be positioned on the required control panels. This control button or switch must however be accessible. It is recommended that Clause 7.2.2(c) be amended to indicate that the emergency stop control must be located in an accessible position, preferably on the control panel.
- Clause 7.2.2(d) states that although two control panels may be required, only one emergency stop control is required. This is illogical in view of the fact that two control panels are required because not all people are capable of reaching and operating controls on both sides of the lift car. Therefore it is recommended that two stop buttons be provided, with each being located in an accessible location, and preferably with each being associated with a different control panel.

### **Recommendation**

- It is recommended that Clause 7.2.2(c) and Clause 7.2.2(d) be combined to require the provision of two stop buttons with each being located in an accessible position either on or in close association with each control panel.

- Clause 7.2.2 requires each control button to be identified by the provision of a tactile symbol plus Braille equivalent. The Clause requires the symbols and Braille to be located above or to the left or on the face of the control button. However, because people who use the tactile symbol to identify the function of the control need to be able to press with sufficient force to differentiate between the raised tactile symbol and the surrounding control panel surface. Such necessary force exceeds the 3.5N stated by Clause 7.4.1.2 as the minimum force required to operate a control button.

### **Recommendation**

- It is recommended that the last paragraph of Clause 7.2.2 be amended to state that all control buttons shall be identified by raised tactile symbols and Braille equivalent located above or to the left of the control button.
- Clause 7.2.3 refers to key pads where provided and states that a tactile dot shall be provided on the centre of number 5 unless the tactile symbol is on the face of the button. From the argument provided above, it is recommended that the words “unless the tactile symbol is on the face of the button” should be deleted from the clause.

### **Recommendation**

- It is recommended that Clause 7.2.3 be amended to delete from the clause the words “unless the tactile symbol is on the face of the button”.
- Clause 7.4.1.2 refers to the force required to operate each control button. Again, this clause refers to situations where the tactile symbol is located on the face of the button. It is recommended that Clause 7.4.1.2 be amended to delete the second sentence.

### **Recommendation**

- It is recommended that Clause 7.4.1.2 be amended to delete the words “Where tactile symbols are provided on the face of the button, the force required to operate the button shall be not less than 3.5N and not more than 5N.”
- Clause 7.4.4 details the extent to which the moving part of a control button or its surround must project beyond the face of the control panel. However many people with disabilities are unable to engage a control button which is level with or below its surround. Further it is not possible to cause the operation of the control if the button cannot be depressed for the full distance of its movement necessary.

### **Recommendation**

- It is recommended that Clause 7.4.4 be amended to require the moving part of a control button to project beyond its surround and the face of the control panel by not less than the distance of travel necessary to operate the control.

**Information:**

- Section 8 Clause 8.1 requires that for lifts serving more than 3 floors, automatic audible information shall be adjustable between 35dB(A) and 55dB(A). However the draft DDA Premises Standards requires the adjustable range to be between 20dB(A) and 80dB(A). It is recommended therefore that Clause 8.1 be amended to require automatic audible information to be adjustable between the range of 20dB(A) and 80dB(A).

**Recommendation**

- It is recommended that Clause 8.1 be amended to require automatic audible information to be adjustable between the range of 20dB(A) and 80dB(A).
- To clarify the intent of the second sentence of Clause 8.1 it is recommended that the sentence be amended to indicate that the tone should be sounded both at the landing and within the lift car.

**Recommendation**

- It is recommended that the second sentence of Clause 8.1 be amended indicate that the tone should be sounded both at the landing and within the lift car.

Many people who use wheelchairs also have hearing impairment. These people will not be able to turn around in all lifts and will not be able to benefit from any audible information. It is necessary therefore to provide all information by both audible and visual means.

**Recommendation**

- It is recommended that Clause 8.2 be amended to include the additional requirement that all information shall be provided by both audible and visual means.
- Clause 8.3 details requirements for tactile information. It must be noted that Braille characters constructed within a recess by routing of the background are difficult to detect.

**Recommendation**

- It is recommended that Clause 8.3(d) be amended to require all tactile information to be provided as raised tactile characters which shall be raised a minimum of 0.8mm above the background.
- The last paragraph of Clause 8.5 states that where there are less than three lifts installed and landing lanterns are installed, audible indicators shall be provided. This sentence suggests that when landing lanterns are not installed, no audible information need be provided. This clearly would not be the intended requirement.

### **Recommendation**

- It is recommended that the words “Where there are three or more lifts in a bank,” be deleted from the first paragraph of Clause 8.5.
- It is recommended therefore that the last paragraph of Clause 8.5 be deleted.
- Because larger lifts carry more people than smaller lifts it is more the norm than not that the presence of other occupants will restrict the manoeuvrability of people using wheelchairs. Therefore it is important, irrespective of the size of the lift car, that a car position indicator be located on both front and back walls.

### **Recommendation**

- It is recommended that Clause 8.6.1 be amended to require a car position indicator be located within the lift car on both the front and the back walls.

### **Communication Systems:**

- Clause 9.2 is titled Acknowledgment of Communication. However the Clause merely requires visible acknowledgment that the communication control button within the lift car has been successfully operated. Unfortunately, illumination of a lamp will not provide a person with vision impairment with an indication that the communication control button has been successfully operated.

### **Recommendation**

- It is recommended that Clause 9.2 be amended to refer to the “successful operation” of the communication control and to require acknowledgment with both an audible tone and the illumination of a lamp.
- Clause 9.5 refers to the lift car end of the communication system. Unfortunately this equipment is all for audible communication and will not provide any assistance for a person with hearing impairment. The information required by the person within the lift car is that the call has been received and is being acted upon.

### **Recommendation**

- It is recommended that Clause 9.5 be amended to require, in addition to a microphone and loudspeaker, a small visible display activated within the lift car when the answering service receives the call to indicate that the call has been received and assistance has been dispatched.

## **Part 16: Lifts for persons with limited mobility – Restricted use – Automatically controlled**

- This Standard was published in 1993 and is long overdue for review. With the introduction of AS1735 Part 18 to cover low-rise lifts for residential applications, Part 16 lifts are released to provide low-rise lifts for commercial applications. The current title for the Part 16 Standard therefore, is now inappropriate and misleading. This is particularly so given that the Note 5 of Clause 1.1 states that such lifts may be installed in small commercial buildings. Further while Note 1 of Clause 1.2 states that a regulatory authority may require the lift to be electrically isolated when not in use, this is not mandatory. Therefore such lifts installed in small commercial buildings may be unlocked throughout trading hours, i.e. their use need not be restricted. Further, it is noted that the draft DDA Premises Standard does not place restrictions on the use of Part 16 compliant lifts.

### **Recommendation**

- It is recommended that the Standard be re-titled as “Low-rise passenger lifts – Automatically controlled”.

### **Recommendation**

- It is recommended that Notes 2, 3 and 6 be converted to normative statements within the text of Clause 1.1.

- It is recommended that Notes 2, 3 and 6 to Clause 1.1 be converted to normative statements within the text of Clause 1.1.

- It is recommended that Note 5 to Clause 1.1 be converted to a normative statement within the text of Clause 1.2.

### **Application:**

- Catering for Specific Disabilities is discussed in Note 2 of Clause 1.2. However any lift installed in a small community building will be expected to transport people with all types of disabilities. Therefore as an automatically controlled low-rise passenger lift, a Part 16 compliant lift should incorporate all the features required by Part 12.

### **Recommendation**

- It is recommended that Note 2 of Clause 1.2 be deleted and be replaced by a normative paragraph requiring the lift to incorporate all the features mandated by Part 12.

**Design Limitations:**

- Clause 2.4.1 states that the maximum size for lift car floor area may be  $1.6\text{m}^2$  (1100mm x 1455mm). The Clause requires that the length of a car without doors be measured from car sill line to car sill line at 1000mm above the floor. However the draft DDA Premises Standard requires the minimum dimensions for the passenger space of the lift car to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ). Therefore if the maximum total car floor area (occupancy area plus space for safety light curtains) must not exceed 1100mm x 1455mm, then any safety light curtains would need to be provided within 55mm, i.e within 27mm of each end. However this conflicts with Clause 12.4(a)(iii) which requires a minimum of 50mm inside the vertical front face of the edge of the sill for location of any light beam.
- Because the full 1100mm x 1400mm is necessary to accommodate a person using a wheelchair plus a carer, it is recommended that Clause 2.4.1 be amended to require this occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.

**Recommendation**

It is recommended that Clause 2.4.1 be amended to require the occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.

- Therefore in order to accommodate the 1100mm x 1400mm occupancy space plus 50mm each end for the light beams, the total floor area must be 1100mm wide x 1500mm long ( $1.65\text{m}^2$ ). It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .

**Recommendation**

It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .

- While Clause 2.4.2 limits the minimum car size to 600mm x 600mm ( $0.6\text{m}^2$ ), it should also limit such sizes to private residences. Further, the draft DDA Premises Standard requires the minimum dimensions for the occupancy area to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ), however this does not take account of the distance necessary any light beams. Therefore it is recommended that Clause 2.4.2 be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.

### **Recommendation**

- It is recommended that Clause 2.4.2 be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.
- It is recommended that a Note be added to Clause 2.4.2 referring to Clause 12.4(a)(iii) for the minimum width in which to provide a light curtain.
- It is recommended that a Note be added to Clause 2.4.2 referring to AS1735-12 Clause 4.2(b) for details for a light curtain.

### **Liftwells:**

- Section 6 Clause 6.5 details Car Clearances. Clause 6.5.1 provides details for Bottom Clearance, yet it is not clear how to determine the required pit depth. It is recommended that a Table 6.5.1 be included by way of clarification.

