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Ground Transport Plan



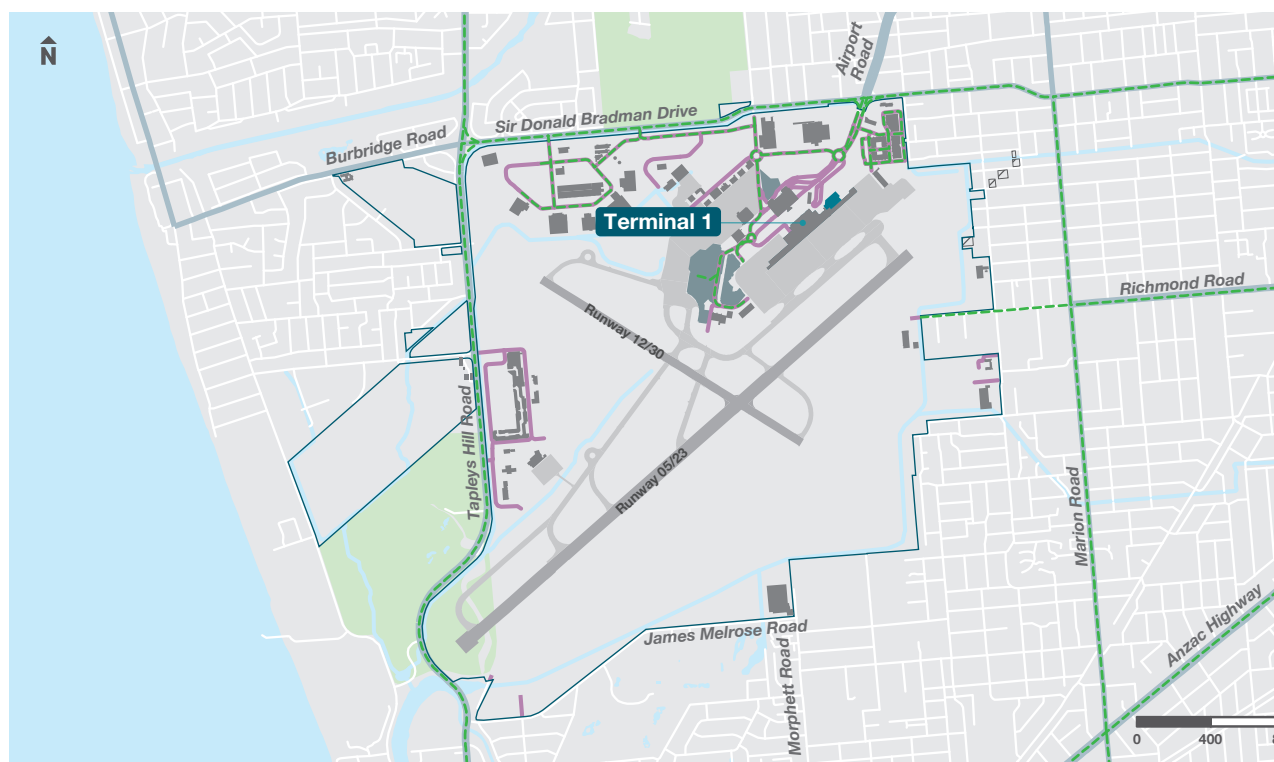
10.1. Introduction

Ground transport planning is critical to the efficient operation of Adelaide Airport. Ground transport consists of roads for passengers, staff, taxi/rideshare and freight vehicles, pick-up/drop-off facilities, public transport and cycleways.

Adelaide Airport is well connected to the metropolitan road network, with four major arterial roads providing transport links from the airport to metropolitan and regional areas and the Port of Adelaide. Sir Donald Bradman Drive and Richmond Road provide direct access to the CBD and passenger rail hubs; while Marion Road and Tapleys Hill Road provide access to the north and south metropolitan areas. Adelaide Airport is also well connected to South Road and the North-South Corridor which is one of Adelaide's most important freight and transport corridors. Connectivity to the Port of Adelaide is via Tapleys Hill Road and the North-South Corridor.

Figure 10-1 shows the road network surrounding the Airport site and Figure 10-2 shows the location of the airport and its relationship to the CBD and wider metropolitan Adelaide road network.

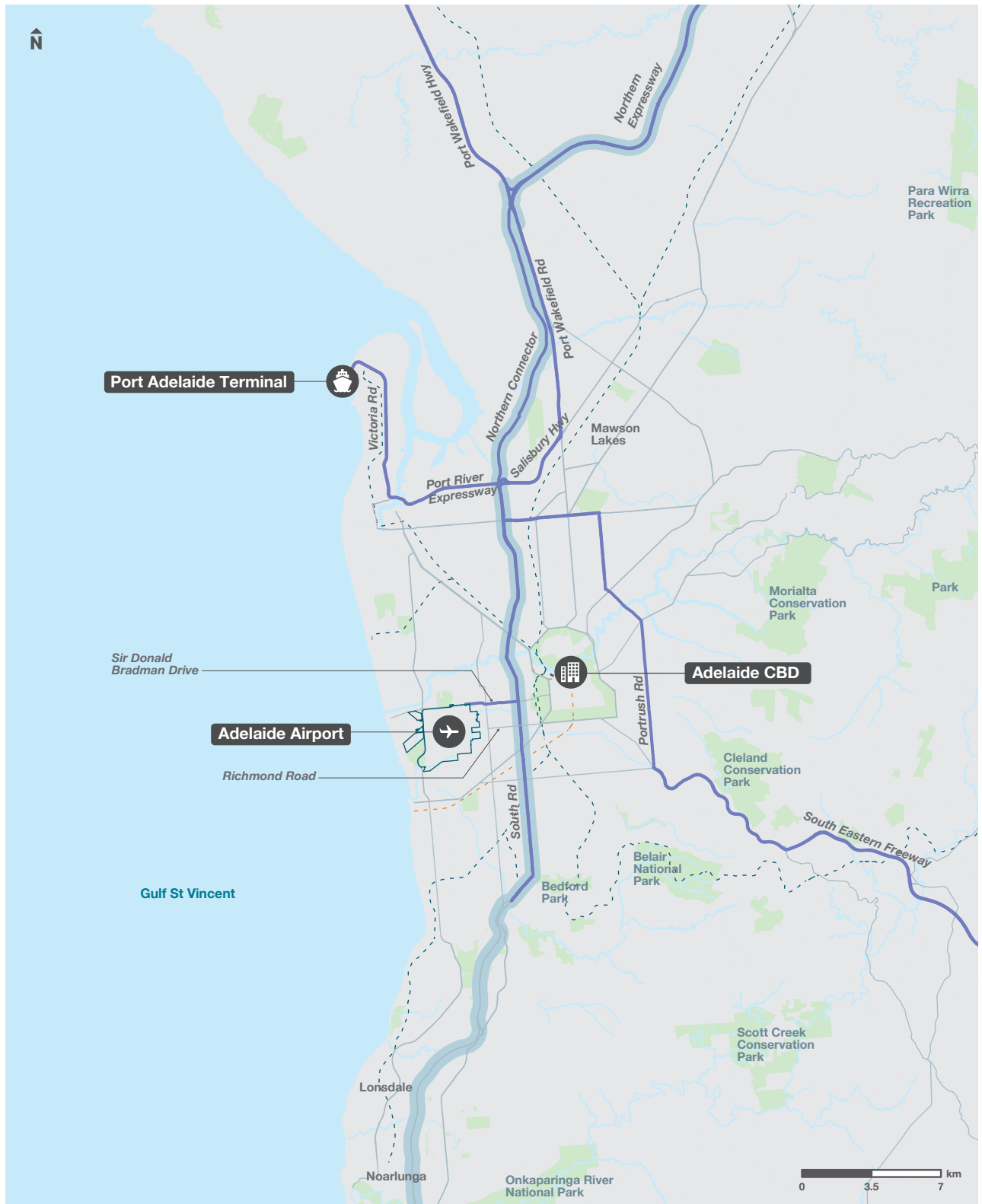
Each day there are approximately 54,000 vehicle movements in and out of the airport, and by 2039 this is expected to reach 126,000 daily vehicle movements. As Adelaide Airport grows, it is critical that adequate consideration is given to future ground transport demands within and adjacent to the airport.



LEGEND

Airport Boundary	Airport Terminal	Parks, Forests and Reserves	Internal Airport Roads
Freehold Land	Buildings	Watercourses	B-Double Routes
Runways	Airport Car Parks		Arterial Roads
Taxiways/Aprons			Local Roads

Figure 10-1: Existing External Road Network Surrounding the Airport



LEGEND

- | | | |
|------------------|-----------------------|-----------------------------|
| Airport Boundary | North-South Corridor | Parks, Forests and Reserves |
| Railway | National Road Network | Watercourses |
| Tram Line | Arterial Roads | |

