

Melbourne Metro or Melbourne Rail Link: A Critical Decision

Melbourne urgently needs investment in core rail capacity—but which project will serve us best in the long term?

Strategic Background

The rapid and expected growth of employment and residential capacity in inner Melbourne, the paucity of public transport in most outer suburbs and the ongoing need for all Victorians to access jobs, education, recreation and retain opportunities requires major redevelopment of the city's rail system, many parts of which are outdated and struggling to cope with today's needs.

Melbourne's rail system therefore faces two major quite urgent challenges:

Network coverage - the network needs expanding to more adequately serve existing strategic locations and reach into new growth areas; and

Capacity and service quality - bottlenecks need to be untangled in order to expand capacity to handle more trains, provide better frequencies and significantly improve operating efficiency and reliability.

Decisions about new rail infrastructure should primarily be based on the land use planning outcomes and the economic, social and environmental benefits they deliver, but they must also solve the operational problems. We first need to decide what sort of city we want and then choose the transport infrastructure that will deliver those outcomes.

The original MM proposal delivered both enhanced network coverage that started to address many city shaping issues and delivered the desired operational outcomes. This paper seeks to address whether, by comparison, MRL can deliver all or most of the same operational improvements as MM and how it compares in terms of additional network coverage and strategic city-shaping benefits.



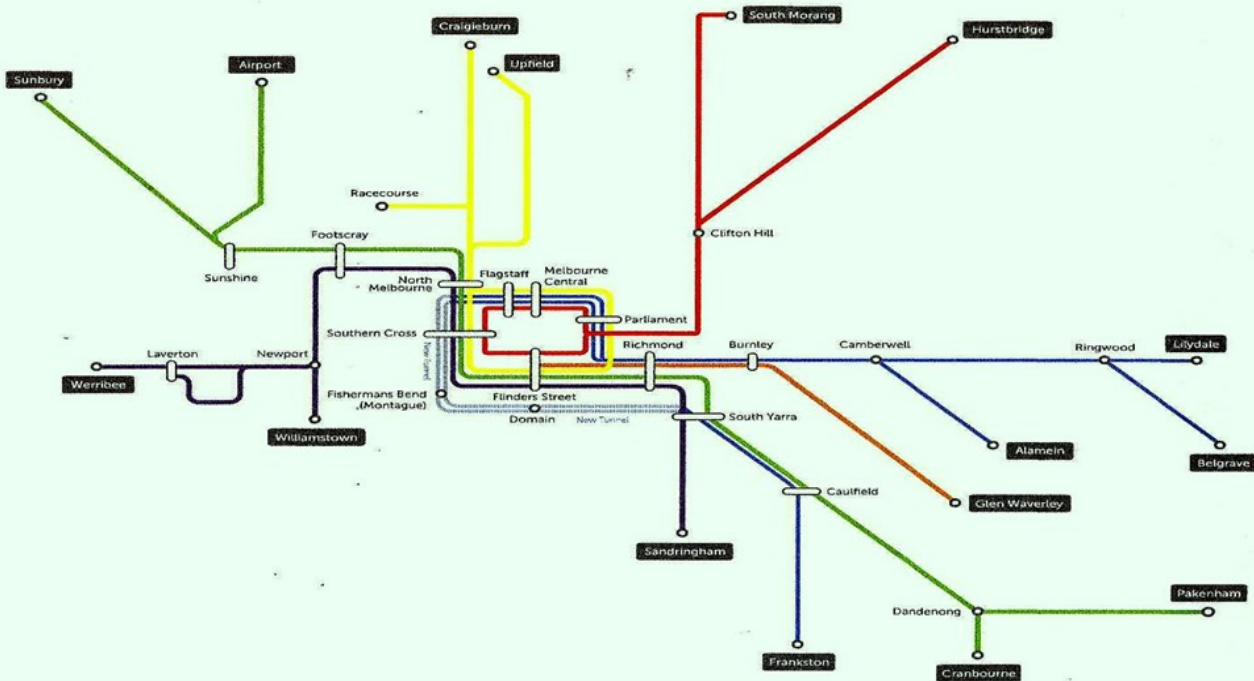
Melbourne Metro (MM) was abandoned by the Victorian Government 6 May 2014. Melbourne Rail Link (MRL) is the Government's replacement project, now being planned.

“We first need to decide what sort of city we want and then choose the transport infrastructure that will deliver those outcomes.”

