

Waverley

Council

AUGUST 2013

# APPENDICES

## BONDI JUNCTION COMPLETE STREETS PROJECT



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# APPENDIX A - POLICY REVIEW

## BONDI JUNCTION URBAN DESIGN REVIEW - DRAFT REPORT JUNE 2012

### ***Focus of report***

The report reviewed the LEP 2012 and DCP 2012 to identify issues and make recommendations particularly with regards to zoning, height, floor space ratio, pedestrian network, Oxford Mall town square proposal and key development sites. A number of constraints and opportunities were identified:

### ***Constraints:***

1. No further height increase possible to secure solar access to areas south of Ebley Street.
2. Special protection required for Clementson Park. Height limit to control overshadowing at 12 noon, 21 June.
3. Tall buildings along the north side of centre block views to harbour and beyond and have shadow impacts on areas to the south. No additional height increase recommended.
4. Poor pedestrian connection to Oxford Street Mall and Waverley Street Mall.
5. Reduce bus travel speed to create a safer pedestrian and cycle environment.
6. Fragmented ownership of small sites restricts location of large footprint buildings.
7. Steep streets present accessibility issues.
8. Solar access to Waverley Street Mall limits building heights.
9. Physical boundary through elevated bypass road.
10. The double setback requirements for streets with heritage buildings (2m from

heritage frontage, another 2m above 6 storeys) is resulting in poor outcome and does not effectively define the heritage component.

### ***Opportunities:***

1. Improve connection from Oxford Street to Rail Interchange and Spring Street, develop Town Square
2. Upgrade and improve public domain of Spring Street and Bronte Rd including potential shared zone
3. Potential for additional storeys on Spring St within existing LEP height limit
4. Development of transition zone with mixed use buildings
5. Development of mixed use buildings
6. Development of Oxford Street as local street with low scale block edge
7. Potential for FSR increase to enable towers on Westfield Centre
8. Potential link through block at Boot Factory
9. Create solar access planes for open spaces
10. Improve relation to elevated bypass road

### ***Policy recommendations***

- Rezone areas west of Newland St from B3 Commercial Core to B4 Mixed Use
- Rezone the block adjacent to Waverley Mall from B3 Commercial Core to B4 Mixed Use
- Increase FSR of Westfield site south of Oxford St from 8:1 to 10:1 and provide

- two sites with the height limit increased from 60m to 80m and 120m respectively
- Reduced height limits on the north side of Ebley St near Clementson Park
- Lots in streets with heritage building to have the building form above the heritage component setback 6m
- Further investigation into:
  - o traffic study
  - o pedestrian access between Spring St Oxford Mall and the Interchange
  - o implementation of shard zones with low speed bus traffic
  - o public domain masterplan and improvement program with priority projects
  - o town square feasibility study
  - o voluntary planning agreements/ Section 94 contribution plan

***Evaluation:***

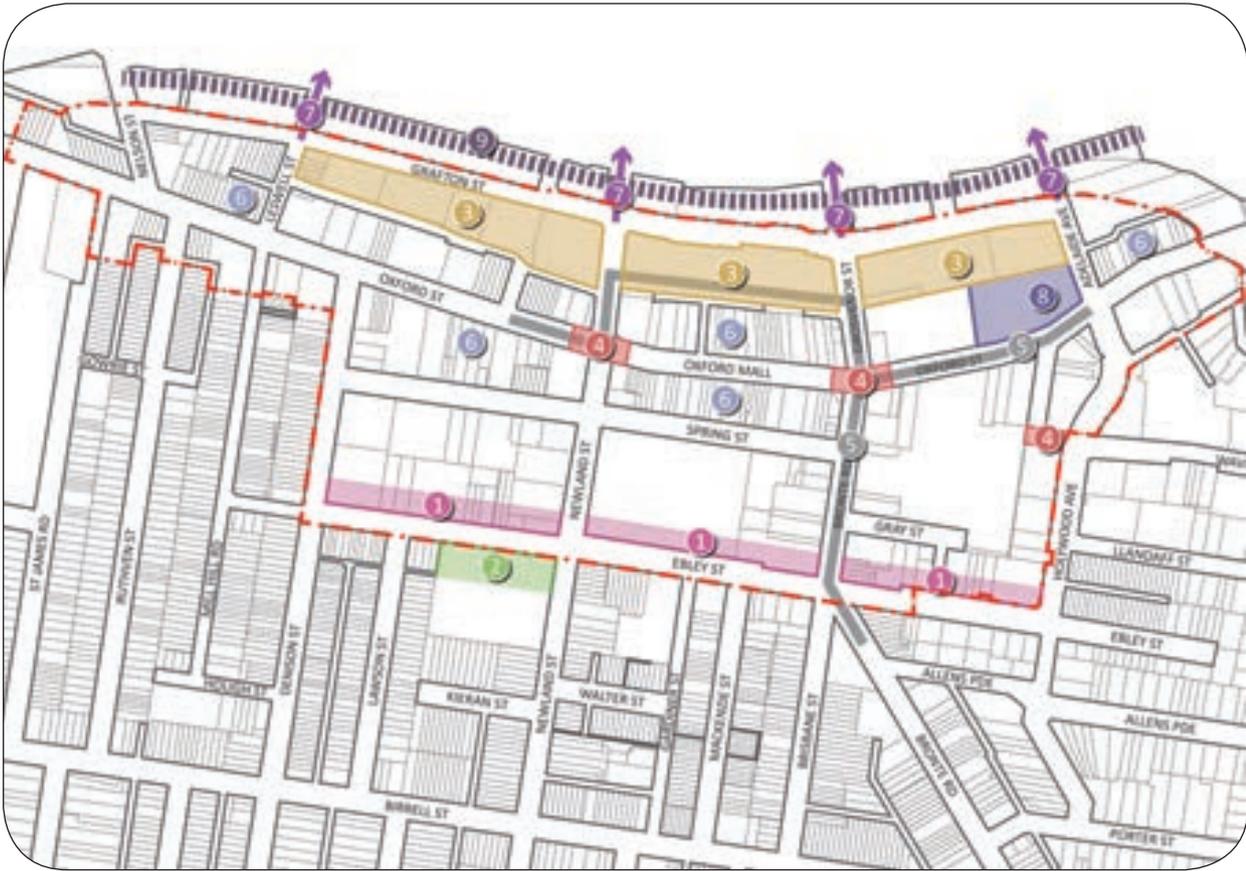
The recommendations are generally supported.

The review suggests some of the height restrictions for buildings on the north side of Oxford Mall could be relaxed without detrimental impact as the solar access has already been compromised by the towers to the north. However no changes have been proposed to maximum heights in the LEP.

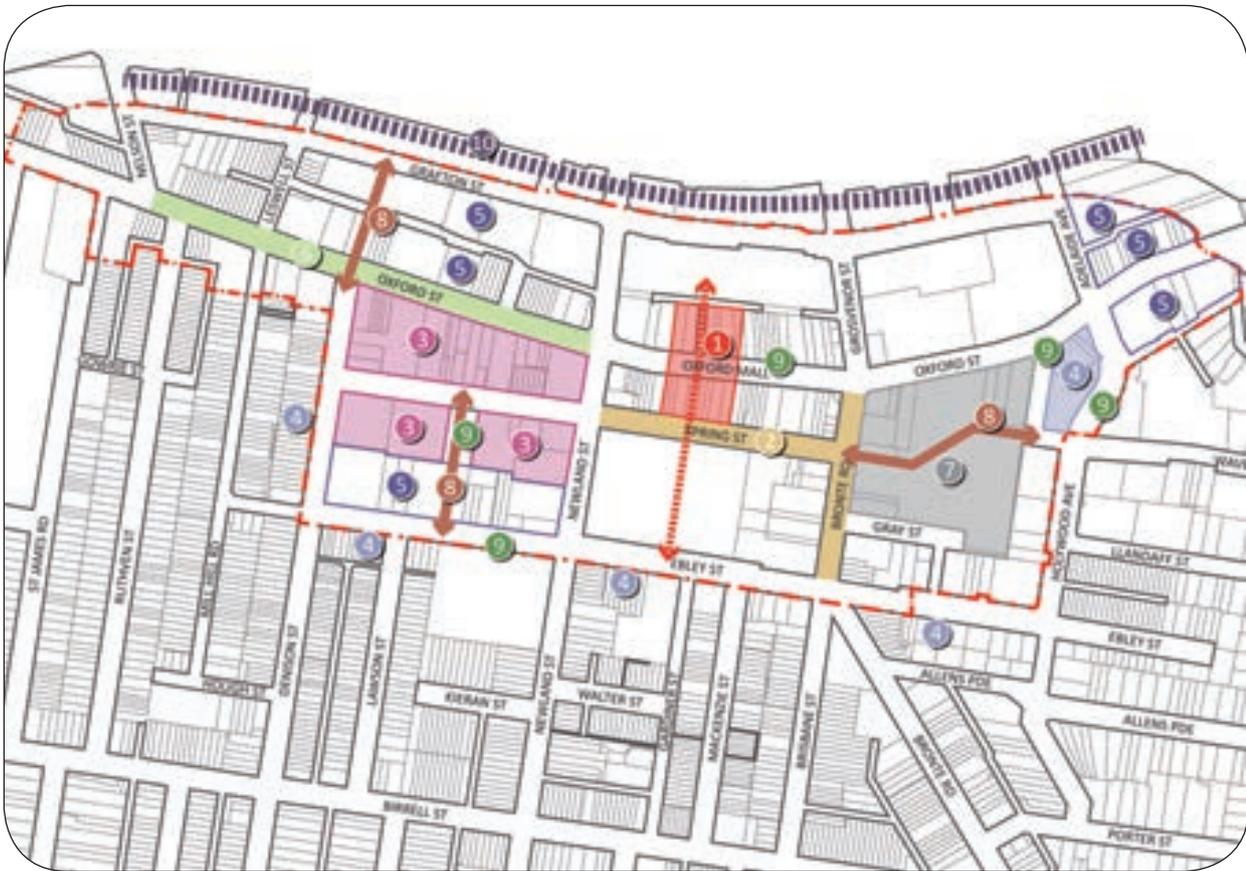
The review suggests Oxford St should be developed as local street with low-scale edge. While a human-scale street edge is supported, the terminology ‘local street’

contradicts the Bondi Junction Centre Structure Plan 2006 which identifies Oxford Street as a primary street and civic space. We support the recognition of Oxford Street as the ‘main street’ of Bondi Junction rather than a ‘local street’.

As an urban design review it lacks detailed analysis of the public realm – the quality of streets and spaces and the continuity of the public realm experience. It is largely focussed on the controls affecting private development – zoning, height, FSR, which is applied on a block by block basis, meaning the street aren’t considered as one coherent space. This could simply be a reflection that the existing planning controls are structured this way, suggesting the LEP and DCP are not structured effectively to control the public realm. This highlights the need for an urban design framework to provide the vision and overall structure to the centre and detailed guidance for the public realm, upon which private development can complement the civic spaces.



Identified Constraints (Source: Bondi Junction Urban Design Review June 2012)



Identified Opportunities (Source: Bondi Junction Urban Design Review June 2012)

# BONDI JUNCTION CENTRE STRUCTURE PLAN OCTOBER 2006

## ***Focus of report***

The Structure Plan guides development in Bondi Junction and provided the basis for new planning controls (2012 LEP and DCP).

## ***Centre function and Land Use:***

### *Issues:*

- Metropolitan Strategy 2005 target of 14,000 jobs by 2031 in BJ (increase of 3500 from 2005) = 60,000sqm additional retail floorspace and 45,000sqm additional A and B grade commercial office floorspace
- Sufficient capacity within Bondi Junction under the existing planning controls to meet the Metropolitan Strategy 2005 employment target for 2031, suggesting no need for expanding commercial core or built form controls on strategic planning grounds
- Competition from residential development, which has higher returns, could affect the actual amount of commercial floorspace created, particularly A grade commercial office floorspace. Therefore the land use mix, and amount of residential development permitted and protection of commercial uses will be important.

### *Principles:*

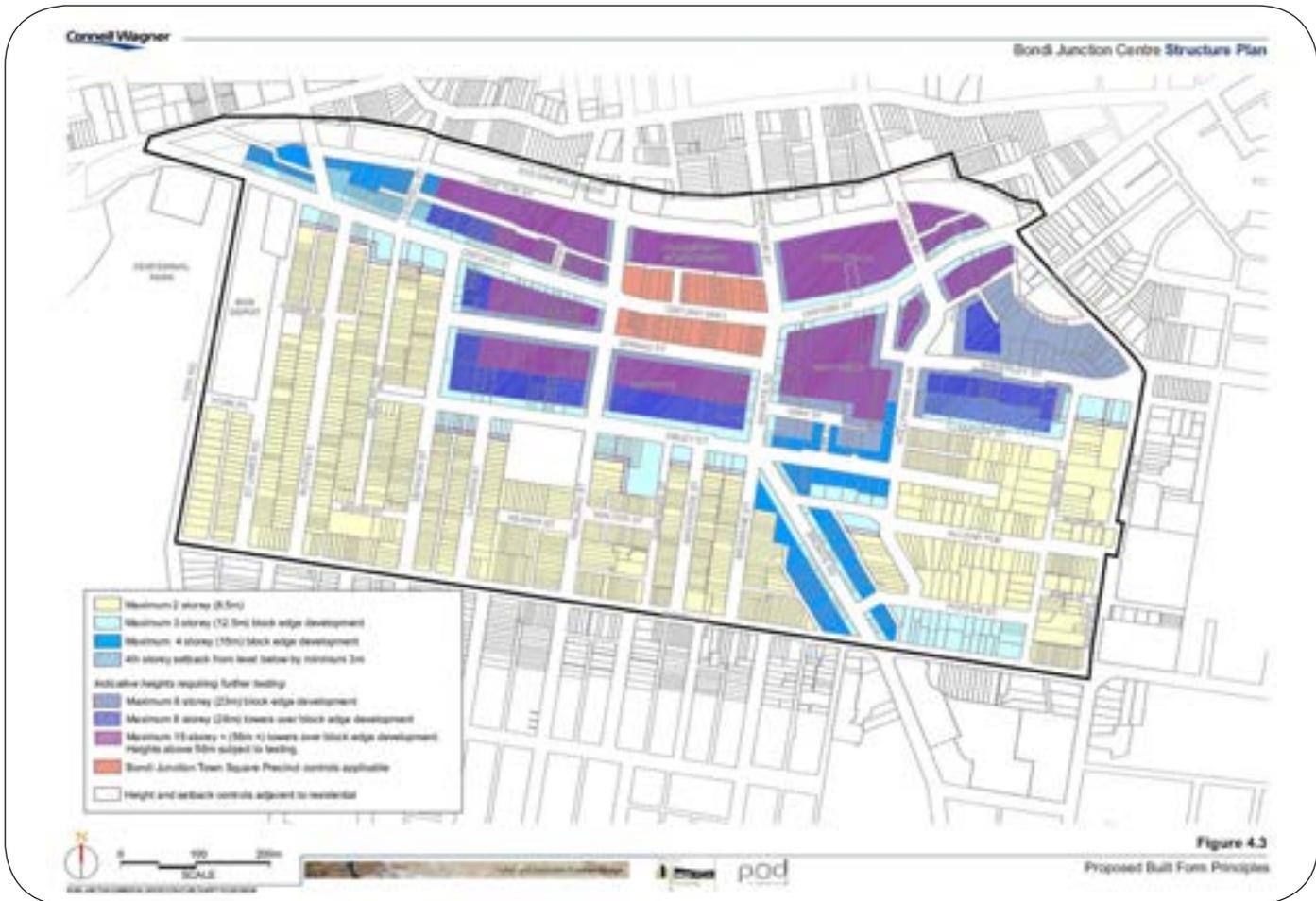
- Recognise regional role of centre and control non-core uses
- Maintain existing commercial core footprint
- Ensure commercial uses are dominant

- in the core with limited residential and no residential on ground or first floor
- Ensure continuous active street frontages
- Promote mixed use development on the commercial-residential interface, including live-work units
- Protect established residential areas from commercial encroachment
- Opportunity for other uses on bus depot site and under Syd Einfield Drive.

## ***Built Form***

### *Principles:*

- Increase development capacity and built form consistency (ie. reach the potential permitted under existing controls)
- Provide block edge development (a mixture of 3 and 6 storey maximums) with narrow tower forms set back from the street edge.
- Continue to protect heritage listed buildings and ensure sensitive infill development surrounding them



Built Form Principles (Source: Bondi Junction Centre Structure Plan October 2006)

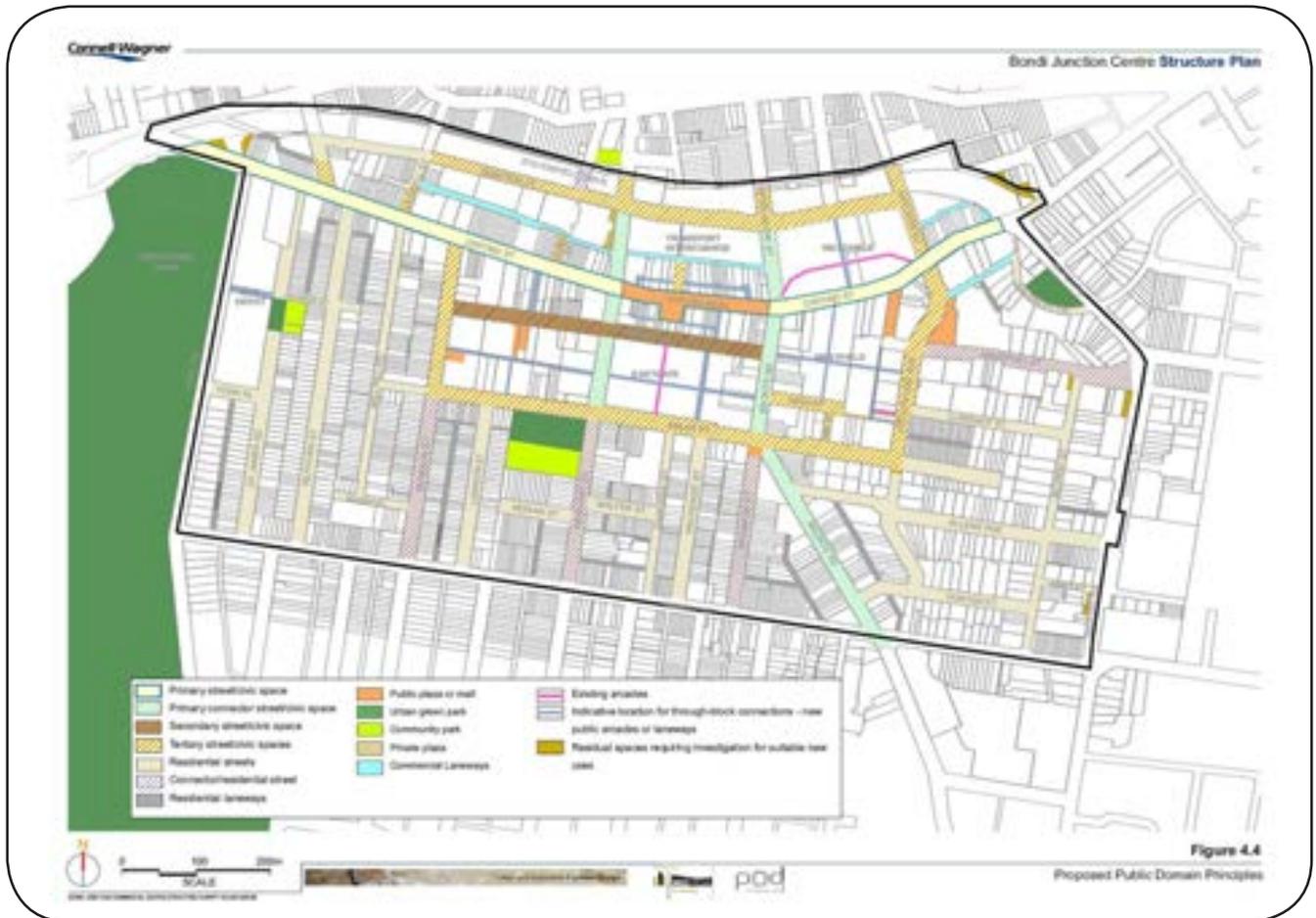
## ***Public Domain***

### *Issues:*

- Limited public open spaces, however a number of significant parklands surround the centre that help to compensate this. However pedestrian access from the centre to these parklands needs to be improved
- The streets form the focus for community and recreational activity and there is a need to recognise and reinforce the function streets and laneways as diverse public and civic spaces. Many streets are not reaching their potential in terms of civic amenity.

### *Principles:*

- The street hierarchy within the centre needs to be reconsidered to encourage more primary and secondary streets. The Town Square and Oxford Street from Centennial Park to Bondi Road should be reinforced as the primary civic space
- Spring St to be developed as secondary civic space
- North- south streets to be developed as primary connector civic space
- Commercial core edge streets to be developed as tertiary civic spaces
- Pedestrian laneways and arcades through commercial blocks encouraged



Public Domain Principles (Source: Bondi Junction Centre Structure Plan October 2006)

## **Access and movement**

### *Issues:*

- The main issues facing streets in the centre are with the appropriate balance of traffic, cycle and pedestrian movement
- Through traffic is impacting the amenity of the centre, particularly Ebley St and Hollywood Ave

### *Principles:*

- Urban design based on street function and desired level of pedestrian and vehicle activity (not in response to it)
- Street design in the centre to accommodate all modes – two way and accessible to cars, bikes and pedestrians
- Protect commercial core and residential streets from through-traffic – this should be diverted around the edges
- Protect and expand arcade and laneway network
- Implement Bike Plan

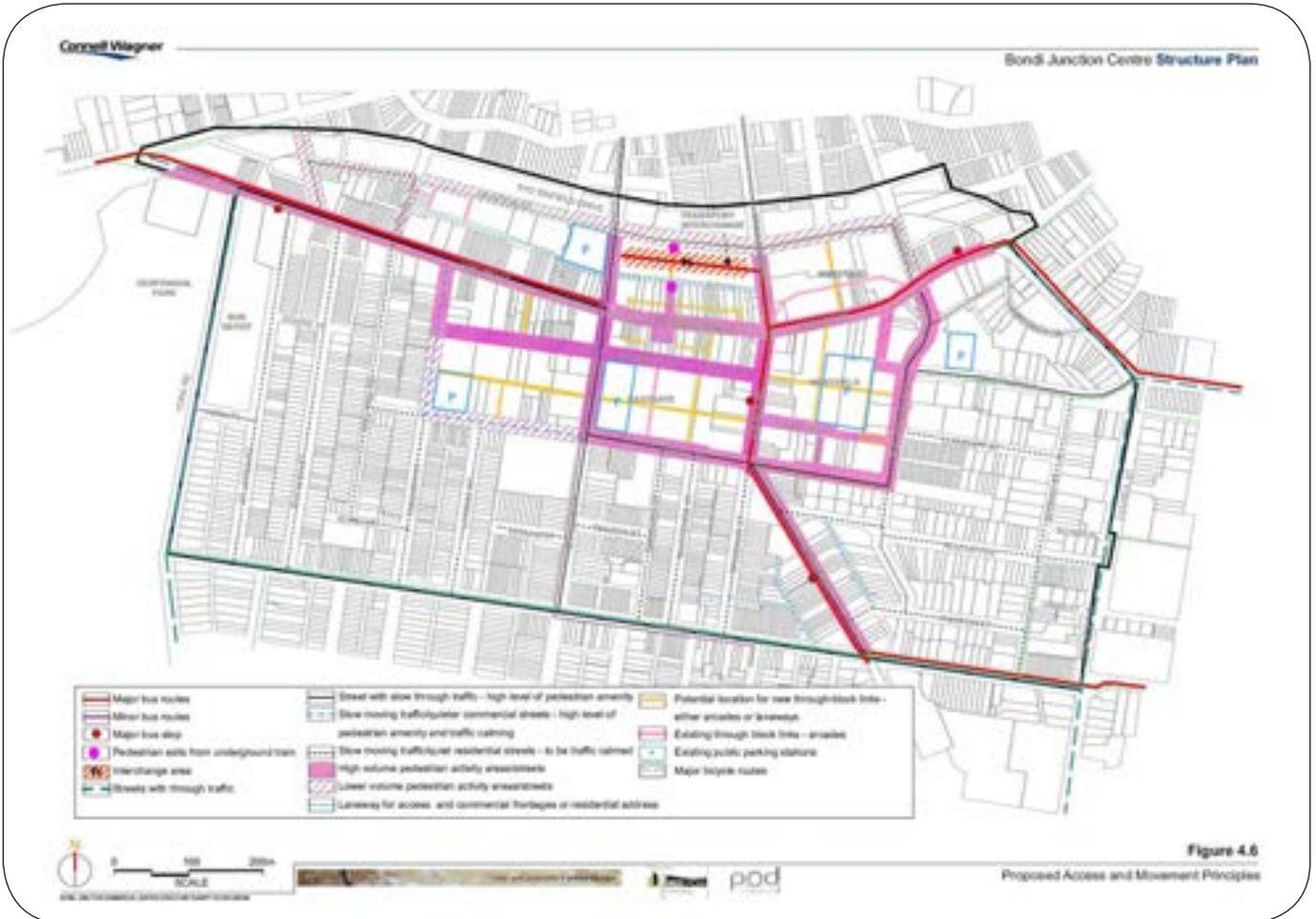
### **Evaluation:**

The principles for land use, built form, public domain and access and movement are generally supported.

In particular it is agreed the streets are the key civic spaces therefore the centre should be structured with a clear street hierarchy and the urban design controlled by street type, based on the desired character, use and level of pedestrian and vehicle activity.

A key deficiency with the policy is that it doesn't provide any guidance, description

or standards for a primary, secondary and tertiary civic space and/or street. The recognition of Oxford St as the primary 'main street' is supported, however it is unclear if the policy intended this street to also carry more traffic as a primary street compared to a tertiary street (eg. Ebley St), which is not supported. We promote the idea of directing traffic around the periphery of the centre and creating slow street with high pedestrian amenity in the commercial core. The policy's ambiguity and unresolved design of the public realm highlights the need for an urban design framework to provide structure to the centre and detailed guidance for the public realm.



Access and Movement Principles (Source: Bondi Junction Centre Structure Plan October 2006)

# WAVERLEY TRANSPORT PLAN 2011

## ***Focus of the report:***

The Waverley Transport Plan (2011) was developed to support the Waverley Together 2 Community Strategic Plan (2009) and sets out a comprehensive transport vision for Waverley based on the community vision developed through the consultation process.

The plan presents a vision for Bondi Junction as a pedestrian and bike friendly centre, where efficient and safe public transport is a preferred mode of transport and mobility impaired residents and their carers can readily access essential services. The plan also promotes a strategic vision of directing private vehicles to the periphery wherever possible to retain the central core for trips by essential services and deliveries.

## ***Evaluation:***

The majority of the outstanding actions are supported and are incorporated into the Bondi Junction Complete Street Project. The recommendation to investigate providing a park and ride facility in the commercial centre is not supported as the interchange is well connected by public transport and does not need to provide central parking for people who want to access the public transport system.

# BONDI JUNCTION TRAFFIC AND TRANSPORT STUDY 2007

## ***Focus of the report:***

The study reviewed the transport conditions in the centre including levels of traffic congestion, delays, accessibility, parking, pedestrian and cyclist amenity, loading and servicing requirements, public transport provision and through traffic on residential streets. The specific recommendations that relate to streets and public spaces are listed in Appendix 1.

## ***Evaluation:***

Many of the recommendations have been implemented or are in the process of being implemented. The key items to be incorporated into the Complete Streets Projects include:

- Provide a direct connection from the rail concourse to Oxford Mall via Rowe St
- Install signalised crossing at Grosvenor St entry/ exit to interchange
- Install signalised crossing at Bronte Rd/ Spring St intersection
- Reduce conflict between pedestrians and cyclists in Oxford Mall with signage
- Provide an additional right turn lane on Oxford St/ Bondi Rd intersection for buses (if space permits)
- Promote the use of Grafton Street as a route to the Westfield car park using Adelaide Street
- Consider Spring St closure to traffic

The recommendations are generally supported and will be developed further in this project. It is noted that the report

dedicated minimal recommendations to cyclists; the only recommendation related to cycling being aimed at reducing the pedestrian/cyclist conflict in Oxford Street Mall through signage. More effective ways of minimising conflicts will also be investigated such as providing alternative routes that offer convenient and safe cycle lanes.

# BONDI JUNCTION TRAFFIC AND TRANSPORT REVIEW 2010

## ***Focus of the report:***

The purpose of the review was to provide an independent assessment of the traffic and transport impacts of planned growth in Bondi Junction associated with the Bondi Junction Centre Local Environment Plan (LEP) and to assess car parking generation rates for the entire LGA.

Through the study, it is noted that (using traditional traffic generation methodology) several road sections are projected to experience more than 20% increase in traffic volumes including some of Bondi Junction's busiest road sections: Newland St south of Ebley St and Hollywood Ave south of Oxford St. Several key intersections are likely to have increased degrees of saturation and reduced levels of service including Newland St/ Grafton St, Newland St/ Oxford St, Newland St/ Ebley St, Bronte Rd/ Ebley St, Hollywood Ave/ Waverley St, Oxford St/ Bondi Rd.

The review sets out a number of recommendations to reduce car dependence in the centre, the resulting trip generation and congestion impacts. The study recognises the impact of parking controls on trip generation rates and therefore a number of the recommendations are focused on parking management improvements. The specific recommendations that relate to streets and public spaces are listed in Appendix 1.

## ***Evaluation:***

All recommendations have either been implemented in the 2012 DCP, or are outside the scope of the Complete Streets Project, therefore there are no actions to address.

## WAVERLEY DEVELOPMENT CONTROL PLAN 2012 - PART B7 TRANSPORT

### ***Focus of the policy:***

This part of the DCP specifies the transport provisions to take into account in the preparation and assessment of development applications including considerations for pedestrians, cyclists, vehicles and parking and delivery/loading, addressing factors such as land use, urban design and streetscape and transport issues.

The DCP, by its very nature, can only concern itself with requirements within the confines of private developments rather than public realm improvements, therefore has a heavy focus on parking provisions with maximums for cars and minimums for bikes, motorcycles and car share schemes. The provisions related to pedestrians and cyclists are concerned with safety to prevent conflict with cars entering and exiting off-street car parks and where possible driveways should be provided from rear lanes. Loading facilities should be designed so that all vehicles enter and exit the property in a forward direction.

The DCP provides some basic urban design criteria to minimise the impacts of parking and access on pedestrian amenity. The DCP also require developers to consider the traffic and transport impacts of their developments and the ways in which active and public transport can be encourage and promoted through the requirement for both Traffic and Transport Management Plans and Green Travel Plans for developments over a certain size.

There are no relevant actions to address in the Complete Streets Project, however the proposed modifications to the DCP recommended in the Urban Design Review 2012 are noted and will be incorporated into this Project.

# DRAFT WAVERLEY BIKE PLAN REVIEW 2012

## **Focus of Review:**

This study is a review of the 1999 Waverley Bike Plan and aims to provide Council with best practice bike planning guidance. Council has set the following objectives for the new Bike Plan:

- To develop a safe and convenient bike network.
- To integrate the bicycle network with neighbouring Council's bicycle networks.
- To provide bicycle infrastructure that is suitable for all cyclists and will cater for the potential growth of cycling.
- To integrate this plan with the NSW Bike Plan
- To develop implementable Bike Plan strategies

The review has a strong emphasis on communications, encouragement, promotion, way finding and signage. The specific recommendations that relate to streets and public spaces are listed in Appendix 1. The recommended infrastructure improvements comprise:

- Cycle lanes (combination of on-street and separated lanes) from Bondi Rd to Centennial Park with a deviation around Oxford Mall via Spring Street;
- Potential for a cyclist only crossing of Bronte Road to the north of the intersection with Ebley Street;
- Installation of additional bike racks.

## **Evaluation:**

The proposed cycle network encourages commuter cyclists through the heart of Bondi Junction on Oxford St. Although deviating around Oxford Mall via Spring St the natural desire line is likely to result in cyclists using the mall anyway, causing conflicts with pedestrians. Commuter cyclists not needing

to pass through Bondi Junction should have access to a convenient, safe and faster route around the centre to minimise conflicts with pedestrians in the centre.

Bondi Road and Carrington Road are not included in the proposed cycle network. These appear significant missed opportunities as these provide the most direct linkages from Bondi Junction to Bondi Beach and Randwick/Maroubra respectively. Access to Centennial Park via Queens Park Rd should also be included in the network and there should be more connections to Woollahra and Randwick LGAs.

The 'Cycling in Waverley and Woollahra Map' shows Bronte Road as a 'main bicycle route on high-traffic streets' and the Randwick Bike Maps shows it as a regional bike route. The 2009 Inner Sydney Regional Bicycle Plan Implementation Strategy identified Bronte Road as a 'strategic route to be implemented by 2017' between Oxford Street and Albion Street. The 1999 Waverley Bike Plan identified Bondi Junction to Randwick as a priority route that used Bronte Road, Albion Street, Fern Street and Varna Street. This route appears to have been superseded by the Bondi Junction to UNSW route in the Bike Plan Review. The proposed network is inconsistent with all these plans, identifying Bronte Rd as a secondary or local route.

The Inner Sydney Regional Bicycle Plan Implementation Strategy identifies Birrell St as a strategic regional route and a separated bi-directional on-road cycleway treatment is planned for implementation by 2015. In the Bike Plan review however, Birrell Street is identified as a secondary route

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# **APPENDIX B - INTERSECTION MODELLING**

Our Ref 13-028 Traffic Modelling

Date 14 February 2013

## Bondi Junction Complete Streets Project Intersection Assessment

### 1 INTRODUCTION

Cardno in partnership with Roberts Day is undertaking the Bondi Junction Complete Streets Project commissioned by Waverley Council.

The objectives of the study are to provide an improved quality of public domain and better integration of alternative transport modes in the Bondi Junction town centre. This is to be achieved by refocussing on the movement of people and space, rather than on vehicular traffic management. The aim of the traffic and transport planning component of the study is to support the development of a visionary public domain strategy.

As part of the agreed scope of works, intersection modelling for the PM peak period has been undertaken at 5 intersections to assess their operation in existing and future year with development scenarios. The 5 intersections that have been confirmed by Council for examination are:

- Bronte Road/Grosvenor Street/Oxford Street (signalised)
- Bronte Road/Spring Street (priority controlled)
- Bronte Road/Ebley Street (signalised)
- Hollywood Avenue/Adelaide Street/Oxford Street (signalised)
- Syd Einfield Drive/Old South Head Road/Oxford Street/Bondi Road (signalised)

This technical note summarises the methodology used and findings from the modelling.

### 2 PREVIOUS STUDIES

This section outlines the information used as the basis of the assessment, taken from previous studies undertaken by AECOM in 2010 and CityPlan Urban Design in 2012.

#### 2.1 Bondi Junction Traffic and Transport Review - AECOM 2010

The Bondi Junction Traffic and Transport Review carried out by AECOM provided 2006 weekday PM peak hour counts for the intersections surrounding Bondi Junction. The report also presented the projected two-way mid-block volumes for the Bondi Junction road network for years 2016 and 2021. The mid-block volumes took into consideration a background growth rate of 0.22% per year and also additional trips which were expected to result from the proposed redevelopment of buildings/ land within the Bondi Junction Town Centre, forecast at the time of the study to be completed in the respective periods leading up to 2016 and 2021.

## 2.1.1 Application of Relevant Data

This section outlines the methodology and application of the relevant data referenced from the AECOM study to determine the traffic volumes to be used for the intersection assessment.

The current 2013 traffic levels were determined by using the 2006 PM peak model presented by AECOM and using a growth rate of 0.22% per annum (as presented in Table 3.1 of the AECOM report) was applied to the through traffic movements at Oxford Street/Old South Head Road/Syd Einfield Drive/Bondi Road (highest intersection traffic volume in the network). This traffic was then distributed across the road network using the existing turning splits to determine the final 2013 traffic volumes. Individual roads were not separately grown up, as the changes in traffic volume for these roads was considered by separate examination of the land use changes proposed (explained in further detail below), which provides a more detailed picture of the likely traffic growth arising from changes over time in the town centre.

The intersection counts for 2016 and 2021 were determined by applying the existing turning splits to the presented two-way predicted mid-block volumes. These two spread sheets were subsequently used as the base models for our assessment.

## 2.2 Bondi Junction Urban Design Review (BJUDR) – City Plan Urban Design 2012

The Bondi Junction Urban Design Review examined land uses in Bondi Junction and determined a scope of potential changes in zoning and intensity of development. Recommended changes in land use arising from the BJUDR have been taken from the report and are shown in Table 2.1 below. The changes show a loss or gain in either commercial or residential GFA for 6 key locations.

**Table 2.1 Land Use Changes as Reference in BJUDR**

Area	1	2	3	4	5	6	Total
<b>Description</b>	Between Crafton Rd and Hegarty La	Between Hegarty La/ Vernon St / Oxford St	Between Hegarty La/ Vernon St / Oxford St / Newland St	Between Oxford St / Newland St / Spring St	Ebley St north side east of Library to corner Newland St	Between Oxford St / Monte Rd / Gray St / Waverley St	
<b>Change</b>	From B3 to B4	From B3 to B4	From B3 to B4	From B3 to B4	FSR from 4:1 to 3:1	FSR from B:1 to B:1	
<b>FSR impact</b>	yes	yes	yes	yes	yes	yes	
<b>Size</b>	4,923 sqm	2,064 sqm	1,997 sqm	6,111 sqm	7,683 sqm	18,958 sqm	
<b>Draft LEP FSR</b>	6	5	5	5	4	8	
<b>FSR change</b>	0	0	0	0	1	+ 2	
<b>Pot. GFA</b>	29,538 sqm	10,320 sqm	9,985 sqm	30,555 sqm	7,683 sqm	37,916 sqm	
<b>Proposed Zone</b>	Mixed Use	Mixed Use	Mixed Use	Mixed Use	Mixed Use	Mixed Use	
<b>Loss Residential GFA</b>					B0% 6,146 sqm		6,146 sqm
<b>Gain Residential GFA</b>	B0% 23,630 sqm	B0% 8,256 sqm	B0% 7,988 sqm	B0% 24,444 sqm			64,328 sqm
<b>Summary</b>							+ 58,172 sqm
<b>Loss Commercial GFA</b>	B0% 23,630 sqm	B0% 8,256 sqm	B0% 7,988 sqm	B0% 24,444 sqm	20% 1,537 sqm		65,855 sqm
<b>Gain Commercial GFA</b>						B0% 37,916 sqm	37,916 sqm
<b>Summary</b>							- 27,939 sqm

B3 Commercial Core

B4 Mixed Use

### 2.2.1 Application of Relevant Data

For each of the 6 key sites identified in the BJUDR, trips were generated and distributed to the surrounding road network based on the gain or loss of residential or commercial Gross Floor Area (GFA).

- For residential developments, 0.24 trips were generated per unit during the peak hour. All residential development was assumed to be units and were calculated at the rate of 110m<sup>2</sup> of GFA per unit as per page 16 of the AECOM report.
- For commercial developments, 0.02 trips were generated per m<sup>2</sup> GFA during the peak hour.

Trip rates used have been taken from RTA Guide to Traffic Generating Developments.

It must be noted that for area 6, the current site for Westfield, the additional gain in GFA is only for commercial uses as shown in Table 2.1. As there are good provisions of public transport infrastructure available within Bondi Junction, a 50% reduction to the trip rate was applied (0.01 trips per m<sup>2</sup> GFA) to the potential traffic generation for the site. This assumption is made based on the AECOM's report which outlines that positively influencing the modal split in Waverley to encourage more sustainable transport alternatives as a key action plan in the Transport Action Plan-Progress Report. In addition, according to the 2006 census data, the proportion of car drivers out of Waverley accounts for about 44% of all trips, therefore for the purposes of this assessment, the 50% reduction proposed in the AECOM report has been adopted for the commercial trips (office staff trips) generated from the proposed commercial development at Area 6 (Westfield).

### 2.3 Complete Streets Project

No changes to traffic volumes were made to account for the changes proposed in the Complete Streets project, with the following changes to traffic patterns considered:

- The proposed banned right turn from Ebley Street westbound into Newland Street northbound was not expected to result in vehicles detouring via Ebley Street/Bronte Road, due to the proposed modifications to Spring Street. It is assumed that traffic which would have previously used this route would use Denison Street or routes outside the study area. As such no significant change to traffic volumes on the intersections being modelled was expected as a result of the right turn ban.
- The proposed banned right turn from Oxford Street eastbound into Newland Street southbound is expected to result in vehicles using the alternative routes of Denison Street/Ebley Street/Newland Street or Nelson Street/Grafton Street/Newland Street. Neither of these alternative routes utilise the intersections assessed by traffic modelling.
- For the purposes of the modelling, the changes to traffic conditions in Spring Street were not considered to result in a lowering of traffic volumes in Bronte Road or Spring Street. This presents a conservative methodology for the purpose of modelling the Bronte Road/Spring Street intersection.
- The existing bus only way along Oxford Street between Hollywood Avenue and Bronte Road was retained as bus only for the purposes of modelling.

### 3 DIRECTIONAL SPLIT

The following statements summarise the trip distribution methodology carried out for this assessment:

- For areas 1 to 4, it was identified that the change is from B3 to B4 (Commercial core to mixed use). Therefore, the potential GFA (as presented in Table 4-1 and Table 4-2) was split accordingly to the mixed use proportions (80:20 split between residential and commercial use respectively)
- For areas 5 and 6, the changes were due to either a gain or a loss in floor space ratio (FSR). Therefore the total GFA was calculated by multiplying the FSR change by the potential GFA.
- For residential developments it was assumed that 80% of the trips will be travelling into Bondi Junction and 20% of the trips will be travelling out of Bondi Junction during the PM peak hour. For commercial developments, 100% of the trips were assumed to travel out of Bondi Junction during the PM peak hour.
- For retail trips, 50% were assumed to travel into Bondi Junction and 50% assumed to travel out of Bondi Junction
- For each scenario (in 2016 and 2021), the additional trips presented in the Table 4.4 in the AECOM report were removed from the net trips prior to distribution to the network. The following tables outline the trips removed for years 2016 and 2021.

**Table 3.1: GFA's and trips for key areas as presented in the AECOM report for the year 2016**

2016		GFA			Trips		
BJUDR Area ID	Site ID in AECOM Report	Retail	Commercial	Residential	Retail	Commercial	Residential
1	Not Considered	0	0	0	0	0	0
2	A+B+C	526	2114	5868	16	43	13
3	D+E	671	3575	0	21	72	0
4	I+J+K+L+M+N	1475	7560	2616	45	152	6
5	T+U+V	0	0	0	0	0	0
6	P+Z6	1313	6998	0	40	140	0

**Table 3.2: GFA's and trips for key areas as presented in the AECOM report for the year 2021**

2021		GFA			Trips		
BJUDR Area ID	Site ID in AECOM Report	Retail	Commercial	Residential	Retail	Commercial	Residential
1	Not Considered	0	0	0	0	0	0
2	A+B+C	971	4011	9890	30	81	22
3	D+E	1087	5797	0	33	116	0
4	I+J+K+L+M+N	2520	12827	5232	76	257	12
5	T+U+V	606	1616	13740	19	33	30
6	P+Z6	2387	12729	0	72	256	0

## 4 TRIP DISTRIBUTION

From each of the 6 key areas, the trips were assigned via the relevant local road network within Bondi Junction adjacent to each area to/from major destinations surrounding the Waverley area using the proportions calculated by journey to work data for Sydney Greater Metropolitan Area (2006 census). The following table summarises the route assignment proportions used in the analysis.

**Table 4.1: Journey to work route proportions used in the analysis**

Direction	Split	Land Use	WEST (Sydney CBD)	SOUTH (Randwick)	NORTH (Woollahra)	Within Waverley
Into Waverley during PM Peak	80%	Residential	67%	5%	6%	22%
Out of Waverley during PM Peak	20%	Residential	41%	16%	8%	35%
	100%	Commercial				

Final traffic volumes were then determined by combining the base AECOM turning volumes, with the modifications proposed in the Bondi Junction Urban Design Review.

## 5 INTERSECTION ASSESSMENT

SIDRA 5.1 software was used to undertake the assessment of the key intersections under each of the scenarios as listed below. The traffic volumes entered into SIDRA for analyses were extracted from the spreadsheet model outputs for each scenario. The intersections adopted for analysis were based on the availability of base turning count data, the potential for change as a result of the Bondi Junction Complete Streets project and were confirmed with Council prior to assessment.

- Oxford Street/Old South Head Road/Syd Einfield Drive/Bondi Road
- Oxford Street/Hollywood Avenue/Adelaide Street
- Bronte Road/Ebley Street
- Oxford Street/Grosvenor Street/Bronte Road
- Spring Street/Bronte Road

The following scenarios were tested for this assessment:

- Base (2013) flows with existing intersection configurations (Annual growth rate of 0.22% applied to AECOM 2006 flows and distributed as detailed previously)
- Base (2013) flows with proposed intersection configurations
- 2016 flows with existing intersection configurations
- 2016 flows with proposed intersection configurations
- 2021 flows with existing intersection configurations
- 2021 flows with proposed intersection configurations

### 5.1 PROPOSED INTERSECTION UPGRADES

The following intersection specific modifications arising from the Complete Streets project were included in the future scenarios for the modelled intersections:

### 5.1.1 Oxford Street/Grosvenor Street/Bronte Road

- Reduction of one travel lane for southern and northern approach traffic.
- Signals to be coordinated with the proposed upgrade at Bronte Road/Spring Street. Refer to Figure 5.1
- Pedestrian scramble crossing phase proposed.

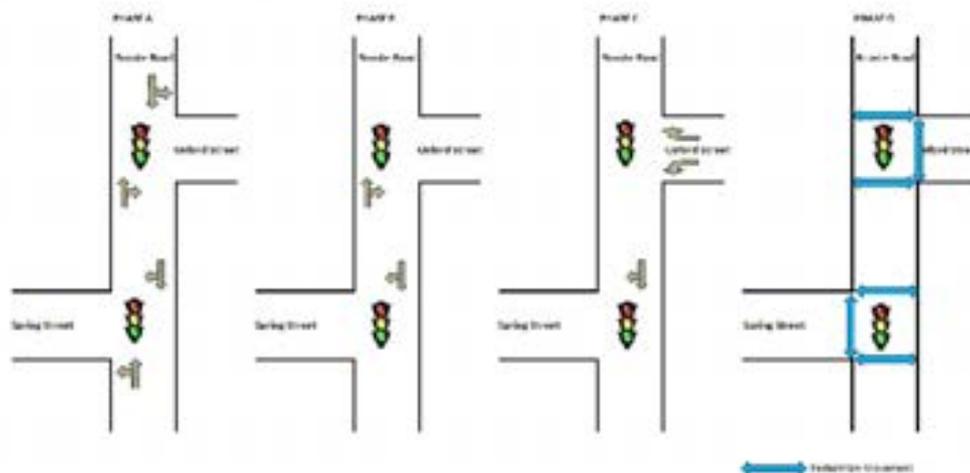
### 5.1.2 Spring Street/Bronte Road

- Upgrade to signalised intersection and coordinated with upstream intersection of Oxford Street, to prevent see through safety issues (extra long clearance time). Refer to Figure 5.1
- Pedestrian scramble crossing phase proposed.

### Phasing Arrangements

The new phasing arrangements coded for the intersections at Oxford Street/Grosvenor Lane/Bronte Road and Spring Street/Bronte Road are shown in Figure 5.1. It is to note that Phase D is an exclusive phase dedicated to pedestrians where scrambled crossing is allowed. Phase B is a dummy phase for the purposes of modelling the extra clearance time required for a bus or taxi to safely clear the subsequent intersection, with the length of the phase and its intergreen periods matched to the amount of intergreen time required for clearance.

Figure 5.1 Phasing Arrangement



### 5.1.3 Bronte Road/Ebley Street

- Southbound Bronte Road approach and exit lane removed for increased parking with a single right and through lane provided;
- Eastbound approach has a dedicated right and a shared left and through lane; and
- Westbound approach has a short left and a dedicated through lane
- 

### 5.1.4 Oxford Street/Hollywood Avenue/Adelaide Street

- Reduction of one exit lane at the Hollywood Avenue leg for increased parking

- Convert kerbside lane at Adelaide Street approach to a short left turn lane to accommodate the reduction of exit lane
- Increased length of northbound right turn lane.
- No changes to phasing have been allowed for in relation to added cycle lanes on Oxford Street and potential conflicts between westbound left turning traffic with straight ahead based cyclists. This assumption would need to be reflected in detailed intersection layout designs undertaken at a later stage, or a new intersection phasing developed and modelled.

### 5.1.5 Oxford Street/Old South Head Road/Syd Einfield Drive/Bondi Road

Council are understood to have a widening strategy on Oxford Street between Adelaide Street and Syd Einfield Drive. The Complete Streets project proposes to use this road widening to provide cycle lanes in both directions along Oxford Street between Hollywood Avenue and Syd Einfield Drive. As the cycle lanes run with the through traffic movements, these are not expected to impact capacity.

- Bi-directional cycle lanes on Oxford Street (no change to traffic capacity)
- Proposed pedestrian leg across northern approach.

## 5.2 INTERSECTION ASSESSMENT

The intersection operating performance was assessed to determine the level of service (LoS) and 95<sup>th</sup> percentile queues at each intersection. The key indicator of intersection performance is LoS, where results are placed on a continuum from 'A' to 'F', the meaning of which is outlined in the table below. As per the RMS NSW delay criteria, model outputs related to queuing are quoted for the worst approach. Model outputs related to LoS are quoted as the average for the intersection for signalised intersections, and for the worst approach for Give Way or Stop sign controlled.

LoS	Traffic Signal	Give Way / Stop Sign
A	Good operation	Good operation
B	Good with acceptable delays and spare capacity	Acceptable delays
C	Satisfactory	Satisfactory
D	Operating near capacity	Near capacity
E	At capacity, at signals incidents will cause excessive delays.	At capacity, requires other control mode
F	Unsatisfactory and requires additional capacity.	At capacity, requires other control mode

Intersection assessment for the 5 key intersections outlined above was undertaken using SIDRA 5.1 software and the outputs for each scenario are outlined in Table 5.1 and Table 5.2 below.

**Table 5.1 Existing Layout – Intersection Operation**

Intersection	2013 PM Peak Hour			2016 PM Peak Hour			2021 PM Peak Hour		
	Avg. Delay (sec)	LoS	95% Back of Queue (m)	Avg. Delay (sec)	LoS	95% Back of Queue (m)	Avg. Delay (sec)	LoS	95% Back of Queue (m)
Spring Street/Bronte Road (Give Way)	14.6	B	7.4	15.9	B	9.4	18.7	B	13
Oxford Street/Grosvenor Street/Bronte Road (Signalised)	12.6	A	13.4	12.6	A	15.5	12.6	A	17.8
Bronte Road/Ebley Street (Signalised)	20.6	B	78.9	21.9	B	95.6	34.9	C	230.1
Oxford Street/Hollywood Avenue/Adelaide Street (Signalised)	44.8	D	180.2	49.3	D	249.9	48.7	D	289.0
Oxford Street/Old South Head Road/Syd Einfield Drive/Bondi Road (Signalised)	116.9	F	532.0	111.8	F	514.4	123.5	F	599.2

**Table 5.2 Proposed Layout – Intersection Operation**

Intersection	2013 PM Peak Hour			2016 PM Peak Hour			2021 PM Peak Hour		
	Avg. Delay (sec)	LoS	95% Back of Queue (m)	Avg. Delay (sec)	LoS	95% Back of Queue (m)	Avg. Delay (sec)	LoS	95% Back of Queue (m)
Spring Street/Bronte Road (Signalised)	15.6	B	77	15.9	B	97	16.8	B	107.3
Oxford Street/Grosvenor Street/Bronte Road (Signalised)	9.6	A	18.9	9.4	A	21.7	9.3	A	24.9
Bronte Road/Ebley Street (Signalised)	22.5	B	99.2	17.8	B	140.6	38.5	C	245.9
Oxford Street/Hollywood Avenue/Adelaide Street (Signalised)	45	D	163.2	46.7	D	215.3	56.2	D	345
Oxford Street/Old South Head Road/Syd Einfield Drive/Bondi Road (Signalised)	116.9	F	532.0	111.8	F	514.4	123.5	F	599.2

## 6 Summary

A summary of the intersection performance with the proposed upgrades are as follows:

### 6.1.1 Spring Street/Bronte Road and Oxford Street/Bronte Road

- Performing satisfactorily with both intersections signalised and coordinated
- Intersections perform at a LoS A or B during the PM peak periods
- It is noted that the proposal is likely to result in significant queuing on the Bronte Road northbound approach, with queues exceeding the block length between Ebley Street and Spring Street. In practice, this result would be unlikely to eventuate, as a result of the changes to traffic conditions vehicles currently using Bronte Road northbound into Spring Street could be expected to divert onto other routes as a result of the congestion, although this behaviour is outside the current scope of modelling

### 6.1.2 Bronte Road/Ebley Street

- Intersection operates satisfactorily with the existing layout at an average LoS B and C.
- Analyses undertaken with the 2016 volumes indicates that the intersection will maintain its performance at a LoS B with the proposed changes
- A number of approaches, principally northbound in Bronte Road and eastbound in Ebley Street result in queued traffic, based on a 90 second cycle time. The opportunity exists to consider a shared right and through lane for Ebley Street eastbound, which may assist to reduce queues on this approach.
- It is noted that the Bronte Road route is a key bus corridor and the protection of bus journey times along this route is likely to be of importance. The SIDRA intersection parameters were set to optimise intersection delay, however in practice traffic signal timings are likely to be set to provide an acceptable balance of delay to buses on the corridor. This could be expected to increase queues on Ebley Street over the results shown.
- Overall, the intersection is expected to perform satisfactorily at an average LoS D in the 2021 PM peak.

### 6.1.3 Oxford Street/Hollywood Avenue/Adelaide Street

- The intersection operates close to capacity in 2016 and 2021 in the current layout.
- With the intersection changes, SIDRA has indicated that there are minimal impacts to the overall intersection delays. It continues to operate at a LoS D in the 2021 PM Peak.
- Queued traffic in the northbound direction of Hollywood Avenue exceeds the available block lengths past Waverly Street. This is more as a result of additional traffic rather than the Complete Streets modifications. Long queues are expected for the southbound through movement in Adelaide Street, which are potentially attributable to the changes in lane capacity south of Oxford Street. The modelling does not consider the impacts of congestion and queues arising from the delays experienced at the intersection of Oxford Street and Syd Einfield, which exceed that block length and are likely to translate into the southbound left turn lane of Adelaide Street queuing out, potentially blocking the southbound through lane prior to the intersection.
- It is noted that in order to facilitate bus movement into and out of Oxford Street, the road authority would be expected to introduce a traffic gating arrangement where north and southbound traffic at the intersection is artificially held, so that the eastbound block of Oxford Street on approach to Syd Einfield Drive is kept relatively free flowing to allow buses to exit the precinct. Inclusion of this scenario is beyond the scope of current modelling.

- Adelaide Street, the northern approach operates at LoS F in the 2021 PM peak, as does the northbound right turn of Hollywood Avenue into Oxford Street. Consideration of an alternative egress from the Bondi Junction town centre, potentially via Waverly Street, may assist to alleviate these issues.

#### **6.1.4 Oxford Street/Old South Head Road/Syd Einfeld Drive/Bondi Road**

- Intersection performs at LoS F under existing volumes and layout configuration
- It has been assumed that in order to provide the westbound cycle lanes in Oxford Street, a safe cycle storage area would be constructed on the eastern approach in Old South Head Road. Currently there is a dedicated left turn lane, which would create a conflict with cyclists stored at the stop lane. In order to facilitate the scheme, cyclists would need a safe storage location. Changes to the phasing to remove the Old South Head Road westbound left turn which currently runs in sync with the north/ south Bondi Road/ Syd Einfeld Drive opposing right turns may be an alternate solution, however this has not been included in the modelling
- Overall, SIDRA analyses have indicated that the intersection is over capacity and will continue to perform at LoS F with or without the proposed modifications in the future.

Our Ref: 13-029 Traffic

Date: 15 March 2013

## Bondi Junction Complete Streets Project Intersection Assessment with 25% Public Transport Users

### 1 TRIP GENERATION

The initial assessment carried out included the trips with the assumption that 50% of the commercial staff in Westfield using public transport. These results have been compared against the trips generated using the assumption of only 25% public transport users for the Westfield commercial zone. It was found that reducing the public transport user assumption from 50% to 25% results in a net change of 95 additional outgoing trips in 2016 and 188 additional outgoing trips in 2021.

### 2 INTERSECTION ASSESSMENT

Intersection assessment for the 3 key intersections was undertaken with the additional volumes and outputs for each scenario are outlined in the tables presented below. Outputs have been represented as Level of Service (LoS) and to the same methodology as outlined and used in the original modelling undertaken for the Bondi Junction Complete Streets project.

#### 2.1 Existing Layout – Intersection Operation

The following tables represent the outputs from 2016 and 2021 SIDRA assessment carried out with existing intersection layouts, without any upgrades.

**Table 1: 2016 PM Peak Hour**

Intersection	50% Public Transport Users			25% Public Transport Users		
	Avg. Delay (sec)	LoS	95% Back of Queue (m)	Avg. Delay (sec)	LoS	95% Back of Queue (m)
Bronte Road/Ebley Street (Signalised)	21.9	B	95.6	25.1	B	146.0
Oxford Street/Hollywood Avenue/Adelaide Street (Signalised)	49.3	D	249.9	46.4	D	234.3
Oxford Street/Old South Head Road/Syd Einfield Drive/Bondi Road (Signalised)	111.8	F	514.4	112.0	F	514.4

**Note:** SIDRA analyses indicate that the Oxford Street/Hollywood Avenue/Adelaide Street intersection has a slight improvement with the increase in traffic. The reason for this is that the eastern approach at this intersection previously had some spare capacity (at a LOS B) and some of this green time has been allocated to the southern approach to release the higher amount of traffic generated due to less public transport users. This re-allocation of green times has maintained the LoS D at the intersection.

Table 2 presents the 2021 PM peak hour comparison of intersection performance and indicates that the LoS are maintained with the increase in traffic.

**Table 2: 2021 PM Peak Hour**

Intersection	50% Public Transport Users			25% Public Transport Users		
	Avg. Delay (sec)	LoS	95% Back of Queue (m)	Avg. Delay (sec)	LoS	95% Back of Queue (m)
Bronte Road/Ebley Street (Signalised)	34.9	C	230.1	37.9	C	291.3
Oxford Street/Hollywood Avenue/Adelaide Street (Signalised)	48.7	D	289.0	48.7	D	347.9
Oxford Street/Old South Head Road/Syd Einfeld Drive/Bondi Road (Signalised)	123.5	F	599.2	137.7	F	623.4

## 2.2 Proposed Layout – Intersection Operation

The following tables represent the outputs from 2016 and 2021 SIDRA assessment carried out with proposed intersection layouts, including the upgrades.

**Table 3: 2016 PM Peak Hour**

Intersection	50% Public Transport Users			25% Public Transport Users		
	Avg. Delay (sec)	LoS	95% Back of Queue (m)	Avg. Delay (sec)	LoS	95% Back of Queue (m)
Bronte Road/Ebley Street (Signalised)	17.8	B	140.6	17.5	B	140.6
Oxford Street/Hollywood Avenue/Adelaide Street (Signalised)	46.7	D	215.3	47.3	D	222.4
Oxford Street/Old South Head Road/Syd Einfeld Drive/Bondi Road (Signalised)	111.8	F	514.4	112.0	F	514.4

**Note:** The Bronte Road/Ebley Street intersection operation has improved slightly in terms of average delay per vehicle. This is mainly due to the re-allocation of green time to accommodate the increased number of vehicle trips from the Eastern approach.

Table 4 presents the 2021 PM peak hour comparison of intersection performance and indicates that the LoS are maintained with the increase in traffic.

**Table 4: 2021 PM Peak Hour**

Intersection	50% Public Transport Users			25% Public Transport Users		
	Avg. Delay (sec)	LoS	95% Back of Queue (m)	Avg. Delay (sec)	LoS	95% Back of Queue (m)
Bronte Road/Ebley Street (Signalised)	36.5	C	245.9	39.3	C	245.9
Oxford Street/Hollywood Avenue/Adelaide Street (Signalised)	56.2	D	345	51.1	D	230.1
Oxford Street/Old South Head Road/Syd Enfield Drive/Bondi Road (Signalised)	123.5	F	599.2	137.7	F	623.4

**Note:** The Oxford Street/Hollywood Avenue/Adelaide Street intersection performance has improved due to the same reasons as outlined in 2016 existing intersection configuration scenario.

### 3 CONCLUSIONS

Comparing the two scenarios where public transport user levels have been set to 50% and 25% respectively, it is evident that the levels of service at each of the intersections assessed remain consistent under both scenarios. The marginal increase in average intersection delays with the additional traffic did not impact on the overall intersection performances measured as level of service as assessed previously at the 50% assumption.

Although level of service and delay remain similar for most intersections, it is noted that queuing does increase for a number of locations. Additional queuing may result in impacts on the operation of the network, in particular where queues exceed block lengths and results in impacts to downstream intersections.



# APPENDIX C - COST ESTIMATES

The estimated costs provided for each concept street design in Chapter 5 are itemised here to show the quantity and cost assumptions. This is to be used as a guideline only - the cost estimates and rates are indicative only. The quantities are based on conceptual proposals only and require further detailed survey and design.

The costs include only the capital works shown on the concept, as well as some broad allowances for drainage.