Figure 10-2: Wider Metropolitan Adelaide Road Context

10.2. Overview

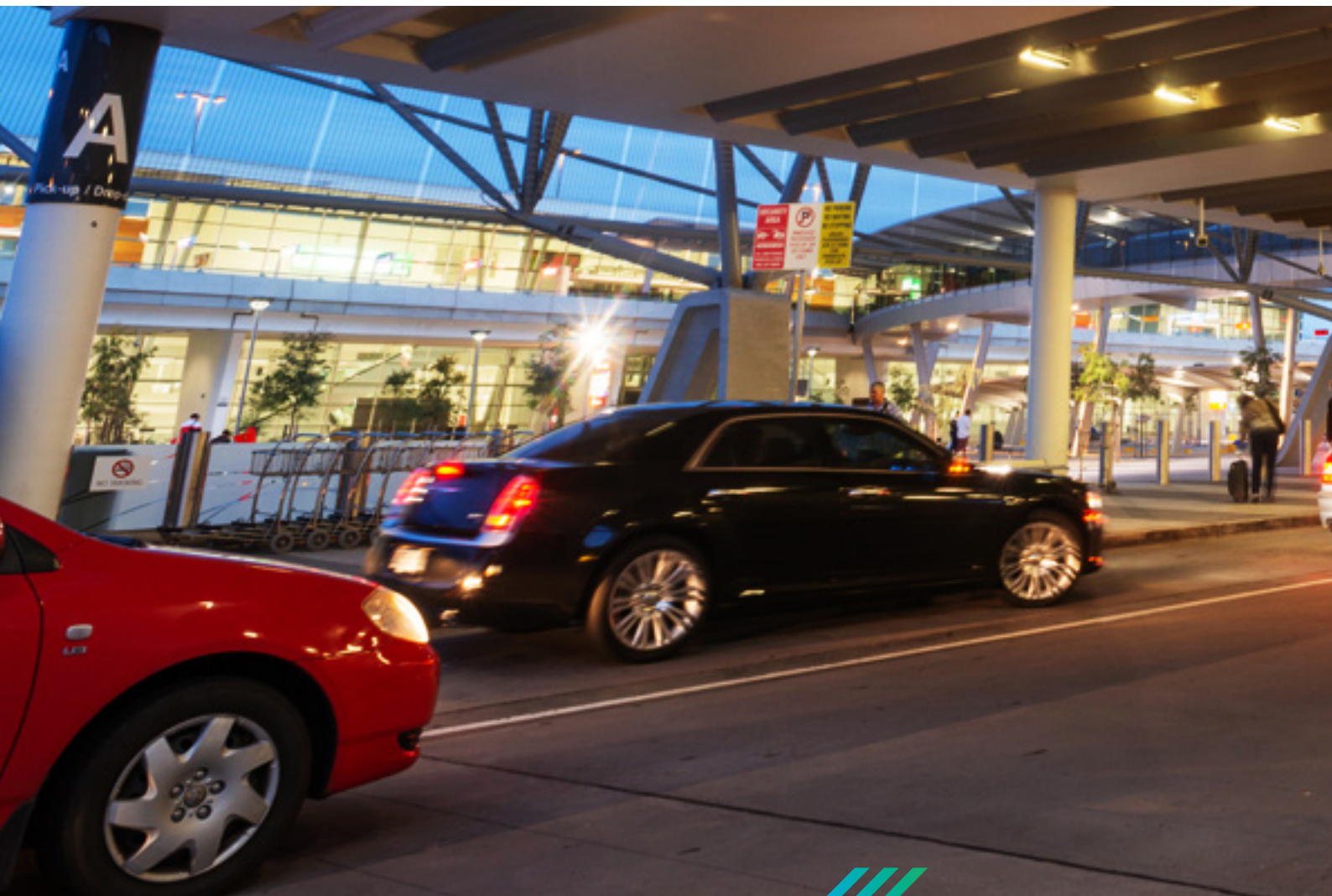
- Adelaide Airport is well connected to major State arterial roads and public infrastructure
- The Commonwealth and State Government are investing in improvements to external infrastructure including the construction of the North-South Corridor. Connectivity between the airport and this corridor is critical to ensure access for both passengers and freight
- AAL continues to invest in improvements to ground transport facilities to support growth in traffic demand and enhance passenger experience, including the provision of a road network which facilitates primarily one-way movement
- The increased use of public transport to Adelaide Airport continues to be a high priority for both AAL and the State Government. Provision for a high capacity public transport system servicing the airport is included in future plans

10.3. Responsibilities

AAL engages directly with State and Local Governments, as well as through the Planning Coordination Forum and Adelaide Airport Consultative Committee (described in Chapter 5), to make sure that the future demands of Adelaide Airport operations are reflected in strategic network planning.

The key organisations and agencies involved in ground transport planning around Adelaide Airport are:

- The State Department of Planning, Transport and Infrastructure (DPTI), which sets policy and strategic direction for land use and transport throughout South Australia; plans, constructs and maintains major road infrastructure surrounding and connecting to Adelaide Airport; and provides infrastructure planning for public transport systems
- The newly established South Australian Public Transport Authority (SAPTA), which will inform the development of a comprehensive public transport



10.4. Airports Act 1996 Requirements

strategy and provide operational and customer services for the State, with a focus on efficiency, reliability, accessibility and innovation

- City of West Torrens, which is responsible for the planning, construction and maintenance of local roads adjacent to and surrounding the airport
- AAL, which is responsible for the planning, construction and maintenance of roads within the airport site
- The Commonwealth Minister for Infrastructure, Transport and Regional Development, who may provide funding to the State Government for major transport infrastructure projects (such as the North-South Corridor) and is responsible for approving the Ground Transport Plan as part of this Master Plan and any subsequent Major Development Plan (where required) for road network construction within the airport site

The Airports Act requires a plan for a ground transport system on the landside of the airport to detail the:

- Road network plan
- Facilities for moving people (employees, passengers and other airport users) and freight at the airport
- Linkages between those facilities, the road network and public transport system at the airport and the road network and public transport system outside the airport
- Arrangements for working with the State or Local authorities or other bodies responsible for the road network and the public transport system
- Capacity of the ground transport system at the airport to support operations and other activities at the airport
- Likely effect of proposed developments identified in the Master Plan on the ground transport system and traffic flows at, and surrounding, the airport



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10.5. State Planning

10.5.1. Planning Framework

The State Government is responsible for setting policy and strategic direction for transport throughout South Australia, as well as planning and constructing major road infrastructure, infrastructure planning for public transport services for the Adelaide metropolitan region, and regulating taxi, rideshare and chauffeur operations. The State Government has recently established the South Australian Public Transport Authority (SAPTA), an independent body which will provide operational and customer services for public transport for the Adelaide metropolitan region.

Infrastructure SA, an independent statutory body, is responsible for developing a 20-year State infrastructure strategy and five-year infrastructure plan for South Australia.

The Commonwealth and South Australian Governments are jointly funding \$2.5 billion for the remaining sections of the North-South Corridor, completing the non-stop motorway between Gawler and Old Noarlunga. The project is expected to take 10 years to complete.

The North-South Corridor is one of Adelaide's most important transport corridors. Its connection to Adelaide Airport has the potential to significantly improve accessibility and travel times for passengers. Connections to the Airport East Precinct from the future North-South Corridor via Richmond Road will also see improved efficiencies and benefits for South Australia's freight network. Plans for future road connections between the airport and the upgraded North-South Corridor will be determined by the State Government in consultation with AAL.

This Ground Transport Plan considers and incorporates State transport strategies which affect Adelaide Airport.

10.5.1.1. Integrated Transport and Land Use Plan 2015

The Integrated Transport and Land Use Plan 2015 identifies key transport challenges facing South Australia, including providing efficient connections for freight movement and developing and maintaining a planning system that ensures integrated transport and land use.

The Plan identifies actions for the entire State, with indicative timelines of short, medium and long term.

Specific actions that consider Adelaide Airport include:

- Progressively upgrade South Road as part of the North-South Corridor (short, medium and long term)
- Upgrade of intersections along Sir Donald Bradman Drive to reduce congestion and improve reliability of travel times to the airport (medium term)
- Provision of upgrades for taxi, commercial vehicle and bus access via Richmond Road (short to medium term), retaining the potential for a local road connection between Richmond Road and Morphett Road in the longer term
- Partnering with the City of West Torrens to complete the Airport Bikeway, including crossings of arterial roads (medium term)
- Provision of tram services along Henley Beach Road with a branch line to Adelaide Airport (medium term)

The Integrated Transport and Land Use Plan is currently under review by the South Australian Government to revise key transport priorities.

10.5.1.2. The 30-Year Plan for Greater Adelaide

The 30-Year Plan provides directions for urban and regional development for business, industry, infrastructure provision, utility supply and government agencies. The 30-Year Plan provides a framework for how Adelaide can grow to become a more liveable, competitive and sustainable city. It guides the long term growth of the city and its surrounds over the next 30 years.

It acknowledges that Adelaide Airport is a key economic and job cluster, with the potential to maximise the economic benefits of export infrastructure by providing strategic employment and land with direct access to major freight routes.

10.6. Airport Transport Planning

Airports are major transport hubs and trip attractors. The demand for ground transport varies depending on the availability of different modes of transport, comparative cost, travel times and trip purpose. Reliability is a primary factor for passengers, ensuring they make flights on time.

The key considerations for the Adelaide Airport Ground Transport Plan are:

- Passenger experience, including access to and from Adelaide Airport by means of multiple modes of transport and ease of getting to Terminal 1
- Ensuring efficient passenger and freight access to and from Adelaide Airport via the North-South Corridor
- Maintaining and improving B-Double access to facilitate critical current and expanded freight and logistics operations
- Level of service during peak periods, based on performance measures such as vehicle density and queue times
- Catering for existing and planned aviation and commercial developments and associated employment and visitor traffic
- Segregating as much as practicable commercial (larger vehicles) and aviation traffic
- Effective, safe and efficient connectivity for all users of the airport
- Maximising the efficient use of existing infrastructure
- Provision of access alternatives
- Cost effective infrastructure investment
- Development of flexible and adaptable infrastructure to maximise reuse for new transport models/services
- Efficient and safe flow of traffic on surrounding roads, including Sir Donald Bradman Drive
- Maintain and enhance convenient access to and from the Adelaide City
- Provide safe cycleways within the airport and connecting to the wider cycleway network
- Through design, minimise impacts to surrounding areas

Innovative and sustainable technologies are regularly investigated. In 2016, AAL won an Australian Airports Association award for innovation and excellence in technology for its online carpark-booking system; and in 2017, Adelaide Airport became the first airport in Australia to provide electric-vehicle charging stations in its public car park.

10.7. Recent Developments

Between 2012 to 2018, there has been significant infrastructure investment to improve the airport's road network and provide new facilities for taxi, rideshare, bus and chauffeur vehicles.

