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MELBOURNE AIRPORT RAIL

Business Case Supplement

Keilor East station

September 2022

Australian Government

VICTORIA'S BIG BUILD

VICTORIA State Government

Table of Contents

Executive summary

Executive Summary

This document is a supplement to the Melbourne Airport Rail Business Case and outlines the strategic context, key benefits and deliverability impacts associated with an intermediate station at Keilor East, which is proposed to be delivered as part of Melbourne Airport Rail.

Melbourne Airport Rail and Keilor East station

Melbourne Airport Rail is a once-in-a-generation transformation of Victoria's transport network, connecting Melbourne Airport with a rail service for the first time. Melbourne Airport Rail will connect people from the airport to where they need to go — be that work, home or Victoria's major regional centres – and responds to the growth needs of Melbourne's airport precinct.

Melbourne Airport Rail will benefit Victorians and visitors to the state, connecting Tullamarine to the heart of Melbourne's CBD via the Metro Tunnel in around 30 minutes, to key metro destinations and Victoria's thriving regional cities.

To enhance connectivity and maximise use of Melbourne Airport Rail and the broader transport network, it is proposed to deliver an intermediate station at Keilor East as part of Melbourne Airport Rail. This will bring benefits forward and achieve a better value for money outcome for the Project, compared to an approach of future proofing for the intermediate station now and delivering at a later date.

Strategic context

Delivering an intermediate station as part of Melbourne Airport Rail aligns with a number of government policies and strategies, including:

- *Plan Melbourne 2017-2050* – a new Keilor East station will deliver critical transport infrastructure in Melbourne's growing north-west, connecting more people to key employment centres, including Sunshine, Parkville, the CBD and Melbourne Airport. This will help achieve Plan Melbourne's objectives of economic growth and support anticipated population growth in the western and northern suburbs.
- *Transport Integration Act 2010* – a Keilor East station will align with the objectives and priorities of the Transport Integration Act by improving public transport accessibility, helping to enhance social and economic inclusion and Victoria's economic prosperity.
- *Moonee Valley City Council Advocacy Strategy (2018)* – Moonee Valley City Council has specifically advocated for the inclusion of a train station at Keilor East as part of Melbourne Airport Rail, with a view to addressing an identified transport 'black hole', indicating there is strong local government and community support for the station.
- *North & West City Deal Plan 2020-2040* – The Australian Government has committed to delivering the North & West City Deal which nominates an 'Airport West Station' in Keilor East as a key enabling project supporting transport and connectivity for north and west Melbourne.

The benefits of a Keilor East station

The delivery of a Keilor East station as part of Melbourne Airport Rail is expected to achieve a wide range of benefits, including:

- providing rail access to a community within Melbourne that is currently not serviced by the rail network, enhancing connectivity to key employment, health and education centres, including:
  - **Melbourne Airport** – with a travel time of approximately 6 minutes from Keilor East station
  - **Sunshine** – with a travel time of approximately 8 minutes from Keilor East station

  - **Melbourne CBD** – with a travel time of 27 minutes from Keilor East station, representing a travel time saving of approximately 20 minutes compared to existing public transport connections

- increasing the overall patronage on the Melbourne Airport Rail service, resulting in better use of the transport network and higher utilisation of the High Capacity Metro Trains (HCMTs) and the Metro Tunnel
- aligning with strong, long-standing local government and community aspirations for delivering a station at Keilor East
- increasing the economic benefits expected to be delivered by Melbourne Airport Rail
- integrating with active and public transport networks in the area to maximise connectivity and interchangeability for passengers and helping achieve a truly integrated transport network
- supporting urban development outcomes, including by creating opportunities for improvements to community spaces and urban regeneration.

Delivering Keilor East station

There are significant deliverability advantages in constructing the Keilor East station as part of Melbourne Airport Rail. The Project can leverage procurement efficiencies by incorporating the scope into existing Melbourne Airport Rail packages, with the works to be predominantly delivered by the Corridor package.

