METRONET will transform Perth with connected communities and new opportunities for business and jobs to grow.

Vision
A well connected Perth with more transport, housing and employment choices.

Purpose
We are a catalyst to deliver community and transport solutions that will positively change how people live and travel in Perth.

Objectives
Support economic growth with better connected businesses and greater access to jobs.
Deliver infrastructure that promotes easy and accessible travel and lifestyle options.
Create communities that have a sense of belonging and support Perth’s growth and prosperity.
Plan for Perth’s future growth by making the best use of our resources and funding.
Lead a cultural shift in the way government, private sector and industry work together to achieve integrated land use and transport solutions for the future of Perth.
Perth is at a distinct advantage over Australia’s other capital cities, being strategically located as a key international gateway between Australia, Asia and the Indian Ocean rim, and sharing the same time zone with major international cities. It is also a city that is set to grow rapidly, with an expected population of 3.5 million by the year 2050.

Our city’s success will feed into the rest of Western Australia. To remain one of Australia’s leading capital cities, Perth must continue to invest in essential infrastructure, like METRONET, that supports continued economic productivity and attracts international investment.

The METRONET program brings together transport and land use planning to support shaping Perth into a more compact urban form, while growing the city in a more sustainable and responsible way.

Hon Rita Saffioti MLA  
Minister for Transport; Planning and Lands
The Railcar Program will deliver 246 new railcars. Approximately 72 kms of new passenger rail have been prioritised for removal. Up to 18 new stations will be added to the network, and 5,000 hectares of development opportunity around new stations will be created.

People

METRONET’s transport infrastructure is being planned and designed with the comfort, safety, and convenience of passengers as the highest priority. By adding more than 70 km of rail and up to 18 new stations to Perth’s passenger rail network, people will have more opportunity to leave their car at home and catch the train to work, to go shopping, to watch their favourite team play on the weekend, to catch a flight from the airport, or to meet up with friends.

It will be one of the largest single investments in public transport that the city has seen, providing the people of Perth with a level of access and service that is world class, and create a framework for sustainable growth of the city over the next 50 to 100 years.

Place

METRONET is the catalyst to turn over 5,000 hectares of land around new stations into desirable places for investment in housing, jobs, and services for growing communities. These developing precincts will be places where people live, work, go to school, hang out with friends, raise a family and where they downsize when they retire. Each place will be different, some will be existing neighbourhoods in established urban areas, while others will be new neighbourhoods in developing outer suburbs. METRONET will ensure that each place is planned to develop appropriately for the people who will make it their home.

Rail connecting people and places
Before a new METRONET line is delivered we look at:

- Forecast population growth
- Local job creation
- Transport integration
- Local environment
- Stakeholder, industry and community feedback
- Meeting customer needs
- Engineering feasibility
- Cost and value for money
- Affordable housing
- Creating liveable communities
- Local and Aboriginal heritage
- Accessibility

Steps for success

Thorough planning is the first step in the right direction for any project to ensure Perth gets the best transport and planning outcomes.

This involves considering a range of potential solutions and a variety of design and location options through stakeholder engagement, preliminary site investigations, high-level concept designs, cost assessment and economic appraisal.

The result of this work will be a comprehensive Business Case for each project to identify and justify a preferred option for State, and potentially, Federal Government approval/support. This is followed by concept engineering and design to develop a Project Definition Plan outlining the scope, cost, risk profile, procurement method and other key details of the project, which will be submitted to the State Government for a final investment decision.

This process can take up to two years for each project.
METRONET is a new approach to transport and land use planning in Western Australia. It looks into the future of what the areas around stations could become at the same time as planning transport infrastructure. Each METRONET station precinct will develop its own character and function over the long term, according to its development potential. Some precincts will be primarily residential, while others may become major mixed-use urban centres. The aim for each station precinct is to make the most of the development opportunities nearby by considering and balancing parking, services and reserves appropriately.

To help shape these future areas, the METRONET team will work with local government, the community, private landowners and other State Government agencies to develop an implementation approach for each station precinct.
The METRONET Office acknowledges the People of the Noongar Nation as the Traditional Custodians of the land and waters on which the METRONET Program of Projects is located. We pay our respects to their Elders, both past and present, and thank them for their continuing connection to country, culture and community.