### **Recommendation**

- It is recommended that a Table 6.5.1 be included to clarify calculation of a complying pit depth.
- Clause 6.5.3(b)(iii) states that the horizontal clearance between the car sill and the landing sill shall be no less than 10mm and no more than 25mm where doors are not powered or 40mm if the doors are powered. It is not clear why a greater gap is permitted for powered doors given that the minimum gap is the same for both situations. It must be noted that the minimum gap permitted by AS1428-1 along a path of travel is 13mm. This would suggest that a gap of even 25mm, would be too large. It is recommended therefore that the permitted range for horizontal clearance between the car sill and the landing sill be limited to between 10mm and 15mm. Further, it can be argued that the horizontal clearance between the car sill and the landing sill at the entrance should be limited to between 10mm and 15mm irrespective of door operation. Therefore, it is recommended that Clause 6.5.3(c) be deleted.

### **Recommendation**

- It is recommended that Clause 6.5.3(b)(iii) be amended to limit the permitted range for horizontal clearance between the car sill and the landing sill to between 10mm and 15mm irrespective of door operation.
- It is recommended that Clause 6.5.3(c) be deleted.

**Cars:**

- Section 12 Clause 12.4 provides the requirements for safety protection of the car entrance. Clause 12.4(a)(i) and Clause 12.4(b) gives requirements for protection by light beams. However the minimum number of required light beams is three, one at 15mm, one at 65mm plus one at 165mm above the floor. It is unlikely that such a series of beams would be interrupted by a 620mm diameter wheelchair wheel before it intercepted the liftwell wall.

**Doors:**

- Clause 13.1 Note 2 refers to the space required at each landing to allow the landing door to fully open without obstructing the expected use of the area. However this statement gives little guidance regarding how to achieve this. It is recommended that Clause 13.1 Note 2 be elevated to a normative statement within Clause 13.1. It is also recommended that Clause 13.1 be amended to add the requirement that the landing call button be located a minimum of 800mm outside the opening arc of the door. It is also recommended that Clause 13.1 be further amended to state that a minimum lift landing of 1540mm x 2070mm is required to provide adequate manoeuvring space.

**Recommendation**

- It is recommended that Clause 13.1 Note 2 be elevated to a normative statement within Clause 13.1.
- It is recommended that Clause 13.1 be amended to add the requirement that the landing call button be located a minimum of 800mm outside the arc of any powered door.
- It is recommended that Clause 13.1 be amended to state that a minimum lift landing of 1540mm x 2070mm is required to provide adequate manoeuvring space.

- Clause 13.2 refers to approved types of doors. Note 1 erroneously suggests that people who use wheelchairs prefer swing type landing doors. As this is not correct, it is recommended that Note 1 to Clause 13.2 be amended to delete the words “Where a passenger is likely to be in a wheelchair, swing type doors are the most suitable type, however”.

**Recommendation**

- It is recommended that Note 1 to Clause 13.2 be amended to delete the words “Where a passenger is likely to be in a wheelchair, swing type doors are the most suitable type, however”.
- Clause 13.3 refers to the clear width of doorway openings. Because AS1735 Part 16 will be referenced in the DDA Premises Standard, It is recommended that the clear width of door openings be increased to 900mm and the reference to a 600mm clear opening relegated to a Note.

### **Recommendation**

It is recommended that Clause 13.3 be amended to require a minimum clear width of doorway opening of 900mm.

▪ Clause 13.4 refers to the height of doorways and states that the minimum permitted vertical clearance shall be 1850mm (1800mm in difficult situations). It is difficult to reconcile this requirement when the BCA requires a minimum vertical clearance at doorways of 1980mm.

### **Recommendation**

It is recommended that Clause 13.4 be amended to require a minimum vertical clearance at doorways of 1980mm.

▪ Clause 13.5 details requirements for the construction of lift doors and door handles. Door handles on the liftwell side need to be flush and also need to comply with AS1428-1. However because door handles complying with AS1428-1 necessarily protrude beyond the face of the door and the force required to open a door is limited to 20N, it is recommended that all landing doors be power operated and function automatically. It is also recommended that where car doors are fitted they be horizontally sliding, power operated and function automatically.

### **Recommendation**

It is recommended that all landing doors be power operated and function automatically.

It is recommended that where car doors are fitted they be horizontally sliding, power operated and function automatically.

▪ Clause 13.8 gives details for viewing panels in doors and requires compliance with AS1735-2. The area of the panel is limited to 0.065m<sup>2</sup> (i.e. 600mm x 108mm).

▪ Requirements for glazed viewing panels in doors to be opened by people with disabilities are given in AS1428-1. This Standard requires the lower edge of the glazing to be not greater than 1000mm above the floor; the upper edge to be not less than 1600mm above the floor; the edge of the glazed panel to be not more than 200mm from the latch side of the door and to be not less than 150mm wide. Therefore the minimum permitted viewing panel area

would be 0.09m<sup>2</sup> (i.e. 600mm x 150mm). As Clause 13.8 permits the installation of two viewing panels in lift landing doors

### **Recommendation**

It is recommended that Clause 13.8 be amended to limit the maximum area of viewing panels in landing doors to 0.09m<sup>2</sup> and restrict the location to that required by AS1428-1.

### **Control Devices:**

▪ Section 15 details requirements for Control Devices. It is recommended that a Clause be added to Section 15 requiring compliance with AS1735-12 Section 7 for the design of control devices.

### **Recommendation**

It is recommended that a new Clause be added to AS1735-16 Section 15 requiring compliance with AS1735-12 Section 7 for the design of control devices.

## **Part 15: Low-rise passenger lifts – Non-automatically controlled**

### **Scope:**

▪ Section 1 Clause 1.1 Scope limits the Part 15 lift to a low-rise, low-speed passenger lift controlled by a constant pressure device. Such devices limit the functionality of the lift for people with disability. It is recognised that a constant pressure control is necessary for safety because the provisions of the Standard only provide the minimum requirements. However with sufficient safety devices fitted it would be possible to operate the lift under automatic control. This would significantly enhance the utility of Part 15 lifts.

### **Recommendation**

It is recommended that an additional Appendix be written which gives guidance on the necessary safety features to be installed to permit the lift to operate safely under automatic control.

It is recommended that an additional Note be added to Clause 1.1 referring to the Appendix giving guidance for those manufacturers who wish to produce a lift that can operate safely under automatic control.

**Design Limitations:**

- Clause 2.4.1 states that the maximum size for lift car floor area may be  $1.6\text{m}^2$  (1100mm x 1455mm). The Clause requires that the length of a car without doors be measured from car sill line to car sill line at 1000mm above the floor. However the draft DDA Premises Standard requires the minimum dimensions for the passenger space of the lift car to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ). Therefore if the maximum total car floor area (occupancy area plus space for safety light curtains) must not exceed 1100mm x 1455mm, then any safety light curtains would need to be provided within 55mm, i.e within 27mm of each end. However this conflicts with Clause 12.4(a)(iii) which requires a minimum of 50mm inside the vertical front face of the edge of the sill for location of any light beam.
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- Because the full 1100mm x 1400mm is necessary to accommodate a person using a wheelchair plus a carer.

**Recommendation**

- It is recommended that Clause 2.4.1 be amended to require the occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.
- Therefore in order to accommodate the 1100mm x 1400mm occupancy space plus 50mm each end for the light beams, the total floor area must be 1100mm wide x 1500mm long ( $1.65\text{m}^2$ ). It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .

**Recommendation**

- It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .
- While Clause 2.4.2 limits the minimum car size to 600mm x 600mm ( $0.6\text{m}^2$ ), it should also limit such sizes to private residences. Further, the draft DDA Premises Standard requires the minimum dimensions for the occupancy area to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ), however this does not take account of the distance necessary any light beams.

**Recommendation**

- It is recommended that Clause 2.4.2 be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.
- It is recommended that a Note be added to Clause 2.4.2 referring to Clause 12.4(a)(iii) for the minimum width in which to provide a light curtain.
- It is recommended that a Note be added to Clause 2.4.2 referring to AS1735-12 Clause 4.2(b) for details for a light curtain.

**Liftwells:**

- Section 6 Clause 6.5 details Car Clearances. Clause 6.5.1 provides details for Bottom Clearance, yet it is not clear how to determine the required pit depth. It is recommended that a Table 6.5.1 be included by way of clarification.

**Recommendation**

- It is recommended that a Table 6.5.1 be included to clarify calculation of a complying pit depth.

- Clause 6.5.3 states that the horizontal clearance between the car sill and the landing sill shall be no less than 10mm and no more than 25mm. It is noted that the minimum gap permitted by AS1428-1 along a path of travel is 13mm which would suggest that a gap of 25mm, would be too large. It is recommended therefore that the permitted range for horizontal clearance between the car sill and the landing sill be limited to between 10mm and 15mm.

**Recommendation**

- It is recommended that Clause 6.5.3 be amended to limit the permitted range for horizontal clearance between the car sill and the landing sill to between 10mm and 15mm.

**Doors and Gates:**

- Clause 13.1 details requirements for landing doors and gates. The Note refers to the space required at each landing to allow the landing door to fully open without obstructing the expected use of the area. It is recommended that the Note to Clause 13.1 be elevated to a normative statement within Clause 13.1. It is also recommended that Clause 13.1 be amended to add the requirement that the landing call button be located a minimum of 800mm outside the arc of the door. Additionally it is recommended that Clause 13.1 be further amended to state that a minimum lift landing of 1540mm x 2070mm is required to provide adequate manoeuvring space.

**Recommendation**

- It is recommended that the Note to Clause 13.1 be elevated to a normative statement within Clause 13.1.
- It is recommended that Clause 13.1 be amended to add the requirement that the landing call button be located a minimum of 800mm outside the arc of any powered door.
- It is recommended that Clause 13.1 be amended to state that a minimum lift landing of 1540mm x 2070mm is required to provide adequate manoeuvring space.

- Clause 13.2 refers to approved types of doors. The Clause states that the force required to open a manual door or gate shall not exceed 20N. This Clause should also require manual doors or gates be fitted with a D-type pull handle between 900mm and 1100mm above the floor as prescribed by AS1428-1.

