

SDAP Supporting Information

Provision of public passenger transport infrastructure

Purpose

This document provides explanatory guidance to support the state's requirements for the provision of public passenger transport infrastructure, as stated in *State code 6: Protection of state transport networks* of the State Development Assessment Provisions (SDAP).

The content in this section supports the performance outcomes outlined in:

State code 6: Protection of state transport networks:

- Table 6.2.3: Provision of public passenger transport infrastructure
 - Provision of public passenger transport infrastructure (**PO15-PO23**).

What is the issue?

Public passenger transport infrastructure facilitates access to employment, education, social services and recreational opportunities, and drives economic growth by supporting productive and successful businesses.

Integrating public passenger transport infrastructure with development promotes the use of public passenger transport as an attractive, efficient and accessible travel alternative to private motor vehicles. This will provide for well-connected and liveable communities across Queensland.

Public passenger transport infrastructure is infrastructure for, or associated with, the provision of public passenger transport. This includes:

- a transit terminal for public passenger services (for example, an airport terminal, a coach terminal, a cruise ship terminal)
- a ferry terminal, jetty, pontoon or landing for ferry services
- a bus stop, bus shelter, bus station or bus lay-by
- a busway station
- a light rail station
- a taxi rank, limousine rank or limousine standing area
- a railway station
- vehicle parking and set-down facilities
- pedestrian and bicycle paths and bicycle facilities and
- a road on which a public passenger transport service operates.

What is the objective?

The objective of the provisions is to ensure that development:

- provides public passenger transport infrastructure to enable development to be serviced by public passenger transport

- provides safe and direct access to public passenger transport infrastructure, including access by cycling and walking.

How to achieve the performance outcome

Performance outcome 15

No acceptable outcome has been provided. Therefore, an application must demonstrate compliance with the performance outcome. Demonstrating compliance with the performance outcome may include, but is not limited to the following actions:

- provide a public transport impact assessment to determine the overall impact of the development on public passenger transport. Guidance on preparing a public transport impact assessment is provided in Appendix 1.
- provide supporting information about the design of any upgraded or new public passenger transport infrastructure, including compliance with relevant design requirements detailed in the Department of Transport and Main Roads [Public Transport Infrastructure Manual](#) (2015) or other applicable design requirements such as:
 - *Transport Operations (Road Use Management – Road Rules) Regulation 2009*, in particular stopping at intersections
 - Department of Transport and Main Roads technical guideline [Planning for Safe Transport Infrastructure at Schools](#) (April 2001, Template revised in March 2018)
 - relevant Australian Standards applicable to the development
 - Disability Standards for *Accessible Public Transport 2002* made under section 31(1) of the *Disability Discrimination Act 1992*
 - Department of Transport and Main Roads [Road Planning and Design Manual, 2nd Edition, Volume 3 – Guide to Road Design](#) (March 2016). Note: Parts 3, 4-4C and 6 of the *Road Planning and Design Manual, Volume 3: Guide to Road Design*, must be read in conjunction with the following standards where specified in the manual:
 - 1) Department of Transport and Main Roads [Supplement to Austroads Guide to Road Design](#) Parts 3, 4-4C and 6, and
 - 2) [Austroads Guide to Road Design](#) (Parts 3, 4-4C and 6).
 - Department of Transport and Main Roads [Queensland Manual of Uniform Traffic Control Devices, Part 13: Local Area Traffic Management](#) (March 2018).
- provide a scaled and clearly labelled development site plan clearly showing the positioning and design of all existing and proposed public passenger transport infrastructure, including its capacity (number of parking bays) and dimensions, vehicle manoeuvring areas, and access for service vehicles. RPEQ certified swept paths may also be required.

Performance outcome 16

No acceptable outcome has been provided for this performance outcome. Therefore, an application must demonstrate compliance with the performance outcome. Demonstrating compliance with the performance outcome may include, but is not limited to, the following actions:

- provide a scaled and labelled development site plan clearly showing the positioning and design of all existing and proposed public passenger transport infrastructure, including its capacity (number of parking bays) and dimensions, vehicle manoeuvring areas, and access for service vehicles. RPEQ certified swept paths may also be required.
- provide supporting information demonstrating how the development complies with chapters 2, 5, 6 and 7 of the Department of Transport and Main Roads *Public Transport Infrastructure Manual*.