The following items are excluded, and require further review at the detailed design stage:

- Road surface milling and re sheeting/ linemarking;
- Civil works beyond or in addition to those directly involved in public domain improvements;
- Relocation of services or powerlines;
- Upgrading or relocation of traffic signals;
- Infrastructure amplification or renewal including stormwater, sewer, water, gas, power, telecoms;
- Undergrounding of power;
- Land acquisition.
- Public Art

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## Oxford Street (Syd Einfeld Drv - Hollywood Ave)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$28,300.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$33,960.00
	<b>Sub Total</b>					<b>\$62,260.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$14,150.00
	<b>Sub Total</b>					<b>\$14,150.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	135	l/m	\$40.00	\$5,400.00
3.2		Mill Roadway in areas of raised thresholds	56.5	m2	\$12.00	\$678.00
3.3		Remove existing Traffic Island	15	m2	\$50.00	\$750.00
3.4		Remove existing pavement (north)	430	m2	\$50.00	\$21,500.00
3.5		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.6		Remove existing trees	2	No.	\$1,000.00	\$2,000.00
3.7		Tree pit excavation and preparation (1.2 x 1m)	8	No.	\$150.00	\$1,200.00
3.8		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.9		Relocate Light Poles	5	item	\$1,750.00	\$8,750.00
3.10		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$43,278.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	134.5	l/m	\$250.00	\$33,625.00
4.2		New fill depth to widening (200mm depth)	56.5	m2	\$23.00	\$1,299.50
4.3		Drainage Allowance	1	item	\$20,000.00	\$50,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	819	m2	\$300.00	\$245,700.00
4.6		Pram ramp to pavements	3	item	\$2,500.00	\$7,500.00
4.7		Allowance for pit lid replacement	1	Allowance	\$5,100.00	\$5,100.00
4.8	Roadway	Line marking to Parking bays	0	l/m	\$35.00	\$0.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	11.1	m2	\$500.00	\$5,550.00
4.11		New pram ramp to traffic islands	3	item	\$2,100.00	\$6,300.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for pedn crossing marking	1	item	\$3,000.00	\$3,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	314.8	m2	\$80.00	\$25,184.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	420	l/m	\$35.00	\$14,700.00
	<b>Sub Total</b>					<b>\$397,958.50</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	2	item	\$4,500.00	\$9,000.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	6	item	\$3,700.00	\$22,200.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	0	m2	\$100.00	\$0.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$31,200.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	2	Allowance	\$3,000.00	\$6,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	4	No.	\$1,200.00	\$4,800.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	12	l/m	\$275.00	\$3,300.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$14,100.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	2	weeks	\$175.00	\$350.00
	<b>Sub Total</b>					<b>\$350.00</b>
		<b>Total (excluding GST)</b>				<b>\$563,296.50</b>

## Oxford Street (Hollywood Ave - Grosvenor St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$11,500.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$13,000.00
	<b>Sub Total</b>					<b>\$24,500.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$5,600.00
	<b>Sub Total</b>					<b>\$5,600.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	60.3	l/m	\$40.00	\$2,412.00
3.2		Demolish Roadway	0	m2	\$25.00	\$0.00
3.3		Mill Roadway in areas of pavement extension	106	m2	\$12.00	\$1,272.00
3.4		Remove existing pavement	0	m2	\$50.00	\$0.00
3.5		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.6		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.7		Tree pit excavation and preparation (1.2 x 1m)	9	No.	\$150.00	\$1,350.00
3.8		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.9		Relocate Light Poles	1	item	\$1,750.00	\$1,750.00
3.10		Relocate Street Signs	0	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$9,784.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	54.4	l/m	\$250.00	\$13,600.00
4.2		New fill depth to widening (200mm depth)	106	m2	\$23.00	\$2,438.00
4.3		Drainage Allowance	1	item	\$10,000.00	\$10,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	106	m2	\$300.00	\$31,800.00
4.6		Pram ramp to pavements	0	item	\$2,500.00	\$0.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	0	l/m	\$35.00	\$0.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for pedn crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$57,838.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mX4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	9	item	\$3,700.00	\$33,300.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	0	m2	\$100.00	\$0.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	9	item	\$1,800.00	\$16,200.00
	<b>Sub Total</b>					<b>\$49,500.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	3	No.	\$1,200.00	\$3,600.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	0	l/m	\$275.00	\$0.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$3,600.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	0	weeks	\$200.00	\$0.00
	<b>Sub Total</b>					<b>\$0.00</b>
		<b>Total (excluding GST)</b>				<b>\$150,822.00</b>

## Oxford Street (Newland St - Denison St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$32,935.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$38,400.00
	<b>Sub Total</b>					<b>\$71,335.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$16,500.00
	<b>Sub Total</b>					<b>\$16,500.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	97.6	l/m	\$40.00	\$3,904.00
3.2		Demolish Roadway	95	m2	\$25.00	\$2,375.00
3.3		Mill Roadway in areas of raised thresholds	240	m2	\$12.00	\$2,880.00
3.4		Remove existing pavement	0	m2	\$50.00	\$0.00
3.5		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.6		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.7		Tree pit excavation and preparation (1.2 x 1m)	15	No.	\$150.00	\$2,250.00
3.8		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.9		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.10		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$14,409.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	137.2	l/m	\$250.00	\$34,300.00
4.2		New fill depth to widening (200mm depth)	100	m2	\$23.00	\$2,300.00
4.3		Drainage Allowance	1	item	\$50,000.00	\$50,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	100	m2	\$300.00	\$30,000.00
4.6		Pram ramp to pavements	4	item	\$2,500.00	\$10,000.00
4.7		Allowance for pit lid replacement	2	Allowance	\$5,100.00	\$10,200.00
4.8	Roadway	Line marking to Parking bays	0	l/m	\$35.00	\$0.00
4.9		Interlocking road paving to shared zones	99	m2	\$350.00	\$34,650.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	4	item	\$2,500.00	\$10,000.00
4.14		Allowance for pedn crossing marking	2	item	\$3,000.00	\$6,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$187,450.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	11	item	\$6,750.00	\$74,250.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	4	item	\$4,500.00	\$18,000.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	74.5	m2	\$100.00	\$7,450.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	4	item	\$1,800.00	\$7,200.00
	<b>Sub Total</b>					<b>\$106,900.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	2	Allowance	\$3,000.00	\$6,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	14	No.	\$300.00	\$4,200.00
6.4		Supply and installation of Bike Rack	4	No.	\$1,200.00	\$4,800.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	16	l/m	\$275.00	\$4,400.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$19,400.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$420,194.00</b>

## Oxford Street (Denison St - Ruthven St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$50,000.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$60,000.00
	<b>Sub Total</b>					<b>\$110,000.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$25,000.00
	<b>Sub Total</b>					<b>\$25,000.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	374	l/m	\$40.00	\$14,960.00
3.2		Mill Roadway in areas of raised thresholds	420	m2	\$12.00	\$5,040.00
3.3		Demolish Roadway	281	m2	\$25.00	\$7,025.00
3.4		Remove existing pavement	138	m2	\$50.00	\$6,900.00
3.5		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.6		Remove existing trees	3	No.	\$1,000.00	\$3,000.00
3.7		Tree pit excavation and preparation (1.2 x 1m)	13	No.	\$150.00	\$1,950.00
3.8		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.9		Relocate Light Poles	3	item	\$1,750.00	\$5,250.00
3.10		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$47,125.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	424	l/m	\$250.00	\$106,000.00
4.2		New fill depth to widening (200mm depth)	60	m2	\$23.00	\$1,380.00
4.3		Drainage Allowance	1	item	\$20,000.00	\$20,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	60	m2	\$300.00	\$18,000.00
4.6		Pram ramp to pavements	0	item	\$2,500.00	\$0.00
4.7		Allowance for pit lid replacement	3	Allowance	\$5,100.00	\$15,300.00
4.8	Roadway	Line marking to Parking bays	57.6	l/m	\$35.00	\$2,016.00
4.9		Interlocking road paving to shared zones	196	m2	\$350.00	\$68,600.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	91	m2	\$300.00	\$27,300.00
4.13		Concrete ramps to thresholds	7	item	\$2,500.00	\$17,500.00
4.14		Allowance for pedn crossing marking	2	item	\$3,000.00	\$6,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	315	m2	\$80.00	\$25,200.00
4.16		Raised dividing strip	103.5	l/m	\$150.00	\$15,525.00
4.17		Line marking to Cycleway	338.1	l/m	\$35.00	\$11,833.50
4.18		Line marking to Shared zone pavement	0	m2	\$60.00	\$0.00

	<b>Sub Total</b>					<b>\$334,654.50</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	13	item	\$6,750.00	\$87,750.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	281	m2	\$100.00	\$28,100.00
5.8		Supply + installation of tree grate- Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$115,850.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	1	Allowance	\$3,000.00	\$3,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	3	No.	\$1,200.00	\$3,600.00
6.5		Supply and installation Seats	4	No.	\$2,300.00	\$9,200.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	0	l/m	\$275.00	\$0.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
6.8		Supply and installation New Fence Palisade	60	l/m	\$600.00	\$36,000.00
	<b>Sub Total</b>					<b>\$51,800.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	24	weeks	\$200.00	\$4,800.00
	<b>Sub Total</b>					<b>\$4,800.00</b>
		<b>Total (excluding GST)</b>				<b>\$689,229.50</b>

## Oxford Street (Ruthven St - York Rd)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$47,700.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$57,320.00
	<b>Sub Total</b>					<b>\$105,020.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$23,850.00
	<b>Sub Total</b>					<b>\$23,850.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	139	l/m	\$40.00	\$5,560.00
3.2		Demolish Roadway	21	m2	\$25.00	\$525.00
3.3		Mill Roadway in areas of raised thresholds	167	m2	\$12.00	\$2,004.00
3.4		Remove existing pavement	269	m2	\$50.00	\$13,450.00
3.5		Remove private domain pavement	208	m2	\$50.00	\$10,400.00
3.6		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.7		Tree pit excavation and preparation (1.2 x 1m)	10	No.	\$150.00	\$1,500.00
3.8		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.9		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.10		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$36,439.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	487	l/m	\$250.00	\$121,750.00
4.2		New fill depth to widening (200mm depth)	141	m2	\$23.00	\$3,243.00
4.3		Drainage Allowance	1	item	\$20,000.00	\$20,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	318	m2	\$300.00	\$95,400.00
4.6		Pram ramp to pavements	8	item	\$2,500.00	\$20,000.00
4.7		Allowance for pit lid replacement	1	Allowance	\$5,100.00	\$5,100.00
4.8	Roadway	Line marking to Parking bays	0	l/m	\$35.00	\$0.00
4.9		Interlocking road paving to shared zones	42	m2	\$350.00	\$14,700.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	43.2	m2	\$300.00	\$12,960.00
4.13		Concrete ramps to thresholds	2	item	\$2,500.00	\$5,000.00
4.14		Allowance for pedn crossing marking	1	item	\$3,000.00	\$3,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	209	m2	\$80.00	\$16,696.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	206	l/m	\$35.00	\$7,192.50
	<b>Sub Total</b>					<b>\$325,041.50</b>

<b>5.0 Soft Landscape works</b>						
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	2	item	\$6,750.00	\$13,500.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	8	item	\$3,700.00	\$29,600.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	85	m2	\$100.00	\$8,500.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	3	item	\$1,800.00	\$5,400.00
	<b>Sub Total</b>					<b>\$57,000.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	1	Allowance	\$3,000.00	\$3,000.00
6.2		Supply and installation of Removable Bollard	4	No.	\$900.00	\$3,600.00
6.3		Supply and installation of Bollard	18	No.	\$300.00	\$5,400.00
6.4		Supply and installation of Bike Rack	8	No.	\$1,200.00	\$9,600.00
6.5		Supply and installation Seats	2	No.	\$2,300.00	\$4,600.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	32	l/m	\$275.00	\$8,800.00
6.7		Supply and installation New Bus Shelters	1	No.	\$20,000.00	\$20,000.00
	<b>Sub Total</b>					<b>\$55,000.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$606,550.50</b>

## Spring Street (Bronte Rd - Newland St) - Option 1

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$70,000.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$84,960.00
	<b>Sub Total</b>					<b>\$154,960.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$35,000.00
	<b>Sub Total</b>					<b>\$35,000.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	409	l/m	\$40.00	\$16,360.00
3.2		Mill Roadway in areas of raised threshold	852	m2	\$12.00	\$10,224.00
3.3		Demolish Roadway	0	m2	\$25.00	\$0.00
3.4		Remove existing Traffic Island	33.7	m2	\$50.00	\$1,685.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	1	No.	\$1,000.00	\$1,000.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	19	No.	\$150.00	\$2,850.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	3	item	\$1,750.00	\$5,250.00
3.11		Relocate Street Signs	4	Allowance	\$3,000.00	\$12,000.00
	<b>Sub Total</b>					<b>\$49,369.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	393	l/m	\$250.00	\$98,250.00
4.2		New fill depth to widening (200mm depth)	812	m2	\$23.00	\$18,676.00
4.3		Drainage Allowance	1	item	\$80,000.00	\$80,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	812	m2	\$300.00	\$243,600.00
4.6		Pram ramp to pavements	4	item	\$2,500.00	\$10,000.00
4.7		Allowance for pit lid replacement	4	Allowance	\$5,100.00	\$20,400.00
4.8	Roadway	Line marking to Parking bays	70	l/m	\$35.00	\$2,450.00
4.9		Interlocking road paving to shared zones	31	m2	\$350.00	\$10,850.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	2	item	\$2,500.00	\$5,000.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	194	l/m	\$150.00	\$29,100.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
4.18		New Asphalt Pavement to Parking Bays	0	m2	\$300.00	\$0.00

	<b>Sub Total</b>					<b>\$518,326.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	12	item	\$4,500.00	\$54,000.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	7	item	\$3,700.00	\$25,900.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	0	m2	\$100.00	\$0.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	19	item	\$1,800.00	\$34,200.00
	<b>Sub Total</b>					<b>\$114,100.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	6	No.	\$300.00	\$1,800.00
6.4		Supply and installation of Bike Rack	4	No.	\$1,200.00	\$4,800.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	16	l/m	\$275.00	\$4,400.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$11,000.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$886,955.00</b>

## Spring Street (Bronte Rd - Newland St) - Option 2

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$17,657.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$21,188.40
	<b>Sub Total</b>					<b>\$38,845.40</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$8,828.50
	<b>Sub Total</b>					<b>\$8,828.50</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	97.1	l/m	\$40.00	\$3,884.00
3.2		Mill Roadway in areas of raised threshold	195.7	m2	\$12.00	\$2,348.40
3.3		Demolish Roadway	82	m2	\$25.00	\$2,050.00
3.4		Remove existing Traffic Island	33.7	m2	\$50.00	\$1,685.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	1	No.	\$1,000.00	\$1,000.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	9	No.	\$150.00	\$1,350.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$12,317.40</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	87.4	l/m	\$250.00	\$21,850.00
4.2		New fill depth to widening (200mm depth)	108	m2	\$23.00	\$2,484.00
4.3		Drainage Allowance	0	item	\$80,000.00	\$0.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	108	m2	\$300.00	\$32,400.00
4.6		Pram ramp to pavements	4	item	\$2,500.00	\$10,000.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	137.7	l/m	\$35.00	\$4,819.50
4.9		Interlocking road paving to shared zones	68	m2	\$350.00	\$23,800.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	2	item	\$2,500.00	\$5,000.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
4.18		New Asphalt Pavement to Parking Bays	0	m2	\$300.00	\$0.00

	<b>Sub Total</b>					<b>\$100,353.50</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	9	item	\$4,500.00	\$40,500.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	82	m2	\$100.00	\$8,200.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$48,700.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	6	No.	\$300.00	\$1,800.00
6.4		Supply and installation of Bike Rack	4	No.	\$1,200.00	\$4,800.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	16	l/m	\$275.00	\$4,400.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$11,000.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$224,244.80</b>

## Spring Street (Newland St - Denison St) - Option 1

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$59,304.60
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$71,165.00
	<b>Sub Total</b>					<b>\$130,469.60</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$29,652.00
	<b>Sub Total</b>					<b>\$29,652.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	394	l/m	\$40.00	\$15,760.00
3.2		Mill Roadway in areas of raised threshold	306	m2	\$12.00	\$3,672.00
3.3		Demolish Roadway	102.1	m2	\$25.00	\$2,552.50
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	378.3	m2	\$50.00	\$18,915.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	13	No.	\$150.00	\$1,950.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$42,849.50</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	410	l/m	\$250.00	\$102,500.00
4.2		New fill depth to widening (200mm depth)	90	m2	\$23.00	\$2,070.00
4.3		Drainage Allowance	1	item	\$80,000.00	\$80,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	90	m2	\$300.00	\$27,000.00
4.6		Pram ramp to pavements	1	item	\$2,500.00	\$2,500.00
4.7		Allowance for pit lid replacement	1	Allowance	\$5,100.00	\$5,100.00
4.8	Roadway	Line marking to Parking bays	67.2	l/m	\$35.00	\$2,352.00
4.9		Interlocking road paving to shared zones	66	m2	\$350.00	\$23,100.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	3	item	\$2,100.00	\$6,300.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	356	m2	\$300.00	\$106,800.00
4.13		Concrete ramps to thresholds	2	item	\$2,500.00	\$5,000.00
4.14		Allowance for ped crossing marking	1	item	\$3,000.00	\$3,000.00
4.15	New Cycleway	Painted Finish to cycleway (2.6m wide)	502.6	m2	\$80.00	\$40,208.00
4.16		Raised dividing strip	109	l/m	\$150.00	\$16,350.00
4.17		Line marking to Cycleway	580.2	l/m	\$35.00	\$20,307.00
4.18		New Asphalt Pavement to Parking Bays	0	m2	\$300.00	\$0.00
	<b>Sub Total</b>					<b>\$442,587.00</b>

<b>5.0 Soft Landscape works</b>						
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	13	item	\$6,750.00	\$87,750.00
5.3		400L Tree Planting in Pavement( 4mX4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	124.6	m2	\$100.00	\$12,460.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
<b>Sub Total</b>						<b>\$100,210.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	6	No.	\$300.00	\$1,800.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	4	l/m	\$275.00	\$1,100.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
<b>Sub Total</b>						<b>\$2,900.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
<b>Sub Total</b>						<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$752,868.10</b>

## Spring Street (Newland St - Denison St) - Option 2

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$25,672.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$30,806.00
	<b>Sub Total</b>					<b>\$56,478.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$12,836.00
	<b>Sub Total</b>					<b>\$12,836.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	88.7	l/m	\$40.00	\$3,548.00
3.2		Mill Roadway in areas of raised threshold	278.4	m2	\$12.00	\$3,340.80
3.3		Demolish Roadway	104.1	m2	\$25.00	\$2,602.50
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	13	No.	\$150.00	\$1,950.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	1	item	\$1,750.00	\$1,750.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$13,191.30</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	57.7	l/m	\$250.00	\$14,425.00
4.2		New fill depth to widening (200mm depth)	137.5	m2	\$23.00	\$3,162.50
4.3		Drainage Allowance	1	item	\$20,000.00	\$20,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	137.5	m2	\$300.00	\$41,250.00
4.6		Pram ramp to pavements	0	item	\$2,500.00	\$0.00
4.7		Allowance for pit lid replacement	1	Allowance	\$5,100.00	\$5,100.00
4.8	Roadway	Line marking to Parking bays	86.4	l/m	\$35.00	\$3,024.00
4.9		Interlocking road paving to shared	120	m2	\$350.00	\$42,000.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	2	item	\$2,500.00	\$5,000.00
4.14		Allowance for ped crossing marking	1	item	\$3,000.00	\$3,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$136,961.50</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00

5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	13	item	\$6,750.00	\$87,750.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	128.2	m2	\$100.00	\$12,820.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$100,570.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	6	No.	\$300.00	\$1,800.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	0	l/m	\$275.00	\$0.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$1,800.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$326,036.80</b>

## Denison Street (Oxford St - Spring St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$43,149.40
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$51,779.00
	<b>Sub Total</b>					<b>\$94,928.40</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$21,574.00
	<b>Sub Total</b>					<b>\$21,574.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	148.5	l/m	\$40.00	\$5,940.00
3.2		Demolish Roadway	76.7	m2	\$25.00	\$1,917.50
3.3		Mill Roadway in areas of raised threshold	416	m2	\$12.00	\$4,992.00
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	72	m2	\$50.00	\$3,600.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	10	No.	\$1,000.00	\$10,000.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	8	No.	\$150.00	\$1,200.00
3.9		Remove existing grass Verg	115.6	m2	\$35.00	\$4,046.00
3.10		Relocate Light Poles	1	item	\$1,750.00	\$1,750.00
3.11		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$36,445.50</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	157.8	l/m	\$250.00	\$39,450.00
4.2		New fill depth to widening (200mm depth)	98.5	m2	\$23.00	\$2,265.50
4.3		Drainage Allowance	1	item	\$20,000.00	\$20,000.00
4.4		New Asphalt Pavement	140	m2	\$300.00	\$42,000.00
4.5		New Unit Pavement with banding	98.5	m2	\$300.00	\$29,550.00
4.6		Pram ramp to pavements	2	Allowance	\$2,500.00	\$5,000.00
4.7		Allowance for pit lid replacement	2	item	\$5,100.00	\$10,200.00
4.8	Roadway	Line marking to Parking bays	28.8	l/m	\$35.00	\$1,008.00
4.9		Interlocking road paving to shared zones	200	m2	\$350.00	\$70,000.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	155.9	m2	\$300.00	\$46,770.00
4.13		Concrete ramps to thresholds	3	item	\$2,500.00	\$7,500.00
4.14		Allowance for ped crossing marking	3	item	\$3,000.00	\$9,000.00
4.15	New Cycleway	Painted Finish to cycleway (2.8m wide)	201	m2	\$80.00	\$16,080.00
4.16		Raised dividing strip	71	l/m	\$150.00	\$10,650.00
4.17		Line marking to Cycleway	213	l/m	\$35.00	\$7,455.00
	<b>Sub Total</b>					<b>\$316,928.50</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	8	item	\$6,750.00	\$54,000.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	76.7	m2	\$100.00	\$7,670.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$61,670.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	2	Allowance	\$3,000.00	\$6,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	8	l/m	\$275.00	\$2,200.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$8,200.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	26	weeks	\$500.00	\$13,000.00
	<b>Sub Total</b>					<b>\$13,000.00</b>
		<b>Total (excluding GST)</b>				<b>\$552,746.40</b>

## Denison Street (Spring St - Ebley St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$42,403.70
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$50,884.00
	<b>Sub Total</b>					<b>\$93,287.70</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$21,201.00
	<b>Sub Total</b>					<b>\$21,201.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	186.6	l/m	\$40.00	\$7,464.00
3.2		Mill Roadway in areas of raised thresholds	159.5	m2	\$12.00	\$1,914.00
3.3		Demolish Roadway	57.8	m2	\$25.00	\$1,445.00
3.4		Remove existing pavement	0	m2	\$50.00	\$0.00
3.5		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.6		Remove existing trees	5	No.	\$1,000.00	\$5,000.00
3.7		Tree pit excavation and preparation (1.2 x 1m)	6	No.	\$150.00	\$900.00
3.8		Remove existing grass Verg	249	m2	\$35.00	\$8,715.00
3.9		Relocate Light Poles	1	item	\$1,750.00	\$1,750.00
3.10		Relocate Street Signs	2	Allowance	\$3,000.00	\$6,000.00
	<b>Sub Total</b>					<b>\$33,188.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	241.3	l/m	\$250.00	\$60,325.00
4.2		New fill depth to widening (200mm depth)	159.5	m2	\$23.00	\$3,668.50
4.3		Drainage Allowance	1	item	\$50,000.00	\$50,000.00
4.4		New Asphalt Pavement	187	m2	\$300.00	\$56,100.00
4.5		New Unit Pavement with banding	213	m2	\$300.00	\$63,900.00
4.6		Pram ramp to pavements	8	item	\$2,500.00	\$20,000.00
4.7		Allowance for pit lid replacement	2	Allowance	\$5,100.00	\$10,200.00
4.8	Roadway	Line marking to Parking bays	33.6	l/m	\$35.00	\$1,176.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	44	m2	\$300.00	\$13,200.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (2.8m wide)	280	m2	\$80.00	\$22,400.00
4.16		Raised dividing strip	99	l/m	\$150.00	\$14,850.00
4.17		Line marking to Cycleway	300	l/m	\$35.00	\$10,500.00
	<b>Sub Total</b>					<b>\$326,319.50</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00

5.2	400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	6	item	\$6,750.00	\$40,500.00
5.3	400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4	100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5	New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6	New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7	New Garden Planting 200mm shrubs only includes soil prep/ mulch	57.8	m2	\$100.00	\$5,780.00
5.8	Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
<b>Sub Total</b>					<b>\$46,280.00</b>
<b>6.0 Furniture and Signage Works</b>					
6.1	Supply and installation of Signage	2	Allowance	\$3,000.00	\$6,000.00
6.2	Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3	Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4	Supply and installation of Bike Rack	2	No.	\$1,200.00	\$2,400.00
6.5	Supply and installation Seats	2	No.	\$2,300.00	\$4,600.00
6.6	Supply and installation Tactiles at driveways / pram ramps (estimate)	32	l/m	\$275.00	\$8,800.00
6.7	Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
<b>Sub Total</b>					<b>\$21,800.00</b>
<b>7.0 Establishment</b>					
7.1	Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
<b>Sub Total</b>					<b>\$4,200.00</b>
<b>Total (excluding GST)</b>					<b>\$546,276.20</b>

## Ebley Street (Hollywood Ave - Bronte Rd) - Intermediate

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$17,918.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$21,502.00
	<b>Sub Total</b>					<b>\$39,420.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$8,959.00
	<b>Sub Total</b>					<b>\$8,959.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	83.8	l/m	\$40.00	\$3,352.00
3.2		Mill Roadway in areas of raised threshold	323	m2	\$12.00	\$3,876.00
3.3		Demolish Roadway	55	m2	\$25.00	\$1,375.00
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	2	No.	\$150.00	\$300.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$8,903.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	77.3	l/m	\$250.00	\$19,325.00
4.2		New fill depth to widening (200mm depth)	74.1	m2	\$23.00	\$1,704.30
4.3		Drainage Allowance	0	item	\$20,000.00	\$0.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	74.1	m2	\$300.00	\$22,230.00
4.6		Pram ramp to pavements	0	item	\$2,500.00	\$0.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	93.6	l/m	\$35.00	\$3,276.00
4.9		Interlocking road paving to shared zones	131	m2	\$350.00	\$45,850.00
4.10		New traffic island	6	m2	\$500.00	\$3,000.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	132	m2	\$300.00	\$39,600.00
4.13		Concrete ramps to thresholds	4	item	\$2,500.00	\$10,000.00
4.14		Allowance for ped crossing marking	1	item	\$3,000.00	\$3,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$147,985.30</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	2	item	\$4,500.00	\$9,000.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	55	m2	\$100.00	\$5,500.00
5.8		Supply + installation of tree grate- Square with Pea gravel mulch (\$1800)	2	item	\$1,800.00	\$3,600.00
	<b>Sub Total</b>					<b>\$18,100.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	0	l/m	\$275.00	\$0.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$0.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$227,567.30</b>

## Ebley Street (Hollywood Ave - Bronte Rd) - Longer term

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$32,944.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$39,500.00
	<b>Sub Total</b>					<b>\$72,444.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$16,300.00
	<b>Sub Total</b>					<b>\$16,300.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	218	l/m	\$40.00	\$8,732.00
3.2		Mill Roadway in areas of raised threshold	53	m2	\$12.00	\$636.00
3.3		Demolish Roadway	113	m2	\$25.00	\$2,830.00
3.4		Remove existing Traffic Island	6	m2	\$50.00	\$300.00
3.5		Remove existing pavement	179	m2	\$50.00	\$8,925.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	5	No.	\$150.00	\$750.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	2	item	\$1,750.00	\$3,500.00
3.11		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$28,673.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	266	l/m	\$250.00	\$66,575.00
4.2		New fill depth to widening (200mm depth)	36.7	m2	\$23.00	\$844.10
4.3		Drainage Allowance	1	item	\$80,000.00	\$80,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	0	m2	\$300.00	\$0.00
4.6		Pram ramp to pavements	3	item	\$2,500.00	\$7,500.00
4.7		Allowance for pit lid replacement	2	Allowance	\$5,100.00	\$10,200.00
4.8	Roadway	Line marking to Parking bays	48	l/m	\$35.00	\$1,680.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	6	m2	\$500.00	\$3,000.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	509	m2	\$80.00	\$40,720.00
4.16		Raised dividing strip	136	l/m	\$150.00	\$20,400.00
4.17		Line marking to Cycleway	410	l/m	\$35.00	\$14,332.50
4.18		New Asphalt Pavement to Parking Bays	179	m2	\$300.00	\$53,610.00

	<b>Sub Total</b>					<b>\$298,861.60</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	5	item	\$6,750.00	\$33,750.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	113	m2	\$100.00	\$11,320.00
5.8		Supply + installation of tree grate- Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$45,070.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	1	Allowance	\$3,000.00	\$3,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	12	l/m	\$275.00	\$3,300.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$6,300.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$471,848.60</b>

## Ebley Street (Newland St - Bronte Rd) - Intermediate

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$45,947.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$55,136.00
	<b>Sub Total</b>					<b>\$101,083.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$22,973.00
	<b>Sub Total</b>					<b>\$22,973.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	188.5	l/m	\$40.00	\$7,540.00
3.2		Mill Roadway in areas of raised threshold	465	m2	\$12.00	\$5,580.00
3.3		Demolish Roadway	255.6	m2	\$25.00	\$6,390.00
3.4		Remove existing Traffic Island	166	m2	\$50.00	\$8,300.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	26	No.	\$150.00	\$3,900.00
3.9		Remove existing grass Verg	62	m2	\$35.00	\$2,170.00
3.10		Relocate Light Poles	1	item	\$1,750.00	\$1,750.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$35,630.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	209.4	l/m	\$250.00	\$52,350.00
4.2		New fill depth to widening (200mm depth)	340	m2	\$23.00	\$7,820.00
4.3		Drainage Allowance	1	item	\$20,000.00	\$20,000.00
4.4		New Asphalt Pavement with surround banding	223	m2	\$300.00	\$66,900.00
4.5		New Unit Pavement with banding	0	m2	\$300.00	\$0.00
4.6		Pram ramp to pavements	4	item	\$2,500.00	\$10,000.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	64.8	l/m	\$35.00	\$2,268.00
4.9		Interlocking road paving to shared zones	181.7	m2	\$350.00	\$63,595.00
4.10		New traffic island	9	m2	\$500.00	\$4,500.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	6	item	\$2,500.00	\$15,000.00
4.14		Allowance for ped crossing marking	1	item	\$3,000.00	\$3,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$245,433.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	1	item	\$6,750.00	\$6,750.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	25	item	\$3,700.00	\$92,500.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	255.6	m2	\$100.00	\$25,560.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	25	item	\$1,800.00	\$45,000.00
<b>Sub Total</b>						<b>\$169,810.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	16	l/m	\$275.00	\$4,400.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
<b>Sub Total</b>						<b>\$4,400.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
<b>Sub Total</b>						<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$583,529.00</b>

## Ebley Street (Newland St - Bronte Rd) - Longer term

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$39,275.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$47,130.00
	<b>Sub Total</b>					<b>\$86,405.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$19,637.00
	<b>Sub Total</b>					<b>\$19,637.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	112.5	l/m	\$40.00	\$4,500.00
3.2		Mill Roadway in areas of raised threshold	71.5	m2	\$12.00	\$858.00
3.3		Demolish Roadway	28.2	m2	\$25.00	\$705.00
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	128.2	m2	\$50.00	\$6,410.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	2	No.	\$150.00	\$300.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	3	item	\$1,750.00	\$5,250.00
3.11		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
3.12		Remove Garden Bed	208	m2	\$35.00	\$7,280.00
	<b>Sub Total</b>					<b>\$28,303.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	75.7	l/m	\$250.00	\$18,925.00
4.2		New fill depth to widening (200mm depth)	128.5	m2	\$23.00	\$2,955.50
4.3		Drainage Allowance	1	item	\$80,000.00	\$80,000.00
4.4		New Asphalt Pavement with surround banding	210.3	m2	\$300.00	\$63,090.00
4.5		New Unit Pavement with banding	0	m2	\$300.00	\$0.00
4.6		Pram ramp to pavements	1	item	\$2,500.00	\$2,500.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	7.2	l/m	\$35.00	\$252.00
4.9		Interlocking road paving to shared zones	41	m2	\$350.00	\$14,350.00
4.10		New traffic island	17.6	m2	\$500.00	\$8,800.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	50.8	m2	\$300.00	\$15,240.00
4.13		Concrete ramps to thresholds	2	item	\$2,500.00	\$5,000.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (3m wide)	505	m2	\$160.00	\$80,800.00
4.16		Raised dividing strip	180	l/m	\$150.00	\$27,000.00
4.17		Line marking to Cycleway	537	l/m	\$35.00	\$18,795.00

4.18		New Asphalt Pavement to Parking Bays	302	m2	\$300.00	\$90,600.00
	<b>Sub Total</b>					<b>\$428,307.50</b>
<b>5.0 Soft Landscape works</b>						
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	2	item	\$6,750.00	\$13,500.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	28.2	m2	\$100.00	\$2,820.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$16,320.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	1	Allowance	\$3,000.00	\$3,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	4	No.	\$1,200.00	\$4,800.00
6.5		Supply and installation Seats	2	No.	\$2,300.00	\$4,600.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	4	l/m	\$275.00	\$1,100.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$13,500.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$596,672.50</b>

## Ebley Street (Denison St - Newland St) - Intermediate

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$17,726.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$21,271.00
	<b>Sub Total</b>					<b>\$38,997.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$8,862.00
	<b>Sub Total</b>					<b>\$8,862.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	63	l/m	\$40.00	\$2,520.00
3.2		Mill Roadway in areas of raised threshold	288	m2	\$12.00	\$3,456.00
3.3		Demolish Roadway	47	m2	\$25.00	\$1,175.00
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	3	No.	\$1,000.00	\$3,000.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	13	No.	\$150.00	\$1,950.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$12,101.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	87	l/m	\$250.00	\$21,750.00
4.2		New fill depth to widening (200mm depth)	184	m2	\$23.00	\$4,232.00
4.3		Drainage Allowance	0	item	\$20,000.00	\$0.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	184	m2	\$300.00	\$55,200.00
4.6		Pram ramp to pavements	0	item	\$2,500.00	\$0.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	118	l/m	\$35.00	\$4,116.00
4.9		Interlocking road paving to shared zones	63.6	m2	\$350.00	\$22,260.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	4	item	\$2,500.00	\$10,000.00
4.14		Allowance for ped crossing marking	1	item	\$3,000.00	\$3,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$120,558.00</b>

<b>5.0 Soft Landscape works</b>						
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	5	item	\$3,700.00	\$18,500.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	8	item	\$500.00	\$4,000.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	89	m2	\$100.00	\$8,900.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	5	item	\$1,800.00	\$9,000.00
<b>Sub Total</b>						<b>\$40,400.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	0	l/m	\$275.00	\$0.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
<b>Sub Total</b>						<b>\$0.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
<b>Sub Total</b>						<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$225,118.00</b>

## Ebley Street (Denison St - Newland St) - Longer term

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$22,400.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$26,880.00
	<b>Sub Total</b>					<b>\$49,280.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$11,000.00
	<b>Sub Total</b>					<b>\$11,000.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	54.2	l/m	\$40.00	\$2,168.00
3.2		Mill Roadway in areas of raised threshold	48.9	m2	\$12.00	\$586.80
3.3		Demolish Roadway	17	m2	\$25.00	\$425.00
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	1	No.	\$1,000.00	\$1,000.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	2	No.	\$150.00	\$300.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$7,479.80</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	40	l/m	\$250.00	\$10,000.00
4.2		New fill depth to widening (200mm depth)	0	m2	\$23.00	\$0.00
4.3		Drainage Allowance	1	item	\$80,000.00	\$80,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	0	m2	\$300.00	\$0.00
4.6		Pram ramp to pavements	1	item	\$2,500.00	\$2,500.00
4.7		Allowance for pit lid replacement	1	Allowance	\$5,100.00	\$5,100.00
4.8	Roadway	Line marking to Parking bays	0	l/m	\$35.00	\$0.00
4.9		Interlocking road paving to shared zones	8	m2	\$350.00	\$2,800.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	26	m2	\$300.00	\$7,800.00
4.13		Concrete ramps to thresholds	1	item	\$2,500.00	\$2,500.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	503	m2	\$80.00	\$40,240.00
4.16		Raised dividing strip	180	l/m	\$150.00	\$27,000.00
4.17		Line marking to Cycleway	540	l/m	\$35.00	\$18,900.00
4.18		New Asphalt Pavement to Parking Bays	0	m2	\$300.00	\$0.00

	<b>Sub Total</b>					<b>\$196,840.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	2	item	\$6,750.00	\$13,500.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	17	m2	\$100.00	\$1,700.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$15,200.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	4	l/m	\$275.00	\$1,100.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$1,100.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$285,099.80</b>

## Hollywood Avenue (Ebley St - Oxford St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$76,500.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$91,860.00
	<b>Sub Total</b>					<b>\$168,360.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$38,275.00
	<b>Sub Total</b>					<b>\$38,275.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	355	l/m	\$40.00	\$14,192.00
3.2		Demolish Roadway	0	m2	\$25.00	\$0.00
3.3		Mill Roadway in areas of pavement extension	1409	m2	\$12.00	\$16,908.00
3.4		Remove existing Traffic Island	14	m2	\$50.00	\$700.00
3.5		Remove existing pavement	667	m2	\$50.00	\$33,350.00
3.6		Remove private domain pavement	112	m2	\$50.00	\$5,600.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	23	No.	\$150.00	\$3,450.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	1	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$77,200.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	411	l/m	\$250.00	\$102,750.00
4.2		New fill depth to widening (200mm depth)	583	m2	\$23.00	\$13,409.00
4.3		Drainage Allowance	1	item	\$100,000.00	\$100,000.00
4.4		New Asphalt Pavement with surround banding	716	m2	\$300.00	\$214,740.00
4.5		New Unit Pavement with banding	112	m2	\$300.00	\$33,600.00
4.6		Pram ramp to pavements	7	item	\$2,500.00	\$17,500.00
4.7		Allowance for pit lid replacement	2	Allowance	\$5,100.00	\$10,200.00
4.8	Roadway	Line marking to Parking bays	52.8	l/m	\$35.00	\$1,848.00
4.9		Interlocking road paving to shared zones	73.3	m2	\$350.00	\$25,655.00
4.10		New traffic island	25	m2	\$500.00	\$12,500.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	50	m2	\$300.00	\$15,000.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for pedn crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$547,202.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	5	item	\$6,750.00	\$33,750.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	1	item	\$4,500.00	\$4,500.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	17	item	\$3,700.00	\$62,900.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	43	m2	\$100.00	\$4,300.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	18	item	\$1,800.00	\$32,400.00
	<b>Sub Total</b>					<b>\$137,850.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	1	Allowance	\$3,000.00	\$3,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	6	No.	\$300.00	\$1,800.00
6.4		Supply and installation of Bike Rack	4	No.	\$1,200.00	\$4,800.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	28	l/m	\$275.00	\$7,700.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$17,300.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	2	weeks	\$175.00	\$350.00
	<b>Sub Total</b>					<b>\$350.00</b>
		<b>Total (excluding GST)</b>				<b>\$986,537.00</b>

## Newland Street (Oxford St - Ebley St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$67,300.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$80,760.00
	<b>Sub Total</b>					<b>\$148,060.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$33,650.00
	<b>Sub Total</b>					<b>\$33,650.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	231.3	l/m	\$40.00	\$9,252.00
3.2		Demolish Roadway	0	m2	\$25.00	\$0.00
3.3		Mill Roadway in areas of pavement extension	672	m2	\$12.00	\$8,064.00
3.4		Remove existing Traffic Island	66	m2	\$50.00	\$3,300.00
3.5		Remove existing pavement	500	m2	\$50.00	\$25,000.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	18	No.	\$150.00	\$2,700.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	3	item	\$1,750.00	\$5,250.00
3.11		Relocate Street Signs	2	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$56,566.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	278.6	l/m	\$250.00	\$69,650.00
4.2		New fill depth to widening (200mm depth)	1010	m2	\$23.00	\$23,230.00
4.3		Drainage Allowance	1	item	\$100,000.00	\$100,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	1010	m2	\$300.00	\$303,000.00
4.6		Pram ramp to pavements	22	item	\$2,500.00	\$55,000.00
4.7		Allowance for pit lid replacement	2	Allowance	\$5,100.00	\$10,200.00
4.8	Roadway	Line marking to Parking bays	12	l/m	\$35.00	\$420.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	42.3	m2	\$500.00	\$21,150.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for pedn crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00

	<b>Sub Total</b>					<b>\$582,650.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	18	item	\$4,500.00	\$81,000.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	162	m2	\$100.00	\$16,200.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	18	item	\$1,800.00	\$32,400.00
	<b>Sub Total</b>					<b>\$129,600.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	2	Allowance	\$3,000.00	\$6,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	4	No.	\$1,200.00	\$4,800.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	72	l/m	\$275.00	\$19,800.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$30,600.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	2	weeks	\$175.00	\$350.00
	<b>Sub Total</b>					<b>\$350.00</b>
		<b>Total (excluding GST)</b>				<b>\$981,476.00</b>

## Grosvenor Street (Oxford St - Grafton St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$36,000.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$44,000.00
	<b>Sub Total</b>					<b>\$80,000.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$18,000.00
	<b>Sub Total</b>					<b>\$18,000.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	147.3	l/m	\$40.00	\$5,892.00
3.2		Demolish Roadway	0	m2	\$25.00	\$0.00
3.3		Mill Roadway in areas of pavement extension	308	m2	\$12.00	\$3,696.00
3.4		Remove existing pavement	422	m2	\$50.00	\$21,100.00
3.5		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.6		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.7		Tree pit excavation and preparation (1.2 x 1m)	9	No.	\$150.00	\$1,350.00
3.8		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.9		Relocate Light Poles	2	item	\$1,750.00	\$3,500.00
3.10		Relocate Street Signs	2	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$38,538.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	193.3	l/m	\$250.00	\$48,325.00
4.2		New fill depth to widening (200mm depth)	308	m2	\$23.00	\$7,084.00
4.3		Drainage Allowance	1	item	\$80,000.00	\$80,000.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	519	m2	\$300.00	\$155,700.00
4.6		Pram ramp to pavements	9	item	\$2,500.00	\$22,500.00
4.7		Allowance for pit lid replacement	2	Allowance	\$5,100.00	\$10,200.00
4.8	Roadway	Line marking to Parking bays	0	l/m	\$35.00	\$0.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for pedn crossing marking	3	item	\$3,000.00	\$9,000.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$332,809.00</b>

<b>5.0 Soft Landscape works</b>						
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	9	item	\$4,500.00	\$40,500.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	0	m2	\$100.00	\$0.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	9	item	\$1,800.00	\$16,200.00
<b>Sub Total</b>						<b>\$56,700.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	1	Allowance	\$3,000.00	\$3,000.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	6	No.	\$1,200.00	\$7,200.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	36	l/m	\$275.00	\$9,900.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
<b>Sub Total</b>						<b>\$20,100.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	2	weeks	\$175.00	\$350.00
<b>Sub Total</b>						<b>\$350.00</b>
		<b>Total (excluding GST)</b>				<b>\$546,497.00</b>

## Bronte Road (Oxford St - Ebley St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$46,300.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$55,623.00
	<b>Sub Total</b>					<b>\$101,923.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$2,317.00
	<b>Sub Total</b>					<b>\$2,317.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	246.6	l/m	\$40.00	\$9,864.00
3.2		Mill Roadway in areas of raised threshold	518.7	m2	\$12.00	\$6,224.40
3.3		Demolish Roadway	28.9	m2	\$25.00	\$722.50
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	14	No.	\$150.00	\$2,100.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	3	item	\$1,750.00	\$5,250.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$24,160.90</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	264.2	l/m	\$250.00	\$66,050.00
4.2		New fill depth to widening (200mm depth)	518.7	m2	\$23.00	\$11,930.10
4.3		Drainage Allowance	1	Allowance	\$80,000.00	\$80,000.00
4.4		New Asphalt Pavement with surround	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	518.7	m2	\$300.00	\$155,610.00
4.6		Pram ramp to pavements	11	item	\$2,500.00	\$27,500.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	24	l/m	\$35.00	\$840.00
4.9		Interlocking road paving to shared zone	0	m2	\$350.00	\$0.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
4.18	Signals	Install traffic signals Bronte/Spring St	1	Allowance	\$200,000.00	\$200,000.00
	<b>Sub Total</b>					<b>\$541,930.10</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	1	item	\$6,750.00	\$6,750.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	13	item	\$3,700.00	\$48,100.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	28.9	m2	\$100.00	\$2,890.00
5.8		Supply + installation of tree grate- Square with Pea gravel mulch (\$1800)	13	item	\$1,800.00	\$23,400.00
	<b>Sub Total</b>					<b>\$81,140.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	44	l/m	\$275.00	\$12,100.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$12,100.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$767,771.00</b>

## Bronte Road (Ebley St - Birrell St) - Intermediate

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$12,733.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$15,280.00
	<b>Sub Total</b>					<b>\$28,013.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$6,366.00
	<b>Sub Total</b>					<b>\$6,366.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	46.9	l/m	\$40.00	\$1,876.00
3.2		Mill Roadway in areas of raised threshold	85	m2	\$12.00	\$1,020.00
3.3		Demolish Roadway	44.4	m2	\$25.00	\$1,110.00
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	6	No.	\$150.00	\$900.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$4,906.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	66.8	l/m	\$250.00	\$16,700.00
4.2		New fill depth to widening (200mm depth)	85	m2	\$23.00	\$1,955.00
4.3		Drainage Allowance	0	item	\$20,000.00	\$0.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	85	m2	\$300.00	\$25,500.00
4.6		Pram ramp to pavements	6	item	\$2,500.00	\$15,000.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	130	l/m	\$35.00	\$4,536.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$63,691.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	6	item	\$6,750.00	\$40,500.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	44.4	m2	\$100.00	\$4,440.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
<b>Sub Total</b>						<b>\$44,940.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	24	l/m	\$275.00	\$6,600.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
<b>Sub Total</b>						<b>\$6,600.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
<b>Sub Total</b>						<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$158,716.00</b>

## Bronte Road (Ebley St - Birrell St) - Longer Term

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$17,270.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$20,000.00
	<b>Sub Total</b>					<b>\$37,270.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$8,635.00
	<b>Sub Total</b>					<b>\$8,635.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	86.1	l/m	\$40.00	\$3,444.00
3.2		Mill Roadway in areas of raised threshold	0	m2	\$12.00	\$0.00
3.3		Demolish Roadway	70.2	m2	\$25.00	\$1,755.00
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	34.3	m2	\$50.00	\$1,715.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	0	No.	\$150.00	\$0.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$0.00
	<b>Sub Total</b>					<b>\$6,914.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	64	l/m	\$250.00	\$16,000.00
4.2		New fill depth to widening (200mm depth)	0	m2	\$23.00	\$0.00
4.3		Drainage Allowance	0	item	\$20,000.00	\$0.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	0	m2	\$300.00	\$0.00
4.6		Pram ramp to pavements	2	item	\$2,500.00	\$5,000.00
4.7		Allowance for pit lid replacement	1	Allowance	\$5,100.00	\$5,100.00
4.8	Roadway	Line marking to Parking bays	0	l/m	\$35.00	\$0.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	1	item	\$2,500.00	\$2,500.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	1039	m2	\$80.00	\$83,104.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	1163	l/m	\$35.00	\$40,705.00
4.18		New Asphalt Pavement to Parking Bays	34.3	m2	\$300.00	\$10,290.00

	<b>Sub Total</b>					<b>\$162,699.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	70.2	m2	\$100.00	\$7,020.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$7,020.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	8	l/m	\$275.00	\$2,200.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$2,200.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	24	weeks	\$175.00	\$4,200.00
	<b>Sub Total</b>					<b>\$4,200.00</b>
		<b>Total (excluding GST)</b>				<b>\$228,938.00</b>

## Grafton Street (Adelaide St - Newland St)

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$25,800.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$30,960.00
	<b>Sub Total</b>					<b>\$56,760.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$12,900.00
	<b>Sub Total</b>					<b>\$12,900.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	0	l/m	\$40.00	\$0.00
3.2		Demolish Roadway	0	m2	\$25.00	\$0.00
3.3		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.4		Remove existing pavement	0	m2	\$50.00	\$0.00
3.5		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.6		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.7		Tree pit excavation and preparation (1.2 x 1m)	40	No.	\$150.00	\$6,000.00
3.8		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.9		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.10		Relocate Street Signs	0	Allowance	\$3,000.00	\$3,000.00
3.11		Remove existing Fence from Median	165	l/m	\$50.00	\$8,250.00
	<b>Sub Total</b>					<b>\$17,250.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb & gutter (300mm)	0	l/m	\$250.00	\$0.00
4.2		New fill depth to widening (200mm depth)	0	m2	\$23.00	\$0.00
4.3		Drainage Allowance	0	item	\$20,000.00	\$0.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	0	m2	\$300.00	\$0.00
4.6		Pram ramp to pavements	0	item	\$2,500.00	\$0.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	0	l/m	\$35.00	\$0.00
4.9		Interlocking road paving to shared zones	0	m2	\$350.00	\$0.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	0	item	\$2,500.00	\$0.00
4.14		Allowance for ped crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$0.00</b>
<b>5.0</b>	<b>Soft Landscape works</b>					

5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	40	item	\$4,500.00	\$180,000.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	0	m2	\$100.00	\$0.00
5.8		Supply + installation of tree grate-Square with Pea gravel mulch (\$1800)	40	item	\$1,800.00	\$72,000.00
	<b>Sub Total</b>					<b>\$252,000.00</b>
<b>6.0 Furniture and Signage Works</b>						
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	0	l/m	\$275.00	\$0.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$0.00</b>
<b>7.0 Establishment</b>						
7.1		Establishment Maintenance Period for soft works	0	weeks	\$500.00	\$0.00
	<b>Sub Total</b>					<b>\$0.00</b>
		<b>Total (excluding GST)</b>				<b>\$338,910.00</b>

## Gray Street

No	Description	Works	Qty	Unit	Rates	Total
<b>1.0</b>	<b>Establishment</b>					
1.1	Site compound/ Establishment (10%)		1	item	Allowance	\$62,520.00
1.2	Preliminaries (8%) + margin (4%)		1	item	Allowance	\$75,025.00
	<b>Sub Total</b>					<b>\$137,545.00</b>
<b>2.0</b>	<b>Design Contingency (5%)</b>					
2.1	Design					\$31,260.00
	<b>Sub Total</b>					<b>\$31,260.00</b>
<b>3.0</b>	<b>Preparation and Earthworks</b>					
3.1	Pavement Extension	Demolish kerb / gutter	0	l/m	\$40.00	\$0.00
3.2		Demolish Roadway	0	m2	\$25.00	\$0.00
3.3		Mill Roadway in areas of pavement extension	1315	m2	\$12.00	\$15,780.00
3.4		Remove existing Traffic Island	0	m2	\$50.00	\$0.00
3.5		Remove existing pavement	0	m2	\$50.00	\$0.00
3.6		Remove private domain pavement	0	m2	\$50.00	\$0.00
3.7		Remove existing trees	0	No.	\$1,000.00	\$0.00
3.8		Tree pit excavation and preparation (1.2 x 1m)	0	No.	\$150.00	\$0.00
3.9		Remove existing grass Verg	0	m2	\$35.00	\$0.00
3.10		Relocate Light Poles	0	item	\$1,750.00	\$0.00
3.11		Relocate Street Signs	0	Allowance	\$3,000.00	\$3,000.00
	<b>Sub Total</b>					<b>\$18,780.00</b>
<b>4.0</b>	<b>Construction Works</b>					
4.1	Pavement Extension	New kerb	225	l/m	\$250.00	\$56,250.00
4.2		New fill depth to widening (200mm depth)	1315	m2	\$23.00	\$30,245.00
4.3		Drainage Channel	210	item	\$250.00	\$52,500.00
4.4		New Asphalt Pavement with surround banding	0	m2	\$300.00	\$0.00
4.5		New Unit Pavement with banding	0	m2	\$300.00	\$0.00
4.6		Pram ramp to pavements	0	item	\$2,500.00	\$0.00
4.7		Allowance for pit lid replacement	0	Allowance	\$5,100.00	\$0.00
4.8	Roadway	Line marking to Parking bays	62.4	l/m	\$35.00	\$2,184.00
4.9		Interlocking road paving to shared zones	1315	m2	\$350.00	\$460,250.00
4.10		New traffic island	0	m2	\$500.00	\$0.00
4.11		New pram ramp to traffic islands	0	item	\$2,100.00	\$0.00
4.12	Raised Thresholds	Unit pavement for pedestrian crossings Threshold	0	m2	\$300.00	\$0.00
4.13		Concrete ramps to thresholds	2	item	\$2,500.00	\$5,000.00
4.14		Allowance for pedn crossing marking	0	item	\$3,000.00	\$0.00
4.15	New Cycleway	Painted Finish to cycleway (1.5m wide)	0	m2	\$80.00	\$0.00
4.16		Raised dividing strip	0	l/m	\$150.00	\$0.00
4.17		Line marking to Cycleway	0	l/m	\$35.00	\$0.00
	<b>Sub Total</b>					<b>\$606,429.00</b>

<b>5.0</b>	<b>Soft Landscape works</b>					
5.1	Greening	New grass (maxi rolls) verge includes soil prep/ mulch	0	m2	\$15.00	\$0.00
5.2		400L Tree Planting in Roadway( 2.4mX3m) including tree grate and 2 x raised segmental kerbs(150(h) x 150(w) x 300(w) includes soil prep/ mulch	0	item	\$6,750.00	\$0.00
5.3		400L Tree Planting in Pavement( 4mx4m) including Structural soil and Drainage	0	item	\$4,500.00	\$0.00
5.4		100L Tree Planting in Pavement( 2.4mX3m) including tree grate includes Structural soil prep/ mulch	0	item	\$3,700.00	\$0.00
5.5		New 400L Tree Planting only includes soil prep/ mulch	0	item	\$1,000.00	\$0.00
5.6		New 100L Tree Planting only includes soil prep/ mulch	0	item	\$500.00	\$0.00
5.7		New Garden Planting 200mm shrubs only includes soil prep/ mulch	0	m2	\$100.00	\$0.00
5.8		Supply + installation of tree grate- Square with Pea gravel mulch (\$1800)	0	item	\$1,800.00	\$0.00
	<b>Sub Total</b>					<b>\$0.00</b>
<b>6.0</b>	<b>Furniture and Signage Works</b>					
6.1		Supply and installation of Signage	0	Allowance	\$3,000.00	\$0.00
6.2		Supply and installation of Removable Bollard	0	No.	\$900.00	\$0.00
6.3		Supply and installation of Bollard	0	No.	\$300.00	\$0.00
6.4		Supply and installation of Bike Rack	0	No.	\$1,200.00	\$0.00
6.5		Supply and installation Seats	0	No.	\$2,300.00	\$0.00
6.6		Supply and installation Tactiles at driveways / pram ramps (estimate)	0	l/m	\$275.00	\$0.00
6.7		Supply and installation New Bus Shelters	0	No.	\$20,000.00	\$0.00
	<b>Sub Total</b>					<b>\$0.00</b>
<b>7.0</b>	<b>Establishment</b>					
7.1		Establishment Maintenance Period for soft works	0	weeks	\$175.00	\$0.00
	<b>Sub Total</b>					<b>\$0.00</b>
		<b>Total (excluding GST)</b>				<b>\$794,014.00</b>

# **APPENDIX D - VALUE CAPTURE AND FUNDING REVIEW**



**Bondi Junction**  
**Complete Streets Project**

**Value Capture Study**

**FINAL REPORT**

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10 Shelley Street  
Sydney NSW 2000

P O Box H67  
Australia Square 1213  
Australia

ABN: 51 194 660 183  
Telephone: +61 2 9335 7000  
Facsimile: +61 2 9335 7001  
DX: 1056 Sydney  
www.kpmg.com.au

**Private and confidential**

Sam George  
Bondi Junction – Complete Streets Project  
Roberts Day  
Level 4, 17 Randle Street  
Surry Hills NSW 2011

11 April 2013

Dear Sam

**Bondi Junction: Complete Streets Project – Value Capture Report**

We have been engaged by Roberts Day to provide commercial advisory services in connection with the Bondi Junction Project, and attach our Value Capture Report in connection with providing these services.

**Scope of work**

Our work has been performed in accordance with the scope of work outlined in our engagement contract dated 15 January 2013. We note that there are a few items within this report that are outside the scope of work summarised in Section 1.1 and we recommend that Council that continues to investigate these aspects further as part of a Business Case analysis..

**Procedures**

Our work commenced on 5 February 2013 and was completed on 11 April 2013. We have not undertaken to update this report for events or circumstances arising after 11 April 2013.

**Information**

In undertaking our work we had access to information that was publicly available or provided by Roberts Day.

We have indicated in this report the sources of the information presented.



10 Shelley Street  
Sydney NSW 2000

P O Box H67  
Australia Square 1213  
Australia

ABN: 51 194 660 183  
Telephone: +61 2 9335 7000  
Facsimile: +61 2 9335 7001  
DX: 1056 Sydney  
www.kpmg.com.au

## **Distribution**

This report has been prepared exclusively for Roberts Day in relation to the Complete Streets Project. This report must not be used for any other purpose or distributed to any other person or party (other than the intended final deliverable to Waverley Council), except as set out in our engagement contract, or as otherwise agreed by us in writing.

Yours faithfully

XXXX

Tony Miller  
Director, KPMG

## Key findings and next steps

The attached report has identified special development levies (Option 3a) and voluntary planning agreements (Option 3b) as potentially suitable value capture methods for the Complete Streets Project (the Project). The analysis indicated that there may also be some merit in separately investigating the use of parking space levies.<sup>1</sup> After an initial assessment, other value capture methods were considered to have negligible<sup>2</sup> or limited<sup>3</sup> applicability.

The following table summarises the characteristics of the two short-listed development levies. More detailed information is contained in Section 2.2.3 (Forms of development levies).

Characteristics	Opt 3a Special development levy	Opt 3b Voluntary planning agreement
1. What legislation is assumed to give the relevant powers:*	<ul style="list-style-type: none"> <li>Section 94A of the Environmental Planning &amp; Assessment Act 1979 allows a levy for infrastructure works, based on a percentage of the development cost (1%). In order to achieve a higher levy (3%-4%), the planning authority would need to establish a nexus between development and the increased demand for public amenities and public services. There is scope for the higher levy (via a Section 94A Contributions Plan) from a ministerial direction under Section 94E of Act</li> </ul>	<ul style="list-style-type: none"> <li>Section 93F of the Environmental Planning and Assessment Act 1979 defines a planning agreement as a voluntary agreement between a planning authority and a developer (who has sought or proposes to make a change to an environmental planning instrument) under which the developer is required to dedicate land free of cost, pay a monetary contribution, or provide any other material public benefit, to be applied towards a public purpose</li> </ul>
2. Required due to:	<ul style="list-style-type: none"> <li>Likely funding shortfall under existing mechanisms – i.e. rates and existing contribution mechanism will not be sufficient to fund the Project</li> </ul>	<ul style="list-style-type: none"> <li>As per bullet 1 of Option 3a</li> <li>The inclusion of these agreements in the above act was part of developer contribution system reform in year 2005</li> </ul>
3. Addresses funding shortfall by:	<ul style="list-style-type: none"> <li>Replacing the existing contribution arrangements with a development levy that is set at a sufficiently high level to raise the required funds</li> </ul>	<ul style="list-style-type: none"> <li>Supplementing the Section 94A contribution with a payment taking into account most of the required infrastructure development costs</li> <li>May not meet the funding shortfall (see following characteristic)</li> </ul>

<sup>1</sup> These include State Government parking levies and local parking fees. However, it is noted that there are issues associated with this method that have meant this value capture option is not considered in as much detail here as the proposed development levies. Refer to Section 2.2.4 for further details on this mechanism.

<sup>2</sup> The value capture methods likely to be of negligible benefit include:

- Using the proceeds of selling Council land to commercial developers in order to fund the proposed works.
- The Commonwealth Government programs which have recently funded new infrastructure in major metropolitan centres
- The uplift in value of Council and Government's Bondi Junction land holdings due to the new facilities
- The additional property taxes collected from the private sector when the new facilities increase property values:
  - Council rents (a form of rate replacement in the subject area), remitted to Council
  - land tax, remitted to the State Government
  - stamp duty, remitted to the State Government
  - capital gains tax (CGT), remitted to the Commonwealth Government.

<sup>3</sup> The value capture methods of limited benefit which deserve high-level consideration include:

- Benefitted area levies on the properties likely to benefit
- Tax increment financing schemes similar to those used in the United States
- Funding from other State Government programs

Characteristics	Opt 3a Special development levy	Opt 3b Voluntary planning agreement
4. Certainty associated with meeting shortfall:	<ul style="list-style-type: none"> <li>• <i>Moderate to high</i> – the amount of the levy is specifically designed to meet the costs of the Project (note: influenced by development timing)</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Low to moderate</i> – Certainty is reduced because the payment is negotiated on each development and these have different infrastructure needs.</li> <li>• It is recommended that Council undertake a detailed study that can assist with achieving the best possible voluntary planning agreement outcome on each development</li> </ul>
5. Benefit of having funding certainty	<ul style="list-style-type: none"> <li>• This option in particular allows Council to procure the Project more efficiently (eg. timing / staging of works or providing a regular cashflow stream to repay debt)</li> </ul>	<ul style="list-style-type: none"> <li>• Project may not be procured as efficiently as Option 3a – i.e. more staging required or Council needs to draw on other funding sources not specifically tied to the Bondi Junction town centre and this project (and these sources cannot be dedicated to this project with high levels of certainty)</li> </ul>
6. Use in other jurisdictions:	<ul style="list-style-type: none"> <li>• Limited to just a few other major centres (eg. Chatswood, Burwood)</li> <li>• Is also used in some outer metropolitan areas (eg. Bankstown)</li> <li>• These arrangements were originally negotiated five or more years ago but these jurisdictions appear to have been able to maintain the level of the levy under recent revisions</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively widely used (inc. Bondi Junction)</li> <li>• Used more regularly in growth areas</li> <li>• The outcomes from these negotiations have varied in different jurisdictions and by type of project</li> <li>• The NSW Government is currently reviewing the use of these mechanisms in the White Paper</li> </ul>
7. Justification of the method in other jurisdictions:	<ul style="list-style-type: none"> <li>• Existing infrastructure was not considered adequate to accommodate the dwelling growth in the previous government’s Metropolitan Plan – i.e. significant investment in a new road, rail underpasses, civic facilities and utilities upgrades</li> </ul>	<ul style="list-style-type: none"> <li>• There is an identified need for new infrastructure to accommodate proposed developments</li> <li>• The infrastructure requirements may not otherwise be met by Section 94A levies</li> </ul>
8. Applicability of this justification to Bondi Junction	<ul style="list-style-type: none"> <li>• Unknown – Council would need to study this (see below)</li> <li>• Bondi Junction may not have the same level of infrastructure constraints</li> <li>• Bondi Junction does not have the same planning development targets as the above regions</li> <li>• There appears to be a slight change in the State Governments focus with development targets – away from Major Centres and towards the new concept of Urban Activation Precincts</li> </ul>	<ul style="list-style-type: none"> <li>• Yes, the type of proposed infrastructure works appear consistent with the intent of voluntary payment mechanisms</li> <li>• It is difficult to ascertain ahead of time what level of levy would be applicable to each future development in Bondi Junction</li> <li>• It is recommended that Council undertake a detailed study to better understand the likely levies and potential funding gap</li> </ul>

Characteristics	Opt 3a Special development levy	Opt 3b Voluntary planning agreement
9. Approval required by:	<ul style="list-style-type: none"> <li>Department of Planning and Infrastructure (including a ministerial direction)</li> <li>There is no defined process or mechanism by which to gain the approval of the Department of Planning and Infrastructure</li> <li>Likely to require legal advice to confirm there are no other issues (or an IPART determination)</li> </ul>	<ul style="list-style-type: none"> <li>Department of Planning and Infrastructure under existing mechanisms</li> </ul>
10. Likely reaction of development community:	<ul style="list-style-type: none"> <li>Unfavourable</li> <li>Concerted lobbying effort occurred when special levy was initially proposed for Burwood</li> <li>Uncertainty about development viability under higher levies (requires a market study)</li> </ul>	<ul style="list-style-type: none"> <li>Recent precedent in Bondi Junction means that the general principle of this agreement is accepted and understood by the development community</li> <li>Industry may become concerned about the variability of levy on different developments</li> </ul>
Overall ranking / suitability	<ul style="list-style-type: none"> <li><b>Moderate / High</b></li> <li>Expected to raise sufficient funds</li> <li>Requires a ministerial approval</li> </ul>	<ul style="list-style-type: none"> <li><b>Moderate / High</b></li> <li>May not raise sufficient funds in such a short timeframe</li> <li>More certain approval pathway</li> </ul>

**Table A-1 Characteristics of preferred value capture options**

*Note: \* It is assumed that this legislation is available and will apply in the stated way. This needs to be considered further by your legal advisor in light of recent and proposed changes to planning policy (eg. the upcoming White Paper).*

The key points emerging from the above table are that:

- The *special levy* (Option 3a) provides the greatest scope for raising all of the funds required for the Complete Streets Project but there is uncertainty surrounding the administrative process for gaining approval from the State Government.
- By contrast, *voluntary planning agreements* (Option 3b) are a better defined administrative process but there is less funding certainty – i.e. the levies differ for each development and in the absence of sufficient funds Council need to access revenue sources that are not directly tied to the Project or the region.

The uncertainties associated with both short-listed methods can be reduced via the following steps.

## **Next steps – detailed studies**

### ***Option 3a) Special development levy***

- *Identify and analyse the funding gap –*

This would draw on a range of information to highlight to the Department of Planning and Infrastructure that a significant levy is required (under both Options 3a and 3b).

The type of information contained within a funding gap analysis typically includes:

- A medium-term forecast of Council's operating and capital costs (including a detailed work schedule for the Complete Streets Project)
- A medium-term forecast of Council revenues (excluding development levies)
- A description of how the above revenues could be used as funding sources for the Project (and the risk that these cannot be tied to funding works in Bondi Junction)
- Soundly based forecasts of the number of new developments in the precinct. This should be undertaken in conjunction with the analysis of the local property market
- An estimate of development levies collected from new developments under three types of existing levy arrangements – i.e. Section 94A levy, voluntary planning agreement (worst case) and voluntary planning agreement (best case). This estimate would include both a base analysis and a sensitivity analysis. It would also identify the area subject to different types of levies (based on the need for infrastructure)
- Develop a 5-year budget to estimate the cashflow shortfall (or surplus)
- Determine the level of additional special levies (Option 3a) required to meet the above funding gap.

- *Analyse the local property market –*

There is a need to independently assess the likely development profile for the precinct. The central consideration here is that residential and / or commercial development is currently viable within Bondi Junction and that this is not forecast to change.

The study would test this proposition in a range of ways:

- Interviewing development officers to better understand the level of planning activity
- Examining property ownership databases to confirm trend towards local sites being purchased by active property developers
- A market sounding process involving developers and major land owners
- Examining whether issues in other major metropolitan centres could impact on Bondi Junction development patterns
- A hypothetical development analysis of both a residential project and a commercial project to confirm that a new development in this area is feasible. This would entail a review of potential property proceeds, construction costs, development costs and profit margins (refer Section 2.1). This would follow a similar approach to that used by a developer.

If this analysis indicated that property development in Bondi Junction is a marginal proposition at the moment, there may be a need to revisit the proposed development profile. In this situation, the development profile may also differ between revenue cases based on a Section 94A levy and voluntary planning agreements (under best and worst cases).

If the current viability of development projects is strong, the study should consider whether a significant special levy (under Option 3a) would change the development profile and impact on the ability to raise the required levels of funds with certainty.

- *The legislative and administrative hurdles –*

This aspect of the study would examine the legislation and guidelines relating to these options. In some areas this may be tightly defined while in others, the processes may need to be interpreted from precedent projects or broader planning policies. In this case, Council will require specialist legal advice.

- *Analysis of the broader planning issues –*

This analysis focuses on whether the Complete Streets Project or the proposed residential / commercial developments are strongly aligned to either the State Plan and / or the new Metropolitan Strategy. Undertaking research which identifies an alignment (dwelling and employment growth) will assist in putting forward a case for a special development levy.

This analysis should draw heavily on any potential similarities between this major centre and others with a special levy (eg. Burwood has a levy of 4% in the town centre which was intended to raise \$185 million for infrastructure works related to roads, rail bridges and utilities in the town centre).

- *Develop a communications strategy –*

This is required to identify the likely concerns of parties that are directly and indirectly impacted by the special levies. It would examine a range of methods that could be used by industry to lobby against a higher level of infrastructure contribution for new developments. From this, management and mitigation strategies can be developed by Council. For example, this may involve demonstrating that the levy is only collected from Bondi Junction developments and that the funds match the costs of the Complete Streets Project.

- *Approach the relevant State Government Agencies –*

The above information would be summarised into both a report and a presentation which forms the Council's case for the special levy. As part of the presentation, a negotiation strategy also needs to be developed prior to meeting with the State. This would stipulate what the goal of the special levy might be – eg. 4% of development costs. It would also seek to address the criteria against which the State Government is likely to apply (e.g. against the IPART assessment criteria).

### ***Option 3b) Voluntary Planning Agreements***

Council officers have developed a draft strategy for implementing these agreements. The key elements of this strategy are outlined below:

- Voluntary planning agreements will only apply to a specified area.
- Voluntary planning agreements will be targeted to fund a specific schedule of works (eg. Complete Streets and Bondi POM).
- Will include an independent valuers report containing a detailed breakdown of voluntary planning agreement components as part of each submission.

