North-West T-way

Location	Parramatta to Rouse Hill and Blacktown to Parklea, NSW
Client	RTA
Contract	Design, Construct and Maintain
Total Cost	$330m
Duration	2005 – 2007 (design and construction phase) 2007 – 2017 (operation and management phase)

Leighton Contractors with Maunsell designed and constructed the North-West T-way for NSW Roads and Traffic Authority. The project also includes a ten year maintenance phase following on from the construction phase.

The North-West T-way was delivered in two sections – the 7km section from Blacktown to Parklea, and the 17km section from Parramatta to Rouse Hill. Overall, the project comprised:

- 21km bus only roads
- 3km bus only lanes
- 30 bus stations
- 2 park and ride stations with a total of 400 car spaces
- 8 local roads cul-de-sac'd
- 3 "kiss and ride" stations
- 7 bridges (2 shared pedestrian / cycle)
- 3 underpasses

The project was opened in stages, with the 17km section between Parramatta and Rouse Hill opened in March 2006 and the rest of the project completed in November 2007.

The project celebrated two separate periods of 1 million work hours without any lost time injuries during project delivery. These milestones were reached due to a huge effort by the safety management team in establishing a proactive safety-training scheme that integrates seamlessly with the company wide Leighton Safe program.

The project environmental team ensured all environmental aspects were managed to a best practice standard or higher. The three member team enlisted a “can do” approach to assisting and advising the T-way construction teams. An innovative environmental documentation system was developed in the form of an Environmental Work Method Statement for each section of works. The outcome was that there were no Level 1 or Level 2 environmental incidents or breaches on the project.

Challenges and Innovations

It was technically challenging to carry out construction safely and productively while not impeding the travelling public. On a daily basis over 68,000 vehicles travel on Old Windsor Road, over 17,000 vehicles and 3,000 pedestrians move through the Westmead precinct (including Darcy Road), and over 37,000 vehicles use Sunnyholt Road.

Detailed communications, supported by a dedicated Traffic Manager and the community relations team, were required in order to strategically plan for and implement various traffic management control plans for the project.

An alternative design was also adopted for one of the major interchanges on the T-way, the Burns interchange located in Kellyville. The initial approved design submerged the interchange in a landscaped depression requiring two additional underpasses in close vicinity to the Sunnyholt and Windsor Roads intersection. It became apparent this design would limit future upgrade options and create potential crime and security issues. After thorough consultation, the initial approved interchange design was replaced with a new design which deleted the two underpasses and lifted the interchange to grade level with Windsor Road. The bus interchange was also located so it could operate without major impact from the planned construction of the North West Rail project, which would ultimately link with the bus interchange.