



Brisbane BRT System

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Brisbane Transport Snapshot

- 1,220 buses
- 8 Depots
- Workshops
- Network Coordination Centre
- \$370m Budget
- Over 260 routes
- 3.126 million bus trips
- 68.278 million kilometres
- 80.1m passengers
(66% growth in 8 years)

Vision:

More buses,
more often,
more comfortable.

Mission:

Provide frequent,
reliable and safe
services.

2,780 Employees

- 2,251 bus operators
- 255 trades
- 68 non-trade
- 206 salaried staff
- recruitment and training of 400 bus operators a year

SETTING THE SCENE

Busway Network



- 29 km of dedicated busways
- 24 busway stations
- Numerous tunnels & viaducts (bridges)
- Several access points to/from general road network
- First section of busway opened in 2000
 - progressively extended
 - latest 3 km section opened in mid-2012.

The South East Busway

A Pictorial Tour



- **Dedicated bus-only roadways separated from general traffic**

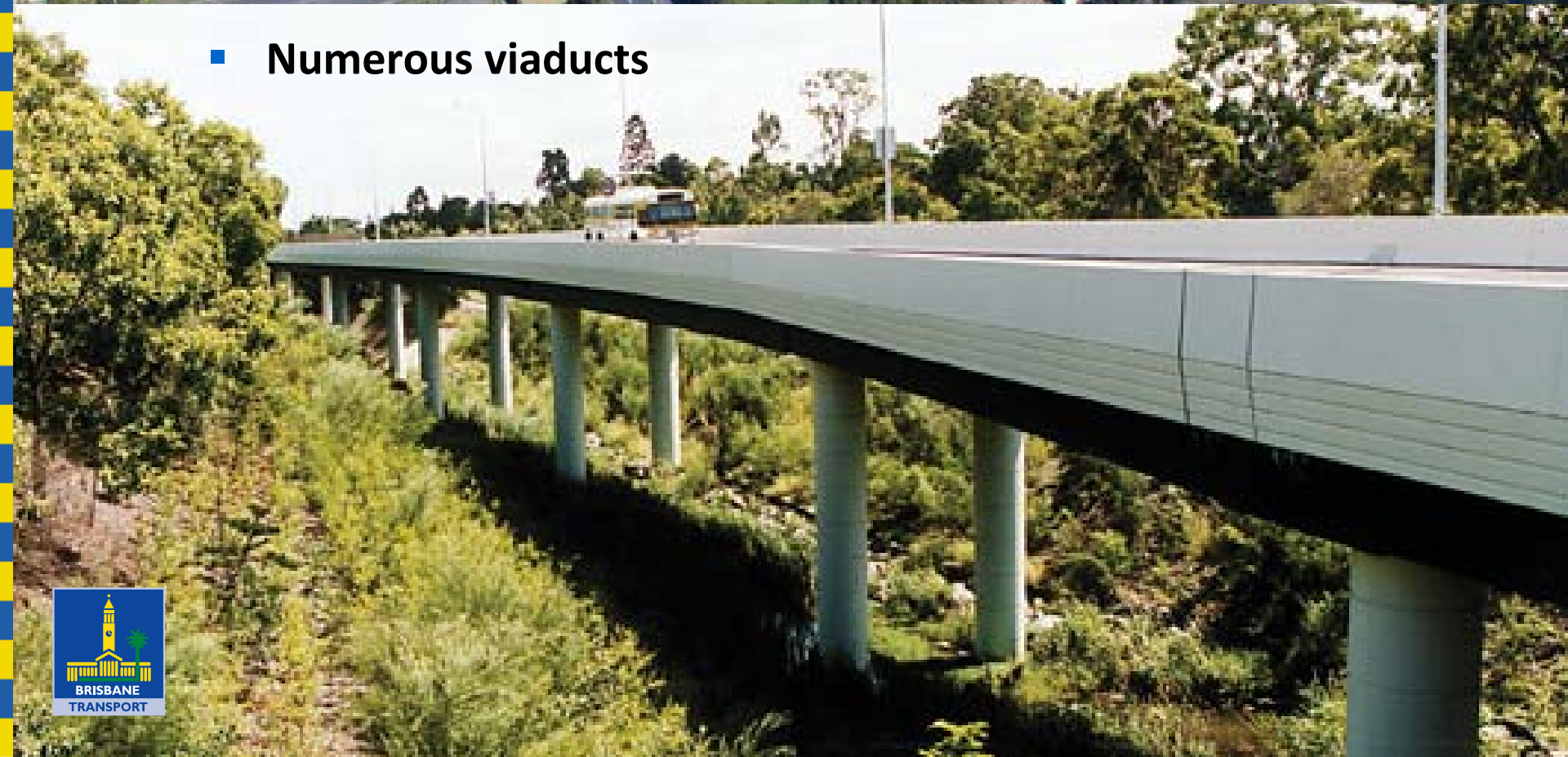


- **Over 4 km of tunnels**
- **Longest tunnel 640m**





- Numerous viaducts





Protection from golf balls!

