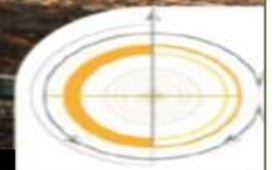


IMPROVING THE CUSTOMER TRAM TRAVEL EXPERIENCE

Transport for Melbourne

T R A M S

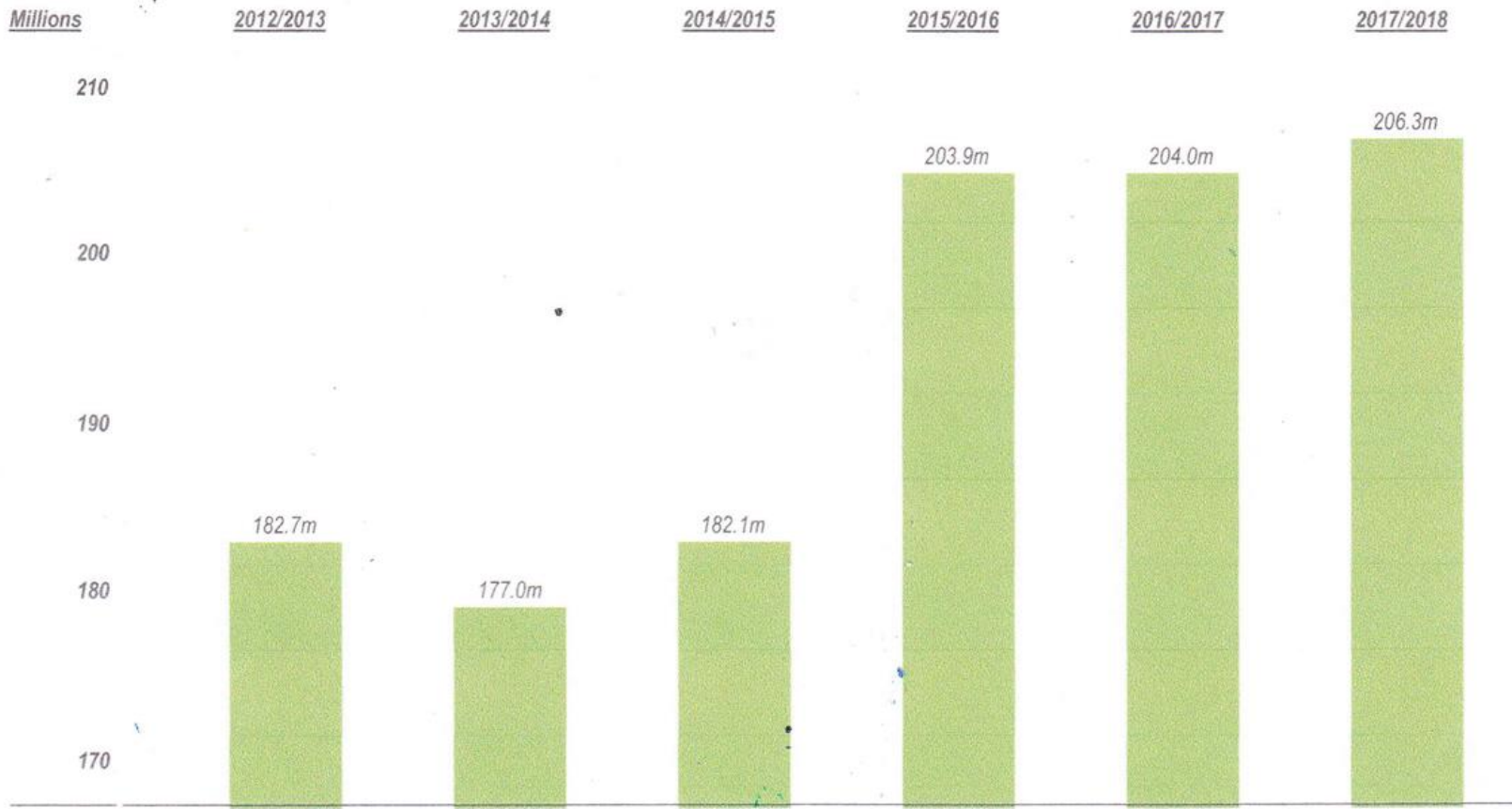
Friday August 9 - 2019



RAIL FUTURES
INSTITUTE INC.

Tram Patronage Trend

TRAM NETWORK PATRONAGE - 2012/2013 to 2017/2018.



Source: PTV Annual Reports

Tram patronage has increased by 13 % over the 5 year period to 30/06/2018

THE TRAM PLAN

MELBOURNE'S TRAM NETWORK



"The Jewel in the Crown"

The world's largest operational tram network, with **250km** of double track



Over 206 million trips completed annually



5,000+ services per day

Operating for over **100 years**



75% of the network is shared



24-hour operation



475+ trams



2,200+ employees
1,200+ drivers

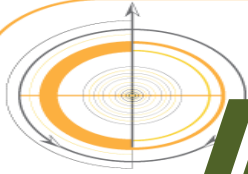


1,700 stops
420+ accessible

9 depots



TRAM PLAN



Improving the Customer Tram Travel Experience :

- ***Adding capacity to the network***
- ***Reducing tram trip travel times - reliability***
- ***Increasing service frequencies***
- ***Improving CBD Network coverage***
- ***Offering NEW additional route choices***
- ***Improving the interchange experience***
- ***Simpler passenger friendly PIDS Information***
- ***Meeting full DDA fleet & stop compliance***
- ***Trams part of the future GRID network of PT***