Key Points

- Both MM and MRL can move 40000 persons per hour
- Both will unscramble and streamline the train network
- MRL has a lower total cost but delivers fewer benefits
- MM provides better city shaping benefits with more city stations and its Parkville route

Metropolitan rail network at completion of Melbourne Rail Link



Rail Capacity

The original MM project had beneficial network impacts in terms of enhanced capacity on ten of the 16 current metropolitan lines that radiate from the CBD as well as facilitating the future South Eastern Rail Link (SERL) for Gippsland passenger and freight services and to the Port of Hastings by releasing track capacity between Flinders Street and South Yarra.

MRL's impacts spread further because it also incorporates changes to the Burnley Group of lines, other than Glen Waverley, leaving only it and the Clifton Hill group of lines unaffected by the project. What therefore is likely to be the practical impact of the new changes brought about by MRL, by comparison with MM?

Sunbury to Dandenong corridor – under MM, these services would have operated through the proposed new tunnel from South Kensington to South Yarra which was to be set up with high capacity signalling and provision to later accommodate 9-car equivalent trains 220 metres in length. However, in the short term, capacity on the corridor was assumed to still be constrained to 16 trains per hour by level crossings on the Dandenong line, eventually lifted to 22 trains per hour by virtue of adding Rowville line trains west of Huntingdale. These constraints apply to both projects, although recent developments suggest that the level crossing constraint may be removed sooner than earlier predicted.

Whilst no comparable figures have as yet been released by PTV for MRL, the same through working is to apply but instead the trains will remain on the surface using the existing Northern and Caulfield Loop viaduct tracks eastbound and westbound respectively via Southern Cross and Flinders Street. Assuming it will be practicable when needed to lengthen the relevant platforms at North Melbourne, Southern Cross, Flinders Street and Richmond (which we believe to be the case) and comparable signalling is installed on the corridor when needed, effective train operating capacity should be very similar to that proposed for MM.

Craigieburn and Upfield to the City Loop – proposed operations on these lines under both MM and MRL are identical with a significant capacity uplift possible once Sunbury services are removed from the Northern Loop.

Frankston to Ringwood corridor – under MM, once Dandenong line trains were shifted to the new tunnel and worked through to the Sunbury line, the Frankston line would be returned to the Caulfield Loop and peak services stepped up from 14 to 17 trains per hour. The Ringwood corridor was to continue indefinitely at its present peak service of 21 trains per hour, inclusive of 3 from Alamein, via the Burnley Loop.

For MRL, Frankston services would be through worked with the Ringwood and Alamein lines via the existing City Loop and new tunnels from Southern Cross to South Yarra. As the Ringwood line would necessarily have to continue to operate at no less than its present 21 trains per hour peak frequency, this suggests that, if anything, the Frankston line service would need to be increased beyond 17 trains per hour to balance with the Ringwood corridor. This would certainly be possible in terms of both the existing loop and new tunnel capacity but could be challenging in other respects given the plethora of level crossings on the Frankston line and may not be justified in relation to demand. It has however been suggested that the balancing may be largely achieved by terminating the Alamein trains at Caulfield or possibly Moorabbin.

Shaping the City We Want...

Want more detail?

It is extremely important that Melbourne gets the Metro vs MRL decision right.

Rail Futures has prepared a more detailed information paper on these issues, which can be accessed at our website, www.railfutures.org.au

Our original paper *The Case for Melbourne Metro*, is also available on this website

We hope you will find time to visit the website .

This paper has been prepared by Rail Futures Incorporated in the public interest. Rail Futures Inc is an independent non-partisan group formed to advocate cost effective rail and inter-modal solutions for public transport and freight problems based on sound commercial, economic and social reasoning. Rail Futures members include very experienced rail professionals, engineers, planners and economists.

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In terms of metropolitan planning, MM is superior to MRL in linking jobs and investment and in providing access to jobs. *Plan Melbourne*, the State Government's new planning strategy for Metropolitan Melbourne, identifies six *National Employment Clusters*. National employment clusters are designated geographic concentrations of interconnected businesses and institutions that make a major contribution to the national economy and Melbourne's position as a global city. These are:

- The Monash cluster - with 58,500 jobs
- The Parkville cluster - with 32,700 jobs
- The Dandenong South cluster - with 55,000 jobs
- The emerging East Werribee cluster - currently with 7,100 jobs
- The emerging Sunshine cluster - currently with 13,800 jobs; and
- The emerging Latrobe cluster with 25,700 jobs.

The original MM would serve a key role in connecting the Parkville cluster with other key metropolitan locations; and in connecting the Monash, Parkville, Sunshine and Werribee clusters, thus making the jobs in these clusters more accessible to the burgeoning population, particularly in the western region. The revised MRL proposal continues to directly link the Sunshine and Dandenong corridors (albeit on the surface) and therefore would still connect all of the above clusters, but with the important exception of Parkville.

