

**Submission  
No 35**

**CRITICAL TRANSPORT INFRASTRUCTURE SUPPORTING THE WESTERN  
SYDNEY INTERNATIONAL AIRPORT AND WESTERN SYDNEY  
AEROTROPOLIS**

**Organisation:** Western Sydney Airport

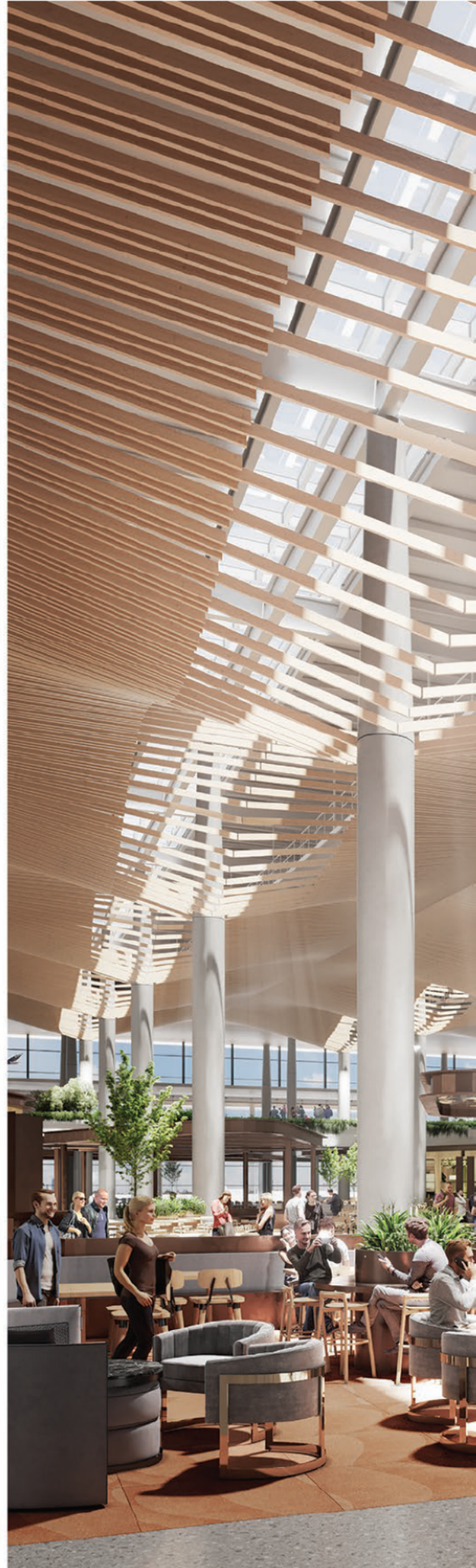
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**Western  
Sydney  
Airport**

# Critical Transport Infrastructure Supporting Western Sydney International Airport and the Aerotropolis

Submission to Legislative Assembly  
Committee for Transport and Infrastructure  
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## Executive Summary

Western Sydney International (Nancy-Bird Walton) Airport (WSI) is a federal government-owned company established to develop and operate Sydney's new international airport in Western Sydney. The airport will unlock the aviation capacity essential to support Sydney's continued growth and economic development as Australia's global city. As the catalyst for unprecedented growth in the region, the airport will also generate significant socioeconomic benefits across Western Sydney that will make a tangible difference to the lives of communities across the region.

Already a significant contributor to Western Sydney's economy with over \$500 million invested in local businesses, the airport is predicted to generate around \$24.6 billion in direct expenditure by 2060 – increasing Australia's GDP by \$23.9 billion<sup>1</sup>.

To realise significant economic benefits to the local and national economies, WSI needs affordable, reliable, frequent and a well-connected public transport network to connect people, goods, and services to the airport in an efficient way. The objective is to maximise the opportunities for growth and investment in the region and contribute to Australia's sustainability objectives through reduced private vehicle use.

Thousands of jobs have already been created during construction and we expect thousands more across the region as we transition, over the years following the airport's opening, to become the primary gateway to Sydney, boosting tourism and opportunities for business.

The airport will open as a 24-hour major transport hub with an initial capacity for 10 million annual passenger movements, increasing in stages to 82 million by the 2060s, to become one of the largest gateways in Australia. Today, this is comparable to the scale of Dubai, Hong Kong and London Heathrow airports. Already, our domestic agreement with the Qantas Group alone will see around four million passengers a year use WSI from early operations.

A state-of-the-art cargo facility with curfew free operations is a major drawcard for supply chains across the country. Supporting roads and rail will provide much needed connectivity to promote confidence for industry investment to realise the growth for the area. The cargo precinct itself will also be a significant generator of economic and employment activity.

Timely, reliable, and robust public transport infrastructure is critical to support the unprecedented growth expected across Western Sydney, including the Aerotropolis and Bradfield city centre. This infrastructure will be crucial for the success of a greenfield airport and the businesses that will support its operations – from passenger airlines and air cargo, to catering, retail, tourism, and hospitality, to enable a thriving economy. Future focussed ground transport connectivity will also be a crucial enabler of the vision for Bradfield as articulated in the Bradfield City Master Plan released by the NSW Government in February 2024.

