



Green Square to Ashmore Connector Road

Response to Submissions Report

November 2018

Document tracking

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Contents

1.0	Introduction	4
1.2	Project summary	4
1.3	Consultation objectives	5
1.4	Consultation activities	5
1.5	Outcomes	5
2.0	Additional detail	7
2.1	Staging works within the Green Square Town Centre	7
2.2	Subdivision works proposed	7
2.3	Construction hours and noise impacts	8
2.4	Hydrology and groundwater	8
2.5	Communication plan	9
2.6	Traffic and transport - staging	9
2.7	Landscape	10
2.8	Contamination and remediation	10
2.9	Non Indigenous Heritage	10
2.10	Cumulative impacts	11
2.11	Property acquisitions	11
3.0	Response to matters	12
4.0	Amended and revised mitigation measures	39
4.1	Construction environmental management plans	39
4.2	Safeguards and mitigation measures amended	39
	Appendix 1: Concept design	54
	Appendix 2: Public Notice Advertisements	55
	Appendix 3: Notification Letter	56
	Appendix 4: eNews items	57
	Appendix 5: Driveway access (Cabcharge Australia Limited)	58
	Appendix 6: Driveway access (Cabcharge Australia Limited)	59

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1.0 Introduction

The City of Sydney (the City) ran a community consultation process from 21 November 2017 to 2 February 2018 to seek community and stakeholder feedback on a Review of Environmental Factors (REF) for a proposed road in Alexandria, known as the Green Square to Ashmore Connector (the Connector Road).

The 11 week consultation process included notification letters, a presentation to a local residents' action group, public notice advertising and online engagement at SydneyYourSay.com.au.

This report considers all submissions received during the public consultation.

A summary of issues raised and the City's response is provided in Section 3. Community submissions are labelled with a "C" prefix and other stakeholders including government authorities and landowners are labelled with an "S" prefix. Revised mitigation measures are outlined in Section 4. Section 3 provides additional details on the Connector Road proposal.

Following consideration of all submission and mitigation measures a report will be prepared for final determination of the project. The determining authority is the City of Sydney.

1.2 Project summary

The City of Sydney is proposing to build the Connector Road to link Geddes Avenue in the Green Square town centre with Bowden Street in Alexandria. The road will intersect with Botany Road, O'Riordan Street and Bourke Road.

The proposed road will include a separated cycleway, provide better and safer access for people walking and using public transport, and offer opportunity to deliver affordable housing on residual lands. It will also provide a more direct and efficient east-west access between the town centre, the Ashmore precinct and the inner western suburbs than the current situation, significantly improving access to the new civic and recreation facilities being delivered by the City in the town centre. The proposed design allows for future buses, commercial and delivery vehicles to use the route, reducing congestion, which is critical to the economic viability of the town centre.

Staged early works are expected to start by mid-2019 and the road is planned to be completed by early 2021.

The REF covers:

- Engineering, environmental and planning factors
- Design and operational requirements
- Potential construction and operation impacts and risk mitigation strategies
- Impacts on flora and fauna
- Legislative requirements and approvals

1.3 Consultation objectives

- To present to the local community and other stakeholders the rationale and potential impacts of the Connector Road project as highlighted in the REF.
- To give the local community and stakeholders the opportunity to provide feedback on the project.
- To ensure all feedback is considered before the design is finalised.
- To consult with key stakeholders and meet statutory obligations.

1.4 Consultation activities

The consultation activities undertaken between 21 November 2017 and 2 February 2018 included:

- Notification letter distributed to 8,500 residents in the local area
- Presentation to Alexandria Residents' Action Group (13 December 2017)
- Hard copy of the proposal made available at:
 - One Stop Shop, Level 2, Town Hall House, 456 Kent Street, Sydney
 - Green Square Neighbourhood Service Centre, 100 Joynton Avenue, Zetland
 - Redfern Neighbourhood Service Centre, 158 Redfern Street, Redfern
- A3 posters displayed at Green Square Neighbourhood Service Centre
- Public notice advertisement in The Sydney Morning Herald (1 December 2017), Central (22 November 2017) and Southern (21 November 2017)
- Item reported in Green Square Community eNews (sent to 1,608 subscribers on 1 December 2017) and Sydney Your Say eNews (sent to 4,192 subscribers on 7 December 2017)
- Ongoing liaison with stakeholders including landowners and government agencies

Appendices 2, 3 and 4 include examples of the above exhibition activities.