(golf course integration)



- **‘Green’ Bridge for buses, pedestrians & cyclists**



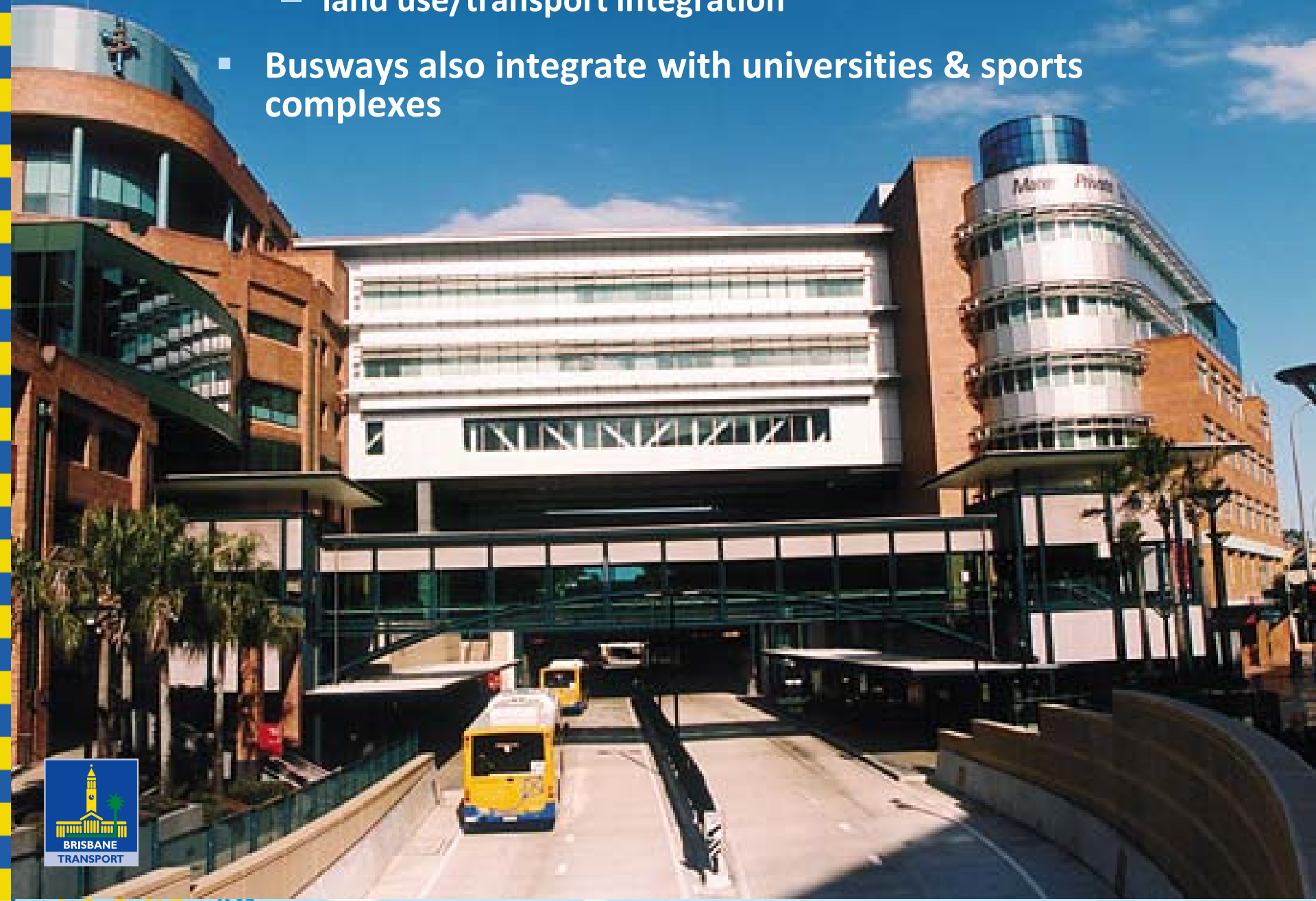
High quality stations

- Standardised design across network
- Passing lanes allow for mix of stopping & express services
- 4-bus suburban platforms



Cultural Centre

- Station within major hospital complex
 - land use/transport integration
- Busways also integrate with universities & sports complexes





Stations serving the
'Gabba' cricket & AFL ground
and a park & ride lot
(Eight Mile Plains)