- The value of the contribution toward public benefit (recommendation of 50% in addition to the Section 94A contribution) will be based on a nominated percentage of the value of additional floorspace / height.
- Will put in place processes for maintaining probity (eg. independent planning consultant).
- Will include a set variation to maximum gross floor space in a DA if the voluntary payment agreement is acceptable. The intent is to get this mechanism included in a future LEP as an enabling provision.
- The voluntary planning agreement will be negotiated and documented before the lodgement of a DA to ensure a practical outcome for public notification.

It is expected that Council officers will refine this strategy if the Complete Streets Project proceeds. A detailed voluntary planning agreement strategy would take into elements of each of the steps / studies outlined above for the final special levy strategy (Option 3a). However, these steps would not need to be undertaken in as much detail for the voluntary planning agreements in order to be consistent with the Practice Notes template provided by Department of Planning and Infrastructure, July 2005).

It is also recommended that Council examine whether there is an opportunity to develop a voluntary planning mechanism that:

- could apply to a broad precinct (rather than to each individual development)
- does not draw the infrastructure charge from the developer seeking higher densities.

These mechanisms could allow Council to draw revenue with greater certainty and with less reliance on a development market seeking higher densities. Using another mechanism may also have the benefit of allowing Council to request a density bonus from the State for good transit oriented development sites (these are goals in the State Plan). However in our experience, there are limited examples of Councils having these favourable voluntary payment agreements.

It should be noted that the above steps and processes are provided as a general guide. As indicated in Section 1.1 (Scope of engagement), Council are expected, on the basis of this preliminary work, to undertake a separate Business Case which as part of further option analysis would provide a comprehensive and robust analysis of the most suitable next steps.

Through the detailed processes summarised above and described in other sections of this report, these options can be agreed with key stakeholders and decision makers. The relevant policies can then be developed and the funds required for Complete Streets can be obtained.

# 1 Background and objectives

## 1.1 Scope of engagement

KPMG has been commissioned by Roberts Day to undertake an initial short-listing of the wide range of value capture options used by different levels of government for civic and transport improvements.

The scope of our proposal dated 15 January 2013 limited our work to a high-level analysis of the following:

- *new income streams;*
- *increased tax receipts as surrounding property values rise due to the Project;*
- *more effectively utilising existing government funding streams related to civic and infrastructure improvements; and*
- *commercial opportunities.*

### **Key deliverables:**

*Identify and describe the funding options and alternative sources of revenue available to the Project.*

*Suggest the preferred funding options for further investigation in subsequent stages of analysis which provide a more detailed description of how the Project is expected to work and viability (eg. business case).*

## 1.2 Objectives

The improvement of a major metropolitan centre can provide an opportunity to ‘capture value’ that can be put towards funding the cost of the works. As a result, it is increasingly important to examine how various parties will benefit from the Project and how these parties should contribute to meeting the costs of the Project. This document considers these issues after describing some of the general principles of value capture.

## 1.3 General principles of value capture

There have been numerous international and local studies<sup>4</sup> which have demonstrated that amenity and accessibility can improve real estate values and achieve broader government planning objectives.

The beneficiaries of investments in the facilities which bring about this improvement include:

- land owners – due to the increase in underlying land values

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<sup>4</sup> Bernick, M., et. al., (1991) A Study of Housing Built near Rail Transit Stations: Northern California, Institute of Urban and Regional Development, UC Berkeley.  
Blayne Associates (1978) The Study of Property Prices and Rents: BART Impact Study, Berkeley Metropolitan Transportation Commission.  
Curtis, C., Renne, J.L. and Bertolini, L. (2009) Transit Oriented Development: Making it Happen, Ashgate Publishing Company: England.  
Giuliano, G., ‘Land-use Impacts of Transportation Investments: Highway and Transit’ in Hanson (Ed.), The Geography of Urban Transportation 247.

- property developers – due to the potential increase in developed real estate values and the potential for increased rates of turnover
- business owners – due to improved accessibility for their customers and employees
- government – due to improvements in property based revenue streams that are collected by the different levels of government that are directly / indirectly linked to increased land values. Developing property around major centres also involves lower infrastructure costs than other locations.

Value capture is the process whereby some or all increments in property value attributable to public sector actions (i.e. not attributable to actions of landowners) are recouped by the public sector for public purposes. In essence, value capture provides a means to monetise a project’s wider economic benefits as cash returns that may either be captured and contributed, or valued and attributed towards, project cost.

The concept behind value capture is shown in Figure 1-1 below.



**Figure 1-1 Conceptual diagram of value capture**

Value capture opportunities can be classified as:

- **Active value capture:** value capture opportunities where government must actively implement a value capture strategy. This includes gains from property development opportunities on government land or from the introduction of new taxes and levies on beneficiaries of the Project.
- **Passive value capture:** value captured by government from either an increase in value of government owned property or from an increase in existing taxes and levies<sup>5</sup> resulting from increases in the value of non-government property. The funding obtained from other government programs (intended to improve public transport usage or reduce high-cost developments on the urban fringe) are also considered a form of passive value capture.

The following table summarises how each of the active and passive value capture opportunities related to the Project can be captured.

<sup>5</sup> This may include seeking to implement the potentially available arrangements for taxes and levies. Unlike active value capture these arrangements do not require major changes in law to raise funds that can be directed towards the Project.

Value Created	How Captured	How Assessed	Financial Return
<b>Active Value Capture</b>			
Development of government land in the precinct (refer Section 2.1)	Sale of development rights Joint venture with third party	Land value uplift from creating and realising property development opportunities (eg. sale of Council owned sites)	Uplift in land value Development returns Provides opportunity to offset costs of public realm works
Increased value of non-government property (Section 2.2)	Introduction of new taxes and levies (eg. benefitted area levies)	Valuation of potential for new taxes from beneficiaries of the public realm works	Increase in earnings from new tax regimes
<b>Passive Value Capture</b>			
Increased value of government property (Section 3.1)	Growth in value of land and property	Valuation of land/property with and without the Project	Uplift in land value
Increased value of non-government property (Section 3.2)	Growth in existing ad valorem taxes with no or minor changes to existing arrangements (eg. voluntary planning agreements and special development levies)	Valuation of direct / indirect uplift in existing property revenue base associated with value uplift from the Project	Increase in earnings from currently available tax regimes for other levels of government (with no / minor modifications)
Other government programs which fund initiatives to accommodate additional dwellings in major metropolitan centres (Section 3.3)	Ability to develop dwellings in locations identified in the State Plan. These locations involve lower infrastructure costs than the urban fringe	Value of direct contribution from other projects or comparison of the unit-costs of developing infrastructure for additional dwellings at this location and on the urban fringe	Savings in the costs for government of new infrastructure

**Table 1-1 Summary of active and passive value capture mechanisms**

## 2 Active value capture

As noted in the previous section, Council (and government more broadly) must actively develop and implement the value capture strategies identified here in order to realise a revenue stream that can be put towards funding the Project. These strategies include gains from property development on government land or from the introduction of new taxes and levies on beneficiaries of the Project.

### 2.1 Development of government land

#### *Description*

Under this method, Council actively engage in the following property-related activities:

- the sale of development rights or joint venture development of government owned real estate in conjunction with Project delivery. Increased value attributed to the Project may be derived from the improved amenity from the investment in infrastructure, improved highest and best use of the site based on aggregation of disparate land holdings and/or changed planning regimes (e.g. increased density); and
- new or increased property income streams (e.g. new carparking revenue opportunities).

#### *Suitability / applicability*

As noted in the scope section of this report, there are currently no plans for Council property-related development. As a result, this form of value capture will not apply to the funding of the Project. In this case, the Project is confined to land which will continue to function as community uses (i.e. streets and footpaths). There are no plans to develop Council land that has a potential value for both commercial and community uses. This potential for commercial use is a key characteristic of projects which incorporate this form of value capture (as noted in Table 2-1).

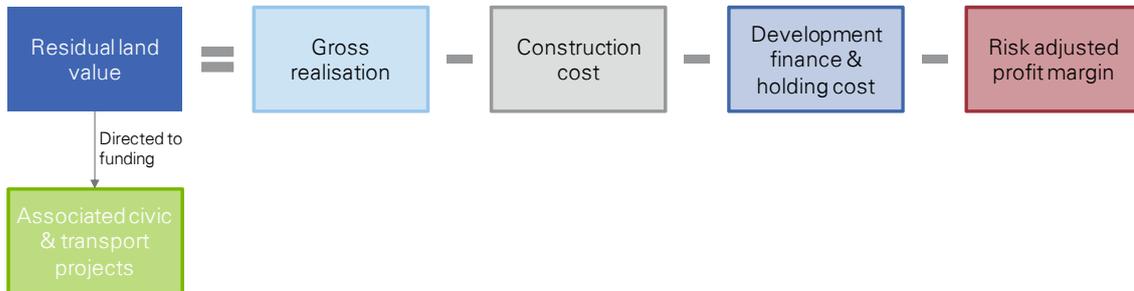
Features of successful projects which involved the development of government land	Expected applicability to this Project
The scope of works include land that can (at least partially) be put to commercial uses	Nil – These types of opportunities have been excluded from the Project scope
<b>OVERALL ASSESSMENT</b>	<b>LOW POTENTIAL</b>

**Table 2-1 Features of successful government development projects and applicability to this Project**

During the course of this study, Council indicated that they owned sites that could be consolidated and sold as a development opportunity. This development opportunity is considered a long-term project that is not directly related to the infrastructure works proposed here. As a result, combining these two separate projects was not considered a suitable option at this time. However, there is a reasonably strong case for combining the two projects from a project funding perspective.<sup>6</sup> This type of Council development could fund the full Project in the short-term via a relatively conventional value capture mechanism.

<sup>6</sup> Provided that a separate property feasibility analysis indicated that a commercial development was feasible and a significant payment could be made for the residual land value.

Figure 2-1 provides a high-level summary of how this benefit could be calculated and the proceeds put towards funding a project of this kind.



## 2.2 Increased value of non-government property

The development of an urban amenity project can create a number of opportunities for the potential implementation of a number of new taxes or levies.

The active value capture opportunities that are considered in this analysis comprise:

- benefitted area levies
- tax increment financing
- voluntary planning agreements (including developer contributions and density bonuses)
- parking levies

This section examines each form of value capture and its suitability here. We note that there are legal and policy issues associated with each method and suggest that these are examined if the Project and the proposed value capture method is progressed.

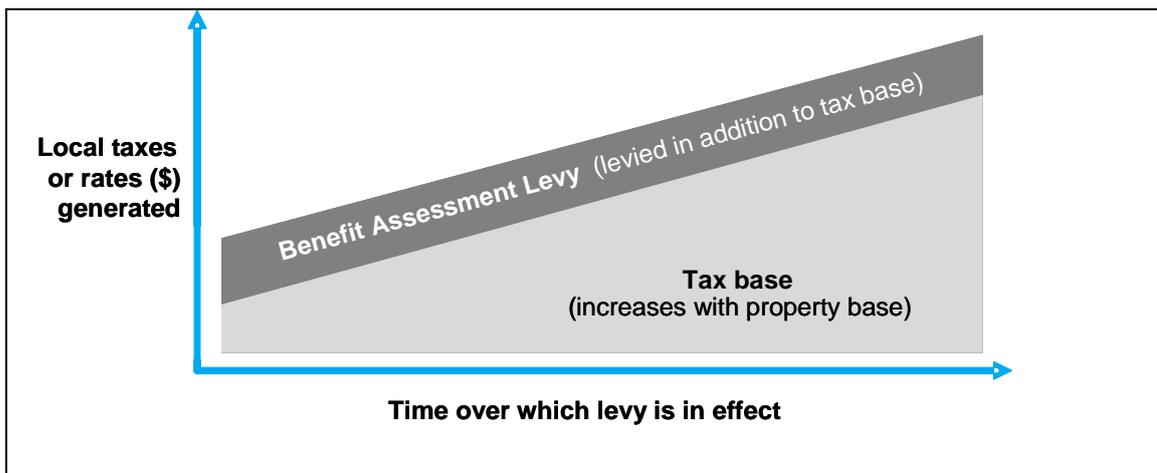
### 2.2.1 Benefitted area levy

#### *Description*

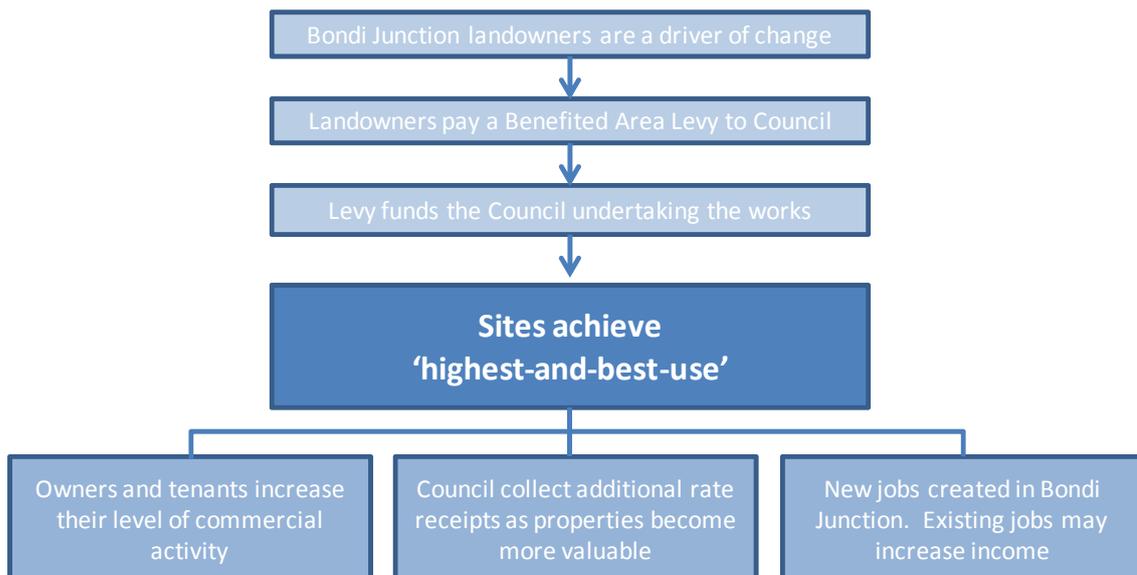
Benefitted area levies (also known as special assessment districts, betterment levies or value capture levies) aim to recover some of the increases in property values which result from the construction of adjacent infrastructure. The levies are applied to properties that are considered likely to benefit from the introduction of the new infrastructure. Benefits can be levied against the value created from the improved amenity / accessibility or from the value created from combining improved amenity with value increments from favourable re-zoning in a location surrounding improved public facilities.

Benefitted area levies generally constitute an additional tax on landowners in the benefitted area and are levied as either a one-off or an additional recurrent charge. The levies are usually calculated on the unimproved value of the land (in order to avoid the disincentive for landowners improving their property). In many cases, owner-occupied residential properties are exempt from the imposition of the levy (depending on the scale of the levy). The funds collected through the implementation of the levy are generally applied against the cost of constructing the infrastructure.

Figures 2-2 and 2-3 illustrate the concepts noted above. They indicate that property owners in the impacted area will pay a higher government taxes on their property due to additional commercial activity from achieving a ‘highest-and-best-use.’ In this example, there is an additional impost each year. The additional taxes collected are then put towards meeting the upfront cost of the Project or repaying a loan that was used to fund the upfront Project costs (refer to Tax Increment Financing: Section 1.3.2.2). Figure 2-3 also indicates the broader community benefits to Council and local employees when a precinct achieves it’s ‘highest-and-best-use.’



**Figure 2-2** Graphic example of the impact of a recurrent benefit assessment levy on Council



**Figure 2-3** Illustration of the causes and advantages of this type of levy



*Suitability*

Table 2-2 summarises the key features of successfully implemented benefitted area levies and their potential applicability here.

Features of successful levy programs	Expected applicability to this Project
Support from impacted property owners	<b>Moderate</b> – Past investment proposals for this precinct have not received strong support from landowners because some have not recognised the potential for increased property values. The scope for an additional recurrent levy may also be impacted by a recent and significant increase in the average rates.
Clear nexus between the benefit received by property owners and the levy imposed on them	<b>Moderate</b> – Amenity and accessibility of the precinct will occur through the following parts of this Project: <ul style="list-style-type: none"> <li>• Two new entries to the precinct which will be attractive to tourists, shoppers and new residents</li> <li>• The creation of a second ‘main street’</li> <li>• The proposed new entries to the transport interchange from the Oxford Street Mall</li> <li>• New activities in urban spaces (eg. outdoor cinema)</li> <li>• 6,000m<sup>2</sup> of reclaimed public space from public roads</li> <li>• Almost 3km of new bike lanes</li> </ul> The Project may also provide an impetus for commercial redevelopment on surrounding land which is more conducive to an attractive street-scape. However, size of the benefit to property owners is impacted by the ownership arrangements (long-term leases). As a result, not all property owners derive a benefit from increased property value
Clearly defined boundaries of operation based on property owners with a demonstrated benefit	<b>Moderate</b> – The proposed works are focused around the centre of Bondi Junction so there are a large number of businesses / properties which are positively impacted. However, the changes to private vehicle access impact on how the residents of the eastern suburbs (and Sydney more broadly) access this regional centre
Straightforward calculation of levy amounts	<b>Moderate</b> – The value of property uplift is expected to be relatively small which impacts on calculating and applying the levy. There is a relatively manageable number of owners that the proposed levy could be negotiated with
Efficiency of application and collection	<b>Low</b> – The various types of sites and landowners in Bondi Junction make it difficult to implement an efficient and equitable levy system. For some properties, redevelopment (which takes advantage of improved public infrastructure) is not feasible in the medium term. These landowners may question the legality of this form of levy collection
<b>OVERALL ASSESSMENT</b>	<b>MODERATE POTENTIAL</b>

**Table 2-2 Features of successful benefited area levy programs and applicability to this Project**

Table 2-2 indicates that this funding option:

- *has the characteristics associated with successful benefitted area levy programs* – i.e. it can potentially gain the support of impacted landowners; there is a clear nexus between the benefit and the levy; there are clearly defined boundaries of operation; and, levy calculation can be straightforward.
- *must address the barriers / issues associated with implementing a significant levy* – i.e. the levy must be related to the investment in new facilities and the expected benefit to the landowner (increase in property value). The motivation of landowners to support an investment which enhances land values also needs to be considered because they have different capacities to develop their sites.
- *may pose policy and development risks on Council if the levy is significant* – i.e. this funding option has been the focus of criticism relating to the cost and feasibility of development and the impact of affordability on housing and commercial rents. A significant levy could impact on how developers progress their project (i.e. delay works or challenging the legality of a differential general rates structure).

After considering the above issues and risks, it was concluded that a relatively small benefit area levy should be considered as a one of the funding mechanisms on this project. A levy which is set at a third or half of the total Project costs would provide a funding stream that may avoid some of the problems associated with a larger levy that may impact on the feasibility of proposed developments. However, Council would need to further examine the costs / legality of using a differential general rates structure to raise funding of between \$2 and \$3 million per annum.

## 2.2.2 Tax increment financing (TIF)

### *Description*

A TIF is a form of borrowing to fund the upfront costs of public infrastructure projects. Because it is only a financing mechanism, this method needs to work in combination with other active value capture methods like benefitted area levies and parking arrangements.

TIF is a form of debt financing that utilises future rates to repay debt issued to finance public infrastructure. TIFs work by recognising and securitising the existing rate base. This can be used to raise finance which pays for the construction of the Project. The debt would be repaid over time by the securitised incremental tax cashflow from the existing rates.<sup>7</sup>

### *Suitability*

Table 2-3 summarises the key features of this form of value capture.

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<sup>7</sup> The loans would likely need to be guaranteed by council / government which would require further analysis to assess the impact on the government balance sheet.

Features of successful TIF programs	Expected applicability to this Project
Projects which provide a direct benefit to most of the residents and / or businesses in the local council area	<b>Moderate</b> – The benefits of the Project are relatively localised and those residents that are not impacted by the Project will be concerned about the future rate-base being committed to repaying the debt for this Project
Include multiple sources of revenue and fund more than one project	<b>Low</b> – The analysis contained in this section indicates that benefitted area levies is an unlikely source of funding for this Project. On other projects of this type, it is difficult to develop an efficient TIF structure without other revenue streams (eg. benefitted area levies and parking levies).
Efficiency of application and collection	<b>Moderate</b> – This revenue is currently collected by Council so there is no new impost on rate payers. It merely brings forward the availability of these cashflows to provide the required infrastructure at an earlier date than would otherwise be possible
<b>OVERALL ASSESSMENT</b>	<b>MODERATE POTENTIAL</b>

**Table 2-3 Features of successful TIF programs and applicability to this Project**

The table indicates that TIF is a funding / value capture mechanism worthy of further consideration. The key advantage of this mechanism is that the funding stream (the existing rate base or parking receipts) already exists. This mechanism has met with considerable success in the United States but has not been used in Australia. Projects involving a TIF arrangement in North America include public realm and transport infrastructure for the Bay Area Rapid Transit and the Washington Metro.

### 2.2.3 Different forms of development levies

There are two levy options which can raise a significant proportion of the funds required to undertake the Complete Streets Project.

These include:

- Option a) Special development levy
- Option b) Voluntary planning agreement

The remainder of this section examines each option in accordance with the assessment protocol used throughout this report.

#### 2.2.3.1 Option a) Special development levy

##### *Description*

In this report, we have used the term “special development levy” or “special levy” to describe a method of achieving a relatively high contribution from private sector developers for the costs of improved public infrastructure.

In order to achieve a higher levy, the planning authority would need to establish a nexus between development and the increased demand for public amenities and public services. There is scope for a higher levy (via a Section 94A Contributions Plan) if the Project receives a ministerial direction under Section 94E of the Environmental Planning and Assessment Act. This planning tool is different to the Special Infrastructure Contribution which is more applicable to greenfield developments and projects of higher capital cost (refer Part 4, Division 6 of the above Act).

With only a few exceptions, the levy will be the same for all new developments within the precinct. This provides a high level of revenue certainty for the Council and can potentially allow them to invest in new infrastructure prior to development. Although the high levy provides funding certainty, this form of levy is not received early in the development process (either at the release of the Construction Certificate or the issue of the Complying Development Certificate).

#### *Suitability*

Table 2-4 summarises the key features of this form of value capture.

Features of this value capture model	Expected applicability to this Project
Efficiency of application and collection	<b>High</b> – Special development levies are not widely used but they have been applied in some major centres.  We are aware of major centres that have successfully met their infrastructure funding targets (over \$100 million) through special levies. The levy does not appear to have reduced project viability and slowed development despite warnings from industry lobby groups.
Well located site that is not developed to its highest and best use	<b>High</b> – As one of Sydney’s major metropolitan centres, there is a high-level of demand for both commercial and residential development opportunities in this location.  This Project indirectly assists with a number of these proposed developments (residential towers on Westfield site or improved carpark access to some proposed development sites). The improved level of amenity in Bondi Junction may also stimulate further development.
The contributions to public infrastructure are received prior to the public infrastructure works occurring	<b>Moderate</b> – The experience on other major projects has been that this level of levy (at Burwood and Chatswood this has been 4% and 3% of development costs respectively) can assist in raising funding quickly and with high levels of certainty. Funding certainty allows the Council to optimally stage the Project or use a stable and directly aligned funding source to repay a loan used to fund upfront works.
It is limited to locations with unique planning and infrastructure constraints	<b>Not assessed</b> – There is a need to examine the base data from various Council and government studies around Bondi Junction (including Complete Streets and the Transport Access Program) to precisely ascertain the transport problems at this location. This needs to then be compared with other major centres that have been granted the special levy to resolve transport (and other) problems. For instance, under the 2008 Metropolitan Plan Burwood was increasing the number of residents in the urban centre by 21,000 (Bondi Junction was forecast to grow by 1,300 people) and had limited north-south road vehicle access to service that additional demand.
The approval process is potentially more complex than when other projects received approval	<b>Low</b> – Although a ministerial direction (under Section 94E of the Act) was required for both Burwood and Chatswood, the approval process is potentially more complex now. For example, the IPART assessment criteria might be used to examine the Project and / or the White Paper may restrict the processes available.
<b>OVERALL ASSESSMENT</b>	<b>MODERATE / HIGH POTENTIAL</b>

**Table 2-4 Features of special development levies and applicability to this Project**

Special development levies have been successfully used to fund transport and civic infrastructure works in Sydney’s major centres. As a proportion of total development costs, the

levy anecdotally appears to be higher than other forms of development levies (between 3% and 4%). However, there may be issues with Waverley Council being able to access this funding source for the works at Bondi Junction. The majority of special levies were approved under previous planning regimes and related to major centres with complex and unique transport infrastructure problems. Waverley Council would need to invest in a significant commercial and legal analysis of these issues to ascertain whether this type of levy would be applicable and feasible.

### *2.2.3.2 Option b) Voluntary planning agreements*

#### *Description*

A voluntary payment agreement is a charge assessed on a new development which is used as a means of defraying the cost of expanding public infrastructure such as that proposed by this Project. The imposition of contributions on a project as a condition of development approvals for the development of land surrounding the delivered infrastructure is a form of value capture.

Voluntary payment agreements can occur in the form of either financial or in-kind contributions. In brownfield areas they can typically take a form very similar to density bonuses on an individual sites (value capture in return for planning related outcomes).<sup>8</sup> On larger greenfield developments there are a range of other factors that the consent authority may require or be willing to trade-off (eg. land for schools, utilities, drainage, water and sewerage and road infrastructure). The costs and benefits of these decisions are a key factor in maximising the development potential of these sites rather than meeting some general funding goal of obtaining 3% of development costs to put to infrastructure. As a result, the “Essential Works” are listed and become an important part of each of these voluntary planning agreements and the project economics more generally.

One of the key issues facing Waverley Council is that they do not start to receive these contributions until the Project is clearly delineated (the land titles office has registered the land). However, as a negotiated form of contribution it is possible to negotiate arrangements to receive payment earlier but this be outside the control of Waverly Council (the Department of Planning and Infrastructure generally take a lead role in major voluntary planning agreement negotiations and then passes through the receipts to Council). As a result, this mechanism may not be able to raise funding for the proposed infrastructure works until the new developments are underway. This means that the Project would need to be delayed or staged to occur at the same time as development contributions are received.

#### *Suitability*

Table 2-5 summarises the key features of this form of value capture.

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<sup>8</sup> Density bonuses relate to the granting of development rights over and above those which the land currently enjoys. In exchange for the granting of density bonuses, concessions are obtained from the developer. The concessions can be in the form of the creation of public open space by the developer as part of the development or alternatively as a payment, or provision of infrastructure, to offset the cost of delivery of the infrastructure project. Density bonuses vary from project to project. Usually, the additional bonus will not exceed a particular threshold (for instance, 20% of normal density). Density bonuses are considered to be an incentive based approach. Many density bonus schemes permit a greater number of dwellings in an area of development.

Features of this value capture model	Expected applicability to this Project
Efficiency of application	<p><b>Moderate to High</b> – Voluntary planning agreements are widely used in NSW with many local government jurisdictions working with the Department of Planning and Infrastructure to levy contributions for urban infrastructure related to the development of land.</p> <p>It has been noted by the Department of Planning and Infrastructure (refer Circular, June 2005) that these types of agreements are most useful for locations that are very different to Bondi Junction (“large scale developments where the developer has a key interest in delivering public infrastructure”). This includes both new developments on the urban fringe and large inner-city redevelopment projects (such as the Central Park site at Broadway). This may represent an issue in achieving the negotiated outcome that Waverley Council is seeking. However, this method has been the focus of criticism relating to the cost and feasibility of development and the subjectivity of the negotiation process at each site.</p>
Efficiency of collection	<p><b>Moderate</b> – These mechanisms do not provide the same level of funding certainty as other options – i.e. what the rate or amount collected will be. In terms of the proposed infrastructure works, there appears to be some variation in items characterised as “Essential Works” and the level of allowance for project management and contingency. The case for additional infrastructure (i.e. community demand) can also be based on different statistical information. There is also a risk that some mechanisms may not collect significant funds because of how they are structured (eg. a system that works like a density bonus scheme may not be as effective as the trade-offs that Councils in urban fringe areas can make).</p> <p>Due to this uncertainty, we recommend that Council take forward a best case (high case) and worst case (low case) in undertaking their detailed financial assessments. The best case scenario may be more achievable when the detailed and robust analysis identified in Section 4 is undertaken (this is recommended).</p>
Well located site that is not developed to its highest and best use	<p><b>High</b> – As noted above, there is a high-level of demand for major developments in Bondi Junction. The project is also conducive to the successful development of these projects through creating additional amenity in Bondi Junction.</p>
The voluntary planning agreement contributions to public infrastructure are received prior to the public infrastructure works occurring	<p><b>Low</b> – The timing of proposed redevelopments in the centre of Bondi Junction is impacted by issues in the broader financial and real estate markets. The Council is potentially investing in these works ahead of receiving these funds. This approach also means that the Council will need to procure the works rather than having the</p>

	developer undertake these works as payment-in-kind.
This mechanism can work well with density bonuses (i.e. incentive based approaches)	<b>High</b> – Although there are restrictions on these mechanisms, there are special circumstances which could allow the Project to achieve higher densities. For example, as one of the busiest rail and bus terminals in Sydney, Bondi Junction is an ideal place for transit oriented developments (particularly in the location directly north-west of the Interchange). Because these projects offer significant planning benefits it is expected that the Department of Planning and Infrastructure may relax some of the existing restrictions around density and use (if the voluntary planning agreement had not already done so)
<b>OVERALL ASSESSMENT</b>	<b>MODERATE TO HIGH POTENTIAL</b>

**Table 2-5 Features of voluntary planning agreements and applicability to this Project**

Voluntary planning agreements are an existing and widely used mechanism which would be relevant to funding this Project. In the case of high demand inner-city redevelopment sites, the levy imposed can be over and above the Council’s normal regime for infrastructure charges (i.e. a standard Section 94A levy). The issued faced by Waverley Council is that it may not be enough to reliably fund the Project (particularly if model similar to density bonuses is used). In addition, the levy that the Department of Planning and Infrastructure pass through to Council is obtained after the development has been clearly delineated and is underway.

## 2.2.4 Parking levies and arrangements

### *Description*

Parking levies typically involve an annual fee on the owners of carparks within a designated area. Parking levies have been introduced in NSW, Victoria and Western Australia as a mechanism to:

- discourage private car use in major commercial centres
- encourage the use of public transport
- improve air quality.

These goals are consistent with the type of works being delivered by the Project.

In New South Wales the Parking Space Levy (PSL) was introduced under the *Parking Space Levy Act 2009* (NSW). The funds raised through the PSL (approximately \$100m p.a.) are collected by the New South Wales Office of State Revenue and applied towards projects which encourage the use of public transport. Bondi Junction is one of the major centres from which this revenue is collected.

This approach can also be applied to metered car-spaces within the relevant precinct / region. There is a strong demand for on-street and off-street parking within the area controlled by Council which provides an opportunity for funding this transport focused initiative.

The potential to use either or both the PSL and Council’s parking assets to fund this Project are considered further in the following section.

*Suitability*

Table 2-6 shows the features of parking levy programs and the potential applicability for this Project.

Features of parking space arrangements	Expected applicability to this Project
Efficiency of application and collection	<b>High</b> – The State Government already collects these funds from the Bondi Junction area. This Project aligns very strongly with the objectives of the PSL fund <sup>9</sup> and this could be identified as the means by which the State could contribute to this Project.  Council has high quality parking assets which can assist in raising funding that can be directed toward the Project.
Consistent with broader government objectives in relation to parking in the town centre and the use of public transport	<b>High</b> – The problems with the vehicle congestion in Bondi Junction are also recognised by the State Government. This is currently reflected in infrastructure initiatives to alleviate the problems (eg. TfNSW proposals for major infrastructure works and discouraging ‘park and ride’ travel at metropolitan centres).  These initiatives have been successful in other jurisdictions. For example, the Melbourne CBD congestion levy has led to a 6% drop in average weekday traffic volumes.
Successful parking space arrangements have low costs to implement, offer high financial value and have low impacts on business	<b>Moderate</b> – Bondi Junction is expected to have these characteristics. It is noted that business and ratepayers are likely to be concerned about fees increasing further (to a level that is high relative to other jurisdictions).  Further consideration is recommended on why other inner city councils have considered and rejected this approach to funding infrastructure works.
<b>OVERALL ASSESSMENT</b>	<b>MODERATE TO HIGH POTENTIAL</b>

**Table 2-6 Features of parking space arrangements and applicability to this Project**

The table indicates that parking space arrangements can potentially be used to fund the Project. The benefit of this value capture method is that the mechanisms / funding streams already exist and only need to be directed towards this particular Project.

This may, for example, require Council to:

<sup>9</sup> The key criteria for the allocation of Parking Space Levy funds are prescribed by Section 11(3) of the Parking Space Levy Act 2009. It provides that:

- a) money to finance public transport services, and
- b) money to finance projects that facilitate access by public transport to and from, or within, leviable districts, including projects for the construction, maintenance and ongoing management of parking facilities, and other such infrastructure, and
- c) money to finance initiatives for the communication of information to commuters, including initiatives that make use of new technologies, and
- d) money to pay amounts that become payable under Parts 4 and 10 of the Taxation Administration Act 1996 in relation to parking space levies paid to the Chief Commissioner, and
- e) money that is directed to be paid from the Fund by or under this or any other Act.

- put their case for State Government funding of the Project (eg. development around major centres) before highlighting that the TfNSW PSL could be used as the State's contribution.
- increase parking rates in the precinct (or Waverley more generally) on the basis that this revenue is required to fund an improvement in on-street facilities. A 10% increase in Waverley parking rates would result in a loan for the Project being repaid in seven years. This is a form of the TIF value capture discussed in a previous section.

### **3 Passive value capture**

As noted in Section 1.3, there are a number of ways in which Council can derive a benefit from the Project without ‘active’ strategies to introduce new levies or undertake development projects. These include the ‘passive’ value captured by public sector entities from either an increase in the value of government owned property or from an increase in existing State and Commonwealth Government taxes and levies resulting from increases in the value of non-government property. Contributions from other government programs are also considered a form of value capture. These methods are examined further below.

#### **3.1 Increased value of government property**

##### *Description*

Government properties located in the precinct will benefit from improved accessibility and amenity, which in turn will deliver value uplift to these properties.

The calculation of the value uplift from the Project on government owned sites is consistent with the price impact on private property values considered in the next section. The properties owned by public entities within the precinct or within walking distance are considered in this analysis.

This form of value capture recognises that not all sites owned by the public sector within the precinct are likely to enjoy a significant uplift in value from the Project. This will be the result of one or more of the factors listed below:

- Some sites are very small parcels of land, such as easements and laneways, with limited amenity or utility. The Project is not likely to deliver any incremental value uplift to these sites.
- Some sites are dedicated to public and social infrastructure, and current uses of these sites are unlikely to change in the foreseeable future. As it is unlikely the government will realise the value of these sites via sale, no value incremental value uplift from the Project should be applied to these sites.
- A number of sites are located in close proximity to the centre of Bondi Junction; however arterial roads impede their accessibility to the metropolitan centre. The Project is not likely to deliver any incremental value uplift to these sites because they do not enjoy the accessibility gains provided by the Project.

##### *Suitability*

Table 3-1 assesses whether government will derive a significant increase in the value of their property.

Features of the increased value of government property arrangements	Expected applicability to this Project
Number of government sites that can potentially derive a benefit	<b>Low</b> – As noted above a number of sites are not likely to enjoy a significant uplift in value from the Project. When these are excluded the potential for significant value capture is diminished.
Potential for the Project to increase government property values	<b>Low</b> – The scale of the Project (approx. \$10 million in the short- to medium-term) is unlikely to be sufficient to generate a materially significant improvement in these sites.
<b>OVERALL ASSESSMENT</b>	<b>LOW POTENTIAL</b>

**Table 3-1 Features of the increased value of government property arrangements and suitability as a funding method for this Project**

The table indicates that the scope for value capture from these assets is minor. This is due to the limited number of government properties that would derive this benefit and the expected increase in property values in the region. The latter issue is discussed further in the next section.

### 3.2 Increased value of non-government property

Given the proposition that urban amenity positively impacts property values, it follows that value-driven taxes and levies can (with appropriate arrangements) increase accordingly. The Project will have a positive impact on property values around Bondi Junction, which in-turn can increase taxes and levies earned by different levels of government from those properties.

The analysis treats the gains made by the State and Commonwealth Governments in the same way as those for Council. In other words, if the State Government collect more stamp duty because of the Project it is assumed that they direct this amount to the Council to fund the proposed works. From a financial perspective, the net position of the State is unchanged but their involvement in this Council managed Project does assist them with achieving broader planning objectives the State has for this metropolitan centre.

This section identifies the four taxes and levies potentially relevant to projects of this type.

These include:

- rent collected by Council (note: this can be calculated in the same way as the rates for an individual property)<sup>10</sup>
- land tax, remitted to the State Government
- stamp duty, remitted to the State Government
- capital gains tax (CGT), remitted to the Commonwealth Government.<sup>11</sup>

<sup>10</sup> Noting however that an increase in this rent is site specific and does not have flow-on effects to the rates collected from other landowners outside the subject precinct.

<sup>11</sup> Although some GST benefits are likely to be realised from new properties constructed as a result of densification, the impacts of GST have been excluded from this analysis.

These taxes and levies are considered in turn below. We have examined the first of these levies (a rent based method) in considerable detail to determine whether the key characteristic of this form of value capture is likely to occur because of this Project (i.e. increased property values). If it is not, we will not examine each method in as much detail.

### 3.2.1 Rent revenue value capture

#### *Description*

Local councils levy a rent on landowners in the Project precinct on the basis of Unimproved Capital Value (UCV) of land in the place of rates. The Project's impact on land values and the new rent arrangement may contribute to increased Council revenue if the increased rent in this district is not offset by offering lower rates in other districts. This rent mechanism in the subject area is calculated in a very similar way to the existing rates which reduces the perception that this is a new form of tax.

The two primary drivers of rents levied by Council are:

- the value of land (UCV)

Rents are calculated on the UCV of properties and applied on a cents per dollar of UCV basis (in a similar way to the current rate calculation). It is assumed for the purposes of this analysis that this rate of payment is not changed as a result of this process – i.e. Council do not reduce the cents per dollar of rates in other districts because they are able to increase the rent revenue collected in the subject precinct (this is the way rate calculations currently work in NSW – i.e. to collect a target level of total revenue).

We note that we have discussed with Council a way of achieving of maintaining the existing rated cents per dollar of UCV, by applying an additional rent (based on the same cents per dollar of UCV in the impacted area). There are expected to be mechanisms available to achieve this outcome (through applying for a special recurrent levy) and it would achieve the same outcome of allowing the rate receipts to increase as UCVs increase.

- the application of the “rent” to pay for the cost of Council services

This type of value capture analysis typically assumes that all properties are liable for some form of local council charge for services provided (this can take the form of either the rent or council rates). The majority of properties included in this analysis are considered to fall under three broad categories of rates:

- residential owner occupied
- residential (non-owner occupied or mixed use)
- commercial.

#### *Typical approach to estimating these benefits*

The impact of the Project on council revenues should be estimated with reference to properties within an easy walking distance of the precinct (800m). The benefit of the Project can be arrived at by:

- calculating rent revenue for the scenario without the Project (this is effectively the existing rate revenue);
- calculating rent revenue for the scenario with the Project; then

- determining the difference between both scenarios.

The approach to estimation of the growth in council revenues as a result of the Project is illustrated in the figure below.

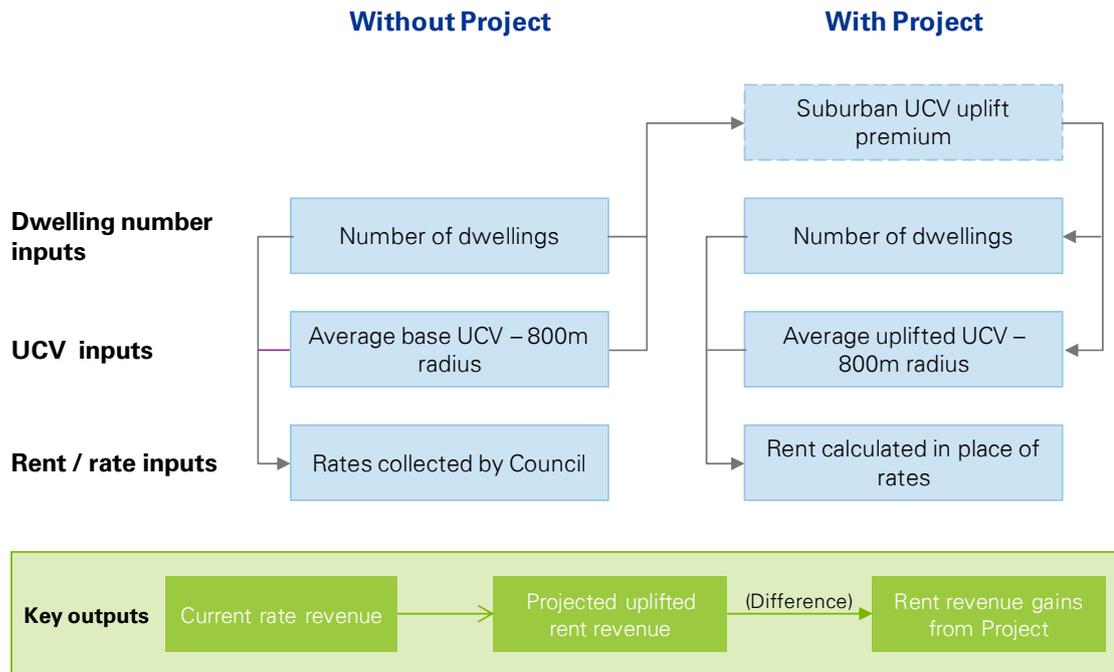


Figure 3-1 Passive value capture modelling methodology for increased rent revenue

### Suitability

Table 3-2 provides an assessment of the potential applicability for this Project.

Features of increased rate revenue arrangements	Expected applicability to this Project
Efficiency of application and collection	<p><b>Low</b> – The scale of the Project (approx. \$10 million in the short- to medium-term) is unlikely to be sufficient to generate a material improvement in UCV for the precinct.</p> <p>There is a possibility that several sites become more valuable as a result of improved access but the rent revenue from these sites (which is calculated by the existing rates formula) is unlikely to be sufficient to justify identifying the revenue stream and specifically directing it to funding the Project.</p> <p>The Council are likely to have work with the State Government to develop a rent/ levy arrangement.</p>
<b>OVERALL ASSESSMENT</b>	<b>LOW POTENTIAL</b>

Table 3-2 Features of rent revenue arrangements and suitability as a funding method for this Project

Improving amenity and accessibility in the precinct will increase the UCV in the precinct and the receipts from the council’s existing rate arrangements (or via levy based on rates). However, in this case the increase in the UCV is unlikely to be sufficient to warrant Council increasing its revenue forecasts. Other long-term proposals for the precinct (eg. an Eastern Interchange Entrance from the Oxford Street Mall) would need to be bundled with this Project to deliver a benefit that would justify examining rent / rate revenue as a specific value capture opportunity that can be directed towards the Project.

The limited potential for increasing UCV has negative implications on other passive value capture methods (as discussed below). The other methods also rely on increased UCV to assist in funding projects. As a result, the remainder of this section does not examine the other passive value capture methods in this level of detail.

### 3.2.2 Land tax value capture

*Description*

Land tax is primarily driven by:

- the value of land holdings (UCV)
- liability of the owner for land tax (i.e. non-exempt due to ownership status of the property), and
- the rate of land tax applied to holdings.

As UCV increases over time, so too will the amount of land tax received by the State Government. This value capture method recognises that through an infrastructure project’s contribution to the increased UCV of properties, it will also indirectly increase the level of land tax remitted to the State Government.

*Suitability*

Table 3-3 contains an assessment of this value capture mechanism.

Features of this mechanism	Expected applicability to this Project
Efficiency of application and collection	<b>Low</b> – As indicated in the previous section, there is limited opportunity for value capture due to the marginal impact of the Project on UCV.  As a result, there would be issues with requesting the State Government to direct these taxes towards funding this Project
<b>OVERALL ASSESSMENT</b>	<b>LOW POTENTIAL</b>

**Table 3-3 Features of existing land tax arrangements and suitability as a funding method for this Project**

The table indicates that this form of value capture is unlikely to be applicable to the Project. The Project is not expected to lead to a significant increase in UCV which is a key input to the calculation of land tax value capture.

### 3.2.3 Stamp duty value capture

*Description*

As noted above, this section only summarises the key aspects of this form of value capture because it has limited applicability in this case. As noted in Section 3.2, it is assumed that the State Government would direct this benefit towards the Council to assist in funding the Project.

On other major projects it has been found that stamp duty revenue will increase as property sales values increase and as the frequency of these sales increases.

Stamp duties are levied on a transactional basis, such that stamp duty revenue is dependent on:

- the rate of transaction turnover;
- the value of transactions; and
- the application of appropriate rates of duty.

*Suitability*

Table 3-4 contains an assessment of this form of value capture.

Features of this mechanism	Expected applicability to this Project
Efficiency of application and collection	<p><b>Low</b> – As indicated in the previous section, there is limited opportunity for value capture due to the marginal impact of the Project on UCV.</p> <p>However, the proposed civil engineering, streetscape and traffic works may provide some impetus for redevelopment which increases the rate of transaction turnover.</p> <p>As a result, there would be issues with requesting the State Government to direct these taxes towards funding this Project.</p>
<b>OVERALL ASSESSMENT</b>	<b>LOW POTENTIAL</b>

**Table 3-4 Features of existing land tax arrangements and suitability as a funding method for this Project**

The table indicates that this form of value capture is unlikely to be applicable to the Project. The Project is not expected to lead to a significant increase in UCV which is a key input to the calculation. Some of the civil works may provide an impetus for the development of new apartment buildings which may generate a high-level of transaction activity (and stamp duties). However, the current state of the commercial and residential property market makes it difficult to assign high-levels of certainty to development projects proceeding in the short-term.

### 3.2.4 Capital gains tax value capture

*Description*

This section describes the key aspects of this form of value capture but does not examine the calculation process in detail. These processes should be considered further if the suitability analysis indicates that capital gains taxes (CGT) are a suitable form of value capture.

CGT is remitted via income tax to the Commonwealth Government on any capital gains realised on the sale of property. The Commonwealth Government taxes the gain a taxpayer receives each time a property is sold at a value greater than the cost of its acquisition.

Based on the assumption that properties within 800m of the precinct will increase in value, there will be an additional capital gains tax that will be remitted to the Commonwealth Government for all property values affected by the Project.

The following assumptions are relevant to the estimation of potential CGT impacts of the Project:

- sales values
- capital growth
- transaction turnover
- median income of taxpayers
- CGT exemptions and discounts.

The key driver of this analysis is again a property value related component (sales values).

*Suitability*

Table 3-5 assesses the suitability of CGT as a form of value capture.

Features of this mechanism	Expected applicability to this Project
Efficiency of application and collection	<b>Low</b> – As indicated in the previous parts of this section, there is limited opportunity for value capture due to the marginal impact of the Project on sales values. As a result, there would be issues with requesting the Commonwealth Government to direct these taxes towards funding this Project.
<b>OVERALL ASSESSMENT</b>	<b>LOW POTENTIAL</b>

**Table 3-5 Features of existing CGT arrangements and suitability as a funding method for this Project**

The table indicates that the Project will generate limited additional CGT for the Commonwealth Government. The Project is not expected to lead to a significant increase in sales values which is a key input to the calculation.

### **3.3 Obtain funding from other programs**

#### *Description*

Recent projects of this type have been able to obtain funding from a range of alternate sources:

- **Urban Activation Precincts Program**

The State Government recently announced \$50 million of funding towards the cost of projects delivering broader planning benefits. Projects will be funded on the basis of consistency with State planning strategies, market demand for housing and employment and the level of opportunity to maximise the use of existing civic and transport infrastructure.

- **Better Cities Program**

The Commonwealth Government developed this \$20 million program to support State and territory governments in meeting the challenges of improving the quality of life in our capitals and major regional cities. The program seeks to foster innovative solutions to promote high quality urban design, improve the quality of public places and address high levels of car dependency and traffic congestion.

- **Housing Affordability Fund**

The Commonwealth Government's Housing Affordability Fund will invest up to \$512 million over five years to lower the cost of building new dwellings.

The fund's focus is on proposals that improve the supply of new housing and make housing more affordable for home buyers entering the market. It will address two significant barriers to the supply of housing:

- Holding costs incurred by developers as a result of long planning and approval waiting times; and
- Infrastructure costs, such as water, sewerage, transport and open space

The fund will target greenfield and infill developments where high dwelling demand currently exists or is forecast. The funding was primarily directed towards multi-dwelling constructions and social / affordable housing projects.

- **Other State Government infrastructure programs in the same location**

The type of works identified here are often addressed by larger projects occurring in the same precinct. This is because the costs of the works are relatively minor and are often consistent with the objectives of a larger project. There is also a general recognition that there are procurement efficiencies with the larger project delivering the needs of a small infrastructure projects.

For example, Transport for NSW (TfNSW) has developed a detailed business case for a large project addressing similar accessibility issues at Bondi Junction. The TfNSW project also rectifies access issues around the centre of Bondi Junction and has similar objectives (eg. resolving pedestrian and vehicle congestion and encouraging the use of public transport).

#### *Suitability*

Table 3-6 assesses the suitability of other government infrastructure programs as a method of funding part of the Project costs.

Features of parking space arrangements	Expected applicability to this Project
Potential applicability	<p><b>High</b> – The Project exhibits the characteristics relevant to obtaining funding from these programs.</p> <p>The particular works relevant to these programs are as follows:</p> <ul style="list-style-type: none"> <li>• Civil engineering works – Housing Affordability Fund. However, the lack of social / affordable housing may impact on suitability</li> <li>• More liveable cities (eg. more housing and commercial activity in major metropolitan centres) – Urban Activation Precincts Program and the Better Cities Program</li> <li>• Widely acknowledged transport problems which government are seeking to address (eg. parking around stations and access to stations) – TfNSW Transport Interchange Program (Other State Government infrastructure programs in the same location)</li> </ul>
Efficiency of application and collection	<p><b>High</b> – These programs had funding available to increase the viability of urban development projects. At both the state and the federal levels of government there was a strong commitment to assisting councils and other government agencies with funding these types of projects</p>
Current availability of funds	<p><b>Moderate</b> – The Urban Activation Precincts Program is the only program where funds are known to available. The other State Government infrastructure programs may provide an opportunity to fund this particular Project but the decision on these projects has been delayed.</p> <p>Two of the programs (Better Cities and Housing Affordability Fund) are not taking new applications</p>
<b>OVERALL ASSESSMENT</b>	<b>MODERATE POTENTIAL</b>

**Table 3-6 Features of other government funding programs and applicability to this Project**

The table acknowledges that it is becoming more difficult to access these funding programs. The Commonwealth Government programs (Better Cities and Housing Affordability Fund) are expiring and are not being renewed at this time. State Government infrastructure programs for the precinct also appear to be delayed (eg. the new entrance building to the Bondi Junction Transport Interchange). However, these programs are well-placed to received funding if budgetary constraints diminish over time or if the Commonwealth Government require ‘shovel-ready’ economic stimulus projects.

The Urban Activation Precincts Program is a well-funded State Government program which the Project could access. Further work is required on documenting how this Project closely aligns with the objectives of the precincts program but this program has been recommended for further consideration.

## 4 Summary and conclusions

### 4.1 Approach

KPMG has conducted a high-level analysis of the potential for value capture methods to fund this project. This has included a consideration of the approaches typically associated with larger projects offering urban amenity and accessibility benefits. Through this process we excluded several options that would not be applicable, identified four options worthy of some additional consideration and recommended two development levy options for further detailed analysis.

### 4.2 Excluded options

The analysis indicated that the following value capture options are less applicable to the Project:

- Using the proceeds of selling government land to commercial developers in order to fund the proposed works. However, it is recommended that further consideration be given to including these types of projects in the scope of works if other forms of value capture are not considered suitable here. For example, a mixed-use redevelopment of existing Council owned sites could potentially fund this Project
- The Commonwealth Government programs which have recently funded new infrastructure in major metropolitan centres (eg. Better Cities Program and the Housing Affordability Fund)
- The uplift in value of government's Bondi Junction land holdings due to the new facilities
- The additional property taxes collected from the private sector when the new facilities increase property values:
  - Council rents (a form of rate replacement in the subject area), remitted to Council
  - land tax, remitted to the State Government
  - stamp duty, remitted to the State Government
  - capital gains tax (CGT), remitted to the Commonwealth Government.<sup>12</sup>

The first two options are not applicable to this Project because the type of works is not applicable or the relevant funding programs have recently expired. Implementing the final two options has limited feasibility due to the level of government land-holdings and the materially insignificant additional taxes that can be collected from this region (based on the assumed increase in property values and number of applicable transactions). Unless this small Project can be bundled with other projects, we expect that Council would struggle to develop a business case that would justify other levels of government redirecting additional property tax receipts to funding this particular Project.

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<sup>12</sup> Although some GST benefits are likely to be realised from new properties constructed as a result of densification, the impacts of GST have been excluded from this analysis.

### **4.3 Options worthy of further consideration**

The above issues have a less pronounced impact on the five shortlisted options (including associated sub-options). However, these options still have a number of drawbacks requiring further consideration by Council officers. Table 4-1 summarises these and other issues associated with the shortlisted options.

Short-listed option / description	Source of contribution	Why contribution can occur	Areas for further consideration
<b>1) Introducing a new tax on the properties likely to benefit – eg. a Benefitted Area Levy (refer Section 2.2.1)</b>			
A small additional tax each year to fund approximately one third of the costs of the public infrastructure	Landowners – Small additional tax applied to the sites in the benefitted area	The levies are applied by Council to sites that benefit from the new facilities (inc. property values). This approach is common overseas	The expected value of the property uplift is impacted by the existing ownership arrangements (long-term leases). The various types of sites and property owners in Bondi Jn. may make it difficult to implement an efficient and equitable levy system that would fund a higher proportion of the works than that proposed here
<b>2) Tax Increment Financing (Section 2.2.2)</b>			
Utilising a benefitted area levy or parking receipts to repay a debt issued to finance the new facilities	Waverley Council – borrow funds to undertake the works. Loan is repaid by increases in rates or parking fees	The revenue is currently collected by Council and no new type of impost needs to be placed on rate payers or developers.	The benefits are relatively localised and those rate payers not deriving a benefit will be concerned about the future rate-base being committed to repaying the debt for this Project. There may be issues with Council borrowing funds in this way and efficiency issues with taking out a relatively small loan
<b>3) Different forms of development levies (Section 2.2.3 and Section 4.4) – Preferred options</b>			
Option a) Special development levy Option b) Voluntary planning agreement	Waverley Council receive future payments from private sector developers as a condition of development of the land.	This a charge assessed on a new development which is used as a means of defraying the cost of public infrastructure	Refer Section 4.4 for detail of next steps a) Using past contributions for Project b) Market influences development timing (when contributions received) c) Efficiency of developers delivering the infra. works as ‘payment-in-kind’ d) Obtaining planning permission for higher densities (higher contributions)
<b>4) Parking levies and arrangements (Section 2.2.4)</b>			
Bondi Junction is one of the major metro. centres which TfNSW place an annual levy on carparks Council collect funds from parking and could increase fees further	Tf NSW (State Government) – existing arrangement Waverley Council Parking Assets – either existing arrangements or new arrangements	The Parking Space Levy Act stipulates that the levy is used for projects like this in the major metro. centres Justified to the community as paying for new parking facilities	a) Local businesses and rate-payers are likely to be concerned about parking arrangements involving higher fees to pay for this Project b) Council would need to go through a detailed business case and funding process to demonstrate that this Project is worthy of funding from the TfNSW parking space levy
<b>5) Obtain funding from other programs (Section 3.3)</b>			
The Urban Activation Precincts Program TfNSW Interchange Program	Dept. of Planning and Infrastructure TfNSW are currently considering major accessibility works at this location	The State Plan includes specific goals for these types of centres (liveability, accessibility and transit oriented development) Suitable as economic stimulus project	a) Lengthy process of seeking funding from the State Government b) Bondi Jn. interchange works were not part of approved Transport Plan c) Limited consideration of bundling the Project and the TfNSW proposal d) Project may not deliver the type of urban outcomes sought by the Urban Activation Precincts Program (eg. no new town square)

**Table 4-1 Summary of short-listed value capture mechanisms**

On this Project, the table indicates that there will be issues with the above short-listed value capture options. These are likely to include:

- Landowner acceptance that the benefit is commensurate with the cost of the new public infrastructure on adjacent sites (Option 1: Benefitted Area Levies). There is a risk that landowners may delay projects or challenge the legality of the rates mechanisms used to obtain this funding. Further consideration of the risks and issues associated with this option is included within Section 2.2.1.
- Community acceptability of increasing parking fees (one way of delivering Option 4: Parking Arrangements), increasing densities (Option 3: Voluntary Planning Agreements) and increasing Council borrowings to fund the works (Option 2: Tax Increment Financing)
- The complexity and efficiency issues with obtaining funding through these mechanisms. This would include the complexity of: accessing the TfNSW Parking Space Levy Fund (Option 4: Parking Arrangements); combining this Project with broader projects (Option 5: Funding From Other Programs) or obtaining a relatively small loan for the works (Option 2: Tax Increment Financing). Assuming that voluntary planning agreements (Option 3) can fund the Project is also difficult due to uncertainties over when planned developments may commence

Although these are significant issues, there are a number of examples of government developing strategies to address the issues and capture value. For example, Council could seek to fund the Project from a range of sources to minimise the financial impost on any one particular group (e.g. a combination of a benefitted area levy, developer levy, parking fee arrangements and the forward capital program funded by the existing rate-base). It is also possible to raise most of the required funds through one of the above value capture options. However, this approach is likely to require a strong commitment to value capture and in-house experience in managing these processes. Without a strong commitment from Council officers, it is likely that the development levy options (and potentially the parking space levies) are the only options worthy of further consideration.

## 4.4 Preferred options

Section 4.3 and Section 2.2.3 identified special development levies (Option 3a) and voluntary planning agreements (Option 3b) as potentially suitable value capture methods for the Complete Streets Project.

The following table summarises the characteristics of the two forms of development levies.<sup>13</sup>

Characteristics	Opt 3a Special development levy	Opt 3b Voluntary planning agreement
1. What legislation is assumed to give the relevant powers:*	<ul style="list-style-type: none"> <li>• Section 94A of the Environmental Planning &amp; Assessment Act 1979 allows a levy for infrastructure works, based on a percentage of the development cost (1%). In order to achieve a higher levy (3%-4%), the planning authority would</li> </ul>	<ul style="list-style-type: none"> <li>• Section 93F of the Environmental Planning and Assessment Act 1979 defines a planning agreement as a voluntary agreement between a planning authority and a developer (who has sought or proposes to make a change to an environmental planning instrument)</li> </ul>

<sup>13</sup> It should be noted that there are issues associated with this method that have meant that the parking space levy value capture option is not considered in as much detail here as the proposed development levies. Refer to Section 2.2.4 for further details on the parking space levy mechanism.

Characteristics	Opt 3a Special development levy	Opt 3b Voluntary planning agreement
	need to establish a nexus between development and the increased demand for public amenities and public services. There is scope for the higher levy (via a Section 94A Contributions Plan) from a ministerial direction under Section 94E of Act	under which the developer is required to dedicate land free of cost, pay a monetary contribution, or provide any other material public benefit, to be applied towards a public purpose
2. Required due to:	<ul style="list-style-type: none"> <li>Likely funding shortfall under existing mechanisms – i.e. rates and existing contribution mechanism will not be sufficient to fund the Project</li> </ul>	<ul style="list-style-type: none"> <li>As per bullet 1 of Option 3a</li> <li>The inclusion of these agreements in the above act was part of developer contribution system reform in year 2005</li> </ul>
3. Addresses funding shortfall by:	<ul style="list-style-type: none"> <li>Replacing the existing contribution arrangements with a development levy that is set at a sufficiently high level to raise the required funds</li> </ul>	<ul style="list-style-type: none"> <li>Supplementing the Section 94A contribution with a payment taking into account most of the required infrastructure development costs</li> <li>May not meet the funding shortfall (see following characteristic)</li> </ul>
4. Certainty associated with meeting shortfall:	<ul style="list-style-type: none"> <li><i>Moderate to high</i> – the amount of the levy is specifically designed to meet the costs of the Project (note: influenced by development timing)</li> </ul>	<ul style="list-style-type: none"> <li><i>Low to moderate</i> – Certainty is reduced because the payment is negotiated on each development and these have different infrastructure needs.</li> <li>It is recommended that Council undertake a detailed study that can assist with achieving the best possible voluntary planning agreement outcome on each development</li> </ul>
5. Benefit of having funding certainty	<ul style="list-style-type: none"> <li>This option in particular allows Council to procure the Project more efficiently (eg. timing / staging of works or providing a regular cashflow stream to repay debt)</li> </ul>	<ul style="list-style-type: none"> <li>Project may not be procured as efficiently as Option 3a – i.e. more staging required or Council needs to draw on other funding sources not specifically tied to the Bondi Junction town centre and this project (and these sources cannot be dedicated to this project with high levels of certainty)</li> </ul>
6. Use in other jurisdictions:	<ul style="list-style-type: none"> <li>Limited to just a few other major centres (eg. Chatswood, Burwood)</li> <li>Is also used in some outer metropolitan areas (eg. Bankstown)</li> <li>These arrangements were originally negotiated five or more years ago but these jurisdictions appear to have been able to maintain the level of the levy under recent revisions</li> </ul>	<ul style="list-style-type: none"> <li>Relatively widely used (inc. Bondi Junction)</li> <li>Used more regularly in growth areas</li> <li>The outcomes from these negotiations have varied in different jurisdictions and by type of project</li> <li>The NSW Government is currently reviewing the use of these mechanisms in the White Paper</li> </ul>
7. Justification of the method in other	<ul style="list-style-type: none"> <li>Existing infrastructure was not considered adequate to accommodate the dwelling growth in the previous</li> </ul>	<ul style="list-style-type: none"> <li>There is an identified need for new infrastructure to accommodate proposed developments</li> </ul>

Characteristics	Opt 3a Special development levy	Opt 3b Voluntary planning agreement
jurisdictions:	government's Metropolitan Plan – i.e. significant investment in a new road, rail underpasses, civic facilities and utilities upgrades	<ul style="list-style-type: none"> <li>The infrastructure requirements may not otherwise be met by Section 94A levies</li> </ul>
8. Applicability of this justification to Bondi Junction	<ul style="list-style-type: none"> <li>Unknown – Council would need to study this (see below)</li> <li>Bondi Junction may not have the same level of infrastructure constraints</li> <li>Bondi Junction does not have the same planning development targets as the above regions</li> <li>There appears to be a slight change in the State Governments focus with development targets – away from Major Centres and towards the new concept of Urban Activation Precincts</li> </ul>	<ul style="list-style-type: none"> <li>Yes, the type of proposed infrastructure works appear consistent with the intent of voluntary payment mechanisms</li> <li>It is difficult to ascertain ahead of time what level of levy would be applicable to each future development in Bondi Junction</li> <li>It is recommended that Council undertake a detailed study to better understand the likely levies and potential funding gap</li> </ul>
9. Approval required by:	<ul style="list-style-type: none"> <li>Department of Planning and Infrastructure (including a ministerial direction)</li> <li>There is no defined process or mechanism by which to gain the approval of the Department of Planning and Infrastructure</li> <li>Likely to require legal advice to confirm there are no other issues (or an IPART determination)</li> </ul>	<ul style="list-style-type: none"> <li>Department of Planning and Infrastructure under existing mechanisms</li> </ul>
10. Likely reaction of development community:	<ul style="list-style-type: none"> <li>Unfavourable</li> <li>Concerted lobbying effort occurred when special levy was initially proposed for Burwood</li> <li>Uncertainty about development viability under higher levies (requires a market study)</li> </ul>	<ul style="list-style-type: none"> <li>Recent precedent in Bondi Junction means that the general principle of this agreement is accepted and understood by the development community</li> <li>Industry may become concerned about the variability of levy on different developments</li> </ul>
Overall ranking / suitability	<ul style="list-style-type: none"> <li><b>Moderate / High</b></li> <li>Expected to raise sufficient funds</li> <li>Requires a ministerial approval</li> </ul>	<ul style="list-style-type: none"> <li><b>Moderate / High</b></li> <li>May not raise sufficient funds</li> <li>More certain approval pathway</li> </ul>

**Table 4-2 Characteristics of preferred value capture options**

*Note: \* It is assumed that this legislation is available and will apply in the stated way. This needs to be considered further in light of the upcoming White Paper and legal advice should be sought.*

The key points emerging from the above table are that:

- The *special levy* (Option 3a) provides the greatest scope for raising all of the funds required for the Complete Streets Project but there is uncertainty surrounding the administrative process for gaining approval from the State Government.

- By contrast, *voluntary planning agreements* (Option 3b) are a better defined administrative process but there is less funding certainty – i.e. the levies differ for each development and in the absence of sufficient funds Council need to access revenue sources that are not directly tied to the Project or the region.

The uncertainties associated with both short-listed methods can be reduced via the following.

## **Next steps – detailed studies**

### ***Option 3a) Special development levy***

- *Identify and analyse the funding gap –*

This would draw on a range of information to highlight to the Department of Planning and Infrastructure that a significant levy is required (under both Options 3a and 3b).

The type of information contained within a funding gap analysis typically includes:

- A medium-term forecast of Council's operating and capital costs (including a detailed work schedule for the Complete Streets Project)
- A medium-term forecast of Council revenues (excluding development levies)
- A description of how the above revenues could be used as funding sources for the Project (and the risk that these cannot be tied to funding works in Bondi Junction)
- Soundly based forecasts of the number of new developments in the precinct. This should be undertaken in conjunction with the analysis of the local property market
- An estimate of development levies collected from new developments under three types of existing levy arrangements – i.e. Section 94A levy, voluntary planning agreement (worst case) and voluntary planning agreement (best case). This estimate would include both a base analysis and a sensitivity analysis. It would also identify the area subject to different types of levies (based on the need for infrastructure)
- Develop a 5-year budget to estimate the cashflow shortfall (or surplus)
- Determine the level of additional special levies (Option 3a) required to meet the above funding gap.

