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Cross City Tunnel

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18 January 2006
Ref: (LEG09-03 S18735) PRS: is

Joint Select Committee on the
Cross City Tunnel
Parliament House
Macquarie Street
Sydney NSW 2000

Attention: Ms Rachel Simpson
By Hand

JSC CROSS CITY TUNNEL
18 JAN 2006
RECEIVED

Dear Ms Simpson

Inquiry into Cross City Tunnel

We refer to your letter dated 8 December 2005 and enclose the following documents:

1. Submission of the Cross City Motorway Pty Ltd; and
2. Schedule of responses to the questions on notice during my evidence before the Cross City Tunnel Committee on 6 December 2005 and additional written questions from the Committee.

Please do not hesitate to contact me if you have any questions.

Yours sincerely

Peter Sansom
Chief Executive Officer
CrossCity Motorway Pty Ltd

Encl.

Inquiry into Cross City Tunnel

No	Questions	Answers
1.	What was the business consideration fee you initially put in your tender? (p75)	Based on my review of CCM's tender, the Development/Business Consideration fees offered for each of the options tendered were as follows: Conforming $42.5M Option 1: Optimised Conforming (80km/h) $81.8M Option 2: Optimised Conforming Drive to the East (80kh/h) $100.1M Option 3: Conforming Drive to the East $43.9M Option 2 was subsequently selected by the RTA as the Preferred Option (see RTA Preferred Option Report to the Supplementary EIS).
2.	Were there any measures that you as a consortium asked for in your bid that were not part of the scheme that was put to tenderers to bid upon? (p76)	CCM proposed 3 alternative options to the RTA in its tender bid. The RTA reviewed the proposals and identified the 'Optimised Conforming Drive to the East' as a proposal worthy of further investigation. All Modified Activity to the original scheme put to tenderers was outlined in the Supplementary EIS. Attached and marked Annexure A is a copy of a table identified as "Table S.1 Major Modifications to the Design and Operation of the Cross City Tunnel". I understand that the proposed modifications were made by RTA and CCM and were subject to representations from Government agencies and community consultation. Following this, RTA's Preferred Activity Report for the Supplementary EIS dated November 2002 proposed a number of additional alterations to the design as presented in the Supplementary EIS. Attached and marked Annexure B is a copy of a table identified as "Table 7.1 Summary: Alterations to the Supplementary EIS Proposal". I understand that the proposed modifications were made by the RTA. RTA is the proponent of the project and the Planning Minister the approving authority, not CCM.

3.	So the conclusion one would take from [your previous] answer is that extensions of light rail, heavy rail or even increasing bus services, the Government could be liable? (p80)	CCM supports the increased use of public transport in the city and considers the CCT an essential part of an integrated public transport system. A number of initiatives which formed part of the CCT project included the provision of T2 bus lanes in the Kings Cross Tunnel and William Street. In addition, CCM is obliged to liaise and co-operate with Railcorp on any future extensions of the heavy rail network, for example, the proposed Metro West railway link or proposed Metro Pitt railway link. See section 3.3.9 of the RTA's Summary of Contracts relating to "consultations on future railway projects". The design and construction of the CCT has made provision for these future heavy rail projects. The Masson Wilson Twiney Traffic and Transport Report dated October 2002 prepared for the RTA and annexed as Annexure I to the Representations Report for the Supplementary EIS stated: > The Cross City Tunnel would comprise two road tunnels for traffic east-west through Central Sydney between Darling Harbour and Kings Cross. The resultant removal of traffic from surface streets would allow the re-allocation of road space within Central Sydney from general traffic in favour of public transport, pedestrians and cyclists. The Project Deed preserves the Government's ability to build or expand light rail and heavy rail and increase bus services. Increasing public transport will not in itself create any liability to Government unless the scheme proposed by the Government restricts or closes a major road, such as Anzac Bridge or New South Head Road, or if the scheme removes a connection to the CCT and the proposed changes have a Material Adverse Effect on CCM.
4.	The RTA said that you had chosen an independent auditor and that the independent auditor had audited it and then the audit report went to the RTA, who accepted it. Do you know if that is the case? (p82)	Yes. CCM selected Ernst & Young as its independent auditor of the financial model. Clause 3.1(h) of the Project Deed specifies that one of the conditions precedent to the Project Deed is receipt by RTA of an audit of the Base Case Financial Model to the satisfaction of RTA by an auditor acceptable to RTA. I understand that occurred on or about the date the Project Deed was signed.
5.	So things like the Cowper Wharf Road changes, were they your requirements? Would they if changed again be potentially MAEs? (p88)	Please see the answer to question 2. The "Optimised Conforming Drive to the East" option put forward by CCM and accepted by the RTA as the 'preferred' activity included a number of changes to the design and operation to the CCT to increase traffic efficiencies. The Cowper Wharf Road changes were outlined in the Supplementary EIS and were subsequently altered by the RTA in response to community consultation and planning considerations. A change to the Cowper Wharf Road configuration is potentially an MAE.

6.	Why is the air quality air monitoring data recorded on the CCM website inferior to that displayed on the RTA website, the M5 East? (p90)	Cross City Tunnel's website presentation of air quality data for the external air quality monitoring stations was based on the RTA's website presentation of M5 East air quality data. In accordance with the conditions of approval for the project, in tunnel air quality data is also included on the website. CCM does not consider the air quality data on its website to be inferior to that provided by RTA for M5 East. CCM will continue to meet its obligations under the Project Deed and the conditions of approval for the project in relation to the recording and reporting of air quality data.
7.	Earlier you mentioned that there are 16 banks involved. Can you take that on notice and give us a list of the 16 banks, because I have not found all those names? (p90)	CCM's banks are: Australia and New Zealand Banking Group Limited BOS International (Australia) Limited Bank of China Bank of Western Australia Ltd Credit Industriel et Commercial Calyon Australia Limited Calyon, Hong Kong Branch Deutsche Bank AG, Sydney Branch and Deutsche Australia Limited Dexia Credit Local KBC Finance Ireland Kreditanstalt fur Wiederaufbau Landesbank Baden-Wurttemberg, Singapore Branch Natexis Banques Populaires Norddeutsche Landesbank Girozentrale, Singapore Branch Sumitomo Mitsui Finance Australia Limited United Overseas Bank Limited WestLB AG, Sydney Branch Westpac Banking Corporation

8.	So there is this document here that I will give you a copy of, which sets out the classifications for all these road changes – there are about 50 of them. There are four different levels: A, the B, C and D, and the A is the one that attracts the financial penalty... So those 22 of the 71, you required those to be put in place? (pp90-1)	No. Some of these were contemplated by the original EIS (such as the closure of Druitt Street between Kent and Clarence Streets – see Annexure C) and some were proposed by CCM (such as the Sir John Young Crescent/ Cowper Wharf Road reconfiguration), accepted by the RTA as the proponent and approved by the Planning Minister during the Supplementary EIS and associated planning process. However, CCM and RTA recognised the ability of all of them to materially and adversely effect CCM if they are changed.
9.	Considering Minister Tripodi and Premier Iemma has called on CCM to reduce the toll does this mean that the CCT contract can be varied?	The Project Deed between CCM and the RTA can be varied by agreement provided that consent from a number of other parties (such as CCM's banks) is obtained and the parties agree to a mutually acceptable solution.
10.	Have you not taken up the suggestion to decrease the toll because you have legal advice that it is not possible to vary the CCT contract?	No, CCM has not received legal advice to the effect that it is not possible to vary the CCT contract.
11.	Or have you not lowered the toll as you determine it would be reduced income for the tunnel operators?	CCM believes it to be excellent value for money in view of the significant time savings for users and the major investment which was required to construct and operate the CCT.
12.	What traffic modelling and studies were undertaken to determine that 93,000 cars a day would use the tunnel?	Hyder Consulting prepared a patronage study for the project (the ***Hyder Report***) for the benefit of CCM.
13.	Was 93,000 cars a day estimated on the basis of the above ground road closures and narrowing?	The Hyder Report assumed that the Cross City Tunnel would be built in accordance with the RTA Supplementary EIS (which ultimately formed the basis of the Planning Minister's Approval dated 12 December 2002). These documents, and all planning documents preceding them including the original EIS dated July 2000, contemplated a number of changes to the surface roads. Attached and marked C is part 7.5.1 of the EIS titled "Overview of Changes to Surface Streets". As stated in those documents, these were all to achieve a net positive environmental impact benefit to the community. The estimate was based on the scheme that was ultimately approved by the Planning Minister.