**King George Square
underground station in CBD**



Queen St underground station below main shopping mall



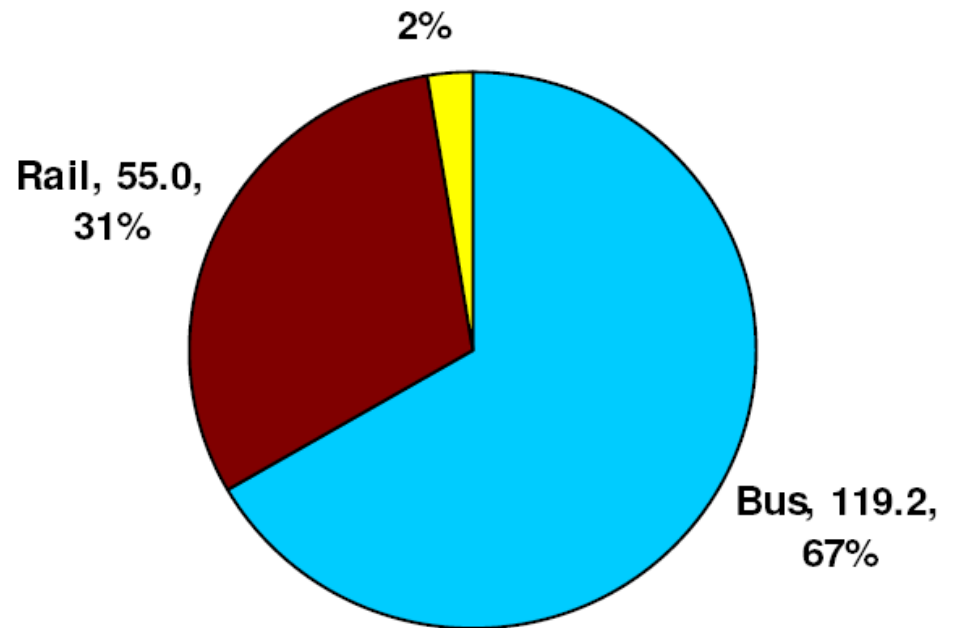
- **Bus / rail integration at Roma St**
 - Platform 1: bus
 - Platform 2: bus & rail
 - Platforms 3 to 10: rail
 - 1 rail track removed to make room for busway



South East Queensland

- Buses are carrying an increasing proportion of SEQ patronage
- In 2010-11, SEQ network patronage fell by 1.76%
 - Rail: - 4.51%
 - Bus: + 1.10%

TransLink network patronage for 2010-11
(millions)

