Cross City Tunnel
Minister’s Condition of Approval No. 288
Post Opening Report

June 2006

NSW Roads and Traffic Authority
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1 Introduction

1.1 Background

The Cross City Tunnel Project includes a 2.1 kilometre tunnel generally running east-west below parts of the Sydney Central Business District (CBD), connecting the Kings Cross Tunnel with the Western Distributor.

The Supplementary Director-General’s Assessment Report on the Proposed Modifications to the Cross City Tunnel Project (December 2002) noted concern that a right turn ban from William to Bourke Street would limit access to the Eastern Distributor (southbound) and posed an unnecessary constraint, particularly outside peak hours. In response the Minister for Planning imposed Condition of Approval No. 288 which requires:

“The proponent shall submit a report within 18 months from the Approval investigating the feasibility of allowing right-hand turn movements from William Street into Bourke Street. The report shall identify ways of limiting rat-runs using Bourke Street, the option to prohibit right turns at various times of the day (for example during peak periods 6 am to 10 am and 3 pm to 7 pm) and any other required traffic management measures. The findings of the report shall be implemented to the satisfaction of the Director-General”.

In accordance with Condition of Approval No. 288, the RTA investigated the operation of this intersection and documented the findings of this investigation in a report entitled “Response to Minister’s Condition of Approval No. 288” (referenced in this Report as the Initial Condition 288 Report). This Initial Condition 288 Report concluded that the William/Bourke Street intersection would perform best with the provision of a full time right turn into Bourke Street from William Street. No access was to be provided northbound in Bourke Street to the north of the Eastern Distributor entrance and in Bourke Street south of William Street.

The Initial Condition 288 Report was approved by the Director-General of the Department of Planning 19 January 2005.

In the Initial Condition 288 Report the RTA committed to monitoring traffic, pedestrian and cyclist conditions at the affected intersection for a period of 12 months from opening of the Cross City Tunnel and implementation of the approved intersection arrangement. The Initial Condition 288 Report also contained the commitment that the RTA would report to the Director-General at six monthly intervals on the effectiveness of the measures and any additional means to maximise/fulfil the stated objectives.

The Cross City Tunnel opened to traffic on the 28 August 2005. The current traffic arrangements at the intersection of Bourke Street and William Street (Woolloomooloo) are in accordance with the recommendations in the Initial Condition 288 Report (See Appendix A).

1.2 Purpose of this Report

This Report has been prepared to address the review commitments made in the Initial Condition 288 Report. It outlines the scope of the data collected regarding the intersection arrangement, analyses the performance of the current arrangement and details required management measures. It also outlines community issues raised since the Cross City Tunnel opened and the approved William/Bourke Street Intersection arrangement was implemented.

1.3 Structure of this Report

This Report is structured as follows:

♦ The findings of the Initial Condition 288 Report are summarised in Section 2;
♦ A summary of community issues raised since implementing the approved intersection arrangement and consideration of these issues is given in Section 3;
- An assessment of the effectiveness of the implemented intersection arrangement is documented in Section 4;
- Alternatives to improve the performance of the intersection are considered in Section 5; and,
- Conclusions and Recommendations are presented in Section 6.
2 Findings of the Initial Condition 288 Report

2.1 Study Objectives

The Initial Condition 288 Report looked at alternatives to the approved project that would better fulfil the stated objectives of the study to:

♦ Improve the accessibility of the Eastern Distributor on-ramp;
♦ Improve traffic congestion on William Street;
♦ Reduce through traffic in Bourke Street;
♦ Minimise impacts on other road users; and,
♦ Reduce impacts on the community.

2.2 Alternatives Considered

The alternatives (described on pages 3-1 to 3-3 of the Initial Condition 288 Report) considered were:

♦ Alternative 1 - The provision of a right turn from William Street during off peak hours with a right turn ban during peak hours with traffic accessing the Eastern Distributor via Palmer Cathedral and Bourke Streets (“the G Loop”) during peak hours.

♦ Alternative 2 - The provision of a full time right turn into Bourke Street from William Street and limiting traffic movements to left-in and left-out only to and from Bourke Street on both sides of William Street.

♦ Alternative 3 - Similar to Alternative 2 except that no access was to be provided to and from Bourke Street south of William Street.

All options involved a half road closure of Bourke Street northbound, immediately north of the entrance to the Eastern Distributor.

2.3 Community Consultation

As part of the process to meet Condition 288, a consultation program was undertaken that included two public meetings, briefings for various stakeholders (involving resident and business groups) and letterbox drops. In all, the RTA received over 110 submissions regarding this study by mail, email and fax.

2.4 Assessment Criteria

The alternatives were assessed against the criteria and performance measures that were developed from the assessment objectives. The criteria adopted in the Initial Condition 288 Report are set out in Table 1.