14.	Were the road changes in Darlinghurst, Paddington and Woollahra and other suburbs proposed by CCM?	The road changes in Paddington and Woollahra are required by Condition 59 of the Planning Minister's Approval dated 12 December 2002. They were not proposed by CCM. The road changes were developed by the RTA, in conjunction with local government authorities, in response to community concerns that the proposed CCT would result in the re-distribution of traffic in those suburbs and significant 'rat-runs' to the CCT. The local community and Woollahra Council (among others) were consulted on these changes. The Member for Bligh's Newsletter #41 dated December 2005 notes, in relation to LATM works in Neild Avenue and Glenmore Road, that: > The plans were developed by Woollahra Municipal Council in conjunction with the Paddington Society and local residents. In addition, please see the following: • Technical Paper No. 8 supporting the EIS dated July 2000; • Report to RTA dated March 2001 which is contained in the Appendices to the Representations Report for that EIS; • RTA EIS – section 7.3.12; • RTA Supplementary EIS – section 5.4.1; • Annexure I to RTA Supplementary Representations Report dated 1 November 2002 (Masson Wilson Twiney Report) – sections 4.4 and 4.5. There are a number of road changes in Darlinghurst. Some (including William Street itself) were set out in the original EIS dated July 2000. Others arose out of refinements and developments of the planning scheme for surface works and the community consultation process. RTA is the proponent, the Planning Minister the approving authority and CCM is implementing the surface road changes.
15.	If they were not proposed by CCM who proposed the road changes?	Please see the answer to question number 14.
16.	Were the road changes agreed to when CCM realised that it would be difficult to achieve 93,000 cars a day using the tunnel?	No. Please see the answer to question number 14.

Table S.1 **Major Modifications to the Design and Operation of the Cross City Tunnel**

Approved Activity	Proposed Modified Activity
Length Eastern end of the tunnel located near the western end of the Kings Cross Tunnel.	Extension of the tunnel by approximately 300 metres to the east. The entry and exit to the Cross City Tunnel would be located 30 metres east of the existing Kings Cross Tunnel.
Depth of Tunnel Relatively shallow at the eastern end passing over the top of the Eastern Distributor tunnels and requiring cut-and-cover construction along William Street, east of Bourke Street.	Up to 30 metres deeper at the eastern end, passing under the Eastern Distributor tunnel and eliminating cut-and-cover construction from William Street.
Tunnel Alignments and Traffic Speed Speed of 70 kilometres per hour permitted.	Speed of 80 kilometres per hour proposed. Variety of modifications to the alignment of the main tunnels to achieve safe traffic conditions. Modifications to the alignment of the connections between the Cross City Tunnel and the Eastern Distributor.
Traffic Lanes on Western Distributor (Market Street Viaduct) Reconstruction and re-linemarking of Market Street viaduct to increase the number of lanes from two to three.	Widening of Market Street viaduct to allow the provision of four traffic lanes.
Cahill Expressway No changes to the Cahill Expressway.	Alterations to lane arrangements and linemarking to prohibit access from Cowper Wharf Roadway and Palmer Street to the Macquarie Street ramp of the Cahill Expressway. Provision of an additional traffic lane on the Macquarie Street ramp. Access to the Domain Tunnel and Sydney Harbour crossings via the Cahill Expressway would not be available from Cowper Wharf Roadway, Palmer Street and Sir John Young Crescent. Access to the Domain Tunnel would only be available from the Cross City Tunnel and Eastern Distributor. This change would improve traffic safety by eliminating potentially hazardous weaving and would improve the efficiency of the Cahill Expressway.
Kings Cross Tunnel Traffic enters and exits the Cross City Tunnel within the Kings Cross Tunnel. Three lanes each way in the Kings Cross Tunnel.	Traffic enters and exits the Cross City Tunnel east of the Kings Cross Tunnel. Reduction of traffic lanes in the Kings Cross Tunnel from three lanes in each direction to two lanes. These would be configured as two general eastbound traffic lanes and one general traffic and one T2 transit lane (daytime) for westbound traffic.
A lid extending approximately 30 metres to the west constructed over the western end of the Kings Cross Tunnel to be potentially used for open space and/or a complementary commercial activity. The walls of the Kings Cross Tunnel to be refurbished.	Reduced size of lid to extend approximately six metres to the west. Walls of the Kings Cross Tunnel would not be refurbished, however, external faces at the western end would be cleaned.
William Street Refurbishment Widening and refurbishment of footpaths through the use of granite flagstones and asphalt panels.	Full granite paving of footpaths.
Access to Eastern Suburbs Railway Maintenance Yard and the Domain Car Park Access to both integrated and provided from Sir John Young Crescent.	Existing accesses maintained from Sir John Young Crescent. Widening of the access to the Eastern Suburbs Railway maintenance yard proposed.
Ventilation Tunnel ventilated through a 44 metre high stack (level of top of stack would be 49 metres AHD) south of IMAX Theatre.	Tunnel ventilated through a 60 metre high stack (level of top of stack would be 65 metres AHD) located in the same position as the Approved Activity.
Tolling Toll set at $2.50 (1999 dollars index) for all vehicles for both of the main tunnels or $1.10 (1999 dollars index) for all vehicles exiting at Sir John Young Crescent.	Differential tolling (different tolls for different classes of vehicles) would be adopted similar to other tollways in Sydney.

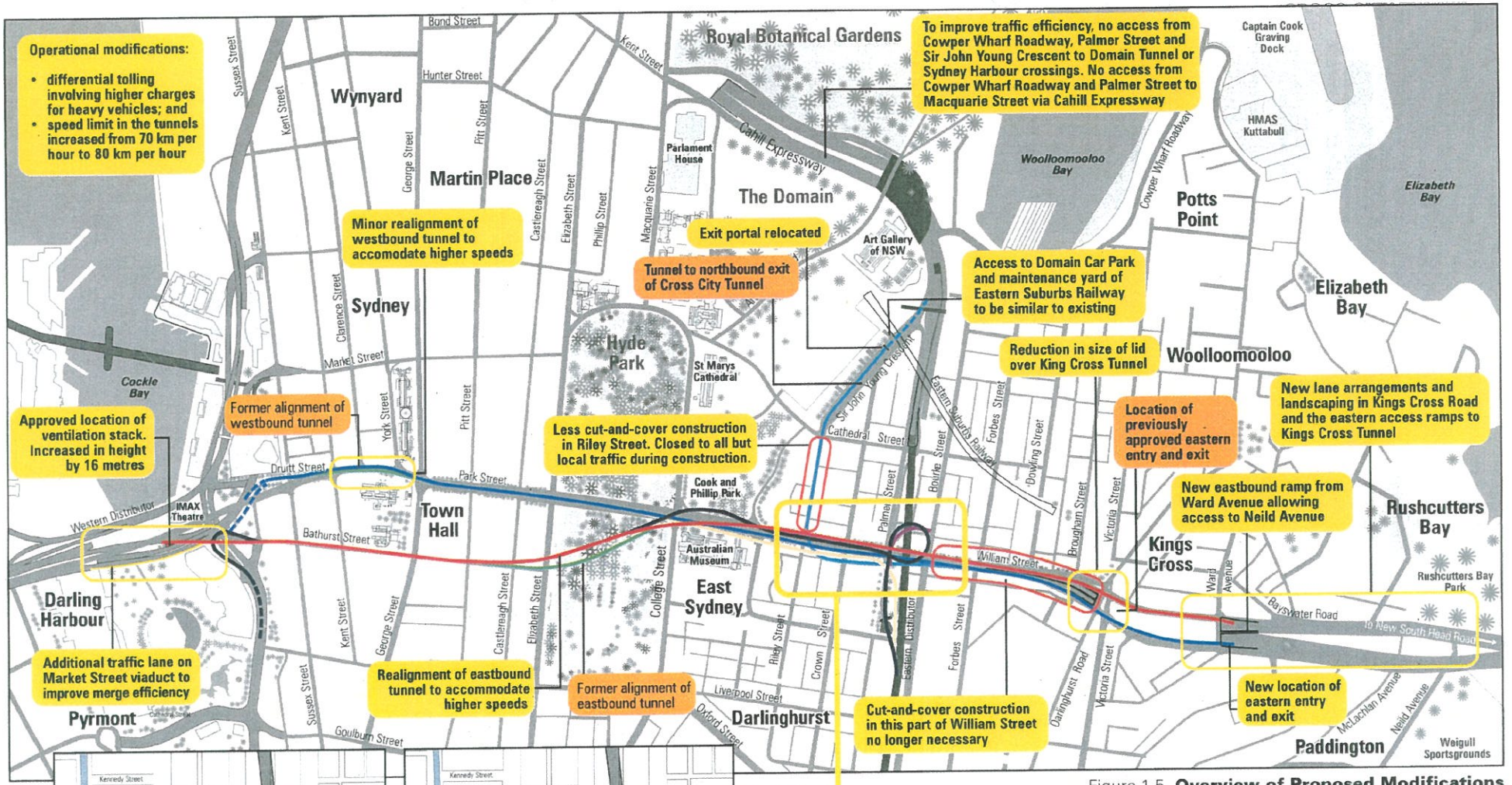


Figure 1.5 **Overview of Proposed Modifications**

concept and the mitigation measures in Table 7.7 relate specifically to the Preferred Activity, and in some cases render the former mitigation measures redundant.

7.2 Description of the Preferred Activity

The Supplementary EIS Proposal is described in detail in Chapter 2 of the Supplementary EIS. Figure 2.1 in Chapter 2 of this report illustrates the Proposal as outlined in the Supplementary EIS.

