

## **Auckland Rail Programme Business Case**

**30 Year Investment Plan** 



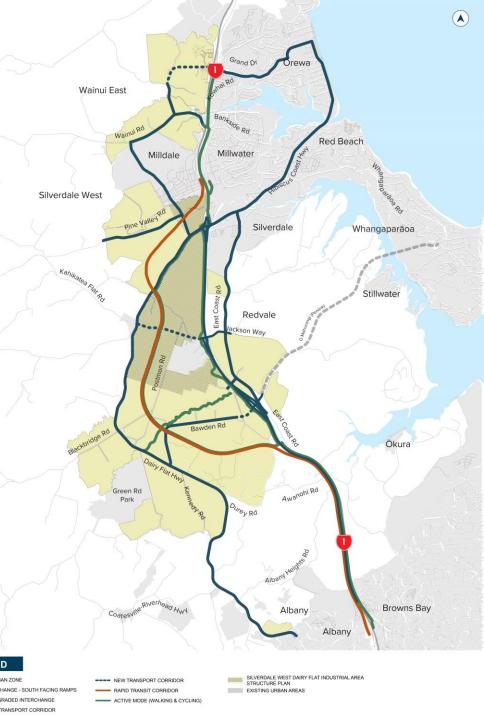
#### Recommended North Strategic Transport Network

#### **AT projects**

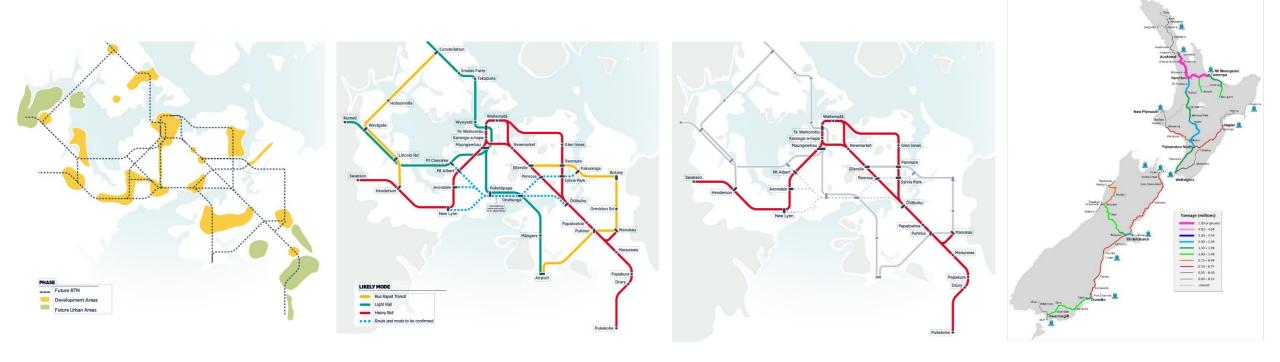
- Upgrades to Pine Valley Road, Wainui Road, Dairy Flat Highway, East Coast Road, Argent Lane.
- Upgrade and extensions at Bawden Road, a new connection between Milldale and Grand Drive
- A new connection between Dairy Flat Highway and Kahikatea Road
- Upgrade of Hibiscus Coast Highway and Grand Drive for public transport and active modes
- A new crossing of SH1 in Dairy Stream and active mode connection along Dairy Stream

#### Waka Kotahi projects

- RTC and active mode facility between Albany and Milldale
- SH1 improvements including motorway widening, interchange upgrades and active mode corridor



## **Context – Moving Passengers and Goods**



**Intensification in Land Use** 

Long Term Rapid Transit Network The Shared Heavy Rail Network

The National Rail and Freight Network



# What is the Rail Programme Business Case?

- A strategic planning exercise to develop a programme of investment needed to enable rail to deliver on future aspiration for passenger and freight services.
- Developed in partnership between KiwiRail, AT in recognition of the need for a long-term plan for the rail network to meet future needs.
- It is not yet complete and doesn't yet have funding or approval from Government.
- The process includes developing options, gathering feedback from key stakeholders, incorporating feedback and following approvals pathway through to submission to Transport Minister.