Table 1 - Criteria and Performance Measures for Alternatives Comparison Extracted from the Initial Condition 288 Report

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve the accessibility of the Eastern Distributor on-ramp</td>
<td>Length of access to Eastern Distributor ramp from Bourke/William Streets</td>
</tr>
<tr>
<td>Improve traffic congestion on William St</td>
<td>♦ Effect on traffic congestion&lt;br&gt;♦ Effect of shortening T2 lane</td>
</tr>
<tr>
<td>Criterion Measure</td>
<td>Measure</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Reduce traffic in Bourke Street</td>
<td>Change in daily traffic volumes on Bourke Street</td>
</tr>
<tr>
<td>Minimise impacts on other road users</td>
<td>Effect on pedestrians and cyclists</td>
</tr>
<tr>
<td>Reduce impacts on the community:</td>
<td>Change in daily traffic volumes on Palmer, Bourke, Cathedral and Crown Streets</td>
</tr>
<tr>
<td>♦ Changes in daily traffic volumes</td>
<td>♦ Extent of changes to local traffic movements</td>
</tr>
<tr>
<td>♦ Changes to local traffic permeability</td>
<td>♦ Number of car parking spaces removed</td>
</tr>
<tr>
<td>♦ Changes to availability of parking spaces; and</td>
<td>♦ Number of bus routes affected and extent of changes</td>
</tr>
<tr>
<td>♦ Changes to local bus routes</td>
<td></td>
</tr>
</tbody>
</table>

### 2.5 Analysis of Alternatives

A summary of the assessment of alternatives against the criteria and performance measures extracted from the Initial Condition 288 Report is provided in Table 2 below.

### 2.6 Findings

Whilst finding that Alternative 3 was the option to be implemented, the Initial Condition 288 Report noted that the decision was a tradeoff between a range of issues, including provision of sufficient capacity for through-traffic, maintenance of accessibility for the local community, discouragement of through-traffic on local streets and the resolving of community amenity concerns.

The assessment completed in the Initial Condition 288 Report did not favour Alternative 1 principally because it retained the G-Loop in peak periods. In relation to the other two alternatives, it was highlighted that these alternatives were very similar but exhibited the following differences:

- Alternative 2 was considered to provide greater local traffic permeability but more traffic in Bourke Street south of William Street.
- Alternative 3 was considered to provide less local traffic permeability but less traffic in Bourke Street and less effect on pedestrians and cyclists.

The decision to implement Alternative 3 was based on the following:

- A large proportion of the community that responded expressed a desire to have full-time direct access to the eastern distributor instead of any form of the G-loop.
- The fact that Alternative 3 was supported by some residents and inherently provides some level of mitigation for pedestrians and cyclists. These impacts are less easily resolved with Alternative 2.

The RTA committed to monitoring traffic, pedestrian and cyclist conditions at the affected intersection for a period of 12 months from opening of the Cross City Tunnel and implementation of Alternative 3. The Initial Condition 288 Report also contained the commitment that the RTA would report at six monthly intervals on the effectiveness of the measures and any additional means to maximise fulfil the stated objectives.