Substantial reconfiguration and associated disruption of the rail corridor and local area will be avoided by:

- removing the requirement for additional construction and laydown areas impacting the local community after Melbourne Airport Rail has already been constructed
- removing the requirement for disruptions to the Melbourne Airport Rail service for any rail occupations that would be required to build the station in the future
- reducing the impacts on the rail operator and passengers by implementing a single timetable change.

Construction of the Keilor East station as part of Melbourne Airport Rail compared to a stand-alone station development in the future is expected to generate cost efficiencies. If a station is built in the future, the nominal cost of the station will increase due to the impacts of escalation and the increased challenges associated with building in a brownfield rail environment.

Development work has been undertaken to determine cost efficiencies that can be achieved in delivering the Keilor East station as part of Melbourne Airport Rail. This exercise has resulted in a 15% saving compared to the cost assumed in the Business Case, further supporting the case for delivering the station now.

1 Introduction

1. Introduction

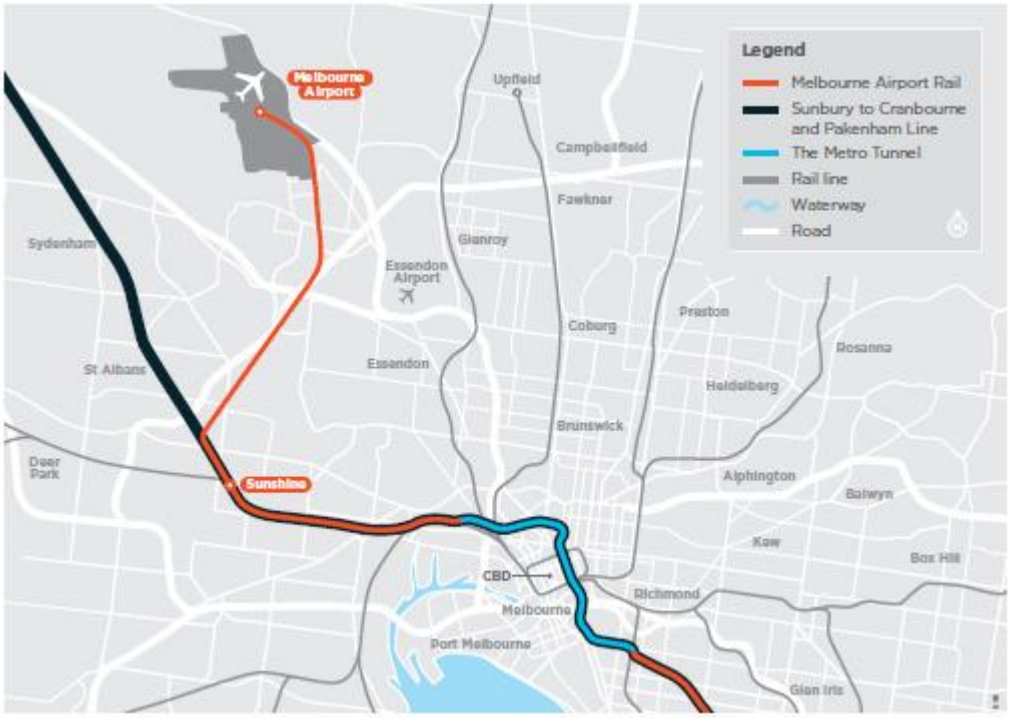
1.1. Melbourne Airport Rail

Melbourne Airport is critical to the Victorian and national economies. It connects people from across Australia and the world to Victoria and plays a crucial role in opening local businesses to new trade and tourism markets.

Melbourne Airport's role in facilitating economic activity requires a high degree of landside accessibility. Ground access currently relies almost exclusively on road-based transport. With around 37 million passengers in 2018/19, Melbourne Airport remains one of only 18 of the world's top 100 airports by patronage without access by train.

Melbourne Airport Rail (**MAR** or **the Project**) will increase public transport services, options and accessibility to and between Melbourne Airport and the CBD for the benefit of all Victorians and visitors to the state, connecting Tullamarine to the heart of Melbourne's CBD via the Metro Tunnel in around 30 minutes, to key metro destinations and Victoria's thriving regional cities.

