# Disability Standard for Accessible Public Transport -- 2017 Review Submission

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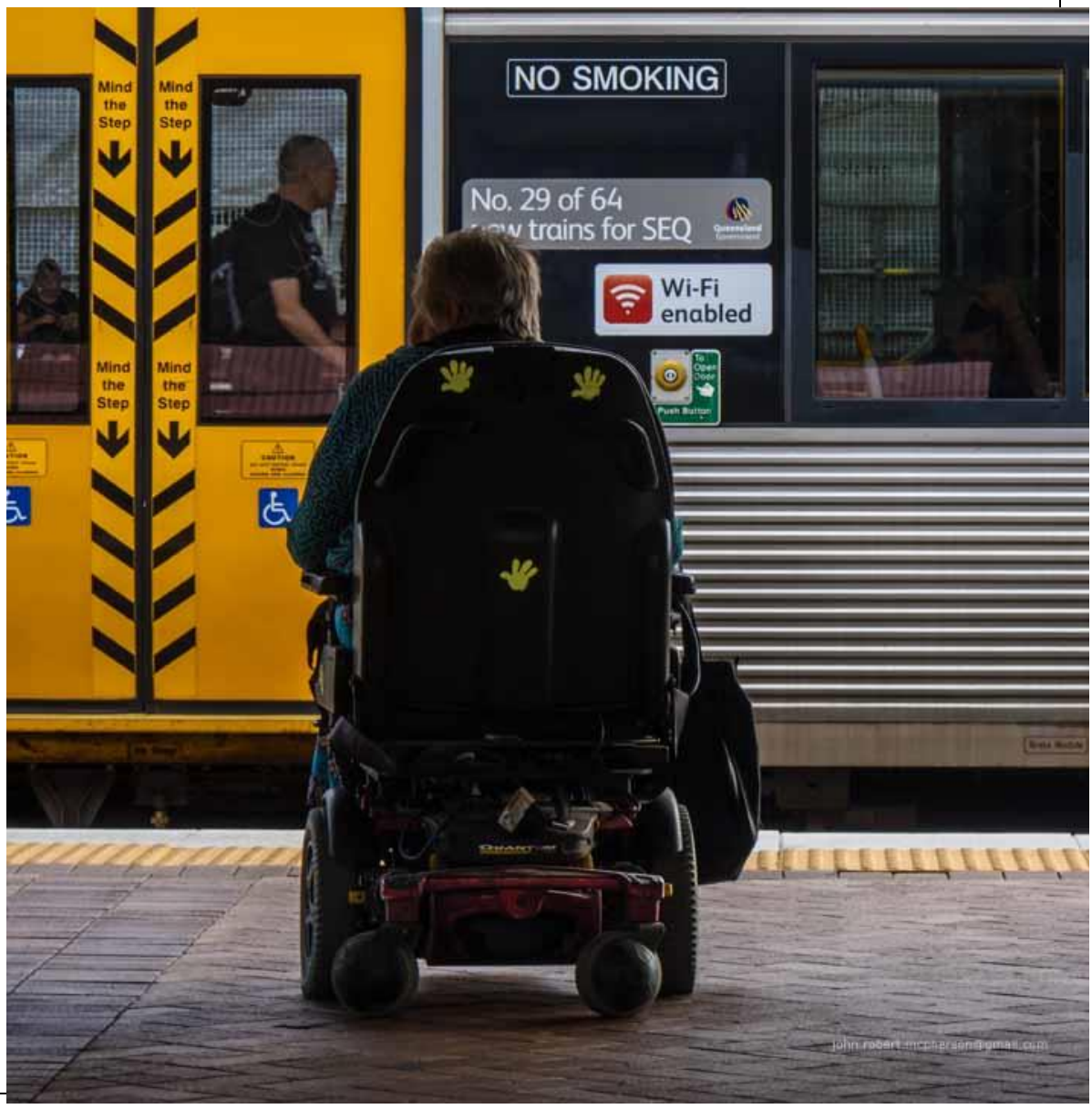
November 2018

Accessible public transport is a human right, not a privilege.  Why then does the gap to equality of service still exist?



Contents

## 1. Has your accessibility to public transport improved since the commencement of the second Transport Standards review in 2012?

Broadly, public transport accessibility has improved. Within that broad improvement are outstanding successes, and also obvious failures. Overall though there has been an incremental improvement rather than a great leap forward.

## How has your accessibility to conveyances changed? (for example, trains, buses and coaches, trams, ferries, wheelchair accessible taxis and aircraft). Can you provide examples?

Accessibility of fleets has increased as new, accessible conveyances have entered service and older, non-accessible conveyances have left service. This is a process of incremental improvement that may or may not be keeping pace with the DSAPT's Schedule for Compliance milestones. There have been notable accessibility failures along the way, such as Queensland's New Generation Rollingstock (NGR) trains. But such major setbacks aside, there has been a modest improvement.

Accessibility has diminished as disruptive service providers, such as ride-share operators, have entered the industry. These ride-share operators have few if any vehicles that are the accessibility equivalent of wheelchair accessible taxis (WATs). The proportion of WATs in the combined 'for hire' fleet of taxis and rideshare is therefore decreasing. It is likely to decrease further as the economic viability of WATs diminishes in the face of rideshare competition, causing WAT owners and drivers to leave the industry.

### Rail

*Staff service failures*

**Issue:**

- Failure to provide direct assistance in boarding and alighting is too frequent.

**Recommend:**

- All operators must ensure that action is taken to minimise such failures.

The accessibility of much of the rail network depends upon staff rendering direct assistance. This is particularly the case with boarding and alighting at platforms where there is a substantial grade difference between carriage floor and platform. Without the deployment of boarding ramps at these platforms alighting and boarding is impossible for many people who use mobility aids. All operators have procedures in place to ensure

that these boarding ramps are ready when needed. Too frequently though, there is a staff failure resulting in people being left on platforms or trains.

Anecdotal reports of staff leaving people on trains who require direct assistance to board or alight abound. On occasion these boarding and alighting incidents make the press[1] [2]. These oversights can be serious as in May of 2017 a woman in a wheelchair was traumatised after being left onboard a train which had finished service and was then stabled at Brisbane's Mayne Junction[3]. Mostly though passengers with disability simply bear with the shoddy service, as complaint see little action other than an apology.

These failures are a disincentive for people who require assistance to travel by rail. There are many theories as to why such failures occur: staff cuts, lack of training, lack of care, over commitment, stupidity, poor communication procedure and equipment, amongst others. Whatever the cause, compliance with the DSAPT is futile if people will not travel or are reluctant to travel by rail due to failures of direct assistance. All operators must ensure that action is taken to minimise such failures.

### *Procurement of non-compliant rollingstock*

**Issues:**

- Accessibility of rollingstock fleet diminished by systemic failure during procurement of new rollingstock.

**Recommend:**

- Non-compliant new rollingstock be upgraded as soon as practicable.
- Procurement practices be reviewed to ensure DSAPT compliance and customer satisfaction prior to contracts being signed.

The travails of the State of Queensland, whose New Generation Rollingstock (NGR) was recently denied a temporary exemption from DSAPT by the Australian Human Rights Commission (AHRC), are perhaps the subject of some mirth nationally. How a $4.4 billion project could go so badly wrong will probably enter legend. No doubt the inquiry headed by retired District Court Judge Michael Forde[4] will provide much fodder for journalists, satirists and cartoonists.

Oddly though, unmitigated disasters are seldom entirely a waste of time and money. The Queensland Government has been at pains not to repeat its mistakes and is diligently consulting and engaging the disability sector

[1] http://www.dailytelegraph.com.au/news/nsw/sydneys-rail-shame-how-one-wheelchairbound-commuter-spent-a-hellish-day-on-citys-train-network/story-fni0cx12-1226805387359
[2] https://www.theage.com.au/national/victoria/disabled-train-and-tram-passengers-forgotten-20140324-35e8a.html
[3] http://www.abc.net.au/news/2017-05-28/woman-karin-swift-wheelchair-stranded-brisbane-train-apology/8566628
[4] http://statements.qld.gov.au/Statement/2018/7/23/new-generation-rollingstock-inquiry

on its other major public transport projects. This laudable situation will no doubt last until a new government and new senior managers who have not been scarred by the NGR fiasco revert to business as usual. The disability sector will make hay while the sun shines though.

A Queensland Government has expressed its contrition in a press release that reads in part[5]:

> The Palaszczuk Government is fixing the trains.
>
> We are committed to working with the disability sector to fix the trains as soon as possible.
>
> Since the $4.4 billion decision by the previous LNP Government, we have taken active measures to ensure their mistakes are never repeated.
>
> These measures will include;
> - A requirement for all procurement contracts to include an explicit obligation to comply with the Commonwealth Disability Discrimination Act 1992.
> - The appointment of disability advocates to the industry advisory groups under the Government's Buy Queensland Procurement Policy
> - The creation of new Accessible Transport Networks team within the Department of Transport and Main Roads

Meanwhile, the NGR rollingstock has entered service in a state of non-compliance. This involves 75 trains replacing aging EMU rollingstock that is superior to the NGR with respect to accessibility. Due to a systemic failure the accessibility of southeast Queensland's City Train network has been diminished for passengers who have a disability. Hopefully, the $150 million refurbishment of the NGR[6] will rectify this situation

### *Allocated spaces unavailable due to boarding policy*

**Issues:**

- Allocated spaces in carriages distant from the assisted boarding point are seldom able to be used despite demand for them.

**Recommend:**

- Section 9.6(2) should be redrafted to require that allocated spaces are to be consolidated in the cars nearest the designated assisted boarding point.

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[5] http://statements.qld.gov.au/Statement/2018/3/29/statement-from-transport-and-main-roads-minister-mark-bailey

[6] http://mobile.abc.net.au/news/2018-07-23/train-inquiry-to-examine-why-new-carriages-fail-disabled/10026674?pfmredir=sm

All new trains have the required number of allocated spaces stipulated in section 9.6(1) of the DSAPT. These are sometimes distributed throughout the train, often in the first and last cars of a set, rather than consolidated in one car as per section 9.6(2).

> **9.6 Number of allocated spaces to be provided — train cars, etc**
> (1) At least 2 allocated spaces must be provided for each rail, tram or light rail car.
> (2) Up to 8 allocated spaces may be consolidated in one car of a set.
> (3) If different classes of travel are offered, allocated spaces must be provided in each class.
>
> Conveyances
> Rail cars
> Tram cars
> Light rail cars

All operators designate an assisted boarding point on the platform. The exact location of this boarding point varies between States. If allocated spaces are distributed throughout the train, then most will be distant from the assisted boarding point. The allocated spaces may have been provided but, apart from the spaces in the car adjacent to the designated assisted boarding point, the spaces are redundant due to the operator's boarding assistance practice. In effect, though compliant, trains currently fall well short of the mobility aid carrying capacity required by DSAPT, simply because empty allocated spaces cannot be utilized due to boarding policy.

Section 9.6(2) should be redrafted to require that allocated spaces are to be consolidated in the cars nearest the designated assisted boarding point. Trains will then reach at least 50% mobility aid carrying capacity where drivers assist into the first car, and up to 100% where centrally located guards assist passengers into middle cars.

### *Access path does not connect allocated spaces in carriages to on-board disability toilet*

**Issues:**

- Allocated spaces in carriages are not always connected to on-board toilets via an on-board access path.

**Recommend:**

- Allocated spaces in carriages must connect via an on-board access path to any on-board disability toilets provided.

DSAPT Section 2.6 requires that allocated spaces be connected to 'essential facilities' by an access path. Disability toilets are without doubt 'essential facilities'. Many trains that have onboard disability toilets fail to comply with Section 2.6.

**2.6 Access paths — conveyances**
(1) Subject to subsection (3) and section 2.7, an access path that allows continuous and unhindered passage must be provided with a minimum width of at least 850 mm.
(2) Subsection (1) applies to doorways and stairs, and between entrances, exits, allocated spaces and other essential facilities for passengers using wheelchairs and other mobility aids.
(3) If the conveyance exists or is ordered before the commencement of this section, the minimum width may be reduced to 800 mm at any doorway restriction.

Conveyances
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Light rail

Section 2.8(1) appears to reinforce the interpretation of Section 2.6 that access paths must connect allocated spaces to disability toilets.

**2.8 Extent of path**
(1) An access path must extend from the entrance of a conveyance to the facilities or designated spaces provided for passengers with disabilities.
(2) Up to 50 mm of an adjacent allocated space may be used as part of the access path.
(3) If an access path cannot be provided, the operator must provide equivalent access by direct assistance.

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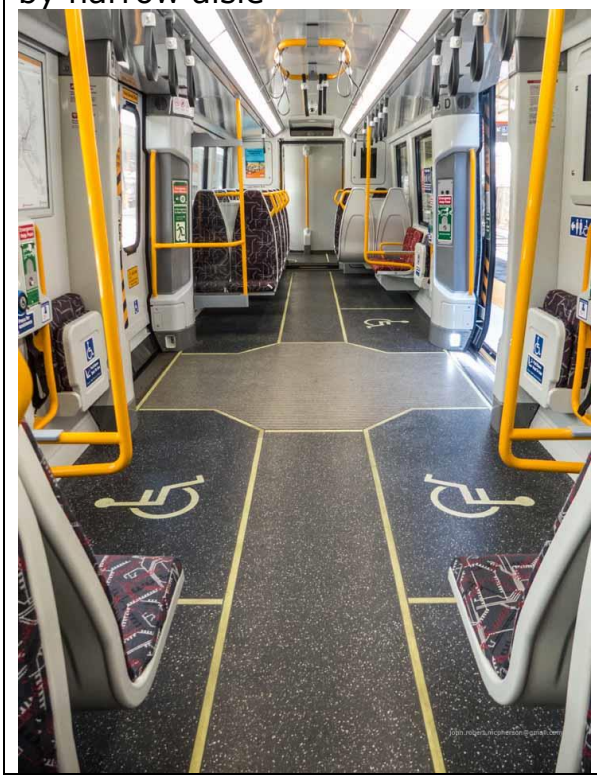
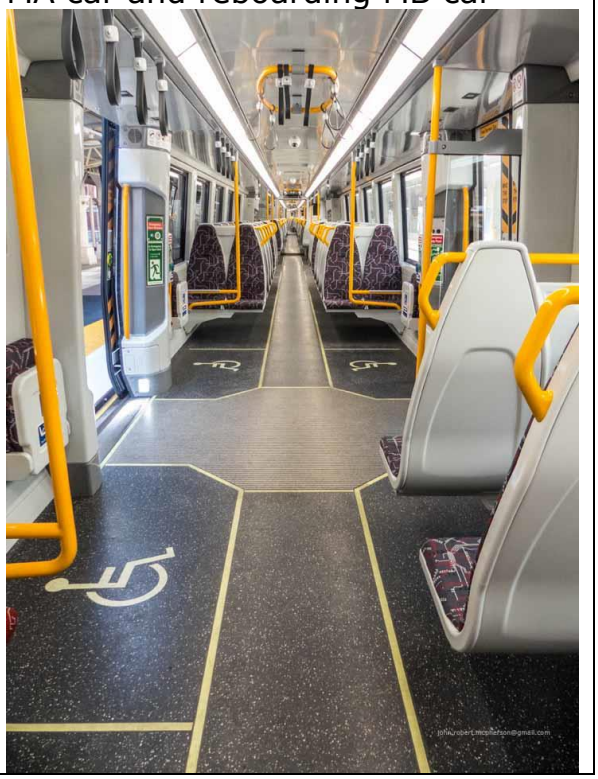
Passengers with disabilities isolated from the toilet by lack of an access point have no option but to request assistance to alight and reboard via a door adjacent to the on-board toilet. While this might be regarded as 'direct assistance' it is direct assistance that leaves certain people at a significant disadvantage to others. This scarcely honours the Disability Discrimination Act's Objects, that in part seek to 'eliminate, as far as possible, discrimination against persons on the ground of disability'.

To be fair, many of the trains that lack access paths between allocated spaces and on-board toilets were procured prior to the DSAPT coming into force. Only a handful would predate the Disability Discrimination Act though.

Train designers must ensure that for new rollingstock any on-board toilets are connected by 'an access path that allows continuous and unhindered passage' to allocated spaces, priority seats and entrance doors.

| NGR train allocated spaces in MA car isolated from toilet in MB car by narrow aisle | NGR train allocated spaces in MA car connect to toilet only by exiting MA car and reboarding MB car |
|---|---|
|  |  |

*Guard stationed remote from designated assisted boarding point*

**Issues:**

- Guards in some new trains are stationed several carriages away from the designated assisted boarding point when the train is standing at the platform.
- At unstaffed stations remotely located guards may overlook passengers waiting for boarding assistance.

**Recommend:**

- The DSAPT should require that the guard or driver's workstation is adjacent to the designated assisted boarding point when trains are standing at platforms.

On unstaffed platforms boarding assistance will be provided by either the guard or the driver. When the designated assisted boarding point is adjacent to the guard or driver's workstation, identification of and communication with the passenger is easy.

SydneyTrains' new *A Set 'Waratah'* trains are eight car units. Queensland Rail's new NGR train is a six car unit. This places the guard's workstation at the end of the platform, remote from the mid-platform designated assisted boarding point, when the train is standing at the platform. Other SydneyTrains eight car trains consist of two four car sets linked together and Queensland Rail CityTrains other than NGR are three car units,

placing guards' workstations mid train.

The risk on unstaffed platforms is that passengers requiring boarding assistance will be missed when an eight car set pulls in unless they pre-book travel. (Booking of commuter services will be dealt with in the section following.)

An excerpt from a Daily Telegraph article (January 20, 2014) on inaccessible rail sums up the problem of placing the guard in the last carriage of the train while passengers using wheelchairs wait mid-platform at the designated assisted boarding point. A comment from 'Peter' reads[7]:

> Peter Jan 20, 2014
> @aggi The procedure is u go to the platform staff u tell them where u going they put ramp out you get on then they ring the destination station to tell them u are coming. Yes sometimes things happen people knock off not very often do they not ring. If u are on other than the new Waratah train u are usually near the guard so u can yell out to them. Waratah train guard is at end of train so if no platform staff u have to race to the end of train to get guard to put his ramp out. Happened to me today at Wolli Creek 3.00pm no platform staff guard had blown whistle before I got close enough to yell out to him then at Central have to wheel whole length of platform.

People who have complex communication needs, intellectual disabilities, vision impairments etc. particularly benefit from the guard's workstation being adjacent to the designated assisted boarding point. Identification of the passenger is quick and convenient for guards, and passengers can easily indicate to guards that assistance is required. This is particularly critical for passengers whose disability prevents them from using any of the pre-booking or on-platform communication channels.

It is highly likely that six, eight and even nine car trains will become the norm for new train orders in all States in future. The DSAPT should require that on these trains the guard or driver's workstation is adjacent to the designated assisted boarding point when trains are standing at platforms. This will require a workstation for the guard mid-train in those jurisdictions that have guards. If specified at procurement stage this workstation will add very little to what is likely to be a project worth some billions of dollars.

### *Requirement to book commuter and other un-booked services*

**Issues:**

- There is a risk that people who require boarding assistance may in future be required to book this request prior to travel.

[7] http://www.dailytelegraph.com.au/news/nsw/sydneys-rail-shame-how-one-wheelchairbound-commuter-spent-a-hellish-day-on-citys-train-network/story-fni0cx12-1226805387359

**Recommend:**

- A clear statement is required in the DSAPT to the effect that while pre-booking boarding assistance is an option that can be offered for un-booked services it can never be a condition of service.

Due to the train design issues mentioned in the previous section some operators seem to be moving towards a model of mandatory booking of boarding assistance on commuter and otherwise un-booked services. Other commuters do not face this impost and would not accept it. While a voluntary option to pre-book boarding assistance would be welcome, and even quite useful under certain circumstances, mandating pre-booking imposes strict limitations on travel spontaneity and clearly discriminates between passenger cohorts.

Excerpts from Transport for New South Wales' website communicates two messages. One paragraph clearly states that passengers should make themselves known on arrival at the station, which is quite reasonable. The other instructs passengers who require boarding assistance to contact the station prior to arrival, a *de facto* booking requirement.

> When planning an accessible trip on a NSW TrainLink service:
> Call 13 22 32 ahead of your trip, letting them know of your needs so they can notify train stations to assist you.

The DSAPT allows for advanced notice of travel intentions only on booked services.

> **28.1 Notice of requirement for accessible travel**
> Operators of booked services may request advance notice of a requirement for accessible travel.

Imposing this requirement to book boarding assistance upon passengers with disabilities who wish to use un-booked services is not only unreasonable but contravenes the purpose of the DSAPT.

> **1.2 Purpose of Standards**
> (1) The *Disability Discrimination Act 1992* seeks to eliminate discrimination, 'as far as possible', against people with disabilities. Public transport is a service covered by the *Disability Discrimination Act 1992*.
> (2) The purpose of these Standards is to enable public transport operators and providers to remove discrimination from public transport services.

A clear statement is required in the DSAPT to the effect that while pre-booking boarding assistance is an option that can be offered for un-booked services it can never be a condition of service.

## Ferries

### *Legacy fleet*

**Issue:**

- A proportion of the existing fleet predates the DSAPT and is not easily upgraded to compliance.

**Recommend:**

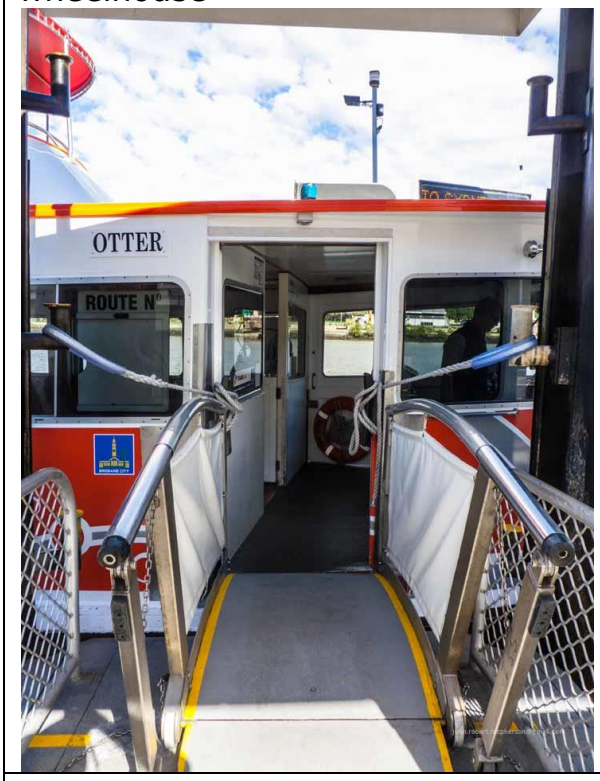
- Legacy ferries that cannot be upgraded successfully should be phased out of service as quickly as operationally feasible.

While new ferries entering fleets are more accessible than pre-DSAPT vessels there are shortcomings with the existing fleet that must be addressed.

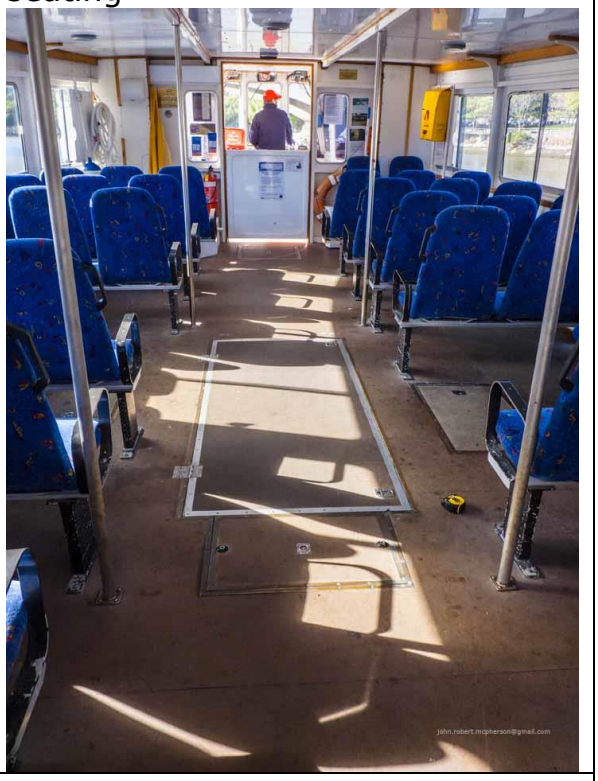
Some ferries have been in service for many decades, considerably pre-dating the DSAPT. These will vary in their ability to be upgraded to DSAPT compliance. Brisbane's monohull CityFerries are probably not viably upgradable, though an attempt at upgrade was made with CityFerry John Oxley. The CityFerry access paths are narrow in the wheelhouse and seating would be largely removed if allocated spaces were installed. Various Sydney Harbour ferries are likely in a similar 'difficult to upgrade' category to the Brisbane vessels.

If these legacy ferries cannot be upgraded to DSAPT compliance they might continue in service and be defended under the Unjustifiable Hardship provisions of DSAPT. While possibly legally defensible, this would be an unfortunate step that disadvantaged passengers who had a disability. Legacy ferries that cannot be upgraded successfully should be phased out of service as quickly as operationally feasible.

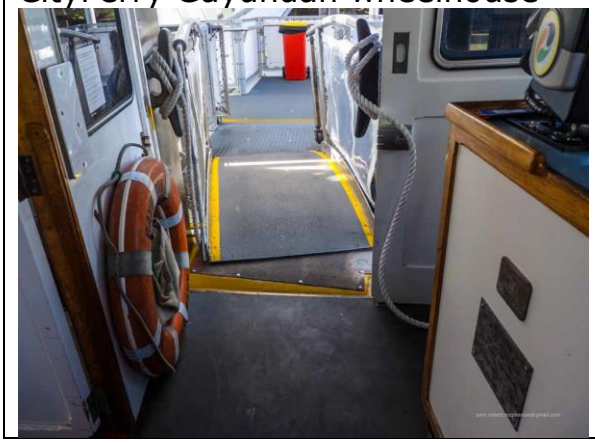
CityFerry Otter boarding via wheelhouse



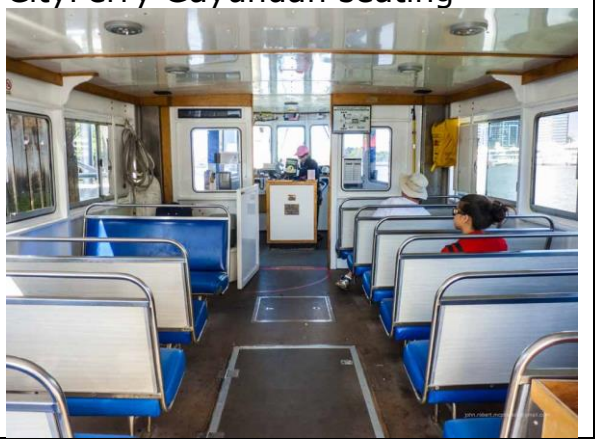

CityFerry Mermaid lower deck seating



CityFerry Gayundah wheelhouse



CityFerry Gayundah seating



## Buses

Most fleets have reached 90-100% low floor vehicles. This is very welcome. Apart from this excellent achievement though there are still shortcomings with the national fleet.

### *Turning mobility aids through the wheel arches*

**Issues:**

- Larger mobility aids that can fit in the allocated spaces are not able to turn through the wheel arches of front door boarded buses.
- Mobility aids that fit through the wheel arches cannot always turn into the allocated spaces from the middle aisle.

**Recommend:**

- Mid door boarding and alighting should be encouraged by the DSAPT.