The conclusions of the Initial Condition 288 Report (above) were that the impacts of both Alternative 2 and Alternative 3 are similar in magnitude. Alternative 3 was implemented as the pedestrian movement on William Street was, at that time, valued over local permeability and accessibility.
<table>
<thead>
<tr>
<th>Criteria/Measure</th>
<th>Approved Project</th>
<th>Alternative 1</th>
<th>Alternative 2</th>
<th>Alternative 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve the accessibility of the Eastern Distributor entrance ramp</td>
<td>570 m</td>
<td>570 m (during peak hours), 70m at other times</td>
<td>70m</td>
<td>70m</td>
</tr>
<tr>
<td>Length of Eastern Distributor access route</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve traffic congestion on William Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>♦ Affect on traffic congestion</td>
<td>♦ Improvement – by removal of a signal phase at all times</td>
<td>♦ Improvement – by removal of a signal phase during the critical peak periods</td>
<td>♦ Improvement - by removal of a signal phase at all times</td>
<td>♦ Improvement - by removal of a signal phase at all times</td>
</tr>
<tr>
<td>♦ Effect of shortening T2 lane</td>
<td>♦ Not applicable to this alternative</td>
<td>♦ Not applicable to this alternative</td>
<td>♦ Some reduced priority for public transport</td>
<td>♦ Some reduced priority for public transport</td>
</tr>
<tr>
<td>Reduce through traffic in Bourke Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>♦ Change in daily traffic volumes on Bourke Street</td>
<td>♦ Not measured</td>
<td>♦ Small reductions of 7% and 8% respectively north and south of William Street. No noticeable change south of Cowper Wharf Roadway</td>
<td>♦ Moderate and major reductions of 18% and 53% respectively north and south of William Street. No noticeable change south of Cowper Wharf Roadway</td>
<td>♦ Moderate reduction north of William Street of approximately 14%. Closure south of William Street results in elimination of all traffic immediately south of William Street. No noticeable change south of Cowper Wharf Roadway</td>
</tr>
<tr>
<td>Minimise impacts on other road users.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>♦ Affect on pedestrians and cyclists</td>
<td>♦ Not applicable to this alternative</td>
<td>♦ Not applicable to this alternative</td>
<td>♦ May affect the convenience to users</td>
<td>♦ May affect the safety and convenience to users</td>
</tr>
<tr>
<td>Reduce impacts on the community</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>♦ Changes in daily traffic volumes on Palmer, Cathedral, Bourke and Crown Streets</td>
<td>♦ Not measured</td>
<td>♦ +3%, +7%, -13% and +1% respectively</td>
<td>♦ +8%, +14%, -16% and -13% respectively</td>
<td>♦ +6%, +12%, -18% and -12% Respectively.</td>
</tr>
<tr>
<td>♦ Changes to local traffic permeability</td>
<td>♦ Removal of northbound traffic in Bourke Street between William and Cathedral Streets</td>
<td>♦ Removal of northbound traffic in Bourke Street between William and Cathedral Streets</td>
<td>♦ Removal of northbound traffic in Bourke Street between William and Cathedral Streets; and</td>
<td>♦ Removal of northbound traffic in Bourke Street between William and Cathedral Streets; removal of straight through</td>
</tr>
<tr>
<td>Criteria/ Measure</td>
<td>Approved Project</td>
<td>Alternative 1</td>
<td>Alternative 2</td>
<td>Alternative 3</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
</tr>
<tr>
<td>♦ Number of car parking spaces removed</td>
<td>♦ Three in Bourke Street (between William and Corfu Lanes)</td>
<td>♦ Three in Bourke Street (between William and Corfu Lanes) and four in Cathedral Street (between Palmer and Bourke Street peak hours only)</td>
<td>♦ Three in Bourke Street (between William and Corfu Lanes) and right turn out of Bourke Street on both sides of William Street</td>
<td>♦ Three in Bourke Street (between William and Corfu Lanes)</td>
</tr>
<tr>
<td>♦ Number and extent of changes to local bus routes</td>
<td>♦ No change</td>
<td>♦ State Transit Authority bus routes 311 and 312 (northbound only) in Bourke Street would have to be re-routed as a result of the half road closure (southbound route unaffected)</td>
<td>♦ State Transit Authority bus routes 311 and 312 would have to be re-routed in both directions in Bourke Street as a result of the half road closure</td>
<td>♦ State Transit Authority bus routes 311 and 312 would have to be re-routed in both directions in Bourke Street as a result of the half road closure</td>
</tr>
</tbody>
</table>

Notes 1: 2016 AADT two-way traffic flows post Cross City Tunnel opening. Changes relative to Approved Project. See Appendix D. Screenlines locations are at Palmer Street north of William Street, Cathedral Street west of Bourke Street, Bourke Street south of Cathedral Street, and Crown Street north of William Street.
3 Community Representations Since Implementation

3.1 Community representations
The closure of Bourke Street as part of the implementation of Alternative 3 has generated considerable community debate. The RTA has received many representations on this issue. Some representations have been critical of the closure of Bourke Street and requested that the street be reopened, and others supported the closure and have requested that it be retained.

Community activity and discussion after the decision to implement Alternative 3 has included:

- A meeting of the Darlinghurst Business Partnership (on 19 April 2005), representing at least 50 businesses and organisations, at which there was general consensus about “no road closures”.
- Public meetings on 2 June (estimated over 200 in attendance), 31 August and 19 October organised by the Darlinghurst Residents Action Group. Meeting notes have been posted on the DRAG website.
- Discussions with a group of residents opposing the closure on 27 October 2005.
- A petition of residents and business in the postcode areas 2010 and 2011, stating an opposition to any street closures until the Oxford and William Street upgrades were complete, the Cross City Tunnel was in full operation and a comprehensive and inclusive traffic study of the whole area could be made. There are are 1007 signatures on this petition.
- Correspondence dated 14 October 2005 addressed to the Minister for Roads from the City East Residents Group (which incorporated the Darlinghurst Residents Action Group), summarising resident concerns re the Bourke Street closure and other surface street changes related to the Cross City Tunnel.
- Correspondence has been received by the RTA and the City of Sydney from the East Sydney Alliance (which includes the East Sydney Neighbourhood Association) calling for the ongoing closure of Bourke Street. Requests for the closure to be maintained were received directly through phone calls and RTA attendance at an ESNA meeting. Representatives of the East Sydney Neighbourhood Association’s involvement in the Cross City Tunnel Central Community Liaison Group (a group established as per the project’s conditions of approval during construction).

The RTA has received some 17 submissions specifically on the Bourke Street issue in the six month period since the Cross City Tunnel project was opened in August 2005 and Bourke Street was closed in response to the Initial 288 Report.

3.2 Parliamentary Inquiry
The Parliamentary Inquiry on the Cross City Tunnel received submissions and presentations regarding the closure of Bourke Street.