1.5 Outcomes

Participation

- There were 975 visits to the project page and 581 document downloads at SydneyYourSay.com.au during the public exhibition period (<http://www.sydneyyoursay.com.au/green-square-ashmore-connector-review-environmental-factors>)
- Approximately 40 people attended the Alexandria Residents' Action Group meeting (refer to submission C12 to C20 in Section 3 of this report for full questions and comments made)
- A total of 11 submissions were received, including:
 - 3 submissions from local residents
 - 1 submission from a local cycling organisation (BIKeast)
 - 5 submissions from government agencies and utilities
 - 1 submission from landowners (Cabcharge Australia Limited)

- 1 submission from the Member for Heffron, Ron Hoenig on behalf of BIKeast

2.0 Additional detail

The REF provides a description of the Connector Road proposal and its various components. This section provides additional detail and clarification on the matters covered in the REF, which respond to comments made during the public exhibition and the City's own review. Where deemed necessary, revised mitigation measures are included in Table 1 of this report.

2.1 Staging works within the Green Square Town Centre

The map below shows the staging of the main civil works for streets within the Green Square town centre.



2.2 Subdivision works proposed

The proposed works to be undertaken by the City to deliver the Connector Road include consolidation and subdivision of lots to create new lots and associated easements for the construction of the road. The subdivision will create the new road corridor and residual lands as described in the REF.

In the eastern section, between Botany Road and O'Riordan Street, the residual lands are proposed to be consolidated to create two development lots for the delivery of rental affordable housing dwellings. In the western section of the road corridor, between O'Riordan Street and Bourke Road, residual lands resulting from the subdivision may be amalgamated with adjacent sites, depending on

the outcomes of ongoing negotiations between the City and affected landowners to acquire the road corridor.

2.3 Construction hours and noise impacts

Proposed standard working hours for construction as defined in the City's *Sydney Streets Technical Specifications* (2016) are:

Monday to Friday 7.30am – 5.30pm
Saturday 7.30am – 3.30pm
No work on Sundays or public holidays

The Principal Contractor(s) will be responsible for instructing and controlling all sub-contractors regarding the hours of work.

Due to the importance of maintaining through traffic on Botany Road, O'Riordan Street and Bourke Road particularly during peak hours, some out of hours work is likely to be required to minimise disruptions to motorists and protect the safety of workers and the travelling public. This includes the installation of the proposed two new signalised intersections at Bourke Road and O'Riordan Street and the modification to the signalised intersection at Botany Road/Geddes Avenue. These works would likely require the closure of trafficable lanes and it is anticipated they would be carried out as night works to minimise the impact on the roads.

A Construction Noise and Vibration Management Plan (CNVMP) is to be prepared by the City's contractor as part of the Construction Environmental Management Plan (CEMP). The CNVMP will take into account the results of the noise and vibration impact assessment prepared by Renzo Tonin for the REF, as well as more detailed quantitative noise assessment based on plant and equipment to be used. Cumulative noise impacts are also to be assessed. Amongst other things, the CNVMP will include management measures to minimise the potential noise impacts from potential works outside of standard working hours. The CNVMP will be reviewed and approved by the City.

Work outside of standard construction hours and extended construction hours will be required to be undertaken in accordance with the approvals and notification requirements for construction of the proposal.

2.4 Hydrology and groundwater

The Hydraulic Impact Assessment conducted to support the REF concludes there will be no significant adverse flooding impact of the proposed Connector Road. The vertical alignment and proposed drainage infrastructure for the proposed road has been developed at concept design stage to minimise adverse impact on existing flooding and to improve on the existing conditions where possible. The detailed design stage of the road will further examine the local drainage and flood risk management for the road.

Based on groundwater measurements, the Remediation Actin Plan (2016) prepared for the Connector Road indicated no groundwater is anticipated to be encountered during construction – the maximum cut depth proposed is 2.5m on the western section of the road (Ausgrid property) and groundwater depths in this area are between 3.5m and 5.5m below ground level.

To further determine the presence of any ground water to potentially impact construction across the site, test bore holes will be undertaken as part of the detailed design phase. If dewatering is required the City's contractor will be required to obtain any relevant licence under the Water Management Act 2000. An Environmental Work Method Statement will also be required to establish appropriate measures to manage potential risks.

The concept design for the proposed road incorporates Water Sensitive Urban Design Measures, and adopt an integrated approach to urban water cycle management to minimise impacts on local waterways. Stormwater Pollution Control Targets have also been adopted in the design. Water quality management measures are included in the mitigation measures identified in the REF to prevent groundwater and stormwater contamination. Potential contamination may be derived from example from fuel or chemical spills from plant or equipment in or around pits. Erosion and sedimentation on roadside drains where excavation is required or from stockpiles may also be potential sources of water contamination. The proposed measures seek to minimise these potential impacts.

2.5 Communication plan

As stated in the REF, the proposal has the potential to impact the local community due to noise, dust, traffic, access and other impacts during construction. This would include residents as well as businesses located within the vicinity of the proposal. Management measures detailed in the REF would help avoid, minimise or mitigate potential impacts.