Passengers using mobility aids usually board and alight via the front door. Whilst this is convenient for the service provider, bus stop owner and the driver it places the passenger in a constrained position. When boarding the passenger must negotiate a ramp and almost simultaneously turn through 90 degrees between the wheel arches. Most medium to large mobility scooters cannot achieve this. Those that can fit through the wheel arches must then enter the allocated space from the bus centre aisle. Turning into the allocated space from its side is a very complex series of manoeuvres that defeats most scooter users. This situation is entirely compliant with DSAPT.

**2.6 Access paths — conveyances**
(1) Subject to subsection (3) and section 2.7, an access path that allows continuous and unhindered passage must be provided with a minimum width of at least 850 mm.
(2) Subsection (1) applies to doorways and stairs, and between entrances, exits, allocated spaces and other essential facilities for passengers using wheelchairs and other mobility aids.
(3) If the conveyance exists or is ordered before the commencement of this section, the minimum width may be reduced to 800 mm at any doorway restriction.

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**2.7 Minimum width between front wheel arches of bus**
Between the front wheel arches of a bus, the minimum width of an access path may be reduced to 750 mm between floor level and a height of 300 mm.

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**2.8 Extent of path**
(1) An access path must extend from the entrance of a conveyance to the facilities or designated spaces provided for passengers with disabilities.
(2) Up to 50 mm of an adjacent allocated space may be used as part of the access path.
(3) If an access path cannot be provided, the operator must provide equivalent access by direct assistance.

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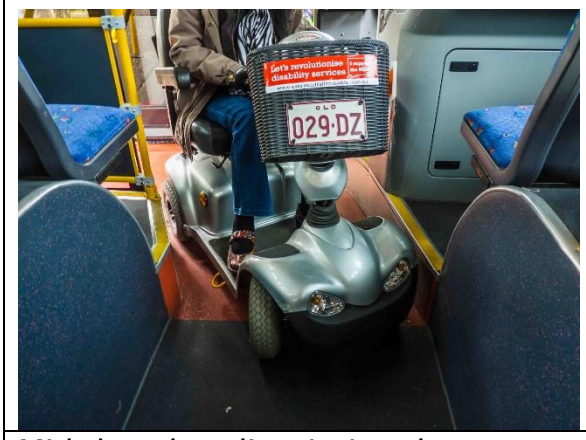
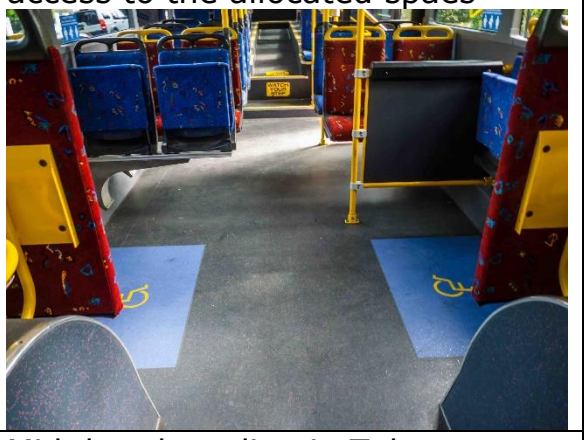
Entry via the bus middle doors significantly increases the manoeuvring space available to larger mobility aids such as scooters. There is no structural constraint preventing the allocated spaces moving back to be adjacent to the middle door. Nor does anything prevent the seats currently behind the allocated space moving forward to sit behind the wheel arch. The driver's side allocated space could then be entered from the rear in a manoeuvre that required turning on a much gentler arc than that required to turn through the wheel arches. In fact, the space available for the turn would be almost comparable to that of light rail cars.

The DSAPT's current sections 2.6-2.8 read as though front door entry is mandatory. The DSAPT should be redrafted to stress that while entry through either door is acceptable (so that the current fleet is not pushed into non-compliance) middle door entry is the preferred option. This will allow scooters that are well able to meet the 1300x800 mm footprint, but are unable to turn through the wheel arches, to be transported.

| | |
|---|---|
| Mobility scooter turning from vestibule through wheel arches<br>  | Changing the allocated spaces with the seats allows mid door access to the allocated spaes<br>  |
| Mid door boading in London<br>  | Mid door boarding in Tokyo<br>  |

### *Stability of mobility devices during travel*

**Issues:**

- DSAPT requires that mobility aids do not move out of the allocated space.
- No nationally agreed method of containing mobility aid movement has been developed for buses.
- Passengers are being injured when their wheelchairs topple during turns.

**Recommend:**

- A range of mobility aid restraints that are fit and safe for purpose must be developed and referenced by DSAPT.

Wheelchairs and scooters are unstable during higher speed turns on buses. Accidents have been reported that mostly involve wheelchairs and scooters toppling into the aisles during turns[8]. A video of a passenger whose wheelchair toppled can be downloaded for view[9]. The fall occurs at 4.35 minutes into the video.

The DSAPT requires that mobility aids be secure in allocated spaces but does not specify how this is to be achieved.

> **9.11 Movement of mobility aid in allocated space**
> An allocated space must contain movement of a mobility aid towards the front or sides of a conveyance.

Various systems are available or under development, but few have seen wide application despite DSAPT Section 9.11.

Operators resist the use of belt restraint systems such as Q'Straint[10] on commuter buses as their application and removal combined can take up to 5 minutes and involve drivers working at floor level. This can be alleged to have OH&S implications and where timetables apply the application and removal process is seen as unacceptable delay. On circuit route buses that do not travel on timetable however they remain an option, OH&S concerns notwithstanding. (They are used by the taxi industry as a matter of course.) The following videos illustrate various North American restraint systems:

> Grand River Transit (Canada) Wheelchairs on Buses[11]
> Single restraint strap
> Published on May 27, 2013

[8] http://www.abc.net.au/news/2015-07-17/accidents-spark-calls-for-improved-bus-safety-for-wheelchair/6608798
[9] https://drive.google.com/file/d/1VuhDfDwWs0r9WyRWhOpkpWqZOTB6nEp_/view?usp=sharing
[10] http://www.qstraint.com/en_oc
[11] https://www.youtube.com/watch?v=kROmnQDINS0

Disability Support Services and Transit Training Video[12]
Full QStraint restraint system
Published on May 31, 2012

Video 6 - Bikes, Wheelchairs And Strollers On Buses[13]
Tri Delta Transit
Published on May 19, 2010

Bus Basics for Wheelchair-Users[14]
CCETompkins
Published on Nov 5, 2012

Automatic or passenger operated systems allow much quicker restraint but have not been adopted. The Q'Straint 'Quantum' system[15] has been purchased for use in buses operating in Albuquerque[16] (May, 2017) and is under trial in the UK[17] (August, 2015).

Driver deployed manual restraining arms are also being trialled in Europe (Mercedes Benz, Volgren, etc.).

Amid much arguing for the difficulties nothing much has been achieved in meeting the requirements of DSAPT section 9.11. If the bus industry will not voluntarily act on behalf of its members in the matter of a technical solution for restraining mobility aid movement it must be directed to act, both as a matter of public safety and DDA responsibility.

### *Certain mobility aids excluded by regulator policy*

**Issues:**

- An operator and regulator failure to meet the restraint requirements of DSAPT Section 9.11 has been used by Transport for New South Wales to exclude three wheel scooters from buses on the grounds of safety and stability.

**Recommend:**

- Mobility aids that are deemed safe for use in public and which can reach and fit in allocated spaces must be permitted on buses and adequately restrained in the allocated spaces as per DSAPT Section 9.11.

An operator and regulator failure to meet the restraint requirements of DSAPT Section 9.11 has been used by Transport for New South Wales (TfNSW) to exclude three-wheeled scooters from ferries, wharves and

[12] https://www.youtube.com/watch?v=N0enYyqJwIw
[13] https://www.youtube.com/watch?v=GelVz-6jMmE
[14] https://www.youtube.com/watch?v=q-QnbvWiPPk
[15] https://www.qstraint.com/quantum/
[16] http://www.metro-magazine.com/accessibility/news/722566/q-straint-to-supply-quantum-q-pod-securement-systems-for-abq-ride-s-brt-system
[17] http://www.route-one.net/articles/QStraint_Quantum_A_safer_way_to_go

buses[18].

> **9.11 Movement of mobility aid in allocated space**
> An allocated space must contain movement of a mobility aid towards the front or sides of a conveyance.

The exclusion is on the grounds of stability. An earlier version of the TfNSW website read: "Three-wheeled devices are not permitted on buses, as they are unstable and may pose a threat to the safety of other passengers."

Four-wheeled wheelchairs and wheelchairs are also unstable as the press reports of accidents confirms, but these mobility aids have not been excluded by TfNSW.

TransLink do not exclude three-wheeled scooters from buses but rather stipulate only that mobility aids should meet the performance requirements assumed in DSAPT[19].

This inconsistency between states is unsatisfactory. Worse, the Transport for New South Wales exclusion derives from industry's failure to meet DSAPT Section 9.11. This is potentially in breach of the DDA's Section 24:

> **24 Goods, services and facilities**
> (1) It is unlawful for a person who, whether for payment or not, provides goods or services, or makes facilities available, to discriminate against another person on the ground of the other person's disability or a disability of any of that other person's associates:
>
> (a) by refusing to provide the other person with those goods or services or to make those facilities available to the other person; or
> (b) in the terms or conditions on which the first-mentioned person provides the other person with those goods or services or makes those facilities available to the other person; or
> (c) in the manner in which the first-mentioned person provides the other person with those goods or services or makes those facilities available to the other person.
>
> (2) This section does not render it unlawful to discriminate against a person on the ground of the person's disability if the provision of the goods or services, or making facilities available, would impose unjustifiable hardship on the person who provides the goods or services or makes the facilities available.

Mobility aids that are deemed safe for use in public and which can reach and fit in allocated spaces must be permitted on buses and adequately restrained in the allocated spaces as per DSAPT Section 9.11.

[18] https://transportnsw.info/travel-info/accessible-travel/mobility-aid-specifications
[19] http://www.tmr.qld.gov.au/Travel-and-transport/Disability-access-and-mobility/Travelling-with-a-wheelchair-or-mobility-scooter.aspx

### *Hailing approaching buses*

**Issues:**

- Passengers who have vision, cognitive or intellectual disabilities may not be able to identify their service as it approaches.
- Passengers with physical disabilities may have insufficient arm function to hail the bus.

**Recommend:**

- The DSAPT must require that drivers are able to be informed in real time of a waiting passenger and be able to identify passengers who require assistance and who are waiting at nominated bus stops for the service.

Most passengers experience little difficulty in hailing buses at suburban bus stops. Buses can be identified visually or their approach announced by a smartphone app. Not all passengers can see the bus however, and some who can see it may not comprehend its route number display. Passengers with physical disabilities may have insufficient arm function to hail the bus. Further, not all passengers have access to a smartphone or can even use one.

Passengers must be able to communicate their need to be identified in real-time if the service is to be offered on equivalent terms to other passengers. Drivers must also be informed in real-time that a passenger is waiting at a particular bus stop.

Under no circumstances must a booking system be mandated. Rather, communicating the need for driver assisted pick up must be simply an option under Direct Assistance offered to passengers not able to identify or hail their desired service.

Brisbane Transport and Translink both offer such a service for passengers at bus stations and interchanges. Phone calls to a call centre informing of desired service and stop location can be made minutes prior to pick up[20].

Similarly, by using the Translink bus station platform's emergency / help phones passengers can request that the driver of their desired service be alerted that a passenger is waiting on the platform. There would seem to be no impediment to extending this to all bus stops in all jurisdictions.

Unfortunately, no similar driver assisted pick up service using SMS / text is known. This would be a valuable communication channel for people unable to use speech-based communication media.

No single system will serve all passengers however, as their ability to use technology will vary greatly. Also, technologies improve and emerge with

[20] https://www.brisbane.qld.gov.au/traffic-transport/public-transport/buses/bus-accessibility

the passage of time. The DSAPT must have a performance-based requirement stating that drivers must be informed and able to identify passengers requiring assistance as the bus approaches the stop and must cite references that offer guidance as to how this may be achieved.

### *Identification of desired service at bus station or interchange*

**Issues:**

- Where several routes stop simultaneously or sequentially at a single bus stop, at an interchange or at a busway station some passengers are challenged to identify which bus is their desired service.

**Recommend:**

- The DSAPT should require that when multiple services pull in simultaneously or sequentially passengers can either easily identify their service or be identified by the driver of their service.

Confirming that a bus that has just pulled up is their desired service can challenge some passengers who have vision impairments, intellectual or cognitive disabilities. When several buses pull up simultaneously, and in close proximity, the challenge increases exponentially. DSAPT should require that passengers with vision or cognitive impairments are able to identify their desired service when it pulls up at a bus stop, bus interchange or bus station.

This identification of desired service can be a particular challenge where buses pull in at random along a platform. Southeast Queensland has an extensive busway system. Bus stations that resemble rail stations, having overbridges and lifts, and which can accommodate between 2-4 buses simultaneously are located at close intervals along the various busways. At peak hour drivers will pull into any space along the platform that is available. Passengers are expected to scramble for the bus which will be on a timetable and not standing at the platform for any significant length of time.

A range of options for requesting direct assistance to identify service and passenger are available. By way of example only, if located at a bus station or bus interchange boarding point and integrated into the operator's communication and GPS systems, the Step-Hear PTR-600 unit can be activated by a passenger to inform the driver of the next desired service that a passenger is waiting at a particular stop. The driver must then identify and assist the passenger. Such technology is not unique to Step-Hear[21] but is also available from other manufacturers / suppliers.

Phone requests for pick up are permitted by some operators. Brisbane City Council's call centre takes phone calls from people unable to hail a bus and contacts bus control who contact the driver of the next service

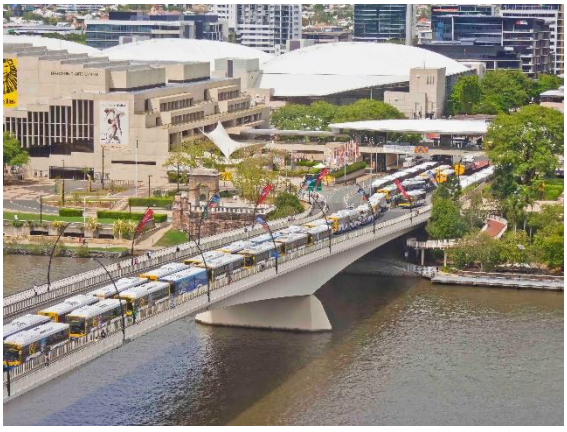
[21] www.step-hear.com

due at their bus stop. The driver must then identify and assist the passenger. At suburban bus stops this is trouble free, but on bus station platforms that have hundreds of waiting passengers, errors and missed pickups occasionally occur.

Emergency phones on Queensland bus station platforms are monitored by TransLink bus controllers. People with vision and cognitive disabilities are permitted to use these phones to contact bus control and request that the driver of the next service be alerted that they have a passenger waiting at the platform. It would be better if these phones were badged as 'Assistance' or 'Emergency or Assistance' as the term 'Emergency' can dissuade people from their legitimate use.

DSAPT does permit Direct Assistance. Since no technical barriers to phone or emergency phone requests for boarding assistance exist, and no barrier preventing control room staff from contacting drivers exists, DSAPT should require that all bus operators provide phone and emergency phone boarding request services for passengers with vision and cognitive impairments. Waiting periods are unacceptable as they would destroy spontaneity of travel and turn buses into a booked service. Transport for Brisbane and TransLink impose no minimum pre-booking time, but rather they contact the relevant driver immediately they receive the call for boarding assistance.

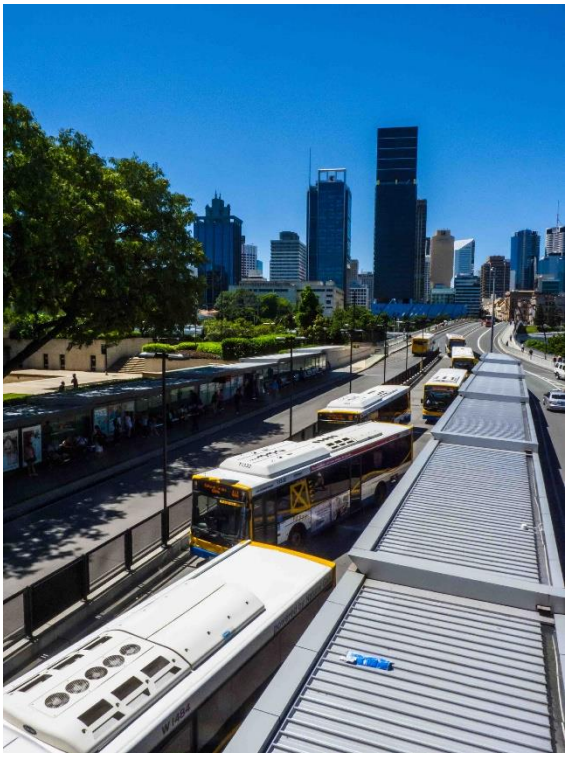
Peak hour bus movements at the Cultural Centre bus station



Buses pulling in and out randomly at the Cultural Centre bus station

Buses pulling in and out randomly at the Cultural Centre bus station

Buses pulling in and out randomly at the Cultural Centre bus station



Platform 'Emergency' phone available for boarding assistance


Platform 'Emergency' phone location

## Taxis

### *Response times*

**Issues:**

- Response times of WATs still lag behind those of other taxis.

**Recommend:**

- Minimum Service Level agreements (MSLs) in each State and Territory should cite the DSAPT requirement for comparable response times for WATs, cementing the relationship between DSAPT and MSLs.

By December 31, 2007 the response times of WATs should have been no different to that of any other taxi. While improvements have been made these could hardly be said to consistently offer response times for WATs that were comparable to other vehicles. This is particularly the case for response times in off-peak hours or during school pick-up hours. The taxi industry has been at pains to point out that it cannot be held accountable for this as there are many factors in play.

**1.3 Responsibility**

- Radio networks
- Co-operatives

**Requirement**

Response times for accessible vehicles are to be the same as for other taxis.

**Application**

Conveyances
Taxis
Dial-a-ride services

Because the taxi industry now finds itself under significant pressure from rideshare operators it may be amenable to addressing the systemic issues that are 'not its fault'.

The taxi industry is required to meet Minimum Service Levels (MSLs) set by its State or Territory government regulators. Response times are included in these MSLs and DSAPT should refer to them as the response time target. Failure to meet MSLs comes with a penalty, as opposed to the penalty free failure to meet the Schedule for Compliance. Further, MSLs in each State and Territory should cite the DSAPT requirement for comparable response times for WATs, cementing the relationship between DSAPT and MSLs.

## How has your accessibility to information (for example, maps, timetables, announcements) changed? Can you provide examples?

### Smart phones

*Apps*

**Issues:**

- Apps have introduced a convenient source of comprehensive service information.
- Some apps face reliability issues.
- Apps can tend to become the single source of service information.

**Recommend:**

- Information derived from apps must be available from several other sources.
- App reliability must be improved.

Smartphone apps suitable for iOS or Android systems are available from most State transport departments. Amongst other functions, these are capable of giving next service and next stop information. The MyTransLink app is but one example of a free app provided by a State transport department. The introduction of smartphone apps is a welcome addition to the public transport information environment.

Anecdotally, some apps face reliability problems. Complaints of dropout mid-journey are often heard. GPS reliant systems are particularly vulnerable to dropout caused by overhead obstruction of satellite access.

In addition to reliability, people who do not have smartphones, for one reason or another, are disadvantaged. This is particularly the case when the app is the sole source of information. The low cost of apps makes them particularly attractive to budget minded governments, often at the expense of a diversity of information sources.

### *QR Codes*

**Issues:**

- Print timetables cannot be read by people who have vision impairments or print disabilities.

**Recommend:**

- DSAPT should require QR code alternative information sources wherever print timetables are located.

Many bus stop blades feature next service and timetable information that can be accessed via QR codes. The codes are read by software downloadable from the various providers of smartphone apps. These QR codes provide the timetable information online that is printed on the blades. For people who have vision impairments or print disabilities this is a valuable alternative source of information. If consistently located and with tactile cues, trials have demonstrated that even people who are totally blind can use the QR codes.

DSAPT should require QR code alternative information sources wherever print timetables are located.

QR code on TransLink bus stop blade


QR Code with Braille and tactile indicators


QR code being read by smartphone by a passenger who has low vision


## Next Service announcements

### *Next Service consoles*

**Issues:**

- Visual next service information is often displayed without audio alternative.

**Recommend:**

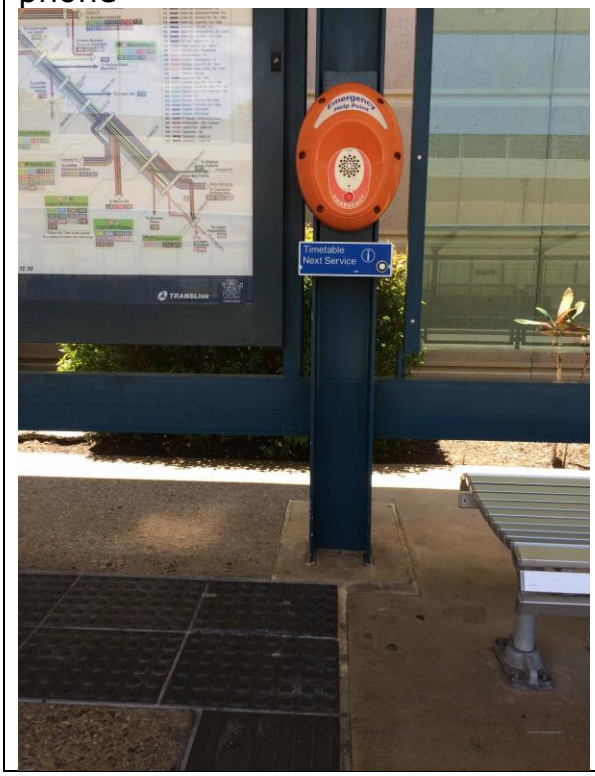
- Visual next service information should always have an audio alternative.

Low cost kinetically powered Next Service consoles have been placed at some bus stations and bus stops in Queensland. These trigger audio announcements of next services to arrive at the station or stop. They are a valuable addition to the visual information scrolling on Next Service screens. DSAPT should require an audio alternative to any visually displayed next service information.

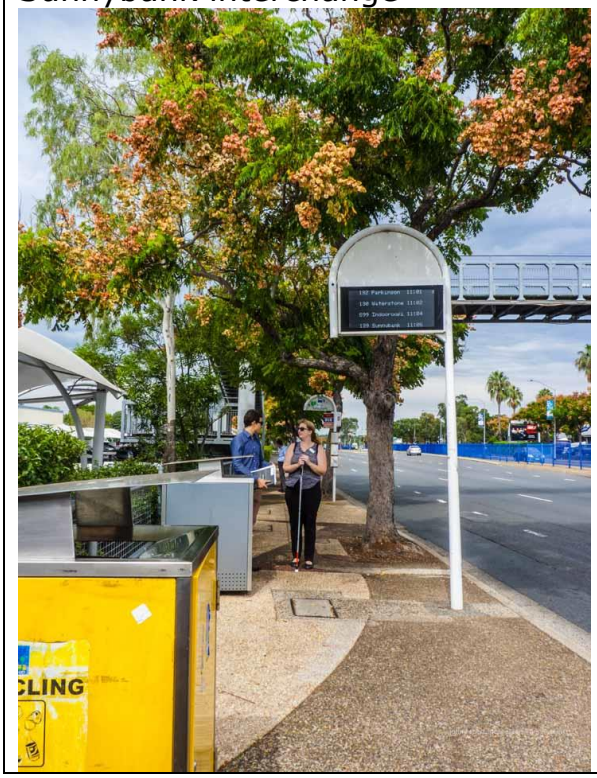
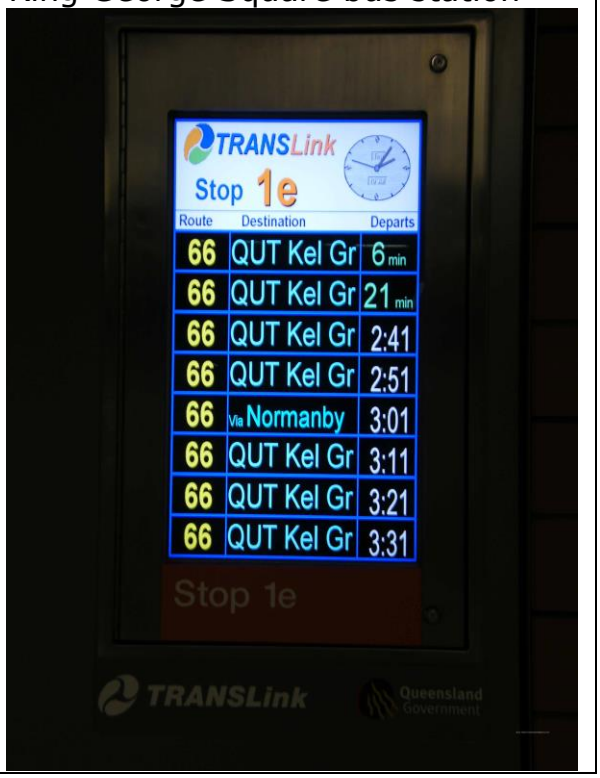
Next Service Console with raised text and Braille


Next Service Console embedded in bus stop blade


Next Service Console adjacent to bus station emergency / help phone




Next Service Console in bus stop blade showing height above boarding point

| Visual only Next Service display, Sunnybank interchange | Visual only Next Service display, King George Square bus station |
|---|---|
|  |  |

## Bus on-board announcements and location during journey

**Issues:**

- Passengers, particularly those with vision, cognitive and intellectual impairments, frequently have no idea of where they are in their journey or when they are approaching their desired stop.

**Recommend:**

- In addition to smartphone apps, operators must incorporate next stop announcement systems into the software of their buses.
- These systems must serve passengers who have vision, intellectual, cognitive and hearing impairments.

The DSAPT requirement for information about location is frequently misinterpreted.

> **27.4 Access to information about location**
> All passengers must be given the same level of access to information on their whereabouts during a public transport journey.

Providers will state, 'We make no next stop announcements either audibly or visibly and therefore all passengers receive the same level of service'. This overlooks the ability of sighted passengers facing forward to discern locational cues as they travel. Passengers facing to the rear in allocated spaces and vision impaired passengers will experience diminished ability to use external cues. Passengers with intellectual / cognitive disabilities

may see the cues but be unable to interpret them.

Audio-visual announcement of next stop is the obvious answer, with direct driver assistance on request as the backup. This has been trialled in buses operated by Transport for Brisbane and Logan Coaches to passenger satisfaction, but the system was deemed by TransLink to be too expensive.

Many providers are falling back on smartphone apps that utilise the bus's GPS system for destination or next stop announcements. These are not always reliable and often fail in tunnels and when buses are under overhead cover. This loss of connection may require the system to be reset, unknown to the user, with the risk that a stop is missed.

Not all people with disabilities have or can operate smartphones. Ultimately, smartphone apps, even when provided free online, place a cost on the user rather than the service provider. If only one of several options for locational awareness, people may choose to bear this cost. If no alternative exists though, the cost imposition is unreasonable.

To alleviate data cost to passengers some ferries[22] and trains[23] currently provide free wifi and its installation should extend to buses, trams and light rail.

Audio-visual next stop announcements on buses are part of a mature technology and far from innovative. Transport for London's (TfL) iBus system was progressively installed in all TfL buses between 2007 and 2009[24]. Siemens developed the system and were chosen from 120 expressions of interest.

An excerpt from a TfL press release dated 23 April 2009[25] summarises iBus:

> iBus delivers a whole range of benefits for London's 6.4 million daily bus passengers.
>
> iBus uses a combination of technologies, including satellite tracking and GPRS data transfer that can pinpoint the precise location of all of the city's 8,000 buses.
>
> The system provides real time audiovisual journey information for passengers as well as more accurate predictions of arrival times at bus stop Countdown signs.