In its Report dated 28 February 2006, the Committee concluded the following:

“The Committee has witnessed the strength of feeling in the community around this issue during the hearings, and has heard from members of the community on both sides of the issue. There is a clear division of opinion within the community in relation to the effects of the closure of Bourke Street. In Chapter 7, the Committee considers the issue of public control of the road network and recommends that the RTA review all road changes in light of the primary objectives of the Cross
City Tunnel project. The Committee does not believe it is appropriate to make recommendations about specific road changes, including whether Bourke Street should be opened or closed.

The Committee regrets and is disappointed at the degree of animosity evidenced by community groups with opposing views on the status of Bourke Street, and notes that it may severely impact on the success of consultation.

The Committee acknowledges the difficulties faced by the RTA in reaching a decision in this situation and notes that a process has been established to ensure that the final decision on the status of the Bourke Street intersection with William Street is taken after full consideration of the range of community views.”

and made the following relevant recommendations:

“Recommendation 12

That the NSW Roads and Traffic Authority ensure that the community consultation process in relation to Bourke Street’s future status is inclusive and considers the wide variety of opinions and views in the community. The process should be conducted with a view to addressing the opposing views and if possible develop a consolidated position.

Recommendation 13

The trial closure of Bourke Street ends on 28 February 2006. The Committee recommends that the NSW Roads and Traffic Authority immediately reopen the street while the review is being conducted.”

3.3 Issues raised by the Community

Opponents of the closure stated that the closure has impacted on the form and function of this neighbourhood. A summary of the issues raised in representations from the community follows:

- The closure of Bourke Street at William Street has impacted other streets by re-directing traffic. In the case of Bourke Street traffic has been redirected to the following residential streets: Stanley Street or Liverpool Street; or to Crown and Darlington streets that were already congested.

- Motorists travelling along William Street from the east have to go past Bourke Street and instead use Crown Street, forcing traffic to remain on the congested William Street for an additional two blocks. This has exacerbated the peak hour and late night bottle necks into and out of Kings Cross, Potts Point and Darlington, increasing travel time and stress levels for motorists, and danger to pedestrians.

- The closure of Bourke Street at William Street to the north has isolated the area of Woolloomooloo by reducing the level of accessibility to this suburb. The length of journeys to residences and businesses in this area has been increased.

- The closure of Bourke Street at William Street to the south has isolated the area of Darlington by reducing the level of accessibility to this suburb. The only exit south is now via Crown Street, which is congested and narrow. The intersections of Crown and William Street and Oxford Street are on a steep grade, and is dangerous and slow because the left turn, right turn, through traffic and pedestrians all get simultaneous green lights.

- The closure of Bourke Street has resulted in reduced resident and pedestrian safety, as there is less surveillance of the street by passing motorists. Some streets have become 'ghost streets' and it has been anecdotally reported by the police that there has been an increase in muggings in the area since the trial closure.
The closure of Bourke Street has reduced the level of direct access for taxis. Anecdotal information notes drivers now take longer to arrive and sometimes do not come at all. The customers of restaurants in the area have to walk to William Street or Oxford Street to get a taxi at night. Many local taxi users who are elderly, home bound and on low incomes can not afford the increase in taxi fares.

The closure of Bourke Street has affected the access and patronage of local businesses, which have lost trade as a result of the trial closure. Stanley Street restaurants and bars, and other economic activities between Oxford Street, Darlington Road, Woolloomooloo and College Street have indicated they need good road connectivity – both for access and also attracting passers by. For example customers trying to access the Formule 1 Hotel now have to drive a 2 kilometre detour along a circuitous route.

The closure of Bourke Street has stopped access to Premier Lane that provides access to parking for shop owners, shoppers and residents. There is now no direct access for deliveries to shops that previously had vehicular access off Premier Lane via Bourke Street.

The closure of Bourke Street has further reduced accessibility for businesses on William Street in conjunction with other street closures. Council has blocked various parts of the laneways behind William Street, and residents have expressed concern these closures have affected accessibility and made these laneways unsafe (no surveillance from vehicles).

The closure of Bourke Street has made navigating the area difficult. For example there is now a procession of vehicles performing ‘U’ turns at the Bourke Street barriers.

Motoring costs and exhaust emissions have increased since residents have had to drive further to access frequent destinations.

The closure of Bourke Street has reduced the sense of community in the area. Connectivity between the community, transport routes and commercial uses is an important aspect of building a community.

The closure of Bourke Street has affected the direct access for emergency vehicles. Given the closure of Bourke Street at William Street (a relatively wide intersection and important access road), residents have reported emergency service vehicles having difficulty manoeuvring/gaining access to Clapton Place, Forbes Street and Stanley Street. Emergency vehicles are taking longer to access neighbouring suburbs.

The closure of Bourke Street has increased the length of the 311 bus route and its journey time, as it travels along streets with higher congestion levels.