#### **Recommendation**

It is recommended that Clause 13.2 be amended to require all manual doors or gates be fitted with a D-type pull handle between 900mm and 1100mm above the floor as prescribed by AS1428-1.

- Clause 13.2 Note 2 erroneously suggests that people who use wheelchairs prefer swing type landing doors. As this is not correct, it is recommended that Note 2 to Clause 13.2 be amended to delete the words “Where a passenger is likely to be in a wheelchair, swing type doors are the most suitable type, however”.

#### **Recommendation**

It is recommended that Note 2 to Clause 13.2 be amended to delete the words “Where a passenger is likely to be in a wheelchair, swing type doors are the most suitable type, however”.

- Clause 13.3 refers to the clear width of doorway openings. Because AS1735 Part 15 will be referenced in the DDA Premises Standard, It is recommended that the clear width of door openings be increased to 900mm.

#### **Recommendation**

It is recommended that Clause 13.3 be amended to require a minimum clear width of doorway opening of 900mm.

- Clause 13.8 gives details for viewing panels in doors and requires compliance with AS1735-2. Requirements for glazed viewing panels in doors to be opened by people with disabilities are also given in AS1428-1 which provides details for the effective location and minimum size required. It is recommended that Clause 13.8 be amended to require viewing panels in landing doors to meet the effective location and minimum size requirements required by AS1428-1.

#### **Recommendation**

It is recommended that Clause 13.8 be amended to require viewing panels in landing doors to meet the effective location and minimum size requirements required by AS1428-1.

### **Control Devices:**

- Clause 15.1.1 permits control devices between 850mm and 1250mm above the floor. However AS1428-1 limits the location of controls to between 900mm and 1100mm. It is noted that because a Part 15 compliant lift is limited in the height of travel and therefore the number of stops, the size of control panels will also be limited. Further because the force which people with disabilities can apply to a device declines with height above 900mm.

### **Recommendation**

- It is recommended that Clause 15.1.1 be amended to limit the location of any control device requiring constant pressure to between 900mm and 1000mm above the floor and the location of control devices not requiring constant pressure to between 900mm and 1100mm above the floor.
- Clause 15.3 gives details for operating control devices. This Clause should include a sub-clause requiring all control buttons to be operated by people with disabilities to comply with the design provisions of AS1735-12 including for raised tactile characters and Braille.

### **Recommendation**

- It is recommended that Clause 15.3 be amended to include a sub-clause requiring all control buttons to be operated by people with disabilities to comply with the design provisions of AS1735-12 including for raised tactile characters and Braille.
- While Clause 15.3.1 limits the maximum operating force for constant pressure control devices to 10N it is noted that AS1735-12 limits the maximum operating force for control buttons to 5N. Because of the difficulty people with disabilities have in applying sustained pressure to a device, it is recommended that Clause 15.3.1 be amended to limit the required operating force for constant pressure devices to 5N.

### **Recommendation**

- It is recommended that Clause 15.3.1 be amended to limit the required operating force for constant pressure devices to 5N.

## **Part 14: Low-rise platforms for passengers**

### **Design Limitations:**

- Clause 5.4.1 states that the maximum size for lift car floor area may be 1.6m<sup>2</sup> (1100mm x 1455mm). The length of a lift car without doors is generally measured from car sill line to car sill line at 1000mm above the floor. However the draft DDA Premises Standard requires the minimum lift floor dimensions to be 1100mm wide x 1400mm deep (1.54m<sup>2</sup>). Therefore because Clause 12.4(a)(iii) requires a minimum of 50mm inside the vertical front face of the edge of the sill for location of any light beam, the maximum total lift car floor area available for passengers will be 1100mm x 1300mm when two light

beams are installed or 1100mm x 1350mm when only one light beam is installed. A lift car with floor dimensions of 1100mm x 1300mm will not accommodate an occupied wheelchair plus an attendant carer. It is recommended therefore that the mechanics of AS1735-14 be upgraded to accommodate a lift with a floor area of 1100mm wide x 1500mm long (1.65m<sup>2</sup>).

- Because the full 1100mm x 1400mm is necessary to accommodate a person using a wheelchair plus a carer, it is recommended that Clause 5.4.1 be amended to require this occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.
- Therefore in order to accommodate the 1100mm x 1400mm occupancy space plus 50mm each end for the light beams, the total floor area must be 1100mm wide x 1500mm long (1.65m<sup>2</sup>).

### **Recommendation**

- It is recommended that Clause 5.4.1 be amended to require the occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.
- It is recommended that Clause 5.4.1 be amended to limit the lift car floor area to a maximum of 1.65m<sup>2</sup>.
- It is recommended that the mechanics of an AS1735-14 platform lifts be upgraded to accommodate a lift with a maximum car floor area of 1.65m<sup>2</sup>.
- While Clause 5.4.2(a) limits the minimum car size to 400mm x 600mm (0.24m<sup>2</sup>), it should also limit such sizes to private residences. Further, the draft DDA Premises Standard requires the minimum dimensions for the lift floor dimensions to be 1100mm wide x 1400mm deep (1.54m<sup>2</sup>), however this does not take account of the distance necessary any light beams.

### **Recommendation**

- It is recommended that Clause 5.4.2(b) be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.
- It is recommended that a Note be added to Clause 5.4.2 referring to Clause 12.4(a)(iii) for the minimum width in which to provide a light curtain.
- It is recommended that a Note be added to Clause 5.4.2 referring to AS1735-12 Clause 4.2(b) for details for a light curtain.

### **Operating Clearances:**

- Clause 9 states that the horizontal clearance between the car sill and the landing sill shall be no less than 10mm and no more than 20mm. The minimum gap permitted by AS1428-1 along a path of travel is 13mm which suggests that a gap of 20mm would be too large. It is recommended therefore that the permitted range for horizontal clearance between the car sill and the landing sill be limited to between 10mm and 15mm.

### **Recommendation**

- It is recommended that Clause 9 be amended to limit the permitted range for horizontal clearance between the car sill and the landing sill to between 10mm and 15mm.

### **Landing Protection:**

- Both AS1735-12 and AS1735-14 are silent with regard to the required size of landings serving lifts. Because the circulation space provided by the lift landing is critical to the user's ability to access the lift car, it is recommended that both Part 12 and Part 14 give guidance regarding the minimum size of lift landings.
- Because there are many situations in which the user must reverse from a lift, e.g. when the other occupants prevent manoeuvring of the wheelchair within the lift car. Such situations require the wheelchair user to make a 90° or 180° turn before proceeding from the lift landing. AS1428 Part 2-1992 Clause 6.2 states that the minimum space required to turn a wheelchair through 180° is 1540 x 2070mm. To allow access by all, it is recommended that a new Section to address Lift Landings be added to AS1735 Part 12 which states that each public passenger lift shall be provided with a minimum landing space of 1540mm x 2070mm. Further it is recommended that a new Clause be added to AS1735-14 which references the relevant clause within AS1735-12 requiring a minimum landing space of 1540mm x 2070mm.

### **Recommendation**

- It is recommended that a new Section to address Lift Landings be added to AS1735 Part 12 which states that each public passenger lift shall be provided with a minimum landing space of 1540mm x 2070mm to allow access by all.
- Clause 14 requires a self-closing gate at the top landing where travel exceeds 600mm. This gate must swing on to the landing. This landing shall be a minimum of 1540mm x 2070mm. The gate shall not require more than 20N to open and have a D-ring handle fitted 900-1100mm above the floor. If power gates are provided a lift call button shall be at least 800mm clear from the arc of the gate swing.

## **Recommendation**

- It is recommended that a new sub-Clause be added to AS1735-14 Clause 14 which references the relevant clause within AS1735-12 requiring a minimum landing space of 1540mm x 2070mm.
- It is recommended that a new sub-Clause be added to AS1735-14 Clause 14 requiring the top landing gate to require not more than 20N to open.
- It is recommended that a new sub-Clause be added to AS1735-14 Clause 14 requiring a D-ring handle be fitted to all manual gates at 900-1100mm above the floor.
- It is recommended that where power operated gates are fitted, the lift call button shall be fitted at least 800mm clear of the arc of the swing of the door.

## **Control Devices:**

- Clause 15(a) allows control devices to be located on either the platform or the landing or both. It is essential that in public buildings the controls must be located on the lift car in addition to on the landing irrespective of height of travel. It is recommended that Clause 15(a) and Clause 15(b) be amalgamated and require the controls to be located on both the lift car and on the landing.
- Clause 15(d) should be amended to delete the second sentence stating “where the travel is less than 600mm and the control device has not been provided on the platform,”.
- Where a continuous pressure control device is provided, it must be located at a height between 900mm and 1000mm to permit the majority of users to operate control. Further, where a continuous pressure control device is provided, the force required to operate the control shall not exceed 5N. It is recommended that a new Clause be added to Clause 15 requiring the force necessary to operate the control device not exceed 5N.

## **Recommendation**

- It is recommended that Clause 15(a) and Clause 15(b) be amalgamated and require the controls to be located both on the lift car and on the landing.
- It is recommended that Clause 15(d) be amended to delete the second sentence stating “where the travel is less than 600mm and the control device has not been provided on the platform”.
- It is recommended that a new sub-Clause be added to Clause 15 stating that where a continuous pressure control device is provided, it must be located at a height between 900mm and 1000mm above the floor.
- It is recommended that a new sub-Clause be added to Clause 15 requiring the force necessary to operate the control device to not exceed 5N.

- It is recommended that a new sub-Clause be added to Clause 15 requiring control buttons to comply with AS1735-12 with respect to raised tactile characters and Braille.

