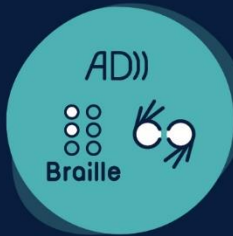




# Reforms of the Disability Standards for Accessible Public Transport 2002

Stage 2 Consultation Regulation Impact Statement  
March 2022



# Addendum

Date	Amendment
31 March 2022	<p><b>Executive Summary, Glossary of Australian Standards</b></p> <p>Added:</p> <p><i>“AS/NZS2890.6 (2009) Parking facilities, Part 6: Off-street parking for people with disabilities”</i></p> <p><b>Chapter 50 Accessible parking spaces in infrastructure off-street carparks, Regulatory option</b></p> <p><i>“Accessible parking spaces must conform to the layouts and dimensions of AS/NZS2890.6 (2009) Design for access and mobility.”</i></p> <p>Deleted and replaced with:</p> <p><i>“Accessible parking spaces must conform to the layouts and dimensions of AS/NZS2890.6 (2009) Parking facilities, Part 6: Off-street parking for people with disabilities.”</i></p>
28 March 2022	<p><b>Chapter 9 Hearing augmentation on conveyances, Issue</b></p> <p><i>“Passengers with vision or hearing impairments may be unable to see a visual display may miss or misunderstand a Public Address (PA) system message unless it is received directly in their hearing aid via a hearing loop system.”</i></p> <p>Deleted and replaced with:</p> <p><i>“Passengers with vision or hearing impairments may be unable to see a visual display, and may miss or misunderstand a Public Address (PA) system message unless it is received directly in their telecoil equipped hearing aid via a hearing loop system.”</i></p> <p><b>Chapter 9 Hearing augmentation on conveyances, Issue</b></p> <p><i>“In the Transport Standards context both refer to systems that permit people who are hard of hearing to receive what is being broadcast over a PA system directly to their hearing aid.”</i></p> <p>Deleted and replaced with:</p> <p><i>“In the Transport Standards context both refer to systems that permit people who are hard of hearing to receive what is being broadcast over a PA system directly to their telecoil equipped hearing aid.”</i></p> <p><b>Chapter 10 Hearing augmentation: Infrastructure and premises</b></p> <p><i>“The current requirements for hearing augmentation systems referenced in the Transport Standards, provided for in AS1428.2 (1992) Design for access and</i></p>

*mobility, are dated and do not provide adequate coverage for passengers who use hearing aids. Passengers using hearing aids may not receive equitable access to information if there is not suitable coverage via a hearing loop."*

Deleted and replaced with:

*"The current requirements for hearing augmentation systems referenced in the Transport Standards, provided for in AS1428.2 (1992) Design for access and mobility, are dated and do not provide adequate coverage for passengers who use telecoil equipped hearing aids. Passengers using telecoil equipped hearing aids may not receive equitable access to information if there is not suitable coverage via a hearing loop."*

#### **Chapter 11 Print size and format, Consultation questions**

Question 4 *"What has been your experience reading signs in a public transport context? Have you been unable to read a sign due to letter height and/or formatting?"*

Deleted and replaced with:

Question 4 *"What has been your experience reading printed materials in a public transport context? Have you been unable to read a hardcopy publication or pamphlet due to letter height and / or formatting?"*

#### **Chapter 16 Braille and tactile lettering for signage, Consultation questions**

Question 4 *"Have you experienced difficulty reading braille information provided to you by a public transport operator or provider?"*

Deleted and replaced with:

Question 4 *"Have you experienced difficulty reading braille information provided on signage in a public transport setting? If yes, how?"*

#### **Chapter 38 Signals and process for requesting boarding devices, Consultation questions**

Question 3 *"Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option? Have you, or your passenger, ever had difficulties boarding a conveyance or disembarking at your stop due to an inability to request a boarding ramp?"*

Deleted and replaced with:

Question 3 *“Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?”*

Question 4 *“Have you, or your passenger, ever had difficulties boarding a conveyance or disembarking at your stop due to an inability to request a boarding ramp?”*

- a) *What was the nature of the fault? For example: the ramp did not arrive or was late, staff failure to communicate effectively, poorly located or broken controls?*
- b) *What was the consequence?*

**Chapter 46 Bus, tram and light rail boarding points on infrastructure, Figure 2: Diagram of crossfall and slope**

*“8° / 1:7 C CROSSFALL”*

Deleted and replaced with:

*“8° / 1:7 CROSSFALL”*

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# Executive Summary

There are more than four million people with disability in Australia, or around 18 per cent of Australia's population.<sup>1</sup>

Access to public transport is critical for people to fully participate in the community and the economy. Many people use public transport to travel to work or study, connect them to family, friends and their community, or help them access support and services, such as healthcare and education. However, one in six people (17 per cent) aged 15 years and over with disability have difficulty using public transport.<sup>2</sup>

People with disability face challenges when using public transport such as a lack of access to physical infrastructure, difficulty in accessing information that is suitable to their needs, and challenges with safely navigating a successful public transport journey. Where a person with disability is not afforded equitable access, service or safety in relation to other passengers, this can result in discrimination.

Discrimination happens when a person, or group of people, are treated differently than other people because of their background or personal characteristics, such as their age, sex, race or disability.

The *Disability Discrimination Act 1992* (DDA) makes discrimination on the basis of disability unlawful in the provision of public transport services, as well as in other key areas of public life, such as employment and education.

The Disability Standards for Accessible Public Transport 2002 (Transport Standards) provide certainty to providers and operators of public transport services about their responsibilities under the DDA.

**For people with disability, the right to life can only be realised if States Parties [governments] implement positive measures, such as the provision of personal care programs; equal access to healthcare; accessible and inclusive cancer screening programs; accessible gender- and age-specific violence prevention and response programs; safety standards for accessible transport; and accessible infrastructure to facilitate safety in wayfinding.<sup>3</sup>**

Research Report - Convention on the Rights of Persons with Disabilities: Shining a light on Social Transformation (2020), Rosemary Kayess and Therese Sands

<sup>1</sup> Australian Government Australian Institute of Health and Welfare, *People with Disability in Australia 2020: In Brief*, 15 November 2021, <https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia-2020-in-brief/contents/about-people-with-disability-in-australia-2020-in-brief>

<sup>2</sup> Australian Government Australian Institute of Health and Welfare, *People with Disability in Australia 2020*, 15 November 2021, <https://www.aihw.gov.au/getmedia/ee5ee3c2-152d-4b5f-9901-71d483b47f03/aihw-dis-72.pdf.aspx?inline=true>

<sup>3</sup> Royal Commission in Violence, Abuse, Neglect, and Exploitation of People with Disability, *Research Report - Convention on the Rights of Persons with Disabilities: Shining a light on Social Transformation*, 15 November 2021, <https://disability.royalcommission.gov.au/publications/convention-rights-persons-disabilities-shining-light-social-transformation-research-report#:~:text=Convention%20on%20the%20Rights%20of%20Persons%20with%20Disabilities%3A,rights%20context%20in%20which%20the%20Royal%20Commission%20operates.>

In consultation with the Attorney-General, the Minister for Infrastructure, Transport and Regional Development reviews the effectiveness and efficiency of the Transport Standards every five years.

Reviews of the Transport Standards have recognised the need to update the Transport Standards to reflect the current and future needs of people with disability; and to provide sufficient flexibility or guidance to operators and providers to practically fulfil their obligations under the DDA.

In August 2019, Transport Ministers agreed to reform the Transport Standards. These reforms aim to eliminate discrimination, as far as possible, against people with disability and provide greater certainty to operators and providers regarding their responsibilities under the Transport Standards. Further, the reforms will help the Australian Government deliver on the objectives of Australia's National Disability Strategy 2021-2031 (the Strategy). The Strategy recognises the role accessible transport systems play in achieving an inclusive Australian society that ensures people with disability can fulfil their potential, as equal members of the community<sup>4</sup>.

Transport Ministers agreed the reform process would be jointly led by the Australian and Queensland Governments and undertaken in two stages:

- Stage 1 – This stage identified 16 reform areas. A Decision Regulation Impact Statement (RIS) was provided to Transport Ministers on 11 February 2022, where the first 16 areas of reform were confirmed.
- Stage 2 – Includes 54 reform areas, detailed in 61 chapters in this Consultation RIS for public consultation. Following consultation, a Decision RIS will be provided to Transport Ministers for consideration.

The 54 reform areas cover major reforms to the Transport Standards, as well as minor updates, and are grouped into the following Parts within this Consultation RIS:

- **Part 1: Transport Standards principles** – reforms that may result in a change to the legislative framework.
- **Part 2: Information, communication and wayfinding** – reforms that may improve the way information is provided in a consistent, timely and accessible format across the public transport journey and improve wayfinding.
- **Part 3: Accessibility at stations, stops, wharves and access routes** – reforms that may improve accessibility of any facility provided for use as part of a public transport service.
- **Part 4: Accessibility of boarding and alighting and egress of infrastructure** – reforms that may improve accessibility within immediate boarding or alighting of a public transport vehicle.
- **Part 5: Accessibility in conveyance** – reforms that may improve accessibility inside a public transport vehicle.
- **Part 6: Implementation approach** – feedback on an implementation approach for the whole package of reforms, which includes Stages 1 and 2.

Table 1 below provides a high level summary of each reform area.

---

<sup>4</sup> Australia's Disability Strategy 2021-2031, 12 January 2022, <https://www.disabilitygateway.gov.au/ads>

There are multiple policy options proposed for all reforms areas. These include the status quo, non-regulatory and regulatory options. The proposed policy options have been developed in consultation with the National Accessible Transport Steering Committee (the Steering Committee) and the National Accessible Transport Taskforce (the Taskforce). Collectively, these bodies include representatives from the disability community, government and the public transport industry.

The purpose of this Consultation RIS is to gather a broad range of stakeholder views on the merits of the proposed policy options, including associated impacts, costs and benefits, and the extent to which each option would achieve the intended outcome. This also includes whether the reform options would, as far as possible, eliminate discrimination against people with disability, and whether they would provide greater certainty to operators and providers regarding their responsibilities under the Transport Standards and DDA.

This Consultation RIS also seeks feedback on an implementation approach for the whole package of reforms (Stages 1 and 2).

The non-regulatory options will be achieved through the provision of guidance, or improvements to existing guidance including to either the *Disability Standards for Accessible Public Transport Guidelines 2004 (No.3)* (Transport Standards Guidelines) or *The Whole Journey Guide: A guide for thinking beyond compliance to create accessible public transport journeys* (The Whole Journey Guide).

The purpose of the Transport Standards Guidelines is to assist in the understanding and interpretation of the Transport Standards.<sup>5</sup>

The purpose of The Whole Journey Guide is to encourage policy makers, planners, designers, builders, certifiers and operators to think beyond compliance (with the Transport Standards) and the physical and governance boundaries of services and infrastructure, and focus instead on people's accessibility needs across their whole journey.<sup>6</sup> Guidance in The Whole Journey Guide is more comprehensive than the Transport Standards Guidelines and provides additional context and rationale to support the advice provided for the reform areas.

## How to read and /or respond to this Consultation RIS

You may choose to read the Consultation RIS in whole or in part, relevant to your industry, interest, or individual circumstance. You can provide feedback on individual reform areas or the whole Consultation RIS and /or by sharing your story or stories about others (who may be unable to speak for themselves), including what could be done to improve public transport services and remove discrimination for people with disability.

This Stage of reform includes 54 reform areas. However, the reform areas have been split into 61 chapters in this Consultation RIS (including Part 6: Implementation approach) to help you understand the content of the reforms and provide targeted feedback to individual issues.

---

<sup>5</sup> Disability Standards for Accessible Public Transport Guidelines 2004 (No.3) pg.7

<sup>6</sup> <https://www.infrastructure.gov.au/transport/disabilities/whole-journey/index.aspx>

Sharing your experiences will help us to:

- understand the extent of the problem
- learn more about the contexts in which discrimination is likely to occur
- understand the impacts of the proposed reforms on all stakeholders, including people with disability, public transport operators and providers and government.

You can respond to this Consultation RIS and share your experiences with us:

- in writing, in video or audio recording by email to [DisabilityTransport@infrastructure.gov.au](mailto:DisabilityTransport@infrastructure.gov.au)
- by telephone (free call) to 1800 621 372
- through an online survey available at:  
<https://www.infrastructure.gov.au/TransportAccessibility>
- participating in online consultations held from 15 March to 9 August 2022.

If you are having trouble getting started, additional questions have been provided on our website that may be a useful starting point. These questions are only a guide, and you don't have to answer all of them. You are only asked to provide the information you are comfortable sharing.

The Australian Government has also developed a number of supporting documents and resources to assist you to participate in the Stage 2 consultations, including:

- Summary Consultation RIS (including translations into Auslan, languages other than English and Easy English)
- Reform area factsheets.

These resources are available on the Department's website at:

<https://www.infrastructure.gov.au/TransportAccessibility>

While efforts have been made to group reform areas, many of the Stage 2 reform areas intersect on varying levels. For this reason, the Australian Government encourages you to review the Consultation RIS in its entirety.

Your response to this Consultation RIS will be published on the Department of Infrastructure, Transport, Regional Development and Communications (the Department) website. If you do not want your response to be made public you must tell us that your submission is confidential.

If you need information in your own language about responding to this document, call the Translating and Interpreting Service on 131 450.

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Hard copy versions are available from the Department upon written request to

[DisabilityTransport@infrastructure.gov.au](mailto:DisabilityTransport@infrastructure.gov.au)

Further information on the reforms of the Transport Standards is available on the Department's website at: <https://www.infrastructure.gov.au/TransportAccessibility>

Enquiries on the reforms of the Transport Standards or this consultation process can be directed to:

Director – Disability and Transport Standards  
Land Transport Policy Branch  
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Australia

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Website: [www.infrastructure.gov.au](http://www.infrastructure.gov.au)

Telephone: 1800 621 372

## Summary of Stage 2 reform areas by chapter

**Table 1: Summary of Stage 2 reform areas**

Reform area	Issue
1. <b>Reporting</b>	There are no requirements to report data on compliance with the Transport Standards and no nationally consistent compliance data currently exists. Without a nationally consistent reporting framework the lack of data to monitor compliance will continue.
2. <b>Equivalent access</b>	Public transport operators and providers may be reluctant to use equivalent access provisions – while they provide the flexibility to use innovative solutions to achieve an equivalent level of accessibility, operators don't have certainty the solution complies with the Transport Standards. Reviewing the current provisions aims to provide the assurance and flexibility to develop solutions that are fit for purpose and non-discriminatory.
3. <b>Rideshare</b>	The Transport Standards are not clear whether rideshare is covered, leading to ambiguity in the obligations of rideshare providers. There is an opportunity to clearly define public transport services and conveyances so all forms of public transport are identified, and the obligations and responsibilities of operators and providers are made explicit in relation to the provision of public transport services.
4. <b>Dedicated school buses</b>	Dedicated school bus services are exempt from certain physical access requirements in the Transport Standards, which may impact public transport accessibility for students with disability and their parents and carers. There is an opportunity to ensure discrimination against students with disability does not occur by amending or removing exemptions for dedicated school bus services.
5. <b>Better communication of accessibility features</b>	There is no national consistency on the definition of accessibility and what accessibility amenities and features are available. This leads to accessibility meaning different things to a wide range of people, depending on their individual needs. There is an opportunity to develop nationally consistent terminology that can be applied across all modes of public transport, and a baseline list of accessible features.
6. <b>Timely provision of information</b>	There is no requirement for accessible public transport information to be provided in a preferred format and in a timely manner. Timely and accessible information ensures people with disability have confidence to use public transport. There is an opportunity to clarify the requirements concerning the provision of accessible public transport information when a request is made for information in a preferred format.

<b>7. Real time communication</b>	There is no requirement for real time communication between operators and providers and people with disability. This leads to situations where passengers may not be able to communicate with staff or exchange information in real time. There is an opportunity to improve communication by including real time communication requirements.
<b>8. Passenger location during journey</b>	Arrival and next stop information is not always available or accessible to people with disability using public transport. There is an opportunity to ensure all public transport users are given access to the same level of information on their location during their journey, specifically arrival and next stop information.
<b>9. Hearing augmentation on conveyances</b>	Provisions in the Transport Standards do not provide equitable access to information to people who are deaf or who use hearing aids and are on-board conveyances. Passengers with hearing impairments may be unable to see a visual display or miss or misunderstand system messages. There is an opportunity to provide improved hearing augmentation systems that cover a greater area of the interior space of a conveyance.
<b>10. Print size and format</b>	Existing requirements for large print are not best practice and do not meet the varying needs of people with low vision or other print disabilities. There is an opportunity to include specific font weight and text justification requirements for larger print where the legibility of products and services can be improved by increasing the size of the letters and layout of materials.
<b>11. International symbol for access and deafness</b>	The current reference is to an old Australian Standard. There is an opportunity to update and align requirements with contemporary Australian Standards for the provision of international symbols and lettering sizes for accessibility and deafness.
<b>12. Letter heights and luminance contrast of signs</b>	The Transport Standards lack clarity regarding font type and luminance contrast, and do not provide certainty that signage design will be consistent and accessible to people with disability. There is an opportunity to simplify and clarify requirements concerning letter heights and luminance contrast of static, non-braille or non-tactile signs.
<b>13. Location of signs</b>	The reference to the Australian Standard is over 30 years old. While there is no evidence to suggest the requirements are not fit for purpose, there is an opportunity to update and simplify the requirements for signage location on conveyances and infrastructure and in premises to assist operators and providers in meeting their obligations to provide accessible public transport services.
<b>14. Braille specifications</b>	There is a lack of clarity on the standard of braille required for use in the provision of public transport information to people with vision impairment presents challenges to braille readers. There is an opportunity to clearly specify the requirement for use of braille, raised lettering or symbols.



<b>15. Braille and tactile lettering for signage</b>	The Transport Standards contain inconsistent braille requirements and this presents challenges to braille readers. There is an opportunity to clearly define the braille and tactile signage requirements and design standards to reflect braille best practice and align these with related requirements under the Premises Standards.
<b>16. Hearing augmentation: infrastructure and premises</b>	There is a reference to a dated standard on hearing augmentation in infrastructure and premises that is inferior to the requirements of the Premises Standards. There is an opportunity to improve the provision of hearing augmentation systems in premises and infrastructure, in line with the Premises Standards.
<b>17. Lifts: Braille and tactile information at lift landings</b>	There is inadequate provision of wayfinding information at lift landings which presents a barrier to independent travel for people with vision impairment and / or hearing impairment. There is an opportunity to ensure that people with disability can continue their journey by providing braille and tactile wayfinding information on lift landings and door frames.
<b>18. Lifts: Audible wayfinding</b>	People with vision or cognitive impairments are sometimes uncertain about which landing a lift car has arrived at and / or which way they need go to continue their journey. There is an opportunity to enhance lift accessibility by ensuring that audio announcements are provided at all lift levels and that directional audible wayfinding information is available at lift landings.
<b>19. Lifts: Emergency communication systems in lift cars</b>	People who are deaf, hard of hearing, speech impaired or non-verbal are at risk of being unable to communicate the need for assistance during an emergency. There is an opportunity to enhance lift accessibility through the provision of adequate emergency communications systems in lift cars.
<b>20. Lifts: Reference for lift car communication and information systems</b>	People who are hard of hearing – and particularly those who also have vision impairments – do not always receive equal access to information while travelling in lift cars when compared to other passengers. There is an opportunity to provide assistive listening systems in lifts and update technical references that deal with assistive listening systems to take into account technological advances.
<b>21. Information and communication technologies (ICT) procurement</b>	There are no technical requirements for ICT procurement, and existing measures to ensure procurement of accessible ICT products do not support best practice. There is an opportunity to establish a national minimum standard to ensure that websites, software and digital services meet the same level of consistency and provide a framework for developing and procuring a wide range of accessible ICT applications, products and services.
<b>22. Mobile web systems</b>	Transport operators and service providers are increasingly using online systems such as applications (apps) and websites on mobile phone and tablet devices to communicate customer service information, however there are no minimum accessibility requirements for mobile web systems. There is an opportunity to ensure a minimum standard level of accessible information is available to passengers through mobile web systems.

<b>23. Accessible fare system elements</b>	The Transport Standards do not adequately cover or support existing or future technologies used in fare payment and validation. As a result, current fare system requirements are not fit-for-purpose and customers with disabilities may be exposed to inaccessible or inconsistent fare systems. There is an opportunity to ensure that accessibility requirements for fare payment and validation systems are reflective of existing and future digital technologies and ensure that accessible fare payment options are equal in cost with other options.
<b>24. Doors on access paths</b>	Manual doors on access paths can be challenging for people with disability and their companions to use, creating a barrier for independent access to public transport. There is an opportunity to ensure people with disability and their companions do not encounter doors on access paths that present a barrier to entry, which other passengers would not encounter.
<b>25. Continuous accessibility on access paths</b>	The requirements for continuous accessibility reference a dated standard, and are not aligned with the Premises Standards. There is an opportunity to provide standalone requirements for continuous accessibility on access paths that are more closely aligned with the Premises Standards, whilst maintaining the rights of people with disability.
<b>26. Flange Gaps</b>	Flange gaps on access paths present a safety risk to the safe passage of people with disability, however there is a lack of certainty for operators and providers on their compliance obligations. There is an opportunity to recognise flange gaps within access paths at level crossings on train, light rail, and tram networks, ensuring the gap is safe for people with disability.
<b>27. Resting points</b>	There are no requirements to provide an allocated space for a wheelchair or similar mobility aid at a resting point, inhibiting the ability of people who use mobility aids to rest along access paths. There is an opportunity to ensure resting points are available for people who use mobility aids by providing an allocated space.
<b>28. Requirement for handrails in overbridges and subways</b>	Many overbridges and subways do not have continuous handrails, creating a barrier to using public transport for people who use handrails for wayfinding support. There is an opportunity to ensure that all passengers have continuous access to stair and ramp handrails in overbridges and subways.
<b>29. Location of Fare System Elements</b>	There is limited clarity regarding the specific location of fare system elements, which may lead to an inconsistent and potentially inaccessible travel experience that prevents some people travelling independently. There is an opportunity to clarify the accessibility requirements for the location of fare system elements by simplifying and co-locating these requirements in a new section.

<b>30. Allocated Spaces and priority seating in waiting areas</b>	The Transport Standards do not provide sufficient clarity on the proportion of allocated spaces and priority seating required in a waiting area that provides seats. This may lead to the proportion of allocated spaces and priority seating provided in each waiting area to be insufficient. There is an opportunity to provide clarity on the proportion of allocated spaces and priority seating required in a waiting area and specifically address uncertainty on how a single bench seat should be designated as priority, and to clarify the nature and extent of a waiting area.
<b>31. Accessible toilets with equal proportion of left and right hand configurations</b>	Accessible toilets are not always provided in equal proportion of left and right hand design, leaving some people with disability unable to use them. There is an opportunity to provide accessible toilets on conveyances with an equal or near equal proportion of left and right hand configurations to ensure people can choose an accessible toilet design that is best suited to their needs.
<b>32. Emergency call buttons in accessible toilets</b>	If emergency call buttons are installed in accessible toilets at currently compliant heights (greater than 900 millimetres above floor), they are not reachable by a passenger who has fallen to the floor. There is an opportunity to provide emergency call buttons in unisex accessible toilets at split level to ensure the buttons can be used by a person standing or sitting, or a person collapsed on the floor.
<b>33. Ambulant toilets</b>	There is no requirement for the provision of ambulant toilets, which may present a barrier to people with ambulant disabilities in using public transport. There is an opportunity to ensure that toilets are provided for people with ambulant disabilities and to align ambulant toilet requirements with the Premises Standards.
<b>34. Lift specifications and enhancements</b>	The existing lift accessibility requirements reference a dated standard that does not take into account technological advances in accessibility features that are increasingly being installed as standard practice. There is an opportunity to update the referenced standard to reflect technological advances and improvements in lift specifications and enhancements.
<b>35. Specifications for escalators and inclined travelators</b>	Escalators and inclined travelators are not always wide enough to be accessible to people with disability. There is an opportunity to clarify the technical specifications regarding the minimum unobstructed width for escalators and inclined travelators to promote safe and accessible egress and provide certainty to operators and providers on their obligations.
<b>36. Poles, objects and luminance contrast</b>	There is no specified point of reference for measuring or calculating luminance contrast in the Transport Standards. There is an opportunity to include a reference to the Australian Standards that provides a methodology for measuring and calculating luminance contrast and to identify surfaces that require sufficient luminance contrast with objects, in alignment with the Premises Standards.

<b>37. Lighting</b>	The Transport Standards requirements for lighting do not provide adequate guidance for lighting designers to deliver appropriate lighting solutions. Effective and functional lighting is critical to ensuring safe, comfortable and accessible journeys for all passengers. There is an opportunity to update lighting requirements to ensure public transport environments deliver effective and functional lighting solutions that are appropriate for the diverse and nuanced requirements of people with disability, while meeting the unique safety, contextual and operational requirements appropriate to their context.
<b>38. Signals and process for requesting boarding devices</b>	Existing requirements for signals or other processes for requesting boarding assistance are not sufficiently explicit and the reference to the Australian Standard is dated. People who are hearing impaired or deaf are at a disadvantage when communication systems require verbal interaction. There is an opportunity to clarify the requirements for signals and other processes for requesting boarding assistance, and to update the reference to Australian Standards to reflect the use of modern technology.
<b>39. Notification by passenger of need for boarding device</b>	There is no requirement specified for advanced notice or booking for passengers needing access to a boarding device, and the requirements for passengers requesting boarding devices at infrastructure and in premises are conflated with the requirements relating to on board conveyances. There is an opportunity to clarify the need for passengers to have flexible options when notifying operators and providers of a need for a boarding device and update the Australian Standards reference to reflect the use of modern technology.
<b>40. Portable boarding ramp edge barriers</b>	There is an absence of a clear requirement for portable boarding ramps to have edge barriers, which poses a risk to the safety and confidence of people who use mobility aids when travelling on public transport. There is an opportunity to provide a clear requirement for all portable boarding ramps to have edge barriers.
<b>41. Boarding ramp and removable gangway definitions</b>	Vehicle boarding ramps are operated in a static onshore environment and removable gangways for vessels are operated in a dynamic marine environment, however they do not have distinct accessibility requirements. There is an opportunity to clearly differentiate between vehicle boarding ramps and removable gangways to reflect the distinction between these operating environments.
<b>42. Removable gangway design - ferries</b>	As there is currently no differentiation between vehicle boarding ramps and removable gangways for vessels, the specifications for gangway design are not fit for purpose and do not reflect a dynamic operating marine environment. There is an opportunity to provide clarity for public transport operators and providers on the design specifications for removable gangways.
<b>43. Nominated assistance boarding points</b>	It can be difficult for people with disability to know where to seek direct boarding assistance, and public transport staff may experience trouble locating people with disability when they require direct assistance. There is an opportunity to provide clarity about where and how customers with disability can seek timely boarding assistance, provision of a boarding ramp and direction to accessible facilities.

<b>44. Mobility boarding points – identification of lead stops</b>	Poorly identified lead stops create challenges for people with disability in service recognition, moving to the appropriate location on the platform and hailing the driver. There is an opportunity to provide technical specifications for the identification of lead stops to ensure people with disability can identify these at bus stations, bus interchanges and in bus zones.
<b>45. Pontoon boarding points on infrastructure</b>	Boarding points are required to have a firm and level surface where boarding devices can be deployed, however there is uncertainty on the definition of firm and level in relation to pontoon boarding points as these are affected by wash, wave and wind action. There is an opportunity to acknowledge that pontoons are located in a dynamic marine environment, and their design must allow for maximum stability to ensure people with disability can board and alight ferries safely.
<b>46. Bus, tram and light rail boarding points on infrastructure</b>	Large gradient and cross fall changes between bus stops and roads can reduce accessibility for people with disability, and make boarding and alighting from conveyances unsafe. There is an opportunity to ensure that wherever possible, boarding points on buses, light rail and trams are made accessible by including clear gradient and cross fall specifications.
<b>47. Hail-and-ride boarding points on infrastructure</b>	People with disability may be unable to access hail-and-ride services due to a lack of accessible boarding points for these services. There is an opportunity to ensure that hail-and-ride services offer maximum opportunity for people with disability to board and alight and ensure that accessible hail-and-ride pick up locations can be clearly identified and understood as accessible.
<b>48. Accessible taxi ranks</b>	There are no specific requirements for accessible taxi ranks, which creates challenges for people who use wheelchairs and drivers of wheelchair accessible taxis when using taxi ranks. There is an opportunity to include accessibility requirements for taxi ranks to ensure they are fit-for-purpose and accessible to mobility aid users.
<b>49. Accessible passenger loading zones on-street</b>	Many passenger loading zones are not fit-for-purpose as boarding points for wheelchair accessible taxis and small conveyances, as they are inaccessible to people using wheelchairs or other mobility aids. There is an opportunity to recognise on-street passenger loading zones as boarding points to assist rear loading of wheelchair accessible taxis and ensure people with disability using wheelchairs or other mobility aids can safely traverse over a kerb onto the footpath.
<b>50. Accessible parking spaces in infrastructure off-street carparks</b>	There are no requirements for off-street parking areas associated with public transport infrastructure, or specifications for accessible parking spaces or the access paths connecting them to accessible entrances. There is an opportunity to set requirements for off-street parking areas to provide accessible parking spaces that are in close proximity to building entrances with room to manoeuvre, load and unload, and are clearly identified as accessible.

<b>51. Grab-rails on access paths</b>	There is no requirement or guidance to provide grab-rails along access paths on board conveyances, which poses a risk to the safety of people with ambulant disabilities using public transport. There is an opportunity to improve accessibility along conveyance access paths by providing grab-rails that have sufficient luminance contrast.
<b>52. Grab-rails in allocated spaces</b>	There is insufficient guidance and clarity on the layout of grab-rails in allocated spaces, and no requirement for grab-rails to have sufficient luminance contrast, which poses a safety risk to people with vision impairment using public transport. There is an opportunity to provide clarity on the layout of allocated spaces across different modes of transport to allow for differences in position, and include requirements on the minimum luminance contrast for grab-rails.
<b>53. Mobility aid movement in allocated spaces: Passive restraints</b>	Requirements to contain the movement of mobility devices in allocated spaces are currently inadequate, which presents a risk to the safety of people travelling with mobility aids as these can topple or slide due to displacement forces that occur during transit. There is an opportunity to provide more defined requirements for the containment of mobility aids in allocated spaces on conveyances.
<b>54. Mobility aid movement in allocated spaces: Active restraints</b>	There is a lack of clarity on the technical requirements for active restraints, and when and where the provision of active restraints is required. There is an opportunity to prescribe a national standard for a minimum level of safety and amenity for active restraints for mobility aids in allocated spaces on conveyances. This includes mandatory safety belts, and to provide a definition for active restraining systems.
<b>55. Appropriate seats on booked services</b>	The requirements for booking accessible seats are no longer fit-for-purpose as they do not account for modern booking systems or adequately consider requirements to book seats appropriate for the diverse and nuanced needs of people with disability. There is an opportunity to update the accessibility requirements for booking appropriate seats to accommodate contemporary and future booking technology.
<b>56. Conveyance dwell times at stops</b>	Safety issues arise when a conveyance departs before people with disability are appropriately seated, which may discourage people with disability from using certain public transport modalities. There is an opportunity to include requirements on safe dwell times to ensure there is adequate time to allow people with disability to safely reach or leave their seats or allocated spaces when boarding or alighting.
<b>57. Stairs on trains</b>	The requirements for stairs are not specific to each type of public transport conveyance, and as a result they are not fit-for-purpose for trains as the provision of internal stairs on rail cars is not always achievable. There is an opportunity to update references to Australian Standards and set requirements for stairs specific to trains which provide greater accessibility features.

<b>58. Stairs on ferries</b>	There are no specific requirements for internal ferry stairs, posing a safety risk to people with disability who may not be able to traverse stairs safely .There is an opportunity to update references to Australian Standards for stairs on ferries to provide modality specific requirements that are aligned with industry standards and have additional accessibility features.
<b>59. Stairs on buses</b>	There are no specific requirements for stairs on buses, and the existing requirements are lacking accessibility features for people with disability to be able to use stairs on buses. There is an opportunity to update references to Australian Standards and provide specific requirements for stairs on buses which are aligned with industry standards and are accessible to people with disability.
<b>60. Doorway contrast and height</b>	There are no set requirements for the minimum safe height and luminance contrast of doorways on conveyances, which poses a safety risk for head strikes. There is an opportunity to set minimum safe height and luminance contrast requirements for solid and glazed doors, and to harmonise these requirements with the Premises Standards.
<b>61. Implementation approach</b>	Any agreed regulatory changes to the Transport Standards will require an implementation approach so stakeholders have certainty on the compliance obligations of public transport operators and providers. There is an opportunity to develop a compliance plan for implementing any revised Transport Standards with fit-for-purpose provisions and mechanisms to manage the compliance of existing assets.

## Glossary of terms and abbreviations

Term / abbreviation	Description
ABS	Australian Bureau of Statistics
AHRC	Australian Human Rights Commission
AMSA	Australian Maritime Safety Authority
AS	Australian Standard
Australia's Disability Strategy 2021-2031	The Strategy
Conveyance	As per Transport Standards section 1.12, Conveyance: A conveyance includes any of the following, to the extent that they are used to provide a public transport service: aircraft, buses or coaches, ferries, taxis, trains, trams, light rail, monorails, rack railways, any other rolling stock, vehicle or vessel classified as public transport within its jurisdiction by regulation or administrative action of any Government in Australia. A conveyance does not include charter boats (including water taxis), limousines (including chauffeured hire cars) self-drive rental cars.
Department	Australian Government Department of Infrastructure, Transport, Regional Development and Communications
DISER	Australian Government Department of Industry, Science, Energy and Resources
Disability Standards	Refers to the legislative instruments developed under the <i>Disability Discrimination Act 1992</i> , including the Disability Standards for Education 2005, Disability (Access to Premises – Buildings) Standards 2010 and the Disability Standards for Accessible Public Transport 2002.
DDA	<i>Disability Discrimination Act 1992</i>
Education Standards	Disability Standards for Education 2005
Infrastructure	As per Transport Standards section 1.18, Infrastructure: Infrastructure is any structure or facility that is used by passengers in conjunction with travelling on a public transport service. Infrastructure does not include any area beyond immediate boarding points (for example, bus stops, wharves, ranks, rail stations, terminals).
ITMM	Infrastructure and Transport Ministers Meeting
ITSOC	Infrastructure and Transport Senior Officials Committee
NSCV	National Standard for Commercial Vessels
NZ	New Zealand



Operators	As per Transport Standards section 1.20, Operator: An operator is a person or organisation (including the staff of the organisation) that provides a public transport services to the public or to section of the public. A public transport service may have more than one operator.
Premises Standards	Disability (Access to Premises – Buildings) Standards 2010
Premises	As per Transport Standards section 1.21, Premises: Premises are structures, buildings or attached facilities that an operator provides for passengers to use as part of a public transport service.
Providers	As per Transport Standards section 1.22, Provider: A provider is a person or organisation that is responsible for the supply or maintenance of public transport infrastructure. A provider need not be an operator.
Public transport service	As per Transport Standards section 1.23, Public transport service: A public transport service is an enterprise that conveys members of the public by land, water or air. A public transport service includes: community transport conveyances that are funded or subsidised by charity or public money and that offer services to the public; and foreign aircraft and vessels that carry passengers to, from or in Australia and that offer services to the public. A public transport service does not include a service that provides adventure travel (for example, white water rafting, ballooning or amusement park rides), except to the extent that the service operates to move the public from one location to another distant location.
RIS	Regulation Impact Statement
Steering Committee	National Accessible Transport Steering Committee
Taskforce	National Accessible Transport Taskforce
TGSI	Tactile ground surface indicator
The Whole Journey Guide	The Whole Journey Guide: A guide for thinking beyond compliance to create accessible public transport journeys
Transport Standards Guidelines	Guidelines: Equivalent Access under the Disability Standards for Accessible Public Transport 2002 (Cth)
Transport Standards	Disability Standards for Accessible Public Transport 2002
UNCRPD	United Nations Convention on the Rights of Persons with Disabilities

# Glossary of Australian Standards and other standards references

Following is a list of Australian Standards and other standards prescribed in the Transport Standards or in the reform options in this Consultation RIS.

Standard	Title
<b>Australian Standards</b>	
AS1428.1 (2001)	Design for access and mobility – General requirements for access – new building work
AS1428.1 (2009)	Design for access and mobility – General requirements for access – new building work
AS1428.1 (2021)	Design for access and mobility – General requirements for access – new building work
AS1428.2 (1992)	Design for access and mobility. Part 2: Enhanced and additional requirements – Buildings and facilities
AS1428.4.2 (2018)	Design for Access and Mobility, Part 4.2: Means to assist the orientation of people with vision impairment – Wayfinding signs
AS1428.5 (2010)	Design for access and mobility, Part 5: Communication for people who are deaf or hearing impaired
AS1428.5 (2021)	Design for access and mobility, Part 5: Communication for people who are deaf or hearing impaired
AS1735.12 (1999)	Lifts, escalators and moving walkways
AS1735.12 (2020)	Lifts, escalators and moving walkways
AS1742.11 (2016)	Manual of uniform traffic control devices, Part 11: Parking controls (MUTCD)
AS1742.7 (2016)	Manual of uniform traffic control devices, Part 7: Railway crossings
AS2890.5 (2020)	Parking facilities, Part 5: On-street parking
AS/NZS2890.6 (2009)	Parking facilities, Part 6: Off-street parking for people with disabilities
AS3856.1 (2021)	Hoists and ramps for people with disabilities – Vehicle mounted, Part 1: Product requirements
AS3962 (2020)	Marina Design
AS/EN301549 (2016)	Accessibility requirements suitable for public procurement of ICT products and services
AS/EN301549 (2020)	Accessibility requirements suitable for public procurement of ICT products and services
AS/NZS1158.3.1 (2020)	Lighting for roads and public spaces, Part 3.1: Pedestrian area (Category P) lighting - Performance and design requirements for unenclosed zones
AS/NZS1680.2.1 (2008)	Interior and workplace lighting, Part 2.1: Specific applications - Circulation spaces and other general areas, and outlines specific lux levels for various contexts and elements
AS/NZS3856.1 (1998)	Hoists and ramps for people with disabilities – Vehicle-mounted, Part 1: Product requirements

AS/NZS4282 (2019)	Control of the obtrusive effects of outdoor lighting
AS/NZS10542.1 (2015)	Technical systems and aids for people with disability - Wheelchair tiedown and occupant-restraint systems, Part 1: Requirements and test methods for all systems

#### Other standards

National Standard for Commercial Vessels (NSCV), Part C Design and construction, section 1 Arrangement, accommodation and personal safety, Chapter 6.16.3 Gangways.

## Access to Referenced Standards

Standards Australia is providing viewing access to referenced standards listed in the 'Glossary of Australian Standards and other standards references' to ensure that the broader community has an opportunity to review the standards as part of the Consultation RIS.

The standards will be available during the following dates only:

- Tuesday 19 April to Friday 20 May 2022 (5 weeks)
- Tuesday 7 June to Tuesday 9 August 2022 (9 weeks)

The public can register and view relevant standards via the standards portal at <http://3inv.short.gy/HLrJWJ>

For information on the Consultation RIS, please contact the Department at [DisabilityTransport@infrastructure.gov.au](mailto:DisabilityTransport@infrastructure.gov.au).

Please contact Standards Australia for standards portal system access at [success@standards.org.au](mailto:success@standards.org.au)

## Access to other standards

The National Standard for Commercial Vessels (NSCV), Part C Design and construction is available on the Australian Maritime Safety Authority (AMSA) website at:

<https://www.amsa.gov.au/about/regulations-and-standards/national-standard-commercial-vessels-nscv>

# Introduction

## Background

In August 2019, Transport Ministers agreed to reform the Transport Standards. Transport Ministers agreed work on the reforms would be overseen by the National Accessible Transport Steering Committee (Steering Committee) and led by the National Accessible Transport Taskforce (Taskforce).

The Steering Committee guides the reform work to ensure the selected reform areas reflect the guiding principles set by Ministers, addresses issues raised in Transport Standards reviews and harnesses opportunities to reflect technological progress and promote regulatory consistency. The Taskforce is responsible for identifying reform areas and developing the policy options in this Consultation RIS. Consultation by these bodies was undertaken to identify the possible areas of reform.

The 54 reform areas identified by the National Accessible Transport Taskforce were endorsed through the National Accessible Transport Steering Committee to be incorporated in Stage 2 and were endorsed by the Infrastructure and Transport Senior Officials Committee (ITSOC). Collectively, these bodies include representatives from the disability community, government and the public transport industry.

While this Stage of reforms includes 54 reform areas, the reform areas have been split into 61 chapters in this Consultation RIS to help you understand the content of the reforms and provide targeted feedback to individual issues.

Refer to Appendix 1 for additional information about:

- Disability Standards under the DDA
- application of the Transport Standards
- statutory reviews of the Transport Standards
- governance of the reform process.

## Problem statement

While there have been overall improvements and investments in accessible public transport since the commencement of the Transport Standards in 2002, work is still needed to maintain progress, reflect current and future needs and continue to remove discrimination in relation to public transport.

Transport Standards reviews recognise the Transport Standards are not optimal in their current form. Collectively the reviews identified a number of barriers impacting the effectiveness and efficiency of the Transport Standards, including:

- A lack of clarity of some provisions where requirements are unclear, or where there are inconsistencies with other standards or regulations.
- A need to reflect the current and future needs of Australian society, including:
  - Ensuring new and emerging forms of transport and technologies are adequately captured.
  - Reviewing references to older Australian Standards where they may be out-dated, not fit-for-purpose or inconsistent with modern standards.

- The prescriptive nature of some provisions reduces the ability for public transport operators and providers to implement innovative solutions.

These barriers can lead to situations where:

- Certain provisions place further barriers, or fail to remove barriers, to independent travel. This may reduce the ability of people with disability to fully participate in the community, gain meaningful employment and access services they need.
- It is impractical or unfeasible for transport operators and providers to comply with certain provisions, reducing the efficiency of those provisions and increasing the risk of unintentionally purchasing or funding non-compliant conveyances or infrastructure.
- Inconsistent outcomes or errors with interpreting the Transport Standards results in additional costs for people with disability and their representatives and operators and providers of public transport.

Compliance with the Transport Standards is the responsibility of public transport operators and providers across all states and territories. Reviews to the Transport Standards recognise the difficulties with meeting compliance target dates, and submissions to the reviews indicate it is unlikely that services and infrastructure will be 100 per cent compliant within the mandated timeframes.

However, it is difficult to monitor the progress of compliance as the Transport Standards currently do not include national reporting provisions.

## Rationale for government action

The Transport Standards are Australian Government legislation, supported by states and territories. Collective Government action will:

- Provide nationally consistent requirements for public transport operators and providers.
- Reduce discrimination for people with disability in relation to public transport services in line with the objectives of the DDA and the Transport Standards.
- Improve the accessibility of Australia's public transport services to achieve an inclusive Australian society in line with commitments of Australia's Disability Strategy 2021-2031.
- Modernise the Transport Standards to meet the current and future needs of Australians. For example, by incorporating technological advances, emerging technologies and future transport modes.
- Harmonise requirements between the Transport Standards and the Premises Standards to promote alignment and consistency, and to simplify regulatory requirements where the two standards intersect.
- Improve compliance with the Transport Standards by improving clarity and flexibility relating to how operators and providers can meet their obligations under the DDA.

## Cost-benefit analysis

The Department commissioned PriceWaterhouse Coopers (PwC) to undertake a cost-benefit analysis (CBA) of the Stage 2 reforms of the Transport Standards. The CBA assists stakeholders to better understand, at a national level, the impacts, including economic costs and benefits of the regulatory proposals of each reform.

To support the development of the CBA, a national consultation process to obtain data was conducted between October 2021 and January 2022, in the form of:

- **Stage 2 Reforms of the Transport Standards - Public Transport Survey** was distributed to state and territory Transport Departments, Office of Local Government and industry bodies, to capture the quantity of assets and the expected impacts associated with each reform area, by mode, jurisdiction and locality (metro or regional).
- **A disability community survey** to assist development of the economic benefits framework was sent to a broad range of disability organisations and individuals to understand their experience using public transport, the impact of the proposed reform areas, and how the proposed reforms may improve their use of public transport.
- **Stakeholder workshops** with state and territory Transport Departments, Office of Local Government, industry bodies, and disability representative organisations.

The results from the consultation process have been used to inform the CBA. In addition to the survey data, a range of additional data sources have been used including public transport patronage data and population projections.

Completeness and validation of data inputs:

- The CBA relies on the completeness and quality of the input data and assumptions, in particular for the comparability of outcomes by reform area. While data outliers were removed from the data sources for consistency, no third-party assessment as to the completeness or quality of the survey responses has been conducted. As such, comparison of CBA outcomes by individual reform area is not recommended.
- The implementation costs of the reforms included in the analysis are not indicative of true costs for public transport operators but are representative of economic costs borne by society as a whole.

The Department recognises the significant pressure on stakeholders over the last two years due to the COVID-19 pandemic. This, along with high levels of consultation requests often with tight timeframes, placed added pressure on stakeholders to respond and / or to provide large volumes of quality data in short timeframes.

Two overarching assessment approaches were developed to enable an assessment of the economic costs and benefits:

- **Definitional assessment** which applies to reforms that involve changes to wording of the Transport Standards. This assessment includes a high-level summary of the definitional reforms and their potential impacts.
- **Cost-benefit analysis** sets out both a qualitative and quantitative assessment to articulate the full economic benefits and costs of the reforms and, where possible, a monetised assessment using available information.

The results are presented as the incremental change from implementation of the Stage 2 Reforms, with the results set out in terms of the net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)).

To better understand the outcomes of the 54 reform areas, they have been grouped into five themes aligned with the key components of a customer journey in accessing and using transport networks, initiatives related to Transport Standards principles and others which improve services.

The results of the CBA indicate the **package of Stage 2 reforms produce overall positive economic outcome and there is a net benefit for the Australian community with a BCR of 2.05 and NPV of \$12,407 million**. Refer Table 2 below.

**Table 2: Stage 2 Reforms of the Transport Standards - Indicative CBA results (\$M, 2021/22, real, discounted at 7% over a 15-year appraisal period after implementation of all reforms, assessed incrementally)**

Reform theme	Amenity	Safety	Accessibility	Total economic benefits (\$ mil)	Compliance costs (admin.)*	Compliance costs (subst.)*	Total economic costs (\$ mil)	NPV	BCR
Transport Standards principles	177	1	384	562	22	1,054	1,075	(513)	0.52
Information, communication and wayfinding	11,236	24	2,512	13,772	21	8,008	8,029	5,743	1.72
Accessibility at stations, stops, wharves and access routes	5,052	138	1,057	6,246	15	1,102	1,117	5,130	5.59
Accessibility of boarding and alighting and egress of infrastructure	799	51	2,212	3,062	5	570	575	2,487	5.32
Accessibility in conveyances	0	33	493	525	7	959	966	(440)	0.54
<b>Total</b>	<b>17,264</b>	<b>247</b>	<b>6,657</b>	<b>24,168</b>	<b>68</b>	<b>11,693</b>	<b>11,761</b>	<b>12,407</b>	<b>2.05</b>

Note: The CBA does not consider impacts on airlines, rideshare, taxis, definitional reforms and a subset of reforms due to data availability including reforms 3, 48, 49, 21, 14, 15, 55 and 56.

Source: PwC analysis (2022) based on Stage 2 Transport Standards – Public Transport Survey, publicly available data, RLB cost estimates and CBA guidelines.

The reform areas are expected to have a broad range of benefits in addition to those estimated through available CBA methodologies. To capture the broader societal benefits of the reforms within the economic benefit and cost framework, the CBA consultation process sought to understand how people with disability experience using public transport and how the reforms could improve their use of public transport - through a workshop with the disability sector and a survey. The findings from these have been used to identify a range of qualitative benefits associated with the Stage 2 reforms such as enhanced independence and inclusion, improved health outcomes, increased opportunities for education and employment and other social benefits.

A CBA has been provided for each reform area regulatory option, regulatory sub-options, and non-regulatory options that demonstrate clear stakeholder impact. To inform development of the Decision RIS a CBA will be undertaken for all recommended reform options.

CBA result provided in each reform chapter include:

- Qualitative benefits assessment - an estimate of the social benefits that may be achieved through each reform within the economic benefit and cost framework.
- Qualitative and quantitative cost assessment - qualitative and quantitative compliance costs\* for each reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

\*Compliance costs (administrative) reflect costs incurred by regulated entities primarily to demonstrate compliance with the regulation such as record keeping, etc. Compliance costs (substantive) reflect costs incurred to deliver the regulated outcomes being sought such as capital, operations and maintenance costs, client costs and contingency.

Further information on the CBA, including the CBA is provided at Appendix 2.

## Decision making

The Infrastructure and Transport Ministers Meetings (ITMM) facilitates work between the Australian Government, state, territory and local governments to drive national reforms that improve the safety and productivity of Australia's transport and infrastructure systems.

Decisions on the reform options will be made through consideration of a Decision RIS, which will be presented to ministers through the ITMM process. Ministers will also decide on the implementation approach for the whole package of reforms (Stages 1 and 2), including whether they should be applied retrospectively (to all assets regardless of age) or prospectively (new assets acquired after a certain date), as part of their decision on the final scope of the reforms in mid-2023.

## Regulatory Impact Assessment (RIA) process

Inter-governmental decision-making bodies, including ITMM, must subject all proposed regulatory amendments to a Regulatory Impact Analysis (RIA), as required by the Office of Best Practice Regulation (OBPR). The RIA is a two-stage process:

1. Consultation with stakeholders on the proposed policy reforms via a Consultation RIS.
2. Analysis and presentation of the recommended policy reforms to inform the decision-making body via a Decision RIS.

## Consultation

The purpose of this Consultation RIS is to seek feedback from stakeholders on the merits of the proposed policy options, including the associated impacts, costs and benefits. Feedback obtained through consultation will be used to inform the evidence-based analysis ITMM requires in order to decide the final Stage 2 reform areas.

Public consultation on the Stage 2 Consultation RIS will be broad and include:

- the general public, specifically people with disability
- disability organisations and advocacy groups
- operators and providers of public transport, including peak industry bodies
- state, territory and local governments
- Australian Government departments, agencies, statutory authorities and boards.

Consultation questions are provided at the end of each chapter, specific to each of the reform areas. Refer to the section 'How to read and / or respond to this Consultation RIS' for further information.

Public consultation on the Stage 2 reforms will be open for comments from 15 March to 9 August 2022.

Stage 2 public consultation will be undertaken through a variety of accessible and readily available methods, including:

- in writing, in video or audio recording by email to [DisabilityTransport@infrastructure.gov.au](mailto:DisabilityTransport@infrastructure.gov.au)
- by telephone (free call) to 1800 621 372
- through an online survey available at:  
<https://www.infrastructure.gov.au/TransportAccessibility>



- participating in virtual (online) consultations held from 15 March to 9 August 2022.

For people who have English as an additional language and require support to read or respond to the Consultation RIS, the Translating and Interpreting Service National (TIS National) is available to provide support in more than 120 languages and dialects. TIS National can be contacted on 131 450.

Further information on how to be a part of public consultation for Stage 2 reforms of the Transport Standards is available on the Department's website at:

<https://www.infrastructure.gov.au/TransportAccessibility>

## Next steps

Following consultation on the Stage 2 reform areas, the Australian Government will prepare a Decision RIS for consideration by ITMM.

The Decision RIS is not required to be made publically available prior to decisions by ITMM. However, where the Australian Government may require technical clarification on a reform area prior to a decision being made the Australian Government may seek clarification from relevant stakeholders, where necessary.

The Decision RIS will be made publicly available after consideration by ITMM. The OBPR will also publish the Decision RIS on its website, along with an OBPR assessment of its compliance with the RIA requirements.

# Part 1: Transport Standards principles

The following reform areas are included in this Part:

1. Reporting
2. Equivalent Access
3. Rideshare
4. Dedicated school buses

# 1. Reporting

Note, compliance reporting of existing assets is also being considered as part of Part 6: Implementation. There are synergies between the two chapters and it is recommended that both reform areas are considered in conjunction.

## Issue

Article 31 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) requires parties to collect appropriate information, including data, to enable them to implement policies to give effect to the UNCRPD. The Australian Government is currently unable to effectively report data on public transport accessibility as there is currently no reporting framework in the Transport Standards.

The Australian Government collects transport compliance data through submissions to reviews of the Transport Standards, which occurs every five years. As there is no nationally consistent approach to reporting, compliance and interpretation of the Transport Standards differs across state and territories and operators and providers. As such, the data is inconsistent, mainly qualitative and incomplete. Further, the data does not allow for a nationally consistent view of compliance against the Transport Standards or how to achieve it. State and territory governments and operators and providers rely on their own mechanisms to identify priority areas for investment to increase accessibility and compliance. This has resulted in national inconsistency in accessibility upgrades.

A major challenge of the Transport Standards Third Review identified difficulty with meeting the Transport Standards compliance targets. National compliance reporting would complement reviews of the Transport Standards by providing a repository of quality compliance data to assist with measuring the efficiency and effectiveness of the Transport Standards.

Australia's National Disability Strategy 2021-2031 (the Strategy) was launched in 2021. The Strategy recognises the role accessible transport systems play in achieving an inclusive Australian society to ensure people with disability can fulfil their potential, as equal members of the community. The Australian Government is required to measure, track and report on outcomes for people with disability to show what progress is being made against each Policy Priority in the Strategy.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

The Transport Standards would remain unchanged and no guidance material would be issued.

## Non regulatory option: Self-reporting against compliance plans

The Australian Government would, through guidance, encourage operators and providers to:

- publish plans on compliance with the Transport Standards and
- publish progress reports based on their compliance against these plans.

Compliance plans would outline compliance data for new or upgraded assets, set out target dates for when existing non-compliant assets will reach compliance and provide strategies for how operators and providers will achieve this. Compliance plans should also establish feedback processes and reports to enable the public to provide input on the compliance plans.

Progress reports should be published at regular intervals between the publication of compliance plans, to update the public on how operators and providers have progressed towards meeting the compliance plan targets.

To do this, the Australian Government would develop guidance for what data and information should be included in the compliance plans and progress reports, and what format compliance plans and progress reports should be published in. Guidance would be developed in consultation with state and territory governments, operators and providers and the disability community.

Components of this guidance may include:

- consistent definition of terms
- frequency of renewing compliance plans and providing compliance reports
- templates to support national consistency in reporting
- guidance on how compliance plans and reporting could be published, ensuring they meet accessibility requirements
- how data will be used.

The guidance would allow for scalability, recognising that public transport operators and providers have different capacity to develop and implement compliance plans and progress reports.

The Australian Government may provide a central repository of published compliance plans and progress reports.

## Regulatory option: Mandatory reporting on assets

The Australian Government would work with state and territory governments, operators and providers and the disability community to:

- develop a national compliance reporting framework (the framework) and
- establish a database to receive and store compliance data for all public transport assets.

The framework could include information on, but not be limited to:

- the purpose and methodology of data collection
- responsibilities for data collection and collation, incorporating scalability considerations of responsible reporting entities
- responsibilities for data storage and dissemination (if required)
- how data will be stored and used, including the potential publication of data
- the scope of aspects / elements of the Transport Standards to be measured
- consistent definitions of terms
- frequency of reporting
- guidance on how to achieve consistent and / or comparable data

- guidance on how to use the framework.

The framework would require operators and providers to:

- report identification information for an asset and whether it is compliant with the prescriptive standards or not
- report any cases where the assets do not meet the select prescriptive standards in the Transport Standards, and how the asset meets the requirements of the Transport Standards through unjustifiable hardship, direct assistance or equivalent access.

The Australian Government would work with state and territory governments and operators and providers to incrementally expand the scope of the reporting regulations, with the aim to eventually cover all standards and to improve the quality of data being reported.

To assist with the development of the framework there are three proposed regulatory approaches for determining the scope of which assets would be reported on under the framework.

### **Option 1 Report compliance on new or substantially refurbished or upgraded assets only**

Report data **for all new or substantially refurbished / upgraded conveyances, infrastructure and premises** (except premises to which the Premises Standards apply) that are brought into use for public transport service in line with Transport Standards section 32.1 Effect and application of these Standards.

Operators and providers would only need to report on assets that meet the circumstances set out in Transport Standards section 32.1 Effect and application of these Standards. That is, where an asset meets one of the conditions in section 32.1, operators and providers will be required to report compliance of the asset against the Transport Standards.

#### **32.1 Effect and application of these Standards**

These Standards apply, on and from the date they come into effect under section 31 of the *Disability Discrimination Act 1992*, to:

- (a) public transport services provided with:
  - (i) newly constructed premises or infrastructure; or
  - (ii) conveyances entering service after these Standards come into effect; or
  - (iii) premises, infrastructure or conveyances that have undergone substantial refurbishment or alteration; or
  - (iv) additional or replacement equipment in premises and infrastructure or on conveyances; and
- (b) new or revised ancillary services that are provided as an adjunct to the public transport operation; and
- (c) new or updated information provided to the public.

This section pertains to conveyance, premises and infrastructure.

Reporting requirements in the Transport Standards only apply to assets regulated by the Transport Standards.

For example:

- Where a train platform is substantially upgraded, this would trigger compliance reporting. An operator or provider would need to identify the elements of the Transport Standards that cover the train platform and provide data on the level of compliance with the prescriptive standards of these elements in the Transport Standards.
- An operator or provider would not need to provide data on the level of compliance with the Transport Standards where assets are not covered by the Transport Standards, such as a toilet on a train platform. Toilets on train platforms are required to comply with the Premises Standards rather than the Transport Standards. As such, an operator and provider would not need to report on how the toilet meets compliance requirements under the Transport Standards.

### **Option 2 Report compliance data on new or substantially refurbished and upgraded assets AND all assets for select sections of the Transport Standards only**

Report data for:

- **All new or substantially refurbished / upgraded conveyances, infrastructure and premises** (except premises to which the Premises Standards apply) that are brought into use for public transport service in line with section 32.1.
- **Specific parts or sections in the Transport Standards** (for example Parts 8, 11, 17 and sections 9.1 and 16.1 etc.).

Transport operators and providers would be required to report the level of compliance of their assets against certain parts or sections of the Transport Standards (not the entire Transport Standards). Applicable sections or parts of the Transport Standards would be identified through consultation with stakeholders during development of the compliance reporting framework.

### **Option 3 Report compliance data on new or substantially refurbished and upgraded assets AND for specific assets only**

Report data for:

- **All new or substantially refurbished / upgraded conveyances, infrastructure and premises** (except premises to which the Premises Standards apply) that are brought into use for public transport service in line with section 32.1.
- **Specific transport assets covered under the Transport Standards** (for example trams, bus stops, taxi ranks, websites and digital information etc.).

Transport operators and providers would be required to report the level of compliance of each transport asset by reporting the extent that each asset meets the relevant prescriptive requirements of the Transport Standards. This may not include all transport assets or cover all sections of the Transport Standards. Applicable assets would be identified through consultation with stakeholders during development of the compliance reporting framework.

For example, an operator or provider may need to report the extent that their buses comply with the prescriptive requirements that relate to buses in the Transport Standards rather than reporting individual compliance on handrails, allocated spaces or manoeuvring areas that are components of a bus.

## Impact analysis

### Status quo

#### Impacts

- Challenges associated with collecting data and measuring national compliance with the Transport Standards will continue.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- Costs will be incurred to establish a national repository of data (both upfront and ongoing maintenance / resourcing costs).
- To the extent that guidance is followed, operators and providers will incur costs to develop compliance plans and progress reports where these processes are not already in place. Reporting compliance to any extent will incur costs.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt best practice guidance for self-reporting on compliance against the Transport Standards.
- As operators and providers, local governments and state / territory governments are responsible for developing and implementing their own compliance plans, this may weaken the level of accountability and transparency in the process. This may create a perceived conflict of interest whereby in some instances, the compliance targets are set by the parties that are required to comply with them.
- As state and territory governments, operators and providers are responsible for bespoke compliance plans, this will not achieve national consistency of reporting compliance. The scope and level of detail of compliance data will vary, reducing the ability to measure comparative compliance across jurisdictions and modes of transport.
- There is no certainty that compliance plans will be developed or that associated self-reporting compliance of assets will occur due to the discretionary nature of this option.

#### Benefits

- If compliance plans and progress reports are completed by operators and providers, and to the extent the data is valuable, comprehensive and comparable, this would assist the Australian Government to:
  - uphold Australia's obligations under the UNCRPD and promote Australia's Disability Strategy in ensuring the equal rights of people with disability
  - effectively measure and report on national compliance with the Transport Standards
  - inform decisions on how to improve compliance of public transport and reduce discrimination for people with disability
  - assess the efficiency and effectiveness of the Transport Standards.

- Implementation costs may be incurred to the level that operators and providers implement guidance. Operators and providers would be able to manage the implementation (and related costs) to suit operational requirements, including staging implementation.
- Guidance on compliance reporting would assist transport operators and providers to meaningfully report compliance data.
- Self-reporting requirements are flexible, which allows for scalability and assists smaller operators and providers to comply with reporting requirements. This also allows for implementation plans to consider planned maintenance and regular upgrade cycles.

### **CBA on non-regulatory option: Self-reporting against compliance plans**

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform areas on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

#### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** The Australian Government would, through guidance, encourage operators and providers to publish plans on compliance with the Transport Standards and publish progress reports based on their compliance against these plans. These plans should enable safety issues to be more easily identified and any non-compliance related to safety standards to be identified. This benefit would be realised only if operators implement the recommended guidance.
- **Amenity:** If operators and providers implement the recommended guidance this should improve ease of use and the experience of both existing and new transport users with disability.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion, greater sense of connection to community and place and improved access to services. These benefits would be realised only if operators and providers implement the guidance.

These benefits would be realised only if operators and providers implement the recommended guidance.

#### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Administrative costs associated with publication of plans on compliance and progress reports to align with recommended guidance.
- **Qualitative compliance costs (substantive):** Not applicable
- **Monetised compliance costs (administrative):** 1.9
- **Monetised compliance costs (substantive):** Nil



## Regulatory option

### Impacts

- Costs will be incurred to establish a national repository of data (both upfront and ongoing maintenance / resourcing costs) and to create systems to facilitate national data storage and dissemination. Any new data storage and analysis function will require resourcing and will have an ongoing financial impact for the party responsible.
- Costs will be incurred to audit transport assets, collect and collate compliance data. Costs will vary depending on the scope of assets included in mandatory reporting and the extent to which operators and providers already report compliance with the Transport Standards. Where a provider or operator does not currently have internal reporting in place, they will incur upfront costs to establish and maintain these processes.
- The impact of reporting may be more onerous for smaller operators and providers due to lower resourcing capacities. This can be mitigated by including a sliding scale of entity size and capacity in reporting requirements.
- Where negotiations are required to determine asset ownership (for example, between transport operators and providers and local road authorities in tram environments) there may be time and resourcing implications.
- There may be unintended consequences if operators and providers are encouraged to focus funding and resources on meeting reporting requirements and undertaking auditing and data reporting activities, rather than upgrades that would improve accessibility more generally across transport networks.
- A current temporary exemption to the Transport Standards may be rendered invalid when the new Transport Standards come into effect if the exemption relates to a section of the standards that has been amended. This may create ambiguity of the regulatory obligations and requirements to report these formerly exempt assets for operators and providers.
- If an operator or provider audit identifies significant non-compliance there may be a financial or administrative burden to rectify non-compliance in line with the requirements of the Transport Standards.

### Benefits

- Compliance reporting would enable the Australian Government to:
  - uphold Australia's obligations under the UNCRPD and promote Australia's Disability Strategy in ensuring the equal rights of people with disability
  - effectively measure and report on national compliance with the Transport Standards
  - inform decisions on how to improve compliance of public transport and reduce discrimination for people with disability
  - assess the efficiency and effectiveness of the Transport Standards.
- Implementation will provide consistency and comparable measure of compliance of public transport infrastructure and assets across jurisdictions and modes of public transport. This will improve the confidence of people with disability to use public transport, especially across different jurisdictions.
- Operators, providers and state and territory governments will benefit by having a clear framework setting out their responsibilities in for reporting.
- Consistent data will assist transport operators and providers to identify areas for funding and upgrades.

- Fulsome compliance reporting will improve the value and integrity of data and the ability to assess the efficiency of the Transport Standards. This will have a positive benefit overall by improving the efficiency for operators and providers' compliance with the Transport Standards. This has the potential to reduce the costs of compliance and may allow resources to be allocated more effectively and help identify reforms to the Transport Standards where there is greatest area of need.
- Significant non-compliance by operators and providers would be identified and rectification required in the interest of all passengers, particularly people with disability.

### CBA on regulatory options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform areas on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

#### Option 1 Report compliance on new or substantially refurbished or upgraded assets only

##### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** A nationally consistent view on compliance reporting for Australia's public transport networks should enable safety issues to be more easily identified and any non-compliance related to safety standards to be enforced.
- **Amenity:** Establishing consistent standards for terminology used across all public transport modes should improve ease of use and the experience of both existing and new transport users with disability.
- **Accessibility:** A nationally consistent compliance framework should also allow states and territories to identify priority areas for investment to increase accessibility for all transport users with disability.
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion, greater sense of connection to community and place and improved access to services.

These benefits would only be realised for users experiencing new or upgraded assets.

##### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** The change in requirements in reporting may require significant additional administrative compliance costs per annum.
- **Qualitative compliance costs (substantive):** Not applicable
- **Monetised compliance costs (administrative):** 10.4
- **Monetised compliance costs (substantive):** Nil

**Option 2 Report compliance data on new or substantially refurbished and upgraded assets AND all assets for select sections of the Transport Standards only**

Refer to CBA for Option 3 for indicative impacts for reporting on existing assets.

**Option 3 Report compliance data on new or substantially refurbished and upgraded assets AND for specific assets only**

*Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** A nationally consistent view on compliance reporting for Australia’s public transport networks should enable safety issues to be more easily identified and any non-compliance related to safety standards to be enforced.
- **Amenity:** Establishing consistent standards for terminology used across all public transport modes should improve ease of use and the experience of both existing and new transport users with disability.
- **Accessibility:** A nationally consistent compliance framework should also allow states and territories to identify priority areas for investment to increase accessibility for all transport users with disability.
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion, greater sense of connection to community and place and improved access to services.

These benefits would be realised for users experiencing new or upgraded assets, and specific transport assets under the Transport Standards - impacting a greater proportion of the population.

*Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** The change in requirements in reporting may require significant additional administrative compliance costs per annum.
- **Qualitative compliance costs (substantive):** Not applicable
- **Monetised compliance costs (administrative):** 15.5
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. How could the impact on you change if compliance data is reported for sections of the Transport Standards (regulatory option 2) or for whole transport assets (regulatory option 3)?
2. What is your preferred option: status quo, non-regulatory option, or regulatory option 1, 2 or 3? Why?
3. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of any option?
5. Would you provide compliance data to the Australian Government if it was discretionary?
6. What is your experience reporting on public transport accessibility (if applicable)?
7. Do you think compliance data on the Transport Standards should be made public? If yes, what would you use the data for?

## 2. Equivalent access

### Issue

The Transport Standards provide three means of compliance for operators and providers of public transport to remove discrimination from public transport services:

1. Meet the prescriptive standards.
2. Apply equivalent access.
3. Rely on the exception of unjustifiable hardship, which may be challenged in court.

Equivalent access was intended to provide operators and providers flexibility to use accessible innovative solutions to achieve an equivalent level of accessibility outcome in situations where compliance with the technical requirements of the Transport Standards is difficult. Equivalent access was also designed to provide people with disability with equivalent safety, amenity, availability, comfort, convenience dignity and affordability.

Feedback from some stakeholders to the third review of the Transport Standards identified that equivalent access is a reasonable mechanism to provide accessible solutions, while others noted it has limited application and effectiveness due to issues with design. Operators and providers have raised concerns there is a lack of legal certainty / assurance around whether an equivalent access solution will suffice to fulfil obligations under the Transport Standards. This results in some operators and providers avoiding equivalent access solutions.

There is no independent assurance process to assess whether an equivalent access solution complies with the Transport Standards, except through a court challenge. This places a burden on complainants and will only provide legal certainty for that particular set of circumstances or largely similar circumstances.

Operators and providers also consider that without legal certainty, an equivalent access solution is only a 'point in time' assessment and that stakeholder views may change at a later date that could result in a future complaint.

Some operators have advised that equivalent access does not provide the flexibility that was originally intended in order to develop alternate solutions, and that as a result its application across state and territory public transport services has been limited.

Operators and providers have raised concerns that Transport Standards section 33.4, Consultation about proposals for equivalent access, does not provide adequate guidance and assurance on whether the consultation they undertake is compliant with the Transport Standards. In addition, operators and providers have expressed there is a lack of understanding about the definition of co-design and how it can be used as part of an equivalent access solution, particularly how these requirements would change depending on the scale of the project. This contributes to their hesitation to seek equivalent access solutions in situations where compliance with the technical standards is difficult to achieve.

If non-compliance with the Transport Standards cannot be met by equivalent access, an assessment can be made as to whether the non-compliance meets the Transport Standards criteria for unjustifiable hardship. However, there is also no approval process to validate unjustifiable hardship exemptions, which means the use of this exemption is open to a challenge in court. As is the case with equivalent access solutions, a final determination can only be made by the courts if a formal complaint is lodged. Operators and providers have highlighted this lack of legal certainty is a concern for them.

The disability community is less concerned about requiring legal certainty and more focused on providing surety to the community that equivalent access solutions have involved co-design and consultation, and have been agreed by the majority, if not all, of the people involved in the process.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards sections 1.16 and 33.3 Equivalent access, would remain unchanged and no guidance would be issued.

The definition for equivalent access is provided at Division 1.2 Meaning of important terms, section 1.16:

#### 1.16 Equivalent access

- (1) Equivalent access is a process, often involving the provision of direct assistance, under which an operator or provider is permitted to vary the equipment or facilities that give access to a public transport service, so long as an equivalent standard of amenity, availability, comfort, convenience, dignity, price and safety is maintained.
- (2) Equivalent access does not include a segregated or parallel service.

Compliance with the Transport Standards may be achieved through equivalent access, as per section 33.3 Equivalent access:

#### 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.

## Non regulatory option

The Australian Government would develop web-based repository of equivalent access successfully applied by operators and providers.

The repository would provide a central collection point for examples of the application of equivalent access to inform stakeholders (i.e. other operators and providers) of possible applications in their own settings. The repository would also inform the disability community of where and how equivalent access is applied.

The onus for providing examples would rest with operators and providers. Examples may include (but are not limited):

- The cohorts / groups that were involved in the process.
- Details surrounding processes where stakeholders reached agreement on the meanings of the equivalent access terms.
- The steps and tools used throughout the process to reach the agreed solution.
- Any other relevant documentation which would provide the community the confidence that the agreed outcomes were the result of a robust equivalent access process.

The scalability of examples provided would depend on the size and complexity of the process involved. Documentation surrounding larger processes, involving substantial cost would be expected to be more extensive and detailed than documentation surrounding smaller processes.

The website would contain a disclaimer advising that the examples provided had not been legally tested and were not endorsed by governments.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to assist operators and providers in using and navigating the repository.

## Regulatory option

The Transport Standards would be amended to include a new alternative approach for equivalent access, such as a performance solution process. If an alternative approach is agreed by Transport Ministers, an appropriate peer review, certification mechanism and certification body would need to be developed. This would be developed in consultation with the disability community, state and territory governments and the transport industry.

This alternative process would include co-design and consultation with the disability community and set out certification methods to provide operators and providers with legal certainty and assurance that an alternative solution is fit for purpose and not discriminatory.

The proposed process could be similar to the performance solution process utilised under the National Construction Code (NCC). A performance solution provides a tailored solution to meet the intended objective of performance requirements, must comply with these requirements and be verified by an assessment method.<sup>7</sup>

Many of the NCC performance requirements that relate to accessibility could be modified to align with the Transport Standards, as well as developing new additional, more specific, performance requirements to address Transport Standards requirements not covered in the NCC (e.g. infrastructure, conveyances, connections between transport nodes, rest points, boarding areas, lighting, fixtures and fittings, fare gates, ticketing, information, etc.).

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<sup>7</sup> The National Construction Code, Part A2 Compliance with the NCC, 21 January 2022, <https://ncc.abcb.gov.au/editions/2019-a1/ncc-2019-volume-three-amendment-1/section-governing-requirements/part-a2>

A process suitable for the development of performance solutions under the Transport Standards could include the following:

1. Prepare a performance-based design brief (a document developed in collaboration with key stakeholders) that will be used as the platform upon which the proposed design is constructed
2. Carry out analysis and co-design that includes consultation with relevant stakeholders, including the disability community
3. Evaluate results
4. Prepare draft report
5. Peer review draft report
6. Prepare final report
7. Certify the process.

This process builds on the NCC performances requirements and is suitable for developing simple and complex performance solutions. This is achieved by requiring stakeholders to collaborate and develop an agreed pathway for the design process to follow in order to produce an acceptable outcome.

The detail and depth of analysis to support a performance solution should reflect the complexity and impact of the solution. Larger performance solution projects would require more comprehensive consultation and co-design to that of smaller performance solution projects.

Performance solution reports should be prepared by access professionals with appropriate expertise and qualifications in accessibility, building compliance and public transport to ensure appropriate accessibility outcomes are achieved. In conjunction with public transport operators and providers and members of the disability community, the access professionals would be required to:

- document the performance requirement to be achieved
- document the performance solution process undertaken to achieve the requirement
- demonstrate how co-design and consultation with the disability community was incorporated into the process steps.

An appropriate peer review, certification mechanism and certification body would be required to validate the performance solution process. This is to ensure the integrity of the process and appropriate accessibility outcomes are achieved with consistent decision making.

Under a proposed new process, operators and providers could utilise their own accessibility experts to peer review the performance solution reports or seek an independent expert to undertake the peer review process on their behalf.

Additionally, a process for final certification would need to be developed. This may be achieved through establishing new certification bodies (such as a national body to oversee certification processes), utilising existing bodies (such as accessibility reference groups or technical committees) or through a process based on state and territory governments nominating an appropriate existing jurisdictional body to certify performance solutions.

Certification bodies would need to have flexibility in their terms of reference and governance processes to allow for scalability of performance solutions.

## Impact analysis

### Status quo

#### Impacts

- There would likely be continued reluctance from operators to seek equivalent access solutions due to concerns about the lack of assurance and legal certainty with the current equivalent access process in the Standards. There may also be continued difficulty in responding to technological change, especially in situations where requirements in the Transport Standards are not in step with technological advances.

#### Benefits

- Operators and providers who currently successfully apply equivalent access provisions to achieve stakeholder agreed solutions would continue to do so. Disability community members would also continue to benefit where those solutions are developed.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred by operators and providers to gather and provide details concerning equivalent access examples to be uploaded onto the equivalent access repository website. Financial costs would also be incurred by the Australian Government in establishing and maintaining the repository.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the solutions. The impact on people with disabilities is that accessible solutions continue not to be made and discrimination exists.

#### Benefits

- The establishment of an equivalent access repository will benefit all stakeholders as the examples may provide assurance that an equivalent access solution that is correctly pursued will result in an equivalent level of accessibility. The examples may lead to increased clarity, assurance and guidance surrounding consultation processes and the use of co-design.
- Operators and providers could incur reduced capital investment impacts from increased flexibility and ability to use equivalent access solutions. Positive impacts may occur in cases where equivalent access solutions arising from the review of repository examples provide increased accessibility in cases where technological changes have occurred faster than legislative change.
- Providing examples of when and how equivalent access can be used, may assure the disability community that equivalent access solutions involve transparent and robust consultation and co-design.

