

AIRPORT WEST STATION STUDY

April 2019




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Document Revision History

VERSION	AUTHOR	DATE	FILE TYPE
Airport West Station Study v0.4	DM	10 Feb 19	MS Word
Airport West Station Study v0.9	VA	1 Mar 19	MS Word
Airport West Station Study v1.0	DM/VA	4 Mar 19	Word/PDF
Airport West Station Study v2.0	DM/KT	31 Mar 19	Word/PDF

Document Control Panel

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Comments by	MVCC	15 Mar 2019	
Changes Made by	David Mephram & Knowles Tivendale	15 Mar 2019	
Draft 2.0 Approved by	Knowles Tivendale	31 Mar 2019	

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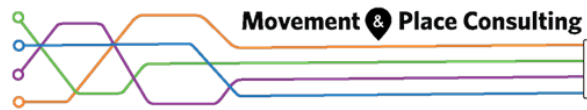
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EXPLANATION OF ABBREVIATIONS

ACCC – Refers to the Australian Competition and Consumer Commission. The ACCC have undertaken detailed investigation into landside parking in Australian airports.

AWSP – ‘Airport West Station Precinct’. This is an abbreviated term to describe the site. Airport West is actually west of Essendon Airport, Melbourne’s original airport. The proposed station could be called something else such as “Western Gateway Station”.

MAP – The refers to ‘Melbourne Airport’. The abbreviation is used in the Melbourne Airport Master Plan and reused here for brevity.

MARL – This refers to the ‘Melbourne Airport Rail Link’ in its current form. There have been other proposals with other names and acronyms.

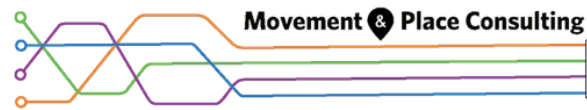
MVCC – Refers to the City of Moonee Valley Council

NEIC – Refers to a National Employment and Innovation Cluster. Sunshine is one of seven NEIC’s. These are areas with concentrations of businesses and institutions that provide a diversity of employment opportunities, including knowledge-based jobs.

P&R – Refers to “Park and Ride”. This is the practice of non-timed, all day parking at the station to access a rail journey. This parking is typically provided by the government free of charge to the user.

SRL – Refers to the proposed ‘Suburban Rail Loop’ project, a 90-kilometre circle line connecting outer suburban rail stations in a staged project over several decades.

TOD – Refers to the idea of ‘Transit Oriented Development’. This is a style of higher density, mixed use development oriented to the station where walking, rather than driving is preferred.



EXECUTIVE SUMMARY

The State and Commonwealth commitment to the Melbourne Airport Rail Link (MARL) and the recent State Government commitment to a Suburban Rail Loop (SRL) has the potential to transform the western suburbs of Melbourne. Both of these proposed rail projects are set to be built within the Albion-Broadmeadows rail corridor, which is currently served by five regional rail services each day of the week.

As the business cases for these transformative projects develop, it is imperative that options to future proof the corridor for future train stations are included. Ensuring that a future train station between Sunshine and Melbourne Airport Precinct (MAP) can be built will guarantee that as transport and land uses in the area change over the time, the rail network can adapt to serve these new communities and build on the opportunities for private investment. Without a station in this location residents and workers north of Sunshine Station will miss out on the many benefits and opportunities presented by the MARL.

The Western Gateway Station site and associated Airport West Precinct (AWSP) is located on the rail corridor, next to the Calder Freeway/Western Ring Road interchange, halfway between Sunshine and the MAP as shown in Figure 0-1 below.



Figure 0-1: Location of Western Gateway Station Site relative to MARL

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This feasibility study recommends that the State and Commonwealth Governments make the following commitments:

- Ensure the design of the MARL, SRL, and other rail projects in the Albion-Broadmeadows corridor does not preclude a potential future station in Airport West
- Investigate the benefits and costs of such a station in all potential railway projects in the corridor, including MARL and SRL

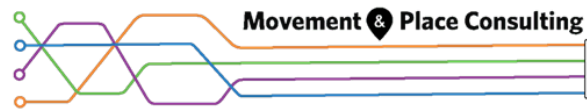
This study investigates the feasibility of a new station at Keilor Park – Airport West, at a site immediately north-west of the Western Ring Road and Calder Freeway interchange, notionally this site is referred to as Western Gateway Station.

The study found the proposed station site would provide the following benefits:

- Ease traffic and parking congestion at Melbourne Airport and Sunshine – providing a type of pressure release valve for when those two locations are getting overwhelmed with cars
- Improve public transport access for staff working at MAP, Westfield Airport West, Essendon Fields, and in surrounding industrial precincts
- Improves connections to Melbourne Airport from regional Victoria
- Improve public transport access for local residents in Airport West and Keilor Park including improving access to higher-education and employment opportunities
- Transform public transport access in the western suburbs
- Increase Land Value Capture opportunities at Sunshine, MAP, and the station site
- Encourage more people to use public transport when visiting MAP
- Reduce congestion on major road networks in the region
- Align with global best practice with regard to Airport Railway lines by providing connection to the airport's employee catchments.
- Providing a logical site for key worker affordable housing with good transport access to significant employment locations
- Improve equity in Melbourne's west by providing transport choice to local residents

A station would help to manage growing parking demand and related traffic issues at MAP and Sunshine. It would also ensure that the economies of both MAP and Sunshine can grow through development of higher order uses. The use of high value land around Sunshine Station for low-cost car parking and storage is clearly at odds with, and an impediment to, the intended future for high-value jobs and more intense economic activity in Sunshine CBD.

The elements of a new station/interchange could be phased in over several years. Initially, existing and new bus services may serve a park and ride function with a view to a future station and interchange function at the AWSP as the need arises.



Anticipating the future is problematic. We do not know how new energy or communication technologies, climate change, artificial intelligence or autonomous vehicles will change the way we get around. We don't know how relevant the significant investments, flagged in twenty-year master plans, in wider freeways, more roads and more parking will be. It makes sense to keep an open mind and to enable flexibility in our planning and construction.

In the short term (0-2 years), the site could be used as a commuter park and ride for local bus services (i.e. 465, 476 and 483 and Smart Bus services) providing connections to local destinations including Essendon Airport, Essendon Station, the DFO, Westfield Airport West and Moonee Ponds. Consolidating and using this site enables planning for longer term integrated transport and access solutions.

It is recommended that government commit to identifying and protecting the new station site and to investigate the potential costs and benefits of a station that serves the existing passenger track or a combination of those tracks and the future MARL and SRL track sets.

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1. INTRODUCTION

Moonee Valley City Council (MVCC) has requested Movement & Place Consulting to explore the feasibility of an additional station on the Albion-Broadmeadows railway corridor. The site being investigated is located in Keilor Park on the municipal boundary with the City of Brimbank. The corridor is currently served by five regional passenger trains per day in each direction. In future, the corridor will also be used for the Melbourne Airport Rail Link (MARL) and Suburban Rail Loop (SRL) alignments. The progress on business cases for these two projects has created a need to investigate the location and how a future train station would function on one or more of the three sets of tracks that will serve the site in future.

The idea of a Melbourne Airport rail link goes back some fifty years to the creation of the airport itself. Over that time, various routes and station locations have been explored. Patronage levels to offset the cost of the project is a key barrier to the project. New planning and investment in Melbourne's regional and metropolitan rail system in the past decade have led to a reconsideration of the airport rail link concept. A 'strategic appraisal' confirmed a route via Sunshine as the preferred option. The Victorian State and Australian Federal Governments have since agreed to fund a business case for MARL.

The Victorian State government has since committed to funding a business case related to SRL which would involve a railway connecting south, eastern and northern Melbourne before reaching Broadmeadows, Melbourne Airport, Sunshine and Werribee.

Melbourne Airport (MAP) visitation is expected to almost double over the next twenty years. The MARL will improve access between the MAP and Melbourne CBD and the SRL will improve access to Melbourne's suburbs. Even with these projects the projected growth in airport travel will lead to more vehicle traffic and increasing demand for parking and car rental at the airport.

The MARL, SRL, and other railway improvements in the Sunshine Corridor enables new development and land value capture opportunities in the precinct around Sunshine Station. There will be more rail patrons, including the local airport workforce, seeking to access Sunshine CBD and the transport node. The expanded station/interchange footprint will impact on nearby land uses including commuter car parking. Providing high value land for low-cost parking is at odds with the potential for new economic development, high-value jobs and vibrant activity of the Sunshine activity centre.

