

SYDNEY, AUSTRALIA

BRIEF: LIVERPOOL-PARRAMATTA BRT

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SYDNEY, AUSTRALIA—BRIEF

Liverpool-Parramatta BRT

CITY CONTEXT

With a population of 3.6 million, Greater Sydney is Australia's largest urban area. The constraints of the Pacific Ocean, the Sydney Harbor, and the Blue Mountains, coupled with large areas devoted to parkland, have made public transport vital.

The area is served by a multi-modal public transport system that includes subways, railroads, buses, monorail, light rail transit, and an extensive ferry system. City Rail, a division of the State Rail Authority of New South Wales, operates a 1,700-kilometer [1,055-mile], 301-station, mostly electrified network that extends well beyond the Sydney suburbs. Annual ridership is about 266 million.

The Sydney bus system serves a population of 1.7 million and covers an area of 645 square kilometers [about 250 square miles]. Annual passenger journeys (1995/1996) are 177 million. The bus fleet currently exceeds 1,700 vehicles. Sydney's ferry system operates 27 vessels over 11 routes and carries about 13 million passengers annually (1995/1996).

Public transport accounted for about 10% of the person trips and 15% of the person travel in 1997 and 1998. Corresponding values for 1981 were 12.5% and 20%, respectively⁽¹⁾.

PLANNING AND IMPLEMENTATION BACKGROUND

The New South Wales government plans to create one of the largest systems of Rapid Bus Transitways in the world to meet the traveling needs of people living and working in western Sydney. The planned Liverpool-Parramatta Transitway is the first link in this network. It will serve a rapidly growing region with low-density housing and high automobile ownership.

An Environmental Impact Statement (EIS) was presented in September 2000, and key recommendations were set forth in a Preferred Activity Report⁽¹⁾. Estimated project cost for the 31-kilometer [19-mile] route is \$200 million Australian dollars (A). Operation is anticipated to begin in 2003.

PROJECT DESCRIPTION

The 31-kilometer, \$200 million (A) Liverpool-Parramatta Transitway was completed in 2003. The Transitway will connect major activity centers in southwestern Sydney. Some 20 kilometers [12.4 miles] of new bus-only roads will be built, and 10 kilometers [6.2 miles] of bus-only lanes will be provided on existing roads. There will be 35 stations, mostly along the curb. [Figure 1](#) shows the proposed Rapid Bus route. The design of the Transitway can allow conversion to light rail if demand warrants (as shown in the artists renditions, [Figures 2, 3, and 4](#)).

KEY FEATURES

Special technology will give buses priority and signalized intersections to ensure faster travel. Journey times from intermediate locations will be cut by up to 60 minutes compared with currently available public transport.

Other key features are the following:

- High-frequency, high-quality services, providing a single “mode” of transport for journeys;
- 35 modern stations with real-time passenger information, lighting, and security cameras;
- New cycleways along more than 15 kilometers of route;
- “Park-and-ride” car parks and “kiss-and-ride” drop-off points;
- Stops at railway stations, shopping centers, university and schools;
- “Trunk” services running along the Transitway route and a variety of express and feeder services reaching into the broader community; and
- Clean, environmentally friendly, air-conditioned, low-floor buses.

Much of the Transitway will be built on land already reserved for roads. On existing roads, the Transitway will use curbside lanes or go down the middle of the road. In some places, roads will be widened to accommodate Transitway services (see cross sections in [Figure 5](#)). All Rapid Bus Transitway lanes on existing roads will be marked in a distinctive color to alert pedestrians and motorists.

SERVICE PATTERNS

Three basic services are planned: (1) frequent railway-style trunk services, (2) integrated express services, and (3) easy connector service.

A 5-minute service frequency is planned from 6:30–9:30 a.m. and 3:30–6:30 p.m. Off-peak service frequency would be 10 minutes, and night service would be less frequent.

The Liverpool-Paramatta Transitway (LPT) operator would be selected by competitive tender.

RIDERSHIP AND BENEFITS

Numerous studies, transport experts, and the EIS have concluded that the services offered by a high-frequency Rapid Bus Transitway network would best meet the needs of the region. If approved, the Liverpool-Parramatta Rapid Bus Transitway would benefit 500,000 people living in the area, including the 25,000 people working in the Smithfield and Wetherhill Park industrial estate areas.