## **Part 7: Stairway lifts**

### **Platform area:**

- Table 1 requires the minimum platform dimensions to be 685mm wide x 1000mm long. However the draft DDA Premises Standard requires the minimum platform size for stairway lifts in public buildings to be 810mm wide x 1200mm long. It is recommended therefore that Table 1 be amended to show the platform minimum dimensions as 1200mm long and 810mm wide. The Note to Table 1 states that length is measured horizontally in the direction of travel between the safety flaps in the elevated position or the sensitive edges in the non-actuated position, whichever applies. The position at which length is measured is not clear to all readers.

### **Recommendation**

- It is recommended therefore that Table 1 be amended to show the platform minimum dimensions as 1200mm long and 810mm wide.
- It is recommended that a Figure be provided in association with Table 1 to clarify the position at which platform length is measured.

### **End Person Clearance:**

- While Clause 14 refers to an end person clearance of 300mm, this clearance does not address the necessary wheelchair circulation space of 1540mm x 2070mm required for the bottom landing and the top landing. Access to the platform shall be by end approach only.

### **Recommendation**

- It is recommended that a sub-Clause be added to Clause 14 requiring wheelchair circulation space of 1540mm x 2070mm at the bottom landing and at the top landing for stairway lifts in public buildings.
- It is recommended that a sub-Clause be added to Clause 14 requiring access to the platform to be by end approach only for stairway lifts in public buildings.

### **Carriage:**

- Clause 18.3 requires the wheelchair platform to be provided with an approach ramp. This is generally self-retracting and attached to the end of the platform. Because the Note to Table 1 requires the length of the platform to be measured horizontally between the safety flaps in the elevated position there is a conflict between the length of the ramp, the grade of the ramp and the length of platform floor available to accommodate a wheelchair.

### **Recommendation**

It is recommended that platform ramps be limited in length to 300mm and that these fold to 45 degrees during travel.

### **Operating Controls:**

▪ Clause 23.1 requires the operating controls be of a continuous pressure type. Where continuous pressure controls are installed the force required to operate these controls must not exceed 5N.

### **Recommendation**

It is recommended that a sub-Clause be added to Clause 23 stating that the force required to operate constant pressure controls shall not exceed 5N.

It is recommended that all control buttons (landing and platform) be identified by raised tactile characters and Braille as detailed in AS1735-12.

It is recommended that a sub-Clause be added to Clause 23 stating that all control buttons be identified by raised tactile characters and Braille as detailed in AS1735-12.

### **Recommendation**

It is recommended that a sub-Clause be added to Clause 23 requiring the landing call button to be located within reach of a person in a wheelchair who is positioned ready to board the platform.

## **Part 12: Facilities for persons with disabilities**

### **Preface, Scope and Application:**

▪ While the Preface to the 1999 edition states that the Standard is applicable to public buildings only and is compatible with the Building Code of Australia (BCA), the Scope states that the document sets out requirements for facilities in passenger lifts that are specifically designed to assist persons with disabilities. Further, the Application states that the Standard applies to new lifts in the public access path and in new lift wells in buildings other than private dwellings, and specifically where the building authority stipulates provision of facilities for people with disabilities.

▪ Although from the Application it might be interpreted that the Standard applies only to passenger lifts with a fully enclosed lift car (i.e. Parts 1, 2, 3, and 16), this neglects the need for guidance with regard to facilities necessary to permit people with disabilities to use all lifts, i.e. it must apply to all passenger lifts including Part 7, 8, 14, or 15 lifts. Obviously if a functional element is necessary to drive a high-rise lift, then it also must be necessary to drive a low-rise lift.

### **Recommendation**

It is recommended that Part 12 Application be amended to indicate that it applies to all passenger lifts.

- With introduction of the Disability Discrimination Act (DDA) Standard on Access to Premises (Premises Standard), Clause 1.1.2 will become redundant.

### **Recommendation**

- It is recommended that Clause 1.1.2 be deleted.

### **Lift Landings:**

- Part 12 is silent with regard to the required size of landings serving lifts. Because the circulation space provided by the lift landing is critical to the user's ability to access the lift car, it is recommended that Part 12 give guidance regarding the minimum size of lift landings.

- Because there are many situations in which the user must reverse from a lift, e.g. when the other occupants prevent manoeuvring of the wheelchair within the lift car. Upon exiting the lift car, the user of the wheelchair will be required to make a 90° or 180° turn before proceeding from the lift landing. Because AS1428 Part 2-1992 Clause 6.2 prescribes the minimum space necessary to turn an occupied wheelchair through 180° is 1540 x 2070mm.

### **Recommendation**

- It is recommended that a new Section to address Lift Landings be added to Part 12 which states that each public passenger lift shall be provided with a minimum landing circulation space of 1540mm x 2070mm to allow access by all.

### **Lift Car Size:**

- Section 2 states that the minimum lift car internal dimensions shall be 1100mm wide by 1400mm deep. The draft Disability Discrimination Act Standards on Access to Premises (Premises Standard) was originally prepared to provide access for 90% of people with disabilities. Table E3.6(b) of this Premises Standard requires the minimum lift car floor size to be 1400mm x 1600mm for all lifts with travel in excess of 12 m. Therefore although Table E3.6(b) allows exceptions to this required lift car floor size for low-rise lifts, it must be noted that these are concessions as a lift car with internal dimensions of 1100mm x 1400mm will fall short of the access needs required for 90% of people with disabilities. It is suggested that with the release of the draft Premises Standard, current wording in Section 2 is incorrect.

### **Recommendation**

- It is recommended that Section 2 be re-drafted to reflect the new requirements, i.e. that the minimum lift car internal dimensions shall be 1400mm wide by 1600mm deep.

- Section 2 should also note the exceptions allowed by the draft Premises Standard.

### **Recommendation**

It is recommended that Section 2 be re-drafted to indicate the exceptions allowed by the draft Premises Standard, namely that minimum lift floor dimensions may be reduced to 1100mm x 1400mm for all low-rise lifts (travel no more than 12 m), while the minimum lift floor dimensions may be reduced further to 810mm x 1200mm for AS1735-7 stairway platform lifts.

- As discussed under Lift Landings above, the minimum space required to turn a wheelchair through 180° is 1540 x 2070mm. Therefore a lift car of 1400mm x 1600mm would not permit a wheelchair user to perform a 180° turn within the lift car. The minimum internal dimensions of a lift car necessary to permit a wheelchair user to make a 180° turn within the lift car would be 1540mm x 2070mm. The nearest standard sized lift car shown in ISO/DIS 4190-1 would have an inner dimension of 1600mm x 2100mm. The ability to perform a 180° turn within the lift car will have an impact on the ability of the occupant to exit the car (see Levelling of Lift Cars below) and the required number of control panels within the car (see Controls below).

### **Recommended**

It is recommended that Section 2 be amended to include a statement that the minimum size of lift car necessary to permit a wheelchair user to make a 180° turn within the lift car shall be 1540mm x 12070mm.

Although the minimum clear opening required by AS1428-1 for doors along an accessible path is 850mm, the minimum clear opening required by Section 2 for lift doors must remain as 900mm. The greater clear opening dimension required for lift doors is necessary to permit a wheelchair user to reverse from a lift car because it is not possible to reverse a wheelchair from a lift car along the same path as was used to enter the lift car.

### **Doors:**

- Section 4 Doors, Clause 4.1 Types states that lift car and landing doors shall be horizontally sliding, power operated, and automatically controlled. While this requirement is most appropriate for all lifts with enclosed lift cars, the horizontally sliding requirement is difficult to comply with for low-rise lifts serving two stops only and using open cars. Such lifts should still be required to use doors, gates, or ramps which are power operated and automatically controlled. Such operation is necessary to comply with the passenger protection requirements.

### **Recommendation**

It is recommended that Section 4, Clause 4.1 be re-drafted to exempt low-rise lifts using open cars and serving no more than two stops from the requirement to install horizontally sliding doors.

- Section 4, Clause 4.2 requires lift car doors to be fitted with passenger-protection devices. However Clause 4.2(a) refers to both lift car doors and lift landing doors.

### **Recommendation**

- It is recommended that Clause 4.2 be amended to make it clear that passenger-protection devices shall be fitted to all lift landing doors as well as to lift car doors.
- The meaning of Clause 4.2(a) is not clear. It needs to be clear that both a safety shoe and a series of light beams are required on the lift car doors. Further it needs to be clear that the dual system is required for both car doors and landing doors. It also needs to be clear that for car doors, each light beam originates in the closing edge of the door on one side and is detected in the closing edge of the door on the opposite side. It also should clarify that the same system is used for the landing doors. Clause 4.2(a) should be further clarified if it stated that the 12mm diameter was held vertically and deleting reference to its longitudinal axis.

### **Recommendation**

- It is recommended that Clause 4.2(a) to be amended to state that both a safety shoe and a series of light beams are required on the lift car doors, and duplicated on the landing doors.
- It is recommended that Clause 4.2(a) be amended to clarify that each light beam originates from the closing edge of the door on one side of the entrance opening and travels horizontally to the detector on the closing edge of the door on the opposite side of the entrance opening.
- It is recommended that Clause 4.2(a) be amended to delete reference to the longitudinal axis and state that the 12mm diameter must be held vertically.
- Clause 4.2(b) which requires a series of beams across the lift car door to a height to 1550mm above the lift car door sill, presents an alternative to the system described in Clause 4.2(a). However as the sides of low-rise lifts with open lift cars are usually less of 1550mm in height, it is recommended that Clause 4.2(b) be amended to take account of low-rise lifts with open lift cars.

### **Recommendation**

- It is recommended that Clause 4.2(b) be amended to take account of low-rise lifts with open lift cars by requiring the light beams 75mm apart from 50mm above the floor to the top of the lift car walls or 1550mm which ever is the lower.

- With the introduction of destination directed control systems, the built-in door open dwell times need to be revisited. The requirements presented in Clause 4.3 may no longer be sufficient for all users particularly people with vision impairment.

#### **Recommendation**

- It is recommended that the door open dwell times presented in Clause 4.3 be revisited and if extended times are found necessary, Clause 4.3 be amended to reflect the extended times.