1.1 Background

The Albion-Broadmeadows railway corridor is currently served by five regional passenger trains per day in each direction. In future, the corridor will also be used for the MARL and SRL alignments. At Airport West and Keilor Park there is a coverage gap in the urban rail network relatively centred on the Albion-Broadmeadows railway corridor. This coverage gap is also a mid-point between several key activity centres including, Airport West Shopping Centre, Essendon Fields, Melbourne Airport and Sunshine.

MARL is the subject of a business case funded by the Victorian State and Federal Governments. This is one of many investigations of an airport rail link since MAP was built, over fifty years ago. Typically, these investigations have sought, and failed, to achieve viability

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through patronage alone.¹ Best practice evidence indicates that rail connections are more viable if they include additional market segments with the extra passengers and value capture opportunities that come from additional stations along the corridor.

Some project proponents would like to see the fastest possible connection between MAP and Melbourne CBD. However, such a connection would have a limited market catchment. This limited market catchment would impact on the scale of service required to meet passenger demands either in the form of service frequency or vehicle capacity.

The AWSP would present a range of benefits to the existing and future passenger rail services, by increasing potential patronage catchments, capitalising on the land value capture opportunity and enabling a range of local and regional accessibility and economic benefits. This includes some potential benefits for the MARL project, which are explored in this report.

The main focus of this analysis is to provide a robust set of reasons for three commitments from State and Commonwealth government, including commitments to:

- Ensure the design of railway assets in the Albion-Broadmeadows corridor does not build-out the site of a potential future station in Airport West
- Investigate the benefits and costs of such a station in all potential railway projects in the corridor including MARL and SRL

¹ Victorian Parliamentary Library – *Research Paper on Airport Rail Link History*

2. THE WESTERN GATEWAY STATION PRECINCT SITE

The Western Gateway Station site is located in Keilor Park – Airport West just to the north east of the interchange of the Calder Freeway (M79) and Western Ring Road (M80). It is located on the Albury – Wodonga passenger rail line as shown in Figure 2-1 below.

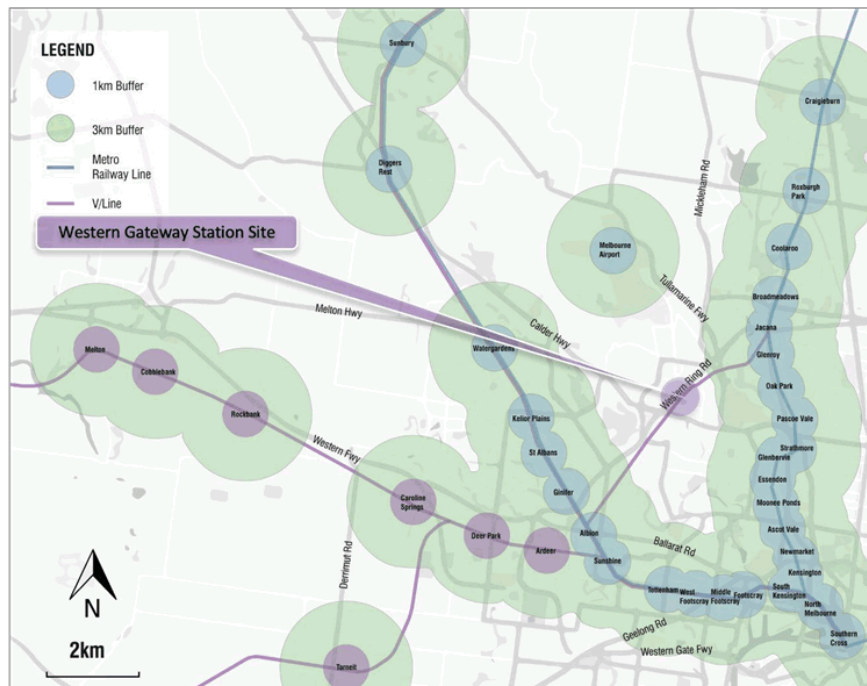


Figure 2-1: Regional context of the Western Gateway Station Site

Source: M&PC Analysis from Victorian Government open data sets

The map above shows clearly how the railway line exists but fails to provide any service to the catchment because there is no station. This has caused an access problem for the community for the best part of 100 years. The map also shows how recent additions to the V/Line network of stations (at Caroline Springs, Tarneit and the upcoming opening of Cobblebank) are all helping to fill gaps in the suburban rail catchment. A station at Keilor Park-Airport West would neatly fill the coverage gap between the Craigieburn and Sunbury Metro Trains corridors.

The core site is located midway between Broadmeadows and Sunshine and midway between MAP and Sunshine. By train it would take 5-6 minutes to get from the site to any of these three locations. The surrounding area includes Airport West Shopping Centre, Essendon Fields and suburbs of Airport West and Keilor East as shown in Figure 2-2 below.

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Figure 2-2: Local context of the Western Gateway Station Site

Source: Melway Publishing with M&PC Analysis

The core site of about five hectares is located in Terror Street, Keilor East. It is bounded by Steele Creek to the north, the Calder Freeway to the south, Western Ring Road to the west and the Albion-Broadmeadows railway line to the east. There are adjoining sites east and south of the core site, currently used as industrial land/warehouses. It is estimated that the precinct of related private land totals around twenty hectares.

The core site, shown in Figure 2-3 below, is relatively undeveloped and currently being used for storage depots and as a ready-mix concrete supplier site. The current land use creates heavy vehicle traffic movements in the local area with concrete trucks regularly coming and going from the site. The site has a Public Acquisition Overlay affecting it for the purpose of the MARL.

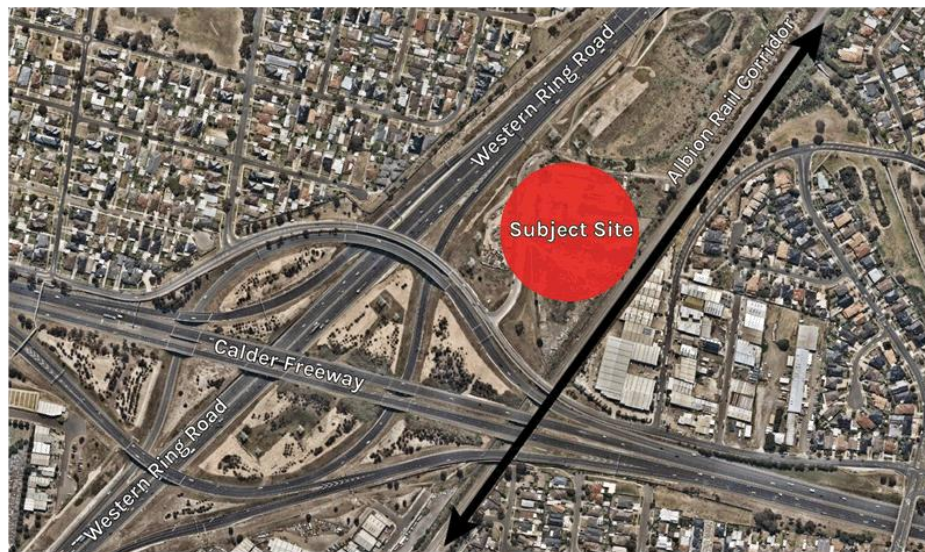


Figure 2-3: The AWSP Core Site on Terror Street

Source: Nearmap

The site has excellent access by most modes. In summary:

- The junction of the Calder Freeway and Western Ring Road and proximity of the Keilor Park Drive freeway interchange just 1.3km from the site, makes long distance car travel to the site relatively easy.
- There are two bus routes (Route 465 & 476) with 13 services in the peak hour – providing a bus from Essendon Station every 4-5 minutes. Even the timing of these services (Route 465 operates every 20 minutes from 5:30am) provides excellent access for the future MARL/SRL workforce in the surrounding suburbs particularly those to the east and west.
- The Western Ring Road Trail traverses through the site and connects to the Steele Creek Trail. These two shared paths provide excellent access for longer distance bicycle riders and local pedestrians travelling to the site.

There are multiple high-pressure pipelines in the area transmitting gas and aviation fuel. The location of these is not discussed in this report but they need to be protected by any future development of the site.