### Why are we here, talking to you?

- We want to gather feedback from you about your area and community.
- We hope you can share the specific transport challenges and needs of your communities in the context of these plans.
- We want to explain the rationale and benefits of these plans.
- Our plan includes incorporating your feedback into the PBC to ensure future works and engagement processes consider such community insights.





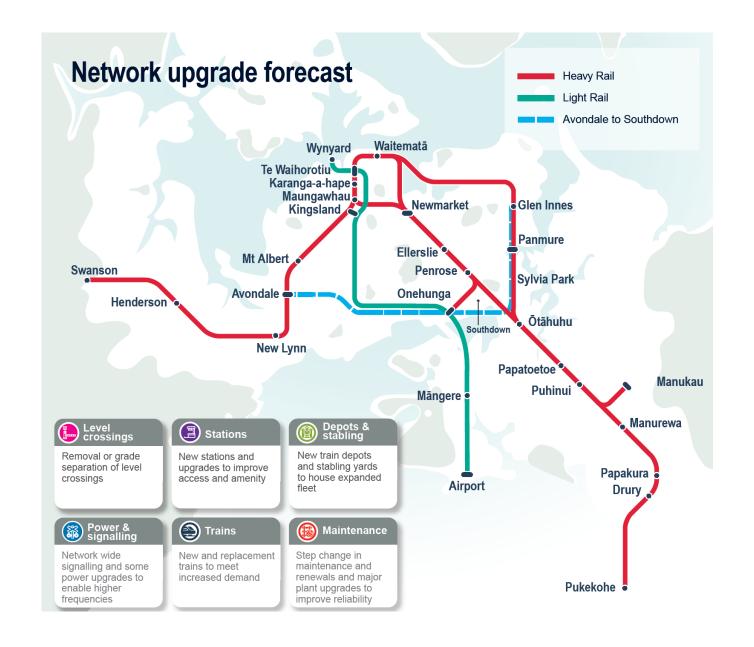
#### Rail In Auckland

- Rail plays an important role in the transport and land use in Auckland
- Nationally, Auckland is a key freight hub with rail connections to major ports and freight terminals
- Metro services provide a critical passenger transport role in providing fast, reliable and frequent rapid transit services
- Land use development and zoning provides for higher density adjacent to rail corridors particularly around stations
- Inter-regional services are growing with current services encompassing Northern Explorer to Wellington and Te Huia to Hamilton





#### **Future Rail In Auckland**



# We are growing – Higher Density Development

Land use zoning will encourage higher density built around transport hubs and corridors







# What does Auckland need from the rail network?

We have a way to go to achieve the world class transport system many other comparable cities enjoy.

We need to grow with our population...and provide competitive and efficient rail services so that metro and freight users value them enough to switch from cars and truck helping in reducing our emissions and congestion on our roads and enabling us to continue to grow in more sustainable ways.

Current investment aims to support the opening of City Rail Link. This programme completes in the next couple of years and ongoing work will be needed to support economic development, population growth and to enable greater sustainability and resilience in our transport system.

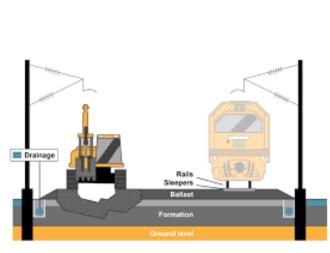
The following slides will highlight some of the recent and ongoing work.



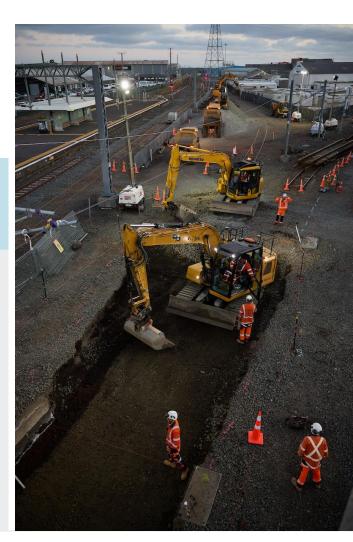


### What's happening today – Rail Network Rebuild

KiwiRail is undertaking a major upgrade of the Auckland rail network over the next few years, in preparation for the opening of the City Rail Link