Gnarla Biddi - Our Pathways

The METRONET Aboriginal Engagement Framework is the fundamental component of the Strategy. The Framework, along with its engagement streams, was developed based on a series of Aboriginal engagement drivers and outlines expectations for minimum requirements with Noongar and other Aboriginal stakeholders.

ENGAGEMENT STREAM ONE
Noongar Cultural Recognition
This stream aims to recognise the traditional and ongoing connection of Noongar people to country, while educating and raising awareness of Noongar culture within the workforce of people working on METRONET projects and the broader community.

ENGAGEMENT STREAM TWO
Noongar Cultural Input into Place Making
This stream provides a structured approach to ensuring Noongar stories and culture is represented in the infrastructure that is designed and built as part of the METRONET program.

ENGAGEMENT STREAM THREE
Aboriginal Procurement
METRONET is committed to requirements outlined in the recently released Aboriginal Procurement Policy (WA) 2017. These requirements are passed on to METRONET Contractors as a best practice measure to increase Aboriginal participation.

ENGAGEMENT STREAM FOUR
Aboriginal Employment
This stream aims to present opportunities for Noongar and Other Aboriginal people to direct employment and career development opportunities.

ENGAGEMENT STREAM FIVE
Land Access and Sites Management
This stream acknowledges existing processes in place to protect Aboriginal Heritage sites and aims to comply with (legislation):• Native Title Act 1993• PTA Noongar Standard Heritage Agreement (NSHA)• Aboriginal Heritage Act 1972• Noongar Recognition Act 2016• The South West Native Title Settlement

- Dr Richard Walley

“Gnarla Biddi” Our Pathways

Since the Koondarm (our creation) our ancestral pathways have guided us through Noongar Boojar (our land) from significant place to significant place from one water body to another. Now we work together to strengthen Gnarla Biddi (our pathways) the way that people travel and connect to places still linked to our shared history and culture.” - Dr Richard Walley

The METRONET Aboriginal Engagement Strategy outlines the WA State Government commitment to embed genuine engagement with the Aboriginal community across the METRONET program. It recognises that appropriate and authentic Aboriginal engagement can contribute to the delivery of enhanced place and project delivery outcomes, whilst also achieving significant community, social and economic benefits through cultural contribution and participation.

“Gnarla Biddi” Our Pathways

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An 8.5-kilometre extension of the Perth rail network from Bayswater to Forrestfield, including new stations at Redcliffe, Airport Central and Forrestfield.

The Forrestfield-Airport Link will provide a convenient connection to and from Perth Airport, as well as a much-needed public transport option for the eastern suburbs. Construction is underway and is due to be completed in 2021.

The new stations at Redcliffe and Forrestfield will stimulate significant new residential and employment activity. The rail line will also support the continued growth of Perth Airport as a national centre of employment, commerce and international trade.

City shaping benefits
- Supports growth in the Forrestfield North area as planning progresses to enable new medium and high-density residential development, mixed business uses and an emerging activity centre.
- Acts as a catalyst for greater infill intensification in Redcliffe’s Development Area 6, which has the potential to deliver up to 3600 new dwellings within the new station precinct.
- Links the suburb of Redcliffe back together around the station precinct, having previously been split up by Brearley Avenue and large strips of underutilised land.
- Allows for continued growth of employment intensive industries within the station precincts and Perth Airport.

City transport benefits
- Connects new passengers from the eastern suburbs to the CBD via rail.
- Creates high-frequency public transport links between Perth Airport, the CBD and other rail connections to cater for an expected doubling of airport passenger numbers over the next 20 years.
- Reduces airport related congestion on the surrounding road corridors which form part of Perth’s freight network.
- Crosses a spatial divide between the CBD and the eastern suburbs created by the airport.
- Facilitates the upgrade of Claremont Station and the additional rail infrastructure required to turn trains there.
Thornlie-Cockburn Link

The 17.5-kilometre Thornlie-Cockburn Link will provide Perth’s growing southern suburbs with more public transport options, with new stations at Nicholson Road and Ranford Road.

City shaping benefits
- Initiates delivery of an orbital rail service (Circle Line) for Perth, which connects major centres of activity, employment and community services.
- Acts as a catalyst for more intensive employment and urban development around Canning Vale.
- Supports the development of Stage 2 of the Murdoch Health and Knowledge Precinct.
- Provides southern suburbs residents with direct access to Perth Stadium Station.