The development of the core site may be facilitated by the early needs of the MARL which will need to acquire, consolidate and clear suitable sites for construction depots for storage, construction and site offices. The existing uses are consistent with MARL construction activities with minimal amenity impacts on local business and residents.

The wider precinct (AWSP) site includes around twenty hectares of land in adjoining areas to the east and south of the subject site. Ownership of land to the east of the railway line is relatively fragmented and the area is predominantly industrial with a small residential area

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along Moorna Drive. An aerial photograph and diagram of land parcel fragmentation is shown in Figure 2-4 below.



Figure 2-4: Local View of the Site – Aerial Photo (right) & Lot Boundaries (left)

Source: Google Maps & City of Moonee Valley

3. BENEFITS OF A NEW STATION

The need for public transport provision in this area has long been recognised as a key issue since as early last century. Records show that matter was raised in Parliament in 1927, during the 1930's and again during the 1950's. The matter was raised in detail during Parliamentary debates by the State Member for Niddrie on 27 April, 1976. The Member referred to the deficiencies in Transport services in Niddrie, with 100,000 people who live with "no trains and practically no trams".

The need for a station has been a consistent theme in Council's adopted policies, including the Integrated Transport Strategy in 2008.

We have identified a series of benefits from the inclusion of the AWSP to existing Albury-Wodonga train services the MARL, SRL, and future transport network. These benefits are realised at the neighbourhood, local, regional, and state-wide levels. This next section will highlight the key benefits for each.

Local Community

The local community is two enclaves of predominantly residential land (Keilor Park and Airport West) cut off from neighbouring areas by the freeway network. The area is currently in a rail network coverage gap despite being very close to the railway line. Providing a station on the existing Albion-Broadmeadows line will improve:

- Access to Broadmeadows and Melbourne (Southern Cross and City Loop Stations). Travel times would be approximately 7 minutes travel time from Broadmeadows and 20 minutes from Southern Cross
- The public transport catchment for employees at nearby businesses
- Access to education and employment in the region and access to affordable key worker housing

Wider Community

The wider community includes a number of regional scale attractors including the Westfield Airport West Shopping Centre, Essendon Fields, Penleigh and Essendon Grammar School and Brimbank Park. Providing a station on the existing Albion-Broadmeadows line will improve:

- Access to these areas from northern and central Melbourne and from Victoria's North East
- The public transport catchment for employees at nearby businesses
- Once MARL is completed, access to the airport by train from parts of Victoria north east of Seymour would be improved by one hour if an interchange station was built at Airport West.

Affordability & Social Equity

The area has a relatively low socio-economic demographic with poor access to higher-education opportunities and jobs. These opportunities are located in Broadmeadows, Sunshine and Melbourne CBD. The barriers to accessibility and associated car dependence contributes to social disadvantage with fewer opportunities to access goods and services, including education, training and jobs, in Broadmeadows, Sunshine and the Melbourne CBD.

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Providing a station connected to the existing Albion-Broadmeadows line, MARL/SRL will improve:

- Access to regional goods and services including education, training and employment opportunities that reduce inequity and create positive social outcomes for this area of Melbourne
- Access to affordable key worker housing with good access to key worker nodes including MAP and Melbourne CBD.

Land Development Options

The area is under-developed, relative to its proximity and potential accessibility. Providing a station connected to the existing Albion-Broadmeadows line, MARL or SRL will:

- Provide the opportunity to provide significant key worker housing in close proximity to the locations they need to work
- Enhance the provision of 20-minute city neighbourhoods that reduce dependence on private vehicles
- Provide the opportunity for significant land value uplift and land value capture

Road Network

The road network in the area is dominated by freeways – Calder Freeway, Western Ring Road and Tullamarine Freeway. Providing a station connected to the existing Albion-Broadmeadows line, MARL or SRL will:

- Reduce congestion on the freeways by diverting some trips originating in northern Melbourne and Victoria's North East
- Reduce congestion on freeway entry ramps and at intersections and junctions in the area
- Improve choice for people living in the area who currently have limited ways of moving into neighbouring areas and are reliant on public transport in neighbouring areas for efficient access to Melbourne CBD

Melbourne Airport (MAP)

MAP includes the airside activities, landside access arrangements and a wide array of businesses operating from the leasehold property. Providing a station connected to the MARL or SRL will improve:

- Access to MAP from northern Melbourne and from Victoria's North East
- The public transport catchment for employees at businesses based in MAP
- The focus on high value land uses within the MAP

Sunshine Station and NEIC

Sunshine NEIC includes the station area, Sunshine Marketplace and a wide array of businesses operating in the area including private businesses government agencies and civic institutions. Providing a station connected to the MARL or SRL will improve:

- Access to the NEIC from northern Melbourne and from Victoria's North East
- The public transport catchment for employees within the Sunshine NEIC
- The focus on high value land uses within the Sunshine NEIC

Regional Growth

The western growth area of Melbourne (including Brimbank, Hobsons Bay, Maribyrnong, Melton, Moonee Valley and Wyndham) is set to have 312,000 additional residents over the next 12 years. This will result in a total regional population of 1.2M residents by 2031. This significant growth will create new pressures for all transport networks in the region. This pressure will not be balanced if areas like Airport West and Keilor are not given access to train services that operate right through the suburb.

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4. IMPLEMENTING THE AWSP

We propose the following options as a potential pathway forward for successfully implementing the AWSP site from its current state to a fully functioning station as an integral part of Melbourne's transport network.

In the short term, 0-2 years, the site could be used as a commuter park and ride serving bus routes 465, 476 and 483 and SmartBus Route 902. This would provide connections to local destinations including Essendon Airport, Essendon Station, the DFO, Westfield Airport West and Moonee Ponds. Consolidating and using this site enables planning for longer term integrated transport and access solutions.

In the longer term, 10+ years, a new station and interchange at this location could serve the Suburban Rail Loop and provide complementary parking and land transport services to the MAP and to support desirable land use and development outcomes for Sunshine.

AWSP's location on the MARL/SRL and at the Freeway interchange enables increased connectivity into the wider area, supporting patronage and the viability of the MARL/SRL well into the future. As the airport patronage increases so too will demands for parking with pressure on land use and road congestion. Increasing traffic into the MAP precinct will require freeway widening and major road works. By drawing traffic to AWSP, VicRoads are able to at least defer these works.

Sunshine Station will be expanded, and this is likely to impact on parking access. A focus on car parking in Sunshine will create additional traffic congestion. AWSP complements Sunshine, enabling land within the higher value NEIC to be utilised at the highest and best use within an attractive, accessible and economically vibrant activity centre.

The AWSP will be complementary to the short and longer-term function of Sunshine Station and NEIC. Importantly, it enables higher and better land uses around the Sunshine Station rather than an increased parking area and associated traffic for workers and airport patrons seeking to access the MARL/SRL.

The MARL/SRL will most likely need to secure and consolidate sites for construction of the expanded Sunshine Station and interchange. Much of the existing Sunshine Station car parking area and some adjoining warehouse sites may need to be used during the construction phase. Post construction these sites could provide large park & ride facilities or achieve higher and better land use outcomes, such as intensive employment or an opportunity to provide affordable key worker housing. The alternative (higher-order) land uses will not be achievable unless some of the demand for commuter car parking can be shifted away from Sunshine NEIC.

The costs of constructing a new station should be weighed against the costs of the widening of the Calder and Tullamarine Freeways and other major road works to cater for increasing traffic demands related to MAP and Sunshine.² There are also costs in the provision of airport parking and car rental services that should be weighed against the potential revenue streams that can be achieved if some low value parking or other uses are decanted to the AWSP site.

² These works are flagged in the Airport Master Plan, Preliminary Draft 2018.

The potential function and design of a new station at Airport West is very different from that envisaged for Sunshine Station. The AWSP is able to provide efficient vehicle access from the freeway and arterial road network and is well suited for car-oriented land uses that take up a significant amount of land and produce minimal financial revenue or economic activity.

The Sunshine Station precinct is not well suited to these uses. In fact, even replicating existing park and ride space (approximately 500 spaces with many more informal 'park and hide' spaces in local streets), creates traffic congestion in the Sunshine CBD and adjoining residential areas reducing the place quality and amenity within the NEIC.

The AWSP presents a range of opportunities and challenges over the short- and longer-term. There are also many unknown factors that will impact on the types of land uses that are desirable and necessary in the station precinct in the longer term. These need to be investigated further with strategies to manage as part of a new station being provided.