- *Analyse the local property market –*

There is a need to independently assess the likely development profile for the precinct. The central consideration here is that residential and / or commercial development is currently viable within Bondi Junction and that this is not forecast to change.

The study would test this proposition in a range of ways:

- Interviewing development officers to better understand the level of planning activity
- Examining property ownership databases to confirm trend towards local sites being purchased by active property developers
- A market sounding process involving developers and major land owners
- Examining whether issues in other major metropolitan centres could impact on Bondi Junction development patterns
- A hypothetical development analysis of both a residential project and a commercial project to confirm that a new development in this area is feasible. This would entail a review of potential property proceeds, construction costs, development costs and profit margins (refer Section 2.1). This would follow a similar approach to that used by a developer.

If this analysis indicated that property development in Bondi Junction is a marginal proposition at the moment, there may be a need to revisit the proposed development profile. In this situation, the development profile may also differ between revenue cases based on a Section 94A levy and voluntary planning agreements (under best and worst cases).

If the current viability of development projects is strong, the study should consider whether a significant special levy (under Option 3a) would change the development profile and impact on the ability to raise the required levels of funds with certainty.

- *The legislative and administrative hurdles –*

This aspect of the study would examine the legislation and guidelines relating to these options. In some areas this may be tightly defined while in others, the processes may need to be interpreted from precedent projects or broader planning policies. In this case, Council will require specialist legal advice.

- *Analysis of the broader planning issues –*

This analysis focuses on whether the Complete Streets Project or the proposed residential / commercial developments are strongly aligned to either the State Plan and / or the new Metropolitan Strategy. Undertaking research which identifies an alignment (dwelling and employment growth) will assist in putting forward a case for a special development levy.

This analysis should draw heavily on any potential similarities between this major centre and others with a special levy (eg. Burwood has a levy of 4% in the town centre which was intended to raise \$185 million for infrastructure works related to roads, rail bridges and utilities in the town centre).

- *Develop a communications strategy –*

This is required to identify the likely concerns of parties that are directly and indirectly impacted by the special levies. It would examine a range of methods that could be used by industry to lobby against a higher level of infrastructure contribution for new developments. From this, management and mitigation strategies can be developed by Council. For example, this may involve demonstrating that the levy is only collected from Bondi Junction developments and that the funds match the costs of the Complete Streets Project.

- *Approach the relevant State Government Agencies –*

The above information would be summarised into both a report and a presentation which forms the Council's case for the special levy. As part of the presentation, a negotiation strategy also needs to be developed prior to meeting with the State. This would stipulate what the goal of the special levy might be – eg. 4% of development costs. It would also seek to address the criteria against which the State Government is likely to apply (e.g. against the IPART assessment criteria).

### ***Option 3b) Voluntary Planning Agreements***

Council officers have developed a draft strategy for implementing these agreements. The key elements of this strategy are outlined below:

- Voluntary planning agreements will only apply to a specified area.
- Voluntary planning agreements will be targeted to fund a specific schedule of works (eg. Complete Streets and Bondi POM).
- Will include an independent valuers report containing a detailed breakdown of voluntary planning agreement components as part of each submission.

- The value of the contribution toward public benefit (recommendation of 50% in addition to the Section 94A contribution) will be based on a nominated percentage of the value of additional floorspace / height.
- Will put in place processes for maintaining probity (eg. independent planning consultant).
- Will include a set variation to maximum gross floor space in a DA if the voluntary payment agreement is acceptable. The intent is to get this mechanism included in a future LEP as an enabling provision.
- The voluntary planning agreement will be negotiated and documented before the lodgement of a DA to ensure a practical outcome for public notification.

It is expected that Council officers will refine this strategy if the Complete Streets Project proceeds. A detailed voluntary planning agreement strategy would take into elements of each of the steps / studies outlined above for the final special levy strategy (Option 3a). However, these steps would not need to be undertaken in as much detail for the voluntary planning agreements in order to be consistent with the Practice Notes template provided by Department of Planning and Infrastructure, July 2005).

It is also recommended that Council examine whether there is an opportunity to develop a voluntary planning mechanism that:

- could apply to a broad precinct (rather than to each individual development)
- does not draw the infrastructure charge from the developer seeking higher densities.

These mechanisms could allow Council to draw revenue with greater certainty and with less reliance on a development market seeking higher densities. Using another mechanism may have the benefit of allowing Council to request a density bonus from the State for good transit oriented development sites (these are goals in the State Plan). However in our experience, there are limited examples of Councils achieving these favourable voluntary payment agreements.

It should be noted that the above steps and processes are provided as a general guide. As indicated in Section 1.1 (Scope of engagement), Council are expected, on the basis of this preliminary work, to undertake a separate Business Case which as part of further option analysis would provide a comprehensive and robust analysis of the most suitable next steps.

Through the detailed processes summarised above and described in other sections of this report, these options can be agreed with key stakeholders and decision makers. The relevant policies can then be developed and the funds required for Complete Streets can be obtained.

# Important Notice

If you are a party other than Roberts Day, KPMG:

- owes you no duty (whether in contract or in tort or under statute or otherwise) with respect to or in connection with the attached report or any part thereof; and
- will have no liability to you for any loss or damage suffered or costs incurred by you or any other person arising out of or in connection with the provision to you of the attached report or any part thereof, however the loss or damage is caused, including, but not limited to, as a result of negligence.

If you are a party other than Roberts Day and you choose to rely upon the attached report or any part thereof, you do so entirely at your own risk.

## **Limitations**

The responsibility for determining the adequacy or otherwise of our terms of reference is that of Roberts Day.

Our terms of reference comprise an advisory engagement which is not subject to Australian, or any other, auditing or assurance standards and consequently no conclusions intended to convey assurance are expressed.

Further, as our terms of reference do not constitute an audit or review in accordance with Australian auditing standards, they will not necessarily disclose all matters that may be of interest to Roberts Day or reveal errors and irregularities, if any, in the underlying information.

In preparing this report, we have had access to information provided by Roberts Day and publicly available information. The findings and recommendations in this report are given in good faith but, in the preparation of this report, we have relied upon and assumed, without independent verification, the accuracy, reliability and completeness of the information made available to us in the course of our work, and have not sought to establish the reliability of the information by reference to other evidence.

Any findings or recommendations contained within this report are based upon our reasonable professional judgement based on the information that is available from the sources indicated. Should the Project elements, external factors and assumptions change then the findings and recommendations contained in this report may no longer be appropriate. Accordingly, we do not confirm, underwrite or guarantee that the outcomes referred to in this report will be achieved.

This report does not contain advice on planning or development contribution systems. The information shown here is purely for comparative purposes. This is outside the KPMG scope of work and was provided in a general sense to assist Council. Significant legal and commercial work is required to test their availability and applicability of these development contribution systems.

We have not compiled, examined or applied other procedures to any prospective financial information in accordance with Australian, or any other, auditing or assurance standards. Accordingly, this report does not constitute an expression of opinion as to whether any forecast or projection of will be achieved, or whether assumptions underlying any forecast or projection is reasonable. We do not warrant or guarantee any statement in this report as to the future prospects of Waverley Council.



There will usually be differences between forecast or projected and actual results, because events and circumstances frequently do not occur as expected or predicted, and those differences may be material.

## **A Detailed case studies**

This section provides a number of case studies to indicate the types of projects that value capture principles are generally applied to.

The purpose of this analysis was only to demonstrate that these principles are generally applied to projects of a larger nature – i.e. providing greater benefits and having larger funding requirements. This is a key reason for only a small number of value capture options being short-listed for further business case analysis.



CORPORATE FINANCE

# Complete Streets Project

Case studies of civic / transport projects funded by value capture

April 2013

ADVISORY

### Overview

- The case studies that follow present examples of significant civic / transport projects that have been undertaken domestically and globally. The case studies outline the background to each project and approaches to procurement, funding and value capture.
- The case studies indicate that there is a series of common value capture issues that typically arise in projects of this type.
- While the approach to resolution of these issues differs from project to project (often based on jurisdictional and market issues) there are common themes that emerge across the projects that provide useful guidance for the Complete Streets Project.

### Common issues

- Projects of this nature are typically net revenue negative. (The notable exception to this is the Hong Kong based MRT project).
- The projects are typically complex involving transport planning, design, engineering, capital works, rollingstock, operation and property elements.
- Most projects require a significant level of coordination, control, direction, project management and financial support from government.
- Most projects are seeking to address urban development as well as transport outcomes.
- The large capital works programmes and limited revenue potential constrain the feasibility of private funding solutions in the absence of government support.
- Value capture projects are typically significantly larger than the proposed Complete Streets program.<sup>(1)</sup> This significantly impacts on the suitability of most of the value capture options considered in the main body of this report.

### Footnote to above:

- 1) It should be noted that other Councils in the Sydney Metropolitan Area are known to be considering value capture mechanisms as part of relatively small scale civic / transport projects (eg. Manly Council, Parramatta Council and Wollongong Council). As these projects are currently occurring and the results are not public knowledge it has not been possible to incorporate this information into the case studies presented here at this stage.

### Common Approaches/Lessons Learned

- Revenue and demand risk are typically borne by government.
- Most projects focus on packaging and staging to address market capacity issues.
- This raises issues of interface risk that are managed through a variety of mechanisms (including cooperation agreements)
- The risk profiles of the projects typically do not lend themselves to PFI/PPP procurement in the absence of government support or subsidy
- Successful projects tend to be those that deliver wider property development and public realm enhancements for railway stations and surrounds, in addition to transit and accessibility improvements. Merely solving transit and congestion issues is not be considered as the sole objective.
- Most projects feature special purpose authorities to give effect to the project – these authorities typically have broad objectives and powers in relation to contract award, project management, property resumption and value capture
- Funding is drawn from a diverse range of sources, including public and private debt, grant funding, local taxes, provincial taxes and various value capture methods.

**Executive summary: context comparison of case studies**

Comparable Factors				
Project	City / Region	Density persons per km <sup>2</sup>	Key success factors: procurement	Key success factors: value capture
<b>Australian case studies</b>				
<b>Barangaroo Project</b>	Sydney	Very High (CBD area)	<ul style="list-style-type: none"> <li>Two stage tender process (EOI and RFP)</li> <li>EOI process used to select three shortlisted bidders, who each submitted a mix of payments and infrastructure works-in-kind as part of their proposals</li> <li>RFP process identified Lend Lease as the preferred Proponent</li> </ul>	<ul style="list-style-type: none"> <li>Developer must provide infrastructure and public works as part of the development agreement, as well as fixed payments and profit share payments</li> <li>Developer is required to pay two levies to the Authority, each payable at 1% of construction costs</li> <li>Authority will retain benefit of any increase in the value of land holdings, since its ability to sell is restricted by legislation</li> </ul>
<b>Chatswood Interchange</b>	Sydney	High (Regional Centre)	<ul style="list-style-type: none"> <li>Undertaken as a PPP between government entities (TIDC and RailCorp) and the developer (CRI Chatswood)</li> <li>CRI selected following an extensive two-stage tender process</li> <li>CRI contracted to undertake design, construction and partial funding of the works</li> <li>Contractual relationship between TIDC/Railcorp and CRI was on a PFP basis</li> </ul>	<ul style="list-style-type: none"> <li>Following completion of the project, land ownership is to be retained by RailCorp, who will lease space to the retail complex purchaser</li> <li>Development delivers significant public space</li> <li>CRI funds the cost of construction the development component</li> <li>Passive value capture through a higher local rates base and state property taxes</li> </ul>
<b>Epping to Chatswood Rail Line</b>	Sydney	Medium	<ul style="list-style-type: none"> <li>PPP mechanisms considered, but not applied</li> <li>Project awarded on the basis of conforming bids, ultimately awarded to a Thiess/Hochtief joint venture</li> <li>Thiess/Hochtief JV responsible for design, construction and commissioning of track and communication works</li> <li>Various packaging options considered but the interface risk of multiple packages was considered too great to bear</li> </ul>	<ul style="list-style-type: none"> <li>Property taxes or improvement levies considered but eventually rejected</li> <li>Airspace rights only granted at Chatswood Transport Interchange</li> </ul>

**Executive summary: context comparison of case studies**

Comparable Factors				
Project	City / Region	Density persons per km <sup>2</sup>	Key success factors: procurement	Key success factors: value capture
<b>Asian case studies</b>				
<b>Hong Kong Mass Transit Railway</b>	Hong Kong	High (inner urban)	<ul style="list-style-type: none"> <li>Prescriptive product and detailed definition of project requirements from the outset</li> <li>Transit authority adhered to contractor-friendly policies and prudent commercial principles</li> <li>Originally a government corporation but is now listed on the Hong Kong Stock Exchange</li> </ul>	<ul style="list-style-type: none"> <li>Highly favourable population density</li> <li>Infrastructure financed through property development</li> <li>JV between MTR and property developers</li> </ul>
<b>MRT 3 Metrostar Express</b>	Manila	High (inner urban)	<ul style="list-style-type: none"> <li>This project was to be funded by commercial borrowing from foreign capital markets.</li> <li>However, in an effort to lower the weighted average cost of capital for the private sector, the Departments of Transport and Communications (DOTC) and Finance (DOF) assisted the private consortium in negotiating lower lending charges. This was achieved by DOTC guaranteeing the lease payments with confirmation to the lenders from DOF that the obligations carry the full faith and credit of the Republic of Philippines.</li> <li>The effect of this guarantee structure is reported to have resulted in the effective interest rate reducing from 20% to 15%.</li> </ul>	<ul style="list-style-type: none"> <li>The Metrostar Express project was also made attractive to the private sector by supplementing operating revenue with commercial development revenue.</li> <li>This approach was made possible by awarding the commercial development rights in the depot and stations to a private consortium in return for payment of a lease charge to the government.</li> </ul>
<b>European case studies</b>				
<b>Crossrail</b>	Greater London	High (inner urban)	<ul style="list-style-type: none"> <li>Given that public funding was available for the project it is largely being procured by a conventional approach and not via PFI / PPP.</li> <li>The two delivery partners, Bechtel and Transcend were appointed in spring 2009</li> <li>Tunnel work will be split into four packages: <ul style="list-style-type: none"> <li>Network Rail, the owner of the UK's rail infrastructure will undertake the "on – network" works either side of the tunnel</li> <li>Canary Wharf Group, the major land owner in the area, will build the new Crossrail station on the Isle of Dogs</li> </ul> </li> <li>A PPP / PFI may be used for rolling stock</li> </ul>	<ul style="list-style-type: none"> <li>The Project is being funded from a variety of sources.</li> <li>TfL is the largest funder providing £7.7bn. Of this £3.5bn will be met by levying supplementary rates on business in London – a hypothecated tax for the project for which legislation had to be passed.</li> </ul>

**Executive summary: context comparison of case studies**

Comparable Factors				
Project	City / Region	Density persons per km <sup>2</sup>	Key success factors: procurement	Key success factors: value capture
<b>European case studies (continued)</b>				
<b>Docklands Light Rail (DLR)</b>	Greater London	High (CBD)	<ul style="list-style-type: none"> <li>• DLR development consisted of several phases.</li> <li>• Different procurement methods were employed during each phase.</li> <li>• Bonus payment mechanism employed in the event that some phases were delivered on time.</li> <li>• Land acquisition risk transferred to the private sector during most phases.</li> </ul>	<ul style="list-style-type: none"> <li>• 50% of the project funding was provided by the private sector owners of the newly developed Canary Wharf.</li> </ul>
<b>Dublin Metro North</b>	Dublin	Medium	<ul style="list-style-type: none"> <li>• Metro North will be carried out on the basis of a design, build, finance and maintain contract (the Infrastructure Contract) having a term of the construction period plus 25 years.</li> <li>• The Project will also include an Operations Contract, which will expire 5 years post the service commencement date, unless extended by an additional period of 5 years at RPA's discretion.</li> </ul>	<ul style="list-style-type: none"> <li>• In addition, development legislation in Ireland gives local Authorities the power to collect development levies on RPA's behalf; and</li> <li>• Development levies are applied to developments within a particular distance from the Metro North line.</li> </ul>
<b>Manchester Metrolink</b>	Manchester	Medium	<ul style="list-style-type: none"> <li>• Metrolink comprises four distinct project phases: <ul style="list-style-type: none"> <li>– Phase 1 (DBOM contract with a 15 year operating concession)</li> <li>– Phase 2 (Phase 1 terminated and Phases 1 and 2 were tendered together under new DBMO contract)</li> <li>– Phase 3</li> <li>– Phase 4</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• The goal of urban renewal and property value growth in the surrounding locality was not achieved in the short-term. This was evidenced by a 1996 report highlighting a negative growth in housing values for those homes situated within two miles of Metrolink.</li> </ul>

**Executive summary: context comparison of case studies**

Comparable Factors				
Project	City / Region	Density persons per km <sup>2</sup>	Key success factors: procurement	Key success factors: value capture
<b>European case studies (continued)</b>				
<b>Rede de Ferroviaria Alta Velocidade (RAVE)</b>	Portugal and Spain	Low	<ul style="list-style-type: none"> <li>Network procurement divided into six distinct projects.</li> <li>The first of these projects was the Poceirão to Caia line, for which the procurement process was launched in June 2008.</li> <li>The project was structured as a PPP, under a design, build, finance and maintain model with a concession period of 40 years.</li> <li>The contract was primarily an availability-based transaction with two percent of the payment being dependent on traffic volumes in order to provide an additional level of performance incentive.</li> </ul>	<ul style="list-style-type: none"> <li>None noted.</li> </ul>
<b>North American case studies</b>				
<b>Bay Area Rapid Transit (BART)</b>	San Francisco	Medium (inner urban)	<ul style="list-style-type: none"> <li>In 2009, BART requested bids for the delivery of one segment of the Warm Springs Extension</li> <li>New infill station at West Dublin/Pleasanton is currently being constructed. Funding is being derived from a unique PPP arrangement and TOD project which is being developed on property owned by BART</li> </ul>	<ul style="list-style-type: none"> <li>Joint development approaches</li> <li>BART intends to lease the land it owns around proposed parking facilities to developers that will finance and deliver residential buildings for BART transit employees</li> <li>Tax increment financing</li> </ul>
<b>Dallas Area Rapid Transit (DART)</b>	Dallas	Medium / low (urban)	<ul style="list-style-type: none"> <li>Competitive bid processes for station developments</li> <li>Flexible re-sequencing arrangements for track installation</li> </ul>	<ul style="list-style-type: none"> <li>Joint development approaches</li> <li>Project sponsored by transit authority</li> <li>Innovative Master Development Agreement</li> <li>Implementation of innovative tax increment financing arrangement and right-of-way access</li> </ul>
<b>Washington Metro</b>	Washington D.C.	Medium / low (urban)	<ul style="list-style-type: none"> <li>The \$2.7bn extension will be funded through federal funding, tax increment financing and by a toll increase on a primary highway</li> <li>Construction commenced 2009</li> </ul>	<ul style="list-style-type: none"> <li>Joint development approaches</li> <li>Tax increment financing arrangements – commercial property value capture used to fund 28% of Silver Line project costs</li> </ul>

**Executive summary: value capture findings**

Value capture: summary table of findings					
Project	Value capture strategies	Planning powers	Timing	Scale of development	Project cost financed (\$)
<b>Australian case studies</b>					
<b>Barangaroo Project</b>	<ul style="list-style-type: none"> <li>Joint development</li> <li>Contributions levied from developers at 1% of construction costs</li> <li>Fixed payments over 8 years</li> <li>Profit share payments</li> </ul>	<ul style="list-style-type: none"> <li>Developer's proposed designs are subject to a planning process</li> <li>BDA has responsibility to deliver the entire precinct</li> </ul>	<ul style="list-style-type: none"> <li>Procured during GFC</li> <li>Stage 1 commenced March 2010 (7.3ha)</li> <li>Construction of first commercial building in December 2010</li> </ul>	<ul style="list-style-type: none"> <li>\$6bn</li> <li>22ha</li> <li>2.6ha public realm</li> </ul>	<ul style="list-style-type: none"> <li>\$100m payment to BDA</li> <li>1% levy on construction costs</li> <li>Works in kind</li> </ul>
<b>Chatswood Interchange</b>	<ul style="list-style-type: none"> <li>Ownership of all land retained by RailCorp</li> <li>Delivery of public space and retail space</li> <li>Increased local tax base and state property taxes</li> <li>Development component (retail and residential space) cross-subsidised station infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>TIDC has responsibility for construction, development and commissioning of projects</li> </ul>	<ul style="list-style-type: none"> <li>Certain elements of the development component were constructed concurrently with the transport component</li> <li>High level of coordination required</li> <li>Transport related component completed in 2008</li> </ul>	<ul style="list-style-type: none"> <li>\$360m total project cost (including residential towers)</li> <li>\$157m cost of infrastructure</li> <li>10,000sqm convenience retail and 3 residential towers</li> </ul>	<ul style="list-style-type: none"> <li>\$100m property development subsidised transport component</li> </ul>
<b>Epping to Chatswood Rail Line</b>	<ul style="list-style-type: none"> <li>Property taxes and improvement levies were considered but rejected</li> <li>Airspace rights on station developments granted for Chatswood Station</li> </ul>	<ul style="list-style-type: none"> <li>TIDC has responsibility for construction, development and commissioning of projects</li> </ul>	<ul style="list-style-type: none"> <li>Packages done by one contractor to complete the project more efficiently</li> </ul>	<ul style="list-style-type: none"> <li>\$2.3bn</li> <li>13km</li> <li>5 stations (3 new and 2 redeveloped)</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable (see Chatswood Interchange)</li> </ul>

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# Urban infrastructure case studies: Australia

**Barangaroo will provide a new precinct to the city of Sydney with a public Headland Park on Sydney Harbour and a mixed use development**

**Key characteristics:**

- \$6bn development
- 22 hectare site
- 60 per cent of the site public space

**The mixed use development stage of the Project (Stage 1) is currently being procured with Lend Lease as the chosen developer. This stage will involve the construction of a circa 490,000m2 of GFA development with public realm and open spaces**

**Background**

- Barangaroo is significant waterfront development project in the city of Sydney. The objective of the Project is to transform a vacant 22 hectare industrial site into a new precinct for Sydney, with a new public Headland Park on the harbour and a community, residential and commercial heart.
- The \$6bn development will see commercial, retail, residential and tourism buildings being developed on the southern end of the site.
- The northern end of the site will be dedicated to open space and public domain and return more than three hectares of water area to Sydney Harbour.
- Stage 1 of the Barangaroo development is the mixed use development stage and will involve the construction of up to circa 490,000m2 of GFA of commercial, retail, residential and tourism buildings.
- The development will include 2.6 hectares of public realm and open spaces as well as 1km of Sydney Harbour foreshore being returned to the public.
- Barangaroo will also include transport infrastructure such as a new ferry terminal and pedestrian links to connect Barangaroo to existing public transport networks. The potential for light rail and a new metro station is also being discussed.

**Governance**

- The Barangaroo Delivery Authority (the 'Authority') was established in 2009 to manage and deliver the city waterfront development at Barangaroo.

**Procurement**

- The process for the Stage 1 development involved an Expression of Interest stage in April 2008 which identified a shortlist of three Proponents, Brookfield Multiplex, Lend Lease and Sydney IFC.
- The three Proponents were then issued a Request for Detailed Proposals (RFDP) in September 2008 with submission by March 2009.
- Each proposal included a mix of payments for the proposed developments along with site infrastructure as works in kind to the Authority. From the evaluation process two Proponents were chosen to enter into a negotiation stage.
- Each Proponent submitted revised Proposals based on the negotiations in November 2009 and following evaluation Lend Lease were appointed as preferred bidder for the project in December 2009.
- As part of the project development agreement, Lend Lease will be obliged provide the infrastructure and public works to the Delivery Authority along with fixed payments and profit share payments on each development works portion.
- The contract close of the project, following further negotiations and finalisation of the Project Deed Agreement, took place in March 2010.



Source: [www.barangaroo.com](http://www.barangaroo.com)

**Key project issues include:**

- revenue risk
- headland park and public domain funding
- removal of the passenger cruise terminal
- Remediation
- Global Financial Crisis
- political issues
- sustainability

**Lend Lease will make payments to the Authority in the form of fixed payments at milestone dates along with profit share payments and works in kind in the form of the development infrastructure**

**Value capture**

- **Joint development and public realm delivered by the project**
  - The Stage 1 development will provide 2.6 hectares of public realm and open spaces, site infrastructure, social initiatives and headworks;
  - **Remediation** – the developer has proposed to undertake remediation works within the site under a risk sharing agreement with the Authority.
  - **Sustainability** – the Lend Lease proposal aims to deliver low energy buildings, links the encourage public transport, centralised precinct services that support a carbon neutral, water positive and zero waste outcome
- **Financial contributions to the Authority**
  - The developer is required to pay two levies to the Authority. These levies are each payable at 1% of construction costs. The first levy is an arts and culture levy which will be used to fund public art works and items of cultural interest for the site and the second is a developer levy.
  - A series of fixed payments totalling several hundred million dollars will be made to Authority over eight years, phased so as to coincide with the proposed development timetable, including approximately A\$100m in the first 18 months.
  - An additional profit share payments to the Authority based on a share of the project's financial success. This profit share will be payable on completion of each works portion and when all fixed payments are made.
- **Land ownership**
  - The Authority's ability to sell its land holdings is restricted under the *Barangaroo Delivery Authority Act* (the 'Act'). The consequence of this restriction is that the Authority will retain the benefit of any increase in the value of the land holdings. The Authority also has the power to acquire land, for the purposes of the Act, by agreement or by compulsory processes.
  - The land in Stage 1 of the development will be transferred to the owners on completion of each works portion under the granting of a 99 year lease agreement.

• **Planning considerations**

- In late March 2010, Lend Lease signed a Project Development Agreement with the Authority to develop Stage 1 of the Barangaroo Project. This is a 7.3 hectare site at the southern end of the development and involves the majority of the commercial, retail, residential and tourism components.
- The Lend Lease proposed designs are now subject to a planning process with the first planning applications to be submitted shortly.
- Construction on the first commercial building is expected by December 2010, following a site remediation period.

**Key project issues**

- Some of the key issues / challenges or the project include:
  - **Revenue Risk:** the Authority was faced with a decision on balancing the need for upfront payments in order to fund other aspects of Barangaroo with the potential to extract better value from the development land in the form of profit sharing on works portion completions. There was also a need to consider the risks associated with such a profit share. As a result of this, Proponents were requested to bid a mix of fixed payments, profit share payments and the public infrastructure as works in kind.



Source: [www.abc.net.au](http://www.abc.net.au)

## Barangaroo Project – Barangaroo Delivery Authority, Sydney (continued)

### Key project issues include:

- revenue risk
- headland park and public domain funding
- removal of the passenger cruise terminal
- Remediation
- Global Financial Crisis
- political issues
- sustainability

**Lend Lease will make payments to the Authority in the form of fixed payments at milestone dates along with profit share payments and works in kind in the form of the development infrastructure**

- **Headland Park and the Public Domain:** The Authority has been set up to deliver the entire precinct of Barangaroo. This also involves the development of the Headland Park and the Public Domain on the northern end of the development. In order to construct this in the proposed timeframe, payments are required from the developer of Stage 1 to fund the development of these sections;
- **Passenger Cruise Terminal:** the majority of the land is currently unused but there is a cruise terminal in operation from the southern end of the site. This is under the control of Sydney Ports Corporation. In order to develop on this section of the site, the Authority will have to relocate the terminal to another area of the harbour and funding is required to progress this;
- **Remediation:** A section of the site was previously used as a gas works and is currently contaminated. There will be a requirement to remediate the site in order to bring it up to standard for development. This remediation must be completed at the early stages of the project;
- **Global Financial Crisis:** the request for detailed proposals was issued to three shortlisted Proponents in September 2008 with submissions required by March 2009. This was during a time of significant volatility in financial markets and it was unclear as to how that would impact in the feasibility of such a large scale project;
- **Political Issues:** Given the significance of the project as a major new precinct in the city of Sydney and it's location on the Sydney Harbour there has been significant political interest in this project. Particular issues surround the amount of land used for public domain, returning the contours of land to the harbour, the size and dimensions of the mixed use development and the reclaiming of part of Sydney Harbour to facilitate the construction of a 5 star hotel over the water.
- **Sustainability:** one of the key objectives for Barangaroo is to provide a water positive, zero waste and carbon neutral precinct. It was key to attract a developer that would be able to provide this while also providing value to the Authority.

## Epping to Chatswood Rail Line – Transport Infrastructure Development Corporation, Sydney

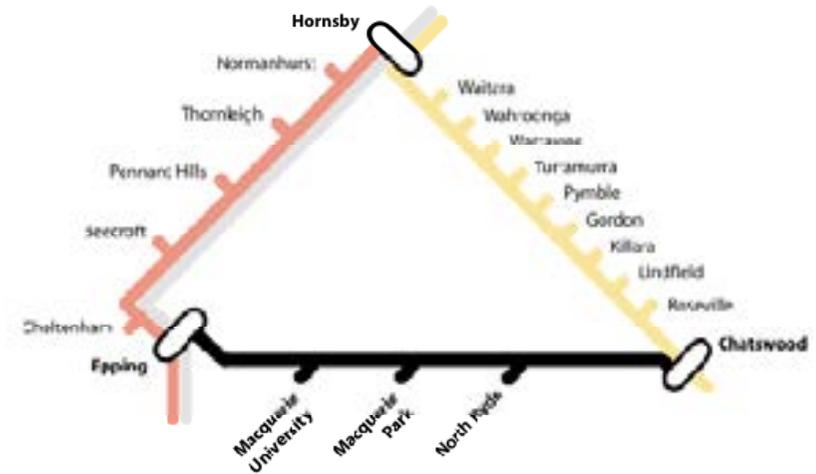
**Epping to Chatswood rail link was constructed to relieve congestion on the northern and northshore lines by building a new dedicated link between these two existing lines**

**Key characteristics:**

- \$2.3bn
- 13 km route
- 5 stations (3 new and 2 redeveloped)
- 3 crossovers and 49 cross passages

**Background**

- The Epping to Chatswood Rail Line (ECRL) (originally a part of the Parramatta Rail Link (PRL)) is a railway line in the northern suburbs of Sydney, which connects the suburb of Epping on the Northern line to Chatswood on the North Shore line.
- The 13km line is completely underground and includes three new intermediate stations: North Ryde (known as Delhi Road during much of the planning process), Macquarie Park and Macquarie University. The junction stations at Epping and Chatswood both underwent major redevelopments to incorporate the new link.
- In 1998 the Parramatta Rail Link was announced as part of the NSW Government's Action for Transport 2010 plan.
- The line was to run from Chatswood through Epping to Parramatta, partially travelling along the underutilised Carlingford surface line which would be expanded from single-track to dual-track.
- This proposal included optional stations at Delhi Road and UTS Kuring-gai and would be served by eight services an hour.
- Construction was planned to commence in late 1999, with the line to open in 2006.
- The Project was to be developed as two packages: Parramatta to Epping and Epping to Chatswood.
- The project comprises two 13km tunnels, one in each direction.
- The line opened on 23 February 2009 as a shuttle service between Epping and Chatswood.
- Initially passengers could use a blue Complimentary Pass, or buy a ticket to either Chatswood or Epping if coming from outside the new link.
- Subsequently the automatic gates at the new stations were switched on and passengers were required to "buy" a ticket as usual.
- A portion of the fare was automatically deducted for passengers travelling to or from stations beyond the new link.
- Trains operated at 15 minute intervals, with the last service departing Epping at 9.31pm.
- The line currently carries approximately 8,000 passengers per day.



## Epping to Chatswood Rail Line – Transport Infrastructure Development Corporation, Sydney (continued)

Government primarily considered pure PPP models

However, consortia were also asked to provide alternate bids with innovation in financing, design and construction

Various packaging options were considered however interface risks were considered too great

### Governance

- The project was delivered by Transport Infrastructure Development Corporation (TIDC) for City Rail. The Transport Infrastructure Development Corporation is a State-owned corporation that operates under the provisions of the *Transport Administration Act 1988* (NSW).
- The primary role of the Corporation is to undertake development and delivery of major transport infrastructure projects, under the direction of the NSW Minister for Transport.
- The Corporation has responsibility for the development, construction and commissioning of projects, while satisfying requirements for environmental and financial accountability to the NSW State Government.
- The project is 100% government owned and is now operated by RailCorp.

### Procurement

- PPP options were considered by government, however PPPs and PPP mechanisms were in their infancy during the procurement planning. As a result, the options examined for the rail infrastructure component were quite limited –i.e. the government appetite was purely for a total market risk model (the proponent would bare all revenue and patronage risk).
- Consortia were initially invited to provide two bids, a conforming bid and an alternate bid. The alternate bid was to allow the chance for private sector to innovate in the areas of finance, design, construction and operations. For example, consortia, could bid significant changes to the new and existing infrastructure to allow time savings, reliability and cross-regional travel.
- Ultimately, the project was awarded on the basis of conforming bids.
- Various packaging options were considered however the interface risk of multiple packages once the project was shortened was considered too great. The project was then awarded to a joint venture between Theiss and Hochtief.
- The Joint Venture along with Alstom Australia were responsible for the design, construction and commissioning of track, signal and communication works.

### Value capture

- **Property development and public realm delivered by project:**
  - Property taxes or improvement levies in the corridor were considered but ultimately rejected

- Airspace rights on station developments were only granted at Chatswood Station (refer separate Chatswood Transport Interchange Case Study)

### Financial contributions

- The total project from Parramatta to Chatswood was estimated at \$2.3 billion
- The project estimates for the Epping to Chatswood component was \$1.4 billion

### Key project issues

- The project was a high profile development which incorporated significant property, transport and retail components (refer separate Chatswood Transport Interchange Case Study).
- Consideration of the commercial issues regarding the acquisition and use of private and Crown land added complexity to the project.
- Increased complexity due to the project being a brownfield development on a railway line which needed to remain functional and operational.



**The Chatswood Transport Interchange is recognised as one of Australia's best transit-orientated developments, providing a world class inter-modal transport interchange that integrates both transport and development related components**

**The transport related component of the project was completed in 2008**

**Key stats:**

- \$360m development
- transport component: rail, bus, taxi
- development component: 10,000m<sup>2</sup> of convenience retail space and three new residential buildings with underground parking
- the above cross-subsidized the new station infrastructure (by almost \$100m)

**Background**

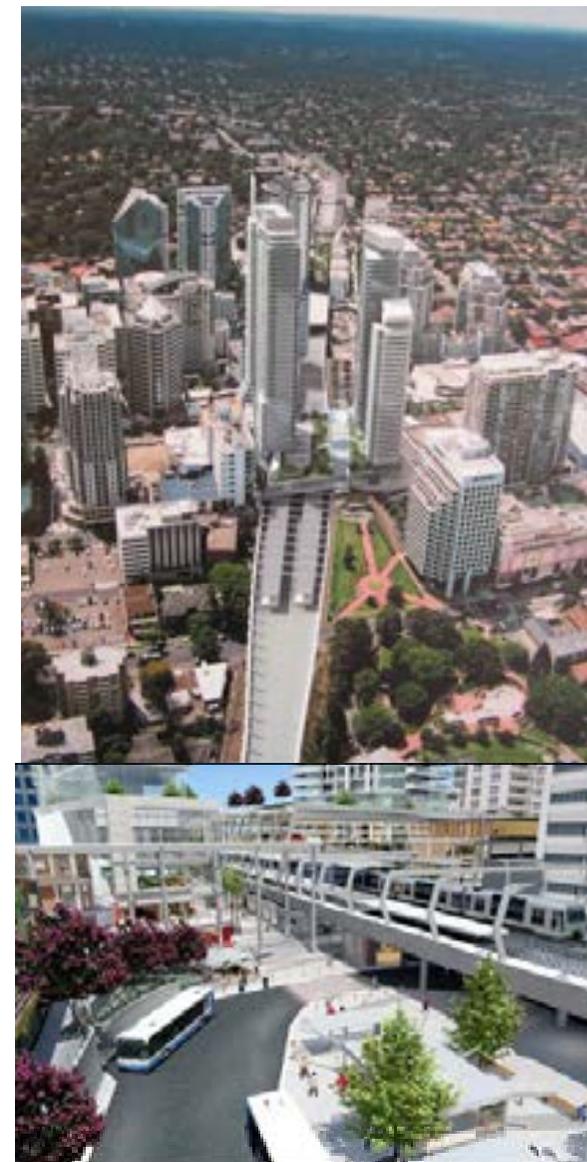
- The Chatswood Transport Interchange project is a major redevelopment and reconfiguration of the Chatswood Transport Interchange ('CTI') into a world class inter-modal public transport interchange.
- The aim of the project was to reconfigure the existing CTI to:
  - accommodate the new rail connection from Chatswood to Epping;
  - relocate and develop new bus and taxi interchanges;
  - rectify shortcomings of the existing transport interchange (such as lack of access for people with limited mobility, poor security, poor station identity and tired retail areas);
  - achieve transport-related objectives; and
  - generate a number of retail and residential uses.
- The project commenced in January 2005. The Transport Related Component was completed in late 2008.
- After completion of the Transport Related Component, CRI went into receivership and receivers ('PPB') took over CRI's affairs. Precision Group bought the retail component of the Development Component for \$83m and subsequently claimed that CRI had left \$30m of building defects. The matter is currently before the Supreme Court.
- Works on the residential component of the Development Component have not yet commenced. PPB indicated that it would call for tenders for the 3 tower residential part of the project in early 2010.

**Governance**

- As with the Chatswood to Epping rail line, the project was delivered by the Transport Infrastructure Development Corporation, a State-owned corporation that operates under the provisions of the *Transport Administration Act 1988* (NSW).
- The primary role of the Corporation is to undertake development and delivery of major transport infrastructure projects, under the direction of the NSW Minister for Transport.
- The Corporation has responsibility for the development, construction and commissioning of projects, while satisfying requirements for environmental and financial accountability to the NSW State Government.

**Procurement**

- The project was undertaken as a PPP between:
  - government entities, including the Transport Infrastructure Development Corporation ('TIDC') and Railcorp; and
  - the developer, including CRI Chatswood Pty Limited (a consortium comprising CRI Australia Pty Limited, Barclay Mowlem, CBA and SBP Developments Pty Ltd) ('CRI').
- The total project cost (including the three residential towers) is \$360m.



## Chatswood Transport Interchange – TIDC and RailCorp, Sydney (continued)

The contract was structured as a **Privately Financed Project (PFP)**

The government entities made a contribution to the **Transport Related Component**. The Developer funded the remainder of the **Transport Related Component** as well as the **Development Component** (which included a land purchase from the government agencies)

The government entities maintain ownership, through stratum titles, of the **Transport Related Components** as well as part of the **retail space** (which is then leased back to the developer)

- CRI was selected as the developer for the project following an extensive tender process, which included:
  - January 2004: short-listing design and construction contractors (capable of carrying out the major transport engineering works and the major parts of the development works) that had registered their interest in the project following advertisements by the TIDC; and
  - May-November 2004: calling for (and evaluating) Detailed Proposals from interested consortiums (a condition of which was to include one of the short-listed design and construction contractors).
- The Chatswood Transport Interchange incorporates the Transport Related Component and the Development Component (together the Integrated Construction Works).
- Transport Related Component included:
  - elevated twin island platforms to the existing North Shore line and the new Epping-Chatswood line;
  - a rail concourse beneath the platforms;
  - a new bus interchange; and
  - a new taxi interchange.
- Development Component included:
  - fitout of retail space in the concourse;
  - a retail centre;
  - 3 residential towers over the station; and
  - related car parking.
- CRI was contracted to design, construct and partially fund the Integrated Construction Works (and to manage and coordinate the staging of the works to an agreed timetable).
- The contractual relationship between TIDC/RailCorp and CRI was on the basis of a Privately Financed Project (PFP).
- TIDC/RailCorp entered into a series of call option deeds with CRI, which provided for the sale of the Retail Complex, Residential and Car Park stratum titles and lease of the Retail Space, to CRI on completion of construction of the Transport Related Component.

### Value capture

#### ● Land ownership

- Following completion of the project, ownership of all land (including the Retail Space) will be retained by RailCorp, other than the Retail Complex, the Residential Stratum and the Car Park.
- RailCorp will lease the Retail Space to the Retail Complex purchaser for a term of 50 years (with a 15 year option for renewal and 2 further 5 year option periods) for annual (indexed) rent of \$0.5m per annum (which can be used to fund further development of the retail premises within the concourse retail area). The lessee will be responsible for cleaning and maintaining the leased areas. RailCorp will contribute \$0.3m per annum (indexed) towards these maintenance costs.

#### ● Property development and public realm delivered by project

- The development delivers significant areas of transport related public space, as well as pedestrian access and retail areas.

#### ● The Financial contributions for the site

- The total cost of constructing the infrastructure is \$157m. TIDC's contribution is \$64m (which covers the cost of the Albert Avenue and Health Street bridges and associated roadworks).
- CRI also funds the costs of constructing the Development Component and purchased the specific property parcels for the residential towers and the retail centre from TIDC/RailCorp.
- Increased revenue gains will also be derived through a higher local rates base and state property taxes (such as stamp duty).



**It was extremely important that a safe and uninterrupted operation of the existing North Shore line and Chatswood Station was maintained during the construction of the project.**

- There were no new property taxes or improvement levies. These were considered but rejected

**Key project issues**

- Some of the key issues / challenges for the project include:
  - **Complex Design and Construction:** It was of critical importance that a safe and uninterrupted operation of the existing North Shore line and Chatswood Station was maintained during the construction of the project.
  - **Global Financial Crisis:** The GFC was a contributing factor of CRI going into receivership. The timing for construction of the residential component (commencement of which is subject to anticipated market demand) has also been affected by the GFC and CRI's financial position.
  - **Third Party Revenues:** It was anticipated that the project would generate substantial third-party revenues from the significant property development opportunities that are associated with the project. The generation of these revenues was seen as being ancillary to the principal purpose for the project (which was the achievement of public transport objectives).
  - **Interfacing and Coordination:** The project required a high level of cooperation between CRI and RailCorp/TIDC. Certain elements of the Development Component needed to be constructed concurrently with the Transport-Related Component.
  - **Responsibility for Long Term Maintenance:** CRI bore the responsibility of the long term maintenance of the Development Component and has some responsibility for the long term maintenance of the Transport Related Component.

# Urban infrastructure case studies: Asia

The MTR Corporation is regarded as a world class public transport provider that achieves the highest international standards for safety, reliability, customer service and cost efficiency. It is widely viewed as the world's best urban rail operator

#### MTR network consists of:

- 9 major lines
- 175 km route length
- 82 stations
- 1,698 cars
- in addition to a Light Rail and Airport Express line

#### History of MTR Corporation

- MTR was built in response to the rising pressures of population growth in Hong Kong. MTRC has expanded operations internationally and is also involved in property and railway-related business including development of residential and commercial projects, property leasing and revenue from advertising, telecommunication services and international consultancy services.
- The MTR is one of the world's few profitable railways
  - 2007 fare box revenue = AUD1,000 million
  - 2007 non-fare box revenue = AUD250 million
- The basic MTR system initially comprised of three lines and was designed in the 1970s. The MTRC was established and had the responsibility for financing, constructing and operating the system. The first line was the Modified Initial System (MIS) – the original full scheme was broken down into different lines due to the MTRC unable to afford full scheme due to the 1970's oil crisis.
- The railway system has now expanded to include 9 major lines, a Light Rail and an Airport Express line.
- MTRC has recently merged with the Kowloon Canton Railway and now runs the whole Hong Kong rail network. There are currently plans to add six new lines (60km) to the rail network.
- Other MTRC Projects include:
  - New Hong Kong projects include Express Rail Link, Shatin Central Link, Kwun Tong Line Extension, South Island Line (E), West Island Line
  - Beijing Metro and Shenzhen Metro
  - Hangzhou Metro Line 1 – Invest, Construct, Operate
  - London Overground Operating Franchise (50% ownership)
  - Melbourne train system – through Metro Trains Melbourne (60% ownership) – Operate and Maintain
  - Stockholm Metro – Operate, Service, Maintain
- MTR is a member of CoMET (Community of Metros), which includes 12 of the largest metro railways established to “develop best practice, provide comparative information and to introduce a system of measures for management and to prioritise areas for improvement.”

#### MTR's service performance in 2007:

Service Performance Item	Actual (2007)	Ranking in CoMET* (2006)
<b>Passenger Journeys on Time</b> (Passenger arrive at destination within 5 mins)	99.9%	2
<b>Train Punctuality</b> (Trains arrive at destinations within 2 mins for urban lines)	99.8%	2
<b>Train Reliability</b> (Train Car-km per train failure causing delays > 5 mins)	1,762,621 km	1
<b>Octopus Reliability Index</b> (Total no. of transactions per unreadable card)	34,094	n/a
<b>Ticket Gates Reliability</b>	99.8%	n/a
<b>Escalator Reliability</b>	99.9%	n/a
<b>Train Body:</b> Washed every 2 days	99.9%	n/a

*Source: MTR Corporation*

#### Governance

- The MTR Corporation (MTRC) operates Hong Kong's metro and rail network. It was established in 1975 to construct and operate the Hong Kong MTR system (MTR) on prudent commercial principles – the Hong Kong Government being the sole shareholder.
- In 2000 the company was listed on the Hong Kong Stock Exchange (HKSE) with the government selling a 23% stake to Private and Institutional investors. In 2007, MTR merged operations with the government owned Kowloon-Canton Railway Corporation.

#### Procurement

- Approval from government and various companies to develop commercial and residential property was sought in order to accomplish railway construction. However, Hong Kong has a contractor friendly approach where approval and planning process are sped up for private works.
- In the preliminary Projects, decisions were made quickly and risks and benefits were shared between contractors. Project motto “if it is essential, get on with it; if it is desirable forget it”.
- Innovative contract solutions – government does not negotiate contracts
  - Competitive bidding 3-2-1 – therefore reducing bid cost
  - Developing a more prescriptive product before going to market

## Hong Kong Mass Transit Railway (MTR) – Mass Transit Railway Corporation, Hong Kong (continued)

### Key characteristics:

- Services a population of over 7m people with approx 4.2m passengers/day
- 587m passengers in 2008-09
- Peak hour- trains approximately every 90-180 seconds

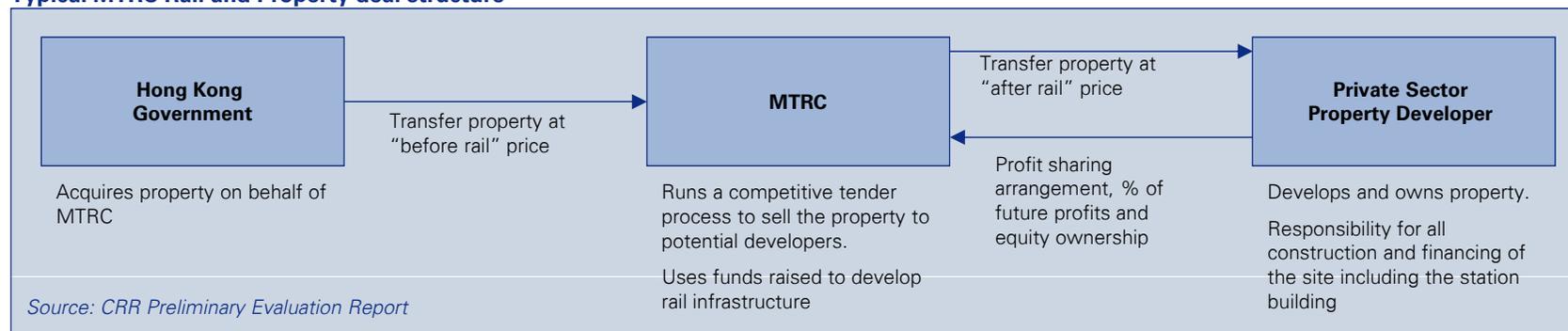
- Top-to-bottom fully integrated
  - Initial extension planning, financing, designing, constructing, operations, asset replacement, maintenance, property development and property management
- The following project risks were generally allocated to the private sector:
  - **General/project environment** – shared through negotiation between parties
  - **Design** – no risks remain with MTRC
  - **Finance:** Interest rate and exchange rate risk contract specific. Intra consortium counterparty risk transferred to private sector
  - **Operate and Maintain:** Contract specific and/or transferred to private sector
  - **Construction and Procurement:** Property acquisition and right of way delays risk remain with MTRC. Construction delays risk not attributable to public sector and intra consortium counterparty risk transferred to private sector. Health and safety risks are shared and unforeseen construction cost overrun risk contract specific

### Value capture

- **Joint development and Rail-Property Development Business Model**
  - The MTRC’s Rail-Property Development Business Model was to form joint ventures with property developers to plan and develop commercial and residential communities around the railway lines. The Model represented a unique approach to the relationship between rail infrastructure and property development. Key elements incorporated in the Model include: Policy, Process, Project and Organisation:

- Government Policy was favourable in the form of land grants and commitment to the MTR as a essential public transport initiative
- Processes were well managed, planned, controlled and implemented to maximize rail and property development synergies throughout all phases of each Project
- Residential and commercial developments were appropriate, high density and well integrated with the Railway Infrastructure in order to maximise property income and sale profits
- The MTRC had experienced international advisors which contributed heavily to project management and the development of a world class railway service (there was no previous rail experience on the island)
- MTRC also retains in the form of joint ventures, some of the residential and commercial property for management, further development and seeks to commercially utilize their assets.
  - Where the land is not urban consolidated the development possibilities were greater. Strategic plans of transit oriented developments were able to be developed by the government, the MTRC and private sector/property developer in order to increase the revenues.
  - Property developments also contribute to higher patronage and users of services and associated facilities.
  - Property complexes that have been developed at 35 MTR stations include: 71,940 housing units, 1.6m square metres of commercial space and financial contributions.

### Typical MTRC Rail and Property deal structure



# Hong Kong Mass Transit Railway (MTR) – Mass Transit Railway Corporation, Hong Kong (continued)

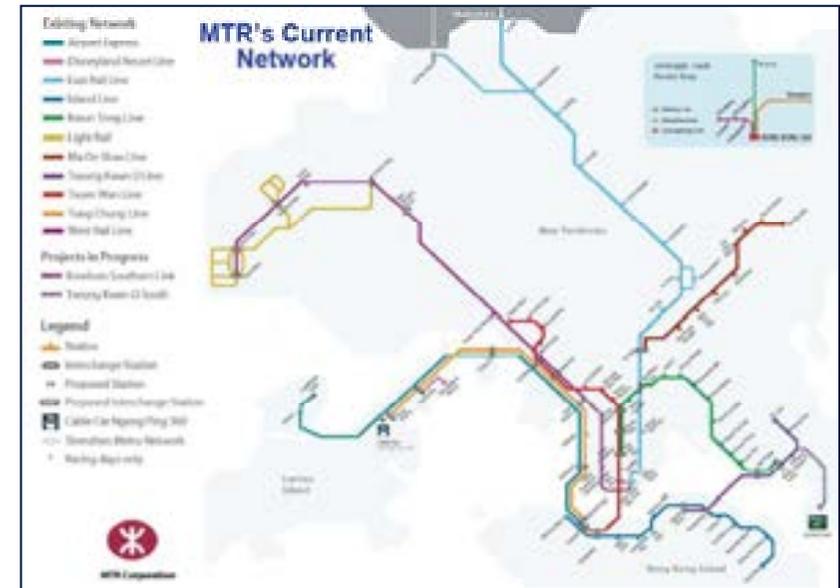
## Key characteristics:

- Services a population of over 7m people with approx 4..2m passengers/day
- 587m passengers in 2008-09
- Peak hour- trains approximately every 90-180 seconds

- Railway infrastructure is financed from the profits of property sales in the surrounding railway property developments. Profits also allow fares to be kept at reasonable levels without the requirement for government subsidies. Financing of future railway projects in Hong Kong are continued through this Rail-Property Development Business Model in addition to bringing about increasingly efficient rail services (as shown in the table to the right).
- MTRC's overall return on investment has also been positively affected by profits from property developments.
- No subsidies were received from the government except in the form of land grants and initial start up capital. The MTRC therefore adopted an aggressive business strategy to pursue income from property development surrounding its stations.

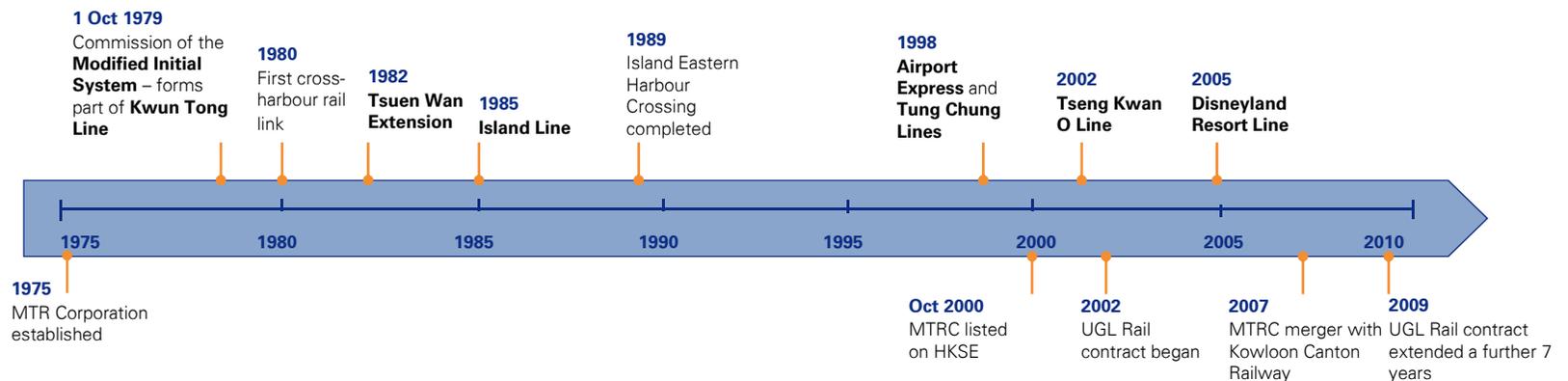
## Key project issues

- 1970's oil crisis – this had implications on the un-affordability of the initial full scheme
- Future of Hong Kong - negotiations between London and Beijing in the 1980/90s, uncertainty regarding the expiry of the British 99-year lease of Hong Kong in 1997 and the implications this would have on land leases and investments
- Asian Financial Crisis



Source: MTR Corporation

## MTR timeline to date



## MRT 3 'Metrostar Express' – Manila, Philippines

The MRT 3 is a 16.8km rail project that was delivered under a 25 year BLT concession contract.

A private company, Metro Rail Transit Corporation, was the operator of the asset with the Department of Transportation and Communications maintaining ownership of the system.

While Metro Rail Transit Corporation raised private funding for the project, the Republic of Philippines provided a guarantee of lease payments to the private financiers in an effort to achieve a lower cost of capital.

The project was also made attractive to the private sector by commercial development revenue being made, as well as revenue arising from the operation of MRT 3.

### Background

- Manila Metro Rail Transit System, known as the MRT-3 or Metrostar Express, is a rapid transit system with characteristics of light rail (such as the type of rolling stock used).
- Highlighted by the red line in the adjacent Philippines transport graphic, the MRT-3 forms part of the Strong Republic Transit System (SRTS) and was commissioned by the Philippines government to ease congestion on Epifanio de los Santos Avenue (one of Metro Manila's main thoroughfares).
- Running predominantly overground for 16.8km and servicing 13 stations, the Metrostar Express was carried out under a 25-year BLT (Build, Lease, Transfer) concession contract with the line becoming fully operational in 2000.

### Governance

- MRT is operated by the Metro Rail Transit Corporation (MRTC), a private company operating in partnership with the Department of Transportation and Communications (DOTC) who maintained ownership of the system and assumed all administrative functions.

### Procurement

- This project was to be funded by commercial borrowing from foreign capital markets. However, in an effort to lower the weighted average cost of capital for the private sector, the Departments of Transport and Communications (DOTC) and Finance (DOF) assisted the private consortium in negotiating lower lending charges. This was achieved by DOTC guaranteeing the lease payments with confirmation to the lenders from DOF that the obligations carry the full faith and credit of the Republic of Philippines.
- The effect of this guarantee structure is reported to have resulted in the effective interest rate reducing from 20% to 15%.
- A comparison with another light rail project, the LRT2 (the purple line in the adjacent map) provides insight into the benefits of the Metrostar Express delivery method:
  - Planning for both the LRT2 and MRT3 commenced almost simultaneously.
  - The LRT2 was purely publicly funded whereas the MRT3 included private finance, albeit including a guarantee from the Republic of Philippines.



Source: Metrostar Express homepage (<http://www.dotcmrt3.gov.ph/map>).

- Noel Eli B. Kintanar, Assistant Vice-President for Public Sector Partnerships and Infrastructure Projects, Ayala Land Inc. suggests that the LRT2 was on stream four years later than MRT3 and this difference was due to the efficiency of the private sector model in the Philippines. (Integration Experts Meeting on Public Private Partnerships, UN ESCAP, Bangkok Thailand, February 17-19, 2009).

### Value capture

- According to the Study on Urban Transport Development (August 2000) by The World Bank, the Metrostar Express project was also made attractive to the private sector by supplementing operating revenue with commercial development revenue. This approach was made possible by awarding the commercial development rights in the depot and stations to a private consortium in return for payment of a lease charge to the government.

# Urban infrastructure case studies: Europe

# Crossrail Project – Cross London Rail Links (CLRL), United Kingdom (£16bn)

The Crossrail Project will run through central London linking the outer East and West boundaries to the City

The project is expected to be completed by 2017

**Key characteristics:**

- estimated costs of £16bn
- expected economic benefits of more than £30bn
- includes 118km of new track and 8 new stations
- includes upgrade of 27 existing stations

**Background**

- The Crossrail Project (Project) is a new railway system that will enable central London to be linked with the outer boundaries of the City. It involves the construction of 23km of tunnels beneath London, connecting the existing infrastructure to new rail and underground stations.
- This Project requires the construction of 118kms of track and eight new stations as well as the upgrade of 27 existing stations. The Project will provide for 24 trains per hour during peak periods in both directions.
- Whilst the capital costs are significant, at an estimated cost of £16 billion, the Project is expected to generate benefits of over £30 billion. This is because it is significantly improving connectivity to the most productive part of the UK economy
- Funding for the Project was approved in 2007. The Crossrail bill then passed through Parliament and received Royal Assent in summer 2008
- Given the fiscal position in the UK, the costs of the project will be reviewed by the new Coalition government. However, the project has strong Mayoral support in London it is likely to progress as planned. Indeed, procurement of the packages for of tunnelling work is about to begin

**Governance**

- The Project will be delivered by Cross London Rail Links (CLRL) which is a joint venture between the Department for Transport (DfT) and Transport for London (TfL).
- The number of stakeholders and interfaces adds further complexity. The relationships between key stakeholders needs to be managed effectively in order to successfully deliver the Project.

**Procurement**

- Given that public funding was available for the project it is largely being procured by a conventional approach and not via PFI / PPP.
- The two delivery partners, Bechtel and Transcend were appointed in spring 2009
- The tunnel work will be split into four separate packages:
  - Network Rail, the owner of the UK’s rail infrastructure will undertake the “on – network” works either side of the tunnel
  - In addition, Canary Wharf Group, the major land owner in the area, will build the new Crossrail station on the Isle of Dogs



- A PPP / PFI approach may be used for the procurement of rolling stock
- Project delivery is to be undertaken as follows:
  - CLRL has chosen an integrated client / delivery partner approach to deliver the project
  - CLRL has appointed two delivery partners:
    - Bechtel will be responsible for the day to day delivery of the tunnel section
    - Transcend (a consortium involving AECOM, CH2M Hill and Nichols Group) will work with CLRL to deliver the overall programme safely and to time and budget

# Crossrail Project – Cross London Rail Links (CLRL), United Kingdom (£16bn)

The large capital expenditure of £16bn means that funding will be required from a variety of sources including the Department for Transport, Transport for London and London businesses

## Value capture

- **Business rate supplement**

- The Project is being funded from a variety of sources. TfL is the largest funder providing £7.7bn. Of this £3.5bn will be met by levying supplementary rates on business in London – a hypothecated tax for the project for which legislation had to be passed. DfT is providing a grant contribution of £5.1bn. Of the remaining funding, Network Rail has been granted £2.3bn, via the Office of the Rail Regulator, to undertake the “on-network” works and £0.5bn will be provided by British Airports Authority
- It may be that more private sector financing is sought for the station upgrade works should there be any issues around the availability of public sector funding.

The Docklands Light Railway (DLR) is a fully automated light rail system operating within the Docklands area of London

The procurement process commenced in 1982 and the system was first opened in 1987

The system has undergone significant extensions over seven separate phases

Initial plans have been developed for a further five extensions

The DLR concept formed part of an overall urban regeneration initiative for London's Docklands area.

### Background

- The Docklands Light Railway (DLR) is a fully automated light rail system operating within the Docklands area of London. The DLR concept formed part of an overall urban regeneration initiative for London's Docklands area.
- It was envisaged as a modern, innovative and attractive automatic railway system, initially consisting of a East-West route linking the City to the Isle of Dogs and a North-South route from Mile End to Stratford.
- The procurement process commenced in 1982 and the system was first opened in 1987. The system has since undergone significant extensions over seven separate phases and there are initial plans for a further five extensions.
- The DLR development therefore consists of several phases:
  - The Green Report – Consisted of 2 routes; an East to West route from the edge of the City to Isle of Dogs and a North to South route from Mile End to Stratford. Operations commenced in 1987.
  - The Bank Extension – The East to West route was extended westward to Bank. Construction started in 1988 and was completed in 1991.
  - The Beckton Extension – An eastwards extension from Poplar to Cyprus and Beckton via Custom House. Construction started in 1990 and operations commenced in 1994.
  - The Lewisham Extension – A southwards extension under the Thames to Greenwich and Lewisham. Construction started in 1996 and was completed in 1999.
  - The City Airport Extension – A southeast extension to King George V via London City Airport.
  - The Woolwich Extension – A further extension from King George V to Woolwich.
  - The Stratford International Extension – Spurred by London's hosting of the Olympics in 2012, this extension will link Stratford International to Woolwich. Construction started in 2007 and is expected to be completed by 2010.

### Phase 1 – The Green Report (GBP 77m)

- **Key Issues:**
  - **Funding:** The then Secretary of State for Transport specified that the railway had to be built within a fixed total project outturn cost cash limit.
  - **Program:** It was considered vital that the railway should open within 5 years of approval.
- **Contract structure:**
  - Phase 1 was delivered through a traditional design-build contract on the basis that:
    - This approach could deliver the required level of price certainty
    - The competition during the procurement process should allow the highest number of facilities to be built within the given budget



- This delivery method should best facilitate timely delivery of the works (although it is noted that additional time was required for commissioning of the computer operated system)

### Phase 2 – The Bank Extension (GBP 150m)

- **Key Issues**
  - **Interface:** This phase involved construction (including tunnelling), the provision of new rolling stock and signalling works.
- **Contract Structure**
  - Separate contracts were entered into for each of the three project components identified above.
  - 50% of the project funding was provided by the private sector owners of the newly developed Canary Wharf.

The Woolwich Arsenal station opened on 10 January 2009, ahead of the scheduled contract date of 28 February 2009

The Stratford International Extension is on course to open in Autumn 2010

A further potential extension (the Dagenham Dock Extension) was shelved in December 2009 due to a lack of funding and a potential lack of patronage (due to delay of a significant residential development in the area)

The EIB was a key source of funding for Phases 5 and 6 of this project

Traditional government procurement for Phase 7

#### Phase 3 – The Beckton Extension (GBP 224m)

- **Key Issues**

- **Performance:** Issues in relation to performance began to arise on the (then) existing DLR system prior to completion of the Beckton Extension.
- **Governance:** Ownership of the DLR was transferred from London Transport to the London Docklands Development Corporation. This resulted in the appointment of a new management team.

- **Contract Structure**

- A 'prime contractor' was appointed to take full financial and performance responsibility for the Beckton Extension and for integrating the new signalling systems across the entire network.

#### Phase 4 – The Lewisham Extension (GBP 20m)

- **Key Issues**

- **Signalling:** The extension required the installation of new signalling hardware. This had to be integrated with the existing signalling software system.
- **Land acquisitions:** The extension covered areas of land that were not owned by DLR and for which the land acquisitions had not been completed during the procurement process.
- **Demand risk:** government policy at the time this phase was procured involved the transfer of revenue risk to the private sector where possible.

- **Contract Structure**

- The extension was procured under a 24.5 year DBFM, under the UK PFI regime.
- The private sector is responsible for the construction and maintenance of the extension and the signalling hardware (with DLR retaining responsibility for signalling software).
- Until 2009, the payment mechanism involved availability payments (i.e. by the hour), with deductions for unavailability and 'softer' aspects (e.g. cleaning of platforms, CCTV, etc.).
- From 2009, the payment mechanism involves a variable usage charge based on the number of passengers using its infrastructure, with DLR guaranteeing that a specified minimum level of service will be operated. (This revenue risk transfer was achieved at a high cost to DLR.)
- The land acquisition risk was also transferred to the private sector. This involved the agreement of a fixed sum to be paid to the concessionaire prior to determining the actual cost of land acquisitions (ultimately resulting in a GBP 1 mwindfall for the private sector).

#### Phased 5 & 6 – The City Airport / Woolwich Extensions (GBP 140m & GBP 180m)

- **Key Issues**

- **Flexibility:** DLR wished to retain sufficient flexibility in the following key areas:
  - In order to facilitate potentially combining concessions in the future; and
  - In relation to potential funding solutions (such as the use of public sector guarantees and/or borrowings).
- **Construction Risk:** These works included the construction of twin bored tunnels under the Thames, giving rise to significant construction risk.