### What's happening today – City Rail Link







### What's happening today – New Trains

- 23 additional train units increasing total fleet size by circa 30% to accommodate greater frequency by 2026
- Replacement and new freight locomotives and wagons to provide for increase growth

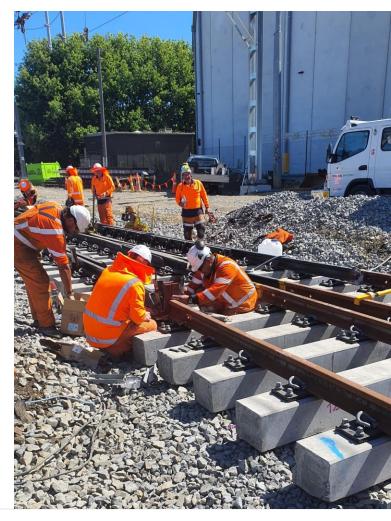




# What's happening today – Track and Upgrades

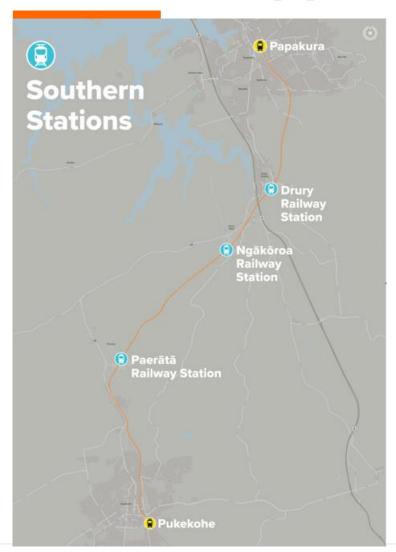
- Major transformations between Westfield and Wiri junctions
- Third line construction through the Middlemore hospital area down to Wiri container terminal
- Improvements and upgrades to Auckland Port and the Quay Park approaches







### What's happening today – Southern Stations











#### What's happening today – P2P Electrification

#### Bringing electric trains to Pukekohe

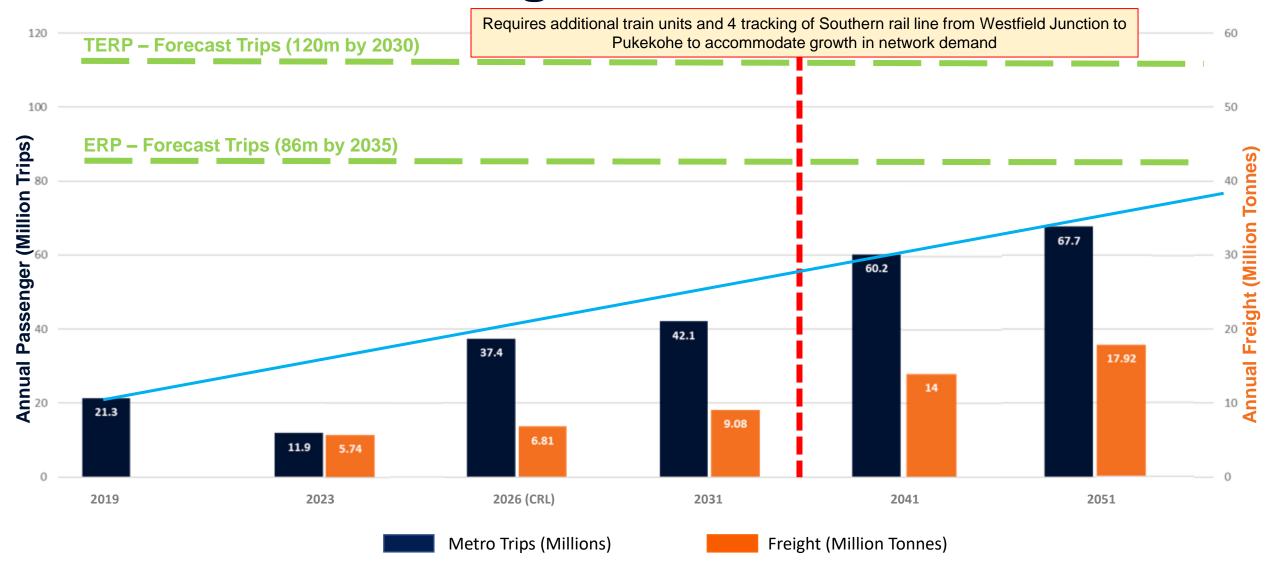
- Extending the overhead power system from Papakura to Pukekohe
- Upgrading the existing track, signals and level crossings across this 19km section of the Southern Line
- Redeveloping Pukekohe Station to support growth.