Following consideration of representations, consideration of additional correspondence from Government agencies and other bodies, additional studies undertaken, and further development of the concept design, the Preferred Activity has been developed by refining the Supplementary EIS Proposal. The Supplementary EIS Proposal, as set out in the Supplementary EIS, is therefore now superseded by the Preferred Activity as set out in this Chapter. Table 7.1 below describes the alterations to the Supplementary EIS Proposal resulting in the Preferred Activity in more detail.

Table 7.1: Summary: Alterations to the Supplementary EIS Proposal

Alteration Number	Design as Presented in the Supplementary EIS	Proposed Alteration
1	Key changes introduced were: • Traffic signal control at Crown Street intersection with Sir John Young Crescent (Existing Configuration). • Southbound one way movement in Palmer Street to Cathedral Street from Sir John Young Crescent. • All movements permitted at signalised intersections. • Right turn at Palmer Street northbound from William Street not permitted. • Right turn movement from William Street to Crown Street to be introduced prior to construction. • Provide an additional lane on the Macquarie Street exit from the Cahill Expressway.	*Alterations to Traffic Management in Woolloomooloo* Figure 7.1 summarises the proposed traffic changes in Woolloomooloo. These would include: • Provision of a single lane roundabout at Crown Street intersection with Sir John Young Crescent and the Domain Carpark; • Two way traffic movement in Palmer Street between Cathedral Street and Sir John Young Crescent; • Left turn only from Yurong Parkway into St Marys Road at Sylvia Chase Square; • Re-introduction of right turn from William Street into Palmer Street northbound; and • Introduction of a permanent right turn ban into Bourke Street from William Street for northbound road users.

Alteration Number	Design as Presented in the Supplementary EIS	Proposed Alteration
2	No right turn from Cowper Wharf Road and thereby removal of direct access to Macquarie Street and harbour crossings.	*Direct Connection to Domain Tunnel:* Provision of new northbound connection on the Cahill Expressway to the Domain Tunnel from Cowper Wharf Roadway. This movement would be facilitated under traffic control from signals at the intersection of Sir John Young Crescent and Cowper Wharf Roadway. The change is shown in Figures 7.1 and 7.2.
3	Provision of northbound portal opposite Eastern Suburbs Railway. Cut & cover in Riley Street with closure to through traffic for 6 months.	*Alterations to Sir John Young Crescent Exit Tunnel:* Further deepening of the tunnel alignment and relocation of the portal in Sir John Young Crescent 20 metres southward from the position outlined in the Supplementary EIS. Cut & cover limited to Sir John Young Crescent. Louvres would also be added over a length of approximately 20m extending northward from the portal position. Tunnel excavation activities, including haulage of spoil would now be undertaken in Sir John Young Crescent as part of the proposal for the new ventilation duct tunnel (Alteration 4) is shown in Figures 7.3 and 7.4.
4	• Emissions from tunnel portals during congested traffic conditions (Unchanged from Original EIS). Under normal operating conditions it provided for air from the eastbound tunnel to be recirculated via the westbound tunnel and ultimately discharged through a single ventilation stack in Darling Harbour. In the event of a fire or congested conditions, tunnels operate independently with air exhausted at the stack and at various portals located in Day & Bourke Streets, Sir John Young Crescent and Bayswater Road. • No stub tunnel connection to Darling Walk.	*Ventilation Duct Tunnel:* Including: • Provision of a separate ventilation duct beneath the proposed road tunnels; and • Provision of stub tunnel connection from the ventilation tunnel in Darling Harbour to facilitate possible future connection of a ventilation stack at an alternative location as part of the future development at Darling Walk. This design change is intended to reduce the need for portal emissions. The changes are shown in Figure 7.5.

Alteration Number	Design as Presented in the Supplementary EIS	Proposed Alteration
5	Loss of 22 car parking spaces at Rushcutters Bay and in future years, an additional 5 spaces may be lost in the afternoon peak period.	*Replacement of Car Parking Spaces in Rushcutters Bay:* Provision of up to 15 additional car-parking spaces around the eastern portal area at Rushcutters Bay as shown in Figure 7.6.
6	No changes to the proposed locations of 10 VMS outlined in Volume 3, Appendix 8 of the Original Representations Report.	*Relocation/New Variable Message Signs:* • Relocation of one Variable Message Sign at the eastern portal to the westbound tunnel east to the Barcom Avenue junction; and • Provision of three new Variable Message Signs on Crown Street, Sir John Young Crescent and Cowper Wharf Roadway in Woolloomooloo. The location of all VMS, including the four alterations is included as Figure 7.7.
7	No proposals for any structures above the eastern portals.	*Land Bridge over Eastern Portal:* Provision of a 40m land bridge over the eastern Kings Cross Tunnel and Cross City Tunnel portals in Rushcutters Bay. The concept is illustrated in Figure 7.8.
8	As a result of design changes introduced in the Supplementary EIS, a number of conditions of approval were proposed to be modified to ensure they remained relevant to the Supplementary EIS Proposal.	Changes to existing and new conditions of approval are proposed as a result of the proposed alterations. These are included in Appendix F of this Supplementary Representations Report.

As a result of these alterations, the design requirements for the Preferred Activity are outlined in Table 7.2 below.

Table 7.2: Outline of Concept Design Requirements for the Preferred Activity (including alterations)

General Requirements
LGAs: City of Sydney Council and South Sydney City Council. Eastern limit of works borders Woollahra Council. *Project Start*: Western Distributor at Harris Street Ultimo. *Project End:* East of eastern portal of Kings Cross Tunnel.

7.5 Surface Design

7.5.1 Overview of Changes to Surface Streets

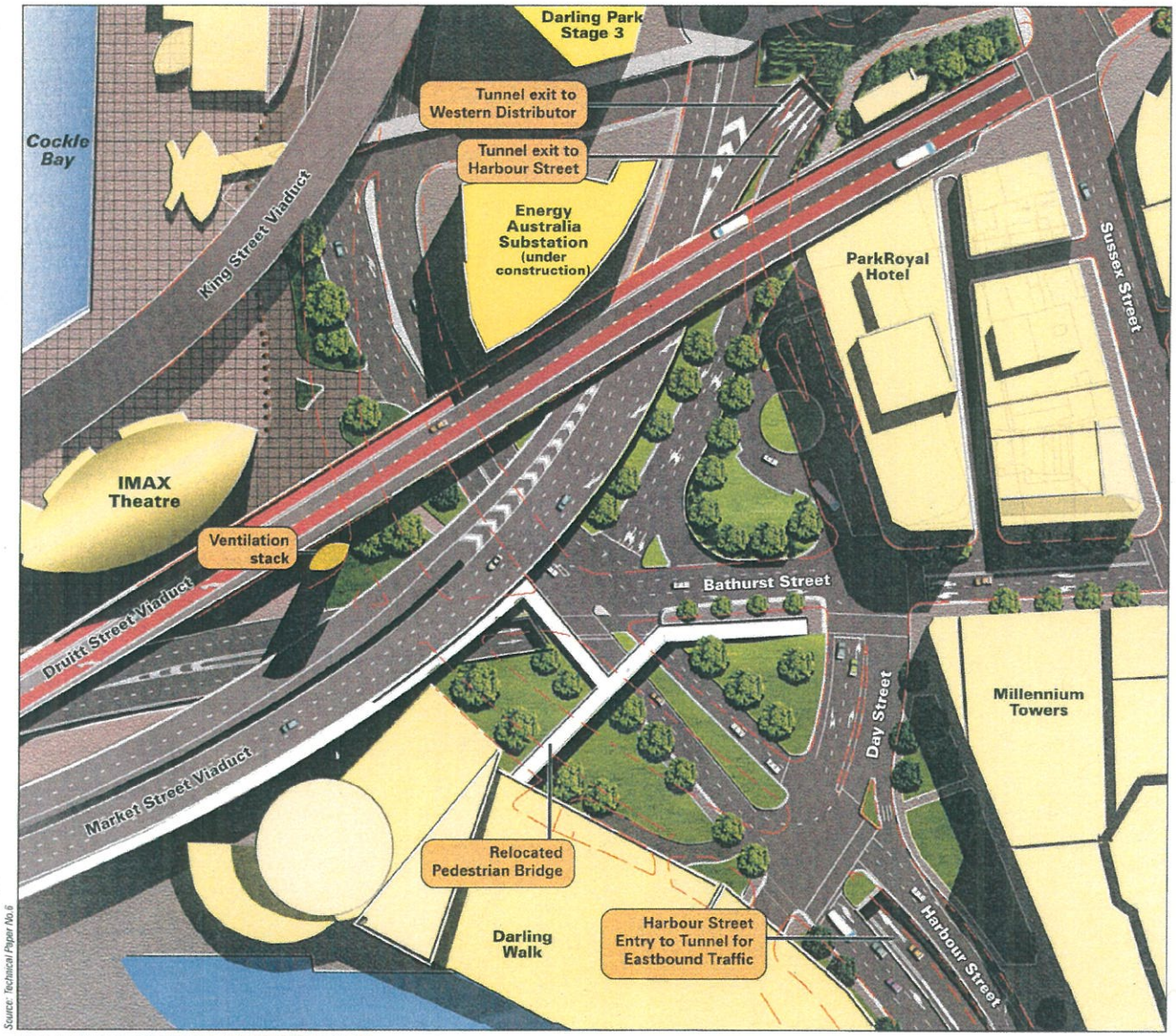
In urban design terms, the proposal is defined more by its portals, by what is proposed on the surface and by what additional improvements may take place on the surface following its completion, than by the tunnel proposal itself. Figure 7.19 provides an overview of changes proposed to be made to surface streets within the corridor of the Cross City Tunnel. These are aimed a consolidating the benefits achieved by the reduction in east–west through traffic from surface streets in Central Sydney.