ADDING NETWORK CAPACITY

Replacing 3 of these
Z - Class = 210 pax

With 2 of THESE
E - Class = 420 pax



HIGH FLOOR - NON DDA Compliant
NOT AIR-CONDITIONED

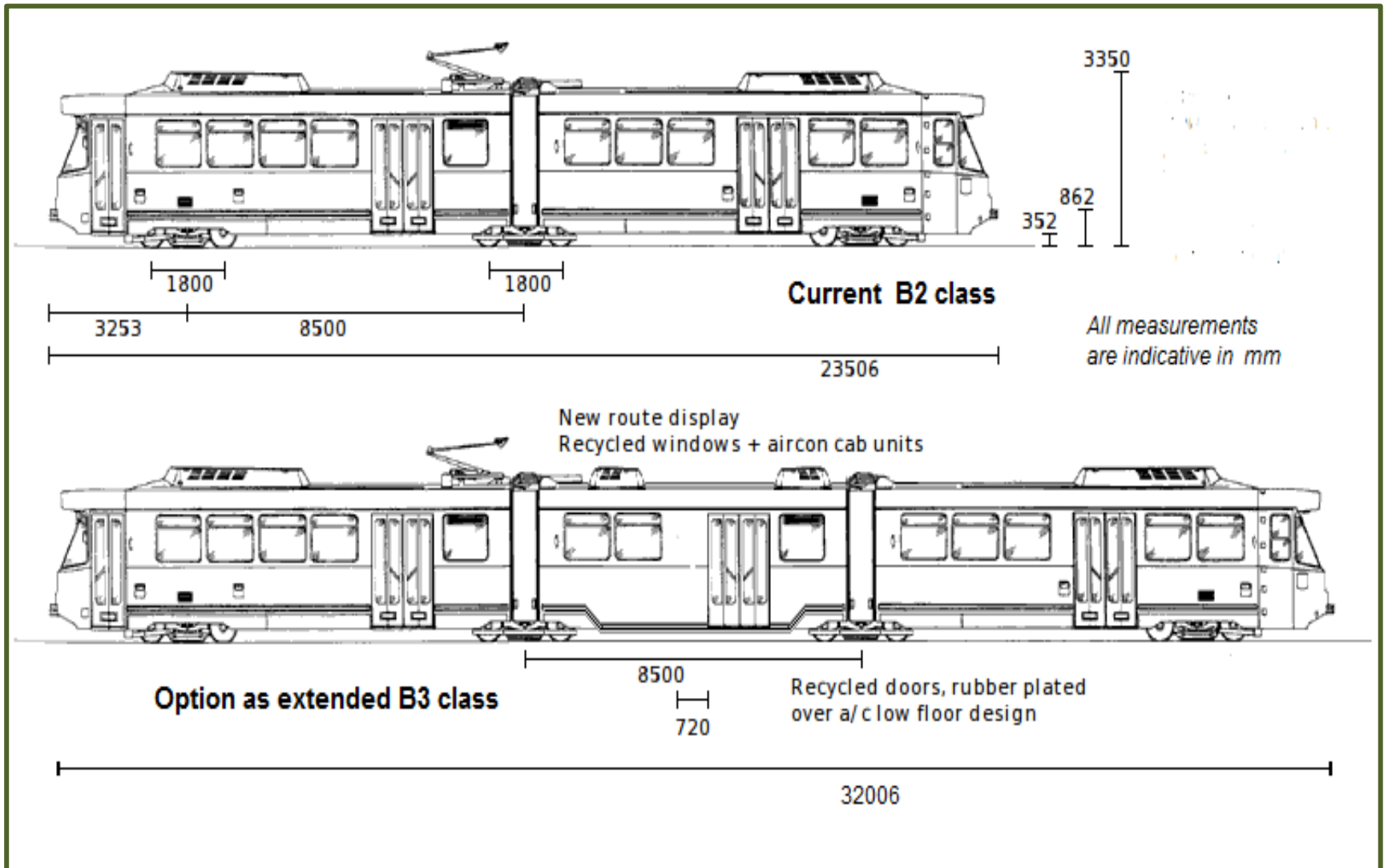
LIFE EXPIRED



LOW FLOOR - DDA Compliant
FULLY AIR - CONDITIONED

***Doubles the capacity
& releases 1 driver***

B2 / B3 Conversion OPTION

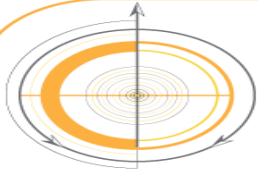


Reducing Tram Travel Times

Speeding Up Tram Services



- * Introduce Hook turns at ALL shared road space signalized intersections with trams***
- * Replace all painted Tram Clearway markings with solid raised delineation barriers***
- * On going enforcement by Police of road traffic queuing over intersections blocking trams***
- * Traffic signal priority to trams in Collins & Bourke Streets at : King, Russell & Exhibition Streets***
- * Tram approach activated signal priority in William, Elizabeth and Swanston Streets at all the “Little” Streets and Flinders Lane, & Flinders Lane / Market Street.***



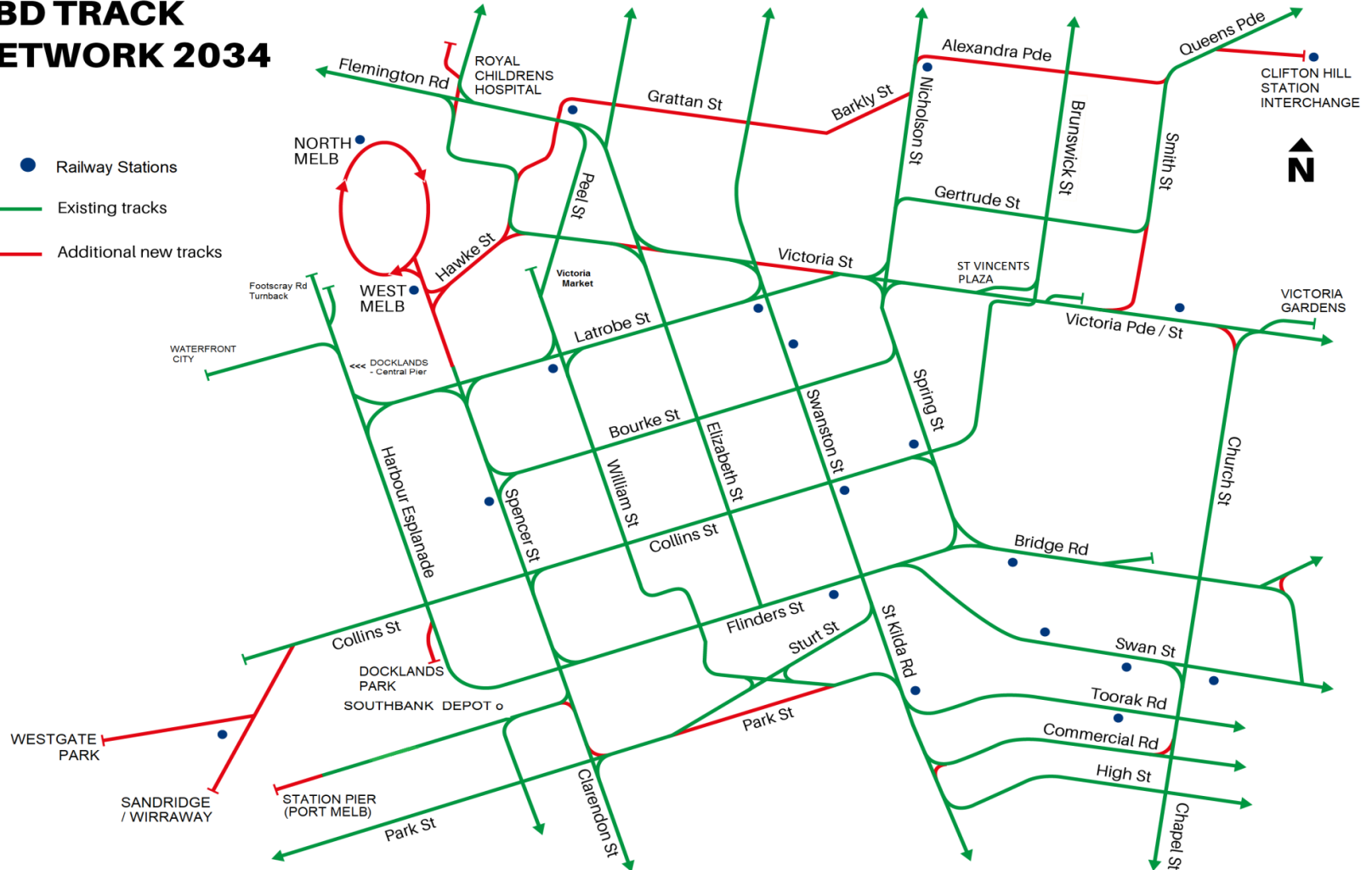
Increasing Network Service Frequency

- * INTRODUCE A MINIMUM TURN UP & GO FREQUENCY - OF EVERY 10 MINUTES BETWEEN 0700 and 2100**
- * PROGRESSIVELY INTRODUCE NEW ROUTES**
- * SUPPLEMENTED BY NEW INNER AREA PEAK SUPPLEMENTARY ROUTES**
 - Weekdays 0700 - 0930 & 1600 - 1830**