#### **Levelling of Lift Cars:**

- Within a pedestrian path of travel, any vertical rise greater than 6mm is considered a trip hazard. In addition, any vertical rise of 6mm or greater will present an impassable barrier to many reversing wheelchair users. Therefore the tolerance on levelling accuracy of plus or minus 12mm permitted by AS1735 Part 12 Section 6 is not appropriate under today's OH&S expectations.

- As is noted in Section 6, the levelling accuracy is measured as part of the acceptance test and results may exceed 12mm on occasions during the life of the lift equipment. This places greater emphasis on reducing the tolerance for levelling accuracy at the acceptance test. It is strongly recommended that the tolerance for levelling accuracy at the acceptance test be reduced to plus or minus 5mm. If this requires all passenger lifts to be fitted with automatic releveling facilities, this should be done.

#### **Recommendation**

- It is recommended that Section 6 be amended to require the tolerance for levelling accuracy at the acceptance test be reduced to plus or minus 5mm for all passenger lifts.

- It is recommended that Section 6 be amended to require all passenger lifts incapable of meeting the plus or minus 5mm tolerance on levelling accuracy be fitted with automatic re-levelling facilities.

#### **Control Buttons:**

- Section 7 Clause 7.2.1 details the circumstances which determine when more than one lift car control panel is required. The clause states that when either depth or width of the lift car is less than 1400mm, not less than two accessible control panels are required, one to the left and one to the right of a person entering the lift car. Because persons using lifts differ with respect of the side to which they are capable of operating control buttons, when only one control panel is provided, it will be necessary for many people to turn through 180° in order to operate the lift.

- As noted above under Lift Car Size, the minimum lift car internal dimensions that permit a 180° turn are 1600mm x 2100mm.

### **Recommendation**

- It is recommended that Clause 7.2.1 be amended to require two accessible lift car control panels in all lift cars with internal dimensions less than 1600mm x 2100mm.
  
- Clause 7.2.2(b) states that the communication control button shall be identified by a visible symbol on the button face. The clause must state that this symbol will be in addition to the required tactile symbol and Braille equivalent (which must not be on the face of the button – see below).
  
- Clause 7.2.2(c) states that the emergency stop control need not be positioned on the required control panels. This control button or switch must however be accessible.
  
- Clause 7.2.2(d) states that although two control panels may be required, only one emergency stop control is required. This is illogical in view of the fact that two control panels are required because not all people are capable of reaching and operating controls on both sides of the lift car.

### **Recommendation**

- It is recommended that Clause 7.2.2(c) and Clause 7.2.2(d) be combined to require the provision of two stop buttons with each being located in an accessible position either on or in close association with each control panel.
  
- Clause 7.2.2 requires each control button to be identified by the provision of a tactile symbol plus Braille equivalent. The Clause requires the symbols and Braille to be located above or to the left or on the face of the control button. However, because people who use the tactile symbol to identify the function of the control need to be able to press with sufficient force to differentiate between the raised tactile symbol and the surrounding control panel surface. Such necessary force exceeds the 3.5N stated by Clause 7.4.1.2 as the minimum force required to operate any control button. It is recommended therefore that the last paragraph of Clause 7.2.2 be amended to state that the required identifying raised tactile symbol and Braille equivalent be restricted to above or to the left of the control button.

### **Recommendation**

- It is recommended that the last paragraph of Clause 7.2.2 be amended to state that all control buttons shall be identified by raised tactile symbols and Braille equivalent located above or to the left of the control button.

- Clause 7.2.3 refers to key pads where provided and states that a tactile dot shall be provided on the centre of number 5 unless the tactile symbol is on the face of the button. From the argument provided above.

### **Recommendation**

- It is recommended that Clause 7.2.3 be amended to delete from the clause the words “unless the tactile symbol is on the face of the button”.
- Clause 7.4.1.2 refers to the force required to operate each control button. Again, this clause refers to situations where the tactile symbol is located on the face of the button. It is recommended that Clause 7.4.1.2 be amended to delete the second sentence.

### **Recommendation**

- It is recommended that Clause 7.4.1.2 be amended to delete the words “Where tactile symbols are provided on the face of the button, the force required to operate the button shall be not less than 3.5N and not more than 5N”.
- Clause 7.4.4 details the extent to which the moving part of a control button or its surround must project beyond the face of the control panel. However many people with disabilities are unable to engage a control button which is level with or below its surround. Further it is not possible to cause the operation of the control if the button cannot be depressed for the full distance of its movement necessary. It is therefore recommended that the moving part of a control button be required to project beyond its surround by not less than the distance of travel necessary to operate the control.

### **Recommendation**

- It is recommended that Clause 7.4.4 be amended to require the moving part of a control button to project beyond its surround and the face of the control panel by not less than the distance of travel necessary to operate the control.

### **Information:**

- Section 8 Clause 8.1 requires that for lifts serving more than 3 floors, automatic audible information shall be adjustable between 35dB(A) and 55dB(A). However the draft DDA Premises Standards requires the adjustable range to be between 20dB(A) and 80dB(A).

### **Recommendation**

- It is recommended that Clause 8.1 be amended to require automatic audible information to be adjustable between the range of 20dB(A) and 80dB(A).

- To clarify the intent of the second sentence of Clause 8.1 it is recommended that the sentence be amended to indicate that the tone should be sounded both at the landing and within the lift car.

### **Recommendation**

It is recommended that the second sentence of Clause 8.1 be amended indicate that the tone should be sounded both at the landing and within the lift car.

- Many people who use wheelchairs also have hearing impairment. These people will not be able to turn around in all lifts and will not be able to benefit from any audible information. It is necessary therefore to provide all information by both audible and visual means. It is recommended therefore that Clause 8.2 be amended to provide the additional requirement that all information shall be provided by both audible and visual means.

### **Recommendation**

It is recommended that Clause 8.2 be amended to include the additional requirement that all information shall be provided by both audible and visual means.

- Clause 8.3 details requirements for tactile information. It must be noted that Braille characters constructed within a recess by routing of the background are difficult to detect.

### **Recommendation**

It is recommended that Clause 8.3(d) be amended to require all tactile information to be provided as raised tactile characters which shall be raised a minimum of 0.8mm above the background.

- The last paragraph of Clause 8.5 states that where there are less than three lifts installed and landing lanterns are installed, audible indicators shall be provided. This sentence suggests that when landing lanterns are not installed, no audible information need be provided. This clearly would not be the intended requirement.

### **Recommendation**

It is recommended that the words “Where there are three or more lifts in a bank,” be deleted from the first paragraph of Clause 8.5.

It is recommended therefore that the last paragraph of Clause 8.5 be deleted.

- Because larger lifts carry more people than smaller lifts it is more the norm than not that the presence of other occupants will restrict the manoeuvrability of people using wheelchairs. Therefore it is important, irrespective of the size of the lift car, that a car position indicator be located on both front and back walls.

### **Recommendation**

It is recommended that Clause 8.6.1 be amended to require a car position indicator be located within the lift car on both the front and the back walls.

### **Communication Systems:**

- Clause 9.2 is titled Acknowledgment of Communication. However the Clause merely requires visible acknowledgment that the communication control button within the lift car has been successfully operated. Unfortunately, illumination of a lamp will not provide a person with vision impairment with an indication that the communication control button has been successfully operated.

### **Recommendation**

- It is recommended that Clause 9.2 be amended to refer to the “successful operation” of the communication control and to require acknowledgment with both an audible tone and the illumination of a lamp.
- Clause 9.5 refers to the lift car end of the communication system. Unfortunately this equipment is all for audible communication and will not provide any assistance for a person with hearing impairment. The information required by the person within the lift car is that the call has been received and is being acted upon.

### **Recommendation**

- It is recommended that Clause 9.5 be amended to require, in addition to a microphone and loudspeaker, a small visible display activated within the lift car when the answering service receives the call to indicate that the call has been received and assistance has been dispatched.

### **Part 16: Lifts for persons with limited mobility – Restricted use – Automatically controlled**

- This Standard was published in 1993 and is long overdue for review. With the introduction of AS1735 Part 18 to cover low-rise lifts for residential applications, Part 16 lifts are released to provide low-rise lifts for commercial applications. The current title for the Part 16 Standard therefore, is now inappropriate and misleading. This is particularly so given that the Note 5 of Clause 1.1 states that such lifts may be installed in small commercial buildings. Further while Note 1 of Clause 1.2 states that a regulatory authority may require the lift to be electrically isolated when not in use, this is not mandatory. Therefore such lifts installed in small commercial buildings may be unlocked throughout trading hours, i.e. their use need not be restricted.

Further, it is noted that the draft DDA Premises Standard does not place restrictions on the use of Part 16 compliant lifts. Therefore it is recommended that the Standard be re-titled as “Low-rise passenger lifts – Automatically controlled”.

**Recommendation**

- It is recommended that the Standard be re-titled as “Low-rise passenger lifts – Automatically controlled”.

**Scope:**

- Because Notes to Clauses are informative and not normative, it is recommended that Notes 2, 3, 5, and 6 be converted to normative statements within the text. Note 2 should be incorporated into the first paragraph. Note 3 should be incorporated into paragraph two. Note 5 should become a normative Clause under Clause 1.2. Note 6 should become a normative Clause under Clause 1.1.

**Recommendation**

- It is recommended that Notes 2, 3 and 6 be converted to normative statements within the text of Clause 1.1.
  
- It is recommended that Notes 2, 3 and 6 to Clause 1.1 be converted to normative statements within the text of Clause 1.1.
  
- It is recommended that Note 5 to Clause 1.1 be converted to a normative statement within the text of Clause 1.2.

**Application:**

- Note 2 of Clause 1.2 discusses Catering for Specific Disabilities. However any lift installed in a small community building will be expected to transport people with all types of disabilities. Therefore as an automatically controlled low-rise passenger lift, a Part 16 compliant lift should incorporate all the features required by Part 12. It is recommended that Note 2 of Clause 1.2 be deleted and be replaced by a normative paragraph requiring the lift to incorporate all the features mandated by Part 12.