Those residents favouring the closure of Bourke Street at William Street have argued that the closure:

- Provided an extremely effective way of meeting the stated objectives of Condition No. 288.
- Provided a safer environment for pedestrians, particularly the school students at SCEGGS Darlinghurst.
- Improved residential amenity (reduced noise, dust, etc) and helped to create a local village atmosphere.
- Reduced the antisocial impacts of street prostitution in the vicinity of the primary school in Bourke Street.
- Improved local air quality in the vicinity of SCEGGS Darlinghurst due to reduced traffic along Bourke Street.
- Reduced through traffic and local traffic disruption.
3.4 Community Requests for Action
The Darlinghurst Residents Action Group, King Cross 2011, Darlinghurst Business Partnership and other local resident groups have, in correspondence to the Minister for Roads called for a trial opening of Bourke Street. The benefits of this are outlined below:

- To consider the actual traffic impacts of this alternative prior to the twelve month review of the intersection arrangements required under the report in response to Condition 288.
- To assist local businesses by:
  - Increasing levels of passing traffic; and,
  - Increasing the level of direct access to shops.
- To improve access for emergency vehicles over current arrangements.
- To re-establish community safety through increased vehicle numbers and passive surveillance.
- To encourage taxis back into the area.
- To ease traffic congestion on Darlinghurst Road.
- To restore the 311 bus route.

The East Sydney Alliance consisting of the East Sydney Neighbourhood Association, the Darlinghurst Society, The Sydney Church of England Girls Grammar School, and the Bourke Street Business Partnership have requested that the RTA grant a six month extension of the trial closure (from 1 March 2006) so that:

- The closure could be assessed realistically when surface works on William Street and Darlinghurst Road are were complete and true traffic patterns had been established.
- The community of East Sydney was subject to only one RTA/Council cooperative traffic plan and community consultation programme (i.e. to address Cross City Tunnel Conditions of Approval 61 and 288, and consultation on Council’s East Sydney Traffic Plan).

3.5 Consideration of Community Issues
During the consultation undertaken in 2004, the issue of road closures and the impact on the free movement of traffic and accessibility was a significant issue. It was apparent that some residents in East Sydney and Darlinghurst supported proposals that involved closure of Bourke Street (south of William Street) but not widely supported by other residents in Darlinghurst, Woolloomooloo and Kings Cross. The effect of road closures in terms of the redistribution of traffic to other local roads and the amenity impacts of increased traffic flow and reduced accessibility were the key issues of concern within the community.

Whilst the community is still divided, as recognised and reported by the Parliamentary Inquiry, the level of opposition to the closure of Bourke Street south of William Street has been significantly elevated when compared to 2004. It is evident that the community is more concerned about accessibility and permeability than was recognised previously.
4 Assessment of Effectiveness of the Implemented Intersection Arrangement

4.1 Intersection Performance

The measures were implemented with the construction of the Cross City Tunnel and became effective upon the opening of the Tunnel on 28 August 2005.

The measures have been in place for a period of nine months.

An assessment of the measures is provided in Table 3

Table 3 – Evaluation of Current Intersection Performance

<table>
<thead>
<tr>
<th>Criteria/ Measure</th>
<th>Implemented Alternative (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve the accessibility of the Eastern Distributor entrance ramp</td>
<td>• Length of Eastern Distributor access route 70m</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Improve traffic congestion on William Street</td>
<td>• Affect on traffic congestion</td>
</tr>
<tr>
<td></td>
<td>• Effect of shortening T2 lane</td>
</tr>
<tr>
<td></td>
<td>• Improvement achieved- by removal of a signal phase at all times</td>
</tr>
<tr>
<td></td>
<td>• Some reduced priority for public transport. The effect has not been discernible.</td>
</tr>
<tr>
<td>Reduce through traffic in Bourke Street</td>
<td>Provision of the right turn off William St has avoided traffic accessing the Eastern Distributor via the G-Loop.</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>The half road closure north of the Eastern Distributor entrance has prevented traffic from rat-running along Bourke St to Cowper Wharf Road.</td>
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<tr>
<td></td>
<td>Closure south of William Street has resulted in elimination of all through traffic immediately south of William Street.</td>
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<td></td>
<td>Traffic counts undertaken in Bourke Street between Stanley Street and Liverpool Street indicated that daily traffic volumes on average over a 7 day period between 28 February 2006 and 6 March 2006 were 6325 vehicles per day. This compares with traffic counts undertaken over a 7 day period between 25 June 2003 and 1 July 2003 of 7737 vehicles per day. The 2003 counts were undertaken when Bourke Street was open to all movements but the access to the Eastern Distributor on-ramp was closed for construction access.</td>
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<tr>
<td></td>
<td>The figures above indicate that the majority of people using Bourke Street south of William Street are local traffic movements as the full closure has not significantly reduced the traffic volumes.</td>
</tr>
<tr>
<td>Criteria/ Measure</td>
<td>Implemented Alternative (3)</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Minimise impacts on other road users.</strong></td>
<td>The closure of Bourke Street south of William Street has facilitated the pedestrian access across Bourke Street without conflict with traffic.</td>
</tr>
<tr>
<td>Affect on pedestrians and cyclists</td>
<td>Some community members have expressed concern that the reduction in traffic on Bourke Street south of William has reduced surveillance of pedestrians and reduced pedestrian safety.</td>
</tr>
<tr>
<td></td>
<td>A cycle route along Bourke Street is planned but has not been implemented.</td>
</tr>
<tr>
<td><strong>Reduce impacts on the community</strong></td>
<td>Traffic volume counts conducted six months post tunnel opening indicated that traffic volumes were:</td>
</tr>
<tr>
<td>Changes in daily traffic volumes on Palmer, Cathedral, Bourke and Crown Streets</td>
<td>• Increased in Crown Street;</td>
</tr>
<tr>
<td>Impacts on businesses</td>
<td>• Reduced in Palmer Street;</td>
</tr>
<tr>
<td></td>
<td>• Increased in Cathedral Street; and,</td>
</tr>
<tr>
<td></td>
<td>• Reduced in Bourke Street (south of Stanley Street).</td>
</tr>
<tr>
<td></td>
<td>The traffic monitoring confirms the RTA’s observations that the closure of Bourke Street has contributed to a reduction in north/south traffic movements in the East Sydney Area, but that traffic has increased in some streets (Cathedral and Bourke Streets (on the northern side of William Street) because of southbound traffic avoiding queues in Palmer Street.</td>
</tr>
<tr>
<td></td>
<td>Anecdotal comments from community members have indicated that businesses have been affected by the closure and that one business, Jellibellies, has closed down as a result of the Bourke Street closure. Other comments have refuted these</td>
</tr>
<tr>
<td><strong>Changes to local traffic permeability</strong></td>
<td>Access of northbound traffic in Bourke Street between William and Cathedral Streets has been denied.</td>
</tr>
<tr>
<td></td>
<td>Access of southbound traffic turning right out of Bourke Street (north of William Street) has been denied.</td>
</tr>
<tr>
<td></td>
<td>All existing traffic movements from Bourke Street on the south side of William Street have been denied.</td>
</tr>
</tbody>
</table>
4.2 Conclusion