Improving CBD Coverage

CBD TRACK NETWORK 2034

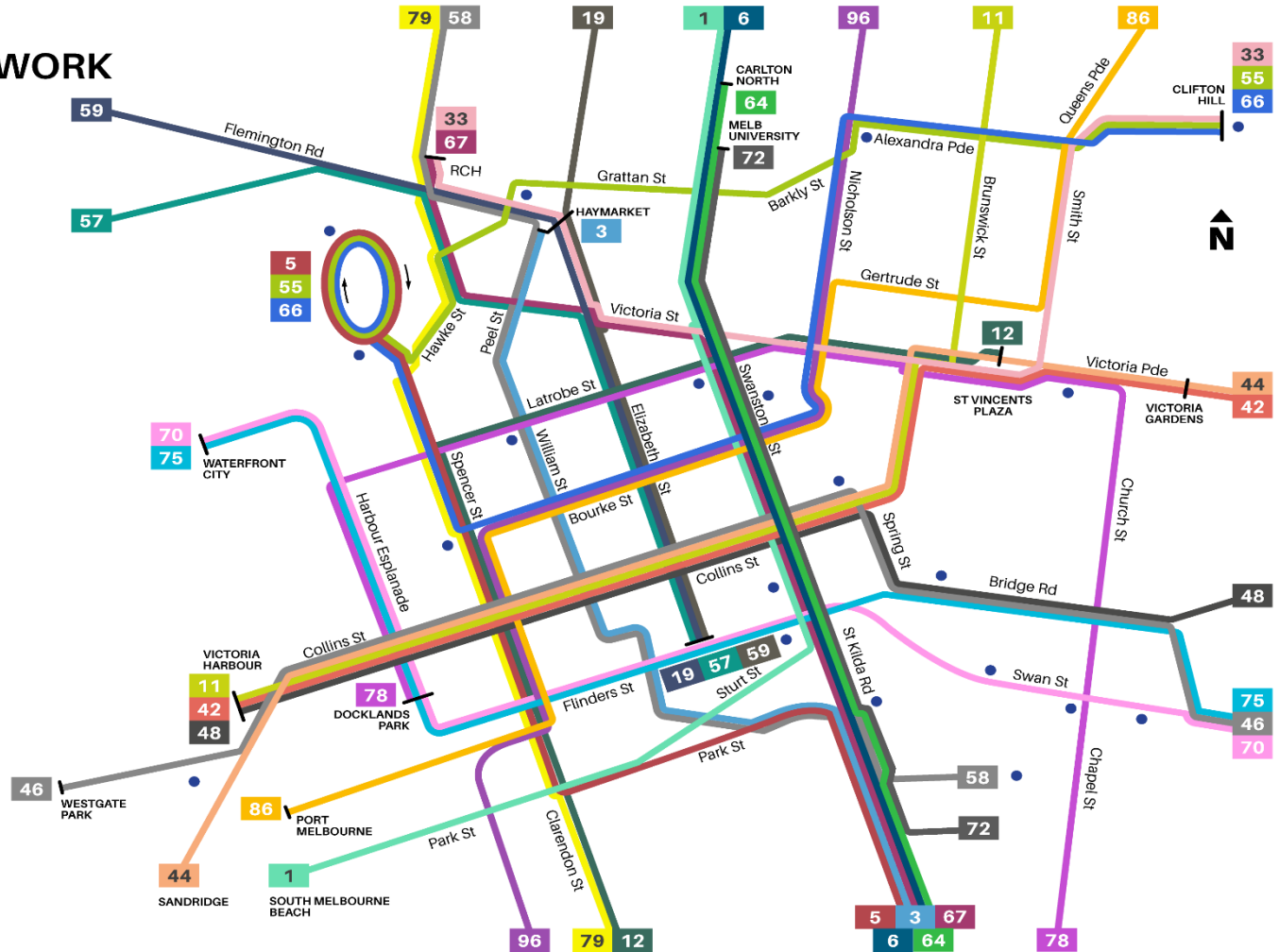
- Railway Stations
- Existing tracks
- Additional new tracks



NEW CBD Route Choices

CBD - ROUTE NETWORK 2034

- Stations
- 1** South Melbourne Beach - East Coburg
- 3** East Malvern Station - Haymarket
- 5** Darling Station - North Melbourne Station
- 6** Moreland - Glen Iris
- 11** Victoria Harbour - LaTrobe University
- 12** St Vincents Plaza - St Kilda (Fitzroy Street)
- 19** Flinders Street Station - Merlynston Station
- 33** Clifton Hill Station - RCH Parkville
- 35** City Circle Tourist Tram (Not shown)
- 42** Victoria Harbour - Box Hill
- 44** Sandridge - Kew Depot
- 46** Westgate Park - Camberwell Junction
- 48** Victoria Harbour - North Balwyn
- 55** Clifton Hill Station - North Melbourne Station
- 57** Flinders Street Station - Avondale Heights
- 58** Toorak - West Coburg
- 59** Flinders Street Station - Melbourne Airport
- 64** Carlton North - Malvern Station
- 66** North Melbourne Station - Clifton Hill Station
- 67** RCH Parkville - Carnegie Station
- 70** Waterfront City - Wattle Park
- 72** Melbourne University - East Kew
- 75** Waterfront City - Vermont South
- 78** Docklands Park - Elsternwick Station
- 79** Malvern Station - West Coburg
- 86** Port Melbourne - Bundoora
- 96** St Kilda (Acland Street) - East Brunswick