### CBA for non-regulatory option

A CBA was undertaken for each reform areas to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform areas on a national basis.



The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

#### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Not applicable.
- **Accessibility:** Not applicable.
- **Other benefits:** Potential efficiencies gained through a market-based system.

#### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Financial cost to public transport providers / managers to conduct assessments and a cost to the Australian Government to manage additional risk associated with change from regulatory standards to performance-based measures.
- **Qualitative compliance costs (substantive):** Not applicable.
- **Monetised compliance costs (administrative):** 3.7
- **Monetised compliance costs (substantive):** Nil

## Regulatory option

### Impacts

- As no alternative performance solution process currently exists, the establishment of a peer review and certification process would involve costs. The magnitude of these costs will vary according to proposed options.
- The establishment of a new national body to oversee a national certification process would likely involve cost. Feasibility studies would need to be undertaken to ascertain establishment and ongoing operational costs.
- Additional costs would be incurred by operators and providers to prepare the required documentation to support a performance solution that meets equivalent access.
- The establishment of a process based on existing jurisdictional bodies would likely involve less cost as these bodies are already in place. However, costs would still be incurred in ensuring the bodies are equipped to undertake their additional roles, and to ensure all bodies provide nationally consistent outcomes.
- If a performance solution process is adopted, the disability community would need assurance that this major reform would not result in reduced access as compared to access provided as a result of meeting the prescriptive standards.

### Benefits

- Operators and providers may see a performance solution process as providing greater assurance and flexibility in developing solutions in situations where there is limited ability to meet prescriptive standards.
- Operators and providers would potentially incur reduced capital investment impacts from increased flexibility and ability to develop alternative performance solutions. There may also be positive impacts from increased ability to devise innovative solutions in cases where there

is rapid technological change ahead of legislative changes. The performance solution process could yield accessible benefits over and above what would be achieved by relying on unjustifiable hardship.

- The disability community may see the establishment of a national body as providing assurance of nationally consistent outcomes. The involvement of jurisdictional ministerial disability bodies as part of the jurisdictional option may alleviate concerns surrounding a lack of national consistency.
- People with disability will be directly impacted by performance solution processes. Undertaking of robust co-design and consultation with people with disability throughout the performance solution process will ensure that people with disability are fully involved, informed and are part of the agreed solution.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform areas on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

#### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Not applicable.
- **Accessibility:** Not applicable.
- **Other benefits:** Provision of a centralised database allows public transport providers to access information in their own settings more freely.

#### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Avoided financial costs for public transport providers / managers if compliance is not required. Additional costs to the Australian Government to develop the guidance and manage the database.
- **Qualitative compliance costs (substantive):** Not applicable.
- **Monetised compliance costs (administrative):** 1.2
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you been involved in developing equivalent access solutions? Have these been successful?
5. Does Transport Standards section 33.3 Equivalent access, provide sufficient clarity and guidance in relation to consultation requirements?
6. The proposed performance solutions process (regulatory option) involves professional certifiers signing-off alternative access proposals. What qualifications and / or attributes should certifiers possess before they undertake this work?
7. What has been your experience applying equivalent access solutions?
8. Would you accept alternative accessible solutions if the development of proposed solutions included adequate consultation and participation with the disability community?
9. Do you currently use the equivalent access provision provided at Transport Standards: section 33.3 Equivalent access?

## 3. Rideshare

### Issue

Rideshare, also referred to as ride-sourcing and ride-hailing, is a form of point to point transit service with which a member of the public typically uses a smartphone application to arrange a ride for a fare or charge in a small passenger vehicle. This service is distinct from car sharing, where a user rents a small passenger vehicle for a short period of time, and carpooling where a car journey is shared by the driver with passengers having similar origins and destinations without any fee or charge, except perhaps a contribution towards vehicle expenses.

The Transport Standards are not clear in whether rideshare is covered under the Transport Standards. Therefore, this leads to ambiguity in relation to the obligations of rideshare service providers.

Concerns have been raised by stakeholders through submissions to the third review of the Transport Standards about the rideshare model, including:

- people who cannot or do not use smartphones are unable to book rideshare services
- people who cannot or do not use credit card or smartphone payment options and are unable to pay for booked services
- people who require a wheelchair accessible vehicle and passengers who travel with a guide dog frequently report being refused service or unable to access services
- there are no staff training requirements for rideshare drivers or other staff to assist people with disability to access rideshare services.

This feedback indicates rideshare services are not providing access to the varying needs of people with disability on public transport or are meeting the purpose of the DDA to eliminate discrimination against people with disability. Public transport users and people with disability should be afforded the confidence that the Transport Standards will ensure all public transport services, including future modes of transport, do not discriminate against people with disability.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards Division 1.2, Meaning of important terms, would remain unchanged and no new guidance would be issued.

**1.12 Conveyance**

- (1) A conveyance includes any of the following, to the extent that they are used to provide a public transport service:
  - (a) aircraft;
  - (b) buses or coaches;
  - (c) ferries;
  - (d) taxis;
  - (e) trains, trams, light rail, monorails, rack railways;
  - (f) any other rolling stock, vehicle or vessel classified as public transport within its jurisdiction by regulation or administrative action of any Government in Australia.
- (2) A conveyance does not include the following:
  - (a) charter boats (including water taxis);
  - (b) limousines (including chauffeured hire cars);
  - (c) self-drive rental cars.

**1.23 Public Transport Service**

- (1) A Public transport service is an enterprise that conveys members of the public by land, water or air.
- (2) A public transport service includes:
  - (a) community transport conveyances that are funded or subsidised by charity or public money and that offers services to the public and;
  - (b) foreign aircraft and vessels that carry passengers to, from, or in Australia and that offer services to the public
- (3) A public transport service does not include a service that provides adventure travel, except to the extent that the service operates to move the public from one location to another distant location.

**Non regulatory option**

Through guidance and an education campaign this option will provide advice on requirements of transport services to ensure conveyances are compliant with the Transport Standards. This guidance would encourage future transport modes to consider accessibility requirements during the design of their services to ensure these services are Transport Standards compliant when entering the Australian market.

Given the similarities between the services provided by taxis and rideshare, guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include requirements for services that provide taxi travel (such as rideshare) under the Transport Standards. Advice would also raise awareness of areas where operators and providers can improve the accessibility of their services.

Specific guidance may include the following:

- Rideshare conveyances without a taxi registration number may potentially comply with Transport Standards section 17.7, Taxi registration numbers, by instead providing the vehicle's registration number in raised lettering.
- Booking platforms for taxi travel services should ensure response times for accessible vehicles are the same as for other conveyances providing taxi travel.
- Accessible rideshare conveyances may comply with the requirements for accessible taxis.
- Rideshare conveyances may comply with all other requirements for conveyances in the Transport Standards and rideshare operators should comply with any other requirements related to the provision of public transport.
- Booking and payment platforms must be accessible.
- Including wheelchair accessible vehicles in the rideshare fleet will help to ensure their service is accessible to all passengers.

An education campaign would be developed targeted at the rideshare sector, providing advice on their responsibilities under the DDA to eliminate discrimination as far as possible, and provide clarity and certainty on their responsibilities to ensure compliance as a public transport operator and provider under the Transport Standards. The aim of the campaign will be to encourage rideshare operators to eliminate discrimination against people with disability and provide more accessible services.

## Regulatory option

The Transport Standards would be amended to ensure rideshare services are explicitly identified and ensure the current requirements for taxis are fit for purpose to apply to other services providing taxi travel.

Transport Standards Division 1.2, Meaning of important terms, would be amended to ensure rideshare is explicitly covered by the Transport Standards, including:

- List of conveyance at section 1.12, Conveyance
- Definition of public transport at section 1.23, Public transport service

Amendments to the definitions of conveyance and / or public transport service would be drafted to ensure rideshare is explicitly covered by the Transport Standards. Any amended definitions would not be overly prescriptive, to ensure any operator or provider of public transport entering the Australian market understands the requirements it must comply with.

Amendments to the applicability of sections of the Transport Standards for conveyances would also be updated to reflect these new definitions.

Transport Standards requirements that currently apply to 'taxis' would also be amended to ensure they are fit for purpose in application to rideshare conveyances, including:

- Schedule 1, Target dates for compliance, Part 1, Target date – 31 December 2007, section 1.3 Responsibility, that provides response times for accessible vehicles.
- Section 17.7, Taxi registration numbers, that provides for the placement of taxi registration numbers and would be broadened to require vehicle registration numbers for rideshare vehicles.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include advice ensure rideshare services are explicitly identified and the applicable requirements for taxi-travel are fit for purpose.

## Impact analysis

### Status quo

#### Impacts

- A lack of clarity and certainty regarding the requirements for rideshare operators in the Transport Standards would remain.
- The cases of discrimination against people with disability using rideshare services, such as those listed above, are likely to continue to occur. There may also be a lack of consistency of accessible transport services between different jurisdictions.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- A lack of clarity and certainty regarding the requirements for rideshare operators in the Transport Standards would remain. This may result in public transport services such as rideshare or emerging forms of transport not providing accessible services for people with disability.
- The cases of discrimination against people with disability using rideshare services, such as those listed above, are likely to continue to occur if the advice provided is not followed.
- Due to the discretionary nature of this option, it does not provide certainty that accessibility improvements will occur or that rideshare services will be compliant with the Transport Standards.
- The requirements in the Transport Standards for taxis may remain unfit for purpose to be applied to rideshare conveyances that provide taxi travel as a service to the public.
- The benefits are likely to be negligible beyond the benefits derived from current requirements.

#### Benefits

- Implementation costs will only be incurred to the level that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- To the extent that guidance is followed, accessibility of rideshare services and other forms of emerging transport will be improved. This may lead to increased confidence of people with disability to travel using these services.

### Regulatory option

#### Impacts

- Requiring compliance with the Transport Standards is likely to increase the cost of providing rideshare services, negatively impacting providers where they do not currently meet Transport Standards requirements. Providers may incur costs to develop and provide training

courses, different payment methods, booking options and also expand or retrofit their fleet of vehicles, if they are not already complying with Transport Standard requirements.

- Additional compliance requirements may produce a disincentive for operators of private vehicles to enter the rideshare market, reducing availability of these services for the community.
- To the extent that the amendments clarify and make explicit compliance requirements already existing and applicable for rideshare services under the Transport Standards, any compliance costs would not create additional regulatory burden for rideshare providers.
- The introduction of additional vehicles with specific accessibility features into local point-to-point transport markets may result in market distortion if these vehicles are not willing or capable of servicing the needs of all people with disability wishing to book their services. This competition for fares from passengers and subsidies from state and territory governments may negatively impact Wheelchair Accessible Taxi providers who have invested to meet and service the needs of all wheelchair users. Public transport subsidies to ensure market gaps are met are the responsibility of State and Territory Governments.

## Benefits

- By clarifying the position of rideshare services under the Transport Standards, people with disability will be reassured that these services will be accessible and capable of meeting their needs, and it will lead to increased choice for people with disability.
- Rideshare providers may see an increase in the use of their services by people with disability as a result of their services becoming accessible. Compliance with the Transport Standards may lead to the development of innovative and harmonious solutions such as attaching rideshare services into centralised booking arrangements.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Providing a consistent standard of accessibility for rideshare akin to taxi services should reduce safety risks.
- **Amenity:** Providing a consistent standard of accessibility for rideshare akin to taxi services should allow rideshare to be a viable public transport option for all people with disability.
- **Accessibility:** This reform should increase use of rideshare by existing and new public transport users with disability, as it works to improve the confidence of these users in the efficacy and accessibility of rideshare services.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.



### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards is likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Providing accessibility features that meet Transport Standards is likely to require financial costs to retrofit existing facilities to meet standards borne by rideshare operator/provider.
- **Monetised compliance costs (administrative):** Nil
- **Monetised compliance costs (substantive):** Nil

### Consultation questions

1. What has been your experience accessing rideshare services?
  - a. How would your experience change if the Transport Standards were amended to explicitly include rideshare services, including the vehicle fleet and booking platforms and rideshare providers complied with those requirements?
2. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
3. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
5. Does a lack of clarity about whether rideshare services, such as Uber, are required to comply with the Transport Standards, contribute to people experiencing discrimination?

## 4. Dedicated school buses

### Issue

Route bus services are included under the Transport Standards, however dedicated school bus services are exempt from certain requirements for buses.

The exclusions are perceived by some stakeholders as a blanket exemption under the Transport Standards, rather than an exemption to specific elements, that is, parts and / or sections of the Transport Standards.

This has resulted in a number of issues that some students with disability, their parents and carers say create flow on discriminatory impacts.

#### **Students with disability**

- Students may have limited choice in where they can go to school, how often they can go to school, and what activities they can do due to a lack of accessible transport. For example, they may be unable to access extracurricular activities before or after school, may be unable to participate in excursions if their parents or carers are unable to provide transport, and may be unable to attend the same school as their siblings or social group.
- Students with disability can miss out on rites of passage and choices their peers have access to. For example, where a child is required to use a segregated or parallel service such as a wheelchair accessible taxi, rather than being able to make a choice, this results in discrimination. Ultimately, students may not be able to travel to a school of their choice in an accessible, affordable and reliable manner like their peers.

#### **Parents and carers**

- Advocacy bodies report families / carers face difficulties transporting children to school due to school bus service policies which do not allow for 'out-of-area' pick-ups. On very limited occasions, families / carers have been able to achieve 'out of policy' decisions for bus transport.
- Cases have been reported to the 2020 Review of the Education Standards where school bus drivers refused to transport students due to their disability.
- Parents may have limited choices on where to live (particularly into rural and regional areas), employment opportunities they can pursue and have to amend their routine around availability of an accessible transport option.
- The lack of certainty and national consistency can be a barrier to those looking to move, particularly into rural or regional areas and can place additional pressure on families with limited support networks.

In some jurisdictions, wheelchair accessible taxis are used as an alternative, parallel service to school buses. In submissions to the third review of the Transport Standards stakeholders noted that this can lead to a lack of availability of wheelchair accessible taxis during school drop-off and pickup-times, and this may result in a higher cost per trip for parents and carers or government funding the trip. This can create unnecessary complexity for parents and carers getting children to school and does not align with equivalent access principles and the Transport Standards that do not allow for segregated or parallel service.

As school buses are exempt from some Transport Standards requirements, operators may procure a variety of non-compliant vehicles, such as coaches and minibuses, to meet their specific operational requirements. Whilst the Transport Standards define a conveyance as a dedicated school bus only during the time in which it is being used to provide a dedicated school bus service, it has been reported in submissions to reviews of the Transport Standards that when these conveyances are not in use to provide a dedicated school bus service they may be used for a variety of other purposes. These may include community transport services and rail replacement services during times of disruption. A conveyance used to provide these services must comply with the Transport Standards. There is a risk that if a conveyance procured as a dedicated school bus is used to provide these services, the conveyance may not be accessible and would not comply with the Transport Standards.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued. Dedicated school buses would continue to be exempt from the following sections:

- Section 1.13, Dedicated school bus and dedicated school bus service
- Section 3.2, Access for passengers in wheelchairs, etc
- Section 6.2, Boarding ramps
- Section 6.3, Minimum allowable width
- Section 6.4, Slope of external boarding ramps
- Section 8.2, When boarding devices must be provided
- Section 8.3, Use of boarding devices
- Section 8.4, Hail-and-ride services
- Section 8.5, Width and surface of boarding devices
- Section 8.6, Maximum load to be supported by boarding device
- Section 8.7, Signals requesting use of boarding device
- Section 8.8, Notification by passenger of need for boarding device
- Section 9.1, Minimum size for allocated space
- Section 9.4, Number of allocated spaces to be provided - buses
- Section 9.7, Consolidation of allocated spaces
- Section 9.9, Use of allocated spaces for other purposes
- Section 9.11, Movement of mobility aid in allocated space
- Section 10.1, Compliance with Australian Standard
- Section 11.3, Handrails on steps
- Section 11.4, Handrails above access paths
- Section 11.5, Compliance with Australian Standard
- Section 11.6, Grabrails to be provided where fares are to be paid
- Section 11.7, Grabrails to be provided in allocated spaces

- Section 12.1, Doors on access paths
- Section 12.4, Clear opening of doorways
- Section 12.6, Automatic or power-assisted doors
- Section 14.1, Stairs not to be sole means of access
- Section 14.4, Compliance with Australian Design Rule 58 - conveyances

## Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide for school bus operators and providers.

Specific guidance may include the following:

- Emphasise that wherever possible, school bus services should be run using conveyances that are compliant with the Transport Standards.
- Provide advice that vehicles procured for school bus services should not be used to offer other public transport services unless they are compliant with the Transport Standards.
- Provide information and examples on potential equivalent access solutions to assist operators and the disability community to reach equivalent access solutions that meet the needs of all parties, without constituting a parallel service.
- Educate operators and providers on the exemption from the Transport Standards, noting which requirements a school bus must comply with.

## Regulatory option

The Transport Standards would be amended to provide better accessibility for students with disability on dedicated school buses. There are two regulatory options which propose to either remove some or all of the current dedicated school bus exemptions.

The outcome of this reform area will determine how any new regulatory requirements agreed throughout this reform process will apply to dedicated school buses.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to reflect new requirements and provide advice on the new regulatory requirements.

### Option 1 Remove dedicated school bus exemptions

The Transport Standards would be amended to remove exemptions for dedicated school buses.

Transport Standards section 1.13, Dedicated school bus and dedicated school bus service, would be removed. This means there would be no distinction between dedicated school buses and other buses.

The following sections would be amended to remove the dedicated school buses exemption:

- Section 3.2, Access for passengers in wheelchairs, etc
- Section 6.2, Boarding ramps
- Section 6.3, Minimum allowable width
- Section 6.4, Slope of external boarding ramps
- Section 8.2, When boarding devices must be provided
- Section 8.3, Use of boarding devices
- Section 8.4, Hail-and-ride services
- Section 8.5, Width and surface of boarding devices

- Section 8.6, Maximum load to be supported by boarding device
- Section 8.7, Signals requesting use of boarding device
- Section 8.8, Notification by passenger of need for boarding device
- Section 9.1, Minimum size for allocated space
- Section 9.4, Number of allocated spaces to be provided - buses
- Section 9.7, Consolidation of allocated spaces
- Section 9.9, Use of allocated spaces for other purposes
- Section 9.11, Movement of mobility aid in allocated space
- Section 10.1, Compliance with Australian Standard
- Section 11.3, Handrails on steps
- Section 11.4, Handrails above access paths
- Section 11.5, Compliance with Australian Standard
- Section 11.6, Grabrail to be provided where fares are to be paid
- Section 11.7, Grabrails to be provided in allocated spaces
- Section 12.1, Doors on access paths
- Section 12.4, Clear opening of doorways
- Section 12.6, Automatic or power-assisted doors
- Section 14.1, Stairs not to be sole means of access
- Section 14.4, Compliance with Australian Design Rule 58 - conveyances

Any new regulatory requirements agreed through this process would not exempt dedicated school buses.

## **Option 2 Principles for dedicated school bus services**

The Transport Standards would be amended to include principles for dedicated school bus services.

The following principles for dedicated school bus services would be adopted:

- Dedicated school bus services must not discriminate and be such that accessible transport services are provided as required and where practical to do so.
- Fully accessible (low floor buses) are to be used for school services where appropriate, practical and available.
- Where a low floor bus is used, it must be fully compliant with the Transport Standards.
- In areas where operational issues such as route accessibility, road terrain, or the need for added safety features such as seatbelts or rollover compliance dictate, then high floor buses can be used.
- In such areas where the need for access to on-board accessible features by passengers using mobility aids is determined, then an accessible high floor bus can be employed.
- Accessible high floor buses (such as high floor buses fitted with a hoist) meet the sections of the Transport Standards covering access to on-board accessible features by passengers using mobility aids.
- To support this process, the following would apply:
  - New high-floor, dedicated school buses must comply with all sections of the Transport Standards except those sections covering access to on-board accessible features by passengers using mobility aids.
  - New high floor dedicated school buses must also be so configured that they are able to be retrofitted with a hoist and be able to provide access to on-board accessible features by passengers using mobility aids.

High-floor, dedicated school buses (such as those fitted with a hoist) would continue to be exempt from the following sections of the Transport Standards:

- Section 3.2, Access for passengers in wheelchairs, etc.
- Section 8.2, When boarding devices must be provided
- Section 8.3, Use of boarding devices
- Section 8.4, Hail-and-ride services
- Section 8.5, Width and surface of boarding devices
- Section 8.6, Maximum load to be supported by boarding device
- Section 8.7, Signals requesting use of boarding device
- Section 8.8, Notification by passenger of need for boarding device
- Section 9.1, Minimum size for allocated space
- Section 9.4, Number of allocated spaces to be provided – buses
- Section 9.11, Movement of mobility aid in allocated space
- Section 11.7, Grabrails to be provided in allocated spaces
- Section 14.1, Stairs not to be the sole means of access

Any regulatory requirements relating to these sections that are agreed through this reform process would continue to exempt dedicated school buses.

A high floor is defined as per Vehicle Standard (Australian Design Rule 59/00 – Standards for Omnibus Rollover Strength) 2007<sup>8</sup>, and is based on floor height and area.

An accessible high floor dedicated school bus (such as those fitted with a hoist) must then meet the following additional requirements:

- Section 6.2, Boarding ramps
- Section 6.3, Minimum allowable width
- Section 6.4, Slope of external boarding ramps
- Section 9.7, Consolidation of allocated spaces
- Section 9.9, Use of allocated space for other purposes
- Section 10.1, Compliance with Australian Standard
- Section 11.3, Handrails on steps
- Section 11.4, Handrails above access paths
- Section 11.5, Compliance with Australian Standard
- Section 11.6, Grabrails to be provided where fares are to be paid
- Section 12.1, Doors on access paths
- Section 12.4, Clear opening of doorways
- Section 12.6, Automatic or power-assisted doors
- Section 14.4, Compliance with Australian Design Rule 58 — conveyances

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<sup>8</sup> Australian Government Federal Register of Legislation, *Vehicle Standard (Australian Design Rule 59/00 – Standards For Omnibus Rollover Strength) 2007*, (4 November 2021), <https://www.legislation.gov.au/Details/F2012C00535>

Any new regulatory requirements or requirements relating to these sections that are agreed through this reform process would not exempt dedicated school buses.

The Whole Journey Guide and / or the Transport Standards Guidelines would include guidance on the navigating these principles and providing accessible school bus services.

Specific guidance may include the following:

States and territories may have varying requirements of their own when receiving requests by applicants to access dedicated school bus services. Circumstances are likely to be unique for each applicant and may require coordinated review by the principals (for example the applicant, educational institution, and jurisdiction). In reaching a negotiated solution, the principals may consider variables such as personal aids and the capability of related infrastructure (such as residence, school, and public utilities).

Risk assessments should be undertaken for rural locations where a passenger using a mobility aid requires access. Following are risk considerations for dedicated school bus fitted with a hoist. Where an accessible dedicated school bus cannot be deployed, then alternative arrangements must be made.

- Is the site suitable to deploy a hoist (e.g. site clear area, slope, adjoining road profile)?
- Can the bus access the site such that the hoist can be correctly positioned relative to the site?
- Is the road location suitable for the bus driver to leave the driving position, considering the following?
  - Can the bus be parked off the main thoroughfare?
  - Is there a sufficient field of view such that other road users can see the parked bus?
  - Is the road gradient such that the bus can be properly secured to avoid potential bus rollaway?

## Impact analysis

### Status quo

#### Impacts

- Any exemptions that do not align with the purpose of the Transport Standards will remain.
- If these exemptions are no longer fit-for-purpose and can be realistically achieved, any discrimination faced by students with disability using school bus services would also remain. Any discrimination faced by students with disability using school bus services would also remain.

#### Benefits

- The provision of public transport for students would remain flexible, allowing operators to meet challenges associated with particular routes and provide a service catered to the needs of particular students where there is an identified need. This allows school services to operate low cost vehicles on routes where there is currently not a student who requires an accessible bus.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs may be incurred by operators and providers to procure new buses and make amendments to services.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the guidance, including making amendments to their conveyances. The impact on students with disability is that there continues to be a lack of accessible transport and discrimination continues to occur. Although this may provide additional flexibility for operators and providers, it would limit the certainty and assurances that school bus services comply with the Transport Standards.
- If guidance is followed regarding the use of compliant buses for rail replacement services, this may result in longer delays if services are currently reliant on dedicated school buses to address rail replacement services, potentially affecting train and tram passengers across all jurisdictions.

### Benefits

- Implementation costs will only be incurred to the level that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Greater information and guidance on equivalent access for dedicated school bus services would offer clarity and certainty for operators of school bus services, schools, parents and students. This would assist operators to develop equivalent access solutions that meet the needs of all parties and would help ensure national consistency.
- The provision of public transport for students would remain flexible, allowing operators to meet challenges associated with particular routes and provide a service catered to the needs of particular students.
- To the extent that guidance is followed, people with disability may feel more confident that non-compliant buses should not be used in instances such as rail replacement services. This may result in students with disability feeling socially included.
- Wheelchair accessible taxis may have reduced demand from students in mobility aids who opt to use Transport Standards compliant buses, however other cohorts who use wheelchair accessible taxis may use these services during school pickup and drop-off times instead. This may alter the cost burden for school transport for families of students with disability. The effect will depend on how school transport services are funded, which varies between different jurisdictions and depending on the government support available.

## Regulatory option

### Impacts

If the dedicated school bus exclusions were removed in part or in full:

- Costs will be incurred by operators and providers who operate school bus services with non-compliant vehicles. There may be different cost impacts depending on the extent that current exemptions are removed (i.e. whether in part or in full).
- Operating compliant low floor buses in regional areas may result in higher operating costs than operating a standard route service (for example, due to the lower clearance of a low



floor bus, increased dust intake from lower quality roads may impact the operational life of the engine).

- Operators may still need to undertake consultation and co-design for students with disability on their services to ensure all their needs are met. Co-design when procuring any new rolling stock is considered best practice and this should be undertaken regardless of whether the bus is low floor.
- There are infrastructure costs associated with the introduction of low floor accessible buses, as such buses use fold out ramps for mobility accessibility and these ramps can only be used at stops that incorporate raised flat areas from which a mobility aid can access the ramp. Buses fitted with hoists can provide mobility aid accessibility on flat or relatively flat areas without the need for raised sections.

If principles were imposed on dedicated school bus services:

- Operators and providers would also incur costs with retrofitting hoist requirements if required.
- The use of low floor school buses and buses fitted with a wheel chair lift will have a reduced carrying capacity. This will result in the potential for increased capital costs and operating costs to operators and jurisdictions for additional buses to deliver on the same passenger loadings.

## Benefits

- Students and families would have the opportunity to make a greater range of choices that suit their needs.
- Students will have an expectation to have access to accessible, affordable, and regular transport, opening opportunities that they would otherwise not have access to, such as extracurricular activities and excursions. Families and students with disability will have greater choice on where they live and work, which school their child attends, and how often. The formal support of accessible school buses will reduce the pressure on the informal support networks of students with disability.
- All students would be certain that they can use any school bus to get to school and would not face social isolation or exclusion due to their disability.
- School bus operators will know their fleet is accessible to students with disability and will clearly understand their requirements under the Transport Standards. Operators and providers of school bus services understand that school buses are not fully exempt from the requirements of the Transport Standards.
- There will be an increase in supply of accessible public transport options in regional areas which may result in an increase in demand from people with disability who otherwise would not be able to use public transport.

## CBA of regulatory options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Option 1 Remove dedicated school bus exemptions

### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Providing equivalent access for students with disability should reduce safety risks, such as reducing slips, trips or falls for existing users with disability.
- **Amenity:** Providing equivalent access for students with disability should improve ease of use of dedicated school buses and improve the lives of students' families.
- **Accessibility:** Providing equivalent access for all students with disability can increase use of dedicated school buses by new and existing students with disability.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, and improved health outcomes.

### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Providing accessibility features that meet the Transport Standards are likely to require financial costs to retrofit existing facilities to meet standards.
- **Monetised compliance costs (administrative):** 0.4
- **Monetised compliance costs (substantive):** 1,053.5

## Option 2 Principles for dedicated school bus services

### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Providing equivalent access for students with disability should reduce safety risks, such as reducing slips, trips or falls for existing users with a mobility related disability - with improvements focused on high floor school buses.
- **Amenity:** Providing equivalent access for students with a mobility related disability should improve ease of use of dedicated school buses and improve the lives of students' families - with improvements focused on high floor school buses.
- **Accessibility:** Providing equivalent access for all students with a mobility related disability can increase use of dedicated school buses by new and existing students with disability through improvements focused on high floor school buses.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, and improved health outcomes for students with a mobility-related disability.

### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Providing accessibility features that meet the Transport Standards are likely to require financial costs to retrofit existing facilities to meet standards.
- **Monetised compliance costs (administrative):** 0.4
- **Monetised compliance costs (substantive):** 996.0

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. In your experience, does your school transport system adequately meet the needs of children with disability?
  - a. What impact does this have on your child and your family?
  - b. How could the school transport system be improved?
  - c. Do dedicated school bus exemptions in the Transport Standards result in discriminatory outcomes for students with disability?
6. Which exemptions (if any) should be removed to remove for dedicated school buses?
7. How do you ensure that students with disability are able to travel to and from school using accessible public transport:
  - a. in metropolitan areas?
  - b. in rural / regional areas?

## Part 2: Information, communication and wayfinding

The following reform areas are included in this Part:

5. Better communication of accessibility features
6. Timely provision of information
7. Real time communication
8. Passenger location during journey
9. Hearing augmentation on conveyances
10. Hearing augmentation: Infrastructure and premises
11. Print size and format
12. International Symbol for Access and Deafness
13. Letter heights and luminance contrast of signs
14. Location of signs
15. Braille embossed (printed) specifications
16. Braille and tactile lettering for signage
17. Lifts - Braille and Tactile Information at Lift Landings
18. Lifts - Audible wayfinding
19. Lifts - Emergency communication systems in lift cars
20. Lifts - Reference for lift car communication and information system
21. Information and communication technologies (ICT) procurement
22. Mobile web systems
23. Accessible Fare System Elements

## 5. Better communication of accessibility features

### Issue

There is no national consistency across state and territory government agencies and operators and providers on:

- the definition of accessibility
- what accessibility amenities and features are available on public transport services and what should be communicated to the public.

The term accessibility means different things to a wide range of people, depending on their individual needs. State and territory government agencies and operators and providers communicate the accessibility features of their public transport services differently. Multiple terms are currently used to categorise accessible travel such as ‘accessible’, ‘independent access’ and ‘step free’.

Accessible features such as accessible toilets, assistance dog toileting facilities, lifts, ramps, hearing augmentation facilities, sensory quiet rooms, and accessibility guides / maps are not always clearly or consistently communicated to people who might require them, between transport modes or across states and territories.

Due to the different approaches in communicating accessibility features, the international symbol of accessibility<sup>9</sup> is used inconsistently. A lack of consistent definitions and different interpretations results in mixed information being communicated to the public, making it more challenging for people with disability to travel, plan, and adjust their journey.

The Transport Standards do not provide a nationally consistent term for accessibility that can be applied across all modes of public transport and be easily understood. The Transport Standards also do not include guidance on what accessible features or amenities are available for the public, making planning, travelling and adjusting a journey on public transport challenging for people with disability.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to ‘Introduction’.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

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<sup>9</sup> Wikipedia, *International symbol of access*, 9 November 2021, [https://en.wikipedia.org/wiki/International\\_Symbol\\_of\\_Access](https://en.wikipedia.org/wiki/International_Symbol_of_Access)

## Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide on the communication of accessibility terminology and features by operators and providers.

Specific guidance may include the following:

- Nationally consistent accessibility terminology that can be applied across all modes of public transport and be easily comprehended by people with disability according to their personal requirements.
- A baseline list of accessible features provided by operators and providers that should be available and communicated to customers.

Nationally consistent accessibility terminology would be developed through a consultation process with state and territory governments, operators and providers, and the disability community.

Accessibility terminology relating to factors other than mobility access should be considered, noting this is currently being explored by several operators and providers.

Guidance material may include a list of features that operators and providers could include when communicating accessibility of infrastructure, premises, and conveyances to the public through websites, communication materials, and on-site, including:

- Accessible car parking
- Assistance Animal Toileting Facilities
- Closed circuit television (CCTV)
- Colour contrast / illuminated strips for stairs
- Emergency Help Point
- Escalator
- Hearing augmentation system (type and coverage)
- Information Help Point
- Lift
- Low tide wharf access
- Public Announcement (PA) system for passenger information
- Raised platform / stop
- Staffed or unstaffed station
- Stairs
- Tactile ground surface indicators
- Tide dependent gangway and ramp gradients
- Wayfinding
- Wheelchair accessible bus
- Wheelchair accessible car parking space
- Wheelchair accessible payphone
- Wheelchair accessible toilet (including Left- or Right-hand access)
- Wheelchair ramp boarding assistance

## Regulatory option

The Transport Standards would be amended to include new requirements for defining accessibility terminology and communication of accessibility features.

## Accessibility Terminology

A new performance-based requirement for defining accessibility terminology would require public transport operators to:

- identify access barriers within the transport network and communication solutions operators could offer.
- provide clear definitions of any access terminology it uses in its communication channels to customers. Clear definitions would be required to include the level/degree of access available at infrastructure, premises, and conveyance.
- publish what accessible features are available at infrastructure, premises, and conveyance, considering criteria including, but not limited to, mobility, functionality, information, safety and wayfinding.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide on accessibility terminology.

Final details of the national consistent terminology for accessibility must be developed through a consultation process with state and territory governments, operators and providers, and the disability community.

## Communication of Accessibility Features

A baseline / minimum list of accessible features provided by operators and providers that must be communicated to the public should be developed through a consultation process with state and territory governments, operators and providers, and the disability community.

In determining what accessible features are communicated to the public, the following should be considered:

- Accessible car parking
- Assistance Animal Toileting Facilities
- CCTV
- Colour contrast / illuminated strips for stairs
- Emergency Help Point
- Escalator
- Hearing augmentation system (type and coverage)
- Information Help Point
- Lift
- Low tide wharf access
- Public Announcement system for passenger information
- Raised platform / stop
- Staffed or unstaffed station
- Stairs
- Tactile ground surface indicators
- Tide dependent gangway and ramp gradients
- Wayfinding
- Wheelchair accessible bus
- Wheelchair accessible parking space
- Wheelchair accessible payphone
- Wheelchair accessible toilet (including Left- or Right-hand access)
- Wheelchair ramp boarding assistance

## Impact analysis

### Status quo

#### Impacts

- There would be a lost opportunity to update and improve the requirements for communication of accessibility features, which may result in inconsistencies across different modes of transport and states and territories.
- People with disability may continue to have difficulty planning, using, and adjusting their public transport journeys, due to the inconsistent provision of information relating to accessibility features

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to operators and providers associated with auditing existing accessibility features and updating existing website and passenger information to communicate these features. For example, signage, journey planning, and wayfinding material. Staff training and public communication / advertising may also be required to build organisation capability, which may incur additional costs.
- There would be varying costs associated with developing and testing the final details of the accessible terminology through a consultation process with the disability community. These costs would depend on the current terminology and organisational capability and would most likely be once-off.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- To the extent guidance is adopted, consistently communicated information regarding accessibility features would enhance community understanding of the services available to them. The provision of information necessary to make informed travel decisions will support independent travel for people with disability where possible. It will ensure support and information needed to complete their journey with safety, confidence and dignity is accessible.

### Regulatory option

#### Impacts

- Costs would be incurred to operators and providers associated with auditing existing accessibility features on their networks and updating existing website and passenger information. For example, signage, journey planning, and wayfinding material. Staff training and public communication / advertising may be required to build an organisational and community understanding of terms.



- There would be varying costs for operators and providers associated with developing and testing the final details of the accessible terminology through a consultation process with the disability community. These costs would depend on the current terminology and organisational capability and would most likely be once-off.

## Benefits

- Consistently communicated information regarding accessibility features would enhance the disability community's understanding of the services available to them. Equipping the disability community with the necessary information to make informed travel decisions will support independent travel where possible. It will ensure the public can access the support and information they need to complete their journey with safety, confidence and dignity.
- The disability community will benefit from greater clarity and increased consistency of terminology between modes, networks, and jurisdictions. Improved passenger awareness may enhance customer confidence to travel and customer experience, which may improve patronage for operators.

## CBA for regulation option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Providing consistent standards for terminology used across all public transport modes should improve ease of use and understanding of available accessibility features across the public transport journey.
- **Accessibility:** Providing more comprehensible and nationally consistent terminology around accessibility features should improve the experience of both existing and new transport users with disability.
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion, greater sense of connection to community and place and improved access to services.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Updates to existing accessibility terminology would lead to additional administrative costs to comply with this reform.
- **Qualitative compliance costs (substantive):** Not applicable
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. In your experience, has the communication of accessibility features been effective?
5. How do you define the term 'accessible'?
6. What accessibility terms work for all modes to best communicate accessibility, noting that scenarios/locations can change the level of accessibility?

## 6. Timely provision of information

### Issue

The Transport Standards do not currently require that accessible public transport information is provided in a preferred format and in a timely manner, if information is not immediately required. The Transport Standards also do not require less commonly requested information to be production ready in anticipation of a request, or that direct assistance is to be provided if information is unavailable in a preferred format at the moment of inquiry. The timely provision of accessible information is fundamental to ensuring that people with disability have the confidence to use public transport.

Transport Standards section 27.2 Formats for providing information, specifies:

- Operators and providers should expect requests for information in formats such as standard or large print, Braille, audio, touch-tone telephone, teletypewriter and on-line computer or disks.
- Passengers should anticipate that certain formats may only be available from certain outlets. For example, while bus drivers may provide oral information on timetables and bus routes, they should not be expected to have alternative format timetables on hand.
- If it is not possible for operators or providers to supply information in a particular format, passengers may expect assistance to be provided to enable them to use documentation in the available formats, for example, the provision of a photocopy enlargement of a timetable.
- However, essential travel and safety information, such as emergency instructions on aircraft, must be available in an accessible format or direct assistance must be given.
- Operators could choose to announce scheduled stops as one way of informing passengers of their whereabouts during a journey.

The Transport Standards do not however include requirements for the timely provision of information that is requested in accessible formats, where it is not immediately available.

Information that is not commonly requested, such as braille or audio copy of information sheets or timetables, must still be provided if passengers require it. Less commonly requested formats should not be produced on anticipation of unlikely request, but rather the information should be production-ready for supply after request.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 27.2 Direct assistance, would remain unchanged and no new guidance would be issued.

## 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.

This section pertains to conveyances, premises and infrastructure.

## Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide on good practice for timely provision of information in requested formats.

Specific guidance may include the following:

- Service-related information in infrequently requested but preferred formats should be provided in a timely manner if not immediately available. This is best achieved by having master copies of the less commonly requested formats available that can be quickly reproduced and supplied to passengers.
- If information cannot be immediately supplied in a passenger's preferred format, equivalent access should be given by direct assistance until the request is fulfilled.
- Providing requested information that is not immediately available in a 'timely' manner means that an operator or provider would supply the information in the shortest practicable timeframe. Timeframes will vary based on the medium of the information and the capacity of the operator or provider.

## Regulatory option

Transport Standards section 27.2 would be amended to include the following (including any requirements retained or amended from the status quo):

- Infrequently requested formats must be provided in a timely manner if not immediately available.
- If information cannot be immediately supplied in a passenger's preferred format, equivalent access must be given by direct assistance until the request is fulfilled.

These amendments would pertain to conveyances, premises and infrastructure.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to reflect new requirements.

Specific guidance may include:

- Operators and providers should expect requests for information in formats such as standard or large print, Braille, audio, touch-tone telephone, teletypewriter (TTY), digital files of various formats, SMS / Text, email, Auslan, audio-visual material, and on-line.
- Information formats that are less frequently requested should be supplied in a timely manner following the request. This is best achieved by having master copies available of the less commonly requested formats that can be quickly reproduced and supplied to passengers. Some formats or mediums may take longer to produce than others.

- Providing requested information that was not immediately available in a ‘timely’ manner means that an operator or provider would supply the information in the shortest practicable timeframe. Timeframes will vary based on the medium of the information and the capacity of the operator or provider.

## Impact analysis

### Status quo

#### Impacts

- People with disability will continue to experience difficulty receiving information in their required format in a timely manner, if their preferred format is not immediately available.
- People with disability may experience difficulty receiving information related to their journey, if information in their preferred format is not immediately available.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- As the Transport Standards already requires information to be provided in alternate accessible formats on request, the material cost of providing the information will not change. Rather, costs will be operational with customer service staff having to provide direct assistance until the request can be fulfilled in a timely manner.
- To the extent that guidance is followed, additional costs related to staffing and other resources may be incurred to fulfil information requests from passengers. In addition, the production of print accessible material, such as large format, plain language, easy read and braille is more cost effective to produce when designed collectively based off a single piece of collateral.

#### Benefits

- For people who require reference material in alternative formats, the provision of information in their preferred format in a timely manner would be of benefit, increasing the ability to access journey information and updates.
- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

### Regulatory option

#### Impacts

- As the Transport Standards require information to be provided in alternate accessible formats on request, the material cost of providing the information will not change. Rather, costs will be operational, with customer service staff having to provide direct assistance until the request can be fulfilled in a timely manner.

## Benefits

- Additional costs related to staffing and other resources may be incurred to fulfil information requests from passengers. In addition, the production of print accessible material, such as large format, plain language, easy read and braille is more cost effective to produce when designed collectively based off a single piece of collateral.
- For people who require reference material in alternative formats, the provision of information in their preferred format in a timely manner would enhance the ability to access journey information and updates.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Improvements to the accessibility of timely information and, when not available, access to staff should improve the ease of access and confidence to use public transport services.
- **Accessibility:** This reform can encourage new users to use public transport, both for those with and without disability.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of timely information in required format or staff.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. In your experience, has accessible public transport information been provided in a timely manner?
5. Do you get requests for service-related information in formats that are not readily available? If so, how is this managed until the preferred format request for information has been fulfilled?

## 7. Real time communication

### Issue

In some cases, passengers who have accessibility needs or who require specific information are unable to communicate with staff or exchange information in real-time with transport operators or providers prior to boarding, in transit and after alighting public transport. Real time communication examples include face-to-face with platform or on-board staff, via public transport drivers, platform or conveyance intercoms, QR codes to online timetables and other online information, help or assistance call-buttons, call centres or recorded information.

It can be difficult for passengers who need to change destination or raise a service-related matter while in transit without the availability of real time information in accessible formats.

Where service-related matters arise, operators need to inform all passengers in real-time, including people with disability. If passengers are unable to receive information in real-time they may be unable to successfully complete their journey, give feedback or make any necessary request for assistance.

The Transport Standards do not currently require real time communication between operators or providers and people with disability while undertaking a public transport journey, and therefore does not meet the purpose of the Transport Standards that seek to remove discrimination for people with disability in relation to public transport services.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards Part 27 Information, would remain unchanged and no new or additional guidance would be provided.

#### **Part 27 Information**

##### **27.1 Access to information about transport services**

General information about transport services must be accessible to all passengers.

##### **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.



### **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.

### **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.

This Part pertains to all conveyances, premises and infrastructure.

## **Non regulatory option**

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide on real-time communication.

Specific guidance may include the following:

- Guidance on how to improve the lines of communication between operators, providers and passengers in real time
- Examples of real time communication
- Recommend for disability awareness training for operators and providers.

## **Regulatory option**

Transport Standards Part 27 would be amended to include the following (including any requirements retained or amended from the status quo):

- Passengers who require service-related information, who wish to communicate service related information, or who need assistance or help on service-related matters must be able engage in real time communication with the transport operator or provider before boarding, while the conveyance is in transit and after alighting. This real-time communication may involve direct assistance.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide on real-time communication.

Specific guidance may include:

- Guidance on how to improve the lines of communication between operators, providers and passengers in real time
- Examples of real time communication
- Recommend for disability awareness training for operators and providers.

## **Impact analysis**

### **Status quo**

#### **Impacts**

- People with disability may continue to experience difficulty receiving information in real-time to plan their travel and successfully complete their journey, give feedback or make necessary requests for assistance.

## Benefits

- This option would not incur any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs would be incurred to by operators and providers who have gaps in their communication systems to strengthen real-time communication with / for people with disability.
- Where guidance is not followed, people with disability may continue to experience difficulty receiving information in real-time to plan their travel and successfully complete their journey, give feedback or make necessary requests for assistance.

### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- To the extent that guidance is implemented, knowledge of location during journey will be a great benefit to people with sensory and cognitive disabilities. Establishment of a reliable real time communication system will also benefit people with disability by increasing their confidence to travel on public transport.
- Good communication is a foundational principle of customer service. Any improvement in communication may increase customer satisfaction with a service.

## Regulatory option

### Impacts

- Costs will be incurred by operators and providers to initiate or install real time communication technology systems. Costs will vary depending on the current level of deployment and coverage.
- Costs may be incurred by operators and providers to audit current real time communication systems, to measure coverage and to determine upgrade requirements.

### Benefits

- Knowledge of location during journey may benefit to people with sensory and cognitive disabilities.
- Establishment of a reliable real time communication system will also benefit people with disability by increasing their confidence to travel on public transport independently.
- Good communication is a foundational principle of customer service. Any improvement in communication can increase customer satisfaction with a service.

## CBA for regulatory impacts

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Provision of real time information should improve the quantity and quality of information provided and would benefit to all public transport users.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of new or upgraded real time information boards and facilities.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** 5,582.6

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. In your experience, have you been able to effectively communicate with public transport staff and operators in real-time?
5. Are there particular points of a public transport journey where real time communication is most important? If so, what are those points?

## 8. Passenger location during journey

### Issue

The same level of arrival and next stop information is not always available or accessible to all passengers during a public transport journey.

Operators and providers may provide multi format information, such as signs at stops, on-board announcements, assisted listening systems, and mobile technology to provide location information, however not all of these formats are accessible to people with disability. An inability to receive arrival and next stop information may cause distress for people with disability, particularly those with hearing or vision impairment. Multiple options, including direct assistance, are required to ensure people know where they are on their journey.

While Transport Standards section 27.4 Access to information about location, requires all passengers to be given the same level of access to information on their whereabouts during a public transport journey, it does not specify where and how visual and audio information must be presented to support the varying needs of people with disability.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 27.4 Access to information about location, would remain unchanged and no new guidance would be issued.

#### **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.

#### Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide on provision of location information during a transport journey.

Specific guidance may include the following:

- Information should be provided in multiple formats, including via direct assistance, in a timely manner allowing time for a person to respond and successfully alight.

#### Regulatory option

Transport Standards section 27.4 would be amended to include the following (including any requirements retained or amended from the status quo). There are two sub-options consideration regarding the visibility of visual information displays:

- Visual information display of next stop must be visible.

#### **Sub-option 1**

Visual information display of next stop must be visible from all priority seats and allocated spaces.

#### **Sub-option 2**

Visual information display of next stop must be visible from all seats and allocated spaces.

- Audio announcements of next stop broadcast over an onboard public address system must also be provided via a hearing augmentation system complying with AS1428.5 *Design for access and mobility*, Part 5: *Communication for people who are deaf or hearing impaired*, section 3.2.
- Announcement of the side or door / gate through which a passenger must alight, must be made where side or door / gate for alighting can vary.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to reflect new requirements.

Specific guidance may include that useful information should be provided in a timely manner allowing sufficient time for a person to respond and successfully alight public transport.

## **Impact analysis**

### **Status quo**

#### **Impacts**

- People with disability may continue to be unable to access to the same level of information during their public transport journey as other passengers.
- People with disability, including those with hearing and vision impairment will continue to feel distress and have safety concerns if they are unable to see or hear their location information during their public transport journey.

#### **Benefits**

- This option would not introduce additional regulatory burden or associated administrative costs to operators and providers.

### **Non regulatory option**

#### **Impacts**

- To the extent that guidance is followed, costs would vary across conveyance types and depending on whether assets are new or legacy.
- Additional costs may be incurred when retrofitting, including a PA system or information displays not currently installed or in conveyances where seating and / or allocated spaces are not located within sight of information displays.

## Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Operators who are already providing location and alighting information in multiple formats and in a timely manner will be unaffected.
- Guidance will better inform operators and providers and the community of the value of equally informing passengers of their whereabouts and alighting information.
- The inclusion of stop and alighting information in multiple formats will provide greater confidence to people with disability in the independent use of public transport.
- Where reliable automated or technical systems exist, the element of human error may be eliminated.

## Regulatory option

### Impacts

- Costs will vary across conveyance types and depending on whether assets are new or legacy. Retrofitting existing conveyances may be more complicated, especially where PA system or information displays do not currently exist. Conveyances where seating and / or allocated spaces are not located within sight of information displays may be costlier to retrofit, requiring either the installation of additional PA speakers or information screens, or the relocation of allocated spaces or seating.

### Benefits

- Amendments to regulation will provide greater confidence to people with disability in the independent use of public transport and ensure consistency across states and territories in the provision of audio announcements via hearing augmentation systems, compliant with AS1428.5.
- The inclusion of stop and alighting information in multiple formats will provide certainty to people with vision impairment.
- Where reliable automated or technical systems exist, ensure the element of human error is eliminated.
- Operators who are already providing location and alighting information in multiple formats and in a timely manner will be unaffected.
- Guidance will better inform operators and providers and the community of the value of equally informing passengers of their whereabouts and alighting information. It will also ensure operators and providers understand how to best place visual information displays for information provision.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Provision of equivalent access to information during a journey should improve ease of public transport access and benefit all public transport users.
- **Accessibility:** Provision of equivalent access to information during a journey should improve confidence to use public transport services inducing more use of public transport by people with disability.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of new or upgraded facilities to provide equivalent access to information during a journey.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** 154.6

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory option, which sub-option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. In your experience, have you been able to access arrival and next stop information when using public transport in ways the best meet your needs?

## 9. Hearing augmentation on conveyances

### Issue

Passengers with vision or hearing impairments may be unable to see a visual display, and may miss or misunderstand a Public Address (PA) system message unless it is received directly in their telecoil equipped hearing aid via a hearing loop system. Transport Standards section 26.2 Public address systems — conveyances, covers hearing augmentation systems on conveyances for hearing aid users and references AS1428.2 (1992) *Design for access and mobility*, for hearing augmentation (assistive listening) systems. This Australian Standard is dated, and only requires a hearing augmentation system to cover 10 per cent of the total area of the enclosed space of a conveyance.

Conveyances are likely fully covered (100 per cent) covered by a PA system that is installed. While some conveyances already have 100 per cent of their internal space covered by the hearing augmentation systems, this can vary from 80 to 100 per cent coverage within a conveyance.

The terms ‘hearing augmentation systems’ and ‘assistive listening systems’ are often used interchangeably. In the Transport Standards context both refer to systems that permit people who are hard of hearing to receive what is being broadcast over a PA system directly to their telecoil equipped hearing aid.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to ‘Introduction’.

## Policy options

### Status quo

Transport Standards section 26.2 Public address systems - conveyances, would remain unchanged and no additional guidance would be issued.

#### **26.2 Public address systems — conveyances**

If a public address system is installed:

- (a) people who are deaf or have a hearing impairment must be able to receive a message equivalent to the message received by people without a hearing impairment; and
- (b) it must comply with AS1428.2 (1992) *Clause 21.1, Hearing augmentation*.

This section pertains to conveyances, including buses, coaches, ferries, trains, trams and light rail.

### Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide for hearing augmentation systems in conveyances to encourage the installation of hearing augmentation systems in conveyances that have service related PA announcements.

Specific guidance may include the following:



- People with disability should be able to receive service-related information being broadcast on a conveyance PA system in real time. This can be achieved by having the PA announcement broadcast via a magnetic induction system or another technological system for hearing aid users.
- While the system may be technology agnostic, it must be available to all passengers who rely on hearing augmentation systems to receive PA announcements.
- If a public address system is installed:
  - any magnetic induction system should comply with AS1428.5 (2021) *Design for access and mobility*, Part 5: *Communication for people who are deaf or hearing impaired* section 3.2
  - conveyances that have hearing augmentation systems should identify this with the international symbol for deafness
  - the message broadcast in accessible format should be received in 100 per cent of the area covered by the public address system.
- If a conveyance has 100 per cent coverage by a hearing augmentation system, the international symbol should be displayed on the entrance doors. If coverage is incomplete the area covered must be clearly identified by symbols and diagrams.
- Magnetic induction fields are susceptible to interference from other strong electrical fields such as those emanating from overhead wires. While some conveyances entering service since 2002 may be sufficiently insulated from opposing fields, pre 2002 conveyances may not be. For conveyances that experience interference from external electrical fields which compromises the delivery of information, an equivalent means of conveying service-related PA announcements to people who are hearing impaired should be developed.

## Regulatory option

Transport Standards section 26.2 Public address systems – conveyances, would be amended to include the following (including any requirements retained or amended from the status quo):

There are two regulatory options presented for consideration. The first option stipulates that requirements are applicable whenever a public address system is installed. The second option stipulates that requirements are only applicable when a public address system is in operation. For both options, a sub-option is presented for consideration regarding the minimum coverage requirements of hearing augmentation systems.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements and include specific guidance for buses, coaches, ferries, trains, trams and light rail.

Specific guidance may include the following:

- People with disability should be able to receive service-related information being broadcast on a conveyance PA system in real time. This can be achieved by having the PA announcement broadcast via a magnetic induction system or other technological system for hearing aid users.
- While the system may be technology agnostic, it must be available to all passengers who rely on hearing augmentation systems to receive PA announcements.
- Magnetic induction fields are susceptible to interference from other strong electrical fields such as those emanating from overhead wires. While some conveyances entering service since 2002 may be sufficiently insulated from opposing fields, pre-2002 conveyances may not be. For conveyances that experience interference from external electrical fields which compromises the delivery of information, an equivalent means of conveying service-related PA announcements to people who are hearing impaired should be developed.

- If a conveyance has 100 per cent coverage by a hearing augmentation system, the international symbol should be displayed on the entrance doors. If coverage is incomplete the area covered must be clearly identified by symbols and diagrams.

## Option 1

Requirements of the Transport Standards would be amended to include **if a public address system is installed:**

The following requirements would apply:

- People who are hearing impaired or have a hearing impairment must be able to receive a message equivalent to the message received by people without a hearing impairment.
- Conveyances that have hearing augmentation systems must identify this with the international symbol for deafness.
  - If a public address system is installed and satisfies Transport Standards section 26.2 (a) Public address systems — conveyances, a magnetic induction system must comply with AS1428.5 (2021) *Design for access and mobility, Part 5: Communication for people who are deaf or hearing impaired*, section 3.2.
- The message broadcast in via the hearing augmentation system must be received in:

### Sub-option 1

100 per cent of the area covered by the public address system.

### Sub-option 2

80 per cent of the area covered by the public address system.

These requirements would apply to conveyances, including buses, coaches, ferries, trains, trams and light rail.

## Option 2

Requirements of the Transport Standards would be amended to include **if a public address system is in operation:**

The following requirements would apply:

- People who are hearing impaired or have a hearing impairment must be able to receive a message equivalent to the message received by people without a hearing impairment.
- Conveyances that have hearing augmentation systems must identify this with the international Symbol for Deafness.
  - If a public address system is installed and satisfies Transport Standards section 26.2 (a) Public address systems — conveyances, a magnetic induction system must comply with AS1428.5 (2021) *Design for access and mobility, Part 5: Communication for people who are deaf or hearing impaired*, section 3.2
- The message broadcast in via the hearing augmentation system must be received in:

### Sub-option 1

100 per cent of the area covered by the public address system.

### Sub-option 2

80 per cent of the area covered by the public address system.

These requirements would apply to conveyances, including buses, coaches, ferries, trains, trams and light rail.

## Impact analysis

### Status quo

#### Impacts

- Passengers who use hearing aids will continue to not have equitable access to information about their public transport journey whilst on-board conveyances.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to install hearing augmentation systems to fully cover conveyances where not already provided.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will install hearing augmentation on conveyances.
- The impact on people would be a lack of consistent access to information about their public transport journey equitable.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Operators and providers that are currently installing hearing augmentation systems to the requirements of AS1428.5 (2021) and covering the entire conveyance will be unaffected.
- For hearing aid users, the increased coverage and contemporary hearing augmentation systems will be a benefit where installed.

### Regulatory option

#### Impacts

- Where systems are not installed to the requirements of AS1428.5 (2021) and do not cover the entire conveyance, operators and providers will incur upgrade costs.

## Benefits

- For hearing aid users, the increased coverage and contemporary hearing augmentation systems will enable more effective information provision, increase user confidence and support independent travel.
- Operators and providers compliant with AS1428.5 (2021) and covering the entire conveyance will be unaffected.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of hearing augmentation systems across the whole public transport environment should improve safety reducing slips, trips and falls and would benefit users with hearing impairment.
- **Amenity:** Not applicable.
- **Accessibility:** Provision of hearing augmentation systems across the entire public transport environment should improve ease of access and confidence to use public transport services inducing new users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial cost associated with the provision of improved hearing augmentation facilities.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** 122.6

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. If you prefer the regulatory option, which sub-options do you prefer? Why?
3. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
5. In your experience, have hearing augmentation systems on public transport conveyances been adequately accessible?

# 10. Hearing augmentation: Infrastructure and premises

## Issue

Hearing augmentation requirements include areas such as bus and tram stops, bus interchanges, ferry pontoons and other transport infrastructure that might have an amplified system to communicate public information.

There are two hearing augmentation systems recognised by the Premises Standards – magnetic induction systems and receivers issued by the operator. The logistics of issuing, collecting and cleaning receivers almost certainly precludes their use in a public transport system. This leaves the magnetic induction system, which interacts with a passenger's hearing aids provided that the hearing aid is equipped with a telecoil. Passengers may not be aware of the technical limitations when selecting hearing aids suitable for use in the public transport environment.

The current requirements for hearing augmentation systems referenced in the Transport Standards, provided for in AS1428.2 (1992) *Design for access and mobility*, are dated and do not provide adequate coverage for passengers who use telecoil equipped hearing aids. Passengers using telecoil equipped hearing aids may not receive equitable access to information if there is not suitable coverage via a hearing loop.

The Premises Standards have superior requirements for hearing augmentation systems in section D3.6 Signage, and D3.7 Hearing augmentation. The Transport Standards only requires 10 per cent coverage by an amplified system that communicates public information. In contrast, the Premises Standards require hearing augmentation systems to cover 80-95 per cent of the area covered by the amplified system that communicates public information (Premises Standards section D3.7 Hearing augmentation).

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 26.1 Public address systems – premises and infrastructure, would remain unchanged and no additional guidance would be issued.

#### **26.1 Public address systems — premises and infrastructure**

If a public address system is installed, it must comply with AS1428.2 (1992) Clause 21.1, Hearing augmentation.

This section pertains to premises, except premises to which the Premises Standards apply and infrastructure.

## Non regulatory option

The Transport Standards Guidelines would be updated to include advice on hearing augmentation in infrastructure and premises to encourage use of an updated Australian Standard and harmonise with the Premises Standards.

Specific guidance for premises and infrastructure may include the following:

- If a public address system is installed, a hearing augmentation system complying with *AS1428.5 (2010) Design for access and mobility, section 4 Requirements for assistive listening systems*, should be provided.
- Any hearing augmentation system should cover the maximum area practicable, and at least cover those areas in which boarding assistance and customer service are available.
- The area covered by the hearing augmentation system should be designated by the international access symbol for deafness.
- Signs displaying the international symbol for deafness should indicate the presence and type of a hearing augmentation system.
- Overhead power lines and other infrastructure that generate strong electrical fields, such as signals, can adversely impact on magnetic induction loop systems. Rail and light rail stations and tram stops that have platforms exposed to overhead wires or other electrical field generators should therefore take a platform-by-platform approach on coverage rather than attempting to cover an entire station or stop with a single loop.
- Where the entire area of the public transport infrastructure served by an amplified system that communicates public information cannot be fully covered by hearing augmentation, the area that can be covered should be negotiated and determined through a solution developed in a consultation and co-design process with local users.
- Where a hearing augmentation system cannot cover the full area covered by the amplified system that communicates public information a means of indicating the extent of the hearing augmentation zone should be provided. Solutions might include associating maps / floor plans showing the extent of the field with the international symbol for deafness sign, embedded platform markers, braille and tactile signs incorporating the symbol for deafness at either end of the area covered by the hearing augmentation system, and any similar signage solutions that would be functional at the site.
- The International Symbol for Deafness should be accompanied by directional arrows and an indication of the distance to the boundary of the area covered by the hearing augmentation system.

## Regulatory option

Transport Standards section 26.1 would be amended to include the following (including any requirements retained or amended from the status quo):

There are two regulatory options proposed for this reform area. For both options, the Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements, and include specific guidance for buses, trams and light rail and ferries.

## Option 1

The Transport Standards would be amended to include:

- If an amplified system conveying public transport information is installed a hearing augmentation system complying with AS1428.5 (2010) *Design for access and mobility, section 4 Requirements for assistive listening systems*, must be provided:
  - if installed, a magnetic induction system must cover at least 80 per cent of the area served by the public address system.
  - at any ticket office, teller's booth, reception area or the like, where the public is screened from the service provider.
- Where the hearing augmentation system does not cover the total area of the area served by the public address system, the boundaries of the area served by the hearing augmentation system must be designated by the international access symbol for deafness.
- Signs displaying the international symbol for deafness must indicate the presence and type of a hearing augmentation.

These requirements would apply to infrastructure and premises (except premises to which the premises standards apply).

## Option 2

The Transport Standards would be amended to include:

- If a public address system is installed, a hearing augmentation system complying with AS1428.5 (2010) *Design for access and mobility, section 4 Requirements for assistive listening systems*, must be provided.
- Any hearing augmentation system must cover the maximum area practicable and at least those areas in which staff assistance is available.
- The area covered by the hearing augmentation system and must be designated by the international symbol for deafness.
- Signs displaying the international symbol for deafness must indicate the presence of a hearing augmentation system also indicate the type of hearing augmentation system.

These requirements would apply to infrastructure and premises (except premises to which the Premises Standards apply).

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated for both options to include advice for hearing augmentation in premises and infrastructure.

Specific guidance for both options may include:

- It will be assumed that passengers have ensured that their hearing aids are compatible with standard hearing augmentation systems likely to be encountered in the public transport environment, such as magnetic induction loops.
- It will also be assumed that hearing aid users are competent to activate the telecoil (T switch) in the hearing aid when necessary.
- Overhead power lines and other infrastructure that generate strong electrical fields, such as signals, can adversely impact on magnetic induction loop systems. Rail and light rail stations and tram stops that have platforms exposed to overhead wires or other electrical field generators should therefore take a platform-by-platform approach on coverage rather than attempting to cover an entire station or stop with a single loop.
- Where the entire area of the public transport infrastructure served by an amplified system that communicates public information cannot be fully covered by hearing augmentation, the



area that can be covered should be negotiated and determined through an equivalent access solution developed in a consultation and co-design process with local users.

- Where a hearing augmentation system cannot cover the full area covered by the amplified system a means of indicating the extent of the hearing augmentation zone should be provided. Solutions might include associating maps / floor plans showing the extent of the field with the international symbol for deafness sign, embedded platform markers, braille and tactile signs incorporating the international symbol for deafness at either end of the area covered by the hearing augmentation system, and any similar signage solutions that would be functional at the site.
- The international symbol for deafness should be accompanied by directional arrows and an indication of the distance to the boundary of the area covered by the hearing augmentation system.

## Impact analysis

### Status quo

#### Impacts

- There will continue to be misalignment with the requirements of the Premises Standards and the Transport Standards.
- Hearing augmentation systems may continue to only cover a small area, reducing amenity for passengers who use these systems.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to upgrade hearing augmentation systems to the new requirements and coverage. The cost will vary with the extent of the area covered by the loop.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt greater coverage of hearing augmentation systems. The impact on people would be reduced amenity and uncertainty on where information is available.
- Those operators and providers that are working to the current Transport Standards requirements and who choose to expand the area covered may have to install a new system rather than merely extend an existing system. While this expansion of coverage may pose a challenge with associated costs at individual sites, particularly those with overhead wires, the number of transport infrastructure locations with an amplified system that communicates public information is limited.

#### Benefits

- Benefits will be achieved to the extent that that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- For hearing aid users whose aids have telecoil switches, the increased coverage and upgrade to current augmentation systems will be a benefit. For people who are considering the

acquisition of a hearing aid, the guidance on telecoil loops will inform them of the type of aid required for compatibility with magnetic induction systems.

- Operators and providers who provide hearing augmentation on their infrastructure will be better able to relay service-related information to their passengers, delivering an improvement in customer service and satisfaction.

## Regulatory option

### Impacts

- Magnetic induction loops or systems are a mature technology. Costs incurred associated with upgrade and installation. Material costs are low with labour usually being the main expense. Price will vary with the extent of the area covered by the loop.
- Those operators and providers that are working to the current Transport Standards requirements may have to install a new system rather than merely extend an existing system. While this expansion of coverage may pose a challenge with associated costs at individual sites, particularly those with overhead wires, the number of transport infrastructure locations with an amplified system that communicates public information is limited.

### Benefits

- For hearing aid users whose aids have telecoil switches, the potential increase in coverage and contemporary hearing augmentation systems will be a benefit. For people who are considering the acquisition of a hearing aid the guidance on telecoil loops will inform them of the type of aid required for compatibility with magnetic induction systems.
- Operators and providers who provide hearing augmentation on their infrastructure will be better able to relay service-related information to their passengers, delivering an improvement in customer service and satisfaction.

### CBA of regulatory option

This reform involves proposed definitional change to the Transport Standards. There are no changes to assets, no costs will be incurred. This reform has been incorporated into the overarching economic assessment but has not been assessed quantitatively in the CBA.

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implantation of the requirements of any option?
4. Do hearing augmentation systems in public transport infrastructure or premises have sufficient area coverage?

# 11. Print size and format

## Issue

Large print is a well-accepted format that is relied upon by people who have low vision or other print disabilities.

A person with a print disability means<sup>10</sup>:

- A person without sight
- A person whose sight is severely impaired
- A person unable to hold or manipulate books or to focus or move his or her eyes
- A person with a perceptual disability

Round Table on Information Access for People with Print Disabilities (Round Table<sup>11</sup>) Guidelines for Producing Clear Print<sup>12</sup> advises that people with low vision prefer font weight to be heavier than normal (semi-bold or bold font weight). The guidelines also stress the need for left justification of text and a ragged right margin.

Current requirements for large print at Transport Standards section 27.3, *Size and format of printing* do not specify font weight and text justification for large print.

This is not best practice and does not meet the varying needs of people with disability on public transport or meet the purpose of the Transport Standards that seeks to remove discrimination for people with disability in relation to public transport services.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 27.3 Size and format of printing would remain unchanged and no additional guidance issued.

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<sup>10</sup> Australian Government Federal Register of Legislation, Copyright Act 1968, <https://www.legislation.gov.au/Details/C2019C00042>, 17b February 2022

<sup>11</sup> Round Table on Information Access for People with Print Disabilities Inc, *About Us*, 22 November 2021, <https://printdisability.org/about-us/>

<sup>12</sup> Round Table on Information Access for People with Print Disabilities Inc, *Guidelines for Producing Clear Print*, 22 November 2021, <http://printdisability.org/wp-content/uploads/2013/09/round-table-clear-print-guidelines-PDF.pdf>

### **Section 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.

This section pertains to conveyances, premises and infrastructure.

### **Non regulatory option**

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include advice on best practice for print size and format.

Specific guidance may include:

- Large print format type size should be at least 18 point Sans Serif characters. For people with certain print disabilities particular accessible fonts may be requested. These fonts include Dyslexie, OpenDyslexic and Fs Me.
- Copy should be black on a light background. However, whilst the majority of people requesting large print documents will prefer black text on a light background, some individuals may request light text on a dark background. Whichever colours are used, at least 75 per cent luminance contrast between text and background should be achieved.
- Large format text should be semi-bold or bold font weight and should be left justified with a ragged right margin.
- Text should be in sentence case, in which the first letter of the initial word of the sentence is capitalised, as well as the first letter of proper nouns and other words as required.

### **Regulatory option**

Transport Standards section 27.3 would be amended to include the following (including any requirements retained or amended from the status quo):

- Copy must be black on a light background or achieve a 75 per cent luminance contrast between text and background.
- Font weight must be semi-bold or bold.
- Text must be left justified with a ragged right margin.

These requirements would pertain to conveyances, premises and infrastructure.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to reflect and provide advice concerning the new regulatory requirements. Specific guidance may include:

- Whilst the majority of people requesting large print documents will prefer black text on a light background, some individuals may request light text on a dark background.
- For people with certain print disabilities particular accessible fonts may be requested. These fonts include Dyslexie, OpenDyslexic and Fs Me.

## Impact analysis

### Status quo

#### Impacts

- There will continue to be limited requirements to support people with low vision or other print disabilities regarding the provision large format text and formatting requirements.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- Amendments to the large format print documents may incur some costs, to adjust font to bolder text and ensure text is left justified.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the proposed requirements which may not lead to an increase in the provision of accessible information for people with disability.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement guidance. People who rely on large format text as their primary form of written communication would receive information of a quality equal to that provided to other passengers.
- Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

### Regulatory option

#### Impacts

- Amendments to the large format print documents may incur some costs, to adjust font to bolder text and ensure text is left justified.

#### Benefits

- People who rely on large format text as their primary form of written communication will receive information whose quality is equal to other passengers.
- Improved design of large print text will enhance confidence amongst passengers who benefit from this communication format.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Provision of print size and format consistent with the Transport Standards should improve the ability to see signage and benefit all public transport users.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial cost of the provision of upgrades to existing signage to reflect new standards.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** 0.1

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What has been your experience reading printed materials in a public transport context? Have you been unable to read a hardcopy publication or pamphlet due to letter height and/or formatting?

## 12. International Symbol for Access and Deafness

### Issue

Transport Standards section 16.1 International symbols for accessibility and deafness, prescribes the requirement for use of international symbols for accessibility and deafness. The standard refers to AS1428.2 (1992) *Design for access and mobility* and AS1428.1 (2001) *Design for access and mobility, Part 1: General requirements for access – new building work, Clause 14.2, International symbol Clause 14.3, International symbol for deafness*.

Contemporary Australian Standard AS1428.1 (2009) *Design for access and mobility, Part 1: General requirements for access – new building work*, as largely referenced in the Premises Standards, addresses requirements for international symbols for accessibility and deafness.

While there has not been any specific feedback received to suggest the current requirements in the Transport Standards are not fit for purpose, amendments to reflect more contemporary Australian Standards commensurate with the Premises Standards will assist in the harmonisation process between the Transport Standards and the Premises Standards, as called for by all stakeholder groups. This would provide clarity for operators and providers on their obligations under the DDA and assist in their compliance under the Transport Standards to provide accessible public transport to people with disability and reduce discrimination.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 16.1 International symbols for accessibility and deafness, would remain unchanged and no new additional requirements or guidance would be issued.

#### **16.1 International symbols for accessibility and deafness**

- (1) The international symbols for accessibility and deafness (AS1428.1 (2001) *Design for access and mobility, Part 1: General requirements for access – new building work, Clause 14.2, International symbol and Clause 14.3, International symbol for deafness*) must be used to identify an access path and which facilities and boarding points are accessible.
- (2) The colours prescribed in AS1428.1 (2001) *Design for access and mobility, Part 1: General requirements for access – new building work, Clause 14.2 (c)* are not mandatory.
- (3) The size of accessibility symbols must comply with AS1428.2 (1992) *Design for access and mobility, Part 2: Enhanced and additional requirements – Buildings and facilities, Table 1*.

This section pertains to conveyances, premises (except premises to which the Premises Standards apply), and infrastructure.

## Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include best practice advice on the application of the international symbol for accessibility and deafness.

Specific advice may include:

- Need for signage to identify accessible facilities and the presence of hearing augmentation systems.
- Use of the international symbol for accessibility and deafness should be provided in accordance with the design requirements in AS1428.1 (2009) *Design for access and mobility, Part 1: General requirements for access – new building work*.
- The size of the signage and symbol elements needs to consider the viewing distances of passengers and should be designed appropriately. As a minimum the size of any international symbols on signage should be 60 millimetres by 60 millimetres. AS1428.2 (1992) *Design for access and mobility, Part 2: Enhanced and additional requirements – Buildings and facilities, Table 1*, provides additional information on viewing distances and required sizes of symbols on signage.

## Regulatory option

Transport Standards section 16.1 would be amended to include the following (including any requirements retained or amended from the status quo). There are two sub-options for consideration in relation to the size of accessibility symbols:

- The international symbols for accessibility and deafness must be used to identify an access path and which facilities and boarding points are accessible (AS1428.1 (2009) *Design for access and mobility, Part 1: General requirements for access – new building work, Clause 8.2.1, International symbol and Clause 8.2.2, International symbol for deafness*).
- The colours prescribed in AS1428.1 (2009) *Design for access and mobility, Part 1: General requirements for access – new building work, clause 8.2.1 (c) and clause 8.2.2. (c)*, are not mandatory.
- There are two proposals for consideration in relation to the size of accessibility symbols:

### Sub-option 1

The size of accessibility symbols must comply with AS1428.2 (1992) *Design for access and mobility, Part 2: Enhanced and additional requirements – Buildings and facilities, Table 1*.

### Sub-option 2

The size of accessibility symbols must be of appropriate size when considering viewing distances and provided at 60 millimetres x 60 millimetres at a minimum.

These requirements would pertain to conveyances, premises (except premises to which the Premises Standards apply), and infrastructure.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to clarify the viewing distance for sub-option 1.



Specific advice may include:

- For viewing distances between 7 metres and 18 metres, it is recommended that a symbol size be applied between 110 millimetres x 110 millimetres and 200 millimetres x 200 millimetres. For viewing distances greater than 18 metres, a symbol size of at least 450 millimetres x 450 millimetres should be adopted.

## Impact analysis

### Status quo

#### Impacts

- This option would not support the harmonisation of the Transport Standards and Premises Standards would not provide additional clarity to operators and providers on their obligations under the DDA.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- As the non-regulatory option provides added guidance and clarity without any material change to the status quo, there are no costs associated with this option.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. This will support the harmonisation of the Transport Standards and Premises Standards, and provide clarity to operators and providers on their obligations under the DDA.

### Regulatory option

#### Impacts

- As the regulatory changes do not result in any material difference to the current requirements, this should have no material change or cost to existing signage requirements.

#### Benefits

- The regulatory option will support the harmonisation of the Transport Standards and Premises Standards, and provide clarity to operators and providers on their obligations under the DDA.

### CBA of regulatory option

This reform involves proposed definitional change to the Transport Standards. There are no changes to assets, no costs will be incurred. This reform has been incorporated into the overarching economic assessment but has not been assessed quantitatively in the CBA.

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory option, which sub-option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you experienced any issues with the current use and identification of the international symbols for accessibility and deafness on signs?

# 13. Letter heights and luminance contrast of signs

## Issue

Transport Standards section 17.1 Height and illumination, references AS1428.2 (1992) *Design for access and mobility, Part 2 Enhanced and additional requirements – buildings and facilities, Clause 17.1, Signs, Clause 17.2, Height of letters in signs and Clause 17.3, Illumination of signs and Figure 30.*

Section 17.1 contains requirements concerning letter heights and illumination of static, non-braille and non-tactile signs. However, the Transport Standards lack clarity regarding font type and luminance contrast for static, non-braille and non-tactile signs, and do not provide certainty that signage design will be consistent and accessible to people with disability.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 17.1 Height and illumination, would remain unchanged and no new additional requirements or guidance would be issued.

#### 17.1 Height and illumination

Signs must comply with AS1428.2 (1992) Clause 17.1, Signs, Clause 17.2, Height of letters in signs and Clause 17.3, Illumination of signs and Figure 30.