Building a successful 24/7 airport and a world class city that can grow needs to be adequately supported by strong public transport options that meet five key principles:

1. Mix of road and rail transport options;

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<sup>1</sup> [Western Sydney Airport Environmental Impact Statement, Australian Government \(2016\)](#)

2. Minimal interchanges for passengers;
3. Dedicated services to key population centres, both across Western Sydney and to the Sydney central business district (CBD);
4. Services are frequent, reliable, and comfortable;
5. Services are price competitive and provide value.

Key transport solutions supported by WSI for Western Sydney to help deliver these objectives include the following:

- Bus services to the airport from Liverpool, Campbelltown, and Penrith, including plans to extend existing local bus services to connect the airport bus network to maximise accessibility to WSI for surrounding communities.
- New and upgraded roads near the airport to enable efficient bus transport services and airport access. Priority road projects include:
  - Construction of the Eastern Ring Road (between Elizabeth Drive and The Northern Road) with connection to the airport via Pitt Street, improving connections between Bradfield City and WSI (short term);
  - Upgrade of Elizabeth Drive between the M7 and The Northern Road (short term);
  - Upgrade and extension of Fifteenth Ave, between Liverpool and WSI (short-medium term); and
  - Construction of the Outer Sydney Orbital (M9) with connection to WSI freight precinct (medium – long term).
- Extension of the Sydney Metro - Western Sydney Airport rail line to:
  - Leppington and Glenfield to the south-east (short-term)
  - Tallawong to the north (short-term);
  - Campbelltown and the Macarthur region to the south (short-medium term).
- Extension of Sydney Metro – West to WSI from Westmead and Parramatta (medium-long term).
- Modification to the Blue Mountains Line timetable to include St Marys in stopping patterns.

WSI is the catalyst for unprecedented growth in Western Sydney. This is the decade for Western Sydney. While the airport will create fundamental shifts in the local and national economy, public transport is key enabling infrastructure to propel Western Sydney into the future.

## 1. Introduction

WSI is located in Sydney's south-west, around 20 minutes south of Penrith, 30 minutes west of Liverpool and 30 minutes north of Campbelltown. The airport is being built to alleviate Sydney's aviation capacity constraints for both passengers and freight.

The airport will open in late 2026 with initial capacity for 10 million annual passengers (MAP) and at least 220,000 tonnes of air cargo. By the 2060s, WSI is projected to accommodate 82 MAP and 1.8 million tonnes of air cargo a year. This scale is comparable to Dubai, Hong Kong, London's Heathrow Airport, which carried around 72 MAP, 81 MAP and 86 MAP respectively in 2019 (pre-Covid impacts).

The airport site will include a 20.9-hectare business precinct as part of its first stage of development, which will include a 154-room hotel, conference centre, gym, café, retail and bulky good warehousing. The precinct is scalable to around 200 hectares, comparable to the size of the Parramatta CBD.

The business precinct will be a modern, urban and vibrant commercial centre on the main gateway into WSI – a high value employment hub offering a range of employment and investment opportunities.

As the new gateway to Sydney and NSW, WSI is the catalyst for the economic prosperity and transformation of Western Sydney. WSI is already a significant economic driver, generating jobs and stimulating economic growth in Western Sydney and the surrounding areas. The airport will create tens of thousands of employment opportunities, not only in aviation-related sectors but also in construction, hospitality, transportation, and various support services.

The airport will provide residents of Western Sydney with more convenient access to air travel and opportunity to improve overall transportation options across the region. As a tourism hub, WSI becomes a gateway for tourists visiting Sydney, attracting visitors to explore Western Sydney's unique attractions with proximity to regional centres.

Curfew-free operations will boost Sydney's cargo-handling capacity, providing profound strategic advantages for supply chains and the region's trade and logistics sector.

Planning for WSI has been underway for some time with the site first chosen in the 1980s. It is a multifaceted asset being developed in a greenfield area with opportunity to lead with sustainable mobility strategies, integrated into the broader transport network for the area. Linking this major transport hub to roads, rail and public transportation, as well as major urban development such as the Bradfield City Centre and the broader Western Sydney Aerotropolis, benefits the overall mobility and accessibility of the region.

## 2. Bradfield City Master Plan

Airports are proven city shapers, creating jobs and attracting investment and development from both the public and private sector. The development of Bradfield City Centre can leverage the global connectivity of a major international airport and yield remarkable results for the local economy.

Smart, sustainable urban development that leverages proximity to the global connectivity of a major international airport can yield remarkable results for the quality of life of surrounding communities. Schiphol Airport in Amsterdam, Incheon Airport in South Korea and Changi Airport in Singapore are some of the smart sustainable cities being designed to harness the socioeconomic opportunities.

The realisation of the socio-economic benefits of the airport requires strong strategic planning and a clear vision for Bradfield and the Aerotropolis. WSI supports the vision for Bradfield as a new metropolitan city centre and global hub of industry and innovation, which along with the airport can drive the broader growth of the Aerotropolis.

The development of Bradfield must ensure that residential and logistics development is appropriately balanced with smart, sustainable, future-focussed industries like advanced manufacturing, defence, aerospace, research, health, and education. This will underpin the ongoing availability of the high-quality, local jobs that are essential to ensuring Bradfield delivers holistic liveability to its residents.