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5. LOCAL COMMUNITY DISCUSSION

Improved access to goods and services, education and jobs is recognised as a highly desirable community asset, adding to the economic and social wellbeing of any community. The Moonee Valley Council's 'Airport West Activity Centre Structure Plan Review' flags key 'movement and transport' opportunities for the Airport West community. These include a range of active and public transport improvements and to: "Advocate and plan for a train station at Airport West as part of a future train line extension to Melbourne Airport."³

Community consultation indicates strong support for a rail station.⁴ The area is currently under-serviced with poor access to jobs in the surrounding region (including at the airport, Broadmeadows, Sunshine and the CBD). The AWSP adjoining communities tend to be a mix of lower density, detached residential housing with areas of industrial/warehouse use. Lower density land uses often have poor access to public transit as it is difficult to achieve viable patronage loads in these urban environments. There are related problems with social isolation for those who do not drive, including restricted access to education, training job and recreational opportunities.

Areas with poor access to public transport will be more reliant on the private car for day to day access to goods and services, education and employment. The 2016 ABS census data highlights that residents of Airport West are more likely to travel to work by 'car, as driver' (68%) compared to all Victorians (62%). The adjoining suburb of Keilor East is similar (68%) and Keilor Park has even higher reliance on travel to work by 'car as driver', (71%)⁵.

The table below, reflecting ABS 2016 Census data, shows over 3500 MAP workers in the Moonee Valley and Brimbank Council areas, accounting for 17 per cent of MAP's employment.

Table 5-1: Local Government Area residence of Melbourne Airport employees

LGA's	Melbourne Airport Employment (by LGA, rounded to nearest 10)	Share of Melbourne Airport employment
Total	20,720	100.0%
Hume (C)	4,600	22.2%
Whittlesea (C)	1,810	8.7%
Brimbank (C)	1,780	8.6%
Moonee Valley (C)	1,750	8.4%
Moreland (C)	1,410	6.8%
Melton (C)	1,380	6.7%
Wyndham (C)	1,010	4.9%

Source: SGS Economics from ABS Census data (2017)

The catchment area of a new station in Airport West would be significant in part due to the catchment provided by the freeway network. Over time the population of the surrounding suburbs would be able to access a new range of education and employment opportunities and the degree to which people are forced to drive to work would decrease.

³ Airport West Activity Centre Structure Plan Review, p13

⁴ MVCC Community Consultations indicated 98% support.

⁵ ABS 2016 'QuickStats' data by suburb.

MVCC are proposing a range of complementary improvements to the Airport West area as shown in Figure 5-1 below.



Figure 5-1: MV2040 Map Concept for Airport West

Source: Extract from MV2040, p132

It is reasonable to speculate that over time the AWSP would attract more key workers to live in the area to enjoy the improved access to MAP and local destinations. The population profile shows many residents already travelling to either the MAP or CBD by car.

Provision of a new station in the south western part of the neighbourhood will create a focal point that can be leveraged with a hub of other community services. The Airport West Structure Plan Review highlights potential changes to land uses in response to a future station at the AWSP as shown in Figure 5-2 below.

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Figure 5-2: Map extract from the Airport West Activity Centre Structure Plan Review

Source: City of Moonee Valley, Airport West Activity Centre Structure Plan Review Key Directions & Preferred Options Report

Local walk-up patronage can be improved with a precinct 'Walk Plan' to guide investment in connecting paths, road crossings, safety, seating comfort and landscaping. Good walking conditions attract recreational walkers and improve the perception of safety. These perceptions of safety are improved if there are numerous destinations along the pedestrian trails.

6. WIDER COMMUNITY DISCUSSION

Communities require a balance of access and mobility options. Choice of modes is important to provide for a diverse range of resident needs. Car dependence reduces life opportunities, especially for younger and older people, low income people and those with disabilities.

A new station in Airport West will improve ease of public transport access to key destinations such as Westfield Airport West, (5 minutes), Essendon DFO (5-10 minutes) and Essendon Fields (10-15 minutes). There are a range of local employment and training opportunities that may also be opened up with improved public transport access. According to the MVCC 'Airport Rail Link - Your Say' a station at Airport West would benefit:

- Local residents currently underserved by public transport
- Staff working at Westfield Airport West, Essendon Fields and in surrounding industrial precincts
- The more than 20% of Melbourne Airport staff who reside in Moonee Valley and neighbouring Brimbank
- Travellers accessing Melbourne and Essendon Airports.⁶

Essendon Fields is a key location and significant complement to the AWSP with potential for significant economic growth in the future. According to the 2013 Master Plan, Essendon Airport (branded as Essendon Fields) is located on a 305 hectares site and provides "mix of charter, corporate, emergency services and general aviation and a mixture of commercial, retail and light industrial activities."

The aviation function of the airport has been in decline in the past few decades but a slight increase in aviation activity is projected in the period to 2033. The Master Plan states: "The site has potential for the creation of thousands of new employment opportunities, through the enhancement and expansion of the range of services and facilities presently located in the northwest of Melbourne."⁷ Essendon Fields is currently served by tram Route 59 between Westfield Airport West and CBD, a shuttle to MAP, and short/long-term parking.

On the Essendon Airport leasehold land is the Essendon Direct Factory Outlet (DFO). The DFO and the Homemaker Hub provide over 100 retail outlets and a lifestyle and homemaker centre. The site is accessed by car and the centre provides 1,770 parking spaces with free two-hour parking.

Westfield – Airport West provides shopping and key services for the region. The centre covers five hectares, with 171 retailers, including four major supermarket chains, three major department stores and a range of specialty retailers. It attracts over 7 million customer visits per year, about 19,000 visitors per day. The site provides 2,840 car parks⁸ and related parking and local traffic congestion issues. The shopping centre is the terminus for tram Route 59 and the SmartBus Route 902.

⁶ City of Moonee Valley Council, 'Airport Rail Link - Your Say'.

⁷ Essendon Airport 2013 Master Plan. P16. Further information on these opportunities can be found in Chapter 9 of the Master Plan.

⁸ Scentre Group Webpage – Overview of Westfield, Airport West.

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Public transport access to these locations is relatively poor. The AWSP provides a local hub to connect these destinations into the rail network. The AWSP may develop as a significant mid-northern area transport node to complement these smaller centres and the Sunshine NEIC.

Existing bus services passing AWSP connect to the Craigieburn rail line, including:

- Bus Route 476 running between Hillside and Moonee Ponds via Essendon Station
- Bus Route 465 running between Keilor Park and Essendon Station

Local taxi and Uber services may find the AWSP quicker, cheaper and easier to access passengers than the airport.

Cycle access is increasingly important, especially as investment increases in safe, separate cycle paths. The image below indicates part of the 43-kilometre Western Ring Road cycle path connection into AWSP. There are also cycle links into the precinct from the east and south. These are facilities that can be enhanced over time with improved path connectivity, safety, lighting and a cycle centre with storage facilities, storage and showers in the AWSP.

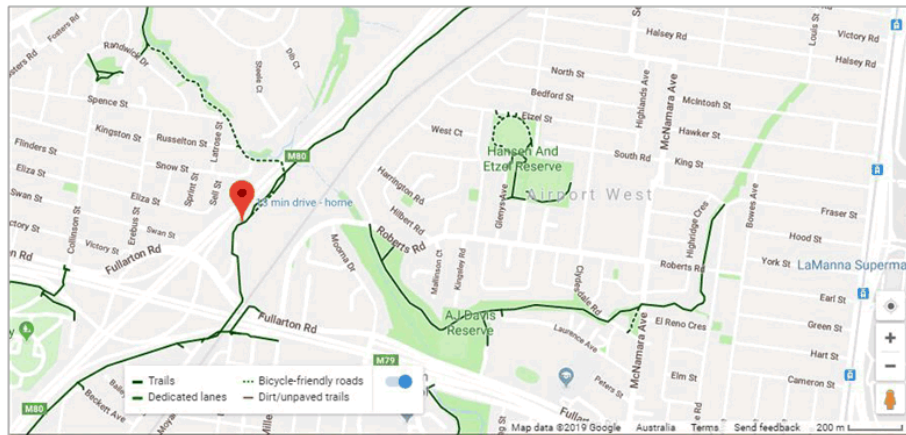


Figure 6-1: AWSP Bike Connectivity

Source: [Google Maps](#) Note that corrections to this map were suggested to Google by the M&PC team

There are potential challenges for the AWSP in the wider precinct such as increased traffic into the precinct. This issue needs to be considered with the opportunity for increased access by public transport, especially for those unable to drive to access key goods and services. The complementary relationship between the AWSP and key local destinations has the potential to lift the wider economy and opportunities for improved access supporting sustainable economic growth.