To manage potential impacts it will be important to keep the community and relevant stakeholders informed of the proposed works prior to and throughout construction. For these purposes, a Communication Plan will be prepared and included in the Construction Environmental Management Plan (CEMP) and a Community Liaison Officer will be appointed as the first point of contact for enquiries related to the project and management of complaints and their satisfactory resolution.

2.6 Traffic and transport - staging

The current program for delivery of both sections of the Connector Road is for construction to be undertaken in one stage during a 20 month period.

An early works package for demolition, earthworks and remediation is anticipated to commence by mid-2019. Main construction of civil works is expected to commence from December 2019 and the road is planned to be opened in early 2021.

It is noted that the City will be undertaking further traffic modelling as part of the detailed design stage of the Connector Road.

2.7 Landscape

The proposed Connector Road directly impacts on 15 existing mature street trees, six regarded as having a low rating, eight having a moderate rating and one tree of high retention value (Broadleaved Paperbark). Most of these trees make a positive contribution to the amenity of the streetscape. However, given the limitations of the road alignment and design, there are no feasible alternatives that would permit the retention of these trees. To compensate for loss of amenity resulting from the removal of these trees to accommodate the proposed development, replacement planting will be placed within the road reserve.

New planting of approximately 33 trees will offset trees that need to be removed. Trees to be retained will be protected in line with measures under AS 4970-2009 – Protection of trees on development sites.

2.8 Contamination and remediation

A Contamination Investigation Report, dated August 2015, and Remedial Action Plan (RAP), dated February 2016, were prepared by PB for the Connector Road. These reports were subject to a non-statutory Site Audit Statement issued in June 2016. The statement confirmed that the extent of contamination had been appropriately determined, the RAP was appropriate and the site can be made suitable for the purposes of a road and services corridor.

The assessment conducted for the Contamination Investigation Report included intrusive investigations, review of previous investigations undertaken for sites 15 and 20 O’Riordan Street and site inspections. The assessment indicates that fill over the Ausgrid site at 15 O’Riordan Street is impacted by heavy metals, petroleum hydrocarbons, PCBs, PAHs and asbestos, and that there are some residual lead and petroleum hydrocarbon impacts over the site at 20 O’Riordan Street.

Proposed remediation of the sites which is suitable for the future road involves a cap and contain strategy. A capping layer of clean fill material, extending to the site boundaries, is proposed, to certain depths, depending on pavement and landscaping type.

The City will undertake remediation of the land for the Connector Road in accordance with the RAP. Once the site is remediated, certification by an accredited Site Auditor will be sought. It is anticipated remediation works will commence in mid-2019.

2.9 Non Indigenous Heritage

It is noted that under Section 6.7 of the REF, the first row in Table 14: Heritage near the proposed Connector Road, lists an unknown distance from the road. The location is updated below.

Item	Heritage Listing	Distance from the proposed Connector Road
Survey Alignment Mark, Botany Road Alexandria (Item No. 4309671)	Section 170 Register (Roads & Maritime Services)	In front of 298 Botany Road, Alexandria, NSW 2015

2.10 Cumulative impacts

The proposal is located in the Green Square Urban Renewal Area which is experiencing significant development, in particular within the Green Square town centre, North Rosebery, the Epsom Park precinct (Zetland) and the Lachlan precinct (Waterloo). The proposal has therefore the potential to exacerbate construction related impacts such as noise, air quality and traffic impacts. The safeguards and management measures detailed in the REF as amended in Table 1 of this report would mitigate potential cumulative impacts from other construction activities taking place in the locality.

Construction liaison groups have been set up for works taking place in precincts affected by significant development activity. The Green Square town centre south construction liaison group has been set up by the City in relation to the City's construction of civil projects, including streets, parks and building works. This group will be contacted prior to commencing works for the Connector Road to liaise with contractors working within the area and identify opportunities to minimise cumulative construction activity impacts.

2.11 Property acquisitions

The need for a connecting street west of the Green Square town centre was originally investigated in the Green Square Structural Masterplan 1997 and identified in the South Sydney Development Control Plan 1997: Urban Design. The Green Square Transport Management and Accessibility Plan dated 2008 and the revised draft dated 2012 further identified the proposed Connector Road, in particular for its function to improve transport access to the town centre. The road is currently identified in the Sydney Development Control Plan 2012.

The City has been, for a number of years, acquiring the property interests necessary to implement the road and negotiating with the relevant landowners. In the eastern section of the road, between Botany Road and O'Riordan Street, the City has acquired most of these interests and is negotiating with the landowner of 22 O'Riordan Street. In the western section, between Bourke Road and O'Riordan Street, the City continues to negotiate with the two major landowners affected, Cabcharge Australia Limited (9-13 O'Riordan Street) and Ausgrid (15 O'Riordan Street).