Figure 1: Melbourne Airport Rail context



As outlined in the MAR Business Case, the Project:

- aligns with the strategic policy objectives of Australian, Victorian and local governments
- meets a pressing need to increase the capacity and reliability of access to and from Melbourne Airport
- represents the best option identified to deliver the objectives of rail investment
- delivers substantial social, environmental and economic benefits
- is economically viable and backed by a strong strategic case
- is the best value for money option which is deliverable within the proposed timeframes
- is widely supported by stakeholders and the community.

1.2. Delivering an intermediate station as part of MAR

As part of developing the Project, an assessment was undertaken regarding the potential inclusion of an intermediate station along the MAR alignment. The rationale for considering an intermediate station is to enhance transport connectivity for the community and maximise the benefits of this important Project.

Keilor East was recommended as the preferred location for an intermediate station as it:

- has the highest forecast patronage demand relative to other locations
- enables the best local urban development outcomes, servicing a significant existing population with poor public transport connectivity
- is the location preferred by local councils and the community
- has a lower impact on existing ARTC track (relative to other options)
- is the least expensive option considered.

In considering the merits of delivering a station at Keilor East, the MAR Business Case:

- confirmed that an intermediate station at Keilor East would provide a number of key benefits, including significantly improved connectivity to jobs and education for a community that is not currently served by the metropolitan rail network
- recommended that the Project should future proof for an intermediate station at the proposed location in Keilor East
- included a priced option for the new Keilor East station if it were to be delivered as part of MAR.

1.3. Purpose of this document

The purpose of this document is to supplement the MAR Business Case and provide an update on the intermediate station at Keilor East, which is proposed to be delivered as part of MAR. This document:

- provides the strategic context for delivering a new Keilor East station as part of MAR
- outlines the range of benefits expected to be achieved by delivering the Keilor East station, including enhanced transport network outcomes, positive community impacts and increased economic benefits
- summarises the approach to delivering Keilor East station and some of the key constructability and cost considerations.

2 Strategic context

2. Strategic context

2.1. Alignment with government policy

The Victorian and Australian governments have developed key policy initiatives, strategic directions and investment priorities that consider the short, medium, and long-term infrastructure needs of the state and country. The delivery of MAR, including an intermediate station at Keilor East, will assist the governments in delivering on these key policies.

Table 1 summarises some key Victorian and Australian government policies relevant to MAR and how the intermediate station at Keilor East will align with these policies.

Table 1: Strategic alignment of Keilor East station with key government strategies

Key strategic documents	Alignment of Keilor East station
Plan Melbourne 2017-2050	
Plan Melbourne is the Victorian Government's key metropolitan planning strategy guiding the city's growth to 2050. It emphasises Melbourne's potential to position itself as one of the world's foremost new knowledge economies by supporting significant employment, health and education precincts, including Sunshine. Plan Melbourne also anticipates that the fastest population and employment growth will be in Melbourne's western and northern suburbs, and underscores the need to bolster the city's transport system to facilitate rising trip demand.	The Keilor East station will connect more people to key employment centres, including Sunshine, Melbourne Airport, Parkville and the CBD, supporting the objectives of economic growth in line with Plan Melbourne. It will also deliver critical transport infrastructure in Melbourne's north-west helping to support the anticipated population and employment growth in the area.
Transport Integration Act 2010	
The Victorian Transport Integration Act informs the vision for an integrated and sustainable transport system that contributes to an inclusive, prosperous and environmentally responsible state.	Delivering the Keilor East station will align with the objectives and priorities of the Transport Integration Act by: • enhancing social and economic inclusion through improved public transport accessibility and associated connectivity to jobs and services • providing greater accessibility to and connectivity between key economic centres and improved freight efficiency leading to economic prosperity • encouraging mode shift to public transport and in turn promoting environmental sustainability
Victorian Infrastructure Plan (2017)	
The Victorian Infrastructure Plan is the state's first long-term, state-wide infrastructure plan delivering the economic, social and environmental outcomes critical to Victoria's future. The Plan recognises the importance of building integrated transport infrastructure for the future to address changing demographics and population growth in Victoria.	Providing an intermediate station as part of MAR achieves a more integrated transport network, by increasing access to rail for the community. As part of this integrated transport solution, the new station will connect with other transport nodes, leveraging a large walking, cycling and driving catchment to maximise accessibility for the local population.
Smart Cities Plan (2016)	
The Australian Government's Smart Cities Plan sets out vision for productive and liveable cities that encourage innovation, support growth and create jobs. It highlights the need to improve accessibility to key employment centres to help drive economic activity within cities, given people and businesses have an incentive to locate in areas with the greatest job opportunities.	By linking Keilor East to Melbourne Airport, Sunshine, Parkville, the CBD and broader rail network, the Project will help improve accessibility to employment centres for people in Melbourne's north-west, and provide greater potential for businesses to capitalise on larger employment and customer catchments.