**Recommendation**

- It is recommended that Note 2 of Clause 1.2 be deleted and be replaced by a normative paragraph requiring the lift to incorporate all the features mandated by Part 12.

**Design Limitations:**

- Clause 2.4.1 states that the maximum size for lift car floor area may be  $1.6\text{m}^2$  (1100mm x 1455mm). The Clause requires that the length of a car without doors be measured from car sill line to car sill line at 1000mm above the floor. However the draft DDA Premises Standard requires the minimum dimensions for the passenger space of the lift car to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ). Therefore if the maximum total car floor area (occupancy area plus space for safety light curtains) must not exceed 1100mm x 1455mm, then any safety light curtains would need to be provided within 55mm, i.e within 27mm of each end. However this conflicts with Clause 12.4(a)(iii) which requires a minimum of 50mm inside the vertical front face of the edge of the sill for location of any light beam.
- Because the full 1100mm x 1400mm is necessary to accommodate a person using a wheelchair plus a carer, it is recommended that Clause 2.4.1 be amended to require this occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.

**Recommendation**

It is recommended that Clause 2.4.1 be amended to require the occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.

- Therefore in order to accommodate the 1100mm x 1400mm occupancy space plus 50mm each end for the light beams, the total floor area must be 1100mm wide x 1500mm long ( $1.65\text{m}^2$ ). It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .

It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .

- While Clause 2.4.2 limits the minimum car size to 600mm x 600mm ( $0.6\text{m}^2$ ), it should also limit such sizes to private residences. Further, the draft DDA Premises Standard requires the minimum dimensions for the occupancy area to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ), however this does not take account of the distance necessary any light beams. Therefore it is recommended that Clause 2.4.2 be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.

**Recommendation**

It is recommended that Clause 2.4.2 be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.

It is recommended that a Note be added to Clause 2.4.2 referring to Clause 12.4(a)(iii) for the minimum width in which to provide a light curtain.

It is recommended that a Note be added to Clause 2.4.2 referring to AS1735-12 Clause 4.2(b) for details for a light curtain.

**Liftwells:**

▪ Section 6 Clause 6.5 details Car Clearances. Clause 6.5.1 provides details for Bottom Clearance, yet it is not clear how to determine the required pit depth. It is recommended that a Table 6.5.1 be included by way of clarification.

**Recommendation**

It is recommended that a Table 6.5.1 be included to clarify calculation of a complying pit depth.

▪ Clause 6.5.3(b)(iii) states that the horizontal clearance between the car sill and the landing sill shall be no less than 10mm and no more than 25mm where doors are not powered or 40mm if the doors are powered. It is not clear why a greater gap is permitted for powered doors given that the minimum gap is the same for both situations. It must be noted that the minimum gap permitted by AS1428-1 along a path of travel is 13mm. This would suggest that a gap of even 25mm, would be too large. It is recommended therefore that the permitted range for horizontal clearance between the car sill and the landing sill be limited to between 10mm and 15mm. Further, it can be argued that the horizontal clearance between the car sill and the landing sill at the entrance should be limited to between 10mm and 15mm irrespective of door operation. Therefore, it is recommended that Clause 6.5.3(c) be deleted.

**Recommendation**

It is recommended that Clause 6.5.3(b)(iii) be amended to limit the permitted range for horizontal clearance between the car sill and the landing sill to between 10mm and 15mm irrespective of door operation.

It is recommended that Clause 6.5.3(c) be deleted.

**Cars:**

- Section 12 Clause 12.4 provides the requirements for safety protection of the car entrance. Clause 12.4(a)(i) and Clause 12.4(b) gives requirements for protection by light beams. However the minimum number of required light beams is three, one at 15mm, one at 65mm plus one at 165mm above the floor. It is unlikely that such a series of beams would be interrupted by a 620mm diameter wheelchair wheel before it intercepted the liftwell wall.

**Doors:**

- Clause 13.1 Note 2 refers to the space required at each landing to allow the landing door to fully open without obstructing the expected use of the area. However this statement gives little guidance regarding how to achieve this. It is recommended that Clause 13.1 Note 2 be elevated to a normative statement within Clause 13.1. It is also recommended that Clause 13.1 be amended to add the requirement that the landing call button be located a minimum of 800mm outside the opening arc of the door. It is also recommended that Clause 13.1 be further amended to state that a minimum lift landing of 1540mm x 2070mm is required to provide adequate manoeuvring space.

**Recommendation**

- It is recommended that Clause 13.1 Note 2 be elevated to a normative statement within Clause 13.1.
- It is recommended that Clause 13.1 be amended to add the requirement that the landing call button be located a minimum of 800mm outside the arc of any powered door.
- It is recommended that Clause 13.1 be amended to state that a minimum lift landing of 1540mm x 2070mm is required to provide adequate manoeuvring space.
- Clause 13.2 refers to approved types of doors. Note 1 erroneously suggests that people who use wheelchairs prefer swing type landing doors. As this is not correct, it is recommended that Note 1 to Clause 13.2 be amended to delete the words “Where a passenger is likely to be in a wheelchair, swing type doors are the most suitable type, however”.

**Recommendation**

- It is recommended that Note 1 to Clause 13.2 be amended to delete the words “Where a passenger is likely to be in a wheelchair, swing type doors are the most suitable type, however”.

- Clause 13.3 refers to the clear width of doorway openings. Because AS1735 Part 16 will be referenced in the DDA Premises Standard, It is recommended that the clear width of door openings be increased to 900mm and the reference to a 600mm clear opening relegated to a Note.

#### **Recommendation**

- It is recommended that Clause 13.3 be amended to require a minimum clear width of doorway opening of 900mm.

- Clause 13.4 refers to the height of doorways and states that the minimum permitted vertical clearance shall be 1850mm (1800mm in difficult situations). It is difficult to reconcile this requirement when the BCA requires a minimum vertical clearance at doorways of 1980mm.

#### **Recommendation**

- It is recommended that Clause 13.4 be amended to require a minimum vertical clearance at doorways of 1980mm.

- Clause 13.5 details requirements for the construction of lift doors and door handles. Door handles on the liftwell side need to be flush and also need to comply with AS1428-1. However because door handles complying with AS1428-1 necessarily protrude beyond the face of the door and the force required to open a door is limited to 20N, it is recommended that all landing doors be power operated and function automatically. It is also recommended that where car doors are fitted they be horizontally sliding, power operated and function automatically.

#### **Recommendation**

- It is recommended that all landing doors be power operated and function automatically.
- It is recommended that where car doors are fitted they be horizontally sliding, power operated and function automatically.

- Clause 13.8 gives details for viewing panels in doors and requires compliance with AS1735-2. The area of the panel is limited to 0.065m<sup>2</sup> (i.e. 600mm x 108mm).

- Requirements for glazed viewing panels in doors to be opened by people with disabilities are given in AS1428-1. This Standard requires the lower edge of the glazing to be not greater than 1000mm above the floor; the upper edge to be not less than 1600mm above the floor; the edge of the glazed panel to be not more than 200mm from the latch side of the door and to be not less than 150mm wide. Therefore the minimum permitted viewing panel area would be 0.09m<sup>2</sup> (i.e. 600mm x 150mm). As Clause 13.8 permits the installation of two viewing panels in lift landing doors, it is recommended that Clause 13.8 be amended to limit the maximum area of viewing panels in landing doors to 0.09m<sup>2</sup> and restrict the location to that required by AS1428-1.

### **Recommendation**

- It is recommended that Clause 13.8 be amended to limit the maximum area of viewing panels in landing doors to 0.09m<sup>2</sup> and restrict the location to that required by AS1428-1.

### **Control Devices:**

- Section 15 details requirements for Control Devices. It is recommended that a Clause be added to Section 15 requiring compliance with AS1735-12 Section 7 for the design of control devices.

### **Recommendation**

- It is recommended that a new Clause be added to AS1735-16 Section 15 requiring compliance with AS1735-12 Section 7 for the design of control devices.

## **Part 15: Low-rise passenger lifts – Non-automatically controlled**

### **Scope:**

- Section 1 Clause 1.1 Scope limits the Part 15 lift to a low-rise, low-speed passenger lift controlled by a constant pressure device. Such devices limit the functionality of the lift for people with disability. It is recognised that a constant pressure control is necessary for safety because the provisions of the Standard only provide the minimum requirements. However with sufficient safety devices fitted it would be possible to operate the lift under automatic control. This would significantly enhance the utility of Part 15 lifts. Therefore it is recommended that an additional Appendix be written which gives guidance on the necessary safety features to be installed to permit the lift to operate safely under automatic control. It is recommended that an additional Note be added to Clause 1.1 referring to this Appendix. The Appendix would provide guidance for those manufacturers who wish to produce a lift that can operate safely under automatic control.

## **Recommendation**

- It is recommended that an additional Appendix be written which gives guidance on the necessary safety features to be installed to permit the lift to operate safely under automatic control.
- It is recommended that an additional Note be added to Clause 1.1 referring to the Appendix giving guidance for those manufacturers who wish to produce a lift that can operate safely under automatic control.

## **Design Limitations:**

- Clause 2.4.1 states that the maximum size for lift car floor area may be  $1.6\text{m}^2$  (1100mm x 1455mm). The Clause requires that the length of a car without doors be measured from car sill line to car sill line at 1000mm above the floor. However the draft DDA Premises Standard requires the minimum dimensions for the passenger space of the lift car to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ). Therefore if the maximum total car floor area (occupancy area plus space for safety light curtains) must not exceed 1100mm x 1455mm, then any safety light curtains would need to be provided within 55mm, i.e within 27mm of each end. However this conflicts with Clause 12.4(a)(iii) which requires a minimum of 50mm inside the vertical front face of the edge of the sill for location of any light beam.
- Because the full 1100mm x 1400mm is necessary to accommodate a person using a wheelchair plus a carer, it is recommended that Clause 2.4.1 be amended to require this occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.