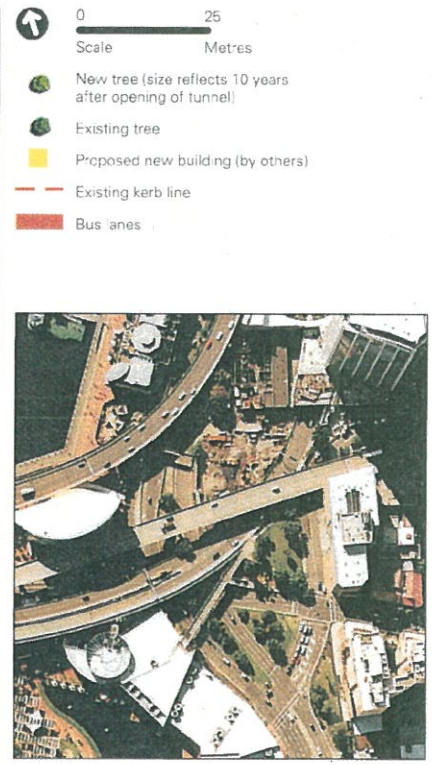
In terms of the existing issues and desired future characteristics outlined in Section 6.1, the design of initiatives for surface streets has been to influence the character of Central Sydney in the following ways:

- an improvement in the visual quality and legibility of William and Park Streets having regard to their important role in connecting public spaces and places. Public open spaces would be created over the Kings Cross Tunnel portal and at the intersection of William and Palmer Streets. The highly-conspicuous Kings Cross Tunnel portals would be reduced in size and improved in detail. The visual quality of Harbour Street and adjoining areas would also be improved;
- safety for pedestrians would not only be enhanced by reduced surface traffic volumes, but benefits would also arise from improved pedestrian crossings, improved lighting design, wider footpaths and potentially increased retail activity and visibility;
- environmental amenity would also be enhanced by reduced surface traffic volumes in addition to improved and wider footpaths in a number of locations and by more expansive areas of shade;
- the Cross City Tunnel creates an opportunity for improvements to the urban fabric in William Street by encouraging infill development to repair gaps in street frontages remaining from previous roadworks and the creation of a major public space at Kings Cross;
- connectivity would be improved for pedestrians and bus operations would become more efficient. It is proposed to reduce the cycle time for traffic signals within Central Sydney and improve the design of a number of pedestrian crossings in William Street and Park Street. Accessibility between East Sydney/Darlinghurst and Woolloomooloo/Kings Cross and from the CBD to Darling Harbour would be improved; and
- facilities for cyclists would be improved by the provision of dedicated lanes on feeder streets to the east linking to bicycle lanes in both directions along William and Park Streets.

Figure 7.20 shows the proposed cross-section of William Street.

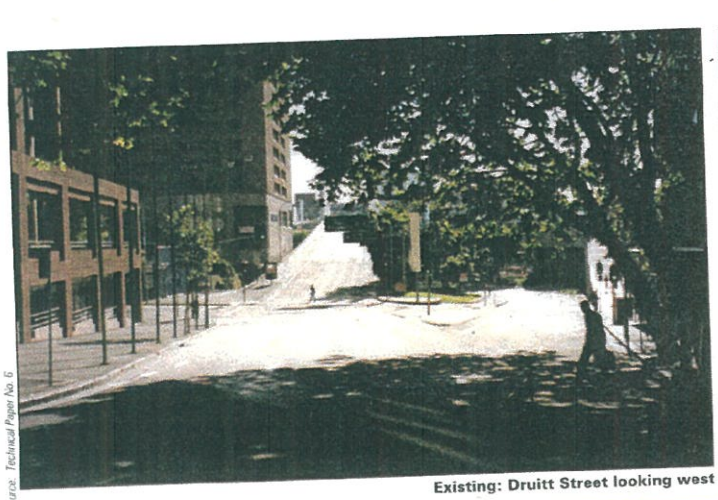
Traffic would be restricted to one general traffic lane and a daytime T2 transit lane westbound in William Street between Forbes and College Streets. Traffic eastbound would be restricted to one general traffic lane and a daytime T2 transit lane between College and Palmer Streets. Right-turn lanes would be provided to turn into Riley, Palmer and Bourke Streets heading northbound. The existing right-turn from William Street westbound to College Street northbound and from William Street eastbound to Yurong Street southbound would be retained. A 1.5 metre wide, landscaped median would also be provided in William Street.





Existing

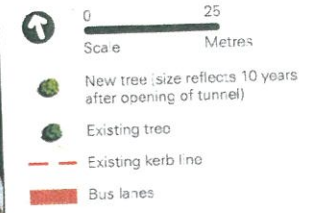
Figure 7.19a **Overview of Changes to the Surface**

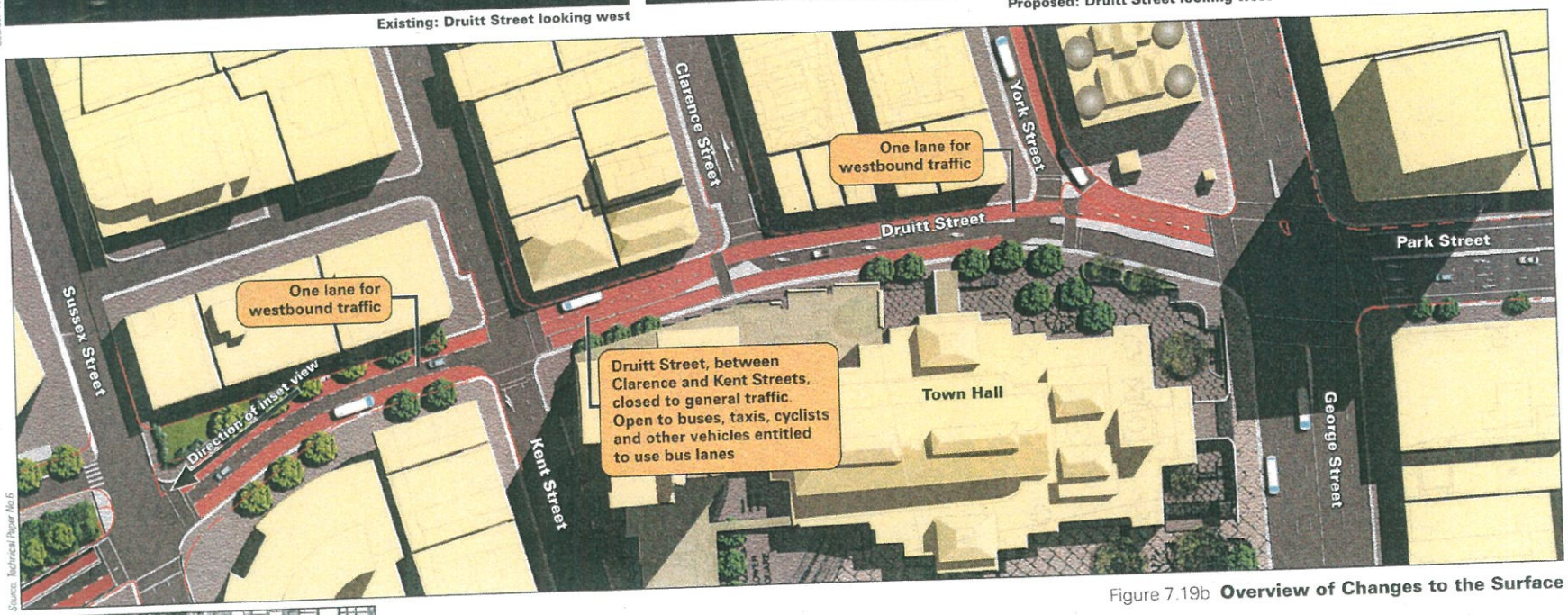


Existing: Druitt Street looking west

Proposed: Druitt Street looking west

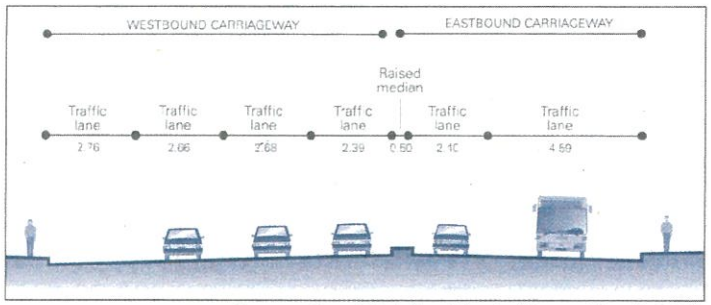
Source: Technical Paper No. 6



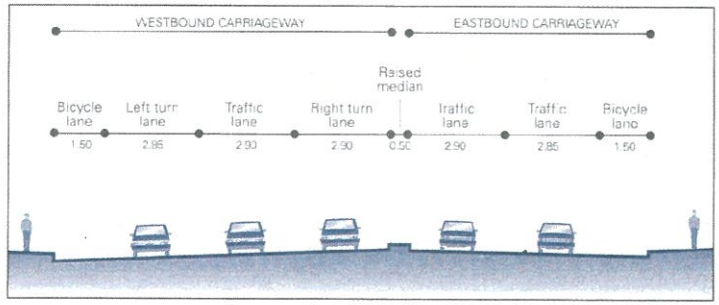


Source: Technical Paper No. 6

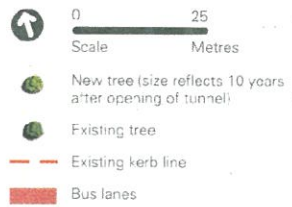
Figure 7.19b **Overview of Changes to the Surface**