- **Contract Structure**

- These extensions were procured under separate DBFM (PFI) contracts.
- The City Airport Extension contract includes a right to voluntary terminate at any time (but based on future cash flows, meaning that the payment is uncapped).
- The Woolwich Extension contract includes two fixed price termination rights, timed to coincide with the expiry of the DLR operating contract and the Lewisham Extension concession respectively. These fixed prices were competitively tendered and evaluated as part of the procurement process.
- The payment mechanisms involve availability payments, with no transfer of demand risk to the private sector (based on the lessons learned from the Lewisham Extension).
- EIB funding was used to fund approximately 35% of the total financing requirement for the Woolwich Extension in order to minimise the private sector cost of debt. Transport for London (TfL) has also placed a series of put options with the lenders effectively guaranteeing 75% of the debt, reducing the margins on senior debt to a notch above TfL's corporate borrowing rate.

#### Phase 7 – The Stratford International Extension (GBP 238m estimated)

- **Key Issues**

- **Program:** Given the requirement to be operational ahead of the Olympic Games, timely delivery is a key issue for this phase.
- **Undefined Scope:** As this phase involves the upgrade of existing tracks (i.e. a 'brownfield' environment), the scope of works could not be clearly defined upfront.

- **Contract Structure**

- These works are to be delivered under a design and build contract, with separate contracts for signalling and rolling stock (i.e. similar to the structure adopted for Phase 1).
- The contract includes a 'bonus' payment in the event that the project is completed on time.

The Dublin Metro North scheme is a segregated, high performance, high capacity rail system that will run from St Stephen's Green in the city centre to Belinstown in the north of Dublin, Ireland

**Background**

- The Dublin Metro North project was first identified as a project for procurement in 2000, in a document entitled A Platform for Change compiled by The Dublin Transportation Office (DTO). This document identified the need for an integrated public transport network to provide for the forecasted increase in the population of Dublin. A key element of this network was a north-south metro line running from Belinstown in North Dublin, via Dublin Airport and the city centre, to St. Stephen's Green.
- In November 2005, the Irish Government announced its 10 year transport investment programme, Transport 21, which built on the recommendations of A Platform for Change document.
- Metro North will run in a mix of bored and cut and cover running tunnels from St. Stephen's Green in the city centre to Belinstown in North Dublin, a distance of about 7.8km and also beneath Dublin Airport, a distance of 2.4km. North of the airport the route is mainly at grade, with viaducts and an underpass providing grade-separated road crossings. At the airport the route enters a 2.3km twin tunnelled section. Total route length is 18km.
- The Project will improve links and accessibility to the city centre and airport. In doing so, it will reduce congestion and provide a marked improvement in public transport provision in Dublin.
- Metro North has a forecast passenger demand of approximately 6,000 passengers per direction per hour in 2016.

**Governance**

- The Railway Procurement Agency (RPA) is the statutory body that is responsible for the procurement of Metro North.
- The RPA is 'the state agency responsible for ensuring the provision of light rail and metro infrastructure'.
- The RPA will be the contracting body and will have overall responsibility for the planning of the project.

**Procurement**

- Transport 21 outlined the proposed development of two metro schemes, Metro North and Metro West and confirmed that Metro North would be undertaken as a PPP project.



Source: Transport 21

The Metro North project is currently being procured by the Railway Procurement Agency as a Public Private Partnership scheme

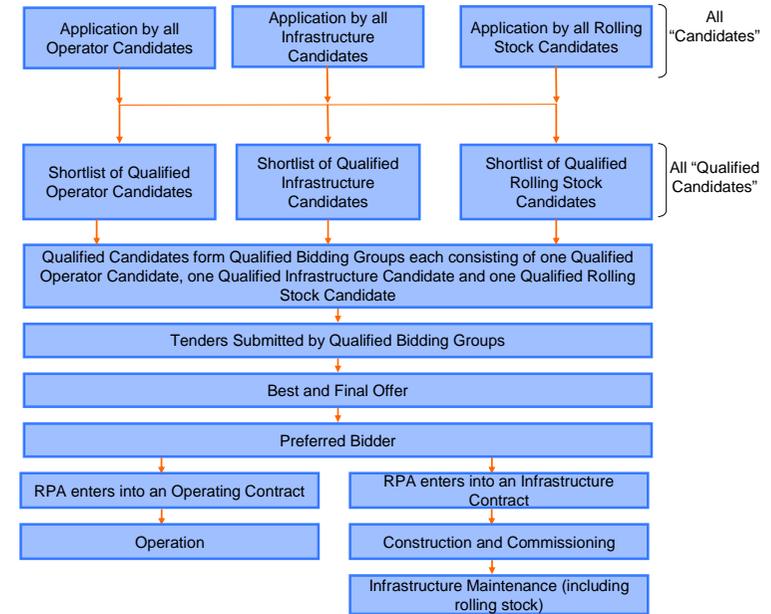
Grants and availability payments are paid as part of the Infrastructure Contract

- Metro North will be carried out on the basis of a design, build, finance and maintain contract (the Infrastructure Contract) having a term of the construction period plus 25 years.
- The Project will also include an Operations Contract, which will expire 5 years post the service commencement date, unless extended by an additional period of 5 years at RPA's discretion.
- During the term of the Infrastructure Contract, the Infrastructure Contractor will be obliged to carry out the works and the maintenance services and will be paid capital contribution payments (grants during the construction period) together with availability payments.
- During the term of the operating contract, the Operator will be entitled to revenue determined by the payment mechanism.
- Neither party will assume any revenue risk.
- The contract structure developed in the Outline Business Case (OBC) involved a separation between an Infrastructure PPP and an Operation Contract, DBFM plus O, for reasons including control and flexibility.
- Following Transport 21 (a few years post the finalisation of the OBC), a number of key considerations were identified by RPA and their advisers, such as:
  - **Commissioning risk:** As a result of the separation of the DBFM and O contract, the risk associated with the period between the completion of construction and the operation of Metro North, needed to be considered. It was important to RPA to mitigate this risk as much as possible.
  - **Responsibility for rolling stock:** The responsibility for the procurement of rolling stock and where this responsibility would lie. As rolling stock represents the public face of the Metro North system, RPA attached a great importance to the procurement thereof. Also given the potential for expansion on Metro North and other light rail networks, it was also important for RPA to maintain flexibility in terms of providing for additional capacity on Metro North and new lines in the future.
  - **Responsibility for long-term maintenance:** The responsibility for long-term maintenance of the main infrastructure and rolling stock and where this would lie. Long-term wheel/rail interface risk and the whole life risk of the infrastructure were important considerations of RPA in terms of the choice of contractual structure.
- **Wider system extensions:** Although Transport 21 does not specifically envisage the integration of the Luas Green Line with Metro North, this possibility remains.
- The contractual structure selected by RPA envisages that:
  - The Infrastructure Contractor will enter into the Infrastructure Contract with the RPA for the design, construction, financing and maintenance of Metro North;
  - The Operator will enter into the Operating Contract with the RPA for the operation of Passenger Services on Metro North;
  - RPA, the Operator and the Infrastructure Contractor will enter into a Cooperation Agreement;
  - The Operator will also perform a role as the Commissioning Contractor to assist the Infrastructure Contractor during the completion / commissioning phase of the construction works; and
  - the Infrastructure Contractor will be required to enter into some form of arrangement with the Operator, in respect of the testing, commissioning and bringing Metro North into passenger service.
- The key features of the pre-qualification process for Metro North included:
  - The **publication of three separate tender notices** in respect of the qualification process for the award of the Infrastructure Contract, the qualification system for rolling stock suppliers and the qualification system for Operators;
  - Following the pre-qualification process, RPA announced a shortlist of qualified infrastructure, rolling stock and operator candidates. With respect to the rolling stock and operator candidates, qualification systems or "panels" of qualified rolling stock and operator candidates were announced;
  - The formation of consortia comprising a qualified infrastructure candidate, qualified rolling stock candidate and qualified operator. Following approval of these consortia by RPA, these consortia were known as Tenderers; and
  - The issue of ITN suite of documentation to Tenderers.
- Projected completion date is contingent on the procurement and contract award processes and the outcome of the statutory planning process.

- The diagram adjacent provides an illustration of the Metro North contractual structure. Given the chosen contractual structure, the procurement process required interested infrastructure, rolling stock and operator candidates to apply separately for qualification and shortlisting.
- In late July 2009, two shortlisted bidding consortia were selected to continue to the final stage of the procurement process: Celtic Metro Group and Metro Express.
  - **Celtic Metro Group:** the consortium includes Barclays Private Equity, OHL, Mitsui and Soares de Costa with MTR assuming the role of operator and CAF as rolling stock contractor.
  - **Metro Express:** the consortium includes Macquarie, AIB, Global Via and Bombardier with Transdev/RATP as its operator and Bombardier as rolling stock contractor.
- Commencement of the final procurement stage of the Project is currently awaiting approval by An Bord Pleanála (the Independent Irish Planning Board) on the Railway Order application for the project. This application was submitted on 17 September 2008 and once approved will provide the RPA the authority necessary to construct, operate and maintain the Metro North line. The oral hearing of the process concluded on 10 March 2010.

**Value capture concepts**

- **Property development and public realm delivered by project**
  - RPA is an agency established under legislation to develop rail and metro infrastructure in Ireland;
  - Under its enabling legislation RPA has the power to compulsorily purchase land and to negotiate value capture with developers;
  - All such development value capture was kept separate to the PPP contract – this included individual agreements with property developers where contributions may have been land or monetary in nature;
  - In addition, development legislation in Ireland gives local Authorities the power to collect development levies on RPA’s behalf; and
  - Development levies are applied to developments within a particular distance from the Metro North line.



The Manchester Metrolink Tram System provides an integrated transport system for the Manchester area

The development of Metrolink has been complex and has involved a number of phases

The procurement process for the first phase took place in 1988 and the procurement of extensions to the system is still ongoing

**Background**

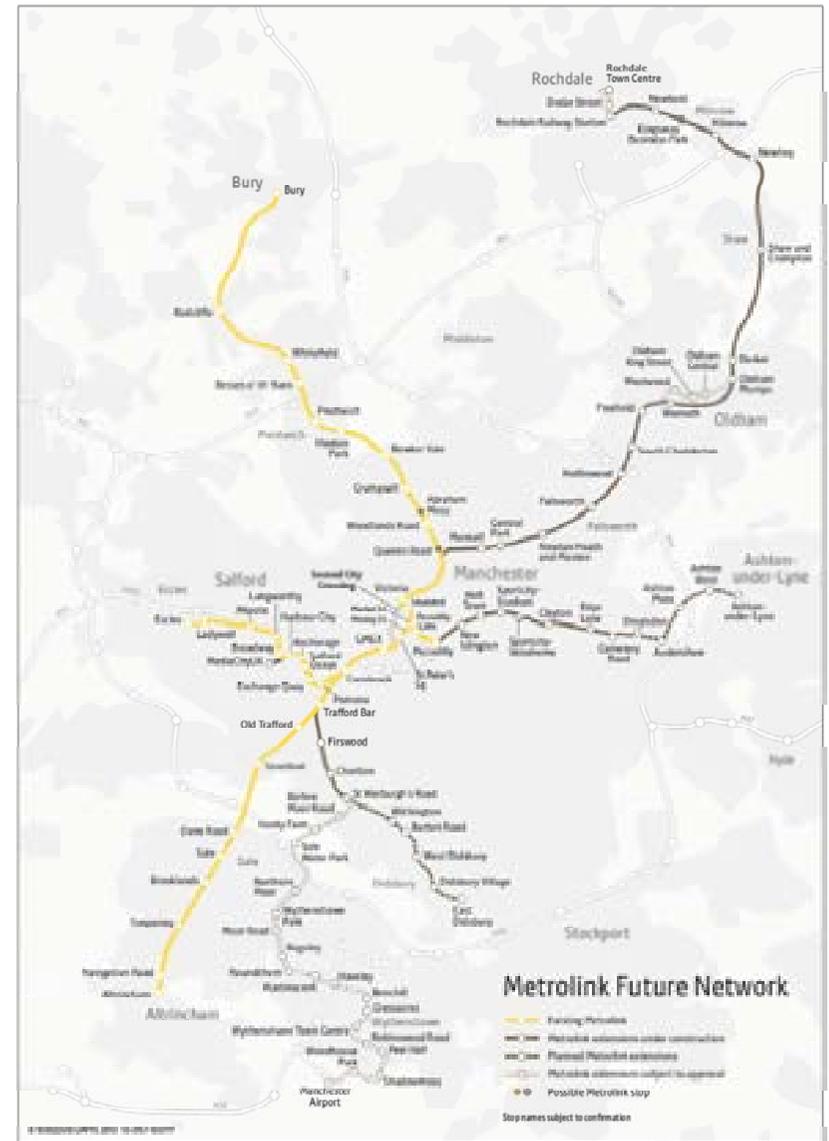
- Manchester Metrolink is an urban light rail transit system serving the city of Manchester and its surrounding areas. It is predominantly a surface system with some underground and elevated segments. Approximately 75% of the Metrolink system is segregated from general traffic.
- Phase 3A reached financial close in 2009:
  - The M-Paact Thales consortium has been selected to design and construct the expansion;
  - Bombardier will supply 32 new Flexity Swift LMTR vehicles; and
  - Stagecoach will operate and maintain the system (having won both operation and maintenance contracts).
- Phase 3B is currently under procurement:
  - Following a public referendum, the Transport Innovation Fund Bid (a transport package comprising £3bn of public transport improvements and a congestion charging scheme, half of which was funded through the DfT) was rejected.
- The majority of Phase 3B schemes are being procured through negotiated variations to the DCM contracts currently in force for Phase 3A (subject to the relevant VfM criteria being met).

**Governance**

- 10 district councils of Greater Manchester fund and control the Greater Manchester Passenger Transport Authority (GMPTA). GMPTA commissions transport services from the Greater Manchester Passenger Transport Executive (GMPTe), which delivers the services and owns the Metrolink system.

**Procurement**

- Metrolink comprises four distinct project phases:
  - Phase 1 included the original link between Victoria and Piccadilly stations, plus some stops previously serviced by Manchester’s aging electric railway system;
  - Phase 2 further expanded the system, extending Metrolink from central Manchester to Eccles. This phase included supply of additional vehicles, power supply upgrades and other major infrastructure upgrades (including track renewal);
  - Phase 3 was originally proposed as one large system expansion, but was subsequently scaled down into two smaller phases (3A and 3B) due to price/funding constraints. This phase ultimately included design and construction of the 3A works, rolling stock provision, operations and maintenance; and



A decision was made to replace private sector finance with public finance for Stage 3 of Metrolink

This decision reflected the belief that the benefit of cheaper finance (thereby allowing Metrolink to avoid 30% fare increases), outweighed the benefit of efficient delivery that the private sector could potentially provide

Three years of bidding had a detrimental impact on market confidence

- Phase 4 involves multiple new tram routes, some of which were originally planned as part of Phase 3 (i.e. the 3B works). Funding has been allocated to this phase from the Transport Innovation Fund (TIF), a government initiative to support innovative and coherent transport measures.

- **Phase 1 (GBP 152m)**

- **Key Issues**

- **Funding:** The predicted operating profits from the system were not expected to provide a commercial return on capital or support substantial private sector debt. However, the use of private sector funding was a precondition for securing a 'Section 56' grant from the Department for Transport (DfT).
- **Flexibility:** It was necessary to provide a level of flexibility within the contractual arrangements to enable GMPTE to procure expansion of the system.

- **Contract Structure**

- Phase 1 was procured through a DBOM contract with a 15 year operating concession. Construction cost risk, revenue risk and maintenance risk were transferred to the private sector. Construction delay risk and renewals risk were retained by GMPTE.
- The funding structure included GBP 5m of private sector funding provided by the winning consortium. This represented approximately 3% of the total funding package but was sufficient to meet the 'Section 56' grant requirements.
- The contract included detailed break clauses, with termination payments based on predicted operating profits from the winning consortium's bid.

- **Phase 2 (GBP 160m)**

- **Key Issues**

- **Interface Issues:** Interface issues associated with expansion from with the existing network.
- **Market Interest:** The new infrastructure required under Phase 2 was relatively small (6.5km). This led to concerns regarding the marketability of the expansion.
- **Construction Timeframe:** Construction delays in Phase 1 led to an increase in GMPTE's costs as this risk was retained this risk. Construction timeframes and the associated allocation of risk were therefore key issues for GMPTE.

- **Contract Structure**

- Phase 1 was terminated and Phases 1 and 2 were tendered together under a new DBMO contract (thereby reducing interface risk, addressing the marketability concern and recapturing the profits from increased revenues).
- The Phase 2 contract was for 17.5 years which included construction (therefore contraction time risk was transferred to the consortium).
- The consortium provided GBP 95m of funding, approximately 60% of the total funding structure.

- **Phase 3 (Phase 3A GBP 575m; Phase 3B GBP 805m)**

- **Key Issues**

- **Solvency of Phase 2 Consortium:** Patronage on the Phase 2 lines was significantly lower than expected, leading to financial difficulties for the private sector consortium, leading to a proposal to increase fares by 30%.
- **Funding Issues:** The full Phase 3 extension was not affordable under the funding constraints and the project, in its original scope, collapsed. GMPTE and the technical advisors undertook studies to identify potential routes for partial system extensions. These key criteria to evaluate these route included affordability, value for money, ease of operation and local political acceptability. This resulted in a change to the scope of this phase (i.e. to the 3A scope only).
- **Market Confidence:** Following the collapse of the original Phase 3 due to affordability and funding limitations, bidders were not confident that GMPTE would be able to deliver the project. The fact that the procurement was not awarded after more than 3 years of bidding had a detrimental effect on the market's confidence in the procuring authority. In addition, this impacted market confidence in DfT approved schemes given that DfT withdrew funding and this could therefore occur at any point during procurement.
- **Public sector capabilities:** Given the initial problems with the procurement, there were significant concerns (including within elements of the public sector) in relation to GMPTE's ability to deliver the procurement of the revised scope (3A) works.
- **Whole of life cost risk transfer:** The Project in Phase 3A considered transferring all or some of the whole life cost risks to the Phase 3A constructor under a DBM contract, to ensure that whichever party can best manage a risk assumes both the benefits and potential downsides of that risk.

## Metrolink Tram System – Department for Transport, Manchester, UK (continued)

The initial phases of Metrolink did not provide value capture in the form of increased home price growth

This was due predominantly to the fact that the project was situated on a brownfield site and that the fare levels implemented restricted patronage levels

The Metrolink project highlights that it is possible to structure a deal with positive private sector incentive mechanisms without the use of private sector funding, however detailed VfM analysis should be undertaken to determine the potential benefits in early stages of the project

- **Revenue Risk:** Analysis demonstrated that the single most important determinant of project cash flows (and therefore bid affordability) is the City region's success in sustaining the recent above trend economic growth. Given that the delivery of economic growth is almost entirely outside the control of the Metrolink operator and that most of the net revenues would be delivered on the existing system rather than the extensions, it was considered that these were not risks that could be transferred to the private sector while retaining VfM.
- **Private finance:** For Phase 3A it was evident that a PFI type deal with associated provision of private finance would not be the best VfM, especially since there was a possibility of cheaper prudential borrowing which also allowed further flexibility. In addition a non-PFI arrangement allowed for additional network expansion to take place without disrupting relatively fixed private finance arrangements.
- **Contract Structure**
  - GMPTE bought out the debt and share capital of the Phase 2 concessionaire in 2002, removing the private sector interest payment pressures (and thereby avoiding the politically unpalatable 30% fare increases thereby avoiding the politically unpalatable 30% fare increases).
  - The original Phase 3 was to be structured as a DBFO PFI. As discussed, this procurement process ultimately collapsed.
  - In reviewing the procurement structure for Phase 3A, it was determined that a PFI structure would not offer optimal VfM for the revised scope of works. It was determined that the potential private sector efficiency and guaranteed price benefits of a PFI structure would not outweigh the benefit of cheaper public sector financing, provided that some long-term risk was transferred to the private sector to capture some efficiency benefits.
  - Accordingly, Phase 3A involved a publicly procured design and construct contract for the new infrastructure required for the system expansion, the supply of new rolling stock by the private sector and a separate operating and maintenance contract based on service quality (with revenue risk retained by GMPTE).
  - A private sector delivery partner was appointed to assist GMPTE during the procurement process, bringing additional expertise to the public sector team during the negotiation process.

### Value capture

- The rationale for the Manchester Metrolink investment centred on time savings for commuters. However, an expected by-product of the development was that the Metrolink would "assist in the regeneration of other areas".
  - The goal of urban renewal and property value growth in the surrounding locality was not achieved in the short-term. This was evidenced by a 1996 report highlighting a negative growth in housing values for those homes situated within two miles of Metrolink (D. Forest et al, 1996).
  - While this impact was unexpected and does not take into account the long-term indicators, the report by Forest et al discusses the causes of the negative growth and why this trend is in contrast to the effects of other infrastructure projects on housing prices.
    - The Manchester project is situated on a brownfield site and therefore does not offer a new facility, it is merely a revised offering.
    - Metrolink was introduced into a deregulated transport environment and franchised to a private operator. Due to this delivery structure, fare levels were higher than on other rail services and as a result patronage was below expectations.
  - GMPTE have progressed their public transport schemes through the setting up of a £1.5bn Greater Manchester Transport Fund (GMTF); schemes currently captured within this fund were appraised using a methodology that allows the PTE to prioritise its transport schemes based on their contribution to increased jobs and productivity within Greater Manchester (subject to certain environmental and social benefits being achieved).
- ### Key project issues
- **Certainty of Design** – inaccuracies in reference specifications for Phase 1 led to significant variation claims, while inaccurate cost estimates in Phase 3 led to significant procurement issues and scope reductions. These issues highlight the importance of appropriate design certainty.
  - **Revenue Risk** – it is important to consider the extent to which it is appropriate to transfer revenue risk to the private sector, given their likely inability to control price-setting and demand.
  - **Private Sector Role** – detailed VfM analysis should be undertaken in order to determine the preferred structure. It is still possible to structure a deal with positive private sector incentive mechanisms without the use of private sector funding.

The Poceirão – Caia is the first of six PPP projects to reach financial close in the Portuguese governments 650 km, high speed rail network

This project reached financial close in 2010

The procurement process for the second PPP (Poceirão to Lisbon) commenced in 2010

The contract is primarily an availability based transaction

### Background

- The Portuguese Government is in the process of developing a 650km high-speed rail network, providing vital connections between major Portuguese cities and between Portugal and Spain (value €1.34bn).
- This project involved a 167 km section of track, which has targeted travel times of under 29 minutes, translating into a design speed of 350 km/h. The project consisted of two main components:
  - The first component of this package is the construction of 176km of double track high speed rail line between Poceirão, 40km east of Lisbon and Caia on the Portuguese/Spanish border; and
  - The second component of the project involves the construction of 92kms of single track conventional line between Evora and Caia.

### Governance

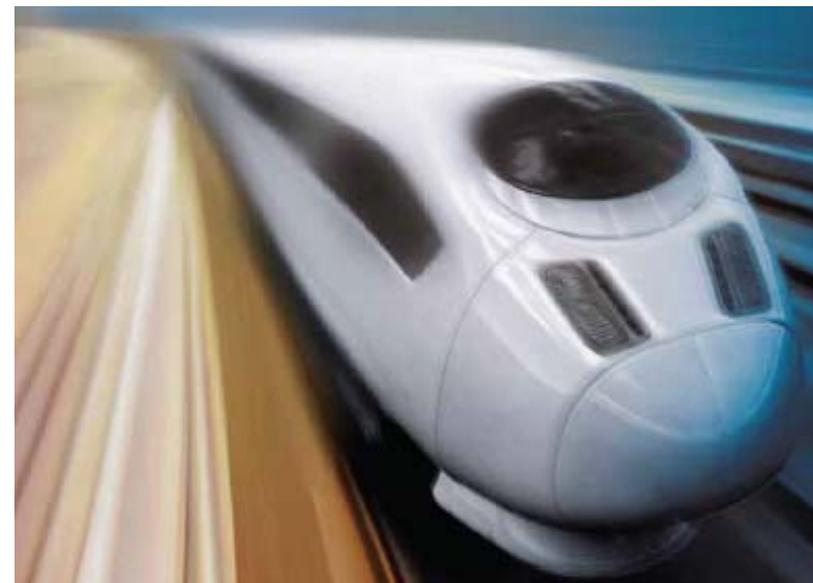
- To coordinate the development of the high-speed rail network, the Portuguese Government has established an organisation called Rede de Ferroviaria Alta Velocidade, S.A. (RAVE).

### Procurement

- RAVE has divided the procurement of the network into six distinct projects. The first of these projects was the Poceirão to Caia line, for which the procurement process was launched in June 2008.
- The project was structured as a PPP, under a design, build, finance and maintain model with a concession period of 40 years.
- The contract was primarily an availability-based transaction with two percent of the payment being dependent on traffic volumes in order to provide an additional level of performance incentive.
- The successful bidder obtained capital funding from the European Investment Bank (EIB) and a number of other commercial banks. The project obtained around 50 percent of capital cost through direct capital and a €600m loan from the EIB.
- Given the market turmoil, the pricing of senior debt changed dramatically. To counter this, RAVE allowed the bidders to sculpt availability payments to accommodate higher debt margins and successfully bring the project back to affordable limits.

### Key project issues and lessons learned

- **Whole-of-Life Approach:** Notwithstanding the market conditions, RAVE strongly believed in the benefits of a whole-of-life cost approach.



Source: Fernandes, Carlos (RAVE), *The Portuguese High-Speed Railway Project: General Overview and Status of the Project (January 2010)*.

- **Clarity:** The procuring body should act with authority and clarity that inspires confidence in the marketplace. As competition in the high speed rail infrastructure market increases this issue will continue to intensify.
- **Risk allocation:** Risk allocation should be driven by value-for-money considerations (including avoiding the need for the market to price significant risk premium) and pragmatism regarding what is bankable in the market. Engaging with the market on these issues before launching the procurement process is vital for appropriate structuring and scoping of the project.
- **Flexibility and creativity:** The unexpected can happen during the procurement process and it is important that at such times flexibility and creativity are utilised in order to sustain progress. Past experience and an understanding of the market can be pivotal in this regard.
- **Market Conditions –** The project was procured amid the Global Financial Crisis, resulting in significant uncertainties in relation to the availability (and cost) of finance and the private sector's appetite for risk.

# Urban infrastructure case studies: North America

**BART is the fifth-largest heavy rail rapid transit system in the United States**

**Key characteristics:**

- Consists of approximately 147km of light rail
- Consists of 43 railway stations
- Approximately \$300m operating costs for all BART services

**Average weekday ridership on the DART Rail system is approximately 327,000**

**Background**

- Bay Area Rapid Transit (BART) Rail is the heavy rail rapid transit system that serves the San Francisco Bay Area, connecting cities and suburbs with five lines and 43 railway stations.
- The system enjoys ridership of 327,000 per weekday and is the fifth busiest heavy rail rapid transit system in the United States.
- Initially established with the intention that a modern rail system would guide future employment growth and employment growth in the region, such that the Bay Area would become a 'sub-centered metropolis'.
- Age of the system has required some modernisation of rolling stock and overhaul of some railway stations.
- Requires around \$300m per year for operation of all BART services.
- Majority of BART's service area consists of low-density suburbs. Line length extends into remote suburbs, with a considerable distance between stations.

**Governance**

- BART District is a special purpose transit agency, formed by the California State Government in 1957, that was specially created to operate BART.
- The BART Board comprises nine elected members from each of the nine BART districts. Each member serves a four-year term.
- Although the Board includes all cities included on the BART network, some cities are represented on the Board that have no railway stations on the system. This has led to some controversy with respect to BART-tax paying property owners in cities without service, who must travel to a city or location that does have service.

**Procurement**

- On 10 February 2009, BART requested bids for the delivery of one segment of the Warm Springs Extension, being a subway component of the system to be constructed under Fremont Central Park. The successful bid was submitted by a joint venture between Shimmick Construction Co and Scanska USA Civil West with a bid of \$136m. The extension (both subway and above-ground elements) is due to open in 2014.



Source: [www.urbanrail.net](http://www.urbanrail.net)

- A further San Jose Extension has been proposed to extend the Warm Springs Extension
- BART has conducted planning studies for infill development and construction to be undertaken at various sites in the BART system.
- A new infill station at West Dublin/Pleasanton is currently being constructed, with total construction estimates of \$100m. Funding is being derived from a unique PPP arrangement and TOD project which is being developed on property owned by BART. Initially the West Dublin/Pleasanton Station was due for completion in 2009, however project completion has been delayed to 2011.

As a transit agency, BART has entered into joint development agreements in the past, given the range of factors that contribute to their attractiveness:

- Complexity in development property adjacent to stations
- Stakeholder willingness to accept higher density developments
- Favorable real estate market

**Value capture**

● **Joint development**

- A number of transit agencies, such as BART, have entered into joint development agreements as a way to promote transit ridership and generate revenues for their systems. Most high-profile joint development projects in the US have been attempts to promote transit oriented development around existing stations; however these projects offer mixed results as a source of revenue for transit agencies, for a variety of reasons:
  - Properties adjacent to transit stations can be complex to develop (BART, for example, has managed to transition several surface lots to higher density development – much of the value created for BART has been used to pay for this parking).
  - healthy real estate market in the Bay Area
  - willingness by residents and stakeholders to accept higher-density developments
  - emphasis by BART and project management on building peak and off-peak ridership via joint development
  - demographic and economic research outcomes tend to indicate structured park and ride arrangements would be feasible
- Planning of railway stations requires involvement of a range of stakeholders with a variety of interests in particular stations and their surrounds. This naturally leads transit agencies to divide components into parts, allocate to various partners and develop plans and strategies accordingly. This approach is practical, however it overlooks that integrated nature of a transit station and the surrounding land uses.
- In 2000, the BART Board direct management to develop Comprehensive Station Plans (CSPs) for three stations in the BART network, with the objective of integrating major components of railway station planning and design (capacity, access and land use) into a single vision.
- Three stations were selected for the implementation of CSPs: Pleasant Hill, Union City and Balboa Park, on the basis of identified criteria:
  - Completed or concurrent land use planning by local authorities, imminent joint use activity, or both
  - Ridership capacity constraints
  - Access needs requiring increased capital investment in parking or additional transit facilities.



Source: [www.bart.gov](http://www.bart.gov)

- BART intends to lease the land it owns around proposed parking facilities to developers that will finance and deliver residential buildings for BART transit employees.
- BART has taken an active role in working more closely with local land use planning authorities to coordinate and foster the station and land use relationship. In many cases, BART and a municipality will work cooperatively on plans to ensure close coordination. BART studies have shown land use as a primary determinant in the success of any new station; ridership estimates of new stations that include compatible land use are frequently 50% to 100% more than those that rely on status quo development and zoning patterns.

**BART District plans to issue \$980m of bonds to market, secured by an ad valorem pledge of property tax revenue in TIF districts**

**West Dublin Station's development specifications include:**

- 310-unit apartment complex
- 150-room hotel
- 696sqm restaurant

**Pleasanton Station includes a 350-unit apartment complex and retail space**

- Station area development encompasses land use planning for the station property and the immediate vicinity of the station. It requires close coordination with partner agencies such as municipalities or redevelopment agencies.
- BART Strategic Plan emphasises its goals for station area planning:
  - Foster compact transit-oriented and transit serving mixed-use development of BART properties
  - Maximise transit ownership
  - Balance development goals with community desires.
- **Other funding arrangements**
  - In May 2005, BART District issued \$100m of general obligation bonds to market, which was the first element of a \$980m bond authorisation approved by voters in November 2004. The timeline for bond issue is as follows:
    - \$100m in 2005
    - \$500m under the authorisation in 2008
    - \$380m in 2010
  - These bonds are secured by an unlimited ad valorem pledge of property tax revenue in designated collection districts. The bonds were intended to finance the majority of a \$1.3bn earthquake safety program, focused on specific sections of underground and elevated railway.
  - In June 2006, BART District sold \$65m of sales tax-backed bonds, with proceeds going towards construction of stations between Dublin and Pleasanton.
- Bond financing was used to build the station and structured parking. Bonds serviced by parking and fare revenues (two-thirds of costs) as well as local and state funding and ground lease payments from the developer (remainder of costs).
- The Fruitvale Transit Village was built adjacent to the Fruitvale Station, Oakland and demonstrates the potential non-profit outcomes that might be achieved in a TOD: affordable housing and senior healthcare offerings are included as part of this development.

#### **Key outcomes**

- Research has indicated that the BART transit system has had generally positive impacts on property values in the vicinity of railway station developments:
  - Residential space reflected a premium of 5% in apartment rental rates within 400 metres of stations.
  - Commercial space reflected no premium effect within 800 metres of stations.
  - Retail space reflected premium of 1% in retail property values within 150 metres of stations.

#### **Station development**

- The West Dublin/Pleasanton BART station was developed by PPP consisting of BART and West Dublin/Pleasanton Station Venture, Inc., a joint venture between JLL Americas and Ampelon Development Group. On the Dublin side, the project includes a 310-apartment complex, 150-room hotel and a 696 square metre restaurant. A 350-unit apartment project and retail space will be included on the Pleasanton side.
  - One of the most challenging aspects of the project was the fact that the structured parking needed to be built in advance of other components of the project.

**DART Rail provides a fast and convenient transit alternative to office, retail and entertainment locations in Dallas, Richardson, Garland and Plano.**

**Key characteristics:**

- By 2013, DART will consist of approximately 145km of light rail
- On completion of the latest stage, the DART network will comprise 45 rail stations (currently 39)

**Average weekday ridership on the DART Rail system is approximately 66,000 and is the seventh most ridden light rail system in the United States.**

**Background**

- DART is a transit agency that serves Dallas and 12 surrounding cities through the provision of 130 bus routes, 77km of light rail transit (DART Rail) and 84 freeway miles of high occupancy vehicle (HOV) lanes.
- By 2013 the light rail system is expected to extend in size to a total length of 145km.
- Funding for the ongoing development and operation of the DART Transit System (of which rail is a significant part) is derived from the voter-approved sales tax, federal funding, investment income, farebox revenue and short- and long-term financing.
- Free parking is available at most railway stations and all stations are served by bus transfer routes.

**Governance**

- DART is a regional transit agency authorised under Chapter 452 of the *Texas Transportation Code*. DART was created on 13 August 1983, following 58% of voters in 14 cities casting 101,000 ballots in favour of regional transportation.
- A 15-member Board (8 from Dallas, 7 from surrounding areas), appointed by member-city councils based on population, governs the agency.
- For the full extent of value capture returns to be realised, joint development programmes should be planned and executed by transit authorities themselves.
- Several cities have already been involved in joint development projects for several years, but to date most have not enjoyed any direct value capture returns. This was largely because projects had been sponsored not by transit authorities, but other public agencies that benefited from the value capture returns.
- DART develops and implements a strategy to seek funding from the US Federal Transit Administration (FTA) for major capital investment projects) on an annual basis.

**Procurement**

- On 14 June 1996, DART Light Rail Starter System opened on time and on budget. The \$841m Starter System commenced operations by serving 14 stations from South Oak Cliff to downtown Dallas.
- The design and construction of the \$1bn Light Rail Build-Out Program commenced in 1997 and opened for service in 2003.



Source: [www.dart.org](http://www.dart.org)

- DART appointed a General Engineering Consultant to manage the design and construction of the Build-Out Program: Lockwood Andrews & Newnam Inc and STV Inc. (LAN/STV). LAN/STV was responsible for design, architecture, construction and administration of the project.
- Facilities construction was divided into six sections, all under individual contracts that included construction of bridges, roads, stations and parking lots. Stations were split into contract bid packages large enough to attract experienced development contractors.
- Division of corridors into these sections permitted greater schedule flexibility with system wide track installation, such that when a line section developer fell behind schedule, the track installation contractor could re-sequence works to install track elsewhere.
- DART and LAN/STV managed the procurement of welded rail, trackwork and rail fasteners, through 4 separate material procurement contracts. All of these items by nature have long lead times and by procuring these items separately, the project realised significant time and cost savings.
- Track installation was undertaken under a system wide installation contract.

The DART Board is presently considering a Master Development Agreement (MDA) under which a single developer would be granted access to several sites along a transit corridor or transit system

The MDA approach has met with considerable success in Raleigh, North Carolina, under the Triangle Transit authority

The one-cent sales tax is a primary source of funding for DART, raising around \$330m each year

**Value capture**

● **Joint development and Master Development Agreements**

- The DART Board has been considering a Master Development Agreement (MDA) approach whereby a single development team enters into an agreement that permits access to several development sites along a transit corridor or transit system.
- The MDA approach presents some potential advantages:
  - The Board anticipates that the joint development program will be directly profitable to DART through air rights leases. The government agency need only coordinate a single RFP process for the selection of developers, as opposed to several
  - A system-wide approach that permits developers to phase TOD projects in response to market demand
  - Larger scale of development will likely attract more experienced development partners
- The DART Board has taken into account the success enjoyed by Triangle Transit (“TT”, Raleigh, North Carolina) in adopting this approach. TT entered into an MDA with Cherokee New Transit (“CNT”, comprising Cherokee Investment Partners and Parsons Brinckerhoff) in 2007, which allowed CNT to coordinate TOD projects at future railway stations. Under the MDA:
  - CNT developed the MDA to guide future development in underdeveloped (existing and planned) station sites, having regard to DART line advantages and community context
  - Individual project agreements were submitted to City Council for approval, in accordance with the terms of the MDA
  - Local government agencies reviewed station development plans to ensure they were consistent with transit use and community need
  - Council outlined a special development category for TODs and established minimum eligibility requirements for such projects
  - Development was stipulated to occur in proximity of at least two DART railway stations
  - CNT indicated a preference for TIF arrangements in negotiations, emphasising that a TIF would enable the redevelopment of several areas around a number of DART railway stations



Source: Dallas Area Rapid Transit, *DART Agency Overview* (December 2009), at 4.

● **Other funding arrangements**

- In 2000, voters approved the introduction of a \$2.9bn sales tax bond by referendum. Sales tax arrangements have been generally welcomed by residents and have been levied for BART spending since 1969.
- The one-cent sales tax arrangement represents DART’s main source of funding, as it delivers funding of approximately \$330m per annum. This funding is supplemented by grants provided by federal and local government.
- The government of the City of Dallas has indicated that, going forward, it will consider necessary and appropriate economic incentives to support private investment through amended PPP programs, including various TIF arrangements.

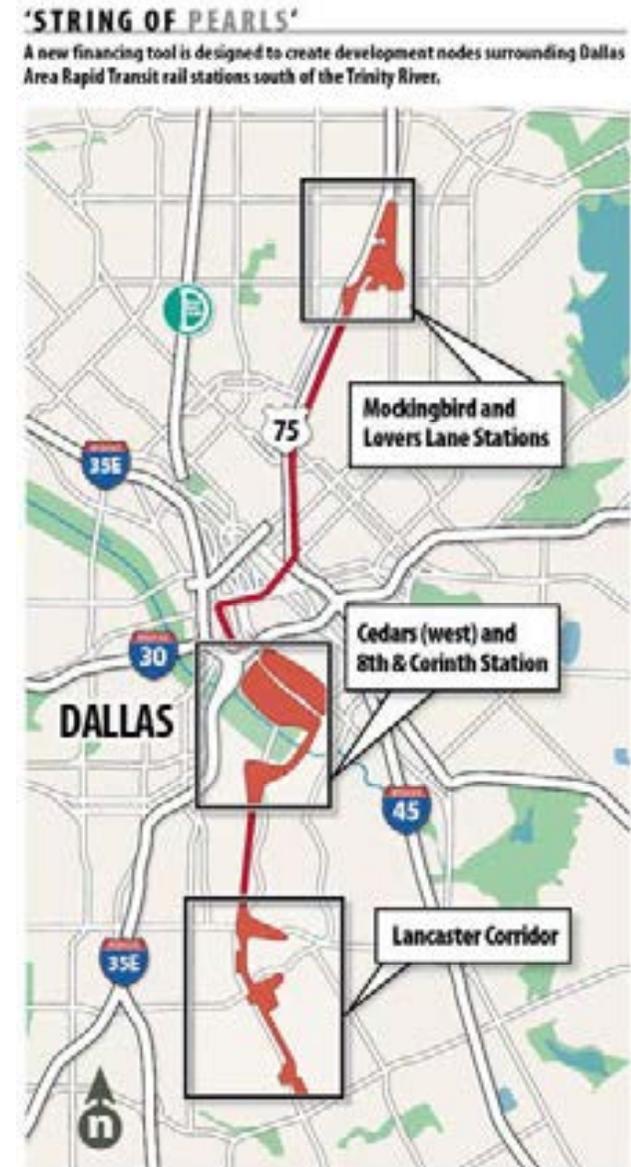
**A TIF District approved in late 2008 is anticipated to deliver \$328m of incremental tax revenue over a 30-year lifespan, during which property values are expected to increase by at least \$3.2bn**

**TIF rules enforced by the Dallas City Council stipulate the following requirements:**

- Projects must be worth at least \$200m, with developers committed to building the project
- 20% or more of residential units must be affordable housing
- Incentives cease once targeted profits are achieved, at which point property tax revenues are returned to government general funds on an accelerated schedule

• **Tax increment financing**

- Collaboration efforts between DART and the City of Dallas have led to the city’s first TIF district being approved exclusively for TOD projects on 10 December 2008. The TIF:
  - includes 226ha, as well as public rights-of-way
  - has a 30-year lifespan, during which real property values are forecasted to grow from \$320m (from 2008) to \$3.52bn (in 2038)
  - is expected to deliver \$328m of incremental tax revenue
- The TIF aims to spark the development of a ‘string of pearls’ around key transit nodes along the DART railway (pictured right). The arrangement has the following key objectives:
  - stimulate more than \$1bn in development in designated transit nodes, including Mockingbird, Cedars West and Lancaster Stations
  - implement revenue sharing arrangements (for the first time) between northern and southern areas, permitting equitable distribution of funding from prosperous to under-developed areas
  - encourage developers to create clusters of residential apartments, retail stores and commercial office space around DART railway stations
- Past application of TIF mechanisms have seen TIF districts being formed in a single contiguous area. However, in this case, DART managed to link several districts under a single TIF mechanism via right-of-way access
- Council would not have created a TIF solely for the Mockingbird Station area because development is already underway in that precinct. However, using right-of-way access, Mockingbird developers were willing to share some of their new tax dollars to stimulate development elsewhere.
- On 11 April 2007 the City Council voted to increase the capped proportion of the city’s tax base permitted to be included in TIF districts (now approximately \$7.4bn or 10% of Dallas’s tax base)
- TIF rules in Dallas include the following requirements:
  - projects must be worth at least \$200m
  - 20% of residential units must be for affordable housing



Source: Tsai, Joyce and Hethcock, Bill, ‘Dallas approves TOD Financing’ (19 December 2008), *Dallas Business Journal*.

**Mockingbird Station's development specifications include:**

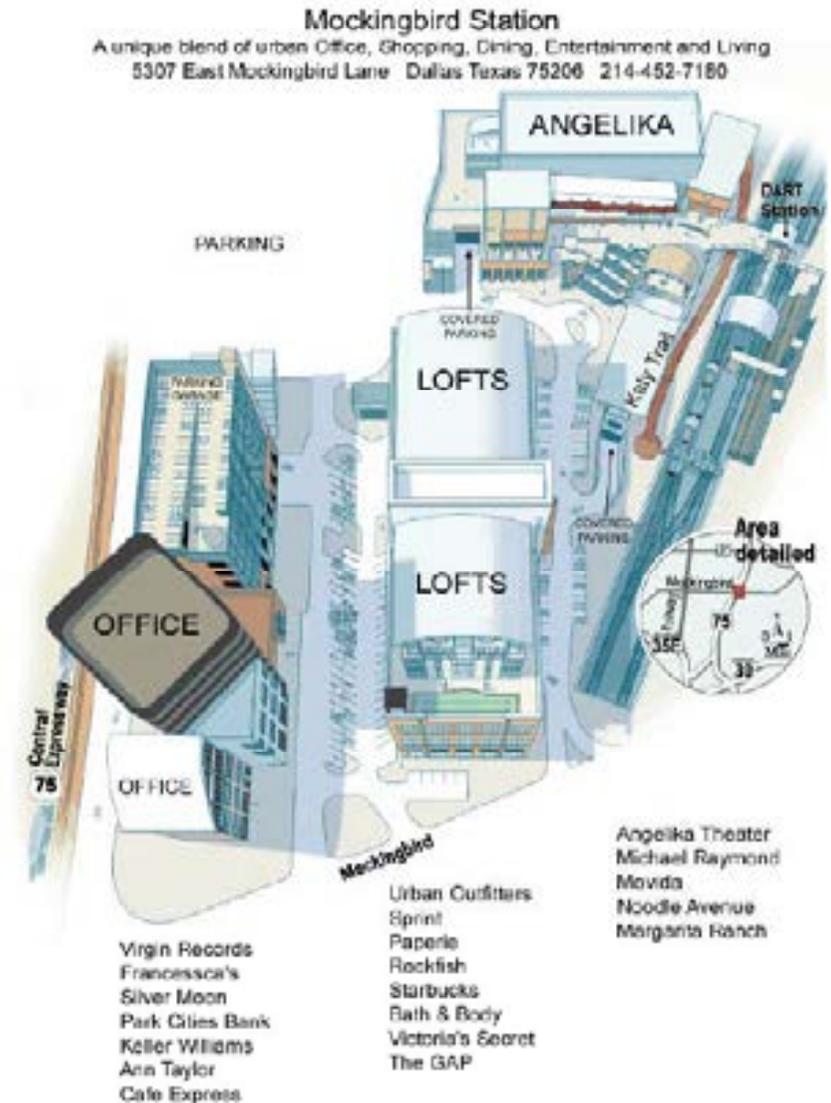
- 3.52ha area and a total taxable value of US\$72.8m
- 19,975sqm and 212 units of residential space
- 16,258sqm of retail space
- 12,820sqm of commercial space

**Station development**

- Mockingbird Station (right) and the Cedars are railway stations that are regarded as model TOD projects in the American development community.
- South Side on Lamar is part of the wider development of the Cedars Station and includes 457 residential units as well as commercial and retail space.
- Mockingbird Station is a TOD which is situated in proximity to the Southern Methodist University in Dallas. The project delivered residential, commercial and retail space as well as a range of recreational and service offerings, which are specifically detailed to the right.
- Mockingbird Station has the highest density population within 3 miles of any transit station in Texas.

**Key outcomes**

- Economists have estimated that the construction and operation of the DART programme has delivered more than \$8bn in economic activity.
- Between 1999 and 2007, approximately \$4.26bn of development projects undertaken contiguously to railway lines are attributable to the presence of DART.
- DART has drawn more than \$7bn in private funding, which has been invested in existing, planned and projected TODs along rail corridors.
- Studies conducted during 1999 and 2002 have determined that residential and commercial properties near DART stations command 12.6% and 13.2% premiums respectively, as opposed to properties located elsewhere,



Source: Transportation and Environment Committee DART Board Joint Meeting, *Building a Thriving Urban Economy: Transit Oriented Development* (26 November 2007), at 7.

The Washington Metro rail network currently comprises 5 operational lines servicing 86 stations through 170km of track

A further line (dubbed the silver line) is currently being added to the network and will be delivered through federal funding, a special tax district on commercial property and a \$0.50 toll increase on a primary State highway

The WMATA also seeks to capture the value created by the rail network infrastructure by undertaking joint developments with the private sector

**Background**

- The Washington Metro was conceived in the 1960’s and the first line opened in 1976 (see red line in adjacent map). The Metro continued to be expanded and the network now comprises five operational lines (with one currently under construction) that service 86 stations through 170km of track.
- Operated by the Washington Metropolitan Area Transit Authority (WMATA), the latest extension of the network involves the completion construction of 29 stations and 37km of track. This line has been dubbed the ‘Silver Line’ due mainly to its colour in maps.
- The goals of completing the current extension (the silver line) are:
  - to link the District of Columbia by rail to Dulles International Airport and the edge of various regional centres; and
  - to promote urban development in Tysons Corner (a regional centre) and reduce overall reliance on vehicle traffic in the business district, Virginia’s largest and the 12<sup>th</sup>-largest in the United States.

**Governance**

- In contrast to previous network extensions which were designed and constructed by the WMATA, the Silver Line will be designed and constructed by the Metropolitan Washington Airports Authority and operated by WMATA.

**Procurement**

- The \$2.7bn extension will be funded through federal funding (\$900m), a special tax district on commercial property proximate to the Silver Line route (28%) and by a \$0.50 toll increase on the Dulles Toll Road (28%), a primary State highway.
- Federal funding is in place and construction of the silver line commenced in March 2009.

**Value capture**

- WMATA have been involved in the joint development of real estate since the early 1970’s. To formalise their willingness to engage the private sector, Metro has developed and made publicly available Joint Development Policies and Guidelines.
- The WMATA continue to engage the private sector in jointly developing strategic properties of the project commenced in March 2009.



Metrorail lines		
Line Name	Opened	Stations
Red Line	1976	27
Orange Line	1978	26
Blue Line	1977	27
Yellow Line	1983	17
Green Line	1991	21
Silver Line (under construction)		

Source: Washington Metropolitan Area Transit Authority

**Washington Metro – Washington, D.C. (continued)**

**There is a direct positive correlation between public funds invested in Washington Metro and property values surrounding the rail network**

**WMATA continue to undertake joint developments with the private sector and continue to see this as a key strategy for capturing value**

- As well as using commercial property value capture to fund 28% of the project, the WMATA have a focus on promoting development around transit centres. To this end, Metro have established a very active public/private Joint Development Program that aggressively seeks partners to develop Metro-owned or controlled property in order to achieve the following goals:
  - Promoting Transit-Oriented Developments (TODs)
  - Attracting users to the transit system
  - Creating additional revenue sources for the Metro that can be used to maintain the system
  - Assist local area jurisdictions in recapturing a portion of their past financial contributions.
- This initiative has been supported by studies suggesting that public investment in Metro has caused property values around transit station sites to increase. (Grass, G.R, 2001).

**Key project issues and lessons**

- The construction of greenfield stations has a direct positive effect on the value of surrounding commercial property.
- As a result, the development industry has shown interest in jointly undertaking development with the relevant government authorities.
- Urban rail development agencies should be adequately chartered and have the authority and staff capacity to progress with land use and development issues.
- Private developers should have clear direction on the joint developments that the government or relevant rail authority will enter into.



**Metro Centre, a major transfer station within the Metro network**

*Source: Washington Metropolitan Area Transit Authority*

# APPENDIX E - 67? A@EFD3F;A@ BDA <75FE

# SPRING STREET DEMONSTRATION PROJECTS

## PILOT PROJECTS TO DEMONSTRATE BUILT EXAMPLES OF COMPLETE STREETS PRINCIPLES

### 1. FOOTPATH SEATING FOR CAFES AND RESTAURANTS



◀ EXISTING View looking west showing congestion on footpath in front of the Sushi Train Restaurant.

#### ✓ PROPOSED CONCEPT Option 1

View showing outdoor dining area for customers to alleviate queuing on footpath - seating could be moveable to benefit different restaurants each week or installed in front of a number of restaurants. Large potted plants to act as buffer between cars and pedestrians and add greenery to Spring Street. 1 - 2 loading bays required for placement of portable furniture and pot plants.



#### PROPOSED CONCEPT Option 2 ▶

Shipping container converted to mobile seating and landscape.



### 2. WIND AND LIGHT INSTALLATION



◀ EXISTING View looking west from Bronte Road.

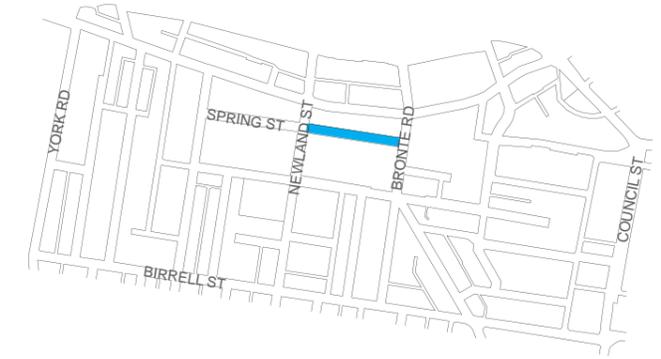
#### ✓ PROPOSED CONCEPT

View showing colourful windmills that celebrate the windy nature of Spring Street. Windmills could be attached to existing light poles and could be used to generate electricity to power lighting installations.



#### PROPOSED CONCEPT Light installations at night ▶





### 3. COLOURED PAINTED ZEBRA CROSSING + LIVE MUSIC

### 4. WIND AND LIGHT INSTALLATION



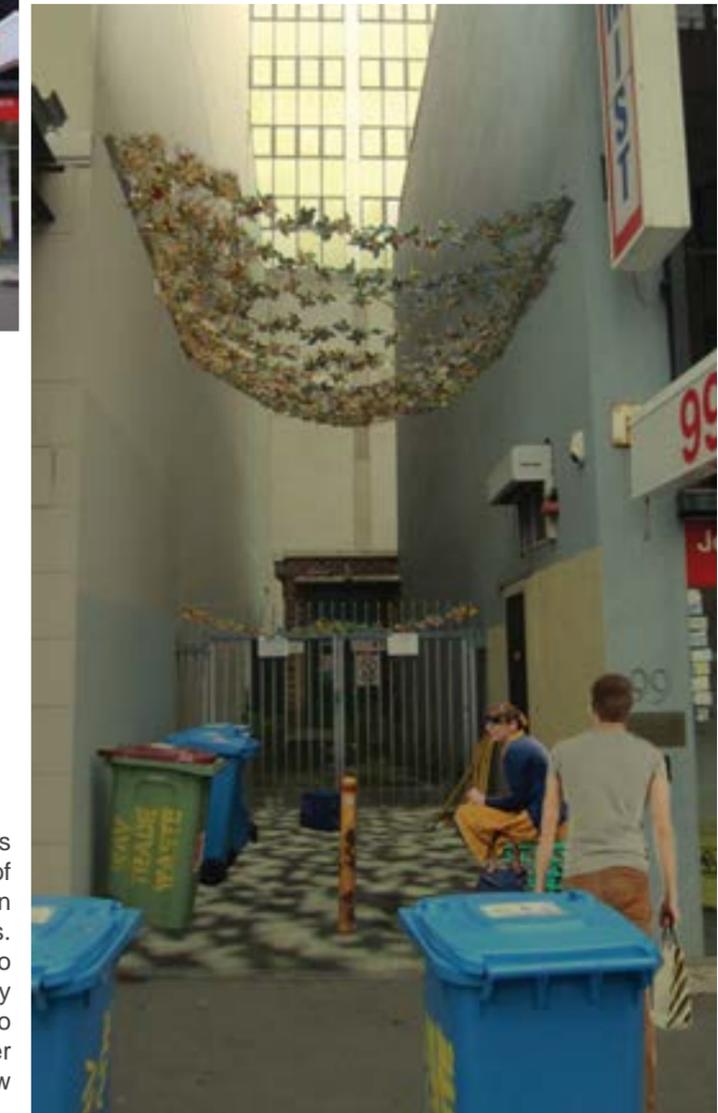
◀ EXISTING View looking west showing signalised pedestrian crossing



✓ PROPOSED CONCEPT  
 Colour painted zebra crossing at existing signalised pedestrian crossing. Live instrumental music to be played by street performers when pedestrians are signalised to cross. Colour painted crossing and music to provide public engagement and an element of play. Feature public seating to be positioned at clearway on either side of the intersection.



◀ EXISTING View looking south into laneway.



PROPOSED CONCEPT ▶  
 View showing colourful windmills that celebrate the windy nature of Spring Street and draw attention to the finer grain hidden spaces. Windmills could be attached to buildings via temporary catenary system and could be used to generate electricity to power lights, casting a delicate shadow onto the street.

# GRAY STREET DEMONSTRATION PROJECTS

## 1. URBAN LOUNGE AND MOBILE FOOD VAN



◀ EXISTING View looking south from corner of Gray Street and Bronte Road

### ▼ PROPOSED CONCEPT

View showing mobile food with portable furniture for eating and lounging, space for street performance and lights installed in existing tree. Installation to remain during business hours and into the evenings and portable furniture and turf to be removed after hours of operation. 1-2 parking bays required for operation of mobile food van.



## 2. OPEN AIR CINEMA

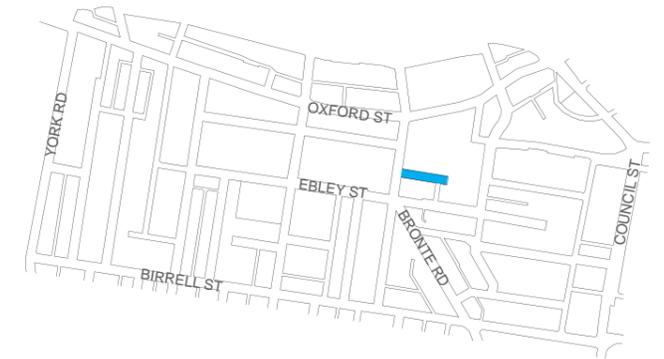


◀ EXISTING: View looking east showing blank Westfield walls.

### ▼ PROPOSED CONCEPT

Open air cinema with mural artwork and feature catenary lighting, movable bean bags, footpath seating for cafes and restaurants and mobile food van.





### 3. NIGHT MARKET



◀ EXISTING: View looking east showing blank Westfield walls.

✓ PROPOSED CONCEPT:  
Night market stalls with footpath seating for cafes and restaurants, mural artwork and feature catenary lighting and 'way-finding' line markings.



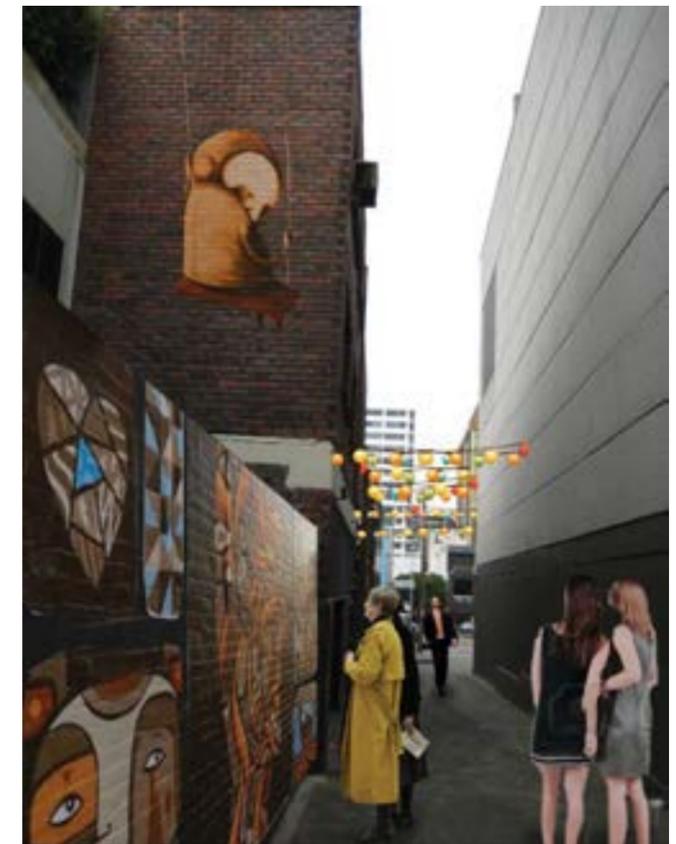
### 4. LIGHTING/ MURAL ART INSTALLATIONS



◀ EXISTING: View looking west towards Gray St (left) and looking east towards Hollywood Ave (right).

◀ PROPOSED CONCEPT (below left): View looking west towards Gray St showing mural artwork and feature catenary lighting.

✓ PROPOSED CONCEPT (below right): View looking east towards Hollywood Ave showing 'way finding' artwork and mural artwork.



APPENDIX 8- 4;=7 B3F: ? 76;3@

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PHOTOGRAPHS SHOWING EXAMPLES OF BIKE PATH MEDIANS IN THE CITY OF SYDNEY





## **Bondi Junction Complete Streets Project**

# **Community Engagement Report**

A summary of community feedback Prepared  
by Waverley Council

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## 1. EXECUTIVE SUMMARY

In summary there was overwhelming support from the 408 people for the Complete Streets Project and its vision for Bondi Junction.

The community consultation process was undertaken between Monday 22 September and Saturday 23 November 2013, a period of two months which allowed the community and stakeholders to provide their feedback through online and printed questionnaires (208), postcard comments (118), email (8), written submissions (15), phone submissions (1) and a 60 signature petition.

The comments contained in the feedback was collated into themes.

The top 6 reoccurring themes (in descending order) requested:

1. A better pedestrian experience (51%) - a more walkable centre, wider footpaths, better connections to the rail interchange.
2. More night time activity (49.7%) - including more diversity and better and more footpath dining, relaxing parking rates and stay lengths after 5pm to encourage more people to frequent restaurants in the evening;
3. More and better public spaces to hold cultural events (45.5%).
4. More greenery (40.6%) - street trees, hanging baskets, retain and enhance parks.
5. Greater safety (36.5%) - control drunks at pubs, better street lighting, cleaner streets, fix trip hazards in footpaths.
6. A greater diversity of shops (25.4%) - with an emphasis on creative industries and locally sourced products and the establishment of precinct for differing types of experiences (eat street etc).

With approximately half of the respondents filling out the questionnaire, the percentage breakdown of the non-open ended answers provides useful statistical information.

A summary of the breakdowns follow:

- Age: 30% of respondents were 65+, 25% were 35 - 44
- 66% of respondents were females
- The majority of respondents reside in Bondi Junction
- 68% of respondents visit the centre daily, 25% visit weekly
- 70% of respondents walk to the junction
- Respondent's main reason for visiting Bondi Junction was for shopping (67%), services (40%), transport connection (28%)
- 50% of respondents visit Bondi Junction at night
- The 3 most important things to respondents to enhance Bondi Junction were
  1. More greenery (73%)
  2. Wider and better quality footpaths (44%)
  3. More public seating (40%)

Overall it is envisioned that Bondi Junction should be a safe and accessible place for all ages during day and night time, an urban centre that is not just a stop off but a true destination.

The Urban Lounge and Jigsaw pop ups were also largely supported with the view that they encourage pedestrians to take interest, linger and interact at street level.

## 2. COMMUNITY CONSULTATION PROCESS

The exhibition period of two months allowed the community and stakeholders to view information on the Complete Streets project and provide feedback to specific questions via the submission forms (survey and postcards) or in writing. The following methods were used to collect feedback:

### 2.1 Dedicated web page

A dedicated web page was set up to provide access to the community to view information online about Complete Streets and the launch of the demonstration projects (pop-ups):

[https://www.google.com/url?q=http://www.waverley.nsw.gov.au/building/current\\_projects/complete\\_streets](https://www.google.com/url?q=http://www.waverley.nsw.gov.au/building/current_projects/complete_streets)

The website provided access to the online survey / questionnaire, and overview of the Complete Streets project, the pop-ups, key dates and Council Officer contact details.

A PDF version of the Complete Streets report and its appendices could be downloaded from the webpage. During the two month consultation period the Complete Streets webpage received 624 page views (this data includes returning visitors) and the Complete Streets Report was downloaded 31 times. *See Appendix 2.A for Google analytical data.*

### 2.2 Pop Ups Launch

The Urban Lounge and Jigsaw pop ups were unveiled by the Lord Mayor at its public launch on Monday 22 September 2013. The launch attracted approximately 80 people made up of; key Council staff, supporting retailers, designers, consultants and the local community.

An invitation to the event was distributed via email (*see Appendix Part 1.A*) and an advert was placed in the Wentworth Courier. *See Appendix Part 1.Bii and ii.*

The launch of the pop ups included a marching band that led the crowd of spectators to each pop up. The designer of the Urban Lounge (Drew Heath from Drew Heath Architects) and the designers of Jigsaw (Claire McCaughan and Lucy Humphrey from Archival) spoke to the crowd about their installations. Overall the launch was considered a success that generated positive media attention. *See Appendix Part 1.Biii for photograph that appeared in the Wentworth Courier.*

### 2.3 Online Survey / printed survey (includes intercept surveys and drop in days)

The purpose of the online survey was to obtain individual responses pertaining to how the community is using Bondi Junction as well as the vision for the town centre 20 years from now.

The survey could be accessed online via Council's website or by filling out a printed version. Printed copies of the survey were handed out at the launch of the pop ups on Monday 22 September, At the drop in sessions located in the Urban Lounge pop up on Thursday 9 October and Saturday 12 October 2013 and during intercept surveys conducted at the Transport Interchange by Council staff on Tuesday 22 October 2013.

The community were able to return the surveys to the Complete Streets letterbox located at the Customer Service Centre on Spring Street, and within the Urban Lounge pop up in front of the Eastgate entrance.

144 copies of the printed survey were received and later entered online by Council's Planning and Environment Administration Staff. 62 copies of the survey were filled out online by the community. In total 206 survey submissions were returned. Qualitative results have been tabulated and reported in *Appendix Part 2.B*

### Online survey / questionnaire feedback summary

The results from the survey provide insight into how people use the town centre and their aspirations for its future. A summary of the breakdowns follow:

- Age: 30% of respondents were 65+, 25% were 35 - 44
- 66% of respondents were females
- The majority of respondents reside in Bondi Junction
- 68% of respondents visit the centre daily, 25% visit weekly
- 70% of respondents walk to the junction
- Respondent's main reason for visiting Bondi Junction was for shopping (67%), services (40%), transport connection (28%)
- 50% of respondents visit Bondi Junction at night

The 3 most important things to respondents to enhance Bondi Junction were

4. More greenery (73%)
5. Wider and better quality footpaths (44%)
6. More public seating (40%)

From the open ended survey responses the key feedback themes in relation to the community vision for Bondi Junction is:

- A town centre with great atmosphere, lots of people and cultural activities (82%)
- Shops to be open later (50%)
- A diversity of restaurants and cafes with outdoor dining opportunities during the daytime and evening (45%)

## **2.4 Postcards**

Postcards were distributed via letter box drop to residents within the Bondi Junction postcode. Postcards could also be picked up by the community at Council's childcare centres, the Waverley library, local cafes along Spring Street and Gray Street, within postcard holders at the Urban Lounge pop up, the Customer Service Centre, Council Chambers reception, the Mill Hill Community Centre and the newsagent at the Transport Interchange. The design of the postcards included factual information taken from the Complete Streets report as well as a location plan for the pop ups. They also included a QR code and web link to direct the community to more information online.