[22] https://www.brisbane.qld.gov.au/traffic-transport/public-transport/citycat-ferry-services/citycat-features-accessibility
[23] http://www.queenslandrail.com.au/Customers/Pages/wifi.aspx
[24] https://en.wikipedia.org/wiki/IBus_(London)
[25] https://tfl.gov.uk/info-for/media/press-releases/2009/april/all-londons-buses-now-fitted-with-ibus

It also provides improved radio communications for drivers and allows bus controllers to improve performance and reliability.

The London bus network is far from minor. Network facts[26] published by TfL state:

- Around 9,300 vehicles operate across 675 routes
- London's buses travelled 493 million kilometres in 2015/16
- More than two billion passenger trips are made on buses each year in London
- Around half of all UK bus trips take place in London
- There are over 19,000 stops - 89% are fully accessible. This figure will rise to 95% by March 2017
- Realtime bus arrival information is available on our web and mobile services for every bus stop across the network

Few Australian jurisdictions would match or exceed a network of this scale. It would seem then, given the achievement of TfL, that rather than being unable to deliver a similar next stop announcement system, Australian bus operators and providers have been unwilling to provide such a system.

## How has your accessibility to infrastructure immediate to boarding a conveyance changed? (for example, any structure or facility that is used by passengers in conjunction with travelling on a public transport service). Can you provide examples?

### Rail stations

*Schedule for Compliance implementation lag*

**Issue:**

- With four years remaining until December 31, 2022 over 25% of rail stations are not independently accessible.

**Recommend:**

- Operators and providers should publish a detailed action plan on how they intend to fund and implement works that allow them to meet the Schedule for Compliance deadline in 2022.

Based on publicly available station information and data supplied by transport authorities, ABC News alleged on August 29, 2018 that over 25% of Australia's railway stations are not independently accessible[27].

[26] https://tfl.gov.uk/corporate/about-tfl/what-we-do/buses
[27] http://www.abc.net.au/news/2018-08-29/the-unconscionable-state-of-australias-train-stations/10147174?pfmredir=sm

Fairfax media alleged on April 1 of 2018 that half of Queensland's railway stations were not fully accessible[28]. The DSAPT Schedule for Compliance requires 90% of railway stations to be compliant by December 2017, and 100% by December 2022.

Meeting the 2022 target will require a massive financial investment by State and Federal governments. All governments should state their intention to meet the Schedule for Compliance and detail the budget amounts per annum that they commit to the work. Operators and providers should publish a detailed action plan on how and where it will be spent (see following section for implementation proposal).

### *Network accessibility*

**Issues:**

- Networks with large accessibility gaps do not serve passengers with disabilities.

**Recommend:**

- Rather than concentrate on individual stations the accessibility of the network should be primary focus.
- Essential features of all stations should be identified and prioritised for upgrade.

The DSAPT's Schedule for Compliance is highly unlikely to be met by most rail providers. By December 2017 they will be expected to have 90% of some of their assets fully compliant and others at 100%.

> **33.2 Date for compliance with these Standards — conveyances, premises and infrastructure in use at target dates**
> Operators and providers must comply with the specified sections of these Standards for premises, infrastructure and conveyances that are still in use for public transport at the target dates specified in Schedule 1.
> Conveyances Premises Infrastructure

With this impending failure soon upon us a new approach is required. A functioning network must come before fully compliant stations. If the core, essential components of a station or a train are accessible it brings the station and train into the network for passengers who have a disability, despite its non-compliance. The Schedule for Compliance is written around componentry rather than train, station and network function. Changing the emphasis from asset compliance to asset function will give a better outcome for both passengers and asset owners. Passengers will have access to an expanding accessible network while asset owners will have more time to work on compliance.

[28] https://www.brisbanetimes.com.au/national/queensland/half-of-queensland-rail-stations-not-fully-accessible-20180329-p4z6xd.html

### *Wayfinding on rail premises and platforms*

**Issues:**

- Passengers with vision, cognitive and intellectual disabilities often find wayfinding a challenge when they are on rail premises and infrastructure.

**Recommend:**

- Clear, consistent wayfinding technical standards that can be referenced by DSAPT must be developed or existing standards that have passenger / disability sector acceptance be adopted.

**Signs**

For people with vision impairments, visual cues such as signs are frequently inadequate or useless for effective wayfinding. Designers will advocate for Braille and tactile text wayfinding signs, but do not consider how passengers with vision impairments will find these signs or read them. Rather read signs, many of these passengers rely on their memory of the site to navigate, aided by tactile, audible, olfactory, sensory and other non-visual cues.

For people who have dementia though, an effective signage system is of paramount importance. This cohort depends on signs that inform them of their whereabouts, and that are located on decision points on access paths. A sign-based wayfinding system that accommodates people with dementia accommodates most other people who orient visually. If nationally consistent symbols compliment text, people with cognitive issues such as dyslexia are accommodated.

**Tactile Ground Surface Indicators**

Among the infrastructure solutions for wayfinding are Tactile Ground Surface Indicators (TGSIs). If used sparingly rather than extravagantly directional TGSIs are of great value to vision impaired passengers while inconveniencing other passengers only mildly.

AS1428.4.1-2009 provides some textual guidance on the use and recommended layout of directional TGSIs, but little in the way of diagrammatic assistance. Brisbane City Council has approximately 2.6 km of almost continuous directional TGSIs in its CBD and has produced technical drawings for staff illustrating layouts for permanent and temporary directional TGSI trails.

Brisbane Standard Drawing BSD5217 Permanent clearances[29]

Brisbane Standard Drawing BSD5217 Temporary diversions[30]

[29] https://www.brisbane.qld.gov.au/sites/default/files/201507_-_bsd-5217_a_directional_tactile_ground_surface_indicator_tgsi_trails_-_sheet_1_of_2.pdf
[30] https://www.brisbane.qld.gov.au/sites/default/files/201507_-_bsd-5217_a_directional_tactile_ground_surface_indicator_tgsi_trails_-_sheet_2_of_2.pdf

**Bluetooth beacons**
For people who are adept with smartphones Bluetooth beacons are a useful wayfinding tool. Many different companies produce these beacons and so apps that are sensitive to most if not all should be mandated under DSAPT.

**Audio cues**
Audio cues can be useful place markers or action triggers. The Next Train Information (NTI) consoles on Queensland's City Train platforms are an example of the former. Audio-tactile crossing signal controls are an example of both the former (homing signal) and the latter (crossing signal). Used sparingly, audio cues have proven their worth as wayfinding aids and should be incorporated into the DSAPT.

**Clear shorelines**
Open, featureless, paved concourses and plazas are challenging environments for people with vision impairments. The lack of cues on a featureless paved surface is disorienting. The use of landscape elements such as garden bed edges, contrasting textures and colours building frontages and so on give useful orientation cues to people who have vision impairments. These elements are often referred to as 'shorelines' and should be incorporated into the DSAPT Guidelines and Whole of Journey Guidelines.

*Disability toilet dimensions on infrastructure and premises*
**Issues:**
- The DSAPT and Part H2.8 of the Premises Standards currently reference an obsolete Australian Standard (AS1428.12001) for accessible toilets.
- Toilet dimensions of AS1428.1-2001 are well below the requirements of the current Australian Standard AS1428.1-2009.

**Recommend:**
- Adopt the AS1428.1-2009 toilet as minimum standard for public transport premises and infrastructure.

In a clear case of anachronistic requirements, in Part 15.1 the DSAPT references AS1428.1-2001 for unisex accessible toilets. So also does Part H2.8 of the Premises Standards. The Premises Standards reference the more generous toilet footprint of AS1428.1-2009 for all other new unisex accessible toilets.

> **15.1 Unisex accessible toilet — premises and infrastructure**
> If toilets are provided, there must be at least one unisex accessible toilet without airlock that complies with **AS1428.1 (2001) Clause 10**, *Sanitary facilities*.
> Premises Infrastructure

| | |
|---|---|
| except premises to which the Premises Standards apply | except airports that do not accept regular public transport services |

**H2.8 Unisex accessible toilet**
If toilets are provided, there must be at least one unisex *accessible* toilet without an airlock that complies with AS 1428.1 clause 10, sanitary facilities.

All disability toilets located in or on rail and public transport infrastructure and premises should conform to AS1428.1-2009. If the geometry of an existing station or the like makes this impracticable then the Equivalent Access and Unjustifiable hardship sections of DSAPT and the Premises Standards can be appealed to.

### Ferry terminals

*Landings on ferry pontoon ramps (often called 'gangways').*

**Issues:**

- Gangways (pontoon ramps) despite being ramps on access paths usually do not incorporate auto-levelling landings.

**Recommend:**

- Clarify in the text of DSAPT that gangways require auto-levelling landings.

Most gangways (pontoon ramps) do not incorporate landings despite the technical ability to do so. Brisbane's flood recovery ferry terminals feature "a gangway that will remain accessible and maintain level landings as the river rises and falls"[31].

From the simple perspective of accessibility, without debating compliance requirements, having auto levelling landings on the gangway makes the structure far more accessible for passengers who have mobility impairments. Since it is technically feasible to have gangways featuring auto-levelling landings, and difficult to argue that such gangways are beyond the budget of State government departments, gangways with auto-levelling landings should be the DSAPT norm. Gangways that have no landings should be regarded as an Unjustifiable Hardship solution for difficult locations or small budget operators.

The matter of landings on gangways will provoke strong reactions. There is disagreement over whether full compliance with AS1428.2 for the gangway (pontoon ramp) is required, including landings, or if the compliance with AS142.2 extends no further than the actual gradient of the gangway. The disagreement cuts across regulators, industry, disability advocates and professional access consultants. Some point to

[31] https://www.brisbane.qld.gov.au/traffic-transport/public-transport/citycat-ferry-services/terminal-upgrades/north-quay-ferry-terminal-upgrade

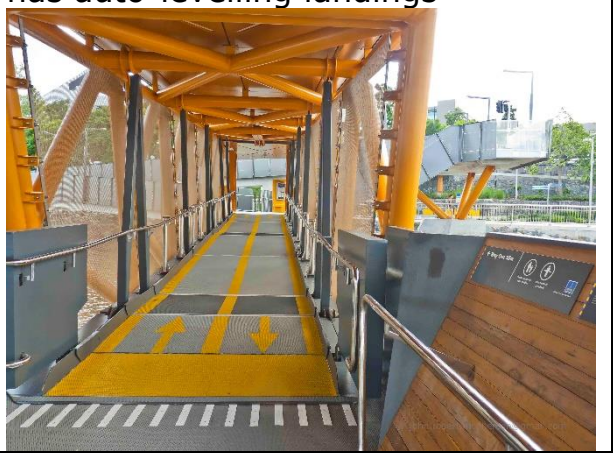
DSAPT Section 6.5 as proof that only the slope of the gangway must meet AS1428.2 as only the slope is mentioned.

> **6.5 Slope of ramps connected to pontoon wharves**
> The slope of a ramp connected to a pontoon wharf must comply with section 6.1 for at least 80% of the high and low tide levels listed in standard tide charts.
>
> Infrastructure
> Pontoon wharves

The response is usually that Section 6.5 only qualifies the performance of a ramp complying with Section 6.1 in a tidal environment, as Section 6.1 clearly states its exceptions and pontoon ramps are not cited.

It is hard to argue that a pontoon's ramp is not a ramp and equally hard to argue that it does not form part of an access path. Those against pontoon ramp landings will then use the argument that Section 6.5 is in conflict with Section 6.1. This counter argument is hard to justify from a literal reading of Section 6.1 which does not mention gangways as being excluded from compliance with Section 6.1 and of Section 6.5 which only deals with pontoon ramp gradients and tidal ranges. Unless confected, conflict between Sections is not apparent.

> **6.1 Ramps on access paths**
> A ramp on an access path must comply with AS1428.2 (1992) Clause 8.
>
> Premises
> except premises to which the Premises Standards apply
>
> Infrastructure
> except airports that do not accept regular public transport services

| Milsons Point ferry wharf's new gangway has no landings | Milton ferry terminal's new gangway has auto-levelling landings |
|---|---|
|  |  |

*Alternative pontoon deck freeboard to accommodate differing vessel freeboards*

**Issues:**

- Ferry pontoon decks often have freeboards not appropriate to the freeboard of all types of ferries that berth at them.
- Gangplanks (boarding ramps) are unreasonably expected to accommodate a range of different pontoon deck and ferry deck freeboard differences.

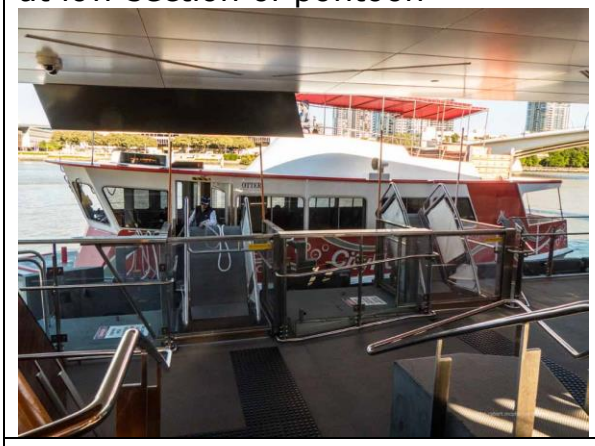
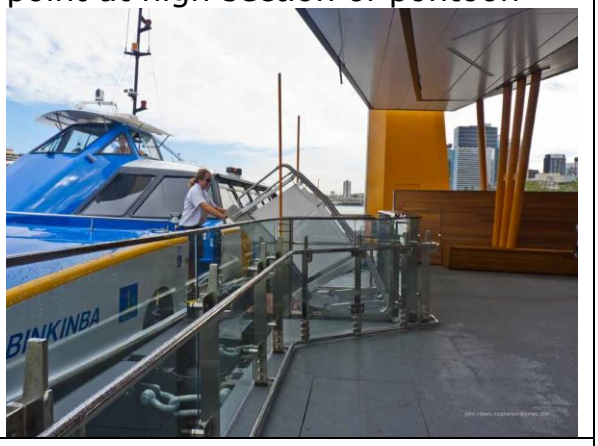
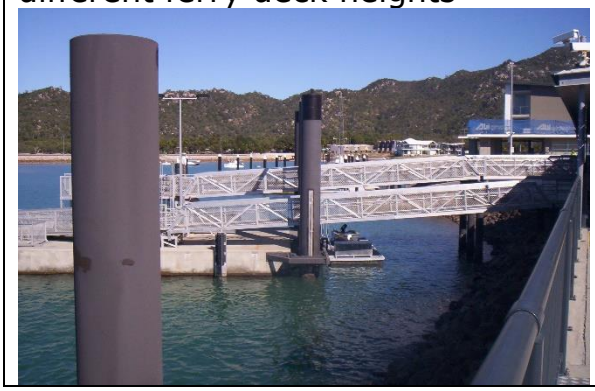
**Recommend:**

- Pontoons that serve a variety of vessel types should have alternative boarding points that accommodate ferries of differing freeboard.

Ferry pontoon decks often have freeboards not appropriate to the freeboard of all types of ferries that berth at them. Gangplanks (boarding ramps) are then unreasonably expected to accommodate a range of different pontoon deck and ferry deck freeboard differences.

Those Brisbane Flood Recovery pontoons that service both catamaran CityCats and monohull CityHoppers have split level decks (photos below). This is to accommodate the quite different freeboards of the monohull and the catamaran vessels. If decks are not at appropriate levels for the ferries that they serve, gangplanks (boarding ramps) may be impossibly steep and certainly not at the 1:8 maximum for independent access required by DSAPT Part 6.4(b). Alternatively, they may be unacceptably longer than the 1520 mm maximum imposed by Part 6.4(b).

Failure to accommodate different vessel freeboards in the pontoon deck design cannot be dismissed as difficult or costly if it is factored into the initial pontoon design as per the Flood Recovery pontoons. The Nelly Bay ferry terminal on Magnetic Island even permits boarding of either of a ferry's decks (photos below). DSAPT should require that pontoons have alternative boarding points whose deck level is appropriate to the freeboards of the different types of ferry that berth at each pontoon.

| | |
|---|---|
| Monohull freeboard boarding point at low section of pontoon<br>  | Catamaran freeboard boarding point at high section of pontoon<br>  |
| Nelly Bay gangways (pontoon ramps) that accommodate different ferry deck heights<br>  | Nelly Bay gangways (pontoon ramps) serving upper and lower ferry decks<br>  |

## Bus stations and interchanges

### *Customer Liaison Officers (CLOs) at bus stations*

**Issue:**

- Independent boarding often challenges passengers with disabilities in busy, chaotic environments.

**Recommend:**

- Customer Liaison Officers provide invaluable direct assistance for passengers with disabilities on bus station platforms.
- The CLO model be recommended for roll out at busy bus stations and interchanges.

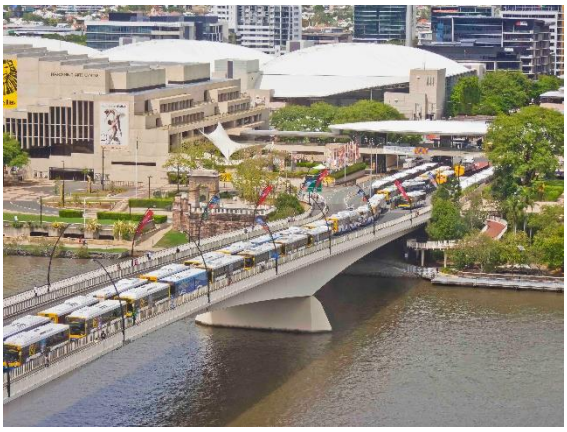
The introduction of platform staff, customer liaison officers[32] (CLOs), at Brisbane's Cultural Centre bus station has improved the boarding experience for passengers with a disability. CLOs are on duty during the afternoon peak at Cultural Centre, Brisbane's busiest bus station. They are able to provide direct assistance hailing and boarding buses in an often-chaotic environment.

[32] https://business.facebook.com/TransLinkQLD/videos/2555555121137204/

The CLO model should be recommended as a boarding and hailing assistance model in the DSAPT Guidelines and the Whole of Journey Guidelines. Particularly with the introduction of driverless trains[33], trams[34] and no doubt buses, having platform staff able to assist with boarding and alighting will probably prove to be a necessity.

The Sydney Metro will feature driverless trains and so Customer Service Assistants are therefore proposed for each station and moving through the network during the day and night[35]. The DSAPT should capture the move to driverless rollingstock and the subsequent need for platform assistance at least in its various guidelines. Failure to do so risks a discriminatory service.

Afternoon peak at the Cultural Centre bus station

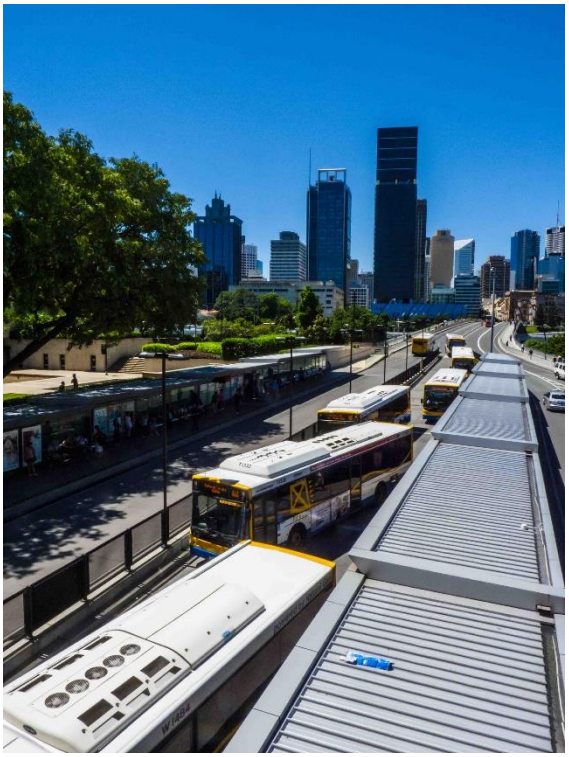


Afternoon peak at the Cultural Centre bus station

[33] https://en.wikipedia.org/wiki/Sydney_Metro
[34] https://www.theguardian.com/world/2018/sep/23/potsdam-inside-the-worlds-first-autonomous-tram
[35] https://www.sydneymetro.info/metro-trains

Buses pulling in and out randomly at the Cultural Centre bus station

Buses pulling in and out randomly at the Cultural Centre bus station



*Identification of desired bus boarding point*

**Issues:**

- Passengers with vision impairments are not always able to identify that they are waiting at the desired bus stop when several options are in close proximity.

**Recommend:**

- DSAPT should require that all boarding points are identified for passengers who have vision impairments.
- A diversity of identification methods is required to accommodate the differing abilities of passengers.

Passengers with vision impairments are not always able to identify that they are waiting at the desired bus stop when several options are in close proximity. Braille and tactile text markers identifying bus boarding point blades would therefore be of great benefit to passengers who have vision impairments. So also would consistently located Quick Response (QR) codes. In Brisbane, TransLink has successfully trialled bus stop blade inserts that identify the stop in the three formats listed above. These inserts are low cost and they or an equivalent should be required in all bus stop blades by DSAPT.

DSAPT requires that boarding points are identified by TGSIs but there is no requirement to identify which bus stop or bus interchange boarding point passengers with vision impairment have located. At a large

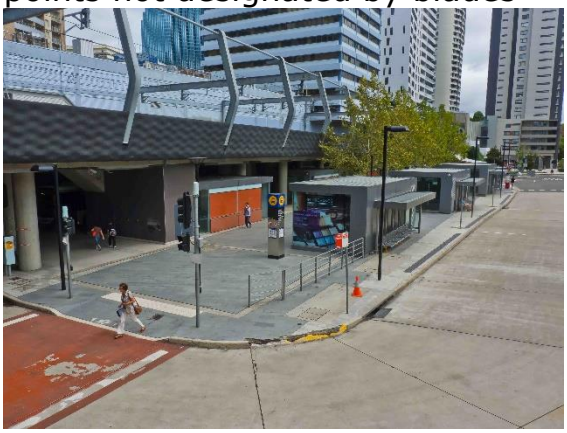
interchange with multiple boarding points such as Sydney's Chatswood or Railway Square this can be confusing. At Chatswood not all boarding points have a blade. All bus interchange boarding points should be identified by blades and these blades should feature Braille / tactile text markers and QR codes.

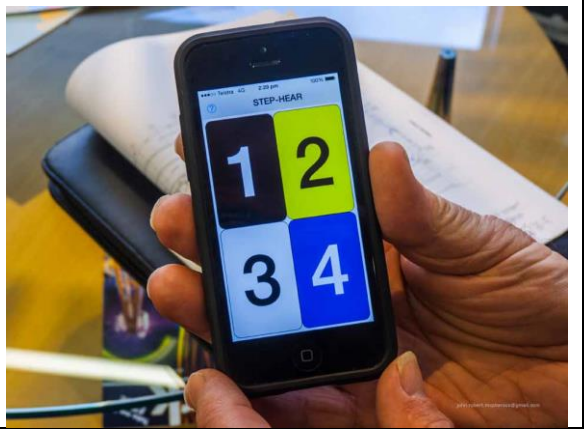
Bluetooth beacons and the like can provide quite detailed information at boarding points for smartphone users. Step-Hear[36] talking signs that are activated by either a free-download smartphone app (Bluetooth) or wrist activator (radio frequency) have been trialled as beacons by TransLink in Brisbane's King George Square bus station. Guide Dogs Qld was TransLink's partner in the trial, with approximately 30 clients participating.

Step-Hear are but one company producing such beacons. BlindSquare[37] beacons have been installed at Southern Cross railway station in Melbourne, with another six stations to receive beacons shortly[38]. This was the result of a partnership between Guide Dogs Victoria and Public Transport Victoria. Currently, BlindSquare is only compatible with iPhones and the app must be purchased. Hopefully this will soon change.

With technology advancing the DSAPT as a minimum should require beacons at all interchange and bus station boarding points. There use as wayfinding aids in the public transport environment generally should also be explored and included in DSAPT.

[36] www.step-hear.com
[37] http://www.blindsquare.com
[38] https://www.guidedogsvictoria.com.au/news-events/international-white-cane-day-2018/

| | |
|---|---|
| Chatswood Interchange boarding point blade lacks tactile markers<br>  <br> | Chatswood Interchange boarding points not designated by blades<br>  |
| Railway Square Interchange boarding point blade lacks tactile markers<br>  <br> | Railway Square Interchange boarding point blade lacks tactile markers<br>  |

| | |
|---|---|
| Braille / tactile QR Code insert, Stop 144 Edward St Brisbane<br>  | Braille / tactile QR Code insert, Stop 144 Edward St Brisbane<br>  |
| Step-Hear beacon and wrist activator<br>  | Step-Hear smartphone app<br>  |

## Taxi ranks / Passenger loading zones

**Issues:**

- The DSAPT stipulates the need for taxi ranks and passenger loading zones to be accessible but provides no technical references.
- No nationally agreed technical specifications exist for accessible has no requirement for taxi ranks or passenger loading zones

**Recommend:**

- The DSAPT must incorporate accessible technical references for taxi ranks or passenger loading zones into its 'Infrastructure' section.
- Technical specifications for taxi ranks or passenger loading zones must be agreed nationally.

For most conveyance types, e.g. trains, trams, ferries, bus and aircraft, the DSAPT has technical specifications for the public infrastructure associated with each modality, i.e. platforms, wharves, bus stops and terminals. In a major oversight however, taxis have no technical specifications for accessible taxi ranks or passenger loading zones. This is despite 'ranks' being listed in the DSAPT's Clause 1.18(2) as infrastructure to which DSAPT is applicable. The result of this is that most taxi related infrastructure is not accessible or is poorly accessible.

Several solutions have been reached independently that involve either grade separation and kerb ramps or same grade loading with bollards and TGSIs. For consistency of practice though, technical specifications for taxi ranks and passenger loading zones must be incorporated into the DSAPT. Technical standards are available from various local authorities' technical manuals that might be considered[39].

Passenger loading zone at footpath grade

Passenger loading zone with kerb ramps

Taxi rank at road grade, Brisbane Domestic Terminal

[39] https://www.brisbane.qld.gov.au/sites/default/files/201406_-_standard_drawings_-_bsd-3162_-_passenger_loading_zone.pdf

## Rest points

**Issue:**

- Rest points are not being installed on some new and existing access paths.

**Recommend:**

- All new access paths should have rest points as per DSAPT Part 5.1.
- Existing access paths should have rest points installed as per the Schedule for Compliance.

Some operators and providers press for changes to DSAPT Part 5.1. Partn 5.1 needs no change, and changing it diminishes the DSAPT. Equivalent access and unjustifiable hardship already cover subways, difficult terrain, unsafe locations and such. Few overbridges or subways are >60 m length. The majority are less and therefore a seat at either entrance satisfies 5.1. The critics of Part 5.1 are overly concerned by the few exceptional situations where compliance is not possible rather than seeking alternate solutions for them.

Kipparing Railway Station was opened on October 4, 2016. The figure below illustrates the access path between the disability parking spaces and the overbridge. No seat beside any part of the 295 m of pathway (though there may be some under the covered waiting area). It is regrettable that for new infrastructure Section 5.1 is ignored.

Kipparing Railway Station and proximity of disability parking spaces


## What do you currently see as the greatest areas of need with regard to accessibility of public transport for people with disability? Can you provide specific examples?

### Failure to meet the Schedule for Compliance

**Issue:**

- Many of those charged with the responsibility of implementing DSAPT have neither scoped the project nor budgeted for it.
- A number of jurisdictions will fail to meet the Schedule for Compliance, particularly with regard to infrastructure and premises.

**Recommend:**

- Jurisdictions must assess their level of compliance against the full DSAPT and realistically budget to meet the requirements of the DSAPT with a decade.
- The scope and priority of works must be agreed with the representatives of the disability sector.