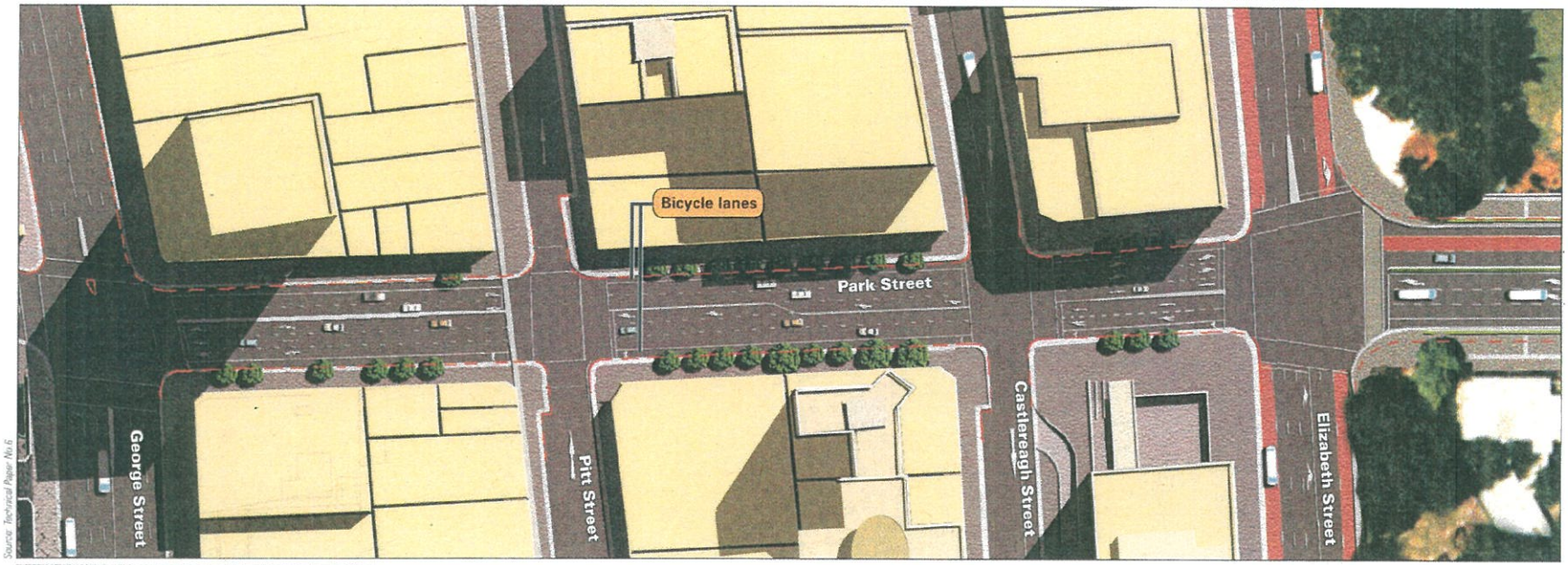


Cross-section of Park Street (east of George Street): Existing



Cross-section of Park Street (east of George Street): Proposed

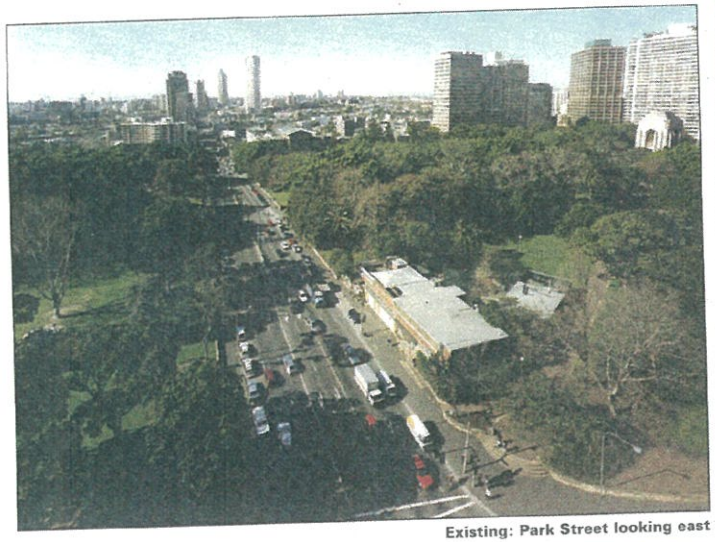




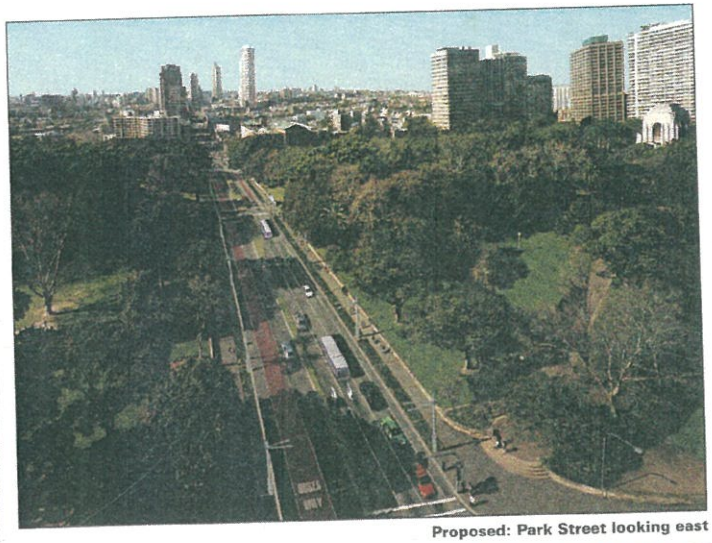
Source: Technical Paper No 6

Location of figure

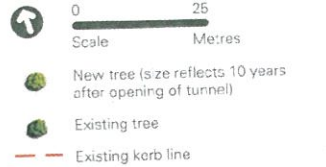
Figure 7.19c **Overview of Changes to the Surface**