The Transitway is expected to carry up to 18,000 passengers every weekday. It would improve north-south public transport services dramatically and would connect with CityRail’s network of more than 300 stations.

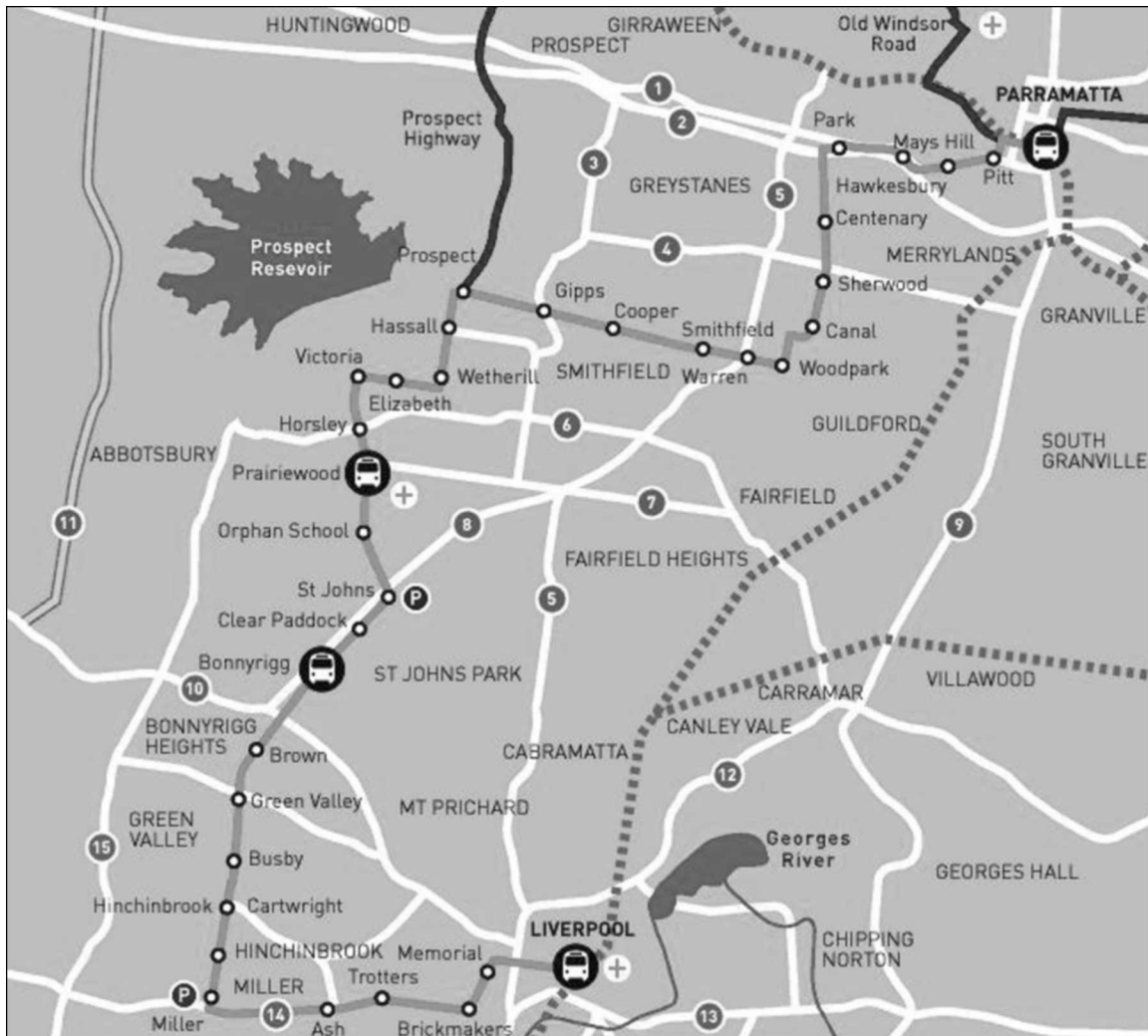
The Transitway would link people with the following:

- 8 shopping centers including Bonnyrigg Plaza, Merrylands West, and Stockland Town Center in Prairiewood;
- 2 hospitals at Fairview and Liverpool and provide improved access to Westmead and New Children's Hospital;
- 3 TAFEs at Miller, Liverpool, and Wetherhill Park;
- 20 schools;
- 25 sporting facilities; and
- Industrial estates in Smithfield and Wetherhill Park.