The purpose of the postcards was to obtain 'snap shot' comments from the community about their vision for the town centre. Respondents were asked to jot down their ideas on what they would like to do to Bondi Junction to enhance its look and feel.

The top three key themed responses are listed below:

- More pop ups (30.5%)
- A more diverse range of shops to chose from including restaurants and cafes (18.6%)
- More greenery (17%)

118 postcards were returned with ideas articulated in both text and drawing. The key themes have been included in the feedback summary key themes of this report. Qualitative results have been tabulated in *Appendix Part2.C*

## **2.5 Emailed Submissions**

A dedicated email address was set up for the community to provide feedback via email. The email address was printed on all promotional material as well as online. Council received 8 submissions via email with varying responses to the Complete Streets report.

The key themes have been included in the feedback summary key themes of this report. Tabulated responses can be seen in *Appendix Part 2.D*

## 2.6 Written Submissions

Fifteen (15) written submissions were received via post including a signed petition with 60 signatures from residents of the Eastgate Gardens complex expressing their aversion to the position of the Urban Lounge pop up on the south side of Spring Street in front of the building's entrance. Included in a separate submission is a proposal to relocate the pop up 15metres east away from the entrance so it sits in front of the Sabbaba cafe.

Other submissions contained feedback on the Complete Streets conceptual street designs, and long term vision for Bondi Junction. The key themes have been included in the feedback summary key themes of this report. Tabulated responses can be seen in *Appendix Part 2.E*

## 2.7 Phone Submissions

One Bondi Junction resident provided their feedback via telephone. Their submission was recorded on Friday 25 October 2013. Their submission is included under the feedback summary key themes in this report. See *Appendix Part 2.F*

## 2.8 Retailer Survey

Council's Business Liaison Coordinator provided retailers along Spring Street and Gray Street in Bondi Junction ongoing information in the lead up to the installation of the Urban Lounge and Jigsaw pop ups. Retailers were approached via a one on one discussion about the pop ups and were given information flyers about the Complete Streets project. See *Appendix Part 1.D*.

On Monday 28 October 2013, post the launch of the pop ups, retailers in Spring Street were asked to participate in a voluntary business survey to see if customer sales had been affected since installation. Eleven retailers participated at which sixty per cent (60%) said the pop ups had a positive impact on their business. Refer to *Attachment A - Appendix Part 1.E – Retailer Survey* for details of the survey.

## 3. FEEDBACK SUMMARY KEY THEMES

During the two month exhibition period a total of 408 submissions were received. A large portion of respondents identified united views on key themes related to the complete street report and how they would like to see Bondi Junction look and feel in the future.

This section describes the most prominent reoccurring key themes arising from the consultation feedback.

### 3.1 Pedestrians (51.5%)

In support of the Complete Streets report respondents agreed that they want to see inviting walkable and more pedestrian friendly streets with wider footpaths and consistent pavers that create a united design.

Comments included more seating and seating in shade (particularly in Oxford Street Mall) and great pedestrian connections at a human centric level. Strengthen links between Oxford Street Mall and Spring Street and north to south connections to link residential areas beyond Ebley Street to the transport Interchange.

More public art, better wayfinding and the addition of colour to the streetscape were strongly represented and the Urban Lounge and Jigsaw pop ups were considered a great idea to engage public interested at street level.

#### Bronka Arcade

Clean up the Bronka Arcade and keep it open 24 hours for better access to the Transport Interchange.

#### Oxford Street Mall

Oxford Street Mall is a highly valued community space in particular the markets that operate during the weekdays. Many respondents are anti-smoking and want more effective law enforcement for people smoking in the Oxford Street Mall and Spring Street.

### Spring Street

A proportion of respondents (9%) consider Spring Street a problematic area that is uncomfortable for pedestrians with too many rubbish bins and large vehicles. Some expressed that they would like to see the street transformed into a shared zone.

### **3.2 Night time activity / footpath seating for restaurants and cafes (49.7%)**

Respondents expressed a strong desire to see a larger variety of places to visit during the night time. Respondents want to see better quality restaurants and wine bars with particular emphasis on outdoor footpath seating for restaurants and cafes to capitalise on Sydney's great temperate climate.

Oxford Street Mall and Spring Street were identified as areas that could be improved with better restaurants and cafe choices. Respondents would like to see precinct character areas established for differing experiences. Better street lighting and a desire for a great atmosphere were included in the comments.

### **3.3 Public spaces and cultural activity (45.5%)**

Comments highlighted a desire to retain public parks such as Clemeston Reserve and to protect them from overshadowing and redevelopment. Respondents want to see more green public spaces that are family friendly, provide play for children and inclusive for teens and the elderly. Oxford Street Mall is considered a vibrant public area during the day time.

Some comments outlined a need for a town square or public meeting place that is multifunctional to host a variety of day and night time activities for the community.

Comments included designing spaces for public performance, live music and poetry reading, dancing, open air cinema, public information sharing and lectures, night noodle markets and to celebrate the diversity of cultures that spent time there.

The Waverley Library was considered a highly valued community space; however the external courtyard was regarded as detracting from the experience.

Comments relating to recreational activities were also noted. Respondents would like to see a public swimming pool where the bus depot on Oxford Street is located as well as more play spaces for kids and teens.

Comments included a strong desire for Bondi Junction to become a cultural hub and true destination, a place that facilitates a diversity of experiences.

### **3.5 More greenery (40.6%)**

An overwhelming number of respondents support Complete Streets plans to introduce more greenery to the streetscapes in Bondi Junction. Respondents want to see more street trees, planter beds and hanging flower baskets, along with a desire for green space to facilitate community participation in the establishment of urban orchards and community gardens. Water sensitive urban design initiatives and more greenery to strengthen habitat corridors were also noted.

### **3.6 Safety (36.5%)**

Better lighting and cleaner streets (less wheely rubbish bins) with trip resistant footpaths treatments were identified as good measures to improve safety in Bondi Junction. The most pressing issue however related to the two hotel establishments; the *Tea Gardens* and *The Cock and Bull* and protection from the drunk and disorderly at night time.

Comments included to feel safe there should be a diversity of age groups using Bondi Junction, especially Oxford Street Mall in the evening and to inflict a stronger police presence in the

area. Comments included introducing a curfew for the hotels to restrict alcohol fuelled behaviour from patrons spilling out into the streets late at night.

### **3.7 Diversity of shops (25.4%)**

Better quality shops and a better variety of shops were noted. There was an equal divide between respondents and their views of the Westfields and Eastgate complexes. Many respondents identified Westfields and / or Eastgate as the most meaningful place for them in Bondi Junction, whilst others felt it had 'sucked the life from the street'.

There was unanimous support to attract a better variety of restaurants and cafes, small scale retail stores and reduce the amount of Two Dollar shops. Respondents expressed that they would like to see more affordable rents to encourage creative industries such as an art gallery, writer's space and community art space.

Locally run shops with locally sourced fresh healthy produce like the ones on Bronte Road and West Oxford Street were also included in the comments.

### **3.8 Traffic flow (23.3%)**

Traffic flow, traffic congestion and parking were pressing issues amongst respondents. It was observed that there is a need for harmony between pedestrians and vehicles. Some respondents wanted the town centre to be car free with emphasis on sustainable transport and others want more room for vehicles and more parking.

Many suggested that free or extended on street parking times after 5pm could encourage more people to visit the centre and access restaurants in the evening and night time.

Comments included drop off and pick up zones near services such as the medical centres and Eastgate to make access for the elderly easier and safer.

#### Ebley Street

Concern was raised around motorists taking Denison / Birrell Streets instead of the intended Denison / Ebley Street route and the consequential impact on the residential area.

### **3.9 Pop Ups (19%)**

There were 78 interactions of support for the pop ups including feedback requesting to install shade structures on the Urban Lounge pop ups in Spring Street.

### **3.10 Public Transport (16.9%)**

The Transport Interchange was considered as high priority to improving Bondi Junction and is currently considered a poor design that is congested, ugly and difficult to navigate. Comments included direct access for pedestrian to the Interchange via Oxford Street Mall, resolve the bus and pedestrian conflicts on Grosvenor Street and to introduce cohesive way finding signage.

Respondents want bus timetables to run later into the evening and a drop off and pick up area at the interchange included for motorists.

Other respondents want to see a bridge or pedestrian tunnel to connect to Westfields from the Transport Interchange.

#### Community bus

Some suggested that a community bus could run a continuous circuit around the town centre to benefit the less mobile and the elderly and improve how they access various services.

#### Light rail

Comments on light rail were a reoccurring issue with respondents expressing their desire for the light rail to connect to Bondi Beach, Centennial Park and onto Oxford Street and the city's CBD.

### **3.11 Cyclists (14.5%)**

Although there was a unanimous view on the need for safe and accessible provisions for cyclist, views on how to achieve this were divided. The intersection of Oxford Street and York road was identified as a conflict point for cyclist, motorist and pedestrians and crying out for a resolution.

The majority agreed that there are conflicts with pedestrians and cyclists in Oxford Street Mall. There was divided support for separated cycle infrastructure in Spring Street and Ebley Street (aspirational plans) and it was noted that the shared path at the corner of Oxford Street and Denison Street should be designed first and foremost for the safety of pedestrians with cycle calming devices. Comments included a desire to achieve design excellence in the implementation of separated cycleways.

Respondents would like to see cycling promoted with inclusion of club meet up opportunities as well as more bike racks.

### **3.12 Built form (12%)**

Comments in this category related to the preservation of Heritage items including the Boot Factory and Norman Lee Place. Respondents want to see a good balance of commercial and residential dwellings, affordable housing and lower rents to attract creative industries.

The majority of respondents support low rise development and were unsupportive of towers that over shadow the public domain. Comments included maintaining good solar access, views and vistas.

A portion of respondents want to see 6 star sustainably designed buildings with architectural merit. They want to see attractive architecture that is world class, inviting and contributes to the character of the public domain making Bondi Junction not just a stop off to the beach but a true destination in its own right.

**APPENDIX 1.A – MEDIA: WENTWORTH COURIER**

The following adverts were printed in the Wentworth Courier to advertise the launch of the pop ups:

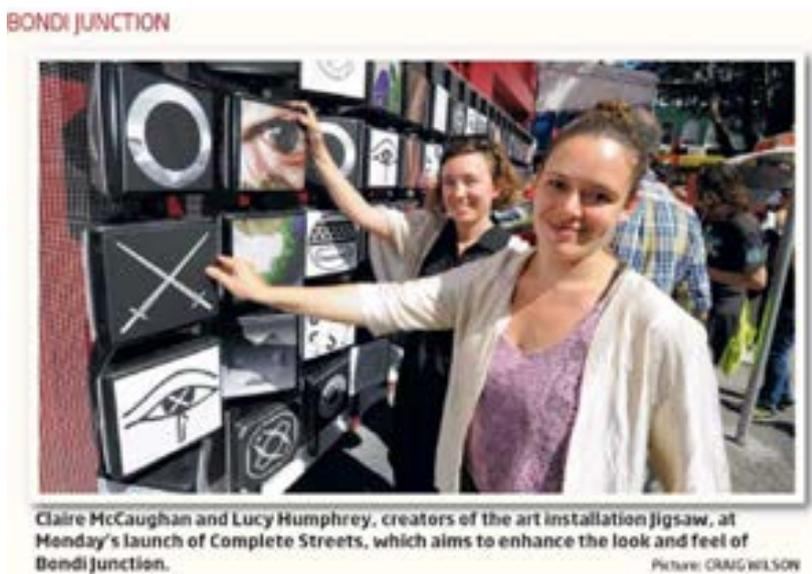
i. Advert: Thursday 5 September 2013



ii. Advert: Saturday 12 October 2013



iii. The following photograph appeared in the Wentworth Courier after the pop ups launch on Wednesday 25 September 2013:



## APPENDIX 1.B - RESIDENTS, RETAILERS AND PROPERTY OWNERS

The following is a copy of the letter that was distributed to residents, retailers and property owners within the Bondi Junction postcode notifying them of the pop up installations and Complete Streets report on public exhibition:

Enquiries to: Sascha Martin  
Strategic Town Planning (02 9369 8159)  
Email: [sascham@waverley.nsw.gov.au](mailto:sascham@waverley.nsw.gov.au)  
Our Ref. file no A12 / 0422 - 04

22 October 2013

XXXX  
XXXXX

**Bondi Junction NSW 2022**



Dear

### **BONDI JUNCTION COMPLETE STREETS PROJECT - POP UP INSTALLATIONS**

Waverley Council has released plans for Bondi Junction to enhance the vibrancy of the area and its spaces. It is called the Bondi Junction Complete Streets project which is an approach that involves greening and beautifying the footpaths and public places, making meeting places more vibrant and appealing, and improving connections for cycling, walking and access to public transport. The Complete Streets Report outlines Council's public domain improvements plan for the coming 20 years.

To celebrate the release of the report we have installed two fun, creative and interactive built examples to demonstrate how these plans can be realised. The installations are called pop ups and will be in place for a minimum of three months commencing in September 2013. We encourage you to visit them.

The first pop up is titled Urban Lounge and is located in Spring Street. It incorporates public seating with planting, a solar charged LED artwork with mobile phone and lap top recharge station.

The second pop up is titled Jigsaw and is located on the corner of Bronte Road and Gray Street. This installation is an interactive 3D mural and game. Waverley Council has been supported by local businesses to implement these projects and they were successfully launched on Monday 23 September 2013.

For further information and to provide feedback, view the Bondi Junction Complete Streets Report, fill out an online questionnaire, or post on our online forum at <http://haveyoursaywaverley.com.au/bondijunction> to download the report and for more information.

Submissions close on the 22 November 2013

Yours sincerely,

**PETER MONKS  
DIRECTOR, PLANNING & ENVIRONMENTAL SERVICES  
WAVERLEY COUNCIL**

**APPENDIX 1.C - INFORMATION FLYER FOR RETAILERS**

The following is a copy of the information flyers that was distributed to retailers in lead up to the installation of the pop ups:

Front view:

**LAUNCHING @ 10:00AM MONDAY 23 SEPTEMBER 2013**

**BONDI JUNCTION COMPLETE STREETS PROJECT POP UPS**

*"A GOOD CITY IS LIKE A PARTY - PEOPLE STAY MUCH LONGER THAN REALLY NECESSARY BECAUSE THEY ARE ENJOYING THEMSELVES" - JAN GEHL*

Waverley Council is piloting pop up projects as built examples of the Complete Streets Project. The following are concept images of the Gray Street and Spring Street pop ups launching on 23 September 2013.

**JIGSAW - GRAY STREET**

The Jigsaw pop up is an interactive public art, games and lighting installation designed by Archival positioned on the wall of the clear bondi junction. It will offer Gray Street a sense of fun and colour. The design includes seating to enjoy the afternoon sun and way finding artwork to highlight the pedestrian link to Hollywood Ave.

**URBAN LOUNGE - SPRING STREET**

Urban Lounge will bring new public seating to the pedestrian crossing on Spring Street and at the top end of Spring Street. Drew Heath Architects have come up with the design that includes timber seating, colourful bike racks, mobile and lap top battery recharge, and an LED lighting installation.

Waverley Council is piloting pop up projects as built examples of the Complete Streets Project. The following are concept images of the Gray Street and Spring Street pop ups launching on 23 September 2013.

IMPROVE LOCAL ENVIRONMENT AND INCREASE ACCESS TO IMPROVE THE QUALITY OF THE PUBLIC DOMAIN AND BETTER PROVIDE ALL MODELS OF TRANSPORT WITHIN THE BONDI JUNCTION TOWN CENTRE. THE PROJECT IS CALLED COMPLETE STREETS WHICH IS AN APPROACH THAT COORDINATES PUBLIC SPACE ACTIVITIES TO DEVELOP AN ENDURING FRAMEWORK FOR HOW WE WANT THE CITY CENTRE TO BE - A BETTER PLACE THAT BRINGS TOGETHER:

COMPLETE STREETS ARE SAFE AND EFFICIENT CHOICE OPPORTUNITIES FOR PLACE MAKING. CONSIDER ECONOMIC GROWTH AND INCLUSIVE INCLUSION WITH COUNCIL'S COMMUNITY STRATEGIC PLAN, WAVERLEY TOGETHER 3.0 (2012).

Back view:

ENHANCING BONDI JUNCTION IS A MAJOR FOCUS OF OUR STRATEGIC WORK AT COUNCIL TO MAKE IT A TRUE DESTINATION, INVITING, FUNCTIONAL AND DESIRABLE. A PLACE TO LIVE, WORK, VISIT AND ENJOY.

FOR MORE INFORMATION ON THE COMPLETE STREETS POP UP PROJECTS PLEASE VISIT [WWW.WAVERLEY.NSW.GOV.AU](http://WWW.WAVERLEY.NSW.GOV.AU)

Waverley Council

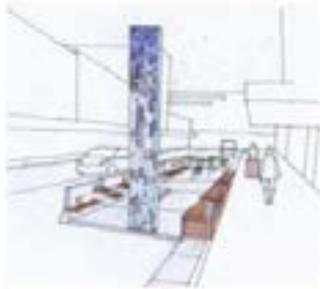
archival dh Robert Day Planning & Design

Anderson Hunter Jones Clearline

Flyer with plan:



# URBAN LOUNGE - SPRING STREET



LAUNCHING @ 10:00AM  
MONDAY 23 SEPTEMBER 2013

THE URBAN LOUNGE POP UPS WILL BE INSTALLED FOR A MINIMUM PERIOD OF 3 MONTHS  
LAUNCHING MONDAY 23 SEPTEMBER 2013

INSTALLATION DATES AND LOCATIONS AS FOLLOWS:

16 - 20 SEPTEMBER 2013      INSTALLATION OF POP UPS 1,2 AND 3

4 - 8 NOVEMBER 2013      RELOCATION OF POP UP 3

\*Dates are subject to change at short notice

## LOCATIONS FOR URBAN LOUNGE POP UPS 1, 2 AND 3



## RELOCATION FOR URBAN LOUNGE POP UP 3



**APPENDIX 1.D - RETAILER SURVEY**

The following is a scanned copy of the retailer survey questions and answers that 11 retailers on Spring Street participated. The survey was verbally conducted with answers recorded on Monday 28 October 2013 by Council's Business Liaison Officer. Please note that names of participating retailers have been deleted for confidentiality.

Page 1:

**POP UP QUESTIONNAIRE - Urban Lounge Pop Up, Spring Street** 28-10

Shop Name / Address	Survey Questions	Other Comments
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg. elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	NO UP NO NO NO office workers Yes
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg. elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	NO - NO NO NO pretty Mixed yes
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg. elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	<del>NO</del> YES Same YES YES NO office workers YES

Page 2:

**POP UP QUESTIONNAIRE - Urban Lounge Pop Up, Spring Street**

Shop Name / Address	Survey Questions	Other Comments
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg. elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	YES NO Same YES NO office workers, students YES
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg. elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	↓
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg. elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	NO Same Same YES NO youth YES

POP UP QUESTIONNAIRE - Urban Lounge Pop Up, Spring Street

Shop Name / Address	Survey Questions	Other Comments
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg, elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	a little better just recently bought business yes yes NO office workers yes
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg, elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	yes yes 20% yes yes yes shoppers + workers yes
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg, elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	NO same NO NO sure not sitting outside office workers shoppers yes

POP UP QUESTIONNAIRE - Urban Lounge Pop Up, Spring Street

Shop Name / Address	Survey Questions	Other Comments
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg, elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	yes yes a little yes yes NO office workers yes
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg, elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	yes - yes yes office workers yes
	1. Has there been a increase in sales since installation of the pop ups? 2. Are your sales up or down from this time last year? (what percentage increase?) 3. Are more people ordering take away since installation of the pop ups (if applicable)? 4. Is there an increase in passing pedestrian traffic since installation of the pop ups? 5. Are your customers staying longer? (how much longer?) 6. What is your main clientele (eg, elderly, adults, youth, children)? 7. Have you provided your answers based on sales comparison or by observation?	

## APPENDIX 1.E - INFORMATION SIGN / POSTER

The following are copies of the Complete Streets information sign and poster.

Below shows the poster that was displayed in the Waverley library and distributed to various cafes in Bondi Junction:

**Bondi Junction Complete Streets**

"A good city is like a party - people stay much longer than really necessary because they are enjoying themselves" - Jan Gehl

**Letter Box**

Pick up a complete streets postcard from the Waverley Council Customer Service Centre located on Spring Street and tell us your ideas . . .

What dreams do you have for Bondi Junction - how would you enhance its look and feel?

Place your completed postcard in this letter box or log onto [www.waverley.nsw.gov.au/bondijunction](http://www.waverley.nsw.gov.au/bondijunction) to have your say.

Visit our fun and creative pop ups - **Jigsaw** on Gray Street and **Urban Lounge** on Spring Street

[www.waverley.nsw.gov.au/bondijunction](http://www.waverley.nsw.gov.au/bondijunction)

More information  
Find out more about the Complete Streets project online at [www.waverley.nsw.gov.au/bondijunction](http://www.waverley.nsw.gov.au/bondijunction)

Artist impression of how Spring Street could look

Enhancing Bondi Junction is one of Council's key aims. We want to make it an even better destination that is inviting, functional and desirable; a place to live, work, visit and enjoy.

The **Complete Streets** project is part of our plan to enhance the vibrancy of Bondi Junction and its spaces. It involves greening and beautifying the streets and public domain, making meeting places more vibrant and appealing, and improving connections for cycling, walking and access to public transport.

Below shows the information sign that appears within the Urban Lounge pop up:

# Bondi Junction Complete Streets

"A good city is like a party - people stay much longer than really necessary because they are enjoying themselves" - Jan Gehl



**What dreams do you have for Bondi Junction?**

Artistic impression of how Spring Street will look

Enhancing Bondi Junction is one of Council's key aims. We want to make it an even better destination that is inviting, functional and desirable; a place to live, work, visit and enjoy.

The **Complete Streets** project is part of our plan to enhance the vibrancy of Bondi Junction and its spaces. It involves greening and beautifying the streets and public domain, making meeting places more vibrant and appealing, and improving connections for cycling, walking and access to public transport.

**More information**  
Pick up a complete streets postcard from the Waverley Council Customer Service Centre located on Spring Street and tell us your ideas ... What dreams do you have for Bondi Junction - how would you enhance its look and feel?

Place your completed postcard in the letter box located here or at the customer service centre on Spring Street or log onto [www.waverley.nsw.gov.au/bondijunction](http://www.waverley.nsw.gov.au/bondijunction) to have your say. [www.waverley.nsw.gov.au/bondijunction](http://www.waverley.nsw.gov.au/bondijunction)



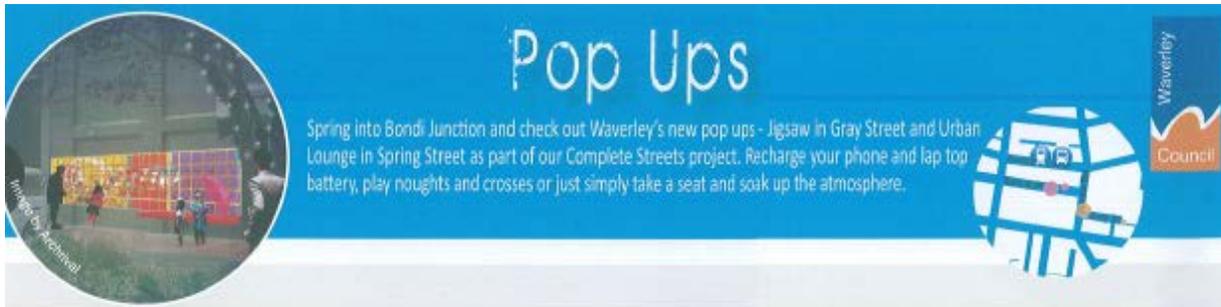
Visit our fun and creative pop ups - **Jigsaw** on Gray Street and **Urban Lounge** on Spring Street



**APPENDIX 1.F - ONLINE SURVEY / PRINTED SURVEY**

The following is a copy of the online survey / printed survey.

Front:



**Waverley Council's Bondi Junction Complete Streets Project**

The Complete Streets project is part of Council's plan to enhance the vibrancy of Bondi Junction and its spaces. It outlines our plan for public domain improvements in Bondi Junction over the next 20 years and involves greening and beautifying the footpaths and public places, making meeting places more vibrant and appealing, and improving connections for cycling, walking and access to public transport.

Complete Streets is an approach to urban planning that considers the needs of all users to ensure streets are pedestrian friendly, provide good access to public transport, accommodate cyclists and benefit the local economy.

The Bondi Junction Complete Streets report can be viewed online at [www.waverley.nsw.gov.au/bondijunction](http://www.waverley.nsw.gov.au/bondijunction).

**Have your say!**

We want your feedback on the Complete Streets project as well as how you think Bondi Junction could be enhanced.

Please fill out this questionnaire and return via one of the methods outlined on the back of this page. Alternatively complete it online at [haveyoursay.nsw.gov.au/bondijunction](http://haveyoursay.nsw.gov.au/bondijunction).

- 1. What is your age?
  - 21 and under
  - 22 - 34
  - 35 - 44
  - 45 - 54
  - 55 - 64
  - 65+
- 2. Your gender?
  - Male
  - Female
- 3. What is your postcode?
  - 2022
  - Other \_\_\_\_\_
- 4. How regularly do you visit Bondi Junction town centre?
  - Daily
  - Weekly
  - Fortnightly
  - Monthly
  - Annually
  - Other \_\_\_\_\_
- 5. How do you get to Bondi Junction town centre?
  - Walk
  - Bus
  - Taxi
  - Bicycle
  - Train
  - car

6. What is your main reason for visiting Bondi Junction town centre?

- Work
- To get to the beach
- Transport connection
- Services (e.g bank, RMS, Centrelink, medical etc)
- To eat out
- Shopping
- Other \_\_\_\_\_

7. Do you visit Bondi Junction at night time?

- Yes
- No

8. What would encourage you to visit Bondi Junction more often at night time?

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The following three images are artist impressions showcasing examples of what some streets in Bondi Junction could look like through the Complete Streets project.

Spring Street, Bondi Junction



Oxford Street, Bondi Junction





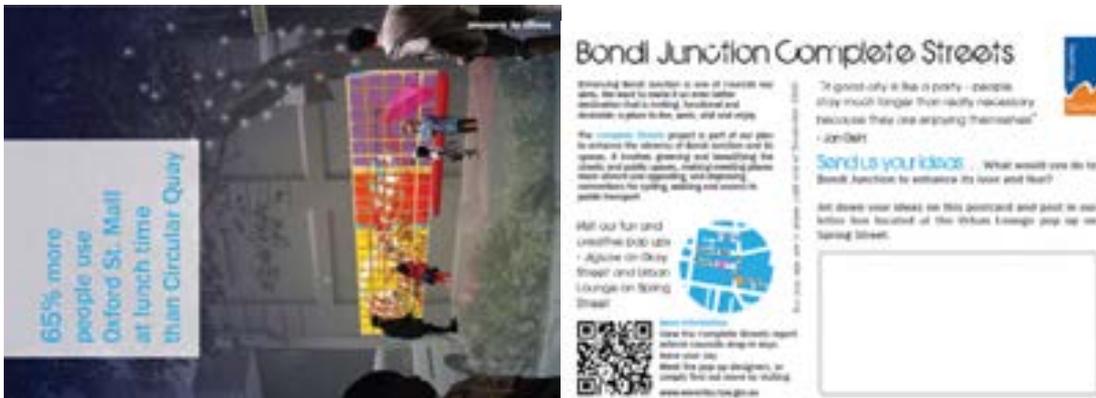
**APPENDIX 1.G - POSTCARDS**

The following shows the 4 graphic designs of the front and back of the postcards:

Design 1:



Design 2:



Design 3:



Design4:



## Bondi Junction Complete Streets



Enhancing Bondi Junction is one of Bondi's top priorities. We want to make it an even better destination that is walking, sustainable and accessible a place to live, work, visit and play.

The **Complete Streets** program is part of our plan to enhance the vibrancy of Bondi Junction and its streets. It involves growing and securing the shared use public spaces, creating meeting places, more vibrant and accessible, and increasing opportunities for walking, cycling and access to public transport.

Join our fun and creative pop-ups - **Applause on Bondi Street and Urban Lounge** on Spring Street!



**Share your ideas**  
Join the Complete Streets report - **Bondi Junction** drop in ideas here and see what the pop-up designers, or simply that you have to walking [www.bondijunction.gov.au](http://www.bondijunction.gov.au)

"A good city is like a party - people stay much longer than they're necessary because they are enjoying themselves!"  
- Jan Gehl

**Share on your blocks!** What would you do to Bondi Junction to enhance its look and feel?

Get down your ideas on this postcard and pop in our letter box located at the Urban Lounge pop up on Spring Street.

## APPENDIX 1.H – INVITATION TO THE POP UPS LAUNCH

The following is the invitation to the pop ups launch that was distributed via email:

Front view:



Back view

Waverley Council is piloting two pop ups as part of its plans to enhance Bondi Junction through the Complete Streets project

**Meet the Designers**  
6pm Thursday 26 September  
Meet the designers of the pop ups - Archival and Drew Heath Architects - on site and learn more about these funky new installations.

**More information**  
For more information about the Bondi Junction Complete Streets project, please visit [www.waverley.nsw.gov.au](http://www.waverley.nsw.gov.au), phone 0289 8159 or email [saschara@waverley.nsw.gov.au](mailto:saschara@waverley.nsw.gov.au).

**Launching 10am Monday 23 September 2013**

Starting at the eastern end of Oxford Street Mall, the launch will follow street performers on to **Urban Lounge** in Spring Street and finally to **Jigsaw** on the corner of Bronte Road and Gray Street, Bondi Junction. No RSVP required.

- **Jigsaw**  
Jigsaw is a fun and interactive public art, games and lighting installation on the corner of Gray Street and Bronte Road, designed by Archival.
- **Urban Lounge**  
Urban Lounge brings new public seating to Spring Street, along with funky bike racks, mobile and lap top battery recharge outlets, planting and a LED lighting installation, designed by Drew Heath Architects.

The pop ups will be in place until the end of December 2013.

A circular map showing the launch route in Bondi Junction. The route starts at Oxford St Mall, goes to Spring St, then to Bronte Rd, and finally to Gray St. The map is stylized with blue and white lines representing streets.

# APPENDIX 1.1 - DROP IN SESSION DISPLAY BOARDS

The following are the 6 display boards with information on the Complete Streets project used at Council's drop in sessions located in the Urban Lounge on Spring Street:

Board 1:

**Bondi Junction Complete Streets**  
Waverley Council

**FOUNDATIONS FOR A GREAT CITY CENTRE**  
THERE ARE A NUMBER OF QUALITIES FORMING A SOLID FOUNDATION FOR BONDJUNCTION TO THRIVE AS A MAJOR CENTRE FOR THE EASTERN SUB-REGION.

**STRATEGIC LOCATION**  
Bondi Junction is a strategic location for the City of Waverley. It is a major transport hub, with the M2, M5, and M10 roads, and the Eastern Suburbs Railway. It is also a major employment and residential centre, with a high density of population and businesses.

**MAJOR ATTRACTIONS**  
Bondi Junction is home to a number of major attractions, including the Bondi Junction Shopping Centre, the Bondi Junction Library, and the Bondi Junction Community Centre. It is also a major employment and residential centre, with a high density of population and businesses.

**HIGH DENSITY AND GROWTH FORECASTS**  
Bondi Junction is a high density and growth forecast area. It is a major employment and residential centre, with a high density of population and businesses. It is also a major transport hub, with the M2, M5, and M10 roads, and the Eastern Suburbs Railway.

**HIGH ACTIVATION AND CYCLING ACTIVITY**  
Bondi Junction is a high activation and cycling activity area. It is a major employment and residential centre, with a high density of population and businesses. It is also a major transport hub, with the M2, M5, and M10 roads, and the Eastern Suburbs Railway.

**PERMEABLE WALKING ACCESS**  
Bondi Junction is a permeable walking access area. It is a major employment and residential centre, with a high density of population and businesses. It is also a major transport hub, with the M2, M5, and M10 roads, and the Eastern Suburbs Railway.

**PLACE MAKING WORKING**  
Bondi Junction is a place making working area. It is a major employment and residential centre, with a high density of population and businesses. It is also a major transport hub, with the M2, M5, and M10 roads, and the Eastern Suburbs Railway.

**WHAT ARE COMPLETE STREETS?**  
A CITY'S GREATEST CIVIC SPACES IS ITS STREETS. A COMPLETE STREETS APPROACH CONSIDERS THESE SPACES HOLISTICALLY ACROSS ALL DISCIPLINES, TO DEVELOP AN OVER ARCHING COMPLETE STREETS FRAMEWORK FOR THE CITY CENTRE AS WELL AS SPECIFIC COMPLETE STREET DESIGN FOR EACH STREET THE CITY OWNERS.

**VISION**  
BONDJUNCTION WILL BUILD ON ITS STREETS TO BECOME A TRIBE DESTINATION - AN INVITING, FUNCTIONAL AND DESIRABLE URBAN CENTRE TO LIVE, WORK, AND VISIT - A PLACE LOVED BY LOCALS AND VISITORS ALIKE.

**PRINCIPLES**  
"A GOOD CITY IS LIKE A PARTY - PEOPLE STAY MUCH LONGER THAN NECESSARY BECAUSE THEY ARE ENJOYING THEMSELVES" - JIM GILM.

**STRATEGIC**  
The Complete Streets Approach is a holistic approach to street design that considers all disciplines, from urban planning to engineering, to create a complete street that is safe, functional, and enjoyable for all users.

**WALKABLE**  
Walkable streets are designed to be safe and enjoyable for pedestrians. They feature wide sidewalks, street lighting, and clear signage.

**HEALTHY**  
Healthy streets are designed to promote physical activity and well-being. They feature green spaces, bike lanes, and pedestrian-friendly infrastructure.

**ECONOMIC**  
Economic streets are designed to support local businesses and create jobs. They feature vibrant public spaces, outdoor seating, and clear signage.

**PLACE MAKING**  
Place making streets are designed to create a sense of community and identity. They feature public art, community gardens, and local events.

**SAFE AND EFFICIENT**  
Safe and efficient streets are designed to reduce traffic congestion and improve safety. They feature clear signage, traffic calming measures, and dedicated lanes for different modes of transport.

**FROM TRANSPORT FOCUSED TO PLACE FOCUSED**  
FROM STOP-OVER TO DESTINATION  
FROM TRANSPORT FOCUSED TO PLACE FOCUSED  
FROM TRANSPORT FOCUSED TO PLACE FOCUSED

**CIVIC SPACES**  
Civic spaces are public areas that are designed to be safe, functional, and enjoyable for all users. They include parks, plazas, and public squares.

**HUMAN SCALE**  
Human scale streets are designed to be safe and enjoyable for pedestrians. They feature wide sidewalks, street lighting, and clear signage.

**ECONOMIC**  
Economic streets are designed to support local businesses and create jobs. They feature vibrant public spaces, outdoor seating, and clear signage.

Board 2:

**Bondi Junction Complete Streets**  
Waverley Council

**STREET AREA**

**PEDESTRIANS**  
Pedestrians are the most vulnerable users of the street. They need clear signage, wide sidewalks, and street lighting to feel safe and comfortable.

**PUBLIC TRANSPORT**  
Public transport is a key mode of transport for many people. It needs clear signage, dedicated lanes, and safe boarding and alighting areas.

**CYCLISTS**  
Cyclists need clear signage, dedicated lanes, and safe riding conditions. They are also vulnerable users of the street.

**BICYCLISTS**  
Bicyclists need clear signage, dedicated lanes, and safe riding conditions. They are also vulnerable users of the street.

**CAR PARKING**  
Car parking is an important part of the street. It needs clear signage, dedicated spaces, and safe access for drivers and pedestrians.

**VEHICLES**  
Vehicles need clear signage, dedicated lanes, and safe driving conditions. They are also vulnerable users of the street.

**STREET AREA**

**PEDESTRIANS**  
Pedestrians are the most vulnerable users of the street. They need clear signage, wide sidewalks, and street lighting to feel safe and comfortable.

**PUBLIC TRANSPORT**  
Public transport is a key mode of transport for many people. It needs clear signage, dedicated lanes, and safe boarding and alighting areas.

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Cyclists need clear signage, dedicated lanes, and safe riding conditions. They are also vulnerable users of the street.

**BICYCLISTS**  
Bicyclists need clear signage, dedicated lanes, and safe riding conditions. They are also vulnerable users of the street.

**CAR PARKING**  
Car parking is an important part of the street. It needs clear signage, dedicated spaces, and safe access for drivers and pedestrians.

**VEHICLES**  
Vehicles need clear signage, dedicated lanes, and safe driving conditions. They are also vulnerable users of the street.

Board 3:

Waverley Council

# Bondi Junction Complete Streets

**PUBLIC SPACES**

**RECOMMENDATIONS**

- 1. Increase the amount of public space in the area.
- 2. Create a network of public spaces that are accessible to all.
- 3. Create a network of public spaces that are safe and secure.
- 4. Create a network of public spaces that are attractive and enjoyable.

**AWNINGS**

**RECOMMENDATIONS**

- 1. Increase the amount of awnings in the area.
- 2. Create a network of awnings that are accessible to all.
- 3. Create a network of awnings that are safe and secure.
- 4. Create a network of awnings that are attractive and enjoyable.

**STREET TREES**

**RECOMMENDATIONS**

- 1. Increase the amount of street trees in the area.
- 2. Create a network of street trees that are accessible to all.
- 3. Create a network of street trees that are safe and secure.
- 4. Create a network of street trees that are attractive and enjoyable.

**SEATING**

**RECOMMENDATIONS**

- 1. Increase the amount of seating in the area.
- 2. Create a network of seating that are accessible to all.
- 3. Create a network of seating that are safe and secure.
- 4. Create a network of seating that are attractive and enjoyable.

**FOOTPATHS**

**RECOMMENDATIONS**

- 1. Increase the amount of footpaths in the area.
- 2. Create a network of footpaths that are accessible to all.
- 3. Create a network of footpaths that are safe and secure.
- 4. Create a network of footpaths that are attractive and enjoyable.

**BIKING, ACTIVITY, LIGHTING & SAFETY**

**RECOMMENDATIONS**

- 1. Increase the amount of biking, activity, lighting and safety in the area.
- 2. Create a network of biking, activity, lighting and safety that are accessible to all.
- 3. Create a network of biking, activity, lighting and safety that are safe and secure.
- 4. Create a network of biking, activity, lighting and safety that are attractive and enjoyable.

Board 4:

Waverley Council

# Bondi Junction Complete Streets

## OXFORD STREET (DENKONST - RUTHVEN ST)

**RECOMMENDATIONS**

- 1. Increase the amount of public space in the area.
- 2. Create a network of public spaces that are accessible to all.
- 3. Create a network of public spaces that are safe and secure.
- 4. Create a network of public spaces that are attractive and enjoyable.

**RECOMMENDATIONS**

- 1. Increase the amount of public space in the area.
- 2. Create a network of public spaces that are accessible to all.
- 3. Create a network of public spaces that are safe and secure.
- 4. Create a network of public spaces that are attractive and enjoyable.

**RECOMMENDATIONS**

- 1. Increase the amount of public space in the area.
- 2. Create a network of public spaces that are accessible to all.
- 3. Create a network of public spaces that are safe and secure.
- 4. Create a network of public spaces that are attractive and enjoyable.

**RECOMMENDATIONS**

- 1. Increase the amount of public space in the area.
- 2. Create a network of public spaces that are accessible to all.
- 3. Create a network of public spaces that are safe and secure.
- 4. Create a network of public spaces that are attractive and enjoyable.

Board 5:



## APPENDIX 2 - COMMUNITY ENGAGEMENT SUBMISSIONS

### 2.A GOOGLE ANALYTICS DATA

The following is the Google analytics data outlining the number of page views and report downloads for Councils dedicated Complete Streets webpage.



[Go to this report](#)

http://www.waverley.nsw.gov.au - http://www.waverley.nsw.g...  
Complete Streets

#### New Custom Report

Sep 22, 2013 - Nov 23, 2013

ALL » DESTINATION PAGE: /building\_and\_development/bondjunction/complete\_streets

All Visits  
0.08%

Report Tab

Pageviews



Count of Visits	Pageviews
	290 % of Total: 0.08% (342,505)



[Go to this report](#)

http://www.waverley.nsw.gov.au - http://www.waverley.nsw.g...  
Complete Streets

#### New Custom Report

Sep 22, 2013 - Nov 23, 2013

ALL » DESTINATION PAGE: /\_data/assets/pdf\_file/0005/60881/BJ\_Complete\_Streets\_Report.pdf

All Visits  
0.01%

Report Tab

Pageviews



Count of Visits	Pageviews
	31 % of Total: 0.01% (342,505)
1. 1	12
2. 2	6
3. 116	4
4. 526	2
5. 529	2

Date

<http://www.waverley.nsw.gov.au> - <http://www.waverley.nsw.g...>  
Complete Streets

### New Custom Report

Sep 22, 2013 - Nov 23, 2013

ALL » DESTINATION PAGE: /building/current\_projects/complete\_streets

All Visits  
0.10%

Report Tab

Pageviews  
40



Count of Visits	Pageviews
	334 % of Total: 0.10% (342,505)

## APPENDIX 2.B - SURVEY SUBMISSIONS (ONLINE AND PRINTED)

Q8	What would encourage you to visit Bondi Junction more often at night time?
No	Submission
1	More restaurants, not enough choices at present.
2	More lighting and security and restaurants that stay open till late.
3	More restaurants
4	More restaurants and better quality pubs and dining.
5	Guarantee against crime
6	Too dark and too dangerous. need more shops open in the Mall late
7	Better restaurants in the Mall. Less garbage. Less drunk backpackers in summer.
8	More good restaurants and wine bars. Cleaner outdoor mall. More night time functions.
9	More ethnic cheap eats. Improved safety.
10	Safety. Good restaurants( ethnic)
11	There is nothing to do, nothing to see only lots of flying rubbish.
12	Restaurants and coffee shops open late.
13	More restaurants in the Mall.
14	More Restaurants( particularly in the Mall) and not fast food outlets
15	Fewer alcohol fuelled idiots.
16	More diverse restaurants and small bars not loaded within the shopping centres.
17	Better choice of street bars/ wine bars. Alfresco dining.
18	More restaurants/ ambiance.
19	More things to do.
20	More safe areas. More lighting. More attractions. More buses.
21	Shopping
22	If there were more things to do and buses ran on time.
23	shows at the Easts leagues club,
24	Easy access to library for bikes.
25	More restaurants outside the Westfield on Oxford St mall. Better quality shops.
26	Earlier closing times for the Tea Gardens and Cock n Bull. making it safer for all of us !!
27	Already do
28	Easy access to library for bikes.
29	I do visit sometimes to go out for a meal. But generally there seem to many noisy, drunk people around at that time of the day
30	Nothing. I have everything I need for night time entertainment at Bondi Beach and I can walk to everything there.
31	More cafés and restaurants open after 5, a nice bakery that opens late and sells sourdough bread and good coffee. More small bars. Less windswept emptiness after 6.
32	Safe streets, the number of drunken youths need to be controlled also bright and ample lighting. It needs to be a family friendly environment it is not at the moment. It's good for business, and it is not rocket science. I would love some coffee shops like in Europe apart from the odd restaurant the Junction dies at closing time. The feral elements take over.
33	You need police or rangers keeping an eye out. Thank you
34	safety or more things open
35	better quality of restaurants, theatre AND free parking
36	Better lighting, more people around -- other things making it feel more safe
37	No drunks! Better public transport after hours to Vaucluse
	Open shops - late night shopping on Friday and weekends not just Thursday, live music, perhaps an outdoor chess board, trivia at a cafe, fitness groups meeting area, meet your councillor to be able to discuss local issues after work face to face with someone once per month - fitness advice - more scooter parking - double the spaces on Spring Street - late night scooter maintenance once per month together with opportunity to have your bike detailed - free scooter parking across Waverley - more seating areas with table service for tapas and small eats while listening to live music - open air movies in the pedestrian mall - slow food movement dinners hosted once per month with talks from experts - historic talks on Australian culture and history - late night painting

	lessons - seasonal programme of cultural activities - worm farming etc - world music - learn about traditional Australian musical instruments - learn how to play a didgeridoo - learn how to dot paint - some ideas from the late night at the Art Gallery of NSW -
38	Restaurants / bars
39	I would like to see cafes staying open all afternoon and into the evening. They close their coffee machines quite early and sometimes around 4pm, there's nowhere interesting and of quality to meet a friend or sit alone and feel comfortable. The more good places on the street the better. After the movies, especially outside Westfield, there's nowhere that I'd go to and Westfield is good in that it provides the service but the street vibe is missing. Bronte Road away from the mall has fantastic potential.
40	A more family friendly atmosphere. Seems to be dominated by a pub culture at the moment. More life in the mall at night.
41	More things open at night! Not just restaurants, but small bars and small retail
42	Bars, restaurants, nightclubs, more visible safety presence such as police or security guards. I'm afraid to go to Bondi Junction at night due to drunks from the dodgy pubs and people coming from the train and bus.
43	More outdoor or casual eateries. More kids things
44	More outdoor or casual eateries. More kids things
45	More outdoor or casual eateries. More kids things
46	More outdoor or casual eateries. More kids things
47	Better street environments, more attractions and diversity of experiences
48	more restaurants open at night and special events e.g. night noodle markets
49	Cleaner streets, better lighting, a visible reduction in street intoxication, pub smoking rooms that are less visible at street level, as patrons often intrude into the public domain via shouting and loud music and they become an extension of the public domain...very uninviting. The eateries are rather disappointing considering how many we actually have. I think many look dirty and grungy and there are many of the same type instead of a large variety of different kinds of food. I think the Oxford Mall is in need of some refurbishment and enhancement through better tree planting and greening. There is very little street frontage of any interest except for the newest shops at the corner of Grosvenor and Oxford Street: The Williams Sonoma, Pottery Barn stores are inviting and sensitively designed. At least they show some pride.
50	Better restaurants and bars. Cleaner. Safer feeling. Trees.
51	More and better restaurants and greater opportunity for outdoor dining and retail displays.
52	Safety, lack of outdoor seating in the mall.
53	Cafes and restaurants in the Mall. , more outdoor seating in the Mall .
54	Cafes and restaurants in the Mall. , more outdoor seating in the Mall .
55	outdoor eating areas, less noise and violence from the pubs.
56	if it was more like a restaurant strip.
57	More activity in the Mall.
58	BJ should not become an entertainment centre at night. It should remain quiet.
59	Less drunks on street.
60	Restaurants
61	Nothing.
62	Night time markets. Community Concert.
63	Better venues. Nice restaurants. Make it a night time destination.
64	Family good restaurants.
65	Good transport and easy parking.
66	Nigh time markets in the Mall. festivals , food stalls, events for kids.
67	Special events with music.
68	Better lighting in the Mall. Security presence. Earlier closing times for pubs.
69	Less drunks
70	More security
71	More police presence.

72	Community Transport.
73	Nothing
74	Safety . I have previously been mugged.
75	Wine bars, music, movie theatre and restaurants.
76	Small bars, more restaurants and better lighting in the streets. BJ is currently like a death zone after 10pm.
77	Church Activities
78	Better streets.
79	Parking should be free after 6pm
80	Street restaurants.
81	Increased police presence
82	Street restaurants.
83	Increased police presence
84	Less Asian restaurants. More coffee shops. More Italian restaurants.
85	Better restaurants and bars and wine bars. Outdoor spaces. More green areas.
86	Less windy areas, and concrete areas.
87	Safer streets. Less drunk people around the pub areas like the Tea Gardens and Cock n Bull.
88	Somewhere to actually go to. Restaurants, bars in the Mall.
89	Nothing. Drunken people around and I do not feel safe.
90	Restaurants staying open later than 9pm. Safety.
91	Child-friendly restaurants or activities.
92	Better choice of restaurants. Night markets.
93	Nothing. Drunken people around and I do not feel safe.
94	Restaurants staying open later than 9pm. Safety.
95	Child-friendly restaurants or activities.
96	Better choice of restaurants. Night markets.
97	1. being 50 years younger. 2. Public transport providing later services.
98	More restaurants. More live music venues. Just more variety of fun things to do and see.
99	Dining out
100	Outdoor seating restaurants.
101	My age means I prefer to stay home at night as socialising is not high on my priorities
102	Good street lighting. Visible policing on streets.
103	Safer Streets
104	More decent food options and less cheap Asian food.
105	More busses from Coogee to Bondi Junction.
106	Cheap restaurants.
107	More restaurants - affordable.
108	Brighter lighting.
109	More interesting shops like bookshops. More restaurants.
110	Better restaurants in the lower mall. It's like a graveyard at night.
111	Keep shops open later.
112	More shops opening at night. Better safety, lots of people drunk and walking around at night.
113	Ice cream parlour. Better lighting. Local police presence in Bondi Junction. More restaurants open at night in the Mall as opposed to inside Westfield. Better connections through arcades
114	Better restuarants in the Mall. Music - small ensembles, jazz. Stand Up - Comedy. Soap box talks - authors, environmentalists
115	More outdoor restaurants. Better lighting

Q9	what are the three things that are most important to you about enhancing the streets in Bondi Junction?-Other
No	Submission
1	More sunshine. In winter the outdoor Oxford St mall is overshadowed by tall buildings which cut out the winter sun. Most pedestrian activity moves to Spring Street in winter because there is still winter sunshine there due to the lower buildings on the northern side of Spring Street. Please do not allow overshadowing of Spring Street in winter or we may lose all pedestrian traffic outdoors in Bondi Junction during winter.
2	Keep cyclists separate from both cars and pedestrians, and actively keep them in separated cycleways. Keep cyclists off Oxford and Ebley (including out of the Oxford St Mall), but give them priority on Spring and Grafton Sts. Shared zones are dangerous to everyone, so keep footpaths for pedestrians alone, roads for cars alone and cycleways for bikes alone. I use all three, and find it most dangerous (as a pedestrian) when I am in a zone shared with bikes, most dangerous (on my bike) when forced to share with pedestrians or cars, and most dangerous and annoying (in my car) when forced to share with bikes.
3	Garden tubs or ecopops (Michael Mobbs design as seen in Roscoe St) growing food, with educational features like worm farms and signage.
4	harmony between vehicles and the rest of the world
5	No more bike riders in the mall near where the markets are.
6	No more high rise buildings
7	Please stop pulling out big trees in order to plant small ones which will take decades to grow into the the size of the trees you take out (e.g Ebley St in front of the community centre children play under the sun shade, before they could play under the shde the trees provided.
8	Cyclists issue- do not stop at red lights and ride at speed on the footpaths
9	It has to be a human - centric village and have reasons for people to enjoy the outdoor space in a fun and safe and creative way. The drunks will probably vandalise and litter so reducing beer barn hours will help that ( Tea Gardens, Grand, Eastern) wine bars and small music venues ( Djs) can help civilised socialising as you linger and talk and eat without hyped up blaring music and stimulation .
10	More free parking, cut down trees obstructing power lines in Mackenzie St, ( lose them completely), they look ugly. Lose excess gardens on the road side altogether so there is more parking. Council should stop wasting ratepayers money and concentrate on what is necessary -not wasting it.
11	More shade. newlnad street is a frightful wind tunnel , what can be done about this? Bondi Junction ( except Westfield) is a little shabby , it looks as it is wwaiting for a developer to step in.
12	The area is too crowded for large trees. Find a better solution for garbage collection. Horrible stench walking past all the bins in the street.
13	Keep cyclist out of the mall. too dangerous! They speed through even on market day , make them take another route.
14	Better quality shops and restaurants/ cafes in Oxford St mall and less cheap shops.
15	I am for improving streets but not at the expense of good traffic flow. Removing parking and lack of street space for traffic will make Bondi Junction one big traffic nightmare. Good greening projects must be balanced with the needs of motorists to get to and from Bondi Junction.
16	Get rid of white elephants. e.g spotlight and the unsightly houses next to it.! Make the greedy owners of the shops drop down the rent for better quality venues.
17	More parking especially for shorter times at cheaper rates.
18	Direct access from the station to the Mall.
19	All important to making a diverse place for the public to enjoy.
20	Child friendly area near the library.
21	make the Mall non-smoking or designate smoking areas. No skateboarders in the Mall or the footpaths.
22	Please do not make Spring St around Eastgate into a single lane. The shops there need loading zones for deliveries and visitors can drop off relatives to see doctors around

	there.
23	Keeping public areas clean. Garbage clearing, the bins are often overflowing and the rubbish is strewn all around. Quality buskers are a plus.
24	Get rid of the cyclists on the footpaths. too dangerous. , lights on the corner of Oxford and Denison streets. and a pedestrian crossing at Ebley St and Denison Sts.
25	Something must be done about cyclist on the footpaths.they are dangerous.
26	get cyclists of the footpaths.
27	More free / cheap parking
28	No Public Art, no outdoor seating.
29	Reduce car space.
30	Public transport options to and from Bondi Junction are excellent. There is no need to bring a car. Discourage cars by making it more expensive.
31	Colour and nice things to look at.
32	Water fountains/ gardens as in Europe.
33	Free parking at Eastgate Shopping centre.
34	Public toilets. (safe ones)
35	Ban cycles in the Mall - too dangerous.
36	Please no more "urban lounges"- a real eye sore. get rid of the one in Spring Street.
37	1. Beautiful fountain in the Mall. 2. More frequent cleaning of all the footpaths.
38	Make it look like Westfield.
39	More public parking and seating areas. Repair the roads and footpaths everywhere in Bondi Junction.
40	More public seating in Spring Street and Eastgate.
41	Better civic spaces for children and families and old people.
42	Safer crossing between Spring St and Westfield Centre by Bronte Road.
43	The biggest eyesore in Bondi Junction is the Eastgate Centre . The exterior concrete finish is so ugly.
44	Need Pedestrian lights
45	Reduce encourgaging over-indulgence in pubs like the Tea Gardens. Increase police presence and on-site searches.
46	The area could do with an aquatic park/ indoor swimming pool for swim lessons/ fitness / recreation. The Waverley Bus depot site would be perfect.
47	Don't like the narrowing of the streets.
48	making the main streets around Bondi Junction pedestrian friendly would enhance the shopping experience.
49	Please provide dual curb access at intersections for wheelchairs and prams between Ebley and Newland Streets and between Grafton and newland Streets.
50	Keeping cyclists off the footpaths
51	Continuing from improved access to public transport Access to the station is ugly, crowded and dangerous at Grafton Street end and complicated and difficult via Tiffany Plaza and Oxford Street Mall. Should be like North Sydney where you stay underground for several blocks. And having only one escalator up from station to street is a SCANDAL! Kings Cross has more!
52	5-10 minute parking in between Spring Street , Bronte Road and newland Streets to enable people to be picked up and dropped off .
53	problem with pedestrain crossing across Spring Street where it meets Newland Street. The pedestrain wlak signal is not always on . I have travelled to countless cities in the world. It's not just about 'greenery' but colour - large displays of colourful hanging baskets, fantastic public transport and interesting architecture - not just lego block developments. Why doesn't Council encourage innovative architecture? Green spaces need to be compulsory for every new development.
54	The quality of pavements could certainly be improved and is very important for disabled residents, the elderly and parents with young children. I wuld support widening footpaths but this requires steps to reduce the amount of traffic on the roads.
55	Better public transport to Watsons Bay - very minimal bus service at night

Q 10a	What places mean the most to you in Bondi Junction? What do you love about Bondi Junction?
No	Submission
1	Sadly, the only really nice thing about Bondi Junction is the density of people. There is good people watching on Oxford, especially if the market is on, but otherwise, not much.
2	oxford st mall. its active
3	Proximity to home.
4	Westfield Bondi junction - love it and spend a lot of my time there. The best part is that Bondi junction has everything - transport, shopping, cinemas, childcare -great!
5	Bondi Junction pedestrian Mall
6	For me Bondi Junction is a functional place. I go there for the shops and the services. Sometimes I walk if I feel I need the exercise and if I am not going to have a lot to carry, but if I am going to do a lot of shopping I drive. The only thing I love about it is its proximity to where I live.
7	David Jones is a quality asset.  I enjoy using the library but the outdoor area near the library is limited and boring.  It is good that the major centres are connected but we don't need any more large centres. Strip shopping offers a more interesting, intimate experience.
8	Convenience, good range of shopping areas The convenience of shopping and also the pedestrian traffic outdoors because I do not like being in shopping arcades all the time. I also value the heritage Boot Factory and the open area in front of the Boot Factory. The new architecture in Bondi Junction is soul less and the Boot Factory is really one of the few interesting buildings in the whole of the Bondi Junction centre.
9	interchange, Westfield, the mall
10	Everything is here. We live in the centre but there are still some quiet pockets and a feeling of community despite having a large non-local population
11	Shops, services and parks. I live here.
12	Nothing
13	The ambience.
14	Westfield and the mall arcade
15	Westfield about the only worthwhile retail development (plus recent Williams Sonoma complex) and The Eastern the only decent pub offering interesting food. Oxford St Mall grungy and unappealing both in terms of shopping and dining; ditto the rest of the surrounding streets. Parking available in Westfield a big plus...as much as we all profess to prefer public transport/cycling, no-one likes waiting at a bus stop late at night after a meal of movie , or travelling on a bus when loaded down with groceries.
16	The mall is great but needs to be cleaned up in terms of the type of shops that are allowed to operate. We need less cheap \$1 shops and more quality shops like the new Williams Sonoma shop. I visit Eastgate daily and it is great to see the renovation with Aldi added. Best thing about BJ is the convenience - amount of shops and access to services.
17	Train station, convenient shops (but could have more with longer opening hours for banks etc), restaurants and food outlets.
18	Oxford Street Mall as it is a spot where there is high activity and buzz.
19	Waverley Park and the multicultural population
20	It is very convenient with a lot of services in the area.
21	Love shopping at Eastgate, so handy and convenient to have the big stores there. The

	park in Ebley St is nice, also the library.
22	Leafy streets. Good access to public transport. Near beaches and city.
23	Oxford St needs a facelift - more restaurants, Asian street food, more market days
24	Plenty of parking and shopping, as well as non-expensive places to eat. However, the parking should be free if they want to keep customers coming to their area. I work in the city and live in Waverley, but will do my shopping in the city at lunchtime if I have to start paying for parking in BJ.
25	There is nothing I really "love" about Bondi Junction. The only thing it has going for it is close proximity to regular transport and shopping centres.
26	The library I like most, it's a haven of quiet and visually pleasing thoughtfulness with the promise of many goodies. I don't the walk there, through bleak multi-high rise in Spring St or along the wind tunnel of Newland St I like the area around the top of Bondi Rd intersecting with Carrington St, where there are big trees. There could be street plantings in tubs all down Waverley street. I like the shopping mall with small business feel
27	The convenience for food shopping and proximity to Westfield.
28	It's closeness to the beach - but it still takes ages to get a bus down there
29	Westfield, the deli at east gate shopping centre. But overall, it has to be the \$2.50 Chinese on Bronco Arcade, can't beat it. Oh and lets not forget the market.... need to keep the market alive and attract more market traders.
30	Waverley Seniors Centre and Boot Factory area Waverley Library Oxford street Mall and markets
31	Convenience of shops, Banks etc
32	Good Japanese food
33	The shops close to transport.
34	Pedestrian Mall
35	The Mall
36	Shopping Centre
37	Love the shops, Westfield is great and the fact that everything in in one place and convenience.
38	I love the local town feel
39	Spring st, shopping and convenience.
40	Convenience
41	People
42	Shops and access to the beach. Has potential to liven up.
43	Proximity to good transport links
44	The Mall, Spring St, the station, shopping centres
45	Walking, shops and pubs,
46	The best thing about BJ is the transport connectivity. Junction by name... I love being able to get a train directly to the CBD, or the Royal National Park or the inner west (Sydenham) or Cronulla/Illawarra, or a bus to Clovelly, Coogee, Watsons Bay or Maroubra. It also has a great range of retail and services facilities.
47	Not much.
48	Bondi Junction's strength lies in it's convenience, with all major services (banks, shops, council) and amenities close by (beaches, parks, city). My favourite parts of Bondi Junction socially are the smaller restaurants that have arrived into the Junction more recently (e.g. Osteria Riva, Bistro De Paris etc) and the live music venues (Tokyo Jazz Cafe etc) - which express the diverse cultural backgrounds of the residents of Bondi Junction.
49	the library good public transport
50	having everything in a compact area- shopping, transport and services. this is great , but aesthetically it is sadly lacking.
51	Parks and old houses.
52	Greenery would help.
53	I love the parks, public transport, and shopping centre.

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56	I love the parks, public transport, and shopping centre.
57	The shopping centre, the convenience and the movies.
58	Shops, restaurants, the movies.
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60	Shops, restaurants, the movies.
61	Boot factory, Westfield, transport hub, library, parks
62	Oxford St mall,
63	Shopping and the services in the area.
64	While I like the convenience there is not much else I like at the moment. Theres more to do in Surry Hills and other places.
65	Westfield shopping centre. Good shops, food and parking.
66	Close to the city. Good transport. Good shopping.
67	Central Synagogue. Queens Park. Centennial Park.
68	Heritage Streets.e.g Mill Hill
69	The Mall.
70	The Mall. Westfield. Variety of food.
71	Eastgate and the easy access to public transport.
72	Not alot as it is !
73	Library. Park.
74	the Markets.
75	I love the pop ups.
76	Like the easy to get to places . Eastgate
78	I like the cafes. and I like the fact that thee are families around.
79	The new shopping.
80	Central meeting spot
81	I mostly like the east's leagues club.
82	I like going to Westfield.
83	Mill Hill Centre. Lots of shops.
84	the library.
85	Easy access to the city and the beach and all the amenities.
86	The services, variety of shops and its location convenience.
87	Oxford St Mall and the shops there.
88	The food courts in Westfield.
89	access to transport, shops and restaurants
90	The Mall. Good shopping.
91	I love it's one destination shopping and transport convenience. I adore Miss M, luxe espresso, central baking depot, dr what's. Benjarong Thai, the Di bartoli coffee centre, Aldi, the friendly Westfield concierges, the wonderful sushi train restaurants, the markets, the buskers.
92	The Junction is a vibrant place. I do love the food courts. The Harbour Room and the one at the top of the station. It is like a happy communal picnic ground. The Mall is a happy vibrant place to visit. It always gives me a lift. Quality buskers are a plus also.
93	The mall - has such character when the markets are on.
94	kids playground at Ebley st 6th floor food court with view at Westfield Kelly's grill restaurant Oxford St markets and LIVE MUSIC / BUSKERS
95	The most important place to me is the train/bus station but I wouldn't say I love it.
96	It's close to my home and has all amenities
97	Convenience of every service - banking, shopping, medical etc all in one place However it is very impersonal - a bit like an outside mall - few opportunities to comfortably sit and enjoy a warm summer evening outside with good food, a drink, some friends and a film or some music
98	I love how convenient it is, just like a mini city.
99	I like the smaller places, e.g. Waverley mall, also the mixed ambience of Bronte Road and Oxford street after the mall, needs enhancing by Council intervention.

	Would like to see commercial activity flourish outside the mall, where it is so regulated. Like to see more one-off stores and food outlets rather than chains.
100	It's location (Close to the city and beaches) and access to public transport.
101	I love the range of affordable food and particularly the strong Japanese presence that you don't get in other parts of the City.
102	I don't 'love' anything about Bondi Junction... it's kind of a gross urban sprawl. It's a shame because the suburbs and area surrounding it like Bondi, Bronte and Centennial Park are BEAUTIFUL! I only go there because it is convenient to do my shopping there and lots of services like the RTA, doctor, Waverly Council office, etc are there. The Westfield shops are great but very 'sterile' and I prefer open air street shopping like King Street, Oxford Street , etc.
103	I like the side streets that run off Edgecliff road and the streets around allen street. the mall is good but could feel more dynamic and have some really cool outdoor cafe options - getting quality store/cafe people in etc. the resting / seated areas are good but so barren and sunny - they need big umbrellas and plants to feel like hanging out there - look like pontoons without water.
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107	the Ped. Mall
108	eating at a wide variety of restaurants, visiting a variety of shops
109	What I love is the pure convenience.....and my neighbours.
110	Cafes near About Life
111	Shopping convenience
112	The Mall, Eastgate shopping centre. The pop up seating in Ebley St is really great.
113	convenience of services.
114	convenience of services.
115	Shops
116	all the services and Westfield shops.
117	Tree areas like the Mill Hill and upper Oxford Street.
118	Services
119	Proximity to transport. Medical Services. Free parking.
120	The new music venue
121	Mall. Shops. Restaurants.
122	Spring Street. Oxford St and Westfield.
123	Shops and Services.
124	Coles and Woolworth.
125	Diversity of Shops and services. Oxford St Mall. Street-based retail, active frontages.
126	The view from Westfield food court. Westfield shopping.
127	Shopping. Good transport.
128	Shopping centre.
129	Eastgate shopping centre, convenience of services.
130	Proximity to Park, Beach and shops.
131	Everything I need is in Bondi Junction- all the main services and shops.
132	P)pedestrian Mall. Farmers markets.