Performance outcome 17

No acceptable outcome has been provided. Therefore, an application must demonstrate compliance with the performance outcome. Demonstrating compliance with the performance outcome may include, but is not limited to the following actions:

- provide a scaled and clearly labelled development site plan clearly showing the positioning and design of all existing and proposed public passenger transport infrastructure, including its capacity (number of parking bays) and dimensions, vehicle manoeuvring areas, and access for service vehicles. RPEQ certified swept paths may also be required.
- provide supporting information about existing public passenger services operating in proximity to the development
- provide supporting information about any proposed provision and extension of public passenger services to the development.
- provide supporting information demonstrating how the development will cater for potential future bus routes and public passenger services to meet demand generated by the development, and maximise service and route efficiency and connectivity, giving consideration to:
 - the extent of existing urban bus routes
 - capacity for the potential future bus route to service the new urban community in walkable catchments such that approximately 90% of the future urban estate, and will be within 400m of a potential urban bus route
 - bus route design which minimises diversions, circuitous routes, backtracking, looping and dead running, for service efficiency and maximising the residential catchment area. Bus routes should be efficient in terms of being located to service the maximum residential catchment area
 - Connectivity with the major external road network which will be required to facilitate a bus service to the development and major destinations such as railway stations, shopping centres and so on which will provide an interchange point and terminus for bus routes
 - The extent of land designated urban in a regional plan and local government planning scheme which will influence the residential catchment
 - Constrained land such as steeply sloping land which may be unsuitable for urban bus services and environmental/undevelopable areas which may limit residential catchment opportunities.

Performance outcome 18

Acceptable outcomes have been provided for this performance outcome. An application can demonstrate it has complied with the acceptable outcomes by providing:

- plans demonstrating that existing roads intended to accommodate buses are arterial, sub-arterial, collector roads or their equivalent as per the relevant local government planning scheme
- supporting information demonstrating that roads intended to accommodate buses are designed in accordance with the following sections of the *Road Planning and Design Manual, Volume 3: Guide to Road Design*:
 - Part 3: Geometric Design
 - 4.2 Traffic lanes
 - 4.8 Bicycle lanes
 - 4.9 High occupancy vehicle (HOV) lanes
 - 4.12 Bus stops

- 7.7 Super elevation
 - 7.9 Curve widening
- Part 4: Intersections and Crossings – General
 - 5.6 Design vehicle swept path
 - 6.3 Bus facilities
- Part 4A: Unsignalised and signalised intersections
 - 5. Auxiliary lanes
- Part 4B: Roundabouts:
 - 4.6 Circulating carriageway
- Note: Parts 3, 4-4C and 6 of the Road Planning and Design Manual, Volume 3: Guide to Road Design, must be read in conjunction with the following standards where specified in the manual:
 - 1) Department of Transport and Main Roads *Supplement to Austroads Guide to Road Design* (Parts 3, 4-4C and 6), and
 - 2) *Austroads Guide to Road Design* (Parts 3, 4-4C and 6).
- supporting information demonstrating that traffic calming devices are not part of the road design, construction or intended to be installed on roads proposed to accommodate buses, in accordance with Chapter 2 - Section 2.3.2: Bus Route Infrastructure of the Department of Transport and Main Roads *Public Transport Infrastructure Manual*.
- supporting information demonstrating that if road humps are proposed for roads used for buses are designed in accordance with the following sections of the *Manual of Uniform Traffic Control Devices*, Part 13:
 - Local area traffic management – section 2.4: road humps
 - Supplement Part 13 – local area traffic management section 2.4.2-1: hump profiles for bus routes.

Performance outcome 19

No acceptable outcome has been provided. Therefore, an application must demonstrate compliance with the performance outcome. Demonstrating compliance with the performance outcome may include, but is not limited to the following actions:

- provide a scaled and clearly labelled development site plan demonstrating how safe, direct and convenient pedestrian and cycle access will be provided between the public passenger transport infrastructure and the entry to the development. Pedestrian paths will need to be designed to accommodate peak demand in accordance with Austroads Guide to Road Design, Part 6A: Paths for Walking and Cycling
- provide supporting information demonstrating that pedestrian access to public passenger transport is compliant with the Disability Standards for *Accessible Public Transport 2002* made under section 31(1) of the *Disability Discrimination Act 1992*, and Department of Transport and Main Roads *Public Transport Infrastructure Manual (2015)*, Chapter 3: Supporting Access Infrastructure, indicating where severe grade changes occur, assisted vertical movement should be provided (for example, lifts and escalators), in accordance with relevant Australian Standards
- provide supporting information demonstrating how safe pedestrian access will be achieved across roadways where applicable by:
 - undertaking consultation with the relevant road manager