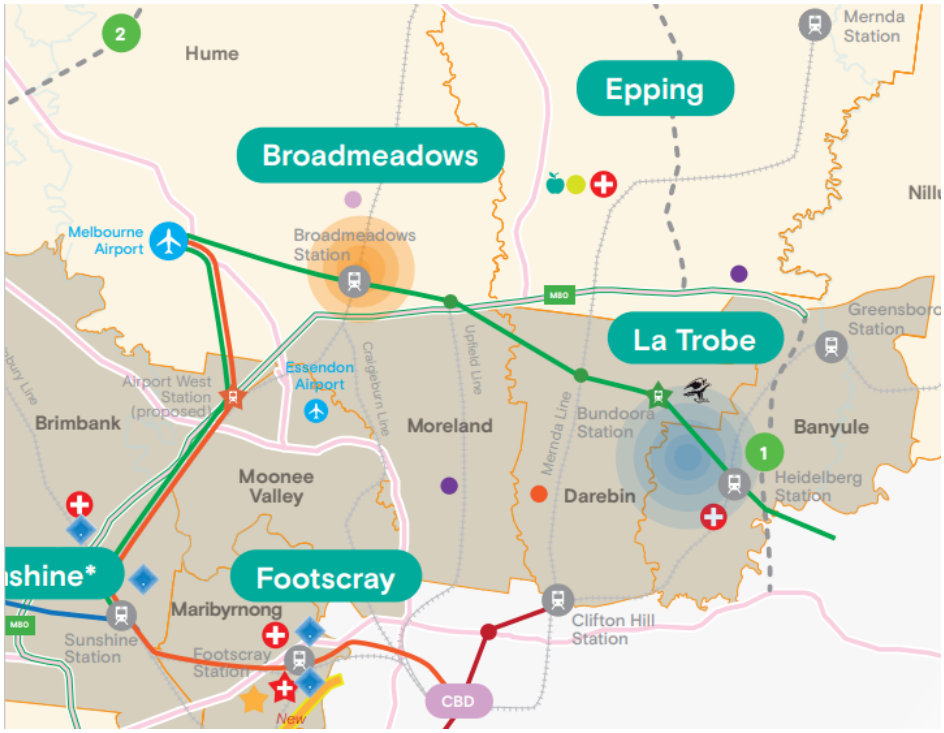
2.2. Government and community support for a station at Keilor East

There is strong local government and community support for delivering the Keilor East station. The *Moonee Valley City Council Advocacy Strategy* (dated May 2018) specifically advocates for the inclusion of a train station at Keilor East – Airport West Station as part of MAR, with a view to addressing an identified transport 'black hole'.

In addition, a train station in the area is part of the vision for the North & West Melbourne City Deal, which the Australian Government committed to delivering in late 2019. The *North & West City Deal Plan 2020-2040* identifies a proposed 'Airport West Station' in Keilor East (see Figure 2) and nominates this as a key enabling project supporting transport and connectivity for North & West Melbourne.

Discussions regarding the North & West City Deal have been held between key stakeholders and the Australian Government over the course of 2022, with the proposed Airport West Station featuring as a key discussion item.

Figure 2: Proposed 'Airport West Station' in the North & West Melbourne City Deal Plan[1]



[1] North & West City Deal, *North & West Melbourne City Deal Plan 2020-2040*, 2020, p. 9.