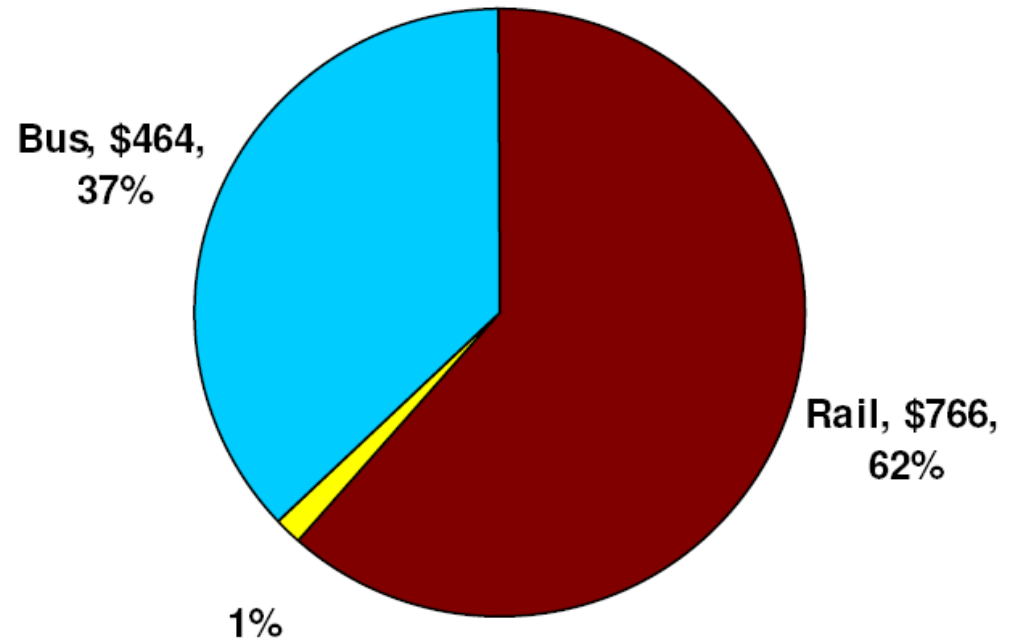


* Data taken from TransLink Transit Authority
Annual Report 2010–2011

South East Queensland

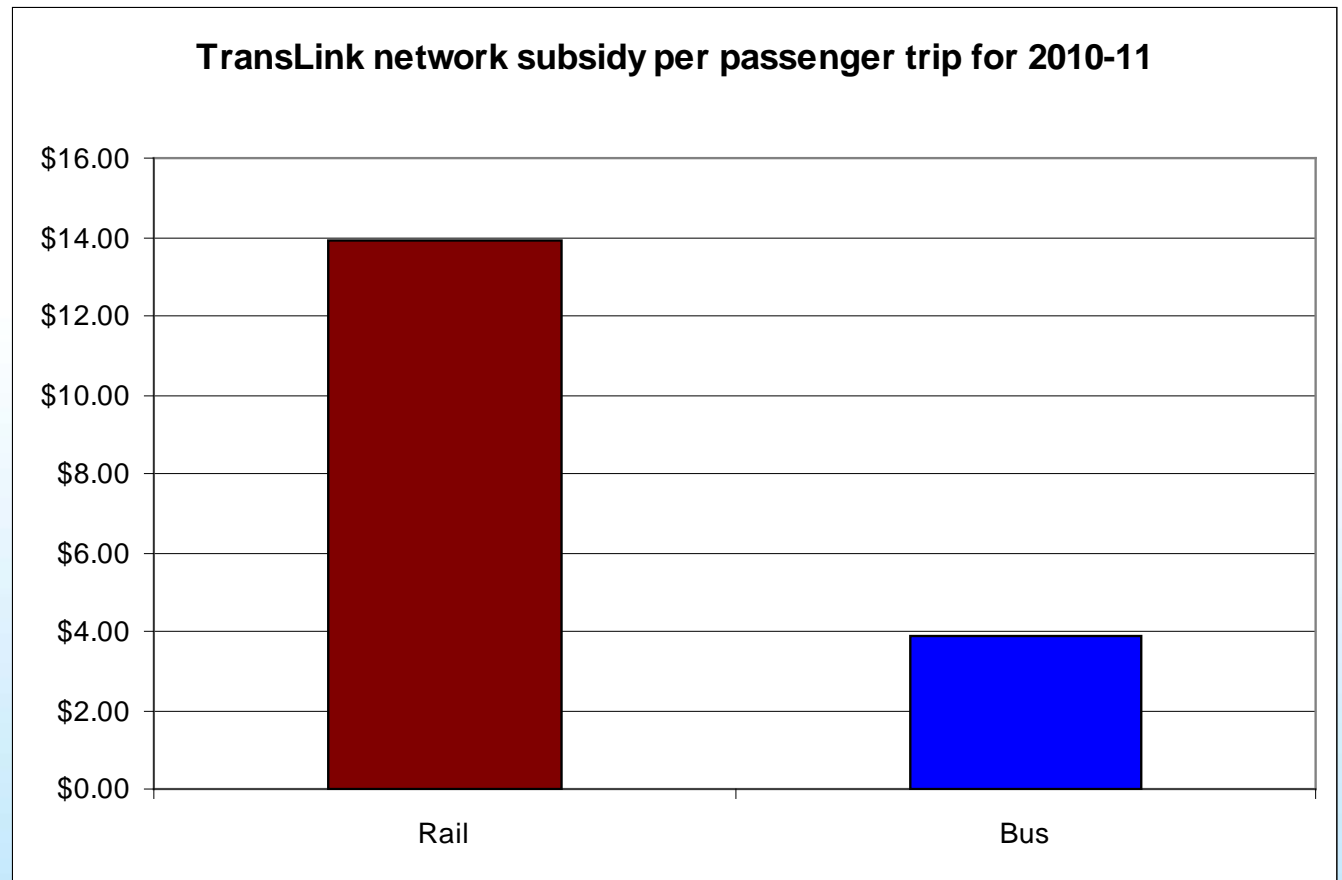
- Rail receives substantially more funding than other modes
- In 2010-11 total funding grew, but rail increased more than other modes
 - Rail: + 14.88%
 - Bus: + 13.23%

TransLink annual service contract expenses for 2010-11 (millions)



* Data taken from TransLink Transit Authority Annual Report 2010–2011

South East Queensland



* Data taken from TransLink Transit Authority
Annual Report 2010–2011

Busway Stations

- Distinctive, high profile stations on Brisbane's busway network a key element in its success.
- A sense of permanence and visibility normally only associated with railway stations
- A quality environment for transfer between services
- Passing lanes to allow a mix of stopping and express services.



