Transport Planning needs of our Public Transport Franchisees

Tuesday 27th April 2010, 5:00pm – 6:30pm
Department of Transport Theatrette, Level 5, 121 Exhibition Street

Our speakers this evening are...

Peter Ayres  General Manager, Grenda Transit Management
Bruno Lancelot  Network Development Director, Yarra Trams
Andrew Lezala  Chief Executive Officer, Metro Trains Melbourne
Transport Planning needs of our Public Transport Franchisees

Tuesday 27th April 2010

Peter Ayres
General Manager
Grenda Transit

Who is Grenda?

Grenda Corporation

Turnover: over $400 m/yr
Employees: approx 3000
Buses: 1300 Operated
       620/yr Manufactured
Sites: 24 bus depots
       4 Aust. Factories
       Malaysia & Abu Dhabi

100% Owned

Grenda Transit
Management
Grenda’s Bus Service, Peninsula Bus Lines, Portsea Passenger Services, Cardinia Transit, Invicta, Moonah Transit

Turnover: $135 m/yr
Employees: 1200
Buses: 620

Volgren Australia

Dandenong
Perth
Brisbane
Newcastle

Turnover: $170 m/yr
Employees: 550
Buses p.a.: 620

50% Owned

A.T.E.
Grenda Corporation
Hornibrook Group
PATH – Perth, Southlink – Adelaide

Turnover: $120 m/yr
Employees: 1300
Buses: 650
Public Transport – Role in the Community

Whilst the primary role is to provide a transport choice to the travelling public, the outcomes of what we do are far more important.

These include:

- Reduce Congestion
- Improve our Environment
- Reduce Social Exclusion

Reduce Congestion

Buses in Melbourne

80% of Melbourne’s residents live more than 400m from a tram line or train station.

If Melbourne’s bus system was discontinued overnight, AM peak traffic would be considerably worse:

- Vehicle hours of delay would increase 37%
- kms of congested roads would increase 13%
- Average travel speeds would decline 6%

(Source: Aftabuzzaman M, Currie G, Sarvi M, Monash University 2009)
Improve the Environment

CLIMATE CHANGE

- Transport is Australia’s third largest and second fastest growing source of GHG emissions (Bus is less than 1% of this)
- Projected to be over 60% above 1990 levels by 2020!
- Road transport accounts for almost 90%
- In per capita emission terms, Melbourne is more than double, and Brisbane more than triple, London’s emissions

Address Social Exclusion

Monash University research shows a mismatch between public transport supply & social needs
Melbourne Public Transport Mode Statistics

<table>
<thead>
<tr>
<th>Key Statistics</th>
<th>Metro Rail</th>
<th>Yarra Tram</th>
<th>Buses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trains, Trains &amp; Buses (Operator Sites)</td>
<td>150 (6 car units)</td>
<td>501</td>
<td>1480 (estimate - 2010)</td>
</tr>
<tr>
<td>No. of Routes/Lines (km)</td>
<td>15 lines (830 km)</td>
<td>27 (249 km)</td>
<td>331</td>
</tr>
<tr>
<td>Employees (Operator Sites)</td>
<td>3,500</td>
<td>1,900</td>
<td>3,100 (estimate - Metro services)</td>
</tr>
<tr>
<td>Annual Passengers Trips (2009 - DOT)</td>
<td>214.2 M</td>
<td>179.1 M</td>
<td>190.5 M</td>
</tr>
<tr>
<td>Published Annual Contract Values (Govt. Contracts Site, Start of Contract Values, Excludes Capital, Depots &amp; Infrastructure)</td>
<td>$ 542 M (Dec 2009 Start)</td>
<td>$ 111 M (Dec 2009 Start)</td>
<td>$ 318 M (July 2008 start)</td>
</tr>
<tr>
<td>Farebox Revenue to Operator 2006-07 (DOT)</td>
<td>$ 185 M</td>
<td>$ 185 M</td>
<td>$ 0 M</td>
</tr>
<tr>
<td>Annual Timetabled Services (Metlink)</td>
<td>624,000</td>
<td>1,632,800</td>
<td>5,009,000</td>
</tr>
<tr>
<td>Annual Service KM (Operator Sites, Metlink)</td>
<td>30,000,000</td>
<td>25,000,000</td>
<td>85,000,000</td>
</tr>
<tr>
<td>Estimated Service Density (Passengers/Service KM)</td>
<td>7.1</td>
<td>7.2</td>
<td>1.2</td>
</tr>
<tr>
<td>% of Service KM</td>
<td>9%</td>
<td>22%</td>
<td>69%</td>
</tr>
<tr>
<td>% Timetabled Services</td>
<td>21%</td>
<td>18%</td>
<td>61%</td>
</tr>
<tr>
<td>% of Passenger Trips</td>
<td>43.4%</td>
<td>33.6%</td>
<td>20.3%</td>
</tr>
</tbody>
</table>