This section pertains to conveyances, premises, except, premises to which the Premises Standards apply, and infrastructure.

### Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include advice related to signage.

Specific advice may include the following:

- Static signage in transport precincts take many forms. Sometimes these are overhead signs and other times they are provided at lower levels for reading from standing and seated positions. Signs can be provided in braille and tactile formats but this may not be appropriate for all signs. For ease of understanding and legibility, Sans Serif fonts or typeface such as Arial should be used.
- Where signs are not provided in tactile and braille formats, it is important that they are designed in a way to ensure elements of signs are legible.
- For signs, letter heights are relative to the distances from which signs are meant to be viewed. For example, a sign which is meant to be viewed from one to two metres will have smaller letter height requirements than a sign viewed from 20 metres.

- As a basic guide to determine an appropriate letter height the following formula may be used: 'Viewing Distance (in metres) x 3 = letter height (in millimetres)'. For example, a sign that is designed to be viewed from ten metres would require 30 millimetre letter heights at a minimum (10 metres x 3 = 30 millimetres).
- Design requirements such as luminance contrast between elements is also critical in ensuring the legibility of signs. Typically, 30 per cent luminance contrast is preferred between signage elements such as letters and symbols and the sign background. Equally 30 per cent luminance contrast is preferred between the sign and the background surface to which it is mounted on or surfaces within two metres. Lighting for signage is also an important consideration. Lighting on signs should ensure that the sign is easily visible but also does not create issues such as glare or unwanted reflections.

## Regulatory option

Transport Standards section 17.1 would be amended to include the following (including any requirements retained or amended from the status quo).

There are two regulatory options for consideration. Option 1 prescribes compliance with an Australian Standards for letter height. Option 2 is performance based, and contains two sub-options for consideration, relating to minimum letter height requirements.

### Option 1

The Transport Standards would require that static signs that are not provided in braille and tactile must be provided so they are clear and legible and must:

- use Sans Serif font
- provide characters, icons and symbols with a minimum luminance contrast of 30 per cent to the background sign surface
- comply with AS1428.2 (1992) *Clause 17.2 Height of letters in signs, Table 2 – Height of letters for varying viewing distances.*

These requirements would apply to conveyances, premises (except premises to which the Premises Standards apply) and infrastructure.

### Option 2

The Transport Standards would require that static signs that are not provided in Braille and tactile must be provided so they are clear and legible and must:

- use Sans Serif font
- provide characters, icons and symbols with a minimum luminance contrast of 30 per cent to the background sign surface
- provide a luminance contrast on a sign of no less than 30 per cent when viewed against the background or against other surfaces that are within two metres.
- provide minimum letter heights (by one of the two sub-options below):

### **Sub-option 1**

By using the Viewing Distance formula.

### **Sub-option 2**

In accordance with AS1428.2 (1992) *Clause 17.2 Height of letters in signs, Table 2, Height of letters for varying viewing distances.*

These requirements would apply to conveyances, premises (except premises to which the Premises Standards apply) and infrastructure.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to reflect the new requirements, including:

- Viewing Distance (in metres) x 3 = Letter height (in millimetres)  
For example, a sign that is designed to be viewed from 10 metres would require 30 millimetre letter heights as a minimum (10 x 3 = 30). Or conversely, a sign with a letter height of 30 millimetres has a maximum viewing distance of 10 metres.

## **Impact analysis**

### **Status quo**

#### **Impacts**

- There would be a lost opportunity to simplify and clarify requirements for static signage in the Transport Standards.

#### **Benefits**

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### **Non regulatory option**

#### **Impacts**

- As the non-regulatory option provides added guidance and clarity without any material change to the status quo, there are no costs associated with this option apart from the lost opportunity cost to simplify and clarify requirements for static signage as exists with the status quo.

#### **Benefits**

- To the extent that guidance is implemented, people with disability would benefit from the more effective provision information on static signage in alignment with best practice guidance.
- Operators and providers may be able to manage the implementation (and related costs) to suit operational requirements, including through staged the implementation.

## Regulatory option

### Impacts

- A lack of clarity regarding the design requirements for static signage in the Transport Standards would remain.

### Benefits

- Operators and providers will benefit from greater clarity regarding design requirements. Whilst the revised part may contain elements such as luminance contrast, these are existing requirements under the status quo and should provide no material change in the outcomes or signage design.

### CBA of regulatory option

This reform involves proposed definitional change to the Transport Standards. There are no changes to assets, no costs will be incurred. This reform has been incorporated into the overarching economic assessment but has not been assessed quantitatively in the CBA.

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Do standards outlining type and luminance contrast for static, non-braille and non-tactile signs lack clarity? What has been your experience navigating these standards?
5. Have you experienced difficulty reading static, non-braille and non-tactile signs in a public transport context? How did this impact your public transport journey?

## 14. Location of signs

### Issue

Requirements for location of signage in the Transport Standards reference Australian Standard AS1428.2 (1992) *Design for access and mobility, Part 2: Enhanced and additional requirements – Buildings and facilities*. While this standard is 30 years' old, there is no evidence that suggests these requirements are not fit for purpose.

Provisions for the location of signage in premises, infrastructure and conveyances is included in Transport Standards section 17.2 Location – premises and infrastructure, and section 17.3 Location – conveyances of the Transport Standards.

The Transport Standards lack clarity in the Transport Standards regarding the location of signs for signage that pertains to conveyances, premises and infrastructure.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 17.2 (Signs) Location – premises and infrastructure, and section 17.3 (Signs) Location – conveyances, will remain unchanged and no guidance will be implemented.

#### 17.2 Location — premises and infrastructure

Signs must be placed according to AS1428.2 (1992) Clause 17.4, Location of signs.

This section pertains to conveyances, premises, except premises to which the Premises Standards apply, and infrastructure.

#### 17.3 Location — conveyances

- (1) If possible, signs are to be placed in accordance with AS1428.2 (1992) AS1428.2 (1992) *Design for access and mobility, Part 2: Enhanced and additional requirements – Buildings and facilities*, Clause 17.4, Location of signs and Figure 30.
- (2) If the design of the conveyance prevents strict compliance, signs must be placed above the head height of passengers, whether they are sitting or standing.
- (3) If used, destination signs must be placed above the windscreen.

This section pertains to the following conveyances: buses, coaches, ferries, trains, trams and light rail.

### Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include advice related to location of signage.

Specific advice may include the following:

- Static signage in transport precincts takes many forms including overhead signs for reading from standing positions and lower level signs for reading from seated positions.
- Signage placement needs to be considered on a case by case basis due to the variances in transport environments. Two main aspects need to be considered:
  - The purpose of the sign message. For example, instructional information versus identification signs.
  - The operational context which considers passenger movements in an environment. For example, a local bus stop identification sign versus an exit sign on a crowded station platform.
- Where signs are intended to be read by a single person at a time, they should be located at lower levels. Similarly, in uncrowded or transient type spaces where passengers are not waiting or congregating, it is expected that low level signs are appropriate. Viewing heights as prescribed under AS1428.2 (1992) takes into account a common view range for both seated and standing passengers when they are within close proximity to a sign.
- It is important that information is provided at higher levels to ensure visibility by many, such as waiting areas, standing transport areas, and directional signage to facilities or access paths.
- It may be beneficial to supplement overhead signs with lower level signs where appropriate. In conveyances or where signs are not directly above an access path, it may be appropriate to install signs at a lower height so long as visibility to the sign is still achieved.
- Signs can be provided in braille and tactile formats however this may not be appropriate for all signs.

## Regulatory option

Transport Standards section 17.2 and section 17.3 would be amended to combine requirements for signage location that pertains to conveyances, premises and infrastructure in one section.

The following additional requirements would be added to the Transport Standards (including any requirements retained or amended from the status quo):

- Specific requirements for signage **not provided in braille and tactile format** would be included:
  - Signs are required to be visible from seated and standing positions.
  - If the design of the conveyance prevents strict compliance, signs must be placed above the head height of passengers, whether they are sitting or standing.
  - If used on conveyances, destination signs must be placed above the windscreen.

### Sub-option 1

Where possible, signs must be placed:

- Between 1000 millimetres and 1600 millimetres from the finished floor level in uncrowded areas.
- Above 2000 millimetres above the finished floor level in areas of high patronage or crowding.



## Sub-option 2

Where possible, signs are to be placed in accordance with AS1428.2 (1992) *Design for access and mobility, Part 2: Enhanced and additional requirements – Buildings and facilities, Clause 17.4 Location of signs (a), (b) and (c)*, including the notes.

These requirements will pertain to buses, coaches, ferries, trains, trams and light rail, premises (except premises to which the Premises Standards apply) and infrastructure.

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to distinguish between the use of overhead and non-overhead signs and why it may be appropriate to provide a mix of signage options to suit different viewing heights and situations.

Specific advice may include:

- Signage locations needs to consider two main aspects:
  - The purpose of the sign message. For example, instructional information versus identification signs.
  - The operational context which considers passenger movements in an environment. For example, a local bus stop identification sign versus an exit sign on a crowded station platform.
- Where signs are intended to be read by a single person at a time they should be located at lower levels. Similarly, in uncrowded or transient type spaces where passengers are not waiting or congregating it is expected that low level signs are appropriate. The viewing heights of 1600 to 1000 millimetres take into account a common view range for both seated and standing passengers when they are within close proximity to a sign (approximately two metres distance) which would be relevant to these situations.
- It is important that information is provided at higher levels to ensure visibility by many, such as waiting areas, standing transport areas, and directional signage to facilities or access paths.
- It may be beneficial to supplement overhead signs with lower level signs where appropriate. In conveyances or where signs are not directly above an access path, it may be appropriate to install signs at a lower height so long as visibility to the sign is still achieved.

## Impact analysis

### Status quo

#### Impacts

- The Transport Standards will continue to lack clarity regarding the requirements for signage location on conveyances, at infrastructure sites, and in premises to assist operators and providers meet their obligations to provide accessible public transport services and reduce discrimination for people with disability.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- As the non-regulatory option provides added guidance and clarity without any material change to the status quo, there are no costs associated with this option apart from the lost opportunity cost to simplify requirements for static signage in the Transport Standards.

### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- If guidance is adopted, the option allows for a greater clarity in understanding the requirements particularly in relation to separation of general signage location requirements from Braille and tactile signs.

## Regulatory option

### Impacts

- As the regulatory changes does not result in any material difference to the current requirements this should have no added cost to the existing signage requirements.

### Benefits

- The option allows for a greater clarity in understanding the requirements particularly in relation to separation of general signage location requirements from braille and tactile signs. Simplification through the combining of the two relevant sections into one section may also have an added benefit for operators and providers and people with disability when understanding and / or delivering requirements.

### CBA of regulatory option

This reform involves proposed definitional change to the Transport Standards. There are no changes to assets, no costs will be incurred. This reform has been incorporated into the overarching economic assessment but has not been assessed quantitatively in the CBA.

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which sub-option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. In your experience have the standards for sign location lacked clarity?
5. What is your experience using signs in the public transport context? Has the location of signs impacted your ability to access public transport services?

## 15. Braille embossed (printed) specifications

### Issue

Transport Standards section 27.1 Access to information about transport services, and section 27.2 Direct assistance to be provided, require that:

- General information about transport services must be accessible to all passengers.
- If information cannot be supplied in a passengers preferred format, equivalent access must be given by direct assistance.

However, Transport Standards section 17.6 Raised lettering or symbols or use of, provides minimal provisions concerning the best practice standard and complexity expected of braille and raised lettering to ensure fair and accessible public transport services are provided to people with disability.

Grade 1 (uncontracted) Braille<sup>13</sup> is used for signage in Australia. It is a one-to-one representation of letters without the use of contractions (shorthand). Grade 1 (uncontracted) Braille is used on signs because the skill of readers will vary and cannot be anticipated.

The Premises Standards specify that Grade 1 Braille (uncontracted) should be used on signs, in accordance with the criteria set out in The Rules of Unified English Braille by the Australian Braille Authority. This is the easiest form of braille for readers and ensures maximum comprehension of the text.

Inconsistent braille requirements and usage presents challenges to braille readers. If information is presented in braille formats other than Grade 1 (uncontracted), some users may be unable to access key journey information. This does not meet the varying needs of people with disability or provide accessible public transport services.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 17.6 Raised lettering or symbols or use of braille, would remain unchanged and no new additional requirements or guidance would be issued.

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<sup>13</sup> Australian Braille Authority, *Braille codes used in Australia*, 8 December 2011, <https://brailleaustralia.org/about-braille/#signage>

### 17.6 Raised lettering or symbols or use of Braille

- (1) If a sign incorporates raised lettering or symbols, they must be at least 0.8 millimetres above the surface of the sign.
- (2) If an operator or provider supplements a notice with braille characters, they must be placed to the left of the raised characters.

This section pertains to conveyances, premises and infrastructure.

### Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide on good practice for the provision of information in braille formats.

Specific guidance may include:

- The standard of braille expected when information is provided in braille is in Grade 1 Braille (uncontracted) in accordance with the criteria set out in The Rules of Unified English Braille by the Australian Braille Authority. On request though, passengers should, in a timely manner, be supplied the information in their preferred braille format as per current requirements in Transport Standards section 27.1 Access to information about transport services.
- The demographics of a particular location – for example, a concentration of service providers for people with vision impairments – might guide when it is appropriate to pre-produce information in braille.
- Braille on service-related publications or pamphlets that are pre-prepared and supplied directly and randomly to passengers, should be of the easiest braille format to read. This is Grade 1 Braille (uncontracted). Grade 1 (uncontracted) Braille should be the default when materials such as pamphlets or publications are pre-prepared for the general public as it will be directly offered to readers of varying braille proficiency.
- Expert braille readers may find Grade 1 (uncontracted) Braille time consuming for longer publications, preferring the much more quickly read contracted formats. While this is understood, the legibility of pre-prepared publications and pamphlets for braille readers of only modest skills must be accommodated.
- If experienced braille readers specifically request information such as pamphlets and publications in a grade of braille other than Grade 1 (uncontracted), the information must be supplied in the requested grade in a timely manner.
- In some instances, passengers who have their own braille embosser may request electronic copy of the publication or pamphlet so that they can then emboss (print) it themselves in their preferred grade of braille. To enable this, an accessibly formatted electronic copy of the publication should be available for distribution.

### Regulatory option

Transport Standards section 17.6 would be amended to include the following (including any requirements retained or amended from the status quo):

- If information is presented to passengers in braille format, the braille must be Grade 1 Braille (uncontracted), in accordance with the criteria set out in The Rules of Unified English Braille by the Australian Braille Authority.
- If material is specifically requested in a grade of braille other than Grade 1 Braille (uncontracted) it must be supplied in the passenger's preferred grade in a timely manner.

These requirements would apply to conveyances, premises and infrastructure.

The Transport Standards Guidelines and / or The Whole Journey Guide may be updated to reflect new requirements for conveyances, premises and infrastructure.

Specific guidance may include:

- Braille on service-related publications or pamphlets that are pre-prepared and supplied directly to passengers, should Grade 1 Braille (uncontracted). Expert readers may find this format time consuming for longer publications. While this is understood, the legibility of pre-prepared publications and pamphlets for braille readers of only modest skills must be accommodated.
- Grade 1 (uncontracted) Braille should therefore be the default when materials such as pamphlets or publications are pre-prepared for the general public as it will be supplied directly on request or offered to readers of varying proficiency.
- The demographics of a particular location, for example a concentration of non-government organisations and service providers for people with vision impairments, might guide when it is appropriate to pre-produce information in braille.
- If experienced braille readers specifically request information such as pamphlets and publications in a grade of braille other than Grade 1 (uncontracted) the information must be supplied in the requested grade.
- In some instances, passengers who have their own braille embosser may request electronic copy of the publication or pamphlet so that they can then emboss (print) it themselves in their preferred grade of braille. To enable this, an accessibly formatted electronic copy of the publication should be available.

## Impact analysis

### Status quo

#### Impacts

- Ambiguity regarding the standard of braille expected when braille information is provided or requested will remain in the Transport Standards.
- Passengers may continue to experience inconsistency in the format and provision of information in braille when travelling on public transport.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- As the provision of information in accessible formats such as braille is already a requirement under the Transport Standards, costs associated with updating the format of braille provided may be reduced.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the requirements which may not lead to the provision of braille in a format required by people with disability.

## Benefits

- Benefits will be achieved to the extent that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Braille readers with a modest skill level will benefit from the simplest form of braille being provided on pamphlets, notices or other pre-prepared information. Advanced readers will be able to request more concise formats of braille that speed reading time.

## Regulatory option

### Impacts

- As the provision of information in accessible formats such as braille is already a requirement under the Transport Standards, there would be negligible costs incurred by operators and providers in updating the format of braille provided.

### Benefits

- People who rely on braille as their primary form of written communication will receive information of equal quality to other passengers. Braille readers with a modest skill level will benefit from the simplest form of braille being provided on pamphlets, notices or other pre-prepared information. Advanced readers will be able to request more concise formats of braille that speed reading time.
- Operators and providers will have clarity regarding the requirements which will lead to the provision of braille in a format required by people with disability.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Providing consistent standards on requirements for the standard and quality of braille across all public transport sites will improve understanding of features in public transport.
- **Accessibility:** This reform can improve understanding of features in public transport potentially encouraging more trips and new users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, and improved access to services.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs may be incurred to update existing braille letterings that do not meet the new specifications.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** Nil

### Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What has been your experience accessing public transport information printed in brail (such as information pamphlets)?

## 16. Braille and tactile lettering for signage

### Issue

Increasingly, braille and tactile signs and labels are used in public transport networks to provide instructional information, such as how to use a help point or for facilities on-board conveyances. Braille and tactile signs provide people with vision impairment equitable access to public transport services, subsequently reducing discrimination for people with disability.

Transport Standards section 17.6 Raised lettering or symbols or use of, provides minimal provisions concerning the best practice standard and the expected complexity of braille and raised lettering to ensure fair and accessible public transport services are provided to people with disability.

The Transport Standards does not:

- Specify the standard of braille and tactile text expected when provided in these formats on signage.
- Reflect current best practice and standards in relation to braille and tactile signs.
- Distinguish the requirements between identification signage required under the Premises Standards and other signage or labels being delivered in these formats for information or instructions.
- Align with requirements as prescribed under the Premises Standards.

Provision for the use of braille and tactile signs is provided in the Premises Standards and reflected in the National Construction Code (NCC). The Premises Standards specify Grade 1 Braille (uncontracted) in accordance with the criteria set out in The Rules of Unified English Braille by the Australian Braille Authority. This is the easiest form of braille for readers and allows for the maximum comprehension of the text.

For the most part, the same requirements apply for tactile elements in AS1428.4.2 (2018) *Design for access and mobility, Part 4.2 Means to assist the orientation of people with vision impairment – Wayfinding signs* and AS1428.1 (2009) *Design for access and mobility, Part 1: General requirements for access – New building work*, and the Premises Standards as identification signage, with the following exceptions:

- The use of sentence case versus title case
- Requirement for use of Arial typeface (Premises Standards) rather than Sans Serif.

Inconsistent braille requirements and usage presents challenges to braille readers. If information is presented in braille formats other than grade 1 (uncontracted), some users may be unable to access key journey information. This does not meet the varying needs of people with disability or provide accessible public transport services.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.



## Policy options

### Status quo

Transport Standards section 17.6 Raised lettering or symbols or use of braille, would remain unchanged and no new guidance would be issued.

#### 17.6 Raised lettering or symbols or use of Braille

- (1) If a sign incorporates raised lettering or symbols, they must be at least 0.8 millimetres above the surface of the sign.
- (2) If an operator or provider supplements a notice with braille characters, they must be placed to the left of the raised characters.

This section pertains to conveyances, premises and infrastructure.

### Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include best practice advice on braille and tactile signage.

Specific guidance may include the following:

- Tactile signage comprises raised text and symbols that can be useful for people who are blind or have low vision. Similarly, braille when provided on signs is a touch reading system that can convey information in a user's preferred format. It is best practice to provide both elements on signage.
- Signs should be designed and provided in a consistent way and in a location that makes them functional for the reader.
- Messaging on signs when provided in braille should consider critical information for the reader rather than a direct translation of text. This ensures information is succinct and provides the reader with clear instruction or information.
- Labels are often used with braille and tactile information. They should be located adjacent to the component or device they relate to, to provide information in the most appropriate location for the customer to read and use.
- Braille and tactile signs should closely align to the requirements of the Premises Standards. Some of the key considerations include:
  - Braille and tactile components should be located between 1200 millimetres and 1600 millimetres above the ground or floor surface.
  - Signs should have good luminance contrast between elements and the background surface and be located in places that are well lit.
  - An equivalent message in braille should be provided to that in text or written information including pictograms on signs.
  - Braille should be Grade 1 Braille (uncontracted) in accordance with the criteria set out by the Australian Braille Authority and in sentence case so it can be read by the greatest cohort of braille users.
  - Braille should be located 8 millimetres below the bottom line of text (not including descenders) and be left justified.
  - Where an arrow is used in the tactile sign, a solid arrow should be provided for braille readers.
  - On signs with multiple lines of text and characters, a semicircular braille locator at the left margin should be horizontally aligned with the first line of braille text.

- Tactile characters should be raised or embossed to a height between 1 millimetre and 1.5 millimetres.
- Title case should be used with upper case tactile characters, height between 15 millimetres and 55 millimetres and lower case being half the upper character height.
- The spacing of tactile characters on signs should be 2 millimetres with words spaced 10 millimetres.
- The thickness of letter strokes should be between 2 millimetres and 7 millimetres.
- Tactile text should be Sans Serif typeface such as Arial.
- In some circumstances locations of signs may need to fall out of the zones outlined above. Similarly, design elements such as the use of uncontracted braille in some situations may not be achievable or appropriate. It is important that consultation with people with disability should be considered to identify the most appropriate placement and design solutions when there is a need to deviate from best practice.

## Regulatory option

Transport Standards section 17.6 Raised lettering or symbols or use of braille, would be removed and replaced with new requirements for braille and tactile design.

New requirements in the Transport Standards would include:

### Braille and tactile signs

Where a braille and tactile sign is provided that is not required under Part D3.6 of the Premises Standards or covered under another specific provision within the Transport Standards, it must comply with the following:

- Braille where provided on signs must meet the requirements for braille design requirements (listed below).
- Tactile elements where provided on signs must meet the requirements for tactile design requirements (listed below).
- The entire sign, including any frame, must have all edges rounded.
- Braille and tactile elements on signs must be located not less than 1200 millimetres and not higher than 1600 millimetres above the ground or floor surface.
- Braille messaging shall be comparable to that in text or written information including pictograms.
- The background, negative space or fill of signs must be of matte or low sheen finish.
- The characters, symbols, logos and other features on signs must be matte or low sheen finish.
- The background, negative space, and fill of a sign or border with a minimum width of 5 millimetres must have a luminance contrast with the surface on which it is mounted of not less than 30 per cent.

These requirements would apply to conveyances, infrastructure and premises (except premises to which the Premises Standards apply).

### Braille design requirements

- Braille must be in accordance with the criteria set out by the Australian Braille Authority.
- Braille must be Grade 1 Braille (uncontracted).
- Braille shall be in sentence case.

- Braille must be located 8 millimetres below the bottom line of text (not including descenders).
- Braille must be left justified.
- Where an arrow is used in the tactile sign, a solid arrow must be provided for braille readers.
- On signs with multiple lines of text and characters, a semicircular braille locator at the left margin must be horizontally aligned with the first line of braille text.
- Braille shall be provided in the same orientation as visual elements of the sign.

These requirements would apply to conveyances, infrastructure and premises (except premises to which the Premises Standards apply).

### **Tactile design requirements**

- Tactile characters must be raised or embossed to a height of not less than 1 millimetre and not more than 1.5 millimetres.
- Title case must be used for all tactile characters, as well as:
  - upper case tactile characters must have a height of not less than 15 millimetres and not more than 55 millimetres
  - lower case tactile characters must have a minimum height of 50 per cent of the related upper case characters.
- Tactile characters, symbols, and the like, must have rounded edges.
- The minimum letter spacing of tactile characters on signs must be 2 millimetres.
- The minimum word spacing of tactile characters on signs must be 10 millimetres.
- The thickness of letter strokes must be not less than 2 millimetres and not more than 7 millimetres.
- Tactile text must be left justified, except that single words may be centre justified.
- Tactile text must be Sans Serif typeface.
- Tactile characters, icons and symbols must have a minimum luminance contrast of 30 per cent to the surface on which the characters are mounted.

These requirements would apply to conveyances, infrastructure and premises (except premises to which the Premises Standards apply).

### **Braille and tactile labels**

Braille and tactile labels may be provided to assist with use of devices or components. If provided, it must comply with the following:

- Where braille and tactile elements are used to label components, the requirements above of Braille and tactile signs, Braille design requirements, and Tactile design requirements, apply with the following exclusions:
  - The entire sign, including any frame, must have all edges rounded.
  - Braille and tactile elements on signs must be located not less than 1200 millimetres and not higher than 1600 millimetres above the ground or floor surface.
  - The background, negative space, fill of a sign or border with a minimum width of five millimetres must have a luminance contrast with the surface on which it is mounted of not less than 30 per cent.
- Where both braille and tactile elements are produced on the same label, braille character can be provided at a height maximum of one millimetres.

These requirements would apply to conveyances, infrastructure and premises (except premises to which the Premises Standards apply).

The Transport Standards Guidelines would be updated to reflect new requirements. Specific guidance may include:

- The benefits of uncontracted braille as the preference as it accommodates more users being the simplest form to comprehend.
- Messaging on signs when provided in braille should consider critical information for the reader rather than a direct translation of text. This ensures information is succinct and provides the reader with clear instruction or information.
- The types of signs that may be considered as appropriate to be provided in braille and tactile.
- For greater customer benefit and consistency, signs should be available in braille and tactile format where there is feature such as accessible toilets or where there is a critical facility that requires identification for example an information point.
- Additional guidance on where it may be practicable to use contracted versus uncontracted braille. Longer text for instructions may warrant the use of an equivalent access provision to provide information in a contracted braille format. This may particularly be the case if time sensitivity is critical in receiving the information, such as in emergencies, where it is necessary to read multiple lines of text. This would need to be considered as part of an equivalent access provision in consultation with end users.
- The placement of signs in some instances may not be able to be placed in accordance to the regulations due to constraints. Consultation and discussion with end users is necessary to develop a solution that retains functionality and legibility of the signage elements.
- Define the distinction between labels and signs. This is important as labels often communicate information in relation to the use of a device or component.

## Impact analysis

### Status quo

#### Impacts

- Inconsistencies in requirements for the provision of braille and tactile signage and design standards between the Transport Standards and the Premises Standards will remain.
- Passengers may continue to experience inconsistency in the format and provision of information via braille and tactile signage when travelling on public transport.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs may be incurred by operators and providers relating to the upgrade of braille and tactile signage that is not compliant with design requirements.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the new requirements which may not lead to improvements in the provision of braille or tactile signage in the public transport environment.

## Benefits

- Benefits will be achieved to the extent that operators and providers implement guidance, and may result in greater clarity in understanding the requirements for braille and tactile signs that fall outside of the remit of the Premises Standards.
- Greater clarity is beneficial for both people with disability, and operators and providers in achieving a better level of consistency for braille and tactile signage throughout transport networks. Better consistency may also result in improved confidence in using transport networks by some people with disability.
- Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Costs will relate to the upgrade of signs to meet the regulatory requirements.
- One-off costs may be incurred by operators and provides to audit and review existing braille and tactile signage provided in transport networks. Should changes be needed, this may incur additional administration and design costs in developing and installing new signage.
- Further costs may also be incurred for roll out of any new signs. The extent of cost would be dependent on the number of signs that are deemed not compliant with the new requirements.

### Benefits

- Greater clarity will be provided in understanding and differentiating between facility signage as required under the Premises Standards and other braille and tactile signage which is increasing in use as part of transport networks. Greater clarity is beneficial for both people with disability and operators/providers in offering a better level of consistency for braille and tactile signage throughout transport networks.
- Braille readers will benefit from consistent provision of information from signage, and a clear understanding on the type of braille being provided on signs or other information. This may increase readers' confidence in being able to use the transport system with assurance that information is provided to an expected level.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Providing consistent standards on requirements for the design of braille across all public transport sites should improve safety of those who are vision impaired.

- **Amenity:** Providing consistent standards on requirements for the design of braille across all public transport sites will improve understanding of features in public transport sites.
- **Accessibility:** This reform should improve accessibility for those who are vision impaired, providing those individuals with equal access to all modes of transportation.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, and improved access to services.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs may be incurred to update existing braille letterings that do not meet the new specifications.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you experienced difficulty reading braille information provided to on signage in a public transport setting? If yes, how?

# 17. Lifts: Braille and tactile information at lift landings

## Issue

The lack of braille and tactile wayfinding information at lift landings presents challenges for people with disability. People who are deafblind are not assisted by hearing aids and audio announcements as they gather information and communicate by touch. The current requirements in the Transport Standards for audio announcements are of little use to this cohort of passengers.

The Transport Standards references AS1735.12 (1999) *Lifts, escalators and moving walks, Part 12: Facilities for persons with disabilities*, which has no requirement for braille and tactile signs on lift landing door frames.

The absence of appropriate wayfinding information presents a barrier for independent travel as passengers will not have the required information about which landing a lift car has arrived at and / or which way they need go to continue their journey.

This does not meet the varying needs of people with disability on public transport or meet the purpose of the Transport Standards that seek to remove discrimination for people with disability in relation to public transport services.

AS1735.12 (2020) *Lifts, escalators and moving walks*, has enhanced accessibility requirements which include installing raised tactile and braille signs which identify the lift car and building level. These are well considered technical specifications but unfortunately assume that lifts will be located in multistory buildings that have numbered floors rather than the open situations often associated with public transport over bridges and subways.

In a public transport scenario, a variation from this requirement for identified platform, street name, over-bridge, subway or concourse would be much more useful.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 13.1 Compliance with Australian Standard – premises and infrastructure, would remain the same and no new guidance would be issued.

#### 13.1 Compliance with Australian Standard — premises and infrastructure

Lift facilities must comply with AS1735.12 (1999).

This section pertains to premises (except premises to which the Premises Standards apply), and infrastructure (except airports that do not accept regular public transport services).

## Non-regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include best practice guidance for braille and tactile information at lift landings.

The advice would pertain to premises, except premises to which the Premises Standards apply, and infrastructure (except airports that do not accept regular public transport services).

Specific guidance may include the following:

- Braille and tactile signs should be located on the lift landing door frames that can be reached from within the lift allow passengers not able to discern visual cues in a lift car to identify the landing at which the car has arrived.
- Lift landings on platforms should have braille and tactile signs identifying the platform landing which comply with AS1428.4.2 (2018) *Design for access and mobility, Part 4.2: Means to assist the orientation of people with vision impairment – Wayfinding signs, section 5 Tactile signs – design requirements*. AS1735.12 (2020) *Appendix ZA.5.2*, specifies where on the lift landing door frame the signs should be placed.
- Lift landings at over bridges, subways or concourses, road reserves, parking or passenger loading areas should have identifying braille and tactile signs identifying the street or facility landing which comply with AS1428.4.2 (2018) *Design for access and mobility, Part 4.2: Means to assist the orientation of people with vision impairment – Wayfinding signs, section 5 Tactile signs – design requirements*, and are located as per AS1735.12 (2020), *Appendix ZA.5.2*.
- The information on the braille and tactile sign at lift landings should be succinct to allow quick reading and confirmation of location by a passenger. For example, a sign at a landing in a road reserve might only state the name of the street. Similarly, a landing in a subway might only be signed as 'Subway' or a platform landing might be signed as 'Platform'.
- If street names are long, they may be abbreviated. However, any braille signs must meet any design requirements identified in the Transport Standards.

## Regulatory option

Transport Standards section 13.1 would be amended to include the following (including any requirements retained or amended from the status quo).

New requirements in the Transport Standards would require that lift landings:

- on platforms must have braille and tactile signs identifying the platform landing.
- at road reserves, parking or passenger loading areas must have identifying braille and tactile signs identifying the street or facility landing.
- at overbridges, subways or concourses must have braille and tactile signs identifying the level.

The above requirements must comply with:

- AS1428.4.2 (2018)
- be located as per AS1735.12 (2020) *Appendix ZA.5.2*.

These requirements would pertain to premises (except premises to which the Premises Standards apply), and infrastructure (except airports that do not accept regular public transport services).

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect any new requirements.



Specific guidance may include:

- Braille and tactile signs located on the lift landing door frames that can be reached from within the lift allow passengers not able to discern the audio and visual cues in a lift car to identify the landing at which the car has arrived.
- The information on the braille and tactile sign at lift landings should be succinct to allow quick reading and confirmation of location by a passenger.
- For example, a sign at a landing in a road reserve might only state the name of the street. Similarly, a landing in a subway might only be signed as 'Subway' or a platform landing might be signed as 'Platform'.
- If street names are long, they may be abbreviated but braille must be uncontracted to meet the standard required by the Transport Standards.

## Impact analysis

### Status quo

#### Impacts

- People with disability may continue to face challenges navigating public transport sites as lifts would not provide adequate directional wayfinding information.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs may be incurred to install braille and tactile signs at lift landings.
- As this guidance is discretionary, it may not provide certainty for passengers that braille and tactile signage will be provided. This uncertainty may reduce passengers' confidence to travel and ability to travel independently.

#### Benefits

- To the extent that guidance is followed, people who are deaf / blind will benefit from the provision of improved wayfinding information when exiting a lift car. Braille and tactile signage will assist passengers identify their location and next steps to continue their public transport journey.
- Benefits will be achieved to the extent that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

### Regulatory option

#### Impacts

- Costs will be incurred to install braille and tactile signs at lift landings.

## Benefits

- People with disability will receive the required information about which landing a lift car has arrived at and / or which way they need go to continue their journey to successfully navigate an independent transport journey.
- This option will clarify requirements for operators and providers by aligning regulation with industry standard and best practice.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of braille and tactile information in lifts increases safety for people with vision-related disability by reducing the risk of injury.
- **Amenity:** Provision of braille and tactile information in lifts should improve the experience for all users and improve the ease of use of people with vision-related disability to use lifts.
- **Accessibility:** Provision of lift accessibility in lifts should attract new users to use public transport provided it grants access to pathways previously unattainable.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, and improved access to services.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or providing new facilities for braille and tactile information at lift landings.
- **Monetised compliance costs (administrative):** 1.3
- **Monetised compliance costs (substantive):** 0.1

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What has been your experience of lift landing signs in lifts in the public transport environment?

## 18. Lifts: Audible wayfinding

### Issue

The Transport Standards reference AS1735.12 (1999) *Lifts, escalators and facilities*, which requires that the floor level be orally identified in English when lifts serve more than three floors. Most public transport lifts serve only two levels, travelling from platforms up or down to overbridges, subways and concourses. As such, many public transport lifts are not required to have any verbal announcements identifying landing level or wayfinding information.

The lack of audible announcements and wayfinding information presents challenges for people with disability. People with vision or cognitive impairments are sometimes uncertain about which landing a lift car has arrived at and or which way they need go to continue their journey. This does not meet the varying needs of people with disability or provide accessible public transport services.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 13.1 Compliance with Australian Standard – premises and infrastructure, would remain unchanged and no new guidance would be made.

##### **13.1 Compliance with Australian Standard – premises and infrastructure**

Lift facilities must comply with AS1735.12 (1999)

This section pertains to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

#### Non-regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include best practice guidance for audible landing location and succinct wayfinding information in lift cars.

There are two options proposed for how lifts should provide succinct audio announcements on reaching a landing.

The guidance would apply to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

## Option 1

Specific guidance may include that lift cars should provide the following location and wayfinding cues to assist passengers:

- On multi-platform infrastructure, lifts cars arriving at platform landings should announce the platform number or numbers.
- Lift cars arriving at landings in road reserves, parking or passenger loading areas should announce the name of the street or facility.
- Lifts arriving at overbridges, subways or concourses should also audibly confirm the place in which they had arrived.
- Informing passengers with vision or cognitive impairments if the car was a through or turnaround unit would also be of assistance.

## Option 2

Specific guidance on succinct wayfinding information in lift cars may include:

- Lift cars should provide succinct audio information on arriving at landings that permits passengers to confirm where they have arrived and to make basic orientation decisions.
- If possible, basic orientation instructions should be included in the audio announcement. The verbal information is intended to be succinct rather than detailed.
- Announcements should be succinct, not more than five to ten seconds, based on the assumption that once the passenger has confirmed their location, they have enough knowledge of the location to safely continue their journey.

### Example

A rail, light rail or bus station with a single island platform is located between two parallel streets.

Its overbridge or subway has three lift and stair combinations to traverse through the station. Lift 1 is on the Smith Street entry, Lift 2 is on the Jones Street entry and Lift 3 provides access to platforms one and two.

The following audio announcements would be beneficial for people with hearing impairment in each scenario:

1. Arriving at the overbridge in lift 3:  
"Overbridge. Lift and stair to Smith Street to the left. Lift and stair to Jones Street to the right."
2. Arriving at the platform in lift 3:  
"Platform. Platform one to the right. Platform two to the left."
3. Arriving at the overbridge in lift 1:  
"Overbridge. Lifts and stairs to platform and then to Jones Street to the right."
4. Arriving at Smith Street in lift 1:  
"Smith Street. Bus stop to the left as you leave the station, passenger pickup to the right."

## Regulatory option

Transport Standards section 13.1 would be amended to include the following (including any requirements retained or amended from the status quo).

There are two regulatory options proposed. Both options would apply to premises (except premises which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

### Option 1

New requirements in the Transport Standards would include:

- Lift cars arriving at platform landings must announce the platform number.
- Lift cars arriving at landings in road reserves, parking or passenger loading areas must announce the name of the street or facility.
- Lift cars arriving at overbridges or concourses must announce the level and give succinct instructions directing passengers to exits and to lifts that access other platforms.

### Option 2

New requirements in the Transport Standards would include:

- Lift cars must provide succinct audio information on arriving at landings that permits passengers to confirm where they have arrived and to make basic orientation decisions.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include the following guidance for both options:

- On multi-platform infrastructure, lift cars arriving at platform landings should announce the platform number or numbers. This is a valuable location and wayfinding cue for people who have a vision impairment. For the same reason, lift cars arriving at landings in road reserves, parking or passenger loading areas should announce the name of the street or facility.
- Lifts arriving at overbridges, subways or concourses should also audibly confirm the place in which they had arrived. Informing passengers with vision or cognitive impairments if the car was a through or turnaround unit would also be of assistance.
- If possible, basic orientation instructions should be included in the audio announcement. The verbal information is intended to be succinct rather than detailed.
- Announcements should be succinct, not more than five to ten seconds, based on the assumption that once the passenger has confirmed their location, they have enough knowledge of the location to safely continue their journey.
- An example scenario would also be included in the guidance.

## Impact analysis

### Status quo

#### Impacts

- The lack of accessible wayfinding information in relation to lifts will continue to exist and present challenges for people with disability.
- People with disability may continue to face challenges navigating public transport sites as lifts would not provide adequate directional wayfinding information.

## Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs may be incurred to develop and install verbal audio announcements. Since most existing lift cars are equipped to deliver verbal audio announcements, the costs requiring audio announcements at each landing may be limited to developing the announcements for each location and reprogramming the lift rather than procuring a new lift.
- As this guidance is discretionary, it may not provide certainty for passengers that audible wayfinding information will be provided, nor that there will be audio announcements for lift levels below level 3. This uncertainty may reduce passengers' confidence to travel and ability to travel independently.

### Benefits

- To the extent that guidance is followed, people with disability will benefit from the provision of improved wayfinding information when exiting a lift car.
- Implementation costs will only be incurred to the level that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Costs may be incurred to procure a new standard of lift that complies the new audio announcement requirements. However, where lifts are procured that comply with AS1735.12 (2020), in line with industry best practice, additional procurement costs may be limited. Additionally, since most existing lift cars are equipped to deliver verbal audio announcements, the costs requiring audio announcements at each landing may be limited to developing the announcements for each location and reprogramming the lift rather than procuring a new lift.

### Benefits

- Passengers with disability will benefit from improved audible wayfinding information provided at all lift landing levels. The additional directional wayfinding cues will provide passengers who rely on audio announcements information to assist a successful journey.
- People with vision impairments and cognitive impairments will benefit by being able to confirm their location and directional next steps to reach their destination. This will improve the confidence of passengers and promote independent travel.
- If the National Construction Code adopts this newer Australian Standard (which is seen as industry standard and best practice), this option will help to align standards and simplify the regulatory requirements for operators and providers.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of audible wayfinding in lifts increases safety for people with vision-related disability by reducing the risk of injury.
- **Amenity:** Provision of audible wayfinding in lifts should improve the experience for all users and the ease of use for people with vision-related disability to use lifts.
- **Accessibility:** Provision of lift accessibility in lifts could attract new users to use public transport provided it grants access to pathways previously unattainable.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, and improved access to services.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or providing new facilities for audible wayfinding.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 3.5

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option 1 or 2, or regulatory option 1 or 2? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What has been your experience of automated audio announcements in lifts in the public transport environment?
5. Have you experienced a situation where you have been unable to orient yourself or determine your location correctly?



# 19. Lifts: Emergency communication systems in lift cars

## Issue

In an emergency, people who are deaf, hard of hearing, speech impaired or non-verbal must be able to contact staff and receive a response confirming that their call has been received and is being acted upon. While people who have standard hearing and can speak English can ask for help, people who are hearing impaired and who are unable to communicate verbally are at risk of being unable to communicate the need for assistance during an emergency.

The current Transport Standards references AS1735.12 (1999) *Lifts, escalators and moving walks*. This is outdated and has no requirements for means by which deaf, hard of hearing, speech impaired or non-verbal passengers in a lift car can communicate with staff in an emergency and receive a message confirming their call.

The absence of adequate emergency communication systems presents a barrier for independent travel as passengers may find themselves in an emergency situation with no means to communicate or contact staff. Emergency situations where passengers cannot communicate with staff can cause considerable anxiety for individuals who experience such a situation. The cohort of passengers that this impacts is currently increasing in size as these conditions positively correlate with age.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

No changes to the Transport Standards or guidance would be made. The Transport Standards section 13.1 would remain unchanged.

#### **13.1 Compliance with Australian Standard – premises and infrastructure**

Lift facilities must comply with AS1735.12 (1999)

This section pertains to premises, except premises to which the Premises Standards apply and infrastructure, except airports that do not accept regular public transport services.

### Non-regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include best practice guidance for emergency communication systems in lift cars to ensure deaf, hard of hearing, speech impaired or non-verbal passengers are able to communicate with staff in an emergency and receive a message confirming their call.

The advice would pertain to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

Specific guidance may include the following:

- Emergency communication systems in lift cars should comply with AS1428.5 (2010) *Clause 6.4* and AS1735.12 (2020) *Clause 5.4.2.5*. Deaf, hard of hearing, speech impaired or non-verbal passengers travelling in a lift car should be as able to communicate with staff in an emergency in an equivalent means to other passengers. If any of these passengers initiate the emergency call, they should receive a message or signal confirming their call has been received and will be acted upon.
- This confirmation should be verbal but also include a text message located adjacent to the emergency communication system. The text should state 'help coming' or similar and illuminate on the control room's receipt of the emergency call by the passenger. This is in excess of the requirements of AS1735.12 (2020) but will be of reassurance for passengers not able to verbally interact with staff over the intercom system.
- If the communication system involves an induction loop system the symbol for hearing should be located adjacent to the microphone.

## Regulatory option

Transport Standards section 13.1 would be amended to include the following (including any requirements retained or amended from the status quo):

- Emergency communication systems in lift cars must comply with AS1428.5 (2021) *Clauses 2.4 and 3.2* and AS1735.12 (2020) *Clause 5.4.2.5*.

The new requirements would apply to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements and include guidance for premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

Specific guidance may include the following:

- Deaf, hard of hearing, speech impaired or non-verbal passengers travelling in a lift car should be as able to communicate with staff in an emergency in an equivalent means to other passengers. If any of these passengers initiate the emergency call, they should receive a message or signal confirming their call has been received and will be acted upon.
- This confirmation should be verbal but also include a text message located adjacent to the emergency communication system. The text should state 'help coming' or similar and illuminate on the control room's receipt of the emergency call by the passenger. This is in excess of the requirements of AS1735.12 (2020) but will be of reassurance for passengers not able to verbally interact with staff over the intercom system.
- If the communication system involves an induction loop system, the symbol for hearing should be located adjacent to the microphone.

## Impact analysis

### Status quo

#### Impacts

- The cost would be a lost opportunity to improve emergency communication systems in lifts which takes into account technological advances and caters for all cohorts of passengers.
- Deaf, hard of hearing, speech impaired or non-verbal passengers may continue to face challenges communicating in an emergency, which reduces the safety and confidence to travel of these passengers.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs may be incurred to install additional visual and audio systems in lift cars. The additional incremental cost for a new lift is not likely to be significant, however costs may be greater for existing assets depending on the amount of retrofitting required.
- As this guidance is discretionary, it may not provide certainty for passengers who are deaf, hard of hearing, speech impaired or non-verbal that they will be able to effectively communicate with staff in an emergency. This uncertainty may reduce passengers' confidence to travel and ability to travel independently.

#### Benefits

- To the extent that guidance is followed, people who are deaf, hard of hearing, speech impaired or non-verbal will benefit by being able to effectively communicate with staff in an emergency. This will lead to increased safety and improved confidence to travel.
- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

### Regulatory option

#### Impacts

- Costs will be incurred to install additional visual and audio communication systems in lift cars. The additional incremental cost of signs in relation to installing a new lift or substantially refurbishing a lift is likely to be minimal.

#### Benefits

- People with disability will benefit from adequate emergency communication systems in lifts which take into account technological advances.

- There will be a reduction in discrimination as deaf, hard of hearing, speech impaired or non-verbal passengers travelling in a lift car will be able to communicate with staff in an emergency.
- Providing an effective means of communication will enhance the safety and improve the confidence and ability of these passengers to travel independently.
- Operators and providers will have clarity of the requirements that aligns with industry regulation and best practice.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of accessible emergency communications in lifts increases safety for people with disability by providing real time information on emergencies.
- **Amenity:** Equivalent access to accessible emergency communications in lifts should improve the experience during emergencies.
- **Accessibility:** Equivalent access to emergency communications in lifts should improve the experience and ease of access to public transport services making those with a hearing-related disabilities more likely to take public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, and improved access to services.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or providing new facilities for emergency communication systems in lift cars and linking to either existing communication infrastructure or new communication infrastructure.
- **Monetised compliance costs (administrative):** 0.8  
**Monetised compliance costs (substantive):** 5.8

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you experienced difficulty contacting staff or lift operators in an emergency? Would more accessible contact methods (text, augmented hearing system) have helped?
5. What has been your, or your passengers, experience using the emergency buttons and communication devices in a public transport related lift?

## 20. Lifts: Reference for lift car communication and information systems

### Issue

People who are hard of hearing – and particularly those who also have vision impairments – do not receive equal access to information while travelling in lift cars when compared to other passengers.

Many lift cars have the capacity to verbally announce landing location and may even relay public address system announcements to the occupants of the lift car. For people with vision or cognitive impairments this is a valuable service. Unfortunately, if they are hard of hearing and using hearing aids the information or message being announced through the car's speakers will be unclear.

The current Transport Standards references AS1735.12 (1999) *Lifts, escalators and moving walks*, which is outdated and has no requirement for assistive listening systems in lifts. The absence of assistive listening systems presents a barrier to independent travel and results in discriminatory outcomes whereby passengers who use hearing aids and who will not be able to read visual displays, are not provided the same level of information as other passengers.

AS1735.12 (2020) *Lifts, escalators and moving walks*, has enhanced accessibility requirements for assistive listening systems, however was written with general public lifts in mind rather than a focus on lifts in public transport locations. It does not capture the in-car announcement of service-related information broadcast over public address (PA) systems, such as platform changes or late-running services. If these announcements are broadcast through the lift car speakers, they should also be captured by the assistive listening (hearing loop) systems.

An assistive listening system, usually a magnetic induction loop, can be installed in lift cars which allows the information or message to be received through the passenger's hearing aid. Passengers who are deaf or hard of hearing and who use hearing aids must be able to receive audio information as per other passengers.

While there are enhanced accessibility requirements in AS1735.12 (2020) relating to induction loop systems for emergency communication and verbal floor announcements, there is an opportunity to provide additional service-related information (such as platform changes or late-running services) which takes into account the bespoke nature of lifts in public transport infrastructure.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

No changes to the Transport Standards or guidance would be made. The Transport Standards section 13.1 would remain unchanged.

### 13.1 Compliance with Australian Standard – premises and infrastructure

Lift facilities must comply with AS1735.12 (1999)

This section pertains to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public Transport services).

#### Non-regulatory option

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to include best practice guidance on accessible lift car communication and information systems and advise that deaf passengers should receive the same audible information in the lift car as other passengers.

The advice would pertain to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

Specific guidance may include:

- An in-car assistive listening (hearing loop) system should be installed to allow people who are hard of hearing and wearing hearing aids to receive audio messages broadcasted in the car and to communicate externally over the help phone.
- If service-related information that is being broadcast on an external public address system is simultaneously broadcasted in lift cars, the car should also relay these announcements via an induction loop system.
- The international symbol for deafness as per AS1428.1 (2009) *Design for access and mobility, Clause 8.2.2* should be displayed where a hearing loop is provided.

#### Regulatory option

Transport Standards section 13.1 would be amended to include the following (including any requirements retained or amended from the status quo):

- If service-related information that is being broadcast on an external public address system is simultaneously broadcasted in lift cars, the car must also relay these announcements via an induction loop system as described in AS1735.12 (2020) *Clause 5.4.2.5.4*.
- Lift car communication systems, including those that announce the level at which the car has arrived, must comply with AS1735.12 (2020) *Clause 5.4.2.5.4*.
- The international symbol for deafness as per AS1428.1 (2009) *Design for access and mobility, Clause 8.2.2*, shall be displayed where a hearing loop is provided.

This new section would apply to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

The Transport Standards Guidelines and The Whole Journey Guide would also be updated to reflect the new regulatory requirements.

Specific guidance may include:

- People who are hard of hearing and who wear hearing aids benefit from an in-car induction loop system that allows them to receive audio messages broadcast in the car such as the announcement of the level at which the car has arrived. If the car has the capacity to broadcast service-related information that is also being broadcast over an external public address system, these announcements should also be captured by the assistive listening system.

## Impact analysis

### Status quo

#### Impacts

- There would continue to be a lack of accessible of lift car communication and information systems in lifts that caters for all cohorts of passengers, including people with disability.
- Passengers who use hearing aids will continue to face challenges receiving information in an accessible format which reduces the safety and confidence to travel of these passengers.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs will be incurred to install assistive listening systems in lift cars.
- As this guidance is discretionary, it may not provide certainty for passengers using hearing aids that they will be provided information in an accessible format. This uncertainty may reduce passengers' confidence to travel and ability to travel independently.

#### Benefits

- To the extent that guidance is followed, hearing aid users, particularly those with vision impairments or cognitive impairments, will benefit through receiving the same quality of service related, audible information as other passengers when travelling in lifts.
- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

### Regulatory option

#### Impacts

- Costs will be incurred to install assistive listening systems in lift cars. Cost may be limited to the extent that lifts already complying with AS1735.12 (2020) would not require further upgrades.

#### Benefits

- This option will benefit people with disability by ensuring accessible communication and information systems are installed in lift cars which take into account technological advances and caters for all cohorts of passengers.



- This option will remove discrimination as hearing aid users, particularly those with vision impairments or cognitive impairments, will be provided the same quality of service-related, audible information as other passengers when travelling in lifts.
- Providing accessible communication and information will enhance the safety and improve the confidence and ability of people with disability to travel independently.
- This option will clarify requirements for operators and providers by aligning regulation with industry standard and best practice.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Equivalent access to audible information in lifts improves the safety of people using lifts who have a hearing-related disability.
- **Amenity:** Equivalent access to audible information in lifts should improve the ease of use and overall experience using lifts for people with a hearing-related disability.
- **Accessibility:** Equivalent access to audible information in lifts should attract new public transport users with a hearing-related disability.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, and improved access to services.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or providing new facilities for emergency communication systems in lift cars and linking to either existing communication infrastructure or new communication infrastructure.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 1.1

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What has been your experience of verbal announcements in lift cars in a public transport related lift?

## 21. Information and communication technologies (ICT) procurement

### Issue

#### Transport Standards technical requirements

The Transport Standards do not provide technical requirements for Information Communication Technology (ICT) procurement and do not support best practice for ensuring ICT procurement result in accessible products or services. In the absence of national minimum accessibility requirements, there are inconsistencies of the level of accessibility for ICT applications, products and services across different states and territories. The practical implications of this means that people with disabilities will not be able to fully access aspects of operator's and provider's ICT products and services. For example:

- People who are visually impaired and will be unable to read / view content on a website, mobile screen, or use a screen reader.
- People will be unable to use digital fare systems.

Some governments have adopted best practice ICT procurement standard AS/EN301549 (2016) *Accessibility requirements for ICT products and services*, including:

- Australian Government - BuyICT<sup>14</sup>
- NSW government – digital.nsw<sup>15</sup>
- Government of South Australia – Online Accessibility Policy<sup>16</sup>

AS/EN301549 (2016) sets out process, performance and prescriptive requirements for the procurement of ICT products, such as hardware, services and software. Its scope includes the specifications for fixtures, fitting and digital interfaces such as vending machines, digital information screens, non-web documents, web pages, software, circulation spaces and reach ranges. This standard cites WCAG 2.0 that provides a framework for making web content more accessible for people with disabilities. AS/EN301549 (2016) requirements benefit the varying needs of people with disabilities.

The 2020 version of AS/EN301549 has been released, which includes some different requirements to the 2016 version. The 2016 standard remains relevant and provides useful information regarding the accessibility requirements for ICT products and services. The most notable change between these standards is the change in WCAG compliance. Under the 2016 version, the minimum standard required is WCAG 2.0 Level AA. Conversely, the 2020 version requires a minimum standard of WCAG 2.1 Level AA, in line with international best practice.

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<sup>14</sup>Australian Government, *BuyIT*, 18 October 2021, <https://www.dta.gov.au/help-and-advice/ict-procurement/digital-sourcing-framework-ict-procurement/digital-sourcing-policies/digital-sourcing-consider-first-policy/digital-sourcing-consider-first-policy-guidance>

<sup>15</sup>NSW government digital.nsw, *Procurement*, 18 October 2021, <https://www.digital.nsw.gov.au/design-system/design-standards/design-with-users-for-users/accessibility-and-inclusivity/support#procurement-972a>

<sup>16</sup>Government of South Australia, *Online Accessibility Policy*, 18 October 2021, <https://www.accessibility.sa.gov.au/policy/online-accessibility-policy>

## Web Content Accessibility Guidelines (WCAG)

Web Content Accessibility Guidelines (WCAG) are an internationally recognised standard that documents how to make web content more accessible for people with disability.

WCAG 2.1 addresses changes to the web and how technologies can be used to enable equal access for all. The WCAG addresses accessibility of web content on desktops, laptops, tablets, and mobile devices. WCAG 2.1 builds on WCAG 2.0 and is designed to apply broadly to different web technologies now and in the future, and to be testable with a combination of automated testing and human evaluation.

WCAG has three conformance or compliance levels: Level A, Level AA, and Level AAA. Conformance at a particular level requires that all the Success Criteria defined for that level are satisfied. WCAG 2.0 AAA requirements build upon the WCAG 2.0 AA but with more enhanced features. Some of these enhancements include:

- requirements for inclusion of Auslan interpretation when producing video content
- extended audio description and audio captioning of all multimedia
- enhanced contrast ratio requirements
- keyboard accessibility for all functions with no exceptions (for example interactive and operable components on the screen such as drop down menus)
- removal of flashing or pulsing media such as animations and additional explanations in simplified English for people with lower literacy levels (similar to Easy English requirements).

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

The Transport Standards would continue to be silent on requirements for ICT hardware, services and software procurement.

### Non-regulatory options

The Whole Journey Guide and the Transport Standards Guidelines would be updated to include guidance for ICT hardware, services and software procurement to provide advice that ICT product accessibility requirements should be considered at procurement and suggest technical standards to adhere to.

Three non-regulatory options are provided which are based on either performance-based requirements, or varied levels of WCAG compliance and editions of AS/EN301549. Guidance would pertain to all public transport conveyances, infrastructure and premises to which the Premises Standards do not apply.

## Option 1

This option provides performance based requirements to ensure ICT procurement is accessible and meets the needs of people with disability. The option also recommends using the requirements of AS/EN301549 (2020) as a guideline for best practice ICT procurement.

Specific guidance may include the following:

- Any ICT hardware, services or software intended for public use by a public transport operator or provider should be accessible to people with disability. Various means of achieving this might be considered including:
  - Being guided by AS/EN301549 (2020) when procuring products.
  - Meeting the requirements of WCAG 2.1 AA for mobile, web and non-web software and where feasible those of WCAG 2.1 AAA.
- Passengers with disabilities will benefit from the digital technologies if care is taken to ensure that products procured meet access standards from the outset. Retrofitting products that are not fully accessible post procurement is a difficult and often expensive task.
- As technology evolves rapidly, operators and providers should always consider using the latest published Australian Standards when procuring ICT products.

## Option 2

This option encourages meeting compliance with AS/EN301549 (2016) and provides two sub-options in relation to the level of WCAG compliance for operators and providers to meet.

Specific guidance may include the following:

- Procurement of ICT hardware, services and software should comply with AS/EN301549 (2016).
- Specifically, for web bases and non-web software, procurement should meet one of the following WCAG 2.0 requirements:

### Sub-option 1

WCAG 2.0 AA

### Sub-option 2

WCAG 2.0 AAA

- If there is any conflict with AS/EN301549 (2016) and other requirements listed in the Transport Standards, the Transport Standards take precedence.

## Option 3

This option suggests meeting compliance with AS/EN301549 (2020) and provides two sub-options in relation to the level of WCAG compliance that is advisable to meet. The following specific guidance may be included:

- Procurement of ICT hardware, services and software should comply with AS/EN301549 (2020).
- Specifically, for web bases and non-web software, procurement should meet either one of the following WCAG 2.1 requirements:

### Sub-option 1

WCAG 2.1 AA

## Sub-option 2

### WCAG 2.1 AAA

- If there is any conflict with AS/EN301549 (2020) and other requirements listed in the Transport Standards, the Transport Standards take precedence.

## Regulatory options

The Transport Standards would include new requirements for ICT hardware, services and software procurement to ensure that ICT hardware, services and software procurement results in products that are suitable for people with disability.

Five regulatory options are provided which are based on either performance-based requirements, or different editions of the AS/EN301549 standard and varied WCAG requirements. The regulatory requirements would pertain to all public transport conveyances, infrastructure and premises (except to which the Premises Standards apply).

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated for all five options to include advice on ICT procurement.

Specific guidance may include:

- Any ICT hardware, services or software intended for public use by a public transport operator or provider should be accessible to people with disability, for example:
  - Being guided by AS/EN301549 (2020) when procuring products.
  - Meeting the requirements of WCAG 2.1 AA for mobile, web and non-web software and where feasible those of WCAG 2.1 AAA.
- As technology evolves rapidly, operators and providers should always consider using the latest published Standards when procuring ICT products.

### Option 1

The Transport Standards would be amended to **set performance requirements for ICT procurement**.

The Transport Standards would include the following new requirements:

- Any ICT hardware, services or software intended for public use by a public transport operator or provider must be accessible to people with disability.

### Option 2

The Transport Standards would be amended to require **compliance with AS/EN301549 (2016)**.

The Transport Standards would include the following new requirements:

- Procurement of ICT hardware, services and software must comply with AS/EN301549 (2016) *Accessibility requirements suitable for public procurement of ICT products and services*.
- If there is any conflict with AS/EN301549 (2016) and other requirements listed in the Transport Standards, the Transport Standards take precedence.

### Option 3

The Transport Standards would be amended to **require compliance with AS/EN301549 (2016) and prescribe additional minimum WCAG 2.0 AAA requirements**.

The Transport Standards would include the following new requirements:

- Procurement of ICT hardware, services and software must comply with AS/EN301549 (2016) *Accessibility requirements suitable for public procurement of ICT products and services*, with the following exceptions:
  - WCAG 2.0 AAA must be met.
- If there is any conflict with AS/EN301549 (2016) and other requirements listed in the Transport Standards, the Transport Standards take precedence.

#### Option 4

The Transport Standards would be amended to require **compliance with AS/EN301549 (2020)**.

The Transport Standards would include the following new requirements:

- Procurement of ICT hardware, services and software must comply with AS/EN301549 (2020), *Accessibility requirements suitable for public procurement of ICT products and services*.
- If there is any conflict with AS/EN301549 (2020) and other requirements listed in the Transport Standards, the Transport Standards take precedence.

#### Option 5

The Transport Standards would be amended to require **compliance with AS/EN301549 (2020) and prescribes additional minimum WCAG 2.1 AAA requirements**.

The Transport Standards would include the following new requirements:

- Procurement of ICT hardware, services and software must comply with AS/EN301549 (2020) *Accessibility requirements suitable for public procurement of ICT products and services*, with the following exceptions:
  - WCAG 2.1 AAA must be met.
- If there is any conflict AS/EN301549 (2020) and other requirements listed in the Transport Standards, the Transport Standards take precedence.

## Impact analysis

### Status quo

#### Impacts

- In the absence of national minimum accessibility requirements, there will be inconsistencies of the level of accessibility for ICT applications, products and services across jurisdictions. For people with disability, barriers to accessing information through ICT services will remain.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, in those states, territories and local authorities where AS/EN301549 (2016) is not currently a requirement, procurement of ICT products will become more onerous. Implementing an option that moves to WCAG 2.0 AAA or either option of WCAG 2.1 may incur further costs for auditing and upgrading systems.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt minimum accessibility procurement requirements which may not lead to an increase of accessible ICT applications, products and services for people with disability.

### Benefits

- To the extent that guidance is followed, people with disability, particularly people with sensory, cognitive and motor impairments, will benefit through improved accessibility of ICT hardware, software and services.
- Where jurisdictions are progressing to a web presence that meets WCAG 2.0 AA in line with the Web Accessibility National Transition Strategy<sup>17</sup>, implementing the options that reference this WCAG standard will not impose any additional costs.
- Benefits will be achieved to the extent that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Where operators and providers do not currently adhere to minimum accessibility ICT procurement standards, they will incur costs associated with procuring ICT products to a higher accessibility standard.
- The cost burden for private operators and providers will be larger if they have not yet moved to comply with WCAG 2.0 AA.

### Benefits

- People with disability, particularly people with sensory, cognitive and motor impairments, will benefit through improved accessibility of ICT hardware, software and services.

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<sup>17</sup>Web Accessibility National Transition Strategy, *The Australian Government's adoption and implementation of Web Content Accessibility Guidelines version 2.0 (WCAG 2.0)*, June 2010, 18 October 2021, <https://apo.org.au/sites/default/files/resource-files/2010-06/apo-nid22331.pdf>



- There will be consistency of the level of accessibility for ICT applications, products and services across different jurisdictions, which will result in improved confidence of people with disability to travel independently across public transport networks.
- If an upgrade to WCAG 2.1 is adopted, accessibility of mobile technologies, an increasingly important means of delivering information, will be enhanced.

### CBA of regulatory options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

#### Option 1 Setting performance requirements for ICT procurement.

##### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Providing consistent standards of ICT will impact on the experience of existing public users with a disability.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion.

##### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs incurred when purchasing ICT equipment of a higher standard than what is currently purchased incurred to the public transport operator / provider.
- **Monetised compliance costs (administrative):** 1.9
- **Monetised compliance costs (substantive):** Nil

#### Option 2 Requires compliance with AS/EN301549 (2016)

Refer to CBA for Option 3 for indicative impacts for compliance with AS/EN301549 (2016).

### Option 3 Require compliance with AS/EN301549 (2016) and prescribes additional minimum WCAG 2.0 AAA requirements.

#### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Providing consistent standards of ICT will impact on the experience of existing public users with a disability aligned to the increased compliance to both Australian Standards and WCAG, which may increase amenity.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion.

#### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs incurred when purchasing ICT equipment of a higher standard than what is currently purchased incurred to the public transport operator / provider.
- **Monetised compliance costs (administrative):** 1.9
- **Monetised compliance costs (substantive):** Nil

### Option 4 Requires compliance with AS/EN301549 (2020)

Refer to CBA for Option 5 for indicative impacts for compliance with AS/EN301549 (2020).

### Option 5 Requires compliance with AS/EN301549 (2020) and prescribes additional minimum WCAG 2.1 AAA requirements

#### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Providing consistent standards of ICT will impact on the experience of existing public users with a disability aligned to the increased compliance to both the latest Australian Standards and WCAG, which may increase amenity.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion.

#### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs incurred when purchasing ICT equipment of a higher standard than what is currently purchased incurred to the public transport operator / provider.
- **Monetised compliance costs (administrative):** 1.9
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the non-regulatory proposal, which option and sub-option do you prefer? Why? If you prefer the regulatory proposal, which option and sub-option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What is your experience of using the ICT related hardware, services and software (for example website, smartphone app, digital information displays, touch screen technology, ticket machines, fare gates) provided by public transport operators and providers?

## 22. Mobile web systems

### Issue

Customers are increasingly reliant on mobile information technology when interacting with public transport services. As such, public transport operators and service providers are increasingly using online systems such as applications (apps) and websites on mobile phone and tablet to communicate service information with customers. Generally, this can either be static information such as information text or dynamic information such as trip planning tools. Mobile web systems allow passengers access to large amounts of information that offers a high level of flexibility, accuracy and timeliness unlike other, static information formats.

The Transport Standards do not reflect industry standards around minimum requirements for mobile web systems. Public transport information is also provided by organisations that are not currently defined as operators or providers, such as Google. As such, the information they provide may not meet future Transport Standards requirements as they will not be required to do so. Addressing this problem may assist in clarifying their obligations in providing accessible information through this medium.

A minimum standard should be adopted to provide certainty both to customers around access to information and operators and service providers about their obligations to provide accessible information.

The inclusion of a section in the Transport Standards in relation to information provision is one option that could outline some of the minimum requirements that could be adopted in order to consider public transport information accessible when provided in this format.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued. The Transport Standards would continue to have no provisions for mobile web systems.

#### Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include best practise guidance concerning WCAG requirements and the benefits of user testing when developing apps and tools.

Specific guidance may include:

- The minimum level of WCAG compliance for information provided in this format.
- As a minimum when information is provided through mobile web systems involving apps or websites it should meet the requirements of WCAG 2.1 AA.

- Information provided by external third parties as opposed to directly from transport operators and providers should also consider minimal levels of accessibility as best practice. Where practicable the most recent version of WCAG AA should be adopted.
- Whilst WCAG AAA criteria is not recommended for whole websites or systems, some elements could be adopted where practicable to maximise the accessibility of information provided in this format.
- User testing and engagement on products and tools should be undertaken to validate systems are accessible for a wide range of people with disability.

## Regulatory option

There are two regulatory options proposed. The first option prescribes minimum WCAG requirements for all information provided in a mobile format, including discretionary information that some systems provide. The second option prescribes minimum WCAG requirements only for information related to transport services provided in a mobile formats.

### Option 1

- Where information is provided by an operator or provider to passengers in a mobile web format, all information must meet WCAG 2.1 AA requirements as a minimum.

### Option 2

- Where information is provided by an operator or provider to passengers in a mobile web format, only information related to transport services must meet WCAG 2.1 AA requirements as a minimum.

The new requirements would pertain to conveyances, premises and infrastructure.

The Transport Standards Guidelines and / or the Whole Journey Guide may also be updated for both options to reflect and provide advice concerning the new regulatory requirements and may make additional commentary on the applicability of requirements when considering WCAG AA and AAA requirements.

Specific advice may include:

- Information would cover the use of online mobile web systems involving apps and websites which can be accessed via smartphones or other devices. As a minimum when information is provided through these systems it should meet the requirements of WCAG 2.1 AA.
- Where practicable the most recent version of WCAG AA should be adopted. The WCAG provides recommendation for making content more accessible to a wide range of people with disability.
- It is advised that user testing and engagement on products and tools is undertaken to validate systems are accessible for a wide range of people with disability.
- General transport information may include, but is not limited to, timetables, routes, fares, payment methods, next stop information and next service information.

## Impact analysis

### Status quo

#### Impacts

- People with disability will be unable to access important travel information through mobile web systems, including timetables, routes, and payment information.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent guidance is followed, one off costs may be incurred to audit and update mobile web systems by operators and providers.
- Ongoing administrative costs may be incurred for keeping relevant changes to information in alignment with the requirements.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the new requirements, therefore no increase to accessible information for people with disability may be seen.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. If implemented, people with disability may benefit from an increased level of accessibility to information through mobile web systems, increasing their confidence to use transport systems.
- Public transport operators and providers and mobile web system developers and designers will benefit from clear requirements on the design parameters to meet the needs of people with disability.
- Operators and providers will be able to manage the implementation (and related costs) to suit operational requirements, including through staged implementation.

### Regulatory option

#### Impacts

- One off costs will be incurred to audit and update mobile web systems for operators and providers where they do not currently meet requirements.
- Ongoing administrative costs will be incurred for keeping relevant changes to information in alignment with the regulatory option.

#### Benefits

- People with disability will benefit from having a greater and more consistent level of accessibility to information on transport services through mobile web systems which will lead to increased passenger confidence to use public transport systems.

- Public transport operators and providers and mobile web system developers and designers will benefit from clearer requirements and standards to meet the needs of people with disability.

### **CBA of regulatory option**

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### **Qualitative benefits assessment**

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Improvements to the accessibility of web platforms should improve accessibility of information that benefits users with a disability.
- **Accessibility:** Improvements to the accessibility of web platforms should improve ease of access and confidence to use public transport services inducing new users to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, improved access to services.

### **Quantitative and qualitative cost assessment**

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with improved web accessibility on existing platforms or new platforms.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** 68.7

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you experienced difficulties or barriers accessing or navigating a public transport mobile website or application?



## 23. Accessible fare system elements

### Issue

Since the inception of the Transport Standards in 2002, fare systems have dramatically changed, with operators and providers introducing a range of modern electronic and digital devices and payment tokens to facilitate fare payment and validation. The Transport Standards do not adequately cover or support existing or future technologies used in fare payment and validation. As a result, current fare system requirements are not fit-for-purpose and customers with disabilities may be exposed to inaccessible or inconsistent fare systems.

There is no provision in the Transport Standards which requires accessible fare payment options and other fare payment options to be equal in cost. This results in a discriminatory outcome whereby people with a disability are charged a higher rate for their fare or fare payment products because they are using an accessible fare payment option.

Fare system elements may include fare system vending machines, cashless reload devices, validation devices, and check-in kiosks. These elements are installed at public transport infrastructure and premises and on public transport conveyances. Elements also include respective fare payment methods, including tokens, paper and digital tickets, and other contactless tokens.

A fare system consists of both hardware (the physical infrastructure of the devices / machines themselves) and the user interface (the accessibility of the digital information provided by the machine or online elements as defined by its software elements). For the system to be functionally accessible, the way users interact with the devices / machines and how they access electronic and digital information must be taken into consideration. Current requirements in the Transport Standards do not adequately address these fare system elements.

The absence of specific requirements for fare system elements results in a reliance on the equivalent access process. The individual processes undertaken, if not correctly followed as per Transport Standards equivalent access requirements, pose a risk of implementing inconsistent fare payment options which in turn impacts the ability of people with disability to travel independently.

Accessible fare system elements must facilitate access to equity of fares and payment and validation options.

Aligning best practice wayfinding requirements (for example braille and tactile text on instructional labels) with requirements for fare system elements will provide consistency and ease of navigation for passengers.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 17.5 Electronic notices, section 24.1 Gateways and checkouts and Part 25 Payments and fares, will remain unchanged and no guidance will be developed.

### **17.5 Electronic notices**

- (1) Presentations of words or numbers on electronic notices must be visible for at least 10 seconds, unless the electronic notice is for the purpose of ticket validation.
- (2) If the electronic notice is for this purpose, the words or numbers on the notice must cease to be visible before the end of 10 seconds if the ticket validation device is used by another person within that time.

This section pertains to premises and infrastructure.

### **24.1 Gateways and checkouts**

- (1) Gateways and checkouts, such as ticket barriers, must comply with AS1428.2 (1992) Clause 28, Gateways and checkouts.
- (2) However, the width of an accessible gateway or checkout mentioned in AS1428.2 (1992) Clause 28.2 must be at least 850 mm.

This section pertains to premises and infrastructure, except airports that do not accept regular public transport.

## **Part 25 Payment of fares**

### **25.1 Passengers to pay fares**

All passengers must be prepared to pay fares.

This section pertains to conveyances, premises and infrastructure.

### **25.2 Fare payment and ticket validation systems**

- (1) Fare payment and ticket validation systems must not require actions from passengers with disabilities that exceed the requirements for other passengers.
- (2) For passengers who have difficulties with standard fare payment systems, operators and providers must offer a form of payment that meets equivalent access principles.

Note, See sections 33.3 to 33.5 in relation to equivalent access.

This section pertains to conveyances, premises and infrastructure.

### **25.3 Vending machines**

Vending machines must comply with AS1428.2 (1992) Clause 29.1, Height, Clause 29.2, Controls, and Clause 29.3, Illumination.

This section pertains to conveyances, premises and infrastructure.

## 25.4 Circulation space in front of vending machine

The circulation space in front of any vending machine must allow for a 180 degree turn as in AS1428.2 (1992) Clause 6.2, Circulation space for 180-degree wheelchair turn.

This section pertains to premises and infrastructure, except airports that do not accept regular public transport services.

### Non-regulatory option

The intended outcome is, through guidance, to encourage the uptake of accessible fare system elements in line with best practice, to meet not only the current and future needs of people with disability but also provide clarity, certainty and flexibility to providers and operators. Guidance on best practice fare system processes would be included in The Whole Journey Guide. The Transport Standards Guidelines may also contain additional guidance material as required.

Specific guidance may include:

- To provide a non-discriminatory fare system and ensure people with disability can travel independently, accessible fare payment options must not incur more expensive prices to other fare payment options for equivalent travel. Alternative payment and validation methods should also be available without additional fees or surcharges.
- International ICT guidelines, WCAG, or similar should be considered for the consistent accessibility attributes found in other industries, including retail and banking.
  - This includes referral to AS/EN301549 (2016 or 2020) *Accessibility requirements suitable for public procurement for ICT products and services*.
- To meet the needs of people who are blind or have low vision, fare system elements should meet the requirements of AS/EN301549 (2020) *section 5.1.3.1 Audio output of visual information, section 5.1.3.3 Auditory output correlation, and section 8.5 tactile indication of speech mode*.

### Regulatory options

Three regulatory proposals are presented for consideration. Option 1 is performance based and does not require compliance with a specific standard for fare system hardware and software. Option 2 contains prescriptive requirements, and requires compliance with a version of AS/EN301549. Option 3 also contains prescriptive requirements, and includes an additional sub-option requiring compliance with a specific version of WCAG.

For all options, the following sections of the Transport Standards would be replaced:

- Section 24.1, Gateways and checkouts.
- Section 25.2, Fare payment and ticket validation systems.
- Section 25.3, Vending machines.

These sections would be replaced by new requirements added to cover reach ranges, viewing angles, electronic notices for ticket validation, width of accessible fare system gates and or barriers. These requirements would apply to all conveyances, premises and infrastructure.

#### Option 1

The Transport Standards would be amended to include **new requirements for fare and ticketing systems, including a performance standard for fare system hardware and software**.

Transport Standards section 17.5 Electronic Notices, would be amended to include the following:

- Presentations of words or numbers on electronic notices must be visible for at least ten seconds.

These requirements would apply to all conveyances, premises and infrastructure.