Melbourne's western region is experiencing rapid population growth. Since 1991 it has grown at almost double the Victorian average and its share of metropolitan population will increase from 16% in 2005 to 26% by 2031. Of Melbourne's three growth corridors, the west ranks number one for both numerical population increase and growth rate.

Better Access for the West to Jobs, Education and Leisure

Rapid population growth in the west has outstripped job growth. The western Melbourne region is highly dependent on the inner Melbourne job market and has a much less well-developed and sophisticated range of employment opportunities and locations compared to Melbourne's south-eastern suburbs. The under-provision of jobs compels workers to commute to areas with large numbers of jobs, in particular inner Melbourne and the eastern suburbs.

The original MM proposal was designed to address these problems and accordingly received wide support from western region Councils, the Melbourne City Council and other inner city LGAs.

MM would provide a more seamless rail link between the eastern/south-eastern suburbs and the West and link Footscray with the university and health/medical research precincts and the St Kilda Road precinct, stimulating urban development around Footscray, transforming Footscray into a natural part of the inner Melbourne economy and developing synergies between the inner west and inner Melbourne economies. This will have significant flow-on effects in investment in and around Footscray and bring a new range of higher-value professional jobs to the West.

This in turn would change the image and perception of Footscray and the western region and encourage new, higher-order businesses in the professional and specialized service sectors (currently under represented in the West) to establish around Footscray, broadening the range and number of jobs in the western region.

Metro vs Melbourne Rail Link—Point by Point Comparison

Benefit/Solution	Melbourne Metro (MM)	Melbourne Rail Link (MRL)
Transparency and strategic rationale of planning processes		
Planning processes were reasonably transparent and comprehensive – supporting data publicly available	Achieved – Eddington report, business case & Infrastructure Australia positive assessment.	Not achieved – no transparency and very little supporting data in public domain as yet.
Rail network capacity and reliability		
Boosts rail network capacity by almost 40,000 passengers per hour.	Achieved.	Achieved.
Takes a major step towards building a metro-style network by ‘unscrambling’ the inner core of the network	Achieved.	Achieved.
Ensures that the Northern and Caulfield Rail Groups have sufficient capacity in the future.	Achieved.	Achieved.
Provides opportunities for introducing new rail technologies and longer trains.	Achieved.	Achieved.
Lays the foundation for further network extensions into growing areas in the west and south-east.	Achieved – provides for later network extensions (Rowville, Airport, Melton electrification).	Achieved – same as MM.
Provides opportunities for increasing rail freight capacity when required for the development of inland ports and development of the Port of Hastings.	Achieved - frees up freight and Gippsland passenger trackage between Flinders street and South Yarra.	Achieved – same as MM.
Construction and Staging options		
Minimises travel and business impacts during construction	Major impact in Swanston Street including tram diversions for up to 3 years.	No impact in CBD but requires closure of two City Loops (Burnley and Caulfield) for some months.
Ability to stage the project to obtain worthwhile benefits prior to full completion	Could be opened in stages to CBD North or South stations.	Virtually impossible to stage.
City shaping issues		
Provides more opportunities for travel by rail, encouraging further increases in public transport patronage.	Achieved - new CBD stations and at Arden, Parkville and Domain.	Partly - new destinations Domain and Montague - latter location is not optimal for overall Fishermen’s Bend development, probably premature.
Stimulates and supports growth in the central city, including providing new rail links to the major precincts of St Kilda Road and the Parkville precinct.	Achieved.	Only partially achieved. Provides link to St Kilda Road precinct but not Parkville. Does not link the St Kilda Road-Swanston Street “spine”.
Opens up new opportunities for major urban redevelopment (residential and commercial) around new stations.	Achieved at Arden, Parkville and to a limited extent at Domain	Achieved at Montague (longer term) and to a limited extent at Domain and South Yarra.
Provides new rail links between Footscray, Parkville and the central city, enabling the inner west to leverage jobs and business growth from the central city’s growth.	Achieved.	Not achieved.
Improves capacity for travel in the busy Melbourne University – St Kilda Road corridor, relieving pressure on tram services along the St Kilda Road – Swanston Street route.	Achieved.	Only partly achieved for the St Kilda Road part of the corridor but not the remainder because MRL provides no rail corridor along this spine. Will rely on upgraded tram routes.
Passenger interchange and connectivity		
Provides new, easy train-to-train connections for all Melbourne rail users wishing to access Parkville, St Kilda Road, Footscray, Caulfield and stations beyond these points.	Achieved.	Partly achieved. Some connections less convenient. Probable congestion at Southern Cross and platforms 6/7 at Flinders Street.