Flexible Design

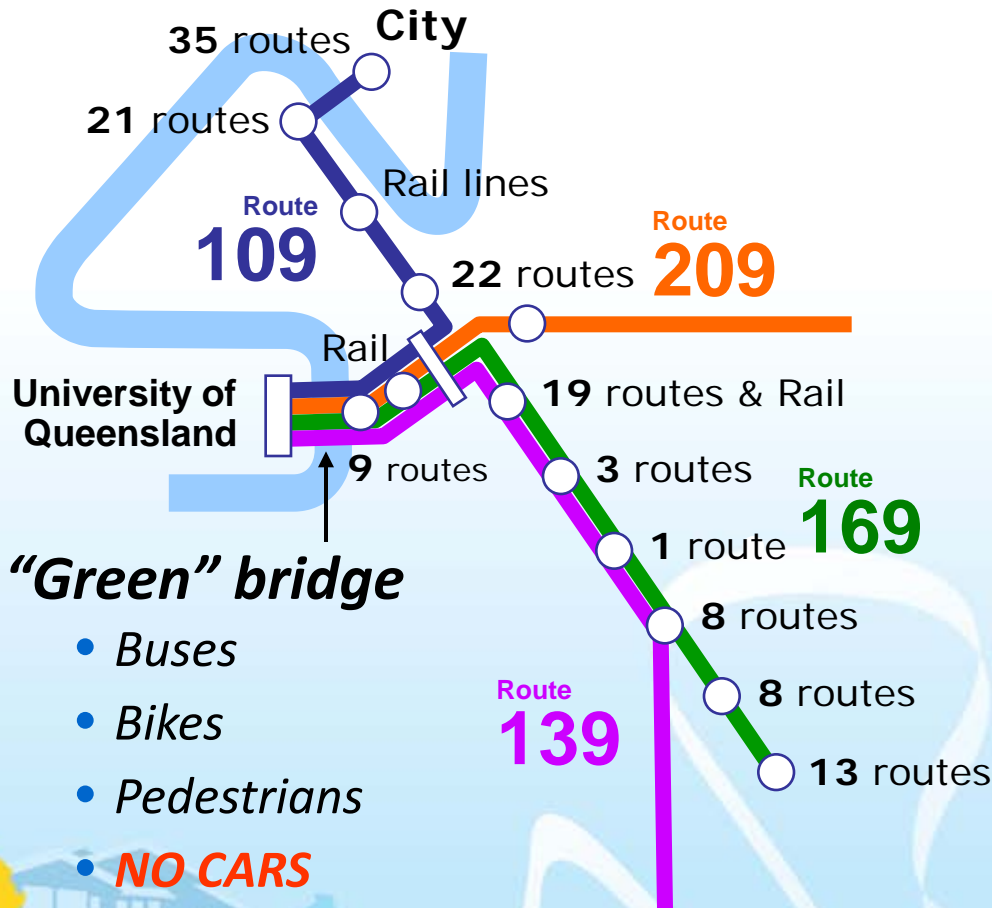
DESIGN EXAMPLES



- **Mix of stopping patterns**
 - all-stations
 - limited stop express services
 - non-stop (on busway)
- **Provides faster journeys for most passengers**
- **Avoids bus congestion at stations**
- **Maximises passenger attractiveness and catchment potential**

University Services

DESIGN EXAMPLES

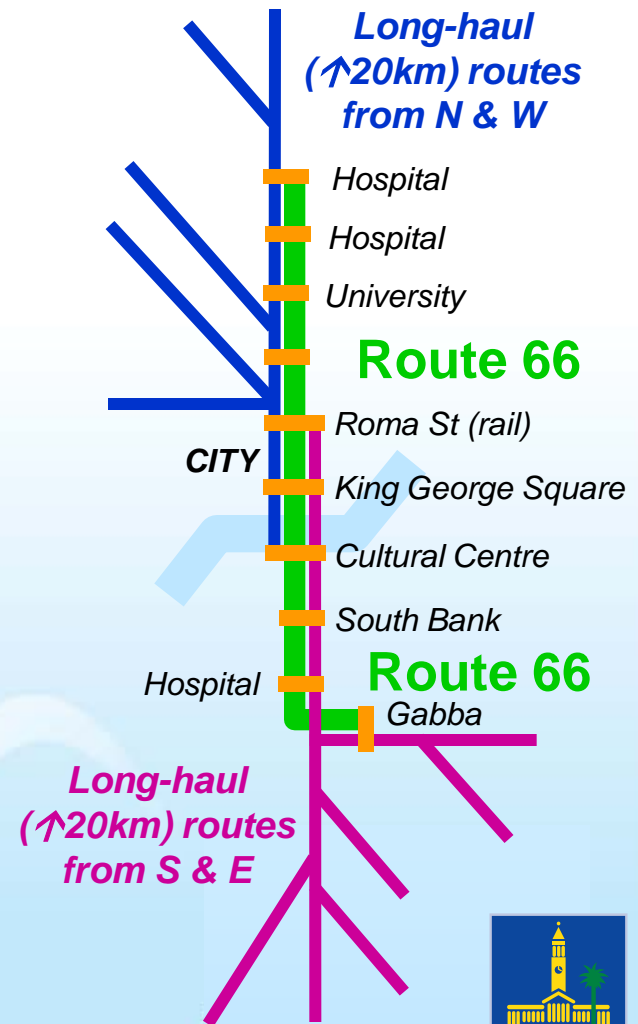


- Previous dedicated UQ service carried 3,600 passengers/day
- New services now carrying 30,000 passengers/day.