The wider community in north-eastern regional Victoria (Seymour to Albury-Wodonga) will also benefit as without a station at Airport West they would need to travel on the train for an extra hour in order to access Melbourne Airport.

Under the current plans there will be no ability to transfer from the regional (standard gauge) trains at Sunshine. Providing for such an interchange at Sunshine would be a waste of space given there are only five passenger services per day through the station. AWSP provides a perfect location for this small number of passengers to interchange, because the land is less valuable and not required for higher order uses.

The MARL proposal currently allows for only one station (Sunshine) between Melbourne CBD and the airport. Additional stations have been presumably avoided to minimise travel time and capital costs. However, there are a range of issues with a one station solution, including:

- If Sunshine Station is the only drive up point of access to the MARL, there is likely to be a significant increase in parking demand and associated congestion in the station precinct and Sunshine NEIC
- Many airport staff reside in the region south of the airport and their demands alone for parking access into the MARL/SRL will be significant. Increased parking to meet this demand will consume high access/value station land
- Much of the existing parking area may be used in the expansion of the Sunshine Station/Interchange for the MARL so available parking space is likely to decrease
- Sunshine Station is intended to be a major activity centre. Increased parking and traffic will compromise place quality and the amenity of the centre
- MAP patronage will almost double in the next twenty years. Evidence from other airports shows that even with a rail link demand for access and parking will continue to increase. These needs impact on higher/better land uses close to the terminals
- Without the additional MARL station there is an increased risk that the longer-term functionality and efficiency of MAP will be compromised due to congestion on the airport approach roads and stress on internal high value/high access land uses.

Land Value Capture Opportunities

The AWSP station also increases opportunities for land value capture as part of the MARL/SRL project. The Victorian Government has a policy on land value capture which recognises the significant benefits to be realised with major public transport projects⁹. The policy reiterates key points from related reports from Infrastructure Australia, the Productivity Commission study, the Australia Infrastructure Plan and the 2016 Smart Cities Plan, as follows:

- Infrastructure Australia's 2012 Infrastructure Finance and Funding Reform report recommends that 'states should utilise appropriate models to drive revenue from the broader benefits delivered by major infrastructure projects. Such as value capture for transport infrastructure'
- In May 2014, the Productivity Commissions study, 'Public Infrastructure' recommended including "when the benefits from infrastructure accrue to more than users, governments should also consider value-capture initiatives - such as betterment levies and property development – so that wider beneficiaries contribute to funding."
- The Australian Infrastructure Plan (2016) adds, "governments should routinely consider land value capture opportunities". It also notes that value capture increases

⁹ [Victoria's Value Creation and Capture Framework](#), Victorian Government (February 2017)

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equity – that “where investments have been made by taxpayers, there is a strong case for private owners’ windfall gains to be shared with taxpayers

- In April 2016, the Commonwealth released its Smart Cities Plan, highlighting the need for state governments to explore value capture opportunities as a precondition for any Commonwealth infrastructure funding grants in the future.

The AWSP can be phased as the need arises. The core AWSP site offers several hectares of land which is well located for initial use as a construction/depot site for the MARL/SRL.

7. SUNSHINE STATION PRECINCT DISCUSSION

Plan Melbourne: Refresh identifies Sunshine as a 'National Employment and Innovation Cluster' (NEIC). According to the Plan, the cluster has the potential to build a critical mass of tertiary education, health care, and retail and professional services.¹⁰ Doing so in a centre like Sunshine, that also has a transport hub and is the confluence of three major train lines, will create an agglomerated economy with a large geographic catchment. Important to this growth of Sunshine is its connectivity by rail to the CBD and to regional centres.

The main commercial precinct is within the 'Sunshine Metropolitan Activity Centre, focused on the Hampshire Road 'Main Street' which connects into the station precinct. The general layout of activities is shown in Figure 7-1 below.

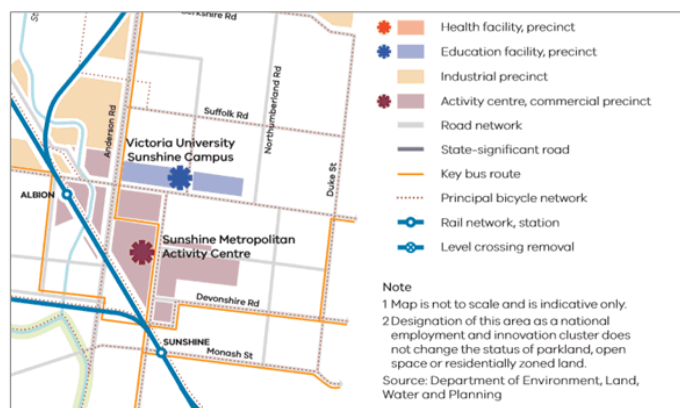


Figure 7-1: Sunshine Land Uses from Plan Melbourne

Source: Plan Melbourne – [Sunshine Map](#), Victorian Government

Sunshine Station is a 'Premium' station, reflecting its significance in the metropolitan rail station hierarchy. The Station precinct provides high access/high value land use opportunities that are potentially complementary for the Sunshine Activity Centre and for MAP, i.e. office, hotel, staff accommodation and airport visitor goods and services.

These are land uses that provide for Transit Oriented Development (TOD). To maximise the economic output of the precinct there must be a focus on walkability, mixed uses and higher density development in the station precinct. The local economy will benefit greatly from minimal parking provisions including housing and business without car parking. Every dollar saved by reducing parking has a triple effect:

- Reduces the cost of business and housing
- A significant part of that dollar (80%) flows back into the local economy
- Frees up developable space for more active uses in and around the Station intensifying the economic activity and agglomeration benefits for Sunshine.

¹⁰ Plan Melbourne – [Sunshine National Employment and Innovation Cluster](#)

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However, many people will still need to drive to Sunshine and expect to park their car. As the economic activity grows, pressure is placed on at-grade or above ground car parking by property owners who see opportunity for greater returns from more intensive and productive development types (residential or commercial). This gradual process sees car parking facilities being replaced by apartment and office buildings in Central Business Districts. Car parking facilities are then pushed further away or become expensive to park in.

The table below shows that the significant investment in free parking has succeeded in attracting many people to drive to access the station. Nonetheless many rail commuters 'walked all the way' to the station (38.6%). About one third arrived by car (37.3%) and less than one fifth by bus (17.5%). The level of car access to Sunshine Station is in direct proportion to the low levels of public transport interchange and walk-up patronage, note the table below as an example of bus/tram interchange and walk-up access at comparable stations in the region.

Table 7-1: Access to Various Rail Stations by Mode

Station	Total Bus/Tram %	Car %	Cycled %	Train %	Walked all the way %
Sunshine	17.5	37.2	1.6	5.0	38.6%
Essendon	50.3	28.9	1.2	0.9	18.6
Moonee Ponds	8.0	17.7	0.0	1.7	72.1
Footscray	18.7	16.9	0.0	15.4	49.1
Coburg,	25.6	23.3	0.0	0.8	50.4
Craigieburn	16.9	51.8	0	2.4	28.9

Source: PTV Weekday Access to Melbourne Metro Stations 2016

Typically, low levels of walk-up and transit interchange to rail reflects low density, out of centre stations and inconsistent with a significant station in an activity centre based on a vibrant 'Main Street' shopping precinct. Where high levels of walk-up area expected but not realised there may be problems with the quality of the urban environment around the station. For some people, after hours departure from the station through large car parking areas feels unsafe. People are required to negotiate a hostile urban environment, with conflicting right of way in car first spaces. There is considerable room for improvement of access to these stations where large numbers of people arrive on foot, by cycling or by bus.

There are potential problems that come with highly connected station/interchange precincts. If Sunshine is the only station on the MARL/SRL then there will be increased demand for parking in the Sunshine Station precinct. There are already over 500 parking spaces at the station, these contribute to peak hour congestion in the morning and evening and detract from the ability of others to conveniently access the centre.