Transport connections are essential to the success of any city. The greenfield development opportunity in the area surrounding the airport provides financial and planning efficiency and value opportunities that will diminish as development occurs. An ongoing commitment by governments to planning and funding transport connections to the airport and Aerotropolis will ensure the positive economic benefits of the airport through economic uplift and job creation are maximised.

### 3. WSI's strategic drivers

In planning for Western Sydney's extraordinary growth, WSI supports transport solutions that enable employment opportunities close to where people live in Western Sydney. In this way, the airport, as the primary driver of employment, must be highly accessible to workers and residents living in the many geographically diverse communities that make up the Western Sydney region.

More than half of WSI's current workforce comprises Western Sydney locals. This composition is intended to continue into WSI's operations and our ability to attract and retain staff.

Effective and affordable transport connections influence accessibility to an area and can be a significant enabler in attracting women returning to the workforce, and gender diversity objectives.

Neglecting gender in transport policy poses a significant risk to economic growth and equity, by constraining women's access to education, skills, health, markets, and jobs<sup>2</sup>.

Maximising the use of affordable public transport is also critical to developing a well-connected airport precinct that enables Western Sydney to contribute to Australia's net zero and low carbon emissions objectives.

A truly connected city through integrated public transport planning and delivery would provide an attractive and viable alternative to private vehicle use, thereby reducing road congestion and increasing sustainability outcomes through lower carbon emissions.

### 4. Importance of transport connectivity

Public transport is essential for WSI to provide travellers with convenient, cost effective, and sustainable transport options, reducing traffic congestion, and connecting the airport to the greater metropolitan area.

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<sup>2</sup> A. Legovini, N. Vandycke, J. Njoki Irungu, G. Borker, M. Ngaratoki Fabian, [\*All too often in transport, women are an afterthought\*](#) The World Bank, 8 March 2022

WSI is a city-shaping piece of infrastructure. Its impact on Greater Sydney and particularly Western Sydney will be comparable to the transformative uplift and connectedness catalysed by the construction of the Sydney Harbour Bridge. However, without high quality ground transport links, WSI's ability to offer a competitive value proposition and enable growth of the airport is hindered, along with the delivery of the NSW Government's objectives for Western Sydney.

WSI is the first airport in Australia to open with a rail connection. In addition, connectivity to the airport in its initial years will be enabled by a high quality motorway link and upgrades to several of the surrounding arterial roads. While this is an encouraging starting point, governments must now focus on the ground transport enhancements necessary to support WSI as it grows to become Sydney's primary international gateway. Planning for, and funding growth in road and rail infrastructure over the medium and long term will be essential to maximise the airport's socioeconomic benefit to Western Sydney and beyond.

Connective, adaptive, and efficient transport is crucial for the success and attraction of any global city, especially those within Australia. As stated by the Bureau of Infrastructure, Transport and Regional Economics (BITRE), the number of passenger movements in Australia is projected to increase in the period to 2031:

- by 4.9 per cent a year from 107.5 million in 2010 to 207.1 million for international movements; and
- by 3.3 per cent a year from 26.6 million in 2010 to 72.1 million for domestic movements<sup>3</sup>.

The volume of air traffic then has direct correlations to the volume of ground traffic, as passengers leave airports and enter the cities in which they've landed. Grounds trips ultimately place heavy burdens on road networks and infrastructure, which support the use of private vehicles, taxicabs, and buses.

WSI has five public transport connectivity principles that are critical to achieving a well-connected city. These principles, include the following:

1. Mix of road and rail transport options,
2. Minimal interchanges for passengers,
3. Dedicated services to key population centres,
4. Services are frequent, reliable, and comfortable, and
5. Services are price competitive and provide value.

#### 4.1. Mix of road and rail transport options

Current transport options are biased towards road access to WSI, while many of the world's leading airports offer a variety of public transport options to and from the airport.

A variety of transport options is important to maximising any airport's success. While road travel remains the transportation of choice for many travellers entering or exiting an airport, a well-designed, accessible rail option that provides a compelling value will often

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<sup>3</sup> Md Mosabbir Pasha, Mark Hickman, *Airport Ground Accessibility: Review and Assessment*, p2



be seen as a more favourable transport option, improving customer experience and sustainability outcomes.

Among the many transport modes for ground airport access, rail transit has attracted increasing interests among policymakers and researchers, because rail transit has larger capacity, causes less congestion, and is associated with lower energy consumption and emission than buses and cars<sup>4</sup>.

#### **4.2. Minimal interchanges for passengers**

A rail journey option that includes fewer service interchanges, that are of a high-quality, provides a strong value and experience option for customers.

However, interchange frequency modelling varies for passengers travelling to WSI according to their location. For example, passengers travelling by rail from Penrith or Parramatta to WSI will only need to interchange once, however, others travelling from Liverpool or Campbelltown will need to use the Schofields/St Marys rail line and interchange at least twice. For many, this would be a significant barrier to using rail to reach WSI.

In comparison, many international airports provide convenient direct access to key regional centres through established cross-platform rail connections.

#### **4.3. Dedicated services to key population centres**

Western Sydney remains reliant on private vehicles, and increasingly, the use of local bus and rail services. Because of this, the provision of high-quality multimodal public transport is essential to facilitating sustainable growth in the region.