The improvements to the ground transport network that have been implemented include:

- An upgrade to the intersection of Sir Donald Bradman Drive and Sir Richard Williams Avenue to improve egress from the airport
- Construction of Atura Circuit, which is a new road link connecting Sir Richard Williams Avenue to Terminal 1, Atura Hotel and the new taxi drop-off area
- New pedestrian walkway from Sir Donald Bradman Drive to Terminal 1
- Construction of a new taxi drop-off area to Atura Circuit, which will open in mid to late 2019
- Redesign and reconstruction of the taxi pick-up, bus and chauffeur area at the western end of Terminal 1 forecourt to provide improvements for chauffeur and taxi services and improved pedestrian links to Terminal 1
- Dedicated rideshare facility constructed in August 2017 for private passenger pick-ups close to Terminal 1
- Secure long-stay bicycle storage facility constructed within the ground level of the multi-level car park to complement other bicycle facilities at the airport
- Four electric-vehicle charging stations installed in the multi-level car park in December 2017
- Road extension to Burbridge Business Park, to create an internal road loop providing improved connectivity
- Designation of a zone for carshare operations

10.8. Forecasting

Future forecasts of vehicle traffic and parking demands are primarily based on forecast passenger growth and the projected development of the airport site. Forecasting uses a range of data inputs and assumptions. These include State Government forecasts for traffic volumes on the external network, existing traffic counts, car parking data, commercial development predictions and concept options for future access arrangements. Forecasting is also subject to sensitivity testing in order to understand the potential impact of changes such as an increase in public-transport-mode share or implementation of future technologies.

10.8.1. Future Demand

The number of passengers using the airport annually is expected to increase from 8.5 million in 2018 to 19.8 million by 2039. This passenger growth, along with the increased employment required to support it, and further commercial development within the airport site, will result in an increase in vehicle traffic to and from the airport.

Based on the forecast passenger movements and growth at the airport, daily traffic volumes are forecast to increase from 54,000 vehicle movements per day in 2018, to 80,000 vehicle movements by 2027 and 126,000 vehicle movements by 2039 (refer Figure 10-3). These figures incorporate all vehicle movements to and from the airport site as a whole.

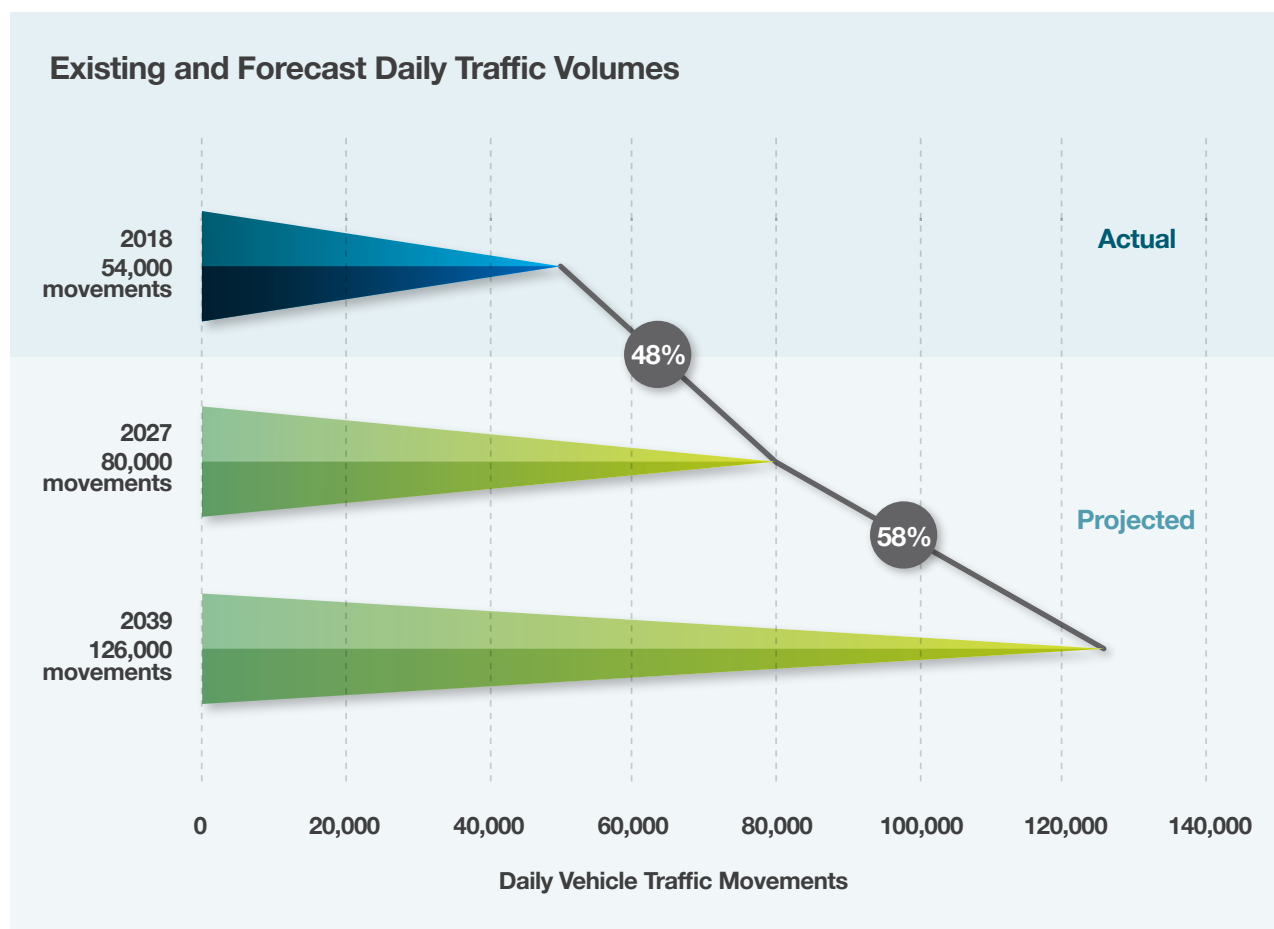


Figure 10-3: Existing and Forecast Daily Vehicle Traffic Volumes



10.8.2. Modes of Travel

Currently, approximately 78 per cent of access to the airport is by private motor vehicle. Taxi, rideshare, chauffeur and other commercial services make up a further 21 per cent of journeys. The current mode share of trips is shown in Figure 10-4. AAL continues to monitor how people travel to and from the airport – including trends in the potential uptake of emerging transport technologies such as autonomous vehicles – in order to plan for and provide appropriate infrastructure. Private motor vehicles will continue to be the highest mode share and it is expected that the overall mode share will not shift significantly within the planning period.

10.8.3. Future Technologies

There have and will continue to be substantial developments in emerging and innovative transport technologies, which include autonomous vehicles, air taxis (personnel airborne rideshare) and the use of drones for parcel delivery.

While these technological advances have the potential to improve access and connectivity, they may also create challenges for ground transport systems and other infrastructure associated with airports. The views on the impacts of transport technologies vary significantly, nationally and globally, and will likely require government intervention or policy to adapt as these technologies are realised.

A number of technological advances – particularly autonomous vehicles – are in their infancy and are being trialled across Australia. Planning for air taxis and use of drones requires careful consideration of aircraft operations and airspace requirements.

AAL will continue to monitor emerging technologies. Adaptable staging and timing of infrastructure investment allows AAL to consider and respond to opportunities for incorporating innovative and sustainable access options.

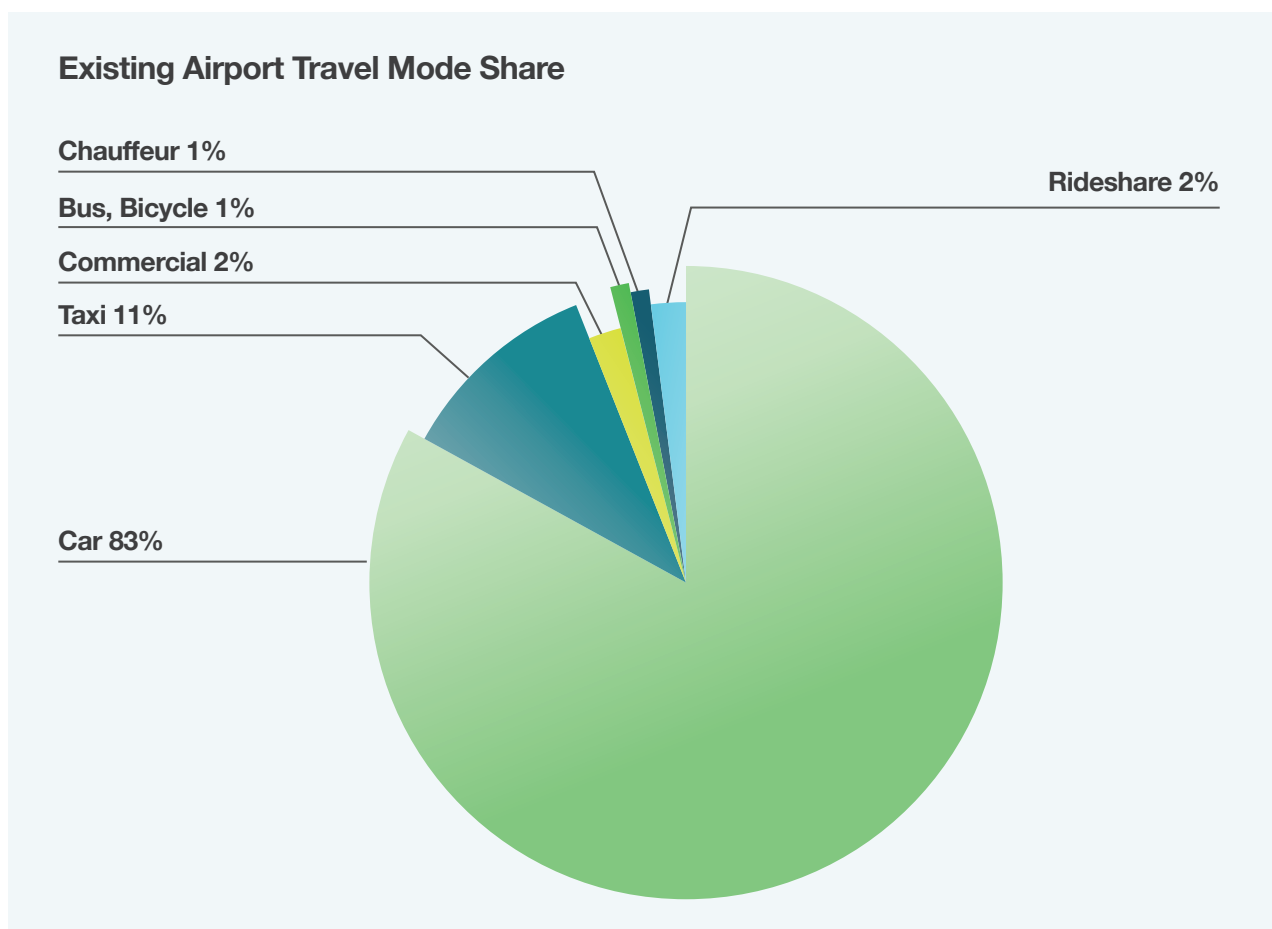


Figure 10-4: Existing Mode Share for Travel to/from the Airport



10.9. Precinct Planning

Adelaide Airport is responsible for all roads within the boundary of the airport. This includes both landside (publicly accessible) and airside (restricted access) roads. Figure 10-5 shows Adelaide Airport's internal road network and access points to the external State and Local Government road networks.