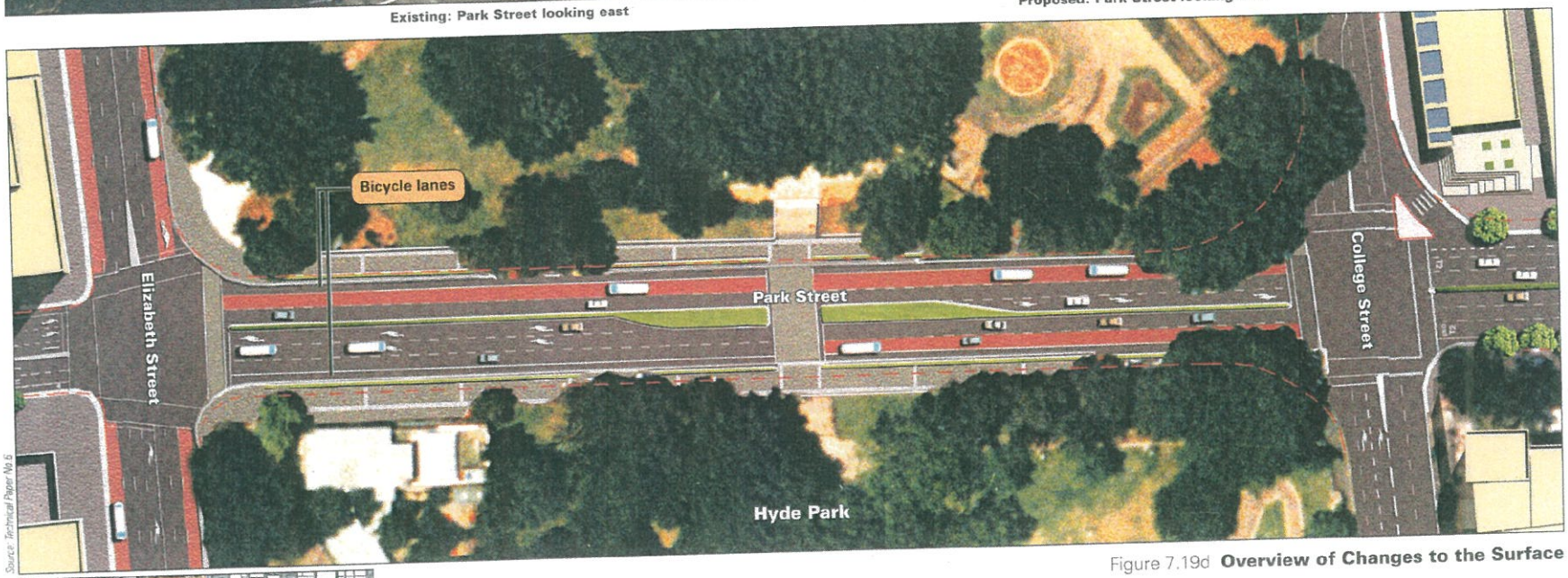


Existing: Park Street looking east



Proposed: Park Street looking east





Source: Technical Paper No 6

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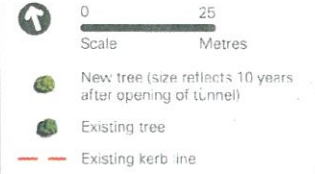
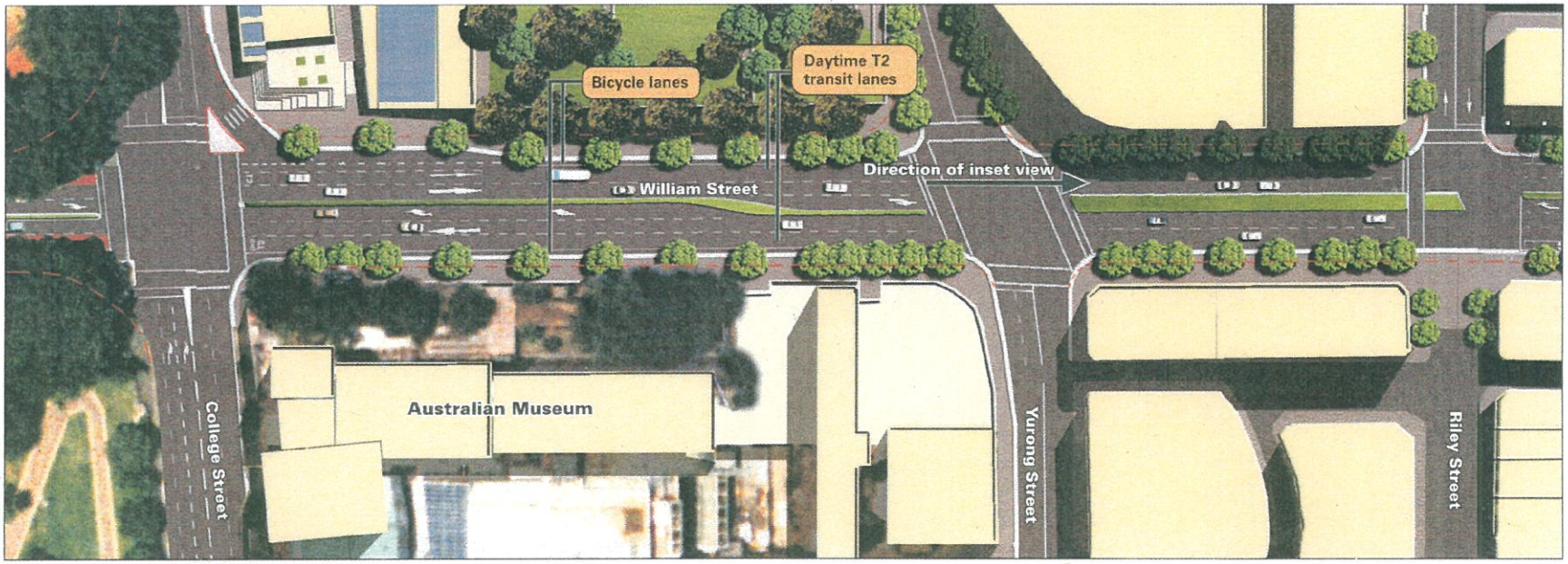
Figure 7.19d **Overview of Changes to the Surface**

Existing: William Street looking east

Proposed: William Street looking east





Source: Technical Paper No. 6

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Figure 7.19e **Overview of Changes to the Surface**

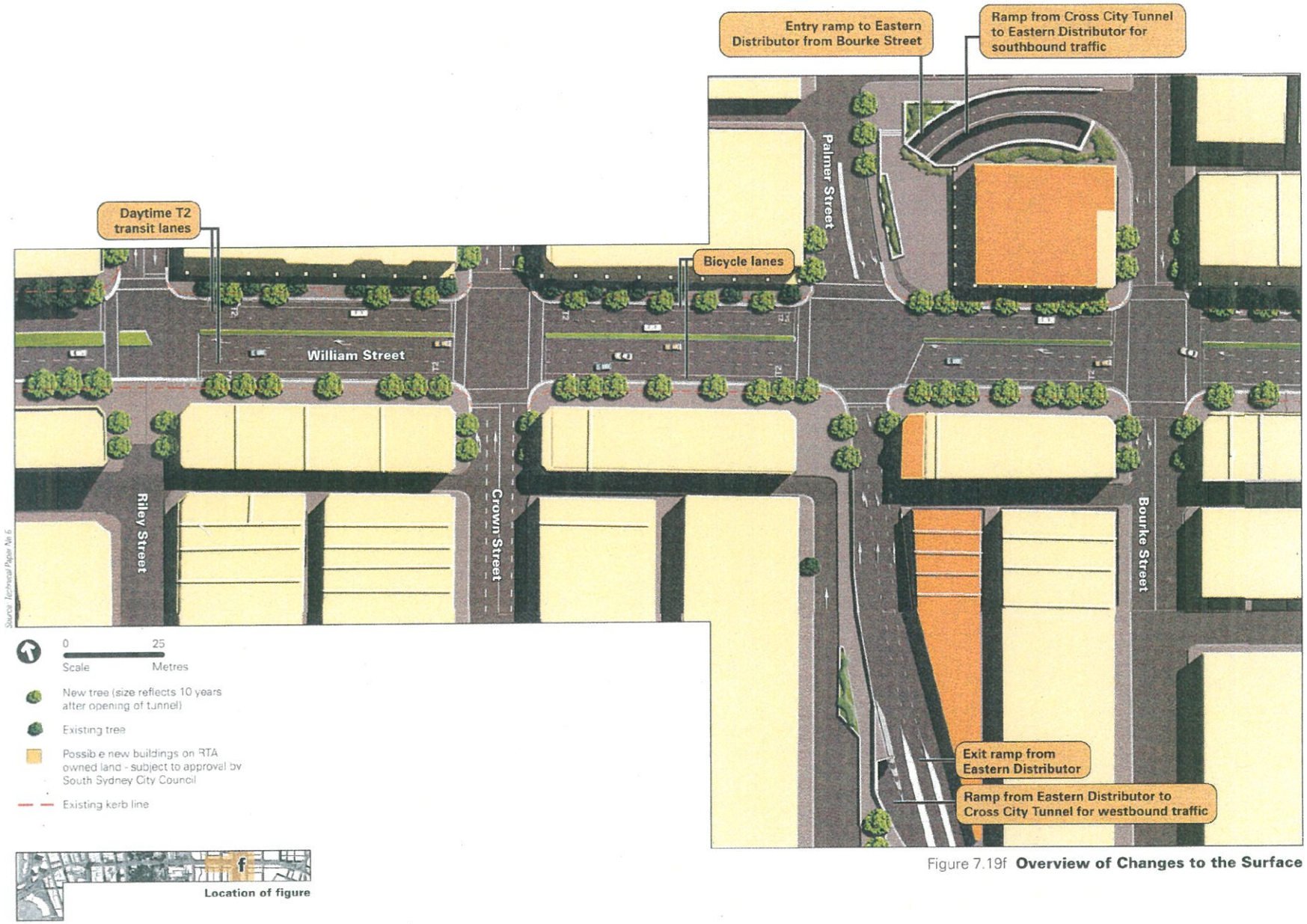
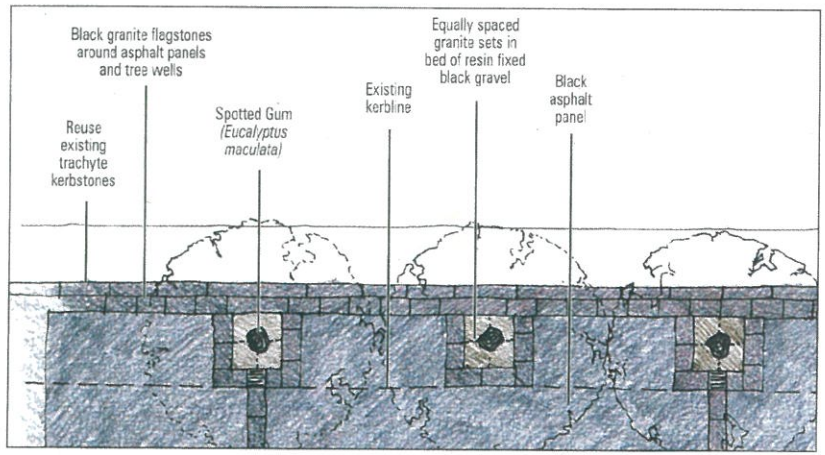
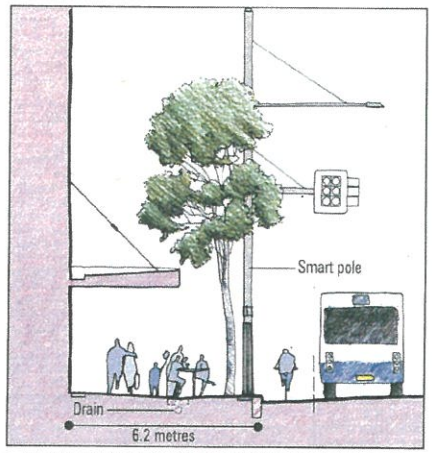