133	Convenience , public transport
134	Shops
135	Shops and Beaches.
136	Woolworths and Coles.
137	The Mall and the STA bus station.
138	Eastgate, Easts Leagues Club.
139	Shopping, transport services, library services and entertainment for seniors.
140	Amenities are close to each other. Shopping.
141	Convenience and proximity.
142	Library. Shopping Centres. Old buildings that remain. Small restaurants and old pubs.
143	Spring Street. Convenience- Access to railway.
144	The Centennial Park end of Bondi Junction. Also Bondi Junction has everything.
145	The Mall market.
146	Shopping Complex.
147	Shopping and the services.
148	Variety of Shops, cafes and services.
149	Good public transport, shopping and access to the beaches.
150	East shopping access.
151	Bondi Junction has good amenities but presented in an ugly way. I like the pedestrian mall but fell very disappointed at Council's approval of most of the developments - lack aesthetics.
152	Public transport links. Westfield shopping centre is useful but I don't love it.
153	Parks and cafes.
154	Cafes. Westfield. Parks.
155	Shopping and the services.
156	The mall with occasional markets.
157	I love that everything is so close. Its is central ( close to the Beaches and the city)
158	Playgrounds. Library.
159	Proximity of shops and transport and choices of shops.
160	Westfield Shopping Centre. Restaurants.
161	Everything . I live here.
162	The Mall, Eastgate.
163	Waverley Library and the staff and their wonderful programs.
164	It has great shops and cinemas and restaurants.
166	Bondi Junction Mall - WITHOUT BICYCLES AND SKATE BOARDS
166	Commercial/ residential hub. Westfield and Oxford Street.
167	I love the Mall but need more trees.
168	Opp shops, Coles, Aldi, fruit markets
169	Its such a great hub for everything.
170	Proximity
171	It is my home. It feels safe. I love the sense of community. Everything I need is on my doorstep.
172	The parks. The convenience of everything nearby.
173	The markets are the main attraction for me.
175	Eastgate. The markets in the Mall.
176	Oxford Street , The mall
177	Not too much .
178	Transport variety; Concentration of shopping and services; closeness to city and beach.
179	Easts Leagues Club. Westfield and eastgate complex.
180	The mall during the day is a great place to hang out in as it encourages all types (young and old) to feel like it is safe to do so. The vibe during the day is great.
181	Waverley Library
182	Fitness First Platinum. Outdoor cafes. Train to city is a breeze. Heritage value
183	I like the area on the western side of Oxford Street - it has good street presence and some nice (daytime) restaurants

Q 10b	What concerns do you have about Bondi Junction?
NO.	Submission
1	Too much traffic, too many big box shops, and Westfield is a nightmare.
2	vehicles on the perimeter streets as well internal streets are too noisy and dont make for pleasant environment. There is a safety issue associated with excessive alcohol
3	Lack of cleanliness. Lack of safety.
4	I really do not like the artist impressions, in particular the bike paths. Like it or not there needs to be a good access to the centre via cars - there are a lot of pregnant, elderly and disabled people and women with young kids who rely on Bondi Junction for their daily needs and for whom it is the centre of their daily lives. Traffic (which will be made much worse if above proposals are implemented) will impact on these groups the most
5	the oxford st mall area and spring street are still quite scungy and dirty. Better seating and pop ups as well as markets could help this
6	everything is being driven inside Westfield and reasons to use outdoor areas are decreasing or closing because they are unprofitable
7	<p>Traffic congestion and parking problems. I would be very concerned if more bike lanes were introduced. If people want to ride their bikes for recreation and leisure, then we have plenty of green spaces for that. Bondi Junction is a place of business, for business owners to make money, and if traffic space is reduced to increase the area for people riding for pleasure, I think that is entirely inappropriate, because it will interfere with people who are going to Bondi Junction to fulfil its primary purpose.</p> <p>I also think that the destruction of the long-term car park under the Syd Einfield Drive was a very poor decision. There is already very ample 2 hour parking available in the shopping centre, and the availability of that long term parking encouraged people to use the trains to go into the city. Since that has been discontinued, one may as well drive into the city and park there - which clearly contributes to traffic congestion in the city. Obviously it was a decision made only on the basis of income for the operator of the parking lot - not on the basis of what is good for the community!</p>
8	<p>Safety especially at night is a concern. There seem to be gangs of young people just roaming and some of the nearby streets are not well lit.</p> <p>The tall buildings create so much shade and wind tunnels so it is important to restrict their development and make sure outdoor areas are enhanced.</p>
9	Traffic, lack of free parking now that Eastgate is charging, congested roads in the area
10	I fear that tall buildings will be built on the northern side of Spring St so we will lost the last winter sunshine in Bondi Junction's outdoor areas. As there are wind tunnels in parts of Bondi Junction centre we will lose all outdoor activity if Spring Street is allowed to be overshadowed in winter.
11	<p>Council strangles development by imposing low height limits and pandering to NIMBY types including council planners.</p> <p>Council has no idea about managing a major commercial centre. Using the examples of the "artists impressions" presented on this page:</p> <p>* Spring Street is a major loading zone area for commerce. Council can reduce the street's width by a small amount, it can re-surface the road, it can (and most importantly) stop building owners and tenants from polluting the street with retched stinking garbage skips, but it can't turn it into some tree-lined cycleway.</p> <p>* Ebley Street is a major regional thoroughfare. Waverley Council worked for 30 years to obtain a setback on the road to facilitate its widening. Then Council lost its mind and required the Genoa building (cnr Bronte Rd and Ebley St) developers retain the original street frontage and prevented the road being widened, undoing those decades of planning. The artists impression ignore the thoroughfare and circulation role of the</p>

	<p>street.</p> <p>Council proposes to build segregated cycle ways that go from nowhere to nowhere. Such plans have led to widespread public opposition within the City of Sydney and Waverley should take heed that such proposals are unacceptable.</p> <p>Council proposes to convert part of Syd Einfield Dr to bicycle use. The only reason Bondi Junction is not the city's largest vehicular car park is because of Syd Einfield Dr. The only reason Council gets to play at urban landscaping of Bondi Junction is because of Syd Einfield Dr. Council contends a single lane segment of Old South Head Road has similar capacity to a six lane segment of Syd Einfield Dr. The fallacy of this reasoning beggars belief: Firstly, traffic volumes on Syd Einfield Dr are 50% higher than on the segment of Old South Head Rd from Penkivil St to Flood St Bondi. Secondly that section of Old South Head Rd has one of the highest volumes of traffic per lane of any arterial road in NSW. Thirdly, the street amenity of Old South Head Road is atrocious and is not a model Council should seek to use for anything. Council should accommodate bicycle traffic within the Bondi Junction town centre. Indeed if it seeks to build a segregated bicycle path on Ebley St then this is a mechanism by which that project can be something other than a boondoggle. Bicycles should be prohibited from Syd Einfield Dr. They are dangerous on a high speed roadway with no marked shoulders.</p> <p>In general Council's public displays indicate it does not understand the role of its communities in greater Sydney nor the role of it as a council.</p>
12	you still have not addressed the issue of direct pedestrian access between interchange and west fields. Instead you put fences up and say its an issue between TfNSW/Westfields to discuss yet at the same time you want Bondi Junction to be pedestrian friendly. The taxi rank is on the wrong side of the street for those who want interconnection to the interchange. Your study does not consider taxi usage in the area and how that is part of the integration
13	Don't like walking past Tea Gardens or Cock & Bull after about 10pm.
14	I want cars kept on traditionally trafficked roads (York Rd, Newland St, Oxford St, Bronte Rd, Birrell St) and not diverted onto traditionally residential roads.
15	It is ugly. too many high rise buildings.
16	Too many bicycles on footpath is dangerous. Especially some which drive too fast and expect pedestrians to get out of the way quickly.
17	lack of bicycle riding tracks
18	See above...except for Westfield 2nd-rate retail in down-market environment. Nothing better sums up bankruptcy of councils planning that the straggly Bottlebrush on the footpath outside Easts/former Bing Lee - what a totally inappropriate approach to city plantings.
19	Noisy at nights due to late night Irish pubs. The suburb still attracts a rough element which is a shame as more and more professionals and couples with family's are moving into the area. Also there are still too many cheap budget shops in the Oxford Street and Mall area. We need more green spaces and less traffic in the centre of the Junction.
20	Congestion of cars and people. Too many cars, it's too busy with the cars. We need better road solutions as it takes too long to get from one street to the next, especially when you need to drive out of Bondi junction to get out of Bondi junction.
21	We need to have shops like banks and post office open longer. The lines are always big and if you work away, you're unable to get to the bank before it closes.
22	Increase in wind tunnels as a result of poorly designed towers.
23	Dumped rubbish (soft and hard) left on footpaths by Council for days and weeks.
	The number of high rise apartments that do not complement their surrounding apartment buildings from a design perspective
	There is no culture. The markets are not a weekly destination, there are no art galleries, the cafes and stores are mainstream / chains and not quirky or unique. Pollution from all the cars. Population growth effects. Oxford St mall has no atmosphere. Community groups like the league club, RSL are more integrated into population e.g. Bondi RSL is

	more popular with younger people.
24	Rough, no-go zone at night, so much concrete and unattractive buildings.
25	Not many nice places to eat out. Restaurants don't seem to be able to survive.
26	Traffic and congestion
27	Security and safety at night.
28	There is no sense of community, whatsoever. For the vast majority, it appears as though its simply a "layover" point on a journey to somewhere else. It's the equivalent of Dubai when you are travelling from Sydney to London. You don't really want to stop there, but for various reasons, you HAVE to stop in Dubai.
29	Too much traffic; drunks at night; the western part of Oxford Street is too quiet at night which reduces safety (or the perception of safety). If it was advertised as a place to go and eat at night, more people would visit the area making it safer. That may encourage more restaurants to open continuing the cycle of improvement.
30	The prominence of traffic lanes. As a pedestrian I feel the need to take refuge in the back ways, which are not always attractive sc the top of Gray St with the truck loading dock, the brothel(?) opposite, and the ugly industrial stairs leading up to the landing alongside the car entrance to the supermarket car park.  Also the monster Westfield type complexes which dwarf any of the more human size businesses.  The crowded buses to the beach along Bondi Rd are the bane of existence for local residents. Why not use express buses or shuttle via Old South Head Rd and O'Brien St
31	It really feels like a junction, not a suburb. It feels industrial and very tired. It's not a place I want to spend time in.
32	Concrete jungle with no soul
33	Increase in the amount of vehicles passing through the area. Traffic congestion due to cars.
34	DESPERATE SHORTAGE OF FREE PARKING for commuters and shoppers. e.g.. The appalling situation at the Eastgate car park. Why did the council give away the Grafton street commuter parking to Wilson to make extortionate profit on what should be ratepayers parking ?
35	Crime especially break ins. I've been robbed 5 times in my home.
36	Traffic congestion
37	Not enough room / space in the arcades.
38	Rowdy intoxicated people, lack of security/ safety for non-pub goers
39	Safety
40	Not much green space- I work here and theres not really any outdoor space(public) to go and eat your lunch in the sunshine.
41	Feels too much like a concrete jungle.
42	too many cars, not enough greenery.
43	Unattractive public areas
44	Noise
45	Parking, graffiti, and rubbish bins
46	Safety
47	Safety at night
48	Traffic congestion and air pollution.
49	Buses, safety, needs more unmetered parking, buses
50	It is overrun with hideous architecture and the town centre of gravity has been sucked into the Westfield black hole of consumerism. It has the worlds worst designed transport interchange. Pedestrian connections between interchange and town centre and surrounding blocks is poor. Cycle facilities are inadequate if not hostile. Too many delivery vans and taxis cluttering up the streets.
51	There is not a town centre or any space where you are not hemmed in by buildings. Before the Meriton was built I marvelled at the clear space above the railway and wished it could've been a park.
52	Traffic congestion, no public toilets, more time for crossing streets green light too short
53	Safety with hotel patrons at night when they are drunk. - close hotels at 2am. . They are

	drunk by 9pm and it only gets worse.
54	The dominance of the 2 major pubs of the streets after about 8pm. The high level of dumping on curb-sides (e.g. near Cash Converters on MacKenzie St). The lack of coherence in the street frontage / awnings on the buildings along Oxford and Spring, even though some amazing facades are currently hidden. No focus point outside of the Train Station and Westfield.
55	That even more high rise buildings will be built Safety near some of the pubs
56	That BJ will go downhill especially Ebley Street between Newland St and Bronte Rd. Also notice more homeless people.
57	It does not feel like a village
58	Too many high rise buildings
59	Too much development is destroying historical sites/ houses.
60	Not a village feeling, too commercial. All the free parking has gone !
61	Can become very crowded like the city and loses its charming village feel.
62	Traffic congestion and lack of parking.
63	Cost of parking
64	Dangerous at night time. traffic and parking.
65	Vehicle congestion at peak times.
66	traffic congestion
67	Feels cheap. Late night pubs filled with backpackers. Garbage on the streets. Not enough good restaurants.
68	Waverley Council Service centre is slow. and the staff are rude and unhelpful. Oxford Street mall, Oxford Street, Spring Street and Ebley Street are dirty and unsafe overrun by drunken youths.
69	High rise buildings. The availability of extended hours for alcohol service.
70	Too much vehicular traffic.
71	Too many high rise buildings. knocking down heritage terraces. Light invasion to residents.
72	Too much bad behaviours and rubbish. Lack of consideration for older pedestrians.
73	Overcrowding
74	Paid parking in Eastgate. Boot Factory demolition. Tacky Mall with often deafening buskers.
75	Excessive drinking.
76	I could go on all day! Too many cars. No greenery. No play experience for kids. No alternative/ creative shops. Unsafe exit from the train station .
78	Cars and shopping centres destroying its soul.
79	Traffic congestion and street parking.
80	Lack of signage. lack of lighting. Narrow and dangerous footpaths.
81	More cars.
82	Footpaths are uneven and dangerous.
83	Too many cars.
84	Speed of cars near the library.
85	Safety. Graffiti.
86	Too many cars driving into the area.. Safety at night.
87	Drunks near the Mill Hill Hotel and Ebley St bars. Safety and security.
88	The Bronka arcade
89	safety, especially at night, too many drunks  the train & bus interchange is not well connected to shopping and pedestrian areas, there is too much traffic trying to access too little parking for the shopping centre, cinema facilities
90	Parking too expensive and Eastgate needs to return to 1 hour free - or preferably 2 hours free to keep up with Westfield.
91	I hate its pubs, all ghastly. More nice smaller bars please. I loathe the late evening ugliness of the mall, and Belay and Spring sets. I think the pedestrian access to the station/interchange needs much better signage, tourists are constantly asking me how

	to get into the station. Fix that.
	Cleanliness and safety. It is not a mystery a walk there at night will show anyone what needs to be addressed. It is not yet family friendly
92	The amount of rubbish that gets blown around is a put off.
93	The trains are terrible! I hat waiting for a train there
94	transient thoroughfare without soul
95	The train/bus station entrance can be dangerous especially in the area where the buses leave
96	Westfield too dominant,
97	It is a characterless transport hub with no redeeming cultural interest - dominated by pubs servicing drunken groups of fluoro clad traffic technicians it offers nothing to the discerning well educated lover of the finer things in life. Individual creativity is stifled by the dominance of international branded shopping malls
98	The Streets are really lacking in design. Also as a pedestrian that walks 2 kids to school everyday there needs to be more effort put into safety on the streets. Cars take priority and make the walk to school dangerous and stressful having to negotiate all the cars.
99	It has been rather ugly outside the leagues clubs, in Oxford street mall, spring street, belay street and Bronte Road near the mall, needs to be upgraded, as often hard to cross Bronte road with buses and taxis. A lot of unpleasant smoke outside the Bronte Rd entrance to Westfield. These places feel unsafe. I also feel unsafe along Grafton street at night as there is no activation of frontages to the street. I miss the loss of Borders bookshop. Elements like that stay open late, add a positive atmosphere that is not alcohol based. What else could be encouraged to stay open?
100	The pubs are a bit rough too.
100	It is pretty much dead at night outside of Westfield.
101	Easts leagues club
102	It's unattractive and feels dirty and unsafe. I don't like how congested it is becoming either.
103	I just think in general the whole area feels like a bit of a mess with scraggy grass and rubbish. There should be more greenery all over the suburb. Alot of the dies streets like allens parade and botany road etc all feel dodgy... not sure what it is but they are forgotten and they are so close to the beach and the BJ centre they form the dynamic
104	That Westfield continues to dominate the space
105	traffic in some streets is heavy, not much activity in the mall at night
106	There is very little aesthetic value in the town centre. There is no Town Square. It looks junky. Footpaths are not wide enough to accommodate us all and it will be much worse once the DAs that are currently being assessed are passed and built...much worse. By 2030 I cannot even fathom that it be a liveable area if it continues like this.  Traffic is dangerous. We are all breathing in copious amounts of car fumes and the slower the traffic gets the more we breathe these particle in. Every day I wipe down my window sills because the dirt from the atmosphere is so very concentrated here.  There are lots of people in cars and on foot and on bikes who do the wrong thing. They don't obey traffic rules and get away with it because there is no way to police it efficiently and effectively.  I am and have been for many years, concerned about the enormous alcohol consumption in the junction. It ain't pretty. The pubs and clubs own the streets at night and nothing has been done to change this to date
107	Over commercial, inhuman feel. Opposite to village-like.
108	too many people smoking
109	Quality of retail shops in the Mall is disappointing. Need to encourage redevelopment.
110	Eastgate - no free parking
111	cyclist too dangerous.
112	cyclist too dangerous.

113	Litter, cyclists, dogs and pub noise.
114	Parking is a nightmare
115	Traffic congestion, and inappropriate late night activities like drinking and noise.
116	Parking limitations. Traffic congestion. Lack of concrete walkways. security with pubs. wind tunnel effect from large buildings.
117	Not enough trees. Boring - too many cars. Poor transport links to the beach a tram would be better.
118	Overcrowding. Too many cars.
119	Less homeless people.
120	Poor access to transport connections.
121	Push bike riders that do not obey any laws.
122	Dysfunctional Bondi Junction transit centre, Buses entering / exiting endangers pedestrians.
123	Its dated and irrelevant once you step out of Westfield.
124	Ugly Mall. Night safety. Expensive parking fines. Lack of Greenery.
125	Overcrowding , unable to cope with the increase in population.
126	Overcrowding , unable to cope with the increase in population.
127	More outdoor seating
128	Litter
129	Traffic congestion. Cyclists using the footpaths.
130	Too much traffic and rubbish.
131	Drunks at night form the pubs.
132	Noise , traffic
133	Too few resting places and public toilets.
134	Not clean , garbage everywhere.
135	High rise buildings. not enough parking.
136	Dominance of Westfield. , No public swimming pool. no playground for older children.
137	Sterile feel about it .
138	That over development will kill the heart of the Junction. Dangerous cyclists.
139	Congestion.
140	Too many high rise buildings. Traffic congestion and aggressive drivers.
141	Not enough trees and shade.
142	Blank
143	Repair the roads and footpaths everywhere in Bondi Junction.
144	Traffic and lack of parking in Eastgate.
145	High-rise apartment blocks.
146	Graffiti. Drunk backpackers and teenagers. Dog owners not picking up after their dogs. People littering and dumping furniture on the nature strips.
147	Too much noise from the Pubs. Less cars. More green areas.
148	No real vision or plan for its future. Continual approval of ugly inappropriate developments. Traffic and parking. No places for children/ families.
149	It does not feel safe at night. It feels grotty.
150	Cars, concrete areas, bus hub area.
151	The eyesore- Eastgate exterior concrete finish.
152	So many Yoga studios .
153	Safety at night. ( we usually hear drunk people walking past our place at night.
154	Westfield taking over the universe. It is so "American" and has detracted from the lovely European/Melbourne feel of strolling along streets with interesting shops and shop fronts to admire.
155	Over-development.
156	1.Bronte Road and Spring Street have to be crossing over to Westfield. 2.Spring Street to be more Spring!
157	lack of seating areas.
158	- safety at night - drunk and disorderly behaviour by those going to pubs, especially the Cock 'n' Bull.

159	Safety and the drunk people.
160	Blank
161	Vacant / empty shops and too many Asian shops starting to open. Need more "boutique" style shops. There are too many drunk Irish.
162	Dangerous footpaths
163	Drunks and dog poo on streets. Crime. Graffiti. Lack of child care centres.
164	Over crowding with all the high rise and the ability of the streets to cope with the traffic volume.
166	Falling behind in terms of renewal..
166	safety particularly at nights.  Cyclist on footpath
167	over development, too many high rise buildings.
168	Traffic congestion. over-development. Feeling unsafe at night due to drunks in the area.
169	Street and shop maintenance slide and the area becomes depressed and bankrupt. Graffiti not removed. It is a mind tunnel.
170	High - rise building and over - development
171	Residents parking.
172	Pedestrian crossing lights insufficient for busy times.
173	No street life after hours. The degradation of heritage facades in oxford street.
174	Afraid when Ebley Street is developed into high rise, it will be as soulless and windy and empty at night as North Sydney.
175	Parking . need help in this area.
176	The pubs that are open on weekends bring all the younger crowd, who tend to take over most of Bondi Junction for the night, drinking, shouting and causing trouble and concern for safety.
177	Rubbish everywhere.
178	Stress of parking in Westfields, charging for parking at Eastgate shopping centre (no free 1hr park any more! (I refuse to stop there).
179	Once Westfield is closed the place is dead apart from the pubs - not family friendly after about 7:30pm. Lack of public transport.
180	Not enough parks and relaxing areas. Too many multi storey apartment blocks being built, the constant noise and dust created. The pressure on the train line and inadequate access to platforms.
181	I hate the westfields precinct - it has killed the streetlife in that area. My dream would be to demolish westfields and return shopping to the street - make it an urban precinct like the city or eusopean cities - a mall has no place in a major centre like bondi junction.

<b>Q</b>	<b>What dreams do you have for Bondi Junction 20 years from now?</b>
<b>10c</b>	
<b>No</b>	<b>Submission</b>
1	Being as it is the main thoroughfare to Bondi Beach, it would be nice if it were more pedestrian and bike friendly. I could see stopping for breakfast before heading to the beach on designated bike paths or walking along shaded footpaths with small shops that lead down toward the beach. The same could be done in the directions of Cooper and Centennial parks.
2	more housing development, with an affordable component, not just high end apartments. Improved safety. less noise.
3	Inclusive infrastructure, with community village atmosphere.

4	1) No smoking on the Oxford St mall - it really interferes with spending time there. 2) More areas where elderly (of whom there are a lot of in the areas) can congregate and spend time together - at the moment they are forced on the small benches in Eastgate shopping centre. 3) more community areas 4) fewer \$2 stores and more nice cafes with outdoor seating 5) more kid-friendly areas 6) better access to the train station, especially for those with prams or limited mobility - at the moment accessing the station is inconvenient and difficult - the entrance is out of the way and takes a lot of time to get to, constant competition with busses and other forms of transport
5	I would like Bondi junction to have a 'cultured' feel like double bay or Mosman
6	better outdoor spaces, good public transport hub
7	Fully described elsewhere
8	Not dreams... but it would be nice to be able to sit outdoors at a cafe, enjoy the food etc and watching the crowds. Perhaps enjoying some buskers or have something else to see rather than high rise shopping.  Many more people would cycle and enjoy the market etc if cycle ways were introduced and outdoor areas enhanced with trees etc.
9	don't know
10	I dream that it will be leafy and that there will be a number of wildlife habitat corridors, and that planning will make provision for wildlife areas where I can watch birds in the day and spot possums at night every day, without having to leave the area to do so. I will be old but I would like to see children being able to see some wildlife incidentally every day as they go to school or while they sit at the bus stop.
11	Council can promote further commercial and residential development across Bondi Junction.
12	Direct access from the interchange to west fields - go visit Parramatta. Not walking a labyrinth from the train exit to get to the mall - straight direct access from the turnstiles to the mall, no stairs, no escalators/lifts etc
13	More established trees and green planting - it's improved a lot in the last 8 years. Preserve or enhance the feeling of community
14	More night life. Separated cycle ways that I can use to get from home to the CBD without once having to ride alongside cars, or on a shared path with pedestrians.
15	More trees
16	Hope its less dense.
17	more open and cosmopolitan, less busy with taxis
18	Nth Sydney was extensively planted with plane trees 20 years or so ago (yes actual trees) and now a pleasant, cool and comfortable urban centre where walking even on hot days is appealing, despite the traffic. What a contrast to Bondi Junction (with exception of small island along Oxford St between Hollywood St & Bronte Rd) .  If BJ looked like Nth Sydney in 20 years we'd be some of the way towards having a liveable, and environmentally sustainable centre it would be a pleasure to come to.
19	Think edgy and trendy Manhattan suburb full of life day and night

20	A train to Bondi beach. Better cycling paths to the beach. Bigger Westfield shopping Centre. Better roads that are not disturbed by pedestrians. Maybe underground walk ways.
21	A cultural hub.
22	Greener, cleaner, better high rise residential design requirements, and better pedestrian traffic design
23	Cultural community that provides central hubs such as weekly markets, monthly events, a place for families to relax in Oxford St Mall, (e.g. Lane Cove), more trees, The large buildings are maintained and not allowed to depreciate too much. Boutique cafes and stores that are run by locals for locals.
24	A cinema with street access, more outdoors markets and outdoors seating, lots of trees and flower beds.
25	Safe, vibrant, something for everybody.
26	Car free zone Birrell St has parking restrictions for non-residents Light rail from Junction to Bondi Beach More family friendly More accommodation suitable for the aging community
27	If I'm still around in 20 years, I hope to see places like the images above.
28	Ideally, Bondi Junction becomes a destination for local residents and for visitors. People want to come to Bondi Junction, not just for the shopping, but for entertainment as well.
29	No cars in the centre, just buses, trains, bikes and lots of room for people walking.
30	Leafy, pedestrian hub for people of all ages, ability and social standing; more interaction via community projects, especially local food production - community and street gardens. Small outdoor theatre and cinema pop-ups, where documentaries about the environment and sustainable living could be shown, Practical workshops and study groups emerging from such public educational activities. Transport light rail and bicycles - maybe bicycle-taxis to the beach. The community garden area off Ebley St near Officeworks could be a haven if it were organised more like an urban farm with weekly working bees and gatherings over lunch.
31	Huge pedestrian zones Lots of cool cafes for breakfast Wine bars and restaurants for dinner. Boutique shops for fashion and gourmet food It becomes the next paddington or woollahra.
32	Paddington / Woollahra the of shops and restaurants etc
33	1. Public transport and sustainable forms of transport to be given high priority 2. more festivals and entertainment around the BJ area 3. More street art, graffiti to wake up dull and visually boring areas
34	No more high rise buildings that block out the sun. More green areas, plants and trees.
35	I don't dream of Bondi Junction 20 yrs from now.

36	Continue to be a place where you can access everything you need ( transport, shops, restaurants)
37	Bigger arcades with more walking space. less clothes shops and a deli would be good.
38	Active street life during the day and evening.
39	More green and rest areas.
40	More Boutique and cultured as far as food/ wine and dine/ small bars., Bike friendly streets.
41	See more trees and not so much concrete
42	Walkable and cycling friendly with few cars , wide footpaths, more greenery, great cafes and restaurants, vibrant, connected
43	Greener and more attractive and pedestrian friendly.
44	To mirror images as shown on the survey form.
45	Greener and pedestrian safety.
46	To have many big trees in all the streets, flower pots hanging from street lighting.
47	Light rail, less buses
48	<p>Of course, the proposed cycleway connections through BJ should be completed - this is a key component in activating the town centre.</p> <p>Also, remove all buildings from the block bounded by Oxford, Bronte, Spring, Newland (starting with Bronka and expanding in both directions until every monstrosity is erased). Open Oxford St to buses (through services only - terminating services will continue to use existing interchange/depot - which also could be adapted for taxi rank and proper 'kiss and ride') and create subway pedestrian link from train station concourse to new town centre square and Eastgate (oh, there may as well be one through to Westfield via DJs as well). Make the town centre square between Oxford St and Spring St an active space (a junction if you will) with a sunken garden/lower ground arcade to link with pedestrian subway network described above.</p>
49	That is has focus to it, that there is open space to "ground it". Does the Oxford St artist impression on the photos on the survey mean you are going to commandeer that ugly building on the corner of Newland and Oxford Sts ?
50	Free parking in shopping centres, stop penalising people for wanting to shop there.
51	One dream would be that all residential streets in Bondi Junction have broader green areas, narrower roads and improved natural vegetation. Using Brisbane St as an example, then compare that to (for example) Mackenzie St. There is an amazing opportunity to broaden the curb side gardens and reduce the road space, thereby slowing traffic, increasing play areas for kids and increasing water capture on soil, rather than creating run-off that flows down storm drains.
52	<p>more community focused projects/ veg and herb gardens on the streets</p> <p>Mall to be made more like a smaller Leichardt style plaza</p> <p>It is not sure a wind tunnel!</p> <p>It develops a village atmosphere</p>
53	That it will be a cycle friendly smart place where you would like to go even when you

	are not shopping.
54	Cleaner streets, less rubbish, no more contemporary buildings
55	Utilise the space under the Seinfeld drive make it more convenient.
56	To look like something like the pictures shown on this survey form .
57	a theatre for plays.
58	less tall buildings, improved traffic flow and how about a on/off ramp onto Syd Einfeld drive?
59	More sophisticated dining at night. More greenery and public spaces.
60	Family friendly pubs. Outdoor restaurants. No more discount stores.
61	Retain the heritage areas. and limit the high rise buildings.
62	More trees. More cycling. Less motorised vehicles.
63	Leave some sky please.
64	To have the same village feel like Eastgate.
65	No huge city style development.
66	Clear and direct tourist walk from the Station to Beach. Wider footpaths, Great diverse shops and nightlife. Lots of events and public art.
67	I would like to see a piazza- a modern forward city.
68	More things for kids to do.
69	Easier to get to with lots more things to do.
70	Cool shopping
71	Good transport. safe place to get around , medical facilities ( I will be sixty)
72	More shops,
73	Tram to the beach.
74	Limited car access.
75	That is a vibrant indoor/ outdoor centre with great restaurants, lots of greenery- an urban oasis.
76	Make it greener and a great place to live and work with reduced car traffic in the area.
78	Remains the same has worked well but clean it up abit and more greens
79	A train or light rail to Bondi Beach.
80	a safe environment with more greenery, public and restaurant/ cafe outdoor seating having a mix of residential and commercial activities

81	Keep being a good shopping centre
82	I'd love it to be a bit cooler. It's truly a daggy place to live. People say "that must be so convenient" when it tell them where I live. Sigh. It's not Newtown or Bondi, or Redfern, that's for sure.
83	A communal space of beauty and vibrancy, as used to be in Italy. Families would walk around at night having meals, coffee, ice cream.
84	Better train system
85	prettier, greener - with MUCH more art and live entertainment
86	I think it's alright as it is, could just be safer.
87	Westfield less dominant more independent retailers
88	A place for people to meet and spend time together. Our fantastic weather and warm temperatures mean that a good proportion of the year could be spent outside - we all spend too much time inside watching screens - we should be outside walking and talking together and sharing interests, knowledge, culture - language lessons, outdoor cooking classes - oyster shucking competitions etc
89	Fantastic destination not only for shopping, but also for restaurants and cafes not just cantered on Westfield but also in the surrounding streets.
90	enhanced safety, variety, quality and pedestrian friendliness. more greenery and the feeling of a local cultural centre, rather than strictly commercial.
91	A vibrant mall and Spring Street with a diversified selection of restaurants and shops. Access to the train station will be fixed!
92	A train all the way to the beach.
93	The Westfield to have more open areas and be more integrated in to the out door shopping mall. The outdoor mall to be made more green and eco friendly. The Westfield to have a corridor to the bus/train terminal. Better public transport connection to Bondi to reduce traffic congestion. Bondi and Bronte have amazing small, independent, local boutiques, organic cafes and shops, farmers markets and local designers markets. The lifestyle is green and healthy and organic, but for some reason that stops completely as soon as you set foot in the junction!! Let's make the junction the area where the park meets the sea! It is nestled perfectly between Centennial Park and The ocean so it seems logical. Make it a place where it's desirable to go, not just a place people go out of necessity
94	I can't see why it can't open up a bit like the grounds at Alexandria - get some creative businesses into the outskirts areas and get rid of the big high street action on the extremities - Edgecliff rd and side streets should be like 5 ways paddo and the barrel street side should get industrial brooklyn funky. make it and reduce the rent and the funky urban cool will follow. it should feel thriving and not a place you drive through to get to surry hills
95	Place for people during the day and at night
96	cafes and restaurants open late in the mall, special events in the evenings. a play area for children, buses using underground or special bus lanes.
97	I wish for BJ to be less of a wind trap. Perhaps better built forms and planning laws can

	<p>address this. It would be good if Council took their own planning controls more seriously. I would like to see six star-rated buildings and perhaps a very decent hotel (not a pub). I would like to see good setbacks from developments and a focus on green spaces around new developments.</p> <p>It would be great if we could eliminate cars altogether from the junction, except for busses and taxis and delivery vehicles but then where do they go? That's the eternal dilemma. It's a brutal fact that we are a car culture so perhaps trying to limit car parking in large developments may help shift the culture. I'm not sure I truly believe this, but perhaps its worth a shot. If you give them car parking....they will come. But don't give people garages and then resident parking stickers too. I find our government's stance on traffic and cars a bit confusing....how can you keep providing huge towers of residential units with car parking for everyone, and not have it become more car focused? Then use the idea that we are a great place for non-car ownership because of our location to Public transport...it's a self-perpetuating paradox.</p>
98	The pictures above look fantastic!
99	to become a second city
100	A more vibrant safe place for the whole family - not just teenage space after dark and pedestrian priority over cars.
101	No more high rise buildings
102	Outdoor seating.
103	Outdoor seating.
104	the Mall becoming like the mall in the city of Paris.
105	More greenery and trees.
106	Move the bus terminal away to the original bus terminal.
107	It should continue to provide good and services.
108	More greenery. More green transport options, i.e. pedestrian walkways. A more uniform approach to design and new structures.
109	More open air markets, make it a more vibrant place.
110	No more tall buildings.
111	No cars / trucks between York Rd and Bondi Rd and Oxford St to Ebley Street. Public transport only. Light rail to Bondi Beach and the city. Less cars.
112	For it to revert back to a shopping precinct.
113	Safe cycle links from surrounding areas leading to Bondi Junction.. Light trail connection. Car -free environment.
114	I don't really have any.
115	Beautiful extended Mall with outdoor seating and family eating and fountains and gardens.
116	More communal seating.

117	Blank
118	More trees, more restaurants and free parking in Eastgate.
119	Mixture of heritage and new shaded streets.
120	More markets, festivals, fountains, music, a piazza / plaza central green area.
121	More greenery
122	More greenery. More cycle paths. more activities for families.
123	Embrace the holiday aspect of the locality. more cultural and music events.
124	That it will become like a hub, with cafes and bars at night and day. (saw around 50 couples dancing the tango at midnight in Seville, Spain last year)
125	That the old parts are refurbished. No more high- rise buildings.
126	For Bondi Junction to stay as a suburb.
127	A vibrant cultural and pleasant place to walk through, eat out at and mingle with friends.
128	Hotels and clubs closing at midnight. Spot checks by police.
129	That it retains its sense of community.
130	A great sense of community and less car congestion. More green areas. better pedestrian access. Less high-rise buildings.
131	Make Spring Street car free.
132	Need to create spaces that people want to stay in and enjoy rather than go to get things done. Civic spaces that are beautiful are KEY - combined with purpose e.g. chess board for old people.
133	That I can walk safely to a selection of shops, cafes and restaurants.
134	A walking town where every glance is a pleasure.
135	For the Mall to look like the mall in Santa Monica.
136	The tourists that want Bondi Beach can go directly there from the city - bypassing Bondi Junction.
137	Greenery . Safety. DIFFERENT NAME.
138	Other than an indoor aquatic centre, less car traffic and more pedestrian and cycle access. More trees and plants, a tram to Bondi and Bronte Beach, thriving small businesses and more street art and safe activities for teenagers.
139	Cosmopolitan atmosphere.
140	Spotlight building - make less ugly.
141	Cleaner, greener and safer

142	There will continue to be respect that comes from the vibrancy/ residential mix.
143	Maintains its community feel and still has a great reputation for shopping.
144	POP-UP LOUNGES in Spring Street have provided a great facility for smokers who have been able to sit while puffing their poison into the air. Dangerous encroachment into taxi spaces - traffic hazards
145	Wont get over-developed. Not too many high-rise buildings.
146	I probably won't be alive to have any dreams, so it is the now that concerns me.
147	Light rail links to the city and the beaches. . No more high -rise buildings.
148	Greener, safe footpaths, cleaner
149	More trees , safer area.
150	Less cars. More public transport options.
151	Keep high rise buildings to a minimum and the opening of some really inviting coffee shops, with covered outdoor seating.
152	Some amazing parking solutions for residents and visitors
153	Easier car access. Less bike lanes
154	Needs traffic calming and bike paths, shaded seating and be safe and attractive and interesting to attract people of all ages at night.
155	less windy , by installing wind breaks in very long streets e.g. Newland and Ebley Streets.
156	All of the family friendly stores will stay open well into the evening (e.g.. 10-11) which will encourage young families with kids to stay out. Young adults have options other than drinking and everyone feels safe on the road.
157	More open plan design. more greenery and parks
158	That it has the vibrancy of streets in Barcelona (art, mime-artists, arcade markets, outdoor markets, tapas bars, quality restaurants, large piazzas with safe play areas for children.
159	Great shared areas. Less car and congestion. More restaurants / cafes. Open later into the evening. Good sport facilities - Pool
160	The right balance between a busy, vibrant neighbourhood and a respect for greenery, relaxation and sustainable energy projects. Where are the solar panels on these new high rise buildings?

<b>Q 10d</b>	<b>What would you need to help make Bondi Junction like your dream? What action would you take?</b>
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No	Submission
1	I think the complete street project is the first step toward it.
2	police and council to target noisy vehicles. council to encourage and facilitate development. diverse population (i.e.: families not just holiday makers).
3	Perhaps the name itself is a problem. I'm just wondering whether any great cities have had something like "junction" in their name? Seriously.
4	1.Decent, open, transparent planning. Retain the HERITAGE BUILDINGS AND SITES such as the Boot Factory. STOP BUILDING A CONCRETE JUNGLE. 2. Access governments and politicians and NGOs.
5	1) create an underground tunnel between the station and Westfield/mall, to eliminate the current problem at peak hour where you are often running in front of a bus when accessing the station - also really helpful in bad weather 2) make the area a non-smoking zone and ENFORCE it 3) attract more cafes with outside seating to the areas - in particular breakfast places - at the moment there are only a few that serve breakfast, nowhere to go really 4) use space at the mall to create an area with seating and tables where elderly can sit together and socialise
6	More interesting cafes and shops outside in the malls
7	more activity in and around the mall especially in evenings, arcades and walkways linking the mall with Spring St open later
8	Station parking is essential to encourage people to use the trains. Thinking that people will use the buses to get to the train station is pie in the sky thinking. Firstly at peak hours the buses often arrive full and you have to wait too long for a bus with seats; secondly people often need to do shopping on their way home from work and therefore need to have their car waiting for them at the Junction when they come back from work.
9	Greenery, encouraging good cafes, entertainers, street art, strip shopping or markets, safety for teenagers and the elderly who want to linger in the area and enjoy being outdoors.
10	Better public transport to the area from Rose Bay/Double Bay. Less congestion on the approach roads to the area.
11	I would help if needed...I can only plant my own garden with wildlife attracting plants and trees and I hope that the council will start to focus on planting native plants and trees to provide food and habitat for native wildlife. Could council please start planning where there can be trees planted that will be allowed to remain for a hundred or more years so that the trees will develop holes for wildlife to nest in Meanwhile, perhaps council can start a program of installing nest boxes of different sizes for birds and mammals, and to make the erection of nest boxes a condition of development approvals as Pittwater Council currently does. Melbourne City Council buys nesting boxes for possums and birds from La Trobe University to place in trees all around Melbourne. The government Scientific Committee has said that extinction of many species is imminent because of lack of adequate nesting habitat due to lack of trees that are sufficiently old to have developed holes for nesting by birds and mammals
12	Raise height limits and FSRs. Widen local thoroughfares where appropriate. Landscape existing streets such as Ebley and Newland Sts within the scope of their roles in traffic management. Provide a designated cycleway through Bondi Junction and petition the RMS to prohibit bicycles from Syd Einfeld Dr. Redevelop the centre of Oxford St mall and its interface to the railway station.
13	Pedestrian access integration from the trains to west fields and the mall.
14	as above
15	Light rail and a dedicated cycleway along York Road, then from the corner of York along Oxford St all the way to Crown and/or College St, then into the CBD, so I can take one tram, or ride my bike, all the way to & from work.
16	More trees
17	Fewer bikes on footpaths and at a lower speed.
18	taxis cannot cross Bondi junction, only buses.
19	Expand footpaths  Plant TREES  Encourage restaurants/cafes and pubs to offer outdoor seating under trees with

	<p>attractive introductory rates</p> <p>Encourage specialty retail mini-precinct, leveraging Westfield strengths with focus on fashion, (casual-beachwear/active wear?) specialty food (upgraded bi-weekly growers market and cookery/kitchenware, designer furniture, entertainment electronics.</p> <p>More frequent bus services during off-peak hours (smaller busses?)</p>
20	Better licensing decisions for retail and restaurant spaces to encouraging better quality establishments to enter the Junction. More urban green areas and more pedestrian only streets in the centre of the junction.
21	Council to have an open dialogue with people who have new ideas.
22	Raise council rates to employ more garbage collectors, invest in long term urban planning, and put in light rail to the beach
23	Restrict chains to certain areas e.g. Oxford St mall, a local directory of which stores are locally owned so I can support them over chains e.g. cafes, vege stores,
24	I would investigate what sort of trees and plants would be suitable to provide greenery and colour, to soften the hard look it has, research the feasibility of more market stands, encourage people to use the mall by softening its look with perhaps a water feature and definitely more green to reduce the forbidding look of asphalt and concrete.
25	Pedestrian safe roads, traffic reduction and calming, better street lighting, more pedestrian precincts with nice places to eat.
26	Joint a precinct working party
27	More parking, especially at Christmas time, when the parking areas get hectic.
28	<p>1. Create precincts and limit the types of retailers that operate in those precincts. For example, if it's decided that the Mall will be a restaurant precinct, then limit the other types of retailers that can operate in that area. Having a \$2 shop or a Mitre 10 next to a mid-high end restaurant, just doesn't work.</p> <p>2. Intersperse residential housing with retail areas. The inner city of London and Paris provide great examples of where medium density housing is positioned alongside retail outlets. One of the reasons why Bondi Junction (and for that matter the City) is a soulless place after dark, is that there are no residents in the retail/commercial areas. Whilst more greenery and less traffic is nice, it will not absolve the feeling of a "ghost town" after dark unless there are more residents in the heart of Bondi Junction.</p> <p>3. Plan commercial/retail areas. At the moment, the geographical size of the Bondi Junction retail area appears too big. There appears no logical rhyme or reason for where and why particular shops are located. For instance, there will be some stores on Ebley St, yet there are heaps of vacant stores on Oxford St. I think the commercial area needs to be more compressed and again, there should be council laws re. the type of retail / commercial outlet that can operate in the designated precincts.</p> <p>4. In addition to addressing the commercial / residential planning imbalance, the following would assist Bondi Junction to become a destination:</p> <p>4.1 Creation of a true "food market" like the Vic Market in Melbourne or the South Melbourne Market</p> <p>4.2 Night Markets - As mentioned earlier.</p> <p>4.3 Encourage wine bars and med-high end restaurants to establish in Bondi Junction</p>
29	Turn off the parking meters from 6pm in Oxford Street West so people can park to use the restaurants. Encourage more restaurants in this area to help liven the place up at night.
30	The complete streets projects are a prompt to take an interest in the human scale, to linger and interact about the installations, so I'll be consciously seeking opportunities to do that.

	<p>I am currently part of a community garden 15 mins from Bondi Jn that has an ethic of participation and community building (unlike the garden off Ebley St)</p> <p>I will look for more opportunities for input, like this. Thankyou.</p>
	<p>Encourage lots of great food places to open.</p> <p>Encourage boutique stores - this way we can differentiate our suburb and make us a "destination suburb".</p>
31	Cleaned up pedestrian areas with lots of greenery.
32	Investment in attracting the right businesses to open and showing the public what life could be like. Get rid of cheap dollar type shops and restaurants. At times it feels like you could be in Cabramatta
33	Money and political power/influence. Tolerance, compromise
34	Restore the Boot Factory - it's the oldest building in Bondi Junction and part of our heritage. Remove Wilson Parking and return the commuter parking to the residents.
35	Don't you have anybody in Council with foresight, vision etc ?
36	Maintain what it currently is.
37	Less bikes and more access in Eastgate and the other arcades
38	Encourage a good mix of eateries and retail outlets which are open till late, especially on Friday to Sunday similar to Crows Nest and Willoughby
39	Safe bikeways, better choice of food, less buses! ( so noisy)
40	Ask for more trees, more seating areas, make it more attractive.
41	Narrow the streets and widen the footpaths , plant lots of tress and more outdoor seating, remove cars
42	Better footpaths and better lighting at night, more outdoor activities , eateries, greenery
43	Community involvement
44	Plant trees, security cameras.
45	Keep taxi station in Spring St and stop private cars in Spring St and leave access only to taxis which are more convenient
46	Light rail up Oxford St
47	Dictatorial planning powers. A demolishing ball. Excavations. Creative architecture/landscaping to make an attractive town centre with space for markets, arcade shops and small bars/cafes surrounding the sunken garden, performance space centrepiece. FSA lost should be relocated to new developments (preferably replacing the worst of what is) in the blocks surrounding the town centre - with possible new iconic tower block at the Newland end of the town square (where dog-ugly C'wealth bank is).
48	Interactive art ( like jigsaw) , calendar of events for street fairs, local community festivals , fashion catwalks in the mall HUMAN CENTRIC then I could visit with friends and hang out and enjoy the space and creativity .Good food, without too much drunks pouring out of pubs.
49	I wont be living then
50	<p>Create a list of residential streets in Bondi Junction where curb side greenery / gardens can be increased, residential roads narrowed and sustainability improved.</p> <p>Improve the street frontage of all businesses along Oxford Street, making the most of the current Victorian facades, many of which remain hidden.</p>
51	Create focal point outside of Westfield / Train Station.
52	Innovative and imaginative planning and ways of engaging the community
53	Enlist a world class town planner/ city architect and a historian so we don't end up with steel and glass everywhere.
54	Greenery is good. Very large trees are not suitable , cause damage to sidewalks and roads, and also darkens places.
55	Reconstitute the old Cine sound studios, make it a historical site and open it up to the public as a tourist attraction.
	Outdoor music, outdoor art and evening markets.

56	More trees/ greenery on all the streets. a fountain or water feature
57	Blank
58	Close down cheap shops. No more high rise buildings. No late trading for pubs like the Tea Gardens.
59	Cleaner streets. Lay consistent pavers across the whole junction to improve the look and feel. Green the streets. Widen the platforms.
60	Maintain air space.
61	Plant more trees.
62	Limit density. preserve Heritage facade.
63	for Council to listen to us.
64	Alternative entrance to the Bus/train interchange. The current shared bus and pedestrian area is a recipe for someone to get killed.
65	Someone in Council championing the pedestrian. Cash, Cash, Cash to pay for the fantastic upgrades and public art.
66	Forward thinkers. Public domain first and foremost.
67	A playground in the Mall or Westfield.
68	Utilise the Mall more especially for kids.
69	More food areas
70	Encourage diverse businesses in Oxford St
71	Council to be more effective in tackling the complex issues such as traffic and pollution.
72	Blank
73	Sack whoever has blocked rail access to the beaches. What a waste of our greatest asset.
74	get better traffic flow especially for buses, broaden footpaths and add more greenery and public seating throughout, patrols to monitor behaviour and minimise impact from alcohol affected visitors
75	My dream is pretty simple and also not really a dream as I'm sure it will continue to provide good shopping so I don't see any action is required on my part.
76	All the things on that picture... And a late night bakery/cafe. And a couple of cool bars.
78	Safety for the night. It is not safe to be out and about. Lighting is important.  Daytime , trees, art, music communal spaces where people can congregate and relax, so seating shade.
79	More modern and beautiful mall, with lively markets. Much better train station.
80	continue paying my rates :)
81	Probably better lighting and safer access points to the transport
82	Transport & vehicle hubs on outskirts (Park & Drive)
83	I would like to be vice chair of the oyster shucking competition sponsored by Sydney Seafood Markets and issued with a knife proof shucking glove and box of 12 dozen rock oysters - I would be delighted to take action to shuck the oysters and present them to the audience to enjoy
84	I am happy to support local businesses.
85	I think activation of the street and encouragement for creative business, like is happening around Alexandria by private owners as well as by council will attract better businesses that attract people to populate the place around the clock, enlivening it and making it a safe, gathering place. Chatswood has a state of the art new theatre, with associated restaurants and public spaces around it. I suggest the area could benefit from a quality rentable performance space. Not sure what opportunities have been explored in this regard?? What is happening with the old Council premises on Bondi Road?
86	Make parking free after 6pm. Give restaurants free outdoor spaces. Fix Spring Street. (Willoughby Road Crow Nest is a benchmark of what can be achieved).
87	A responsive and innovative council like the City of Sydney
88	Make it more sustainable, more green and have more open spaces. Any new high rises should be start of the art urban architecture, not eyesores. Better bicycle pathways and linkage to Centennial Park and Oxford Street. Encourage people to use public transport and eco transport by making it easier. Make spaces where people can connect, not be

	isolated.
89	I think we need to rent control or subsidise to get cool people into the area and the area will be repaid 3 fold with hip and cool people. get the arts back into the area. if I see another yoghurt shop I am going to vomit and all the finance people that have invaded the area don't contribute to the dynamics.
90	Better street designs
91	some buses could go express on Syd Einfield drive, use train tunnels and extend to Bondi beach use for trains or buses. more activity at night. use closed walkway from train station to get to Westfield safely
92	I would love to see some sunnier areas and some parks created. More public seating and some areas of quiet. How this could occur I'm not sure but there is a sense that there is no where to go for repose. It's a loud, dirty, consumer-driven area. There is too much emphasis on getting people to pull out their wallets and spend money, rather than a place to live, or a place to go for contemplation or sun or a place to meet friends or to go and view art or music...it is a cultural desert.
93	More trees, which would bring more foot traffic, better retail outside Westfield and better restaurants, cafes and bars. Better crossing near About Life cafe on Oxford St.
94	Ban people who only work in Bondi Junction from attending council meetings . they should live in the area.
95	Vote in a different Council.
96	Vote in a different Council.
97	Someone in control who cares about the resident.
98	Spring street made into a green space / pedestrian/seating/ mall
99	Water feature somewhere and Aboriginal land recognition.
100	A clear idea of what this is about. the real agenda seems hidden.
101	More greenery. Better paving and aesthetics.
102	Limit building height.
103	More Council patrols to enforce
104	I would need the Council to the lead of residents concerns. I would sack the Council.
105	Choice to take light rail or cycle.
106	fill in questionnaires.
107	More events.
108	Improved traffic conditions. cycle paths to get bikes off the footpath.
109	Forward thinking regarding traffic management. Limit high rise development.
110	More community transport.
111	Need an information centre at the bus de[pot to help visitors.
112	Create a centre with a community feel.
113	More alfresco eateries and small shops.
114	A proper plan for the street scape.
115	Oxford Street should be a mall. Bike paths should be introduced.
116	More greenery.
117	Thoughtful planning for traffic flow .
118	More trees.- it is so urban. Less high rises- definitely not allow new ones to be built.
119	Make Spring Street car free. No more high rise buildings around the Bondi Junction Mall.
120	Councillors who listen to VISION- good urban planners and architects.
121	More priority to pedestrians and cyclists. The Mall is improving but still has a down market feel to it.
122	Green It ! Trees in every street. Widen the footpath in Oxford Street.
123	Good cafes and restaurants and safety. Less brothels and massage parlours please.
124	A shuttle service dedicated for tourists.
125	Respecting areas that are established.
126	1. Relocate the busses and get started on an aquatic centre. 2. Survey youth to see what they want.
127	Sensible planning for access. Cut back on over- development.
128	More Restaurants. Have kids parks.

129	More community consultation more regard for safety.
130	More variety of restaurants with longer opening hours on the weekends. More live music venues. Lower rents. More greenery. More people friendly.
131	Many more green spaces.
132	More participation and voice from businesses and residents.
133	Plant more trees. Cyclists not to use the Mall too dangerous.
134	As stated in (b) (i.e. "What concerns do you have about Bondi Junction?") the major overcrowding does not seem to have a solution - too many people, too many cars and buses!
135	reduce speed limits to 40k per hour for local traffic areas.
136	Start planting trees, spend money on the streets to make walking safer.
137	Not too many high-rise apartments. More trees.
138	Planting more trees.
139	- keep area spruced up and clean - keep patronising Bondi Junction facilities
140	Leave it as a hub for pedestrians and cars.
141	I would happily join a citizens' advisory committee. Don't see what else I can so. I already fight for trees.
142	Stop Council allowing more high - rise buildings and taking away green areas.
143	Make Spring Street a mall, widen the arcades to allow easy flow between the 2 malls, allow (outdoor) cafes like ones in Melbourne's laneways
144	Better shared areas - with a mix of cafes etc. Open late. Add a sports centre with a pool.
145	I would get involved in local projects to plant scrubs, collect rubbish or remove grafitti.

## APPENDIX 2.C - POSTCARD SUBMISSIONS

No	Submission
1	Remove the Bronka Arcade and get rid of the \$2.00 and \$3.00 food outlets. At lunch time the arcade is jammed with people eating - hard to get by
2	Make Spring and Ebley Streets no access to vehicles make people walk to work and shopping, there's too much traffic in the Junction
3	Oxford St Mall is rundown - make it prettier and stop the spruikers. More public art like fish sculpture
4	Spring St pop up should have less concrete and maybe add some planter boxes. Also add shade cloths on sunny eastgate side. Please don't create bike lanes, cyclist currently share the road with drivers just fine. Use the money to benefit wider community.
5	Prevent any further high rise buildings in the Junction. In winter many streets see little sun and too many streets are wind tunnels. Enough is enough
6	Spring St allow many 5 minute 'pick up and drop off' spaces for cars to service the apartment residents, shoppers, ESL Club patrons. Also 1-2 traffic lanes through that area. Wind breaks in Newland St.
7	Get the cyclists off the footpaths and the mall
8	Make the streets look better
9	Lovely idea and bit of shade would complete it. More of these would be great
10	Enforcement of non smoking laws. Clearly marker cycleway not shared with pedestrians
11	Really like them. Hope they stay a while
12	Looks Great. Keep it
13	Love the pop ups but please move the noisy motor bikes
14	I sit in the pop up Saturday morning to eat my lunch. Love the pop ups
15	Needs shade. Really enhances the street
16	Add more kids play areas as part of the pop ups
17	More of the same please
18	More bike parking. Less cars
19	Not a junk heap. Good spot to stop and rest
20	Love it. More please
21	Awesome for people watching
22	Love the pop up
23	Keep Urban Lounge and bring us more more seating. Bicycle parking and public art
24	I sit here every lunch time. Its great
25	Finally somewhere nice to sit for free. Love the urban lounge
26	Good spot to drink coffee, meet a friend without having to buy something
27	This is a great idea. Umbrellas would also be a good idea
28	1. Fix sidewalk and street surfaces. 2. Flower boxes / or islands of greenery. 3. Keep garbage bins off streets
29	Great to encourage cyclists but keep them out of the mall. They speed through and there are a lot of near accidents. Make it mandatory to walk through with their bikes.
30	The train service is excellent but the interchange needs an upgrade. This might encourage people to know about and use it.
31	New street lights, like in the CBD, by which you can hang flower pots, banners etc which add light, colour and information. Look add to the new look...especially down Spring and Oxford Streets
32	You ignore all answers to surveys. Provide more parking for regular cars far too much loading zone areas - not used Spring St has been turned into a place for everything except shoppers. Can't stay in BJ with no parking. Ridiculous
33	More greenery please
34	Artwork. Better bars
35	Much more diverse night life
36	Kids, clues to follow the public art through BJ with prize at the end at library, tourist attraction
37	More plants, trees, public toilets, less congestion, more streets lights
38	Get shop owners to improve their shop frontages. Improve pavements and pavement

	plantings. Provide more underground parking
39	Make Spring and Ebley St one way and widen footpath, add lots of trees and outdoor seating. Shut down tea gardens and cock and bull pubs.
29	Great to encourage cyclists but keep them out of the mall. They speed through and there are a lot of near accidents. Make it mandatory to walk through with their bikes.
30	The train service is excellent but the interchange needs an upgrade. This might encourage people to know about and use it.
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39	Make Spring and Ebley St one way and widen footpath, add lots of trees and outdoor seating. Shut down tea gardens and cock and bull pubs.
40	We need to have clearly designated pedestrian only areas. Bikes on footpaths and going through red lights a big problem around Nelson St.
41	Please stop to take out big old trees and replace them with baby trees which will take decades to grow big again. (Ebley Streets and Spring Street)
42	Stop people wearing gym / yoga clothes as street wear. Restrict drinking hours where Irish over indulge Tea Gardens and the mick pub across from the surf shop. Shut down 7 out of 10 yoga studios.
43	Re the spring st pop up: More greenery, less concrete please. Concrete infringe onto traffic too much visually. Bit of eyesore can we have more proportional barriers. Wrtie local artists to participate.
44	Bikes using footpath from York Rd - Denison St is very dangerous. Need dedicated cycleway from Centennial Park to Mall. Pedestrians need to be safe from on the footpath.
45	Get rid of the 'pop ups' and other clutter - we have too much and too may eye sores on our streets / footpaths - show some good taste - BJ streets / footpaths are looking like Bangkok etc.
38	Get shop owners to improve their shop frontages. Improve pavements and pavement plantings. Provide more underground parking
39	Make Spring and Ebley St one way and widen footpath, add lots of trees and outdoor seating. Shut down tea gardens and cock and bull pubs.
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45	Get rid of the 'pop ups' and other clutter - we have too much and too many eye sores on our streets / footpaths - show some good taste - BJ streets / footpaths are looking like Bangkok etc.
46	The street sitting area looks great. Thanks
47	Better places at night. Good diverse bars
48	It will be too hot for people to sit here in summer. Spend money on upgrading streets. Potholes 'rate payer'.
49	Why don't you plant more trees in my neighbourhood or offer them to people to plant
50	Plant more grasses, trees and flowers. Have rubbish picked up from streets. Have streets cleaned. Have events that the shops can be involved in. Have more quality shops in the Junction.
51	Would like to see more trees
52	More interactive play for kids
53	After 6pm. Parking should be for much longer than 2 hours to allow one to have a relaxing dinner
54	Night time activity for families. Family friendly restaurants
55	Better biking facilities. More pop ups
56	1. Replace shabby asphalt with large pavement blocks on footpath in Spring St. Similar to path from Charing Cross to Bondi Junction. 2. Remove 'pop up' from front of residential apartment and place outside 'cafe' if necessary and consult first with owners. 3. Place seats out on footpaths only. Kitty encourage mess?
57	You'll never enhance Bondi Junction until you do something about the parking. It's chaotic and a turn off. Westfield Eastgardens has free parking all day.
58	I think we should have noodle markets in Oxford Street Pedestrian mall on Thursday nights, or some other time. They are such a hit when they are on in the city.
59	Get business in mall that stay open after 5pm. More seating and a Paris style feel for evening dining
60	Pop - ups in Spring St - smokers and no shade - health risk - took ages to build and probably not worth it if they are coming down.
61	Who is going to do something about dangerous and illegal cyclist on south side of Oxford St between Centennial Park and Denison Street. Eg. See over
62	It's great! How about shade. How about making the street into a mall even half?
63	Maybe give away shopping roller bags to encourage walking to the shops
64	Start a campaign to get people out of their cars and on to public transport and walking for health
65	Leave the car at home! Take public transport! Walk! You'll be healthier for it. Quit complaining about lack of parking
66	Make Spring St pedestrian between Bronte Rd and Newland St
67	Clear signage to walk to beach each week. Night noodle markets-change - late night shopping on weekends - pedestrian crossing at Bronte Rd and Spring St - very dangerous - Scooter and motorcycle parking to be aligned with City of Sydney i.e no tickets required for car park bays but time restricted - more live music on Fridays / Sat night rather than pubs only.
68	Great move. This is exciting. Please consider Gardiner St. There is pedestrian traffic from Birrell. At night it is dark. In day time the graffiti is an eye sore - Trees - bushes. Please add lighting. Flowers
69	Reduce cars on local streets. Close the pubs earlier. Make it safer for all of us
70	The building works is <i>disgrace red</i> . This street is busy. Don't need it. What about taxi for renois.
71	Heaven forbid - no more pop ups etc. - Spring St one is an ugly intrusion and talking parking space - just a few seats (like the ones in the mall) on the footpaths - Get rid of or out of sight the <i>sulr</i> bins
72	Please, please get rid of that horrible "urban lounge" looks like a construction wash. The footpath could be updated with nice tiles.
73	Make Spring St similar to Oxford St mall; more outdoor seating, trees, bike lanes. Create spaces for market stalls etc. Bronte Rd from Cock 'n' bull to next intersection needs upgrading: more trees more space for pedestrians make it more cosy. It's a dead zone at the moment.

74	Enforce non smoking laws. Enforce non smoking laws Spring St as a mall more trees trees trees flowers - spring. Police the bad behaviour of yobos. Get rid of flower shops barking dog
75	Keep the through site mall links between Spring St and Oxford St open for longer. Encourage small eateries and cafes to open here and stay open late.
76	"quote" - that's right for people of all ages. I would provide facilities or businesses for people of all ages. Currently Bond Junction at night is focused on drunken youths hanging out and repelling others.
77	It would be fantastic to have name changed. 'Bondi Junction' doesn't sound like 'a party' I'd like to go
78	Move pop up art projects. More variety of restaurants. More streets made for pedestrians only.
79	Clean footpaths. No beggars. More attractive shops in the mall and arcade
80	Public recycle garbage bins in Bondi Junction would be great!
81	Stop the smokers. No smoking signs not big enough and enforce it. Get rid of car and bike <i>yobs</i> make Spring Street a mall. A tree lined smoke car free mall.
82	There is no drop off / pick up by car place for the trains and buses.
83	With the worst infrastructure for cyclists. Please put in a bike label along that stretch of Oxford St (York Rd)
84	Also umbrellas please. Yes please lots more trees and bougainvillea for <i>colocer</i> . Also please renovate Bronka Arcade - it is awful - an eye sore. Many thanks in anticipation
85	Thanks for consideration. Why not Gardiner and McKenzie Streets? They're between Newland and Bronte Rds which are recognised (page 10). Gardiners central for many pedestrians and to the bus interchange.
86	Trees / gardens longer mall. With outdoor families eating and water feature
87	Bring back tram to beach
88	Less slabs of gigantic concrete. Add some shade for the elderly. Flowers and painted utility boxes.
89	I would like a swimming pool as with young family. We lack one on our doorstep
90	Thank you. Yes! Trees: Water Fountains bicycle racks. Creative recycling bins (constantly emptied). Recycling depot for cash-back containers. Wall space with commissioned or permitted art.
91	Concern of safety many deaths required change in traffic control at Chambers on Bondi Rd. Adhoc routes encourage false security and bravado.
92	Resident for 15years. Bout time something good put here. Keep pop ups
93	Pop ups are very cosmopolitan
94	Wonderful. Joyous! Keep longer than temporary
95	Why drive if you can walk or ride
96	An indoor / outdoor aquatic park (swimming pool) with fun and fitness activities for all ages at the site of the Waverley Bus Depot.
97	Love the urban lounge!! We need more! Make it greener! Maybe let people plant herbs, flowers...let the community play a part! Music and always sets a nice mood / vibe. Busking area, for live music - or speakers playing tunes.
98	Ensure that dogs are on leads at all times and away from restaurants and cafes
99	Less cars, encourage cyclists and walking to BJ, too many 4WD driving into BJ to get coffee
101	Less cars, encourage cyclists and walking to BJ, too many 4WD driving into BJ to get

	coffee
10	Take cars off local streets, make it safer for pedestrians
101	Less off leash areas for dogs more child friendly
102	Make the BJ mall non-smoking everywhere please!
103	Encourage visitors to use public transport more, less vehicles on and around the streets
104	Bondi Junction is fantastic already vibrant and beautiful!!
105	Non smoking mall. Less vehicles into BJ
106	A safer place to go to at night - the pubs need to close earlier because their patrons are too loud and disturb the residents.
107	The markets in the mall should be on the weekends. I don't get to shop because they are only on weekdays.
108	Make Oxford Street mall non smoking at all times
109	Less cars on the roads around BJ more pedestrian crossings
99	Less cars, encourage cyclists and walking to BJ, too many 4WD driving into BJ to get coffee
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108	Make Oxford Street mall non smoking at all times
109	Less cars on the roads around BJ more pedestrian crossings
110	There's too much traffic on the local streets, make it greener and cleaner and safer for pedestrians
111	Make Spring and Ebley Streets no thoroughfare for cars. There are too many vehicles in BJ.
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111	Make Spring and Ebley Streets no thoroughfare for cars. There are too many vehicles in BJ.
113	No smoking at urban lounge door ways, bus stops outdoor eating areas. Inforce the law
114	Need shade
115	Need shade
116	Increase pedestrian and landscaping zones to Spring Street. The urban lounge is going

	some way to address this. I love it and hope it stays (plan drawing attached - see original)
117	High level pedestrian connection into Westfields foodcourt (plan drawing attached - see original)
118	High level pedestrian connection into Westfields from bus/ trains (plan drawing attached - see original)
113	No smoking at urban lounge door ways, bus stops outdoor eating areas. Inforce the law
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116	Increase pedestrian and landscaping zones to Spring Street. The urban lounge is going some way to address this. I love it and hope it stays (plan drawing attached - see original)
117	High level pedestrian connection into Westfields foodcourt (plan drawing attached - see original)
118	High level pedestrian connection into Westfields from bus/ trains (plan drawing attached - see original)

## Bondi Junction Complete Streets

Enhancing Bondi Junction is one of Council's key aims. We want to make it an even better destination that is inviting, functional and desirable; a place to live, work, visit and enjoy.

The **Complete Streets** project is part of our plan to enhance the vibrancy of Bondi Junction and its spaces. It involves greening and beautifying the streets and public spaces, making meeting places more vibrant and appealing, and improving connections for cycling, walking and access to public transport.