10.9.1. Modelling

The existing and proposed future road network and intersections both within the airport site and at the boundary were assessed using a SIDRA model. This model assesses the performance of each intersection outside of the airport using several key metrics such as average vehicle delays and queuing distances.

This type of model assesses the requirements of the road network and intersections at a conceptual level.

10.9.2. Next Steps

The ground transport concepts outlined in this Master Plan will undergo further detailed modelling and refinement.

The final alignment, location, dependencies, layout of new intersections as well as upgrades to existing infrastructure will be determined following detailed traffic modelling and further consultation with local and state governments to ensure any wider network impacts are considered.

AAL is committed to effective consultation with the State Department of Planning, Transport and Infrastructure, City of West Torrens, airlines and other key stakeholders.

Additional intersections or access points may be identified and therefore considered if deemed appropriate by the State Department of Planning, Transport and Infrastructure.

10.9.3. Terminals & Business Precinct

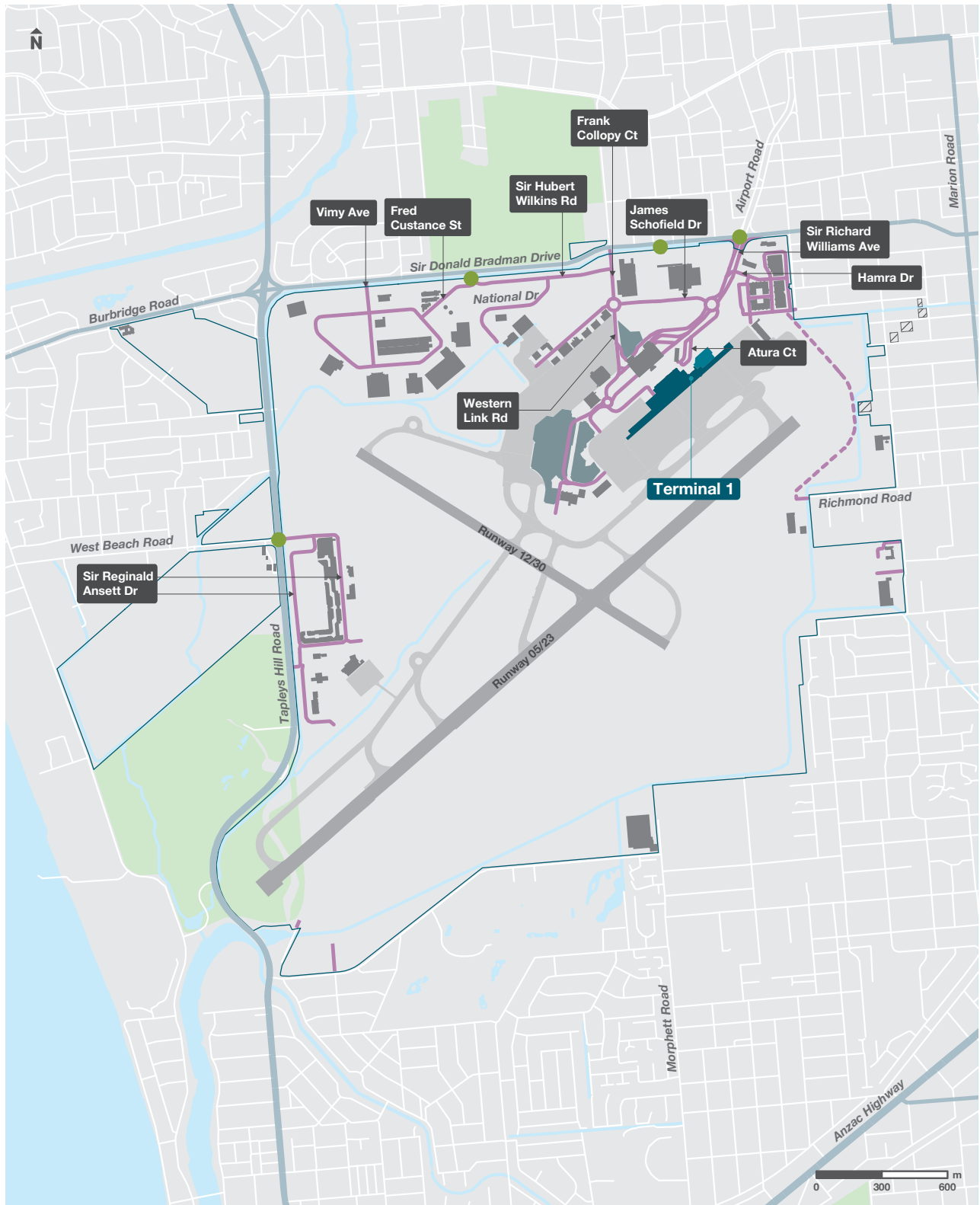
Most of the landside roads at the airport are in the Terminals & Business Precinct, including those that provide the primary access to Terminal 1. This network of roads provides efficient and reliable access to the terminal drop-off/pick-up zone, Atura Hotel, car parking areas, car rental, taxi and rideshare facilities, and public transport. This internal network also provides access to the commercial, office and retail businesses within the precinct.

Sir Richard Williams Avenue, James Schofield Drive and Western Link Road form the primary internal circulation in this precinct. Multi-lane roundabouts have been established at intersections to provide efficient traffic flows. Sir Richard Williams Avenue is a two-way dual lane carriageway and is the main entry and exit point to the precinct. As such, it carries the greatest volume of traffic within the airport. Beyond James Schofield Drive, Sir Richard Williams Avenue provides a one-way passenger drop-off/pick-up zone and ingress/egress lanes to the multi-level car park.

The drop-off/pick-up area is located below the multi-level car park, directly adjacent to the Terminal 1 plaza. It caters for domestic passenger drop-off/pick-up, taxi and rideshare drop-off; and buses which provide connection to the long-term car park south of Terminal 1. It is comprised of two traffic lanes and a short-term standing lane. Approximately 20 to 25 vehicles can be accommodated in the standing lane.

In October 2019, a dedicated taxi drop-off area located at Atura Circuit was opened. The opening of this area is expected to progressively reduce the demand on the drop-off/pick-up area by up to 30 per cent.

Sir Hubert Wilkins Avenue and Frank Collopy Court provide a secondary access route for vehicles travelling between the signalised intersection on Sir Donald Bradman Drive and the Terminals & Business Precinct. These roads also provide access to the current car rental storage facilities, fuel storage facility, and links to Burbridge Business Park via Fred Custance Street.



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Airport Boundary	Airport Terminal	Signalised Intersection
Freehold Land	Airport Car Parks	Arterial Roads
Runways	Parks, Forests and Reserves	Local Roads
Taxiways/Aprons	Watercourses	Internal Airport Roads
Buildings		Internal Airport Secured Roads

Figure 10-5: Existing Internal Road Network

The Ground Transport Plan includes a range of improvements for both existing and forecast traffic demand to ensure an efficient customer experience for people travelling to, from and within the airport. The projected increase in passenger and vehicle activity is mainly focused around access to Terminal 1. In response, most improvements have been identified in the Terminals & Business Precinct.

To provide for further traffic growth in the medium term, AAL proposes a road network which facilitates primarily one-way traffic movements from the existing access point at the intersection of Sir Richard Williams and Sir Donald Bradman Drive to a new signalised intersection with Sir Donald Bradman Drive. The redistribution of traffic to this new intersection will improve the efficiency and capacity of the network. An upgrade to the Sir Richard Williams Avenue and Sir Donald Bradman Drive intersection is also likely to be required in the medium term to meet forecast traffic demand.

Efficient and safe operations within the drop-off/ pick-up area is essential. AAL will consider additional developments or amendments (operational and technological) and continue to work with members of the public as well as taxi and ride share operators to ensure that the drop-off/ pick-up area meets demand and customers needs.