Capacity Drives Demand

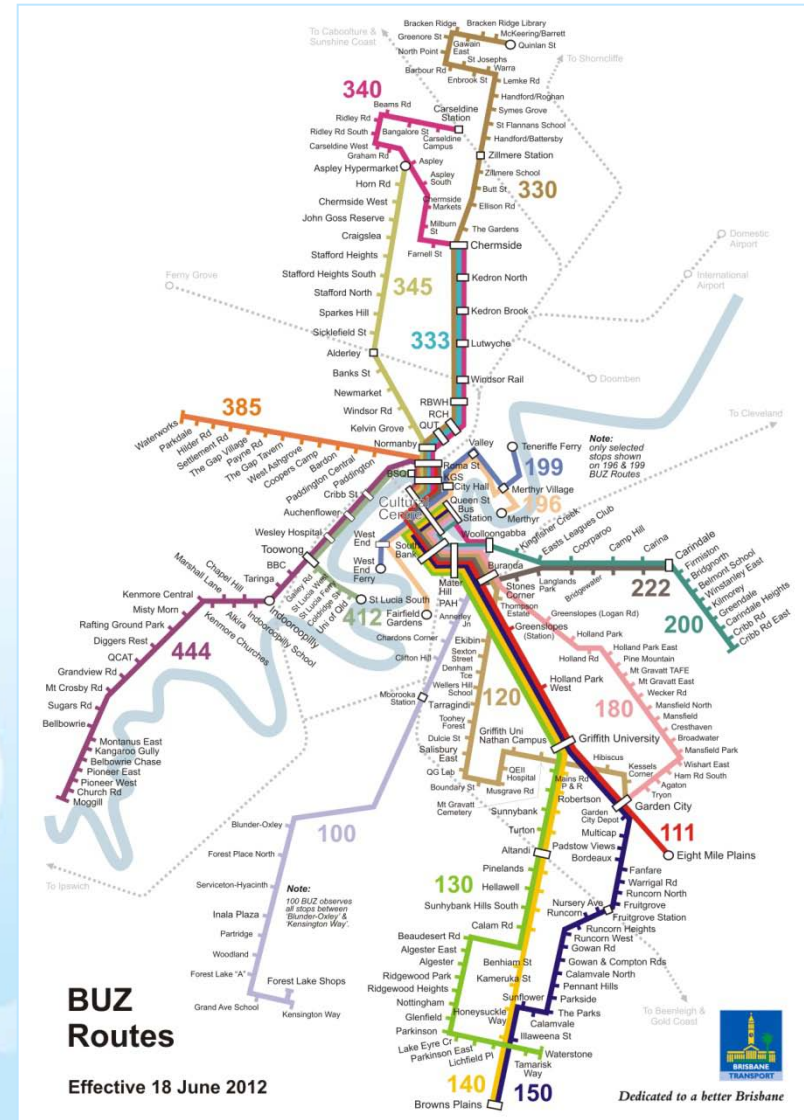
- The Alan Warren Theory:
“CAPACITY DRIVES DEMAND”
- What do the public want?
- Everything – but mostly
 - Frequency
 - Reliability
- Long haul routes at full capacity
- Supplemented by short trippers