Many of those charged with the responsibility of implementing DSAPT over their full jurisdiction have neither scoped the project nor budgeted for it. Several jurisdictions will therefore fail to meet the Schedule for Compliance, particularly with regard to infrastructure and premises. How and why this occurred is worthy of a Royal Commission. Since it is unlikely that jurisdictions would readily agree to investigate themselves a way forward that ensures fully accessible public transport within the next decade is required.

Jurisdictions must assess their level of compliance against the full DSAPT and realistically budget to meet the requirements of the DSAPT with a decade. The scope and priority of works must be agreed with the representatives of the disability sector. Failure by jurisdictions to engage with this process must be met with the threat of DDA action.

### Granting of endless Temporary Exemptions by the AHRC

**Issues:**

- Temporary Exemptions are sometimes granted multiple extensions well past the initial termination date.
- This results in stasis with regard to the accessibility of the public transport system.

**Recommend:**

- AHRC must take a firm approach to Temporary Exemption applications, and not allow them to become semi-permanent.

The Australian Human Rights Commission (AHRC) has the power to grant Temporary Exemptions from the Schedule of Compliance and the prescriptive parts of the DSAPT. Temporary Exemptions have a place in the DSAPT. They allow an operator or provider 'breathing space' whilst some point is clarified, or a setback overcome. Brisbane City Council asked for and was granted a Temporary Exemption after extensive damage to its ferry terminals in the 2011 floods. The request was made

in good faith and has since lapsed with the Council back on target to meet its ferry terminal DSAPT Schedule for Compliance milestones. This is by no means the only example of proper use of Temporary Exemptions.

Not all Temporary Exemptions reach such a satisfactory conclusion. The Australasian Railways Association (ARA) has managed to roll over many 'Temporary' Exemptions first granted in 2007[40] and adding new Exemptions along the way[41] [42]. Elements of the 2007 Exemption were extended in 2010[43], 2012[44], 2013[45], 2014[46] and 2015[47]. Parts of the 2015 Exemption expired in 2017 but the remainder is in effect until 2020[48]. How and why all this has occurred is worthy of contemplation, but the result has been stasis in compliance with the DSAPT in many areas of the rail environment for at least a decade.

Clearly, the ARA's members seem unable to resolve their difficulties with some parts of DSAPT and as such are seeking refuge from them. The AHRC must take a firm approach to Temporary Exemption applications, and not allow them to become semi-permanent.

### Government ignorance of DSAPT

**Issues:**

- Directions are sometimes taken by parliaments, cabinets and Ministers that are ill-advised and even unlawful under existing legislation.
- These moves are not infrequently successfully challenged by affected parties in what should be quite unnecessary conflicts.

**Recommend:**

- Legislation that requires governments to assess the impact of decisions in the context of existing human rights legislation and UN conventions is required at Commonwealth and State level.

Government is subject to legislation. State governments are subject to Federal legislation, local government is subject to State legislation and the Commonwealth is subject to its own legislation. It is also notionally subject to the United Nation's Convention on the Rights of Persons with a Disability. Unfortunately, directions are sometimes taken by parliaments,

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[40] https://www.humanrights.gov.au/australasian-railways-association
[41] https://www.humanrights.gov.au/australasian-railways-association-direct-assistance-ascending-and-descending-boarding-ramps
[42] https://www.humanrights.gov.au/australasian-railways-association-carriage-and-stowage-mobility-aids-and-transfer-and-mobility-aids
[43] https://www.humanrights.gov.au/our-work/legal/exemptions/exemption-applications-under-disability-discrimination-act-1992-cth
[44] https://www.humanrights.gov.au/decision-applicaton-temporary-exemption
[45] https://www.humanrights.gov.au/sites/default/files/Gazetted%20decision_0.pdf
[46] https://www.humanrights.gov.au/sites/default/files/14%2012%2018%20Interim%20Exemption%20-%20signed_0.pdf
[47] https://www.humanrights.gov.au/sites/default/files/2015-10-01_%20ARA-Decision_signed_0.pdf
[48] https://www.humanrights.gov.au/our-work/legal/exemptions/exemption-applications-under-disability-discrimination-act-1992-cth

cabinets and Ministers that are ill-advised and even unlawful under existing legislation. These moves are not infrequently successfully challenged by affected parties in what should be quite unnecessary conflicts.

The most recent example of such an ill-advised and unlawful direction in the public transport field involved a decision on rollingstock design by Queensland's Newman government. With cost and staff cuts in mind the Newman cabinet directed that in a train with two accessible cars only one car should have a toilet. No accessible path of travel existed between the cars to allow use of the toilet by passengers in the car without a toilet. The decision was inevitably successfully challenged, and the taxpayer now faces a $150 million outlay to rectify the error.

### Lack of consultation and underinformed designers

**Issue:**

- People who design public transport infrastructure, premises and rollingstock are occasionally profoundly underinformed about the requirements of DSAPT.
- Projects major and minor occasionally have only cursory public consultation, token consultation or no consultation.

**Recommend:**

- Designers should avail themselves of the wealth of first hand and technical experience resident in the disability sector.
- A more consultative and engaging culture must be cultivated in government departments and private companies.

People who design public transport infrastructure, premises and rollingstock are occasionally profoundly underinformed about the requirements of DSAPT. While this is lamentable, it is not surprising, as the nation is witness to all manner of construction, policy and procedural debacles at the hands of those who should know better. Human frailty will be with us always.

Queensland's NGR train, now the focus of the Forde[49] Inquiry, is the latest billion-dollar bungle by a project team. Regrettably it is unlikely to be the last unless a more consultative and engaging culture can be cultivated in government departments and private companies.

The most effective counter to designer ignorance is comprehensive, sincere public consultation beginning at the inception of the project and continuing until its completion. As the King James Bible aptly puts it: *Where no counsel is, the people fall: but in the multitude of counsellors there is safety* (Proverbs 11:14).

[49] http://statements.qld.gov.au/Statement/2018/7/23/new-generation-rollingstock-inquiry

## Lack of staff awareness, confidence and competence

**Issues:**

- While many employees, platform staff, drivers, guards, call centre consultants, booking staff and so on are competent and courteous, some lack skill or awareness.
- Staff incompetence is a disincentive to the use of otherwise accessible services.

**Recommend:**

- Adequate levels of staff disability awareness, confidence and competence must be built into the DSAPT.
- Training should have the same priority as Occupational Health and Safety training.
- Failure to set a benchmark for staff ability will see widely varying degrees of service and assistance between individuals and service providers.

While many employees, platform staff, drivers, guards, call centre consultants, booking staff and so on are competent and courteous, some lack skill or awareness. Often these less-than-skilled staff will defend their poor performance by stating to the passenger that they are only following directions, policy or lawful requirements. Usually, none of these assertions is correct.

Booking staff are sometimes ignorant of the access provisions of conveyances. By way of example, Fokker 70 aircraft have five seats per row, three on one side of the aisle and two on the other. Only the three-seat set has armrests that can lift out of the way allowing transfer into the seats from an on-board wheelchair. Despite this, passengers who board using an on-board wheelchair are very often booked into the two-seat set that has fixed armrests. Booking staff are obviously unaware of the Fokker's seating arrangements, placing cabin crew and passengers in the difficult position of making very last-minute adjustments to passenger seat allocation.

Staff failures that result in major inconvenience or injury for passengers with disabilities are occasionally reported in the press[50] [51] [52] [53] [54] [55] [56].

[50] https://www.theage.com.au/national/victoria/disabled-train-and-tram-passengers-forgotten-20140324-35e8a.html
[51] http://www.abc.net.au/news/2017-05-30/disabled-rail-user-tracey-tanner-left-stranded-brisbane-station/8571868
[52] http://www.abc.net.au/news/2017-05-28/woman-karin-swift-wheelchair-stranded-brisbane-train-apology/8566628
[53] http://www.dailytelegraph.com.au/news/nsw/sydneys-rail-shame-how-one-wheelchairbound-commuter-spent-a-hellish-day-on-citys-train-network/story-fni0cx12-1226805387359
[54] http://www.abc.net.au/news/2015-07-17/accidents-spark-calls-for-improved-bus-safety-for-wheelchair/6608798
[55] http://www.brisbanetimes.com.au/queensland/bus-incident-sparks-wheelchair-belt-calls-for-queensland-20150626-ghyag2.html
[56] http://www.abc.net.au/news/2015-07-17/accidents-spark-calls-for-improved-bus-safety-for-wheelchair/6608798

Little change in staff competence has been noted despite the ongoing incidents. Anecdotal accounts of people refusing to travel on particular modes of transport due to poor or careless performance by staff are common. The service may be accessible, but the performance of staff has created a disincentive to use it.

Adequate levels of staff disability awareness, confidence and competence must be built into the DSAPT. It should have the same priority as Occupational Health and Safety training. Failure to set a benchmark for staff ability will see widely varying degrees of service and assistance between individuals and service providers.

### Focus on compliant assets rather than accessible networks

**Issues:**

- DSAPT compliance is sought as a shield against a hostile public, rather than a good outcome that improves the operation of the public transport system.
- In the case of existing assets, operators and providers are sometimes tempted to carry out exemplary but very expensive work on a limited number of assets, rather than bring a larger number of assets to a functional state.

**Recommend:**

- A revision of the Schedule for Compliance so that a 'function preceding compliance' approach was explicitly permitted would be of great assistance to establishing functional public transport networks.

Many operators and providers regard DSAPT as a threat because it exposes them to legal actions. Compliance is therefore sought as a shield against a hostile public, rather than a good outcome that improves the operation of the public transport system. In the case of existing assets, operators and providers are sometimes tempted to carry out exemplary but very expensive work on a limited number of assets, rather than bring a larger number of assets to a functional state.

Anecdotally, disability sector representatives have been informed that bringing Redfern railway station up to DSAPT compliance would consume the full year's budget for DSAPT upgrades. Upgrading several stations in a year rather than only Redfern has been cited as the reason for the New South Wales government delaying upgrade of the station. This is despite longstanding demands from the disability sector for the strategically located station to at least reach a functional state.

At a significant 2013 public consultation Queensland Rail was emphatically informed by the disability sector that a functional network was an infinitely higher priority than brining individual stations to full compliance.

If the essential features of a station were connected by uninterrupted access paths to the surrounding urban or suburban matrix, then the station was in a functional state, though perhaps not compliant. If most of the network was composed of functional stations it would permit a far better public transport system than a network with significant accessibility gaps between fully compliant stations.

Public use of the network depends on its functionality rather than its compliance. This does not diminish the requirement for compliant assets. All assets must reach full DSAPT compliance. Rather, it prioritises planning and work that permits network functionality ahead of full compliance. A revision of the Schedule for Compliance so that a 'function preceding compliance' approach was explicitly permitted would be of great assistance to establishing functional public transport networks.

## 2. As a public transport user, are there areas of the Transport Standards where you consider that a more specific requirement for compliance would improve accessibility?

### Information formats

No single medium serves the communication needs of all passengers.

**Issues:**

- Public transport providers and operators often fail to use the full spectrum of accessible media, preferring to concentrate on an online presence.
- Preferred means of communicating are often not accommodated by the feedback and contact mechanisms provided by public transport providers and operators.

**Recommend:**

- Without specifying particular media (which evolve and emerge), the DSAPT should require that all service related information shall be available, or be able to be made available in a timely manner, in all media used by passengers who have a disability.

Following on from the previous section, passengers in general, as much as passengers with a disability, will seek to be informed or to communicate with public transport operators in formats that best suit them. With the digital age upon us governments and industry are rushing to embrace the new cost-effective technologies. While this is not in itself a bad outcome if it is part of a broader information strategy it risks marginalising people who are not in the digital ecosystem if it is the only

information strategy[57]. Multiple channels of communication in a variety of media are needed to ensure connection between the public and the transport operators and providers.

### *Online*

An online presence is cost effective and broadly accessible to most passengers. It cannot service all passengers however. Radio for the Print Handicapped[58] claims that almost 3.8 million Australians live with a print disability, which can include literacy issues, learning disabilities, vision impairment and physical disabilities. Whilst many in this audience can access the online printed word via assistive software such as screen readers and magnifiers, many more cannot. These passengers require access to alternative information services.

### *Mobile*

With mobile technology having huge market penetration the World Wide Web Consortium (W3C) has developed guidelines for the software that operates on mobile platforms. These can be found on W3C's Mobile Accessibility page[59]. Apps developed by public transport providers should be required by DSAPT to conform to the Mobile Accessibility guidelines.

### *Telephone*

Call centres staffed by trained consultants are a highly effective means of providing Direct Assistance to people with disabilities seeking service information. Older people also often express the desire to communicate directly with a person rather than a machine as they can question and clarify matters. People who have English as second or third language can access call centres via the Commonwealth's Translating and Interpreting Service (TIS)[60]. The Commonwealth also funds the National Relay Service (NRS)[61], which serves as a real-time telephonic link between people who cannot use standard audio telephones due to hearing or speech disabilities and the service providers they wish to contact, and *vice versa*.

### *SMS / Texting*

Deaf people, particularly those whose first language is Auslan, have embraced communication via SMS / Text. Messages are usually short and sharp, requiring only modest literacy skills on the part of the sender and recipient. SMS / Text is a very flexible medium and news updates, service disruptions and other essential information can easily be sent out as SMS / Text messages. In all instances where service provider or operator phone numbers are provided so that passengers can ask for

[57] https://theconversation.com/digitising-social-services-could-further-exclude-people-already-on-the-margins-103201
[58] http://www.rph.org.au/
[59] https://www.w3.org/WAI/mobile/
[60] http://www.tisnational.gov.au/
[61] http://relayservice.gov.au/

assistance or further information, whether on signs, hardcopy or online, an SMS / Text option should also be provided. Help / Emergency phones on platforms and wharves are of little use to people who cannot hear or speak. All Help / Emergency phones should have an SMS / Text number displayed for passengers not able to hear or speak.

### *Radio*

A substantial number of people use radio as their primary medium for obtaining information.

Radio for the Print Handicapped, RPH Australia[62] is the national peak body for the RPH Radio Reading Network. It provides a radio reading service for people who cannot see, handle or understand printed material in all the States and Territories. RPH Australia claims that currently almost 3.8 million Australians live with a print disability, which can include literacy issues, learning disabilities, vision impairment and physical disabilities.

### *Hardcopy*

DSAPT gives little guidance on accessible hardcopy format. Section 27.3 advises only on the minimum point size and acceptable font for large print, and on the colour of publication text and background.

> **27.3 Size and format of printing**
> (1) Large print format type size must be at least 18 point sans serif characters.
> (2) Copy must be black on a light background.
> Conveyances Premises Infrastructure

This leaves much to the imagination. Text justification, letter, word and line spacing are not dealt with amongst other matters.

An agreed DSAPT Style Guide for hardcopy publications needs to be either adopted or developed in consultation with the disability sector.

## WCAG 2.0

### Websites not all complying with WCAG 2.0 AA

**Issues:**

- While government websites must conform to the WCAG 2.0 AA accessibility standards the transformation to accessible sites is well behind schedule.
- There is no lawful requirement for non-government operators and providers to meet WCAG 2.0 AA
- New websites and pages sometimes do not meet WCAG 2.0 AA.
- WCAG 2.0 AA does not incorporate Auslan, Easy English, captions in languages other than English or audio description.

[62] http://www.rph.org.au/

**Recommend:**

- Public transport related websites should be incorporated into the DSAPT Schedule for Compliance.
- All public transport related websites should conform to to a WCAG 2.0 AA+ accessibility standard that incorporates Auslan, Easy English, captions in languages other than English and audio description.

The accepted international standards for website accessibility are the Web Content Accessibility Guidelines 2.0 (WCAG 2.0)[63] published by the World Wide Web Consortium[64]. WCAG 2.0 recognises three levels of compliance, A, AA and AAA. The WCAG are not recognised by DSAPT, which was in its penultimate draft in about 1995. DSAPT therefore predates wide public uptake of the Internet and has only vague references to 'general information'. The Internet and mobile technologies must be brought into DSAPT.

> **27.1 Access to information about transport services**
> General information about transport services must be accessible to all passengers.
> Conveyances Premises Infrastructure

The need for accessible websites is recognized by government. Under the Web Accessibility National Transition Strategy (NTS) all Commonwealth, State and Territory government websites were to conform to WCAG 2.0 A by December 2012[65] [66]. Commonwealth websites were to conform to WCAG 2.0 AA by December 2014, with State and Territory governments encouraged to do so, though the timeframe for the States is discretionary. The NTS has seen mixed success, with some State and Commonwealth websites, including public transport websites, still not fully at WCAG 2.0 AA.

Since the NTS, which lacks legal force, has failed to deliver the agreed minimum standard for website accessibility, DSAPT should mandate WCAG 2.0 AA+ for all public transport websites to be accessed by passengers. The AA+ rating recognises that important accessibility features such as Auslan interpretation, Easy English, captions in languages other than English and audio description of audio-visual materials are at AAA level. It also recognises that AA does not cover all aspects of the access requirements for smartphone apps, which should also be incorporatedin the AA+ rating (see following section). WCAG 2.0 AA+ should not attempt full AAA compliance as this would be onerous.

Non-government operators and providers are not covered by the NTS.

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[63] http://www.w3.org/TR/WCAG20/
[64] http://www.w3.org/
[65] https://www.finance.gov.au/publications/nts-2010-baseline-report/
[66] https://www.finance.gov.au/archive/publications/wcag-2-implementation/

They also should be required to meet a DSAPT requirement for WCAG 2.0 AA+ for public transport related websites. Compliance with WCAG 2.0 AA+ should be inserted into the DSAPT's Schedule for Compliance.

### *WCAG 2.0 AA does not fully cover apps developed for smartphones*

**Issues:**

- Smartphone apps developed for public transport systems are not always accessible for people who have vision, dexterity, intellectual or cognitive impairments.

**Recommend:**

- World Wide Web Consortium (W3C) guidelines for software that operates on mobile platforms should be the minimum acceptable standard for smartphone apps.
- These guidelines should be incorporated into WCAG AA+ and DSAPT.

Many smartphone apps developed by the operators and providers of public transport have entered the market. These are welcome additions to the public transport environment. Not all are accessible for people who have vision, dexterity, intellectual or cognitive impairments however.

The World Wide Web Consortium (W3C) has developed guidelines for the software that operates on mobile platforms to address this problem. These can be found on W3C's Mobile Accessibility page[67]. Apps developed by public transport operators providers should be required by DSAPT to conform to the Mobile Accessibility guidelines as part of the WCAG 2.0 AA+ standard.

### *WCAG 2.0 AA does not require captions in languages other than English for audio-visual information*

**Issues:**

- WCAG 2.0 AA excludes accessibility features for audio-visual material such as Auslan interpretation.

**Recommend:**

- DSAPT should require public transport websites to meet WCAG 2.0 AA+ for all service related audio-visual material. AA+ would include captions in languages other than English.

While WCAG 2.0 AA is the agreed minimum accessibility standard for websites, it lacks certain features that some passengers with disabilities would deem essential. For example, WCAG 2.0 AA requires captioning of audio-visual information. It is assumed that this, provided in English as closed captioning, will meet the needs of passengers who are deaf.

[67] https://www.w3.org/WAI/mobile/

Fluent English speakers who have lost their hearing and who have average or better literacy are well served by English captioning. There are people who benefit little or at all however. People for who English is not first language, and who may have cognitive disabilities or who have lost hearing, are less well served if served at all.

Closed captioning can be provided with multiple language options and this should be required by DSAPT. Dementia and other forms of cognitive impairment often cause people to revert to first language. The lack or loss of English is best compensated for by provision of captions that have several language options.

DSAPT should require public transport websites to meet WCAG 2.0 AA+ for all service related audio-visual material. AA+ would include captions in languages other than English.

### *WCAG 2.0 AA does not require Auslan interpretation of audio-visual information*

**Issues:**

- WCAG 2.0 AA excludes accessibility features for audio-visual material such as Auslan interpretation.

**Recommend:**

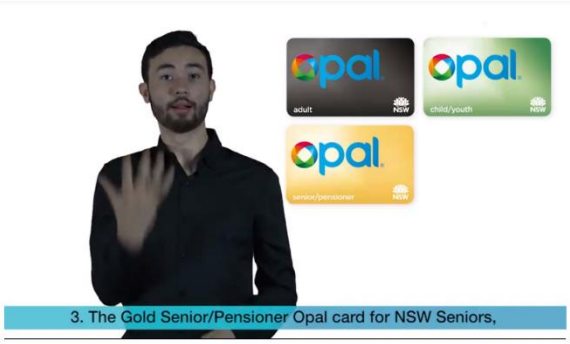
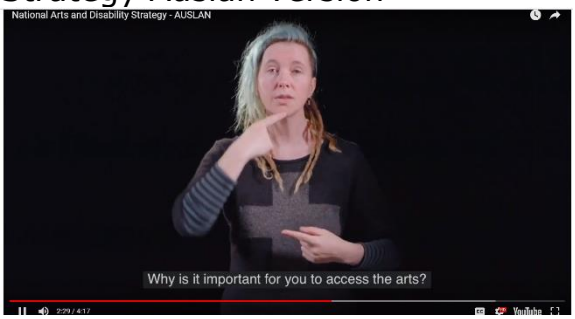
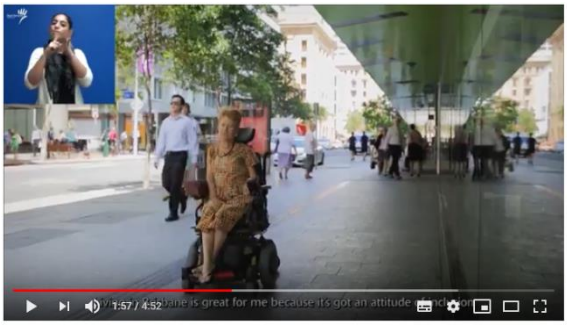
- DSAPT should require public transport websites to meet WCAG 2.0 AA+ for all service related audio-visual material. AA+ would include Auslan interpretation.

For people born deaf, and who use Auslan as first language, English captioning is often difficult to follow as it is a foreign language. Signing deaf people communicate by gesture and expression, and while as able to comprehend language, symbol and grammar as any other person, are often challenged by phonetically spelled words. Symbols representing sounds (i.e. letters of the alphabet) are beyond the scope of their experience since sound is not and has never been part of their world or culture.

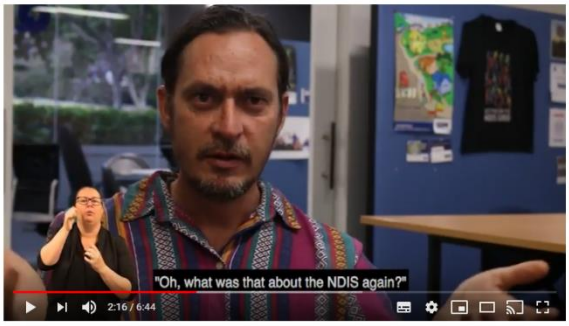
Auslan interpreters can be inserted in the corner of videos at little extra cost. Several examples are presented below. DSAPT should require these Auslan insertions.

Some organisations have provided detailed information in videos that feature Auslan as the primary form of communication, with a spoken narrative and / or English captions as secondary. The Opal electronic ticketing system features two such videos and the National Arts and Disability Strategy has provided one.

Auslan interpretation is WCAG 2.0 AAA rather than AA and therefore routinely not considered. DSAPT should mandate it making the compliance target in effect WCAG 2.0 AA+.

| | |
|---|---|
| Introducing Opal[68]<br>  <br>Opal - All cards (Auslan version) | Introducing Opal<br>  <br>Opal - All cards (Auslan version) |
| Gold Senior / Pensioner Opal card[69]<br>  <br>Opal - Gold card (Auslan version) | National Arts and Disability Strategy Auslan version[70]<br>  |
| Toward an Accessible and Inclusive Brisbane[71]<br>  <br>Toward an Accessible and Inclusive Brisbane | Toward an Accessible and Inclusive Brisbane<br>  <br>Toward an Accessible and Inclusive Brisbane |

[68] https://youtu.be/-4ioR-sWTSY
[69] https://youtu.be/7ADVnVQMi0I
[70] https://youtu.be/XpK8LilAEpM
[71] https://youtu.be/baHnrJ_A178

| | |
|---|---|
| Getting on the NDIS Grid[72]<br>  <br>Getting on the Grid QDN Captioned & Interpreted | Getting on the NDIS Grid<br>  <br>Getting on the Grid QDN Captioned & Interpreted |
| The Yarning Circle – Goals and Visions under the NDIS[73]<br>  <br>The Yarning Circle - Goals and dream under the NDIS: Willie's story | The Yarning Circle – Goals and Visions under the NDIS[74]<br>  <br>The Yarning Circle - My Place with the NDIS: Doug's Story |

### *WCAG 2.0 AA does not require audio description of audio-visual information*

**Issues:**

- WCAG 2.0 AA excludes accessibility features for audio-visual material such as Auslan interpretation and audio description.

**Recommend:**

- DSAPT should require public transport websites to meet WCAG 2.0 AA+ for all service related audio-visual material. AA+ would include audio description.

Audio description gives people with vision impairment context that may not be obvious if they are trying to follow a video's narration or dialogue. This context is particularly important when tasks are being demonstrated. Audio description is best scripted into a video prior to production as it can seldom be successfully added post production. The description takes time that is seldom available when cutting between scenes or narration or dialogue is occurring. Silent periods when only the audio description is heard must be scripted in.

DSAPT should require public transport websites to meet WCAG 2.0 AA+ for all service related audio-visual material. AA+ would include audio

[72] https://www.youtube.com/watch?v=4hL1CTlyzM4
[73] https://www.youtube.com/watch?v=QCdsNetxkno
[74] https://www.youtube.com/watch?v=HMMchq49Jjg

description.

### *WCAG 2.0 AA does not fully incorporate the needs of passengers with cognitive disabilities*

**Issues:**

- WCAG 2.0 AA excludes some accessibility features for passengers with intellectual or cognitive disabilities. Text can be unnecessarily complex and terms familiar only to industry insiders may be used.

**Recommend:**

- DSAPT should require public transport websites to meet WCAG 2.0 AA+ for all service related electronic information. AA+ would include the requirement to use Easy English either on the main site or as an alternative.

WCAG 2.0 AAA contains guidance in Clauses 3.1.3 to 3.1.6 on how online material can be rendered more accessible to people who have intellectual or cognitive disabilities.

> 3.1.3 Unusual Words: Words that are not common or considered jargon are specifically defined such as in a glossary
> 3.1.4 Abbreviations: Abbreviations are clearly defined
> 3.1.5 Reading Level: Information should be readable at a lower secondary level. This could potentially include a specific sheet written in Easy English
> 3.1.6 Pronunciation: The correct pronunciation is indicated for difficult words

Guidance on how best to implement these clauses is readily available. Media Access Australia is one of many organisations that provide services to owners of electronic information[75]. Among their free resources are the Cognitive Disability Digital Accessibility Guidelines[76] [77].

DSAPT should require public transport websites to meet WCAG 2.0 AA+ for all service related electronic information. AA+ would include the requirement to use Easy English either on the main site or as an alternative.

### CAPTCHA

**Issues:**

- CAPTCHA is sometimes used to establish the credentials of a person using a component of a website. Passengers with vision, cognitive or intellectual disabilities often struggle with CAPTCHA.

[75] http://www.mediaaccess.org.au/
[76] http://www.mediaaccess.org.au/digitalaccessibilityservices/cognitiveguide/
[77] http://www.mediaaccess.org.au/sites/default/files/files/2016/Cognitive%20Disability%20Digital%20Accessibility%20Guide.pdf

**Recommend:**

- CAPTCHA should not be used to establish credentials, but rather an accessible alternative should be employed.