There are some direct services through the fast bus service, such the Liverpool to Parramatta bus transitway (T-way). However, reliance on private road transport to access the airport precinct results in higher than predicted car emissions, poor customer outcomes and reduced visitation to many centres.

The terminating line at St Marys and the lack of connection between WSI and Tallawong in the north, and Glenfield and Campbelltown in the south-east and south will inhibit how airport passengers and employees travel from these regions and how these regions attract visitor spend. Current outcomes are overall less equitable based on where people live.

#### **4.4. Services are frequent, reliable and comfortable**

Passengers and airport staff will be more compelled to use public transport networks when they are safe, reliable, predictable, and frequent in nature.

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<sup>4</sup> Stephen Ison, Rico Merkert, Corinne Mulley, *Policy approaches to public transport at airports—Some diverging evidence from the UK and Australia*, 2014, Zi-Jia Wang, Hui-Hui Jia, Fangzhou Dai, Mi Diao, *Understanding the ground access and airport choice behavior of air passengers using transit payment transaction data*, Transport Policy, Volume 127, 2022

According to a 2017 case study<sup>5</sup> into ground transport reliability, air passengers are predominantly seeking reliable transport options that bypass road congestion with the ability to plan a safe and comfortable journey to an airport.

The study found that the discomfort of air travellers is very high when they are faced with a public transport disruption. Unreliable and limited transport options generate high stress levels with risk to late airport arrival and missed flights.

With 24/7 operations at WSI, efficient and reliable rail access is crucial to support its operations. The frequency of the *Sydney Metro - Western Sydney Airport Metro* line must be sufficient to drive useability. Limited connections to the broader public transport network will hinder competitiveness and growth at WSI, as well limiting the growth ambitions across the Aerotropolis.

#### **4.5. Services are price competitive and provide value**

The population of Western Sydney is expected to reach more than 3.4 million by 2041. This represents a 25% increase in population between 2022 and 2041. The local government areas (LGAs) expected to experience the most growth include Camden, which is set to grow by 82% (89,000 increase), Blacktown (110,600 increase), Liverpool (79,100 increase) and Campbelltown (54,000 increase)<sup>6</sup>.

The sheer volume and growth of Western Sydney are key drivers of why affordable public transport between the airport and other key interchanges is critical.

Public transport options need to remain attractively priced with a mix of lower cost and premium services, supporting the economic demographic and development of Western Sydney. Premium services should provide a compelling value proposition.

The 2023-24 NSW Budget invested over \$8.2 billion on transport infrastructure, \$3 billion on hospital infrastructure and \$3.5 billion on school infrastructure for Western Sydney<sup>7</sup>. Transport infrastructure is a key enabler in accessing other important social infrastructure, including educational facilities, housing, recreational spaces, and the airport.

Data profiling of the socio-economic status of Western Sydney strongly supports the case for adequate, reliable and accessible public transport. For example, the 2021 census shows that the median family income in Sydney's eastern suburbs (\$177,000) was \$81,000 a year more than in the city's south west (\$96,000)<sup>8</sup>.

The affordability of public transport in these regions will be a key driver of the region's social and economic prosperity and potential. Census data shows that most of Sydney's lowest-income suburbs are located a long distance from major job hubs. Not only will WSI be a major employment hub in itself, but will continue to generate investment in employment-generating facilities in the immediate and broader region.

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<sup>5</sup> Caterina Malandri, Luca Mantecchini, Maria Nadia Postorino [\*Airport Ground Access Reliability and Resilience of Transit Networks: A Case Study\*](#) page 1135

<sup>6</sup> Department of Planning and Environment 2022

<sup>7</sup> 2022-23 NSW Government Budget Papers: [\*Our vision for Western Sydney\*](#)

<sup>8</sup> Sydney Morning Herald *Census 2021 results: [\*The Sydney suburbs with bigger incomes, mortgages and density\*](#)*, 3 July 2022

## 5. Future growth and public transport needs

State and local planning, transport and land use strategies have reflected the proposed airport and the impact it could have on transport and communities in Greater Sydney. Key documents include A Metropolis of Three Cities, Future Transport 2056, Western City District Plan, Western Sydney Infrastructure Plan and the various infrastructure projects that stem from those plans. Public transport solutions are a key part of realising the benefits from this strategic work and the resulting infrastructure development.

WSI is relying on well-connected, efficient, and reliable transport options which will enable WSI to maximise the benefits it will bring to Western Sydney and drive its growth over the next forty years. Long-term planning that takes a staged approach to ensuring public transport and road network development occurs to provide capacity ahead of the demand that WSI will inevitably generate will be essential to supporting this growth. As well as maximising job creation, the certainty provided by such a plan will further encourage investment and growth.

The Qantas Group's significant commitment to base up to 15 aircraft at WSI from its early days, will support 4 million passengers and 25,000 domestic flights a year. Around 700 jobs will be needed to support these operations alone.

Our agreement with the Qantas Group for domestic operations is just the first. WSI is in discussions with more Australian and overseas airlines and numerous announcements on further airline commitments are anticipated between now and when WSI begins operations. Based on the Qantas domestic commitment alone, it is clear that WSI represents a compelling value proposition for airlines and their customers, which will translate to a significantly increased volume of people moving through Western Sydney, particularly as the airport grows to its projected 82 MAP stage in the 2060s.