Whilst the implemented alternative has met the objectives of reducing traffic congestion on William Street, reducing through-traffic in Bourke Street, improving accessibility to the Eastern Distributor on-ramp, and minimise impacts on other road users it has impacted the local community’s access to a level that is not accepted by a significant section of the community.

It is therefore concluded that an alternative to be implemented arrangement need to be considered in order to meet the accessibility needs of the community.

The challenge is how to address this concern whilst providing a solution that minimises the impact of motor vehicle movement within the area and respects the importance of the retention of resident amenity and a village atmosphere.
5 Consideration of Alternatives to Improve Intersection Performance

5.1 Alternatives 1 and 2

The implemented alternative (3) has now been in place since August 2005, a period of nine months. During that period the RTA and the community have had the opportunity to assess the benefits and impacts of the implemented measures.

The RTA has undertaken studies of the implemented traffic measures and has received many representations from the community both in favour and opposed to the closure of Bourke Street south of William Street as part of the implemented alternative.

Alternative 1 was the least attractive of the three alternatives considered in the 2004 study. The elimination of the “G-Loop” traffic movement to access the Eastern Distributor via Palmer, Cathedral and Bourke Street has reduced the impacts on the local community in comparison with the “Approved” project and has been viewed favourably by local residents.

Many community members have called for the opening of Bourke Street south of William Street. An available option is to implement Alternative 2 in place of Alternative 3. The 2004 Study provided little differentiation between Alternatives 2 and 3 but Alternative 3 was selected because higher emphasis was placed on pedestrian movements in comparison to traffic permeability.

A assessment of the effect of changing to Alternative 2 against the differentiating assessment criteria in light of community feedback on the implementation of Alternative 3 is provided in Table 4 below:

Table 4 – Consideration of Relative Change in Impact between Alternatives 2 and 3