Melbourne’s Public Transport Challenges

- Providing reliable public transport, particularly train
- Meeting growing demand for public transport services
- Fuel prices will continue to rise; perhaps dramatically.
  - Potential to spike demand for public transport
- Addressing the limitations of Melbourne’s CBD centric radial public transport network
- Addressing the imbalance in access to public transport services across Melbourne
- Meeting the funding needs for Public Transport growth
Meeting growing demand for Public Transport

Melbourne per capita car and public transport use

<table>
<thead>
<tr>
<th>Year</th>
<th>Melb car passenger kms per capita</th>
<th>Melb PT kms per capita (right axis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>1991</td>
<td>700</td>
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<td>1992</td>
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<td>1997</td>
<td>1300</td>
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<td>1998</td>
<td>1400</td>
<td>1400</td>
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</tbody>
</table>

Financial year ending June...

Sources: BITRE 2009, DOT

Imbalance in Access - Span of days/hours

There are still many parts of Melbourne without evening and/or weekend services.

(Note: map does not include all 2009 network extensions)

34% of Melbourne bus routes still do not run on Sundays (was 72% in 2005)

Around 25% of people in Melbourne do not have local public transport on Sundays (December 2009, within UGB).
Imbalance in Access – Service Frequency

- Frequency on Melbourne’s bus routes is considerably lower than the tram network – yet both provide on-street local public transport.
- Buses often run at less than half the frequency of trains
- There are very significant inequities between inner and outer Melbourne.

**Average frequency - Melbourne trams and suburban buses by area of operation (as at May 2009)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Trams</th>
<th>Trains</th>
<th>Buses - inner</th>
<th>Buses - middle</th>
<th>Buses - outer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday AM peak</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday Interpeak</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturday morning</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Saturday afternoon</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunday daytime</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Metlink timetables May 2009

**Imbalance in Access – Service Frequency**

**Route 929**

- **Bus Minimum Service Level**
- **SmartBus**
- **Ordinary tram**

**Route 902**

**Route 72 Me**

**Monday to Friday**

**AM**

- 06:31
- 06:30
- 06:55
- 06:50
- 06:30
- 05:53
- 05:50
- 05:31
- 05:28
- 05:21
- 05:15

**PM**

- 05:44
- 05:43
- 05:41
- 05:39
- 05:34
- 05:30
- 05:27
- 05:21
- 05:19
- 05:16
- 05:14
- 05:12

**Source:** Metlink timetables May 2009
Imbalance in Access – Social Needs vs Services

Many areas of high social needs and low public transport supply

Social needs includes unemployment level, low educational qualifications, low income, adults without cars, persons aged over 60, low income, students, young children (source data: Monash ITS 2009)

Comparing PT services per stop to social needs

Imbalance in Access – Industry areas poorly serviced by PT

About 30,000 jobs but little direct access for residents in Casey
Public Transport Opportunities

- Governments will need to focus on the movement of freight and people (not cars)
- Bus/Tram Priority, Bus only lanes on major trunk routes
- Variable Road Pricing encouraging off peak travel, funding support for Public Transport
- Address a tax regime that encourages not discourage Public Transport
  - Currently FBT on Public Transport ticket, whereas a company car is deductible (greater distance = greater deduction)
- Public Transport will become a major player in City planning e.g. TOD’s, Suburban Transport Corridors, More compact walking and cycling friendly urban settlements etc Comprehensive road pricing (replacing existing excise/charges with full externality pricing)
- Behaviour change programs to increase use of low impact modes) and reduce the need to travel e.g. Travel Smart

Why are Bus Services a major part of the answer to addressing future Public Transport Needs?