3
The benefits of a Keilor East station

3. The benefits of a Keilor East station

3.1. Rail network outcomes

The station will provide rail access to an area that is not currently served by the metropolitan rail network. Significant population growth in the surrounding area, and general growth in public transport usage in Melbourne's west as a result of an increasingly congested road network, underscores how critical a Keilor East station is in the long term.

As a result of MAR, passengers using the Keilor East station will be able to access key locations across Melbourne including:

- **Melbourne Airport** – with a travel time of approximately 6 minutes from Keilor East station
- **Sunshine** – with a travel time of approximately 8 minutes from Keilor East station
- **Melbourne CBD** – with a travel time of under 27 minutes from Keilor East station, representing a travel time saving of approximately 20 minutes compared to existing public transport connections.

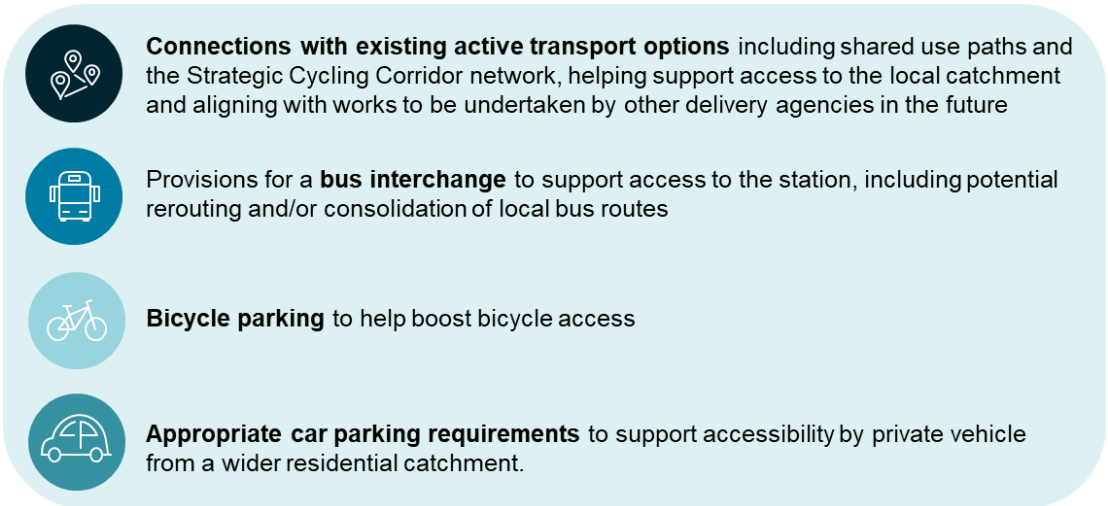
From a transport network perspective, the station will provide some relief on the Sunbury, Melton and Craigieburn train lines. It will also enhance network resilience (for example, in the event the Sunbury line or Melton line operations are impacted, Keilor East could provide a convenient station to feed bus replacement services).

Depending on the final service plan, there will be a marginal impact on travel time and amenity for airport users. However, an intermediate station at Keilor East will result in over 10,000 daily boardings in 2036, increasing the overall patronage on the MAR service and resulting in higher utilisation of the new HCMTs and the Metro Tunnel. It delivers a number of benefits for local commuters travelling to the Airport, Sunshine, the regions and the CBD, and for the rail transport network more broadly.

3.2. Broader transport connectivity

The new Keilor East station will integrate with the active and public transport networks to maximise connectivity and interchangeability for passengers, as summarised in Figure 3.

Figure 3: Connectivity between Keilor East station and the broader transport network



3.3. Community benefits

Delivering the Keilor East station will have a number of positive impacts on the community. By increasing public transport accessibility for those living in Keilor East and surrounding areas, the Project will enhance social and economic inclusion, allowing more people to travel to key employment and education centres across Melbourne. Through MAR and the Metro Tunnel, people in Keilor East and surrounding areas will be able to connect to:

- Melbourne Airport
- a number of National Employment and Innovation Clusters (**NEICs**) identified in *Plan Melbourne*, including Sunshine, Parkville, Monash/Clayton and Dandenong
- other key destinations like the Melbourne CBD and St Kilda Road precinct
- the Suburban Rail Loop.