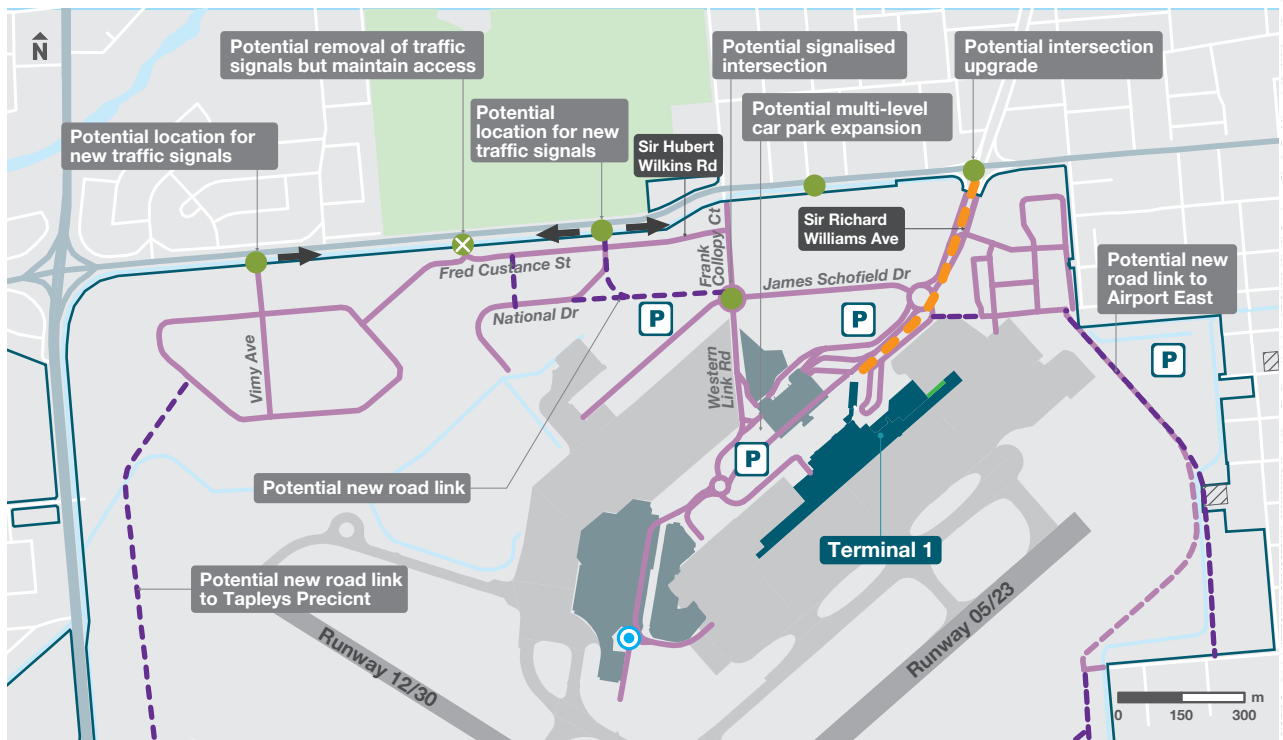
Assessment of future ground transport demand for Burbridge Business Park has identified the need for a new signalised intersection at Sir Donald Bradman Drive and Vimy Avenue to provide access and egress to this area for both westbound and eastbound traffic. To create adequate separation and efficient traffic flow between signalised intersections, the existing signalised intersection at Sir Donald Bradman Drive and Fred Custance Street is proposed to be changed to a non-signalised intersection. A road link between Burbridge Business Park and the Tapleys Precinct is also proposed to provide connectivity and allow for redistribution of traffic within the airport site, maximising the efficiency of key intersections with the external network.

The proposed ground transport improvements within this precinct minimises the mix of heavy vehicles with other vehicle types and airport users.

The medium term plan makes provision for a potential secure, internal road link between the Terminals & Business Precinct and the Airport East Precinct (Richmond Road), should an alternative access and egress point be required to meet future traffic demand.

Figure 10-6 shows the 8-year Ground Transport Plan for the Terminals & Business Precinct.





LEGEND

	Airport Boundary		Airport Terminal		Potential Car Park Locations		Internal Airport Roads
	Freehold Land		Proposed Expansion Within Terminal Zone		Signalised Intersection		Security Restricted Roads
	Runways		Airport Car Parks		Arterial Roads		Potential High Capacity Public Transport Corridor
	Taxiways/Aprons		Parks, Forests and Reserves		Local Roads		Potential New Road Links
	Buildings		Watercourses		Air Traffic Control Tower		

Figure 10-6: 8-year Ground Transport Plan for the Terminals & Business Precinct



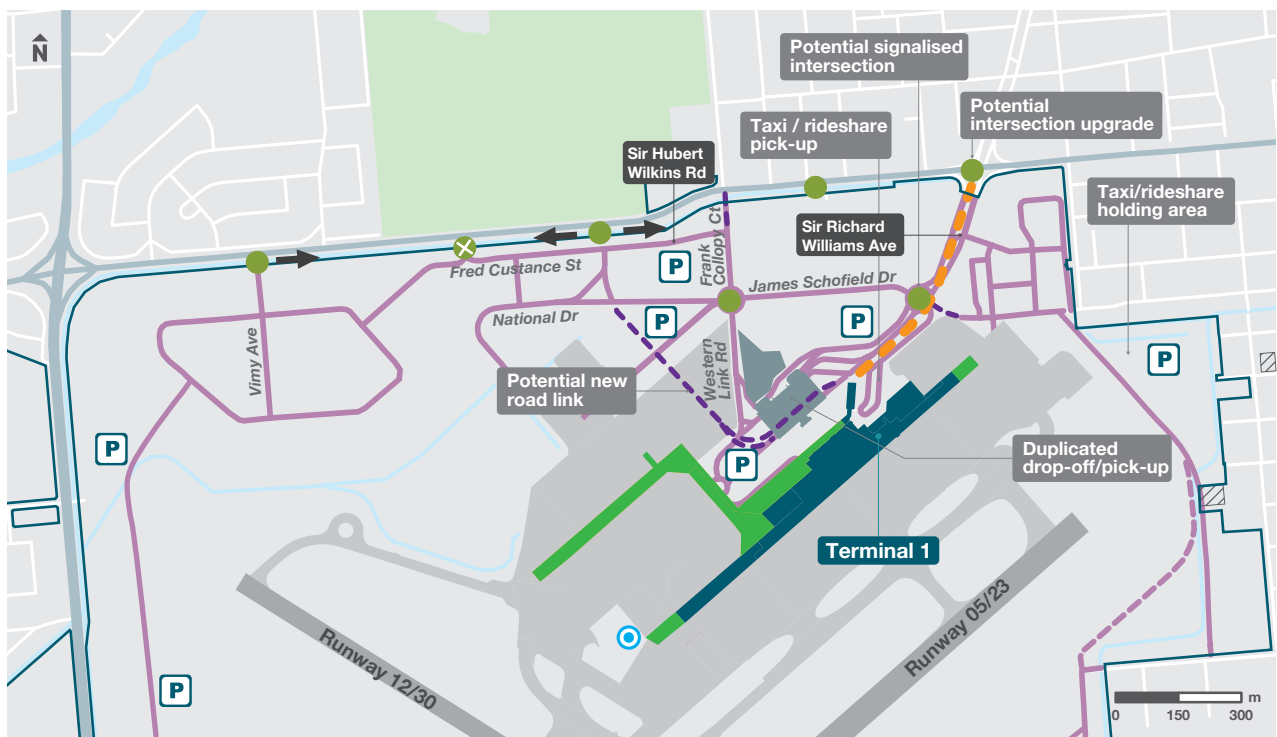


The long term Ground Transport Plan will provide appropriate infrastructure for the forecast growth in traffic movements through maximising the efficient use of existing infrastructure, where possible, and maintaining the key principles of flow, access and egress for the road network. Proposed developments also build from the 8-year plan.

To meet medium to long term demand, the Terminal 1 drop-off/pick-up area is planned to be duplicated, parallel to the existing alignment below the multi-level car park, with seamless exit and connection to the Western Link Road.

Upgrades to the road network and intersections from the drop-off/pick-up area to the new Sir Donald Bradman Drive intersection will also be considered. Options may include a proposed realignment of the road to allow for a more direct departure route, or alternatively the widening of Western Link Road.

Figure 10-7 shows the 20-year Ground Transport Plan for the Terminals & Business Precinct.



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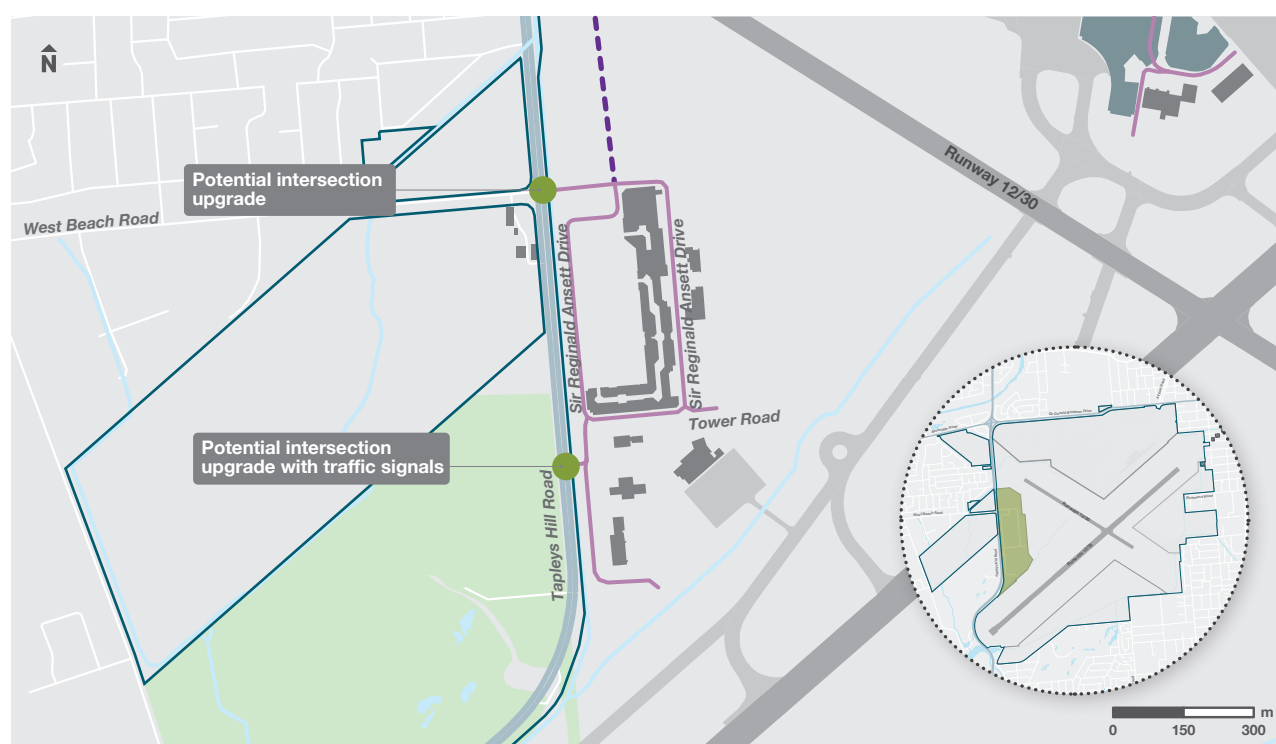
Airport Boundary	Airport Terminal	Potential Car Park Locations	Internal Airport Roads
Freehold Land	Proposed Expansion Within Terminal Zone	Signalised Intersection	Security Restricted Roads
Runways	Airport Car Parks	Arterial Roads	Potential High Capacity Public Transport Corridor
Taxiways/Aprons	Parks, Forests and Reserves	Local Roads	Potential New Road Links
Buildings	Watercourses	Air Traffic Control Tower	