The Transport Standards would also include the following new requirements:

- Fare systems must not require actions from passengers with disabilities that exceed the requirements for other passengers.
- For passengers with disabilities who have difficulties with standard fare systems, operators and providers must offer a form of payment that meets equivalent access principles. Forms of payment offered:
  - Must not incur a surcharge for a device or be charged at a higher rate than other fare payment options.
  - Should facilitate independent access through fare gates.
- Access gates forming a barrier between paid and unpaid areas of a station or interchange must have a minimum width of 850mm.
- The digital display of information for the purposes of ticket validation should remain visible for the average length of time required for the person to acknowledge content of the display.
- Any fare system hardware or software intended for public use by a public transport operator or provider must comply with applicable Australian Standards for disability access concerning reach range, viewing angles, controls, audible methods of communicating information for people who are blind or vision impaired, visual methods of communicating information, compatibility with assistive technology, and logical flow of the software operation.

## Option 2

The Transport Standards would be amended to include **new requirements for fare and ticketing systems, including compliance with AS/EN301549 standards for fare system hardware and software**, rather than a performance standard. Two sub-options are presented for consideration regarding which version of AS/EN301549 (2016 or 2020) should be mandated.

Transport Standards section 17.5 Electronic Notices, would be amended to include the following:

- Presentations of words or numbers on electronic notices must be visible for at least ten seconds.

These requirements would apply to all conveyances, premises and infrastructure.

The Transport Standards would also include the following new requirements:

- Fare systems must not require actions from passengers with disabilities that exceed the requirements for other passengers.
- For passengers with disabilities who have difficulties with standard fare systems, operators and providers must offer a form of payment that meets equivalent access principles. Forms of payment offered:
  - Must not incur a surcharge for a device or be charged at a higher rate than other fare payment options.
  - Should facilitate independent access through fare gates.
- In order to ensure the needs of people with disability who are blind or vision impaired, fare system elements must meet the requirements of AS/EN301549 *section 5.1.3.1 Audio output of visual information, section 5.1.3.3 Auditory output correlation, and section 8.5 tactile indication of speech mode*.

- Where any conflict of requirements exists, the Transport Standards take precedence over ASEN301549.
- Access gates forming a barrier between paid and unpaid areas of a station or interchange must have a minimum width of 850mm.
- The digital display of information for the purposes of ticket validation should remain visible for the average length of time required for the person to acknowledge content of the display.
- Any fare system hardware or software intended for public use by a public transport operator or provider must comply with AS/EN301549 *Accessibility requirements suitable for public procurement of ICT products and service*, as a minimum standard for ICT procurement.

#### **Sub-option 1**

Compliance with AS/EN301549 (2016).

#### **Sub-option 2**

Compliance with AS/EN301549 (2020).

### **Option 3**

The Transport Standards would be amended to include **new requirements for fare and ticketing systems, including compliance with AS/EN301549 standards for fare system hardware and software**, rather than a performance standard, **and additionally compliance with WCAG requirements**. Two components of the regulatory option contain sub-options, relating to the version of AS/EN301549 (2016 or 2020) and version of WCAG to be mandated, respectively.

Transport Standards section 17.5 Electronic Notices, would be amended to include the following:

- Presentations of words or numbers on electronic notices must be visible for at least ten seconds.

These requirements would apply to all conveyances, premises and infrastructure.

The Transport Standards would include the following new requirements:

- Fare systems must not require actions from passengers with disabilities that exceed the requirements for other passengers.
- For passengers with disabilities who have difficulties with standard fare systems, operators and providers must offer a form of payment that meets equivalent access principles. Forms of payment offered:
  - Must not incur a surcharge for a device or be charged at a higher rate than other fare payment options.
  - Should facilitate independent access through fare gates.
- In order to ensure the needs of people with disability who are blind or vision impaired, fare system elements must meet the requirements of AS/EN301549 *section 5.1.3.1 Audio output of visual information, section 5.1.3.3 Auditory output correlation, and section 8.5 tactile indication of speech mode*.
- Where any conflict of requirements exists, the Transport Standards take precedence over ASEN301549.

#### **Sub-option 1**

Compliance with AS/EN301549 (2016).

**Sub-option 2**

Compliance with AS/EN301549 (2020).

- Access gates forming a barrier between paid and unpaid areas of a station or interchange must have a minimum width of 850mm.
- The digital display of information for the purposes of ticket validation should remain visible for the average length of time required for the person to acknowledge content of the display.
- Any fare system hardware or software intended for public use by a public transport operator or provider must comply with ASEN301549 *Accessibility requirements suitable for public procurement of ICT products and service*, as a minimum standard for ICT procurement and one of the following sub-options:

**Sub-option 1**

WCAG 2.0 AA must be met. Applies only to ASEN 301 549 (2016) *Accessibility requirements suitable for public procurement of ICT products and services*. This requirement does not address mobile applications or some web pages.

**Sub-option 2**

WCAG 2.1 AA must be met. These requirements allow mobile device applications.

**Sub-option 3**

WCAG 2.1 AA+ must be met. Includes further inclusion of the following higher level success criterion:

Success Criterion 1.2.6 Sign Language (Pre-recorded). The intent of this success criterion is to enable people who are deaf or hard of hearing and who are fluent in a sign language to understand the content of the audio track of synchronized media presentations.

Success Criterion 1.4.6 Contrast (Enhanced). The intent of this success criterion is to provide enough contrast between text and its background so that it can be read by people with moderately low vision.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements.

## Impact analysis

### Status quo

#### Impacts

- Customer confidence in public transport travel would likely diminish as further technology is introduced potentially creating additional barriers to consistent and independent travel, especially for people with disability.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs would be incurred to operators and providers such as auditing and upgrading systems, to ensure their fare systems are equitable for people with disability will result in additional cost.
- In those states, territories and local authorities where AS/EN301549 (either 2016 or 2020) *Accessibility requirements for ICT products and services*, is not currently a requirement, the adoption of standards for procurement of fare system ICT products will become more onerous. Operators and providers in these jurisdictions that have already adopted ASEN301549 (2016) may only face a minor challenge in meeting the additional requirements of WCAG 2.0 AA, WCAG 2.1 AA or WCAG AA+.
- Since this option is discretionary, costs would only be incurred to the extent that advice is followed.
- Due to the optional uptake, people with disabilities will not be assured a consistent independent travel experience, nor can they be assured they will have access to equity in relation to fare payment options.

### Benefits

- Benefits will be achieved the extent that operators and providers implement guidance. If implemented, people with disability will not incur additional expenses for access to alternative fare payment options where required.
- Where guidance is adopted, people with sensory, cognitive and motor impairments will benefit from improved accessibility of fare system hardware and software. If an upgrade to AS/EN301549 (2020), *Accessibility requirements for ICT products and services*, is adopted, then mobile technology accessibility, an increasingly important means of delivering information, will be enhanced.
- Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Auditing and upgrading systems to ensure fare systems are equal for people with disability will result in additional cost.
- In those states, territories and local authorities where ASEN301549 (either 2016 or 2020), *Accessibility requirements for ICT products and services*, is not a current requirement, procurement of required fare system ICT products will involve greater cost.

- The Australian Government, states, territories and local authorities have all adopted the Web Accessibility National Transition Strategy (June 2010)<sup>18</sup> for a web presence that meets WCAG 2.0., adoption of this option will impose no costs as it is already policy. Moving to WCAG 2.0 AA, WCAG 2.1 AA or WCAG 2.1 AA+ will impose costs for upgrading.
- Private operators of transport services will not have moved to align with the Web Accessibility National Transition Strategy (June 2010) and will therefore be obliged to upgrade if the WCAG 2.0 AA option or higher is selected.
- Operators and providers in those states, territories and local governments that have already adopted AS/NZS 4844 (2016) should only face minor costs associated with meeting the additional requirements of Option 3 (WCAG 2.0 AA, WCAG 2.1 AA or WCAG 2.1 AA+).

## Benefits

- People with disability will not incur additional expenses for access to alternative fare payment options where required for independent travel. People with sensory, cognitive and motor impairments will benefit from improved accessibility of fare system hardware and software.
- Mobile technologies accessibility, an increasingly important means of delivering information, will be enhanced if AS/NZS 4844 (2020) is introduced.
- Operators and providers will benefit from increased clarity, consistency and certainty as a result of the adoption of the regulatory options.

## CBA of regulatory options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Option 1

#### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

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<sup>18</sup> Analysis and Policy Observatory (APO), *Web Accessibility National Transition Strategy, The Australian Government's adoption and implementation of Web Content Accessibility Guidelines version 2.0 (WCAG 2.0)*, 24 November 2021, <https://apo.org.au/sites/default/files/resource-files/2010-06/apo-nid22331.pdf>



- **Safety:** Not applicable.
- **Amenity:** Providing consistent standards across all fare systems at public transport sites will improve ease of use when purchasing fares for both existing public transport users with a disability and users without a disability.
- **Accessibility:** Providing equivalent access for users with disability can allow new users of public transport with disability to purchase fares with accessible options and potentially increase use of public transport by people with a mobility-related disability.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

This option provides the most flexibility to public transport operators / managers to design and provide these systems, which may result in more aesthetically pleasing outcomes.

#### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs may be incurred to retrofit existing payment validation and fare machines that do not provide accessible options.
- **Monetised compliance costs (administrative):** 1.0
- **Monetised compliance costs (substantive):** 2,069.6

#### **Option 2**

##### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Providing consistent standards across all fare systems at public transport sites will improve ease of use when purchasing fares for both existing public transport users with a disability and users without a disability.
- **Accessibility:** Providing equivalent access for users with disability can allow new users of public transport with disability to purchase fares with accessible options and potentially increase use of public transport by people with disability. This option also includes accessibility requirements for vision-related disabilities.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

This option provides the mid-point on flexibility to public transport operators / managers to design and provide these systems.

*Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs may be incurred to retrofit existing payment validation and fare machines that do not provide accessible options.
- **Monetised compliance costs (administrative):** 1.0
- **Monetised compliance costs (substantive):** 2,629.4

**Option 3***Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Providing consistent standards across all fare systems at public transport sites will improve ease of use when purchasing fares for both existing public transport users with a disability and users without a disability.
- **Accessibility:** Providing equivalent access for users with disability can allow new users of public transport with disability to purchase fares with accessible options and potentially increase use of public transport by people with disability. This option also includes accessibility requirements for vision-related and hearing-related disabilities.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

This option provides the least flexibility to public transport operators / managers to design and provide these systems.

*Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs may be incurred to retrofit existing payment validation and fare machines that do not provide accessible options.
- **Monetised compliance costs (administrative):** 1.0
- **Monetised compliance costs (substantive):** 3,155.3

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which option and sub-options do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Do you, or your passengers, experience difficulty or higher costs in using public transport ticketing, fare payment or fare validation systems? If so, can you provide examples?

## Part 3: Accessibility at stations, stops, wharves and access routes

The following reform areas are included in this Part:

24. Doors on access paths
25. Continuous access on access paths
26. Flange gaps within access paths
27. Resting points
28. Requirement for handrails in overbridges and subways
29. Location of fare system elements
30. Allocated spaces and priority seating in waiting areas
31. Accessible toilets with equal proportion of left and right hand configurations
32. Emergency call buttons in accessible toilets
33. Ambulant toilets
34. Lift specifications and enhancements
35. Specifications for escalators and inclined travellers
36. Poles, objects and luminous contrast
37. Lighting

## 24. Doors on access paths

### Issue

The current requirements for doors on access paths in Transport Standards section 12.1 Doors on access paths, do not specify which type of door (automatic, power assisted or manual) is best for passengers. Whilst being technically compliant with the Transport Standards, manual doors can present a barrier to people with disability. The requirements at Transport Standards section 12.1, state “doors must not present a barrier to independent passenger travel” however they do not indicate what ‘not presenting a barrier’ entails. Passengers who use mobility aids are frequently at a disadvantage when opening and closing doors manually. This is particularly the case when pulling doors open rather than pushing them open. People who have poor or limited hand function are disadvantaged when manipulating door handles and pushing or pulling doors open or closed. If a manual door has a closer, a companion pushing a manual wheelchair must hold the door open while simultaneously manoeuvring the wheelchair through the door. While these manual doors are compliant with the Transport Standards and the NCC, they still present barriers to people with disability.

Further, Transport Standards section 12.6 Automatic or power-assisted doors, acknowledges automatic and power assisted doors in conveyances, but there is no acknowledgement of their value in infrastructure or premises. The Transport Standards Guidelines do acknowledge in section 12.1 (2) that automatic doors are preferable, however the Transport Standards Guidelines make no mention of any preference for power assisted doors.

Transport Standards sections 12.1 and 12.6 are performance based, although variations between the sections leads to inconsistent provision of doors on access paths between conveyances, infrastructure and premises.

The installation of automatic or power assisted doors eliminates barriers people with disability face when using public transport, and they make access to conveyances and facilities easier. Where staff must operate doors or gates, such as for safety or operational reasons on ferries and buses, there should be no requirement for automatic or power assisted doors. In situations where automatic and power assisted doors on access paths are impractical or not feasible, compliant manually operated doors should be permitted.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to ‘Introduction’.

### Policy options

#### Status quo

Transport Standards section 12.1, Doors on access paths and section 12.6, Automatic or power assisted doors, would remain unchanged and no additional guidance would be issued.

**12.1 Doors on access paths**

- (1) Any doors along an access path must not present a barrier to independent passenger travel.
- (2) Direct assistance may be provided through security check points.

This section pertains to conveyances (except dedicated school buses and small aircraft), premises, and infrastructure (except airports that do not accept regular public transport services).

**12.6 Automatic or power assisted doors**

- (1) Doors may be fully automatic.
- (2) Power assisted doors must not require passengers to grip or twist controls in order to operate opening devices.
- (3) Operators may provide equivalent access to conveyances by opening manual doors for people with disabilities.

This section pertains to conveyances (except dedicated school buses and small aircraft).

**Non regulatory option**

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to advise that all doors on access paths that are opened by passengers, and in particular accessible and ambulant toilet doors, should be automatic or power assisted, so that doors on access paths do not present a barrier to people with disability.

This guidance would pertain to conveyances (except dedicated school buses, taxis and small aircraft), premises (except premises to which the Premises Standards apply), and, infrastructure (except airports that do not accept regular public transport services).

Specific guidance may include:

- Any door along an access path should not present a barrier to independent passenger travel.
- Doors and gates on an access path should be automatic or power assisted rather than requiring passengers to push or pull the door or gate to open or close it.
- Automatic doors are preferable along an access path as they require no action from a passenger to open or close and are activated by sensors, by staff or through software programming. They would be inappropriate in some locations however. For example, toilet doors should be opened and locked by passengers or people assisting passengers.
- Power assisted doors should not require passengers to grip or twist controls or apply constant pressure in order to operate opening devices.
- If power assisted or automatic doors are installed, cavity sliding doors give the best result for accessibility and are the least likely to be damaged. Wall mounted sliding doors are also an option. Passengers often misunderstand the operation of power assisted or automatic swing doors or become impatient with them. By pushing them they will often damage the mechanism causing the door to malfunction.
- If for technical, safety or operational reasons passengers are not able to operate or open doors and gates on access paths then doors and gates should be opened by an authorised and trained staff member. For example, for safety reasons, only ferry deckhands are permitted to open the ferry boarding gates. Likewise, for operational reasons bus drivers will open the doors of their vehicles for all passengers. Drivers of wheelchair accessible taxis will open the boarding doors for passengers in wheelchairs or other mobility aids. Cabin crew on

wide bodied aircraft may open accessible toilet doors. Direct assistance may be provided through security check points.

- In locations that lack electrical power it may not be practicable to have power assisted doors. Rising butt hinges or other means of allowing doors to self-close, and that have very light closing pressure, should be considered in these locations.
- The internal geometry of a legacy conveyance may prevent manual controls for power assisted doors being placed at least 500 millimetres from an internal corner. If so, the clearance to an internal corner should be maximised to the extent possible.

## Regulatory options

Transport Standards section 12.1 and 12.6 would be amended to include the following (including any requirements retained or amended from the status quo).

Two regulatory options are presented for consideration. The first option stipulates requirements for all doors that are opened by passengers on access paths, while the second option stipulates requirements only for power assisted unisex accessible and ambulant toilet doors.

### Option 1

The Transport Standards would be amended to include requirements that all doors that are opened by passengers must be automatic or power assisted to ensure that doors on access paths do not present a barrier to people with disability.

The Transport Standards would be amended to include the following requirements:

- Any doors along an access path must not present a barrier to independent passenger travel.
- Doors may be fully automatic, passenger or staff operated.
- Direct assistance may be provided through security check points.
- Doors and gates on an access path that are to be opened by passengers must be automatic or power assisted rather than requiring passengers to push or pull the door or gate in order to open or close it.
- Power assisted doors must not require passengers to grip or twist controls or apply constant pressure in order to operate opening devices.

These requirements would apply to conveyances (except dedicated school buses, taxis and wide bodied and small aircraft), premises (except premises to which the Premises Standards apply), and infrastructure (except airports that do not accept regular public transport services).

### Option 2

The Transport Standards would be amended to include requirements for power assisted unisex accessible and ambulant toilet doors only to ensure that unisex accessible toilet and ambulant toilet doors do not present a barrier to people with disability. All other doors could be automatic, staff operated, power assisted by passengers or manual.

Transport Standards section 12.1 and 12.6 would be amended to include the following:

- Any doors along an access path must not present a barrier to independent passenger travel.
- Doors may be fully automatic, passenger or staff operated.
- Direct assistance may be provided through security check points.
- Unisex accessible toilet and ambulant toilet doors must be power assisted. Passengers or those assisting passengers must not be required to push or pull the door in order to open or close it.

- Power assisted doors must not require passengers to grip or twist controls or apply constant pressure in order to operate opening devices.

These requirements would apply to conveyances (except dedicated school buses, taxis and wide bodied and small aircraft), premises (except premises to which the Premises Standards apply), and infrastructure (except airports that do not accept regular public transport services).

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to reflect the new requirements.

Specific guidance for both options may include:

- If power assisted or automatic doors are installed, cavity sliding doors give the best result for accessibility and are the least likely to be damaged. Wall mounted sliding doors are also an option. Passengers often misunderstand the operation of power assisted or automatic swing doors or become impatient with them. By pushing them they will often damage the mechanism causing the door to malfunction.
- If for technical, safety or operational reasons passengers are not able to operate or open doors and gates on access paths then doors and gates should be opened by an authorised and trained staff member. For example, for safety reasons, only ferry deckhands are permitted to open the ferry boarding gates. Likewise, for operational reasons bus drivers will open the doors of their vehicles for all passengers. Drivers of wheelchair accessible taxis will open the boarding doors for passengers in wheelchairs or other mobility aids. Cabin crew on wide bodied aircraft may open accessible toilet doors.
- In locations that lack electrical power it may not be practicable to have power assisted doors. Rising butt hinges or other means of allowing doors to self-close, and that have very light closing pressure, should be considered in these locations.
- The internal geometry of a legacy conveyance may prevent manual controls for power assisted doors being placed at least 500 millimetres from an internal corner. If so, the clearance to an internal corner should be maximised to the extent possible.

## Impact analysis

### Status quo

#### Impacts

- There would be a lost opportunity to improve the accessibility of doors for people with disability.
- Doors on access paths and doors for accessible or ambulant toilets may remain a barrier for people with disability and their companions.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to install automatic or power assisted doors where they are not already in operation.



- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will install power operated or automated doors. The impact on people would be a reduced amenity when using access paths, and barriers to using public transport remaining.
- Automatic and power assisted doors come with installation and maintenance costs that exceed those of manual doors. There may also be constraints imposed by existing structures or heritage listings.
- Passengers often misunderstand the operation of power assisted or automatic swing doors or become impatient with them. By pushing them they will often damage the mechanism causing the door to malfunction. This can render a facility inaccessible and impose additional maintenance costs.

### **Benefits**

- Benefits will be to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Most passengers who are challenged by manual doors will benefit from the ease of access afforded by automatic or power assisted doors where provided. The effort of manipulating a door while manoeuvring a mobility aid will no longer tax them or discourage them from using public facilities. Companions will benefit equally.
- Some passengers, such as those who have limited hand dexterity or function, will however only benefit from automatic doors.
- Operators and providers will benefit from customer satisfaction and fewer occasions where direct assistance is required.

## **Regulatory option**

### **Impacts**

- Automatic and power assisted doors have installation and maintenance costs that exceed those of manual doors.
- There may also be constraints imposed by existing structures or heritage listings that may increase installation and maintenance costs.
- New or refurbished doors in infrastructure and premises will sometimes be automatic or power assisted. Passengers often misunderstand the operation of power assisted or automatic swing doors or become impatient with them. By pushing them they will often damage the mechanism causing the door to malfunction. This can render a facility inaccessible and cause maintenance or repair costs.

### **Benefits**

- Most passengers who are challenged by manual doors will benefit from the ease of access afforded by automatic or power assisted doors. The effort of manipulating a door while manoeuvring a mobility aid will no longer be taxing or discourage them from using public facilities. Carers will equally benefit. However, some passengers, such as those with limited hand dexterity or function will only benefit from automatic doors.
- Operators and providers will benefit from customer satisfaction and fewer occasions where direct assistance is required.
- Automatic and power assisted doors make access to conveyances and facilities safer and easier.

- In many instances, conveyances with passenger operated doors may not have manual doors, but automatic or power assisted doors. In buses, ferries and other conveyances, drivers, cabin crew or deckhands open the doors or gates for passengers. Most conveyances will therefore be unaffected.

### CBA of regulatory Option 1

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

#### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of automatic doors on access paths, or having available staff to open gates for passengers, should reduce risks of injury on access paths for people with mobility aids.
- **Amenity:** Provision of automatic doors on access paths, or having available staff to open gates for passengers, should increase ease of using access paths to enter facilities and improve the amenity for all public transport users.
- **Accessibility:** Provision of automatic doors on access paths, or having available staff to open gates for passengers, should improve the overall travel experience and induce new users to access public transport services.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

#### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of automatic doors on access paths or training of staff.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 42.8

### CBA of regulatory Option 2

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of automatic accessible and ambulant toilet doors could reduce risks of injury when using these facilities for people with mobility aids.
- **Amenity:** Provision of automatic accessible and ambulant toilet doors could increase ease of using toilet facilities and improve the amenity for all public transport users.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of automatic accessible and ambulant toilet doors.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 11.3

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you, or your passengers, ever been in a situation while moving through a public transport conveyance, infrastructure or premises whereby you were not able to open an unlocked manual door or had great difficulty opening the door?

## 25. Continuous accessibility on access paths

### Issue

Transport Standards section 2.2 Continuous accessibility, sets requirements for public transport premises and infrastructure access paths and important, performance-based requirements on connecting the public areas of a premise or infrastructure via access paths. For continuous access on access paths, section 2.2 currently references Australian Standard AS1428.2 (1992) *Design for access and mobility Clause 7*.

This reference includes important elements: *Clause 7 (d) and (e)*. *Clause 7 (d)* reaches beyond site boundaries to exterior spaces or facilities that serve transport nodes requiring passenger loading zones or bus stops located in a road reserve that abuts a rail station, which are clearly intended to serve the station, should connect to the station entrance via an access path. *Clause 7 (e)* stresses that design should incorporate amenity and convenience. In most cases, as paths connecting public transport assets or giving access to public transport assets will be the responsibility of local authorities or private property owners, this places them beyond the direct control of the operator or provider. Given this, operators and providers may at times face difficulty in negotiating outcomes that would satisfy Transport Standards section 2.2 in those areas beyond their control.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 2.2 Continuous accessibility, of the Transport Standards would remain unchanged and no new guidance would be issued.

#### **2.2 Continuous accessibility**

An access path must comply with AS1428.2 (1992) Clause 7, continuous accessible path of travel.

This section pertains to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

#### Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include advice on continuous accessibility to encourage the maintenance of continuous accessibility to and within public transport nodes. Guidance may be based on section DP1 of the Premises Standards.

The advisory text would pertain to premises (except premises to which the Premises Standards apply), and infrastructure (except airports that do not accept regular public transport services).

Specific guidance may include:

- Access paths should be provided to enable passengers to approach the premises or infrastructure from any accessible car parking space associated with the premises or infrastructure and from passenger loading zones associated with the premises or infrastructure.
- Passengers should be able to enter the premises or infrastructure from any connected and / or associated public transport premises or infrastructure.
- Passengers should be able to enter the premises or infrastructure from adjoining public streets or walkways. Public footpaths and pedestrian crossings in road reserves are usually the responsibility of the local authority. These footpaths and pedestrian crossings are subject to the DDA and the anti-discrimination legislation of the various states and territories. Local authorities should be aware of their responsibility under the DDA to ensure the accessibility of public footpaths insofar as this does not impose an unjustifiable hardship.
- At times, these footpaths and pedestrian crossings will connect public transport nodes. For example, a bus stop may be located close to a ferry pontoon with the two assets linked by a public footpath and pedestrian crossing. To ensure an accessible whole of journey for a passenger with disability, these footpaths and pedestrian crossings connecting transport nodes should be as accessible as possible.
- The Australian Human Rights Commission's Advisory Note on streetscape, public outdoor areas, fixtures, fittings and furniture<sup>19</sup> provides useful guidance on accessible streetscapes for local authorities.
- Public spaces and accessible facilities within the premises or infrastructure should be accessible to all passengers. Access paths should be designed to enable minimisation of distances to be travelled to or from entry points and between accessible facilities within the premises or infrastructure. There should be easy identification of access paths at appropriate locations which are easy to find.

## Regulatory option

Transport Standards section 2.2 would be amended to include the following (including any requirements retained or amended from the status quo):

- Access paths must be provided to enable passengers to:
  - Approach the premises or infrastructure from any accessible car parking spaces associated with the premises or infrastructure.
  - Enter the premises or infrastructure from adjoining public streets or walkways, and from associated public transport premises or infrastructure.
  - Enter the premises or infrastructure from any connected premises or infrastructure.
  - Access public spaces and accessible facilities within the premises or infrastructure.
- Access paths must:
  - Be designed to enable identification of access paths at appropriate locations which are easy to find.
  - Comply with AS1428.2 (1992) Clause 7(e).

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<sup>19</sup> Australian Human Rights Commission, *Advisory Note on streetscape, public outdoor areas, fixtures, fittings and furniture*, 9 December 2021, <https://humanrights.gov.au/our-work/disability-rights/publications/advisory-note-streetscape-public-outdoor-areas-fixtures>

These requirements would apply to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

The Transport Standards Guidelines and / The Whole Journey Guide would be updated to reflect the new requirements.

Specific guidance may include the following:

- Public footpaths and pedestrian crossings in road reserves are usually the responsibility of the local authority. These footpaths and pedestrian crossings are subject to the DDA and the anti-discrimination legislation of the various states and territories. Local authorities should be aware of their responsibility under the DDA to ensure the accessibility of public footpaths insofar as this does not impose an unjustifiable hardship.
- At times these footpaths and pedestrian crossings will connect public transport nodes. For example, a bus stop may be located close to a ferry pontoon with the two assets linked by a public footpath, tram stops located mid-street must be accessed via pedestrian crossings. To ensure an accessible whole of journey for a passenger with disability these footpaths and pedestrian crossings connecting transport nodes should be as accessible as possible.
- The Australian Human Rights Commission's Advisory Note on streetscape, public outdoor areas, fixtures, fittings and furniture provides useful guidance on accessible streetscapes for local authorities.

## Impact analysis

### Status quo

#### Impacts

- The Transport Standards would remain the same resulting in no improvements to accessibility for people with disability.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- As the guidance closely mirrors existing requirements, but acts as a standalone requirement, there should be minimal to nil cost associated with this option.

#### Benefits

- The safety benefits of access paths will be maintained for people with disability by ensuring access paths within, entering and connecting the infrastructure and premises remain fit for purpose and are accessible.
- Paths with predictable, continuous accessibility in the infrastructure, premises and precincts ensures an environment that permits easy travel and journey planning.

## Regulatory option

### Impacts

- As there is no material change to the intent of the Transport Standards, no financial or operational impacts to operators and providers are likely to arise. Local authorities currently have DDA obligations to maintain access paths under their jurisdiction in an accessible state, so no new obligation is imposed upon them.

### Benefits

- The safety benefit of ensuring access paths within, entering and connecting the infrastructure and premises remain fit for purpose and are accessible would be protected and maintained.
- Paths with predictable, continuous accessibility in the infrastructure, premises and precincts ensures an environment that permits easy travel and journey planning.
- The regulatory requirements will be more clearly articulated for all stakeholders.

### CBA of regulatory option

This reform involves proposed definitional change to the Transport Standards. There are no changes to assets, no costs will be incurred. This reform has been incorporated into the overarching economic assessment but has not been assessed quantitatively in the CBA.

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. When using access paths that connect public transport premises or infrastructure (such as a bus stop and train platform) have you experienced any accessibility issues?
5. What features make a path connecting transport nodes accessible?

## 26. Flange Gaps

### Issue

Pedestrian level crossings include a 'flange gap' which is the gap between the rail track and road that permits train or tram wheels to safely travel through a level crossing. The Transport Standards do not reference flange gaps within access paths at level crossings. This omission has been identified by public transport operators and providers as a significant gap in the current Transport Standards that creates compliance challenges. Flange gaps create a safety risk for people who travel in mobility aids with small wheels and other smaller devices, which can become stuck in the gap as people traverse a level crossing. This is an issue for people who use mobility devices, those with low vision or who are blind and utilise a cane.

Nationally, it is estimated that there are over 100 light rail and tram stops that have a flange gap in a nearby access path at a level crossing and approximately 300 train stations have nearby level crossings forming part of the access to the station or between platforms.

A range of horizontal gap limits are specified within the Transport Standards, including on ground and floor surfaces and for boarding devices. For example, Transport Standards Part 8 Boarding, specifies that for unassisted boarding, horizontal gaps may not exceed 40 millimetres. With currently deployed technology however, existing, new and upgraded level crossings have flange gaps in excess of 40 millimetres. Level crossings and flange gaps can be eliminated through grade separation, however this is not always possible or practical due to topography, road and rail alignment, property constraints, and local community access needs.

Whilst various commercial product trials and effectiveness research has been completed or is underway by public transport operators and providers, and the rail-industry funded Australasian Centre for Rail Innovation (ACRI), flange gap reducing technology has not been approved for light rail or tram networks.

If approved, products such as veloSTRAIL, which involves rubber parts that compress under the weight of a train but not under the weight of a pedestrian or cyclist, can ensure that the flange gap is reduced for pedestrians and cyclists, whilst still providing the necessary functionality for a passing train. Waka Kotahi NZ Transport Agency's Design Guidance for Pedestrian & Cycle Rail Crossings<sup>20</sup> advises that veloSTRAIL should be considered for all new or upgraded pedestrian / cycle crossings, particularly when acute crossing angles are involved. The guidance notes that one potential issue with this product is the potential for grease from the train wheels to get spread across the path, creating a slipping hazard. Therefore, regular maintenance may be required.

It is important the outcome of this reform area does not create a disincentive for further research and investment in products to fill or minimise flange gaps.

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<sup>20</sup> Waka Kotahi NZ Transport Agency, *Design Guidance for Pedestrian & Cycle Rail Crossings*, <https://www.nzta.govt.nz/walking-cycling-and-public-transport/walking/walking-standards-and-guidelines/#:~:text=Design%20guidance%20for%20pedestrian%20and%20cycle%20rail%20crossings,Bridging%20the%20gap%20%E2%80%93%20NZTA%20Urban%20design%20guidelines>, 16 February 2022

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee.



Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

### Non regulatory option

Guidance would be provided in the Transport Standards Guidelines or The Whole Journey Guide to include advice on flange gap filler products and to promote the safe traversing of level crossings for people who use mobility devices, those who have low vision or are blind or utilise a cane, cyclists, those with prams and luggage. This guidance should ensure that until a new 'flange gap filler' product is regulated and rolled out across the rail networks, public transport operators and providers are able to provide appropriate information and guidance to persons with mobility devices to improve their knowledge of how to safely cross access paths at level crossings that have not had a 'flange gap filler' product installed.

Specific guidance for operators and providers may include:

- Where possible, ensure level crossings do not form part of an access path and continue to upgrade and remove railway level crossings, which will remove the safety risk for people getting stuck in the gap while traversing a level crossing.
- Drive research and trials of new 'flange gap filler' products and technologies to minimise the gap and their subsequent rollout should these products prove successful and are approved by the Office of the National Rail Safety Regulator.
- Develop and release guidance material on what constitutes good design in traversing a flange gap at a level crossing.
- Work with local users on how to introduce a safe equivalent access option for traversing of a level crossing where it forms part of an access path without getting stuck in the gap.

### Regulatory options

The Transport Standards would be amended to include new requirements that recognise flange gaps within access paths at level crossings, encourage that they only be used where necessary, and encourage flange gap filler products be used where available. Two regulatory options are proposed for consideration.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated for both options to include advice for improving accessibility where flange gaps are located within access paths at level crossings.

## Option 1

The Transport Standards would include the following new requirements:

- Where possible, level crossings must not form part of an access path, thereby removing the safety risk for people getting stuck in the flange gap while traversing a level crossing.
- Where a 'flange gap filler' product or technology has been approved by the Office of the National Rail Safety Regulator for each mode of transport, it must be used to eliminate, or if not feasible, reduce the gap to be no greater than 40 millimetres.

These requirements would apply to premises (except premises to which the Premises Standards apply), and infrastructure (except airports provides that do not accept regular public transport services).

## Option 2

The Transport Standards may also include the following new requirement:

- Where possible, level crossings must not form part of an access path, thereby removing the safety risk for people getting stuck in the flange gap while traversing a level crossing.
- Where a 'flange gap filler' product or technology has been approved by the Office of the National Rail Safety Regulator for each mode of transport, it must be used to eliminate, or if not feasible, reduce the gap to be no greater than 40mm.
- Where an access path must be provided at a level crossing, the flange gaps at the level crossing must comply with AS1742.7 *Manual of uniform of traffic control devices*, which stipulates that flange gaps must be constructed to no wider than 65 millimetres for newly constructed level crossings and maintained to a maximum width of 75 millimetres and have a maximum depth of 50 millimetres.

These requirements would apply to premises (except premises to which the Premises Standards apply) and infrastructure (except airports provides that do not accept regular public transport services).

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to reflect the new requirements for both options.

Specific guidance for may include:

- Information on the safe traversing of level crossings for people who use mobility devices, those who have low vision or who are blind or utilise a cane.
- Guidance that advises operators and providers to make their level crossing as safe as possible in the interim of a 'flange gap filler' product being installed.

## Impact analysis

### Status quo

#### Impacts

- Flange gaps will still present a safety risk to a variety of people with disability, who can potentially become stuck in the flange gap, or be tripped by them.
- A conflict with the unhindered passage for access paths requirement in the Transport Standards will remain.

## Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs would be incurred to research, develop and install (subject to regulatory approval) flange gap filler products, or to grade separate level crossings.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt flange gap filler products if approved or provide safety information to passengers using level crossings. The impact on people would be a continued lack of safety when using level crossings, and a continued regulatory uncertainty for operators and providers.
- A conflict with the unhindered passage for access paths requirement in the Transport Standards will remain.

### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- If level crossings are removed, the safety risk of being stuck in a flange gap will be removed at these locations.
- As public transport operators of heavy rail continue to trial new 'flange gap filler' products and technologies to minimise or fill the gap, once a successful product has been approved by the Office of the National Rail Safety Regulator, it can be installed at access paths at level crossings that will permit train or tram wheels to safely travel through a level crossing, while also enabling pedestrians to safely cross level crossings.
- Public transport operators and providers are incentivised to continue to research and grade separate, thereby increasing the likelihood of the development and approval of a suitable 'flange gap filler' product to minimise or eliminate the gap by not prescribing a minimum gap greater than zero for flange gaps in the Transport Standards.

## Regulatory Option 1

### Impacts

- Public transport operators and providers will bear the costs of trialling new 'flange gap filler' products and technologies to minimise or fill the gap, and once a successful product has been approved by the Office of the National Rail Safety Regulator, there will be a cost to installing them at access paths at level crossings.
- Public transport operators and providers and governments will also bear the cost of upgrading and removing railway level crossings.

### Benefits

- Should a successful flange gap filler product be found and approved by the Office of the National Rail Safety Regulator, it can be installed at access paths at level crossings that will

permit train or tram wheels to safely travel through a level crossing, while also enabling pedestrians to safely cross level crossings.

- As public transport operators and providers continue to upgrade and remove railway level crossings, this will remove the safety risk of passengers using mobility devices or canes getting stuck in the gap while traversing a level crossing.

## CBA of regulatory Option 1

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of consistent standards for flange gaps should reduce injuries occurring when pedestrians cross flange gaps, improving the risk of slips, trips and falls for public transport users with and without disability.
- **Amenity:** Improvements to reduce flange gaps would improve surface smoothness and ease of access, improving the overall experience of using access paths for public transport users with and without disability.
- **Accessibility:** Improvements to reduce flange gaps could encourage more people with disability to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with filling existing flange gaps to meet standards would accrue to the public transport operator / provider.
- **Monetised compliance costs (administrative):** 0.4
- **Monetised compliance costs (substantive):** 6.6

## Regulatory Option 2

### Impacts

- Prescribing a minimum width of 65 millimetres (75 millimetres to maintain a level crossing) poses a safety risk to pedestrians when crossing a flange gap as this minimum width is an

increase on the 40 millimetre gap currently stipulated for unassisted boarding in the Transport Standards.

- Public transport operators and providers will bear the cost of trialling new ‘flange gap filler’ products and technologies and the subsequent cost of installation if these products are approved by the Office of the National Rail Safety Regulator.

## Benefits

- Improved clarity in the Transport Standards for public transport operators and providers as to what the requirements are for flange gaps at level crossings that form part of an access path. These requirements also align with some international practice such as AS1742.7 (2016) United States Americans with Disabilities Act and European Union Persons with Reduced Mobility Technical Specifications for Interoperability.
- As public transport operators and providers continue to upgrade and remove railway level crossings, this will remove the safety risk of passengers traversing a level crossing.
- If research identifies and appropriate ‘flange gap filler’ product to minimise or fill the gap, installation within access paths at level crossings will permit train or tram wheels to safely travel through a level crossing, while also enabling pedestrians to safely cross level crossings.

## CBA of regulatory Option 2

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of consistent standards for flange gaps should reduce injuries occurring associated with pedestrians crossing flange gaps, reducing risk of slips, trips and falls for public transport users with and without disability. This option would further reduce potential for incidents.
- **Amenity:** Improvements to further reduce flange gaps would improve surface smoothness and ease of access, improving the overall experience of using access paths for public transport users with and without disability.
- **Accessibility:** Improvements to reduce flange gaps could encourage more people with disability to use public transport. There is potential that this option could increase accessibility on access paths inducing more users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with replacing level crossings or filling existing flange gaps to meet standards would accrue to the public transport operator / provider.
- **Monetised compliance costs (administrative):** 0.4
- **Monetised compliance costs (substantive):** 12.1

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What is your experience crossing tram and train tracks?
5. What alternative solutions exist to remove or reduce flange gaps and what potential impacts do those options have?

## 27. Resting points

### Issue

On public transport infrastructure and in premises, Transport Standards section 5.1 When resting points must be provided, requires resting points every 60 metres along an access path, and these resting points must have accessible seats. However, the Transport Standards have no requirement to provide an allocated space for a wheelchair or similar mobility aid at a resting point. The current requirements accommodate people who are ambulant but prone to fatigue, but puts people using wheelchairs or similar mobility aids, and people travelling with them, at a disadvantage. People independently pushing manual wheelchairs are as likely to fatigue as ambulant people who have mobility impairments. Also, companions pushing people in manual wheelchairs may fatigue and if using a resting point must find a location for the wheelchair and its occupant. At times, people using powered mobility aids may be travelling with a person who fatigues and so both will need access to a resting point that has an allocated space.

People using the resting point seat will not hinder or obstruct the access path with either their legs or luggage. This is achieved by setting the seat back by 500 millimetres from the access path and providing a wheelchair or mobility aid allocated space clear of the access path at the resting point. These also benefit people travelling with luggage or prams.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards Part 5 Resting points, would remain unchanged and no additional guidance would be issued.

#### **Part 5 Resting points**

##### **5.1 When resting points must be provided**

- (1) There must be resting points for passengers along an access path if the walking distance between facilities or services exceeds 60 metres (AS1428.2 (1992) Note to Clause 7, Continuous accessible path of travel).
- (2) A resting point must provide seats (AS1428.2 (1992) Clause 27.1(a), Street Furniture).

This section pertains to premises and infrastructure (except airports that do not accept regular public transport services).

#### **Non regulatory option**

The Transport Standards Guidelines and /or The Whole Journey Guide may be updated to include guidance on the provision of allocated spaces at resting points.

Specific guidance may include:

- A 1300 by 800 millimetre flat and stable space, suitable for a resting point allocated space, should be provided besides resting point seats. The resting point should be configured so that the backrest of the resting point seat aligns with the backrest of a device positioned in the allocated space.
- The resting point allocated space must not overlap the access path.
  - The intent of AS1428.2 (1992) *Design for access and mobility, Clause 27.1(a) Street Furniture*, is to ensure seat setback is sufficient so that people using the resting point seat do not in any way obstruct pedestrian traffic on the access path. Similarly, resting point allocated spaces should allow the mobility aid to be clear of the access path.
- Where more than one resting point is provided along an access path, resting points should be placed alternately on either side of the access path in equal or near equal proportions.
- Access paths may be located on local council footpaths where these footpaths connect transport nodes such as bus and tram stops. Resting points with seating and resting points at allocated spaces may therefore be located on council footpaths.

## Regulatory option

Transport Standards Part 5 Resting points, would be amended to include the following (including any requirements retained or amended from the status quo).

The Transport Standards would be amended to include the following requirements:

- There must be resting points for passengers along an access path if the walking distance between facilities or services exceeds 60 metres.
- A resting point must provide a seat or seats placed as per AS1428.2 (1992) *Clause 27.1(a), Street Furniture*.
- A 1300 by 800 millimetre flat and stable space must be provided beside the seats suitable for a wheelchair or mobility aid. The mobility aid space must not overlap the access path.
- Allocated spaces at resting points do not require signage or ground marking.

These requirements would apply to public transport premises and infrastructure (except airports that do not accept regular public transport services).

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements.

Specific guidance may include the following:

- The intent of AS1428.2 (1992) *Clause 27.1(a) Street furniture*, is to ensure mobility aid spaces besides resting point seats should allow the mobility aid to be clear of the access path. The resting point should be configured so that the backrest of the resting point seat aligns with the backrest of a device positioned in the allocated space.
- Where more than one resting point is provided along an access path resting points should be placed alternately on either side of the access path in equal or near equal proportions.
- Access paths may be located on local council footpaths where these footpaths connect transport nodes such as bus and tram stops. Therefore, resting points with seating and resting point allocated spaces may be located on council footpaths.



## Impact analysis

### Status quo

#### Impacts

- There would be a lost opportunity to ensure the adequate provision of resting point allocated spaces at resting points.
- The safety issues for passengers using mobility aids who do not have a suitable location to rest on access paths will remain. Resting points will not accommodate the full spectrum of people who need them.
- The lack of resting point allocated spaces at resting points directly affects people who rely on these mobility aids and their companions. Indirectly it affects their travelling companions. Lack of a space will deter some potential passengers or act to reduce the number of journeys that they would otherwise undertake.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to install allocated space resting points.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will install resting point allocated spaces. The impact on people would be a reduction in the amenity of access paths longer than 60 meters, and will pose a safety risk to wheelchair users who need to stop in access paths to rest.
- Resting point allocated spaces are of only modest dimensions (1300 mm long, 800 mm wide). Ensuring space for this footprint is provided at resting points associated with new sites is likely to be financially modest. At existing sites, it is likely to be easily accommodated, provided space is available to adjust the placement of existing seats. For little extra cost, resting points can be made more accessible for people who use wheelchairs, scooters and similar mobility aids, their carers and companions.
- A challenging site will incur additional costs. However, this cost will only be incurred to the extent as the advice is adopted.
- The lack of resting point allocated spaces at resting points directly affects people who rely on mobility aids and their carers. Indirectly it affects their travelling companions. Lack of a space may deter some potential passengers or act to reduce the number of journeys that they would otherwise undertake.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- The installation of resting point allocated spaces at resting points will benefit people who rely on mobility aids, their carers, and their travelling companions. The introduction of a space will encourage some potential passengers or act to increase the number of journeys

that they would otherwise undertake, although inconsistent provision may hamper this benefit.

- Passengers with luggage or prams could use the space when it was not required by a wheelchair, scooter or other mobility aid user, increasing the amenity of the resting point to a broader number of travellers.

## Regulatory option

### Impacts

- Resting point allocated spaces are of only modest dimensions (1300 mm long, 800 mm wide). Ensuring that space for this footprint is provided at resting points associated with new sites is likely to be financially modest. At existing sites, it is likely to be easily accommodated, provided space is available to adjust the placement of existing seats. For extra cost, resting points can be made more accessible for people who use wheelchairs, scooters and similar mobility aids, their carers and companions. A challenging site may incur additional costs.
- Once constructed there would be little or no maintenance cost beyond general cleaning and repair as per the surrounding pavement or deck.

### Benefits

- The installation of resting point allocated spaces at resting points will benefit people who rely on mobility aids, their carers, and their travelling companions. The introduction of a space will improve the amenity of the access path and will encourage some potential passengers or act to increase the number of journeys that they would otherwise undertake.
- Passengers with luggage or prams could use the space when it was not required by a wheelchair, scooter or other mobility aid user, increasing the amenity of the resting point to a broader number of travellers.

### CBA of regulatory options

A CBA was undertaken for each reform area to:

- Provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- Assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of appropriate seating should improve safety for people with disability and public transport users with restricted mobility.
- **Amenity:** Provision of appropriate seating should improve the experience and ease of access to public transport services for people with restricted mobility.
- **Accessibility:** Provision of appropriate seating should induce new users to access public transport services.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs with retrofitting existing seats or providing new appropriate seats at resting points.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 13.9

### Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. On an access path leading to or from a public transport node have you ever experienced difficulty due to a resting point along the path not having a suitable space available for wheelchairs, scooters or similar mobility aids? How did the design of the resting point impact you and how could it be improved?

## 28. Requirement for handrails in overbridges and subways

### Issue

Many overbridges and subways do not have continuous handrails, creating a barrier to using public transport for people who use handrails for support or wayfinding. The Transport Standards section 11.2 Handrails to be provided on access paths, requires handrails along access paths 'wherever passengers are likely to require additional support or passive guidance'. Exactly where they are required is not specified in the Transport Standards, but rather designers are given the flexibility to decide case by case. From public input, general project consultation and co-design processes with Accessibility Reference Groups, overbridges and subways are locations that should have continuous handrails that offer guidance and support.

People who have vision impairments use handrails to locate stairs, ramps, lifts and tactile signs. People who are unsteady benefit from support particularly at busy times when they will be bumped by other passengers during busy, crowded times.

Knowledge that the handrails are in place gives confidence to use the overpass or subway access path. These handrails help to provide a safer experience which will increase the confidence of passengers. When installing handrails, it is important not to introduce safety concerns or to compromise free flowing two-way access if the access path is too narrow.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 11.2 Handrails to be provided on access paths, would remain unchanged and no additional guidance would be issued.

#### **11.2 Handrails to be provided on access paths**

- (1) Handrails must be placed along an access path wherever passengers are likely to require additional support or passive guidance.
- (2) A handrail must not infringe an area on a roadside boarding point that may be needed to deploy a boarding device.

This section pertains to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

## Non regulatory option

The Transport Standards Guidelines and/ or The Whole Journey Guide may be updated to encourage operators and providers that overbridges and subways have continuous handrails on both sides, broken only at entry and exit points.

Guidance would be relevant to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

Specific guidance may include:

- Access paths on overbridges and through subways should have handrails on both sides. Continuous handrails on overbridges and in subways assist people with vision impairment in wayfinding and offer support to people who have fatigue or balance difficulties.
- Handrails may be broken at stair, walkway and ramp entry points, at lift doors, and at any other entry and exit points for the overbridge or subway. If a concourse serves as an overbridge or subway, handrails may need to break at service-related facilities and fixtures.
- Safety and access must not be compromised by the installation of continuous handrails on overbridges and subways. If retrofitting handrails to existing narrow overbridges or subways, the viability of the access path must be considered. Free-flowing two-way access and emergency egress should not be compromised by installation of handrails.
- If 1800 millimetre or more clear space between opposite handrails cannot be achieved on overbridges and subways, one or both handrails should be omitted. If only a single handrail is viable due to space constraints, the continuous handrail should be on the side of the overbridge or subway on which the stairs, lifts or ramps enter.
- It is important that design accounts for safety concerns such as potential shorting from overhead wires.
- While the above advice pertains to overbridges and subways, other access paths such as walkways also benefit from installation of handrails. This is recognised in Transport Standards section 11.2 and it would be regarded as good practice to consider handrails along walkways provided that they do not interfere with functions at such locations as boarding points, rest areas, manoeuvring areas and the like.
- While handrails may have an outside diameter of 30 to 50 millimetres, an outside diameter of 30 to 40 millimetres is seen as the optimal range for people who have smaller hands and for children.

## Regulatory option

Transport Standards section 11.2 would be amended to include the following (including any requirements retained or amended from the status quo):

- Access paths on overbridges and through subways must have handrails on both sides.
- Handrails may be broken at stair, walkway and ramp entry points, at lift doors, and at any other entry and exit points for the overbridge or subway.
- When concourses serve as overbridges or subways, handrails may break at facilities and fixtures such as fare gates, ticket vending machines, public information displays, service counters, staff doors, public toilet doors or access corridors and the like.

These requirements would pertain to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements.

Specific guidance may include:

- Continuous handrails on overbridges and in subways assist people with vision impairment in wayfinding and offer support to people who have fatigue or balance difficulties. If a concourse serves as an overbridge or subway, handrails may need to break at service related facilities and fixtures.
- Safety and access must not be compromised by the installation of continuous handrails on overbridges and subways. If retrofitting handrails to existing narrow overbridges or subways, the viability of the access path must be considered. Free-flowing two-way access and emergency egress should not be compromised by installation of handrails.
- If 1800 millimetres or more clear space between opposite handrails cannot be achieved on overbridges and subways, one or both handrails should be omitted. If only a single handrail is viable due to space constraints, the continuous handrail should be on the side of the overbridge or subway on which the stairs, lifts or ramps enter.
- It is important that design accounts for safety concerns such as potential shorting from overhead wires.
- While the above advice pertains to overbridges and subways, other access paths such as walkways also benefit from installation of handrails. This is recognised in Transport Standards section 11.2 and it would be regarded as good practice to consider handrails along walkways provided that they did not interfere with functions at such locations as boarding points, rest areas, manoeuvring areas and the like.
- While handrails may have an outside diameter of 30 to 50 millimetres, an outside diameter of 30 to 40 millimetres is seen as the optimal range for people who have smaller hands and for children.

## Impact analysis

### Status quo

#### Impacts

- There would be a lost opportunity to ensure improvements for wayfinding and stability for passengers on overbridges and subways through the provision of handrails.
- The safety issues for passengers who rely on handrails for support or wayfinding will remain.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to install handrails along overbridges and subways where they are not part of the existing design.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will install new handrails. The impact on people would be decreased amenity and safety due to a reduce wayfinding and support when using stairs and ramps.
- To the extent that guidance is adopted, the cost of installing handrails in new overbridges or subways, or in those undergoing major refurbishment, would be a minor addition to total project cost. Installing in a one-off manner, or from a maintenance budget, will have a

greater impact. In very long subways or overpasses the cost of one-off installation may be high.

- In some locations that are technically challenging, or which are heritage listed, audit and assessment work to determine safety or heritage issues would impose costs on the operator or provider.
- Once handrails are installed, future costs are likely to be low. In that installation is discretionary, particularly onerous locations might be left untouched, incurring no cost.

### **Benefits**

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Provision of guidance and support for installation of handrails in overbridges and subways is likely to benefit people with disability who rely on handrails for support or wayfinding directly as they are used, and in giving them confidence to undertake journeys.
- Additional guidance will give designers greater certainty in their work, informing designers at which points along an access path passengers are likely to require additional support or passive guidance.

## **Regulatory option**

### **Impacts**

- The cost of installing handrails in new overbridges or subways, or in those undergoing major refurbishment would be a minor part of total project cost. Installing in a one-off manner, or from a maintenance budget, would have a greater impact. In very long subways or overpasses the cost of one-off installation may be high.
- In some locations that are technically challenging, or which are heritage listed, audit and assessment work to determine safety or heritage issues would impose costs on the operator or provider.
- Once handrails are installed, there may be additional maintenance costs, although these are likely to be minor.

### **Benefits**

- Provision of guidance and support for installation of handrails in overbridges and subways will benefit people with disability who rely on handrails for support or wayfinding directly as they are used, and in giving them confidence to undertake journeys. Mandating design requirements for handrails will provide certainty to designers and operators and providers. It will also help focus the intent of Transport Standards section 11.2, providing greater clarity regarding at which points along an access path passengers are likely to require additional support or passive guidance.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of continuous handrails through overbridge or subway should reduce trips, slips and falls on overbridges and subways and improve safety for existing users with disability.
- **Amenity:** Not applicable.
- **Accessibility:** The improved experience and ease of access to public transport services should induce new users to access public transport services.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting existing handrails to be continuous along subways or overbridges, or building new handrails.
- **Monetised compliance costs (administrative):** 1.1
- **Monetised compliance costs (substantive):** 2.7

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. How do you find the accessibility of overpasses or subways that do not have handrails on both or either side? Can you tell us any experiences that you may have had?



## 29. Location of Fare System Elements

### Issue

Fare system elements include validation devices such as platform access gates and platform validators, validation devices on board buses and ferries, devices such as vending machines where customers can purchase tickets or top up tokens, and check-in elements at airports.

The Transport Standards contain limited clarity regarding the specific location of fare system elements, to provide guidance to operators on the correct placement of devices to ensure they are located and oriented to facilitate, and not obstruct access.

The Transport Standards contain some specifications relating to location of devices, such as minimum access paths, circulation space and manoeuvrability requirements and illumination for vending machines. However, these requirements are contained in different sections. This increases the risk of inconsistent interpretation as to where and how fare system elements should be located. Additionally, these sections are reliant on Australian Standards, many of which have been updated.

The separation of design requirements across the Transport Standards, added complexity, and references to outdated Australian Standards will result in people with disability being met with an inconsistent and potentially inaccessible travel experience that will prevent some people travelling independently. Factors such as illumination, glare, shelter, maintaining compliant reach ranges, handrails, entrapment risks, customer flow, manoeuvrability, circulation spaces and access paths should be considered in the placement of fare system elements.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee.

Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no additional guidance would be issued.

The current Transport Standards sections relevant to the location of fare system elements, such as those addressing minimum access paths, circulation spaces, manoeuvrability requirements, reach ranges, wayfinding signage and illumination, would remain disconnected from and without any specific reference to the location of fare system elements.

#### Non-regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide may be updated to encourage the uptake of best practice for locations of fare system elements to meet the current and future needs of people with disability and also provide clarity, certainty and flexibility to providers and operators.

Specific guidance may include:

- Fare system elements should be installed in a manner that ensures all relevant Transport Standards requirements concerning access paths, passing areas, circulation spaces, manoeuvring areas, illumination and tactile ground surface indicator (TGSIs) are satisfied and maintained.
- Fare system elements should be located to ensure appropriate circulation space to allow enhanced convenience.
- People with disability should not have to undertake additional actions to access mobility aid accessible fare system elements.
- Fare system elements specifically designed as mobility aid accessible, such as wide access gates, should be located:
  - adjacent to standard access fare system elements with the same function.
  - where possible, orientated to avoid the effect of glare on digital screens.
- Where fare system elements are free-standing or installed, all elements required for operation should be within reach of all users and meet the requirements of *ASEN301549 (2020) Accessibility requirements suitable for public procurement of ICT products and services, section 8.3.1 Forward or side-reach*.
- Where any conflict of requirements between the Transport Standards and *ASEN301549 (2020)* or other Australian or International Standards exist, the Transport Standards requirements should take precedence.
- Fare system elements should, where possible, be supplemented by either digital or physical wayfinding methods to support independent travel. Physical or digital signage must meet all relevant Transport Standards requirements.

## Regulatory option

The Transport Standards would be amended to co-locate and simplify existing requirements relevant to the location of fare system elements in a new section of the Transport Standards. This section would also contain some improved design requirements to improve accessibility, and would include the following:

- Fare system elements specifically designed as mobility aid accessible:
  - must be located adjacent to other standard access fare system elements with the same function
  - should, where possible, be oriented to minimise the effect of glare on digital screens.
- Where fare system elements are free-standing or installed, all elements required for operation must be within reach of all users and meet the requirements of *ASEN301549 (2020) section 8.3.1 Forward or side-reach*.
- After installation, required reach ranges must be maintained.
- Where any conflict of requirements between the Transport Standards and *ASEN301549 (2020)* or other Australian or International Standards exist, Transport Standards requirements take precedence.
- Fare system elements should, where possible, be supplemented by either digital or physical wayfinding methods to support independent travel. Physical or digital signage or TGSIs must meet all relevant Transport Standards requirements.
- The new section of the Transport Standards would also cross reference existing requirements in the Transport Standards, stating fare system elements must be installed in a manner that ensures requirements concerning access paths, handrails, passing areas, appropriate circulation space, manoeuvring areas, illumination and TGSIs are satisfied and maintained.

## Impact analysis

### Status quo

#### Impacts

- Accessibility issues relating to the provision of fare system elements, would continue and passengers will not be able to use public transport independently.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that operators and providers implement guidance, additional costs may be incurred by operators to support required remedial actions in relation to inaccessible locations, should they follow the advice of the guidance. This includes possible adoption of AS/EN301549 (2020) requirements.
- Non-uptake by operators and providers will result in the disability community not receiving the benefits provided by the new location requirements.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- To the extent that guidance is followed, people with disability will be supported to travel independently and safely while passing through fare system elements.
- Clear guidance around the location of fare system elements, including the adoption of AS/EN301549 (2020), will further support operators and providers' considerations for opportunities to improve accessibility within the scope of their unique environments.
- Due to the discretionary nature of this option, operators and providers who have already factored accessibility into the location of fare system elements may choose to take no further action and will incur little or no additional costs.

### Regulatory option

#### Impacts

- Costs may be incurred by operators and providers who will need to ensure the location of the fare system elements meet any new requirements.

#### Benefits

- Improved design requirements will ensure that people with disability are supported to travel independently and safely while passing through fare system elements.
- The simplification and co-location of requirements in a new section of the Transport Standards will benefit operators and providers, providing increased clarity, consistency and

certainty. Clarity of requirements concerning the location of fare system elements will support operators and providers' assessment of accessibility and required remediation within the scope of their unique environments.

- Operators and providers who have already factored accessibility into the location of fare system elements incur little or no additional costs to ensure compliance with AS/EN301549 (2020).

### CBA of regularly option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Providing consistent standards across all fare systems at public transport sites can improve access and reduce the risk of injury from trips, slips and falls etc.
- **Amenity:** Providing consistent standards across all fare systems at public transport sites can improve ease of navigation to locate fare systems. This reform can also improve access paths for public transport users with disability by removing obstruction of fare machines and allowing for adequate surrounding spaces.
- **Accessibility:** Providing equivalent access for users with disability can allow new users of public transport with disability to purchase fares with accessible options.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs may be incurred to relocate existing payment validation and fare machines if currently in a location not adequate.
- **Monetised compliance costs (administrative):** 1.1
- **Monetised compliance costs (substantive):** 103.9

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Is your ability to travel independently impacted by the existing location of some fare system elements including ticket vending machines, fare validators and platform access gates? If so, can you provide details?

## 30. Allocated spaces and priority seating in waiting areas

### Issue

The Transport Standards do not provide sufficient clarity on the proportion of allocated spaces and priority seating required in a waiting area that provides seats. This leads to the proportion of allocated spaces and priority seating provided in each waiting area to be insufficient.

The current requirements outline that five per cent of the area or seats must be identified for people with disability (with a minimum of two allocated spaces and two priority seats provided).

This percentage approach is open to interpretation as the number of allocated spaces and priority seating required as a total number of seats provided is unclear. For example, where a ratio results in a decimal number (in a waiting area with 70 seats, the resulting requirement of allocated spaces and priority seating would be 3.5), it is at the discretion of the operator or provider to determine the required number based on their rounding preferences. This leads to sub-optimal outcomes where a lower amount of allocated spaces and priority seats are provided.

The Premises Standards allocates priority seat numbers to quanta within the total of seats provided in a waiting area (for example accessible car parking spaces and wheelchair seating spaces). This approach maximises the accessibility of a premise by rounding upwards (maximising) the number of accessible units or facilities provided. The Transport Standards also do not provide clarity on how a single bench seat should be designated as priority. In situations where only a single bench seat is provided, such as at suburban bus stops, it is unclear if the entire bench seat or a proportion of the bench seat is priority for eligible people. Once again it is open to the interpretation and discretion of operators and providers as to whether a part or all the bench is priority.

Additionally, there is a degree of ambiguity around what constitutes a waiting area as the nature and extent of a waiting area is not clearly defined in the Transport Standards. The Transport Standards Guidelines provide minimal advice and minimal examples of what constitutes a waiting area at Part 7 Waiting areas.

This lack of clarity around the nature and extent of waiting areas also contributes to difficulties interpreting how many allocated spaces and priority seats are required to be provided.

Amending the ratio calculation for the number of allocated spaces and priority seats required will provide greater clarity for operators and providers around their regulatory obligations. Removing the eventuality whereby an operator or provider must choose to round the number of allocated spaces or priority seats to install will provide clarity on the number required. Additionally, clarifying the nature and extent of waiting areas will assist operators and providers to correctly determine the proportion of allocated spaces and priority seats to be provided in each waiting area.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 7.1 Minimum number of seats to be provided, and section 7.2 Minimum number of allocated spaces to be provided, would remain unchanged and no new or additional guidance would be issued.

#### 7.1 Minimum number of seats to be provided

If a waiting area is provided, a minimum number of 2 seats or 5% of the seats must be identified as available for passengers with disabilities if required.

This Section pertains to premises and infrastructure (except airports that do not accept regular public transport services).

#### 7.2 Minimum number of allocated spaces to be provided

If a waiting area is provided, a minimum of 2 allocated spaces or 5% of the area must be available for passengers with disabilities if required.

This Section pertains to premises and infrastructure (except airports that do not accept regular public transport services).

### Non-regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide may be updated to encourage adequate provision of allocated spaces and priority seating in waiting areas. Rather than a percentage that offers no indication of whether the number should be rounded up or down, the guidance would encourage that the number is clearly rounded up. This can be done by requiring allocated spaces and priority seats per quanta of total seats in the waiting area.

Specific guidance may include the following:

- Allocated spaces and priority seating should be provided at a ratio of one per 20 seats or part thereof with a minimum of two allocated spaces and two priority seats required (refer to Table 3, Number of allocated spaces and priority seats per total number of seats, in the regulatory option, for an illustrative example).
  - The allocated space should not compromise the access path.
  - If the seating consists of only a single bench seat, the entire seat should be considered priority seating. If multiple priority seats are designated as part of bench seating, each priority seat should have a width of no less than 450 millimetres.
- A waiting area provides seating and / or shelter for the express use of passengers waiting for the arrival of a public transport conveyance. Priority seats and allocated spaces must be provided at waiting areas.
- Just as the entire platform edge is regarded as a boarding point so the entirety of a platform that offered seating and / or shelter at various points would be regarded as a waiting area.
- Waiting areas include any of the following that offer seating and / or shelter:
  - Departure lounges in airports or coach terminals.
  - Any rail station platform, light rail platform or tram stop platform.
  - Bus stops, bus interchange platforms and bus station platforms (except where a stop is used exclusively for disembarkation and no seating or shelter is provided).
  - Taxi ranks and passenger loading zones.
  - Ferry wharves and pontoons.

- If a boarding point does not have seating and / or shelter associated with it, it would not be classed as a waiting area.
  - Examples of this would be a basic accessible bus or tram stop comprising only a slab or platform, TGSIs and signs, or a basic accessible taxi rank comprising boarding points only.
- Allocated spaces and priority seating should offer the same amenity and convenience as other seats and should be distributed evenly around the waiting area.
  - For example, on a train station platform with a dedicated waiting room, all allocated spaces and priority seats are not required to be located within the waiting room, rather they may be distributed throughout the platform.
- Allocated spaces and priority seating in waiting areas should be identified through signage or line marking. Where practicable, braille and tactile signage should be provided.

## Regulatory option

Transport Standards Sections 7.1 Minimum number of seats to be provided and Section 7.2 Minimum number of allocated spaces to be provided, would be amended to include the following (including any requirements retained or amended from the status quo):

- If seating is provided in a waiting area, clearly identified allocated spaces and priority seats available for passengers with disabilities must be provided at a ratio of one per 20 seats or part thereof with a minimum of two allocated spaces and two priority seats required.
- The allocated space must not compromise the access path.
- If the seating consists of only a single bench seat, the entire seat must be considered priority seating. If multiple priority seats are designated as part of bench seating, each priority seat must have a width of no less than of 450 millimetres.

The number of allocated spaces and priority seats required using this approach versus the current percentage approach (with minimum of two seats) is illustrated below.

**Table 3: Number of allocated spaces and priority seats per total number of seats**

Number of allocated spaces / priority seats							
1:20	2	2	2	2	3	3	4
5%	2	2	2	2	2.5	3	3.5
Total seats in waiting area	10	20	30	40	50	60	70

These requirements would apply to premises and infrastructure (except airports that do not accept regular public transport services).

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect the new requirements and provide additional information regarding the definition of a waiting area.

Specific guidance may include:

- A waiting area provides seating and / or shelter for the express use of passengers waiting for the arrival of a public transport conveyance. Priority seats and allocated spaces must be available to passengers with disabilities wherever waiting areas are provided.
- Just as the entire platform edge is regarded as a boarding point so the entirety of a platform that offered seating and / or shelter at various points would be regarded as a waiting area.



- Allocated spaces and priority seating in waiting areas should be identified through signage or line marking. Where practicable, braille and tactile signage should be provided to identify priority seats in waiting areas.
- Waiting areas include any of the following that offer seating and/or shelter:
  - Departure lounges in airports or coach terminals.
  - Any rail station platform, light rail platform or tram stop platform.
  - Bus stops, bus interchange platforms and bus station platforms.
  - Taxi ranks and passenger loading zones.
  - Ferry wharves and pontoons.
- If a boarding point did not have seating and / or shelter associated with it, it would not be classed as a waiting area.
  - Examples of this would be a basic accessible bus or tram stop comprising only a slab or platform, TGSIs and signs, or a basic accessible taxi rank comprising boarding points only.
  - Stops used exclusively for disembarkation and where no seating or shelter is provided are not considered waiting areas.

## Impact analysis

### Status quo

#### Impacts

- An inadequate number of allocated spaces and priority seats in waiting areas will continue to be provided. This will continue to impact people with people with disability on public transport services.
- Due to the scope of interpretation, there will be inconsistencies in the provision of allocated spaces and priority seats across different states and territories, and transport modes. This will lead to the proportion of allocated spaces and priority seating provided in each waiting area to be insufficient.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that adoption of guidance results in additional allocated spaces and priority seats required, operators and providers may incur costs to install these. For existing assets, the cost of providing additional allocated spaces and priority seats may be low, as costs mainly relate to the removal of fixed seating and installation of any extra identifying signs if required. For new assets, consideration of additional allocated spaces and priority seats is unlikely to create additional incremental installation cost.
- The number of fixed seats in a waiting area may decrease slightly, however seats lost to rounding up would be few depending of the orientation of the extra space or whether it was embedded in rows of seats or was separate but adjacent to the seats.

## Benefits

- To the extent that guidance is followed, people with disability will benefit from the addition of extra allocated spaces and priority seats where rounding upwards requires more than would be required by following the percentage approach.
- Specifically, people using mobility aids and other people who are legitimately allowed to use unoccupied allocated spaces, and people eligible for priority spaces will benefit from the addition of extra allocated spaces and priority seating.
- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Public transport operators and providers will have flexibility to provide additional allocated spaces and priority seats to best suit their service.

## Regulatory option

### Impacts

- Where additional allocated spaces and priority seats are required as a result of the new ratio calculation, costs will be incurred to install these. However, it is likely the cost of providing additional allocated spaces and priority seats would be minimal due to only requiring the removal of fixed seating and additional identifying signs.
- The total number of standard seats in a waiting area may remain unchanged or decrease slightly if additional allocated spaces and priority seats are required. Seats lost to rounding up would be few depending of the orientation of the extra space or whether it was embedded in rows of seats or was separate but adjacent to the seats.
- Impact on operators and providers is likely to be minimal and may be limited to installation of extra identifying signs if the number of allocated spaces and priority seats increases. In waiting areas that are staffed during operational hours, signage may not be necessary if staff extend direct assistance to passengers.

### Benefits

- Passengers using a mobility aid and those eligible for priority assistance, will benefit from increasing the number of allocated spaces and priority seating in waiting areas.
- Additionally, when not occupied by a mobility aid, allocated spaces are frequently and validly used by people for standing space, luggage, shopping, children's prams and other uses, benefiting most passengers.
- At bus stops and other locations where only a single bench seat is located in the waiting area, people with disability will benefit from the full bench seat being provided as priority seating.
- Operators, providers and the public would benefit from the clarity this option provides and will be able to arrive at a definite figure for the number of allocated spaces required.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Providing equivalent access of seating for users with disability enables existing users with disability to have seating catered for their needs and improve their public transport experience.
- **Accessibility:** Providing equivalent access of seating for users with disability may increase the number of trips taken by existing users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or designing new waiting areas with priority seating incurring to the public transport operator / provider.
- **Monetised compliance costs (administrative):** 3.2
- **Monetised compliance costs (substantive):** 230.1

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What has been your experience or the experience of a travelling companion in obtaining an allocated space or priority seat in public transport waiting areas such as railway station platforms, airport terminals, bus stops, ferry wharfs and so on?
  - a. For example, are allocated spaces and priority seats free, easy to reach, in a good location and easy to identify?
  - b. How could this be improved (for example, through the provision of braille and tactile signs)?
  - c. Have you even been unable to get an allocated space in a public transport waiting areas?

## 31. Accessible toilets with equal proportion of left and right hand configurations

### Issue

'Hand of toilet' is an important consideration for people with disability transferring on to and from a toilet seat. People with hemiplegia, cerebral palsy or multiple sclerosis (among others) have a non-functional or poorly functional hand to effect a transfer. Hemiplegia resulting from brain injury randomly affects people with roughly equal proportions favouring either the left or right hand. Depending on which hand and arm are most functional people will choose to use a left hand toilet (pan to the left of the wheelchair) or right hand toilet (pan to the right of the wheelchair). The Premises Standards recognise this and require there be equal or near equal numbers of accessible toilets of left and right hand within premises. There are currently no Transport Standards requirements for equal or near equal proportions of left or right-handed accessible toilets in ferries or trains, rather, they simply require that an accessible toilet be provided in addition to any other toilets or as the only toilet.

As there is no requirement for toilets of both left and right hand where a train or ferry has two or more accessible toilets, they are often not provided. The lack of both left and right hand toilets disadvantages passengers who require a right-hand toilet.

An equal or near equal proportion of left and right hand designs to will ensure people can choose a design of accessible toilet that is best suited to their needs.

The Premises Standards require that there be equal or near equal numbers of accessible toilets of left and right hand configurations within a premises. The Transport Standards could be aligned with the Premises Standards on this requirement wherever a train or ferry has two or more unisex accessible toilets.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 15.3 Unisex accessible toilet – ferries and accessible rail cars, would remain unchanged and no additional guidance would be issued.

#### **15.3 Unisex accessible toilet — ferries and accessible rail cars**

If toilets are provided, there must be at least one unisex accessible toilet without airlock available to passengers using wheelchairs or mobility aids.

This section pertains to ferries and accessible rail cars.

## Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include advice for equal or near equal proportions of left and right handed accessible toilets when a ferry or train set has more than one unisex accessible toilet.

Specific guidance may include the following:

- The functionality of the toilets is enhanced by providing left hand and right hand transfer options in a set of rail cars or on a ferry that has more than one accessible toilet. The toilets should be available in left and right hand in equal or near equal proportions.
- If toilets are provided, there should be at least one unisex accessible toilet without airlock available to passengers using wheelchairs or mobility aids.
- If unisex accessible toilets of left and right hand are in sections of trains or ferries reserved for a particular class of travel, operational processes should be in place to permit passengers in other classes and who require use of a unisex accessible toilet of that hand, to use the toilet and then return to their seating area.

## Regulatory option

Transport Standards section 15 would be amended to include the following (including any requirements retained or amended from the status quo):

- If toilets are provided, there must be at least one unisex accessible toilet without airlock available to passengers using wheelchairs or mobility aids.
- If two or more unisex accessible toilets are provided in a set of rail cars or on a ferry, these must be of both left and right hand and provided in equal or near equal proportion.

These requirements would apply to ferries and trains.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements.

Specific guidance may include:

- If toilets are provided there should be accessible toilets in sufficient numbers to enable passengers who have disabilities to reach and use toilets with equal amenity, dignity and convenience as other passengers. Accessible toilets should therefore be connected to allocated spaces and priority seats via access paths, or direct assistance to reach the accessible toilets should be provided.
- If two or more accessible toilets are provided in a set of rail cars or on a ferry procured after the commencement of the modernised Transport Standards, the toilets should be available in left and right hand in equal or near equal proportions. If unisex accessible toilets of left and right hand are in sections of trains or ferries reserved for a particular class of travel, operators should assist passengers in other classes and who require use of a unisex accessible toilet of that hand to use the toilet and then return to their seating area.

## Impact analysis

### Status quo

#### Impacts

- There will continue to be a lack of accessible toilets provided in equal proportions of left and right hand configurations.
- People with disability will continue to lack access to toileting facilities that are suitable for their needs.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that operators and providers choose to adopt guidance, costs may be incurred to upgrade accessible toilets, and provide new toilets with equal proportion of left and right handedness. The cost to upgrade existing toilets may be more onerous.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will provide equal proportions of left and right hand. This will result in people not having access to accessible toilets that meet their accessibility requirements.
- When train sets with single toilets in each are combined to form a train, coordination of sets would be required to ensure toilets of both left and right hand are provided in the train. This may be logistically challenging, and therefore advice would not extend to toilets in combined sets.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Where implemented, passengers who require a specific hand of toilet will benefit whenever a train or ferry has two or more toilets. By providing a more suitable transfer option, safety of passengers will be improved.
- People with disability will feel more confident to travel on public transport.

### Regulatory option

#### Impacts

- Those ferries or train sets that have two or more toilets may have increased costs to ensure that at procurement the specification requires toilets of both left and right hand.
- When train sets with single toilets in each are combined to form a train, coordination of sets would be required to ensure toilets of both left and right hand are provided in the train. This would be logistically challenging and so the requirement would not extend to toilets in combined sets.

- Costs to upgrade toilets may be substantial depending on the configuration of existing toilets.

### Benefits

- By providing a more suitable transfer option, safety of passengers will be improved. People with disability may feel more confident to travel on public transport. Operators and providers whose ferry or train has only a single unisex accessible toilet will be unaffected.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Providing equivalent access to toilet facilities on trains and ferries for both right and left-handed users should improve the safety for people requiring accessible toilets. This should impact existing public transport users with a mobility impairment and other existing public transport users requiring accessible toilets such as the elderly, parents with young children, etc.
- **Amenity:** Providing equivalent access to toilet facilities on trains and ferries for both right and left-handed users should improve ease of use / reduced time to access toilet facilities on ferries and trains. This should impact existing public transport users with a mobility impairment and other existing public transport users requiring accessible toilets such as the elderly, parents with young children, etc.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include increased optionality and enhanced independence and inclusion.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** "Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs related to the provision of equal proportions of left handed and right-handed accessible toilets.
- **Monetised compliance costs (administrative):** 0.3
- **Monetised compliance costs (substantive):** 10.9

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Has the availability of toilets of your preferred orientation (left or right hand transfer) impacted your ability to travel on that train or ferry journey or deterred you from taking a journey? If so, how?
  - a. Have you ever had difficulty transferring onto a train or ferry toilet pan because it was on the less preferred side of the cubicle for you?