Travel time savings are estimated at up to 60 minutes, depending upon the length of the journey. Furthermore, social equality benefits will be provided to access-poor areas. More than 800 direct and indirect jobs would be created.

BIBLIOGRAPHY

1. Hansher, D.A. “Urban Public Transport, Agendas and Challenges.” Presented at Smart Growth Conference, October 2000.
2. “Transitways—New South Wales.” Department of Transport. Presented at Smart Growth Conference, October 2000.
3. *Liverpool-Parramatta Rapid Bus Transitway Preferred Activity Report Summary* (2001). Transport, New South Wales.



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|--|---|--|
| <ul style="list-style-type: none"> — Rapid Bus T-Way — Connecting T-Way link Existing rail link Major road | <ul style="list-style-type: none"> ○ Transitway station Major Transitway station P Park and ride + Hospital | <p>MAJOR ROADS-</p> <ul style="list-style-type: none"> 1- Great Western Highway 2- M4 Motorway 3- Greystanes Road 4- Merrylands Road 5- Cumberland Highway 6- The Horsley Drive 7- Polding Street 8- Smithfield Road 9- Woodville Road 10- Elizabeth Drive 11- Proposed Western Sydney Orbital 12- Hume Highway 13- Newbridge Road 14- Hoxton Park Road 15- Cowpasture Road |
|--|---|--|

Figure 1: Sydney Proposed Rapid Transit Route



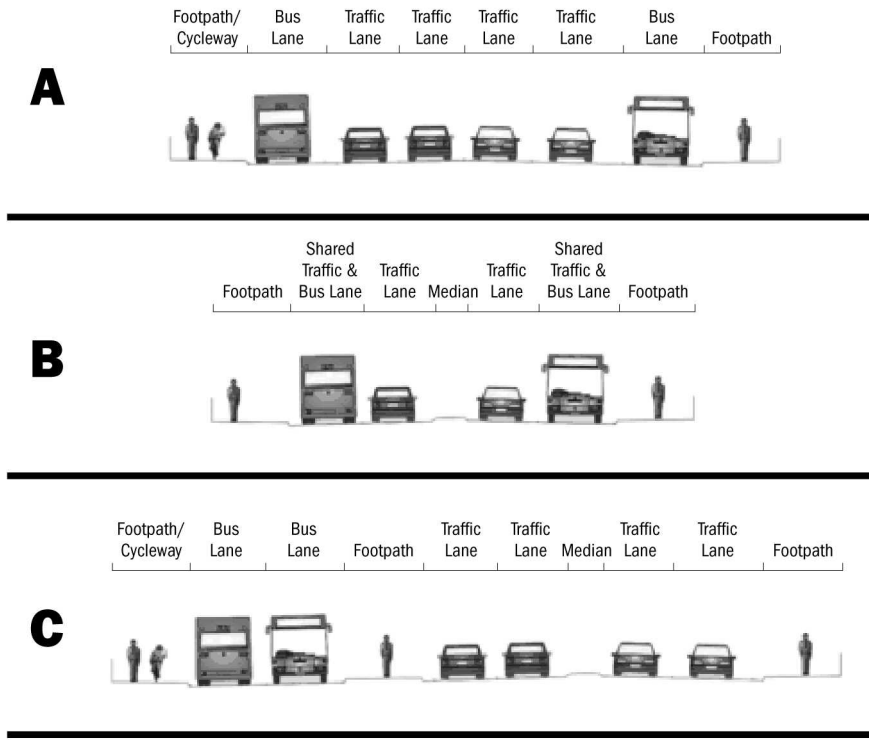
Figure 2: Artist's Rendition of Bus-only Road



Figure 3: Artist's Rendition of Bus-only Lanes



Figure 4: Artist's Rendition of Bus Station



Cross Section Examples

Options are being considered along the entire length of the route where widening is required to either **A** widen the road and provide bus lanes; **B** use existing kerb side lanes; or **C** to construct an exclusive Transitway lane on one side of the road.

Figure 5: Cross-section Options