Figure 7.19f **Overview of Changes to the Surface**



Typical footpath treatment: plan



Typical widened footpath treatment: cross-section

New tree (size reflects 10 years after opening of tunnel)

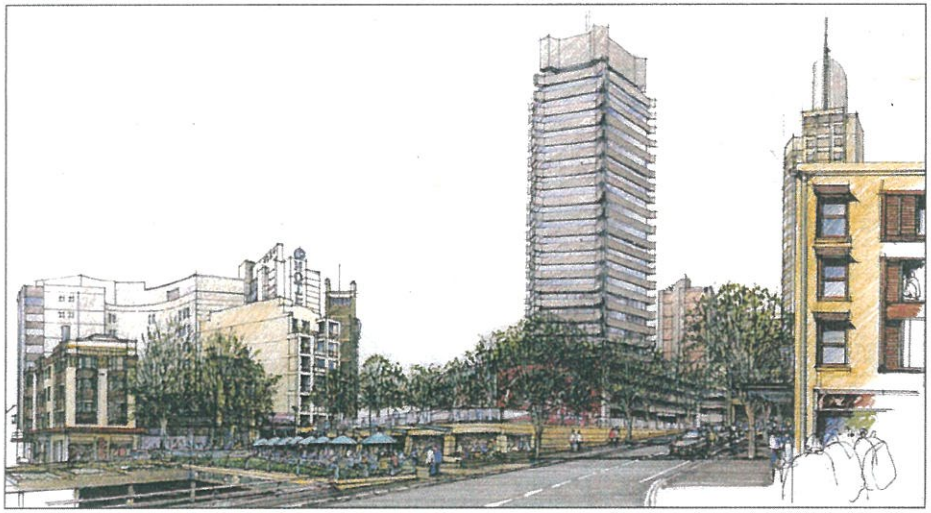
Existing tree

Possible new buildings on RTA owned land - subject to approval by South Sydney City Council

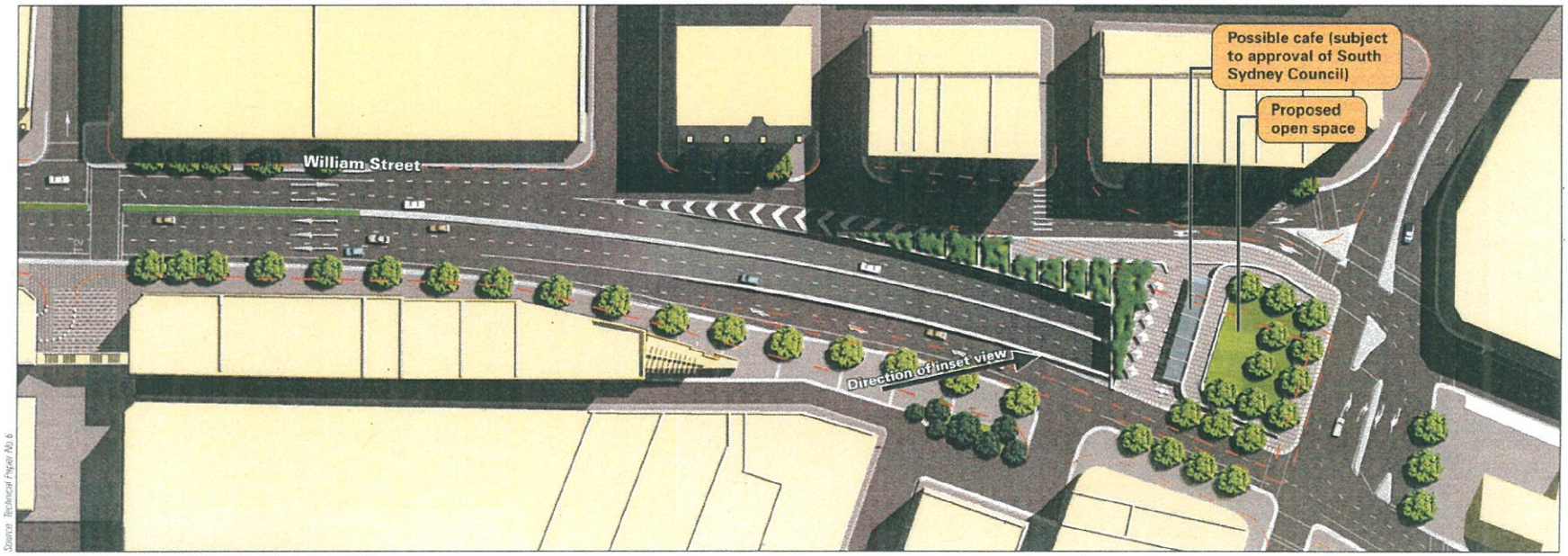
Existing kerb line

Location of figure

Figure 7.19g **Overview of Changes to the Surface**



View to north-east of proposed public space and possible cafe over tunnel portal

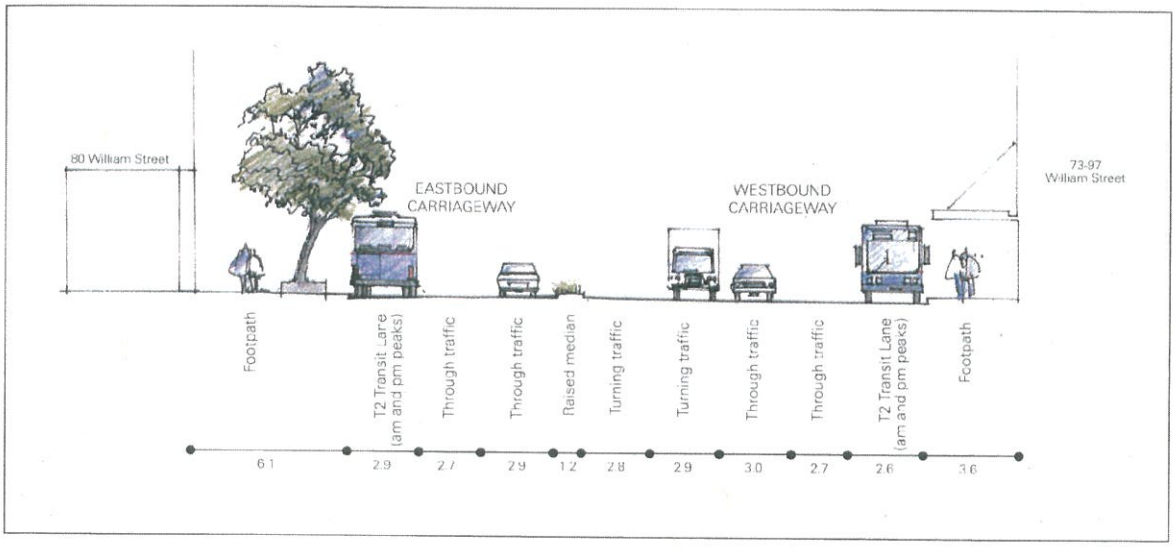


Source: Technical Paper No 6

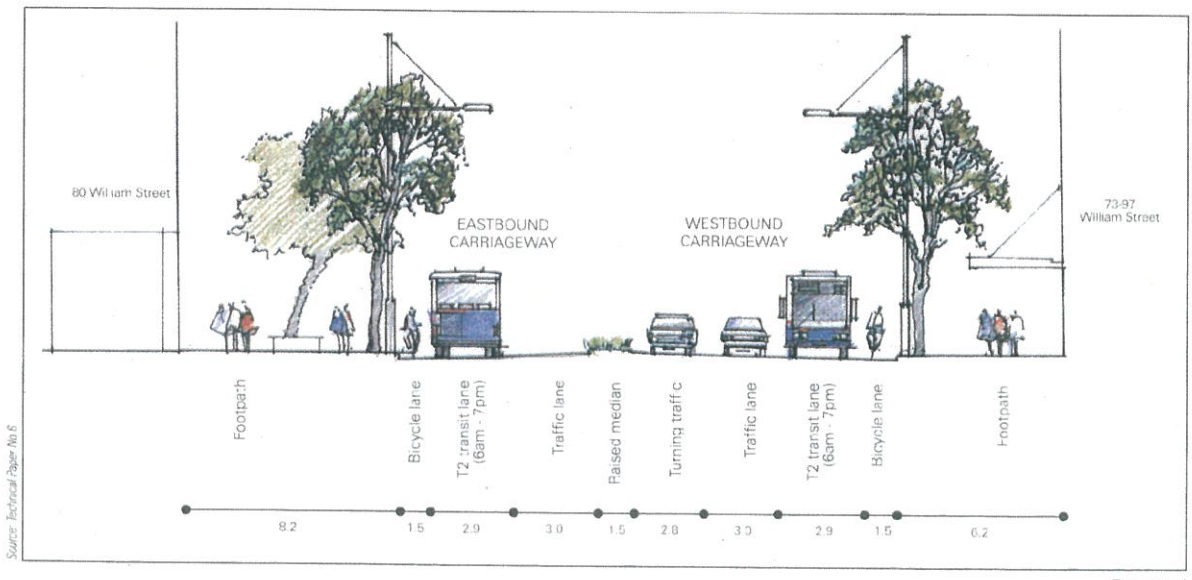
Figure 7.19h **Overview of Changes to the Surface**

It is proposed to widen footpaths in William Street between Darlinghurst Road and College Street and in Park Street between College and Elizabeth Streets (refer Figure 7.21). Treatments for widened footpaths would include stone kerbs and granite edge strips with asphaltic concrete infill panels.