- More SmartBus services on major routes increasing service frequency and span of hours (addressing PT imbalances); Orbital’s addressing the current CBD centric PT system
- Ability to services to industrial areas allowing access to employment. (Trains and Trams don’t go there.)
- 84% of Melburnians are currently within 400 m of a bus service.
- Outer Melbourne (Zone 2) under serviced by PT compared inner Melbourne (Zone 1)
- The road infrastructure is already there, developing pressure for Buses to gain road priority over cars.
- Bus Rapid Transit (BRT) will become the Government's major public transport focus, due to lower capital funding costs, faster implementation and future service flexibility compared heavy or light rail.
Public Transport Solutions – SmartBus

SmartBus = high frequency + long span + good facilities + bus priority

Frequency:
- 15 mins 6:30am-9pm M-F
- 30 mins other times

Span of hours:
- M-F: 5am-midnight
- Sat: 6am-midnight
- Sun: 7am-9pm

Bus patronage up 29%* in three years

- Investment in bus services has driven massive patronage gains
- Timetabled kms is by far the dominant driver of patronage growth
- Implied last three year service elasticity = 1.2 – much better than textbook expectations (~0.4-0.5)
- From improved services:
  - SmartBus
  - Span of hours
  - New/extended routes
  - Increased frequency
- From underlying growth:
  - strongest on established SmartBus routes and other routes with high service levels

*normalised figure after accounting for calendar issues. Un-normalised result = 26%.

Source: Vic Budget papers, BusVic analysis
Summary

Our network
Who is KDR?
Our core value: *Think Like a Passenger*
Our challenges
Looking forward
Our Tram Network

The largest operating network in the world with 250 kilometres of double track

1770 tram stops

500 trams

27 tram routes & the free City Circle tourist tram

2000 staff, including 1128 drivers, covering 50 nationalities

180 million trips in 2008-09
Melbourne and its trams grew together

...then came the cars

Unique context of shared road space
80% of the network operates in mixed traffic
Who is **KDR**?

KDR: A dynamic partnership

DownerEDi
49%

Keolis
51%
Keolis
Shareholder Structure

56.7% SNCF
40.8% Axa (France) / CDPQ (Canada)
2.5% Management

Turnover 3.4 billion euros in 2009 (41% outside France)

The Keolis Group

Operating in ten countries
Starting in 2010 in Norway and USA
Two billion passengers transported in 2008
44,450 employees, including 30,000 drivers
**Keolis**

Provider of fully integrated transport solutions

> Across all modes of transport
> Over 17,500 buses and coaches
> 70km automatic metro
> 17km conventional metro
> 400km tramway
> 4400km of rail
> 100 trolley buses

And also...

Airport services
Ferry shuttles
Car sharing
Bicycle hire schemes

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**Downer EDI**

> ASX-100 company
> Annual turnover of A$5.6 billion
> Providing engineering and infrastructure design, construction, maintenance and management services
> Working across Australia, New Zealand, Asia and the United Kingdom
> Employing over 20,000 people
> Focusing on sustaining a Zero Harm environment

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*Divisional revenue based on Full Year Results to 30 June 2009*
Services to support critical assets and infrastructure in the following sectors:
› Energy – renewable (wind, solar and buildings) power, transmission, oil and gas
› Infrastructure – water and environment, transport (roads, rail, airports and ports)
› Resources – mining, minerals, metals

think like a passenger

A holistic approach to service delivery
Reliability is essential
Safe and clean travel environment
Highest levels of customer service
Improve passenger satisfaction

Find your way
Empower passengers with the information they need
Make the system more intuitive for new customers and visitors
Starting with some simple things like:
  > Route maps on board trams
  > First-time user pack
  > tramTRACKER real-time information
  > Multi-modal approach
Zero Harm & Moving safe haven