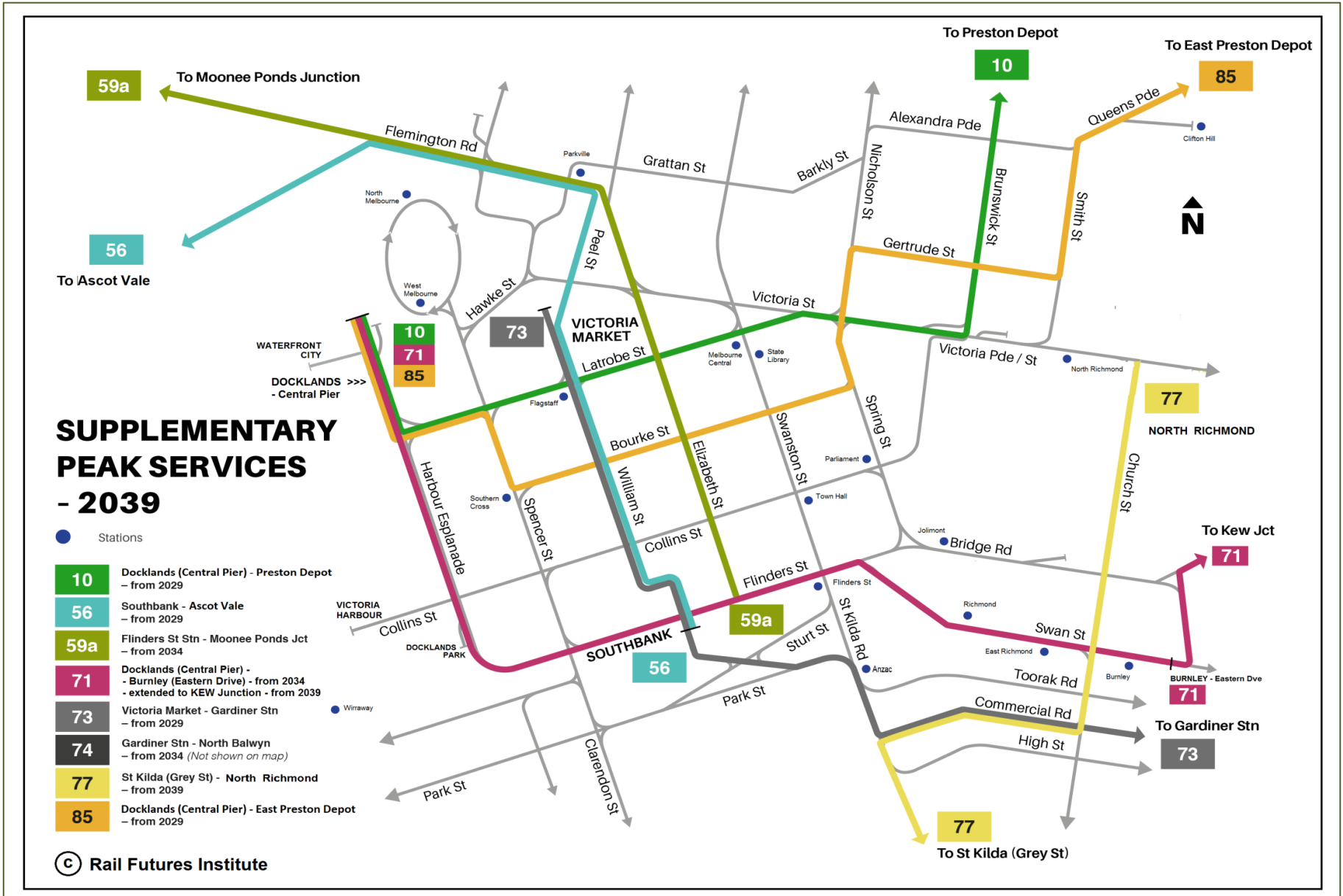
Increasing CBD Service Frequency

CBD - ROUTE NETWORK 2034

- Stations
- 1** South Melbourne Beach - East Coburg
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- 78** Docklands Park - Elsternwick Station
- 79** Malvern Station - West Coburg
- 86** Port Melbourne - Bundoora
- 96** St Kilda (Acland Street) - East Brunswick



Increasing PEAK Service Frequency



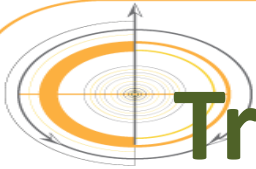
NOWHERE in PARTICULAR



ROUTE EXTENSIONS FROM NOWHERE IN PARTICULAR

EXTENSION TO - RAIL NETWORK or COMMERCIAL CENTRE :

- Route 3 **Darling Rd to EAST MALVERN Station**
- 5 **Burke Rd to DARLING Station**
- 16 **Cotham Rd to KEW JUNCTION**
- 19 **Sydney Rd to MERLYNSTON Station**
- 48 **North Balwyn to GREYTHORN SC**
- 57 **West Maribyrnong to AVONDALE HEIGHTS**
- 64 **Hawthorn Rd to MOORABBIN Station**
- 67 **Koornang Rd to CARNEGIE Station**
- 72 **Cotham Rd to EAST KEW (Meet Route 48)**
- 78 **Latrobe St to DOCKLANDS PARK (@Collins St)**
- 78 **Chapel St to ELSTERNWICK Station**



Train / TRAM Interchange Points

NOW (33)

- Armadale
- Balaclava
- Box Hill
- Camberwell
- Caulfield
- East Richmond
- Essendon
- Elsternwick
- Flagstaff
- Flinders Street
- Flemington Bridge
- Gardiner
- Glenferrie
- Footscray
- Glen Iris
- Glenhuntly
- Hawthorn
- Jolimont
- Kooyong
- Malvern
- Melb Central
- Moreland
- Newmarket
- Nth Melbourne
- Nth Richmond
- Parliament
- Richmond
- Riversdale
- Royal Park
- Sthn Cross
- South Yarra
- Toorak
- Windsor



FUTURE (46)