The vacant RTA-owned land on William Street, between Bourke and Palmer Streets, would be developed for open space and a commercial building. The development would be subject to approval by South Sydney City Council and is not part of the proposal subject to this EIS. The open space would offer good views to the north and would admit sunlight to William Street.



Existing



Source: Technical Paper No.6

Proposed

Figure 7.20 **Cross-section of William Street between Crown Street and Riley Street: Existing and Proposed**

The proposed footpaths would allow for the establishment of trees on both sides of William Street as well as allowing space for awnings to be retained where they currently exist or be constructed in the future. Trees would be planted adjacent to street corners at four metre intervals and more widely spaced at mid-block locations. This would allow the historic and generally consistent character of Edwardian buildings on the southern side of William Street to be seen.

Bus stops for city services, on the south side of William Street, would be located outside the Australian Museum, adjacent to Crown Street and immediately to the east of Bourke Street. On the northern side of William Street bus stops would be located at the corner of College Street, to the west of the Palmer Street intersection and to the west of the Dowling Street intersection. Siting and design of bus shelters would follow South Sydney City Council and the City of Sydney Council practices.

The main tree species to be used along William Street would be the Spotted Gum (*Eucalyptus maculata*). This species has been chosen as it grows well in an urban context, would provide light shade and would reach a size that is in scale with William Street. Larger existing trees would be retained, including the established plane trees on the northern side of William Street, between Riley and Palmer Streets. The existing plane trees adjacent to the eastbound exit ramp to Darlinghurst Road would be removed. On Park Street, adjacent to Hyde Park, low planting would be introduced on the kerb side of footpaths and, where practicable, in the median.

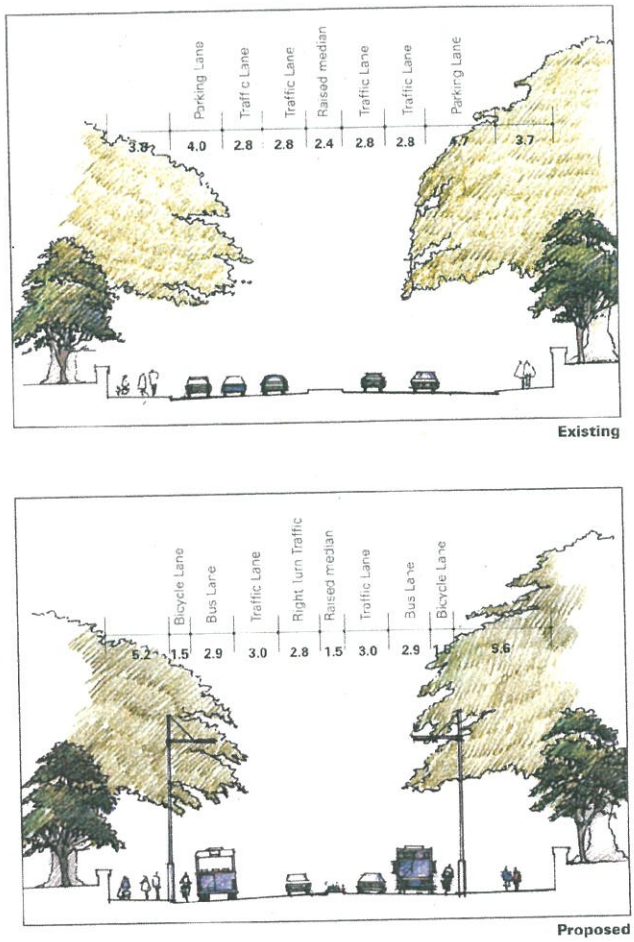


Figure 7.21 **Cross-sections of Park Street: Existing and Proposed**

It is proposed to provide a terrace platform over the Kings Cross Tunnel portal extending approximately 30 metres west from the western side of Darlinghurst Road. The upper terrace would become a small park and would be covered by soil to an appropriate depth. Pedestrian access across the lower terrace would be facilitated by a new pedestrian crossing on the northern side. A number of design options have been considered for this public space, as outlined in Chapter 6. The preferred proposal is to use part of this space as a restaurant or café as a conscious effort to activate the space, thereby increasing surveillance and personal security. The restaurant or café would be subject to an application for approval by the RTA to South Sydney City Council.

At the western end of the Cross City Tunnel it is proposed to provide greater clarity of layout, avenue planting and other landscaping along Harbour Street from the Chinese Gardens to Darling Park. This is intended to enhance the visual quality of the street.

All existing pedestrian facilities and crossings to Darling Harbour would be replaced. The ventilation stack would be approximately 39 metres high and would have a finish and shape to complement the adjacent IMAX Theatre. Plantings would consist of Hills Weeping Fig (*Ficus hilii*), consistent with the existing avenue planting along Harbour Street, and Peppercorn trees. Dense low shrubs such as Grevillea would be used to screen portals at the end of Druitt Street and in Harbour Street.

The pedestrian bridge and ramp system between the western end of Bathurst Street and Darling Walk and the Western Distributor footway to Pyrmont would be replaced by a new footbridge allowing the same pedestrian movements. The new bridge would be designed in a similar style as the footbridge presently connecting Darling Park to Darling Harbour, which has recently been constructed immediately to the north.

Within the CBD, the reduction in surface traffic volumes resulting from the Cross City Tunnel would allow the cycle time for traffic signals (being the time it takes for a set of traffic signals to run through each phase or set of traffic movements) to be reduced. This would reduce delays for pedestrians and buses travelling in a north–south direction. The existing pedestrian-only phase at the traffic signals at the intersection of George and Park Streets would be removed.

7.5.2 Public Transport Facilities

Bus Access to and from the West

Bus lanes (24-hour) would be provided on Druitt Street between George Street and the Druitt Street viaduct of the Western Distributor for both inbound and outbound bus services. The eastbound and westbound viaducts of the Western Distributor are currently separated. It is proposed that, to the east of Harris Street, the viaducts would be connected by a new cross-over enabling inbound city bus services to transfer to the Druitt Street viaduct. The cross-over is shown in Figure 7.10. The inbound bus lane, to be separated from westbound traffic by a raised median, would continue eastbound along Druitt Street to George Street and the Queen Victoria Building. Druitt Street would be converted to two-way traffic flow, but would be closed to all traffic other than buses, taxis, motorcycles, bicycles and other vehicles entitled to use bus lanes between Clarence and Kent Streets. General traffic would not be able to travel eastbound on Druitt Street.

A bus lane would also be provided in the westbound direction for outbound bus services. This bus lane would extend from York Street onto the Druitt Street viaduct.

The closure of Druitt Street between Clarence and Kent Streets to general traffic would require westbound through-traffic and northbound traffic to turn right at Clarence Street. Traffic originating in the south-west sector of the CBD would be able to turn left from Kent Street to Druitt Street to travel to the west. A single westbound lane would be provided for this traffic between the inbound and outbound bus lanes on the Druitt Street viaduct, requiring westbound buses and general traffic to merge prior to joining the approach to the Anzac Bridge.

Bus Facilities on Park and Elizabeth Streets

Eastbound and westbound 24-hour bus lanes would be provided in Park Street which would be reduced to one-lane in each direction for general traffic between College and Elizabeth Streets. Two right-turn lanes would be provided into Elizabeth Street northbound. The westbound bus lane would terminate at the midblock pedestrian signals which would give priority to westbound buses.

The southbound bus lane in Elizabeth Street would be extended for the full distance between Park Street and Liverpool Street by removing one right turn lane from Elizabeth Street northbound into Park Street eastbound.

Bus Facilities on William Street

The peak hour T2 transit lanes in William Street implemented with the Eastern Distributor would be converted to daytime T2 transit lanes (6.00 am to 7.00 pm) between College and Palmer Streets eastbound and Forbes and College Streets westbound. Bus stops would be provided at appropriate locations but indented bus bays are not proposed.