With nine of the top 10 fastest growing local government areas in Western Sydney, we should expect unprecedented growth in the region by almost one-third over the next 20 years – an increase of more than 830,000 people to over 3.4 million<sup>9</sup>.

Integrated transport options including rapid bus networks, road upgrades and extensions to the *Sydney Metro - Western Sydney Airport* are critical to support the growth trajectory for the region.

### 5.1. Connectivity across the WSI catchment

Rapid growth is set to occur over the coming years for WSI's catchment, which will approach 3 million by the airports late 2026 opening. Suburbs in the region surrounding the airport are expected to become increasingly appealing to many Sydney dwellers seeking to relocate closer to the increasing high-quality job opportunities catalysed by the airport.

Bradfield is being planned as a high-tech city centre on the doorstep of WSI. It is now in development as a new urban area, with a focus on advanced manufacturing and high skilled jobs. The surrounding Aerotropolis precinct is expected to create approximately 80,000 jobs by 2056, with an emphasis on new and emerging industries including advanced manufacturing, STEM and agri-business<sup>10</sup>.

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<sup>9</sup> Department of Planning and Environment 2022

<sup>10</sup> Committee for Sydney *Western Sydney Progress and Prospects*, p10

In addition to the planned Bradfield and broader Aerotropolis development, WSI's 191-hectare, on-airport business park will be a centre of non-aeronautical employment activity. Non-aeronautical activity surrounding airports is a key determinant in the value and viability of public transport services. A case study conducted at the airport of Zurich, Switzerland, concludes that this is due to overall higher passenger numbers and a more even distribution throughout the day. The 2022 study concluded that locating non-aeronautical activities at airports can, in addition to providing commercial benefits to developers, lead to a situation where improved public transport services become feasible<sup>11</sup>.

As airport operators seek to diversify their revenue streams, the metropolitan developments surrounding airports become central locations for a boom in social infrastructure and thriving economies<sup>12</sup>. Public transport connectivity, therefore, not only facilitates the entry and exit to an airport, but perhaps more importantly, informs the accessibility and success of the economy surrounding it.

## 6. Future transport needs for Western Sydney

The Australian and NSW Governments have already committed more than \$15 billion to fund road and rail connections, including the Sydney Metro - Western Sydney Airport and the toll-free M12 motorway, which provides a connection straight into WSI from Sydney's existing motorway network. This includes \$3.5 billion in Commonwealth funding granted to the Western Sydney Infrastructure Package for Western Sydney roads, including upgrades to The Northern Road and Bringelly Road.

WSI is seeking broader public transport options for Western Sydney to extend access to WSI and the surrounding region. This would demonstrate parity with other major urban centres across the Greater Metropolitan area, extend connectivity across Sydney and its regions and equip Western Sydney to cater for exponential growth. The transport options sought include:

- Bus services to the airport from Liverpool, Campbelltown, and Penrith, including plans to extend existing local bus services to connect the airport bus network to maximise accessibility to WSI for surrounding communities.
- New and upgraded roads near the airport to enable efficient bus transport services and airport access:
  - Construction of the Eastern Ring Road (between Elizabeth Drive and The Northern Road) with connection to the airport via Pitt Street, improving connections between Bradfield City and WSI (short-term);
  - Upgrade of Elizabeth Drive between the M7 and The Northern Road (short-term);
  - Upgrade and extension of Fifteenth Ave, between Liverpool and WSI (short-medium term); and
  - Construction of the Outer Sydney Orbital (M9) with connection to WSI freight precinct (medium – long term).
- Extension of the Sydney Metro - Western Sydney Airport rail line to:
  - Leppington and Glenfield to the south-east (short-term)

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<sup>11</sup> Hermann Orth & Ulrich Weidmann, [\*Quantifying the effects of activity concentration at airports on public transport using an iterative reduction procedure\*](#)

<sup>12</sup> Graham, A., 2009. *How important are commercial revenues to today's airports?* Journal of Air Transport Management 15, p106–111.

- Tallawong to the north (short-term);
- Campbelltown and the Macarthur region to the south (short-medium term);
- Extension of Sydney Metro – West to WSI from Westmead and Parramatta (medium-long term).
- Modification to the Blue Mountains Line timetable to include St Marys in stopping patterns.

These options are illustrated in Appendix A.

## 6.1. Airport bus services

Bus services can serve to fill the gap in connecting WSI with surrounding centres from when the airport opens and when future expansions to the *Sydney Metro – Western Sydney Airport* line deliver a more comprehensive rail network for workers and passengers.

While WSI supports the three priority bus routes that would connect WSI to Penrith, Campbelltown-Macarthur, and Liverpool, buses cannot be a standalone solution. Further, bus networks would need to consider population centres more broadly across the Western Sydney region, particularly high growth areas.

To manage the anticipated commuter volume driven by record population growth in Western Sydney and strong demand for travel from WSI, a mix of express (with optimised routes for the fastest possible journey times between the airport and each local centre) and local (with less direct routes to increase connectivity for workers, trading off optimal journey time) services will be required, supported by new roads and rail networks, as well as local bus services.

Frequent interchanging and stops for travellers throughout the journey are expected to significantly increase journey times as passengers will be slow to ingress/egress, particularly with their luggage constraints.