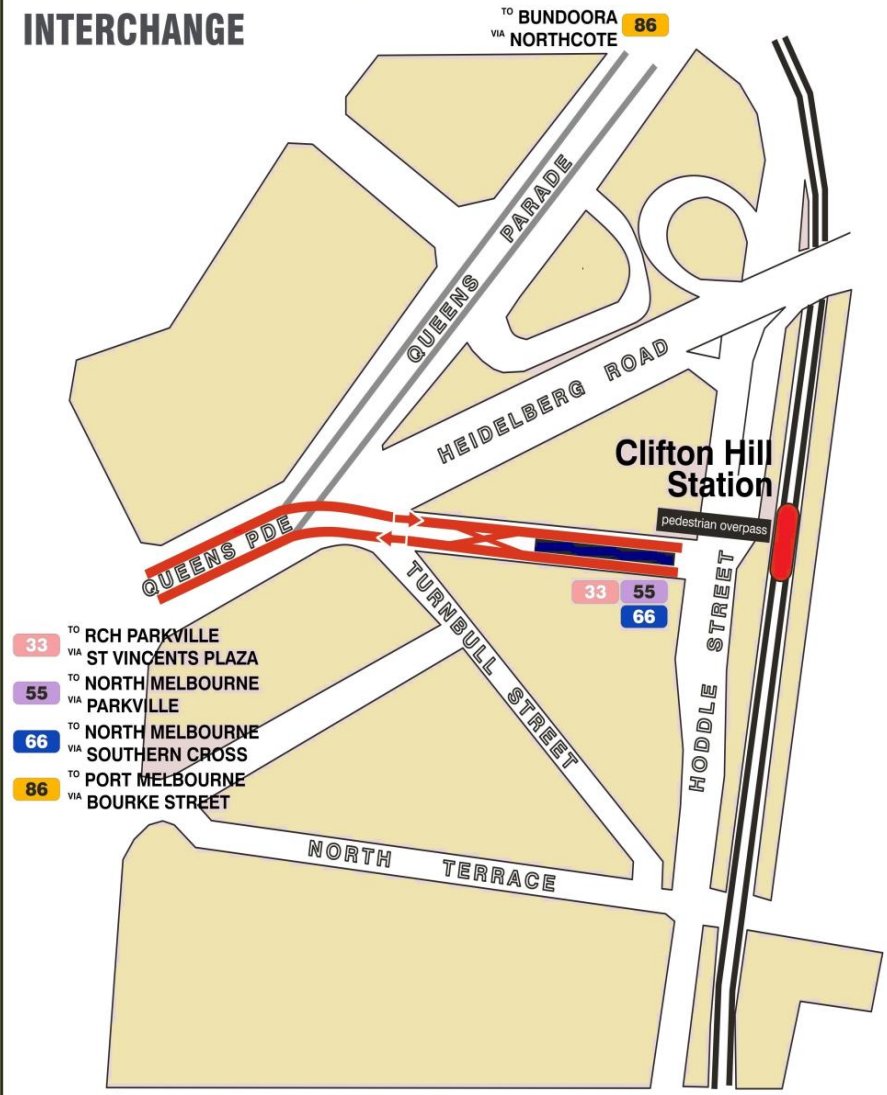
- **Anzac**
- **Carnegie**
- **Chadstone SC**
- **Clifton Hill**
- **Darling**
- **East Malvern**
- **Fitzroy**
- **Fishermans Bend**
- **Melbourne Airport**
- **Moorabbin**
- **Parkville**
- **Reservoir**
- **West Melbourne**

TRAM / Train Interchanges at Key Stations

MALVERN STATION TRAM INTERCHANGE



CLIFTON HILL STATION INTERCHANGE



WEST & NORTH MELBOURNE TRAM CONNECTIVITY PROJECT - STAGE 3 by 2029

EXISTING TRACKS

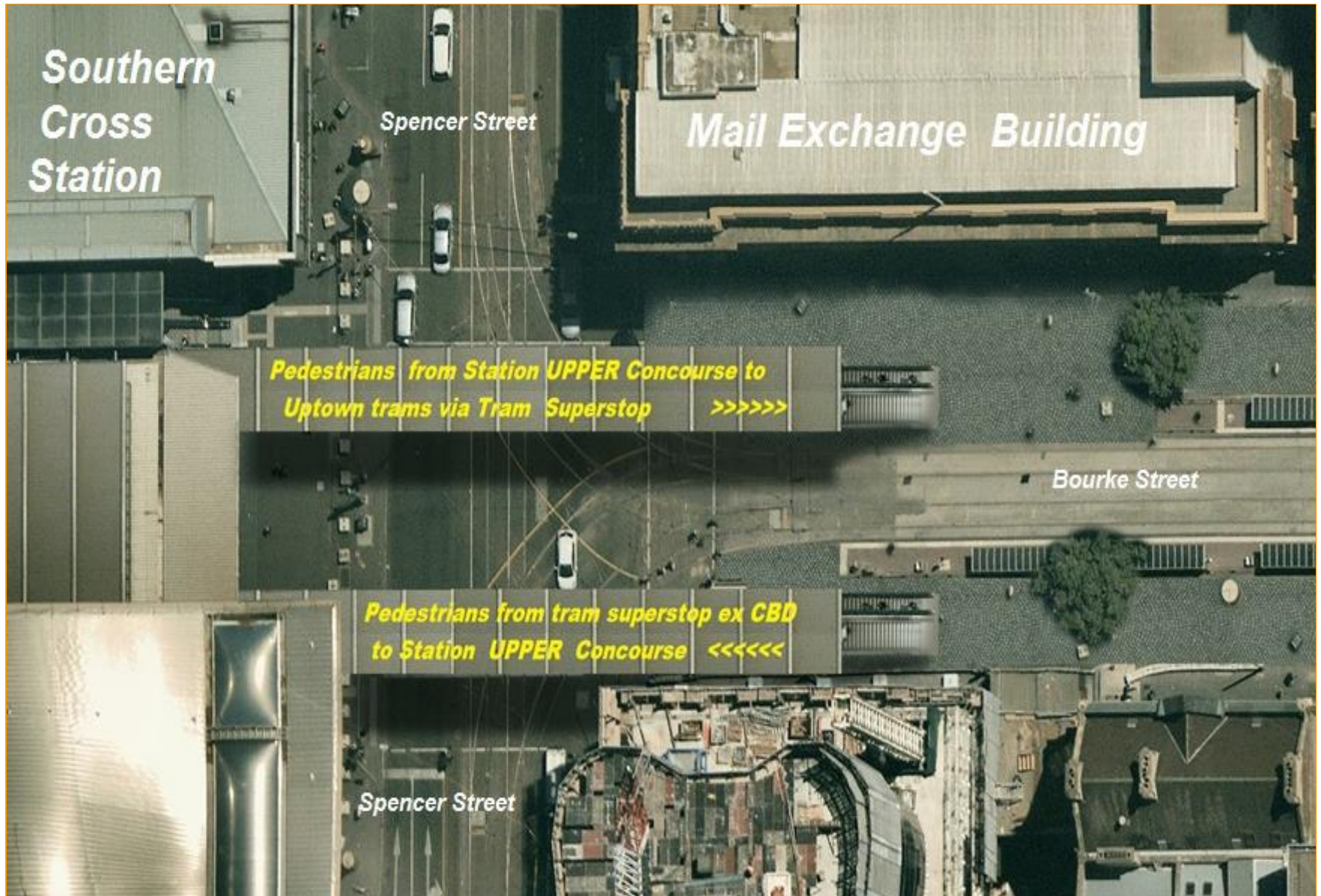
STAGE - 1
by 2022

STAGE - 2
by 2024

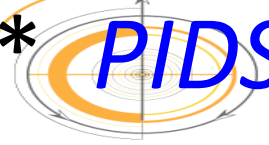
STAGE - 3
by 2029



Improving the Interchange Experience



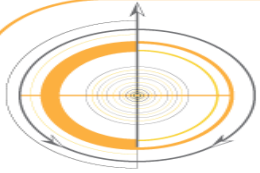
Improved PIDS Service Information

-  ** PIDS at tram stops to list approaching trams strictly in time order*
- On tram PIDS and announcements to give locations as well as Route #*
- Enhanced Tram Tracker app*
- Enhancing Boarding & Alighting**
- OFF TRAM - MYKI “touch on” at all Major Event platform stops*
- Road traffic free at key CBD stops*



The Melbourne Rail Plan – Non-DDA compliant trams – 312 to go!