City transport benefits
- Reduces congestion and crowding on the existing transport network.
- Addresses insufficiencies in the transport network to cope with expected population growth in Perth’s South-East.
- Creates the foundation for addressing service gaps through an orbital link, which will improve passenger mobility in the ‘middle ring’ suburbs.
- Frees capacity at Thornlie Station, which is currently one of the busiest stations on the Armadale Line, carrying 9.2% of all average weekday boardings.

By connecting the Mandurah and Armadale lines, the Thornlie-Cockburn Link will make travelling around the city by train more flexible, including going to events at Optus Stadium, and unlock long-term development opportunities in the Canning Vale area. During construction the project will create more than 1,650 jobs.
The Yanchep Rail Extension will serve the northern suburb’s current and future growth, address road congestion and influence land use planning to deliver liveable communities through three new stations at Alkimos, Eglinton and Yanchep. During construction the project will create more than 1,350 jobs.

City shaping benefits
- Provides the ideal service to stimulate new employment opportunities in the Yanchep Strategic Metropolitan Centre, allowing local jobs to be filled by local residents.
- Acts as a catalyst for facilitating higher density development in the Yanchep, Alkimos and Eglinton activity centres.
- Facilitates long-term planning of alternative, intensive urban form not traditionally found in greenfields sites of Perth.
- Supports the continued growth of Joondalup city centre, by improving access to the trade and employment catchments of the north-west sub-region.
- Contributes to more affordable living choices and fair housing and service access for vulnerable community members.

City transport benefits
- Provides a high-capacity public transport option to the rapidly growing north-west sub-region.
- Helps move more than 150,000 Yanchep-Two Rocks residents expected to live in the area.
- Addresses worsening urban congestion due to a lack of efficient transport options, which has been recognised as a significant issue through Infrastructure Australia’s high priority initiative status.
- Reduces reliance on the Mitchell Freeway.
To ensure the rail line represents the best outcome for local communities and the wider Swan Urban Growth Corridor, work is underway to complete a comprehensive business case.

Planning and preliminary design is underway for the option that connects to the Midland Line just east of Bayswater Station, heading north-east to Ellenbrook, with six potential stations at Morley, Noranda, Malaga, Bennett Springs, Whiteman and Ellenbrook.

**City shaping benefits**
- Helps shape and serve new, more intensive transit-oriented developments.
- Acts as a catalyst for urban consolidation around stations serving existing urban catchments.
- Helps grow and diversify employment centres, such as Malaga and Morley, which will become destinations of choice for business.
- Supports Ellenbrook and Midland’s growth as major activity centres servicing Perth’s north east suburbs.
- Facilitates affordable living opportunities and more equitable access for the community.

**City transport benefits**
- Provides timely and efficient transport links to the CBD and major employment centres, such as Malaga and Morley.
- Relieves pressure on existing public transport services and infrastructure which are filling the gap in the absence of a high-speed transit connection in the north east and central northern corridors.
- Enables alternative access to Whiteman Park and the Swan Valley, two of Perth’s premier visitor attractions.
- Serves the transport needs of residents without congesting existing roads, some of which form a key part of the freight network (i.e. Tonkin Highway).
Since the project was announced in March 2018 and engagement began, the team has assessed a number of options against the fixed parameters using stakeholder and community feedback received from over 300 people who attended drop-in sessions, 972 people who completed the online survey, four Community Advisory Group meetings and various feedback received over the past eight months.

City shaping benefits:
• Improves amenity by raising the bridge and creating a public space that better links the Town Centre.
• Provides safer and quicker access between both sides of King William Street and into the station.
• Encourages urban growth and local development in line with Bayswater’s Local Structure Plan.

City transport benefits:
• Supports future expansions to the rail network, such as the Morley- Ellenbrook Line.
• Accommodates six-car train operations to meet the growing demand on the Midland and future Forrestfield lines.
• Relieves pressure on existing public transport services.

The Bayswater Station Upgrade is an exciting opportunity to attract investment to the town centre and help it grow into a place in which people want to live, work and visit. It is also an extremely complex project with many engineering, traffic and access challenges.
City shaping benefits
• Improves land use efficiency by using State Government land next to Karnup Station.
• Provides a staged approach to transit oriented development, with initial park and ride facilities having the potential to transition to more intensive urban uses over time.
• Supports the development of the considerable future expansion areas within the broader Karnup area, between Paganoni Road and Stakehill Road.
• Contributes to land use and housing diversity through alternative development products.