# But we still need to grow – 30 Year Forecast



Current investments get us to late 2020's. Further investment is required to meet growth forecasts and maximise current investment

### Rail PBC - A 30-year vision

To provide a resilient mixed network, which enables growth, integrates and provides the capacity for mass transit for Auckland's Rapid Transit Network, regional passenger demand and national freight supply chains.

This will enable rail to do its share in reducing net carbon emissions from transport activities and enabling faster, more efficient and frequent services while supporting continued and sustainable economic growth.





#### What the 30 year plan will achieve

- Greater resilience, capacity and connectivity as passenger and freight won't have to share the inner-city network
- Reduction in carbon emissions/air pollution
- Reduced journey times through the introduction of express trains
- Decongestion of the road network (local roads and state highways)
- Improved safety
- More efficient logistics for freight
- Fewer delays to freight and passenger services
- Fewer planned and unplanned cancellations of passenger and freight services
- Fewer speed restrictions meaning more reliable journey's for passengers and freight customers.





### Providing for more services

#### Investing in and improving the basics

Upgrade signals and improve train operations to create a safer and more efficient network

New equipment and plant for maintaining the network to deliver quicker and better levels of service

Additional fleet, depots and stabling to provide for RTN services peak, offpeak, express trains and express 9-car services.





# Providing for more services – Station Upgrades

- Investment in improved stations will improve customer experience and provide for increased patronage and growth across the network.
- Improvements in railway stations will support urban growth and regeneration, driving improved local economic benefits/ growth, by responding to local growth priorities.
- Station platforms will be rebuilt to accommodate additional track and future 9 car train lengths, and support increased accessibility, and improve local and wider network connectivity.









## **Providing for more services – Level Crossings**

- More train services result in barriers being down for longer
- With crossings closed for longer periods people take greater risks
- Level crossings will need to be removed as freight and passenger train frequencies increase.

#### **Options include:**

- Removing Level Crossings by road closure, or grade separation
- Providing pedestrian and cycle access only
- Grade separated connections that better serve communities





#### **Providing for more services – Additional Track**

#### Additional track is required to accommodate:

- RTN frequency and reliability on metro trains
- Express metro trains from Pukekohe to Central City
- Freight train growth particularly from Port of Tauranga, Northport and Port of Auckland

Options have been explored with the following areas showing the most effective outcomes

Westfield Junction to Pukekohe: Southern linebusiest section of rail with continued growth in metro, freight and interregional needing 4-tracks.

Avondale to Southdown line: New cross-town link connecting existing lines and a key enabler of both passenger and freight growth, as well as overall network reliability and resilience

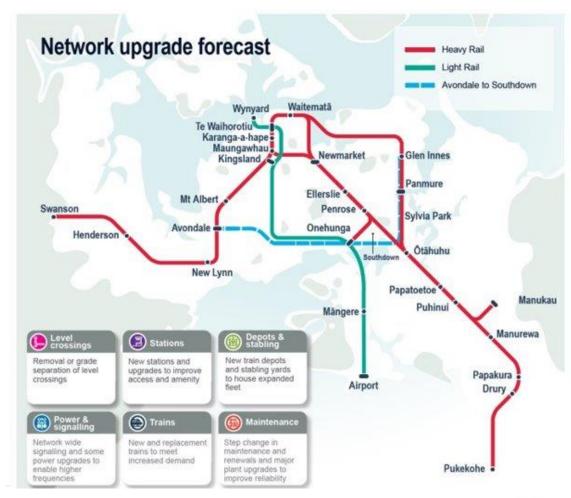




#### Providing for more services – Cross Town

#### Cross town route – Avondale to Southdown line

- Designated corridor adjacent to SH20 and through Onehunga since 1950's and owned by KiwiRail
- Identified as cross town RTN route and strategically important to free the inner city network for passengers, enabling frequent and fast services especially from the south as well as improving reliability and resilience throughout the network – whilst also maintaining an efficient national freight and logistics network
- Connects to existing rail lines providing a more integrated network
- The alternative is widening rail corridors in the inner network, including through Newmarket – but this would be extremely challenging and expensive, and would not provide the resilience and connectivity benefits that a new corridor offers.