Figure 10-7: 20-Year Ground Transport Plan for the Terminals & Business Precinct

10.9.4. Tapleys Precinct

Sir Reginald Ansett Drive provides access for Tapleys Precinct (including the Harbour Town Shopping Centre, Pet Hotel, and aviation support and emergency services facilities). To cater for planned development growth within the precinct and increased traffic volumes on Tapleys Hill Road, it is proposed that the two intersections be upgraded in the medium term to improve capacity and provisions for right-turning vehicles from various approaches. The southern intersection may be signalised to achieve these outcomes.

Figure 10-8 shows the Ground Transport Plan for the Tapleys Precinct.



LEGEND

Airport Boundary	Watercourses	Signalised Intersection
Freehold Land	Parks, Forests and Reserves	Internal Airport Roads
Runways	Arterial Roads	Potential Landside Roads
Taxiways/Aprons	Local Roads	
Buildings		

Figure 10-8: Ground Transport Plan for Tapleys Precinct



10.9.5. Airport East Precinct

Adelaide Airport is a key freight hub for metropolitan Adelaide and South Australia. It connects South Australia to national and international destinations. Freight and logistics operators are currently located within the Terminals & Business Precinct, Airport East Precinct and the Runways Precinct. Several freight and logistics businesses operate with secure airside access.

The Moving Freight 2019 paper, published in July 2019 by the South Australian Freight Council, identified the Airport East Precinct freight development as an 'urgent project' requiring immediate attention.

Freight and logistics operators use a wide range of commercial vehicles, from minivans through to larger semi-trailers and B-double (one and a half semi-trailer) vehicles. Gazetted routes provide access by B-double vehicles to/from several of the precincts. These routes include the adjacent arterial road network (including Sir Donald Bradman Drive, Tapleys Hill Road and Richmond Road). Several roads within the airport are also gazetted for B-double operations.

The progressive upgrade of South Road as part of the North-South Corridor is vital for providing continued access to Adelaide Airport and the Airport East Precinct.

To cater for the future freight and logistics needs of South Australia, AAL is planning for the development of the Airport East Precinct to consolidate freight and logistics operators into a single precinct, creating an efficient, secure, safe and effective air freight and road interface. The Ground Transport Plan includes the future construction of an internal road network to facilitate the development of the Airport East Precinct, which will include suitable airside access to the Terminal 1 apron and freight-storage areas. An application for gazettal of Transport Avenue, within the City of West Torrens, for B-double access will be submitted in the short term. This may require further assessment in the long term if there is a shift towards larger vehicles within the freight industry.

The future ground transport concept for the Airport East Precinct is shown in Figure 10-9. The consolidation of freight into this area has benefits to the wider road network, including:

- Reduced vehicle movements within the Terminals & Business Precinct, through the separation of heavy vehicles accessing the Airport East Precinct from private, taxi, rideshare and public transport vehicles operating within the Terminals & Business Precinct
- Reduced apron-freight movements between relevant facilities, through the consolidation of freight and logistic operators

10.9.6. Morphett Precinct

Internal roads within the Morphett Precinct are limited to individual property access points for the existing developments within the precinct.

AAL continues to reserve land for a new access road adjacent the south-eastern corner of the airport, between the Morphett and Airport East Precincts which aligns with the State's Integrated Transport and Land Use Plan. The new road could potentially connect to Marion Road via Richmond Road, originating from Morphett Road, with the primary aim to cater for B-double and commercial traffic to and from Camden Park and North Plympton. The feasibility, scope and timing of the new access road will be determined in consultation with the City of West Torrens and the State Government.

Future requirements, including access, will be determined as required to support development and traffic demand.

10.9.7. West Beach Precinct

The West Beach Precinct has limited internal access provision (limited to minor maintenance roadways). Access to/from the precinct is generally via adjacent public roads: namely West Beach Road, Military Road and Tapleys Hill Road.

Future requirements will be determined as required to support development and traffic demand.

10.9.8. Torrens Precinct

The Torrens Precinct is largely undeveloped. Currently, an internal access road is provided for access to the Adelaide University hockey grounds (via Sir Donald Bradman Drive) and direct access to an aged-care facility.

Future requirements will be determined as required to support development and traffic demand.



Figure 10-9: Airport East Internal Road Layout

10.10. Public Transport

Public transport access to and from Adelaide Airport is currently provided by Adelaide Metro. As shown in Figure 10-10, nine bus routes regularly service Adelaide Airport, connecting to the CBD and suburbs including Glenelg, West Lakes and Elizabeth.

Seven of these bus routes (J1, J1X, J1A, J2, J2G, J7, J8) stop at the bus stop closest to Terminal 1, located near the taxi pick-up. Six of the bus routes (J1, J1X, J1A, J2, J2G and 300) service the Harbour Town Centre via Sir Reginald Ansett Drive. Bus route 163 also operates along Sir Donald Bradman Drive and provides access to the northern part of the Terminals & Business Precinct.

A bus journey from the airport to the Adelaide CBD typically takes 20 minutes. An express bus service runs between the airport and Adelaide CBD. The JetExpress double-decker bus, operates every 30 minutes Monday to Friday.

10.10.1. Potential High Capacity Public Transport Corridor

Public transport to and from Adelaide Airport is anticipated to increase, with buses likely to remain the primary mode of public transport access in the short to medium term. Adelaide Airport has made provision for increased public transport, by reserving land for a potential high capacity public transport corridor along Sir Richard Williams Avenue. This could provide connectivity to Terminal 1 (in line with the State Government's Integrated Transport and Land Use Plan).

The increased use of public transport continues to be a high priority for both AAL and the State Government. Not only will improved provision and use of public transport help to improve the efficiency of the internal and external road networks, it will also provide environmental and sustainability benefits. Improved wayfinding for pedestrians to promote use of public transport is part of the short term plan for Adelaide Airport. Future public transport improvements to the airport and bus services within the airport will continue to be discussed with the State Government.

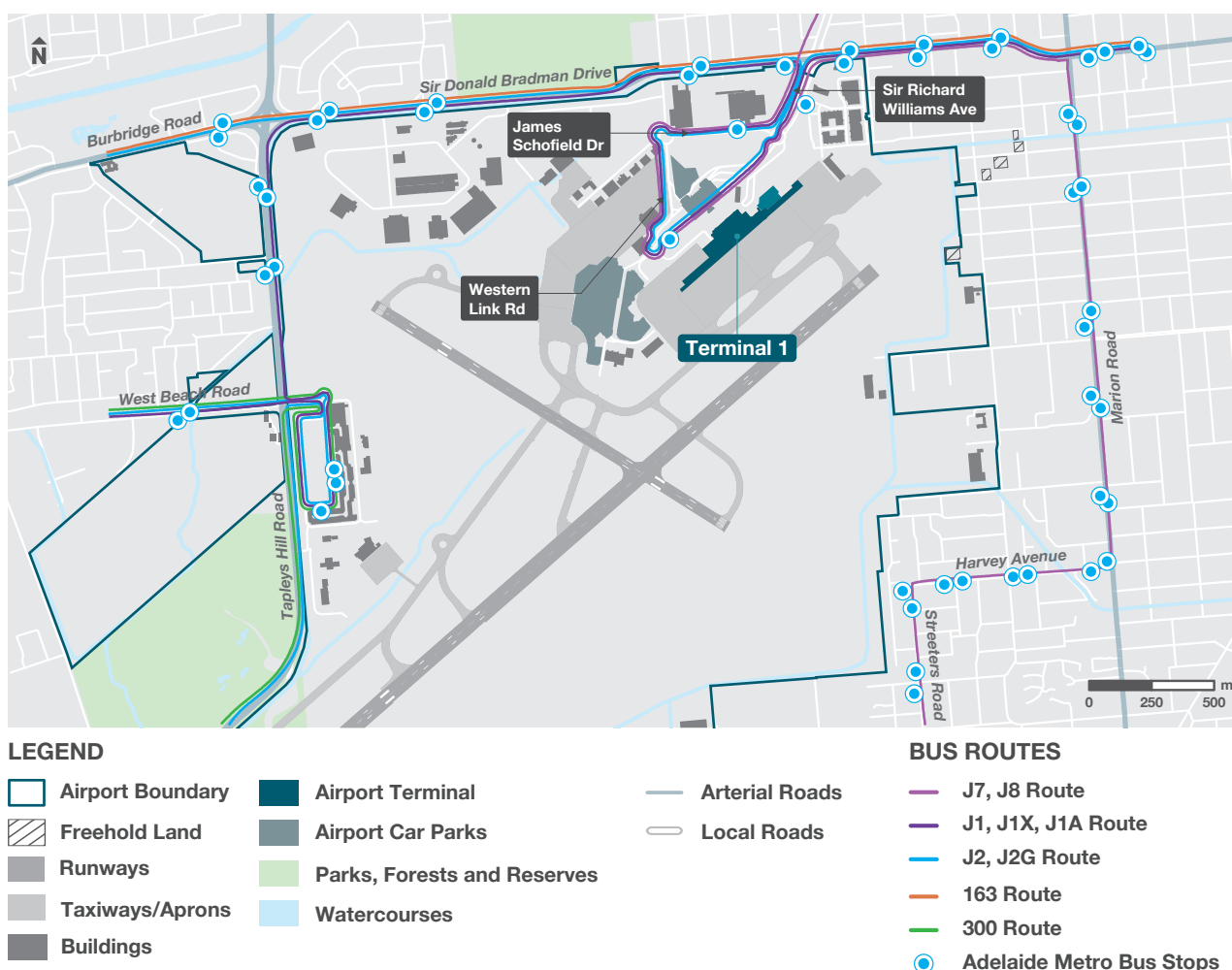


Figure 10-10: Bus Routes and Stops Within and Surrounding Adelaide Airport

10.11. Taxis, Rideshare and Chauffeur Vehicles

Taxi services are a key component of the ground transport system and accommodate a large proportion (11 per cent) of passenger access to and from the airport. There has also been growth in rideshare trips since starting at the airport in 2017, as well as ongoing demand for chauffeured vehicles as a result of services provided by some airlines for business and first class travellers.