The new station will also help support urban development outcomes, creating opportunities for improvements to community spaces and urban regeneration.

3.4. Economic case for a Keilor East station

The MAR Business Case considered the economic outcomes of a range of future scenarios through scenario and sensitivity testing. The inclusion of an intermediate station at Keilor East (reflecting the priced option reported in the Business Case) was one of the key scenario tests undertaken through the economic appraisal.

Table 2: Economic results for MAR scenario tests and economic sensitivities, excluding the SRL North connection to Melbourne Airport in 2051 in the Base Case (4 per cent discount rate)[2]

Scenario	Economic benefits	Total costs	Net present value	Benefit cost ratio
Core	$17.1bn - $20.3bn	$9.2bn - $9.8bn	$7.5bn - $10.8bn	**1.8 - 2.1**
Core (excluding WEBs)	$14.3bn - $17.4bn	$9.2bn - $9.8bn	$4.8bn - $7.9bn	**1.5 - 1.8**
Scenario tests (excluding WEBs)				
Keilor East	$14.8bn - $17.8bn	$9.4bn - $10.0bn	$5.0bn - $8.1bn	**1.5 - 1.8**

The results of the economic appraisal show that inclusion of Keilor East results in an increase in economic benefits delivered by MAR.

As shown in Table 2, the economic benefits (excluding WEBs) increase from $14.3bn - $17.4bn to $14.8bn - $17.8bn. Although the inclusion of Keilor East also results in higher total costs, increasing from $9.2bn - $9.8bn to $9.4bn - $10.0bn, this scenario (excluding WEBs) results in an increase in the net present value from $4.8bn - $7.9bn to $5.0bn to $8.1bn. **This incrementally net positive impact on the net present value would only improve as a result of the cost savings compared to the cost assumed in the Business Case (see section 4.2).**

[2] The BCRs in Table 2 are based on analysis undertaken as part of the MAR Business Case and have not been updated to reflect the most recent cost estimates for the Keilor East station.