Highest levels of safety and security
for our customers
for pedestrians and other road users
for our staff – establish a zero harm culture

Tram refresh focussed on safety (yellow doors and safety strip)
Awareness and education campaign: with VicRoads, RACV, taxis, car rentals, etc.
Making our services more accessible
Focus on reducing anti-social behaviour
Upgrade of tram stops and infrastructure

Training and development

Attract, train & retain talent
Encourage and reward
Pride in serving community
Succession planning

Customer Service & Safety Training Academy
Technical Trades Centre of Excellence
Staff excellence awards
Yarra Trams new look

Revitalisation of the fleet through:
Fresh livery
Replacing vandalised glass and worn seat covers
Heavy duty deep clean across the entire fleet
Rail grinding for a smoother ride
Provide route information
Focus on maintaining high standards of fleet presentation and amenity

Heterogeneous fleet


> Rolling stock average age is 25 years
Ageing infrastructure

> An unusual combination of new, old and historic elements

Safety

> 1770 stops across the network, of which only 300 are modern platform stops
> Numerous collisions with road vehicles every year
> Pedestrian knockdowns
Congestion

- Weekday average tram speed is 15.9km/h & 11km/h in CBD
- Tram speed declined between 2001 & 2004
- Decline mitigated by Think Tram priority treatments

Looking Forward

‘Moving the tram to a modern light rail service (...) so that it becomes the best way to move around in the inner suburbs.’

Victorian Transport Plan, Department of Transport
Unprecedented patronage growth

Estimated Metropolitan Tram Patronage
Financial Years 1966/67 to 2008/2009

The Victorian Transport Plan

In December 2008, the Victorian Government announced a $38 billion action plan for transport, with a specific focus on:

- Melbourne Metro Rail link, planned to be completed in 2018
- Smart Bus routes
- Soft modes, walking and cycling

The VTP includes $1 billion boost for trams to meet growing demand:

- 50 new trams from 2012-13 and a new depot
- Continuation of the ‘Keeping Melbourne Moving’ Plan to address congestion
Our Approach

Full service delivery team

Clear focus on passenger information
  - Intermodal
  - Disruption 🚨

Know your customers: the need for an extensive socio-demographic approach

A green ambition

The partner of choice for urban development
Trams struggle with congestion

**Figure 3.7** Average tram speeds in Melbourne

<table>
<thead>
<tr>
<th>City</th>
<th>Time stopped at Signals (% of journey time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheffield</td>
<td>0</td>
</tr>
<tr>
<td>Paris T3</td>
<td>2</td>
</tr>
<tr>
<td>Nottingham</td>
<td>4</td>
</tr>
<tr>
<td>Strasbourg</td>
<td>6</td>
</tr>
<tr>
<td>Zurich</td>
<td>8</td>
</tr>
<tr>
<td>Karlsruhe</td>
<td>10</td>
</tr>
<tr>
<td>Budapest</td>
<td>12</td>
</tr>
<tr>
<td>Berlin</td>
<td>14</td>
</tr>
<tr>
<td>Budapest</td>
<td>16</td>
</tr>
<tr>
<td>Berlin</td>
<td>18</td>
</tr>
<tr>
<td>Melbourne</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Andrew Wood, October 2008
Short stop spacing

AVERAGE DISTANCE BETWEEN STOPS (METRES)

Solutions to Melbourne’s congestion

Before

After
Reducing congestion makes a difference to tram users

Moreland Road to Bell Street (North Direction)
Route 19

Pronounced improvement in travel time due to the clearway starting at 4pm

- 30 minutes (4:30 PM) = 23% improvement
- 1 hour (5:00 PM) = 29% improvement
- End Clear Way (6:00 PM) = 31% improvement
- 30 mins before/after (3:30 PM/6:30 PM) = 43% improvement
A French example: Bordeaux

Pick the difference...
Bordeaux was a car-dominated city

Radical changes
A real tram priority

Yes it was difficult
but it was worth it…

A huge success

Since the introduction of trams in 2003 car traffic has decreased:
- in the inner city by 20%
- in the CBD by 27 %
- patronage growth  +22% in 2005/06
A few more examples: Le Mans - France