Visit our fun and creative pop ups - Jigsaw on Gray Street and Urban Lounge on Spring Street



**More information**  
View the Complete Streets report  
Attend Council's drop in days  
Have your say  
Meet the pop up designers, or simply find out more by visiting [www.waverley.nsw.gov.au](http://www.waverley.nsw.gov.au)

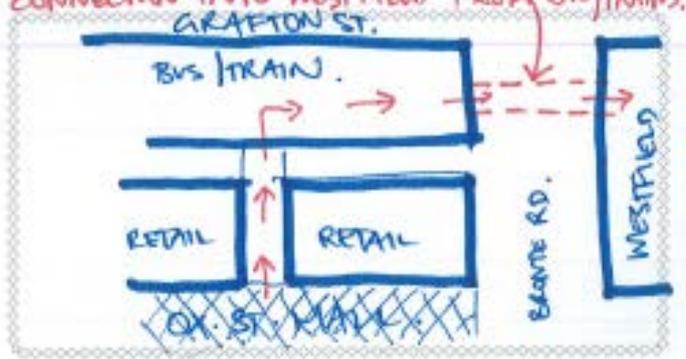


Our pop ups are in place until end of December 2013

"A good city is like a party - people stay much longer than really necessary because they are enjoying themselves."  
- Jan Gehl

**Send us your ideas ...** What would you do to Bondi Junction to enhance its look and feel?

Jot down your ideas on this postcard and post in our letter box located at the Urban Lounge pop up on Spring Street.





# Bondi Junction Complete Streets



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*THE URBAN LOUNGE IS GOING SOME WAY TO ADDRESS THIS. I LOVE IT IF I HOPE IT STAYS!*



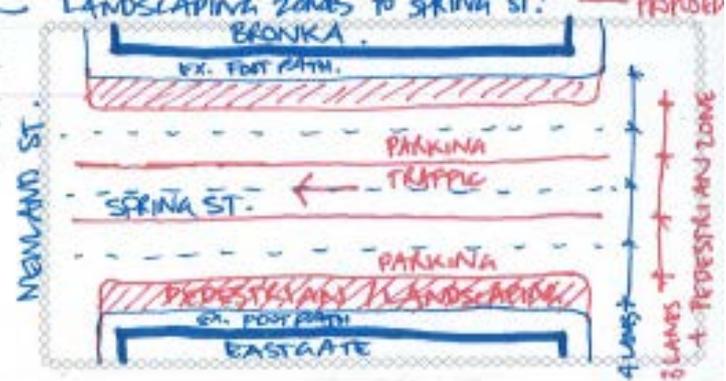
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Send us your ideas... What would you do to Bondi Junction to enhance its look and feel?

Jot down your ideas on this postcard and post in our letter box located at the Urban Lounge pop up on Spring Street. **INCREASE PEDESTRIAN + LANDSCAPING ZONES TO SPRING ST.**



# Bondi Junction Complete Streets



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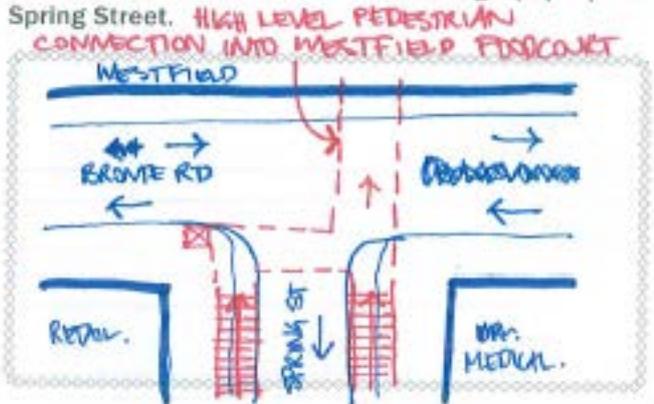
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Send us your ideas... What would you do to Bondi Junction to enhance its look and feel?

Jot down your ideas on this postcard and post in our letter box located at the Urban Lounge pop up on Spring Street. **HIGH LEVEL PEDESTRIAN CONNECTION INTO WESTFIELD FOOTCOURT**



## APPENDIX 2.D - EMAILED SUBMISSIONS

Note: submissions have been edited by removing names to protect people's identity

No	Submission
1	Wow this is really great news, my mum and i am are regular cyclists and we cycle from bondi to the city every week for work, but it would really be great to have more separated cycleways connecting bondi junction to the city, we would feel a lot safer as some cars do not leave enough space or acknowledge cyclists on the road.
2	I read in the Waverley Focus the article on enhancing Bondi Junction. For many years I have visited my select beautician on Oxford Street Bondi junction whereas we both lament the restricted parking limit of 1/2 hr. my treatments with my local bondi junction beautician understandably run from 1 hr + as would most shopping experiences, who wants to rush after all ? So I ask you whether you are going to review the parking meters, make the time we spend shopping in your district More realistic and absolve us of any anxiety of those ruthless parking officers under your employ issuing a parking fine for a mere 1hrs indulgence at one of your loyal and award winning local businesses.
3	I would like to see habitat corridors throughout Waverley, which connect with habitat corridors in adjoining council areas and parks
4	Widen the footpaths, and leave two lanes for traffic. That area of Bondi Junction is already congested, with no alternative route.
5	I was really interested to see the public art around Bondi Junction recently, and decided to look up more info, and came across the Complete Streets initiative information. I am a local and have lived and worked in Bondi Junction for the past 5 year. I am also a practising artist. I am really interested in finding out more, and if there are any opportunities for me to get involved as an artist and make a creative contribution to the project. Any information or suggestions you could give me would be much appreciated.
6	Thank you for the opportunity to make a submission. I consider the gentrification and beautification of Bondi Junction important, but I am concerned that major decisions involving traffic flows and parking in the centre of BJ are not being conducted in conjunction with the possible flow on effects to the residential surrounds. The heritage Mill Hill area is already under considerable stress from the intensification of use of BJ, which will only continue with the BJ LEP and growth in residents and commercial premises in the centre. Somehow the surrounding residential amenity needs to be considered and protected, such as available parking for residents in those areas, not users of business in the centre. The recent introduction of a first hour parking fee for Eastgate is already having a flow on effect in streets, like Lawson. BJ needs considerable greening, particularly along Ebley Street on the eastern end , east of Newland Street. Bronte Rd needs considerable greening and Spring street east of Newland is just plain ugly. Regrettably the recent seating installations have rather naively been placed opposite each other, thereby causing a unnecessary narrowing of traffic in one area. I would have thought the seating areas should be placed at diagonals. It is imperative with the seating areas that taxi ranks are not lost, due to the amount of people inflow and outflow into the area. Regrettably I do not think there is anything that can be done to persuade residents, who are not Irish patrons of the pubs to go into the junction at night. Thanks to the hotels, it is an unpleasant and unsafe experience with so many intoxicated persons. I frequent the junction many times a week to shop in Eastgate and I think the first hour parking charge is a disgrace. I think the Boot Factory should be restored and saved and the area in front of the Boot Factory, Norman Lee place is special and should be retained for the community. It is imperative that Clementson Park is retained and protected from further development, it has already been overly encroached upon. It is imperative that the community garden is maintained. I think there is considerable scope for greening of buildings and this should be part of the requirements for new developments. The centre of BJ is too windy and hot, due to the poor planning and lack of greening. I do not think

	<p>we need more pedestrian streets, traffic flows should be maintained through Newland, there is not sufficient infrastructure to pass the weight of traffic into surrounding streets like Denison and Hollywood Ave. My concerns remain the overdevelopment of BJ and the push of higher rise onto the Heritage Mill Hill precinct, all major developments should be focussed in the centre and not the periphery of the junction. In that context Ebley Street should be protected. The removal of the hotels, and their drunk patrons would go a long way to making the junction an appealing place. Failing their removal, if they at least sought to attract a better quality clientele then there would be more locals prepared to go to the junction at night.</p>
7	<p>Pedestrian Crossing Ebley Street - Suggest that you move the pedestrian crossing a couple of meters towards Bronte Road so that vehicles exiting Eastgate have plenty of time to stop for pedestrians.</p>
8	<p>SPRING STREET(Bronte Road-Newland Steet)The concept of beautifying and improving the streetscape is historically an important aspect of evolving urban centres however in the current plan,there appears to be inaccuracies,generalisations and omissions. :The claim that "on weekends footpaths are filled to capacity" is an exaggeration and as such unhelpful: "The street is mostly used by delivery vehicles"..a substratum upon which much policy is based, is only partially accurate.It is also used by security vans,plumbers,air conditioner tradesmen,shop fitters,roofers,electricians,glaziers and indeed all manner of tradespersons necessary for the repair and maintenance of buildings and for which ready access is important.The impression conveyed of little other traffic is again only partially accurate.Because vehicles cannot proceed north down Bronte Road beyond Spring Street,they turn left along Spring Street toward their varied destinations: Of major concern is the proposed removal of the taxi rank,which is much in demand particularly by the elderly who emerging from Eastgate with bags of supermarket shopping need to get home.Being close to the shopping centre,it is an invaluable transport facility and for many disabled and elderly people it would be naive,inconceivable and irresponsible to force them to seek alternative transport a distance away.The current position of the Taxi rank is perfect to accommodate the needs of young and old for all manner of trips and its proposed removal is clearly atheoretical solution unrelated to need.The ambulance service is not infrequently called to the Eastgate apartments.They have their own keypad so as to gain immediate access in emergencies,yet the project report makes no reference to ambulance or emergency service access not only to the apartment buildings but also to the shopping centre.Indeed the proposed concept plan places significant physical impediments to direct ambulance access to the Ocean Court building.The fact that ambulance access has not been considered is not only an extraordinary oversight but also an indication of the planners lack of knowledge of the local area.Every morning council trucks collect garbage from the many bins in Spring Street.The Council workmen perform their task efficiently,with considerable diligence and without impeding the flow of traffic.Under the proposed plan,with a single lane of traffic,none of this would be possible.The recommendation to remove signals at the pedestrian crossing beggars belief.The community had to wait a long time for traffic lights and apart from general safety,their presence greatly assists young mothers,the elderly and visually impaired.The suggested removal of the lights due to "slower design speeds and reduced traffic volume' is again a theoretical concept unrelated to need and as such regressive. The project flags the possibility of expanding Eastgate car park under Spring St.With a shopping centre and two 25 storey apartment blocks towering above,this proposal is to say the least,highly contentious The more one reads and examines the whole project report,the more the surprise at its pervasive influence and the more the disappointment that Council has not adequately communicated its intentions. Most people I have spoken to have no idea of the changes in the offing nor of the exposure of the Council,residences and buisnesses to the enormous and ongoing financial costs. There is a feeling that the planners are so confident in the veracity of their report that there is the expectation that it will be followed in all its detail.This is reinforced by the fact that Council has failed to inform the community of the scope of the plan,in simple,direct,honest,concise,tranparent and open language devoid of spin,jargon and obfuscation. In Section 5 Complete Streets-Complete</p>

	<p>Transformation, it is noticeable that in all the artists' impressions, there are no elderly people, nor a single tradesperson in sight and apart from a few buses nobody at work in any capacity. This cynical manipulation and pretence should cease and an open conversation take place in order that the merits and shortcomings of the project be more fully ascertained and significantly to allay the concern that Council is determined to both impose and enforce its will and aesthetic in a dictatorial manner.</p>
9	<p>The draft looks great. I walk, cycle and drive in this area and look forward to this. But I can see a few significant problems that could be addressed: 1. The car redirection that intends to take cars from Oxford St &gt; Denison St &gt; Ebley St &gt; Newland St will not work as intended; many cars will just continue down Denison St to Birrell St. Denison St cannot handle that volume of cars (and shouldn't, it is residential). 2. The car redirection will also be impeded by having cycle markings (and aspirational cycle paths) on Ebley St between Denison and Newland St. If you want cars to use this route, don't mix bikes there. For the safety of both, separate them. Get the bikes onto Spring St and the cars onto Ebley St. Make the Spring St limit 40kph and bike-friendly and make Ebley 50kph and not specifically bike friendly (ie no additional cycle features compared to now). Having more bikes on Ebley will also be a problem with the delivery trucks that go down Ebley to service the shopping centre and people using the green link walk. 3. Having cyclists going through Oxford St mall is a serious pedestrian hazard. I often have near-misses when on foot, and don't feel safe riding there because people move unpredictably (especially with kids). Markings on the ground won't stop this. Can cyclists be banned from the mall and redirected along either Spring St and/or Grafton St- that will be safer for cyclists but more importantly for pedestrians? They can link up to the Denison St link running from Spring to Oxford St or take Grafton and come out at Nelson St and join the Oxford St cycleway path there (that would be the ideal option I would use on my bike as it is safer because of the lights and less traffic). Put a bike box at the lights turning from Nelson onto Oxford St would be even better. 4. Related to this, the current plan states that cyclists using Oxford St will dismount and walk across Denison St "like a pedestrian" (p83). They currently do not - many ride (illegally) across the pedestrian crossing, which is dangerous to turning cars and pedestrians. These are usually the same guys who fly through the mall. There is no reason to expect they will start to behave once more bikes use Oxford St. Something should be done to force them to dismount as intended - eg a barrier to prevent them going up onto the footpath and onto the pedestrian crossing. You could also avoid this by diverting them onto Spring or Grafton. Or even putting the cycleway on the north side of Oxford St, as then they are away from the bus depot, and only have to cross the less trafficked streets (Vernon, Leswell, Nelson), instead of Denison, Mill Hill, Ruthven etc, but I'm sure you've considered this already. 5. The proposed works at Leswell St and Oxford St are a bit unclear. I hope one lane is not being closed. Leswell needs to remain 2 way there, as it is the only easy way for locals to get across Oxford St and Syd Einfeld. But you should make it a no-right turn coming up Leswell St (ie southbound) turning right onto Oxford St (ie westbound). Those cars should turn right at Nelson St, at the lights. Currently, right-turning cars at Leswell hold up everyone behind them because the turn is unfavourable turning across and onto Oxford. They impede cars turning right from Oxford into Leswell and also block bikes coming east along Oxford St because they have to pull out to see, and then they wait there until there is space to turn, across the bike line. Left-turning cars (ie turning eastbound onto Oxford) are fine, it's just the ones turning right that are a problem. 6. Can you put pedestrian crossings across Spring St at the east side of Denison St? Ebley is not as bad a problem since there is a good crossing at officeworks, but crossing Spring St is bad enough now, and will be worse if there are more cyclists there. Thanks for all the hard work, it's looking really good.</p>
10	<p>I'd love to find out more about your Bondi Junction Urban Lounge project. Does it involve temporarily converting some parking spaces into public seating? Is it similar to this Western Australian council's 'on-road café' or New York City's Street Seats program? I'm keen to write to my local council, Marrickville Council, to propose that they trial something similar in Newtown. A candidate location is Australia Street, opposite Blackstar Pastry. Public seating the parking spaces at this location worked very well for a 1-day</p>

	only event as part of international Park(ing) Day. You can see some photos on the event's blog here
11	We were digging the urban lounge on the weekend! Absolutely love it - the best street I have seen in my life. Great idea - should go worldwide! It was a nice spot to sit down and have some water and a banana I had brought myself for a day out in my backpack with my son!
12	The new seating and public space you have created looks fantastic, it is proving popular with users also. It would be great if the skate blocks are installed to prevent the timber getting damaged....and also allow us some sleep at night
13	Thank you for creating these lovely open air seating areas. They are really great, look good and loads of people use them to simply sit and relax in or eat their food. Could I suggest that some type of shading also be put in place because it becomes far too hot to sit in these areas at times, and I have noticed that they remain empty in the hottest periods of the day. We have a lot of lovely hot days here in Sydney, and that means we have to take some precautions if you wish to enjoy being out in the sun. It is such an innovative idea, and has really opened up that part of the street in a really enjoyable way.
14	I AM WRITING YOU BECAUSE AS A MEMBER OF THE GREEN PARTY, YOU ARE LIKELY TO BE MORE SYMPATHETIC TO THE QUESTION OF SUSTAINING THE CONCEPT OF BONDI JUNCTION AS A VILLAGE RATHER THAN BECOMING ANOTHER SYDNEY CBD OR NORTH SYDNEY HIGH RISE. WE MUST TAKE STEPS TO PROTECT THE VILLAGE CONCEPT OF BONDI JUNCTION FROM DEVELOPERS WHO CONTINUE TO MANEUVER THE COUNCIL TO INCREASE HEIGHT RESTRICTIONS ALONG WITH THEIR BALANCE SHEETS IN EXCHANGE FOR FUTURE CONSIDERATIONS. ONCE LOST, ITS GONE FOREVER, NEVER TO BE RECOVERED AS A VILLAGE COMMUNITY. DOUBLE BAY HAD IT RIGHT A FEW YEARS BACK WHEN THE COMMUNITY, IN SPITE OF COUNCIL SUPPORT, FORCED DEVELOPERS TO BACK DOWN TO INSURE HEIGHT RESTRICTIONS WERE IN PLACE. WE CAN DO AS MUCH.
15	CERTAINLY A STEP FORWARD TO ENHANCE THE BEAUTIFICATION OF OUR COMMUNITY. MY CONCERN LIKE MANY OF US LIVING IN THE "JUNCTION", IS TO MAINTAIN ITS VILLAGE ATMOSPHERE RATHER THAN HAVING IT TRANSFORMED INTO ANOTHER NORTH SYDNEY CONCRETE JUNGLE. IT IS UNDERSTOOD THAT YOUR DEPARTMENT IS ALL THAT STANDS BETWEEN A VILLAGE ATMOSPHERE AND DEVELOPERS WHOSE PRIMARY INTEREST IS CONFINED TO THE GROWTH OF THEIR BALANCE SHEETS. THERE IS A TERM FAMILIAR TO ENVIRONMENTAL STUDIES WHICH IS "THE CARRYING CAPACITY OF THE LAND", PARTICULARLY WHEN IT COMES TO FOOTPATHS AND STREETS. SPECIFICALLY, MY COMMENT IS ADDRESSED TO THE INTERSECTION OF OXFORD STREET AND HOLLYWOOD AVE. THREE HIGH RISE MULTIPLE RESIDENCIES ARE BEING PLANNED FOR THIS LOCATION AND BELIEVE YOUR DEPARTMENT NEEDS TO GIVE FURTHER ATTENTION AND THOUGHT TO THE IMPACT IT WILL HAVE ON THAT AREA. IT IS AT THIS POINT WHERE "CARRYING CAPACITY" COMES INTO PLAY WITH REGARD TO BOTH FOOT AND VEHICLE TRAFFIC, PARTICULARLY DURING BOTH MORNING AND EVENING RUSH HOUR, IT IS BELIEVED THAT THESE 3 PROJECTS COME INTO CONFLICT WITH THE SPIRIT AND LANGUAGE FOUND IN YOUR DEPARTMENTS REFERENCED LETTER FOUND ABOVE WITH RESPECT TO THE FIRST PARAGRAPH, "PLANS FOR BONDI JUNCTION TO ENHANCE THE VIBRANCY OF THE AREA AND ITS SPACES".

## APPENDIX 2.E - WRITTEN SUBMISSIONS

The following are scans of written submissions received via post

Note: submissions have been edited by removing names to protect people's identity

No	Submission
1	<p><b>INTRODUCTION:</b>            Congratulations to the officers on producing a clear and legible report, with many excellent proposals. The following comments are made in response to a thoughtful document rather than as criticism. The intention is to be helpful!</p> <p><b>FOOTPATH WIDTHS:</b>            Worth noting that the historic – and standard – footpath width is 3.66 metres in a 20 metre roadway easement. This is the old 12 foot footpath width in a 66 foot, or one chain wide easement – one chain was just that, a metal 100 link chain, and one chain was perhaps the weight which a survey crew could carry and move around with relative ease (on a horse?)</p> <p><b>PUBLIC DOMAIN VISION:</b></p> <ol style="list-style-type: none"> <li>1. increased densities require commensurate improvements in the quality of the public domain, access to the public domain, and in the case of Bondi Junction, more urban open space;</li> <li>2. a vision for a liveable, climate change adapted Bondi Junction should include green roofs by retrofitting existing rooftops (at least some of the biggest ones) with lightweight green roof construction, now technically possible, and requiring all new CBD buildings to have green roofs (and/or 6 green star energy rating) See <a href="https://greenroofsaustralia.com.au/">https://greenroofsaustralia.com.au/</a> and current (Nov 2013) City of Sydney Draft Green Roofs &amp; Walls Policy (<a href="http://cityofsydney.nsw.gov.au/Council/OnExhibition">cityofsydney.nsw.gov.au/Council/OnExhibition</a>). Green roofs (and walls in new construction) would:               <ul style="list-style-type: none"> <li>– improve biodiversity opportunities, &amp; provide habitat for urban wildlife, particularly with native meadow grasses and flowering shrubs</li> <li>– increase stormwater retention, slow peak run off and reduce pressure on piped infrastructure capacity</li> <li>– increase lifespan of roof membranes by protecting them from temperature extremes</li> <li>– reduce energy use and costs for building owners by reducing heat load on the building</li> <li>– mitigate urban heat island effect to improve liveability and public health</li> <li>– increase amenity, particularly for downward views from higher buildings</li> <li>– potential for growing food</li> <li>– raised banks of solar panels can offer shade to roof top planting and both plants and panels can happily co-exist if thoughtfully located</li> </ul> </li> <li>3. a vision in today's world should also be for a carbon neutral Bondi Junction and require renewable energy technologies (solar h/w systems, photovoltaics (pvs), wind turbines, etc) as well as all new buildings to be designed to minimum 6-green star standards;</li> <li>4. The strategic framework could include targets to improve cultural and civic functioning. Night time activity isn't just commercial activity and eating – suggest identify need for access to and promotion of entertainment such as movies, physical activities such as swimming pool complex, climbing gym, skate board facility and/or youth centre, and cultural activities such as concerts, theatre, opera, dance, exhibitions and places for outdoor cultural events such as combination of eating (North Sydney noodle market style) with orchestral or other classical/jazz/band etc music, films projected on public building (eg Vivid, Australian Navy 100<sup>th</sup> anniversary, Vienna's Rathausplatz or town hall square Friday nights with quality food stalls, seating, recorded</li> </ol>

Vienna Symphony orchestra concert projected on town hall building – stunning)

#### TOWN SQUARE:

Bondi Junction's pedestrian volumes at lunchtime are high, as well as on late shopping nights and in the lead up to Christmas. Statistics quoted in the report suggest that the public domain is bursting at the seams and begs for a proper town square not just a 20 metre wide closed street (Oxford Mall). A town square location was suggested in a submission to the Draft Waverley LEP (BJ) 2008 by Roger Barrett and Tempe Macgown in their "Bondi Junction Forum – 2022 Vision" (copy attached). Achieving a town square was missed as the reason (and tradeoff) in the Urban Design Review recommendation for an iconic highrise building. This was to be as a transfer of FSR from private properties taken to become a town square. The highrise building was seen as being a beautiful, iconic design to uplift skyline quality on the ridge, visible for tens of kilometers around, and a model of ecological sustainability such as London's Gherkin or The Shard or even CH2 in Melbourne (there are many worldwide examples of beautifully sculpted, eco-friendly highrise buildings). Such a building would be a highly desirable address for a combination of residential and commercial occupation and free up ground space for a much needed Town Square.

The most suitable site for a town square at the heart of Bondi Junction on level ground sheltered from the southerlies is at Bronte Road between Spring Street and Oxford Mall, and including

- property allotments 197, 201 and 203 Bronte Road/Spring Street,
- 205 Oxford, and
- 1,1a & 3 Bronte Road and
- ideally lots 191-195 Oxford St, but might be unrealistic as this is a relatively modern building;

A town square in this location would be ready for cafes and eateries around the edges, a Tourist bureau, occasional markets, meeting, greeting and social interactions of all kinds, and would promote BJ as a visitor magnet, thus supporting trade at local businesses.

#### GEOGRAPHY:

Bondi Junction has special environmental qualities which could be noted:

- ridgetop location: views, or potential views and view corridors towards Sydney Harbour, the north shore, Bondi Beach, Botany Bay, the City of Sydney and, on a clear day, the Blue Mountains;
- climate: summer sea breezes from the northeast which can be quite strong, but make the centre pleasant and cool, and very strong southerlies and southwesterlies at any season which blow over the ridge and are funnelled between sheer building facades on north south streets. Hence it is desirable to promote buildings (and trees) which break up the wind stream and/or shelter public space from the southerlies;
- densely settled low rise residential streets surround BJ (Woollahra & Waverley sides) – walkable distances – identify primary pedestrian entry and exit points and/or Greenlinks routes into the centre

#### GATEWAYS:

- Centennial Park is the western anchor – no more gateways are needed, just better quality interfaces and finishes rather than the jumble of left over spaces resulting from poor design integration of Syd Einfield Drive roadway into Oxford Street, the dominant vehicle focus and the poor quality of edges. Terraced houses and shops between Syd Einfield Drive & Nelson Street on the north side of Oxford Street are delightful and one of the best remaining areas of old BJ; proposed redesign of this intersection for better configuration of the space and better balance between pedestrian, cycle and vehicle circulation is welcome – including a right turn for

vehicles heading north out of York Road into Oxford St and/or Syd Einfield Drive. Bikes and pedestrians need a signalled crossing of Oxford St. The Bus depot is a significant and important working operation, to be respected; unfortunate style of security fencing reduces quality of the corner – better detailing (eg masonry columns – face brick to match industrial buildings?) and refined style of metal panels would improve corner appearance and complement Centennial Parklands (not mimic it)

– eastern end of BJ is well defined by Bondi Road. CBD and/or highrise development should not be allowed to leak eastwards over Bondi Road; as with western end, Syd Einfield Drive intersection with Oxford Street/Old South Head Road is vehicle-centric and would benefit from the recommended pedestrian friendly crossing on northern side (where people already J-walk) and more generous cycle and pedestrian footpath width particularly to the east of the intersection, south side; note the great views towards Harbour Bridge from this intersection, and particularly from the roadway! Maybe there's an opportunity for a pedestrian/cycle overpass & viewing place? See <http://hovenring.com/>

#### SPRING STREET:

– sensible to remove traffic lights (which are largely ignored) and replace with raised pedestrian crossing as proposed;

– find on road spaces for bike (and scooter) parking – bikes should not be parked on footpaths unless these are on blisters out of the footpath circulation space – too much clutter ends up on the footpaths;

#### THROUGH SITE LINKS

Note that Council had a policy of selling the old night soil lanes to adjoining owners; this is probably still a policy position which should be investigated and reversed; some sales have resulted in cutting off good pedestrian links. Please check status of this policy!

So called “through site links” for pedestrians should be planned and locations identified as part of Complete Streets, to be logical and safe with direct sight lines, to line up sensibly, and not just become a random planning condition of consent with VPAs;

#### Some suggestions:

- a) Council resolved to sell the eastern end of Grafton Lane to an adjacent developer: recommend as a minimum retain width for a pedestrian walkway through to Syd Einfield Drive southern side walkway;
- b) south side of Syd Einfield Drive at Old S Head/Oxford Street intersection – improve access to footpath alongside Syd Einfield Drive southern wall – this is a useful link which is hard to see, and could be part of a bike link to Grafton St
- c) identify a pedestrian link at the northern end of Donald Place to lead onto Bronte Road (at 77 Bronte Road) should this site be re-developed
- d) identify improvements required for good pedestrian link between Hollywood Avenue and Gray Street east cul de sac – the convoluted, dangerous stair, sometimes closed off with a gate, and unclear in its public/private boundaries, follows a useful route but is extremely poorly executed; it also conflicts with vehicles exiting Westfield carparks; (this has already been identified for attention – thank you)
- e) line up any future through site link with pedestrian crossing of Oxford St west at Denison Street; to Hegarty Lane, which also leads to a through site link and park between 35–43 and 55 Grafton Street. This open space (probably on private land) should be better integrated into BJ's public domain – see under “Open space” following.

5) Ebley Street cul-de-sac, eastern end – through site link to Botany Street would be wonderful!

#### GROSVENOR STREET:

a pedestrian crossing from the Bus/ rail interchange to Westfield centre across Grosvenor St between Oxford St & Grafton Street either underground or on a bridge was explicitly kept out of the Westfield centre approval as it would have funnelled pedestrians directly into the Westfield Centre, by-passing the Oxford Mall shops and making access difficult to the rest of the CBD. The intention was for pedestrians to emerge directly from the podium level at the top of the escalators in the station up the Rowe Street easement into the Mall. Alas, this didn't happen. Then State Rail closed the door to the interchange at the bottom (northern) end of Rowe Street at Grosvenor Lane which had been used by pedestrians for a long time before the ramp & Meriton complex was built. Meriton put pressure onto the approval authorities to take pedestrians up through their Tiffany plaza – a disaster, with the dreadful ramp adding insult to injury!

Please don't wait for re-development on either side of the ramp to achieve pedestrian access to the bus/rail interchange – the width of the ramp could be used either by partial or total demolition to allow for downward escalators/stairs/lift descending directly from Oxford Mall to the station. Note that investigations some years ago revealed some alternative tunnels which could also provide pedestrian access to the station.

#### HEGARTY LANE:

Identify as an important pedestrian link to the CBD – many office workers from commercial buildings in Grafton Street west use this to access the centre;

#### NELSON STREET:

From Oxford St to Grafton St, this is a delightful space which should be identified. It receives morning to midday winter sun (make sure no highrise buildings block this), it is fairly level, traffic is relatively slow moving and not huge in volume, and the area attracts cyclists. It is a bit of a local cyclist hub, close to Centennial Park where many riders (and walkers) train, and there are traffic lights with a pedestrian phase at Nelson Street to facilitate crossing Oxford St west. There is also a bike shop nearby, and a friendly cafe with sunny morning outdoor footpath space which could be upgraded.

The Syd Einfeld Drive overpass bridge is a significant pedestrian and cyclist link to Woollahra and beyond. Many cyclists use it when travelling eastwards from the City etc to get from Oxford Street/Wallis Street over to Oxford Street B/J. The approach to the overpass is poor at Nelson Ave, and the double back design of the ramp (both sides) is very difficult for bikes. A more reasonable ramp set up could be constructed without making them speedways, and to be more pedestrian/aged and disabled mobility friendly. The Nelson Hotel on the east side of the street corner provides a good scale and setting for a pleasant plaza – a street closure or plaza in this location would be great; include a beautiful tree!

#### OPEN SPACE:

1. Area between 35-43 and 55 Grafton Street – apparently privately owned open space with public access. This space is awkwardly designed and underutilized. Proposals could be developed with private owners to improve landscape works for better use, particularly as north facing winter sun trap with northern outlook. Check conditions of consent for rationale behind the provision of this publicly accessible land – at the time of approval these sites were in Woollahra LGA;

2. Norman Lee Place: please don't recommend removal of the fence which adds quality to the space! The

placement and openings are badly resolved. Possibly re-configure and/or realign along northern boundary to rationalise entry points for pedestrians. Improve the poor quality ground paving treatment and irritating, awkward level changes and badly located planting beds and redesign for better presentation and common sense. Some low walls could double as seats; consider removal of plane tree and replacement with a native specimen;

3. Library forecourt: suggest formal awning with posts around northern & eastern sides for all weather protection to link arcade around No 1 Spring St to library access entry door; agree that the "address" for library entry is very poor, and entry difficult to find. Note there is a brilliant mural painted by Waverley's first artist-in-residence, Juliet Holmes a Court (a well known local artist) along the wall on the external corridor outside the library behind the steel screen to the left of the library entry door. This should be displayed either along the northern wall of the Library forecourt (ie under the recommended awning) or the corridor should be opened up as a "through site link" so there is public viewing access to the mural, which is wasted in its present location. It was weather proofed at the time of installation.

4. Brisbane Street plaza: great opportunity to improve quality of this small space. Note problems with adjacent pub (The Grand Hotel) and patrons lingering outside – lots of distress for residents, particularly in Brisbane St, any design should discourage lingering late at night and should seek to direct exiting patrons away from Brisbane Street towards the town centre and/or towards transport (taxis, buses, trains) – recommend consultation with police (Sgt Bolt).

5. Clementson Park: in danger of winter overshadowing from highrise on northern side of Ebley Street – make recommendations on building heights so this doesn't happen; southern edge of Clementson Park is poorly defined by vegetation, partly hidden chainmesh fence half way down the hill, community garden and lowrise Child Care Centre; opportunity for Child Care Centre to expand with a second floor looking north over the park (which would also help its ventilation by allowing the nor'easterly to pass through the building in summer – this area on the south side of the hill is a heat sink and misses out on sea breezes. Also a better quality fence along entire southern boundary including at the top of the semi circular terraces above the community garden (not the bottom of these terraces – this just encourages secretive drinking and anti-social behaviour); address design of walkway through to Newland Street and consider closing it off altogether, except for residents. Recommend much better treatment of area between Child Care Centre and private back yards particularly at Newland Street end – very poor design and utilisation of space, including paved vehicle turning area, and poor quality of entry to Child Care Centre building. The new Family Day Care centre does little to lift the quality of Clementson park – a stupidly missed opportunity to design a really good interface and a really good building.

6. Eora Reserves: provide seats or low wall or fence panels to edge of arcade to define (but not block) private/public boundary at eastern edge of park;

7. Fingleton Reserve: take care with descriptions about this one as it has been targetted in the past for sale by certain councillors and council officers. It may be apparently underutilized by people, which could improve, but it needs to be given credit as an important green space alongside a major road which benefits from this relief from the built environment. Its role as an avenue alongside Bondi Road could be improved with a line of beautiful big trees planted inside the Fingleton Reserve eastern boundary as a strong green edge – as well as a see through fence on the boundary (not too high) similar to the Norman Lee Place fence. (note the median and trees planted in Oxford Street west of Bondi Junction along the northern Centennial Park boundary is not described as "underutilized" – its role is to provide amenity) Fingleton reserve also suffers from poor address by buildings around Waverley Crescent, which could be improved perhaps with friendly low front fences and front gardens in the private properties.

ACTIVE FRONTAGES:

This mantra has entered the planning lexicon, but the real role of primary building frontages should be their presentation or street address, the public or friendly welcoming face of buildings. For example, a hotel, a concert hall or a bank with one main door on the frontage should have friendly windows or a "fine face" along the primary street. Windows may need to be carefully considered and not result in blanked out floor to ceiling glazing unless properly window dressed – blanked out street level windows as at the Commonwealth Bank corner Newland/Spring Streets are not the desired outcome! Utilities such as waste management, vehicle entries, deliveries etc should be to the rear. Fire doors are a problem which can be put to the rear where ever possible or elegantly designed if on the primary frontage; electrical supply boxes currently on the footpath adjacent to shopfronts should be underground. Sub stations should also be underground or internal to buildings and/or accessed off back lanes.

#### AWNINGS WITH POSTS:

Research into existing historic buildings can indicate those buildings which formerly supported awnings over the footpaths, with posts (note awning at Spring St medical centre corner Bronte Road). These should be replaced where possible. Double height awnings can provide space at 1<sup>st</sup> floor level – see examples in Glebe Point Road. Arcades with generous height cantilevered back over the footpath (example at Circular Quay east) could be allowed in certain locations (eg Oxford Street east, northern side between Adelaide St & Syd Einfield Drive 3 m road widening) to reduce impact of paved road surfaces and traffic on pedestrian and cycle amenity.

#### CBD FOOTPATHS:

##### CONTINUOUS ACCESSIBLE PATH OF TRAVEL:

- a) establish the principle of a continuous accessible path of travel throughout the CBD as a primary consideration: this should be alongside the shopfront and/or property boundary and have a generous width of (say) 2.5 metres clear minimum without any clutter such as electricity boxes, cafe seating, flowers, a-frames, seats, bus shelters, signs, litter bins etc. This is the recommended location for the accessible path of travel by peak blindness advocacy groups such as Vision Australia.
- b) generally remove all infrastructure (signs, seats, litter bins, trees, bus stops, lamp posts, etc) to kerb edge of footpath; preferably locate trees in the parking lane off the footpath altogether – noting and supporting recommendation in the report;
- c) Bus stop (see p. 74) proposed at Oxford St east between Bronte Road and Waverley St Mall should be either recessed into adjacent building or relocated to a blister and/or at kerb edge; do not recommend location in continuous accessible path of travel;
- d) trees recently planted in continuous accessible path of travel directly outside new Family Day Care centre in Ebley Street footpath should be relocated;
- e) more level pedestrian waiting space desirable at signalled intersections, eg southwest corner at Oxford St/Hollywood Avenue intersection

##### RAISED THRESHHOLDS:

- particularly along Oxford St west at Denison, Ruthven, St James etc – great idea and supported; suggest consistency of design, size/extent, alignment and materials. Also
- north side of Oxford St at Nelson, Leswell and Vernon Streets, consistent raised threshold on footpath alignment supported.

SCATTER CROSSINGS: at signalled intersections, these are welcome for pedestrians and could be universal in the CBD;

**FOOTPATH MATERIALS:** footpaths must be non-slip, particularly in wet conditions. Oxford Mall pavers are unsuitable for many shoe soles in the wet. Prefer low tech, robust and easily repaired/replaced materials (eg concrete well detailed); improve repair response time and quality by negotiating with service authorities

**FOOTPATH PRIORITY:** direction of travel of footpath with continuous footpaving material should take precedence over driveway crossings in primary streets; kerb ramps should not extend into footpath in these locations (apply roll over kerbs) ie avoid driveway cross falls on footpaths – all footpaths should minimise cross falls to around 1:100 to 1:50.

#### FURNITURE:

develop suite of Bondi Junction furniture and architectural fittings: traditional styles, delightful utilities

seats – ergonomic, not too low for older folk, more of them; Council logo;

fences – public open space eg for Fingleton Reserve Bondi Road boundary; Clementson Reserve southern boundary, Norman Lee Place/Spring St boundary, and

– dividing device eg edge of Eora Park and arcade at 2a Waverley St;

#### STREET TREES

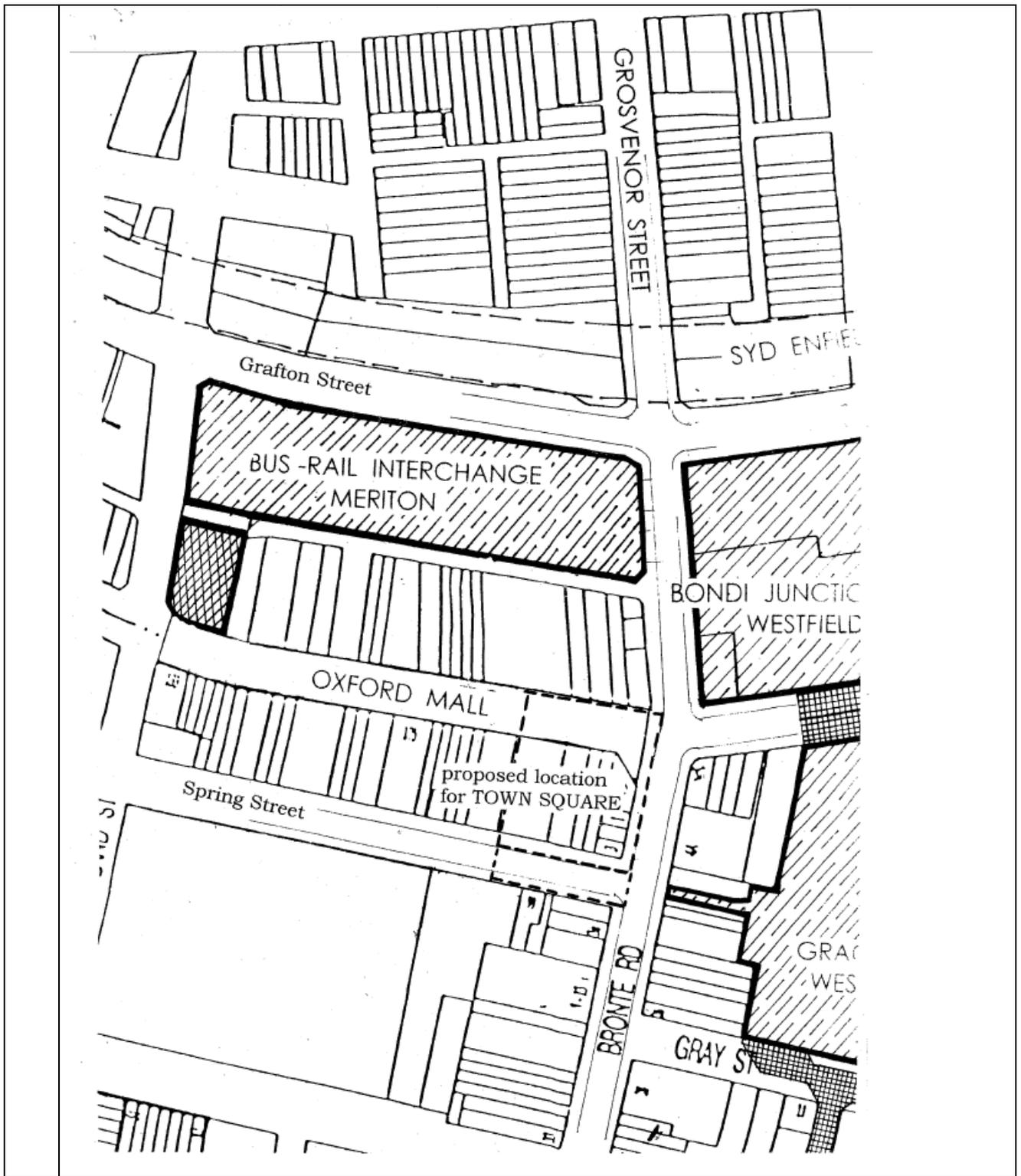
1. Trees located in parking lanes wherever possible – excellent principle and supported;
2. Tree species – focus on native specimens and food trees (macadamia nuts?)
3. Opportunities: street trees in the parking lane in Mackenzie & Lawson Streets would give these residential streets a better scale and definition as distinct precincts and provide change of character on entering or leaving the CBD; Brisbane Street is an example of the quality sought, though Ficus sp are really too big and dark. Smaller or finer limbed specimens would be more appropriate and less invasive;
4. Ebley Street: a strong green edge of large trees planted in the parking lane on the southern side of Ebley Street (mainly between Bronte Road and Denison Street) would greatly improve the southern edge of the BJ CBD. This would be a much better outcome than upzoning on the southern side of Ebley Street – upzoning is seen as creating a desirable street wall but the problem is that it moves the commercial/residential interface to rear property boundaries. Where there is no back lane or street between commercial and residential, this situation is highly problematic and causes conflicts all over Waverley; keep Ebley Street as the southern extent of the CBD – as has been the intention for many years.

#### MISCELLANEOUS

1. Eastgate Shopping Centre: identify reasons for popularity of the foyer area directly accessed from Spring Street, particularly amongst the older folk: make sure these qualities are recognised and kept:
  - at grade with the footpath
  - taxis outside
  - easy to get to buses on grade
  - friendly in scale (not huge and disorienting like Westfield)
  - short walking distances, flat surfaces (Westfield has strange internal slopes and long walks)
  - bright and airy
  - has a few (not enough) seats and toilets

This area is often cluttered with extra sales desks in the middle of the circulation space – too much clutter isn't desirable and should not be encouraged. Request more seats!
2. Eastgate southern (Ebley St) and western (Newland St) walls: opportunity to add arcades or recess verandahs into building facade. Very thoughtful designs needed. Newland Street is a wind tunnel for

- southerlies with space in the median strip for a series of vertical axis wind turbine<sup>6</sup> (instead of trees); note that many wind turbines are now very quiet – see City of Sydney's "Earth vs Sky" wind turbine at Glebe's Blackwattle Bay which also returns power to the grid.
3. Deliveries: really important to remember deliveries (not just the big ones to Coles and Woolies) and servicing in the BJ CBD (particularly waste presentation). Also improve system for construction management and ways for trades people working in the centre to operate. Most trades travel with all their tools in their vehicles, and park close to their work. Consider limiting hours for deliveries (as in Pitt Street Mall, City of Sydney) and establishing better controls through conditions of consent regarding construction vehicle management – including subsidiary trades contractors.
  4. BIKEPATHS: Separated bi-directional bike paths are great but probably not optimal as they are quite narrow for bike volumes at certain times; widen wherever possible and/or provide bike lanes on each side of the street. Support recommendation that all streets should be bike friendly;
  5. CHAOS: Spring Street intersection with Bronte Road: a bit of chaos can be good as it makes everyone more alert. See projects like "Walk Bendigo" and European experiments where all signs have been removed <http://www.wired.com/wired/archive/12.12/traffic.html> also recent projects in New York just using paint;
  6. EAST WEST STREETS: Bondi Junction's streets are predominantly east-west oriented which means that overshadowing is a problem for buildings on the southern side of the streets, particularly at footpath and ground floor levels.
  7. SPRING STREET west of Newland Street: the quality of the southern side footpath and street and sunken level private commercial shopfronts has gradually been eroded by overshadowing from new highrise buildings on the north side. Care needs to be taken, particularly with access to sunlight for Norman Lee Place. Note also pedestrian access to arcade around/under no 1 Spring Street from Norman Lee Place is blocked by a wall alongside the vehicle access driveway to No 1 Spring St – an irritation for pedestrians and could be modified!
  8. STREET LEVEL (or sunken) CAFES & EATERIES: in new buildings can be recessed off the footpath instead of projected out into the footpath to achieve better compliance with continuous accessible path of travel principle, and less cluttered footpaths;
  9. PLANTER BEDS: to be avoided, specially around pedestrian crossings where they just obscure views and often lack proper maintenance; also can collect rubbish and cigarette butts – plants likely to get reefed out in the drunken BJ pub culture. Much better in a highly urban environment to have totally robust public domain, tree canopies and possibly hanging baskets where there are awnings with posts! and clear, well detailed ground surfaces (and no disappearing steps such as outside Westfield NE corner Grosvenor & Oxford St);
  10. Hollywood Avenue at Ebley Street – very difficult for pedestrians to cross from northern to southern part of Hollywood Ave;
  11. Waverley Street Mall: aim to close Westfield vehicle egress. This cul de sac is awkward. Interlocking pavers for vehicles would be a bit clunky – possibly recommend a better quality granite rumble-type finish or preferably maintain the whole area as a pedestrian precinct, with bollards indicating vehicle route ie reverse visual cues so pedestrian environment takes priority;
  12. CYCLE ROUTES: support use of one whole vehicle travelling lane in each direction on Syd Einfeld Drive for commuter bike use and/or walkway.
  13. SYD EINFELD DRIVE: undercroft could be in-filled; leaving some through glimpses; see Sydney Harbour Bridge approaches south side, Glebe (Wentworth & Federal Parks) and Vienna (Otto Wagener's elevated Stadtbahn) etc
  14. DENSITY BONUSES: disagree with this option – landowners have already been given a bonus from upzonings. Opportunity may have been missed for value capture from increased height and FSR, but principle of windfall profit remains! *Note excellent discussion regarding public benefit capture methods.*
  15. CARPARKING: Some benefit from providing no more off street carparking could be considered. Check that the penalty for NOT providing off street carparking spaces in BJ has been removed.
  16. TRIP HAZARDS: detail finishes with clearly defined edges. For example, vanishing or disappearing steps, as at the Westfield entry, corner Grosvenor St & Bronte Road, are difficult for anyone without perfect vision or physique to master. Risers height and tread length should be <sup>consistent</sup> equal in any flight of stairs, with rails or walls for balance and assistance. Similarly, any level changes in the CBD public domain need to be bold. Yellow paint applied as a danger marker is not a permanent solution!



To Waverley Council

My friends and I are

frilled with the seating

in Spring St. Congratulation

more of the same please

John Georgopoulos

0408 464736

I note the recent trend in allocation of some street car places in bondi junction  
 To either alfresco areas or areas for plants. Eg spring st bondi junction  
 I think it is very unaesthetic.  
 I think they detract from the character of those streets..  
 They are a real a eye sore.  
 They are a waste of council funds to implement and of rate payers money to maintain.  
 I am a rate payer and demand that these allocated areas be unallocated.  
 If this can't be done , at least please do not reassign any other street car spots..  
 If you won't stop it at least have a public vote about it.  
 They are very unappealing.  
 These street car spaces could , instead , be allocated for bicycle stands  
 Or better still for communal shared bikes like they have in either paris or new york.  
 That way , at least , we could all derive some benefit .

4	<p>We commend Waverley Council's Bondi Junction <b>Complete Streets Project</b> and know that many of the improvements will enhance both the livability and ambience of the western end of Bondi Junction that has remained relatively underdeveloped compared to the Westfield site.</p> <p>Matters that we believe the Council should consider when developing the <b>Complete Streets Project</b> are: night-time safety, ambulance access, pick up and sent down access, and noise.</p> <p>1. At night people coming from the station to the Eastgate shopping centre and residential apartments are forced to do so via either Newland Street or Bronte Road. Newland Street is relatively sparse in terms of pedestrian traffic at night and like all dimly lit and windy areas represent an insecure challenge to those who are less than robust. The Bronte Road end is significantly further in distance and pedestrians not infrequently must avoid patrons from nearby pubs especially the Tea Gardens Hotel. Again this represents an unnecessary impost for those whose physical capacity is less than optimal.</p> <p>We note the Bronka Arcade allows direct access to and from the station and the Eastgate complex during daylight hours but not at night. Opening the arcade twenty-four hours a day would ameliorate the need for shoppers and residents to traverse to the ends of the block and avoid the attendant risks. We appreciate that the arcade is privately owned but the direct linkage of Oxford and Spring streets at night would be an important development for the area.</p> <p>2. As you are aware the demographic in Bondi Junction is rapidly evolving towards both young professionals and elderly retirees. Eastgate residential towers in particular house a rapidly ageing population that presents certain challenges for the residential and shopping centre management and Council. One of these challenges involves easy access of ambulance services and pickup and drop-off points for disabled or infirm people.</p> <p>Whilst we believe that Council's vision of wider footpaths and a more pedestrian friendly streetscape is the correct one for the western end of Bondi Junction and Spring Street in particular, accommodation must be made for the above services outside of each residential tower and the shopping centre.</p> <p>3. Our third item concerns buskers and this is one of the most frequent complaints that we hear. Whilst there is no objection to buskers per se, many of those purporting to provide street entertainment do so primarily and to some degree fraudulently by amplification in the expectation that if the noise is loud enough it will attract attention and therefore money from the public.</p> <p>Our objection is to the use of amplification equipment by buskers and not to the buskers themselves and that while street entertainment should be encouraged artificial amplification should not.</p> <p>The three points above comprise the main concerns of the residential towers.</p> <p>On another note, we understand that the Spring Street car park exit is destined for closure and we can only say that this exit is extremely dangerous to pedestrians and its closure cannot come soon enough.</p>
5	<p>We refer to our letter of the 16th October 2013 when we commented on the Complete Streets Project and in particular its effects in Spring Street. Since that time we have had further opportunity to gauge the reaction of our residents. Whilst there has been some criticism of the concept, there is an acceptance of the need to improve and upgrade Spring Street.</p> <p>Currently the principle complaint has been the positioning of the pop-up outside 83-85 Spring Street which partially obscures the main entrance to that tower (see photo 1 P2), and also impacts on the accessibility of emergency vehicles. In addition we have had complaints that some people using the pop-up seating disregard the tiny 'No Smoking' sign allowing cigarette smoke to flow into the residential foyer. Unlike the transient effects of passersby's who smoke, the effect of people sitting and smoking is far more sustained and intrusive.</p> <p>The pop-ups have clearly attracted significant patronage to allow people to eat, drink and converse and this represents a positive public amenity. We believe that the concerns of our residents could be readily met and the use of the pop-up further enhanced if it was moved 15 metres further east opposite the existing popular food outlets (see photo 2 P2).</p>

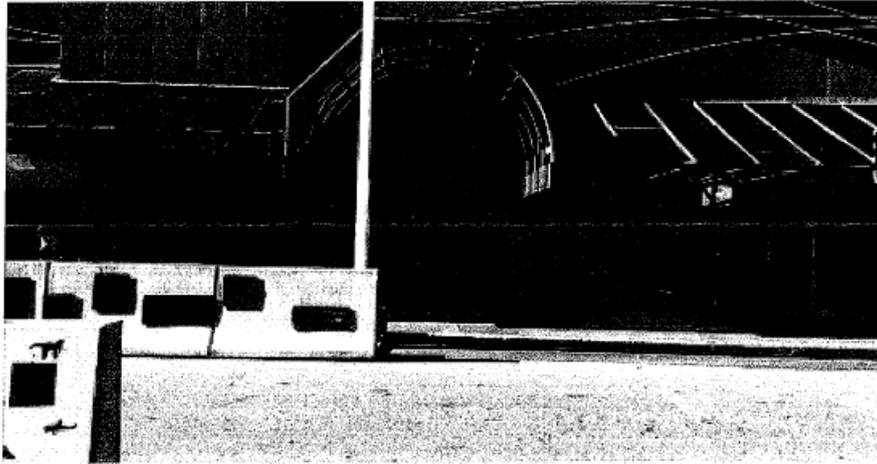


Photo 1 Entrance to Residences

Photo 2 View opposite food outlets



7

I don't know how to start. I am not in the habit of writing letters, complaining, offering my opinion. This time I feel very strongly about it.

We live in a very nicely kept building, with a beautifully kept garden, lots of trees shrubs , and flowers. I wish we would not have to enter through Spring Street.

It was always a neglected street, especially between Bronte road and Newland Street. When the leaflet came, saying that Spring Street is going to be turned into a beautiful street and there was also a picture displaying lots of trees, I was very happy. Not for very long.

The Urban Lounge might be well suited somewhere else but not in the middle of a narrow busy street. All that concrete and wood makes the Concrete Jungle [Bondi Junction] even more a concrete jungle. Being decorated with different colours does not make it prettier only cheaper looking. It is not a place for children ,not in the middle of a busy street. Bondi Junction has some very pretty places. The Mall has some protection from sun and rain, wonderful for children to run around. The little plaza in Waverley Street is so charming with all the trees and seats for relaxing.

Why can't we have a nice footpath, tiles easy to keep clean, few more nicely painted benches and trees or hanging baskets or both.

Please don't take away the taxi stand. There are a lot of elderly people living in Eastgate Tower. We depend on the taxis for our mobility.

8

Description:

THIS IS A COMPLIMENT!! 😊

On Tuesday the 15<sup>th</sup> October, 2013. I was sitting eating lunch on the new decking area out side East Point, Bondi Junction. And, I was thinking what a beautiful idea. Because, there are so many take-away out lets and nowhere to eat. Then I saw this lady come along and lift up the seating area (well one piece of decking at a seating area) I thought how strange. Then I said to

this lady. Did you happen to design this by any chance. She replied oh no!

We started to chat her name was worked for and it is not completed yet. (very professional person, as well.) And, I think it is a fantastic idea. I was so happy to see this. And also it slows down traffic that's for sure. I wish we had that at Maroubra Junction. Our setting area is in the middle of the road and it is catered for drinkers of alcohol. Sometimes we can have upto 20 people gathered in a group together. And, this doesn't look good.

(And there are signs alcohol free zone)  
But, our council can't do a thing!  
Even, though some of us do drink

it just looks bad!

Where I lived in Queensland (Cairns)  
you would and couldn't do either.

So, congratulations on this upmarket  
project. Please spread the word  
to Randwick Council or Police  
because we are still part of  
Sydney.

Can't wait to see the end  
results!!

## APPENDIX 2.F - PHONE SUBMISSION

No	Submission
1	Better quality footpaths. Hanging baskets. BJ is a dump. Make more like Europe

## **Bondi Junction Complete Streets Universal Access Workshop**

**Wednesday 30 October 2013**

### **Design principles and planning for inclusion and mobility**

Waverley has a growing ageing population and a significant number of people with disability who live in or regularly visit the area. Bondi Junction is an important service, entertainment and shopping centre and connection point to other key destinations in the area.

For many people Bondi Junction is viewed as too busy and fast paced and is unwelcoming of people who are less mobile or have a disability. Common barriers raised regarding safe and easy access include:

- conflicting use on footpaths and within pedestrian spaces, particularly between pedestrians and cyclists but also with other more mobile users
- slip and trip hazards on footpaths
- limited seating options and rest areas
- poor access into shops such as steps at the entrance or entrances that are located too far to walk from parking or from street level
- 
- Universal access provisions should be planned, budgeted and integrated within the overall design at the beginning of the design process. Unforeseen barriers to good access often occur when work to make improvements are implemented as an afterthought or on an ad hoc basis.

### **Recommendations /support**

- To meet the needs of an ageing population ensure universal access and age friendly design features are made a priority in the redesign of the area.
- Develop a community engagement strategy to consult older people and people with disability about their access needs
- Utilise universal access and age friendly checklists for city design as a benchmark to assess and monitor access improvements. Universal Access resources:
  - **Australian Suite of Standards for Disability Access**
  - **World Health Organisation (WHO) Age Friendly Cities Checklist**  
[http://www.who.int/ageing/publications/Age\\_friendly\\_cities\\_checklist.pdf](http://www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf)
  - **Healthy Spaces and Places** <http://www.healthyplaces.org.au/site/design.php>
- Engage universal access consultants to conduct access audits that identify access and mobility issues and solutions, and to assist in determining a schedule of work and priorities.

### **Footpaths**

Well designed and maintained footpaths enable older people and people with disability to easily and safely access the public domain, shops and services.

- Wide footpaths, especially in busy locations, are needed to support the safety of all users particularly people who use wheelchairs, walking frames or sticks and people with low vision
- In many locations, footpaths are not evenly graded or are in poor condition and maintenance and repair takes too long.
- Kerb ramps in some locations are not aligned and require replacement to rectify the slope and direction.
- Tactile indicators are often lacking or are poorly located. Tactile indicators ensure safe guidance for those with low vision.
- Footpaths are no longer primarily designed and reserved for pedestrian use. They are increasingly used to accommodate street furniture, cafe seating, signage, utility boxes and garbage bins. This can create clutter on footpaths that impedes easy and safe pedestrian access, especially for more vulnerable users.

### **Recommendations / support**

- Footpaths should provide a continuous path of travel to enable pedestrians easy and safe access from parking areas, bus stops and trains to and within the town centre
- Footpath widening is supported and necessary to accommodate high volumes of pedestrian traffic and to allow people with less mobility to comfortably use the space. Mobility scooter usage is also likely to increase in the future, wider footpaths would support the increased use of scooters.
- Where possible provide and maintain a clear path of travel along the building line that is free of clutter as this provides the best possible guidance line for people with low vision
- Steps that taper into the ground are a trip hazard and should be removed. Separate ramping alongside a set of stairs should be provided where possible to resolve differences in levels
- A forward plan is required to ensure footpaths and kerb ramp installation, repair and maintenance are adequately budgeted for and built to universal access standards.
- Increase footpath maintenance budget to ensure timely repair
- Implement the Pedestrian Access and Mobility Plan PAMP to improve connection between key transport hubs with shopping, facilities and service areas
- Review pedestrian crossing waiting areas and times at busy intersections. The waiting times are not always adequate for people who have less mobility and need more time to cross the street
- Implement way finding signage that is easy to read, positioned at an appropriate height and located in logical places for pedestrians to determine how to get to key places and facilities
- Street calming strategies, including road narrowing are supported
- Paving surfaces should be non-slip, even when wet, level and firm and be at an appropriate gradient. Detailed concrete or bitumen are the best surfaces as unit paving and tiles often lift and become a trip hazard.
- Tactile indicators are required at all kerb ramps
- Utility cover surfaces should be made level with the footpath and of a material that is non-slip in both wet or dry conditions
- Electricity kiosks often obstruct footpath access, wherever possible these should be located underground.
- More frequent cleaning is required especially to remove grease and chewing gum
- Consider utilizing the maintenance reporting app developed by UNSW built environment research team to get comment from the public or for staff reporting

### **Cycling**

Cycling is welcomed where it is safe for all users. Cycling is increasingly popular with older age groups and encouraging cycling supports strategies to help people to remain active and healthy

- Older people have reported that they fear being hit by cyclists, particularly in Oxford St Mall which is seen to be a pedestrian only thoroughfare
- The proposed cycle way on Spring St is unlikely to reduce the use of Oxford St Mall by cyclists. Cycling in the Mall would need to be banned.
- Oxford St is dangerous for cyclists due to bus traffic and lack of space to accommodate all types of vehicles

### **Recommendation / support**

- The re-routing of cyclists to Syd Enfield overpass is supported. Separating and re - routing cycle routes from high pedestrian traffic areas is needed to improve pedestrian access and safety

### **Parking**

Parking should be prioritized for people who can't walk long distances due to disability.

- 1/2 hour parking is not sufficient for people to access key services such as seniors' services, dentists, and doctors

### **Recommendation /support**

- Consider limiting vehicle access in the town centre. Limit vehicle access for specific use and at certain times of the day and relocate parking (parking stations) to the periphery of the Centre. Parking within the Centre should give primary access to those with lower mobility or disability who need to be close to services and shop entrances. People who do not have disability could walk to the Centre from transport hubs that are located further out of the Centre.
- Council could consider a free shuttle bus to bring people from parking stations to the centre.
- Review the adequacy, design and location of mobility parking places
- Increase the number of transitional parking spaces throughout the Centre to benefit all people who need to be dropped off and picked up close to the entrance of shops, services and facilities. An increased number of transitional parking spaces would help to overcome access problems that occur when key services /shops relocate or are established such as medical centres
- A user pays parking chip system could be considered
- Parking options for community buses and vehicles should be considered to meet the growing demand by people with disability and frail, older people for door to door services.
- Consider developing anger management strategies to manage road and parking rage
- Car share is supported

### **Public and Community Transport**

Access to transport services is important to support older people and people with disability to maintain their independence and to remain living in the community.

- Many people living in outer suburbs travel to the Junction by car rather than use public transport because buses are often at capacity, come at irregular intervals and are viewed as unsafe. Many people will not use the public transport network because of the challenge of getting on and off buses safely. The 'herding' at some bus stops is frightening for people with less mobility. The Bronte Rd bus stop outside Westfield is an example of a bus stop at capacity and where herding onto the bus regularly occurs. Some wheelchair users also experience difficulty getting on and off some buses
- The demand for community transport services is likely to grow given the increasing number of people with disability and older people living in the community that are likely to require door to door access to shops and services.
- The train and bus interchange is not user friendly, especially for older commuters and people with disability. Wheelchair access directly into the Mall is currently reliant on one lift and if this is not working people must take a long route that includes steep gradients along Grosvenor St.
- Some bus shelters are too large for the footpath and so cause obstruction, especially for those using wheelchairs or mobility scooters

### **Recommendation /support**

- Advocate for level access from the interchange into Oxford St Mall as a matter of priority
- Request State rail to review information and signage at the interchange. A single board showing all routes would be useful
- Bus shelters are needed for shelter from weather conditions. These need to be of an appropriate size and located so as not to block footpath access
- Real-time bus timetables and information is supported
- Review the transport network with a view to improve and expand options
- Investigate greater support for Community Transport initiatives ,for example, a bus shuttle service similar to the Village to Village service operating in the City of Sydney.

### **Facilities**

Public seating in the centre is at capacity. Seating benches are often too low for many older people to use easily. Seating with arms can make it easier for people to use.

Café seating should be located appropriately, preferably in recessed areas set off the footpath. Alternatively, seating is best positioned on the kerbside so that the building line can be used for wayfinding by people who have low vision

Public toilets in key locations such as at the train station are often locked or poorly maintained

### **Recommendations /support**

- Increase seating and locate at regular intervals. More seating assists people who cannot walk long distances or who need to rest regularly on their journey.
- Consider establishing quality rest (restful) areas that allow people 'time out' from the hustle and bustle
- Public toilets that are easy to access and are well maintained are needed
- Consider banning smoking from outdoor eating venues and establish designated smoking areas such as at Pitt St Mall

### **Street activation**

Access to and within business premises is still very poor.

- More regulation and awareness raising is needed by Council to ensure seamless access from the footpath into shops, facilities and services. It is noted that many of the businesses thriving in Bondi Junction are those that cater to the needs of an older population such as medical centres and chemists. All shops should ideally have step free entry and limit clutter internally, especially at entrances and counters.
- Many older people do not go out at night, in part due to the perception that it is not safe

### **Recommendations/ support**

- To encourage pedestrians to stay for longer periods of time will require improved lighting, accessible and well maintained footpaths, places for resting and relaxing, and development of shopping and service environment that is attractive to people who are older.
- Support shop owners to construct ramps within the private premises to resolve differences in levels at the threshold to the public footpath
- Improve shopfront illumination at time night
- Work with businesses to trial projects such as window dressing competitions and all night openings
- Trial night markets, including a makers market and or summer food market

### **Specific Locations**

#### **Oxford St Mall**

- Advocate for level access from the Mall directly into the Interchange as a matter of priority
- Remove the tapered steps that disappear into the footpath on the corner of Oxford and Grosvenor Sts, outside Westfields
- Install more seating

#### **Waverley Mall and Hollywood Ave**

Access to the medical centre on the corner of Hollywood Ave is difficult and dangerous for vulnerable pedestrians primarily because of the Westfield car park exit at this location. The footpath width and surfaces are also inadequate and there is not enough mobility or transitional parking at this location.

Redesign of this area is supported including:

- Closure of Westfield car park exit
- Widening the footpath and creating level access
- Review parking options along Hollywood avenue to provide access to the key facilities that are now located there ie: Medicare and Centrelink
- Increase mobility and transitional parking

#### **Spring St**

Eastgate shopping centre is very popular with older people and people with disability because it is located at street level, easy to find and easily accessed from parking and public transport.

- More public seating is required and there are not enough benches within Eastgate for people to rest.
- It was noted that the Bronte Rd and Spring St intersection seems to mostly work despite the dangers, perhaps because all users must pay close attention to pedestrian and traffic conditions

#### **York Rd and Oxford St West intersection**

Centennial Park is a key destination from Bondi Junction. Access into Centennial is difficult for some wheelchair users due to the Decaux bus stand at the bus terminus and poor footpath surface and obstructions between York Rd and Loch Avenue.

- Reconfiguration of this intersection is supported.