Adelaide Airport provides designated areas for:

- Taxi pick-up, located adjacent to the plaza
- Taxi holding area, located approximately 900 metres north of the pick-up area
- Chauffeur pick-up and drop-off, located adjacent to the plaza (expanded in 2018)
- Rideshare pick-up, located immediately west of the multi-level car park (opened in 2017)
- Taxi drop-off, located on Atura Circuit (to open mid to late 2019)

In the medium to long term, duplication of the drop-off/pick-up area will increase capacity and provide opportunities to improve taxi and rideshare arrangements. The taxi/rideshare drop-off facilities to be co-located with private vehicles in this area would provide a consistent drop-off experience for passengers. This could allow the taxi/rideshare pick-up area to be relocated to Atura Circuit. The taxi/rideshare holding area could be relocated to an area north of Terminal 1. Due to these changes, the existing taxi pick-up area could then be used for other purposes, which aligns with the proposed terminal expansions to the south.

10.12. Active Travel

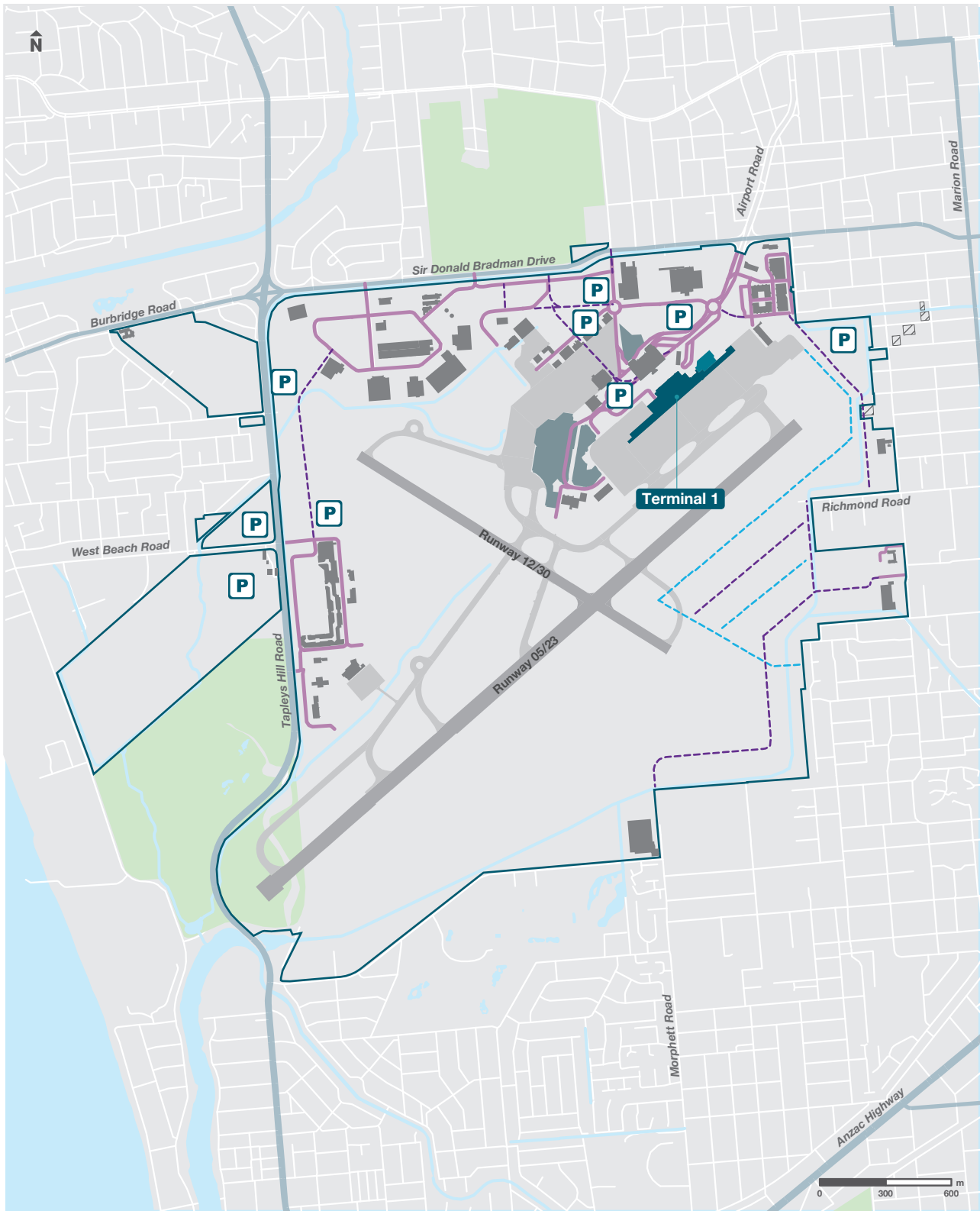
There are a series of cycling and walking paths within, around and connecting to the airport site. Cycleways consist of off-road shared paths and on-road bicycle paths. There are on-road bicycle lanes along Sir Donald Bradman Drive, James Schofield Drive and Western Link Road. Off-road shared paths that connect to Adelaide Airport include:

- Anna Meares Bike Path
- Airport Bikeway
- Reece Jennings Bikeway
- Captain McKenna shared-use pathway

State Government planning has identified a shared used pathway connection between the Airport East Precinct and Terminals & Business Precinct in the medium term, in partnership with the City of West Torrens. This link will provide safe access and complete the cycleway to the perimeter of the airport site.

In the short to medium term, a connection from the Anna Meares Bike Path, adjacent to Sir Donald Bradman Drive, into the airport via Frank Collopy Court, is proposed. This will connect cyclists to the bicycle facilities located on the ground level of the multi-level car park. This facility includes bicycle-service stations, free parking facilities (for up to 12 bicycles), secure parking facilities (provided on a fee-for-service basis) and short-term lockers.

The existing and potential future cycleways are shown in Figure 10-11.



LEGEND

Airport Boundary	Airport Car Parks	Potential Future Car Park Facility
Freehold Land	Parks, Forests and Reserves	Internal Airport Roads
Runways	Watercourses	Potential New Road Links
Taxiways/Aprons	Arterial Roads	Potential Airside Roads
Buildings	Local Roads	
Airport Terminal		

Figure 10-11: Existing and potential future cycleways

10.13. Car Parks

Adelaide Airport has almost 4,700 parking spaces for use by passengers, visitors and staff, with a mix of at-grade and multi-level facilities.

Additional car parks are provided for commercial use within lease boundaries or in consolidated locations shared by several businesses.

Currently, seven car rental operators provide services at Adelaide Airport. Service kiosks are located within Terminal 1 and passengers collect and return rental cars on the ground level of the multi-level car park. Additional parking and storage for car rental operators is provided adjacent to Sir Hubert Wilkins Avenue.

Demand for passenger, visitor and staff car-parking across the airport is expected to more than double in the period to 2039. This is based on the current mode share of vehicles that access the airport. This indicates that existing car parking facilities will likely require expansion by the early to mid-2020s. By 2039, there is a potential demand for an additional 6,500 car parking spaces, which would also cater for car parking that may be displaced due to the expansion of Terminal 1. Increased use of public transport and the potential uptake of autonomous vehicles may over time reduce the demand for car parking.

Key considerations for AAL in planning for and operating car parks include:

- Distance to Terminal 1
- Access options (bus service, walkways, emerging technologies)
- Wayfinding and ease of access
- Customer preferences
- Provision of various products and price points providing choice for the customer
- Viability of infrastructure investment
- Availability of land

Proposed car park developments in the long term include the potential construction of new at-grade parking across the airport and the expansion of the multi-level car park. The requirement and timing for car park development will be determined as required to support the demand from passengers and commercial developments.

AAL will continue to adopt advances in technology to provide an efficient and seamless experience for users of the airport. This includes reliable and regular bus services and links between car parking areas and Terminal 1. Electric buses are currently being introduced and autonomous bus services may be considered in the future as the technology matures.

Proposed car parking improvements are shown in Figure 10-12.

For commercial developments AAL will ensure that adequate on-site car parking is provided.