City transport benefits
• Reduces unnecessary movement from surrounding suburbs, with some rail patrons travelling south to Mandurah before heading north to Perth via rail.
• Releases capacity and reduces congestion on major roads.
• Draws patronage from the service gap area, with Karnup Station located mid-way between Warnbro and Mandurah stations (nearly 25km apart).
• Improves service efficiency by reorientating buses to a new interchange at Karnup Station, and reduces running costs through the proposed co-located depot facility.
• Provides residents with access to the passenger railway network, leading to greater employment and services opportunities.

Karnup Station will be ideally located on Paganoni Road, about half way between Rockingham and Mandurah stations to close the considerable service gap in the area.

Recent growth in Golden Bay, Karnup and Lakelands was identified during the Mandurah Line’s planning and construction, with space provided for a future station in this location. The recently opened Aubin Grove Station is an example of this future-proofing planning and will see more development opportunities in the area.

Karnup Station will also include a bus depot and interchange which will significantly improve bus services in the area and take pressure off Mandurah and Warnbro stations.

Better public transport integration with the Metropolitan Redevelopment Authority’s (MRA) Midland Project and connections to a potential Bellevue rail depot are the benefits of relocating Midland Station to Cale Street.

The new rail-bus transit hub will involve building a train station at Cale Street and extending the line to Bellevue.

Midland Station

City shaping benefits
• Facilitates and stimulates staged transit oriented development opportunities at Midland and Bellevue.
• Supports the continued revival of Midland strategic metropolitan centre with the station closer aligned with key destinations and generators of activity.
• Enables redevelopement of the existing Midland Station site with the Midland Master Plan.
• Assists in attracting the northern and southern parts of Midland together through additional, high quality movement network connections.

City transport benefits
• Provides a major new end of line station closer to the eastern suburbs catchment it serves, thereby reducing travel time and unnecessary through-movement in Midland city centre.
• Serves the PTA rail yards site which has been identified as suitable for a new stabling and maintenance facility.
• Provides improved access to hospital, retail and commercial uses for those with mobility issues.
• New facilities at Midland will meet contemporary universal design standards and provide capacity for B-series trains (six-car sets) for improved accessibility and integration with the overall network.
Of the 31 existing level crossings on the rail network, eight have been prioritised for removal.

Removing level crossings along the Midland and Armadale lines will have significant community benefits from making it safer for people and vehicles to travel in the area to revitalising local communities with improved land use planning.

Level crossings to be removed under METRONET include:
- Denny Avenue (Armadale Line)
- Oats Street, including Mint Street and Welshpool Road (Armadale Line)
- Wharf Street, including Hamilton Street and William Street (Armadale Line)
- Caledonian Avenue (Midland Line)

City shaping benefits
- Stimulates urban development where level crossing removal and/or grade separation creates opportunities to revitalise the area.
- Reconnects residential communities with major points of activity.

City transport benefits
- Reduces road congestion associated with vehicular waiting times at level crossings increasing the reliability of the road network.
- Improves rail network efficiency so that trains can run more often and on time.
- Improves safety for drivers and pedestrians at level crossings.

Types of level crossing
There are a number of ways to remove a level crossing:
- Elevating or sinking the rail;
- Elevating or sinking the road;
- Combination of elevating and sinking road and rail; or
- Closing the level crossing.

A review of the options that offer the least road and community impacts during construction and long term operations, but the most urban development opportunities where suitable, is currently underway.

For the network’s remaining level crossings, the Public Transport Authority is reviewing a program for these, depending on funding availability.
Level Crossing Removal

Denny Avenue Level Crossing

The Denny Avenue level crossing will be replaced with an underpass at Davis Road, 100m south of the existing location.

The new underpass will involve gradually raising the rail and associated infrastructure, lowering the surrounding road network, widening Davis Road to four lanes and extending it to connect to Third Avenue.

A section of Third and Slee avenues will be turned into cul-de-sacs to allow for the Davis Road connection. A private access road for Railway Avenue residents north of Bray Street will also be constructed.

New traffic signals will be installed along Davis Road at Railway Avenue, Stretch Avenue and Albany Highway, as well as at Albany Highway and Giswell Avenue. The traffic lights at the Denny Avenue and Albany Highway intersection will be removed.

The Denny Avenue Level Crossing Removal is also an opportunity to make improvements to Albany Highway and the public space around Kelmscott Station.