#### Factors shaping our future network

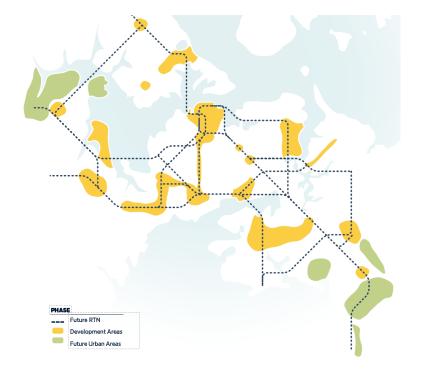


Reduce reliance on cars and support people to walk, cycle and use public transport



Begin work now to decarbonise heavy transport and freight





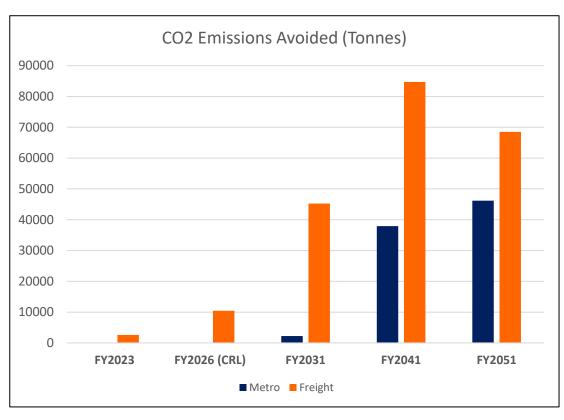
Port locations and distribution of freight

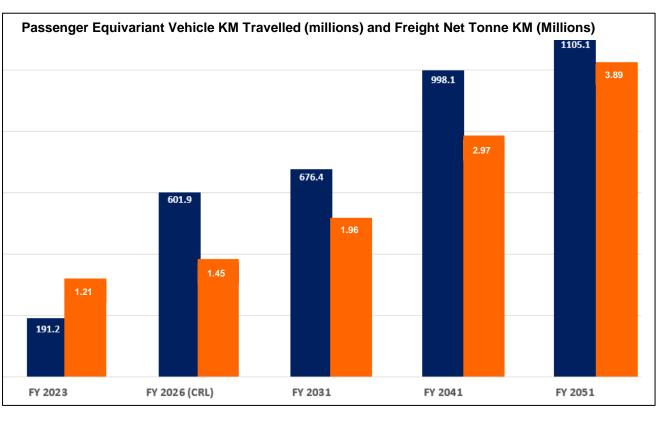
Decarbonisation and emission reduction

Land use zoning and accommodating growth



#### Emission reductions and increased travel on rail





Metro Freight

Note: above freight metrics only take in the portion of rail freight journeys that are inside the Auckland boundaries. The emissions avoided and NTKms across the full journey are significantly higher.



### Key takeaways

- The PBC is a long-term future look at how to maximise the potential of Auckland's rail network and ensure it does
  not form a bottleneck to the country meeting our economic or emissions goals.
- No investment pathway into rail would mean freight and passenger demand is met by road-based transport with higher emissions, congestion and other negative externalities.
- The Programme Business Case is working its way through various rounds of feedback and approvals. It is not yet funded or adopted by the Ministry of Transport.
- Timeframes for construction/delivery span 10-30 years ahead.
- We are making informed proposals for what we consider to be the most effective long-term solutions.



#### Next steps and feedback

- How to provide feedback informal/formal dates
- Supporting the Programme Business Case channels/options
- Approval process for the Programme Business Case



#### **Discussion and Questions**