## 32. Emergency call buttons in accessible toilets

### Issue

The Transport Standards have no requirement for emergency call buttons in accessible unisex toilets. As a result, people in emergency situations in accessible toilets will not be able to request help.

Despite not being required by the Transport Standards, accessible toilets will often have an emergency call button as per the requirements of AS1428.2 (1992) *Design for access and mobility, Clause 15.1 (c)*. The emergency call button is often located near the pan and 900 to 1100 millimetres above floor level as per *Clause 23*. While this range above floor is appropriate for a person sitting on the pan, in a wheelchair or standing, it would be out of reach for a person who has fallen to the floor while transferring between pan and wheelchair. A person in this situation will be unable to use the emergency call button to request help. These facilities should have two emergency call buttons located in the vicinity of the pan at split level, to allow operation of the button by a person standing, sitting or a person collapsed on the floor. A second button that can be reached from the floor will enhance the ability of a person to summon assistance if they have fallen on the floor. This will also ensure the full safety benefits of the call button are achieved.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards Part 15 Toilets, would remain unchanged and no new guidance would be issued.

#### Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include advice on accessible toilets to encourage the provision of emergency call buttons in accessible toilets and would recommend emergency call buttons be reachable from the floor and pan. Guidance would stipulate emergency call buttons should be installed at split level, to allow operation of the button by a person standing, sitting or a person collapsed on the floor.

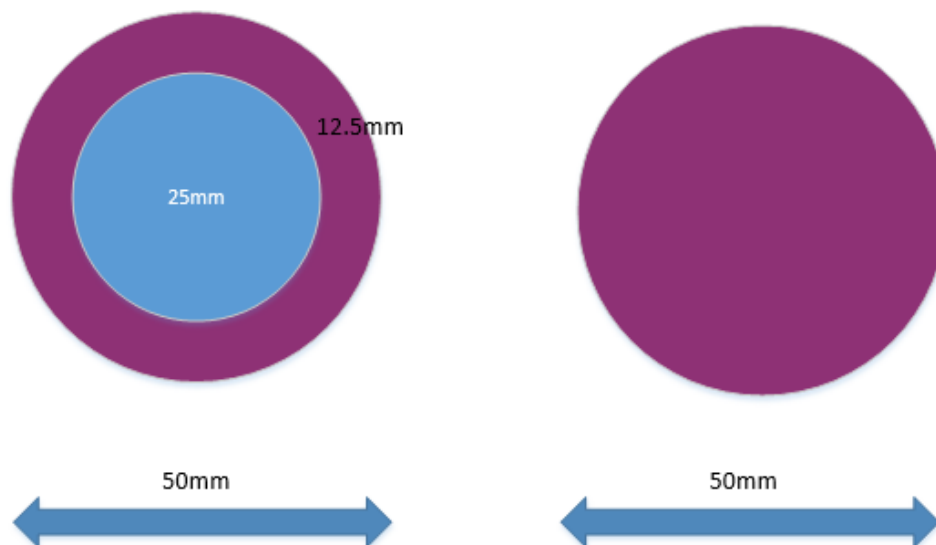
Guidance would apply to ferries, accessible rail cars, premises except premises to which the Premises Standards apply, and infrastructure.

Specific guidance may include:

- Unisex accessible toilets should have at least two emergency call buttons located in proximity to the pan. One button should be adjacent to the pan, 900 to 1200 millimetres above finished floor and within reach of a person sitting on the pan. The other button should be at 300 to 400 millimetres above finished floor and forward of the pan.

- If spatial constraints prevent the installation of two emergency call buttons, a single button in the range of 450 to 700 millimetres above finished floor might be considered.
- People who must transfer between their mobility aid and a toilet pan may on occasion fall. They should therefore have the option to summon help if they are on the floor and unable to transfer from there, back into their mobility aid. Having a second emergency call button in the vicinity of the pan and reachable from the floor will assist in this exercise.
- On occasion, people who have transferred onto the pan from a wheelchair or other mobility aid may not be able to transfer back to the aid from the pan, or may find themselves in some form of distress. An emergency call button that can be reached from the pan should be installed in unisex accessible toilets.
- Buttons should have a minimum dimension of 25 millimetres diameter, though larger is preferred, be raised above the surrounding surface and be 50 to 60 millimetres clear of any obstruction.
- Emergency call buttons should have a luminance contrast of not less than 30 per cent with the surrounding surface. If a call button is 50 millimetres in diameter or greater, the luminance contrast may be between the button and surrounding surface. If the call button is less than 50 millimetres in diameter, a border around the button for no less than 50 millimetres diameter may be used (refer figure 1 below). Emergency call buttons should be identified by braille and tactile signs.

**Figure 1: Luminance contrast examples for emergency call buttons**



- Calls from emergency call buttons should go to the staff who would usually receive calls from the help and assistance intercoms and the like located on conveyances and platforms. Such staff include drivers, guards, ferry masters and control centre staff. To allay the concerns of the person requesting help, an audible and visible means of acknowledging that the call has been received and acted upon should be considered. While not required, a passenger will benefit if emergency call buttons have an associated intercom. If an associated intercom is provided, it should be associated with a magnetic induction loop for the benefit of hearing aid users.
- The use of emergency call buttons should also be considered for ambulant toilets.

## Regulatory option

Transport Standards section 15 would include new requirements for emergency call buttons in accessible toilets.

There are two sub-options presented for consideration in relation to the location of emergency call buttons in proximity to the pan.

The Transport Standards would include the following new requirements:

- Unisex accessible toilets must have at least two emergency call buttons located in proximity to the pan. There are two sub-options for the location of the emergency call buttons:

### Sub-option 1

One button is to be adjacent to the pan, 900 to 1200 millimetres above finished floor and within reach of a person sitting on the pan. The other button is to be at 300 to 400 millimetres above finished floor and forward of the pan.

### Sub-option 2

One button may share the space with the flush control adjacent to the pan as per AS1428.1 (2009) *Design for access and mobility, Clause 15.2.5 Figure 40.B*. The other button must be 300 to 400 millimetres above finished floor and 150 to 900 millimetres forward of the pan.

- Buttons must conform to AS1428.1 (2009) *Clause 13.5.4*, and be 50 to 60 millimetres clear of any obstruction.
- Emergency call buttons must have a luminance contrast of not less than 30 per cent with the surrounding surface. If a call button is 50 millimetres in diameter or greater, the luminance contrast may be between the button and surrounding surface. If the call button is less than 50 millimetres in diameter, a border around the button for no less than 50 millimetres diameter may be used (refer figure 1 above). Luminance contrast testing must be as per AS1428.1 (2021) *Appendix B*.
- Emergency call buttons must be identified by braille and tactile signs.

These requirements would apply to ferries, accessible rail cars, infrastructure and premises (except premises to which the Premises Standards apply).

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect the new requirements.

Specific guidance may include:

- If spatial constraints prevent the installation of two emergency call buttons an equivalent access process should be used.
- Calls from emergency call buttons should go to the staff who would usually receive calls from the help and assistance intercoms and the like that are located on conveyances and platforms. Such staff include drivers, guards, ferry masters and control centre staff.
- To allay the concerns of the person requesting help, an audible and visible means of acknowledging that the call has been received and acted upon should be considered.
- While not required, a passenger will benefit if emergency call buttons have an associated intercom. If an associated intercom is provided, it should be associated with a magnetic induction loop for the benefit of hearing aid users.
- The use of emergency call buttons should also be considered for ambulant toilets.

## Impact analysis

### Status quo

#### Impacts

- People with disability continue to have difficulties using an accessible toilet without the aid of an emergency call button.
- Toilets with emergency call buttons will not be usable by people who have fallen and cannot reach the button.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to install emergency call buttons, or retrofit existing toilets with emergency call buttons.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will install emergency call buttons. The impact on some people with disability would be a lack of certainty about the availability of this safety feature. Some people will be unable to request assistance in an emergency.
- For conveyances, infrastructure and premises that have emergency call facilities already installed on-site, the addition of emergency call facilities in the accessible toilets would involve moderate costs.
- In locations that have an accessible toilet but have no established emergency communications system on the conveyance, infrastructure or premises, there will be a greater cost to meet this guidance.
- Where guidance is adopted, there may be a need for additional staff or systems to receive emergency calls from toilets.

#### Benefits

- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- People who require accessible unisex toilets and who are at risk of falls or who might experience difficulty in transferring independently would have their safety and confidence enhanced through the installation of emergency call buttons, and particularly emergency call buttons that can be reached from the floor.
- Operators and providers will benefit from this proposal through enhanced passenger safety, confidence and an improved travelling experience.
- Operators would have flexibility to install new emergency call buttons where they deem would be most appropriate.

## Regulatory option

### Impacts

- Operators and providers would not be impacted if they are already supplying at least two emergency call buttons in suitable locations. For those with single call buttons, retrofitting a second button in a suitable location would have a moderate cost.
- For conveyances, infrastructure and premises that have emergency call facilities already installed on-site, the addition of emergency call facilities in the accessible toilets would involve moderate costs.
- There will be a high installation cost and ongoing staffing costs in locations that have an accessible toilet but have no established duress or emergency communications system on the conveyance, infrastructure or premises.
- There may be a need for additional staff or systems to receive emergency calls from toilets.

### Benefits

- People who require accessible toilets and who are at risk of falls or who might experience difficulty in transferring independently would have their safety and confidence enhanced through the installation of emergency call buttons, and particularly emergency call buttons that can be reached from the floor.
- Operators and providers will benefit from this proposal through enhanced passenger safety, confidence and an improved travelling experience.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of emergency call buttons should improve the safety for people using accessible toilets.
- **Amenity:** Not applicable.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include increased optionality.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial cost of the provision of emergency calling facilities within accessible toilets that either link to existing communication infrastructure or would require new communication infrastructure.
- **Monetised compliance costs (administrative):** 1.6
- **Monetised compliance costs (substantive):** 470.2

## Consultation questions

1. What is your preferred option: status quo, non-regulatory or regulatory option? Why? If you prefer the regulatory proposal, which sub-option do you prefer? Why?
2. Do the non-regulatory and regulatory option/s provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. How significant are concerns of falls and incidents while using an accessible toilet?
  - a. Does this concern affect your confidence to use public transport and how you plan your journey?

## 33. Ambulant toilets

### Issue

The Transport Standards have no requirements for ambulant toilets in conveyances, infrastructure or in premises to which the Premises Standards do not apply. Ambulant toilets include accessibility features such as bilateral grabrails and extra length that accommodates a walking aid. Ambulant toilets are designed for people with disabilities that do not require extra space. Providing toilets accessible to people with ambulant disability either on their own or as a mix with other toilets takes a universal design approach to the provision of toilets by accommodating all users. Guidance or regulation can harmonise requirements with the ambulant toilet requirements in the Premises Standards.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued. The Transport Standards would continue to be silent on the provision of ambulant toilets.

#### Non regulatory option

The Whole Journey Guide would be updated to encourage installation of ambulant toilets in ferries, accessible rail cars, premises (except premises to which the Premises Standards apply) and on infrastructure.

Specific guidance may include the following:

- Where there are one or more toilets in addition to an accessible unisex toilet, a toilet suitable for a person with an ambulant disability in accordance with AS1428.1 (2009), *Design for access and mobility, Clause 16* should be provided.
- People with ambulant disability benefit from the accessibility features provided by toilets designed for them, such as bilateral grabrails and extra length that accommodates a walking aid.
- Providing toilets accessible for people with ambulant disability either singularly or as a mix with other toilets takes a universal design approach for the provision of sanitary facilities in that a greater diversity of users can be accommodated.
- If only a single toilet is being provided in addition to the unisex accessible toilet, this extra toilet should be accessible to people with ambulant disability and designated as unisex. This will permit the greatest efficiency of use.
- Where two or more ambulant toilets are provided in addition to the unisex accessible toilets, the toilets may be designated as gender specific as some people feel uncomfortable using unisex toilets or have a strong cultural imperative to use gender specific facilities.

- People procuring, designing or operating public transport services should be informed by the likely passenger demography when deciding on whether unisex or gender separate toilets accessible to people with ambulant disability should be provided when two or more toilets are provided in addition to a unisex accessible toilet.

## Regulatory option

The Transport Standards would include new requirements for the provision of ambulant toilets in ferries, accessible rail cars, premises (except premises to which the Premises Standards apply) and on infrastructure.

The Transport Standards would include the following new requirements:

- Where there is one or more toilet in addition to an accessible unisex toilet, a toilet suitable for a person with an ambulant disability in accordance with AS1428.1 (2009) *Clause 16* must be provided.
- If only one additional toilet suitable for a person with an ambulant disability is provided, this must be designated as unisex.
- If two or more additional toilets suitable for a person with an ambulant disability are provided, these may be designated as gender specific.

These requirements would apply to ferries, accessible rail cars, infrastructure and premises except premises to which the Premises Standards apply.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect the new requirements.

Specific guidance may include the following:

- People with ambulant disability benefit from the accessibility features provided by toilets designed for them such as bilateral grabrails and extra length that accommodates a walking aid.
- Providing toilets accessible for people with ambulant disability either singularly or as a mix with other toilets takes a universal design approach to the provision of sanitary facilities in that a greater diversity of users can be accommodated.
- If only a single toilet is being provided in addition to the unisex accessible toilet, this extra toilet should be accessible to people with ambulant disability and designated as unisex. This will permit the greatest efficiency of use.
- Where two or more toilets are provided in addition to the unisex accessible toilets, the toilets accessible to people with ambulant disability may be designated as gender specific. Some people feel uncomfortable using unisex toilets or have a strong cultural imperative to use gender specific facilities. People procuring, designing or operating public transport services should be informed by the likely passenger demography when deciding on whether unisex or gender separate toilets accessible to people with ambulant disability should be provided when two or more toilets are provided in addition to a unisex accessible toilet.

## Impact analysis

### Status quo

#### Impacts

- The amenity issues for passengers will remain as they will continue to not have access to ambulant toilets suitable for their use. This may pose a barrier to public transport use.



## Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs may be incurred to install ambulant toilets.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will install ambulant toilets.
- Operators and providers installing new facilities or undertaking major refurbishments of existing facilities will see an increase in project costs. Retrofitting existing toilets may in some instances be difficult or impossible.

### Benefits

- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Persons with a preference for ambulant toilets will benefit where ambulant toilets are installed. Other users, such as seniors or people with temporary injuries will also benefit. As ambulant toilets are part of a universal design approach, their broader use will benefit all users through providing a greater diversity of toileting facilities.

## Regulatory option

### Impacts

- Operators and providers who already provide ambulant toilets will be unaffected.
- There will be a cost to install ambulant toilets in new assets, and a cost to upgrade existing assets.
- Operators and providers installing new facilities or undertaking major refurbishments of existing facilities will see an increase in project costs. Retrofitting existing toilets may in some instances be difficult or impossible. In such cases the unjustifiable hardship provision would be applicable.

### Benefits

- Persons with a need for ambulant toilets will benefit from the requirement for ambulant toilets. Other users, such as seniors or people with temporary injuries will also benefit. As ambulant toilets are part of a universal design approach, their broader use will benefit all users through providing a greater diversity of toileting opportunities.
- The increased amenity of public transport networks will reduce barriers and increase confidence for some people with disability when using public transport.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Providing ambulant toilet facilities should improve safety for people requiring ambulant toilets, impacting existing public transport users with mobility impairments and other existing public transport users requiring ambulant toilets such as the elderly, parents with young children, etc.
- **Amenity:** Providing ambulant toilet facilities should improve experience and ease of use for people requiring ambulant toilets impacting existing public transport users with mobility impairments and other existing public transport users requiring ambulant toilets such as the elderly, parents with young children, etc.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include increased optionality and enhanced independence and inclusion.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Financial costs associated with the provision of ambulant toilet covering the increased size and fittings.
- **Qualitative compliance costs (substantive):** Not applicable.
- **Monetised compliance costs (administrative):** 1.0
- **Monetised compliance costs (substantive):** 24.2

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you ever been unable to access an ambulant toilet in a public transport setting? If so, how did this impact your journey?
  - a. Did this lead to you having to use a standard toilet? Did the toilet lack of grabrails or space? How did this affect you?

## 34. Lift specifications and enhancements

### Issue

The Australian Standards reference for lift requirements in the Transport Standards is dated and does not take into account technological advances which improve accessibility features which are increasingly being installed as standard practice. AS1735.12 (1999) *Lifts, escalators and moving walks*, is now obsolete in many of its technical requirements. As a result, existing and new lifts may not have the necessary accessibility features to ensure they are fully accessible to all people with disability.

AS1735.12 (2020) *Lifts, escalators and moving walks*, stipulates accessibility requirements for new technologies which otherwise present barriers to people with disability. The standard introduces new material and enhances existing requirements such as:

- the addition of detailed specifications for contrast requirements
- the increase of door widths
- the addition of two more lift car types
- the clarification of arrangement and design of handrails
- improved requirements for the design and arrangement of control devices and indicators
- improved requirements for the arrangement of landing controls for lift groups
- the addition of detailed requirements for landing control devices for destination control systems using touch screens
- the clarification of requirements for extra-large buttons.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee.

Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards Part 13, Lifts, would remain unchanged and no additional guidance would be issued.

#### Part 13 Lifts

##### 13.1 Compliance with Australian Standard – premises and infrastructure

Lift facilities must comply with AS1735.12 (1999).

This section applies to premises (except premises to which the Premises Standards apply) and infrastructure except airports that do not accept regular public transport services.

### Non-regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include best practice guidance for enhanced lift accessibility and would update the referenced Australian Standard in the guidance to AS1735.12 (2020). The guidance would pertain to premises

(except premises to which the Premises Standards apply) and infrastructure except airports that do not accept regular public transport services.

Specific guidance may include:

- Lift facilities may aim to comply with AS1735.12 (2020) as this is the current industry standard for accessible lifts. AS1735.12 (1999) is now obsolete in many of its technical requirements.
- In some instances, AS1735.12 (2020) includes technical requirements for fixtures and fittings that differ with those in other Australian Standards referenced in the Transport Standards. Where any discrepancy between the requirements of the Transport Standards and AS1735.12 (2020) occur, the requirements of the Transport Standards take precedence.
  - For example, space between the handrail and the wall is not less than 35 millimetres in AS1735.12 (2020) but is not less than 50 millimetres in AS1428.1 (2009), *Design for Access and mobility* (AS1428.1 (2009)). AS1428.1 (2009) is the referenced standard in Transport Standards Part 11 Handrails and Grabrails and so the 50 millimetre dimension takes precedence. Other technical anomalies should be dealt with in the same manner.

## Regulatory option

Transport Standards section 13.1 would be amended to include the following (including any requirements retained or amended from the status quo):

- Lift facilities must comply with AS1735.12 (2020).
- Where any discrepancy between the requirements of AS1735.12 (2020) and technical requirements of the Transport Standards occur, the requirements of the Transport Standards take precedence.

These requirements would apply to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services.)

The Transport Standards Guidelines and / or The Whole Journey Guide would also be updated to include the following guidance:

- In some instances, AS1735.12 (2020) will present technical requirements for fixtures and fittings that differ with those in other Australian Standards referenced in the Transport Standards. For example, space between the handrail and the wall is not less than 35 millimetres in AS1735.12 (2020) but is not less than 50 millimetres in AS1428.1 (2009). AS1428.1 (2009) is the referenced standard in Transport Standards Part 11 Handrails and Grabrails and so the 50 millimetre dimension takes precedence. Other technical anomalies should be dealt with in the same manner.

## Impact analysis

### Status quo

#### Impacts

- Accessibility enhancements incorporated in the 2020 Australian Standard will not be gained.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs may be incurred to procure a new standard of lift that complies with the requirements in the 2020 Australian Standard. This cost may be limited as lifts that comply with AS1735.12 (2020) are commercially available and are becoming industry best practice.
- As this guidance is discretionary, it may not provide certainty for operators and providers and the Transport Standards would continue to reference an outdated Australian Standard that does not align with industry best practice. Passengers may not have the confidence that lifts in public transport infrastructure are equipped with contemporary accessibility features (for example wayfinding cues).

### Benefits

- To the extent that guidance is followed, people with disability will benefit from improved accessibility features in lifts such as accessibility of touch screen controls, emergency communication provisions and audible and tactile identification of all landing levels.
- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Costs may be incurred to procure a new standard of lift that complies with the requirements in the 2020 Australian Standard. Costs may be limited where procurement already aligns with industry best practice with lifts adhering to AS1735.12 (2020). Retrofitting existing lift cars to meet AS1735.12 (2020) may incur significant costs and may not always be feasible.
- In some cases, lifts may not be able to be upgraded due to the significant cost or other factors. The unjustifiable hardship exemption will be relevant in these circumstances.

### Benefits

- Adopting a modern Australian Standard will improve accessibility features in lifts that will benefit people with disability by enhancing accessibility and promoting independent travel.
- People with vision impairments for example will benefit by being able to use touch-screen lift call technology.
- Operators and providers will have clarity of requirements that align with industry standard and best practice. Additionally, representation on the Standards Australia committee (ME 004) that oversaw the introduction of AS1735.12 (2020) suggests it has industry and technical support.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of lift enhancements can reduce risk of injury for passengers with or without disability.
- **Amenity:** Provision of lift enhancements should improve ease of use for and improve the overall experience for all users of public transport.
- **Accessibility:** Provision of lift accessibility in lifts could attract new users to use public transport provided it grants access to pathways previously unattainable.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Retrofitting or designing new lifts. Financial cost to retrofitting existing asset
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 80.0

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What has been your experience with lifts in the public transport environment? How can accessibility in lifts be improved?
  - a. Have you found lifts accessible?
  - b. Are buttons large enough and appropriately located to use easily?
  - c. Are touch screen lift controls easy to use?

## 35. Specifications for escalators and inclined travellers

### Issue

The Transport Standards do not provide any specifications on the minimum clear width requirements for escalators and inclined travellers. Transport Standards section 2.4, Minimum unobstructed width, provides a minimum unobstructed width for moving pathways (850 millimetres), but is silent on specifications for escalators and inclined travellers. The absence of these technical specifications creates uncertainty for what a safe, accessible minimum width should be when installing escalators and inclined travellers. Currently, escalators and inclined travellers that are not wide enough to be accessible to people with disability may be installed in public transport sites.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

No changes to the Transport Standards or guidance would be made. The Transport Standards would continue to be silent on minimum width requirements for escalators and inclined travellers.

#### Non-regulatory option

The Whole Journey Guide would be updated to include guidance which recommends a minimum width of 850 millimetres for escalators and inclined travellers and that they should not be the sole means of access.

Specific guidance may entail the following:

- Many passengers who have disabilities that do not affect mobility, balance or cognition will use them in preference to stairs, ramps or lifts. Escalators should be located within the area of main pedestrian flow and wherever possible co-located with lifts.
- Escalators, inclined travellers and stairs should not be the sole means of access. As per stairs, escalators and inclined travellers are not accessible to a range of passengers who have disabilities and where they are installed an accessible alternative such as lift or ramp must be available.
- As per moving footways, the minimum clear width of an escalator or inclined traveller should be 850 millimetres. The 850 millimetre width is acceptable as escalators and inclined travellers are unidirectional with no need for passengers to pass each other in opposing directions.
  - However, if the minimum clear width can exceed 900 millimetres the escalator will better accommodate people using crutches and similar mobility aids. If the clear width



exceeds 1200 millimetres, then carers and companions can travel beside the passenger rather than before or behind, making support easier.

Guidance would pertain to premises, (except premises to which the Premises Standards apply) and infrastructure, (except airports that do not accept regular public transport services.)

## Regulatory option

The Transport Standards would include new minimum width specifications for escalators and moving walkways and that they are not to be the sole means of access.

The Transport Standards would include the following new requirements:

- Escalators, inclined travellers and stairs must not be the sole means of access.
- The minimum unobstructed width of an escalator or inclined traveller must be at least 850 millimetres.

The requirements would pertain to premises, (except premises to which the Premises Standards apply) and infrastructure, (except airports that do not accept regular public transport services.)

The Transport Standards Guidelines and The Whole Journey Guide would be updated to reflect new requirements.

Specific guidance may include the following:

- Many passengers who have disabilities that do not affect mobility, balance or cognition will use them in preference to stairs, ramps or lifts. Escalators should be located within the area of main pedestrian flow and wherever possible co-located with lifts.
- Escalators and inclined travellers should not be the sole means of access. As per stairs, escalators and inclined travellers are not accessible to a range of passengers who have disabilities and where they are installed an accessible alternative such as lift or ramp must be available.
- As per moving footways, the minimum clear width of an escalator or inclined travellers should be 850 millimetres. The 850 millimetre width is acceptable as escalators and inclined travellers are unidirectional with no need for passengers to pass each other in opposing directions.
  - However, if the minimum clear width can exceed 900 millimetres the escalator will better accommodate people using crutches and similar mobility aids. If the clear width exceeds 1200 millimetres, then carers and companions can travel beside the passenger rather than before or behind, making support easier.

## Impact analysis

### Status quo

#### Impacts

- Some passengers will continue to be unable to traverse escalators and inclined travellers if minimum accessible widths are not implemented. Safety concerns on narrow escalator or inclined traveller will continue.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- Operators and providers would mostly be unaffected when installing new escalators and inclined travellers unless space constraints made the 850 millimetre clear width untenable.
- To the extent guidance is followed, costs may be incurred where an upgrade of existing escalators and travellers results in the need for a major refurbishment of the site.

### Benefits

- To the extent that guidance is followed, people with disability and older passengers will benefit from the introduction of minimum accessibility width requirements through improved safe egress. These combined cohorts are likely to outnumber those passengers who can only travel in lifts due to their mobility or other impairment.
- Operators and providers would benefit from certainty regarding the minimum width for their inclined travellers and escalators so they can be used safe travel and improve accessibility.
- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Operators and providers would mostly be unaffected when installing new escalators and inclined travellers unless space constraints made the 850 millimetres clear width untenable.
- Existing escalators and travellers that do not meet the width requirements may have considerable costs to upgrade to the new requirements. In these cases, the unjustifiable hardship exemption may be relevant.

### Benefits

- People with disability will benefit from the introduction of minimum accessibility width requirements through improved safe egress. People who are ambulant but use aids such as walking sticks and crutches will particularly benefit from the extra width.
- This option will provide regulatory clarity for operators and providers regarding minimum width and accessibility requirements for escalators and inclined travellers.

## CBA of regulator option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of minimum width on movable walkways should increase the safety for people with disability.
- **Amenity:** Provision of minimum width on movable walkways should increase comfort when using movable walkways and allow access to public transport for people with disability.
- **Accessibility:** Provision of minimum width on movable walkways should reduce physical barriers to public transport allowing new users to access public transport services if the previous width was not sufficient.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with replacing facilities to meet minimum standards.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 57.0

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What are your experiences with escalators and inclined travellers? Do you think they are useful for passengers who have a disability?
  - a. Have you had a negative experience with escalators or inclined travellers in a public transport environment?
  - b. Are you aware of any incidents or accidents caused by escalators that were too narrow?

## 36. Poles, objects and luminance contrast

### Issue

Section 2.5, Poles and obstacles, etc., of the Transport Standards requires 30 per cent luminance contrast with a background for obstacles that abut an access path. Unfortunately, this section gives no point of reference for measuring or calculating luminance contrast. The means of testing and calculating the luminance contrast between two surfaces is provided in the Australian Standard AS1428.1 (2009) *Design for access and mobility* and is referenced in the Premises Standards.

Additionally, there is no clear definition of what constitutes a background. Pavements, walls, conveyances or even distant objects or buildings may constitute a background. To further complicate the definition, public transport conveyances will usually only be temporary backgrounds.

Using the example of a bus stop J pole, the background will vary with time and with the angle of approach. For a passenger at the stop, the background may be either a bus or a carriageway, depending whether a bus is at the stop. For a passenger alighting from a door adjacent to the J pole, the pole background will be the slab surface and the front of the building bordering the footpath. While slab and carriageway are unlikely to vary in colour or luminance over time, the bus livery and building colour will both vary.

It is unreasonable to measure luminance contrast of objects against distant or mobile backgrounds. Rather, luminance contrast should be measured against backgrounds that are adjacent and permanent. AS1428.1 (2009) Clause 6.6, *Visual indicators on glazing*, takes this approach with glazed walls.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Section 2.5, Poles and obstacles, etc., of the Transport Standards would remain unchanged and no additional guidance would be issued.

#### **2.5 Poles and obstacles, etc**

- (1) Poles, columns, stanchions, bollards and fixtures must not project into an access path.
- (2) Obstacles that abut an access path must have a luminance contrast with a background of not less than 30 per cent.

This section pertains to premises (except premises to which the Premises Standards apply) and infrastructure (except airports that do not accept regular public transport services).

## Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include best practice guidance for determining the luminance contrast of poles and obstacles adjacent to access paths.

Specific guidance may include:

- The luminance contrast requirements are intended to assist people who have low vision in avoiding collisions with objects that immediately abut access paths. Luminance contrast is the most effective means of ensuring objects can be detected visually. Luminance contrast must be maintained in wet and dry conditions and under all operational lighting conditions.
- Poles, columns, stanchions, bollards and fixtures should not project into an access path.
- Obstacles that abut an access path or a contrasting strip at least 75 millimetres wide on the obstacle located in a zone 900 to 1000 millimetres above ground level should have a luminance contrast of not less than 30 per cent when viewed against the surrounding floor or pavement or against other fixed surfaces that are within two metres of the obstacle. A luminance contrast of 45 per cent is recommended and 60 per cent is ideal.
- Luminance contrast testing of surfaces, objects and fixtures other than tactile ground surface indicators should be determined as per AS1428.1 (2021), Design for access and mobility, Appendix B.
- Determining the luminance contrast of an object against a multi-coloured background such as a mural or an exposed aggregate pavement can be a challenge. In these circumstances, professional guidance should be sought on the best way to ensure a contrast, or the object abutting the access path should be relocated if practicable.

## Regulatory option

Transport Standards section 2.5 would be amended to include the following (including any requirements retained or amended from the status quo):

There are two options proposed for consideration. Option 1 addresses whether the scope of the requirement should only concern access paths and Option 2 addresses whether the scope of the requirement should apply to all public areas.

### Option 1

Section 2.5 Poles and obstacles, etc, of the Transport Standards would be amended to include the following:

- Poles, columns, stanchions, bollards and fixtures must not project into an access path.
- Obstacles that abut an access path:

#### Sub-option 1

Must have a luminance contrast of not less than 30 per cent when viewed against the surrounding floor or pavement or against other fixed surfaces that are within two metres of the obstacle.

#### Sub-option 2

Must have a luminance contrast strip at least 75 millimetres wide of not less than 60 per cent located 900 to 1000 millimetres above ground when viewed against the surrounding floor or pavement or against other fixed surfaces that are within two metres of the obstacle.

- Luminance contrast testing of surfaces, objects and fixtures other than tactile ground surface indicators must be determined as per AS1428.1 (2021), *Appendix B*.

## Option 2

Section 2.5 Poles and obstacles, etc, of the Transport Standards would be amended to include the following:

- Poles, columns, stanchions, bollards and fixtures must not project into an access path.
- Obstacles within public spaces:

### Sub-option 1

Must have a luminance contrast of not less than 30 per cent when viewed against the surrounding floor or pavement or against other fixed surfaces that are within two metres of the obstacle.

### Sub-option 2

Must have a luminance contrast strip at least 75 millimetres wide of not less than 60 per cent located 900 to 1000 millimetres above ground when viewed against the surrounding floor or pavement or against other fixed surfaces that are within two metres of the obstacle.

- Luminance contrast testing of surfaces, objects and fixtures other than tactile ground surface indicators must be determined as per Appendix B of AS1428.1 (2021).

The requirements for both options would apply to premises, except premises to which the Premises Standards apply and infrastructure, except airports that do not accept regular public transport services.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements.

Specific guidance for both options may include the following:

- The luminance contrast requirements are intended to assist people who have low vision in avoiding collisions with objects that immediately abut access paths. Luminance contrast is the most effective means of ensuring objects can be detected visually. Luminance contrast must be maintained in wet and dry conditions and under all operational lighting conditions.
- Determining the luminance contrast of an object against a multi-coloured background such as a mural or an exposed aggregate pavement can be a challenge. In these circumstances professional guidance should be sought on the best way to ensure a contrast, or the object abutting the access path should be relocated if practicable.

## Impact analysis

### Status quo

#### Impacts

- Luminance contrast test for poles and objects adjacent to paths would continue to remain undefined in the Transport Standards.
- Luminance contrast requirements will continue to lack rigour, leading to suboptimal provision of luminance contrasting strips under the existing regulations.

## Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the proposed guidance which may not lead to improved accessibility and public safety.
- There will be costs associated with auditing luminance contrast against the new guidance, and where necessary, upgrading luminance contrast strips to the new guidance.

### Benefits

- To the extent that guidance is implemented, passengers with vision or cognitive impairments will have enhanced safety while travelling or wayfinding. The likelihood of inadvertently striking an object that was unseen or unperceived will be diminished. New objects will meet contemporary standards for determining luminance contrast if the advice is followed.
- Operators and providers will have a rigorous but more achievable methodology for ensuring objects abutting access paths luminance contrast with their backgrounds.
- While some operators and providers may find that existing elements of infrastructure or premises no longer meet the proposed guidance requirements, the rectification work will boost accessibility and public safety. For new elements, a clear path to a better and more accessible outcome will be beneficial to operators and providers.
- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Operators and providers may find that due to the adoption of the new requirements, costs will be incurred to upgrade existing elements of infrastructure or premise. However, the rectification work will boost accessibility and public safety.

### Benefits

- Passengers with vision or cognitive impairments will have enhanced safety while travelling or wayfinding. The likelihood of inadvertently striking an object that was unseen or unperceived will be diminished. New objects will be fully compliant with contemporary standards for determining luminance contrast.
- Operators and providers will have a rigorous but more achievable methodology for ensuring objects abutting access paths luminance contrast with their backgrounds.

## CBA of regulatory Options 1 and 2

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis.
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Improved visibility of poles and obstacles should reduce slips, trips and falls for all public transport users
- **Amenity:** Not applicable.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of luminance / contrast to obstacles on an access path.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 38.2

## Consultation questions

1. What is your preferred option; status quo, non-regulatory, regulatory option 1 or regulatory option 2 (including the sub-options for each)? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Are objects located beside access paths, such as bus stop poles, furniture or light poles, difficult to detect? What would make them easier to visually detect and what makes them harder to detect.



## 37. Lighting

### Issue

Effective and functional lighting solutions within public transport infrastructure, premises and conveyances are critical to ensuring safe, comfortable and accessible journeys for all passengers. This is particularly true for people with disability, many of whom rely on high-quality lighting design to safely and confidently access public transport and the various amenities, services and conveniences provided throughout their journey.

The Transport Standards requirements for lighting do not provide adequate guidance for lighting designers to deliver appropriate lighting solutions for the diverse and nuanced requirements of people with disability. They also do not reflect the unique safety, contextual and operational requirements of the public transport environments.

Transport Standards Part 20 Lighting, outlines requirements for lighting and references AS1428.2 (1992), *Design for access and mobility, Part 2: Enhanced and additional requirements - Buildings and facilities*, Clause 19.1 Illumination levels. This Clause refers to AS/NZS1680.2.1 (2008), *Interior and workplace lighting, Part 2.1: Specific applications - Circulation spaces and other general areas*, and outlines specific minimum volume of light (lux) levels for various contexts and elements.

Since the development of these lighting requirements, further research and standards has emerged investigating the impact of lighting temperature and uniformity<sup>21</sup>, type and placement<sup>22</sup>, materials, luminance contrast<sup>23</sup>, colour<sup>24</sup>, reflectivity, glare, and the impacts of lighting on people with disability<sup>25</sup>. For people with low vision, sufficient lighting is required to see better. Many people on the autism spectrum experience a combination of sensory under and over responsivity. This includes light (sight), among other senses.<sup>26</sup>

Whilst the Transport Standards requirements ensure a lux is provided at various locations throughout public transport assets, these requirements are not fit for purpose in the public transport context for all people with disability.

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<sup>21</sup> [www.techstreet.com](https://www.techstreet.com/cie/products/preview/1994746), *Technical Report, Lighting for Older People and People with Visual Impairment in Buildings (CIE 227:2017)*, 14 February 2022, <https://www.techstreet.com/cie/products/preview/1994746>

<sup>22</sup> Standards Australia, AS/NZS 4282 (2019) Control of the obtrusive effects of outdoor lighting, 14 February 2022, <https://www.standards.org.au/standards-catalogue/sa-snz/other/lg-010/as-slash-nzs--4282-colon-2019>

<sup>23</sup> International Journal of Occupational Medicine and Environmental Health, *Evaluation of discomfort glare in the 50+ elderly: Experimental study*, <http://ijomhe.eu/pdf-2031-2310?filename=Evaluation%20of%20discomfort.pdf>, 14 February 2022

<sup>24</sup> Australian Government Department of Environment and Energy, National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds, <https://www.awe.gov.au/environment/biodiversity/publications/national-light-pollution-guidelines-wildlife#:~:text=National%20Light%20Pollution%20Guidelines%20for%20Wildlife%20Including%20Marine,They%20can%20help%20you%20safeguard%20Australia%E2%80%99s%20threatened%20wildlife>, 9 February 2022

<sup>25</sup> Wiley Online Library, *Neuro-considerate environments for adults with intellectual developmental diversities: An integrated design approach to support wellbeing*, <https://onlinelibrary.wiley.com/doi/abs/10.1111/joid.12033>, 15 February 2022

<sup>26</sup> Autism Spectrum Australia (Aspect), *Sensory Processing factsheet*, [https://www.autismspectrum.org.au/uploads/documents/Fact%20Sheets/Factsheet\\_Sensory-processing\\_20170306.pdf](https://www.autismspectrum.org.au/uploads/documents/Fact%20Sheets/Factsheet_Sensory-processing_20170306.pdf), 14 February 2022

Public transport infrastructure and conveyances present a unique and dynamic environment due to operational, environmental, safety and climactic factors that are not present in other elements of the built environment. The lighting provided in transitional zones, for example at exterior entrances and exits of transport precincts, present as a challenge for lighting designers in ensuring adequate lighting is provided to support safe movement and tasks, whilst ensuring a smooth transition to exterior areas, for example footpaths or parking lots. Where pedestrians' transition from a public transport zone to the public realm can result in conflict with other pedestrians, cyclists and vehicles, ensuring appropriate lighting levels and a smooth transition between lighting environments is critical for safety and confidence to travel.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards Part 20 Lighting, would remain unchanged and no new guidance would be issued.

#### Part 20 Lighting

##### 20.1 Illumination levels — premises and infrastructure

Any lighting provided must comply with minimum levels of maintenance illumination for various situations shown in the notes to AS1428.2 (1992) Clause 19.1, Illumination levels.

This section pertains to premises, except premises to which the Premises Standards apply and infrastructure.

##### 20.2 Illumination levels — conveyances

- (1) Any lighting provided must comply with minimum levels of maintenance illumination for various situations shown in the notes to AS1428.2 (1992) Clause 19.1, Illumination levels.
- (2) Lighting should be at least 150 lux at the entrance and at the point where a passenger pays his or her fare.

This section pertains to buses, coaches, ferries, trains, trams and light rail.

##### 20.3 Dimming (conveyances)

Internal lighting may be dimmed as required to avoid reflection interfering with an operator's vision.

This section pertains to conveyances.

## Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include advice on lighting design within public transport environments. The objective of guidance is to ensure public transport environments deliver appropriate lighting solutions for the diverse and nuanced requirements of people with disability, and lighting solutions that meet the unique safety, contextual and operational requirements. A set of transport-specific technical guidelines to provide enhancements to the current Transport Standards requirement would also be provided.

Specific guidance may include:

### Lighting levels and uniformity

Any lighting associated with a public transport facility should comply with the following:

- **For enclosed zones** - AS/NZS1680.2.1 (2008), *Interior and workplace lighting*, Part 2.1: *Specific applications*— Circulation spaces and other general areas. Enclosed zones are defined as fully enclosed or underground transport environments, fully covered which receive no significant amount of natural light (direct or indirect). For example, an underground rail station.
- **For unenclosed zones** - AS/NZS1158.3.1 (2020), *Lighting for roads and public spaces*, Part 3.1: *Pedestrian area (Category P) lighting - Performance and design requirements*. Unenclosed zones are transport environments that are not covered under AS/NZS1680.2.1 (2008). For example, a covered waiting area on a train station, ferry terminal, bus interchange or ferry stop.
- **For lifts** - AS1735.12 (2020) *Lifts, escalators and moving walks*, Part 12: *Facilities for persons with disabilities*.
- Levels of illumination in Tables 4 to 7 (below) should be considered for areas not specified in the above standards.

Many elements within a public transport environment are not outlined in the three standards listed above. Operators and providers should ensure appropriate lighting levels are provided for element within a public transport environment to enable safe completion of tasks. For example, wayfinding, signage, feature lighting and advertising should be serviced by an appropriately level of lighting to enable passengers and operators and providers alike to read and interact with them.

### Illumination levels — conveyances

Lighting provided for boarding or alighting from a conveyance should be a minimum of 150 lux.

Interior lighting may be dimmed as required to avoid reflection interfering with an operator's vision.

### Uniformity of illuminance

Uniformity of illuminance is a major contributor to lighting quality and can be calculated by measuring the average, minimum and maximum illuminance. Light intensity thresholds are usually identified in a way to provide required visibility level for a specific visual task.

Key illuminance uniformity measures are defined below:

- U1 = the ratio of the minimum to average illumination levels, as defined in AS/NZS1158.3.1 (2020).

- U2 = the ratio of the maximum to average illumination levels, as defined in AS/NZS1680.1 (2006).

### Control of Light Spill

Any lighting provided, including lighting in public spaces, should comply with Australian Standard AS/NZS4282 (2019). The standard provides information on the potential obtrusive effects of lighting in public spaces, how to design such lighting systems and information on the impact of artificial light on biota.

The Australian Government Department of Environment and Energy, National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds provides guidance on good practice lighting design for exterior areas that is also applicable to design principles for suburban and regional train stations and stops.

### Lighting Regimes

Lighting regimes should be designed so that illuminance levels for task and ambient lighting can be provided separately to ensure appropriate volumes and consistency of illumination is provided. For example, consider providing focussed lighting for difficult visual tasks, such as reading, separately from ambient lighting throughout a space. This focussed lighting should be provided at counter tops, fare system elements, wayfinding and signage, hazards, emergency information, stairs and ramps, road and path edges.

Choice of wall finishes should consider the needs of various users, including people with low vision, visual hyper / hyposensitivity, and intellectual or cognitive impairment.

### Lighting Temperature and Colour

Any task lighting associated with the public transport facility should have a colour temperature between 3000 to 3500 kelvin. Lighting colour temperature is important to a variety of people, including people with vision impairment and people on the autism spectrum. For information about lighting colour choice, refer to *CIE 227 (2017) Technical Report - Lighting for Older People and People with Visual Impairment in Buildings*.

### Lighting Hardware

Adjustable and customisable lighting choices is beneficial for persons with different lighting needs. For example, people with low vision might require more illumination to complete tasks, whereas persons on the autism spectrum may prefer dimmer lighting for comfort. Providing adjustable lighting can ensure all passengers receive the level of illumination that suits their needs.

For information about lighting hardware choice, refer to *CIE 227 (2017) Technical Report - Lighting for Older People and People with Visual Impairment in Buildings*.

## Regulatory options

The Transport Standards would be amended with the aim of ensuring public transport environments deliver appropriate lighting solutions for the diverse and nuanced requirements of people with disability and meet the unique safety, contextual and operational requirements for their context. Guidance would be provided for all options.

No change would be made to Transport Standards, section 20.3 Dimming.

Four regulatory options are proposed.

- Option 1: Removal of current requirements and replaced with guidance.

- Option 2: New Australian Standards requirements.
- Option 3: New Australian Standards requirements and additional prescriptive requirements.
- Option 4: New prescriptive requirements.

### Option 1 Removal of current requirements and replaced with guidance

Transport Standards, section 20.1 Illumination levels – premises and infrastructure, would be amended to a performance statement and be supported by guidance material. Sections 20.2 Illumination levels – conveyance and 20.3 Dimming requirements for conveyances would remain unchanged.

Requirements at Transport Standards section 20.1 Illumination levels – premises and infrastructure would be removed and replaced with the following requirements:

- Any lighting associated with a public transport facility must be provided to a level appropriate to the location and to enable safe completion of tasks.

These requirements would apply to premises, (except premises to which the Premises Standards apply,) and infrastructure.

This option assumes that lighting designers will utilise guidance below in the design of public transport infrastructure to enable them to meet the performance-based standard, with requirements for conveyances being unchanged.

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include guidance on levels of illuminance (below).

Specific guidance may include:

- Any lighting associated with the public transport facility must comply with:
  - **enclosed zones** must comply with requirements in AS/NZS1680.2.1 (2008).
  - **unenclosed zones** must comply with requirements in AS/NZS1158.3.1 (2020).
  - **lifts** must comply with requirements in AS1735.12 (2020).
- Many elements within a public transport environment are not outlined in the standards above. Operators and providers should ensure appropriate lighting levels are provided for each part, area or element to enable safe completion of tasks. For example, wayfinding, signage, feature lighting and advertising should be serviced by an appropriately level of lighting to enable passengers and operators alike to read and interact with them.

### Option 2 New Australian Standards requirements

This option would amend the Transport Standards to include new Australian Standards requirements for elements specific to public transport environments at Transport Standards, section 20.1 Illumination levels – premises and infrastructure and 20.2 Illumination levels – conveyance.

Section 20.1, Illumination levels – premises and infrastructure, would be amended to include the following requirements:

- Any lighting associated with the public transport facility must comply with the greater of the following:
  - **Enclosed zones** must comply with requirements in AS/NZS1680.2.1 (2008). Enclosed Zones are defined as fully enclosed or underground transport environments, fully covered which receive no significant amount of natural light (direct or indirect). For example, an underground railway station or bus station.

- **Unenclosed zones** must comply with requirements in AS/NZS1158.3.1 (2020). Unenclosed zones are transport environments that are not covered under Clause (1). For example, a covered waiting area on a train station, ferry terminal, bus interchange or ferry stop.
- **Lifts** must comply with requirements in AS1735.12 (2020).

These requirements would pertain to conveyances, premises, except premises to which the Premises Standards apply, and infrastructure.

Transport Standards, section 20.2, Illumination levels — conveyances, would be amended to include the following requirements:

- Any lighting provided for boarding or alighting from a conveyance must be a minimum of 150 lux. Any fixtures or of facilities provided within conveyances must comply with the requirements of section 20.1 Illumination levels – premises and infrastructure.

These requirements would apply to conveyances.

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated with the content in the guidance option below to include guidance on levels of illuminance (below).

Specific guidance may include:

- Many elements within a public transport environment are not outlined in the standards above. Operators and providers should ensure appropriate lighting levels are provided for each part, area or element to enable safe completion of tasks. For example, wayfinding, signage, feature lighting and advertising should be serviced by an appropriately level of lighting to enable passengers and operators alike to read and interact with them.

### **Option 3 New Australian Standards requirements and additional prescriptive requirements**

This option proposes a combination of references to Australian Standards and prescriptive requirements for elements specific to public transport environments at Part 20 Lighting, including section 20.1 Illumination levels – premises and infrastructure and 20.2 Illumination levels – conveyance.

Transport Standards, Part 20 Lighting would be amended to include the following requirements:

- Any task lighting associated with a public transport facility:

#### **Sub-option 1**

**Must** have a colour temperature between 3000 to 3500 kelvin. Task lighting is defined as dedicated lighting provided to enable the completion of an activity. For example, the reading of a sign or use of fare system elements.

#### **Sub-option 2**

**Should** have a colour temperature between 3000 to 3500 kelvin. Task lighting is defined as dedicated lighting provided to enable the completion of an activity. For example, the reading of a sign or use of fare system elements.

These requirements would pertain to conveyances, premises, (except premises to which the Premises Standards apply) and infrastructure.

Transport Standards, section 20.1 Illumination levels – premises and infrastructure, would be amended to include the following requirements:

- Any lighting associated with the public transport facility must comply with the greater of the following:
  - **Enclosed zones** must comply with requirements in AS/NZS1680.2.1 (2008). Enclosed Zones are defined as fully enclosed or underground transport environments, fully covered which receive no significant amount of natural light (direct or indirect). For example, an underground railway station or bus station.
  - **Unenclosed zones** must comply with requirements in AS/NZS1158.3.1 (2020) Unenclosed zones are transport environments that are not covered under Clause (1). For example, a covered waiting area on a train station, ferry terminal, bus interchange or ferry stop.
  - **Lifts** must comply with requirements in AS1735.12 (2020)
  - Levels of illumination in Tables 8 to 11 (below) for areas not specified in the above three standards.

These requirements would pertain to conveyances, premises, except premises to which the Premises Standards apply, and infrastructure.

Transport Standards, section 20.2, Illumination levels — conveyances, would be amended to include the following requirements:

- Any lighting provided for boarding or alighting from a conveyance must be a minimum of 150 lux. Any fixtures or of facilities provided within conveyances must comply with the requirements of section 20.1 Illumination levels – premises and infrastructure.

These requirements would pertain to conveyances.

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated include guidance on levels of illuminance (below) and the following definitions.

#### Definitions

- **Boarding point:** A door or location at which passengers enter or exit a conveyance.
- **Customer service point:** Any dedicated location where a passenger receives assistance or information, pays a fare or communicates with staff.
- **Static information displays (hard copy):** A visual display of fixed information that is not self-illuminated (backlit). For example, printed timetable or station layout.
- **Fare system elements:** Any hardware that a passenger interacts with that is associated with the purchase or payment of fares. For example, fare payment devices, fare gates, and fare validators. Self-illuminated or backlit displays are excluded from these requirements when provided in isolation with no other lighting.
- **Pedestrian level crossings (rail):** Any crossing of a railway at grade for both vehicular traffic and other road users, including pedestrians.

Note: Many elements within a public transport environment are not outlined in the tables below. Operators and providers should ensure appropriate lighting levels are provided for each element within a public transport environment to enable safe completion of tasks. For example, wayfinding, signage, feature lighting and advertising should be serviced by an appropriate level of lighting to enable passengers and operators alike to read and interact with them.

#### Option 4 New comprehensive prescriptive requirements

Transport Standards, Part 20 Lighting, would be amended to include new prescriptive lighting design requirements for elements within public transport environments. No change would be made to Transport Standards, section 20.3 Dimming.

Note: For guidance on lighting uniformity and transition between elements refer to AS/NZS1680.2 (2008) for enclosed zones and AS/NZS1158.3.1 (2020) for unenclosed zones.

The Transport Standards would include the following amendments and / or new requirements:

- Any task lighting associated with the public transport facility:

#### **Sub-option 1**

**Must** have a colour temperature between 3000 to 3500 kelvin. Task lighting is defined as dedicated lighting provided to enabling the completion of an activity. For example, the reading of a sign or use of fare system elements.

#### **Sub-option 2**

**Should** have a colour temperature between 3000 to 3500 kelvin. Task lighting is defined as dedicated lighting provided to enabling the completion of an activity, for example, the reading of a sign or use of fare system elements.

These requirements would pertain to conveyances, premises, (except premises to which the Premises Standards apply,) and infrastructure.

Transport Standards, section 20.1, Illumination levels — premises and infrastructure, of the Transport Standards would be amended to include the following requirements:

- Any lighting associated with the public transport facility must comply with the levels of illumination provided at Tables 12 to 15 (below).

Transport Standards, section 20. 2, Illumination levels — conveyances, would be amended to include the following requirements:

- Any lighting provided for boarding or alighting from a conveyance must be a minimum of 150 lux. Any fixtures or of facilities provided within conveyances must comply with the requirements of Transport Standards, section 20.1 Illumination levels — premises and infrastructure.

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include guidance on levels of illuminance (below) and the following definitions.

#### **Definitions**

- Enclosed zones: Fully enclosed or underground transport environments, fully covered which receive no significant amount of natural light (direct or indirect). For example, an underground railway station or bus station.
- Unclosed zones: Transport environments that are not covered under the enclosed zones definition. For example, a covered waiting area on a train station, ferry terminal, bus interchange or ferry stop.
- Boarding point: The door or location at which passengers enter or exit a conveyance. Light source may be provided from within the conveyance.
- Customer services counter: Any location where a passenger receives assistance or information, pays a fare or communicates, with staff.
- Static information displays (hard copy): A visual display of fixed information that is not self-illuminated (backlit). For example, printed timetable or station layout.
- Fare system elements: Any hardware that a passenger interacts with that is associated with the purchase or payment of fares. For example, fare vending machines, fare gates, and validators. Self-illuminated or backlit displays are excluded from these requirements when provided in isolation with no other lighting.



- External pathways: Pathways exterior to, but still associated with, the public transport asset. For example, pathways to and from carparks.
- Pedestrian level crossings (rail): Any crossing of a railway at grade for both vehicular traffic and other road users, including pedestrians.

Note: Many elements within a public transport environment are not outlined in the tables below. Operators and providers should ensure appropriate lighting levels are provided for element within a public transport environment to enable safe completion of tasks. For example, wayfinding, signage, feature lighting and advertising should be serviced by an appropriate level of lighting to enable passengers and operators alike to read and interact with them.

## Guidance – Levels of Illuminance

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect the new requirements.

Specific guidance may include the following:

### Uniformity of illuminance

Uniformity of illuminance is a major contributor to lighting quality and can be calculated by measuring the average, minimum and maximum illuminance. Light intensity thresholds are usually identified in a way to provide required visibility level for a specific visual task.

Key illuminance uniformity measures are defined below:

- U1 = the ratio of the minimum to average illumination levels, as defined in AS/NZS1158.3.1 (2020)
- U2 = the ratio of the maximum to average illumination levels, as defined in AS/NZS 1680.1 (2006)

### Control of Light Spill

Any lighting provided, including lighting in public spaces, should comply with Australian Standard AS/NZS4282 (2019). The standard provides information on the potential obtrusive effects of lighting in public spaces, how to design such lighting systems and information on the impact of artificial light on biota.

The Australian Government Department of Environment and Energy, National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds provides guidance on good practice lighting design for exterior areas, which is also applicable to design principles for suburban and regional train stations and stops.

### Lighting Regimes

Lighting regimes should be designed so that illuminance levels for task and ambient lighting can be provided separately to ensure appropriate volumes and consistency of illumination is provided. For example, consider providing focussed lighting for difficult visual tasks, such as reading, separately from ambient lighting throughout a space. This focussed lighting should be provided at counter tops, fare system elements, wayfinding and signage, hazards, emergency information, stairs and ramps, road and path edges.

Choice of wall finishes should consider the needs of various users, including people with low vision, visual hyper/ hyposensitivity, and intellectual or cognitive impairment.

### Lighting Temperature and Colour

Any task lighting associated with the public transport facility should have a colour temperature between 3000 to 3500 kelvin. Lighting colour temperature is important to a variety of people, including those with vision impairment and people on the autism spectrum. For information about lighting colour choice, refer to *CIE 227:2017 Technical Report - Lighting for Older People and People with Visual Impairment in Buildings*.

### Lighting Hardware

Adjustable and customisable lighting choices are beneficial for persons with different lighting needs. For example, people with low vision might require more illumination to complete tasks, whereas persons on the autism spectrum may prefer dimmer lighting for comfort. Providing adjustable lighting can ensure all passengers receive the level of illumination that suits their needs.

For information about lighting hardware choice, refer to *CIE 227:2017 Technical Report - Lighting for Older People and People with Visual Impairment in Buildings*.

### Tables for level of illumination

Table sources:

- Public Transport Authority of Western Australia, *Specification Lighting Design, Installation and Maintenance Requirements*.
- Government of South Australia Department of Infrastructure and Transport, *Engineering Standard Design-Standards-Electrical Infrastructure Part 129014*, [https://dit.sa.gov.au/\\_\\_data/assets/pdf\\_file/0004/113827/DOCS\\_AND\\_FILES-5786255-v4-Station\\_D\\_Part\\_-\\_Part\\_D074\\_Design\\_-\\_Electrical\\_Infrastructure.pdf](https://dit.sa.gov.au/__data/assets/pdf_file/0004/113827/DOCS_AND_FILES-5786255-v4-Station_D_Part_-_Part_D074_Design_-_Electrical_Infrastructure.pdf), 17 February 2022

**Table 4: Non-regulatory option - Enclosed zones**

Element Type*	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1
Access Paths	Entrances, Pathways, Walkways, ramps, stairs and subways	160			0.5
Waiting areas	General platform and waiting areas	160			0.5
Waiting areas	Within 900mm of boarding point		150		
Facilities and Fixtures	Static information displays (hard copy)	200		AS1735.12 (2002)	0.5
Facilities and Fixtures	Fare System Elements	200		AS1735.12 (2002)	0.5
Facilities and Fixtures	Toilet and locker rooms	200		AS1735.12 (2002)	0.5
Facilities and Fixtures	Customer Service Points	AS1428.2 (1992)		AS1735.12 (2002)	0.5

\*For lifts, refer to Transport Standards Part 13 Lifts

**Table 5: Non-regulatory option - Unenclosed zones**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)
Level Crossings	Pedestrian Level Crossings (Rail)	30	10	10

**Table 6: Non-regulatory option - Unenclosed Zones - Elements within or adjacent to road reserve**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1	U2
Waiting Areas	General platform, waiting areas and boarding areas	20	8	7	0.3	10
Waiting Areas	Covered areas	20				
Facilities and Fixtures	Static information displays			AS1735.12 (2002)		
Facilities and Fixtures	Fare System Elements (excluding fare validators)			AS1735.12 (2002)		
Car parking	Accessible car parking space	AS/NZS 1680.0 (2009)	14	7		10
Car parking	Taxi ranks and passenger loading zones	AS/NZS 1680.0 (2009)	14	7		10

**Table 7: Non-regulatory option - Unenclosed zones - Elements not within or adjacent to road reserves**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1	U2
Waiting Areas	Train Platform edge and ferry wharf edges		30			
Waiting Areas	General platform and waiting areas	42	21	14		7
Waiting Areas	Covered areas	160			0.5	
Facilities and Fixtures	Fare System Elements (excluding fare validators) and Static information displays not within or adjacent to road reserve	200		AS1735.12 (2002)	0.5	

**Table 8: Regulatory Option 3 - Enclosed zones**

Element Type*	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1
Access Paths	Entrances, Pathways, Walkways, ramps, stairs and subways	160			0.5
Waiting areas	General platform and waiting areas	160			0.5
Waiting areas	Within 900mm of boarding point		150		
Facilities and Fixtures	Static information displays (hard copy)	200		AS1735.12 (2002)	0.5
Facilities and Fixtures	Fare System Elements	200		AS1735.12 (2002)	0.5
Facilities and Fixtures	Toilet and locker rooms	200		AS1735.12 (2002)	0.5
Facilities and Fixtures	Customer Service Points	AS1428.2 (1992)		AS1735.12 (2002)	0.5

\*For lifts, refer to Transport Standards Part 13 Lifts

**Table 9: Regulatory Option 3 - Unenclosed zones**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)
Level Crossings	Pedestrian Level Crossings (Rail)	30	10	10

**Table 10: Regulatory Option 3 - Unenclosed zones - Elements within or adjacent to road reserve**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1	U2
Waiting Areas	General platform, waiting areas and boarding areas	20	8	7	0.3	10
Waiting Areas	Covered areas	20				
Facilities and Fixtures	Static information displays			AS1735.12 (2002)		
Facilities and Fixtures	Fare System Elements (excluding fare validators)			AS1735.12 (2002)		
Car parking	Accessible car parking space	AS/NZS 1680.0 (2009)	14	7		10
Car parking	Taxi ranks and passenger loading zones	AS/NZS 1680.0 (2009)	14	7		10

**Table 11: Regulatory Option 3 - Unenclosed Zones – Elements not within or adjacent to road reserves**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1	U2
Waiting Areas	Train Platform edge and ferry wharf edges		30			
Waiting Areas	General platform and waiting areas	42	21	14		7
Waiting Areas	Covered areas	160			0.5	
Facilities and Fixtures	Fare System Elements (excluding fare validators) and Static information displays not within or adjacent to road reserve	200		AS1735.12 (2002)	0.5	

**Table 12: Regulatory Option 4 - Enclosed Zones**

Element Type*	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1
Access Paths	Entrances, Pathways, Walkways, ramps, stairs and subways	160			0.5
Waiting areas	General platform and waiting areas	160			0.5
Waiting areas	Within 900mm of boarding point		150		
Facilities and Fixtures	Static information displays (hard copy)	200		AS1735.12 (2002)	0.5
Facilities and Fixtures	Fare System Elements	200		AS1735.12 (2002)	0.5
Facilities and Fixtures	Toilet and locker rooms	200		AS1735.12: 2002	0.5
Facilities and Fixtures	Customer Service Points	AS1428.2 (1992)		AS1735.12: 2002	0.5

\*For lifts, refer to Transport Standards Part 13 Lifts

**Table 13: Regulatory Option 4 - Unenclosed zones**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)
Level Crossings	Pedestrian Level Crossings (Rail)	30	10	10

**Table 14: Regulatory Option 4 - Unenclosed zones - Elements within or adjacent to road reserve**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1	U2
Access Paths	Access Paths	20				10
Waiting Areas	General platform, waiting areas and boarding areas	20	8	7	0.3	10
Waiting Areas	Covered areas	20				
Facilities and Fixtures	Static information displays			AS1735.12 (2002)		
Facilities and Fixtures	Fare System Elements (excluding fare validators)			AS1735.12 (2002)		
Car parking	Accessible car parking space	AS/NZS 1680.0 (2009)	14	7	0.3	10
Car parking	Taxi ranks and passenger loading zones	AS/NZS 1680.0 (2009)	14	7	0.3	10
Parking	Standard car parking spaces	AS/NZS 1680.0 (2009)	3	3		10
Parking	Accessible car parking space	AS/NZS 1680.0 (2009)	14	7	0.3	10
Parking	Taxi ranks and passenger loading zones	AS/NZS 1680.0 (2009)	14	7	0.3	10

**Table 15: Regulatory Option 4 – Unenclosed Zones – Elements not within or adjacent to road reserve**

Element Type	Transport Element	EAV (lx)	E Min (lx)	EV Min (lx)	U1	U2
Access Paths	Access Paths	42	21	14		7
Waiting Areas	Train Platform edge and ferry wharf edges		30			
Waiting Areas	General platform and waiting areas	42	21	14		7
Waiting Areas	Covered areas	160			0.5	
Facilities and Fixtures	Fare System Elements (excluding fare validators) and Static information displays not within or adjacent to road reserve	200		AS1735.12 (2002)	0.5	

## Impact analysis

### Status quo

#### Impacts

- Transport and lighting requirements would continue to not accommodate for the diverse and nuanced requirements of people with disability.

## Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is implemented by operators and providers, it is unlikely that lighting design would impose significant financial impacts to operators and providers in the development of new assets. This is because the proposal does not seek to recommend operators and providers to install significantly greater levels of lighting within their assets, rather to encourage the effective design and placement of lighting to achieve a functional outcome. Any such costs would be incurred only to the level the guidance is adopted. Additional cost may be incurred if the services of specialist lighting designers is sought.
- Retrofitting existing assets would incur financial costs in the form of additional lighting installation, or modifications to existing lighting regimes. Costs would also be incurred to audit existing assets, depending on the size and nature of the assets, as well as any specialist design advice sought. Costs could be incorporated as part of standard maintenance and upgrades schedules and the discretionary nature of this option would enable asset owners to prioritise areas within their assets that would provide the greatest benefit. As the advice is discretionary, costs would only be incurred to the extent the advice is followed.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the proposed new lighting requirements which may not lead to an increase in accessible services for people with disability.

### Benefits

- Benefits will be achieved to the extent that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Enhancements to the design of lighting regimes across public transport assets will benefit large sections of the disability community and public transport users more broadly. These enhancements would of be particular benefit to people with low vision, people who are hard of hearing, people with mobility impairment, people with epilepsy, and people on the autism spectrum, all of whom will experience enhanced confidence, comfort and safety throughout their public transport journey.

## Regulatory options

### Impacts

- It is unlikely that lighting design would impose significant financial impacts to operators and providers in the development of new assets. This is because the proposal does not seek to require operators and providers to install significantly greater levels of lighting within their assets, rather to ensure the effective design and placement of lighting to achieve a functional outcome. Additional cost may be incurred if the services of specialist lighting designers is sought, if required.
- Retrofitting existing assets would incur financial costs in the form of additional lighting installation, or modifications to existing lighting regimes. Costs would also be incurred to audit existing assets, depending on the size and nature of the assets, as well as any specialist

design advice sought. Costs could be incorporated as part of standard maintenance and upgrades schedules.

## Benefits

- Enhancements to the design of lighting regimes across public transport assets will benefit large sections of the disability community and broader public transport users. These enhancements would of be particular benefit to people with low vision, people who are hard of hearing, people with mobility impairment, people with epilepsy, and people on the autism spectrum, all of whom will experience enhanced confidence, comfort and safety throughout their public transport journey.

## CBA of regulatory options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Option 1 Removal of current requirements and replaced with guidance

#### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Improved lighting will enhance visibility within a public transport environment, should reduce slips, trips and falls for all public transport users.
- **Amenity:** Improved lighting should improve the overall experience using public transport for all users.
- **Accessibility:** Not applicable.
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

These benefits would be realised only if public transport operators and managers implement the recommended guidelines.

#### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Avoided financial costs for public transport providers / managers if compliance is not required.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of lighting that meets updated guidance.
- **Monetised compliance costs (administrative):** -61.3
- **Monetised compliance costs (substantive):** Nil.



## Option 2 New Australian Standards requirements

### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Improved lighting will enhance visibility within a public transport environment, should reduce slips, trips and falls for all public transport users.
- **Amenity:** Improved lighting should improve the overall experience using public transport for all users.
- **Accessibility:** Not applicable
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

These benefits will only apply to those assets associated with the New Australian Standards and realised by those users.

### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance with the new Australian Standards.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of lighting that meets updated standards.
- **Monetised compliance costs (administrative):** 1.3
- **Monetised compliance costs (substantive):** 4.1

## Option 3 New Australian Standards requirements and additional prescriptive requirements

### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Improved lighting will enhance visibility within a public transport environment, should reduce slips, trips and falls for all public transport users.
- **Amenity:** Improved lighting should improve the overall experience using public transport for all users.
- **Accessibility:** Not applicable
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

These benefits will only apply to those assets associated with the New Australian Standards and additional prescriptive requirements realised by those users.

### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance with the new Australian Standards and prescriptive requirements.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of lighting that meets updated standards
- **Monetised compliance costs (administrative):** 1.3
- **Monetised compliance costs (substantive):** 19.8

#### Option 4 New comprehensive prescriptive requirements

##### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Improved lighting will enhance visibility within a public transport environment, should reduce slips, trips and falls for all public transport users.
- **Amenity:** Improved lighting should improve the overall experience using public transport for all users.
- **Accessibility:** Not applicable
- **Other benefits:** Other benefits of this reform include enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

##### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance with the new comprehensive prescriptive requirements.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of lighting that meets updated standards.
- **Monetised compliance costs (administrative):** 1.3
- **Monetised compliance costs (substantive):** 19.9

## Consultation questions

1. What is your preferred option; status quo, non-regulatory or regulatory option 1, 2, 3 or 4? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Do you think the referenced Australian Standards are adequate to achieve the desired outcome? If not, why?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
5. Are there specific areas within public transport environments where you experience discomfort, feel unsafe, or find it difficult to complete a task due to the amount of lighting available? For example, read a sign or timetable, buying a ticket or communicate with staff at a service counter.
  - a. If so, what do you wish was different?

# Part 4: Accessibility of boarding and alighting and egress of infrastructure

The following reform areas are included in this Part:

38. Signals and process for requesting boarding devices
39. Notification by passenger of need for boarding device
40. Portable boarding ramp edge barriers
41. Boarding ramp and removable gangway definitions
42. Removable gangway design - ferries
43. Nominated assistance boarding points
44. Identification of lead stops
45. Pontoon boarding points on infrastructure
46. Bus, tram and light rail boarding points on infrastructure
47. Hail-and-ride boarding points on infrastructure
48. Accessible taxi ranks
49. Accessible passenger loading zones on-street
50. Accessible parking spaces in infrastructure off-street carparks

## 38. Signals and process for requesting boarding devices

### Issue

Existing requirements for signals or other processes for requesting boarding assistance are not sufficiently explicit and the reference to AS1428.2 (1992) *Design for access and mobility*, in Transport Standards section 8.7 Signals requesting use of boarding device, is dated.

Section 8.7 has generally been implemented by public transport operators and providers without difficulty. All of the conveyances listed provide devices that allow the signalling of the need for boarding devices. However, the section lacks specificity in relation to some performance requirements, which can prevent some people with disability from requesting a boarding device. The requirements also do not acknowledge face to face communication is often required to request a boarding device on platforms or in conveyances.

People who are hard of hearing or deaf are at a disadvantage when communication systems that require verbal interaction. If the system used to request a boarding device has a verbal component it is unlikely that deaf or hard of hearing passengers will be able to request a boarding device.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 8.7 Signals requesting use of boarding device, would remain unchanged and no additional guidance would be issued.

#### **8.7 Signals requesting use of boarding device**

- (1) Any signal for requesting the deployment of a boarding device must be located in an allocated space.
- (2) If possible, a signal is to be placed according to the dimensions given in AS1428.2 (1992) *Clause 11.4, Call buttons*.

This section applies to buses, (except dedicated school buses), coaches, ferries, trains, trams and light rail.

#### Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include advice on good practice processes for requesting boarding devices.

Specific guidance may include:

- Communication of the need for boarding and alighting assistance in real time (the time of need) rather than through prior booking. This is necessary if people with disability are to have the same flexibility and amenity of travel as other passengers. Communication may be directly with staff or with automated systems. Timing of the notification for alighting assistance should not exceed that of other passengers requesting a vehicle or vessel to stop.
- A request signal device that must be touched or pressed should be located in the allocated space between 900mm and 1250mm above finished floor and 500mm from any internal corner, as per AS1428.1 (2009), *Clause 13.5.3 (c), Location*.
- If an electronic notification system has an audio component that requires verbal interaction, the communication devices should be linked to a hearing augmentation system that conforms to AS1428.5 (2021), *Design for access and mobility, Part 5: Communication for people who are deaf or hearing impaired, section 3.2*.
- Controls and operating mechanisms should be operable with one open hand and should not require tight grasping, pinching, or twisting of the wrist and should have a switch with one surface dimension at least 25 millimetres. The force required to press a button should be in the range of 2.5 to 5 newtons. Call and control buttons should have an integral, continuously operating light. Controls should activate the notification device before the button becomes level with the surrounding surface as per AS1428.1 (2009) *Clause 13.5.4, Power-operated door controls*.
- Staff training is essential for effective real time communication. Without disability awareness training that includes the needs of people who have complex communication impairments, misunderstandings will occur.

## Regulatory option

The Transport Standards would be amended to include requirements for signals and a process for requesting boarding assistance that is located either in or on conveyances will be made more explicit.

Transport Standards section 8.7 would be amended to include the following (including any requirements retained or amended from the status quo):

- Passengers who require assistance to alight must be able to communicate in real time to notify that they wish to alight.
- A request signal device that must be touched or pressed should be located in the allocated space and positioned as per AS1428.1 (2009) *Clause 13.5.3 (c), Location*.
- Timing of the notification for alighting assistance must not exceed that of other passengers requesting a vehicle or vessel to stop.
- If an electronic notification system has an audio component it must be linked to a hearing augmentation system that conforms to AS1428.5 (2021) *section 3.2*.
- The force required to press a button must be in the range of 2.5 to 5 newtons.
- Controls and operating mechanisms must be operable with one open hand and must not require tight grasping, pinching, or twisting of the wrist and shall have a switch with one surface dimension of at least 25 millimetres. Controls must comply with AS1428.1 (2009), *Clause 13.5.4, Power-operated door controls*.
- Call and control buttons:

### Sub-option 1

Call and control buttons **should** have an integral, continuously operating light.

### Sub-option 2

Call and control buttons **must** have an integral, continuously operating light.

These requirements pertain to buses (except dedicated school buses), coaches, ferries, trains, trams and light rail.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to provide advice concerning the new requirements.

Specific guidance may include:

- Communication of the need for boarding and alighting assistance in real time (at the time of need) rather than through prior booking, is necessary if people with disability are to have the same flexibility and amenity of travel as other passengers. Communication may be directly with staff or with automated systems.
- Staff training is essential for effective real time communication. Without disability awareness training that includes the needs of people who have complex communication impairments, misunderstandings will occur.
- Wherever practicable, controls for communication or signalling devices should be located more than 500 millimetres away from internal corners. Where this is unachievable, controls should be at the maximum practicable distance from internal corners.

## Impact analysis

### Status quo

#### Impacts

- The Transport Standards for signals and processes for requesting boarding devices would continue to be outdated and not meet the needs of the disability community.
- Passengers who are hard of hearing or deaf may not be able to request a boarding devices depending on the systems used.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will, where required, upgrade their systems which may not lead to an increase in accessible services.
- Should operators and providers decide to implement guidance, costs would be incurred to upgrade systems to request boarding devices.
- Where existing controls require excessive force to operate, or where verbal interaction is required to request the deployment of a boarding device, would there be a need to retrofit systems. Costs for these upgrades would vary with the number of affected controls.

## Benefits

- To the extent that operators and providers implement guidance people who travel in allocated spaces, have poor hand function and who have found controls too hard to operate, and people who rely on hearing aids for verbal interaction will benefit.
- Passengers who must request a boarding device at the boarding point via a conveyance mounted request signal will benefit from better control specifications.
- Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- In many instances, operators and providers will be unaffected by any update to section 8.7 for new conveyances as they would already comply with the requirement.

## Regulatory option

### Impacts

- In many instances, operators and providers will be unaffected by any update to section 8.7 for new conveyances as they would already comply with the requirement.
- Where existing controls required excessive force to operate, or where verbal interaction was required to request the deployment of a boarding device, would there be a need to retrofit systems. Costs for these upgrades would vary with the number of affected controls.

### Benefits

- People who travel in allocated spaces, have poor hand function and who have found controls too hard to operate, and people who rely on hearing aids for verbal interaction will benefit.
- Passengers who must request a boarding device at the boarding point via a conveyance mounted request signal will benefit from better control specifications.

### CBA of regulatory options

This reform involves proposed definitional change to the Transport Standards. There are no changes to assets, no costs will be incurred. This reform has been incorporated into the overarching economic assessment but has not been assessed quantitatively in the CBA.

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option (including relevant sub-options)? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you, or your passenger, ever had difficulties boarding a conveyance or disembarking at your stop due to an inability to request a boarding ramp?
  - a. What was the nature of the fault? For example: the ramp did not arrive or was late, staff failure to communicate effectively, poorly located or broken controls?
  - b. What was the consequence?

## 39. Notification by passenger of need for boarding device

### Issue

The existing requirements in the Transport Standards to enable passengers to notify public transport operators and providers they require a boarding device do not provide access to the varying needs of people with disability on public transport. Section 8.8, Notification by passenger of need for boarding device, does not specify if advanced notice or booking is required by a passenger to board or alight from a conveyance, and conflates the requirements for passengers requesting boarding devices at infrastructure and premises with those on board conveyances. The reference in this section is also dated and does not include a requirement for a call button light.