<table>
<thead>
<tr>
<th>Criterion / Measure</th>
<th>Alternative 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve traffic congestion on William Street</td>
<td>Impact: Some loss of traffic capacity would occur in William Street with the implementation of Alternative 2. The left out turning movement would reduce the westbound “green-time” available to William Street.</td>
</tr>
<tr>
<td>• Affect on traffic congestion</td>
<td></td>
</tr>
<tr>
<td>Reduce through traffic in Bourke Street</td>
<td>Impact: Opening Bourke Street south of William Street would potentially increase traffic flow in Bourke Street south of William Street. The demand would be less than that existing before the implementation of the closure (with Bourke St north open) as the through movement across William Street is no longer available.</td>
</tr>
<tr>
<td>• Change in daily traffic volumes on Bourke Street</td>
<td>Based on the results of traffic surveys undertaken, the opening of Bourke Street to left in / out movements is not expected to place additional through traffic on Bourke Street south of Stanley Street. Crown Street is expected to remain the main north/south through traffic route for the East Sydney area. The overall impact on other local streets of the left in / left out compared to the full closure is minimal. The impact is localised to traffic that has re-routes via Crown and Stanley Streets to access/egress Bourke Street to and from William Street.</td>
</tr>
<tr>
<td></td>
<td>Benefit: Restoration of traffic flow in Bourke Street would increase motorist passive surveillance of the street and improve safety.</td>
</tr>
<tr>
<td>Criterion / Measure</td>
<td>Alternative 2</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>It will also have the additional benefit of a small reduction in demand for the intersection of Crown and William Streets.</td>
<td></td>
</tr>
<tr>
<td><strong>Minimise impacts on other road users.</strong></td>
<td><strong>Impact:</strong> The removal of the full closure would introduce a potential conflict point for pedestrians travelling east / west along William Street. This conflict point would be overcome by the introduction of a signalised pedestrian crossing. This would have the minor impact of adding additional delay time for pedestrians travelling along the southern footpath of William Street.</td>
</tr>
<tr>
<td>Affect on pedestrians and cyclists</td>
<td>The full closure was implemented in part to minimise the impact of loss of eastern pedestrian crossing by removing the need to cross three pedestrian legs for south eastbound pedestrians. The pedestrian demand for this movement is small but needs to be considered in the final design. A road safety audit would be undertaken for the pedestrian and cyclist movements at this intersection. The findings of the road safety audit would be implemented in the detailed design process.</td>
</tr>
<tr>
<td></td>
<td>The introduction of left in / left out on the southern side of Bourke Street will require a small modification to the concept proposal in the original 288 report to accommodate cyclists. The final bike lane configuration was delayed until the final design process and will require specialist cyclist design and cyclist user group input. This commitment remains unchanged.</td>
</tr>
<tr>
<td></td>
<td><strong>Benefit:</strong> Pedestrian safety would improve with the restoration of traffic flow in Bourke Street with increased motorist passive surveillance of the street.</td>
</tr>
<tr>
<td><strong>Reduce impacts on the community</strong></td>
<td><strong>Impact:</strong> No impact.</td>
</tr>
<tr>
<td>Changes in daily traffic volumes on Palmer, Cathedral, Bourke and Crown Streets</td>
<td><strong>Benefit:</strong> Local traffic, taxis, and emergency vehicles would have access in and out of East Sydney via Bourke Street.</td>
</tr>
<tr>
<td>Changes to local traffic permeability</td>
<td>+2%, +2%, +2% and -1%                                                                                                                                                                                     Respectively based on the assessment undertaken for the Initial Condition 288 Report</td>
</tr>
</tbody>
</table>

**5.2 Intersection Performance Under Alternative 2**

The RTA has commissioned Masson Wilson and Twiney to assess the impacts of re-opening of Bourke Street south to left-in and left-out traffic movements.

Masson Wilson and Twiney reported that allowing these movements does improve access for traffic with destinations in the area but does not open up a through route that may attract non-local traffic. Traffic modelling forecasts little or no change in southbound traffic flow in Bourke Street being in the order of 100 vehicles per hour during the peak periods. This is principally generated by the attraction of activities in the local Stanley Street precinct.

For the northbound direction, the additional traffic would be slightly higher at 230 vehicles per hour during peak periods. Again, the majority is local traffic generation but approximately 100 vehicles per hour would be diverted off Crown Street.
Overall, Masson Wilson and Twiney concluded that the opening up of Bourke Street south of William Street generally would improve local access and, on a daily basis, would be expected to result in only 3,000 to 4,000 vehicles per day on this section of Bourke Street. This level of traffic is consistent with that expected on residential streets and well below pre Cross City Tunnel conditions of 7,000 vehicles per day when Bourke Street was fully open to traffic.

5.3 Vision for Bourke Street

Alternative 2 may be refined and enhanced to allow the objectives discussed above to be achieved to a greater extent. This would involve extending the area over which measures relating to Alternative 2 were considered and extending the range of measures adopted to complement those contained in Alternative 2.

Alternative 2 focuses on the traffic management measures to be adopted at and around the intersection of Bourke and William Streets. It specifically involves the provision of left-in and left-out turns from William and Bourke Streets respectively. The extent to which this arrangement facilitates local accessibility while reducing the attractiveness of Bourke Street to through traffic and facilitates pedestrian and cyclist movement is discussed above. Further, this arrangement is potentially consistent with safe conditions for road users and other users of the environment and does not necessarily encourage the use of the area for street prostitution.

To more fully achieve these benefits, however, arrangements at and around the intersection of Bourke and William Streets need to be put in the wider context of the area generally and specifically in the context of Bourke Street, from Oxford Street to Cowper Wharf Roadway. As well, the traffic management measures in Alternative 2 need to be complemented by urban design measures for the whole of Bourke Street that are not inconsistent with urban design measures that may be adopted by the City Council for Darlinghurst and East Sydney (and Woolloomooloo). Photos of this area are given in Appendix B.