Online feedback or log on is sometimes submitted via a form that utilizes 'CAPTCHA' (Completely Automated Public Turing Test to Tell Computers and Humans Apart) distorted text. This distorted text must be typed in to the form to validate the inquiry or log in. It is not readable by many people with vision or cognitive impairments. Audio alternatives of the distorted text are sometimes given but these are not always reliable.

Members of the general community also experience difficulties in reading CAPTCHA and the technology is falling from favour with various corporations. As part of its Disability Action Plan 2013-2016, Telstra undertook to remove all CAPTCHA validation from its website[78]. The Australian Communications Consumer Action Network (ACCAN)[79], Australia's peak body for consumer representation and advocacy in communications, has called for the immediate removal of CAPTCHA from all government, businesses and organisational websites and that it is replaced by accessible alternatives[80].

Since CAPTCHA directly excludes certain passengers it should not be permitted on public transport websites. Alternatives recommended by ACCAN are:

1. Email verification: Requesting website visitor's reply to an email sent to their email address.
2. Honey Pots: Honey Pot fields can be used on websites to identify bots and nonhuman interaction. Honey Pot fields are invisible to human web users and can be tagged to alert screen reader users to leave the field blank. Any interaction with the Honey Pot indicates malicious or machine interaction and access to the website can accordingly be blocked.

### No Standard cited for procurement of non-web information and communications technologies

**Issues:**

- Non-web based electronic information (ticket machine displays, electronic time tables etc.) must be as accessible and legible as web based information, but no contemporary DSAPT recognised Standard for accessibility exists.
- Standards Australia has adopted the new European Standard *EN 301 549 Accessibility requirements for public procurement of ICT products and services* as the relevant Australian Standard for ICT products.

[78] https://www.telstra.com.au/content/dam/tcom/about-us/community-environment/pdf/telstra-sixth-disability-action-plan-2013-2016.pdf
[79] http://accan.org.au/
[80] http://accan.org.au/our-work/policy/728-community-position-statement-on-captcha

**Recommend:**

- Australian Standard *AS EN 301 549 – 2016*, a direct adoption of European Standard *EN 301 549 Accessibility requirements for public procurement of ICT products and services* should be cited in DSAPT as the ICT hardware and software procurement standard.

Information is displayed electronically in many ways in the public transport environment. These displays may be interactive, such as ticket machine screens, information kiosks with touch screens, etc. Or they may be non-interactive, simply reading out information, such as electronic timetables or fare gate displays. Strictly speaking WCAG 2.0 does not cover non-web based electronic displays. However, the same screen-based accessibility issues exist for the passenger.

To address the need for accessible and legible screen based electronic information, accessible hardware and to ensure consistency in the presentation of all forms of electronic information, Standards Australia, in partnership with the Department of Finance[81], has published a new Australian Standard that covers ICT procurement – *AS EN 301 549 Accessibility requirements suitable for public procurement of ICT products and services–2016*. This new AS has now been adopted by both the Commonwealth[82] and New South Wales [83] [84]. It is inconceivable that other jurisdictions will not follow suit. The matter was widely reported in the IT media[85] [86] [87].

*AS EN 3.1 549 – 2016* is identical to the European Commission's recently published Standard[88] *EN 301 549 Accessibility requirements for public procurement of ICT products and services*. The full text of *EN 301 549* is available online[89].

*AS EN 301 549 – 2016* will be stable and easily implementable, but currently will have no legal force under DSAPT and only policy force within the Australian Public Service. It should be adopted nationally as should WCAG 2.0 via DSAPT.

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[81] http://www.standards.org.au/OurOrganisation/News/Documents/Standards%20Australia%20and%20Department%20of%20Finance%20to%20provide%20greater%20access%20to%20technology%20for%20Australians%20with%20a%20disability.pdf

[82] https://www.financeminister.gov.au/media-release/2016/08/22/access-technology-made-easier

[83] https://www.procurepoint.nsw.gov.au/news/ict-services-scheme-rules-updated-new-accessibility-standard

[84] https://youtu.be/r_bKTD2JMPq

[85] http://www.computerworld.com.au/article/print/605483/government-backs-ict-accessibility-standard/

[86] https://mediaaccess.org.au/latest_news/australia-adopts-accessible-ict-procurement-standards

[87] http://www.crn.com.au/news/australian-govt-will-push-it-vendors-to-make-products-disability-friendly-437434

[88] http://www.etsi.org/news-events/news/754-new-european-standard-on-accessibility-requirements-for-public-procurement-of-ict-products-and-services

[89] http://www.etsi.org/deliver/etsi_en/301500_301599/301549/01.01.01_60/en_301549v010101p.pdf

## Ticketing systems

**Issues:**

- The move towards electronic and digital fare payment systems are narrowing the options for people not able to use either payment method.
- There is sometimes a discrepancy in journey price with hardcopy tickets costing more for the same journey than electronic or digital tickets.

**Recommend:**

- Multiple fare payment options should be available for people of varying abilities.
- There should be no price discrepancy between the fare price of paper tickets and electronic and digital fares for the same journey.

Increasingly, fare payment is becoming an electronic or digital process. This is excellent for network efficiency but risks marginalising people who can only confidently use traditional payment methods such as tickets. A price discrepancy between the cost of traditional tickets and the electronic and digital tickets is often introduced as an incentive to people to take up the new payment methods.

Any passenger wishing to pay a fare should be able to and that fare should be independent of payment method. DSAPT should require fare parity regardless of payment method, and require that multiple payment methods be available.

## Infrastructure

### *Audible announcements of platform numbers in lifts*

**Issues:**

- Lifts that service only two levels are not required to have audible voice announcements of levels.
- Vision impaired passengers have no audio confirmation that they have arrived at the correct platform.

**Recommend:**

- DSAPT should require audible voice announcements of platform number in lifts.

Lifts that service only two levels are not required to have audible voice announcements of levels. In a two-story building with a single lift or lifts clustered around a building core this makes perfect sense. The passenger will arrive at the lift foyer of either ground or first floor depending on direction of travel. For railway and busway stations with multiple platforms beneath a concourse or overbridge though, several destinations are possible.

A passenger with a vision impairment would benefit greatly from hearing

the platform number announced as the lift car arrived at the platform. This will confirm to the passenger that they have either taken the correct lift for their platform or have mistakenly taken the wrong lift.

Some rail and bus station lifts do have audible announcements of platform number, but this is a good practice only rather than a requirement. Whenever rail or bus stations have more than one platform served by lifts, DSAPT should require audible voice announcements of platform number.

## Ferries

### Pontoon stability

**Issues:**

- Stability of pontoon while passengers are boarding, alighting and operating controls.

**Recommend:**

- A deemed-to-satisfy level of stability for pontoons that accommodates the various wave environments in which pontoons must function must be developed.

The DSAPT is silent on the degree of movement permitted for pontoons and pontoon ramps. A technical specification is required that acknowledges the marine environment but also ensure safe and equal access to the pontoon and associated fixtures and facilities.

Ferry pontoons exist in a dynamic environment and are thus subject to movement initiated by waves, wind, vessel wash, vessel berthing / departure and so on. Movement can be in three planes: vertically, horizontally and pivoting / rocking. The degree of movement of a pontoon depends on a constellation of factors such as pontoon mass, including how it is secured, wind velocity, wave height, vessel mass and speed.

Pontoons are boarding points. The DSAPT requires that passengers board from or alight to, a 'firm and level surface'. Pontoons are 'firm and level' in the sense of solidity but not stability. Since they are liable to move in the water, pontoons cannot meet the stability possible onshore at bus stops, aerobridges, rail platforms and the like.

**8.1 Boarding points and kerbs**

(1) Operators and providers may assume that passengers will board at a point that has a firm and level surface to which a boarding device can be deployed.

(2) If a kerb is installed, it must be at least 150 mm higher than the road surface.

| Premises | Infrastructure except airports that do not accept regular public transport services |
|---|---|

While the primary function of a pontoon is that of a boarding point, pontoons sometimes serve as waiting areas in lieu of -- or in addition to -- an onshore waiting area. In either case essential fixtures and facilities (e.g. seats, allocated spaces, ticket vending machines, Cashless Load Devices, Next Service Consoles, emergency phones and the like) are likely to be located on the pontoon. For these fixtures and facilities to be safely used by passengers who have poor balance the pontoon deck must be as stable and level as practicable.

Not installing ticket vending machines, Cashless Load Devices, Next Service Consoles, emergency phones and the like on unstable pontoons (unless no other option exists) is a matter that should be considered for the DSAPT. The challenge is to determine what constitutes a stable pontoon, i.e. one whose movement does not constitute a risk to safe movement around the pontoon or the operation of controls by passengers who have disabilities. The design requirements of such a pontoon will vary with the dynamics of the environment in which it is located.

### Curvature of boarding ramps (often called 'gangplanks')

**Issues:**

- Ferry gangplanks (boarding ramps) have a convex profile that allows steady deployment in a dynamic environment, but which creates very steep inclines on parts of the gangplank.

**Recommend:**

- The DSAPT should recognize a difference between a gangplank and a boarding ramp and define a maximum slope for all points along the gangplank's curvature when deployed.

Unlike train, bus or tram boarding ramps, gangplanks must function in a dynamic environment. Potentially, both pontoon and ferry deck are in motion while passengers are boarding (see earlier comments on pontoon stability). Gangplanks must therefore have a convex profile so that both ends of the gangplank remain in contact with the two decks during deployment. They cannot have a flat profile or contact with one deck or the other (usually the higher deck) will be broken during the movement of the two decks.

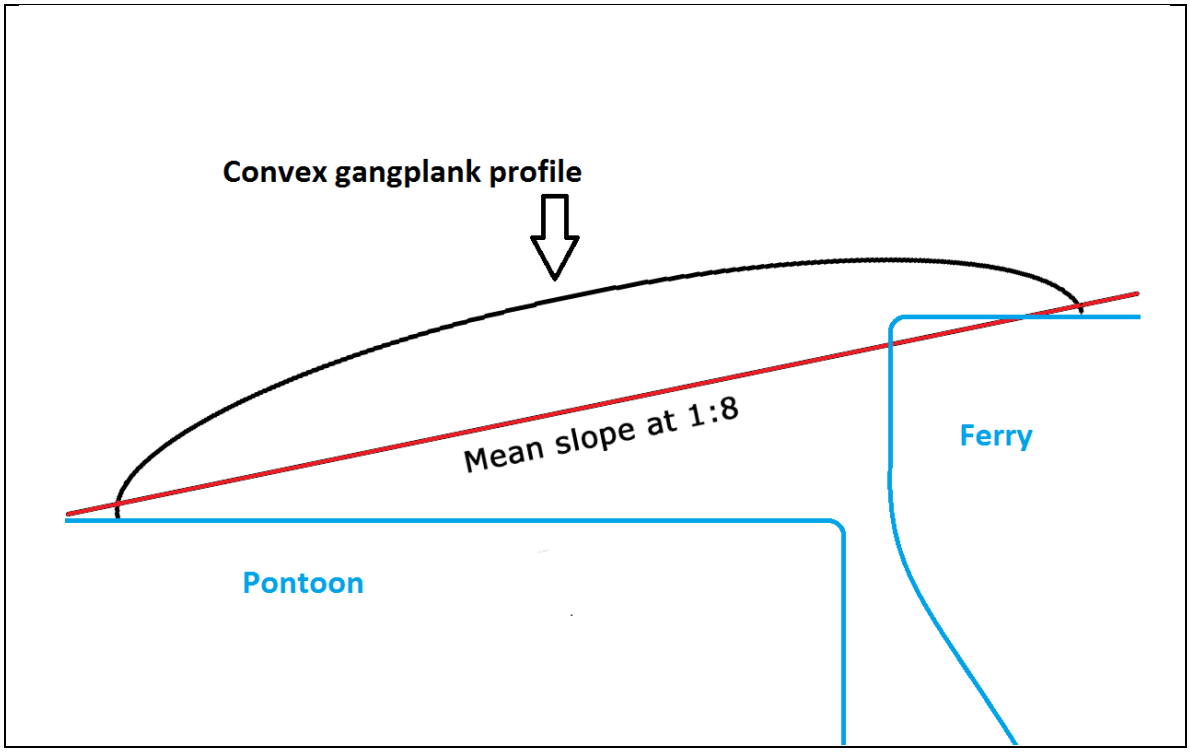
Further complicating the movement is that the freeboard of both pontoon and ferry may change to a greater or lesser extent during boarding / alighting. Passengers alighting from a ferry make it float higher, while the same alighting passengers cause the pontoon to sink under their accumulating weight.

Standard boarding ramps that link relatively static surfaces (rail car floor to platform, bus vestibule to footpath) have a linear rather than convex

profile. DSAPT is silent in sections 6.2 and 6.4 (below) on the matter of convex profile, but does read as though a linear profile is expected.

> **6.2 Boarding ramps**
> A boarding ramp must comply with **AS/NZS3856.1 (1998) Clause 2.1.8 (b), (c), (f) and (g)**.
> Conveyances
> except dedicated school
> buses and small aircraft
>
> **6.4 Slope of external boarding ramps**
> The slope of an external boarding ramp must not exceed:
> (a) 1 in 14 for unassisted access (**AS/NZS3856.1 (1998) Clause 2.1.8 (e)** (including the notes)); and
> (b) 1 in 8 for unassisted access where the ramp length is less than 1520 mm (**AS1428.2 (1992) Clause 8.4.2 (a)** and **AS1428.1 (2001) Figure 8**); and
> (c) 1 in 4 for assisted access (**AS/NZS3856.1 (1998) Clause 2.1.8 (e)**).
> Conveyances
> except dedicated school
> buses and small aircraft

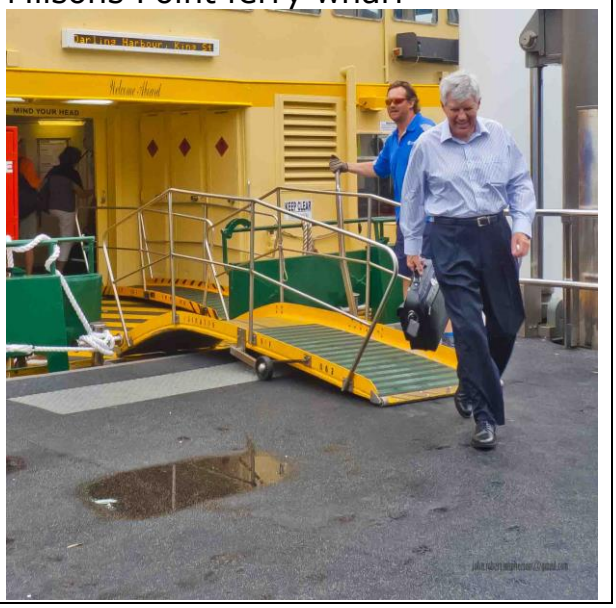
The access issue is the slope of the curvature. While the average slope of the gangplank may be 1:8, the initial slope of the gangplank at its lower or upper end will often exceed this gradient.

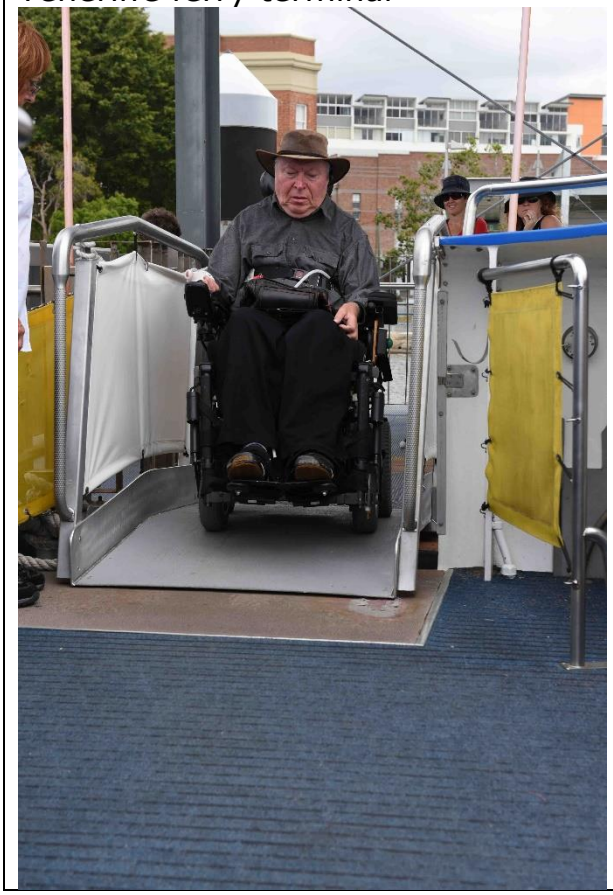



While the convex profile is the most stable under the circumstances, the curvature can be extreme in some instance, making the ramp hazardous. Gangplanks in service at Circular Quay and Milsons Point in 2014 had an extreme gradient where they met the ferry deck (photos below). By contrast the recent reconfiguration of Brisbane's CityCat gangplank

(illustrated at Teneriffe ferry terminal below), and the new gangplank's enthusiastic embrace by the disability sector, demonstrates that lesser slopes are possible for the curvature of gangplanks.

The DSAPT should recognize a difference between a gangplank and a boarding ramp, and define a maximum slope for all points along the gangplank's curvature when deployed. This maximum should never exceed 1:6 for assisted access or 1:8 for independent access.

| Circular Quay ferry wharf | Milsons Point ferry wharf |
| --- | --- |
|  |  |

| Teneriffe ferry terminal | Teneriffe ferry terminal |
| --- | --- |
|  |  |

## Allocated spaces on ferries

**Issues:**

- Allocated spaces are required on ferries but are not required to be clearly delineated.
- Passengers and staff cannot clearly identify and claim allocated spaces when they are required.

**Recommend:**

- Clearly delineate allocated spaces on ferries.

DSAPT currently does not require ferries to have the international symbol and a border demarcating the allocated spaces from other areas of general circulation. This puts ferries at odds with buses, trains and trams and light rail. Passengers who require the use of an allocated space are therefore sometimes obliged to occupy any vacant space that they can find – if any is available.

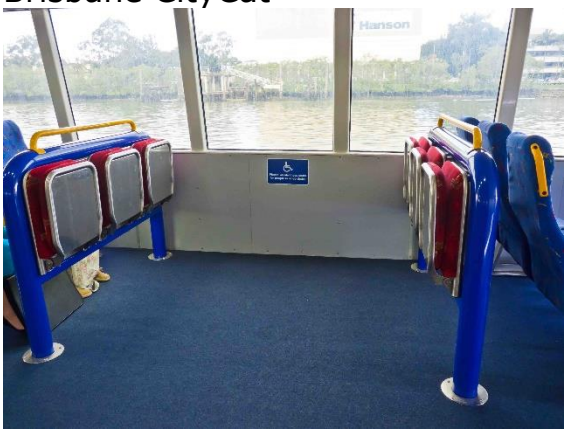
> **9.10 International symbol of accessibility to be displayed**
> (1) The floor area of an allocated space must:
> (a) display the international symbol of accessibility; and
> (b) be outlined in a flush contrasting strip 25 mm wide.
> (2) The colours prescribed in AS1428.1 (2001) Clause 14.2 (c) are not mandatory.

Conveyances
Buses
Trains
Trams
Light rail

Because deckhands are not able to ask other passengers to vacate a clearly defined allocated space, passengers who rely on mobility aids are at a disadvantage on ferries in terms of staff assistance to ensure seating. The DSAPT must require delineated allocated spaces on ferries as per buses, trains, trams and light rail.

Undelineated allocated space, Brisbane CityCat

Undelineated allocated space, Brisbane CityCat



## Standard tide charts and accepted tide range

**Issues:**

- Tidal range for which compliance with DSAPT 6.5 is required for 80% of the high and low tide levels is not strictly defined.
- No clear indication of what 'standard tide charts' actually are.

**Recommend:**

- Adopt the strict specifications from *AS 3962—2001 Guidelines for design of marinas* that cite LAT (lowest astronomical tide) as the chart datum from which gangway gradient is calculated.
- Replace 'standard tide charts' in DSAPT 6.5 with 'Australian hydrographic charts and other hydrographic surveys for the specific region'.

The DSAPT contains a number of vague requirements. One such reference is located in section 6.5 where 'standard tide charts' are referenced.

**6.5 Slope of ramps connected to pontoon wharves**
The slope of a ramp connected to a pontoon wharf must comply with section 6.1 for at least 80% of the high and low tide levels listed in standard tide charts.

Infrastructure
Pontoon wharves

There are many opinions as to exactly what a 'standard tide chart' actually is. Even if there was unanimous agreement the term is poorly chosen. Equally, it has never been agreed as to which 'high and low tide levels' are referred to in Section 6.5. They might be Astronomical, Spring, King, Mean, Neap or other. The safe option legally is Astronomical, as these tides have the greatest range, incorporating all other tide measures.

*AS 3962—2001 Guidelines for design of marinas* takes a far more specific approach to calculating gangway slope and tide range. Unlike the DSAPT it cites 'Australian hydrographic charts and other hydrographic surveys for the specific region' rather than a 'standard tide chart' and uses Lowest Astronomical Tide level as the datum point from which ramp gradient is determined. DSAPT should use the same language and datum point as *AS 3962—2001 Guidelines for design of marinas* when determining the high and low tide levels.

> *AS 3962—2001 Guidelines for design of marinas*
> 3.6.2 Maximum slope
> The maximum slope of a gangway and treadplate for a marina should not exceed 1:3.5. For private pontoons with no public access, the maximum slope should not exceed 1:3. The gangway should be in accordance with AS 1657.
>
> Where access for disabled persons is required, the slope of gangways and tread plates should not exceed 1:8. This is only satisfactory where assisted wheelchair access is provided. Public transport facilities have to comply with *AS 1428.1, Design for access and mobility*.
>
> The maximum slope is the slope that would occur at a water level of CD (chart datum). The walking surface should be finished in accordance with AS 4586.
>
> 1.3.15 Chart datum (CD)
> The datum used on Australian hydrographic charts and other hydrographic surveys for the specific region.
>
> NOTE: This datum usually corresponds to the level of LAT (Lowest Astronomical Tide).

Designers and asset owners complain that gangways designed to comply with section 6.1 for at least 80% of the Astronomical high and low tide levels are excessively long. They add that the extra length increases weight and cost, and in locations where quay lines are a constraint makes it difficult to locate the pontoon behind those quay lines. Quay lines are imposed and strictly enforced by harbor masters with the intent of keeping the navigation channel free of structures that could interfere with safe navigation. Quay lines close to shore can be overcome by zigzagging gangways, but this is not an option on narrow water frontages where the gangway would block water access to a neighbouring property's shoreline or jetty.

Defaulting to the Astronomical tidal range as measured at the site of each particular ferry wharf will introduce design and construction challenges, just as hillslopes introduce design challenges for the design and construction of bus stops. The DSAPT recognizes both Equivalent Access solutions (reached via consultation with the disability sector) and Unjustifiable Hardship outcomes (where the best solution possible is reached, given local constraints). Where the Astronomical tidal range poses legitimate constraints Equivalent Access and Unjustifiable Hardship solutions apply. As noted in response to Question 7 in this document, detailing a thorough process is crucial in justifying these Equivalent Access and Unjustifiable Hardship solutions.

With regard to the current section 6.5: "The slope of a ramp connected to a pontoon wharf must comply with section 6.1 for at least 80% of the high and low tide levels", this might be redrafted to "The slope of a ramp connected to a pontoon wharf must comply with section 6.1 for at least 80% of the Astronomical high and low tide levels as measured in its place of operation".

## 3. To what extent do you feel that the requirements in the Transport Standards address all of the accessibility requirements for people with disability? Are there gaps in the coverage of requirements?

The DSAPT is a product of the mid-1990s. It is dated, with some requirements obsolete. Requirements that should be in the DSAPT are missing, due to them being only hypothetical or unimaginable in the 1990s.

### Type of information to be accessible

**Issues:**

- The DSAPT requires that 'general information' must be accessible to all passengers but offers no guidance as to what constitutes 'general information'.

**Recommend:**

- The DSAPT should be redrafted to require all public transport service related information be produced in accessible formats.

The DSAPT requires that 'general information' must be accessible to all passengers. Regrettably the term 'general information' is not defined in the DSAPT. It should be defined in order to remove any disagreement over the required scope of information to be provided in preferred format.

> **27.1 Access to information about transport services**
> General information about transport services must be accessible to all passengers.
> Conveyances Premises Infrastructure

**27.2 Direct assistance to be provided**
If information cannot be supplied in a passenger's preferred format, equivalent access must be given by direct assistance.
*Note* See sections 33.3 to 33.6 in relation to equivalent access and direct assistance.
Conveyances Premises Infrastructure

Even if the term is given the strictest definition though and limited to the most basic information, all information and communication services are covered by the DDA.

**24 Goods, services and facilities**
(1) It is unlawful for a person who, whether for payment or not, provides goods or services, or makes facilities available, to discriminate against another person on the ground of the other person's disability or a disability of any of that other person's associates:
(a) by refusing to provide the other person with those goods or services or to make those facilities available to the other person; or
(b) in the terms or conditions on which the first-mentioned person provides the other person with those goods or services or makes those facilities available to the other person; or
(c) in the manner in which the first-mentioned person provides the other person with those goods or services or makes those facilities available to the other person.
(2) This section does not render it unlawful to discriminate against a person on the ground of the person's disability if the provision of the goods or services, or making facilities available, would impose unjustifiable hardship on the person who provides the goods or services or makes the facilities available.

***services*** includes:
(c) services relating to transport or travel; or
(d) services relating to telecommunications; or
(f) services of the kind provided by a government, a government authority or a local government body.

It would be hard to argue that information provision was not a service relating to transport or travel. The DDA is clear then, any information for passengers that relates to the use of public transport must be accessible, either in itself or via an alternative format, unless to do so would somehow impose an Unjustifiable Hardship. In this case the operator will need to consider how direct assistance will be able to provide the passenger with the public transport information they require.

## Bus stop data on 'journey planner' Google maps

**Issues:**

- Few data are publicly available regarding the accessibility of individual bus stops.
- Bus routes and their stops are frequently displayed online as Google maps.

**Recommend:**

- Google maps or similar should display the accessibility data available for each bus stop on a route.
- A text-based alternative of the bus stop data should be available for people whose assistive software is not compatible with Google Maps.

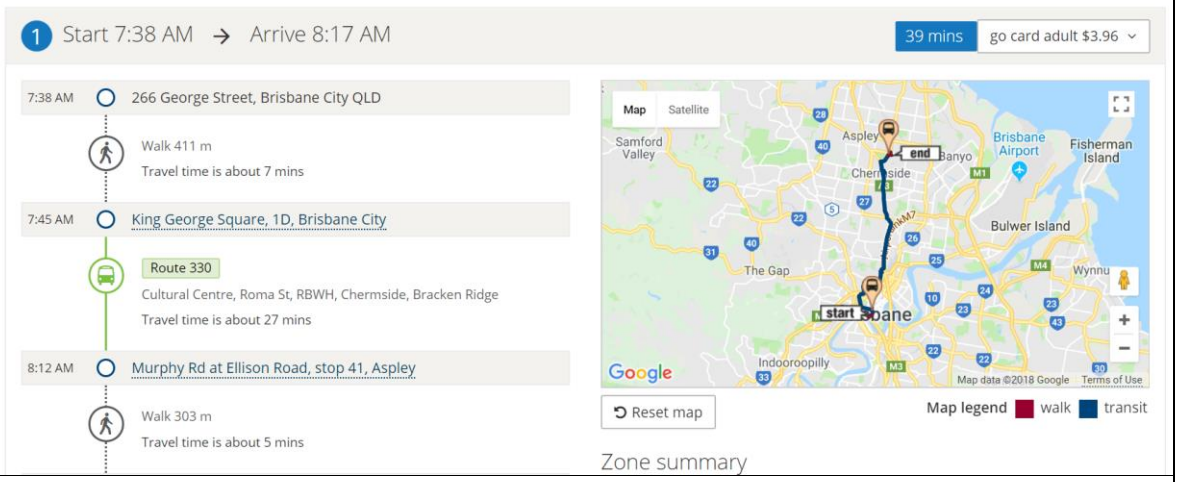
While larger transport nodes will frequently have online accessibility data, smaller nodes such as bus stops usually do not. This presents considerable uncertainty to people planning a bus journey. The results of journey planner searches often include a Google Map of the recommended route with the various stops along the route indicated by Google Map 'pins'. This is useful but gives no indication of the accessibility of the intended departure or arrival stops. Nor does it indicate the accessibility of the furniture and infrastructure associated with the stop, or the nature of footpaths connecting to the stop.