10.14. Development Plan

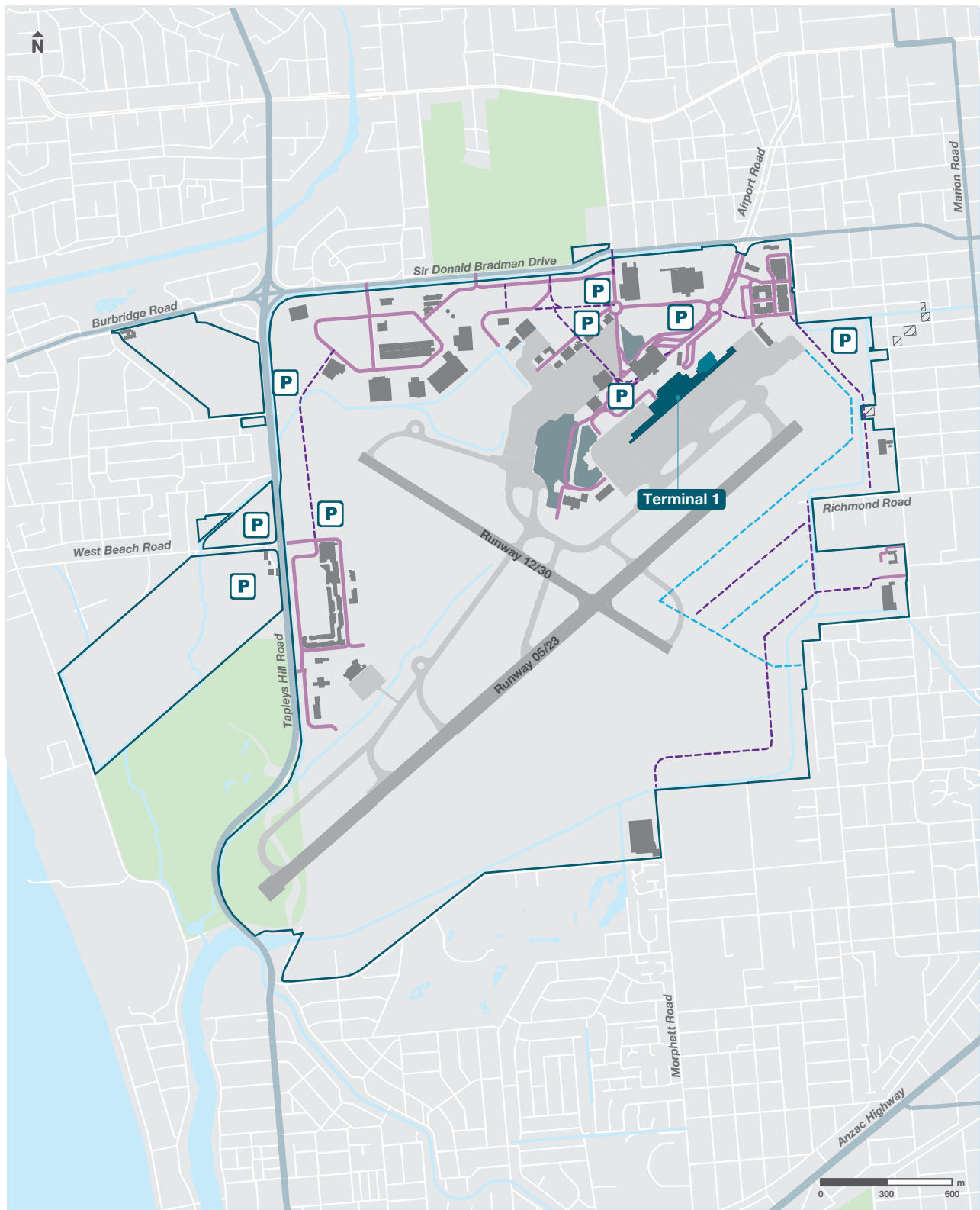
10.14.1. Development Triggers

The implementation plan for key ground transport upgrades proposed within the next 8 years and 20 years is based on current forecasts. The requirement and timing for ground transport developments will be informed by one or more of the following triggers, therefore the actual timing of developments may vary:

- Increased passenger demand
- Terminal expansion
- New commercial development
- Capacity constraints resulting in delays, congestion, car park overflow
- Improved customer experience
- Improved safety
- Change in mode share
- New technologies / innovation
- Viability of the proposed investment

The 8-Year Development Plan and the 20-Year Development Plan are detailed in Table 10-1 and Table 10-2, respectively.

AAL will continue to consult with relevant authorities and airlines as triggers are approached and further design and modelling is undertaken.



LEGEND

Airport Boundary	Airport Car Parks	Potential Future Car Park Facility
Freehold Land	Parks, Forests and Reserves	Internal Airport Roads
Runways	Watercourses	Potential New Road Links
Taxiways/Aprons	Arterial Roads	Potential Airside Roads
Buildings	Local Roads	
Airport Terminal		

Figure 10-12: Proposed Car Parking Improvements



TYPE	POTENTIAL PROJECT	BENEFITS
Roads	New signalised intersection along Sir Donald Bradman Drive and associated internal road connections and intersection upgrades to create new primarily one-way route	<ul style="list-style-type: none"> Redistribution of traffic away from Sir Donald Bradman Drive / Sir Richard Williams Avenue intersection
	Modified intersection at Sir Donald Bradman Drive / Fred Custance Street. Removal of signals	<ul style="list-style-type: none"> Separation of fuel trucks and light vehicles
	New signalised intersection at Sir Donald Bradman Drive / Vimy Ave	<ul style="list-style-type: none"> Increased capacity for forecast volumes
	Modifications to Sir Donald Bradman Drive / Sir Richard Williams Avenue intersection	<ul style="list-style-type: none"> Increased capacity for forecast volumes
	Modifications to Richmond Road / Marion Road intersection	<ul style="list-style-type: none"> Increased capacity for forecast volumes Appropriate heavy vehicle access and egress
	Modifications to Tapleys Hill Road / Sir Reginald Ansett Drive intersection (north)	<ul style="list-style-type: none"> Increased capacity for forecast volumes Improved capacity for right turning vehicles
	Modifications to Tapleys Hill Road / Sir Reginald Ansett Drive intersection (south) to include signals	<ul style="list-style-type: none"> Increased capacity for forecast volumes Improved capacity for right turning vehicles
	New internal landside road between Tapleys Precinct and Burbridge Business Park	<ul style="list-style-type: none"> Redistribution of traffic on the internal and external network Connectivity within the Airport site including access to potential new car parks
	New internal airside and landside road network at Airport East aligned with proposed development, with possible future road link between Airport East Precinct and Morphett Precinct	<ul style="list-style-type: none"> Reduced vehicle movements within the Terminals & Business Precinct Separation of heavy vehicles from private, taxi, rideshare and public transport vehicles within the Terminals & Business Precinct Reduced apron freight movements between relevant facilities Access to potential new car park
	Possible secure road link between the Terminals & Business Precinct and Airport East Precinct with connection to Richmond Road	<ul style="list-style-type: none"> Reduced traffic volumes on primary road network More direct access to/from CBD
Car Parks	Transport Avenue gazetted for use by B-double heavy vehicles	<ul style="list-style-type: none"> Increased opportunity for freight development within the Airport East Precinct Ability to create a primarily one-way network for vehicles within the precinct for reduced vehicle conflict
	New at-grade car park north of the general aviation facilities to accommodate approximately 800 spaces	<ul style="list-style-type: none"> Increased capacity for forecast volumes
	New at-grade car park north-east of Terminal 1 to accommodate approximately 1,400 spaces	<ul style="list-style-type: none"> Increased capacity for forecast volumes
Public Transport	Expansion of the multi-level car park to accommodate approximately 2,000 additional spaces	<ul style="list-style-type: none"> Increased capacity for forecast volumes Proximity to Terminal 1 and Airport Business District office park
	Improvements to current infrastructure to promote increased use	<ul style="list-style-type: none"> Reduced traffic volumes on roads Sustainable mode of transport
Public Transport	Provision for a high capacity public transport system servicing the airport along Sir Richard Williams Avenue	<ul style="list-style-type: none"> Reduced traffic volumes on roads Sustainable mode of transport

C10



TYPE	POTENTIAL PROJECT	BENEFITS
Cycleways	Extension of Anna Meares Bike Path adjacent to the airport boundary between Watson Avenue and Sir Donald Bradman Drive	<ul style="list-style-type: none"> Completed cycle loop at airport perimeter
	Bike path along Frank Collopy Court between Anna Meares Bike Path and existing on-road path on Sir Richard Williams Avenue	<ul style="list-style-type: none"> Formal link from the external cycling network to the internal, providing improved safety

Table 10-1: 8-Year Ground Transport Development Plan

TYPE	POTENTIAL PROJECT	BENEFITS
Drop-off / Pick-up	Duplication of drop-off/pick-up area below the multi-level car park and associated modified road connections to Western Link Road	<ul style="list-style-type: none"> Increased capacity Seamless exit and connection to primary road network
	Relocation of taxi/rideshare pick-up to Atura Circuit	<ul style="list-style-type: none"> Reduced travel distance and time between holding area and pick-up More efficient operation Reduced traffic on primary road network
Roads	Upgraded road connection from drop-off/pick-up area to the new intersection at Sir Donald Bradman Drive	<ul style="list-style-type: none"> Increased capacity for forecast volumes Potential for a more direct route to exit
	Upgrade of the Sir Richard Williams Avenue / James Schofield Drive roundabout to a signalised intersection	<ul style="list-style-type: none"> Increased capacity for forecast volumes
	Modifications to Sir Donald Bradman Drive / Sir Richard Williams Avenue intersection	<ul style="list-style-type: none"> Increased capacity for forecast volumes
	Possible Sir Donald Bradman Drive / Frank Collopy Court access for service vehicles.	<ul style="list-style-type: none"> Heavy vehicle access to commercial development separated from other vehicles in the precinct
Car Parks	New at-grade car parks located within the western precincts of the airport site and associated internal road connections	<ul style="list-style-type: none"> Increased capacity for forecast volumes accounting for displaced car parks arising from terminal expansion
Public Transport	Provision for a high capacity public transport system servicing the airport along Sir Richard Williams Avenue	<ul style="list-style-type: none"> Reduced traffic volumes on roads Sustainable mode of transport

Table 10-2: 20-Year Ground Transport Development Plan