Public transport operators and providers often require passengers to make prior booking for assistance to board or alight. This may be a deterrent for when people with disability need to travel at short notice and do not have time to make a prior booking. In addition, these passengers do not have the same degree of amenity and convenience as other passengers. A requirement to book in advance for assistance on unbooked services places an expectation on one set of passengers that is not required by other passengers. In addition, mandating booking for assistance limits the ability to travel spontaneously or if called upon to do so, unexpectedly.

The Transport Standards requirements for notification by passenger of need for boarding device can require verbal interaction which excludes people who are hard of hearing or deaf.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 8.8 Notification by passenger of need for boarding device, would remain unchanged and no new guidance material would be issued.

#### **8.8 Notification by passenger of need for boarding device**

- (1) It must be possible for a passenger to notify the operator of a conveyance that he or she needs a boarding device to board or alight from a conveyance.
- (2) If a request signal device is used, it may be located on the conveyance or at the boarding point according to the dimensions given in AS1428.2 (1992) *Clause 11.4, Call buttons*.

This section pertains to conveyances, (except dedicated school buses,) premises, and infrastructure, (except airports that do not accept regular public transport.)



## Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include advice for passenger notification of need for boarding device.

Specific guidance may include the following:

- Communication may be directly with staff or with automated systems.

### Sub-option 1

Communication of the need for boarding assistance in 'real time' for unbooked services that is at the time of need rather than through prior booking, is necessary if passengers with disabilities are to have the same flexibility and amenity of travel as other passengers

### Sub-option 2

While some passengers who may need boarding assistance on unbooked services may choose to book the assistance, and operators may legitimately advise this, it should not be mandatory. Mandating booking would limit the ability to travel spontaneously or if called upon to do so, unexpectedly. Prior booking is often advisable if assistance to board or alight is required, but this should not be a deterrent for the need for travel that arises at short notice.

- For booked services, the need for boarding assistance should be confirmed at booking.
- A request signal device that must be touched or pressed should be located in proximity to the boarding point between 900mm and 1250mm above finished floor, 500mm from any internal corner, as per AS1428.1 (2009) *Clause 13.5.3 (c)*.
- If an electronic notification system has an audio component, it should be linked to a hearing augmentation system that conforms to AS1428.5 (2010) section 4.
- Controls and operating mechanisms should be operable with one open hand and should not require tight grasping, pinching, or twisting of the wrist and should have a switch with one surface dimension at least 25 mm. Buttons should not require too much force, being in the range of 2.5-5 N. While buttons may be installed on notification devices, controls that only need to be touched rather than depressed will assist people with poor hand function.
- Call and control buttons should have an integral, continuously operating light that both changes colour and issues an audible confirmation of a recorded call. Controls should activate the notification device before the button becomes level with the surrounding surface as per AS1428.1 (2009) *Clause 13.5.4*.
- Notification by passenger of the need for boarding device may trigger the need to provide direct assistance to board.

## Regulatory option

Transport Standards section 8.8 would be amended to include the following (including any requirements retained or amended from the status quo):

- Passengers must be able to communicate in real time their need for boarding assistance or a boarding device prior to boarding.
- For unbooked services:

### Sub-option 1

Prior booking may be recommended but cannot be required from passengers who need boarding assistance.

### Sub-option 2

At unstaffed stations, there may be a need to provide advance notice. This should not exceed one hour.

- A request signal device that must be touched or pressed should be located in proximity to the boarding point and be positioned between 900 millimetres and 1250 millimetres above the finished floor, 500 millimetres from any internal corner, as per AS1428.1 (2009) *Clause 13.5.3 (c)*.
- If an electronic notification system has an audio component it must be linked to a hearing augmentation system that conforms to AS1428.5 (2021) *section 3.2*.
- The force required to press a button must be in the range of 2.5 to 5 newtons.
- Controls and operating mechanisms must be operable with one open hand and must not require tight grasping, pinching, or twisting of the wrist and shall have a switch with one surface dimension of at least 25 millimetres. Controls must comply with AS1428.1 (2009) *Clause 13.5.4*.
- Call and controls buttons:

#### Sub-option 1

Call and control buttons **should** have an integral, continuously operating light.

#### Sub-option 2

Call and control buttons **must** have an integral, continuously operating light.

These requirements would pertain to premises and infrastructure, (except airports that do not accept regular public transport services.)

Amendments to section 8.8 are also being considered in chapter 44, nominated assistance points as there are overlaps between the reform issues.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements.

Specific guidance may include the following:

- While buttons may be installed on notification devices, controls that only need to be touched rather than depressed will assist people with poor hand function.
- For booked services, the need for boarding assistance should be confirmed at booking.
- Notification by passenger of the need for boarding device may trigger the need to provide direct assistance to board.
- Communication of the need for boarding assistance in 'real time' for unbooked services, which is at the time of need rather than through prior booking, is necessary if passengers with disabilities are to have the same flexibility and amenity of travel as other passengers. Communication may be directly with staff or with automated systems.
- At unstaffed stations, there may be a need to develop Equivalent Access solutions for notice of need for boarding assistance.

## Impact analysis

### Status quo

#### Impacts

- Passengers would remain unable to communicate in real time, and the varying needs of people with disability will not be addressed.
- The issues would remain for people who are hard of hearing or deaf, and advance booking for the need of a boarding device would need to be sought.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that the guidance is followed, costs may be incurred by operators and providers to ensure that staff assistance was available at short or no notice. At unstaffed locations, challenges and costs associated with communicating the need to board or alight may be incurred.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the guidance. The impact on passengers is that advance booking for the need of a boarding device would need to be sought.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance.
- Passengers who require assistance at boarding and alighting would be able to travel with the same degree of amenity and convenience as other passengers and systems to request boarding devices will be accessible to all people with disability.
- If people with disability choose to book travel ahead, they could be accommodated, including unexpected changes to travel.

### Regulatory option

#### Impacts

- Operators and providers would be obliged to ensure that staff assistance was available at short or no notice. This would not be an issue on conveyances that were staffed, provided the necessary means of communication were in place. At unstaffed locations, and as the fleet of autonomous conveyances expands, challenges in communicating the need to board or alight will arise.
- The changed Australian Standard reference would impose no material change on operators or providers.

## Benefits

- Passengers who require assistance at boarding and alighting will be able to travel with the same degree of amenity and convenience as other passengers and systems to request boarding devices will be accessible to all people with disability.
- If passengers chose to book ahead, they would be accommodated and any unexpected changes to travel could also be accommodated.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of consistent standards for notification of boarding may increase understanding and safety for people with disability.
- **Amenity:** Not applicable.
- **Accessibility:** Provision of consistent standards for notification of boarding should improve the ease of access and confidence to use public transport services inducing new users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of improved notification facilities.
- **Monetised compliance costs (administrative):** 1.3
- **Monetised compliance costs (substantive):** 23.8

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option (including the sub-options for unbooked services and calls and control buttons)? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Can you describe your experience using controls to request a boarding device?

## 40. Portable boarding ramp edge barriers

### Issue

The Transport Standards section 6.2, Boarding ramps, does not specify the need for edge barriers on portable boarding ramps. The absence of edge barriers on portable boarding ramps presents a safety issue for mobility aid users who need to traverse boarding ramps to enter conveyances. Subsequently, this causes a lack of confidence to use a boarding ramp and use public transport. Ideally, all portable boarding ramps should have edge barriers. However, conveyances that have fixed boarding ramps, either fold out or sleeved, would in many instances have difficulty fitting the ramp into its housing and so these barriers are not always practical to install.

Section 6.2 references AS/NZS3856.1 (1998) *Hoists and ramps for people with disabilities* (AS/NZS3856.1 (1998)). This standard requires edge barriers on portable boarding ramps when the ramp's vertical rise is greater than 400 millimetres. The vertical rise of 400 millimetres on a boarding ramp is rarely encountered while boarding conveyances in the public transport environment. However, edge barriers are still important for ramps with a vertical rise less than 400 millimetres.

AS1428.1 (2009), *Design for access and mobility - General Requirements for access*, Clause 10.3(i), (AS1428.1 (2009)) requires kerbs rails on many ramps and walkways with certain kerb dimensional requirements, including a range of 65 millimetres to 75 millimetres for edge barriers.

The 75 millimetre minimum platform edge barrier of AS/NZS3856.1 (1998) and the recommended 75 millimetre minimum ramp edge barrier height of AS3856.1 (2021), *Hoists and ramps for people with disabilities - Vehicle mounted*, align with the upper limit of the 65 to 75 millimetre range allowed by AS1428.1 (2009). AS3856.1 (2021) has new requirements for portable boarding ramps (Type E ramps), including edge barriers in all instances (refer Clause 7.1(b)). However, this standard is not currently referenced by the Transport Standards and so can be used in an advisory capacity only.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 6.2 Boarding ramps, would remain unchanged and no new guidance material would be issued.

#### 6.2 Boarding ramps

A boarding ramp must comply with AS/NZS3856.1 (1998) *Clause 2.1.8 (b), (c), (f) and (g)*.

This section pertains to conveyances, except dedicated school buses and small aircraft.

## Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include advice for edge barriers on portable boarding ramps.

Specific guidance may include the following:

- Edge barriers on portable boarding ramps are important safety and confidence building features for people who use mobility aids. Portable boarding ramps should therefore have edge barriers on both sides.
- While edge barriers should always be at a safe height above the ramp surface, the recommended 75 millimetre minimum height above the ramp surface of AS3856.1 (2021) should be considered. Dimensions of 65 to 75 millimetres above the ramp surface for kerbs and kerb rails that are required in the built environment might also be considered. Edge barriers may be curved, chamfered or tapered at either end in order to reduce the likelihood of catching ankles, wheelchair footplates or the like as a passenger enters the ramp. Ramp edge barriers should contrast in luminance and colour with the ramp surface.
- Existing portable boarding ramps may not have edge barriers provided they are safe and fit for purpose. These should be replaced by compliant ramps when they reach their end of service life.
- Even though fixed boarding ramps are not covered in this requirement (that is, ramps fixed to infrastructure), the provision of edge barriers should be investigated for feasibility and installed where possible.

## Regulatory options

Transport Standards section 6.2 would be amended to include the following (including any requirements retained or amended from the status quo).

There are three regulatory options for consideration relating to the height of edge barriers. Option 1 is a performance based standard. Option 2 sets a prescriptive requirement for edge barrier heights. Option 3 sets a perspective requirement for edge barrier heights and cites an Australian Standard.

### Option 1

All portable boarding ramps that are not fixed to conveyances **must have vertical edge barriers of a safe height above the ramp surface on both sides**. Edge barriers may be curved, chamfered, or tapered at either end.

### Option 2

All portable boarding ramps that are not fixed to conveyances **must have vertical edge barriers 65 to 75 millimetres above the ramp surface on both sides**. Edge barriers may be curved, chamfered or tapered at either end.

### Option 3

All portable boarding ramps that are not fixed to conveyances **must have vertical edge barriers 75 millimetres above the ramp surface as per AS3856.1 (2021), clause 7.1 (b) on both sides**. Edge barriers may be curved, chamfered, or tapered at either end.

All of the options pertain to buses, (except dedicated school buses), trains, trams and light rail.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated for all three options to include advice for edge barriers on portable boarding ramps.

Specific guidance for all options may include the following:

- Edge barriers on portable boarding ramps are important safety and confidence building features for people who use mobility aids. Portable boarding ramps should therefore have edge barriers on both sides.
- While edge barriers should always be at a safe height above the ramp surface, the recommended 75 millimetre minimum height above the ramp surface of AS3856.1 (2021) might be considered. Dimensions of 65 to 75 millimetres lower range above the ramp surface for kerbs and kerb rails that are required in the built environment might also be considered (this advice relevant to Options 2 and 3 above only). Edge barriers may be curved, chamfered or tapered at either end in order to reduce the likelihood of catching ankles, wheelchair footplates or the like as a passenger enters the ramp. Ramp edge barriers should contrast in luminance and colour with the ramp surface.
- Existing portable boarding ramps may not have edge barriers provided they are safe and fit for purpose. These should be replaced by compliant ramps when they reach their end of service life.
- Even though fixed boarding ramps are not covered in this requirement, the provision of edge barriers should be investigated for feasibility and installed where possible.

## Impact analysis

### Status quo

#### Impacts

- People using mobility aids on public transport would continue to face safety and convenience issues due to insufficient edge barriers on portable boarding ramps.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to operators who deploy ramps that have no edge barrier or an edge barrier of greater than 65 to 75 millimetres as they would be required to update their portable boarding ramp stock depending on the option adopted. Individually, ramps are not expensive. Large scale design, fit-out, modification and subsequent operational costs may be significant.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt best practice guidance for edge barriers on portable boarding ramps. This may hinder the safety and confidence of people with disability to travel on public transport.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.



- People with disability, who use boarding ramps will benefit from greater passenger safety and reduced safety incidents from the protection offered by edge barriers.
- Improved passenger safety and confidence may also increase patronage.

## Regulatory options

### Impacts

- Operators who deploy ramps that have no edge barrier or an edge barrier of greater than 65 to 75 millimetres would be required to update their portable boarding ramp stock depending on the option adopted.
- Updating ramps will incur a cost. Large scale design, fit-out, modification and subsequent operational costs may be significant.

### Benefits

- People who use mobility aids such as walking frames, wheelchairs, crutches, wheelie walkers and scooters, and people travelling with children in prams who use boarding ramps will benefit from increased safety while using portable boarding ramps.
- People with cognitive impairment and low vision may also benefit if using a ramp with contrasting edge barriers. When using a portable boarding ramp, they will benefit from greater safety on the ramp due to the edge barriers.
- Implementation of the regulatory option will also provide consistency across jurisdictions and operators and providers and certainty for passengers on services across public transport.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of safer ferry boarding ramps should improve safety through reducing slips, trips or falls for people with disability
- **Amenity:** Improvements in the ramps should improve confidence when boarding ferries, improving the ease of use and overall experience

- **Accessibility:** This reform should allow new users with mobility related disability to board ferries, with an increased number of people with disabilities using ferries. This benefit would apply to existing users with disability (e.g. mobility, mental health etc.) and users without disability
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, and improved health outcomes.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet transport standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Providing accessibility features that meet transport standards are likely to require financial cost to retrofit existing facilities to meet standards.
- **Monetised compliance costs (administrative):** 0.4
- **Monetised compliance costs (substantive):** 40.8

## Consultation questions

1. What is your preferred option; status quo, non-regulatory or regulatory option 1, 2 or 3? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What is your experience of using portable boarding ramps when boarding or alighting, or providing boarding assistance, from public transport? Please tell us about your experience and whether portable boarding ramps are fit for purpose.

## 41. Boarding ramp and removable gangway definitions

### Issue

The Transport Standards do not differentiate between vehicle boarding ramps and removable gangways. This is despite vehicle boarding ramps operating in a static onshore environment and removable gangways operating in a dynamic marine or riverine environment. Both ferry deck and pontoon boarding points may be rising and falling vertically while the ferry is simultaneously moving laterally.

As a result, removable gangways must be able to maintain two points of contact on moving pontoons and ferry decks. They must also accommodate lateral movement of the ferry to and from the pontoon. This cannot be achieved with a flat boarding ramp. Therefore, a convex profile is required. Removable gangways are a sturdy apparatus that must be of a size and weight that is safe for the deckhand to deploy and is also of a size that is suitable to be stationed on a pontoon.

Removable gangways with convex profiles are standard for most ferry systems. Further, removable gangways are always necessarily longer than the 1520 millimetre maximum permitted by Transport Standards section 6.4 (b) Slope of external boarding ramps. This is necessary to achieve a safe overlap of both decks due to the risk posed by lateral movement of the ferry while berthed.

Passengers are at risk of falling into the water while boarding or alighting if removable gangways do not have bilateral handrails or edge barriers (kerbs) as safety and support features. The risk of both falls and injury are greater for people with disability.

This does not provide accessible public transport access to the varying needs of people with disability on public transport or meet the purpose of the Transport Standards that seek to remove discrimination for people with disability in relation to public transport services.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no guidance material would be issued.

The Transport Standards would continue to be silent on the difference between removable gangways and boarding ramps.

#### Non regulatory option

Guidance would be provided in the Transport Standards Guidelines and / or The Whole Journey Guide to include advice on the distinction between removable gangways and vehicle boarding ramps.

Specific guidance may include the following definitions:

### **Boarding ramps**

Boarding ramps are deployable ramps of flat profile along the length of the access path that bridge the gap between static boarding points and vehicle entrances.

### **Removable gangway**

A gangway may be removable. Removable gangways are deployable ramps of convex profile along the length of the access path equipped with handrails that bridge the gap between pontoon boarding point and ferry decks. Removable gangways require a convex profile to maintain contact with both the vessel deck and pontoon while both may be in motion.

## **Regulatory option**

The Transport Standards would include new definitions for boarding ramps and removable gangways:

### **Boarding ramps**

Boarding ramps are deployable ramps of flat profile along the length of the access path that bridge the gap between static boarding points and vehicle entrances.

### **Removable gangway**

A gangway may be removable. Removable gangways are deployable ramps of convex profile along the length of the access path equipped with handrails that bridge the gap between pontoon boarding point and ferry decks. Removable gangways require a convex profile to maintain contact with both the vessel deck and pontoon while both may be in motion.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements.

## **Impact analysis**

### **Status quo**

#### **Impacts**

- There would continue to be a lack of clarity in regards to the difference between removable gangways and boarding ramps in the Transport Standards. The safety of passengers would not be improved.
- Public transport operators and providers may continue to be unable to comply with the technical requirements.
- People with disability will continue to be at risk of falling into the water while boarding or alighting if removable gangways do not have bilateral handrails or edge barriers (kerbs) as safety and support features.

#### **Benefits**

- No new costs to operators and providers and no additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs would be incurred to upgrade or replace existing ramps that do not meet the guidance.
- Due to the discretionary nature of this option, there is no certainty that operators and providers will change their infrastructure in line with the definitional changes to removable gangways and boarding ramps to improve safety for passengers.
- The technical requirements in the Transport Standards may remain unfit for purpose.

### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- People with disability will experience an improvement in the safety of the devices in service.
- Operators of onshore transport systems will be unaffected as the proposed definition of a boarding ramp would only recognise the use and profile of their current boarding systems.

## Regulatory option

### Impacts

- Operators and providers may incur some cost to audit and upgrade or replace boarding ramps and gangways to meet the new requirements. They may also pay additional maintenance costs.

### Benefits

- People with disability may experience improved safety of the devices in service.
- Operators of onshore transport systems will be unaffected as the proposed definition of a boarding ramp would only recognise the use and profile of their current boarding systems.

### Regulatory impact based on CBA

This reform involves proposed definitional change to the Transport Standards. There are no changes to assets, no costs will be incurred. This reform has been incorporated into the overarching economic assessment but has not been assessed quantitatively in the CBA.

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Would you be supportive of a definitional distinction between boarding ramps and removable gangways? Can you explain why or why not?

## 42. Removable gangway design - ferries

### Issue

There are many existing problems with the Transport Standards requirements for gangways to ferries, including problems with the maximum length, the gradient, and the tripping hazard they can present to people with disability.

The Transport Standards section 6.4 Slope of external boarding ramps, limits removable gangways to a maximum length of 1520 millimetres. However, removable gangways are usually longer than 1520 millimetres to achieve a safe overlap of both decks due to the risk that contact will be lost with one deck and fall at least partly towards the water, posed by lateral movement of the ferry while berthed. The broad overlap is therefore an important safety measure where decks can move away from each other. Removable gangway length is ultimately limited by occupational health and safety considerations and should not require Transport Standards specification. Removable gangways are a sturdy apparatus that must be of a size and weight that is safe for the deckhand to deploy, of a size that is suitable to be stationed on a pontoon, and large enough to be safe for deckhands and passengers.

The Transport Standards require only continuous gradients rather than gradients that vary along a curve. The reason being that vehicle boarding ramps are of a linear rather than a curved profile. Gangways are curved without exception for operational safety reasons, therefore the gradient varies along the curve. This is technically a noncompliance for operators and providers against Transport Standards section 6.2 Boarding ramps.

Removable gangways that do not maintain two points of contact between moving decks (i.e. moving pontoon and ferry decks) or accommodate lateral movement of the ferry to and from the pontoon can cause a tripping hazard of variable height at the edge where contact is lost. Two points of contact cannot be achieved with a flat boarding ramp. Failure to accommodate lateral movements can result in the gangway and passengers falling into or towards the water. This can occur if wash or wave pushes the ferry towards the pontoon, and backwash then pulls it away. Big overlaps of the contact points are a safety imperative. This does not provide access for the varying needs of people with disability on public transport or meet the purpose of the Transport Standards that seek to remove discrimination for people with disability in relation to public transport services.

Removable gangways without bilateral handrails and edge barriers (kerbs) present a risk of a passengers, particularly those using mobility aids, falling into the water while boarding or alighting.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee.

Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 6.2 Boarding ramps, would remain unchanged and no guidance material would be issued.

## 6.2 Boarding ramps

A boarding ramp must comply with AS/NZS3856.1 (1998) *Clause 2.1.8 (b), (c), (f) and (g)*.

This section pertains to conveyances except dedicated school buses and small aircraft.

### Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include advice on removable gangways.

Specific guidance may include the following:

- Removable gangways should be constructed in accordance with the National Standard for Commercial Vessels (NSCV), *Part C: Design and construction, section 1 Arrangement, accommodation and personal safety, Chapter 6.16.3, Gangways*. Additional advice below will enhance the accessibility of the removable gangway design.
- Removable gangways must be able to maintain two points of contact on moving pontoon and ferry decks. They must also accommodate lateral movement of the ferry to and from the pontoon. A convex profile is required and removable gangways with convex profiles are standard for most ferry systems.
- Removable gangway should have a 50 to 75 millimetre strip on the gangway's leading edges, should provide a luminance contrast in wet and dry conditions with the surfaces on which they are deployed by at least 30 per cent. Luminance contrast of more than 45 per cent, such as 60 per cent, is preferable.
- To minimise the risk of a passenger falling into the water while boarding or alighting, removable gangways should have bilateral handrails and edge barriers (kerbs) as safety and support features. Handrails should have a consistent finish across the entire length and have a luminance contrast in wet and dry conditions with the pontoon and ferry deck by at least 30 per cent. Luminance contrast of more than 45 per cent, such as 60 per cent, is preferable.
- Where possible, removable gangways should exceed a minimum 800 millimetre clear width between handrails. Any extra width must be balanced against occupational health and safety concerns that the weight added to the structure introduce. However, even modest increases in clear width will enhance the accessibility of the removable gangway for passengers using mobility aids.
- To ensure independent access, the gradient along the curve of the removable gangway should not exceed 1:8 at any point when the gangway is deployed for boarding and alighting. If gradient on the curve exceeds 1:8 then assisted access should be available. Gangways may be articulated to achieve the 1:8 maximum gradient over the curve.
- Removable gangways must be long enough to achieve a safe overlap on both decks due to the risk posed by lateral movement of the ferry while berthed. Removable gangway length is ultimately limited by occupational health and safety considerations. Removable gangways are a sturdy apparatus that must be of a size and weight that is safe for the deckhand to deploy and is suitable to be stationed on a pontoon or ferry.

### Regulatory option

Transport Standards section 6.2 would be amended to include the following (including any requirements retained or amended from the status quo):

- Removable gangways must comply with the National Standard for Commercial Vessels (NSCV), *Part C: Design and construction, section 1 Arrangement, accommodation and personal safety, Chapter 6.16.3, Gangways*.
- Removable gangways may be convex in profile:

- For unassisted access, no part of the curve should exceed a gradient of 1:8 while the removable gangway is deployed.
- If gradient on the curve exceeds 1:8 then assisted access must be available.
- Gangways may be articulated to achieve the 1:8 maximum gradient over the curve.
- Removable gangways must have a 50 to 75 millimetre strip on the gangway's leading edges, must provide a luminance contrast with the surfaces on which they are deployed by at least 30 percent. Luminance contrast of more than 45 per cent, such as 60 per cent, is preferable.
- Removable gangways must have handrails both sides and at least 800 millimetres clear width between handrails, with a greater width preferred if safe and practicable.
- Handrails must comply with AS1428.1 (2009), *Design for access and mobility, Clause 12 (b)* with a preference for handrail diameter in the 30 to 40 millimetre range.

These requirements would pertain to ferries and pontoon wharves.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include advice on removable gangways.

Specific guidance would include the following:

- Removable gangways must be able to maintain two points of contact on moving pontoon and ferry decks. They must also accommodate lateral movement of the ferry to and from the pontoon. A convex profile is required and removable gangways with convex profiles are standard for most ferry systems. To ensure independent access, the gradient along the curve of the removable gangway should not exceed 1:8 at any point when the gangway is deployed for boarding and alighting.
- To minimise the risk of a passenger falling into the water while boarding or alighting, removable gangways should have bilateral handrails and edge barriers (kerbs) as safety and support features.
- Removable gangways must be long enough to achieve a safe overlap on both decks due to the risk posed by lateral movement of the ferry while berthed. Removable gangway length is ultimately limited by occupational health and safety considerations. Removable gangways are a sturdy apparatus that must be of a size and weight that is safe for the deckhand to deploy and is also of a size that is suitable to be stationed on a pontoon or ferry.
- Where possible, removable gangways should exceed the minimum 800 millimetre clear width between handrails. Any extra width must be balanced against the weight added to the structure, but even modest increases in clear width will enhance the accessibility of the removable gangway for passengers using mobility aids.

## Impact analysis

### Status quo

#### Impacts

- The safety and convenience of passengers who use mobility aids whilst boarding and alighting from a vessel would not be improved.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.



## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs would be incurred to meet the new requirements, including installing or replacing handrails, installing contrasting strips at the entry points of the gangway and contrasting handrails. Operators whose gangways already have these features will be unaffected.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt guidance on removable gangways. The safety concerns for people with disability will remain where guidance is not adopted.

### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Accessibility of the removable gangways will be improved for people with disability. Handrails and leading edges with improved luminance contrast will enhance safety for all passengers, particularly those with vision impairment. This may also improve passenger confidence and increase patronage and reduce incidents such as slips, trips and falls.

## Regulatory option

### Impacts

- Most if not all ferry operators will be using removable gangways so cost implications will be minimal, except where gangways are used that do not meet the new requirements. Some extra costs on the standard product may be imposed by the need to have contrasting strips at the entry points to the gangway and contrasting handrails. Operators whose gangways already have these features will be unaffected.

### Benefits

- By defining removable gangways distinct from boarding ramps, currently safe and fit for purpose gangways would be made compliant with the Transport Standards.
- Implementation of the regulatory option will improve unassisted access and accessibility of for people with disability on removable gangways. Installing luminance contrasting handrails and leading edges will enhance safety for vision impairment. This may also improve passenger confidence, increase patronage and reduce incidents such as slips, trips and falls.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of safer ferry boarding ramps will improve safety through reducing slips, trips or falls.
- **Amenity:** Improvements in the ramps will improve confidence when boarding ferries, improving the ease of use and overall experience.
- **Accessibility:** This reform should allow new users with mobility related disability to board ferries, with an increased number of people with disabilities using ferries. This benefit would apply to existing users with disability (e.g. mobility, mental health etc.) and users without disability.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, and improved health outcomes.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Providing accessibility features that meet Transport Standards are likely to require financial cost to retrofit existing facilities to meet standards.
- **Monetised compliance costs (administrative):** 0.2
- **Monetised compliance costs (substantive):** 0.6

## Consultation questions

1. To what extent does the issue impact you?
2. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
3. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
5. What experience do you have boarding ferries, or providing boarding assistance, via removable gangways? Are removable gangways easily accessible?
  - a. Do you feel safe while boarding ferries via removable gangways? Please explain your circumstance and experience.

## 43. Nominated assistance boarding points

### Issue

Areas for accessing public transport conveyances, such as a train platform, can be large, long, and crowded. This can make it difficult for people with disability to know where to go to seek direct assistance for boarding, the provision of a boarding ramp, direction to accessible facilities or to seek information. Further, public transport employees need to know where people with disability requiring direct assistance might be located. There are a number of challenges to independent access in rail environments, which can mean that direct assistance is required for customers seeking to board a conveyance. To address these challenges, a range of operational procedures have been adopted across jurisdictions to provide direct assistance. Further, when developing procedures for passenger assistance, occupational health and safety considerations such as manual handling of luggage, and operational requirements such as the need to ensure driver cabins are locked, are taken into consideration.

These challenges can lead to passengers that require direct assistance not receiving assistance in a timely manner, potentially resulting in them being rushed or not boarding in time. This problem is compounded with rail stations which are not staffed. In those situations, people with disability fully rely on the driver, guard or conductor to identify a passenger who requires direct assistance.

Many operators and providers already provide an assistance point at a designated location on train platforms where people using mobility devices or with mobility assistance needs, or people with luggage or prams, can seek direct assistance from a public transport employee. However, these assistance points are not mandatory, and their identification and location on the platform can differ from jurisdiction to jurisdiction.

Rail operators and providers in different jurisdictions have different procedures for providing and deploying a boarding ramp depending on their network, the station, the conveyance, the type of ramp and staffing structures. In addition, other modes such as buses experience operational and technical constraints that rely on front door boarding to facilitate safe access into the conveyance.

As part of any proposed changes, existing requirements under Transport Standards section 8.2 When boarding devices must be provided, should not be diminished, that is, a boarding device must be available at any accessible entrance to a conveyance.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 8.2 When boarding devices must be provided, and 8.8 Notification by passengers of need for boarding device, would remain unchanged and no new guidance would be issued.

#### **8.2 When boarding devices must be provided**

- (1) A manual or power assisted boarding device must be available at any accessible entrance to a conveyance that has:
  - (a) a vertical rise or gap exceeding 12 mm (AS/NZS3856.1 (1998) *Clause 2.1.7 (f)*); or
  - (b) a horizontal gap exceeding 40 mm (AS/NZS3856.1 (1998) *Clause 2.1.8 (g)*).

This section pertains to conveyances, (except dedicated school buses) and small aircraft.

### **8.8 Notification by passenger of need for boarding device**

- (1) It must be possible for a passenger to notify the operator of a conveyance that he or she needs a boarding device to board or alight from a conveyance.
- (2) If a request signal device is used, it may be located on the conveyance or at the boarding point according to the dimensions given in AS1428.2 (1992) *Clause 11.4, Call buttons*.

This section pertains to the following conveyances: buses, except dedicated school buses, coaches, ferries, trains, trams and light rail, as well as premises, and infrastructure, except airports that do not accept regular public transport services.

## **Non regulatory option**

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice concerning requirements for assistance points to facilitate boarding. The guidance would encourage operators and providers to provide independent boarding where possible.

Specific guidance may include:

- Where independent boarding cannot be provided:
  - Public transport operators and providers may provide a nominated assistance point on infrastructure and premises, from which direct assistance can be provided to an accessible door on a conveyance.
  - Direct assistance procedures (including how to assist moving passengers from the nominated assistance point to an accessible door on a conveyance) should be informed through consultation with people with disability. Passengers at the nominated assistance point should be able to communicate with public transport staff (whether by face-to-face or by means of a communication device).
- Operators and providers should adopt solutions that:
  - Are operator and provider agnostic and mode agnostic (choosing whichever mode gets you to your destination via the fastest, most efficient or most direct route, depending on preference).
  - Seek to achieve equivalency to the greatest extent possible for amenity and access to facilities from the assistance point (e.g. provision of information, shelter).
  - Seek to consider future modification and innovations while offering a consistent customer outcome regardless of operational and staff changes.
  - Acknowledge the importance of staff training which includes knowing the correct boarding procedures and options available for customer requiring direct assistance.
  - Clarify the nominated assistance point does not need to be co-located where you board a conveyance. Rather it is where you can talk to staff about boarding and get information and assistance with boarding.
  - Ensure the nominated assistance point is clearly identified by a symbol and tactile element.
  - Ensure the nominated assistance point is located in an area that is easily accessed in terms of amenity and dignity, and easily identified by people with disability.

- Reference case studies of how operators and providers provide a nominated assistance point.

## Regulatory options

The Transport Standards would be amended to include new requirements for nominated assistance points. There are two regulatory options for consideration relating to the provision of nominated assistance points. Option 1 would introduce a new section for nominated assistance points. Option 2 would amend section 8.8 Notification by passengers of need for boarding device for nominated assistance points.

### Option 1

The Transport Standards would be amended to include the following new requirements:

- Independent boarding should be provided at all accessible entrances to a conveyance, noting that some entrances will only become accessible upon the deployment of a boarding device in accordance with Transport Standards section 8.2, When boarding devices must be provided.
- Where independent boarding is not provided:
  - Operators and providers may provide a nominated assistance point on infrastructure and premises from which direct assistance can be provided to an accessible door on a conveyance.
  - Direct assistance procedures including how to assist moving passengers from the nominated assistance point to an accessible door on a conveyance must be informed through consultation with people with disability. Passengers at the nominated assistance point must be able to communicate with public transport staff (whether by face-to-face or by means of a communication device).
- There are five sub-options on how to define an accessible door.

Where a door on a conveyance is marked as being accessible, it must have:

#### Sub-option 1

Access to a seat.

#### Sub-option 2

Access to a priority seat.

#### Sub-option 3

Access to an allocated space.

#### Sub-option 4

Access to other accessible facilities, such as an accessible toilet, where available.

#### Sub-option 5

All of the above.

### Option 2

Transport Standards section 8.8 Notification by passengers of need for boarding device, would be amended to include the following requirements:

- It must be possible for a passenger waiting to board a conveyance to notify the operator that he or she needs a boarding device.
- If a request signal device is used, it may be located on the conveyance or at the boarding point according to the dimensions given in AS1428.2 (1992), *Design for access and mobility, Part 2: Enhanced and additional requirements - Buildings and facilities, Clause 11.4, Call buttons*.
- Operators and providers may choose to designate a nominated assistance point for a passenger to request direct assistance at the boarding point. The nominated assistance point must be located on or adjacent to an access path.

These requirements would apply to buses (except dedicated school buses), coaches, ferries, trains, trams, light rail, premises and infrastructure (except airports that do not accept regular public transport services).

Any proposed option will need to consider interactions with other relevant parts of the Transport Standards, such as consolidation of on-board facilities.

Amendments to section 8.8 are also being considered in chapter 40, notification by passenger of need for boarding device as there are overlaps between the reform issues.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect the new requirements and provide advice for operators and providers to provide solutions that:

- are operator and provider agnostic and mode agnostic
- seek to achieve equivalency to the greatest extent possible for amenity and access to facilities from the assistance point (e.g. provision of information, shelter)
- seek to consider future modification and innovations while offering a consistent outcome for passengers regardless of operational and staff changes
- acknowledge the importance of staff training which includes knowing the correct boarding procedures and options available for passengers requiring direct assistance.
- clarify the nominated assistance point does not need to be co-located where a passenger boards a conveyance, it is where passengers can talk to staff about boarding, get information and assistance with boarding
- ensure the nominated assistance point is clearly identified by a symbol and tactile element.
- ensure that the nominated assistance point is located in an area that is easily accessed, in terms of amenity and dignity, and easily identified by passengers who have disability
- reference case studies of how operators and providers provide a nominated assistance point.

## Impact analysis

### Status quo

#### Impacts

- There would continue to be a lack of clarity about where and how passengers can seek timely boarding assistance, the provision of a boarding ramp, direction to accessible facilities and where to receive information. This would continue to impact passenger's ability to board on time.
- A lack of clarity would continue concerning what constitutes an accessible door.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs to public transport operators and providers would be mainly associated with providing signage and / or markings on a platform identifying an assistance point, as well as updating existing website and passenger information, for example journey planning and wayfinding material.
- Costs would also be incurred for undertaking consultation with people with disability to develop appropriate direct assistance boarding procedures. Staff training would also be required to build an understanding of the direct boarding assistance procedures.
- Public communication may also be required to build community understanding of direct boarding procedures and where to access the assistance point.
- These costs would depend on the current procedures and organisational capability and would most likely be once-off.

### Benefits

- To the extent that guidance is followed, a single information point where passengers can obtain advice and information from a public transport employee when independent boarding is not possible for conveyances would provide clarity about boarding assistance, the provision of a boarding ramp or other boarding assistance, direction to accessible facilities, and to seek information from staff.
- Equipping passengers with the necessary information to make informed travel decisions and receive boarding assistance will ensure passengers can access the support and information they need to complete their journey with safety, confidence, and dignity.
- Consistent identification or boarding points and use of terminology across jurisdiction and modes will benefit passengers and public transport operators and providers alike. Passengers will benefit from enhanced consistency between modes, networks, and jurisdictions. Improved understanding of where to seek / provide information and direct assistance would enhance passenger confidence to travel and experience which may increase patronage.
- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Costs to public transport operators and providers would be mainly associated with providing signage and/or markings on a platform identifying an assistance point, as well as updating existing website and passenger information, for example journey planning, and wayfinding material.
- Costs would also be incurred for carrying consultation with people with disability to develop appropriate direct boarding procedures. Staff training would also be required to build an understanding of the direct boarding assistance procedures. Public communication may also be required to build community understanding of direct boarding procedures and where to access the assistance point. These costs would depend on the current procedures and organisational capability and would most likely be once-off.
- Operators and providers will incur costs to audit and identify accessible doors based on the definition of accessible door chosen.



- Operators and providers may incur costs to update existing websites and passenger information, for example journey planning, and wayfinding material.

## Benefits

- A single information point where passengers can obtain information from a public transport employee when independent boarding is not possible, would provide clarity about boarding assistance, the provision of a boarding ramp or other boarding assistance, direction to accessible facilities, and to seek information from staff.
- Equipping passengers with the necessary information to make informed travel decisions and receive boarding assistance would ensure passengers can access the support and information they need to complete their journey with safety, confidence, and dignity.
- Consistent identification or boarding points and use of terminology across jurisdiction and modes will benefit passengers and public transport operators and providers alike. Passengers will benefit from enhanced consistency between modes, networks, and jurisdictions. Improved understanding of where to seek / provide information and direct assistance would enhance passenger confidence to travel and experience which may increase patronage.
- Benefits of the sub options would be that it allows passengers and staff to identify which doors connect to accessible on-board facilities.

## CBA of regulatory options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Option 1

#### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of designated areas where people with disability can request assistance should improve ease of access to public transport services and increase safety.
- **Amenity:** Provision of designated areas where people with disability can request assistance should improve the experience for those with disability.
- **Accessibility:** This reform may reduce inconvenience for existing users (i.e. through travel time / effort saved) and attracts new public transport users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, improved access to services, and improved health outcomes.

#### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.

- **Qualitative compliance costs (substantive):** There would be financial costs associated with potentially extra staff or training accruing to public transport operators and providers.
- **Monetised compliance costs (administrative):** 1.3
- **Monetised compliance costs (substantive):** 10.1

## Option 2

### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of designated areas where people with disability can request assistance should improve ease of access to public transport services and increase safety.
- **Amenity:** Provision of designated areas where people with disability can request assistance should improve the experience for those with disability.
- **Accessibility:** This reform may reduce inconvenience for existing users (i.e. through travel time / effort saved) and attracts new public transport users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, improved access to services, and improved health outcomes.

These benefits will only be realised if operators and providers choose to designate a nominated assistance point.

### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** There would be financial costs associated with potentially extra staff or training accruing to public transport operators and providers. This cost will only be realised if the operators and providers choose to designate a nominated assistance point.
- **Monetised compliance costs (administrative):** 1.3
- **Monetised compliance costs (substantive):** 88.8

## Consultation questions

1. To what extent does the issue impact you?
2. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
3. Of the sub options in regulatory option 1, which of the proposed list of facilities should be identified or marked as accessible?
4. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
5. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
6. What does the International Symbol of Accessibility mean to you when you see it marked on a conveyance door?

## 44. Identification of lead stops

### Issue

The Transport Standards have no technical specifications for how people with disability can identify lead stops at bus stations, bus interchanges and bus zones. A lead stop is a bus stop which is designed to have a single platform boarding point for passengers where buses queue behind each other as opposed to independent designated stops for different services. Lead stop situations are typical for bus stops with a high frequency of services passing through and are designed to reduce dwell times.

Lead stops have been highlighted by people with disability as problematic when it comes to service recognition, moving to the right location on the platform and hailing the driver<sup>27</sup>. If people with disability are unable to identify the appropriate boarding area at a lead stop, they may miss their service or be unable to effectively signal to the driver. Additionally, if passengers are waiting in an area that is not appropriate such as a thoroughfare or where buses do not stop, this may create a safety risk for the passenger.

A bus station, interchange or zone may have one or several lead stops, usually at the departure end of the platform or zones, at which buses queue and passengers' board. Bus stations, interchanges and zones vary in size and capacity. If a facility has multiple lead stops, passengers may not be able to identify the lead stop, or identify the lead stop at which their service will stop.

Bus stations and bus zones may also have multiple, unidentified independent stops distinct from the lead stop where buses can pull up and load at whichever bays are available. At peak times lead stop zones will often revert to independent stop zones to accommodate the volume of services arriving.

An independent stop is a type of bus stop which is designed for a particular set of pre-designated services. Independent stops are characterised by individually laid out platforms with designated stopping areas for buses. This is in contrast to a lead stop set-up which features one stop along a platform which all buses pull up to if servicing the stop or station.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

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<sup>27</sup> Australian Government Department of Infrastructure, Transport, Regional Development and Communications, *The Whole Journey Guide*, 22 December 2021, [https://www.infrastructure.gov.au/sites/default/files/migrated/transport/disabilities/whole-journey/files/whole\\_of\\_journey\\_guide.pdf](https://www.infrastructure.gov.au/sites/default/files/migrated/transport/disabilities/whole-journey/files/whole_of_journey_guide.pdf)

## Policy options

### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

The Transport Standards would continue to have no requirements for lead stop identification. People with disability will continue to have difficulty with service recognition at bus stations, bus interchange or bus zones.

### Non regulatory option

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice on technical specifications for how people with disability are able to identify lead stops at bus stations, bus interchanges and bus zones.

Specific guidance may include the following:

- A lead stop is a bus stop which is designed to have a single platform boarding point for passengers. Buses queue behind each other at lead stops as opposed to independent designated stops for different services. Lead stops are typical for bus stops with a high frequency of services passing through and are designed to reduce dwell times.
- Lead stops should be clearly identifiable by people with disability. If a bus station, interchange or zone has multiple lead stops, each should be identifiable and distinguishable from the others.
- Lead stops offer an effective means for passengers who have mobility, vision or cognitive impairments to board their bus at locations where multiple buses might be standing at the kerbside. The bus will come to the waiting passenger as opposed to the passenger having to locate their bus.
- Having a clearly identifiable lead stop will permit passengers to wait for their service in the correct location. This may be achieved by using a combination of cues including but not limited to overhead and tactile signs, tactile ground surface indicators and smartphone wayfinding or other electronic device solutions. Customer liaison officers should also be considered at times of peak crowding to assist people with disability locate the lead stop.
- When providing lead stop solutions, bus operation aspects should be coordinated with the overall service, including clearly identifying the lead stop boarding point. The training of bus drivers to understand the requirements and why lead stop arrangements promote accessible boarding is encouraged.

### Regulatory option

The Transport Standards would include new requirements for lead stop identification at bus stations, bus interchanges and bus zones.

The Transport Standards would be updated to include the following new requirements:

- Where passengers board at a lead stop, the lead stop must be clearly identifiable by people with disability. If a bus station, interchange or zones has multiple lead stops each must be identifiable and distinguishable from the others.

These new requirements would apply to bus stations in premises and bus zones and interchanges as part of public transport infrastructure.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect the new requirements.

Specific guidance may include the following:

- A lead stop is a bus stop which is designed to have a single platform boarding point for passengers. Buses queue behind each other at lead stops as opposed to independent designated stops for different services. Lead stops are typical for bus stops with a high frequency of services passing through and are designed to reduce dwell times.
- Lead stops should be clearly identifiable by people with disability. If a bus station, interchange or zone has multiple lead stops, each should be identifiable and distinguishable from the others.
- Lead stops offer an effective means for passengers who have mobility, vision or cognitive impairments to board their bus at locations where multiple buses might be standing at the kerbside. The bus will come to the waiting passenger as opposed to the passenger having to locate their bus.
- Having a clearly identifiable lead stop will permit passengers to wait for their service in the correct location. This may be achieved using a combination of cues including but not limited to overhead and tactile signs, TGSIs and smartphone wayfinding or other electronic device solutions. Customer liaison officers should also be considered at times of peak crowding to assist people with disability locate the lead stop.
- When providing lead stop solutions, bus operation aspects should be coordinated with the overall service, including clearly identifying the lead stop boarding point. The training of bus drivers to understand the requirements and why lead stop arrangements promote accessible boarding is encouraged.

## Impact analysis

### Status quo

#### Impacts

- People with disability would continue to struggle with service recognition at bus stations, bus interchanges and bus zones.
- The safety and accessibility issues for passengers will remain and people with disability may be unable to travel independently.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred by operators and providers to ensure passengers, particularly people with disability, can identify lead stops. Depending on the method used, costs may include:
  - Installation of locational cues and maintenance.
  - Battery operated beacons.
  - Identifying lead stops on bus stations, bus interchanges or bus zones.

- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the new requirements which may not lead to increased accessibility of bus services.

### **Benefits**

- To the extent that guidance is followed, people who have mobility, vision or cognitive disabilities may benefit from having multiple channels through which the lead stop can be identified. Operators may benefit from more efficient boarding due to passengers waiting at the correct lead stop.
- Less direct assistance would be required if people with disability can more easily locate themselves at the correct boarding location.
- Implementation costs will only be incurred, and benefits achieved, to the level that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## **Regulatory option**

### **Impacts**

- A small cost will be incurred to install and maintain locational cues. Battery operated beacons may need to be replaced after several years of service but are not expensive. However, if installed on large numbers, the cost may escalate.
- Impact on operators and providers of installing multiple means of identifying lead stops on their bus stations, bus interchanges or bus zones is therefore likely to be modest in many circumstances, except where a large-scale roll-out is required.

### **Benefits**

- People who have mobility, vision or cognitive disabilities will benefit by being able to locate the appropriate boarding area of a lead stop which improves confidence to independently travel. Safety of passengers will also improve by reducing the risk of waiting in an unsafe location and reducing time of travel.
- Operators may benefit from more efficient boarding due to passengers waiting at the correct lead stop.
- Less direct assistance may be required if people with disability can more easily locate themselves at the correct boarding location.

### **CBA of regulatory option**

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of lead stops and improved identification should increase ease of boarding and alighting conveyances and improve the safety of boarding or alighting buses.
- **Amenity:** Not applicable.
- **Accessibility:** This reform should improve the experience for all public transport users and attract new users with disability to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, and improved health outcomes.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** There will be costs incurred to existing assets which do not comply, reflecting the financial cost of upgrade existing stops to include a combination of tactile and visual indicators, help phones with braille signs and potential minor demolition / alteration works.
- **Monetised compliance costs (administrative):** 0.6
- **Monetised compliance costs (substantive):** 8.8

## Consultation questions

1. To what extent does the issue impact you?
2. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
3. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
5. Were you aware that some bus stations, interchanges or zones have a 'lead stop' arrangement at which you board? If so, how were you made aware of this arrangement?



## 45. Pontoon boarding points on infrastructure

### Issue

Transport Standards section 8.1 Boarding points and kerbs, requires boarding points to have a firm and level surface to which a boarding device can be deployed. This cannot be achieved in a marine environment as pontoons are subject to wind, wave and wash, they are not always a completely stable boarding point. While some movement is unavoidable, it is important to design pontoons that minimise the movement caused by wash, wave and wind action. The Transport Standards should acknowledge this and require a necessary level of stability during operational conditions and define firm and level within the marine context.

Ferries of significantly different freeboard must occasionally use the same pontoon. Freeboard is the distance between a still water surface and a deck and it will vary according to the loads placed on the pontoon or the ferry. This could result in steep gangplank gradients if the grade separation between pontoons and ferry decks is great. Grade separated boarding points or a means of adjusting pontoon freeboard will prevent excessive gangplank gradients and ensure people with disability can access ferries independently.

AS3962 (2020) *Marina design* (AS3962 (2020)) specifies stability criteria for floating structures. AS3962 (2020), section 4 specifies requirements for loading and stability, applicable to the non-regulatory and regulatory options proposed below.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no requirements concerning pontoon boarding points would be added.

#### Non regulatory option

The Whole Journey Guide and /or the Transport Standards Guidelines would be updated to include advice on pontoon boarding points, to ensure they have maximum stability and lowest possible gradients in their operating environment.

Specific guidance may include the following:

- Pontoons should have a flat and stable surface to which a removable gangway or other boarding device can be deployed.
- Ferry pontoon design should minimise vertical, horizontal and rocking movement of the boarding point. AS3962 (2020) *Marina Design, section 4 Loading and stability* should be consulted as a means to maximise pontoon stability.
- Pontoons are unique boarding points in that they are floating structures subject to dynamic and variable forces. This makes absolute stability, which is achievable on a bus stop slab or

rail platform, difficult to design for. As such, a design that provides safe and functional pontoon stability site by site should be achieved.

- Ferries of significantly different freeboard must often use the same pontoon. This can mean steep removable gangway gradients if the grade separation between pontoon and ferry decks is significant.
- For independent access, gradients along the removable gangway must not exceed 1:8. Gradients steeper than this may require the need for direct assistance by staff.
- Grade separated boarding points, options of removable gangways with varying lengths or a means of adjusting pontoon freeboard could be considered as ways to address the issue of excessive removable gangway gradient.

## Regulatory option

The Transport Standards would be amended to provide requirements for pontoon boarding points to ensure they have maximum stability and lowest possible gradients in their operating environment.

The Transport Standards would include the following new requirements:

- Pontoons must have a flat and stable surface to which a removable gangway or other boarding device can be deployed.
- Ferry pontoon design must minimise vertical, horizontal and rocking movement of the boarding point as per AS3962 (2020) *Marina Design, section 4 Loading and stability*.

The Transport Standards Guidelines and / or the Whole Journey Guide would be updated to reflect the new requirements and include specific guidance for pontoon wharves.

Specific guidance would include the following:

- Pontoons are unique boarding points in that they are floating structures subject to dynamic and variable forces. This makes absolute stability, which is achievable on a bus stop slab or rail platform, difficult to design for. As such, a design that provides safe and functional pontoon stability, site by site, should be achieved.
- Ferries of significantly different freeboard must often use the same pontoon. This can mean steep removable gangway gradients if the grade separation between pontoon and ferry decks is significant.
- Grade separated boarding points, options of removable gangways with varying lengths or a means of adjusting pontoon freeboard could be considered as ways to address the issue of excessive removable gangway gradient.

## Impact analysis

### Status quo

#### Impacts

- Pontoon stability requirements would continue to be unfit for purpose.
- Safety issues may arise if operators and providers comply with the existing requirements.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, for new pontoons, having grade separated boarding points, choice of gangplanks of appropriate length or the capacity to alter freeboard would add moderately to project costs.
- Retrofitting existing pontoons will incur costs. It is possible that pontoons that do not meet the requirement of AS3962 (2020) will need to be upgraded as a matter of public safety regardless of the requirements under the Transport Standards.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the new requirements which may not lead to improved accessibility and safety for passengers in relation to pontoons.

### Benefits

- Benefits will be achieved to the extent that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Minimising pontoon movement will benefit people with disability through improved safety and confidence to travel. These benefits will also positively impact the general travelling public.

## Regulatory option

### Impacts

- For new pontoons, having grade separated boarding points, choice of gangplanks of appropriate length or the capacity to alter freeboard would incur costs.
- Retrofitting existing pontoons is likely to involve high costs. Whilst unjustifiable hardship provisions may be relevant in some situations, it is also possible that pontoons that do not meet AS3962 (2020) will need to be upgraded as a matter of public safety, regardless of requirements in the Transport Standards.

### Benefits

- Minimising pontoon movement and gradients will benefit people with disability through improved safety and confidence to travel. People with disability will be less likely to experience falls and other safety hazards.
- These benefits will also positively impact the general travelling public.
- Operators and providers will have requirements that are fit for purpose and technically feasible for pontoon stability.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

The CBA for this reform provides a cumulative costing of the following reform areas:

- Pontoon boarding points on infrastructure
- Bus, tram and light rail boarding points on infrastructure
- Hail-and-ride boarding points on infrastructure

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Specific requirements for boarding points of infrastructure should improve safety for users with disability by reducing slips, falls and trips.
- **Amenity:** Not applicable.
- **Accessibility:** This reform can improve the experience for all public transport users and attract new users with disability to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, and improved health outcomes.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Upgrades to boarding points to ensure alignment with standards will incur financial cost to upgrade existing assets to boarding points that meet requirements.
- **Monetised compliance costs (administrative):** 1.0
- **Monetised compliance costs (substantive):** 486.4

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you ever felt unsteady on a ferry pontoon? If so, how could this have been prevented or improved?
  - a. How would a more stable boarding environment at ferry pontoons impact your safety and confidence to travel?
5. In your experience as a passenger or as an operator / provider, what generally causes ferry pontoons to be unstable during boarding and alighting?

## 46. Bus, tram and light rail boarding points on infrastructure

### Issue

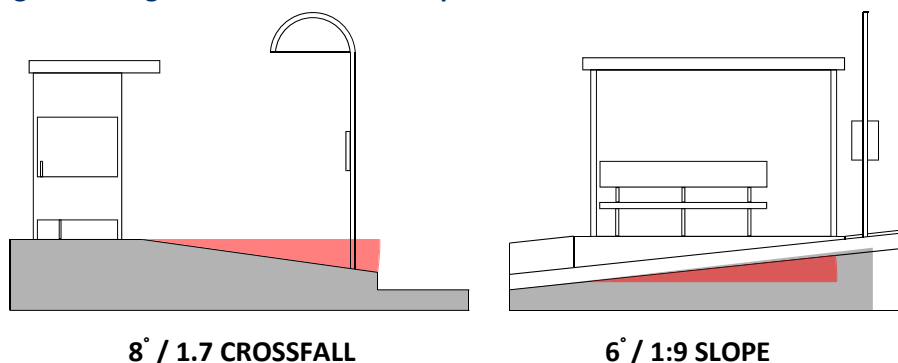
Boarding points for bus, tram and light rail do not have explicit gradient and crossfall requirements in the Transport Standards. Transport Standards section 8.1 Boarding points and kerbs, requires that boarding points have a 'firm and level surface to which boarding device can be deployed'. What constitutes 'level' is not strictly defined for bus, tram and light rail boarding points by the Transport Standards.

The AHRC Guideline for promoting compliance of bus stops with the Disability Standards for Accessible Public Transport 2002, provides basic information necessary to assess the compliance status of a bus stop<sup>28</sup>. However, operators and providers may benefit from unambiguous requirements for bus, tram and light rail boarding points articulated in the Transport Standards. AS1428.1 (2009) *Design for access and mobility*, has clear specifications for what constitutes 'firm and level' on various surfaces and its specification are referenced by the Premises Standards.

Bus, tram and light rail boarding points are often located in or beside road reserves. They may also be in rail reserves, on property associated with rail stations such as car park, or other parts of the public realm. These locations may be space constrained or topographically challenged and have little room for significant civil engineering works, these challenges include the longitudinal gradient and crossfall of the site, and underground services such as electrical cable, service pits, gas or water mains and so on. A less common issue is where an on-street bicycle path passes through a tram stop or a shared pathway passes through a bus stop. This can introduce conflicting technical requirements between the boarding point and the pathway. This should be addressed in the Transport Standards with direction given on how to progress an upgrade or new installation in challenging situations.

Longitudinal gradient is the slope along the kerb face or platform edge. Crossfall is the slope across the boarding point falling towards or away from the kerb face or platform edge.

**Figure 2: Diagram of crossfall and slope**



<sup>28</sup> AHRC, Guideline for promoting compliance of bus stops with the Disability Standards for Accessible Public Transport 2002, 22 December 2021, <https://humanrights.gov.au/our-work/disability-rights/australian-human-rights-commission-accessible-bus-stops-guidelines>

Longitudinal gradient (slope) is not easily altered as to do so may put the slab or platform at a significantly different angle to a boarding ramp or accessible entrance. If this occurs an unacceptable vertical gap may be introduced at the entrance, or only one corner of the boarding ramp may be in contact with the slab or platform surface. This transfers the access issue from the boarding point to the boarding ramp or conveyance's accessible entrance.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

The Transport Standards would remain unchanged and no additional guidance would be issued.

The Transport Standards would continue to not have requirements for bus, tram and light rail boarding points to ensure they are accessible for people with disability.

### Non regulatory option

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice on bus, tram and light rail boarding points.

Specific guidance may include the following:

- Boarding points on bus, tram and light rail stops, except for bitumen surfaces, should have a flat and stable surface to which a boarding device can be safely deployed and should have a gradient and camber (crossfall) no steeper than 1:40. The gradient and camber (crossfall) of a bitumen boarding point should be no steeper than 1:33.
- The extent of the boarding point on a bus or tram stop, bus interchange or bus station or light rail station platform varies with the layout of the infrastructure. Broadly, it includes the area in which boarding devices must be deployed, and in which people must manoeuvre to enter the boarding device or conveyance door. It would not include any waiting area with seats and or shelter that may have been provided at the stop or platform.
- For a number of bus and tram stops and some light rail stations there will be locations (i.e. hilly areas, road reserves or other public areas that have limited space) where a compliant boarding point via either a prescriptive or equivalent access solution will not be achievable.
- While crossfall can often be dealt with through excavation and retention work, gradient is constrained by road gradient. Gradients of boarding points and roads will need to closely align as any difference between the gradient of the boarding point and that of the road will compromise the accessible deployment of the boarding ramp.
- Where boarding points intersect with bicycle paths or shared pathways, appropriate measures should be in place to ensure that the technical requirements for the pathways do not conflict with those of the boarding point. Further, it should be promoted that people boarding or alighting from the service have priority at the boarding point over other transient users of the space.

## Regulatory option

The Transport Standards would include new requirements in relation to bus, tram and light rail boarding points. There are two regulatory options for consideration. Option 2 includes additional requirements for roads with a gradient steeper than 1:40.

### Option 1

The Transport Standards would be amended to include requirements for bus, tram and light rail boarding points.

The Transport Standards would include the following new requirements:

- Boarding points must have a flat and stable surface to which a boarding device can be safely deployed and have a gradient no steeper than 1:40 (AS1428.1 (2009) *Clause 6.5.1*).
- The camber (crossfall) of a boarding point must be no steeper than 1:40, except for bitumen surfaces, where 1:33 is permitted (AS1428.1 (2009) *Clause 10.1(d)*).

These requirements pertain to premises and bus, tram and light rail boarding points on infrastructure.

### Option 2

The Transport Standards would be amended to include requirements for bus, tram and light rail boarding points, including specific requirements for road gradients where the gradient is steeper than 1:40.

The Transport Standards would include the following new requirements:

- Boarding points must have a flat and stable surface to which a boarding device can be safely deployed and have a gradient no steeper than 1:40 (AS1428.1 (2009) *Clause 6.5.1*).
- The camber (crossfall) of a boarding point must be no steeper than 1:40, except for bitumen surfaces where 1:33 is permitted (AS1428.1 (2009) *Clause 10.1(d)*).
- Where road gradient is at a gradient steeper than 1:40 and a 1:40 boarding point gradient would prevent safe deployment of a boarding device, the boarding point gradient may match that of the road.

These requirements would pertain to premises and bus, tram and light rail boarding points on infrastructure.

Under both options, the Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements and include guidance for light rail, bus and tram boarding points.

Specific guidance may include the following:

- The extent of the boarding point on a bus or tram stop, bus interchange or bus station or light rail station platform varies with the layout of the infrastructure. Broadly, it includes the area in which boarding devices must be deployed, and in which people must manoeuvre to enter the boarding device or conveyance door. It would not include any waiting area with seats and or shelter that may have been provided at the stop or platform.
- For a number of bus and tram stops and some light rail stations there will be locations (i.e. hilly areas, road reserves or other public areas that have limited space) where a compliant boarding point via either a prescriptive or equivalent access solution will not be achievable.



- While crossfall can often be dealt with through excavation and retention work, gradient is constrained by road gradient. Gradients of boarding points and roads will need to closely align as any difference between the gradient of the boarding point and that of the road will compromise the accessible deployment of the boarding ramp.
- Where boarding points intersect with bicycle paths or shared pathways, appropriate measures should be in place to ensure that the technical requirements for the pathways do not conflict with those of the boarding point. Further, it should be promoted that people boarding or alighting from the service have priority at the boarding point over other transient users of the space.

## Impact analysis

### Status quo

#### Impacts

- There would continue to be no set requirements for gradient and crossfall for bus, tram and light rail boarding points. This would continue to reduce accessibility for people with disability.
- Passengers will not benefit from level boarding points to access buses, trams and light rail, which may present a barrier to public transport use under extreme gradients. Further, wheeled devices such as prams or wheelchairs may roll towards the kerb or platform edge if not secured and supervised.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to meet the new gradient and crossfall guidance for boarding points where they are not compliant with the guidance.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt AS1428.1 (2009). The impact on people would be inconsistent provision of accessible boarding points, particularly in existing areas where topography makes providing accessible boarding points more challenging and costly.
- Operators whose bus, tram or light rail stops, zones, stations and interchanges were compromised by topography, existing infrastructure or street verge width would face difficulties, some significant, if compliance with the gradients and crossfalls of AS1428.1 were required at boarding points. Unjustifiable hardship may be relevant in these cases.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- People who require the use of boarding ramps when boarding or alighting will benefit from certainty that boarding points at bus, tram and light rail stops will be firm and aligned with the conveyance.

- The guidance will enhance passenger safety and confidence to travel by improving accessibility at stops that currently have steep gradients and crossfall.

## Regulatory option

### Impacts

- Operators and providers will incur costs to meet the crossfall and gradient requirements where they are not compliant. Crossfall is often able to be addressed through excavation and retention work if underground services permit.
- There may be a significant cost to upgrade existing boarding points for operators and providers. This will vary depending on factors such as topography, existing infrastructure or street verge width.

### Benefits

- This is a safety benefit for passengers in general. People who require the use of boarding ramps when boarding alighting will benefit from certainty that boarding points at bus, tram and light rail stops will be firm and aligned with the conveyance. Elimination or reduction of a slope gives a surface on which passengers are able to wait and move with greater passenger safety and confidence.

## CBA of regulatory options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

The CBA for this reform provides a cumulative costing of the following reform areas:

- Pontoon boarding points on infrastructure
- Bus, tram and light rail boarding points on infrastructure
- Hail-and-ride boarding points on infrastructure

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Specific requirements for boarding points of infrastructure should improve safety for users with disability by reducing slips, falls and trips.
- **Amenity:** Not applicable.
- **Accessibility:** This reform can improve the experience for all public transport users and attract new users with disability to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, and improved health outcomes.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Upgrades to boarding points to ensure alignment with standards will incur financial cost to upgrade existing assets to boarding points that meet requirements.
- **Monetised compliance costs (administrative):** 1.0
- **Monetised compliance costs (substantive):** 486.4

### Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
  - a. For the regulatory option, do you prefer sub-option 1 or 2?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you ever encountered a boarding point at a bus, tram or light rail stop that had too great a slope or crossfall for easy boarding?
  - a. If so, how did you, or the passenger, manage to board?

## 47. Hail-and-ride boarding points on infrastructure

### Issue

The Transport Standards requirements fail to ensure people with disability can board hail-and-ride services. A hail-and-ride service is operated by a conveyance, such as a bus or wheelchair accessible taxi, that follows a set route, but may stop for passengers at any safe point on the route. People with disability may be unable to access hail and ride services due to a lack of accessible boarding points for hail-and-ride services. People with disability may not be able to cross kerbs to access a stop, and nominated, accessible hail-and-ride pick up locations may not be clearly identifiable or understood. For people with disability hail-and-ride boarding points should be nominated, accessible and offer equal access to the service.

There are two issues with the current requirements of the Transport Standards:

- Transport Standards section 8.4 Hail-and-ride services, sets requirements for hail-and-ride boarding, but does not set performance requirements for nominated accessible boarding points.
- Whilst Transport Standards section 8.1 Boarding points and kerbs, does require boarding points to have a firm and level surface to which a boarding device can be deployed it does not specify how this must be achieved if the boarding point is on the carriageway.

These issues are particularly critical for services such as the Brisbane City Council Personalised Public Transport<sup>29</sup>, which uses rear loading wheelchair accessible taxis (WATs) as conveyances. Despite the accessibility of the conveyance passengers using wheelchairs would be unable to access the service unless a break in the kerb permits access to the carriageway.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 8.4 Hail-and-ride services, would remain unchanged and no additional guidance would be issued.

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<sup>29</sup> Brisbane City Council, *Personalised Public Transport*, 23 December 2021, <https://www.brisbane.qld.gov.au/traffic-and-transport/public-transport/personalised-public-transport>

### **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.

This section pertains to premises and infrastructure, except airports that do not accept regular public transport services.

### **8.4 Hail-and-ride services**

- (1) If a hail-and-ride service is offered, passengers must be able to hail the service at nominated accessible boarding points where boarding devices can be deployed.
- (2) The boarding points must offer equal access to public transport services.

This section applies to hail-and-ride services, except dedicated school buses and infrastructure.

## **Non regulatory option**

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice on good practice for hail and ride boarding points, which would explain differences between vehicles, operator and provider, and passenger responsibilities.

Specific guidance may include the following:

- Vehicles may have either side or rear loading boarding devices.
- The accessible boarding points must offer equal access to the hail-and-ride. For example, passengers with mobility aids should be able to cross kerbs in order to board rear loading conveyances. This may be achieved through the use of portable ramps or by using existing kerb ramps at or adjacent to the boarding point.
- Operators would not be expected to nominate or identify accessible boarding points, rather the expectation is that any safe location along the route people could hail and board a service.
- Passengers should understand that it is their responsibility to select a boarding point that is accessible and at which a hail-and-ride vehicle can safely and lawfully stop. It is the responsibility of the operator to ensure that the passenger is able board the vehicle from this accessible boarding point.

## **Regulatory option**

The Transport Standards would be amended to include requirements for hail-and-ride boarding points.

Transport Standards section 8.4 would be amended to include the following:

- If a hail-and-ride service is offered, passengers must be able to hail the service at accessible boarding points where boarding devices can be deployed.
- The accessible boarding points must offer equal access to public transport services.

These requirements would pertain to hail-and-ride services, (except dedicated school buses).

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to reflect new requirements and include specific guidance for hail and ride services except dedicated school buses.

Specific guidance may include the following:

- Vehicles may have either side or rear loading boarding devices. Passengers with mobility aids should be able to cross kerbs in order to board rear loading conveyances. This may be achieved through the use of portable ramps or by using existing kerb ramps at or adjacent to the boarding point.
- Operators would not be expected to nominate or identify accessible boarding points, rather the expectation is that any safe location along the route people could hail and board a service.
- Passengers should understand that it is their responsibility to select a boarding point that is accessible and at which a hail and ride vehicle can safely and lawfully stop. It is the responsibility of the operator to ensure that the passenger is able to board the vehicle from this accessible boarding point.

## Impact analysis

### Status quo

#### Impacts

- People with disability would continue to face accessibility issues and discrimination when accessing hail-and-ride services. People with disability may be unable to access hail and ride services due to a lack of accessible boarding points for hail and ride services.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to improve infrastructure to provide accessible boarding points for hail-and-ride services.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will follow guidance provide accessible boarding points for hail-and-ride services. The impact on passengers would be a lack of consistent access to hail-and-ride services.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- People with disability would be able to board and alight safely when accessing hail-and-ride services. For example, people with mobility aids who cannot currently cross a kerb to board a rear loading accessible conveyance will be able to access this service.
- Operators will be able to offer their service to a greater customer base and will benefit from clarity regarding the requirements to ensure their service is accessible.

## Regulatory option

### Impacts

- There will be costs to upgrade boarding points to ensure they are accessible for mobility aid users. This may include installing kerb ramps at accessible boarding points, or carrying a portable boarding ramp to be deployed on the kerb when needed.
- In most instances the kerbside locations that could be upgraded to be accessible boarding points are controlled by local authorities, who may not be the operator of the hail-and-ride service. As such they would bear the majority of any kerb ramp construction and maintenance costs.

### Benefits

- People with disability would be able to board and alight safely when accessing hail-and-ride services. For example, people with mobility aids who cannot currently cross a kerb to board a rear loading accessible conveyance, often a WAT will be able to safely traverse kerbs when boarding and alighting hail-and-ride services.
- Operators will be able to offer their service to a greater customer base and will benefit from clarity regarding the requirements to ensure their service is accessible.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

The CBA for this reform provides a cumulative costing of the following reform areas:

- Pontoon boarding points on infrastructure
- Bus, tram and light rail boarding points on infrastructure
- Hail-and-ride boarding points on infrastructure

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Specific requirements for boarding points of infrastructure should improve safety for users with disability by reducing slips, falls and trips.
- **Amenity:** Not applicable.
- **Accessibility:** This reform can improve the experience for all public transport users and attract new users with disability to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, and improved health outcomes.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Upgrades to boarding points to ensure alignment with standards will incur financial cost to upgrade existing assets to boarding points that meet requirements.
- **Monetised compliance costs (administrative):** 1.0
- **Monetised compliance costs (substantive):** 486.4

### Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Do you use hail-and-ride services that are available in your area? If not, can you describe why?
5. What elements make a boarding point accessible?



## 48. Accessible taxi ranks

### Issue

There are a number of challenges faced by mobility users and WAT drivers when using taxi ranks, because there are no specific requirements for accessible taxi ranks in the Transport Standards. These challenges include:

- Most on-street taxi ranks are not accessible for people who need to cross a solid kerb to board or alight from the rear of a WAT.
- People using wheeled mobility aids experience difficulty and a degree of risk crossing an unbroken kerb while boarding or alighting from a WAT.
- Vehicles may also obstruct the space in front of the kerb ramp, blocking the access path between the carriageway and footpath.
- On-street taxi ranks may be distant from a transport node, have different criteria for prime location, and may not be intuitively seen as part of a continuous public transport journey.
- Limited signage around the area of carriageway at the rear of the accessible vehicle space results in vehicles pulling up to close behind a rear loading WAT, causing challenges for boarding and unloading of passengers.

Taxi ranks in car parks that are associated with transport nodes are part of a continuous accessible journey. Transport Standards section 1.18 Infrastructure, lists taxi ranks as infrastructure and boarding points, however there are no requirements on how to make them accessible.

Like bus stops, on-street taxi ranks are widely scattered through the urban landscape though at greater density in commercial and entertainment districts. The Transport Standards do not specify requirements for the design of taxi ranks or what proportion of spaces in the rank should be accessible to people who use mobility aids and who must board WATs. In addition, on-street taxi ranks are generally assets of the local government authority.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

The Transport Standards would continue to not provide accessibility specifications for taxi ranks to encourage that on-street taxi ranks will be accessible to passengers with mobility impairments.

#### Non regulatory option

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to include advice on accessibility specifications for taxi ranks.

There are three sub-options for the number of vehicle spaces that should be accessible.

Specific guidance may include the following:

- If unloading from a wheelchair accessible taxi a mobility aid user should be able to safely move from the carriageway behind the taxi to the footpath.
- While the first and last taxi spaces in a taxi rank should be the accessible spaces, intermediate spaces may also be made accessible at the discretion of the asset owner. This would be particularly advantageous at longer ranks if the wheelchair accessible taxi was well back in the queue.
- If a taxi rank has one vehicle space it should be accessible. If it has more than one vehicle space:

**Sub-option 1**

The first and last vehicle space should be accessible.

**Sub-option 2**

The first, second and last vehicle space should be accessible.

**Sub-option 3**

Where there are more than five spaces the first and last vehicle space should be accessible. In addition, one space for every four spaces between the first and last space should be accessible.

- Accessible taxi spaces within a rank should conform to the requirements for disability parking spaces as per AS2890.5 (2020) *Parking facilities Part 5: On-Street parking* (AS2890.5 (2020)) *Clause 4.5.2 (a), (b), (c) and (f)*. Line marking should be installed to delineate accessible vehicle spaces in a taxi rank. This would be useful in allowing other drivers to judge the space required for deployment of the wheelchair accessible taxi's boarding lift platform and the circulation space required by the mobility aid user. Temporary taxi ranks should have the same specifications as permanent taxi ranks.
- If kerb ramps are installed, they should be placed to the rear of the accessible taxi space. The rear section of the accessible taxi space should be boldly marked in order to warn the drivers of following vehicles in the queue not to encroach into the accessible taxi space. This encroachment will block the deployment of the boarding lift platform and block the kerb ramp at grade separated taxi ranks. Blocks of colour, chevrons or hatching, in combination with the international symbol and messages such as 'Keep Clear', might be considered as appropriate markings for the area at the rear of the accessible vehicle space.
- If an accessible taxi space is at the same grade as the adjacent footpath, bollards and warning tactile ground surface indicators (TGSIs) as per AS1428.4.1 (2009) *Design for access and mobility* (AS1428.4.1 (2009)) *Clause 2.5 and Figure 2.5 (B)* should be installed for the length of the same grade section.
- Most taxi ranks on-street will fall under the jurisdiction of the local authority. Authorities should therefore be mindful of the accessibility requirements for taxi ranks and install them accordingly. In choosing the location for taxi ranks, the gradient and crossfall of the road and footpath should be carefully assessed. The traffic volume of the road at peak times should also be considered, with further guidance on this matter available from Austroads publications.
- As per bus stops there will sometimes be a conflict between the ideal location for the taxi rank and the gradient of the road reserve. If no other location is available for the taxi rank the Unjustifiable Hardship clauses of the Transport Standards will apply to the rank.
- Accessible taxi ranks should be connected via access paths to local facilities and attractors, particularly to their accessible entrances.

- Temporary taxi ranks should have the same specifications as permanent taxi ranks.

## Regulatory option

The Transport Standards would be amended to include requirements for accessible on-street taxi ranks to ensure that on-street taxi ranks will be accessible to passengers with mobility impairments.

There are three sub-options for the number of vehicle spaces that should be accessible.

The Transport Standards would include the following new requirements:

- Taxi ranks are boarding points that must connect to accessways.
- If a taxi rank has one vehicle space it must be accessible. If it has more than one vehicle space:

### Sub-Option 1

The first and last vehicle space must be accessible.

### Sub-Option 2

The first, second and last vehicle space must be accessible.

### Sub-Option 3

Where there are more than five spaces the first and last vehicle space must be accessible. In addition, one space for every four spaces between the first and last space must be accessible.

- Accessible taxi spaces within a rank must conform to the requirements for disability parking spaces as per AS2890.5 (2020) *Clause 4.5.2 (a), (b), (c) and (f)*.
- Kerb ramps must be placed to the rear of the accessible taxi space.
- If an accessible taxi space is at the same grade as the adjacent footpath, bollards and warning TGSIs as per AS1428.4.1 (2009) *Clause 2.5 and Figure 2.5 (B)* must be installed for the length of the same grade section.

These requirements would pertain to infrastructure.

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to reflect new requirements and include specific guidance for buses, trams and light rail and ferries.

Specific guidance may include the following:

- Intermediate vehicle spaces in a taxi rank might be also be made accessible at the discretion of the asset owner. This would be particularly advantageous at longer ranks if the WAT was well back in the queue.
- Line marking should be installed to delineate accessible vehicle spaces in a taxi rank. This would be useful in allowing other drivers to judge the space required for deployment of the wheelchair accessible taxi's boarding lift platform and the circulation space required by the mobility aid user. The rear section of the accessible taxi space should be boldly marked in order to warn the drivers of following vehicles in the queue not to encroach into the accessible taxi space. This encroachment will block the deployment of the boarding lift platform and block the kerb ramp at grade separated taxi ranks. Blocks of colour, chevrons or hatching, in combination with the international symbol and messages such as 'Keep Clear', might be considered as appropriate markings for the area at the rear of the accessible vehicle space.