## **Recommendation**

- It is recommended that Clause 2.4.1 be amended to require the occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.

- Therefore in order to accommodate the 1100mm x 1400mm occupancy space plus 50mm each end for the light beams, the total floor area must be 1100mm wide x 1500mm long ( $1.65\text{m}^2$ ). It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .

## **Recommendation**

- It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .

- While Clause 2.4.2 limits the minimum car size to 600mm x 600mm (0.6m<sup>2</sup>), it should also limit such sizes to private residences. Further, the draft DDA Premises Standard requires the minimum dimensions for the occupancy area to be 1100mm wide x 1400mm deep (1.54m<sup>2</sup>), however this does not take account of the distance necessary any light beams. Therefore it is recommended that Clause 2.4.2 be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.

### **Recommendation**

- It is recommended that Clause 2.4.2 be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.
- It is recommended that a Note be added to Clause 2.4.2 referring to Clause 12.4(a)(iii) for the minimum width in which to provide a light curtain.
- It is recommended that a Note be added to Clause 2.4.2 referring to AS1735-12 Clause 4.2(b) for details for a light curtain.

### **Liftwells:**

- Section 6 Clause 6.5 details Car Clearances. Clause 6.5.1 provides details for Bottom Clearance, yet it is not clear how to determine the required pit depth. It is recommended that a Table 6.5.1 be included by way of clarification.

### **Recommendation**

- It is recommended that a Table 6.5.1 be included to clarify calculation of a complying pit depth.
- Clause 6.5.3 states that the horizontal clearance between the car sill and the landing sill shall be no less than 10mm and no more than 25mm. It is noted that the minimum gap permitted by AS1428-1 along a path of travel is 13mm which would suggest that a gap of 25mm, would be too large. It is recommended therefore that the permitted range for horizontal clearance between the car sill and the landing sill be limited to between 10mm and 15mm.

### **Recommendation**

- It is recommended that Clause 6.5.3 be amended to limit the permitted range for horizontal clearance between the car sill and the landing sill to between 10mm and 15mm.

### **Doors and Gates:**

- Clause 13.1 details requirements for landing doors and gates. The Note refers to the space required at each landing to allow the landing door to fully open without obstructing the expected use of the area. It is recommended that the Note to Clause 13.1 be elevated to a normative statement within Clause 13.1. It is also recommended that Clause 13.1 be amended to add the requirement that the landing call button be located a minimum of 800mm outside the arc of the door. Additionally it is recommended that Clause 13.1 be further amended to state that a minimum lift landing of 1540mm x 2070mm is required to provide adequate manoeuvring space.

### **Recommendation**

- It is recommended that the Note to Clause 13.1 be elevated to a normative statement within Clause 13.1.
- It is recommended that Clause 13.1 be amended to add the requirement that the landing call button be located a minimum of 800mm outside the arc of any powered door.
- It is recommended that Clause 13.1 be amended to state that a minimum lift landing of 1540mm x 2070mm is required to provide adequate manoeuvring space.
- Clause 13.2 refers to approved types of doors. The Clause states that the force required to open a manual door or gate shall not exceed 20N. This Clause should also require manual doors or gates be fitted with a D-type pull handle between 900mm and 1100mm above the floor as prescribed by AS1428-1.

### **Recommendation**

- It is recommended that Clause 13.2 be amended to require all manual doors or gates be fitted with a D-type pull handle between 900mm and 1100mm above the floor as prescribed by AS1428-1.

- Clause 13.2 Note 2 erroneously suggests that people who use wheelchairs prefer swing type landing doors. As this is not correct, it is recommended that Note 2 to Clause 13.2 be amended to delete the words “Where a passenger is likely to be in a wheelchair, swing type doors are the most suitable type, however”.

#### **Recommendation**

- It is recommended that Note 2 to Clause 13.2 be amended to delete the words “Where a passenger is likely to be in a wheelchair, swing type doors are the most suitable type, however”.

- Clause 13.3 refers to the clear width of doorway openings. Because AS1735 Part 15 will be referenced in the DDA Premises Standard, It is recommended that the clear width of door openings be increased to 900mm.

#### **Recommendation**

- It is recommended that Clause 13.3 be amended to require a minimum clear width of doorway opening of 900mm.

- Clause 13.8 gives details for viewing panels in doors and requires compliance with AS1735-2. Requirements for glazed viewing panels in doors to be opened by people with disabilities are also given in AS1428-1 which provides details for the effective location and minimum size required. It is recommended that Clause 13.8 be amended to require viewing panels in landing doors to meet the effective location and minimum size requirements required by AS1428-1.

#### **Recommendation**

- It is recommended that Clause 13.8 be amended to require viewing panels in landing doors to meet the effective location and minimum size requirements required by AS1428-1.

#### **Control Devices:**

- Clause 15.1.1 permits control devices between 850mm and 1250mm above the floor. However AS1428-1 limits the location of controls to between 900mm and 1100mm. It is noted that because a Part 15 compliant lift is limited in the height of travel and therefore the number of stops, the size of

control panels will also be limited. Further because the force which people with disabilities can apply to a device declines with height above 900mm, it is recommended that the location of any control device requiring constant pressure be limited to between 900mm and 1000mm above the floor. However the location of control devices not requiring constant pressure can be permitted between 900mm and 1100mm above the floor.

### **Recommendation**

It is recommended that Clause 15.1.1 be amended to limit the location of any control device requiring constant pressure to between 900mm and 1000mm above the floor and the location of control devices not requiring constant pressure to between 900mm and 1100mm above the floor.

▪ Clause 15.3 gives details for operating control devices. This Clause should include a sub-clause requiring all control buttons to be operated by people with disabilities to comply with the design provisions of AS1735-12 including for raised tactile characters and Braille.

### **Recommendation**

It is recommended that Clause 15.3 be amended to include a sub-clause requiring all control buttons to be operated by people with disabilities to comply with the design provisions of AS1735-12 including for raised tactile characters and Braille.

▪ While Clause 15.3.1 limits the maximum operating force for constant pressure control devices to 10N it is noted that AS1735-12 limits the maximum operating force for control buttons to 5N. Because of the difficulty people with disabilities have in applying sustained pressure to a device, it is recommended that Clause 15.3.1 be amended to limit the required operating force for constant pressure devices to 5N.

### **Recommendation**

It is recommended that Clause 15.3.1 be amended to limit the required operating force for constant pressure devices to 5N.

## Part 14: Low-rise platforms for passengers

### Design Limitations:

- Clause 5.4.1 states that the maximum size for lift car floor area may be  $1.6\text{m}^2$  (1100mm x 1455mm). The length of a lift car without doors is generally measured from car sill line to car sill line at 1000mm above the floor. However the draft DDA Premises Standard requires the minimum lift floor dimensions to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ). Therefore because Clause 12.4(a)(iii) requires a minimum of 50mm inside the vertical front face of the edge of the sill for location of any light beam, the maximum total lift car floor area available for passengers will be 1100mm x 1300mm when two light beams are installed or 1100mm x 1350mm when only one light beam is installed. A lift car with floor dimensions of 1100mm x 1300mm will not accommodate an occupied wheelchair plus an attendant carer. It is recommended therefore that the mechanics of AS1735-14 be upgraded to accommodate a lift with a floor area of 1100mm wide x 1500mm long ( $1.65\text{m}^2$ ).
- Because the full 1100mm x 1400mm is necessary to accommodate a person using a wheelchair plus a carer, it is recommended that Clause 5.4.1 be amended to require this occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.
- Therefore in order to accommodate the 1100mm x 1400mm occupancy space plus 50mm each end for the light beams, the total floor area must be 1100mm wide x 1500mm long ( $1.65\text{m}^2$ ). It is recommended that Clause 2.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .

### Recommendation

- It is recommended that Clause 5.4.1 be amended to require the occupancy area of lift cars without doors to be measured between safety light curtains at 1000mm above the car floor.
- It is recommended that Clause 5.4.1 be amended to limit the lift car floor area to a maximum of  $1.65\text{m}^2$ .
- It is recommended that the mechanics of an AS1735-14 platform lifts be upgraded to accommodate a lift with a maximum car floor area of  $1.65\text{m}^2$ .
- While Clause 5.4.2(a) limits the minimum car size to 400mm x 600mm ( $0.24\text{m}^2$ ), it should also limit such sizes to private residences. Further, the draft DDA Premises Standard requires the minimum dimensions for the lift floor dimensions to be 1100mm wide x 1400mm deep ( $1.54\text{m}^2$ ), however this does not take account of the distance necessary any light beams. Therefore it is recommended that Clause 5.4.2(b) be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.

## **Recommendation**

It is recommended that Clause 5.4.2(b) be amended to require minimum internal lift car floor dimensions to be 1100mm wide x 1500mm deep for all applications other than private residences.

It is recommended that a Note be added to Clause 5.4.2 referring to Clause 12.4(a)(iii) for the minimum width in which to provide a light curtain.

It is recommended that a Note be added to Clause 5.4.2 referring to AS1735-12 Clause 4.2(b) for details for a light curtain.

## **Operating Clearances:**

▪ Clause 9 states that the horizontal clearance between the car sill and the landing sill shall be no less than 10mm and no more than 20mm. The minimum gap permitted by AS1428-1 along a path of travel is 13mm which suggests that a gap of 20mm would be too large. It is recommended therefore that the permitted range for horizontal clearance between the car sill and the landing sill be limited to between 10mm and 15mm.

## **Recommendation**

It is recommended that Clause 9 be amended to limit the permitted range for horizontal clearance between the car sill and the landing sill to between 10mm and 15mm.