According to a study of public transport users and car users, public transport usage can be increased when it is promoted as market competitive to time. This requires a focus on service quality and a clear understanding of travel behaviour and consumer needs and expectations<sup>13</sup>.

Therefore, an emphasis on direct, point to point services must fare well against time and cost to be favourable and competitive, to discourage private vehicle use.

Expansion of airport bus services and the currently limited local bus service networks should be considered as part of multi-modal solutions with rail. This would provide the sufficient speed and capacity needed to meet consumer expectations and support the growth of the airport, Bradfield and surrounding Aerotropolis.

A rapid bus service from Parramatta and local bus services for communities closer to the airport are necessary and are a cost-effective use of existing roads. This will also help defer the cost of additional infrastructure.

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<sup>13</sup> Gabriela Beirão, J.A. Sarsfield Cabral, *Understanding attitudes towards public transport and private car: A qualitative study*, Transport Policy, Volume 14, Issue 6, 2007

When operational, WSI has a target to build a workforce where 50% of its employees live locally. This target is 30% during construction and already more than 50% of workers engaged by WSI or its contractors are from Western Sydney. As a 24/7 operation, regular reliable and safe local bus services day and night will do much to support this approach, which will contribute significantly to the airport's role as a catalyst of job creation and socioeconomic uplift.

If supported by a mix of express and local services, existing road infrastructure will likely be adequate to support bus services to WSI in its early years of operation. However, WSI has been designed for growth and within a few years of opening the delivery of truly rapid bus services will require dedicated bus lanes and ideally T-way-style options to reduce exposure to road congestion, particularly as the airport grows.

WSI acknowledges that the NSW Government's 2023 budget has allocated \$302.7 million for the WSI bus network.

## **6.2. Road upgrades**

Improvements to regional road infrastructure are an integral part of achieving better public transport in Western Sydney.

To date, the Commonwealth and NSW governments have committed over \$4.4 billion to critical road infrastructure through the Western Sydney Infrastructure Plan.

Delivery of the new roads in the area immediately surrounding WSI is also critical to maximising the benefits of the airport investment. New roads will need accommodate increased traffic flows and provide capacity for designated bus lanes to maximise local access and minimise congestion.

The initial key road projects include the construction of:

1. The new Eastern Ring Road (short term);
2. upgrades to Elizabeth Drive and Pitt Street (short term);
3. the extension of Fifteenth Ave (short-medium term); and
4. construction of the Outer Sydney Orbital (M9) (medium-long term).

This will enable the future workforce with alternative ways to move around the region, particularly to get to WSI and the Bradfield City Centre from broader starting destinations.

### **6.2.1. Eastern Ring Road**

Construction of the Eastern Ring Road (between Elizabeth Drive and The Northern Road) with connection to WSI via Pitt Street is critical to access between and around Bradfield and WSI. It would also assist WSI to manage increased demand from nearby precincts such the planned Badgerys Creek Precinct.

The closure of the portion of Badgerys Creek Road running through the airport site will be necessary within 2-3 years of the airport's opening, to support its future development. This closure will depend on the opening of a currently unfunded Eastern Ring Road. In addition to the development need, Badgerys Creek Road is a major thoroughfare for B-Double traffic, and would otherwise mean airport traffic, including passenger vehicles, mixing with heavy vehicles. WSI is seeking to mitigate the safety risk associated with high volume light and heavy traffic in an airport environment, which is a key WSI objective from a safety perspective. The timely closure of the section of Badgerys Creek Road within the airport precinct is essential to support WSI's future development stages.

The construction of the Eastern Ring Road would provide improved connectivity, capacity and safer access between the Northern Road and Elizabeth Drive, including for B-Doubles and other transitional traffic unrelated to the airport.

#### 6.2.2. Elizabeth Drive

Increasing the capacity of Elizabeth Drive along its length between the M7 and The Northern Road is a priority even with the construction of the M12. Elizabeth Drive is the arterial road providing direct access to WSI from Fairfield, Liverpool and the developing Kemps Creek and Austral residential areas. Elizabeth Drive is expected to be a significant, non-motorway option for passenger and airport worker road users to access the airport and WSI's business precinct. Upgrading of this road will be important to improve traffic flow and safety outcomes.

#### 6.2.3. Fifteenth Avenue

The upgrade and extension of Fifteenth Ave (and Hoxton Park Road) from Liverpool to Bradfield and WSI will not only provide a high-quality road connection between Liverpool and the airport, but importantly, will support planned residential development in the suburbs between Elizabeth Drive and Bringelly Road. Ensuring the upgrade and extension of Fifteenth Avenue is supported by increased local bus options as well as accommodating a Liverpool-WSI Rapid Bus service in the long-term, will be a significant contributor to optimising connectivity to the airport.

#### 6.2.4. Outer Sydney Orbital (M9)

The planned Outer Sydney Orbital route, comprising the M9 motorway, will provide major transport connectivity between WSI, priority growth areas and future employment lands and will significantly increase the efficiency of freight access to the airport. Future considerations for this project include extending to regional centres such as Illawarra to the south and central coast to the north-east.

The design of the M9 should also consider opportunities for bus only lanes or bus priority intersections, similar to dedicated bus lanes that are provided on the M2 motorway. There is an opportunity for the M9 motorway to be part of an integrated Rapid Bus network.