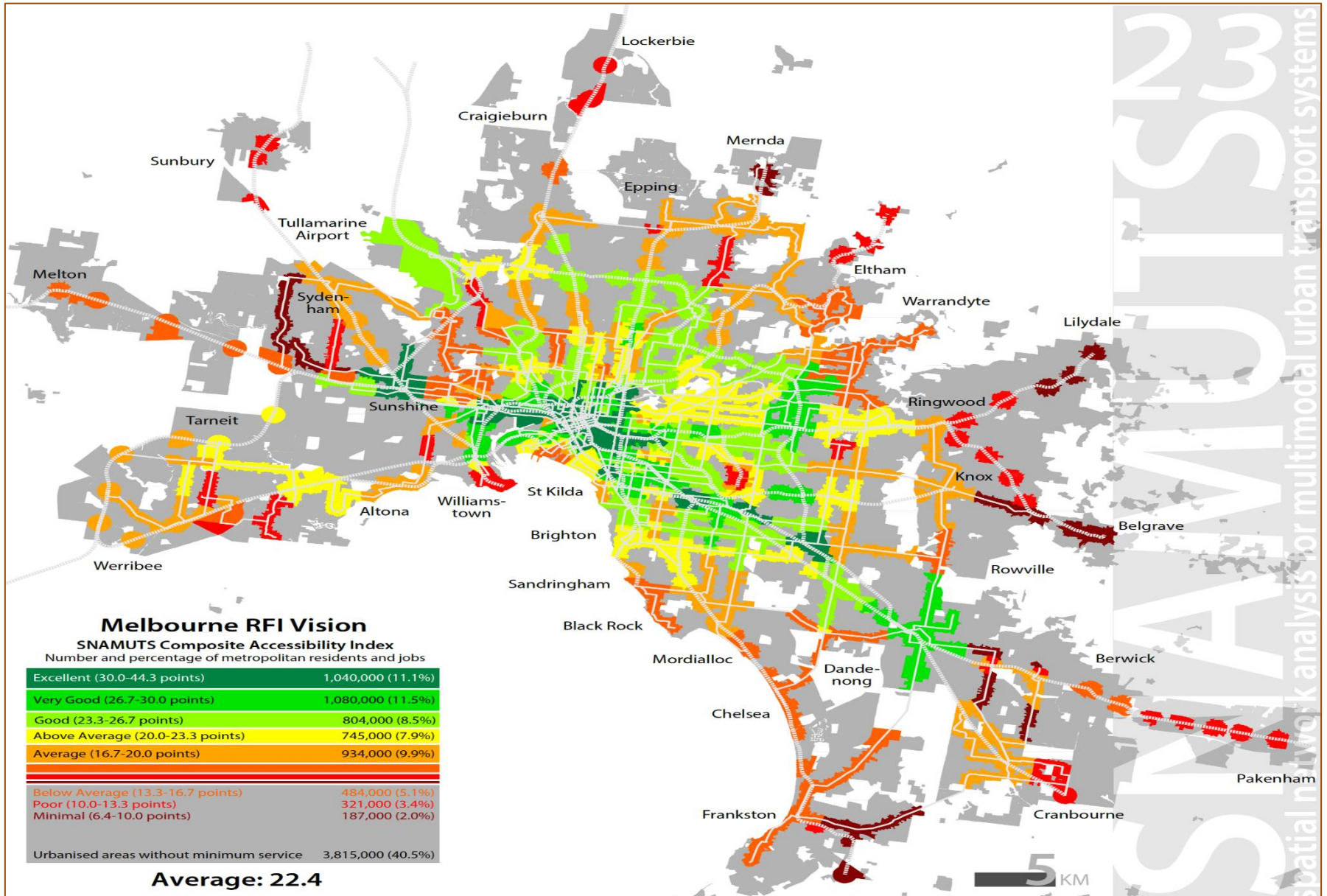




The Melbourne Rail Plan - Non-DDA compliant stops - 1100 to go !



The Future GRID Network Delivers



LOW Hanging FRUIT



Up E Class Deliveries to 24 p.a

Replace 36 old A/Z -
Class p.a. = 2520 pax

With 24 NEW E -
Class p.a. = 5040 pax



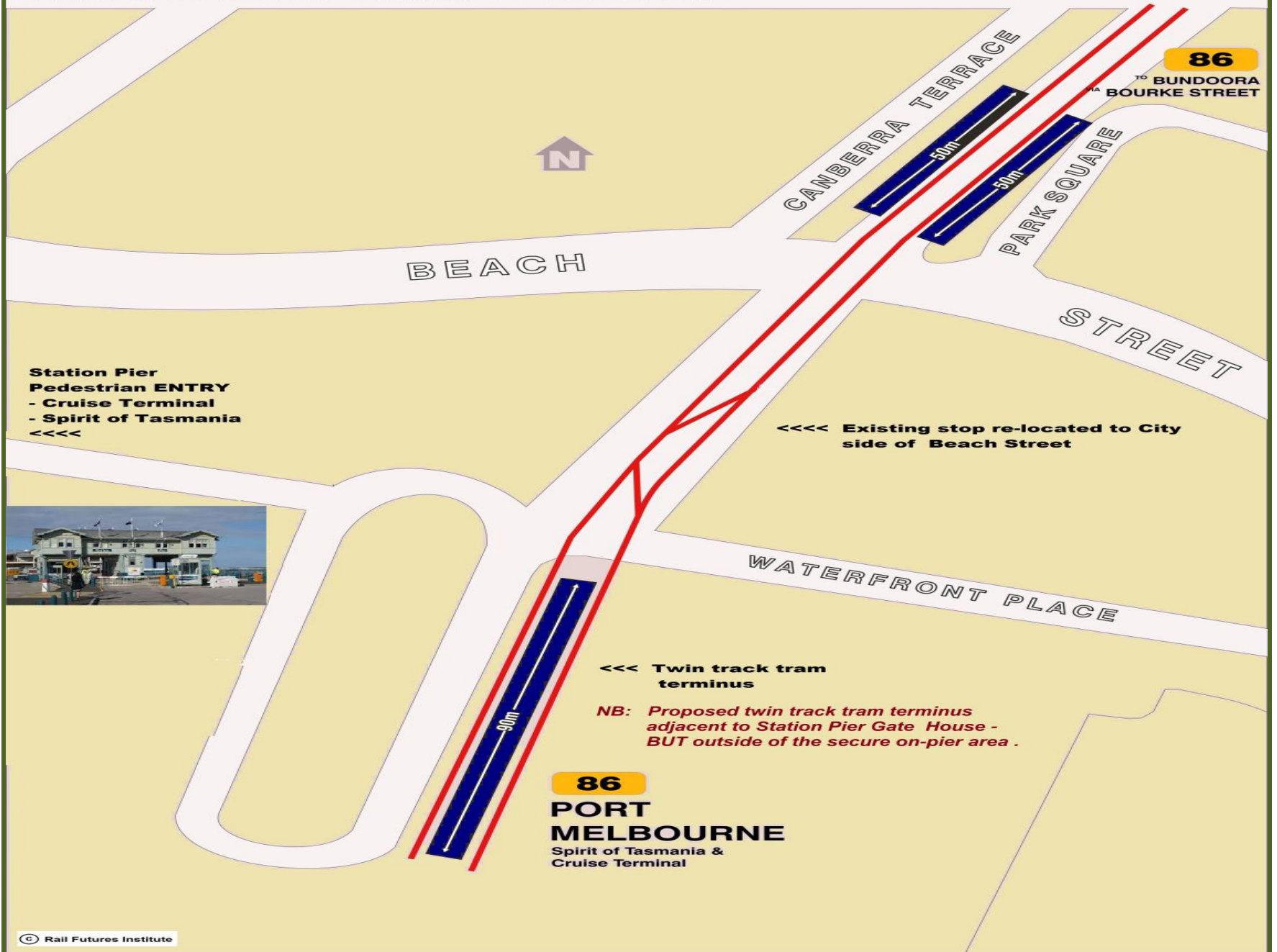
HIGH FLOOR - NON DDA Compliant
Z Class - NOT AIR-CONDITIONED