## **Landing Protection:**

▪ Both AS1735-12 and AS1735-14 are silent with regard to the required size of landings serving lifts. Because the circulation space provided by the lift landing is critical to the user's ability to access the lift car, it is recommended that both Part 12 and Part 14 give guidance regarding the minimum size of lift landings.

▪ Because there are many situations in which the user must reverse from a lift, e.g. when the other occupants prevent manoeuvring of the wheelchair within the lift car. Such situations require the wheelchair user to make a 90° or 180° turn before proceeding from the lift landing. AS1428 Part 2-1992 Clause 6.2 states that the minimum space required to turn a wheelchair through 180° is 1540 x 2070mm. To allow access by all, it is recommended that a new Section to address Lift Landings be added to AS1735 Part 12 which states that each public passenger lift shall be provided with a minimum landing space of 1540mm x 2070mm. Further it is recommended that a new Clause be added to AS1735-14 which references the relevant clause within AS1735-12 requiring a minimum landing space of 1540mm x 2070mm.

## **Recommendation**

It is recommended that a new Section to address Lift Landings be added to AS1735 Part 12 which states that each public passenger lift shall be

provided with a minimum landing space of 1540mm x 2070mm to allow access by all.

- Clause 14 requires a self-closing gate at the top landing where travel exceeds 600mm. This gate must swing on to the landing. This landing shall be a minimum of 1540mm x 2070mm. The gate shall not require more than 20N to open and have a D-ring handle fitted 900-1100mm above the floor. If power gates are provided a lift call button shall be at least 800mm clear from the arc of the gate swing.

### **Recommendation**

- It is recommended that a new sub-Clause be added to AS1735-14 Clause 14 which references the relevant clause within AS1735-12 requiring a minimum landing space of 1540mm x 2070mm.
- It is recommended that a new sub-Clause be added to AS1735-14 Clause 14 requiring the top landing gate to require not more than 20N to open.
- It is recommended that a new sub-Clause be added to AS1735-14 Clause 14 requiring a D-ring handle be fitted to all manual gates at 900-1100mm above the floor.
- It is recommended that where power operated gates are fitted, the lift call button shall be fitted at least 800mm clear of the arc of the swing of the door.

### **Control Devices:**

- Clause 15(a) allows control devices to be located on either the platform or the landing or both. It is essential that in public buildings the controls must be located on the lift car in addition to on the landing irrespective of height of travel. It is recommended that Clause 15(a) and Clause 15(b) be amalgamated and require the controls to be located on both the lift car and on the landing.
- Clause 15(d) should be amended to delete the second sentence stating “where the travel is less than 600mm and the control device has not been provided on the platform,”.
- Where a continuous pressure control device is provided, it must be located at a height between 900mm and 1000mm to permit the majority of users to operate control. Further, where a continuous pressure control device is provided, the force required to operate the control shall not exceed 5N. It is recommended that a new Clause be added to Clause 15 requiring the force necessary to operate the control device not exceed 5N.
- A new sub-Clause should be added to Clause 15 requiring control buttons to comply with AS1735-12 with respect to raised tactile characters and Braille.

## **Recommendation**

- It is recommended that Clause 15(a) and Clause 15(b) be amalgamated and require the controls to be located both on the lift car and on the landing.
- It is recommended that Clause 15(d) be amended to delete the second sentence stating “where the travel is less than 600mm and the control device has not been provided on the platform,”.
- It is recommended that a new sub-Clause be added to Clause 15 stating that where a continuous pressure control device is provided, it must be located at a height between 900mm and 1000mm above the floor.
- It is recommended that a new sub-Clause be added to Clause 15 requiring the force necessary to operate the control device to not exceed 5N.
- It is recommended that a new sub-Clause be added to Clause 15 requiring control buttons to comply with AS1735-12 with respect to raised tactile characters and Braille.

## **Part 7: Stairway lifts**

### **Platform area:**

- Table 1 requires the minimum platform dimensions to be 685mm wide x 1000mm long. However the draft DDA Premises Standard requires the minimum platform size for stairway lifts in public buildings to be 810mm wide x 1200mm long. It is recommended therefore that Table 1 be amended to show the platform minimum dimensions as 1200mm long and 810mm wide. The Note to Table 1 states that length is measured horizontally in the direction of travel between the safety flaps in the elevated position or the sensitive edges in the non-actuated position, whichever applies. The position at which length is measured is not clear to all readers and it is recommended that a Figure be provided to clarify the requirement.

## **Recommendation**

- It is recommended therefore that Table 1 be amended to show the platform minimum dimensions as 1200mm long and 810mm wide.
- It is recommended that a Figure be provided in association with Table 1 to clarify the position at which platform length is measured.

### **Carriage:**

- Clause 18.3 requires the wheelchair platform to be provided with an approach ramp. This is generally self-retracting and attached to the end of the platform. Because the Note to Table 1 requires the length of the platform to be measured horizontally between the safety flaps in the elevated position there is a conflict between the length of the ramp, the grade of the ramp and the length of platform floor available to accommodate a wheelchair.

### **Recommendation**

It is recommended that platform ramps be limited in length to 300mm and that these fold to 45 degrees during travel.

### **Operating Controls:**

▪ Clause 23.1 requires the operating controls be of a continuous pressure type. Where continuous pressure controls are installed the force required to operate these controls must not exceed 5N.

### **Recommendation**

It is recommended that a sub-Clause be added to Clause 23 stating that the force required to operate constant pressure controls shall not exceed 5N.

It is recommended that all control buttons (landing and platform) be identified by raised tactile characters and Braille as detailed in AS1735-12.

It is recommended that a sub-Clause be added to Clause 23 stating that all control buttons be identified by raised tactile characters and Braille as detailed in AS1735-12.

▪ The landing call button shall be located within reach of a person in a wheelchair who is positioned ready to board the platform.

### **Recommendation**

It is recommended that a sub-Clause be added to Clause 23 requiring the landing call button to be located within reach of a person in a wheelchair who is positioned ready to board the platform.

## **PART F2 SANITARY AND OTHER FACILITIES**

▪ The draft Access Standard requires a unisex facility with all banks of toilets unless there is more than one bank on any floor, when 50% of banks of toilets must have a unisex toilet there also.

▪ This will allow toilet facilities on floors where there is more than one tenant for facilities to be behind a security door, thus preventing an employee of the other tenant from accessing the unisex facility.

▪ There is also a health and safety issue for toilets in large shopping centres, at large sporting venues and at large entertainment venues where the distance between banks of toilets can be excessive.

### **Recommendation**

This provision must be amended to require an accessible unisex toilet with every bank of toilets.

### **Class 9a health care facility, and amenities associated with recreation facilities**

- This Part treats all Classes of building the same as regards toilet and shower amenities.
- Some Classes of building need to have enhanced shower and toilet facilities to enable people with disability to use the facilities.
- In buildings where the public might be expected to shower and or change clothes, there is a need for extra circulation space and the provision of an adult “change table” large enough to accommodate an adult and at a height suitable for independent transferring from /to a wheelchair.
- The toilet and shower facilities should be in the one space to preserve privacy.
- Examples of the buildings where these enhanced facilities are needed include: public swimming pools, gymnasiums, and the like.

#### **Recommendation**

- The Standard needs to be amended to include the provision of enhanced facilities in appropriate Classes of buildings.

#### Part F2 Table F2.4 (a)

- Excepting all “en-suite” facilities associated with individual caravan sites from being required to be accessible significantly reduces the ability of people with disability to use caravan parks.

#### **Recommendation**

- At least some such facilities (20% is suggested) must be required to be accessible sites, enabling those with disabilities to enjoy caravanning and camping.

### **F2.4 ACCESSIBLE SANITARY FACILITIES**

- While Table F2.4(b) requires accessible showers in accordance with Parts F2.1 and F2.3 these requirements only relate to class 3 and 9c sole occupancy units, class 9a health-care patient areas and a class 9b early child hood centre.
- This limited scope excludes the need for accessible showers in aquatic centres, gymnasiums, class 6 health spas, other class 5/6 premises with showers and class 10 showers, where showers are provided)

### **Recommendation**

Wherever showers are provided for use by the public or building occupants in class 5, 6, 8, 9, 10 premises an accessible shower shall be provided in accordance with AS1428.1 to ensure equitable access to premises, good sand services.

## **PART H2 PUBLIC TRANSPORT BUILDINGS**

### **Part H**

▪ This section appears to ignore bus shelters, bus transitway shelters, tram shelters (e.g. Melbourne superstops), Ferry Wharves.

### **Recommendation**

Part H must be amended to include specifications for bus shelters, bus transitway shelters, tram shelters (e.g. Melbourne superstops), Ferry Wharves, and the like.

▪ Part H – Clause 22.1 of the DDA Transport Standard 2002 relating to fixed built-in ticket counters should be inserted into this section, possibly as a new Part H2.12.

### **Recommendation**

Where a ticket counter forms part of the building structure (as opposed to furniture and equipment fitout) it must provide access for people who use a wheelchair.

Where there are multiple ticket counters then the first one must provide access for people who use a wheelchair and at a ratio of 1 in 20 or 5%.

## **H2.1 APPLICATION OF PART**

### **H2.13 Hearing augmentation**

- If a public address system is installed, it must comply with clause 21.1 of AS 1428.2.
- This is open to misinterpretation

### **Recommendation**

Deafness Forum recommendation: change to “If a public address system is installed, Hearing Augmentation must be installed and comply with clause 21.1 of AS 1428.2, AS1428.5 and Part D3.7.” H2.14(2) Emergency warning systems. While the objective is desirable AS 1428.4 provides no details of how an egress path should be identified by people with vision impairment.

### **Recommendation**

Either; Standards Australia must be directed to develop the technical details of “how to provide provision of access for people with vision impairment to locate the exit path”; or a BCA Specification be developed or it should be deleted.

### **H2.4 HANDRAILS AND GRABRAILS**

▪ Part H 2.4(2) – is very ambiguous and open to mis-interpretation and likely to be ignored.