4
Delivering Keilor East station

4. Delivering Keilor East station

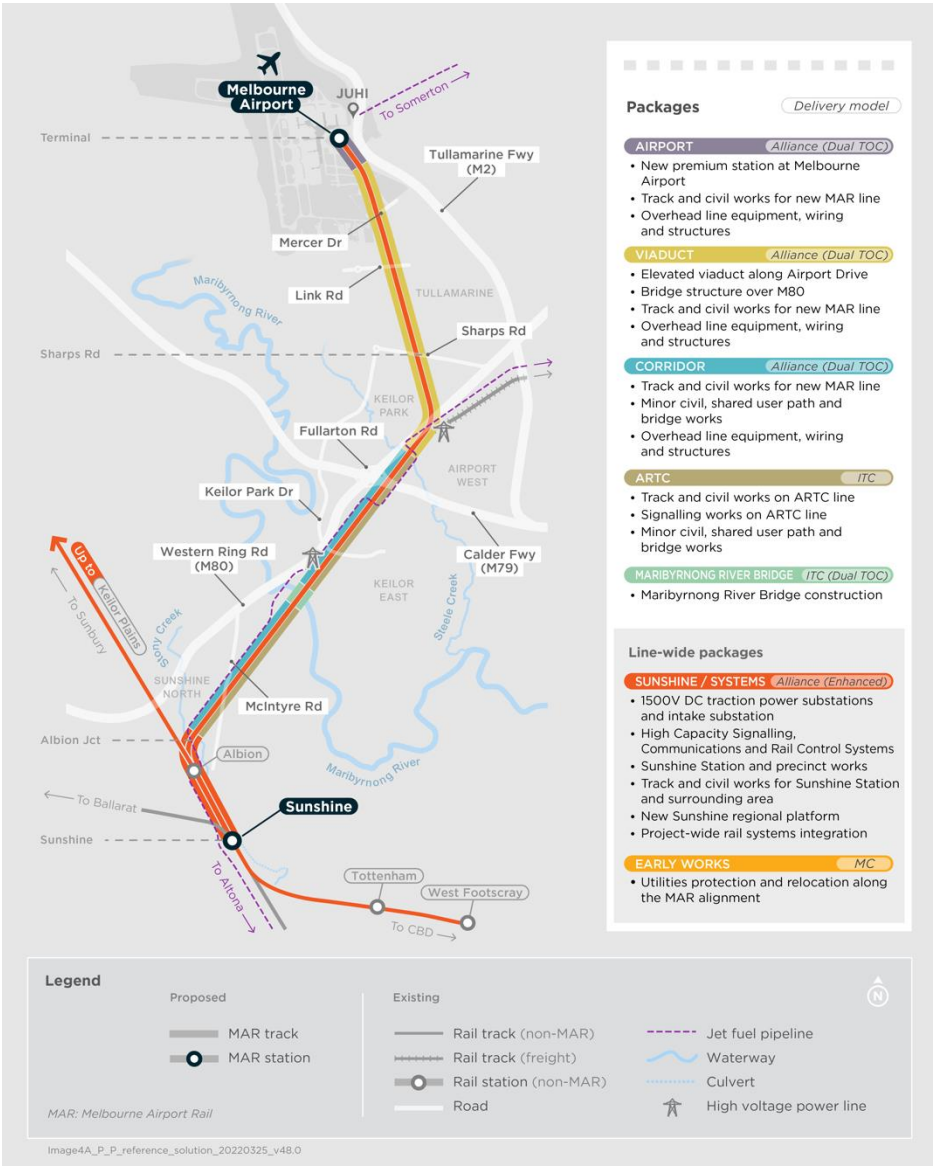
4.1. Key deliverability considerations

4.1.1. Procurement

As Keilor East station is located within the geographic boundary of MAR's Corridor package (see Figure 4), it can be efficiently incorporated into the scope of that package. In addition, the Sunshine Systems package, which is responsible for line-wide signalling, traction power and rail control systems works, will undertake those works at the new station.

This approach will achieve efficiencies compared to delivering the station at a future date, which would require one or more separate procurement processes to identify contractors to undertake design, construction and systems works for the new station.

Figure 4: MAR packaging and procurement approach



4.1.2. Planning and environmental approach

The primary planning, environment and heritage approvals potentially required for the Keilor East station land falls under State jurisdiction. The approval for the Keilor East station will be a standalone approval and will likely require an application for a planning scheme amendment (PSA) under the *Planning and Environment Act 1987* (Vic) for the consideration of the Minister for Planning.

4.1.3. Disruption

Delivering the Keilor East station as part of MAR compared to delivering the station at a later date, will reduce disruption to the MAR service and local community by:

- avoiding substantial reconfiguration of the rail corridor and local area
- removing the requirement for additional construction and laydown areas impacting the local community after MAR has already been constructed
- removing the requirement for disruptions to the MAR service for any rail occupations that would be required to build the intermediate station in the future
- reducing the impacts on the rail operator and passengers by implementing a single timetable change.

4.1.4. Implementation and management

The implementation and management of the Keilor East station will be facilitated via existing processes and structures in place for the Project. For example, the station will form part of the broader MAR stakeholder engagement and communications strategy which has been underway since 2018. It will also be incorporated within the existing MAR governance framework and benefit from the comprehensive project management, change management and risk management strategies which have been developed to guide the Project through successful delivery.

4.2. Cost to deliver the Keilor East station

Further technical and cost analysis regarding the intermediate station at Keilor East has been undertaken to determine whether there are any cost efficiencies that can be achieved. This has resulted in a solution which represents a 15% saving compared to the cost assumed in the MAR Business Case.

Table 3 provides a summary of the revised capital cost estimate for the new intermediate station at Keilor East.

Table 3: Revised capital cost estimate summary

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The construction of the intermediate station as part of MAR compared to a stand-alone station development in the future is expected to generate a number of cost efficiencies. If a station is built in the future, the nominal cost of the intermediate station will increase due to the impacts of escalation and the increased challenges associated with building in a brownfield rail environment. Building the intermediate station in a brownfield rail environment requires the inclusion of occupation costs to close the rail line to complete the works and potentially higher costs for the same scope of works due to the constructability challenges.