BUZ Routes

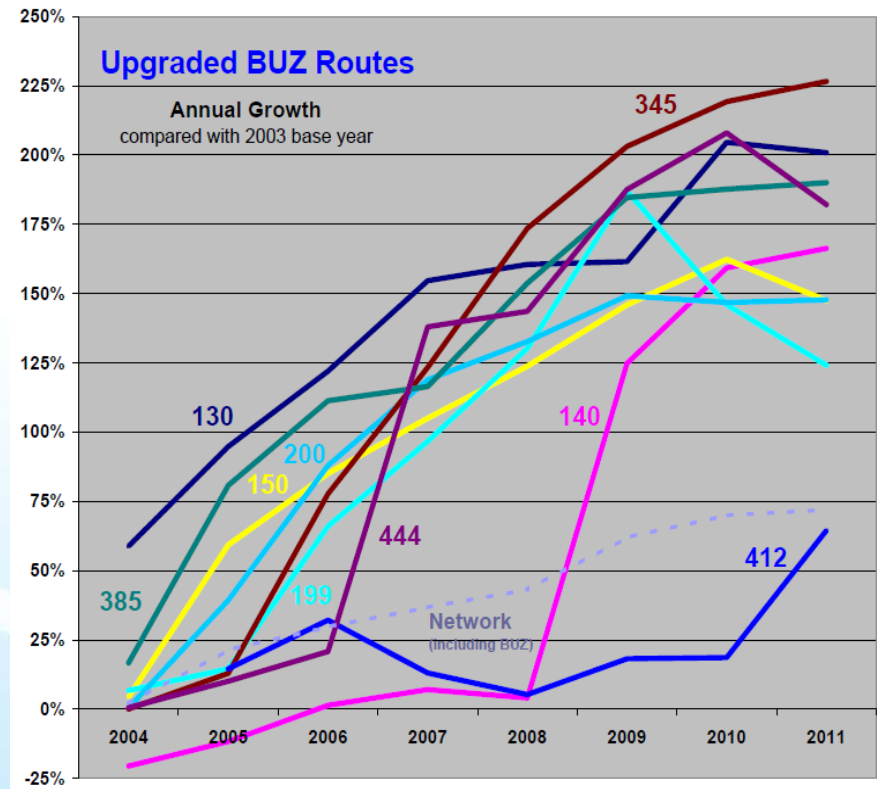
CAPACITY DRIVES DEMAND

- “No-timetable-needed” services, introduced as a new concept, NOT because of underlying demand.
- Design principles:
 - 6am - 11.30pm
7 days per week
 - Every 5-10 minutes
in the commuter peaks
 - Every 10-15 minutes
at all other times
in both directions.
- Routes complement rail lines.



BUZ Routes

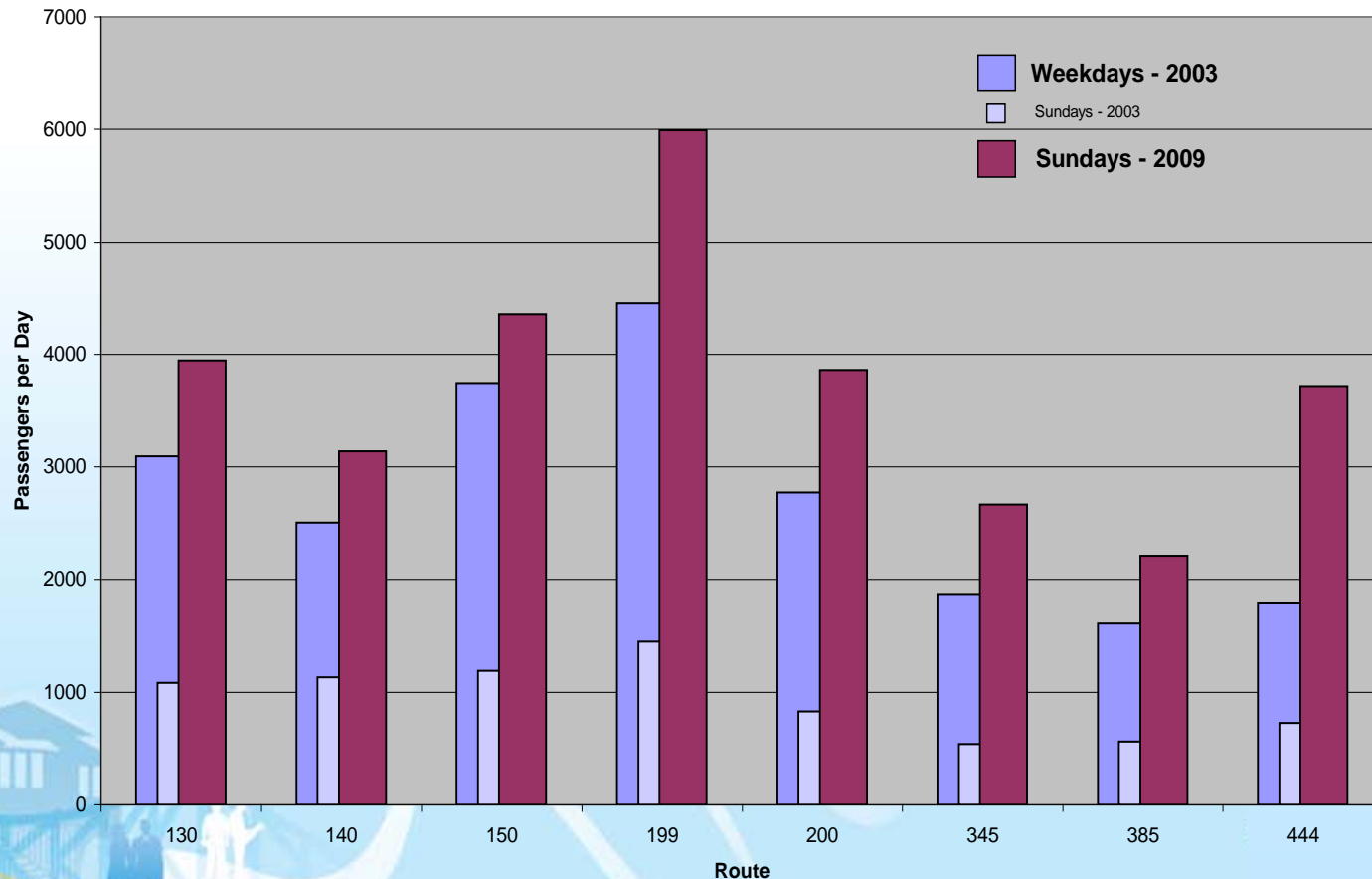
- Spectacular overall growth.
- Enormous off-peak growth.
- Over half of all growth since 2003 on these routes.
- These routes now carry 45% of total BT patronage
 - 60% with peak supplements.
- Immediate surge in patronage.