LOW FLOOR - DDA Compliant
FULLY AIR - CONDITIONED

LIFE EXPIRED

*Doubles the capacity &
releases 12 drivers to
to run NEW routes / + frequency*

STATION PIER TRAM TERMINAL



SIMPLY CREATED 3 NEW CBD Routes

EXTRA TRACK CONNECTIONS REQUIRED TO :

- Combine Routes 30 & 78
- Extend Route 78 to RCH
- Introduce NEW Route 66

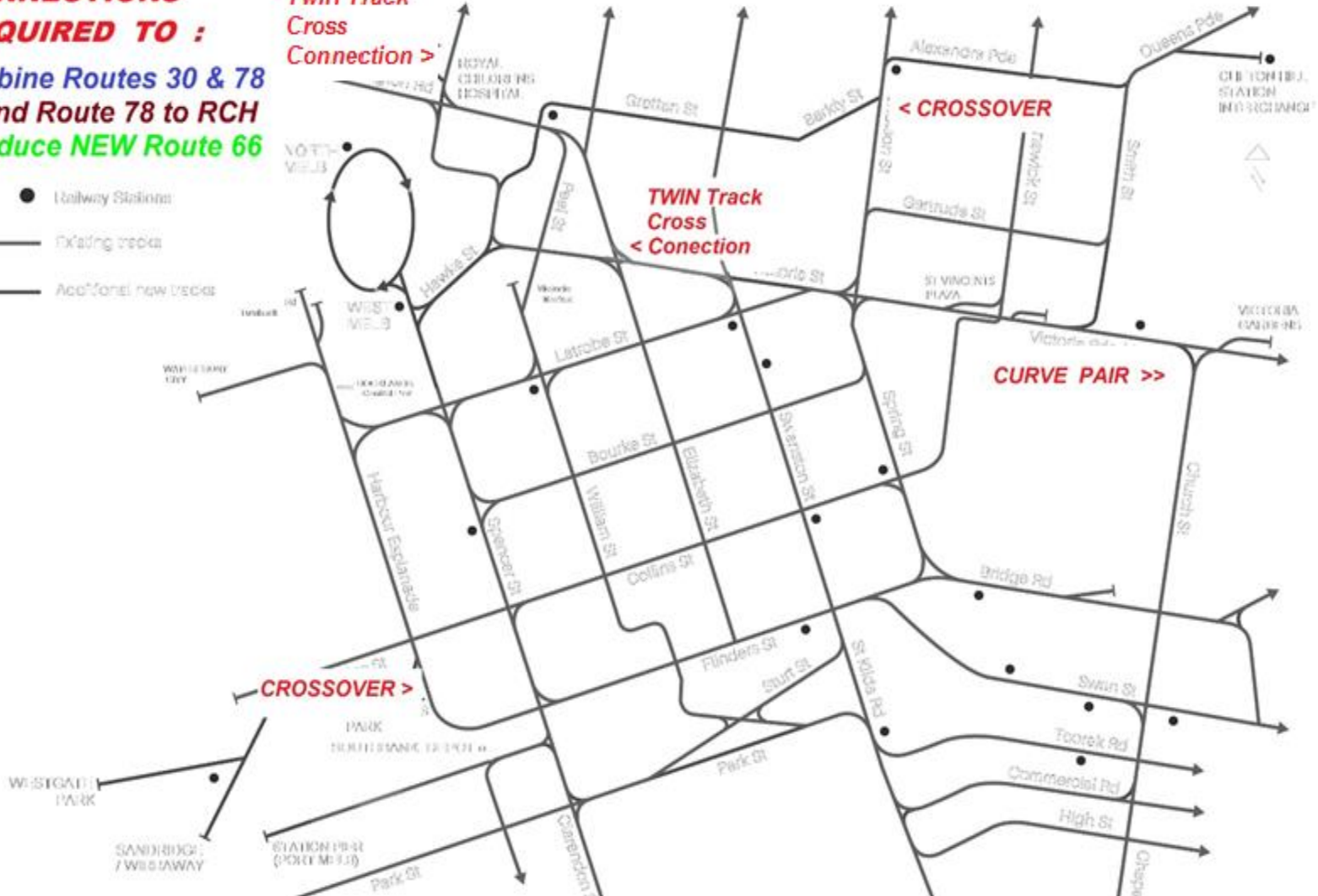


Twin Track Cross Connection >

TWIN Track Cross Connection <

CURVE PAIR >>

CROSSOVER >



Amalgamate Routes 30 & 78

COMBINED ROUTE - 78

**Docklands - St Vincent's Plaza -
- Balaclava**

**EXISTING Route 30
Docklands - St Vincent's Plaza**