- undertaking a safety audit which considers the locational circumstances of the site, proposed traffic arrangements, the location of existing or proposed public passenger transport infrastructure and speed environment of the road
- providing an appropriately scaled drawing illustrating how safe, direct and convenient pedestrian crossing arrangements are to be achieved between the development and public passenger transport infrastructure.
- provide a pedestrian demand analysis prepared in accordance with of the Department of Transport and Main Roads *Public Transport Infrastructure Manual* (2015) Chapter 3, section 3.3: Guidance on Preparing a Pedestrian Demand Analysis is provided in Appendix 2.

Performance outcome 20

No acceptable outcome has been provided. Therefore, an application must demonstrate compliance with the performance outcome. Demonstrating compliance with the performance outcome may include, but is not limited to the following action:

- provide plans of the development demonstrating:
 - pedestrian crossings provide safe sight distances for pedestrians and public passenger services
 - on-site circulation of public passenger services enables vehicles to enter and leave the site in forward gear at all times
 - public passenger services do not move through car parking aisles.

Performance outcome 21

No acceptable outcome has been provided. Therefore, an application must demonstrate compliance with the performance outcome. Demonstrating compliance with the performance outcome may include, but is not limited to the following:

- provide a public transport impact assessment to determine the overall impact of the development on public passenger transport. Guidance on preparing a public transport impact assessment is provided in Appendix 1. An adequate number of taxi rank/s will be provided with sufficient capacity (number of parking bays) to cater for the demand generated by the development.
- provide supporting information, prepared in accordance with of the Department of Transport and Main Roads *Public Transport Infrastructure Manual* (2015) Chapter 7: Taxi Facilities, demonstrating that adequate taxi facilities are provided to accommodate the demand generated by the development.

Performance outcome 22

Acceptable outcomes have been provided for this performance outcome. An application can demonstrate compliance with the acceptable outcomes by providing a scaled and clearly labelled proposal plan demonstrating that any proposed taxi facility or rank:

- is located parallel to the kerb and adjacent to the development's main entrance
- is located to have an efficient route into and out of the site that avoids back-tracking and looping
- is positioned to maximise coverage and decrease the distance that potential for passengers to walk. Taxi ranks should be sited near uses that generate major trips, for example, the main entry to the development/supermarkets, entertainment areas and major pedestrian facilities.
- has been designed in accordance with:
 - *AS2890.5–1993 Parking facilities – on-street parking* and *AS1428.1–2009 Design for access and mobility – general requirements for access – new building work*
 - *AS1742.11–1999 Parking controls – Manual of uniform traffic control devices*

- *AS/NZS 2890.6–2009 Parking facilities* – off-street parking for people with disabilities
 - Disability standards for accessible public transport 2002 made under section 31(1) of the *Disability Discrimination Act 1992*
 - *AS/NZS 1158.3.1 – Lighting for roads and public spaces*, Part 3.1: Pedestrian area (category P) lighting – Performance and design requirements.
- each taxi rank or facility includes at least one parking bay designed to accommodate a taxi catering for people with disabilities.

Performance outcome 23

An acceptable outcome has been provided for this performance outcome. An application can demonstrate it has complied with the acceptable outcome by providing the following information as part of the application:

- a scaled and clearly labelled proposal plan and RPEQ certified Traffic Impact Assessment (including all modes of transport active, public passenger transport and private vehicle) demonstrating that an educational establishment has been designed in accordance with the provisions of the Department of Transport and Main Roads [Planning for Safe Transport Infrastructure at Schools](#).