- As per bus stops and passenger loading zones most taxi ranks on-street will fall under the jurisdiction of the local authority. Authorities should be mindful of the accessibility requirements for taxi ranks and install them accordingly. In choosing the location for taxi ranks, the gradient and crossfall of the road and footpath should be carefully assessed. Like bus stops there may be a conflict between the ideal location for the taxi rank and the gradient of the road reserve. The traffic volume of the road at peak times should also be considered, with further guidance on this matter available from Austroads publications.
- Temporary taxi ranks should have the same specifications as permanent taxi ranks.
- Accessible taxi ranks should be connected via access paths to local facilities and attractors, particularly to their accessible entrances.

## Impact analysis

### Status quo

#### Impacts

- People who use mobility aids would continue to face safety and accessibility issues when using taxi ranks.
- The safety issues for passengers using mobility aids, relating to safe boarding and alighting will remain. Wheelchair users may not be able to traverse the kerb at the taxi rank and vehicles may block rear loading.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to upgrade taxi ranks, with the required accessible features, including for kerb ramps and line markings by operators and providers.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the accessibility requirements for taxi ranks. The impact on people would be inconsistent and reduce availability of accessible taxi ranks.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- People who rely on WATs for taxi travel will benefit from accessible taxi ranks. Most on-street taxi ranks are currently not accessible so this cohort will be advantaged. Rather than unloading at inaccessible taxi ranks and setting off along the carriageway in search of a kerb break, they could immediately transition over the kerb to the footpath. The same unsafe practice would be avoided during boarding. It will also allow taxi drivers a legal and safe place to board or unload passengers in wheelchairs.
- Advising on a technical specification for accessible taxi ranks will allow greater certainty for passengers and consistency of design between local authorities and other jurisdictions.

## Regulatory option

### Impacts

- Most on-street taxi ranks are the responsibility of local authorities. The cost of kerb ramps or dropped kerbs at taxi ranks zones will therefore mostly fall on local authorities.
- Costs will be incurred to install kerb ramps or provide additional line marking. Installation to upgrade multiple ranks will increase costs and may cause disruption during construction.
- Kerb ramps can be unpredictably expensive, especially if they are adjacent to sub-surface infrastructure (electrical, plumbing, telecommunications, or other services.) There may also be additional costs associated with work on a footpath if service relocation is required.
- Taxi ranks vary in number and distribution between local government areas and therefore individual authorities may be affected more than others.

### Benefits

- People who rely on WATs for taxi travel will benefit from accessible taxi ranks. Most on-street taxi ranks are currently not accessible so this cohort will be advantaged. Rather than unloading at inaccessible taxi ranks and setting off along the carriageway in search of a kerb break, they could immediately transition over the kerb to the footpath. The same unsafe practice would be avoided during boarding. It will also allow taxi drivers a legal and safe place to board or unload passengers in wheelchairs.
- Kerbside taxi ranks are a known asset and part of local authority asset management systems and so auditing them for upgrade should be easy, aside from the adjacent underground services. Advising on a technical specification for accessible taxi ranks will allow greater certainty for passengers and consistency of design between local authorities and other jurisdictions.

### CBA for regulatory sub-options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis.

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

The following qualitative benefits assessment and quantitative and qualitative cost assessment apply to all accessible taxi ranks regulatory sub-options, however, the level of accessibility achieved differs with each sub-option:

- Sub-Option 1 - The first and last vehicle space must be accessible. This option would produce the lowest amenity outcomes, accessibility and optionality for access for this reform.
- Sub-Option 2 - The first, second and last vehicle space must be accessible. This option would produce the mid-point amenity outcomes, accessibility and optionality for access for this reform.
- Sub-Option 3 - Where there are more than five spaces the first and last vehicle space must be accessible. In addition, one space for every four spaces between the first and last space must be accessible. This option would produce the highest amenity outcomes, accessibility and optionality for access for this reform.

### *Qualitative benefits assessment*

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Provision of taxi ranks boarding points that meet new standards should increase ease of boarding taxis through recognisable boarding points and new accessible spaces provided improving the amenity for public transport users with a disability and without a disability.
- **Accessibility:** Provision of equivalent accessing internal facilities in public transport vehicles should improve the experience and ease of access to public transport services and attract new users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### *Quantitative and qualitative cost assessment*

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet the Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with installing or retrofitting existing taxi ranks.
- **Monetised compliance costs (administrative):** Nil
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. For the non-regulatory and regulatory options, do you prefer sub option 1, 2 or 3?
3. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
5. Have you, or a passenger, ever been unable to board a wheelchair accessible taxi that was waiting at an on-street taxi rank? If so, what prevented the boarding?

## 49. Accessible passenger loading zones on-street

### Issue

The Transport Standards do not recognise passenger-loading zones located on streets as boarding points for wheelchair accessible taxis (WAT) and small conveyances. On-street passenger loading zones may be distant from a transport node, have different criteria for prime location, and may not be intuitively seen as part of a continuous public transport journey. On-street passenger loading zones are generally assets of the local government authority. They are often located in busy commercial precincts and if designed to be accessible are frequently used as pickup and drop-off points by WATs and other small public transport conveyances that fit within the spaces. Nationally, the greatest proportion of passenger loading zones do not have any means by which a wheelchair might transit over the kerb.

As a result of this, there are several accessibility issues for people with disability. People with disability who use WATs have far fewer viable loading zones and often must travel along the carriageway in search of a kerb break to reach the footpath. Vehicles pulling up too close behind a rear loading WAT may prevent deployment of the boarding lift platform. Vehicles may also obstruct the space in front of the kerb ramp, blocking the access path between the carriageway and footpath. These result in reduced accessibility and safety for people with disability, particularly for people who use mobility aids.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

The Transport Standards would continue to not provide accessibility specifications for on-street passenger loading areas.

#### Non regulatory option

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to include advice for on-street passenger loading zones pertaining to infrastructure and would encourage operators and providers to ensure on-street passenger loading zones be recognised as WAT and small conveyance boarding points with specific technical requirements.

There are three sub-options for the number of vehicle spaces that should be accessible.

Specific guidance may include the following:

- Designated on-street passenger loading zones are boarding points for taxis, including WAT, and other public transport vehicles. They are also loading zones for any other member of the public as per the signage installed at each loading zone.

- The performance outcome sought for the passengers of wheelchair accessible taxis is that mobility aid users can access the carriageway from the footpath if they are to board a rear loading wheelchair accessible taxi. If unloading from a WAT a mobility aid user should be able to safely move from the carriageway behind the taxi to the footpath. Local authorities should consider permitting WAT to dwell for five or more minutes due to timeframes imposed by the necessary loading and unloading procedure for passengers travelling in wheelchairs or similar mobility aids.
- While the first and last vehicle spaces in a passenger loading zone should be the accessible spaces, other spaces may also be made accessible at the discretion of the asset owner. This would be advantageous at longer passenger loading zones if the wheelchair accessible taxi or other public transport conveyance was well back in the queue.
- If a passenger loading zone has more than one vehicle space:

**Sub-option 1**

The first and last vehicle space should be accessible.

**Sub-option 2**

The first, second and last vehicle space should be accessible.

**Sub-option 3**

Where there are more than five spaces the first and last vehicle space should be accessible. In addition, one space for every four spaces between the first and last space should be accessible.

- Accessible passenger loading spaces should conform to the requirements for on-street disability parking spaces as per AS2890.5 (2020) *Parking facilities, Clause 4.5.2 (a), (b), (c) and (f)*. Line marking should be installed to delineate accessible passenger loading zones. This would be useful in allowing other drivers to judge the space required for deployment of the wheelchair accessible taxi's boarding lift platform and the circulation space required by the mobility aid user. Temporary loading zones should have the same specifications as permanent loading zones.
- If a kerb ramp is installed in an accessible passenger loading zone vehicle space, it should be placed to the rear of the accessible vehicle space. The rear section of the accessible vehicle space should be boldly marked to warn the drivers of following vehicles in the queue not to encroach into the accessible vehicle space. This encroachment will obstruct the deployment of the boarding lift platform and block the kerb ramp at grade separated loading zones. Blocks of colour, chevrons or hatching, in combination with messages such as 'Keep Clear', may be considered as appropriate markings for the area at the rear of the accessible vehicle space.
- If an accessible passenger loading zone vehicle space is at the same grade as the adjacent footpath, bollards and warning TGSIs as per AS/NZS1428.4.1 (2009) *Design for access and mobility, Clause 2.5 and Figure 2.5 (B)* should be installed for the length of the same grade section.
- Most on-street passenger loading zones will fall under the jurisdiction of the local authority. Authorities should therefore be mindful of the accessibility requirements for passenger loading zones and install them accordingly. In choosing the location for accessible passenger loading zones, the gradient and crossfall of the road and footpath should be carefully assessed. The traffic volume of the road at peak times should also be considered, with further guidance on this matter available from Austroads publications.
- Private property owners and governments often own or manage off-street carparks that may incorporate passenger loading zones. While not directly covered by this advice, owners and



managers should consider this advice in designing accessible passenger loading zones as part of their parking facilities.

## Regulatory option

The Transport Standards would be amended to include new requirements for on-street passenger loading zones to ensure that on-street passenger loading zones will be recognised as wheelchair accessible taxi and small conveyance boarding points with technical requirements listed in Transport Standards.

There are three sub-options for the number of vehicle spaces that should be accessible.

The Transport Standards would include the following new requirements:

- On-street passenger loading zones are boarding points for wheelchair accessible taxis and other public transport conveyances.
- If a passenger loading zone has more than one vehicle space:

### Sub-option 1

The first and last vehicle space must be accessible.

### Sub-option 2

The first, second and last vehicle space must be accessible.

### Sub-option 3

Where there are more than five spaces the first and last vehicle space must be accessible. In addition, one space for every four spaces between the first and last space must be accessible.

- Accessible passenger loading spaces must conform to the requirements for on-street disability parking spaces as per AS2890.5 (2020), *Clause 4.5.2 (a), (b), (c) and (f)*.
- If a kerb ramp is installed in an accessible passenger loading zone vehicle space, it must be placed to the rear of the accessible vehicle space.
- If an accessible passenger loading zone vehicle space is at the same grade as the adjacent footpath, bollards and warning TGSIs as per AS/NZS1428.4.1 (2009) *Clause 2.5 and Figure 2.5 (B)* must be installed for the length of the same grade section.

These requirements would pertain to infrastructure.

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to reflect new requirements and include guidance for infrastructure.

Specific guidance may include the following:

- Designated on-street passenger loading zones are boarding points for taxis, including wheelchair accessible taxis, and other public transport vehicles. They are also loading zones for any other member of the public as per the signage installed at each loading zone.
- The performance outcome sought for the passengers of wheelchair accessible taxis is that mobility aid users can access the carriageway from the footpath if they are to board a rear loading wheelchair accessible taxi. If unloading from a wheelchair accessible taxi a mobility aid user should be able to safely move from the carriageway behind the taxi to the footpath.
- Local authorities should consider permitting wheelchair accessible taxis to dwell for five or more minutes due to timeframes imposed by the necessary loading and unloading procedure for passengers travelling in wheelchairs or similar mobility aids.

- While the first and last vehicle spaces in a passenger loading zone should be the accessible spaces, other spaces may also be made accessible at the discretion of the asset owner. This would be particularly advantageous at longer passenger loading zones if the wheelchair accessible taxi or other public transport conveyance was well back in the queue.
- Line marking should be installed to delineate accessible passenger loading zones. This would be useful in allowing other drivers to judge the space required for deployment of the wheelchair accessible taxi's boarding lift platform and the circulation space required by the mobility aid user.
- Most on-street passenger loading zones will fall under the jurisdiction of local authorities. Authorities should therefore be mindful of the accessibility requirements for passenger loading zones and install them accordingly. In choosing the location for accessible passenger loading zones, the gradient and crossfall of the road and footpath should be carefully assessed. The traffic volume of the road at peak times should also be considered, with further guidance on this matter available from Austroads publications.
- The rear section of the accessible vehicle space should be boldly marked in order to warn the drivers of following vehicles in the queue not to encroach into the accessible vehicle space. This encroachment will obstruct the deployment of the boarding lift platform and block the kerb ramp at grade separated taxi ranks. Blocks of colour, chevrons or hatching, in combination with messages such as 'Keep Clear', might be considered as appropriate markings for the area at the rear of the accessible vehicle space.
- Temporary loading zones should have the same specifications as permanent loading zones.
- Private property owners and government often own or manage off-street carparks that may incorporate passenger loading zones. While not directly covered by this advice, owners and managers should consider this advice in designing accessible passenger loading zones as part of their parking facilities.

## Impact analysis

### Status quo

#### Impacts

- On-street passenger loading zones would continue to not be recognised as boarding points. There would also remain a lack of specified technical requirements for accessible loading spaces.
- The safety issues for passengers will remain, such as passengers being unable to navigate over kerbs at loading zones, and vehicles pulling up too close behind WATs preventing rear loading.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to upgrade existing loading zones to meet accessibility requirements to improve safety for passengers.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt accessible loading zones. The impact on people would be reduced

amenity for people with disability when using loading zones, and a lack of confidence that they can use public transport services where they must use a loading zone.

- The cost of kerb ramps and dropped kerbs at passenger loading zones will mostly fall on local authorities. For smaller authorities the guidance may pose a high cost.
- Sometimes kerb ramps can be unpredictably expensive, especially if they are adjacent to sub-surface infrastructure (electrical, plumbing, telecommunications, or other services), which adds an element of unpredictability to planning and cost analysis for kerb ramps. Local authorities would need to inspect and survey the footpath adjacent to the loading zone to accurately assess the cost and scope of installing kerb ramps or other features.
- There are also additional costs associated with work on a footpath if service relocation is required. Passenger loading zones vary between local authority areas and therefore individual authorities may be affected more than others.

### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- For people who rely on WATs for door to door transport, the impact of a significant increase in potential boarding and alighting points will be beneficial. Rather than unloading at inaccessible passenger loading zones and setting off along the carriageway in search of a kerb break they could immediately transition over the kerb to the footpath. It will also allow taxi drivers a legal and safe place to board or unload passengers in wheelchairs.
- Kerbside loading zones are a known asset and part of local authority asset management systems and auditing them for upgrade will vary in cost, depending on the adjacent underground services. This may be of a low cost to some local authorities, or a greater cost to others.
- Introducing a technical specification for accessible passenger loading zones will allow greater certainty for passengers and consistency of design between jurisdictions.
- Passengers in private vehicles are not covered by Transport Standards but would benefit from accessible passenger loading zones if they are mobility aid users.

## Regulatory option

### Impacts

- The cost of kerb ramps and dropped kerbs at passenger loading zones will mostly fall on local authorities. For smaller authorities the proposal may impose a high cost.
- Sometimes kerb ramps can be unpredictably expensive, especially if they are adjacent to sub-surface infrastructure (electrical, plumbing, telecommunications, or other services), which adds an element of unpredictability to planning and cost analysis for kerb ramps. Local authorities would need to inspect and survey the footpath adjacent to the loading zone to accurately assess the cost and scope of installing kerb ramps or other features.
- There are also additional costs associated with work on a footpath if service relocation is required. Passenger loading zones vary between local authority areas and therefore individual authorities may be affected more than others.

### Benefits

- For people who rely on WATs for door to door transport the impact of a significant increase in potential boarding and alighting points will be very beneficial. Rather than unloading at inaccessible passenger loading zones and setting off along the carriageway in search of a kerb break they could immediately transition over the kerb to the footpath.

- It will allow taxi drivers a legal and safe place to board or unload passengers in wheelchairs.
- Kerbside loading zones are a known asset and part of local authority asset management systems and auditing them for upgrade should have a low cost, aside from the adjacent underground services. Introducing a technical specification for accessible passenger loading zones will allow greater certainty for passengers and consistency of design between jurisdictions.
- Passengers in private vehicles are not covered by Transport Standards but would benefit from accessible passenger loading zones if they were mobility aid users.

### **CBA of regulatory option**

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### **Qualitative benefits assessment**

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Not applicable.
- **Accessibility:** Provision of wheelchair accessible on-street passenger loading zones should improve the overall experience and ease of access to public transport services and induce new users to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### **Quantitative and qualitative cost assessment**

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Provision of loading zones. Financial cost of constructing the loading zones.
- **Monetised compliance costs (administrative):** Nil.
- **Monetised compliance costs (substantive):** Nil.

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. For the non-regulatory and regulatory options do you prefer:
  - a. Sub-option 1: The first and last vehicle space must be accessible.
  - b. Sub-option 2: The first, second and last vehicle space must be accessible.
  - c. Sub-option 3: Where there are more than five spaces the first and last vehicle space must be accessible. In addition, one space for every four spaces between the first and last space must be accessible.
3. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
5. What is your experience of finding and using accessible on-street passenger loading zones? Are loading zones unsuitable for your needs? If so, why?

## 50. Accessible parking spaces in infrastructure off-street car parks

### Issue

The Transport Standards do not specify requirements for off-street parking areas associated with public transport infrastructure, requirements or specifications for accessible parking spaces, or access paths connecting them to accessible entrances.

Some bus interchanges, rail stations and ferry terminals have dedicated off-street parking areas. Some ferry terminals and rail stations have public parking located off-premises, often at some distance, which would therefore be classed as Transport Standard lighting infrastructure or as premises not covered by the Premises Standards.

As a result of the lack of requirements or guidance, off-street car parks associated with public transport infrastructure or in car parks remote from the transport facility do not have accessible parking spaces. People that require these parking spaces will not have access to the public transport site.

Some people with disability can experience rapid onset of fatigue or pain if obliged to walk more than a short distance. Accessible parking spaces should be located as close as practicable to the accessible entrance in order to improve amenity for people with disability.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

The Transport Standards would continue to have no off-street parking requirements.

#### Non regulatory option

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to include advice for off-street parking areas.

Specific guidance may include the following:

- Off-street public parking areas that form part of, or are directly associated with, public transport services should provide accessible parking spaces in the proportions noted in the Premises Standards and with the same layout and dimensions.
- Accessible parking spaces should be located as close as practicable to accessible entrances of premises or infrastructure and connected to them via accessways. Wherever practicable, accessible parking spaces should be directly adjacent to accessible entrances or within

60 metres of accessible entrances. They should be on the same level as the accessible entrance where practicable and connected to accessible entrances via an access path.

- In some instances, car parks that are intended and signed for the exclusive use of passengers cannot be located directly adjacent to the transport node. While not adjacent to the transport node these car parks are directly associated with the node and so fall under the Transport Standards. Accessible parking spaces should be located as close as practicable to the access paths leading from the car park to the transport node. Many people who are eligible for an Australian Disability Parking Permit experience rapid onset of fatigue or pain if obliged to walk more than a short distance. Accessible parking spaces should therefore be located as close as practicable to the entrance of the transport facility served by the carpark. Failure to appropriately locate accessible parking spaces may result in some people not being able to complete their journey or experiencing undue stress.
- These access paths from carparks distant from the transport facility will mostly fall under the jurisdiction of a local authority or private property owner. Ensuring that the access paths are fit for purpose may involve negotiations with the local authority or property owner.
- While the intention for accessible parking spaces would be to match the 1:50 ratio or part thereof found in the Premises Standards, the demography of the precinct in which the carpark is located should be considered. Locations that have a population of residents or visitors who are likely to have a higher proportion of Australian Disability Parking Permits than average should be considered for more than the minimum number of accessible parking spaces.

## Regulatory option

The Transport Standards would be amended to include new requirements for off-street parking areas associated with public transport infrastructure and specifications for accessible parking spaces. This will ensure areas with off-street car parking associated with infrastructure and premises to which the Premises Standards does not apply, have accessible parking spaces.

The Transport Standards would include the following new requirements:

- Off-street public parking areas that form part of, or are directly associated with, public transport services must provide one accessible parking space for every 50 parking spaces (or part thereof) where there are more than five parking spaces and:

### Sub-Option 1

Are not required to have designated accessible parking spaces where there is a total of not more than five car parking spaces in the parking area.

### Sub-option 2

Must designate all parking spaces as accessible parking spaces where there is a total of not more than five car parking spaces in the parking area.

- Accessible parking spaces must be located as close as practicable to accessible entrances of the premises or infrastructure and connected to them via accessways.
- Accessible parking spaces must conform to the layouts and dimensions of AS/NZS2890.6 (2009) *Parking facilities, Part 6: Off-street parking for people with disabilities*.

These requirements would apply to premises, except premises to which the Premises Standards apply and infrastructure.

The Transport Standards Guidelines and /or The Whole Journey Guide would be updated to reflect new requirements and include specific guidance for premises, except premises to which the Premises Standards apply and infrastructure.

Specific guidance may include the following:

- Many people who are eligible for an Australian Disability Parking Permit experience rapid onset of fatigue or pain if obliged to walk more than a short distance. Accessible parking spaces should therefore be located as close as practicable to accessible entrances of the premises or infrastructure and connected to them via accessways.
- Wherever practicable, accessible parking spaces should be directly adjacent to accessible entrances or within 60 metres of accessible entrances. They should be on the same level as the accessible entrance where practicable and connected to accessible entrances via an access path. Failure to appropriately locate accessible parking spaces may result in some people not being able to complete their journey or experiencing undue stress if they do.
- These access paths from carparks distant from the transport facility will mostly fall under the jurisdiction of a local authority or private property owner. Ensuring that the access paths are fit for purpose may involve negotiations with the local authority or property owner. In some instances, car parks that are intended and signed for the exclusive use of passengers cannot be located directly adjacent to the transport node. While not adjacent to the transport node these car parks are directly associated with the node and so fall under the Transport Standards. Accessible parking spaces should be located as close as practicable to the access paths leading from the car park to the transport node.
- While the intention for accessible parking spaces would be to match the 1:50 ratio or part thereof found in the Premises Standards, the demography of the precinct in which the carpark is located should be considered. Locations that have a population of residents or visitors who are likely to have a higher proportion of Australian Disability Parking Permits than average should be considered for more than the minimum number of accessible parking spaces.

## Impact analysis

### Status quo

#### Impacts

- There would continue to be no requirements for accessible parking in off-street carparks. As such, people with disability would continue to experience reduced amenity and safety issues when utilising off-street carparks.
- There will continue to be a lack of accessible car parks provided in off-street car parks associated with public transport infrastructure, people with disability will not have the option to use accessible parking spaces which provide parking in close proximity to infrastructure, and room to manoeuvre, load and unload.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred by operators and providers to adopt the requirements for off-street carparks.



- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the guidance. The impact on people would be a lack of consistent provision of accessible car parks and access paths that lead to the public transport infrastructure.
- Operators and providers who provide parking at their infrastructure but who do not provide accessible parking spaces may choose to retrofit, incurring costs.
- Cost of accessible parking spaces and access paths to accessible entrances would need to be factored into the cost of new carparks.
- Carparks that are located at a distance from the transport facility they served are usually connected via access paths that mostly fell under the jurisdiction of the local authority or a private property owner. Cost for any access path upgrade in this circumstance would therefore fall on the authority or private owner. This may be expensive if a major overhaul of a signalised pedestrian crossing was involved. Any work would no doubt involve negotiations between parties that would impose a cost in time. In all instances audit and assessment to determine the scope of work would be required.

## Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- If the advice is followed, people who have disability parking permits and who use public transport will benefit from access to accessible parking spaces at off-street car parking areas that form part of, or are directly associated with, public transport infrastructure.
- If installed, accessible parking spaces will provide consistency across the transport network and enhanced confidence and amenity, which may improve public transport patronage by passengers with disability.
- Operators and providers who currently provide accessible parking spaces that are connected by access paths to accessible entrances in their off-street infrastructure car parks will be unaffected.

## Regulatory option

### Impacts

- Operators and providers who currently provide accessible parking spaces connected by access paths to accessible entrances in their off-street infrastructure car parks will be unaffected. Those who provided parking at their infrastructure but who do not provide accessible parking spaces will face retrofitting costs.
- Cost of accessible parking spaces and access paths to accessible entrances would need to be factored into the cost of new carparks.
- Carparks that are located at a distance from the transport facility that they served are usually connected via access paths that mostly fell under the jurisdiction of the local authority or a private property owner. Cost for any access path upgrade in this circumstance would therefore fall on the authority or private owner. This may be expensive if a major overhaul of a signalised pedestrian crossing was involved. Any work would no doubt involve negotiations between parties that would impose a cost in time. In all instances audit and assessment to determine the scope of work would be required.

## Benefits

- People who have disability parking permits and who use public transport will benefit from access to accessible parking spaces at off-street car parking areas that form part of, or are directly associated with, public transport infrastructure.
- The provision of accessible parking spaces will provide consistency and amenity across the transport network and enhanced confidence, which may improve public transport patronage by these groups.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** Provision of disabled parking spaces should improve ease of access and confidence to access public transport services when travelling by car for users with disability.
- **Accessibility:** This reform should induce new users with disability to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the provision of additional disabled parking spaces.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 1.9

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
  - a. Of the sub-options proposed in the regulatory option which do you prefer?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Would the provision of accessible parking spaces at off-street car parking areas associated with public transport infrastructure be of benefit?
  - a. If so, how would this benefit you?
  - b. If increased accessible parking spaces were available, would you be more likely to use public transport?

# Part 5: Accessibility in conveyances

The following reform areas are included in this Part:

51. Grabrails on access paths
52. Grabrails in allocated spaces
53. Mobility aid movement in allocated spaces – passive restraints
54. Mobility aid movement in allocated spaces – active restraints
55. Appropriate seats on booked services
56. Conveyance dwell times at stops
57. Stairs on trains
58. Stairs on ferries
59. Stairs on buses
60. Doorway contrast and height

# 51. Grabrails on access paths

## Issue

The Transport Standards have no requirements for support grabrails along conveyance access paths, except that they must have a luminance contrast with a background by at least 30 per cent. As a result, grabrails are not consistently provided along conveyance access paths. Passengers who are ambulant benefit from grabrail support while travelling between a conveyance door and priority seating. They provide enhanced safety and amenity for people with disability, minimising the risk of injury and improving confidence to use certain types of conveyances. Typically, grabrails can include longitudinal handrails, grab handles suspended from the longitudinal handrails, vertical stanchions above seats, vertical stanchions at modesty panels, handles incorporated into seat squabs and luggage racks above front wheel-arches.

Transport Standards section 2.5 Poles and obstacles, etc., requires grabrails must have a luminance contrast with a background by at least 30 per cent. As a passenger moves along an access path the background for the grabrail may change and so the requirement is not fit for purpose to ensure grabrails are the appropriate contrast.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee.

Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

The Transport Standards would remain unchanged and no additional guidance would be issued.

The Transport Standards would continue to have no requirements for grabrails along access paths on conveyances.

### Non regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include advice on luminance contrasting grabrails on conveyances.

Specific guidance may include the following:

- People with disability who are ambulant (able to walk) benefit from grabrail support while travelling between the conveyance door and the priority seating. They also benefit from door mounted grabrails when boarding or alighting and in some circumstances, when the conveyance is moving. This is particularly the case where passengers must negotiate a step up or down such as at entrance doors or beside steps in aisles.
- If practicable, grabrails might also be located adjacent to priority seats as an aid to sitting and standing. These grabrails will also benefit other passengers entering or exiting a conveyance or who stand while the conveyance is in transit.
- Apart from attachment points, grabrails should not be closer than 50 millimetres to an adjacent surface or obstruction.

- For the benefit of passengers who have a vision or cognitive impairment, grabrails should have a luminance contrast with the adjacent surface, attachment point or against other fixed surfaces that are within 2 metres of the grabrail by at least 30 per cent. Where luminance contrast must be achieved against a background or surface of variable colour, the dominant colour of the background should be the contrasting surface tested.
- Buses and Coaches are required to comply with various national and state requirements for grabrails. For example, in coaches or seat belted buses any grabrails fitted in the accessible area or the access path must not encroach the head impact zone as determined by Australian Design Rules. Grabrails that may be struck by the head of a seated occupant if the bus is involved in a collision must be padded as per the relevant State technical requirements.

## Regulatory option

The Transport Standards would be amended to include new technical specifications for grabrails beside access paths on conveyances with accessibility requirement to ensure they meet the needs of people with disability.

The Transport Standards would include the following new requirements:

- Grabrails that conform to the requirements of AS1428.1 (2009), *Clause 17 (a), (b) and (c)* must be provided at all locations where passengers require support or stability during boarding, alighting or transit.
- Grabrails may have a combination of horizontal, vertical or angled alignment as the use of the space dictates, but apart from attachment points may not be closer than 50 millimetres to an adjacent surface or obstruction.
- Grabrails must have a luminance contrast with the adjacent surface, attachment point or against other fixed surfaces that are within 2 metres of the grabrail by at least 30 per cent.
- Luminance contrast testing of surfaces, objects and fixtures other than tactile ground surface indicators must be determined as per Appendix B of AS1428.1 (2009) *Design for access and mobility – General requirement for access – New building work*.

These requirements would apply to buses, coaches, ferries, trains, trams and light rail.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements and include specific guidance for buses, trams and light rail and ferries.

Specific guidance may include the following:

- People with disability who are ambulant (able to walk) benefit from grabrail support while travelling between the conveyance door and the priority seating. They also benefit from door mounted grabrails when boarding or alighting and in some circumstances, when the conveyance is moving. This is particularly the case where passengers must negotiate a step up or down such as at entrance doors or beside steps in aisles. If practicable, grabrails might also be located adjacent to priority seats as an aid to sitting and standing. These grabrails will also benefit other passengers entering or exiting a conveyance or who stand while the conveyance is in transit.
- Buses and Coaches are required to comply with various national and state requirements for grabrails. For example, in coaches or seat belted buses any grabrails fitted in the accessible area or the access path must not encroach the head impact zone as determined by Australian Design Rules. Grabrails that may be struck by the head of a seated occupant if the bus is involved in a collision must be padded as per the relevant State technical requirements.

- Many school buses do not have allocated spaces. While grabrails on access paths should comply with this guidance, the guidance does not trigger a requirement to install allocated spaces with associated grabrails in school buses.
- For the benefit of passengers who have a vision or cognitive impairment, grabrails should have a luminance contrast with a background by at least 30 per cent. Where luminance contrast must be achieved against a background or surface of variable colour, the dominant colour of the background should be the contrasting surface tested.

## Impact analysis

### Status quo

#### Impacts

- The safety and amenity of people with disability would continue to be negatively impacted by the lack of guidance or requirements encouraging the use of grabrails along access paths.
- The safety issues for passengers will remain. Passengers will not have support when standing in or moving along an access path, reducing their confidence to use public transport.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred by operators and providers to provide grabrails along access paths where they are not already provided.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will install grab rails along conveyance access paths. The impact on people would be reduced support when standing in or moving along access paths, and reduced confidence and safety in public transport.
- Operators and providers may need to undertake some retrofitting of those conveyances that will incur costs.
- In addition, there will be maintenance costs associated with ensuring grabrails meet luminance contrast requirements.

#### Benefits

- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.
- Passengers who require support while passing along access paths will benefit from enhanced safety and confidence. General passengers will be able to find support while standing during peak times.
- For operators and providers who already provide grabrails there will be no impact or material change.

## Regulatory option

### Impacts

- Operators and providers may incur costs to retrofit grabrails along access paths, or procure them for their new conveyances.
- In addition, there will be maintenance costs associated with ensuring grabrails meet luminance contrast requirements.

### Benefits

- Passengers who require support while passing along access paths will benefit from enhanced safety and confidence, and consistency across providers. General passengers will be able to find support while standing during peak times.
- For operators and providers who already provide grabrails there will be no impact or material change.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** New standards on the provision of grabrails on access paths should reduce slips, trips and falls on access paths and improve safety for users with a disability.
- **Amenity:** Not applicable.
- **Accessibility:** The provision of grabrails should provide increased confidence for people with disability to use public transport.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with installing or retrofitting existing grabrails to meet new standards.
- **Monetised compliance costs (administrative):** 1.3



- **Monetised compliance costs (substantive): 72.2**

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Can you describe your experience with grabrails on access paths?
  - a. How do grabrails on access paths on conveyances affect your ability to travel due to your personal circumstances? Can you describe how important grabrails are to you?
  - b. Have you ever felt unsafe when seeking support while traveling to or from your seat and the conveyance entrance? Can you provide details?
  - c. Have you ever been unable to distinguish grabrails from the background along an access path on conveyances? Why was this a challenge and how could this be improved?

## 52. Grabrails in allocated spaces

### Issue

Grabrails are useful for people with disability to support their balance, reduce fatigue, hold their weight while manoeuvring, and can enable people to stop themselves from falling. Typically, grabrails can include longitudinal handrails, grab handles suspended from the longitudinal handrails, vertical stanchions above seats, vertical stanchions at modesty panels, handles incorporated into seat squabs and luggage racks above front wheel-arches. If grabrails are not adequately luminance contrasted, people who have low vision may have difficulties identifying and locating grabrails which creates a safety risk for these passengers when in transit.

The Transport Standards do not provide sufficient guidance or clarity on the layout of grabrails in allocated spaces nor that grabrails must be luminance contrasted. As such, people who have low vision may not be able to easily identify grabrails and may not be able to use these to assist safe travel while a conveyance is in transit.

Additionally, the technical specifications at AS1428.2 (1992), *Design for access and mobility, Part 2: Enhanced and additional requirements - Buildings and facilities* (AS1428.2 (1992)), in the Transport Standards are not fit-for-purpose as they do not allow for differences in position and layout of allocated spaces across different modes of transport.

Conveyances have significantly different layouts for allocated spaces and may be on ferry decks, behind bus wheel arches or adjacent to rail car or tram vestibules. Grabrails therefore must be able to function in a variety of situations and should be consistent across transport modes. There is an opportunity to update technical references which reflect best practice and provides flexibility for functional grabrails in all transport modalities. The Transport Standards requirements have no specification for the orientation of grabrails and also assumes grabrails are to be attached to a wall since AS1428.2 (1992) design for access and mobility relates to buildings. Ferry decks have few walls and fold down seats often occupy the wall space in buses and trains. Ensuring grabrails are functional for passengers in mobility aids in these modalities requires flexibility of alignment in the dictated space.

Buses and coaches are also required to comply with various national and state requirements for grabrails. For example, in coaches or seat belted buses any grabrails fitted in the accessible area or the access path must not encroach the head impact zone as determined by Australian Design Rule 68/00.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 11.7 Grabrails in allocated spaces, would remain unchanged and no changes to guidance would be made.

### 11.7 Grabrails to be provided in allocated spaces

Grabrails that comply with AS1428.2 (1992) *Clause 10.2, Grabrails*, must be provided in all allocated spaces.

This section pertains to buses, except dedicated school buses, coaches, ferries, trains, trams and light rail.

## Non-regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to encourage operators and provides to include a variety of grabrails with various orientations are permitted in allocated spaces and that they should be luminance contrasted.

Specific guidance may include:

- Grabrails should be fitted in such a way that they are functional for passengers with mobility aids using the allocated space. Grabrails may have a combination of horizontal, vertical or angled alignment as the use of the space dictates. The most functional outcome can be achieved through a process of consultation and co-design with the disability community.
- Apart from attachment points, grabrails should not be closer than 50 millimetres to an adjacent surface or obstruction.
- For the benefit of passengers who have a vision or cognitive impairment grabrails should have a luminance contrast with the adjacent surface, the grabrails attachment point or against other fixed surfaces that are within 2 metres of the grabrail. Where luminance contrast must be achieved against a background or surface of variable colour, the dominant colour of the background should be the contrasting surface tested.

These requirements would pertain to buses (except dedicated school buses), coaches, ferries, trains, trams and light rail.

## Regulatory option

Transport Standards section 11.7 would be amended to include the following (including any requirements retained or amended from the status quo):

- Grabrails in allocated spaces must comply with AS1428.1 (2009), *Design for access and mobility, Part 1: General requirements for access - New building work, clause 17(a), (b) and (c)*.
- Grabrails may have a combination of horizontal, vertical or angled alignment as the use of the space dictates but apart from attachment points may not be closer than 50 millimetres to an adjacent surface or obstruction.
- Grabrails must have a luminance contrast of at least 30 per cent with the adjacent surface or attachment point or against other fixed surfaces that are within 2 metres of the grabrail. Luminance contrast testing of grabrails must be determined as per AS1428.1 (2021), *Design for access and mobility, Part 1: General requirements for access - New building work Appendix B*.

These requirements would pertain to buses, coaches, ferries, trains, trams and light rail.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements and provide the following additional guidance:

- Grabrails should be fitted in such a way that they are functional for passengers in mobility aids using the allocated space. Grabrails may have a combination of horizontal, vertical or angled alignment as the use of the space dictates. The most functional outcome can be achieved through a process of consultation and co-design.
- Buses and coaches are required to comply with various national and state requirements for grabrails.
  - For example, in coaches or seat belted buses any grabrails fitted in the accessible area or the access path must not encroach the head impact zone as determined by Australian Design Rules. Grabrails that may be struck by the head of a seated occupant if the bus is involved in a collision must be padded as per the relevant state technical requirements.
- For the benefit of passengers who have a vision or cognitive impairment grabrails should have a luminance contrast with a background by at least 30 per cent. Where luminance contrast must be achieved against a background or surface of variable colour, the dominant colour of the background should be the contrasting surface tested.

## Impact analysis

### Status quo

#### Impacts

- The arrangement of grabrails in allocated spaces will continue to lack the flexibility required to suit the layouts of different public transport nodes. This will continue to reduce the support people with disability are able to access while travelling in allocated spaces.
- Passengers with low vision will continue to face safety issues, as luminance contrasting for grabrails would not be considered.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to reconfigure grabrails in allocated spaces to meet the suggested requirements. Costs would also be incurred for rectification work required to make grabrails adequately luminance contrasted with background surfaces.
- Given this option is discretionary, it does not provide certainty that grabrails will be appropriately located or luminance contrasted. This may reduce confidence of passengers to travel if they are unable to safely use and locate grabrails while in transit.

#### Benefits

- People using mobility aids and allocated spaces will benefit from well positioned grabrails that are fit-for-purpose for bespoke modes of public transport.

- People with low vision will benefit from the adoption of luminance contrast requirements which will assist with locating grabrails. Both of these outcomes promote the safe travel of people on public transport.
- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Costs will be incurred to ensure grabrails are luminance contrasted with background surfaces and that they are positioned appropriately in line with the new regulations. As grabrails are already required under the Transport Standards, additional costs will be incurred to the extent that the layout of grabrails do not comply with the new configuration requirements or luminance contrast requirements.
- Costs to modify to one or both design elements to comply with the new requirements would vary depending on the nature of the work required and the size of the fleet.

### Benefits

- The layout of grabrails in allocated spaces will be configured to promote safe travel and will be fit-for-purpose for individual modes of public transport. Improved geometric layout will provide a better outcome for passengers requiring support whilst using the allocated space.
- Luminance contrasting grabrails in allocated spaces will improve the confidence and safety of passengers with low vision or cognitive impairments as they will be able to easily identify and locate grabrails.
- Updating technical specifications will provide flexibility for operators and providers and encourage compliance with the Transport Standards as differences in position and layout of allocated spaces across different modes of transport will be accounted for.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of consistent standards for luminance contrast on grabrails should reduce injuries in allocated spaces and improve safety for people with disability as well as other groups such as the elderly.
- **Amenity:** Not applicable.
- **Accessibility:** Provision of consistent standards for luminance contrast on grabrails should encourage people with disability as well as other groups such as the elderly to use public transport.

- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial cost of retrofitting or painting grabrails.
- **Monetised compliance costs (administrative):** 1.0
- **Monetised compliance costs (substantive):** 15.1

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What are your experiences using grabrails in allocated spaces on conveyances? For example:
  - a. Are they visually easy to identify?
  - b. How does the different layout (horizontal, vertical or angled) of grabrails impact your ability to use them?
  - c. What factors are important for accessible use of grabrails (for example location, height, diameter, length, and colour)?

## 53. Mobility aid movement in allocated spaces: Passive restraints

### Issue

A passive restraining system contains movement of a wheelchair to within an allocated space. Uncontained mobility devices in allocated spaces on conveyances can topple or slide into the aisle, particularly if a bus executes a turn at speed or is displaced laterally due to kerb strike. This puts the occupant of the mobility aid at risk and any passengers who may be struck by the sliding or toppling wheelchair or scooter. The Transport Standards are vague on how an allocated space is to contain the movement of a mobility aid towards the front or sides of a conveyance and do not provide adequate advice to ensure the safety of passengers travelling with mobility aid devices. This results in allocated spaces not adequately addressing the safety needs of passengers using a mobility device.

Various wheelchair toppling and falling incidents have been reported and can have fatal consequences<sup>30</sup>. The forces in trams and light rail differ significantly from those of buses and may be more likely to be towards the front or rear of the vehicle due necessary acceleration or deceleration. Additionally, ferries are on occasion buffeted by wind and waves and the energy of these forces will vary with the operational area in which the ferry is in service. Recognising the various movement forces likely to be experienced in operational areas would allow ferry operators to determine when passive restraints at allocated spaces were advisable.

The current requirements for passive restraint systems in the Transport Standards Guidelines do not provide clarity to operators and providers to ensure safety for passengers is improved and not compromised. While there are varied means of passively containing mobility aid movement explored in the Transport Standards Guidelines, these means must not compromise other Transport Standards requirements such as access path width or manoeuvring space to allow turns into allocated spaces. Additionally, Australia Design Rule requirements for passenger egress and emergency exit access must not be compromised by the inappropriate design or placement of other support fixtures, such as fold-down aisle grabrails, static aisle-side rails or stanchions. The consideration of all of these safety regulations contributes to the uncertainty and lack of clarity around best practice design and placement of passive restraint systems.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

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<sup>30</sup>Coroners Court of Victoria, *Wheelchair users at risk on buses, says coroner*, 4 January 2022, <https://www.coronerscourt.vic.gov.au/wheelchair-users-risk-buses-says-coroner>

## Policy options

### Status quo

Transport Standards section 9.11 Movement of mobility aid in allocated space, would remain unchanged and no additional guidance would be issued.

#### 9.11 Movement of mobility aid in allocated space

An allocated space must contain movement of a mobility aid towards the front and sides of a conveyance.

This section applies to buses (except dedicated school buses), trams and light rail.

### Non-regulatory option

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to include more refined advice for containment of mobility aids in allocated spaces and provide a definition for passive restraint systems. Guidance may also recognise the different lateral forces that are experienced in different conveyances and provide specific advice for buses, trams and light rail, and ferries.

A definition of a passive restraining system may include:

#### Passive restraining system

- A passive restraining system contains movement of a wheelchair within an allocated space.
- Passive restraints include the sides of a conveyance or excursion barriers such as rails and vertical padded boards that act as passive restraints against the tipping or sliding of a mobility aid towards the aisle, front or rear of the conveyance.
  - Other innovative technical solutions that perform equal to or better than the requirements above may also be appropriate.

Specific guidance for **buses** may include:

- Forces experienced in buses resulting from certain turns (for example, cornering, sharp turns and roundabouts), lateral displacement due to kerb strike or sudden acceleration or deceleration may cause the mobility aids of passengers riding in an allocated space to tip or slide. These tipping or sliding movements may be in any of four directions; towards the front, rear, wall side of the bus or towards the aisle.
- Passive containment should be in place to prevent tipping or sliding out of the allocated space.
- Passengers who choose to travel without containment should be permitted to do so. Passengers may choose to orient themselves facing forward, to the rear or side of the vehicle.

Specific guidance for **trams and light rail** may include:

- Forces experienced in trams and light rail resulting from sudden acceleration or deceleration may cause the mobility aids of passengers riding in an allocated space to tip or slide. These tipping or sliding movements may be towards the front or rear of the allocated space.
- Passive containments should be in place to restrict these movements to within the allocated space.
- Some tram services are bidirectional and have consolidated allocated spaces one behind the other. Due to the limited space inside conveyances, some mobility aid users use one



allocated space as an access path or manoeuvring area to access the adjacent allocated space. A passive containment system installed between consolidated allocated spaces should maintain this.

- Passengers who choose to travel without containments should be permitted to do so. Passengers may choose to orient themselves facing forward, to the rear or side of the vehicle.

Specific guidance for **ferries** may include:

- Ferries operating in waters that on occasion experience high wind and wave energy would benefit from passive restraints in allocated spaces. Open seas and open harbours exposed to strong winds are the environments likely to experience high seas. Riverine ferry operators are very unlikely to have any significant wave action with which they must deal.
- Ferries operating in Operational areas A to C as defined in the *National Standard for Commercial Vessels Part B General requirements (2018)* should have passive restraints at allocated spaces. Operational areas D to E would not impose movements on a vessel that would require passive restraints at allocated spaces.
- Passengers may choose to orient themselves facing forward, to the rear or side of the vehicle.

## Regulatory option

The Transport Standards would be amended to include more defined requirements for containment of mobility aids in allocated spaces and define passive restraint systems. The Transport Standards would also include new requirements for buses, trams and light rail for mobility aids in allocated spaces.

Transport Standards section 9.11 Movement of a mobility aid in an allocated space, would be amended to include the following (including any requirements retained or amended from the status quo):

- Each allocated space must contain movement of a mobility aid towards the front, rear and sides of a bus.

These requirements would pertain to buses (except dedicated school buses).

The Transport Standards would include the following new requirements:

- Each allocated space must contain movement of a mobility aid towards the front, rear and wall side of a tram or light rail car.

These requirements would pertain to trams and light rail.

The Transport Standards would be amended to include a definition for passive restraining systems:

### Passive restraining system

- A passive restraining system contains movement of a wheelchair within an allocated space.
- Passive restraints include the sides of a conveyance or excursion barriers such as rails and vertical padded boards that act as passive restraints against the tipping or sliding of a mobility aid towards the aisle, front or rear of the conveyance.
  - Other innovative technical solutions that perform equal to or better than the requirements above may also be appropriate.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect the new requirements and include specific guidance for buses, trams and light rail and ferries.

Specific guidance for **buses** may entail the following:

- Forces experienced in buses resulting from fast turns, lateral displacement due to kerb strike or sudden acceleration or deceleration may cause the mobility aids of passengers riding in an allocated space to tip or slide. These tipping or sliding movements may be in any of four directions; towards the front, rear, wall side of the bus or towards the aisle.
- Passive containment must be in place to prevent tipping or sliding out of the allocated space.
- Passengers who choose to travel without containment must be permitted to do so. Passengers may choose to orient themselves facing forward, to the rear or side of the vehicle.

Specific guidance for **trams and light rail** may entail the following:

- Forces experienced in trams and light rail resulting from sudden acceleration or deceleration may cause the mobility aids of passengers riding in an allocated space to tip or slide. These tipping or sliding movements may be towards the front or rear of the allocated space.
- Passive containments must be in place to restrict these movements to within the allocated space.
- Some tram services are bidirectional and have consolidated allocated spaces one behind the other. Due to the limited space inside conveyances, some mobility aid users use one allocated space as an access path or manoeuvring area to access the adjacent allocated space. A passive containment system installed between consolidated allocated spaces should maintain this.
- Passengers who choose to travel without containments should be permitted to do so. Passengers may choose to orient themselves facing forward, to the rear or side of the vehicle.

Specific guidance for **ferries** may entail the following:

- Ferries operating in waters that on occasion experience high wind and wave energy would benefit from passive restraints in allocated spaces. Open seas and open harbours exposed to strong winds are the environments likely to experience high seas.
- Ferries operating in Operational areas A to C as defined in the *National Standard for Commercial Vessels Part B General requirements (2018)* should have passive restraints at allocated spaces. Operational areas D to E would not impose movements on a vessel that would require passive restraints at allocated spaces.
- Passengers may choose to orient themselves facing forward, to the rear or side of the vehicle.

## Impact analysis

### Status quo

#### Impacts

- The requirements for the containment of mobility aids in allocated spaces in transit will continue to be inadequate.
- The safety issues for passengers identified will remain, passengers in mobility aids may continue to topple or slide into the aisle, which can cause injuries to the mobility aid user and surrounding passengers.

## Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs may be incurred to install adequate passive containment systems on buses, trams and light rail and ferries to the extent that they do not already comply with the proposed guidance.
- There may be a greater burden to retrofit certain containments or to certain conveyances. For example, Melbourne's C Class trams may need a different solution to other tram and light rail cars due to the 'in-line' placement of the allocated spaces.
- Additionally, ironing boards on buses may be relatively easier to install compared to aisle-side passive containments that may still need to be researched or tested.
- As this option is discretionary, it may not provide the certainty that operators and providers will install passive containment systems on conveyances. Where passive containments are not installed, passengers using mobility aids may still face safety risks and may be discouraged to travel on public transport.

### Benefits

- To the extent that guidance is followed, safety for passengers traveling with a mobility aid will be improved. If mobility aids are adequately contained in allocated spaces, this should limit the movement of mobility aids during transit, improving safety for other passengers and staff.
- Additional guidance around the use and definition of passive restraints will assist operators and providers ensure the containment systems used on conveyances are appropriate, effective and do not contravene any other sections of Transport Standards.
- Benefits will be achieved to the extent operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Costs will be incurred to install adequate passive containment systems on buses, trams and light rail and ferries to the extent that they do not already comply with the proposed requirements.
- Installation costs will vary depending on the type of conveyance, the type of passive restraint (such as ironing boards versus aisle-side restraints in buses) and the extent to which retrofitting is required.
- There is no regulatory requirement for ferries to install passive restraints so costs additional costs incurred will not differ from those incurred from implementing the non-regulatory option.

### Benefits

- If mobility aids are adequately contained in allocated spaces, this should limit the movement of mobility aids during transit, improving safety for other passengers and staff, improving safety for passengers.

- Their safety and confidence will be significantly improved by passive containments in allocated spaces.
- Improved regulatory clarity around the use and definition of passive restraints will assist operators and providers ensure the containment systems used on conveyances are appropriate, effective and do not contravene any other sections of Transport Standards.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of allocated space allowing containment of mobility aids should reduce injuries on conveyances and improve safety for people with disability.
- **Amenity:** Not applicable.
- **Accessibility:** Provision of allocated space allowing containment of mobility aids should improve the experience and ease of access to public transport services and induce new users.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Retrofitting or providing new active restraints to meet standards. Financial cost of retrofitting or provision of new assets.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 51.2

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What experiences have you had with wheelchair or scooter safety in allocated spaces on buses, trams, light rail and ferries?
  - a. Have you, or your passenger, ever slid or toppled? If so, could you describe the experience?
  - b. Have you, or your passenger, ever had difficulty manoeuvring into an allocated space due to the location or design of restraints systems? Could you describe the experience and outcome?
  - c. Have you ever been deterred from using public transport due to safety concerns related to mobility aid safety?

## 54. Mobility aid movement in allocated spaces: Active restraints

### Issue

Unrestrained mobility devices in allocated spaces on conveyances can topple or slide, particularly if the conveyance executes a turn at speed, is displaced laterally due to kerb strike, or due to the lateral displacement forces caused by necessary acceleration or deceleration. This puts the occupant of the mobility aid at risk as well as passengers who may be struck by the sliding or toppling wheelchair or scooter.

The Transport Standards do not define active restraints, provide technical standards for the use of active restraints, or clearly state where active restraints are necessary on conveyance. This results in allocated spaces not adequately addressing the safety needs of passengers using a mobility device. The lack of technical references in the Transport Standards creates inconsistencies across different jurisdictions regarding compliance for vehicles with wheelchair tiedown and occupant restraint systems that use belt-type occupant restraints. This leads to inconsistency in safety standards across jurisdictions that is further complicated by numerous products that are commercially available and are in use.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no additional guidance would be issued.

The Transport Standards would continue to have no requirements for mobility aids in allocated spaces in conveyance where safety belts are mandatory.

#### Non-regulatory option

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice on active restraints on public transport conveyances.

Specific guidance may include:

- An active restraint anchors a wheelchair or similar mobility aid into an allocated space. Anchorage belts are an example of active restraints. Active restraint systems are described in ASNZS10542.1 (2015) Technical systems and aids for people with disability - Wheelchair tiedown and occupant-restraint systems - Requirements and test methods for all systems for use by people with disabilities who travel while seated in their mobility aids.
- Passengers and operators should be aware that use of active restraints should be used where safety belts are compulsory, unless the passengers have a dispensation through

normal channels. Passengers may choose to travel facing towards the front or rear of the conveyance.

- As a safety measure, active restraint systems complying with ASNZS10542.1 (2015) should be operator deployable as default, rather than passenger deployable. Should a passenger travelling in a mobility aid request that a carer or travelling companion attach the active restraints to their mobility aid, this should only be done under the supervision of staff properly trained in the use of active restraint systems and would be at the operators and providers discretion.
- Staff who apply active restraint systems should be properly trained in their use. Verification of staff competency that would satisfy the jurisdiction in which the service operates should be available on request.
- Emerging technologies may make equivalent access solutions in which a passenger could deploy the active restraints possible. Innovation of this type is encouraged, however should comply with the safety and other requirements of the jurisdiction in which the service operates.
- Passengers should ensure that their wheelchairs and similar mobility aids comply with relevant safety requirements such as criteria for belt anchorage points. Compatibility with the requirements of ASNZS10542.1 (2015) is recommended and passengers are encouraged to contact the operator or provider for more information on wheelchair restraints.
  - This is particularly important for mobility scooters as most of these lack the necessary attachment points for belts. Most wheelchairs will have the necessary attachment points but users should confirm this prior to purchase or travel.
- Conveyances on which seatbelts are not normally offered may also be fitted with active restraints, to be used at the discretion of the passenger travelling with a wheelchair.

## Regulatory option

The Transport Standards would be amended to include new technical requirements for active restraints, define active restraining systems, and specifies where active restraining systems are mandatory.

The Transport Standards would include the following new requirements for movement of mobility aid in allocated spaces – active restraints:

- If safety belts are compulsory under legislation in a conveyance, active restraint must be fitted and conform to ASNZS10542.1 (2015) at a minimum.
- Passengers must use active restraints systems if safety belts are compulsory, unless the passengers have a dispensation through normal channels. Passengers may choose to travel facing towards the front of the conveyance.
- Active restraint systems must be operator deployable as default, rather than passenger deployable.

These requirements pertain to all conveyances.

The Transport Standards would be amended to include a definition for active restraining systems:

### Active restraining systems

- An active restraint anchors a compatible wheelchair or similar mobility aid into an allocated space. Anchorage belts are an example of active restraints.
- Operators of services on which the use of safety belts are mandatory must provide active restraints for use by people travelling in wheelchairs.
- Passengers must use active restraints if they are compulsory, unless the passengers have a dispensation through normal channels.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect the new requirements.

Specific guidance may include:

- Emerging technologies may make equivalent access solutions in which a passenger could deploy the active restraints a possibility. Innovation of this type is encouraged, however must comply with requirements of the relevant jurisdiction in which the service operates.
- Should a passenger request that a carer or travelling companion attach the active restraints to their mobility aid this could only be done under the supervision of staff properly trained in the use of active restraint systems and would be at the operator's discretion.
- Staff who apply active restraint systems must be properly trained in their use. Verification of staff competency that would satisfy the jurisdiction in which the service operates must be available on request.
- Passengers should ensure that their wheelchairs and similar mobility aids comply with relevant safety requirements such as criteria for belt anchorage points. Compatibility with the requirements of ASNZS10542.1 (2015) is recommended and passengers are encouraged to contact the operator or provider for more information on wheelchair restraints.
  - This is particularly important for mobility scooters as most of these lack the necessary attachment points for belts. Most wheelchairs will have the necessary attachment points but users should confirm this prior to purchase or travel.
- Conveyances on which seatbelts are not normally offered may also be fitted with active restraints, to be used at the discretion of the passenger travelling with a wheelchair.

## Impact analysis

### Status quo

#### Impacts

- The requirements for the containment of mobility aids in allocated spaces in transit through the use of active restraints will continue to remain inadequate.
- The safety issues for passengers relating to inadequate containment of mobility aids in transit will remain.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs may be incurred to upgrade or install active restraining systems so that they are compliant with relevant Australian Standards and to train staff to fit active restraints to passengers if required.
- As this option is discretionary, it does not provide certainty to passengers that a consistent minimum standard for active restraints will be used which may create inconsistencies with the level of safety provided. This may reduce a passenger's confidence to travel and ability to travel independently.



## Benefits

- To the extent that guidance is followed, safety for passengers traveling with a mobility aid will be improved if appropriate active restraints are used.
- Additional guidance will provide clarity on the requirements for operators and providers, especially around how active restraints function and where they should be employed to enhance passenger safety.

## Regulatory option

### Impacts

- Operators and providers whose restraints do not meet standards would be required to upgrade, which would incur purchase and installation costs. There is unlikely to be cost implications for vehicle structure as attachment points for seatbelts are already a requirement.
- There may be a legal liability risk to operators or providers if carers or companions apply active restraints incorrectly.

### Benefits

- Safety for passengers traveling with a mobility aid will be improved if appropriate active restraints are used as they will reduce the risk of tipping, falling, sliding and other accidents while in transit.
- Improved clarity around operator and driver responsibilities will benefit people whose mobility aid must be actively restrained while in transit.
- People with disability will benefit from improved confidence that operators can adequately operate active restraints.
- Operators and providers will benefit from increased regulatory clarity around the use and function of active restraints, specifically where they are required.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of consistent standards for safer active restraints should reduce injuries within conveyances.
- **Amenity:** Not applicable.
- **Accessibility:** The provision of mobility aids should help people with disability feel more comfortable to use public transport and encourage increased use.

- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or providing new active restraints to meet standards.
- **Monetised compliance costs (administrative):** 0.6
- **Monetised compliance costs (substantive):** 354.0

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What has your experience been using restraints on public transport?
  - a. Did you feel safe?
  - b. Did you feel comfortable?
  - c. As an operator and / or provider do you know how use the restraint properly?
  - d. If you, or your passenger, have ever been involved in an incident whilst actively restrained, could you provide details?

## 55. Appropriate seats on booked services

### Issue

The Transport Standards require accessible seats to be held until last in the booking process, however these requirements are no longer best practice to ensure accessibility in the booking process. The definition of an ‘accessible seat’ is unclear and does not capture seating appropriate to a passenger’s seating location needs. People with disability benefit from being able to choose seating that is appropriate for their needs, this does not always match where accessible seats are located on booked services. Contemporary booking practices and technologies in many cases allows passengers to select whichever seats they prefer; this should be reflected in the Transport Standards requirements.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to ‘Introduction’.

### Policy options

#### Status quo

Transport Standards section 28.4 Accessible seats to be available for passengers with disabilities, would remain unchanged and no additional guidance would be issued.

#### **28.4 Accessible seats to be available for passengers with disabilities**

- (1) Accessible seats must be kept for passengers with disabilities.
- (2) Operators must allocate unbooked accessible seats to other passengers only after all other standard seats are filled.

This section pertains to aircraft, coaches, ferries, dial-a-ride services and trains.

#### Non-regulatory option

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice on booking seats appropriate to a passenger’s needs and to specify the nature of appropriate versus accessible seats and is pertinent to booked services on aircraft, coaches, ferries, dial-a-ride services and trains.

Specific guidance may include:

- People with disability should be able to book seats that are located in parts of a conveyance that are appropriate for their travelling needs.
- Operators and providers should have booking policies that are able to accommodate the varying seating needs of people with disability in an appropriate manner, by offering appropriate seats.
- Appropriate seats do not require signs or other means of differentiation from other seats and are of the same design and configuration as other seats. Appropriate seats are identified during the booking process and accommodation made for passengers with disabilities unless

all seats on the service were already booked. For example, an appropriate seat may be closest to the toilet to suit a particular person's needs.

- Passengers should identify their particular seating needs at the time of booking. While operators will accommodate passengers to the extent possible it may not always be possible to fully accommodate the need. For example, if a person with similar requirements had already booked the seat, that person would have priority.
- Passengers should be advised during the booking process the seats identified to be most appropriate for people with disability are to be reserved until other seats are taken. This is particularly important when passengers can select their own seats during the booking process.
- Passengers should be able to request appropriate seating in any class of service offered by the operator.

## Regulatory option

The Transport Standards would be amended to include requirement for booking seats appropriate to a passenger's needs and specify the nature of appropriate versus accessible seating for people with disability.

Transport Standards section 28.4 Accessible seats to be available for passengers with disabilities, would be amended to include the following requirements (including any requirements retained or amended from the status quo):

- Passengers with disabilities must be able to book seats that are located in parts of the conveyance that are appropriate for their travelling needs.
- Operators and providers must appropriately accommodate passengers based on their needs unless all seats on the service are already booked.
- If different classes of travel are provided by a service, seats appropriate to the travelling needs of people with disability must be available in each class.

These requirements would apply to aircraft, coaches, ferries, dial-a-ride services and trains.

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to reflect the changes to the Transport Standards.

Specific guidance will include:

- Passengers should identify their particular seating needs at the time of booking so they can book an appropriate seat for their needs. For example, an appropriate seat may be closest to the toilet to suit a particular person's needs.
- While operators will accommodate passengers to the extent possible it may not always be possible to fully accommodate the need. For example, if a person with similar requirements had already booked the seat, that person would have priority.
- Appropriate seats do not require signs or other means of differentiation from other seats and are of the same design and configuration as other seats. Appropriate seats are identified during the booking process and accommodation made for people with disability unless all seats on the service were already booked.
- Passengers should be advised during the booking process the seats identified to be most appropriate for people with disability are to be reserved until other seats are taken. This is particularly important when passengers can select their own seats during the booking process.
- Passengers must be able to request appropriate seating in any class of service offered by the operator.

## Impact analysis

### Status quo

#### Impacts

- The cost would be a lost opportunity to make the booking process more responsive to the seating needs of people with disability and to address the ambiguity around the nature and definition of 'accessible seats'. This may result in sub-optimal outcomes whereby a person with disability is unable to book a seat appropriate to their needs.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, modification to an operator or provider's booking policy may be required. This may involve costs associated with reformatting web sites to allow the identification of a person's travelling needs where a booking can be made online.
- There may also be costs associated with renegotiating seating arrangements with passengers who were being shifted to accommodate people with disability.

#### Benefits

- To the extent that guidance is followed, people with disability will benefit by being able to access appropriate seats on booked services that accommodate their seating needs.
- Benefits achieved to the extent that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

### Regulatory option

#### Impacts

- This reform only impacts potential modification of booking policy and there will be no loss of seats per conveyance. As such, the costs incurred by operators and providers will vary depending on the cost to upgrade their system, and may be high.
- However, modifying a booking policy may involve costs associated with reformatting web sites to allow the identification of a person's travelling needs where a booking can be made online. Additionally, there would be costs associated with renegotiating seating arrangements with passengers who were being shifted to accommodate people with disability.

## Benefits

- People with disability will benefit by being able to access appropriate seats on booked services in a location suitable to their needs.
- Operators will benefit from the removal of ambiguity around the meaning of accessible seating by redefining it as appropriate seating. This option also aligns with current booking practice which should simplify requirements for operators and providers.

## CBA of regulator option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Not applicable.
- **Amenity:** A booking service which enables equivalent access of seating for users with disability should improve ease of use and the overall experience for people with disability.
- **Accessibility:** A booking service which enables equivalent access of seating should induce new users of public transport as people with disability are able to book specific seats to cater to their needs.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with the creation of a website or process that allows for seat booking, as well as training costs for employees to provide seat booking service for people with a disability - incurred by public transport operator/provider.
- **Monetised compliance costs (administrative):** 1.3
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. What is your, or your passengers, experiences in booking appropriate seats on public transport?
  - a. Were appropriate seats available?
  - b. Was there a need to negotiate an appropriate seat?
  - c. Was the eligibility process fair and accommodating? Please provide detail.

## 56. Conveyance dwell times at stops

### Issue

A conveyance departing before people with disability are appropriately seated is a safety issue and may discourage people with disability from using certain public transport modalities.

The Transport Standards do not provide any requirements for dwell times at stops that permit people with disability to be safely seated, securely located in allocated spaces or have safely alighted before the conveyance resumes movement. This issue is particularly relevant for passenger with disability who have mobility, sensory cognitive impairments or who may travel more slowly than other passengers.

In some conveyances (such as buses and coaches) it is possible for drivers to observe if people with disability are safely seated in a priority seat or securely positioned in an allocated space prior to departing a stop. This is difficult or not possible in conveyances where the driver or master does not have a view of the priority seats and allocated spaces or the conveyance is an autonomous vehicle.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

The Transport Standards would continue to be silent on dwell times.

#### Non-regulatory option

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice that conveyances should not depart from stops until passengers including those with disabilities are safely seated, securely located or securely positioned in allocated spaces or have safely alighted.

Specific guidance pertaining to conveyances where the driver / master had a clean line of sight to the access path, allocated spaces and priority seats would include:

- Dwell times at stops must permit passengers, including those with disabilities to safely alight and to board and be safely seated or securely positioned in allocated spaces before the conveyance resumes movement. All passengers should to be safely seated, have a firm grip on a grabrail or other support if standing, or be securely positioned in allocated spaces prior to a conveyance leaving a stop.
- Dwell times at stops should therefore balance the often-slower gait of people with disability with the imperative to maintain the timetable. Disability awareness training will better equip drivers to understand passenger needs and behaviour.



- In conveyances such as buses and coaches it is possible for drivers to observe if people with disability are safely seated in a priority seat or securely positioned in an allocated space prior to departing a stop.
  - In conveyances where this is difficult or not possible, solutions should be implemented, such as sensors or signals that alert drivers that a longer dwell time is required at a particular stop. These might be passenger initiated or rely on other technical mechanisms.
- Locating the priority seats and allocated spaces so that they are convenient to entrances and ensuring that scheduled dwell times are of sufficient duration to allow passengers to reach priority seats and allocated spaces and be safely seated or securely positioned will enhance the amenity of boarding and alighting for people with disability.
- Autonomous vehicles are currently in service and likely to become more common in the short to medium term. Systems that allow for passengers to be safely seated, have a firm grip on a grabrail or other support if standing, or securely positioned in allocated spaces prior to a conveyance leaving a stop may be installed to meet this guidance. These might be passenger initiated or rely on sensors that are integrated with artificial intelligence systems.

## Regulatory option

The Transport Standards would be amended to include new requirements for conveyance dwell time at stops.

The Transport Standards would include the following new requirements:

- Dwell times at stops must permit passengers, including those with disabilities, to safely alight and to board and be safely seated, be securely located, or be securely positioned in allocated spaces before the conveyance resumes movement.

These requirements would apply to all conveyances where the driver or master has a clear view of the priority seats and allocated spaces.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements and to encourage automated vehicles with the ability to adjust dwell times based on sensors or passenger feedback to comply with these requirements.

Specific guidance may include the following:

- All passengers should to be safely seated, have a firm grip on a grabrail or other support if standing, or be securely positioned in allocated spaces prior to a conveyance leaving a stop.
- Dwell times at stops should balance the often-slower gait of people with disability with the imperative to maintain the timetable. Disability awareness training will better equip drivers to understand passenger needs and behaviour.
- In conveyances such as buses and coaches it is possible for drivers to observe if people with disability are safely seated in a priority seat or securely positioned in an allocated space prior to departing a stop.
  - In conveyances where this is difficult, solutions should be implemented, such as sensors or signals that alert drivers that a longer dwell time is required at a particular stop. These might be passenger initiated or rely on other technical mechanisms.
- Autonomous vehicles are currently in service and likely to become more common in the short to medium term. Systems that allow for passengers to be safely seated, have a firm grip on a grabrail or other support if standing, or securely positioned in allocated spaces prior to a conveyance leaving a stop will need to be installed. These might be passenger initiated or rely on sensors that are integrated with artificial intelligence systems.

## Impact analysis

### Status quo

#### Impacts

- There would continue to be a lack of certainty that passengers have sufficient time to safely board and alight. This may result in unsafe outcomes for passengers in some circumstances whereby the risk of injury is increased if a conveyance leaves the stop while a passenger has not safely seated.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- Operators may not need to physically alter their conveyances, unless using a technological solution to ensure dwell safe dwell times, but may need to exercise a degree of flexibility with timetables. The impact on conveyances that operate on road may be less as they must deal with variable traffic conditions hour by hour.
- To the extent that guidance is implemented, additional costs would be incurred if operators chose to install sensors, cameras or other technology to determine passengers require additional time or allow passengers to communicate this with the driver.

#### Benefits

- To the extent that guidance is followed, people with disability will benefit from enhance safety and confidence to use public transport.
- Operators and providers will benefit from additional guidance on best practice for safe dwell times and will have flexibility to manage implementation and associated costs.
  - Benefits achieved to the extent that operators and providers implement guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

### Regulatory option

#### Impacts

- To the extent that guidance is implemented costs are likely to be minimal as the regulatory change largely relates to policies / procedures rather than changes to physical infrastructure.
- Operators would not need to physically alter their conveyances, but may need to exercise a degree of flexibility with timetables.
- Costs would be incurred where additional technology is installed to enable drivers / masters to view the boarding and alighting of passengers or other communication requirements. Additional training for drivers / masters may be required.

#### Benefits

- The safety for all passengers will be improved if conveyances dwell times at stops are appropriate and people with disability will be afforded greater confidence to use public

transport. Greater public transport use due to enhanced safety and confidence will have positive health, social and economic benefits.

- This option may result in a reduction of incidents or injury if conveyances do not depart until all passengers are safely boarded or alighted.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of safer conditions surrounding vehicles leaving stops should reduce injuries occurring during boarding and alighting conveyances.
- **Amenity:** Provision of consistent standards surrounding the time required for vehicles to wait for passengers to be seated should improve the experience of passengers with disability.
- **Accessibility:** This reform should encourage existing users to take more trips and induce new users to access public transport services.
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with staff training
- **Monetised compliance costs (administrative):** Nil
- **Monetised compliance costs (substantive):** Nil

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you, or your passengers, ever been in a situation where a conveyance has departed or moved off before being seated or were safely in an allocated space? If so, can you describe what happened?

## 57. Stairs on trains

### Issue

The Transport Standards requirements for stairs are not specific to each type of public transport conveyance, and the requirements for internal stairs in rail cars are not always achievable. The Transport Standards set requirements for conveyance stairs in section 14.3, Compliance with Australian Standards – conveyances. This section references AS1428.2 (1992) *Design for access and mobility – General requirements for access – New building work Clause 13.2*, and AS1428.1 (2001) *Design for access and mobility – General requirements for access – New building work*. The space constraints of rail cars make compliance with these standards difficult in many cases. Furthermore, the accessibility requirements are inadequate to ensure people with disability can safely traverse stairs on trains. Where grabrails are not adequately luminance contrasted, it may be challenging for people with low vision to identify grabrails, which may present a safety risk for traversing stairs.

As a result of the existing requirements in the Transport Standards not being achievable, some train stairs built after the introduction of the Transport Standards are non-compliant. An achievable but credible technical requirement is required.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee.

Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 14.3 Compliance with Australian Standards – conveyances and section 11.3 Handrails on steps, would remain unchanged and no additional guidance for stairs on trains would be issued.

#### **14.3 Compliance with Australian Standards — conveyances**

- (1) If stairs are provided on a conveyance mentioned below, they must comply with:
  - (a) AS1428.1 (2001) *Clause 9.1* (including the notes), Stair construction; and
  - (b) AS1428.2 (1992) *Clause 13.2, Configuration of steps, Clause 13.3, Warning strip at nosing of steps and Figures 8 and 9*.
- (2) However, the minimum access path width on stairs in the conveyance must be 850 mm.

This section pertains to ferries, trains, trams, and light rail.

### 11.3 Handrails on steps

- (1) A handrail on steps need not extend beyond the top or bottom of the steps.
- (2) A domed button may be placed 150 mm from any break or end of a handrail instead of an extension at a rail end (AS1428.2 (1992) Figure 5).

This section pertains to conveyances except dedicated school buses and small aircraft.

## Non regulatory option

The Whole Journey Guide and / or The Transport Standards Guidelines would be updated to include advice on internal stairs on board trains, including accessibility features and handrail geometry.

Specific guidance may include the following:

- Where internal stairs are provided, they should have opaque risers, nosing's that do not project beyond the riser and luminance contrasting strips at the front of the nosing, as per AS1428.1 (2009) – *Design for access and mobility – General requirements for access – New building work Clause 11.1 (c), (d), (e), (f) and (g)*.
- Stair and steps riser and going geometry should:

#### Sub-option 1

Be safe and fit for purpose.

#### Sub-option 2

Conform to the riser and going specifications of the National Construction Code, Table D2.13<sup>31</sup>.

- The minimum access path width on stairs and steps should be 850 millimetres.
- Stairs and steps should not intrude into access paths as this may present a tripping hazard or compromise the access path width.
- A handrail on steps or stairs need not extend beyond the top or bottom of the steps or stairs. This is to avoid compromising the access paths at the head or foot of the stairs.
- If the handrail is interrupted or terminates abruptly a domed warning indicator with a height of between 4 to 5 millimetres and a diameter of between 10 to 12 millimetres should be provided on the top of the handrail 150 millimetres from the end of the handrail.
- Handrails should have at least 30 per cent luminance contrast with any background wall or surface adjacent to the handrail, within a distance of 2000 millimetres from the handrail.
- Tactile ground surface indicators are not required at train, tram and light rail stairs and steps.
- Handrail profile should be either circular or oval as per AS1428.1 (2009) *Clause 12 (b)*.

## Regulatory option

The Transport Standards would be amended to include modality specific requirements for stairs on trains. The regulatory option also includes updated Australian Standard references and handrail requirements for all conveyances (except dedicated school buses and small aircraft.)

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<sup>31</sup>Australian Building Codes Board, *The National Construction Code*, 24 December 2021, <https://ncc.abcb.gov.au/ncc-online/NCC/2019-A1/NCC-2019-Volume-One-Amendment-1/Section-D-Access-and-Egress/Part-D2-Construction-Of-Exits>

Section 11.3 Handrails on steps, would be amended to include the following (including any requirements retained or amended from the status quo):

- A handrail on stairs or steps need not extend beyond the top or bottom of the steps and stairs.
- If the handrail is interrupted or terminates abruptly at the top or bottom step a domed warning indicator with a height of between 4 to 5 millimetres and a diameter of between 10 to 12 millimetres must be provided on the top of the handrail 150 millimetres from the end of the handrail.
- Handrails must have at least 30 per cent luminance contrast with any background wall or surface adjacent to the handrail, within a distance of 2000 millimetres from the handrail.
- Handrails must comply with AS1428.1 (2009) *Clause 12 Handrails*.

These requirements would apply to conveyances (except dedicated school buses and small aircraft).

The Transport Standards would include the following new requirements:

- Where internal stairs and steps are provided, they must have opaque risers and comply with AS1428.1 (2009) *Clause 11.1 (c), (d), (e), (f) and (g)*.
- Stair and step geometry must comply with:

**Sub-option 1**

The riser and going specifications of the National Construction Code, Table D2.13<sup>32</sup>.

**Sub-option 2**

Riser and going dimensions that are safe and fit for purpose.

- The minimum access path width on stairs and steps must be 850 millimetres.
- Stairs and steps must not intrude into access paths.
- TGSIs are not required at train, tram and light rail stairs and steps.

These requirements would apply to trains, trams and light rail.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements.

Specific guidance may include the following:

- People who have disabilities that do not affect their capacity to walk or climb stairs will benefit from stairs that are safe and fit for purpose. Stair and handrail geometry are constrained by the availability of space in carriages. Other features such as luminance contrast of tread nosing's and handrails are unaffected by space though and are important safety features for people who have low vision.

## Impact analysis

### Status quo

#### Impacts

- The Australian Standards requirements for stairs would remain unachievable for some operators and providers. Thus, stairs on trains may continue to be non-compliant with the Transport Standards.

- People with low vision would continue to face challenges identifying grabrails as accessibility features would not be improved. This would continue to present safety hazards when traversing stairs.

### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs would be incurred to install compliant stairs, including new accessibility features that may not already be provided.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the stair geometry and accessibility requirements, or the new handrail requirements. Stairs on trains may not be fully accessible, and the requirements would remain unachievable for many operators and providers.
- The impact on new double-deck passenger trains will be negligible if their internal stair geometry is safe and fit for purpose.
- If National Construction Code (NCC) specifications can be achieved in the space available, costs for new rolling stock would be negligible.
- Likewise, the handrails on new rolling stock internal stairs would meet the proposed advice.
- Existing rolling stock may not meet the stair geometry advice. Retrofitting stairs in older rolling stock would be an expensive and may qualify as unjustifiable hardship.

### Benefits

- People with disabilities who are able to safely use stairs will benefit from the continuation of the good practice outcomes in the latest rolling stock.
- The general public will benefit from good stair design.
- Operators will benefit from greater design certainty.
- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Impact on new double-deck passenger trains will be negligible if their internal stair geometry is to would be safe and fit for purpose.
- If NCC specifications can be achieved in the space available costs for new rolling stock would be negligible.
- Likewise, the handrails on new rolling stock internal stairs would meet the proposed advice.
- Existing rolling stock may not meet the stair geometry advice, and retrofitting stairs in older rolling stock would be a highly costly. The unjustifiable hardship provision may be relevant in such situations.

### Benefits

- People with disabilities who are able to safely use stairs will benefit from the continuation of the good practice outcomes in the latest rolling stock.



- The general public will benefit from good stair design.
- Operators will benefit from greater design certainty.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

The CBA for this reform provides a cumulative costing of the following reform areas:

- Stairs on trains
- Stairs on ferries
- Stairs on buses

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of new specific requirements for internal stairs and handrails should improve safety for all users of public transport, by reducing trips, slips and falls.
- **Amenity:** Not applicable
- **Accessibility:** Provision of equivalent access to internal facilities in public transport vehicles should improve the ease of access to public transport services and induce new users
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

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<sup>32</sup> Australian Building Codes Board, *The National Construction Code*, 24 December 2021, <https://ncc.abcb.gov.au/ncc-online/NCC/2019-A1/NCC-2019-Volume-One-Amendment-1/Section-D-Access-and-Egress/Part-D2-Construction-Of-Exits>

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or providing new internal stairs/handrails.
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 33.0

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
  - a. For the non-regulatory and regulatory options, which sub-option do you prefer?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you, or your passengers, ever had difficulty climbing or descending stairs, stumbled or tripped on internal rail carriage stairs? If so, could you describe the situation and suggest any improvements (for example handrails)?

## 58. Stairs on ferries

### Issue

The Transport Standards do not have specific requirements for internal ferry stairs, but rather the requirements cover multiple modalities with one set of requirements. The referenced Australian Standards in Transport Standards section 14.3 Compliance with Australian Standards — conveyances, are dated and not readily applicable to ferries. Vessel interiors are space constrained and the geometry required of stairs in a building is not always feasibly achieved in a ferry. In addition, the stairs in ferries serve as egress routes during emergencies, which affects their geometry. The passenger areas of ferries must have stairs suitable for high capacity escapes.

Ferries are covered by the NSCV which regulates the design of ferry stairs. The NSCV is administered by the Commonwealth Government's Australian Maritime Safety Authority. Ferry stairs are covered in the National Standard for Commercial Vessels Part C Design and construction section 1 Arrangement, accommodation and personal safety (2018) (NSCV(C)). NSCV(C) sets out stair geometry permitted in ferries in Part 15.3. These requirements take precedence over the Transport Standards.

The Transport Standards requirements are also inadequate for handrails along ferry stairs. There are accessibility omissions when compared to requirements for premises and infrastructure, such as the diameter of handrails, their intrusion into access path, their geometry and their luminance contrast against the background.

As a result, of the geometric and handrail requirements being inadequate and dated, stairs on ferries may not be safe for people with disability to use. Whilst ferry stairs may instead comply with the equivalent access principles of the Transport Standards, they are unable to comply with the requirements of the Transport Standards, creating uncertainty and increasing the regulatory burden on operators and providers.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

The Transport Standards would remain unchanged and no new guidance would be issued.

The Transport Standards would continue to lack modality specific requirements for ferry stairs.

#### Non regulatory option

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice for stairs and handrails on ferries.

Specific guidance may include the following:

- Where stairs and steps are provided, they should have opaque risers, nosing's that do not project beyond the riser and luminance contrasting strips at the front of the nosing, as per AS1428.1 (2009) *Clause 11.1 (c), (d), (e), (f) and (g)*.
- Stair riser and going geometry should conform to:

**Sub-option 1**

NSCV, *Part C Design and construction section 1 Arrangement, accommodation and personal safety (2018) section 5.13.3.4.*

**Sub-option 2**

The riser and going specifications of the National Construction Code, Table D2.13.

**Sub-option 3**

Riser and going dimensions that are safe and fit for purpose.

- The minimum access path width on ferry stairs should be 900 mm as per NSCV, *Part C Design and construction section 1 Arrangement, accommodation and personal safety (2018), Table 19*
- Stairs should not intrude into access paths as this may present a tripping hazard or compromise the access path width.
- TGSIs are not required at ferry stairs and steps.
- A handrail on stairs or steps need not extend beyond the top or bottom of the stairs or steps. This is to avoid compromising the access paths at the head or foot of the stairs.
- If the handrail is interrupted or terminates abruptly a domed warning indicator with a height of between 4–5 mm and a diameter of between 10–12 mm should be provided on the top of the handrail 150 mm from the end of the handrail.
- Handrails should have at least 30 per cent luminance contrast with any background wall or surface adjacent to the handrail, within a distance of 2000 mm from the handrail.
- Handrail profile should be either circular or oval as per AS1428.1 (2009) *Clause 12 (b)*.

## Regulatory option

The Transport Standards would be amended to include new requirements for ferry stairs and handrails along ferry stairs.

The Transport Standards would include the following new requirements for ferry stairs:

- Where stairs and steps are provided, they must have opaque risers and comply with AS1428.1 (2009) *Clause 11.1 (c), (d), (e), (f) and (g)*.
- Stair and steps risers and goings dimensions must comply with:

**Sub-option 1**

NSCV, *Part C Design and construction section 1 Arrangement, accommodation and personal safety (2018), section 5.13.3.4.*

**Sub-option 2**

National Construction Code, Table D2.13.

**Sub-option 3**

Riser and going dimensions that are safe and fit for purpose.

- The minimum access path width on stairs and steps in the conveyance must be 900 mm as per NSCV, *Part C Design and construction section 1 Arrangement, accommodation and personal safety (2018), Table 19*.
- Stairs and steps must not intrude into access paths.
- TGSIs are not required at ferry stairs and steps.

This section would apply to ferries.

The Transport Standards would include the following new requirements for handrails:

- Handrails must comply with the National Standard for Commercial Vessels *Part C Design and construction section 1 Arrangement, accommodation and personal safety (2018) Clause 5.12*.
- A handrail on steps and stairs need not extend beyond the top or bottom of the stairs or steps.
- If the handrail is interrupted or abruptly terminated, a domed warning indicator with a height of between 4–5 mm and a diameter of between 10–12 mm must be provided on the top of the handrail 150 mm from the end of the handrail.
- Handrails must have at least 30% luminance contrast with any background wall or surface adjacent to the handrail, within a distance of 2000 mm from the handrail.
- Handrail profile must be as per AS1428.1 (2009) Clause 12 (b).

These requirements would apply to ferries.

The Transport Standards Guidelines would be updated to reflect new requirements and include specific guidance for ferries.

Specific guidance may include the following:

- The preferred riser height for ferry stairs is 190 mm with a preferred going depth of 275 mm.
- Handrails should not compromise access paths by intruding into them. Any intrusion may introduce striking hazards for passengers or block the use of the access path by some passengers.

## Impact analysis

### Status quo

#### Impacts

- Ferry stairs and handrails would continue to not be aligned with industry standards and people with disability would continue to face accessibility and safety issues.
- The safety issues for passengers will remain in relation to stair nosing, luminance contrast and handrail design.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

## Non regulatory option

### Impacts

- To the extent that guidance is followed, costs would be incurred to make technical changes to contrasting strips on tread nosings where these are lacking and ensuring that steps do not obstruct access paths, and to adopt the other requirements for stair accessibility.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the accessibility requirements. The impact on people would be a reduced amenity and accessibility when using stairs on ferries.
- Due to spatial constraints, modification of existing stair geometry may not be feasible.

### Benefits

- People with vision or cognitive disabilities will benefit from improved requirements for tread nosing contrast and ensuring that trip hazards are not introduced into new ferries.
- The accessibility enhancements will benefit passengers with vision impairment and/or cognitive disabilities, improving the safety and amenity of stairs on ferries.
- Benefits achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- If the riser and going specifications of the NCC are adopted and retrofitting is required, then costs could be considerable.
- Impact on operators and providers will otherwise be negligible to modest, involving minor technical changes to contrasting strips on tread nosings where these are lacking and ensuring that steps do not obstruct access paths.
- Due to spatial constraints, modification of existing stair geometry may be not be feasible.

### Benefits

- People with vision or cognitive disabilities will benefit from improved requirements for tread nosing contrast and ensuring that trip hazards are not introduced into new buses.
- The accessibility enhancements will benefit passengers with vision impairment and/or cognitive disabilities, improving the safety and amenity of stairs on ferries.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

The CBA for this reform provides a cumulative costing of the following reform areas:

- Stairs on trains
- Stairs on ferries
- Stairs on buses

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of new specific requirements for internal stairs and handrails should improve safety for all users of public transport, by reducing trips, slips and falls.
- **Amenity:** Not applicable
- **Accessibility:** Provision of equivalent access to internal facilities in public transport vehicles should improve the ease of access to public transport services and induce new users
- **Other benefits** - Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or providing new internal stairs/handrails
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 33.0

## Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
  - a. Do you prefer sub option 1, 2, or 3 for the regulatory and non-regulatory options?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you, or your passengers, ever had difficulty climbing or descending ferry stairs including difficulty identifying ferry stair or step treads? If so, could you describe the situation and suggest any improvements?

## 59. Stairs on buses

### Issue

The Transport Standards covers stairs for buses in section 14.4, Compliance with Australian Design Rule 58 – conveyances and section 14.3 compliance with Australian Standards – conveyances. This section references dated Australian Standards. These requirements are not adequate for people with disability to access stairs on buses, as they contradict industry standards, and are not always achievable. Bus and coach interiors are space constrained and the geometry required of stairs in other contexts is not always feasibly achieved in a bus or coach.

Section 14.3 references dated Australian Standards which include inferior accessibility requirements to more modern Australian Standards. Furthermore, there are no requirements for handrails such as luminance contrast or geometric design. As a result, handrails may not be provided for stairs on buses and those that are provided may not be fully accessible, reducing accessibility and safety for people with disability.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Policy options

### Status quo

Transport Standards section 14.4, Compliance with Australian Design Rule 58 – conveyances and section 14.3 Compliance with Australian Standards – conveyances, would remain unchanged and no additional guidance would be issued.

#### **14.3 Compliance with Australian Standards — conveyances**

- (1) If stairs are provided on a conveyance mentioned below, they must comply with:
  - (a) AS1428.1 (2001) *Clause 9.1 (including the notes), Stair construction*; and
  - (b) AS1428.2 (1992) *Clause 13.2, Configuration of steps, Clause 13.3, Warning strip at nosing of steps and Figures 8 and 9.*
- (2) However, the minimum access path width on stairs in the conveyance must be 850 mm.

This section applies to ferries, trains, trams and light rail.

#### **14.4 Compliance with Australian Design Rule 58 — conveyances**

- (1) Stairs must comply with Australian Design Rule 58 to the extent that that rule sets requirements that conflict with these Standards.
- (2) In any other case, section 14.3 applies.

This section applies to buses except dedicated school buses.



## Non regulatory option

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice on the accessibility of stairs on buses.

Specific guidance may include the following:

- Steps and stairs should comply with Australian Design Rule 58 to the extent that that rule sets requirements that conflict with the Disability Standards for Accessible Public Transport.
- Step edges and stair tread nosing's should have opaque risers, nosing's that do not project beyond the riser and luminance contrasting strips at the front of the nosing, as per AS1428.1 (2009) *Clause 11.1 (c), (d), (e), (f) and (g)*.
- Passenger doors should be fitted with handrails that are accessible when the doors are open and the minimum distance between the handrails of the door that provides the access path should be 850 millimetres. For outward opening doors, handrails should be permanently fixed to the body.
- Stairs and steps should not intrude into access paths as this may present a tripping hazard or compromise the access path width.
- TGSIs are not required at bus steps or stairs.
- Double deck buses employ stairs as the means of accessing or exiting the top deck. These stairs should have handrails for safety and support for people with disability.
- Steps address level changes within decks and at doors. While handrails are not required at steps other than those at doors, suitable grabrails should be considered. These grabrails will assist people with disability to negotiate the step and offer support while the bus is in transit.
- A handrail on steps or stairs need not extend beyond the top or bottom of the steps or stairs. This is to avoid compromising the access paths at the head or foot of the stairs.
- If the handrail is interrupted or abruptly terminated a domed warning indicator with a height of between 4 to 5 millimetres and a diameter of between 10 to 12 millimetres should be provided on the top of the handrail 150 millimetres from the end of the handrail.
- Handrails should have at least 30 per cent luminance contrast with any background wall or surface adjacent to the handrail, within a distance of 2000 millimetres from the handrail.
- Handrail profile should be either circular or oval as per AS1428.1 (2009) *Clause 12 (b)*.

## Regulatory option

The Transport Standards would be amended to include updated requirements for stairs on buses, including accessibility features.

Transport Standards section 14.4 Compliance with Australian Design Rule 58 – conveyances, would be amended to include the following (including any requirements retained or amended from the status quo):

- Steps and stairs must comply with Australian Design Rule 58 to the extent that that rule sets requirements that conflict with these Standards.
- Step edges and stair tread nosing's must comply with AS1428.1 (2009) *Clauses 11.1 (c), (d), (e), (f), and (g)*.
- Passenger doors must be fitted with handrails accessible when the doors are open and the minimum distance between the handrails of the door that provides the access path must be a minimum of 850 millimetres. For outward opening doors, handrails must be permanently fixed to the body.
- Steps and stairs must not intrude into access paths.
- TGSIs are not required at bus steps or stairs.

This section would apply to buses (except dedicated school buses).

Transport Standards section 11.3, handrails on stairs – conveyances, would be amended to include the following:

- A handrail on stairs or steps need not extend beyond the top or bottom of the steps and stairs.
- If the handrail is interrupted or terminates abruptly at the top or bottom step a domed warning indicator with a height of between 4 to 5 millimetres and a diameter of between 10 to 12 millimetres must be provided on the top of the handrail 150 millimetres from the end of the handrail.
- Handrails must have at least 30 per cent luminance contrast with any background wall or surface adjacent to the handrail, within a distance of 2000 millimetres from the handrail.
- Handrails must comply with AS1428.1 (2009) *Clause 12 Handrails*.

This section would apply to conveyances, (except dedicated school buses) and small aircraft.

The Transport Standards Guidelines and / or The Whole Journey would be updated to reflect new requirements and include specific guidance for buses.

Specific guidance may include the following:

- Double deck buses employ stairs as the means of accessing or exiting the top deck. These stairs require handrails for passenger safety and support.
- Steps address level changes within decks and at doors. While handrails are not required at steps other than those at doors, suitable grabrails should be considered. These grabrails will assist passengers negotiate the step and offer support while the bus is in transit.

## Impact analysis

### Status quo

#### Impacts

- Bus stairs and handrails would continue to not be aligned with industry standards and people with disability would continue to face accessibility and safety issues.
- Stair nosings, edge tread, and contrasting strips will not meet contemporary accessibility standards.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- To the extent that guidance is followed, costs would be incurred to make minor technical changes to contrasting strips on tread nosings and ensuring that steps do not obstruct access paths.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt the accessibility guidance for stairs on buses. The impact on people would be a reduced level of accessibility and amenity when using stairs on buses, which may act as a barrier to the use of buses.

## Benefits

- People with vision or cognitive disabilities will benefit from improved requirements for tread nosing contrast and ensuring that trip hazards are not introduced into new buses.
- The bus industry will benefit through greater certainty in regulation.
- Benefits achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

## Regulatory option

### Impacts

- Since the primacy of Australian Design Rule 58 is maintained the geometry of bus stairs will not change.
- Impact on bus operators will be negligible to modest, involving minor technical changes to contrasting strips on tread nosing's and ensuring that steps do not obstruct access paths.

### Benefits

- People with vision or cognitive disabilities will benefit from improved requirements for tread nosing contrast and ensuring that trip hazards are not introduced into new buses.
- The bus industry may benefit through greater certainty in regulation.

### CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

The CBA for this reform provides a cumulative costing of the following reform areas:

- Stairs on trains
- Stairs on ferries
- Stairs on buses

### Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Provision of new specific requirements for internal stairs and handrails should improve safety for all users of public transport, by reducing trips, slips and falls.
- **Amenity:** Not applicable.
- **Accessibility:** Provision of equivalent access to internal facilities in public transport vehicles should improve the ease of access to public transport services and induce new users
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with retrofitting or providing new internal stairs/handrails
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 33.0

### Consultation questions

1. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
2. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
3. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
4. Have you, or your passengers, ever had difficulty identifying bus stair or step treads while climbing them? If so could you describe the situation and suggest improvements?

## 60. Doorway contrast and height

### Issue

The Transport Standards have no requirement for luminance contrast for solid and glazed doors and have no minimum height for conveyance doors and creates a risk of a passenger striking the upper door frame with their head.

Transport Standards section 12.4 Clear opening of doorways, which references *AS1428.2 (1992) Design for access and mobility, Clause 11.5.1*, covers clear opening of conveyance doors. While *Clause 11.5.1* recommends that doors have a contrasting frame or trim, this reference is dated and has the potential to be updated to a more contemporary reference.

Amendments to the Transport Standards to reflect more contemporary Australian Standards commensurate with the Premises Standards will assist in the harmonisation process between the Transport Standards and the Premises Standards called for by all stakeholder groups. This would also provide clarity for operators and providers on their obligations under the DDA and assist in their compliance under the Transport Standards to provide accessible public transport to people with disability and reduce discrimination.

The Premises Standards reference *AS1428.1 (2009) Design for access and mobility, Clauses 13.2 and clause 6.2 (AS1428.1 (2009))* for door open width and head clearance and this should be considered as a minimum for conveyance access paths. The Premises Standards references *AS1428.1 (2009), clause 13.1* which requires that solid doors or their surrounds must luminance contrast with adjoining surfaces and *clause 6.6* which requires that fully glazed doors must have a luminance contrasting strip. These luminance contrast requirements are both a safety and wayfinding aid and should be incorporated into the Transport Standards.

### Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

### Policy options

#### Status quo

Transport Standards section 12.4 Clear opening of doorways, would remain unchanged and no additional guidance would be issued. Transport Standards requirements for luminance contrast and height clearance of conveyance doors remain unchanged.

#### **12.4 Clear opening of doorways**

Doorways must comply with *AS1428.2 (1992) Clause 11.5.1, Clear opening of doorways*.

This section pertains to buses (except dedicated school buses), coaches, ferries, trains, trams and light rail.

## Non regulatory option

The Whole Journey Guide and / or the Transport Standards Guidelines would be updated to include advice for good practice for luminance contrast and height clearance of conveyance doors.

Specific guidance would pertain to buses (except dedicated school buses), coaches, ferries, trains, trams and light rail and may include the following:

- Doors located on an access path in conveyances other than buses and coaches must be not less than 850 millimetres clear open width from the floor or deck and this should continue to a height of at least 1980 millimetres. The 850 millimetres clear open width is an existing Transport Standards requirement derived from AS1428.2 (1992).
- Curved sections on the upper and lower vertical door frames should have a radius of not more than 225 millimetres where the vertical frame meets the upper horizontal frame and 50 millimetres where the vertical door frame meets the floor.
- Door vertical clearance in buses and coaches must comply with Australian Design Rule 58.
- For the benefit of passengers who have a vision or cognitive impairment doors or elements on or around access path doors should have a luminance contrast with a background by at least 30 per cent. Where luminance contrast is to be achieved against a background or surface of variable colour, the dominant colour of the background should be the contrasting surface tested.
- Any luminance contrast treatment of doors must not compromise a driver's vision but must meet the relevant State technical requirement for visibility.

## Regulatory option

The Transport Standards would be amended to include updated requirements for luminance contrast and height clearance of conveyance doors.

Transport Standards section 12.4 would be amended to include the following requirements (including any requirements retained or amended from the status quo):

- Doors located on an access path in conveyances other than buses and coaches must be not less than 850 millimetres clear open width from the floor or deck to a height of at least 1980 millimetres (AS1428.1 (2009) *Clause 13.2* and *Clause 6.2*). Curved sections on the upper and lower vertical door frames must have a radius of not more than 225 millimetres where the vertical frame meets the upper horizontal frame and 50 millimetres where the vertical door frame meets the floor.
- Door vertical clearance in buses and coaches must comply with Australian Design Rule 58.
- Doors and gates on an accessway must luminance contrast with their surroundings as per AS1428.1-2009 *Clause 13.1*. Fully glazed doors must have a luminance contrasting strip as per AS1428.1-2009 *Clause 6.6*.
  - Any luminance contrast treatment of doors must not compromise a driver's vision but must meet the relevant State technical requirement for visibility.

These requirements would pertain to buses (except dedicated school buses), coaches, ferries, trains, trams and light rail.

The Transport Standards Guidelines and / or The Whole Journey Guide would be updated to reflect new requirements and include specific guidance for buses, coaches, trains, trams, light rail and ferries.

Specific guidance may include the following:

- For the benefit of passengers who have a vision or cognitive impairment doors or elements on or around doors should have a luminance contrast with a background by at least 30 per cent. Where luminance contrast must be achieved against a background or surface of variable colour, the dominant colour of the background should be the contrasting surface tested.

## Impact analysis

### Status quo

#### Impacts

- Luminance contrast and height clearance of conveyance doors will not meet the contemporary standard.
- The safety issues relating to potential head strikes for passengers will remain.
- The Transport Standards will remain unaligned with the Premises Standards.

#### Benefits

- This option would not involve any new costs to operators and providers and would not introduce additional regulatory burden or associated administrative costs.

### Non regulatory option

#### Impacts

- Door vertical clearance of 1980 millimetres (except for buses and coaches) should be achievable for new conveyances but may be prohibitively costly for existing assets. Luminance contrast requirements should be achievable for all conveyance doorways.
- To the extent that guidance is followed, costs would be incurred to ensure conveyance doors met luminance contrast and minimum height requirements. This is likely to reduce incidents of passengers accidentally striking doorways with their heads.
- Due to the discretionary nature of this option, it does not provide certainty that operators and providers will adopt minimum height and luminance contrast requirements for existing or new conveyances. The impact on people would be a continued risk of head strikes.

#### Benefits

- To the extent guidance is adopted, people who have vision impairments using doors with luminance contrasted elements will have improved wayfinding. Doors with higher vertical clearances will also improve safety for people with disability.
- Benefits will be achieved to the extent that operators and providers implement the guidance. Operators and providers will be able to manage the implementation (and related costs) to suit their operational requirements, including through staging the implementation.

### Regulatory option

#### Impacts

- There would be significant costs associated with retrofitting conveyance doors for height and may present a situation of unjustifiable hardship.
- Contrast of doors has been advised in Transport Standards but would now be required. This will impose a cost on operators and providers who have not followed the advice to contrast doors with their surroundings. The cost of retrofitting each door for contrast would be low.

## Benefits

- For people who have vision impairments, the requirement for luminance contrasted door elements will be beneficial for wayfinding. Introducing door minimum vertical clearance will also improve safety for passengers. Operators may have greater confidence if provided with a more contemporary reference for door height and contrast.

## CBA of regulatory option

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

## Qualitative benefits assessment

Following is an estimate of the social benefits that may be achieved through this reform within the economic benefit and cost framework:

- **Safety:** Increased luminance contrast and height requirements of doors on conveyances should reduce injuries when accessing doors on conveyances and improve safety for users with vision impairment
- **Amenity:** Not applicable.
- **Accessibility:** Provision of equivalent access to internal facilities in public transport vehicles should improve the ease of access to public transport services and induce new users
- **Other benefits:** Other benefits of this reform include increased optionality, enhanced independence and inclusion, greater sense of connection to community and place, improved access to services, increased opportunities for education and employment.

## Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** Providing accessibility features that meet Transport Standards are likely to require administrative costs (i.e. reporting) to ensure compliance.
- **Qualitative compliance costs (substantive):** Financial costs associated with creating more luminance on conveyances
- **Monetised compliance costs (administrative):** 0.8
- **Monetised compliance costs (substantive):** 433.7



## Consultation questions

1. To what extent does the issue impact you?
2. What is your preferred option: status quo, non-regulatory option, or the regulatory option? Why?
3. Do the non-regulatory and regulatory options provide enough clarity to ensure people with disability would be able to access public transport without discrimination?
4. Are there any challenges (i.e. physical, technical, operational, etc.) that could impact the implementation of the requirements of any option?
5. What is your experience of locating doors on conveyance access paths and at entrances?
  - a. Have you, or your passengers, ever mistaken a part of a conveyance for a door, or a door as part of the conveyance?
  - b. Have you, or your passengers, ever mistaken a gap between conveyances for a door? If so, can you describe the experience?
  - c. Have you, or your passengers, ever found an external or internal door on a conveyance to be too low? Have you, or anyone ever struck their head because of this?

# Part 6: Implementation

The following reform area is included in this Part:

61. Implementation approach

# 61. Implementation approach

## Introduction

All reform options (status quo, non-regulatory and regulatory options) will be considered through the Consultation RIS process.

This consultation process aims gather stakeholder views on the merits of the proposed policy options for the Stage 2 reform areas, including impacts, costs and benefits, and the extent to which each option would achieve the intended outcome. This also includes whether the reform options would, as far as possible, eliminate discrimination against people with disability, and whether they would provide greater certainty to operators and providers regarding their responsibilities under the Transport Standards and DDA.

Decisions on the reform areas and proposed amendments to the Transport Standards will be made by transport ministers through the ITMM process. Ministers will also decide on the implementation approach for the whole package of reforms (Stages 1 and 2), including whether they should be applied retrospectively or prospectively, as part of their decision on the final scope of the reforms in mid-2023.

Where regulatory options are agreed by transport ministers and changes will be made to the Transport Standards (requires legislative amendments) an implementation approach must be considered.

Public transport operators and providers will be required to comply with any new regulatory requirements. Therefore, an implementation approach will provide operators and providers certainty of their compliance obligations in relation to any new regulatory requirements in the Transport Standards.

To assist with reading this chapter, the term ‘applied retrospectively’ is used in the following context:

- Where an amendment, cost or requirement (e.g. Australian Standards) is applied retrospectively this means the amendment, cost or requirement applies to all new public transport assets and all public transport assets that are currently in service

Note: Compliance reporting of existing assets is also being considered as part of reform area 1, Reporting. There are synergies between implementation and reporting and it is recommended that both chapters are considered together.

## Current Approach

Application of the Transport Standards is set out in Transport Standards Part 32, Adoption.

## Part 32 Adoption

### 32.1 Effect and application of these Standards

These Standards apply, on and from the date they come into effect under section 31 of the *Disability Discrimination Act 1992*, to:

- (a) public transport services provided with:
  - (i) newly constructed premises or infrastructure; or
  - (ii) conveyances entering service after these Standards come into effect; or
  - (iii) premises, infrastructure or conveyances that have undergone substantial refurbishment or alteration; or
  - (iv) additional or replacement equipment in premises and infrastructure or on conveyances; and
- (b) new or revised ancillary services that are provided as an adjunct to the public transport operation; and
- (c) new or updated information provided to the public.

This section pertains to conveyance, premises and infrastructure.

### 32.2 Manufacture to be completed before target dates

In all cases, manufacture or other work that is required to ensure compliance with these Standards is to be completed before the target dates set out in Schedule 1.

This section pertains to conveyance, premises and infrastructure.

There are three factors used to determine compliance requirements of assets under the Transport Standards:

- Whether an asset is 'new'<sup>33</sup>.
- Whether an asset is 'existing' and the provisions at Transport Standards, section 32.1 Effect and application of these Standards are not met.
- Whether an asset is 'existing' and one or more of the provisions set out in Transport Standards, section 32.1 are met.

The definition of new and existing assets is benchmarked to the date at which the current version of the Transport Standards came into effect. That is, whether an asset is in service before or after 2002.

Different compliance requirements apply in each circumstance:

- New assets must comply entirely with the provisions outlined within the body of the Transport Standards.
- Existing assets where the provisions of Transport Standards, section 32.1 are not met are subject to a series of target compliance dates set out in Transport Standards Schedule 1 Target dates for compliance.

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<sup>33</sup> Australian Government Federal Register of Legislation, *Disability Standards for Accessible Public Transport 2002*, Part 33.1, Compliance, 2 November 2021, <https://www.legislation.gov.au/Details/F2011C00213>

- Existing assets where the provisions of Transport Standards, section 32.1 are met prior to the relevant compliance dates set out at Schedule 1, must comply with the provisions outlined within the body of the Transport Standards from the date the provisions of Transport Standards, section 32.1 are met.

Transport Standards, Schedule 1 Target dates for compliance, consists of a series of staggered compliance dates against individual sections of the Transport Standards. This means operators and providers must fully comply with the requirements of the specified sections for existing assets by the target dates specified in Schedule 1. The timeframes for full compliance stretch from five years up to 30 years after the commencement of the Transport Standards in 2002.

Generally, the more complex and costly it is to ensure an existing asset is compliant with the Transport Standards, the later the compliance date in Schedule 1. For example, full compliance within five years is required for elements such as information, signs and symbols, while trains and trams have until 2032 to be 100 per cent compliant (noting that they are required to be 90 per cent compliant by 2022).

These different compliance requirements are designed to take into account the varying levels of cost and effort involved in ensuring transport assets are compliant with the Transport Standards.

## Issue

There are challenges with the current approach to compliance which impact consideration of an implementation approach for new regulatory requirements:

- The compliance target dates for trams and trains as per Schedule 1 of the Transport Standards (which have until 2032 to be 100 per cent compliant) will still be applicable upon commencement of a revised Transport Standards with new regulatory requirements.
- The staggered compliance target date approach taken in Schedule 1 of the Transport Standards focuses on specific sections/components of existing assets and may not be fit-for-purpose for measuring compliance.

## Existing compliance target dates

The majority of public transport assets are required to be fully compliant by 2022 and compliance target dates in Schedule 1 for these assets will not be affected by the outcome of the reform process. However, depending on the implementation approach, public transport operators and providers may need to negotiate two overlapping sets of compliance requirements for trains and trams.

This potentially creates cost inefficiencies and confusion for transport operators and providers whereby infrastructure upgrades undertaken or in progress to meet compliance of the 2002 Transport Standards may need to be updated to meet new regulatory requirements in a revised Transport Standards. This may increase the likelihood that the correct accessibility requirements are not met.

These challenges will be apparent to the extent that the two versions of the Transport Standards differ, with many of the structural elements of the current Transport Standards carrying over to the revised Transport Standards. In some instances, where existing assets have been unable to meet the Transport Standards requirements (for example legacy rail infrastructure), this is unlikely to change under the revised Transport Standards. Public transport operators and providers will still have recourse under Transport Standards section 33.7 Exceptional cases, unjustifiable hardship,

has regard for the extent that compliance would impose unjustifiable hardship on any person or organisation.

## Compliance target dates for individual sections

Transport Standards, Schedule 1 breaks down compliance requirements for transport assets by compliance with individual sections of the Transport Standards. For example, access paths must be 25 per cent compliant within five years, 55 per cent compliant within 10 years, 80 per cent compliant within 15 years and 100 per cent compliant within 20 years.

However, if an existing asset has undergone substantial refurbishment or alteration, or meets any other trigger outlined in section 32, prior to the compliance target date, the asset must be made 100 per cent compliant during this activity.

Operators and providers have raised concerns about whether this approach is fit-for-purpose and whether the approach is the most effective way to achieve compliance. It may be less cost-effective to upgrade individual components of larger assets than simply upgrading the larger assets themselves. For example, upgrading individual grabrails, manoeuvring areas or other components of a bus individually rather than upgrading the entire bus itself.

Feedback from the disability community through reviews of the Transport Standards has indicated that the implementation compliance approach for existing assets at Schedule 1 has been an effective and welcomed mechanism for ensuring accountability and progress towards compliance of Australia's public transport networks. Further, reviews of the Transport Standards have indicated that public transport networks are being upgraded, retrofitted or replaced to ensure compliance with the Transport Standards, although not at the same rate across jurisdictions and within the prescribed timeframes.

Confusion in asset compliance management against the Transport Standards creates uncertainty for providers and operators in relation to their legal responsibility and services provision. An effective implementation approach for new regulatory requirements is required to provide certainty around compliance obligations under the Transport Standards.

## Consultation

Previous statutory reviews have highlighted the need to modernise the Transport Standards. This reform area was developed by the Taskforce, under guidance of the Steering Committee. Consultation by these bodies was undertaken to identify possible areas of reform. Collectively, these bodies include representatives from the disability community, government and the public transport industry. For further information refer to 'Introduction'.

## Implementation options

These implementation options are applicable if legislative amendments are required as a result of Transport Ministers agreeing any regulatory options as part of this reform process.

There are three implementation options proposed.

1. Existing assets would need to comply with new regulatory requirements based on a new compliance schedule. Compliance target dates **for individual sections of the Transport Standards** would be developed with stakeholders.
2. Existing assets would need to comply with new regulatory requirements based on a new compliance schedule. Compliance target dates for **transport assets** (e.g. trams, bus stops, taxi ranks, websites and digital information etc.) be developed with stakeholders.

3. Existing assets would only need to comply with new regulatory requirements when certain circumstances are met, triggering compliance obligations with the new requirements.

### **Option 1 New compliance schedule: Compliance target dates for individual sections of the Transport Standards**

Regulatory amendments would apply retrospectively and existing assets would need to comply with these requirements based on a new compliance schedule.

A new compliance schedule would be inserted in the Transport Standards that outlines compliance target dates for **individual sections** of the Transport Standards. Compliance target dates would be developed through consultation with state and territory governments, public transport operators and providers and the disability community, for any new or amended sections of the Transport Standards that have been agreed through this reform process.

This option would ensure that bespoke target compliance dates for each individual amendment to the Transport Standards are fit-for-purpose.

A bespoke compliance schedule may introduce different compliance target dates for different individual amendments, taking into consideration the impact of retrospective application of each amendment. A schedule may also introduce staggered compliance dates (as per Schedule 1) for different sections of the Transport Standards.

For example:

- [New or amended requirements] must be 25 per cent compliant within five years, 55 per cent compliant within 10 years, 80 per cent compliant within 15 years and 100 per cent compliant within 20 years.

Transport Standards, section 32.1 Effect and application of these Standards, would remain unchanged. That is, if an existing asset has undergone substantial refurbishment or alteration, or meets any other trigger outlined in section 32.1, prior to the compliance target date, the asset must be made 100 per cent compliant during this activity.

### **Option 2 New compliance schedule: Compliance target dates for transport assets covered under the Transport Standards**

Regulatory amendments would apply retrospectively and existing assets would need to comply with these requirements based on a new compliance schedule.

A new compliance schedule would be inserted in the Transport Standards that outlines compliance target dates for **transport assets** (for example trams, bus stops, taxi ranks, websites and digital information etc.) covered under the Transport Standards.

Compliance target dates and a defined list of transport assets to be measured would be developed through consultation with state and territory governments, public transport operators and providers and the disability community.

The list of measurable assets would need to be exhaustive to ensure all public transport infrastructure, premises and conveyances are covered.

A bespoke compliance schedule may introduce different compliance target dates for different transport assets, taking into consideration the impact of retrospective application for each asset. A schedule may also introduce staggered compliance dates (as per the current Schedule 1) for different transport assets under the Transport Standards.

For example:

- [Transport asset X] must be 25 per cent compliant within five years, 55 per cent compliant within 10 years, 80 per cent compliant within 15 years and 100 per cent compliant within 20 years.

Transport Standards section 32.1 Effect and application of these Standards, would remain unchanged. That is, if an existing asset has undergone substantial refurbishment or alteration, or meets any other trigger outlined in section 32.1, prior to the compliance target date, the asset must be made 100 per cent compliant during this activity.

### Option 3 No compliance schedule: Trigger mechanism for compliance with the Transport Standards

Regulatory amendments would apply to all new assets.

Existing assets would only need to comply with new regulatory requirements when the circumstances set out in Transport Standards section 32.1 Effect and application of these Standards, are met. That is, where an existing asset meets one of the conditions in section 32.1 (such as substantial refurbishment or alteration, additional or replacement equipment, new or revised ancillary services, or the provision of new or updated information) the asset will be required to comply with the new regulatory requirements in the Transport Standards.

Meeting one of the conditions of section 32.1 will trigger compliance obligations with the new regulatory requirements.

For example:

- An operator or provider substantially refurbishes a group of tram cars. As a result, conditions under Transport Standards section 32.1 have been met that trigger **new** regulatory requirements for existing assets.

## Impact analysis

### Implementation Options 1 and 2

#### Impacts

- The financial costs of implementing changes to the Transport Standards will be greater where amendments are applied retrospectively. Compliance costs will be greater than costs for Option 3, as existing assets will require retrofitting to comply with new regulatory requirements in the Transport Standards.
- Operators and providers will bear the costs of upgrading elements of existing assets to meet the new requirements in the Transport Standards over the prescribed timeframe.
- There will be costs associated with consultation required to develop new compliance target dates.
- To require existing assets to comply within a timeframe may prohibit regular updates to the Transport Standards as transport operators and providers must consider a plan for how they are to upgrade all assets, rather than just ensure their new assets are compliant.
- There may be difficulties in defining sets of assets and which amended elements of the Transport Standards apply for each different asset. There also may be difficulties where there are different responsibilities of assets. For example, at bus stops or trams stops local government, road authorities and the Transport Standards may intersect.



## Benefits

- A new compliance schedule would ensure operators and providers are still required to bring their existing assets up to an acceptable level of compliance.
- Accessibility for people with disability will be improved as existing assets are upgraded to comply with enhanced accessibility requirements identified through this reform process. This may lead to increased confidence and independent travel for people with disability.
- A new compliance schedule will offer all stakeholders certainty of the timeframes they are required to bring their existing assets up to compliance.
- A compliance schedule has the benefit of increasing transparency and accountability for operators and providers. There are clear goals which can be understood by all stakeholders.
- Clear target dates for reaching compliance will benefit any introduction of mandatory reporting as obligations and compliance targets are clear.
- Consultation will ensure new compliance target dates are fit-for-purpose and achievable.
- A bespoke compliance schedule (including staggered compliance target dates) should reduce the burden whereby an operator or provider has just recently upgraded an entire conveyance or substantial piece of infrastructure or premise to the current Transport Standards, as they may have up to 20 years to make any other required amendments for a proportion (or all) of their assets stock.

## Implementation Option 3

### Impacts

- Removing the compliance schedule may reduce the pace of upgrades to existing assets. Existing assets may not be substantially refurbished or altered and will not need to be upgraded.
- The Transport Standards do not define 'substantial refurbishment or alteration'. This may result in situations where operators and providers' upgrade infrastructure or premises with a piecemeal approach to ensure they do not substantially refurbish the location triggering a requirement to comply with additional standards.
- It may be unclear when a trigger has been activated, causing confusion for public transport users around when certain assets are required to comply. This may also increase difficulties for people in challenging non-compliance.
- The financial cost of implementing changes to the Transport Standards will be reduced if amendments are not applied retrospectively.

### Benefits

- Operators and providers will have greater flexibility to manage funding and resources when upgrading accessibility of existing assets to meet compliance with the new Transport Standards.
- There may be an opportunity to update the Transport Standards more frequently if updates are not applied retrospectively.

### CBA of regulatory options

A CBA was undertaken for each reform area to:

- provide insights on whether the Stage 2 reforms of the Transport Standards have the potential to provide economic benefits and / or incur costs on a national basis
- assess and compare the monetised costs and benefits of the reform area on a national basis

The results for each reform area provide a net benefit to society (net-present value (NPV)) and a measure of value for money (benefit-cost-ratio (BCR)) for each reform theme (Refer Table 2).

### Quantitative and qualitative cost assessment

Following are the qualitative and quantitative compliance costs for this reform in \$M (millions), real 2021/22 dollars, discounted at seven per cent over a 20-year implementation period and 15-year appraisal period.

- **Qualitative compliance costs (administrative):** The change in compliance requirements for existing assets would result in additional regulatory burden costs such as additional reporting.
- **Qualitative compliance costs (substantive):** Not applicable
- **Monetised compliance costs (administrative):** 1.9
- **Monetised compliance costs (substantive):** Nil.

## Consultation questions

1. Have target dates for compliance in Transport Standards, Schedule 1 Target dates for compliance been successful in bringing compliance to public transport assets?
2. What are the challenges and benefits to achieving compliance for existing assets under Transport Standards Schedule 1 Target dates for compliance?
3. What is your preferred option: implementation option 1, 2 or 3? Why?
4. Where you have been unable to reach full compliance under the Transport Standards what mechanisms have you used to provide accessibility for public transport users?
5. Is there sufficient clarity around when the triggers outlined in the Transport Standards section 32.1 Effect and application of these Standards are activated and when an existing asset should comply with the new requirements?
6. What impact does enforcement of target dates (or lack of enforcement) have on the success of using a schedule mechanism to reach compliance?
  - a. How does this impact accessibility of public transport?

# Appendix 1: Additional Information

## Background

The DDA makes direct and indirect discrimination on the basis of disability unlawful in key areas of public life including employment, education, accommodation, access to premises and the provision of goods, services and facilities.

The DDA is supported by Disability Standards that provide further detail on rights and responsibilities about equal access and opportunity for people with a disability:

- Disability Standards for Accessible Public Transport 2002 (Transport Standards)<sup>34</sup>
- Disability (Access to Premises – Buildings) Standards 2010 (Premises Standards)<sup>35</sup>
- Disability Standards for Education 2005 (Education Standards)<sup>36</sup>

## Application of the Transport Standards

The Transport Standards apply to all public transport infrastructure, premises and conveyances, such as train, tram, light rail, bus and coach, ferry, aircraft, taxi services and dial-a-ride services.

Operators and providers must ensure they are 100 per cent compliant with the Transport Standards for all (new) public transport assets brought into use for public transport service after 23 October 2002. For all conveyances, infrastructure and premises that were in use prior to 23 October 2002, the Transport Standards set out dates for compliance (Table 16). Progressive compliance timeframes help to accommodate the challenges associated with replacing or retrofitting existing public transport assets on long replacement cycles.

The targets shown in the table are averaged across the range of conveyances, premises and infrastructure.

**Table 16: Summary of Transport Standards – Target dates for compliance**

Compliance year	2007	2012	2017	2022	2032
Target compliance	25 %	55 %	80-90 %	100 % Everything except rolling stock which is set at 90 %	100 % Including rolling stock

Source: Schedule 1, Target dates for compliance of the Transport Standards

<sup>34</sup> Australian Government Federal Register of Legislation, *Disability Standards for Accessible Public Transport 2002*, 11 November 2021, <https://www.legislation.gov.au/Details/F2011C00213>

<sup>35</sup> Australian Government Federal Register of Legislation, *Disability (Access to Premises – Buildings) Standards 2010*, 11 November 2021, <https://www.legislation.gov.au/Details/F2020C00976>

<sup>36</sup> Australian Government Federal Register of Legislation, *Disability Standards for Education 2005*, 11 November 2021, <https://www.legislation.gov.au/Details/F2005L00767>

## Reviews of the Transport Standards

Every five years the Minister for Infrastructure, Transport and Regional Development, in consultation with the Attorney-General, is required to review the efficiency and effectiveness of the Transport Standards.

Part 34, Review of the Transport Standards require these reviews include:

- Whether discrimination has been removed, as far as possible, according to the requirements for compliance set out in Transport Standards Schedule 1, Target dates for compliance.
- Any necessary amendments to the Transport Standards.

The first review commenced in 2007 with the final report and Australian Government response released in June 2011. The second five-year review commenced in 2012 with the final report and Australian Government response released in July 2015. The third five-year review commenced in 2017 with the final report released in December 2021 and the Australian Government response released in February 2022. Reviews of the Transport Standards are available on the Department's website at: [www.infrastructure.gov.au/infrastructure-transport-vehicles/transport-accessibility/reviews-disability-standards-accessible-public-transport-2002](http://www.infrastructure.gov.au/infrastructure-transport-vehicles/transport-accessibility/reviews-disability-standards-accessible-public-transport-2002)

Following the Second Review, the Australian Government recognised that more than 10 years after its inception, some parts of the Transport Standards may not be meeting the current and future needs of people with disability or provide sufficient flexibility or guidance to providers and operators in their efforts to fulfil their obligations under the DDA.

The Australian Government, in partnership with the Queensland Government, is working with representatives of the disability community, state and territory governments and the transport industry to modernise the Transport Standards.

The Third Review recognised the importance of the modernisation work underway. A recommendation of the Review was to continue the process of reforming the Transport Standards, ensuring focus on areas highlighted by the disability community and industry. The National Accessible Transport Steering Committee, with national oversight of the modernisation process, guides the reform work to ensure selected reform areas reflect the guiding principles of reform, address issues raised in Transport Standards reviews and harness opportunities to reflect technological progress and promote regulatory consistency.

## Complaints for non-compliance with the Transport Standards

The Transport Standards and the DDA do not contain mandatory provision of compliance data to the Australian Government. Transport Standards reviews largely contain qualitative assessment rather than detailed quantitative data to help assess the implementation of operators and provider's obligations under the Transport Standards. This issue is further discussed at reform option number 2 in this Consultation RIS for consultation.

Non-compliance with the Transport Standards can be reported through the complaints process with the Australian Human Rights Commission (AHRC). The AHRC investigates and conciliates complaints of discrimination and breaches of human rights. If conciliation is unsuccessful, in certain cases an individual can commence legal proceedings regarding the complaint in the Federal Court of Australia or the Federal Circuit Court of Australia.

Further information on the AHRC complaints process is available on the AHRC website at: <https://humanrights.gov.au/complaints/make-complaint> or by contacting the AHRC National Information Service on 1300 656 419 or (02) 9284 9600.

In addition, the AHRC has made available the following resources:

- Auslan presentation that explains how the complaint process works, available at: <https://humanrights.gov.au/complaints/complaint-guides/complaint-information-auslan>
- Making a Complaint fact sheet translated into 63 languages and available in PDF and Word formats, available at: [https://humanrights.gov.au/about/translated-information?\\_ga=2.122582603.1552785458.1639964315-1107795329.1639964314](https://humanrights.gov.au/about/translated-information?_ga=2.122582603.1552785458.1639964315-1107795329.1639964314).

## Reform process

### Reform process governance

In August 2019, the former Council of Australian Governments Transport and Infrastructure Council endorsed the project to reform the Transport Standards led by the Australian Government and the Queensland Government. The National Accessible Transport Taskforce (Taskforce) was established as the national body to identify reform areas and lead the modernisation work.

### National Accessible Transport Taskforce (Taskforce)

The Taskforce, chaired by the Queensland Government, is comprised of representatives from the disability community, governments, industry and subject matter experts. The Taskforce convened the following working groups to examine possible reform proposals for Stage 2 of the reform of the Transport Standards. Where required, the Taskforce consulted with technical experts on reform areas to ensure the accuracy and integrity of the options.

**Table 17: Compilation of Taskforce working groups**

Working group	Working group convener
Communications	Australasian Railway Association
Fares and Ticketing	Australian Government Department of Infrastructure, Transport, Regional Development and Communications
ICT and Wayfinding	Transport for NSW
Level Crossings	Australasian Railway Association
Lighting	Department of Transport and Main Roads Queensland
Mobility	Department of Transport and Main Roads Queensland
Principles	Australian Government Department of Infrastructure, Transport, Regional Development and Communications
Conveyances Focus Group	Department of Transport and Main Roads Queensland
Mobility Focus Group	Department of Transport and Main Roads Queensland
Information Focus Group	Department of Transport and Main Roads Queensland
Infrastructure Focus Group	Department of Transport and Main Roads Queensland

## National Accessible Transport Steering Committee (Steering Committee)

The Steering Committee was formed to oversee the reform process and ensure a national perspective on the proposed reforms is achieved. The Steering Committee, chaired by the Australian Government Department of Infrastructure, Transport, Regional Development and Communications, is comprised of senior officials from the Attorney-General's Department, the Australian Human Rights Commission, Queensland, South Australia, New South Wales and Victorian Governments. The Steering Committee provides oversight and direction to the Taskforce and reports to the ITSOC.

## Selection of reform proposals

Since its establishment in 2019, the Taskforce and Steering Committee have worked to identify potential areas for modernisation of the Transport Standards which reflect the guiding principles of reform endorsed by Transport Ministers in August 2019.

The guiding principles require the reform process:

- must place people with disability at the centre of considerations
- should be open to engaging with opportunities to develop best practice, rather than minimum prescriptive standards
- should be open to considering performance-based standards and / or functional outcomes, jurisdictional and modal specific standards, prescriptive standards, or other innovative solutions
- should strive for certainty.

The principles are at forefront of the development of the reforms to the Transport Standards, to improve the lives of people with disability by reducing discrimination against people with disability on public transport, commensurate with the objectives of Australia's Disability Strategy.

The modernisation process has also provided the opportunity to:

- address key issues raised by stakeholders through the Transport Standards review processes
- update Australian Standards reference to more contemporary references so the Transport Standards are fit-for-purpose and reflect technological progress
- promote consistency through alignment with requirements in the Premises Standards.

Selected reform areas were prioritised for Stage 1 based on their impact in reducing discrimination, capacity to be developed and progressed rapidly with government, industry, disability community cooperation.

## Harmonisation with Premises Standards

The Premises Standards, which provide accessibility requirements for public buildings, including public transport premises, have many intersections with the Transport Standards.

To avoid duplication of requirements for public transport buildings under the two standards, relevant requirements for public transport 'premises' previously covered under the Transport Standards were transferred to the Premises Standards in 2010.

A recommendation of the Second Review of the Transport Standards called for harmonisation of provisions under the Transport Standards and Premises Standards to ensure consistency where public transport premise and infrastructure interact.

Currently, the two standards are not identical, mainly because they reference different Australian Standards that contain different specifications.

The Department continues to work closely with the Department of Industry, Science, Energy and Resources (DISER) and the Attorney-General's Department, who jointly administer the Premises Standards, to ensure consistency and alignment of requirements across both standards. The reform project has provided the opportunity to further harmonise and simplify the requirements of the Transport and Premises Standards.

Further information on the 2021 Premises Standards Review and reform process is available on the DISER website at: [www.industry.gov.au/PremisesStandardsReview2021](http://www.industry.gov.au/PremisesStandardsReview2021)

# Appendix 2: Cost-benefit analysis

## Executive Summary

PricewaterhouseCoopers Consulting (Australia) Pty Limited (PwC) conducted a cost-benefit analysis (CBA) to support the Consultation Regulation Impact Statement (Consultation RIS) as part of the Stage 2 reform of the Disability Standards for Accessible Public Transport 2002 (Transport Standards). The purpose of this report is to document the CBA of the Stage 2 reform of the Transport Standards setting out the overarching approach, inputs, assumptions, methodology, results, and considerations for future analysis.

## Project background

Equal access to the physical environment, transportation and other facilities and services is viewed as a pre-requisite for people with disability to live independently, participate fully in all aspects of life and have unrestricted enjoyment of their human rights.<sup>37</sup> The Attorney-General under subsection 31 (1) of the *Disability Discrimination Act 1992* (the DDA) formulates the Transport Standards. The Transport Standards seek to remove discrimination for people with disability in relation to public transport services to provide equality and independence.

Since 2002, the effectiveness and efficiency of the Transport Standards have been reviewed by the Minister for Infrastructure, Transport and Regional Development, in consultation with the Attorney-General, in 2007, 2012 and 2017 (released in 2021). Following the 2012 review, the Department of Infrastructure, Transport, Regional Development and Communications (DITRDC) begun working towards modernisation of the Transport Standards in collaboration with the disability sector, state and territory governments and public transport representative bodies – with a major focus being the reform and modernisation of the Transport Standards. This recognised that, after more than a decade since their adoption, Transport Standards may not be meeting the current and future needs of people with disability, nor provide sufficient flexibility or guidance to transport operators and providers to practically fulfil their obligations under the DDA.

The modernisation process of the Transport Standards is being jointly led by the Australian Government and Queensland Government through the National Accessible Transport Taskforce and the National Accessible Transport Steering Committee, and is being undertaken in two stages:

- **Stage 1** included 16 reforms, covering regulatory and non-regulatory options, and amendments to references of the Australian Standards. In February 2021, a Consultation Regulation Impact Statement (Consultation RIS) was published and following the close of the consultation period in April 2021, a Decision Regulation Impact Statement (Decision RIS) was developed and is currently being considered by Transport Ministers.
- **Stage 2** is currently underway and includes 54 reform areas, covering regulatory and non-regulatory options. The Stage 2 Consultation RIS will be released in early 2022 and will be underpinned by this CBA which identified and, where possible, estimated the benefits and costs associated with the 54 reforms areas.

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<sup>37</sup> Convention on the Rights of Persons with Disabilities, opened for signature 30 March 2007, 2515 UNTS 3 (entered into force 3 May 2008) art 9



This report sets out the CBA of the Stage 2 reforms to the Transport Standards and will be used to inform the DITRDC in their preparation of the Consultation RIS and Decision RIS.

## Overview of the Stage 2 reforms

The Stage 2 Consultation RIS CBA assesses 54 reform areas covering the breadth of touch points of where the disability sector engages with public transport. These reform areas have been presented in 61 chapters, including Part 1: Implementation, in the Consultation RIS to help respondents understand the content of the reforms and provide targeted feedback to individual issues.

For all reform areas multiple policy options have been considered by DITRDC, including the status quo, non-regulatory and regulatory solutions. While the regulatory options will result in a change to the Transport Standards, the non-regulatory options will be achieved through the provision of guidance, or improvements to existing guidance. The CBA has been used to understand the potential costs and benefits associated with the regulatory options and a subset of non-regulatory options, where an alternate outcome is proposed. To better understand the outcomes of the 54 reform areas (and their sub-options), DITRDC have grouped the reforms into five themes aligned with the key components of a customer journey in accessing and using transport networks, initiatives related to Transport Standards principles and others which improve services.

Table 1 presents 61 options, grouped into the five reform themes.

**Table 1 Groupings of Transport Standard reform areas**

<b><i>Transport Standard Principles</i></b>	<b><i>Information, communication, and wayfinding</i></b>	<b><i>Accessibility at stations, stops, wharves and access routes</i></b>	<b><i>Accessibility of boarding and alighting and egress of infrastructure</i></b>	<b><i>Accessibility in conveyances</i></b>
<i>Reforms which result in a fundamental change in the legislative framework.</i>	<i>Reforms which improve delivery of information in a consistent, timely and accessible format across a public transport journey.</i>	<i>Reforms which improve accessibility of structures, buildings or attached facilities provided for passenger use.</i>	<i>Reforms which improve accessibility within immediate boarding or alighting of a public transport vehicle.</i>	<i>Reforms which improve accessibility while within a public transport vehicle.</i>
Part 1 – existing assets 1. Reporting 2. Equivalent Access 3. Rideshare 4. Dedicated school buses	5. Better communication of accessibility features 6. Timely provision of information 7. Real time communication 8. Passenger location during journey 9. Hearing augmentation on conveyances 10. Print size and format 11. International Symbol for Access and Deafness 12. Letter heights and luminance contrast of signs 13. Location of signs	24. Doors on access paths 25. Continuous access on access paths 26. Flange gaps within access paths 27. Resting points 28. Requirement for handrails in overbridges and subways 29. Location of fare system elements 30. Allocated spaces and priority seating in waiting areas 31. Accessible toilets with equal proportion of left and right hand 32. Emergency call buttons in accessible toilets	39. Signals and process for requesting boarding devices 40. Notification by passenger of need for boarding device 41. Portable boarding edge ramp barriers 42. Boarding ramp and removable gangway definitions 43. Removable gangway design - ferries 44. Nominated assistance boarding points 45. Mobility boarding points – identification of lead stops	52. Grabrails on access paths 53. Grabrails in allocated spaces 54. Mobility aid movement in allocated spaces – passive restraints 55. Mobility aid movement in allocated spaces – active restraints 56. Appropriate seats on booked services 57. Conveyance dwell times at stops 58. Stairs on trains 59. Stairs on ferries 60. Stairs on buses 61. Doorway contrast and height

<i>Transport Standard Principles</i>	<i>Information, communication, and wayfinding</i>	<i>Accessibility at stations, stops, wharves and access routes</i>	<i>Accessibility of boarding and alighting and egress of infrastructure</i>	<i>Accessibility in conveyances</i>
	14. Braille embossed (printed) specifications 15. Braille and tactile lettering for signage 16. Hearing Augmentation: Infrastructure and Premises 17. Braille and Tactile Information at Lift Landings 18. Lifts - Audible wayfinding 19. Lifts - Emergency communication systems in lift cars 20. Lifts - Reference for lift car communication and information system 21. Information and communication technologies (ICT) procurement 22. Mobile web systems 23. Accessible Fare System Elements	33. Ambulant toilets 34. Lift specifications and enhancements - audible wayfinding, Emergency communication systems in lift cars 35. Lifts - Reference for lift car communication and information system 36. Specifications for escalators and inclined travellers 37. Poles, objects and luminous contrast 38. Lighting	46. Pontoon boarding points on infrastructure 47. Bus, tram and light rail boarding points on infrastructure 48. Hail-and-ride boarding points on infrastructure 49. Accessible taxi ranks 50. Accessible passenger loading zones on-street 51. Accessible parking spaces in infrastructure off-street carparks	

Source: DITRDC (2022)

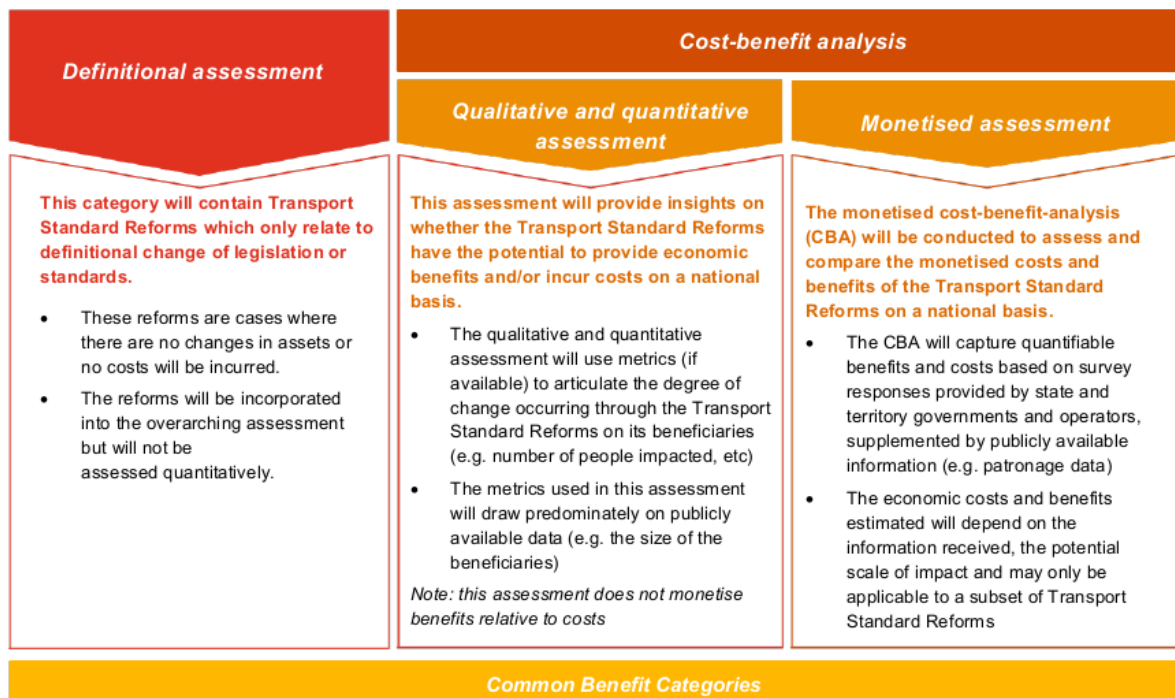
## Economic assessment approach

To understand the extent to which the Stage 2 reform of the Transport Standards will impact Australians, two overarching approaches have been developed to enable an assessment of the economic costs and benefits associated with the 54 reforms. The two overarching assessments include:

- **Definitional assessment** which applies to reforms that involve changes to wording of the Transport Standards with no real-world impacts on beneficiaries of the reforms. This assessment includes a high-level summary of the definitional reforms and their potential impacts.
- **Cost-benefit analysis** sets out both a qualitative and quantitative assessment to articulate the full economic benefits and costs of the reforms and, where possible, a monetised assessment using available information.

The figure below sets out further detail on the assessments conducted.

Figure 2 Overview of the economic assessment approach



These assessments have been conducted for each of the 54 reform areas, of which 7 were identified as changes in definition and therefore subject only to the Definitional assessment. The remaining 47 reforms were taken through the CBA.

## Overview of the CBA

The purpose of the CBA is to assess the potential economic costs and benefits of the Stage 2 reform of the Transport Standards to people living with disability, all public transport users, transport owners and operators, and the broader community on a national level. The CBA has been informed by a consultation process including development of bespoke surveys. The estimated figures for costs and benefits of the reform areas are indicative only, and do not represent the implementation costs associated with each reform area, they are dependent on the level and accuracy of data received through these surveys.

The key steps that underpin the CBA monetised assessment are summarised below.

- **Step 1: CBA framework definition** involved defining the purpose and considerations for the CBA, investigation of CBA guidelines and literature and the definition of CBA assumptions/parameters including appraisal period, discount rate and others.
- **Step 2: Input collation and scenario definition** involved collation of inputs from surveys and other sources to inform analysis to define the program of Stage 2 reforms.
- **Step 3: Understand benefits and beneficiaries** involved identification of the broadest range of benefits and costs associated with the Stage 2 reforms and who they accrue to.
- **Step 4: Quantification of economic costs and benefits** involved the quantification of economic costs representing the cost of compliance, and economic benefits using methodologies based on CBA guidelines and available literature.
- **Step 5: CBA modelling** involved converting economic costs and benefits into present values using discounted cash-flow analysis to estimate key appraisal measures including the benefit-cost-ratio and the net present value. To test the sensitivity of the results to changes

in the underlying appraisal parameters and assumptions a range of sensitivity tests have been conducted.

## Overview of data inputs

To support the Stage 2 Consultation RIS and development of the CBA, a national consultation process to obtain data for the CBA was conducted between October 2021 and January 2022, in the form of:

- **Stage 2 Transport Standards – Public Transport Survey** which was distributed to state and territory Transport Departments, Office of Local Government and industry bodies, such as airline, bus, taxi and rideshare representatives, to capture the quantity of assets and the expected impacts associated with each reform area, by mode, jurisdiction and locality (metro or regional). A total of 57 Stage 2 Transport Standards – Public Transport Survey responses were received from six jurisdictions (New South Wales, Australian Capital Territory, Queensland, Victoria, Western Australia and Tasmania) with varying degrees of completion.
- **Disability community survey** which was sent to a broad range of disability organisations and individuals to understand their experience using public transport, the impact of the proposed reform areas, and how the proposed reforms could improve their use of public transport. This provided valuable insights into the development of the economic benefits framework supporting the CBA. A total of 85 responses were received with varying degrees of completion.
- **Workshops** with state and territory Transport Departments, Office of Local Government, industry bodies, and disability representative organisations. These workshops were held in November and December 2021, to discuss the Stage 2 Transport Standards – Public Transport Survey and inputs used to inform the CBA.

The outputs from the consultation process have been used to inform the CBA from a costs and benefits perspective. In addition to the survey data discussed above, a range of additional data sources have been used including public transport patronage data, population projections, and others.

## Economic benefits and costs

Public transport is critical for connecting essential elements of our lives - accessible transport is required to provide all Australians, including people with disability, the opportunity to participate fully in community and the economy. The Stage 2 reform of the Transport Standards aims to provide a pathway to accessible public transport, including the provision an equivalent standard of amenity, availability, comfort, convenience, dignity, cost and safety for people with disability. These will result in a range of economic benefits for people with disability as well as flow on impacts to the rest of the community, public transport operators, providers and government.

Table 2 sets out the range of benefits and costs assessed through the CBA including a description of the benefit, the assessment applied and an overview of the methodology.

**Table 2 Overview of economic benefits and costs**

Impact	Description	Assessment	Method overview
<b>Economic benefits</b>			
Improved safety	Increased accessibility of public transport will improve the safety, in terms of feeling more safe and improved physical safety, for people with disability and more broadly to society overall.	Quantitative	A reduced number of slips, trips, and falls applied to a willingness-to-pay value for reduced incidents.

<b>Impact</b>	<b>Description</b>	<b>Assessment</b>	<b>Method overview</b>
Improved amenity	Improvements the condition and appearance of public transport will improve the overall experience and of public transport users. Improved amenity can be delivered through the reforms to physical infrastructure and are beneficial for people with disability and to society as a whole.	Quantitative	Application of Monash University Public Transport Amenity Values to public transport users, which has a willingness-to-pay for amenities such as lighting, cleanliness, timetabling, wi-fi access, etc.
Increased accessibility	Increased accessibility of public transport will encourage existing public transport users to take more trips and encourage new users to take public transport, for specific cohorts targeted by the reforms.	Quantitative	Induced demand is estimated using analysis conducted for the Access for All reforms in the UK by Steer Davies Gleave and Duckenfield et al.
Increased optionality	Improved accessibility of public transport will provide an alternative transport option to people with disability which has the potential to improve engagement and accessibility of other service and reduce costs to the user.	Qualitative	Description of the impact on beneficiaries and assets upgraded
Enhanced independence and inclusion	Improved accessibility of public transport will increase the likelihood of using public transport increasing confidence, independence, improving mental health and wellbeing.	Qualitative	Description of the impact on beneficiaries and assets upgraded
Improved health outcomes	Improved accessibility of public transport will enable better access to health services and facilities contributing to improved health outcomes for individuals with disability.	Qualitative	Description of the impact on beneficiaries and assets upgraded
Improved access to services	With more equitable access to public transport, people with disability will have greater access to government and non-government services.	Qualitative	Description of the impact on beneficiaries and assets upgraded
Greater sense of connection to community and place	A higher uptake of public transport usage will lead to a range of flow on outcomes for the community. Individuals may develop a greater sense of connection to their community and participation in activities – social, cultural, leisure, sports, events, volunteering, etc.	Qualitative	Description of the impact on beneficiaries and assets upgraded
Increased opportunities for education and employment	Improved access to public transport will allow people with disability to access education and employment more easily – increasing quantity and variability of opportunities.	Qualitative	Description of the impact on beneficiaries and assets upgraded
<b>Economic costs</b>			
Compliance costs (administrative)	Administrative costs reflect the cost incurred by regulated entities primarily to demonstrate compliance with the regulation such as record keeping, etc.	Quantitative	Administrative costs will be sourced from the public transport survey
Compliance costs (substantive)	These costs reflect the costs incurred to deliver the regulated outcomes being sought such as capital, operations and maintenance costs, client costs and contingency.	Quantitative	Substantiative costs will be sourced from the Public Transport Survey, RLB quantity surveyors and ATAP guidelines
Costs of delay	Delay costs relate to expenses and loss of income incurred by a regulated entity through an application or approval delay.	Qualitative	Description of the impact on beneficiaries and assets upgraded

Source: PwC analysis (2022) based on Duckenfield et al (2010), Measuring the benefits of the access for all programme, De Gruyter et al (2018), Public Transport customer amenity valuations, Department for Transport (2015), Access for All Benefits Research, G Currie (2007), No Way to go.

## Economic assessment results

Two economic assessments have been conducted for the Stage 2 reform of the Transport Standards; the definitional assessment, which captures the impact of reforms which change in definition only and have limited or no costs and benefits; and the CBA, which monetises the costs and benefits associated with the reforms. There have been 54 reform areas assessed through this economic assessment, of these reform areas 7 were considered in the definitional assessment, 44 monetised through the CBA and 3 could not be considered due to a lack of data inputs. The following sections describe the outcomes of these assessments in further detail.

### Definitional assessment outcomes

The Stage 2 reforms incorporate both regulatory and non-regulatory options, some of which relate only to definitional change of legislation or standards. The reforms categorised as definitional act to improve consistency and clarification of certain definitional terms with no change in requirements for providers, operators or manufacturers. As such, there are limited, or no costs and benefits associated with these definitional reforms. A qualitative assessment of the 54 Stage 2 reforms identified seven reforms as changes in definition only. The table below provides a summary of the definitional assessment conducted on these reforms.

**Table 3 Definitional assessment of reforms**

Reform	No additional costs and benefits	Limited costs and benefits
Reform 41 - Boarding ramp and removable gangway definitions	✓	
Reform 25 - Continuous accessibility on access paths	✓	
Reform 38 - Signals and process for requesting boarding devices	✓	
Reform 12 - Letter heights and luminance contrast of signs	✓	
Reform 13 - Location of signs	✓	
Reform 11 - International Symbol for Access and Deafness	✓	
Reform 16 - Hearing Augmentation: Infrastructure and Premises		✓

Source: PwC analysis (2022)

## Stage 2 Reform CBA outcomes

The results are presented as the incremental change resulting from implementation of the Stage 2 Reforms, with the results set out in terms of a net-present value (NPV) (the net benefit to society) and benefit-cost-ratio (BCR) (a measure of value for money).

The key findings from the CBA have been discussed below.

- The results of the CBA indicate that the package of Stage 2 reforms produce overall positive economic outcome and there is a net benefit for the Australian community with a BCR of 2.05 and NPV of \$12,407 million.
- Reforms within the Transport standard principles theme relate to fundamental changes in the legislative framework. These reforms include changes in reporting, compliance and equivalent access. As such, they incur higher administrative compliance costs and have the potential to encourage increased patronage if compliance with the Transport Standards is improved.
- Reforms within the Information, communication and wayfinding theme relate to assets that deliver information along the passenger journey. Delivery of information can benefit a wide community of beneficiaries including all public transport users throughout various journey stages. These reforms often do not require major upgrades to assets with lower overall implementation costs.

- Reforms within the Accessibility at stations, stops, wharves and access routes theme relate to assets within structures, buildings or attached facilities. While targeted at improving the public transport experience for people with disability, all public transport users will benefit from these improvements. The impacts result from a targeted range of reform areas that improve comfort while using public transport and ease of access resulting in an improved experience.
- Reforms within the Accessibility of boarding and alighting and egress of infrastructure theme relate to assets that improve accessibility within immediate boarding or alighting of a public transport vehicle. These reforms aim to improve safety and physical accessibility that reduces existing barriers for people with disability to use public transport – inducing more trips from existing public transport users and new users. This is captured as amenity and accessibility benefits as a result of step-free access and the improvements in accessibility.
- Reforms within the Accessibility in conveyances theme relate to improvements in accessibility while within a public transport vehicle. These reforms require upgrades to existing assets within a public transport vehicle and is specific to the in-vehicle part of the passenger journey. Reforms in this theme often require major upgrades to assets that result in high compliance costs and relate a large number of assets.

The reform areas are also expected to create a number of positive impacts for wider society, through encouraging greater use of public transport and providing more options for individuals living with disability. For example, the reforms should foster a greater sense of connection to community, improve health outcomes, improve access to services and enable increased opportunities for education and employment.

The table below sets out the benefits and costs associated with the Stage 2 Reform of the Transport Standards by theme and benefit category.

**Table 4 Stage 2 Reform of the Transport Standards CBA results (\$M, 2021/22, real, discounted at 7% over a 15 year appraisal period after implementation of all reforms, assessed incrementally)**

Reform theme	Amenity	Safety	Accessibility	Total economic benefits (\$ mil)	Compliance costs (admin.)	Compliance costs (subst.)	Total economic costs (\$ mil)	NPV	BCR
Transport Standards principles	177	1	384	562	22	1,054	1,075	(513)	0.52
Information, communication and wayfinding	11,236	24	2,512	13,772	21	8,008	8,029	5,743	1.72
Accessibility at stations, stops, wharves and access routes	5,052	138	1,057	6,246	15	1,102	1,117	5,130	5.59
Accessibility of boarding and alighting and egress of infrastructure	799	51	2,212	3,062	5	570	575	2,487	5.32
Accessibility in conveyances	0	33	493	525	7	959	966	(440)	0.54
<b>Total</b>	<b>17,264</b>	<b>247</b>	<b>6,657</b>	<b>24,168</b>	<b>68</b>	<b>11,693</b>	<b>11,761</b>	<b>12,407</b>	<b>2.05</b>

Note: The CBA does not consider impacts on airlines, rideshare, taxis, definitional reforms and a subset of reforms due to data availability including reforms 3, 48, 49, 21, 14, 15, 55 and 56.

Source: PwC analysis (2022) based on Stage 2 Transport Standards – Public Transport Survey, publicly available data, RLB cost estimates and CBA guidelines.

Sensitivity tests have been conducted as part of the CBA. The sensitivity tests include those that are required by CBA guidelines, such as changes in the discount rate, P90 costs<sup>38</sup> and best- and worst-case scenarios. Project specific sensitivity tests conducted relate to areas including the safety uplift, demand uplift and alternative asset costs based on regionality. Overall, results from the sensitivity tests do not demonstrate a change in the economic narrative produced by the unadjusted results.

## Considerations for future analysis and the Decision RIS

The analysis in this report has relied on data and information provided by public transport operators and providers, including states and territory governments, covering multiple modes, forms of transport infrastructure, and geographies nationally. In the next stages of the reform process, the Consultation RIS will be released for public consultation, followed by preparation of a Decision RIS. To inform the Decision RIS there are areas of the CBA that could be further refined.

These considerations have been set out below:

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<sup>38</sup> A P90 cost is the project cost with sufficient contingency to provide 90 per cent likelihood that this cost would not be exceeded.



- **Survey data gaps** required the use of assumptions from other data sources to address gaps in the data. The key areas where there are missing data points include:
  - Information on market-driven industries such as airlines, rideshare, taxis and other private operators.
  - Information from jurisdictions including Northern Territory, Tasmania and South Australia.
  - Information for regional areas for a comparison with asset volume and asset costs in metro areas.
  - Information on certain public transport modes such as coach.
  - Information on operational costs for some assets.
- **Public transport data** used to address gaps in the Public Transport Survey was based on a survey conducted in 2014 and information based on more recent data would improve analysis. Key data points are described below:
  - Bus and coach including the number of allocated spaces, conveyances and premises.
  - Train including the number of allocated spaces, fixed payment locations, underpass and subways, conveyances and train stations.
  - Tram/light rail including the number of allocated spaces, toilets, access paths, conveyances and stations.
  - Ferry including the number of allocated spaces, doors, fixed payment locations, conveyances and terminals.
  - Taxi / Rideshare including number of doors, accessible pavements and taxi ranks.
- **Beneficiary groups such** as people with psychological and cognitive disabilities, and mobility restricted passengers (e.g. parents with prams etc.) were not specifically captured within some quantified costs and benefits as these cohorts could not be identified using publicly available data.
- **Completeness and validation of data inputs:**
  - The CBA relies on the completeness and quality of the input data and assumptions, in particular for the comparability of outcomes by reform area. While data outliers were removed from the data sources for consistency, no third-party assessment as to the completeness or quality of the survey responses has been conducted. As such, comparison of CBA outcomes by individual reform area is not recommended.
  - The implementation costs of the reforms included in the analysis are not indicative of true costs for public transport operators but are representative of economic costs borne by society as a whole.

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