Google Map 'pins' are capable of being customized to hold data, as is illustrated in the TransLink example below. Bus stop furniture, its DSAPT compliance and any other accessibility data can be held in the pin. Pins can also contain photographs of the bus stop and surrounds. Presumably, since they are required to report on the accessibility of their bus stops every five years each jurisdiction has a database of bus stops and their current state of accessibility.

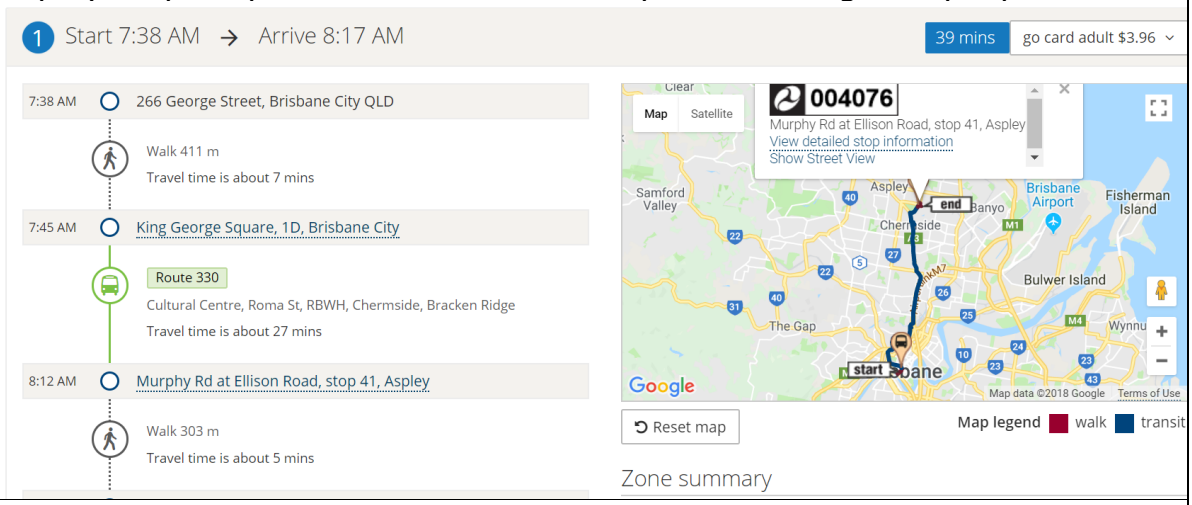
Google Maps is not the only mapping product available, but the program illustrates the possibilities for listing accessibility data online. The DSAPT should require that Google Maps or similar display the accessibility data available for each bus stop on a route. A text alternative of the bus stop data should be available for people whose assistive software is not compatible with Google Maps, although Google Maps can apparently be made accessible to screen reading software by installing code provided by Vision Australia[90].

[90] https://www.visionaustralia.org/services/digital-access/resources/google-map

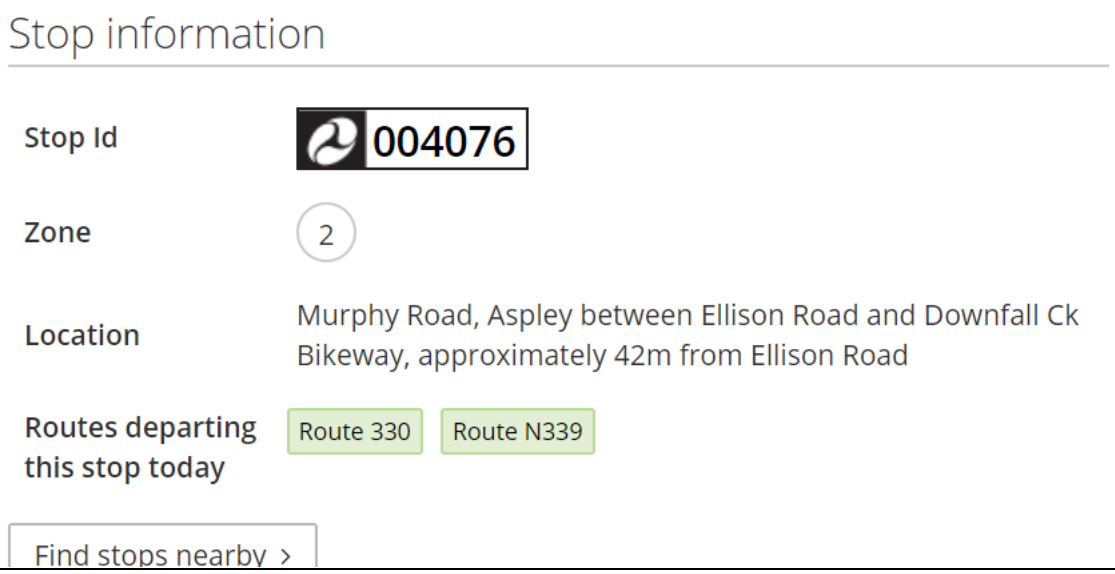
TansLink Journey Planner result for 330 Route, Brisbane to Aspley



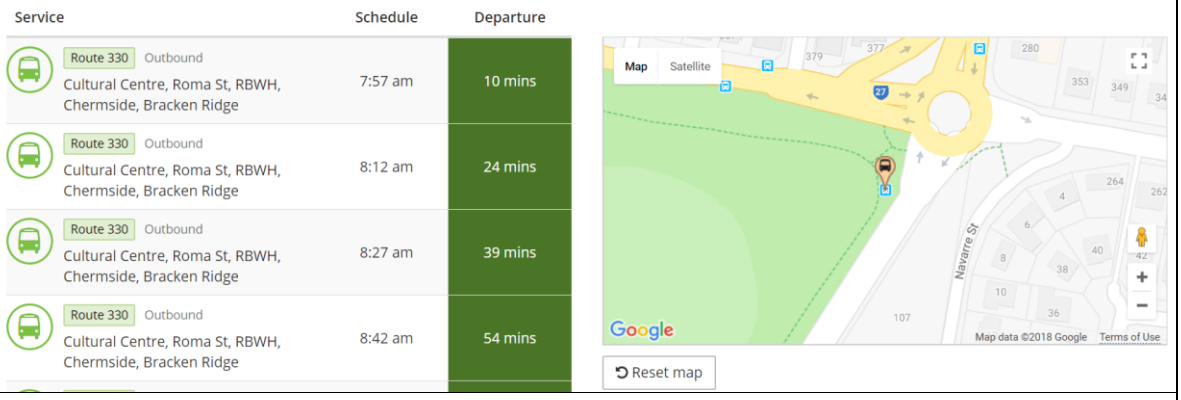

Aspley stop 41 provides data on the stop in the Google Maps 'pin'



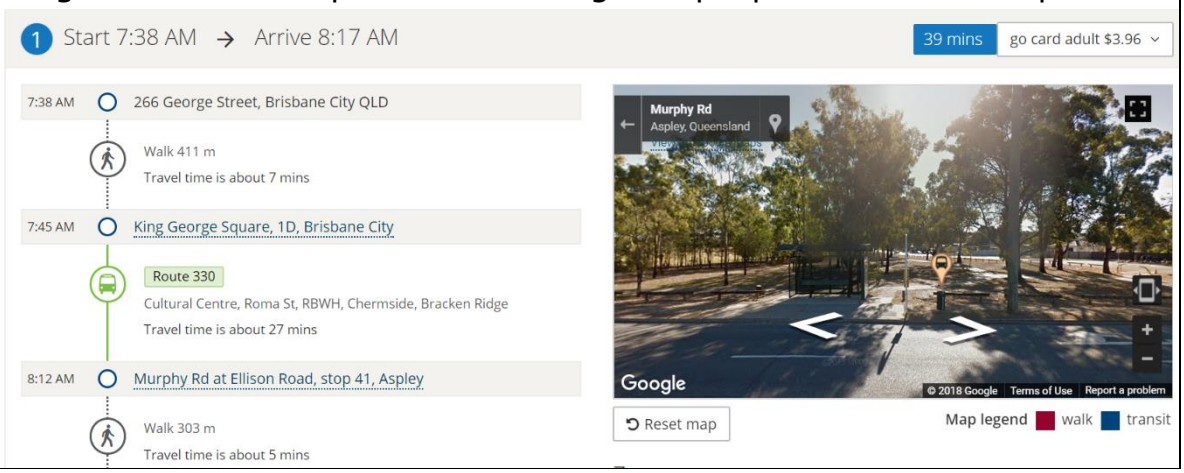

Aspley stop 41 'detailed stop information' has no accessibility data



Google Maps does not illustrate access paths or topography around Aspley stop 41




Google Street View option in the Google Maps 'pin' illustrates stop 41




## Rideshare

**Issues:**

- Rideshare services are not covered by DSAPT.
- Rideshare service can only be booked via smartphone app and transact electronically via credit card – this excludes many passengers with disabilities.

**Recommend:**

- Rideshare services must be incorporated into the DSAPT in a way that requires a minimum level of service, safety, amenity, driver training not less than that of the taxi industry.
- Booking and fare payment systems of rideshare services must incorporate all the options provided by the taxi industry.

It is accepted in principle that rideshare services should be part of the transport industry and therefore subject to DSAPT. This inclusion must be in a manner that is both well-regulated and fair for other operators and for customers. This in-principle acceptance comes with caveats. Issues that are of importance to the disability sector are listed below.

### Vehicle Accessibility
WATs must conform to the relevant sections of DSAPT. Rideshare vehicles that operate as WATs, such as those proposed for UberWAV, must also meet the DSAPT in every regard.

### Vehicle Safety
Rideshare vehicles, WATs and otherwise, must be safe and fit for purpose. Nothing less than the current safety standards required for taxis would be accepted for rideshare vehicles.

### Proportion of WATs in the Rideshare Fleet
The recently published *Options for Personalised Transport Green Paper*[91] states that of 3260 taxi licences in Queensland 642 are for WATs. This represents approximately 20% of the fleet as WATS. Rideshare operators and companies must be obligated to ensure that the proportion of WATS in the rideshare fleet does not fall below 20%, with the distribution of WATS being in this proportion in the various areas in which the rideshare operates. This will ensure that disproportionate concentrations do not occur and that people with disabilities in all service areas, urban or regional, have an equal opportunity to hire a rideshare WAT.

### Rideshare in regional areas
Introduction of rideshare services in regional and rural areas has potential benefits for people with disabilities. This is particularly the case where vehicles that are fit-for-purpose as WATs but are currently operated privately would become available for hire. A part time rideshare operator garnishing their primary income with takings from fares may well be viable in areas where full time taxi driving is not.

### Driver suitability
Rideshare drivers must hold driver authorisation as per the requirement for taxi drivers. People with a disability are particularly vulnerable to abuse and exploitation. A regulatory regime that did not strictly assess potential rideshare drivers for suitability is completely unacceptable.

### Driver Training
In discussing the matter of disability awareness training or disability customer service training with current Uber drivers, none of the drivers had received any training. This is a major omission. All rideshare drivers must be obliged to complete disability awareness training and disability customer service training prior to authorisation. Refresher courses must be undertaken to maintain authorisation.

Many disabilities are hidden or not immediately apparent. Not all people with mobility impairments use wheelchairs and not all people with vision

[91] http://apo.org.au/system/files/65826/apo-nid65826-72306.pdf

impairments have long white canes or guide dogs. People who are deaf or hearing impaired, have low vision, cognitive / psychological / intellectual disabilities are usually indistinguishable from any other community member. Their customer service needs still need to be recognised, and only with adequate training can taxi or rideshared drivers be reasonably expected to deliver this.

### Driver Responsibility

A complaints mechanism that accepts service / driver complaints and responds with outcomes and resolutions in a timely manner is required for both the taxi industry and rideshare services. Passengers who make complaints about drivers or service are not always informed of the outcome of their complaints. This does little to instill confidence in the complaints system. Rideshare and taxi services must both offer a responsive, transparent complaints process.

A means of audio-visually recording journeys is required for both taxi and rideshare vehicles. This will serve as a disincentive for both poor behaviour and vexatious complaint. The recorded material must be archived for a reasonable period before it is disposed of.

### Payment of Fares

Many passengers with disabilities are not able to pay fares using electronic system or credit cards. If rideshare services are limited to these payment options many people will be excluded from the service. A variety of payment options must be available to passengers, most of who are currently able to easily pay taxi fares. Rideshare operators must be required by DSAPT to offer a variety of payment methods not less than that currently offered by the taxi industry.

Claims that cash payment is not technically possible or poses a threat to driver safety must be measured against Uber's practice in those Third World jurisdictions where the company's viability depends on passengers being able to pay in cash[92]. Uber and other rideshare operators adapt easily to the environment in which they operate, and Brazil, Uber's second largest market after the USA, is not a viable market for Uber without the cash payment option that Uber has in place there.

### Booking Systems

Rideshare services must be able to be booked by other than via smartphone apps. Limiting booking to apps discriminates against the many people who are not able to operate smartphones. The taxi industry currently allows booking via websites, telephone or smartphone apps. Rideshare services must also allow booking through a diversity of methods, with the taxi industry options as the minimum standard.

[92] https://uk.reuters.com/article/us-uber-brazil/ubers-new-brazil-center-aims-to-improve-safety-of-cash-transactions-idUKKBN1L209A

## Driverless vehicles

### Buses

**Issues:**

- Driverless 'buses' are currently outside the technical scope of DSAPT. They pose significant potential challenges for passengers with a disability.

**Recommend:**

- Driverless 'buses' be given a DSAPT definition and minimum technical standards for compliance.

Various trials have recently been conducted involving driverless buses. The Ipswich City Council February 2018 trial was of a Ligier EZ10 EasyMile autonomous electric bus[93]. These units are designed in Europe by Ligier and marketed by EasyMile, though many companies are now producing driverless buses[94]. The EZ10 seats up to six people and allows six more passengers to ride standing. It can also allegedly fit a single wheelchair. The EZ10 is touted as a 'last mile' solution linking public transport nodes with passengers' destinations or points of departure[95].

During the Ipswich trial a participant measured the available floor space for a wheelchair or scooter at approximately 1400 x 1500 mm. This is larger than an allocated space but far less than the AS1428.2-1992 Clause 6.2 required space for 180 degree turns (2070 x 1540 mm) and somewhat less than the AS1428.1-2009 Clause 6.5.1 requirement for 90 degree turns (1500 x 1500 mm). People using mobility aids may be obliged to reverse out of the vehicle unsupervised, which is unsafe.

When questioned, EasyMile asserted that the EZ10 complied with all parts of the DSAPT except Parts 9.10, 16.4, 17.6, 21.4, 31.1 and 31.2 (See Appendix 2). This assertion is debatable. Many questions remain unanswered. For example:

- How would the bus be hailed by a person with vision impairment?
- How would a person with little or no upper body movement press the door-open button?
- How would a person in a wheelchair or scooter be able to fit into a vehicle that was not empty?
- How will any required direct assistance be provided?
- How will a person not able to turn their wheelchair through 180 degrees reach the internal door controls?

These and other questions must be answered to allow certainty for industry and the traveling public.

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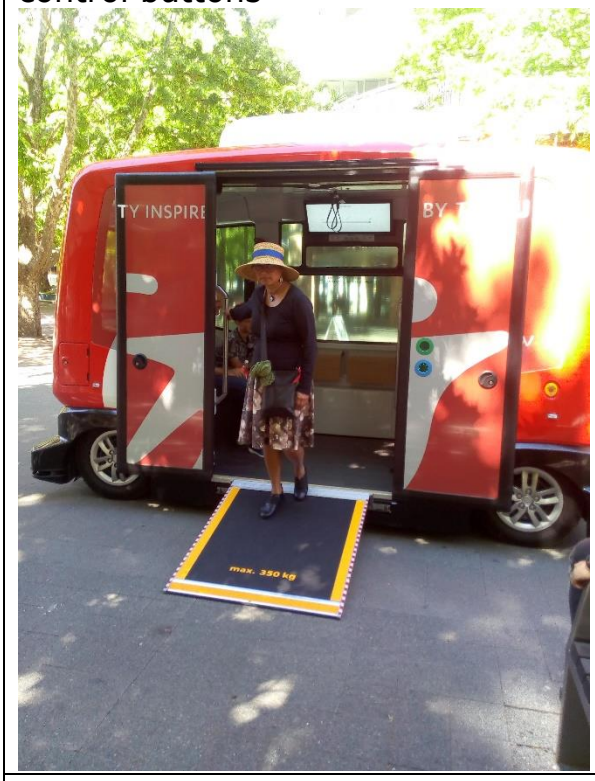
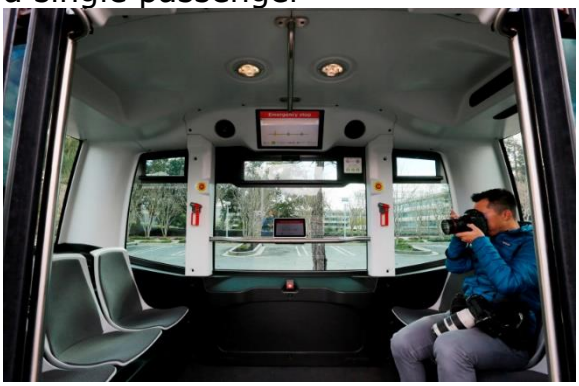
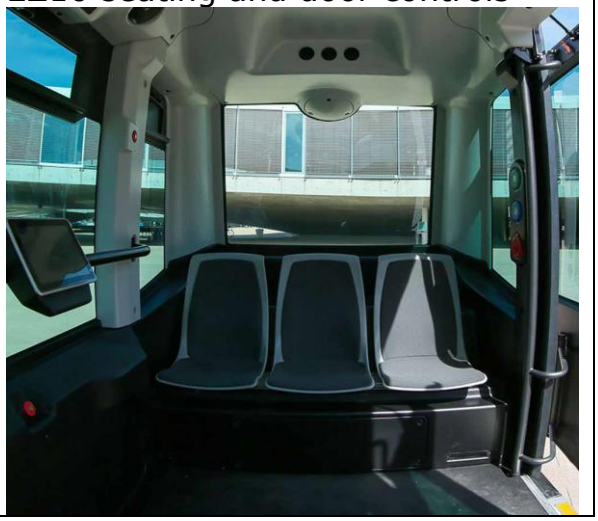
[93] https://www.brisbanetimes.com.au/business/small-business/ipswich-set-to-trial-electric-driverless-shuttle-buses-20180221-p4z145.html
[94] https://www.bbc.com/news/technology-44713298
[95] https://en.wikipedia.org/wiki/EasyMile_EZ10

EasyMile have stated that the vehicle is not a bus (See Appendix 2). If this is the case, then the EZ10 has no definition under DSAPT other than 'Conveyance'. To clarify exactly what the EZ10 and similar products are, a clear definition in DSAPT of small, driverless public transport vehicles is required.

| | |
|---|---|
| EZ10 boarding ramp and door control buttons<br>  | EZ10 participating in Ipswich (Qld) trial<br>  |
| EZ10 has no wheelchair space if full<br>  | EZ 10 showing internal space with a single passenger<br>  |

| EZ10 information displays | EZ10 seating and door controls |
| --- | --- |
|  |  |

## Rail

**Issue:**

- Without staff to provide direct assistance some passengers with disabilities will not successfully board or alight driverless trains.

**Recommend:**

- The DSAPT should require that all driverless trains have platform staff or onboard staff who are able to provide direct assistance during operational hours.

Sydney's Metro trains will be driverless[96]. They will be based on an existing model of driverless train manufactured by Alstom and that is in service in various overseas jurisdictions[97] [98]. The technical specifications are very encouraging. Equally encouraging is the commitment to have 'customer service assistants at every station and moving through the network day and night'[99]. Without this boarding and alighting assistance many passengers with disabilities will not be able to use the service.

While the commitment to staff the Metro stations is commendable, it is not DSAPT required and may be withdrawn by future governments concerned about wage costs. The DSAPT should require that all driverless trains have platform staff or onboard staff who are able to provide direct assistance during operational hours.

[96] https://www.smh.com.au/national/nsw/sydney-s-first-driverless-metro-train-passes-major-test-20180702-p4zoya.html
[97] https://www.sydneymetro.info/metro-trains
[98] https://en.wikipedia.org/wiki/Sydney_Metro
[99] https://www.sydneymetro.info/metro-trains

## Changing Place toilets

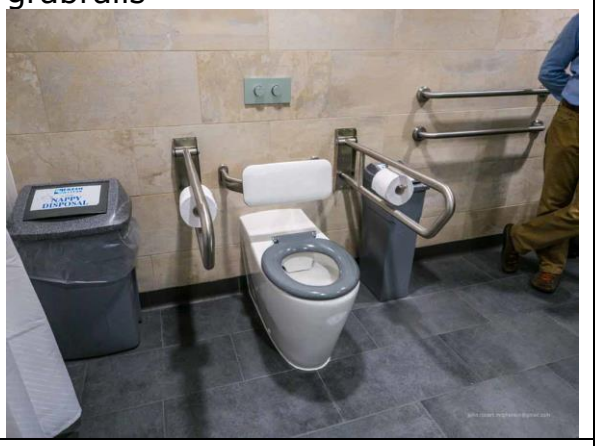
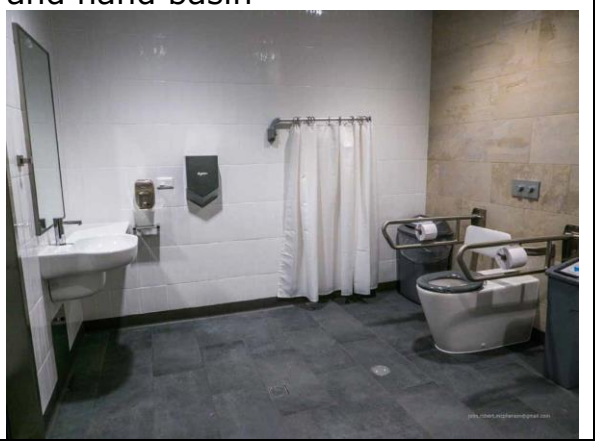
**Issues:**

- Passengers who require hoist assistance to transfer onto toilets and adult size changing tables cannot use DSAPT accessible unisex toilets.

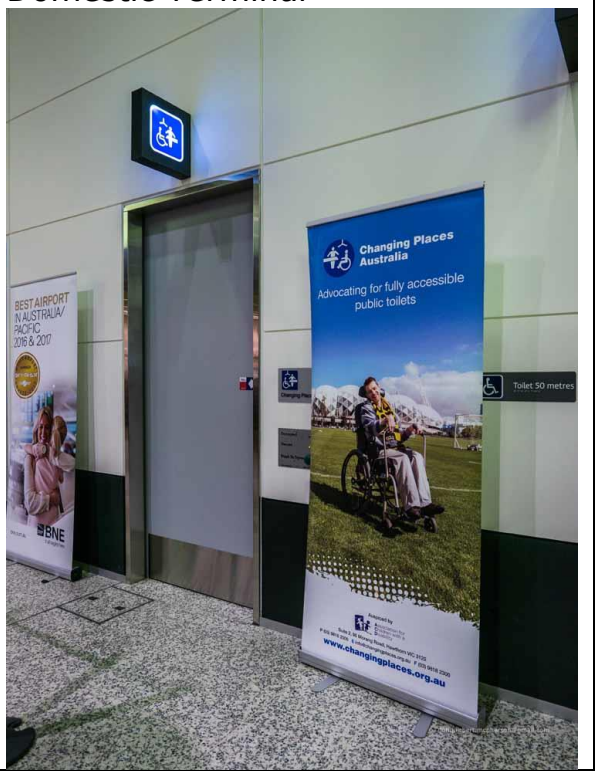
**Recommend:**

- Include the installation of Changing Place toilets at major transport nodes in the DSAPT.

These larger-than-standard toilets are for the use of people who require carer assistance to toilet, change and transfer. They feature adult change tables, ceiling hoists and peninsular mounted pans and are based on the requirements of a British Standard (BS8300-2009 Design of buildings and their approaches to meet the needs of disabled people – Code of practice). A DSAPT requirement to locate them in major transport nodes will give people who have high physical support needs and their carers the confidence to undertake public transport journeys. Further technical details are available from the Changing Places website[100].

| | |
|---|---|
| Ceiling hoist and 'H' ceiling track system<br>  | Peninsular toilet and hinged grabrails<br>  |
| Adult adjustable height change table folded out and ceiling hoist<br>  | Peninsular toilet, hinged grabrails and hand basin<br>  |

[100] http://changingplaces.org.au/

| Adult adjustable height change table folded away and ceiling hoist | Changing Places toilet Brisbane Domestic Terminal |
| --- | --- |
|  |   |

## Assistance dog toileting areas

**Issues:**

- Assistance dogs have toileting needs not dissimilar to their human handlers. To complete a journey, both require access to appropriate toileting facilities.

**Recommend:**

- Suitable lawn areas near public transport nodes should be designated as assistance dog toileting areas.
- Where no suitable lawn areas exist, indoor areas should be considered.

Assistance dogs such as guide dogs have toileting needs not dissimilar to their human handlers. To complete a journey, both require access to appropriate toileting facilities. For the dog this usually means an easily accessible lawn or similar close by to a rail station, airport terminal, ferry wharf and so on.

Many local authorities have a policy that guide dogs, along with other assistance dogs, can toilet on parks and lawns on the proviso that the dogs' handlers clean up after the dog. Many authorities install waste receptacles specifically for the dogs' faeces. Some, such as Mackay City Council, will go to the extent of providing plastic bag dispensers for the dogs' faeces. DSAPT should require that assistance dog toileting areas be designated and signed in proximity to major transport nodes. Online

maps and lists of assistance dog toileting areas should be published by service providers and local authorities. This may require cooperation between local authorities and transport providers beyond what may be regarded as 'normal', but this cooperation is part of the 'whole of journey' concept.

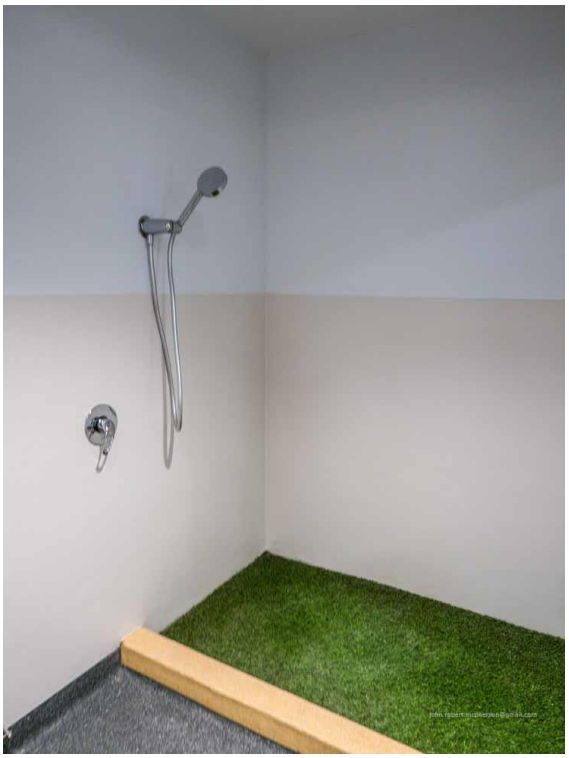
Brisbane Airport Corporation has installed an indoor assistance dog toileting area at the Brisbane Domestic Terminal. Other major airports and public transport nodes that have no suitable outdoor lawn areas should consider following suit.