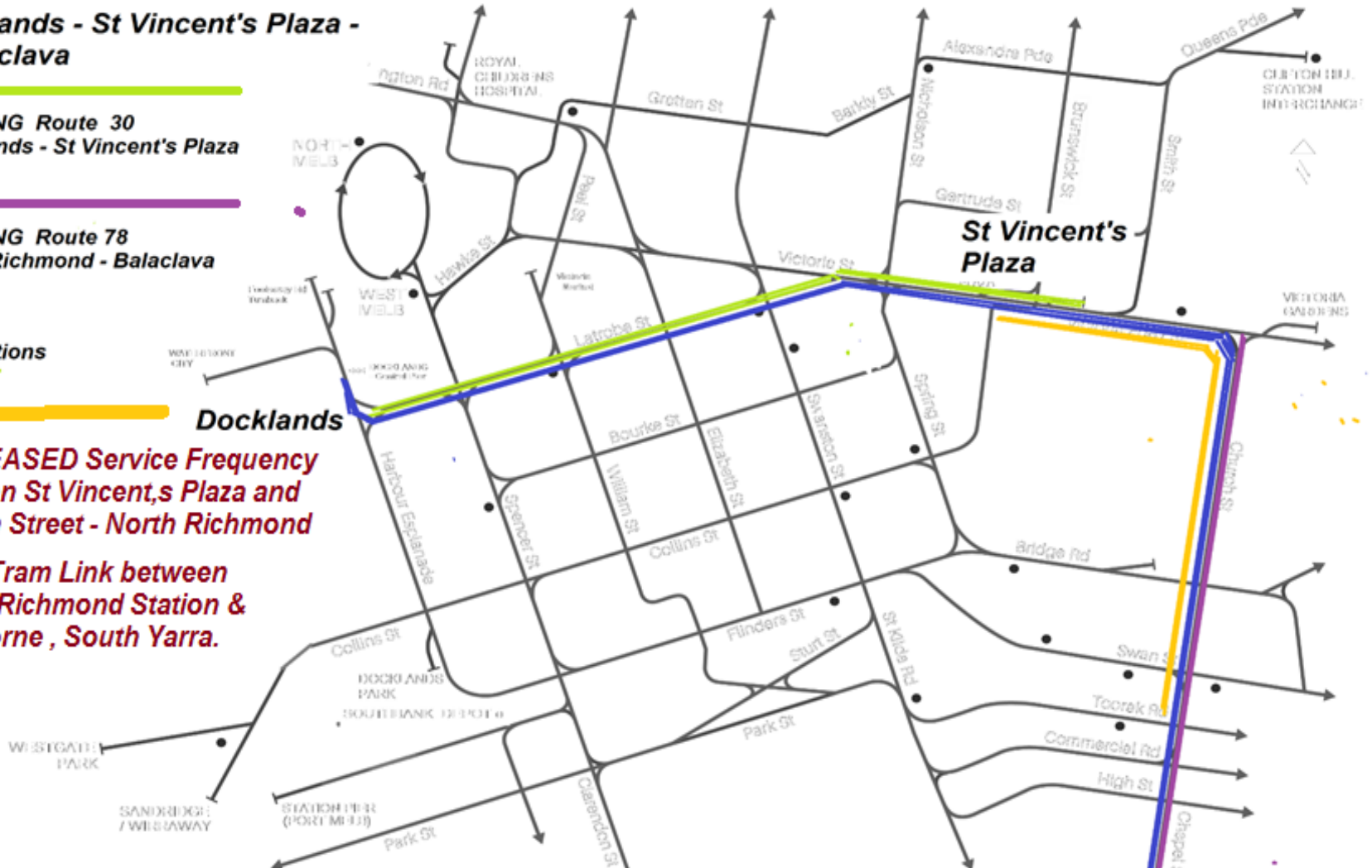
**EXISTING Route 78
North Richmond - Balaclava**

● Stations

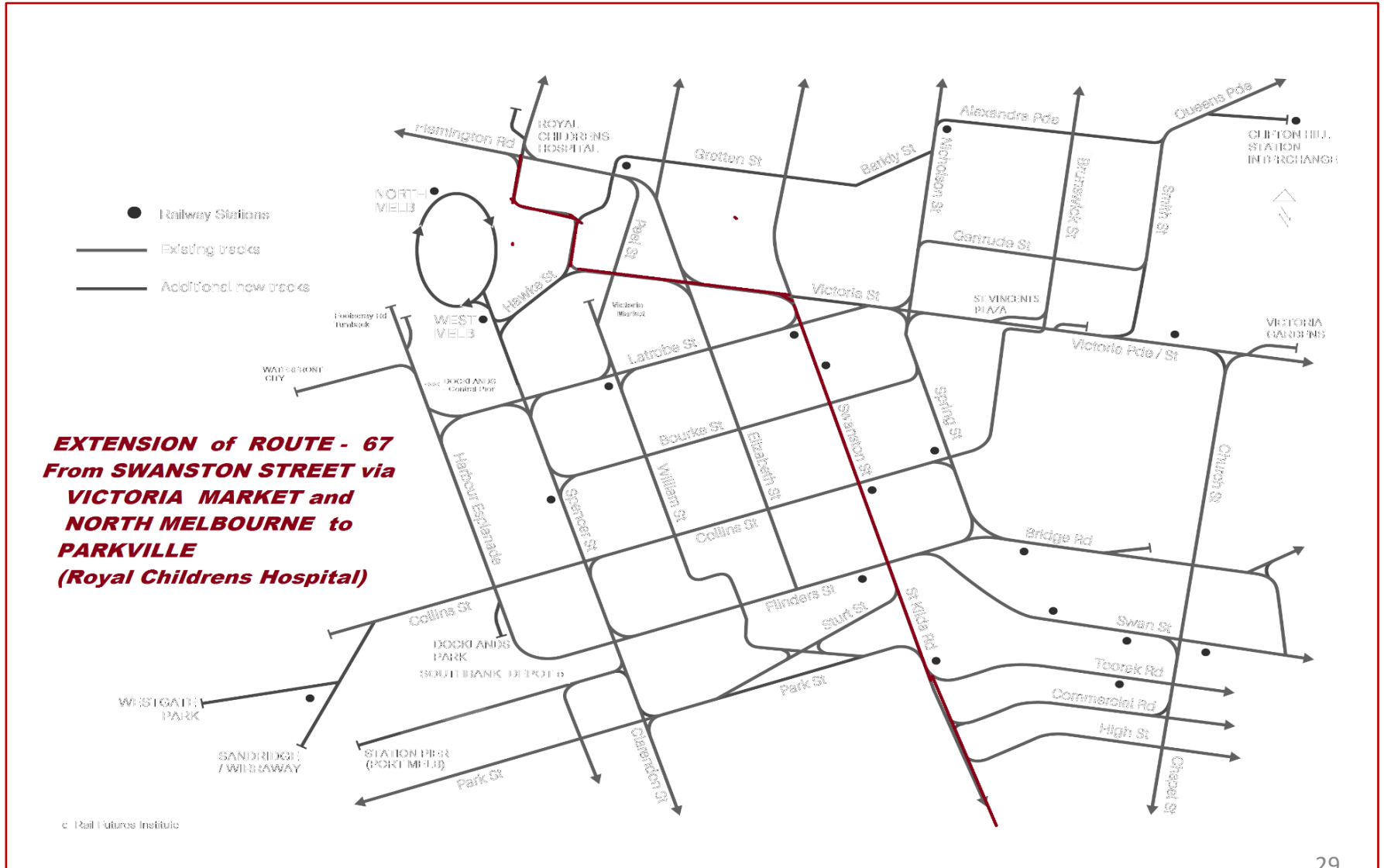
Docklands

**INCREASED Service Frequency
between St Vincent's Plaza and
Church Street - North Richmond**

**NEW Tram Link between
North Richmond Station &
Cremorne, South Yarra.**



Extend Route 67 to Parkville



ROUTE 16 Extension to KEW JUNCTION

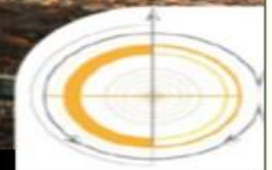


IMPROVING THE CUSTOMER TRAM TRAVEL EXPERIENCE

Transport for Melbourne

T R A M S

Friday August 9 - 2019



RAIL FUTURES
INSTITUTE INC.