It is therefore proposed to prepare a Vision for Bourke Street that incorporates left-in, left-out turns from William Street and Bourke Street respectively, but which considers a range of other possible design measures and principles, including:

- Reducing the width of the carriageway of Bourke Street or part of Bourke Street to encourage traffic to travel at slower speeds
- Consistent with the above, providing angle parking on both sides of Bourke Street (or on one side, or a combination of both) of to provide at least as much parking as at present and possibly more, while providing space for additional landscaping
- Improving the landscape quality of Bourke Street to provide a consistent landscape identity along the street that is compatible with the mainly residential uses and with other uses as appropriate
- Designing the parking and landscaping in such a way as to discourage street prostitution and associated traffic behaviour
- Providing for a level of surveillance by people living and working in the area, and by drivers, that promotes a safe road and residential/working environment
- In conjunction with the parking and landscape design, designing the horizontal and vertical alignments of Bourke Street to encourage slower, safer traffic behaviour, allowing easy pedestrian access across Bourke Street
- Designing the Bourke Street intersection with William Street to allow local accessibility, but discourage through traffic and to alert traffic entering from William Street to the local nature of the environment
- Treating the intersections of local streets with Bourke Street in such a way as to facilitate pedestrian rather than traffic movement
- Ensuring that the detailed design of Bourke Street accommodates functional requirements such as the school drop-off and pick-up at SCEGGS
The design of Bourke Street should influence the type of traffic that uses Bourke Street and the behaviour of drivers on approaching and using Bourke Street. Through the design of the road environment, drivers should receive the message that Bourke Street is intended for local traffic or traffic that has business in the area, that traffic is expected to travel slowly and that pedestrians have priority. Other actions that the City of Sydney may take in the future on streets intersecting with Bourke Street and in the area in general may reinforce this message.

An integrated package of design measures would ensure that the objectives for Bourke Street and for the wider area are more completely met. The overall objective for Bourke Street should be to ensure its environmental quality, including limiting its use by and the effects of traffic and enhancing its appearance and safety.

It is proposed that within this framework a joint RTA/City of Sydney study be undertaken for the Urban Design of Bourke Street, in the vicinity of Bourke Street, resulting in a Vision for Bourke Street that is consistent the City of Sydney’s potential vision for the area as a whole and with statutory requirements.

The proposal for a joint RTA/City of Sydney exercise is consistent with the view expressed by The East Sydney Alliance (submission of 19 December 2005) that "any traffic studies carried out in East Sydney be carried out jointly and co-operatively by the NSW Roads and Traffic Authority and the Council of the City of Sydney…"
6 Conclusions and Recommendations

On the basis of the above assessment, the RTA concludes that reopening the intersection of William and Bourke Streets to left in and left out of Bourke Street (southern side) is required. The reasons behind this determination include:

1. The closure of Bourke Street has reduced the volume of intrusive traffic through East Sydney but has simultaneously reduced local access for residents;
2. Community support for this change and request for action; and,
3. The comparative assessment of social, safety, community and business impacts of Alternatives 2 and 3 indicates that Alternative 2 will provide a superior outcome in relation to local permeability without significant detriment impact to other environmental criteria.

The RTA further concludes that the impacts described in Section 5 of this Report provide no impediment to the immediate implementation of Alternative 2. A plan showing the proposed change is given in Appendix C.

To ensure that through traffic use is limited and safety and urban amenity enhanced in Bourke Street in the vicinity of William Street, a joint RTA/City of Sydney Working Group would be established to identify a Vision for Bourke Street.

Following implementation of Alternative 2, RTA will implement urban design measures in Bourke Street, in the vicinity of William Street, in consultation with the community in a manner consistent with the Vision for Bourke Street developed jointly with the City of Sydney.

In accordance with Condition of Approval No. 288, the approval of the Director-General of the Department of Planning is therefore sought to reopen the southern side intersection at William and Bourke Streets to left in and left out of Bourke Street.
APPENDIX A – MAPS OF CURRENT TRAFFIC ARRANGEMENT

Cross City Tunnel
This map shows surface traffic arrangements in Woolloomooloo as part of the Cross City Tunnel.

KEY
- Movement permitted
- Movement not permitted
- Cross City Tunnel to Macquarie Street or Harbour Bridge/Tunnel
- Road closure
- Tunnel

Construction roundabout removed

To Harbour Bridge and Harbour Tunnel only (no access to Macquarie St). No vehicles over 12m in length. No vehicles over 4.4m in height.

City and Harbour Bridge via Macquarie Street and Cahill Expressway

Cross City Tunnel exit

New roundabout

Right turn to Cowper Wharf Roadway only from this lane

To Macquarie Street and City

NICHOLSON STREET
PLUNKETT STREET

ST MARYS ROAD
NEW PARK

PRESCHOOL

CROWN STREET

To Cahill Expressway off-ramp

EASTERN DISTRIBUTOR

ROAD CLOSED (bicycles exempted)

ROAD HALF CLOSED (roundabout only – bicycles exempted)
APPENDIX B – SITE PHOTOS

South side of William Street at Bourke Street (looking east).

Bourke Street South of William Street (looking north)
Bourke Street South of William Street (looking north)

Bourke Street North of William Street (looking north)
APPENDIX C – PLAN OF PROPOSED CHANGE TO BOURKE STREET/WILLIAM STREET INTERSECTION TO ALLOW LEFT IN LEFT OUT (SOUTH SIDE)