Plastic bags provided for dog handlers, Mackay


Assistance dog toileting area Brisbane Domestic Terminal

Assistance dog toileting area Brisbane Domestic Terminal entrance signs and door controls


Assistance dog toileting area Brisbane Domestic Terminal artificial turf and shower



| | |
|---|---|
| Assistance dog toileting area Brisbane Domestic Terminal sink and door controls<br>  | |

## Locking of disability toilets

**Issues:**

- Some jurisdictions lock accessible toilets, requiring passengers to open them with MLAK keys. Other nearby public toilets are not locked.

**Recommend:**

- All public toilets should be available on an equal basis and DSAPT should require this.

The locking of disability toilets while other toilets in the same location remain open is discriminatory. In some jurisdictions it is a policy decision to lock the disability toilets and require users to open them using MLAK keys. In others it is often a decision taken locally and without direction from management. In all instances the justification is that disability toilets are subject to vandalism and misuse.

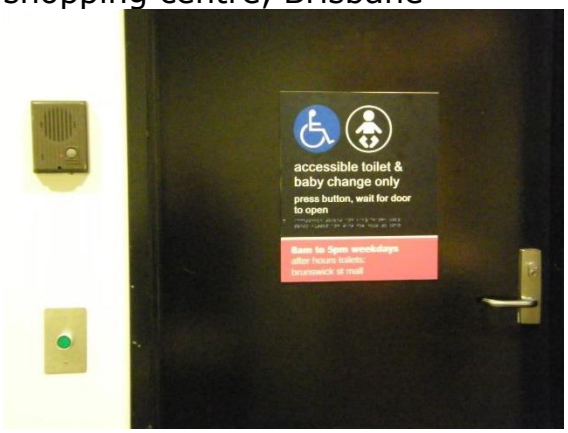
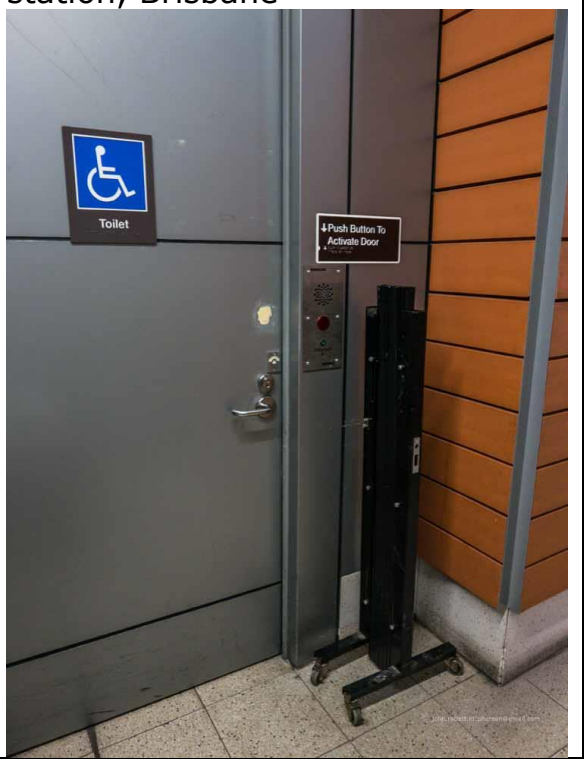
Public toilets of all types are subject to vandalism and misuse, but only the disability units are locked during operating hours. In cases where toilets are in areas that have staff oversight, little justification for locking exists. The disability toilet at Sydney's Town Hall railway station is within metres of a staffed fare gate but is locked with an MLAK lock. The other toilets are not. Brisbane's two CBD railway stations, Central and Roma Street, have disability toilets located similarly to Town Hall but these are unlocked during business hours.

By contrast, Brisbane's King George Square bus station disability toilets, located on the busy public concourse, had formerly been locked with a sign listing a phone number to ring for the disability toilet to be unlocked by a staff member. This requirement to ring for assistance to unlock the disability toilet was despite a staff presence on the concourse floor and

was taken without Departmental approval. The other toilets are unlocked during staffed hours. Complaints to the Department have seen a call button installed that is linked to the security camera monitoring station. Immediately that a call is received the disability toilet door is unlocked remotely. This system follows a precedent in the Valley Centre Plaza shopping centre where security staff remotely unlock toilet doors in a district with a very high incidence of vandalism and misuse.

Remote unlocking of toilet doors is not ideal, but if can be achieved within seconds of a request it overcomes endless arguing for the difficulties and prevents staff from taking matters into their own hands. It is technically feasible in any area that has power and has security cameras that are monitored by staff. It will not be applicable in situations where cameras are not monitored.

It is likely that the locking of disability toilets, either as policy or practice will be robustly defended by the asset owner or station staff. The toilets should not be locked of course, and this should be both DSAPT required and Departmental or Corporation policy. All toilets should be equally available to all passengers. If asset owners are not willing to unlock disability toilets, and there is a DSAPT requirement to do so, they will need to articulate how disability toilets will be as conveniently accessed as other toilets. This will challenge them to arrive at management solutions. Alternatively, all toilets should be locked and all passengers obliged to use MLAK keys or similar to access the toilets.

| Call button for remote unlocking of door, Valley Centre Plaza shopping centre, Brisbane | Call button for remote unlocking of door, King George Square bus station, Brisbane |
|---|---|
|  |  |

## Taxi subsidy and Rideshare

**Issues:**

- Rideshare services are not included in taxi subsidy provisions.

**Recommend:**

- Taxi subsidy must be extended to rideshare services.

All States and Territories currently offer taxi subsidy schemes to people who meet certain eligibility criteria, though this may change under the NDIS. These schemes are valid in the State and Territory of issue and through Interstate Vouchers are also valid in the other States and Territories of the Commonwealth. If this system or a similar taxi subsidy regime continues under NDIS, subsidy must extend to rideshare services, both in the home State or Territory and when travelling interstate.

Rideshare services usually transact fares electronically. A means is therefore required by which taxi subsidy can be immediately offered by the rideshare driver, who would subsequently be quickly reimbursed the subsidy amount. DSAPT should recognise rideshare and should require that any subsidy offered to taxi travel also be offered to rideshare travel.

## Transfer of fare concessions between States

**Issues:**

- Fare gate flashcards are not always honoured interstate.

**Recommend:**

- DSAPT should require that interstate fare gate flashcards be honoured in States that have equivalent flashcards.

Some States issue fare gate flashcard passes to people who meet the various eligibility criteria. These criteria include the inability to physically or consistently tap on / off at fare gates, bus entrances, column card readers and other electronic ticketing system card readers.

Examples are the Victorian 'Access Travel Pass'[101] and Queensland 'TransLink Access Pass'[102] for people who are not able to tap on / off at fare gates or card readers due to physical, intellectual, cognitive or psychiatric disabilities. New South Wales does not yet have an Opal Card equivalent to these flashcard passes.

All of the fare gate flashcards should be honoured interstate where States have equivalent flashcards. Interstate Vouchers for taxi subsidy schemes are available that are honoured in all States and Territories. In the same manner, the DSAPT should require that interstate fare gate flashcards be honoured in States that have equivalent flashcards.

## Procurement process for products and services

**Issues:**

- Products and services are frequently procured without consultation or with only token disability sector consultation resulting in products and services that fall well short of their potential and of public expectation.
- DSAPT 'compliance' is seen as the goal in procurement as opposed to the functionality of the product or service for passengers with disabilities.

**Recommend:**

- Passengers who have disabilities, their advocates and access experts must be involved meaningfully in each of the pre-procurement, procurement and post procurement processes.

Procurement practices, whether for products or services, often do not involve members of the disability sector. When they are involved it can be rather tokenistic, informing rather than seeking information. Too many providers and operators put their faith in their designers achieving legally defensible DSAPT compliance rather than undertaking public

[101] https://www.ptv.vic.gov.au/tickets/fares/free-travel-passes/access-travel-pass/
[102] http://translink.com.au/tickets-and-fares/concessions/translink-access-pass

consultation to deliver an accessible and functional product.

Unfortunately, many accessibility disasters result from this isolationist, elitist process during procurement. Queensland's New Generation Rollingstock and Moreton Bay Rail Link projects both now have legacy issues that will be extremely expensive to fix, or which cannot be altered due to structural or contractual constraints.

By contrast the Gold Coast light rail project invited disability sector representatives to critique conveyance and infrastructure design very early in the procurement process. This resulted in a popular and very accessible light rail service that has more than met public expectation.

DSAPT should require that people who have disabilities, their advocates and access experts must be involved meaningfully in each of the pre-procurement, procurement and post procurement processes. This is already a requirement for Equivalent Access solutions (Part 33.3) and should be required for procurement.

## Emergency / assistance call buttons in accessible toilets

**Issues:**

- Increasingly, emergency / assistance call buttons are being installed in accessible toilets.
- Designers often have no clear idea of how they should be situated to allow use in an emergency.

**Recommend:**

- The DSAPT should require that when emergency / assistance call buttons are installed in accessible toilets they should be operable from a standing, sitting or prone position.

Increasingly, emergency / assistance call buttons are being installed in accessible toilets. While this is desirable, designers often have no clear idea of how they should be situated to allow use in an emergency. If a wheelchair user, or a person who has significant balance or muscular impairments falls, they will not be able to rise from the floor without assistance. Emergency / assistance call buttons must therefore be in a position that can be reached while lying on the floor.

Too frequently, designers will place emergency / assistance call buttons in accessible toilets within the range required in AS1428.1 or AS1428.2 for door controls. While easily operable from a standing or sitting position, these call buttons cannot be reached from the floor. They would be of no use to a person who had fallen in the toilet and was unable to rise without assistance despite being in an AS1428 'compliant' position.

AS1428.2-1992 Clause 15.1(c) does give guidance on places in a sanitary facility that should have emergency / assistance call buttons in close proximity. Sensibly, it places buttons close to those areas where people using wheelchairs are likely to fall when transferring to or from their wheelchair:

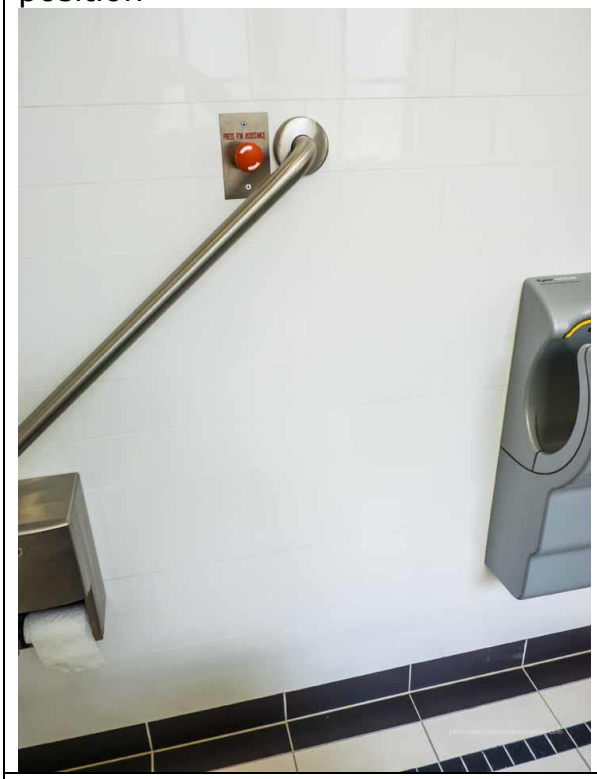
> 15 SANITARY FACILITIES
> 15.1 General Sanitary facilities shall comply with AS 1428.1 with the following exceptions and additional requirements:
> (c) At least one emergency call button which complies with AS 2999 shall be installed in accordance with Clause 23 in each sanitary facility or combined facility.
>
> NOTE: Separate call buttons should be placed near the WC pan, shower recess and bath.

Unfortunately though, Clause 15.1(c) refers to Clause 23 which refers back to AS1428.1 and this AS places controls in various ranges above 900 mm above floor for use from a sitting or standing position.

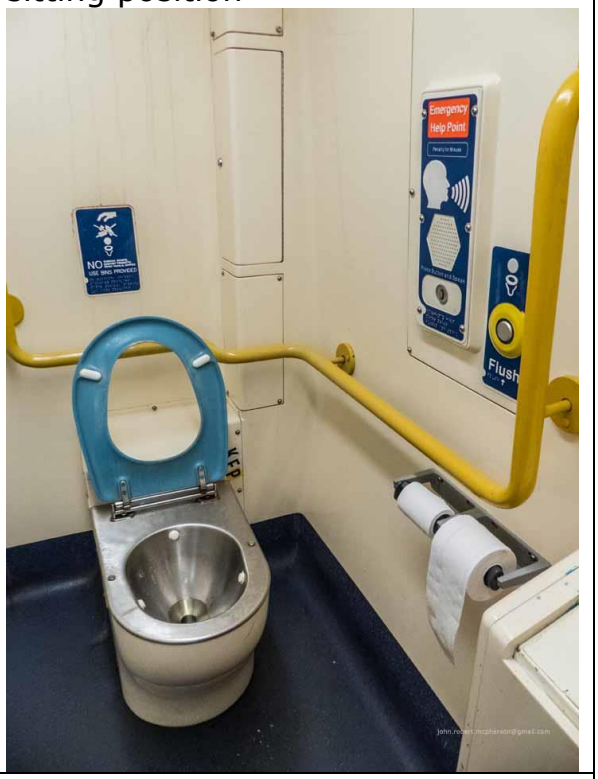
Since there is no predicting whether a person will fall beside or in front of the pan, not less than two and preferably three emergency / assistance call buttons should be installed in accessible toilets. If three are installed then two should be either side of the pan and reachable from a prone position.

The DSAPT should require that when emergency / assistance call buttons are installed in accessible toilets they should be operable from a standing, sitting or prone position. If Standards Australia can put technical specifications for this in a future amendment of AS1428.1 it would be helpful.

One call button in a Brisbane City Hall toilet which can be reached from only a standing or sitting position

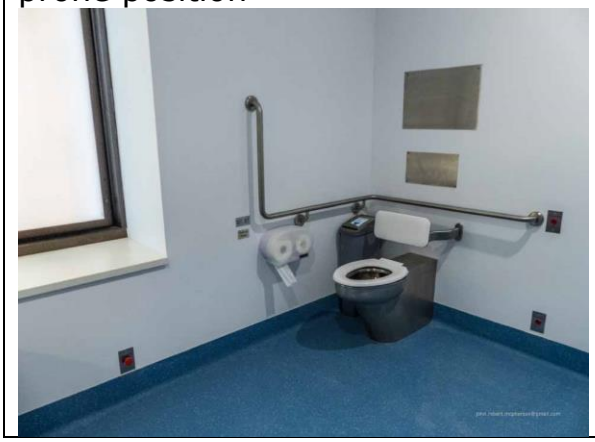


One call button in an IMU 160 train onboard toilet which can be reached from only a standing or sitting position




One call button in a Brisbane City Council building toilet which can be reached from only a standing or sitting position


One call button in a Queensland Exhibition and Conference Centre toilet which can be reached from a standing, sitting or prone position

| Three call buttons in a TMR building toilet which can be reached from standing, sitting or prone position | Two call buttons in the NGR onboard toilet which can be reached from standing, sitting or prone position |
|---|---|
|  |  |

## 4. Have new ways of providing public transport, such as ride-sharing or on-demand bus services affected your ability to access services?

New means of providing public transport are welcome if they enhance rather reduce the accessibility of public transport. In some instances this is the case, but in others it is not.

### Rideshare

Rideshare has been both beneficial and detrimental. Its responsiveness and usually lower fares have benefitted those who can use the app booking system, pay electronically, and can ride in a standard passenger vehicle. People who cannot travel in standard passenger vehicles or pay electronically or use an app booking system have not benefitted.

Ride-share operators have few if any vehicles that are the accessibility equivalent of wheelchair accessible taxis (WATs). The proportion of WATs in the combined 'for hire' fleet of taxis and rideshare is therefore decreasing. It is likely to decrease further as the economic viability of WATs diminishes in the face of rideshare competition, causing WAT owners and drivers to leave the industry. The economic harm inflicted on the taxi industry by rideshare is not to be underestimated and will be the focus of a class action against Uber for 'hundreds of millions of dollars' that will be lodged in the Victorian Supreme Court by Maurice Blackburn[103].

[103] https://thenewdaily.com.au/news/state/vic/2018/10/19/victorian-taxi-hire-drivers-sue-uber-500-million-lost-earnings/

The number of Uber drivers operating in Brisbane was 'over 7,000' according to a June 24, 2018 report[104]. The same report put the number of Brisbane taxi licences at 1,867. This is a significant disparity, with WATs a subset of only one quarter of the combined fleet (1,867), rather than the total combined fleet (approximately 9,000).

Regulating rideshare operators has proved challenging. Making them subject to the technical specifications of DSAPT is likely to be more so. Unless the State jurisdictions can circumvent the fig-leaf that rideshare operators are contractors rather than employees, the States will struggle to require that rideshare operators provide an accessible service to people only able to travel in WATS.

## On-demand buses

On-demand buses have a mixed history in Australia. At the risk of over-simplifying, they seem to be most successful in providing local services to high density communities. As the population density decreases and the area covered increases the viability of on-demand buses suffers. Cultural factors, demographics and private vehicle ownership no doubt add a level of complexity to the success or otherwise of on-demand buses.

As the inner urban areas of Australian cities become increasingly densely populated, and the incentive to own a vehicle in the inner urban environment decreases, on-demand bus viability will no doubt improve. As these services become established, the accessibility of the fleet must be mandated. Boarding small, high-floor buses will challenge many potential passengers. Overly digitised booking services will also deter many people. Innovative technical solutions that permit easy and dignified booking and boarding will need to be developed if a non-discriminatory service is to be achieved.

## Council cab

Various local authorities run so-called 'Council Cab' services. Brisbane City Council's service picks up eligible people from their door, takes them to the local shopping centre, picks them up at a determined time and drops them home again[105]. These services use subsidised taxis with a one way fare in the vicinity of $1 to $3. Because a taxi picks up multiple passengers on short runs cost recovery is equal to or better than commuter services such as rail or bus.

Age and disability are usually the criteria for Council Cab eligibility. These services are of most benefit to people with limited mobility for who a trip to a public transport node such as a bus stop is difficult or not an option.

[104] https://www.brisbanetimes.com.au/national/queensland/brisbane-ubers-outnumber-taxis-more-than-three-to-one-leading-to-calls-for-a-cap-20180616-p4zlvd.html
[105] https://www.brisbane.qld.gov.au/traffic-transport/public-transport/special-taxi-services/council-cabs

They neatly overcome the 'last mile' challenge posed by so many other forms of public transport.

When taxis are the vehicles used in Council Cab WATS are available for people who require them. If vehicles other than taxis are used, DSAPT should require that vehicles equivalent to WATS are part of the fleet.

## 5. Do you find that the current processes with regard to making a complaint or seeking information are sufficient or sufficiently responsive?

### Breach of DSAPT not necessarily discrimination

The DDA, as a complaints-driven Act, places the responsibility of ensuring that all parties meet the requirements of the Act on members of the public. This is an onerous burden, which in effect makes the public the regulators of both government departments and the transport industry. In that operators and providers have not discriminated, despite obvious non-compliance, until discrimination is proved in the Federal Court, they are at liberty to make as much or as little progress towards DSAPT compliance as they deem appropriate.

In *Haraksin v Murrays Australia Limited [2013] FCA 217* [106]the Honourable Justice Nicholas found that not complying with DSAPT 'does not of itself provide a sufficient basis for a person to lodge a complaint under s46P or to commence a proceeding under s46PO(1)'. This finding was based on the understanding that 'non-compliance with the Standards does not of itself constitute unlawful discrimination.'

> 86. Senior Counsel for the applicant submitted that the applicant was at all material times in and after August 2009 a person aggrieved by the respondent's non-compliance with the Standards. In my view this submission is based on a misconception as to the scope of s46P and s46PO(1) of the AHRC Act. Non-compliance with the Standards does not of itself provide a sufficient basis for a person to lodge a complaint under s46P or to commence a proceeding under s46PO(1). This is because non-compliance with the Standards does not of itself constitute unlawful discrimination.

This interpretation illustrates the severe limitations of the DSAPT's Schedule for Compliance. Failure to meet the Schedule is not discrimination and operators and providers cannot be held accountable for this failure. Only by taking operators to task case by case can discrimination in particular instances be proved. This is an extremely inefficient means of ensuring that human rights are respected. Until such

[106] http://www.austlii.edu.au/cgi-bin/sinodisp/au/cases/cth/FCA/2013/217.html

time as the Schedule for Compliance is given unambiguous legally enforceable standing this situation will continue.

## Complaints

### Service complaints

The ability to make a service related complaint, have the matter dealt with and receive comprehensive feedback on how the matter was dealt with varies between and within States. At one extreme are operators and providers who are eager to improve their services based on customer feedback and to be seen improving their services, while at the other extreme are operators and providers who have little interest in anything other than opacity, glossing over issues and treating complaint as part of a risk management process. Most operators and providers sit on a continuum between these two polar extremes.

Anecdotally, Opal Customer Care has a good reputation for resolving complaints and queries. Brisbane City Council's Customer Contact Centre has an equally sound reputation for issues regarding individual bus stops. Both organisations issue customers with reference numbers so that progress and resolution can be ascertained on request. At the opposite end of the spectrum passengers with a disability in some regional centres regard complaint as hopeless. They either suffer in silence or refuse to use public transport.

### Systemic complaints

Making a complaint of a systemic nature is a daunting prospect, even when the failure of the operator or provider is obviously indefensible. The resources that can be marshalled against even the most valid complaint are formidable.

Many operators, providers, government departments and such take the approach that it is the complaint that must be dealt with rather than the cause of the complaint. They will often go to extraordinary financial and administrative lengths to defend the indefensible[107]. In these instances, justice is reserved for those who are well resourced.

It took two years of consistent, high-level advocacy by Queensland Rail's own Accessibility Reference Group (ARG) before the Queensland Government finally acknowledged that it had designed and procured a train that fell well short of DSAPT compliance. Ministers, Directors General, Rail CEOs were all met and the case of discrimination made. Until legal advice was received that frightened the Queensland government little was heard but apologies, blame shifting and flattery.

[107] http://www.smh.com.au/nsw/disability-case-costs-railcorp-420000-20130328-2gxn5.html

Except that the ARG members were implacable, united, disciplined and well-seasoned in dealing with recalcitrant governments, rectification work on the NRG would not have occurred and the matter would never have reached the Australian Human Rights Commission. An ordinary member of the public, justly aggrieved, would have little hope of emulating the campaign run by the ARG. Which most likely means that discrimination would occur without any hope of redress in most instances.

## Seeking information

When discussing public transport at public forums it is surprising how few people know where to turn if they have difficulties, complaints or queries. The public transport system in the view of many has more heads than the hydra. For example, should a query about when the local bus stop or ferry wharf will be upgraded to DSAPT compliance go to the local authority, the bus or ferry company or the State transport department? And what to do when none of the three will accept the query but deflect it to either or both of the other two?

Frustration with an opaque system where nobody takes responsibility causes people to withdraw and become disaffected and cynical. Having a national or state clearing house for DSAPT and public transport information that could direct people to the source of the information they sought would be a huge benefit to people who are largely unaware of the complex tangle of ownership and responsibility that is the public transport system.

Right to Information (RTI) requests are often made unnecessarily expensive and difficult, particularly when third parties may object on grounds of the information being 'commercial in confidence'. People with a disability are simply not resourced or able to battle against such a system.

In some instances, placing information on poorly designed, non-intuitive websites that challenge even digital natives occurs. Rather than finding the information on the corporate website via search or use of headings people seeking information must rely on Google searches or links from other sites.

Over-reliance on websites, whether well designed or not, places people with limited or no access to the internet at a disadvantage. Without options such as call centres, hard copy for distribution from public places, SMS bulletins and such some people will be uninformed regarding public transport initiatives or changes.

## Need for an empowered advocate and regulator

In all of this, the budget cuts and the obvious antipathy of the Federal government towards the AHRC, are key. Even though it is not an

advocate, the AHRC has raised the ire of the government merely by raising valid issues. An independent advocate is sorely need whatever government may think. Until a national body is sufficiently resourced to act as advocate, people who have disabilities will continue to struggle in the face of overwhelming odds when bringing just complaints against operators and providers.

In addition to an advocate for people who have disabilities, an independent industry regulator is required. Many industries have a regulatory authority. Too often that authority is both starved of funds and captured by its industry – witness ASIC and the banking industry. Public transport must have a national regulatory authority that has both the teeth and resources to keep its industry honest. In this way complaints should be minimised and industry would have certainty, however unwelcome that may be.

## 6. As a body representing the views of people with disability, do you have any specific responses or perspectives with regard to the issues raised in the questions above?

### Leadership Ignorance of DSAPT

Governments, government departments and regulatory bodies vary in their understanding of DSAPT. While some are well versed in DSAPT, its Objects and requirements, others seem utterly ignorant of DSAPT or they demonstrate remarkable ineptitude in its interpretation if they are aware.

To provide an example, it was the Queensland Government Cabinet's decision to proceed with certain elements of the dismally non-compliant New Generation Rollingstock[108] (NGR). The abject failure of Cabinet, the Minister for Transport and the senior officials of the Department of Transport and Main Roads to acknowledge DSAPT will now cost the public purse $150 million to rectify[109].

Having been caught in non-compliance the Queensland government sought to abuse the DSAPT by seeking a temporary exemption for a completely new product. Unsurprisingly, the Australian Human Rights Commission declined the application[110] stating rather matter-of-factly:

[108] https://www.humanrights.gov.au/sites/default/files/248448894_1_Public%20Version%20-%20New%20Generation%20Rollingstock%20Project%20-%20Joint%20Response%20to%20Request%20for%20Further%20Information%20-%2028%20November%202017%20%28002%29.pdf
[109] http://www.abc.net.au/news/2018-07-23/train-inquiry-to-examine-why-new-carriages-fail-disabled/10026674
[110] https://www.humanrights.gov.au/sites/default/files/NGR_PreliminaryView_2March2018_AHRC.pdf

> Although the Queensland government has undertaken, within three years, to meet a legal obligation that has existed since the transport standards came into effect in 2002, the commission is not persuaded that the reasons advanced in favour of the exemption outweigh the discriminatory impact of the non-compliant trains on people with disability.
>
> It is not clear to the commission why the Queensland government procured non-compliant trains in 2013, or why the rectification work did not occur between procurement in 2013 and entry into passenger service in 2017.

It is acknowledged that human beings are fallible. But the degree of mediocrity attached to the NGR fiasco suggests a systemic failure. Lawmakers, directors general and senior managers should be at least superficially familiar with DSAPT – though evidently not all are. Many design staff understand the intricacies of DSAPT, but if designers are issued ill-conceived instructions by their superiors then we will see many more NGR scale failures.

The capacity of government and industry to bungle public transport projects is both amusing and unsettling. The latest comedy of errors has seen Intercity trains procured that are too wide for Blue Mountains tunnels[111]. This followed a similar dimensional debacle involving trains not fitting in tunnels in Queensland[112].

Prior to the NGR fiasco Queensland's Department of Transport and Main Rods had managed to procure a 'significantly cheaper' signals system for the new Redcliffe line that was incompatible with the existing system[113]. This was despite warnings from Queensland Rail that the system was not compatible[114]. If the money squandered on these and other bungles was spent on accessibility the nation would have a significantly better public transport system.

## Lack of commitment from government and other jurisdictions

The Schedule for Compliance could have been fully met if the various jurisdictions had abided by their initial commitment to the DSAPT. In failing to adequately support or fund industry, operators and providers the jurisdictions have been party to a national failure. This is unfortunate.