Contact details

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Appendix 1: Public transport impact assessment

A public transport impact assessment must be prepared in accordance with Austroads [Guide to Traffic Management](#), Parts 1-13, addressing the following:

- an assessment of the overall impact of the proposed development on all forms of public passenger transport such as urban bus services, school bus services, passenger railway services, taxis and private/chartered buses/mini-buses, excursion/event buses and ferry/city cat services. This assessment should address the following, amongst other relevant considerations:
 - identify the location (within or beyond a walkable catchment) and capacity (number of parking bays) of all existing public passenger transport infrastructure and all existing public passenger transport services (namely, urban service routes and their frequency)
 - the likely modal split of travel to and from the development. The modal split should differentiate between public transport mode (urban bus, school bus, train, ferry, taxi) and active transport mode (walking and cycling) and private vehicle travel
 - an assessment of the impact (including demand) of the proposed development on all forms of existing and planned public passenger transport. This should include the impact of the anticipated site population (residents, visitors, employees, spectators, patrons etc.) and the likely timing, frequency and nature of any events. Information regarding for provision of transport infrastructure in proximity to schools is available in the Department of Transport and Main Roads Planning for [Safe Transport Infrastructure at Schools](#) (Table 2).
 - the capacity of the existing public transport network to support the anticipated development impacts including demand. This should give consideration to, for example, consultation with relevant operators and the Department of Transport and Main Roads and factors such as bus size, public passenger transport timetables, demographics etc.
 - the identification of necessary public passenger transport infrastructure required to support the development including the upgrade of existing facilities and/or provision of new facilities. This should consider how public passenger transport outcomes will be achieved across all stages of the development, including compliance with relevant design requirements detailed in the Department of Transport and Main Roads [Public Transport Infrastructure Manual \(2015\)](#) and other applicable design requirements such as:
 - *Transport Operations (Road Use Management – Road Rules) Regulation 2009*, in particular stopping at intersections
 - Department of Transport and Main Roads technical guideline, [Planning for Safe Transport Infrastructure at Schools](#) (April 2001, Template revised in March 2018)
 - relevant Australian Standards applicable to the development
 - Disability Standards for *Accessible Public Transport 2002* made under section 31(1) of the *Disability Discrimination Act 1992*
 - Department of Transport and Main Roads [Road Planning and Design Manual, 2nd Edition, Volume 3 – Guide to Road Design](#) (March 2016). Note: Parts 3, 4-4C and 6 of the *Road Planning and Design Manual, Volume 3: Guide to Road Design*, must be read in conjunction with the following standards where specified in the manual:
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 - 2) [Austroads Guide to Road Design](#) (Parts 3, 4-4C and 6).
 - Department of Transport and Main Roads [Queensland Manual of Uniform Traffic Control Devices, Part 13: Local Area Traffic Management](#) (March 2018).
- if the site is isolated from the existing service network, the development may need to make suitable provision private transportation arrangements such as private/chartered buses/coaches and/or

personalised transport such as taxis and ride share where existing scheduled public passenger services cannot accommodate the impact of the development.

Appendix 2: Pedestrian demand analysis

A pedestrian demand analysis must be prepared in accordance with *Public Transport Infrastructure Manual* – Chapter 3, addressing the following:

- the size and nature of the likely catchment:
 - the reasonable walk-up catchment radius for a stop is typically 400 metres, with limited walk-up from within 800 metres
 - the reasonable walk-up catchment radius for a station is typically within 800 metres, with limited walk-up up to 1.2 kilometres
 - these are impacted by:
 - the surrounding environment that the stop or station operates within (for example terrain, land use, traffic and safety)
 - the permeability of the area (for example the actual distance travelled due to block size, mid-block paths or barriers)
 - climate (for example walking distances may be less where heat or inclement weather is more frequent)
 - amount of interchanging transfers and average waiting time
 - existing and future surrounding residential development intensity (population density, dwelling density) – apply current mode-shares and relevant targets to identify the project requirements.
- pedestrian activity generated by adjacent land uses. (large institutional and commercial land uses such as shopping or activity centres, universities and hospitals, sometimes collect privately-owned data on staff and visitor travel behaviour for their own site planning purposes. Broader mode share assumptions or policy targets can be applied to these to generate approximate incoming pedestrian volumes or future pedestrian activity targets).

Emphasis should be placed on catering for peak demand. This should be explored by identifying and mapping all pedestrian patronage to, from and through the site.

The demand analysis should be used to inform staging opportunities for the delivery of pedestrian access infrastructure, as well as protect for any land requirements to cater for future demand. Some of the key issues to consider include:

- prioritising investment to protect for future connections while immediately providing for existing paths
- future volumes that may require grade-separated pedestrian walkways
- ensuring the location of pedestrian walkways and permanent elements does not impede future plans to upgrade or expand public transport infrastructure.