Where large areas of parking are provided then others will come into the area seeking to 'park and ride' when the car park is full then this traffic 'cruises' for parking in local streets. Morning 'park and ride' traffic overlaps into the morning school drop off and contributes to school traffic congestion. In short park and ride creates local amenity problems and compromises local place safety. These are avoidable impacts that are inconsistent with an attractive, accessible activity centre.

It is likely that the expanded Sunshine Station Interchange footprint, related to the MARL/SRL, will significantly reduce the availability of 'free' at grade Park & Ride spaces. Some land is likely to be lost, at least temporarily, due to MARL/SRL construction demands as land is required for storage/depot space.

Other land will be lost permanently to the expanded station footprint. The typical response would be to replace the Park & Ride spaces that are consumed by the new Sunshine Station. While the complexities of the land required to support the MARL are unknown, the complexity of the urban environment in Sunshine is clear from aerial photography such as that shown in Figure 7-2 below.

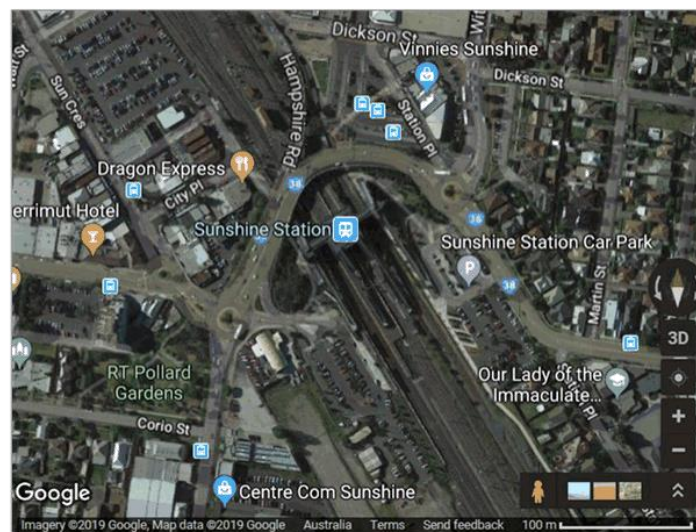


Figure 7-2: Aerial View of the Sunshine Station and Precinct

Source: Google Maps

Park & Ride is expensive to provide, relative to the benefits it provides, and it brings a range of place quality, amenity and access costs, not least increased peak period vehicle congestion in and around the station precinct. Replacing or increasing parking at or near the station leads to increased congestion and reduced amenity and safety around the station, impacting on into the Sunshine CBD. Increased parking and associated traffic detract from the place quality in a major centre where easy walking, transit access and safe cycling are priority modes.

An increased parking footprint would diminish more productive land uses in the Sunshine Station precinct. But there is an alternative to increased parking at the Sunshine Station, one that realises a key Victorian and Federal Government objective for the MARL/SRL, to make the most productive use of the new infrastructure being planned.

This option enables some of the parking area around Sunshine Station to be reduced, allowing higher and better land uses surrounding the Station. There are also industrial and commercial land uses adjoining station (to west) that may be resumed and consolidated as part of the construction works.

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Rather than use these to expand station parking they might be developed for a range of uses that could serve Sunshine and the Airport. These could include affordable key worker housing, regional rail interchange opportunities (from the Albury-Wodonga line only), cheap commuter parking (where people avoid traffic congestion but have to pay for the last few kilometres on the train).

One of the ways in which the complex transport needs of the region can be managed is to note the respective strengths of each of the sites and to ensure that these strengths define the core function of each of the precincts.

Sunshine is a National Employment and Innovation Cluster according to Plan Melbourne: Refresh. It has particular strengths in relation to the provision of health and education services and these are projected to increase in the future.

AWSP is not well placed to provide any significant health/education function. It lacks the foundations to create any reasonable alternative to these functions. Its advantage is its proximity to MAP and any successful future for AWSP is likely to be related to supporting MAP or Sunshine NEIC land use and activities.

8. MELBOURNE AIRPORT DISCUSSION

Airports are significant centres and critical to their host city economy. The 2012 Melbourne Airport Landside Access Strategy (MALAS), notes the airport and its surrounds are the largest employment district outside the CBD, 'By 2013, the airport itself supported 14,300 jobs and indirectly supported a further 43,000 jobs.'¹¹

Airports and their precincts are typically growing well beyond their original plans. However, many airports, such as Melbourne, are also constrained by their own runways, terminals, and protected spaces. They therefore demand intensive planning and investment, not least to move growing numbers of workers and passengers in and out of the airport precinct.

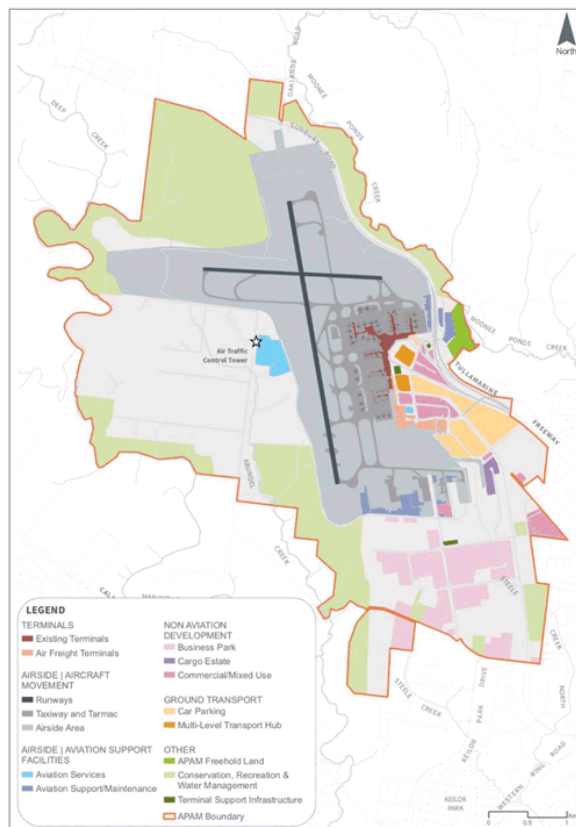


Figure 8-1: Spatial constraints impacting on MAP traffic and parking services

Source: Melbourne Airport Master Plan – Preliminary Draft 2018

¹¹ Parliament of Victoria, MARL Research Paper, p25.

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The Melbourne Airport Master Plan 2018 Preliminary Draft notes annual passenger numbers will almost double in the next two decades to about 67 million trips per year by 2040.¹² This patronage growth, with the new and expanded airport landside functions, increases the challenge of ensuring reliable and convenient access to the airport. It needs to achieve this within its constrained environment.

The transport constraints on this site have created a highly car dependent workforce. Airport staff are particularly dependent on private vehicle access with 95% travelling to the MAP by car. Airport passengers use some transit, and taxis but almost two thirds travel by car (64%).¹³

The MAP 2018 Master Plan flags new land uses in the airport precinct, many of which will increase employment and visitation, creating new traffic and further increasing congestion delays. There are increasing demands to increase landside services such accommodation, commercial and office space. Planning for increased road access to the airport has to overcome practical limitations within the airport precinct, notably the spatial constraints of a site framed by the runway, terminals and the freeway.

More roads and freeway lanes do not necessarily lead to more access, noting the law of diminishing returns. Each round of airport road/freeway expansion is faced with the challenge of squeezing more people movements into less space. Considering these factors, the MAP faces a major challenge and requires a strategic transport planning approach that favours improved rail access for visitors and airport workers.

Responding to the growing transport/access demands the Melbourne Airport Master Plan continues to flag the need for an airport rail link. However, experience from Australia and internationally shows that airport rail links are important but have limitations. The demand for road access and more parking will continue to increase – particularly because as the airport visitation doubles, new visitors will continue to bring extra cars.

Residents of Australian cities, like some European and many North American cities, have a high reliance on private car travel, due in most part to the geographic size and low-density nature of the urban form. The mode share of airport rail services reflects these patterns.

There are many airports with direct rail links that attract fewer than 10% of all airport related ground transport trips. Equally there are airports that can achieve over 15% mode share by bus if the urban area and transit networks are designed appropriately.

A key factor in mode share is the residential proximity of airport workers, visitors and travellers to points on the network (train stations) where they can access services. Patently, if the people wanting to travel to the airport live near an access point for a particular modal network (road, tram, train or bus), they are more likely to use that transport mode.

Transport networks that are more distant from their potential catchment of users (in terms of where to access the service) have a lower chance of attracting users. This applies to freeways, bus networks and railways.