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[111] http://www.smh.com.au/nsw/new-intercity-trains-too-wide-for-rail-line-to-stations-in-blue-mountains-20161006-grvmns.html
[112] http://www.news.com.au/story/0,23599,21286040-1702,00.html
[113] http://www.brisbanetimes.com.au/queensland/signals-expert-to-probe-queenslands-moreton-bay-rail-link-20160609-gpf0lp.html
[114] http://www.brisbanetimes.com.au/queensland/queensland-rail-warned-against-signalling-system-20160606-gpccm1.html

The temptation for operators and providers who are underfunded is to complain that the requirements of the DSAPT are onerous, unreasonable and unachievable. For some, the solution is not to seek adequate funding, which means challenging government and other funding bodies, but to take the easy path of demanding diminution of the DSAPT. This is also unfortunate.

The DSAPT is not onerous, unreasonable or unachievable. Rather, underfunded operators and providers cannot be expected to meet its requirements. A commitment from government and funding bodies adequately fund operators and providers to meet the DSAPT Schedule for Compliance and all other matters DSAPT is required.

## 7. What other issues you would like to see addressed?

Accessible transport is a human right, not a privilege. Governments with multi-billion-dollar budgets have allowed public transport infrastructure to fall well behind the Schedule for Compliance despite the legislated responsibility to provide the funds required for compliance.

### Prescriptive (deemed-to-satisfy) solution to DSAPT compliance versus Equivalent (performance-based) solution

**Issues:**

- Risk averse operators and providers will often insist on prescriptive solutions, even when Equivalent solutions would give a better outcome.
- 'Performance based solution' sometimes seen as an opportunity to diminish accessibility requirements.
- Too little rigour around the process for arriving at Equivalent Access or Unjustifiable Hardship solution.

**Recommend:**

- Resist diminution of the current deemed-to-satisfy requirements of the DSAPT.
- Adopt the National Construction Code process for developing and certifying Performance solutions.

Designers, builders, asset owners and operators frequently agitate for the adoption of 'performance based' infrastructure or rollingstock solutions. 'Performance based' is often code for 'diminish the deemed-to-satisfy requirements as they are too hard or expensive to meet'. Actually, the performance-based approach is already permitted by DSAPT section 33.3. Further, an Equivalent Access solution is fully DSAPT compliant if the correct process is followed, as defined in DSAPT sections 33.4 and 33.5.

**33.3 Equivalent access**

(1) Compliance with these Standards may be achieved by:

(a) applying relevant specifications in these Standards before the target dates; or

(b) using methods, equipment and facilities that provide alternative means of access to the public transport service concerned (but not using separate or parallel services) with equivalence of amenity, availability, comfort, convenience, dignity, price and safety.

(2) This may include direct assistance over and above that required simply to overcome discrimination.

**33.4 Consultation about proposals for equivalent access**

The operator or provider of a public transport service must consult with passengers with disabilities who use the service, or with organisations representing people with disabilities, about any proposal for equivalent access.

**33.5 Equivalent access without discrimination**

Operators and providers must be able to demonstrate that equivalent access provides public transport without discrimination 'as far as possible'.

Therefore, unless the intention is to diminish the performance of the asset for people who have disabilities, pursuit of performance-based solutions is pointless as they are already perfectly valid.

If a fully accessible Equivalent Access solution cannot be reached, DSAPT section 33.7 recognises Unjustifiable Hardship, provided that the best solution that the site constraints permit is attained.

**33.7 Exceptional cases — unjustifiable hardship**

(1) It is not unlawful to fail to comply with a requirement of these Standards if, and to the extent that, compliance would impose unjustifiable hardship on any person or organisation.

(2) However, compliance is required to the maximum extent not involving unjustifiable hardship.

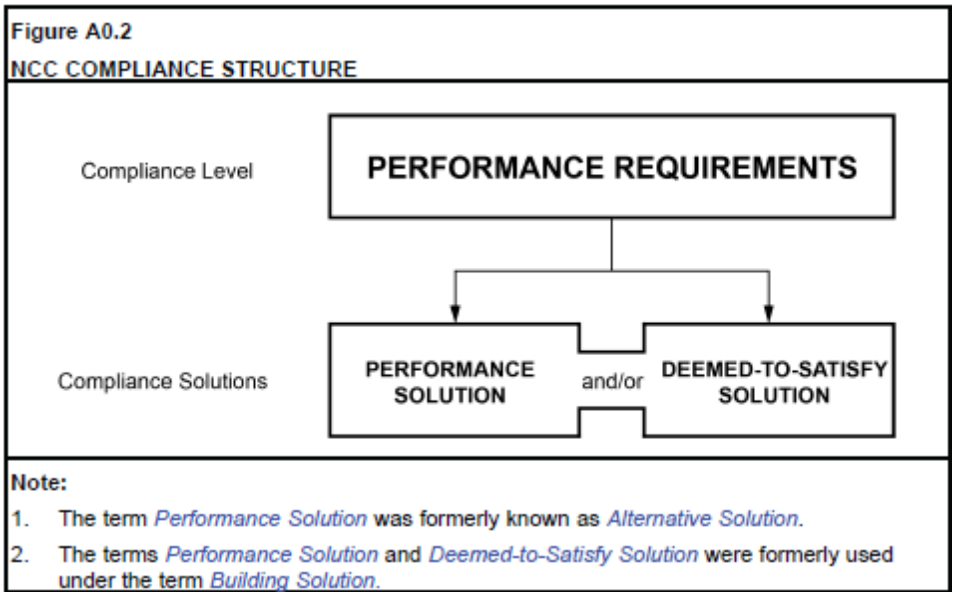
Unfortunately, designers, asset owners and their legal representatives are usually wary of Equivalent Access and Unjustifiable Hardship outcomes. For them, a good outcome is one that can be defended with a shrug and a statement of "It complies". To this end they will sometimes diminish the accessibility of conveyances, premises and infrastructure rather than undertake processes of consultation or research in order to reach a superior Equivalent Access solution.

In preparing for a campaign in East Africa during WW2 Winston Churchill rebuked his naysaying generals thus: "Do not argue for the difficulties. The difficulties will argue for themselves." In other words, "Tell me how we can circumvent the difficulties rather than just pointing to them as insurmountable obstacles." The East Africa campaign was a complete success, seizing control of the Red Sea from the Italians and thereby gaining freedom of navigation through the Suez Canal. This despite the initial military moaning.

In the same problem-solving spirit asset owners engaging with the disability sector in good faith to reach solutions that are mutually acceptable will find that they are secure in their Equivalent Access solutions and Unjustifiable Hardship outcomes. This is simply because the public are not seeking compliance with a legal / technical document, rather they desire a solution that works. A satisfactory solution will attract no complaint, whether it is 'deemed-to-satisfy' compliant or not.

DSAPT is not alone in giving equal weight to both Performance or deemed-to-satisfy solutions. The National Construction Code (NCC), which includes the Building Code of Australia (BCA), also takes this approach and has clear instructions on how to document and assess solutions.

> **DOCUMENTATION OF DECISIONS**
> Decisions made under the BCA should be fully documented and copies of all relevant documentation should be retained.
>
> Examples of the kind of documentation which should be prepared and retained include:
> (a) Details of the *Performance Solution* or the *Deemed-to-Satisfy Solution* including all relevant plans and other supporting documentation.
> (b) In cases where a *Performance Solution* has been proposed—
> (i) details of the relevant *Performance Requirements*; and
> (ii) the *Assessment Method* or methods used to establish compliance with the relevant *Performance Requirements*; and
> (iii) details of any *Expert Judgement* relied upon including the extent to which the judgement was relied upon and the qualifications and experience of the expert; and
> (iv) details of any tests or calculations used to determine compliance with the relevant *Performance Requirements*; and
> (v) details of any Standards or other information which were relied upon.
>
> **A0.1 Compliance with the NCC**
> Compliance with the NCC is achieved by satisfying the *Performance Requirements.*
>
> **A0.2 Meeting the Performance Requirements**
> The Performance Requirements can only be satisfied by a –
> (a) Performance Solution, or
> (b) Deemed-to Satisfy Solution, or
> (c) Combination of (a) and (b).




The NCC is clear about definitions and benchmarks for both Performance solutions and deemed-to-satisfy solutions. DSAPT should be equally clear as to how Equivalent Access and Unjustifiable Hardship solutions are defined, agreed upon and assessed.

**A0.3 Performance Solutions**

(a) A *Performance Solution* must—
- (i) comply with the *Performance Requirements*; or
- (ii) be at least *equivalent* to the *Deemed-to-Satisfy Provisions*, and be assessed according to one or more of the *Assessment Methods*.

(b) A *Performance Solution* will only comply with the NCC when the *Assessment Methods* used satisfactorily demonstrate compliance with the *Performance Requirements*.

**A0.4 Deemed-to-Satisfy Solutions**

(a) A *Deemed-to-Satisfy Solution* which complies with the *Deemed-to-Satisfy Provisions* is deemed to comply with the *Performance Requirements*.

(b) A *Deemed-to-Satisfy Solution* may be assessed according to one or more of the *Assessment Methods*, as appropriate.

**A0.5 Assessment Methods**

The following *Assessment Methods*, or any combination of them, can be used to determine that a *Performance Solution* or a *Deemed-to-Satisfy Solution* complies with the *Performance Requirements*, as appropriate:

(a) Evidence to support that the use of a material or product, form of construction or design meets a *Performance Requirement* or a *Deemed-to-Satisfy Provision* as described in **A2.2**.

(b) *Verification Methods* such as—
- (i) the *Verification Methods* in the NCC; or
- (ii) such other *Verification Methods* as the *appropriate authority* accepts for determining compliance with the *Performance Requirements*.

(c) *Expert Judgement*.

(d) Comparison with the *Deemed-to-Satisfy Provisions*.

**A0.7 Relevant Performance Requirements**
In order to comply with the provisions of **A1.5** (to comply with Section A and the NCC *Performance Requirements*) the following method must be used to determine the *Performance Requirement* or *Performance Requirements* relevant to the *Performance Solution*:
(a) Where a *Performance Requirement* is satisfied entirely by a *Performance Solution*:
(i) Identify the relevant *Performance Requirement* from the Section or Part to which the *Performance Solution* applies.
(ii) Identify *Performance Requirements* from other Sections or Parts that are relevant to any aspects of the *Performance Solution* proposed or that are affected by the application of the *Performance Solution*.
(b) Where a *Performance Requirement* is satisfied by a *Performance Solution* in combination with a *Deemed-to-Satisfy Solution*:
(i) Identify the relevant *Deemed-to-Satisfy Provisions* of each Section or Part that is to be the subject of the *Performance Solution*.
(ii) Identify the *Performance Requirements* from the same Sections or Parts that are relevant to the identified *Deemed-to-Satisfy Provisions*.
(iii) Identify *Performance Requirements* from other Sections or Parts that are relevant to any aspects of the *Performance Solution* proposed or that are affected by the application of the *Deemed-to-Satisfy Provisions* that are the subject of the *Performance Solution*.

Rather than limit accessibility through risk aversion or desire to diminish requirements the DSAPT should rather tighten the Equivalent Access process to allow designers, builders, operators and asset owners greater certainty that their Equivalent Access solutions and Unjustifiable Hardship solutions meet the DSAPT.

## Infrastructure of different transport modalities is not always collocated

**Issues:**

- The infrastructure of different modalities (e.g. airports, bus stops / interchanges, rail stations, ferry wharves, etc.) are not always collocated and connected. This does not allow seamless transition from one modality to another.
- Routes / networks of different modalities do not always complement each other, failing to produce an integrated transport network.

**Recommend:**

- State and Commonwealth Transport authorities should demonstrate a commitment to both integration of different modality infrastructure and different modality routes / networks.

Passengers who have a disability and who lack private transport are often unable to reach accessible transport nodes from their place of residence. Accessible feeder services that collect passengers from near home and transport them to transport nodes are required.

Bus routes sometimes operate in parallel with or even in competition with rail or light rail networks. The modalities should complement each other,

allowing the strengths of each to be best exploited. Buses can exploit suburban road networks and act as efficient feeders for rail, light rail and ferries. For full integration, infrastructure associated with the different modalities should be collocated at strategic intersection points and access paths between the infrastructures established.

State Transport authorities should demonstrate a commitment to both integration of different modality infrastructure and different modality routes / networks.

Airports in particular have been criticised for poor integration with other public transport modalities in a recent article[115]. In the article Professor Greg Bamber opined on airport planning:

> "The priority seems to be retail tenants who they can extract rent from, more cars to extract parking fees and more people travelling in taxis that they can extract levies from.
>
> "Those seem to be the priorities rather than better transport links and pedestrian access in an integrated way," he said.

In praising well designed overseas airports Prof Bamber stated the importance of collocation of various transport modalities in an integrated manner:

> "These are modern integrated airports that have multiple transport access close to freeways and public transport. They're all efficient and effective," he said.

## Fare structures should focus on whole journeys

**Issues:**

- When fares are charged for segments of journeys rather than whole journeys, there is a cost and inconvenience penalty.
- Journey segmentation occurs when modalities change (e.g. bus to train) or route changes (e.g. bus to bus).

**Recommend:**

- Fares should be charged once per journey, regardless of changes of modality or changes of conveyance within the modality.
- All fares, whether electronic or hardcopy, should be based on a single fare for a complete journey.

Fare structures should reward multiple modality journeys and intra-modality changes within journeys. Where two or more modalities are used during a journey fares should be calculated on a single journey

[115] https://thenewdaily.com.au/life/travel/2018/10/19/airports-national-embarrassment/

rather than breaking down to separate fares for each modality. Likewise, where intra-modality changes are made during a journey (e.g. bus to bus, train to train, etc.) fares should be calculated for the whole journey rather than on segments of the journey.

This whole of journey fare calculation is not difficult to achieve with electronic ticketing systems and so it should be the required norm. Hardcopy tickets are often modality specific however or may even be specific to single journey segments where passengers must purchase a new ticket when they change bus routes or rail lines.

For passengers on a low income this multiple ticket purchasing adds to the cost of travel and also inconveniences them when a number of hardcopy tickets must be purchased on a single journey. All fares, whether electronic or hardcopy, should be based on a single fare for a complete journey.

## Premises / Infrastructure not within DSAPT scope

**Issues:**

- The majority of the access paths connecting public transport premises and infrastructure to residences, to each other, and to destinations are not covered by DSAPT.
- All public access paths fall under the jurisdiction of the DDA.

**Recommend:**

- Whole of Journey Guidelines must be empowered through being recognised, funded and enacted by all three levels of government.

The Department of Infrastructure has published excellent Guidelines for a whole of journey experience. How these will be applied to existing infrastructure or future construction when these are outside the scope of DSAPT is not yet clear. For example, public transport journeys do not begin at the bus stop, station or wharf. Rather they begin at residences, workplaces, commercial premises and so on. These locations are the property of private individuals and companies, local authorities, State government Departments and other sundry bodies. The access paths within these locations and between these locations and the public transport nodes will determine whether a passenger can enter the DSAPT regulated environment.

| Bus stops recently upgraded to DSAPT that have no access path connections | Bus stop recently upgraded to DSAPT that has no access path connections |
|---|---|
|  |  |

Further, public transport journeys often involve a change of service and / or modality. In some instances, the access paths between bus stop and rail station, rail station and wharf and so on will be under the jurisdiction of the public transport provider and therefore covered by DSAPT. In many instances though the access paths will be on property controlled by third parties, e.g. local authorities, private companies etc. If these are access paths to which the public have a right of access then they are covered by the DDA in its definition of a premises:

> ***premises*** includes:
> (a) a structure, building, aircraft, vehicle or vessel; and
> (b) a place (whether enclosed or built on or not); and
> (c) a part of premises (including premises of a kind referred to in paragraph (a) or (b)).

The DDA is complaints driven rather than having a schedule for compliance. While most property owners, whether willingly or grudgingly, acknowledge its existence none are involved in a coordinated schedule of upgrades to lift the standards of the nation's infrastructure.

For the DSAPT to be truly effective these access paths outside its scope must be made accessible. The DDA requires that they are accessible but provides no timeframe or structure that permits a coordinated approach to upgrade. The Guidelines will therefore need to have a status somewhat more authoritative than being only suggestions for good practice. This may require a partnership / funding approach involving State and local governments and private parties.

## Accessibility maps allow access path planning

**Issues:**

- When travelling to areas with which they are not familiar passengers with mobility impairments may be unsure of the accessibility of the access paths that connect the transport infrastructure to their destination.

**Recommend:**

- State and Local Authorities should produce access mapping products illustrating destination precincts and that show access path accessibility. These should be both online and in printable format.

When travelling to areas with which they are unfamiliar passengers who have disabilities will often undertake pre-journey research. For passengers who have mobility impairments this research will be to inform themselves of the most accessible routes between public transport stops or the accessibility of the access paths from public transport stops to their destination.

A limited number of access maps of Australian city CBDs are available online or in hardcopy. These are valuable resources for travellers who have mobility impairments. The usefulness of accessibility maps is difficult to understate[116]. An access map of Seattle[117] that is available as either an app or online shows street gradients and gives incline data on all CBD kerb ramps, allowing easy route planning.

Similar products should be produced by State and Local Authorities that illustrate public transport infrastructure, access path gradients, street crossings, destinations and so on.

## Bus stop solutions for areas that have difficult topography

**Issues:**

- Bus stops will frequently be subject to topographic and engineering constraints that prevent full compliance.

**Recommend:**

- A process for determining whether a bus stop can be fully upgraded, upgraded to at least an accessible state, relocated if not upgradable or left *in situ* but listed as inaccessible if relocation is impracticable is required.
- A process for reducing road camber at bus stops is required.

### *Topographic constraints that affect boarding*

One of many constraints faced on a public transport journey is topography, as it affects access paths and infrastructure such as bus stops. Unjustifiable hardship will be claimed for the non-compliance of many bus stops. In some instances, this will involve a robust process of upgrade to the extent practicable. In other instances, no action will be taken. The latter is unacceptable and an abdication of responsibility.

[116] https://nextcity.org/daily/entry/app-map-cities-accessibility-city-planning-mobility
[117] http://www.accessmapseattle.com/

When constructing or refurbishing bus stops full compliance with the Disability Standards for Accessible Public Transport is the goal. In areas that have challenging topography this may not always be possible. If issues of compliance are anticipated, the following steps are recommended:

1. Meet DSAPT compliance in full where topography allows.
2. Meet DSAPT compliance to the extent practicable where topography is challenging.
3. Relocate the bus stop if topographic challenge renders any work as not accessible.
4. List the bus stop as not accessible if relocation is not possible.

Definitions in the following discussion are as follows:

- Gradient is the slope of the footpath and road parallel to the kerb. It is a longitudinal dimension.
- Crossfall is the slope of the footpath between the kerb and the property boundary. It is a transverse dimension.

*1. Meet DSAPT in full where topography allows*
When DSAPT compliance for gradients and crossfalls can be practicably achieved at a bus stop it must be.

*2. Meet DSAPT to the extent practicable where topography is challenging*
Where the DSAPT gradient and crossfall requirements cannot be met for legitimate topographic reasons, the best outcome that the site permits should be pursued. This may require certain elements of the bus stop to take priority over others.

After field and mathematical testing most jurisdictions have determined that the longitudinal gradient of the boarding point should be fixed at the same longitudinal gradient as the road. If the boarding point and the road have different longitudinal gradients the bus boarding ramp will not deploy with its lower edge in full contact with the boarding point. Rather it will have only one corner in contact with the boarding point, creating a tripping hazard at the higher corner. This is because the boarding ramp of a bus has little flexure.

Field testing and public consultation have demonstrated that having a flat manoeuvring and waiting area is more important that having a flat boarding point because it is on the manoeuvring area that people with mobility impairments are changing directions and the risk of fall therefore increases.

Achieving a flat manoeuvring area can be achieved by separating the boarding point and manoeuvring area (see Figures 1 and 2). A transition

area is required between the surfaces of the manoeuvring area and boarding point so that the two gradients can blend smoothly without creating a tripping or falling hazard.

The separation of the boarding point and the manoeuvring area is particularly helpful when dealing with sites that have a large crossfall.

The crossfall of the manoeuvring area and waiting areas (seating and allocated spaces both within and outside a shelter) should to be as flat as possible. Ideally the gradients should be no more than 1:40. However, if for legitimate reasons this is impracticable, a gradient of not more than 1:20 is acceptable. Crossfall should not exceed 1:40.

Figure 1

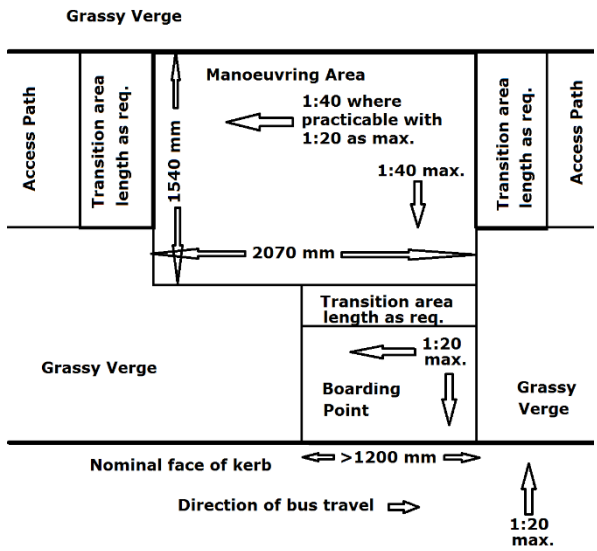
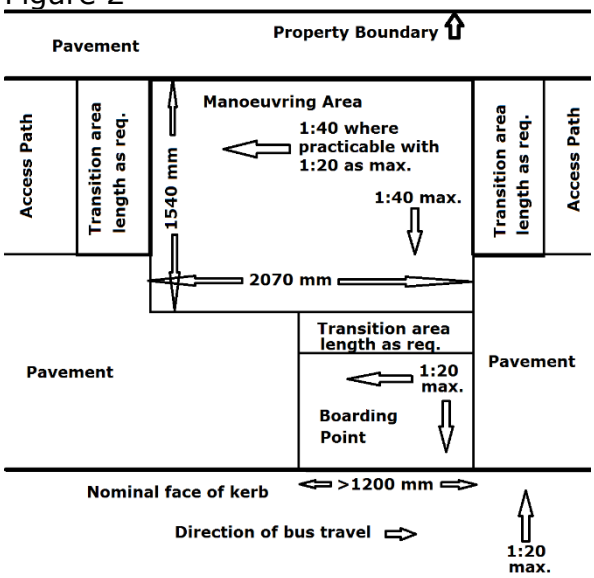



Figure 2

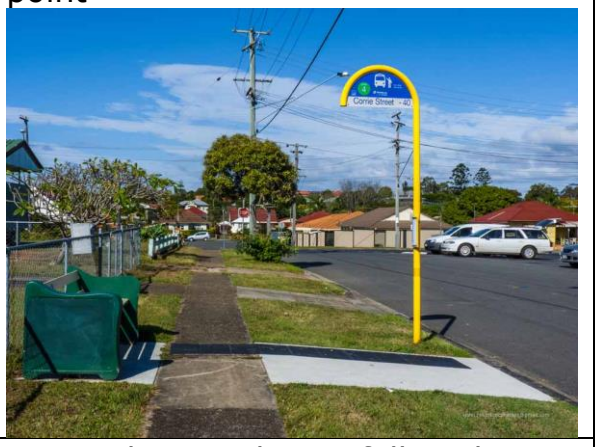



*3. Consider relocation of the bus stop if the site is too steep*
Where legitimate technical or spatial constraints render a maximum crossfall and gradient of 1:20 impracticable, relocation of the bus stop to a site with more favourable topography should be considered.

If relocation is not possible, every effort to achieve the best outcome at the site should still be made. No compromises to seating, TGSIs, signage and so on should be considered simply because of the site's steepness.

*4. Advertising the accessibility of bus stops*
Most bus routes have schedules, timetable and route maps posted online. These online postings can have details of the accessibility or otherwise of the individual bus stops listed briefly. Bus stops that are easily accessible and also those not regarded as either DSAPT compliant or functionally accessible can then be identified by people who have disabilities. This permits journey planning and the making of any alternate arrangements pre-journey.

Quite often Google Maps are used by transport operators and providers to identifying bus routes and bus stops along the routes. As related earlier, these Google Maps have the capacity to contain a reasonable amount of information relevant to each individual bus stop in their 'pins'.

| | |
|---|---|
| Steep slope and crossfall at the boarding point<br>  | Steep crossfall at the boarding point<br>  |
| Steep slope at the boarding point<br>  | Steep slope and crossfall at the boarding point<br>  |

### *Road camber constraints that affect boarding*

The function of a bus stop as a boarding point extends out from the slab beyond the nominal kerb face. To permit the completion of boarding and alighting an access path must exist between the bus stop manoeuvring area and the allocated spaces on the bus. This access path can be compromised when a steep road camber tilts the bus floor at more than 1:20 towards the kerb.

Every effort should be made when constructing or refurbishing bus stops to reduce the bus zone's road camber towards the minimum required for drainage. It is accepted that on some roads this will be difficult or impracticable. These roads will be regraded and resealed at some future time however and at this point in their maintenance cycle it may be practicable to achieve a camber of less than 1:20.

# Appendix 1. TMR correspondence regarding the EZ10

Good afternoon John,

Thank you for your email in regards to the trial of the autonomous shuttle bus in Springfield next week, and your question around vehicle access for people with a disability.

The Department of Transport and Main Roads is not involved directly with this trial, so you may be best directing your question to the manufacturer of the shuttle bus, EasyMile, or Ipswich City Council, who are supporting the trial.

Although I note from the EasyMile website that they indicate their vehicles do feature an in-built access ramp, you may wish to contact them direct to discuss further. You can contact them on info@easymile.com.

Kind regards,

**Clare Murray** **MA (Journ Mass Comm) BA**

*Working: Mon, Tues, Thurs, Fri*

Principal Advisor (Communications)
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# Appendix 2. Easy Mile correspondence regarding the EZ10

**RE: Driverless bus and disability access**

**Simon Pearce** <simon.pearce@easymile.com> Tue, Mar 6, 2018 at 8:55 PM
To: John McPherson <john.robert.mcpherson@gmail.com>
Cc: Adwait Kale <adwait.kale@easymile.com>, Kathy <Kathy.Lazanas@transdev.com.au>

John,

Given the technology is evolving we are certainly looking to engage with the community on all aspects. Throughout our demonstration we have a number of people with wheelchairs come and ride the EZ10 and it was overwhelmingly positive from all accounts.

I also thank you for your interest and have listed the compliance as requested below.

2.8, - Compliant

3.2 – Compliant (Vehicle lowers itself and ramp automatically extends, The wheelchair can be anchored if required.

6.4 – Compliant

9.1 – Compliant (However I note this will affect the carrying capacity of the vehicle)

9.4 – The vehicle is not classified as a "Bus" at this stage. It is noted by EasyMile.

9.10 – Not compliant within the current release, however I note this can be easily rectified. We do display the international symbol on the external of the vehicle and on the window.

9.11 - Compliant

11.7 - Compliant

16.4 – Partially compliant

17.6 – Not compliant ( This is noted and will be reported to our production team.

21.2 - Compliant

21.3 - Compliant

21.4 – To be validated.

26.2 - Compliant

27.4 - Compliant

31.1 – Not compliant due to seating capacity (We are also not classified as a bus)

31.2 - Not compliant within the current release, however I note this can be easily rectified.

As a global company you can imagine we have legislation requirements all over the world which are vastly different, rest assured I will continue to work in the Australian standard to ensure we comply where applicable.

Thank you for your enquiry, and feel free to call me directly on 0417 008 494 should you have any further questions.

Regards

Simon

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