### 6.3. Extensions Sydney Metro – Western Sydney Airport

Extending the airport's Metro network would not only better connect communities across Western Sydney to employment opportunities at and around WSI but would represent the increase in rail connectivity required to support the airport's connectivity. In turn, this will strengthen its flow-on economic benefits and ability to create jobs and opportunities across the region.

The proposed metro extensions would enable greater flexibility of service in the future and improve connectivity to major population centres in the short-term. They would also increase local coverage and dedicated services to key population centres.

WSI supports Metro extensions to maximise access to the Aerotropolis and WSI.

1. An extension of the *Sydney Metro - Western Sydney Airport* from WSI to Glenfield via Leppington and Bradfield (short term);
2. An extension of the *Sydney Metro Western Sydney Airport* from St Marys to Tallawong (short term);

3. Extension of *Sydney Metro – Western Sydney Airport* from WSI to the Macarthur region (short-medium term); and
4. An extension of the under-development *Sydney Metro West* service from the Sydney CBD to Parramatta/Westmead, to extend to WSI. This connection will be become important to ensure a connected Greater Sydney, as WSI grows to become Sydney's largest airport and primary international gateway (medium - longer term).

#### **6.3.1. Extension of *Sydney Metro – Western Sydney Airport* from WSI to Glenfield**

WSI supports the eastern extension of the *Sydney Metro – Western Sydney Airport* from Bradfield to Glenfield via Leppington. Such an extension would provide easy, one-interchange connections to the airport from Western Sydney centres such as Campbelltown, Liverpool, Blacktown, Fairfield and Cabramatta, as well as a faster journey from the airport to the Sydney CBD, including Sydney Kingsford Smith Airport.

#### **6.3.2. Extension of *Sydney Metro – Western Sydney Airport* from WSI to Tallawong**

WSI supports the extension of the northern extension of the *Sydney Metro – Western Sydney Airport* from St Marys to Tallawong to connect with the already operational *Sydney Metro – Northwest*.

This extension will provide a connection between the Northwest Growth Area and WSI, providing a one interchange service to the Sydney CBD.

#### **6.3.3. Extension of *Sydney Metro – Western Sydney Airport* from WSI to Macarthur**

A 2018 Scoping Study identified that a North-South Link between Schofields and Macarthur via Western Sydney Airport would improve rail connectivity and support city shaping objectives across Western Sydney<sup>14</sup>.

This line would connect the airport to some of the most significant growth areas in the Sydney basin and would represent a compelling alternative to road use for workers and passengers.

#### **6.3.4. Extension of the *Sydney Metro West* line from Westmead and Parramatta to WSI**

WSI's planning for future growth provides space for a second rail service to Westmead and Parramatta through the airport site.

The anticipated growth of WSI and its future second runway suggest that this service will be necessary within twenty years to provide the increased connectivity required as WSI becomes Sydney's largest airport and primary gateway to Australia's global city.

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<sup>14</sup> [Western Sydney Rail Needs Scoping Study Outcomes Report 2018](#)



#### **6.4. Modification to the Blue Mountains Line timetable**

With the opening of the Sydney Metro - Western Sydney Airport, St Marys will become a major transport interchange. An opportunity exists to create faster, and more frequent, connections between WSI and the Blue Mountains, Parramatta and the Sydney CBD by including St Marys on all stopping patterns for the existing Blue Mountains Line services.

Current journey times from St Marys to Central via the T1 line are up to 58 minutes. A journey from St Marys to Katoomba takes up to 86 minutes, with an interchange at Penrith.

A St Marys stop on the Blue Mountains Line, particularly the express line, could see journeys between St Marys and Central reduced to around 42 minutes, or between St Marys and Katoomba take around 60 mins.

A St Marys stop would improve the journey to Central by up to 18 minutes and the journey to Katoomba can be shortened by up to 26 minutes, with fewer interchanges, improving travel time and reliability.

The modification to the Blue Mountains Line timetable would also need to consider increases to service frequency on the express line to support travellers in making public transport their first option in getting to WSI.

WSI acknowledges the significant investment in the Western Sydney Metro. Opportunities to leverage existing rail services can maximise the benefits from this investment. The suggested Blue Mountains Line timetable modification is needed from WSI's opening to encourage the early adoption of public transport and to capitalise on the investment into the Western Sydney Metro.

### **7. Conclusion**

WSI will provide the platform for growth in Sydney's aviation capacity that is essential for our city's ongoing economic growth. It will also deliver positive impacts on Western Sydney's economy that will be felt for generations into the future.

Pivotal to realising this unprecedented economic growth is a robust and interconnected urban public transport system comparable to those serving other major urban centres across the state.

Importantly, WSI's five key principles are critical in encouraging use of public transport when developing solutions for Western Sydney. This comprises providing a good mix of transport modes, with dedicated or 'minimal interchange' services that are frequent, reliable, comfortable, and price competitive.

Public transport and airports are reciprocal in nature. Internationally, modern global cities are oriented around airports and the connectivity they provide. Efficient, well-planned, and accessible multimodal public transport is essential to realising the significant potential for socioeconomic uplift that airports provide. Strong public transport also discourages private vehicle and ride share to achieve sustainability benefits through reduced carbon emissions.