Caledonian Avenue Level Crossing

The Caledonian Avenue level crossing in Maylands will be removed in time for Forrestfield-Airport Link services in 2021.

The project is currently in the early stages of planning and reviewing options for the removal of this crossing. This includes working closely with the City of Bayswater and key stakeholders to ensure the removal meets the community’s needs as much as possible.

Oats Street and Wharf Street Level Crossing Removal

The Armadale Line has 18 road level crossings and removing them will have significant benefits, from making it safer for people and vehicles to travel in the area, to revitalising local communities with improved connections.

Initially Oats Street and Wharf Street level crossings were recognised as priorities.

Initial options analysis of the level crossings found that potential solutions would impact on the broader area, including neighbouring level crossings, and removing them as a package would be more efficient.

Based on this, the study area for the Oats Street Level Crossing Removal will now include Mint Street, Oats Street and Welshpool Road level crossings, as well as potential impacts to Carlisle, Oats Street and Welshpool stations.

The study area for the Wharf Street Level Crossing Removal will now include Hamilton, Wharf and William streets level crossings, as well as potential impacts to Queens Park, Cannington and Beckenham stations.

During this early assessment all options are considered and the various implications for nearby stations, the broader rail network, surrounding roads and the community, as well as potential urban development opportunities, are reviewed.

The project will facilitate the development of ‘Station Place’ as a mixed use site.

Kelmscott Plaza will be a public space in the town centre with a focus around the repurposed Station Master’s House and a realigned Streich Avenue.

Future development sites

MRA area

New PSP

Public space

Realigned railway
A growing public transport network requires more trains to service it.

The Railcar Program will deliver 102 new railcars (17 six-car sets) needed for METRONET projects and 144 railcars (24 six-car sets) to replace the ageing A-series trains, which were the first electric trains on the Transperth network.

Delivery of the 17 METRONET trains, known as the C-series, is due to begin in 2021. The remaining 24 trains are expected to enter service between 2025 and 2028.

**City shaping benefits:**
- Bolsters local manufacturing and jobs, with 50 per cent local content work for manufacturing the new railcars.
- Stimulates development of a local railcar assembly facility and associated infrastructure.

**City transport benefits:**
- Increases capacity on the network to cater for boosted passenger numbers.
- Improves service efficiency and reliability, as older A-series trains are retired.

The C-series
- Six railcar set
- Around 144 metres long
- Additional doors on each railcar
- Regenerative braking
- 35-year service life

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Byford Rail Extension

Extending approximately eight kilometres south of the Armadale Line to connect the south-east metropolitan area with key activity centres.

The Byford population alone is set to double to more than 35,000 by 2036, with public transport investment needing to keep up with this expected growth. The station will facilitate connections within the south-east region, including the wider catchment of the Shire of Serpentine - Jarrahdale and beyond.

City shaping benefits
• Serves new residential growth in the south-east region, with considerable new development expected at Byford, Mundijong and Whitby.
• Supports the continued growth and redevelopment of Armadale strategic metropolitan centre, by providing high frequency transit to its trade catchment.
• Facilitates urban growth areas within close proximity to transit and brings forward the timing of delivery ahead of areas which are less well-served by infrastructure.

City transport benefits
• Releases capacity on the movement network in and around Armadale, which will come under increasing strain from major new development at Wungong, Byford, Mundijong and within the city centre itself.
• Provides an attractive travel alternative to the car to major employment and service nodes at Armadale, Cannington and Perth city centre thereby improving accessibility and environmental outcomes.

Byford Rail Extension

Working Together

METRONET projects are about creating benefits for both the communities they are built in and the broader Perth community.

To achieve this, key stakeholders, ranging from government bodies to resident groups, are involved early on in the planning phase.

Key stakeholders will be involved using the METRONET Communications and Engagement approach. This approach is collaborative and will involve stakeholders, where possible, in developing the design, managing construction impacts and ensuring that the project vision and benefits are clearly communicated from day one.

A project of this scale requires opportunities for two-way feedback to be established throughout each phase, to maximise project outcomes and ensure that each individual project within the METRONET plan is successful in transforming our city.

CONTACT
+61 8 9326 3666
info@metronet.wa.gov.au
metronet.wa.gov.au
facebook.com/perthmetronet
twitter.com/metronetperth
METRONET Perth
@metronet_perth