The mode shares for train and bus (public and private) services at various airports are shown in Table 8-1 below.

¹² Melbourne Airport Master Plan – Preliminary Draft 2018.

¹³ Melbourne Airport 2013 Master Plan: People Place and Prosperity, p 118.

Table 8-1: Rail Mode Shares for Airports

Airport	Rail	Bus	Transit (sub-total)
Oslo	39%	25%	64%
Hong Kong	28%	35%	63%
Narita	36%	23%	59%
Shanghai	6%	45%	51%
Zurich	42%	5%	47%
Vienna	30%	11%	41%
Paris Chareles de Gaulle	28%	13%	41%
London Stansted	29%	11%	40%
Amsterdam	35%	2%	37%
Copenhagen	33%	4%	37%
Munich	28%	8%	36%
London Heathrow	24%	12%	36%
Stockholm	18%	16%	34%
Sydney	20%	14%	34%
Frankfurt	27%	6%	33%
London Gatwick	24%	7%	31%
Geneva	21%	7%	28%
Brussels	16%	10%	26%
Paris Orly	14%	12%	26%
San Francisco	7%	16%	23%
Düsseldorf	18%	4%	22%
New York JFK	8%	11%	19%
Boston	6%	12%	18%
Washington National	13%	4%	17%
Oakland	9%	6%	15%
New Orleans		15%	15%
Brisbane	6%	9%	15%
Newark	5%	9%	14%
Atlanta	10%	4%	14%
Denver		14%	14%
Melbourne		14%	14%

Source: US & European data from: Ground Access to Major Airports by Public Transportation (2008 data), Transportation Research Board, Australian data from Accessing Our Airports, Tourism Transport Forum (2014 data) with M&PC analysis. Sydney data is from 2018 given the rapid rate of patronage growth experienced at that airport

The Transport and Tourism Forum (TTF) reviewed landside airport access in Australia. Their paper highlights significant differences in airport mode patterns. They note various factors that impact on mode share, including car ownership, service frequency, network access locations, extra luggage provision and journey time comparisons with other modes.

There are limitations on MAP's ability to meet the increased demand for the parking desired by airport patrons. This is related to the physical space on the airport (in proximity to the terminals) and the capacity of the road network to cope with peak demands, noting that each lane of the access road has a maximum capacity of around 900 vehicles per hour.

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The coping strategy to date has been to shift MAP access to a wider variety of locations (to make best use of the freeway network (that has a lane capacity much closer to 2,000 vehicles per hour). This will continue to work but has limits, based on the road network and airport access points available. There are now four access points to MAP as shown in Figure 8-2 below.



Figure 8-2: Extent of parking area in the high value/high access terminal precinct

Source: ACCC Airport Monitoring Report. Melbourne Airport Car Parking to 2016/17

Parking is typically a lucrative part of any airport's landside business activities. Where access to airports by car remains significant then future planning for airport parking remains a critical landside planning consideration.

MAP offers high access, 'premium' parking and car rental services for passenger but some of this parking is up to two kilometres from the terminal. There are constraints on the height of parking structures close to the terminal/runways. There are also accessibility and wayfinding challenges in very large car parking structures.

Airport parking demands increase year on year, accounting for a significant investment of space and capital with over 26,000 on site spaces providing for three million related vehicle movements in the airport each year. High access, walk-up 'premium' airport parking

competes with cheaper and less accessible off-site 'remote' parking serviced by shuttle buses, with varying degrees of convenience.

In addition, there are about fifteen remote car parks around MAP (but not related to the airport). Service levels vary between competitors. Online reviews of the off-site parking services tend to focus on problems with the reliability of shuttle buses, especially after hours.

Ease of access is a key selling point for premium airport parking, and this underpins the significant revenue stream for Australian airports. Given the projected patronage demands at MAP there needs to be consideration of how the growing demand for parking and associated services can be met over the long-term given the land and road network constraints.

The AWSP site has the potential to assist with meeting MAP demand due to its location in close proximity to a junction on the freeway network. This site is a very effective way of expanding the catchment that MAP and the future MARL/SRL would have, by reducing the congestion on roads leading closer to the airport and diverting a proportion of the traffic. Providing some services at AWSP would reduce traffic congestion related to MAP and the need to invest in freeway expansion.

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9. SIMILAR AIRPORT RAIL CASE STUDIES

Many airports around the world are served by rail links to the nearby Central Business District (CBD). Indeed, the Victoria public's fascination with having a similar link in Melbourne seems related mainly to the fact that other global cities have them – not whether or not the individual would use it. And thus, in a nutshell is the dilemma of railway links to airports.

In almost any city, the general public want one because it makes them feel good about their cities position in the world (and by deduction they feel good about their decision to live in their city). However, most of the city's residents will not be served directly by the railway link and they would not consider using it. Many have an expectation that everyone else would use it, thus clearing the freeway for them to use without congestion.

It is therefore highly instructive to consider case studies from existing airport rail links to learn from the varied experience of other operations. This section of the report focusses on two key elements and their impact on patronage of the airport rail link, specifically the impact of:

- Travel time on patronage
- Access on patronage

It is noted that there are many and varied types of airport rail links – just as there are many types of city. The case studies below are not intended to be exhaustive. They are to illustrate successful and unsuccessful examples of infrastructure design service planning and operation.

London Heathrow Express (LHR)

London Airport is served by two train lines, the Piccadilly Underground and the Heathrow Express.

- The Piccadilly Underground line provides good access to the airport's employee catchment, commuters and travellers.
- The Heathrow Express operates both express and stopping trains on a single pair of tracks. The stopping trains have up to six stations along the way to Paddington Station at the north eastern edge of central London.

The Heathrow Express provides a much faster journey to Paddington Station where passengers can then transfer to the other Underground lines. The Heathrow Express brand operate express trains that do not stop at intermediate stations. In addition, there are two services per hour operated under the TfL Rail brand. These additional services stop at all six stations between Paddington and Heathrow.

Key lessons from London include:

- Multiple service types are required to serve the airport appropriately, because there are many different market segments to be served
 - Employees are unlikely to travel to the airport via the CBD
 - People that are travelling via the CBD would prefer to have the quickest possible journey.

- The current service pattern originated with a suburban service (stopping all stations) proving up demand with a base load of employees and a small proportion of travellers. As demand increased additional routes and services were added to the network.
- Even the “Heathrow Express” service operates on tracks that have mid-line stations with an additional two services per hour stopping all stations
- The new Elizabeth Line (formerly known as Crossrail) will link directly with the Heathrow Express tracks and provide for six trains per hour stopping at all six stations between the airport and Paddington Station.
- Crossrail funding included significant funding through a business rate supplement (amounting to 30% of the total project cost), developer contributions and value capture (amounting to 6% of the project cost).

Newcastle Upon Tyne (NCL)

Newcastle International Airport is about 12km from the CBD and is served by one train line. The airport line terminates at the airport. Trains stop all stations (with a station every kilometre). One station after the airport is a large car parking facility located at a motorway junction – This provides for alternative park and fly options that reduce congestion on the airport approach roads. Key lessons from Newcastle include:

- A relatively slow trip to the CBD is adequate provided that there are other market segments being served by the addition of extra stations into the network.
- The Callerton Parkway parking facility one station before the airport is relatively popular and provides customers with more choice while also reducing the congestion on airport access roads.

Sydney (SYD)

Sydney airport is served by one train line and is close to the CBD. The airport line connects to a large hinterland meaning that the airport is just one of many attractors along the whole corridor. The next station (outbound) after the airport is Wolli Creek which is a transfer station specifically built to enable transfers to Sydney’s southern railway lines. This broadens the catchment for the Sydney Airport services in a similar way that Western Gateway would broaden the catchment for Melbourne Airport train services. Key lessons from Sydney include:

- Providing for multiple market segments and journey types is very important for getting the capacity of each train being utilised and maintaining a high frequency
- The infrastructure design significantly influences the type of operation that will eventuate based on achieving an efficient operation. More market segments are catered for with a very large hinterland that the train line connects to. This results in very high peak period frequencies and around eight trains per hour in the inter-peak
- The service is unlikely to pay for itself even with higher ticket prices. This will place significant pressure on operational efficiency as the patronage numbers level out.