There has been significant investment in the airport by the Australian Government and an even greater investment in public transport and road connections by the Australian and NSW governments for the initial road and rail connections to and around WSI. While this investment represents a solid beginning for the airport's ground transport connectivity, realising the significant job creating and investment attracting potential of WSI and the surrounding Aerotropolis depends on ensuring growth of the ground connectivity infrastructure and services commensurate with that potential.

# Appendix A - WSI transport priorities

### ROAD PROJECTS

- Existing Main Roads
- Existing & Funded Arterial Roads

### WSI Road priorities

- 1 Elizabeth Drive (road upgrade)
- 2 Eastern Ring Road (new road)
- 3 Outer Sydney Orbital & Connection to Air Cargo Precinct (new road)
- 4 Pitt Street (road upgrade and realignment)
- 5 Fifteenth Avenue (road expansion and upgrade)

### PUBLIC TRANSPORT PROJECTS

- Heavy Rail Network
- Metro Network
- Light Rail

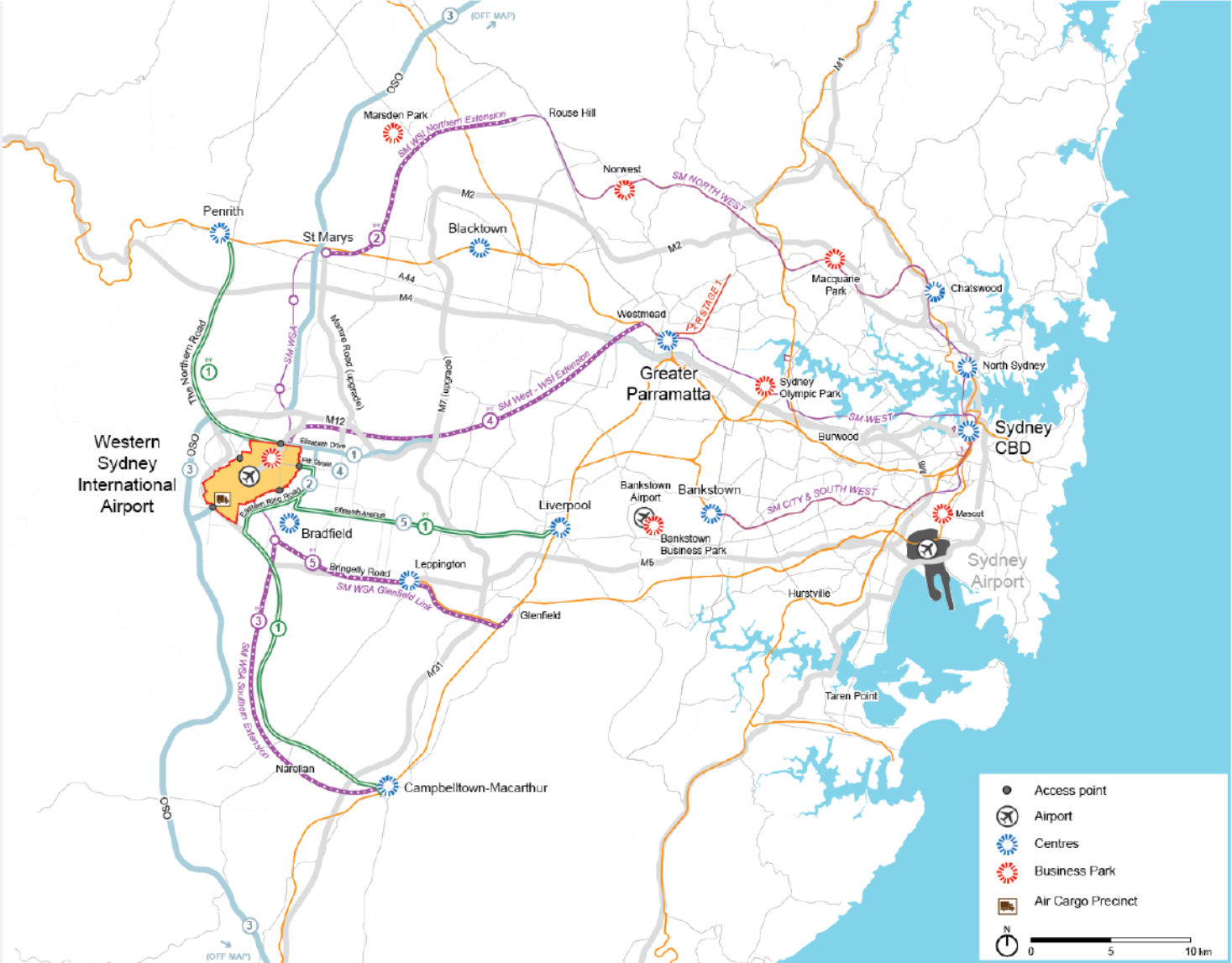
### WSI Rapid Bus priorities

- 1 Rapid bus services to Penrith, Liverpool and Campbelltown from WSI

### WSI Metro priorities

- 2 SM WSA Northern Extension connecting to Tullawong
- 3 SM WSA Southern Extension connecting to Campbelltown - Macarthur
- 4 SM West - WSI Extension connecting WSI to Westmead and Parramatta
- 5 SM WSA Glenfield Link connecting Aerotropolis to Glenfield

Planned projects east of Parramatta have been excluded within this study



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