Before

After
Thank You

Bruno LANCELOT
Network Development and Performance Director

yarratrams.com.au
Transport planning needs for Melbourne’s metropolitan train network
AITPM Technical Forum

A presentation by Andrew Lezala, CEO Metro
27 April 2010

About the Metro franchise

- Metro franchise commenced Monday 30 November 2009
- Fully integrated business model – operations & maintenance
- Clear lines of accountability, clear expectations of performance
- Totally focussed on customer service
- Important part of Melbourne’s future growth and continued prosperity
New Franchise faces some big issues…
Melbourne’s population growth

![Graph showing population growth projections from 2001 to 2031 for high, medium, and low scenarios. Melbourne’s population expected to increase by 1 million by 2030.]

Figure 3. Population growth projections for the Melbourne Statistical Division, 2001–31
Source: Australian Bureau of Statistics, Series C: R & S Projections, 2000, modified for the region by Department of Infrastructure

New Franchise faces some big issues…
Increased reliance on public transport

![Bar chart showing current, trend, and 2030 target percentages of public transport, cars, and non-motorised trips.]

Figure 42. Travel mode, 2020 target
Source: Department of Infrastructure analysis, Victorian Activity Travel Survey

Source: Melbourne 2030 Planning for sustainable growth
New Franchise faces some big issues…

Expected growth in train patronage

Train patronage to double by 2020

Getting the basics right

Growth in train patronage from 2005

The Massive Growth in Train Patronage from 2005
Getting the basics right
Declining operating performance

Declining Operating Performance

Getting the basics right
Declining customer satisfaction

Declining Train Customer Satisfaction
Previous franchise structure

- Connex
- Mainco
- UMTL
- Siemens

Corporate
- HR
- Finance
- IT
- Legal
- Communications

Asset Management

Operations

Metro structure

- Asset Management & Engineering
- Safety, Quality & Environment
- Operations
- Projects
- Finance

Business Improvement & Development
- Corporate Relations
- Human Resources
- Corporate Counsel
- Commercial
Experienced shareholders

- 30 years operating Hong Kong MTR
- 3.7 million pax per day
- 99%+ on-time performance

- Rail construction across Australia
- Springvale Rd separation 2010
- Middleborough Rd separation 2007

- Rolling stock facilities in Victoria
- Previous experience with MTR
- Extensive rail maintenance knowledge

A new Metro brand now owned by the State of Victoria
Metro provided with the means to succeed

- 60% funding increase for infrastructure maintenance
- Additional $100 million to invest on rolling stock reliability improvement projects
- 38 new trains on order
- Victorian Transport Plan – major system extensions & upgrades
- More customer service staff
- Higher standards for cleanliness and graffiti removal
- World-class training and development systems
- Reliability-driven Asset Management processes
- Culture change program – including Balanced Scorecard
- A new approach to the rail system and customers’ travelling experience
- Full business integration and new expertise

Direction of future investment

- Efficient utilisation of land surrounding train stations
- Creating stations as inter-modal transport hubs
- Growing the orbital bus network
- Continuation of grade separation projects
- Continuation of tram square renewal projects
- Extension of real-time customer information services
Efficient utilisation of surrounding land
Footscray Station

Efficient utilisation of surrounding land
Ringwood Station
Stations to be inter-modal hubs

Bringing Stations to Life

- Bring Stations to Life
  - Create train stations as hubs for community activity
  - Increase services, increase usage, increase activity and a sense of safety
  - Provide increased inter-modal customer information

Growing the orbital bus network

- Continued growth of SmartBus services
  - Connecting train lines in north-south and east-west directions
- Recent launch of Smartbus 902
  - Crosses six train lines
  - Facilities at Chelsea Station upgraded for bus driver usage
Investment in separation of rail and road

Springvale Rd grade separation

Tram square renewals

Kooyong Tram Square renewal works
Extension of real time information services

- Capture the benefits of 3G mobile networks and growth in smart phone usage
- Provide real-time inter-modal information
- Central source of information feeding into stations supported by mobile applications

Thank you