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Brisbane (BNE)

Brisbane airport is about 20km from the CBD and is served by one train line that terminates at the airport. Trains typically operate limited-express and are never full of passengers. One station after the airport is a transfer station that enables transfers to Brisbane's northern railway lines however it is significantly faster for passengers from these lines to get a taxi from another junction station slightly further north (Northgate), a 20 minute time saving that many are happy to pay for.

For many years the service span was relatively short due to low patronage. The service span has now been extended for an hour and the last service is at 10pm. Key lessons from Brisbane include:

- Providing for multiple market segments and journey types is very important for utilising the capacity of each train and maintaining a high frequency. The Brisbane line is most similar to the Melbourne concept (albeit with more stops) and has a very limited market (in terms of segments and geographic catchment)
- The infrastructure design has significantly influenced the type of operation. Patronage is so low that trains can only afford to operate every 30 minutes during the inter-peak
- The service is unable to pay for itself even with higher ticket prices. This places significant pressure on operational efficiency as the patronage numbers level out.
- The focus on a single market segment and lack of geographic access to the service (minimal stations) results in a very low demand elasticity – meaning that there is not much the operator can do to increase patronage, because the service just does not go where most customers want to go.

Perth (PER)

Perth Airport is about 16km from the CBD and a train line is being constructed to the new terminal (only the new terminal will have a station). The airport line continues for one additional station beyond the airport. The line has been designed with at least two stations before the CBD (more likely there will be 3-4 stops).

Key lessons from Perth include:

- A fast trip to the CBD averaging 53km/h can still be achieved with several mid-line stations.
- Diversifying the market segments and geographic catchment of the line is critical to ensuring there will be enough passengers to warrant high frequency services. It can also assist to connect airport employee catchments to the airport and reduce congestion on airport approach roads.

Melbourne (MEL)

Melbourne Airport is about 27km from the CBD via the proposed train line. The line has been designed with only one station before the CBD. Key lessons from Melbourne will include:

- A fast trip to the CBD averaging 65km/h is less important than providing greater access to the train at more stations. Providing geographic coverage through appropriate

station locations is the only way to increase market penetration and provide competitive end to end journey times for customers.

- Diversifying the market segments and geographic catchment of the line will be critical to maintaining high frequency services. If the trains are operating relatively empty because there are very limited opportunities to board the train, then the trains will be more efficiently deployed on a line that has capacity issues.

A summary of the key statistics for each of the case study lines is provided in Table 9-1 below.

Table 9-1: Comparison of Case Study Airport Rail Links

ELEMENT	LHR	SYD	BNE	NCL	PER	MEL
Distance to CBD (km)	30.2	9.1	15.9	12.7	16.0	27.2
Time to CBD (minutes)	21	12	24	24	18	25
Speed (km/h)	80	45	40	32	53	65
Frequency (trains/hr)	4	8	2-4	5	6	6
Stations before CBD	6	2-4	5-6	12	8	1
Hinterland Stations	0	19	0	0	1	0

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10. ROAD NETWORK DISCUSSION

MAP undertake their Master Planning process in response to their own projected growth needs but responsibility for the arterial road network that serves MAP is the responsibility of State Government, specifically the road network that is shown in Figure 10-1 below.

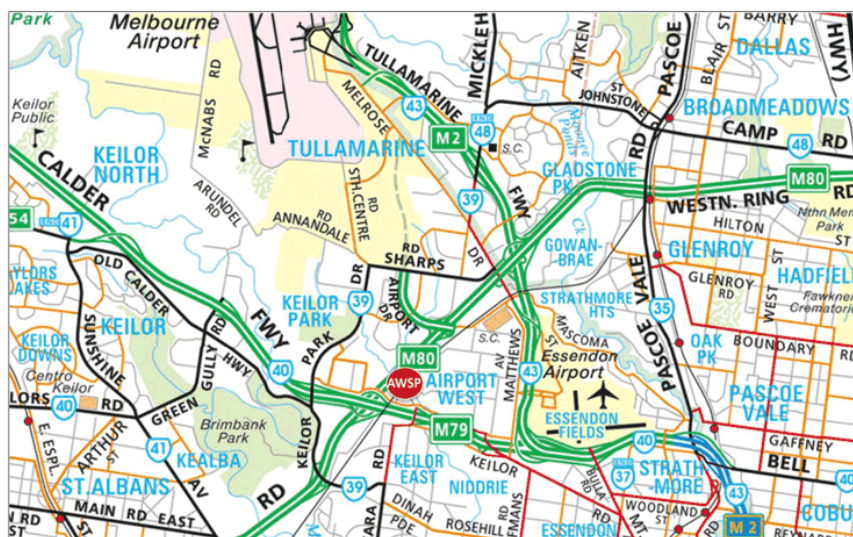


Figure 10-1: Map of Declared Roads

Source: VicRoads, [Map of Declared Roads](#) – VicRoads manages the roads coloured green and black (except within the MAP)

The MAP Master Plan 2018 highlights significant new road and freeway improvements to meet growing airport traffic demands, identified as five and twenty-year objectives and outlined below.

MAP ground transport – key developments to 2023 include arterial road upgrades in the northern suburbs, improved wayfinding signage on Airport Drive, improved connections from the Tullamarine Freeway into the T4 ground transport hub, reconfiguration of the main forecourt and T123 car park and additional at-grade car parking.¹⁴

MAP ground transport – key developments to 2038, include the widening of the Tullamarine Freeway and the M80 Ring Road, the construction of the Bulla Bypass/Melbourne Airport Link, widening of the Calder Freeway and planning for road access to future terminals.¹⁵

These are significant investments. Over time the returns on each investment dollar diminish as the barriers to access increase. There is a risk that the MAP precinct becomes overrun with an overwhelming road and freeway system reducing place quality and ease of wayfinding

¹⁴ MAP Master Plan – Preliminary Draft 2018 – Table 18.2 'Ground Transport Key Developments' to 2023

¹⁵ MAP Master Plan – Preliminary Draft 2018 – Ground Transport Key Developments, 20 Year Horizon to 2018

within the airport terminal precinct. More vehicles in the MAP precinct also increases risk of congestion delays and decreased travel time certainty.

The AWSP has the capacity to accommodate some of the MAP-bound traffic potentially avoiding, or at least delaying, some of the traffic problems that may occur in the future. The AWSP has the capacity to lower MAP traffic and delay investment in major road works such as widening the Tullamarine and Calder freeways, road bypasses and upgrades.

The potential for the ASWP site to ease traffic and parking constraints on MAP and Sunshine should be investigated further, taking into account the cost of the major road and freeway works proposed by MAP in their Master Plan 2018, the costs and benefits of establishing the station/interchange at AWSP, including the potential to reduce traffic congestion.

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11. CONCLUSIONS

This Feasibility Study considers the prospect of a station on the Albion-Broadmeadows railway corridor that currently carries five passenger services each day of the week. In future the Melbourne Airport Rail Link (MARL) and Suburban Rail Loop (SRL) will both impact (and could potentially serve) the site.

There is clearly a coverage gap in the suburban rail network, similar to the gap that was recently filled by the construction of Caroline Springs Station. In the first instance only a small number of train services will use the station, and as patronage grows additional services can be provided. The AWSP provides locals with public transport choice, connects local destinations and thousands of new commuters into the rail network.

There have been many attempts, over the last fifty years, to create a viable case for an airport rail link to the CBD but the patronage numbers simply do not add up. In fact, it is evident from international rail project examples that airline passenger patronage is rarely, if ever, enough to make airport rail link projects viable. What does make a rail project worthwhile is a focus on a larger number of potential market segments and geographic catchments.

The AWSP also provides a range of other potential benefits that would reduce traffic congestion on airport approach roads and in the Sunshine NEIC. In the longer term, the AWSP could provide affordable key worker housing and budget motels only five minutes from the airport terminal. This type of development would be ideal for airport staff who are currently heavily reliant on cars to access employment at the airport.

The AWSP could be used in a way that defers the need to widen the Tullamarine Freeway or Airport Drive to meet the increasing traffic and parking demands at the airport.

We live in a time of ‘unknown-unknowns’. Nobody knows how the next twenty or fifty years will change our transport and access experience (including the roles that current airports play). For these reasons we need to ensure that options protected and the need for expensive rework is reduced.

This study makes the case for the Western Gateway Station site to be considered and protected as part of the MARL/SRL analysis and design program. This would significantly improve education and employment opportunities for the surrounding area in close proximity to Melbourne Airport and Sunshine.

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