BUZ Routes

CAPACITY DRIVES DEMAND

- On all upgraded BUZ routes, Sunday patronage is now higher than weekday patronage “pre BUZ”.



Inner Corridor

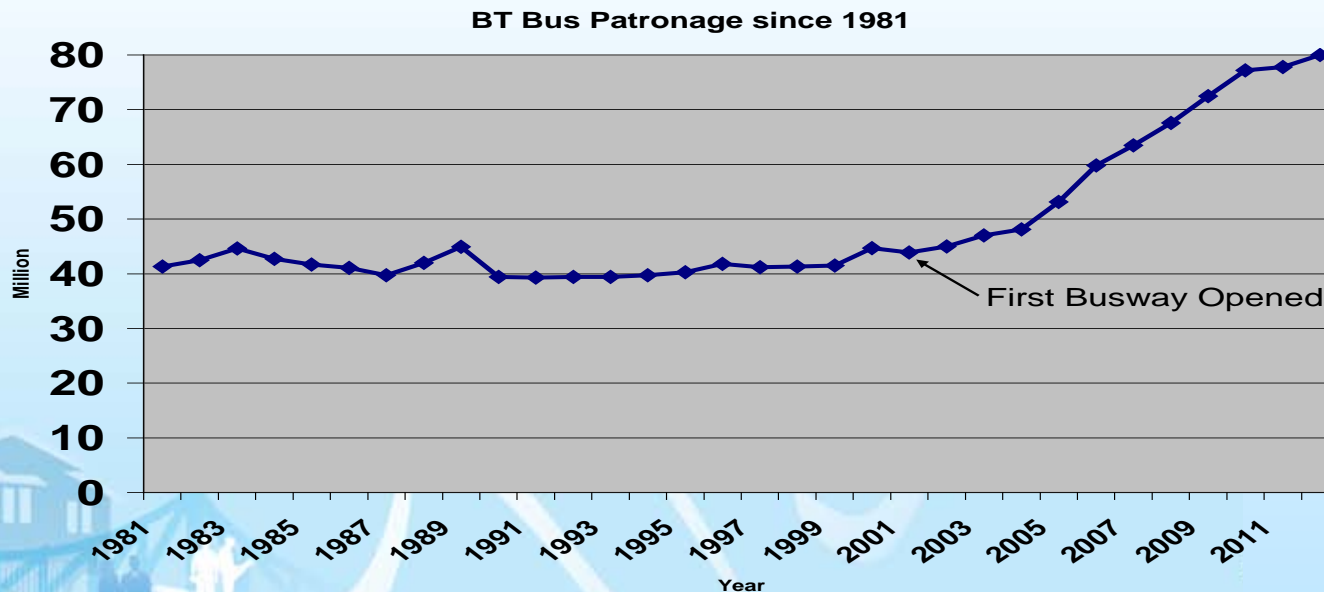
The City Glider – a Super BUZ

- No set timetable
- Limited stops
- Prepaid only
- Two door boarding
- 2.0m passengers p.a.
- Still growing.
- Second BUZ-style route in corridor.
- Original BUZ route carrying 3.5m passengers p.a.
- Other route in corridor upgraded to a BUZ 12 months ago and is now carrying 1.8m passengers (0.5m increase).



BRT Outcomes

- **Busway capacity well beyond expectations**
 - long term estimate was 10,000 passengers/hour
 - now 20,000 passengers/hour in peak direction.
- **Patronage has almost doubled since first busway opened.**



BRT Outcomes

- **However, congestion & choke points can occur where it meets general road network.**
- **Initiatives**
 - Scheduling
 - Flushing
 - Light sequencing
 - Boarding times
 - Both doors
 - Pre-paid/Go Card
 - Closed platforms
 - TLOs
 - Real Time Info
 - Bigger Buses.



BRT Conclusions

- **A well-designed BRT system transforms a bus network.**
- **Quality infrastructure provides the foundation**
 - allows advantages of a rail line *and* flexibility of buses to be combined.
- **Creative service design delivers the quantum growth**
 - a limited mix of operating patterns
 - tailored to unique local environment
 - *advance* provision of consistent high frequency.
- **Quality customer service is still the key.**