With respect to the affected properties, the City recognises the impact of the road affectation and in the negotiations with the landowners, the City seeks to define compensation packages, scope of works required to minimise disruption and establish mitigation measures to allow business operations to continue during all stages of the project.

Should negotiated agreements not be able to be reached with the owners of the affected parcels of land, if approved by the Minister, Council may compulsorily acquire the required lands under the Local Government Act 1993, the Local Government (General) Regulation 2005 and the Land Acquisition (Just Terms Compensation) Act 1991.

3.0 Response to matters

A summary of all submissions received during the public exhibition of the REF and the City's response is presented in this section. Common abbreviations used are:

ATC	Automatic Traffic Count
LoS	Level of Service
PCU	Passenger Car Unit
RMS	Roads and Maritime Services
SAT	Saturation (flow)
SSD	Stopping Sight Distance
TCS	Traffic Control Signal
TfNSW	Transport for NSW
TMC	Turning Movement Count

Type: C1, Community

Issue: Traffic Lights

Matter Description: Will there be traffic lights at Bowden Street and Euston Road intersection?

Response: The intersection at Bowden Street and Euston Road/McEvoy Street is outside of the scope of this project. The configuration of this intersection will be determined through the RMS's Alexandria to Moore Park Connectivity Upgrade project. The current proposal does not include traffic signals; it includes a median in McEvoy Street allowing east-bound right turns from McEvoy Street onto Bowden Street and banning right turns from Bowden Street onto McEvoy Street.

Type: C2, Community

Issue: Cycle Paths

Matter Description: The cycle paths restrict streets in the area to one lane (eg. Bowden Street). This may be good for bikes, but it is restrictive for cars.

Response: The City's transport policies for road use seek to give priority to pedestrians, cyclists, public transport and then vehicles. The design objective of the Connector Road is to create a local street with priority to maximise pedestrian and bike accessibility and connectivity, provide a separated cycleway and facilitate vehicular access in a slow-speed environment.

It is noted Bowden Street currently includes one traffic lane in either direction and one parking lane on the eastern side, as shown at Figure C2.



Figure C2. Bowden Street, looking south-east to the intersection with Bourke Road (Image: Google streetview)

Type: C3, Community

Issue: Traffic assessment – dates

Matter Description: Provide detail on what date and day of the week traffic surveys were undertaken.

Response: ATC and intersection turning count surveys were undertaken in December 2016 - morning peak between 8:00AM and 9:00AM and evening peak between 5:00PM and 6:00PM.

Type: C4, Community

Issue: Traffic assessment – volumes reported vs demands

Matter Description: The ATC site locations on Botany Road in particular avoid the Epsom Road/Botany Road intersection bottleneck meaning that the traffic volumes reported do not necessarily represent the traffic demands and it is likely that the pronounced peaks and absolute volumes shown in Figure 27 do not represent hourly demands or peak period truncation and volume spreading due to capacity limitations.

Response: The ATC locations were chosen based on the proposed intersection locations. The Epsom Road/Botany Road intersection is out of scope for this SIDRA assessment, and although demand for access to Botany Road may be constrained due to downstream queueing along Epsom Road, the hourly traffic volumes have been recorded and are used for the purpose of this assessment. The Epsom Road queueing would need to be addressed separately, and would not necessarily have a direct impact on the performance of the proposed intersection of the Connector Road and Botany Road.

Type: C5, Community

Issue: Traffic assessment – Traffic delays

Matter Description: The LoS outputs shown in Figures 30 and 31 misrepresent the existing traffic delays as delays extend back from signalised intersections and not necessarily on the upstream approaches. As these delays have been taken from a Paramics microsimulation model only the average delay across all lanes on each model link has been shown and not the cumulative delay taken from all links from stop line upstream on a lane by lane basis. This results in under reporting of delays at Botany Road/Epsom Road and Botany Road/O’Riordan Street/Bourke Street intersections in particular. As no statement about the existing operation of the intersections in the area has been made it is not possible to establish impacts on traffic delays. It is requested that the above is addressed along with commentary on the adequacy or otherwise of existing traffic operations at the Botany Road/Epsom Road and Botany Road/O’Riordan Street/Bourke Street intersections.

Response: The Paramics model was provided by the City to feed into the SIDRA assessment of the Connector Road. The existing conditions identify intersections that are currently at or approaching capacity, the Botany Road/Epsom Road and Botany Road/O’Riordan Street/Bourke Street intersections have been identified under this category.

The traffic modelling methodology was driven to establish whether the Connector Road can fulfil its local access function without significant impact to north-south vehicle movements in the area. The SIDRA assessment methodology was developed in consultation with RMS and the City and focused on the north-south movements at the Connector Road intersection locations with Botany Road, O’Riordan Street and Bourke Road.

If additional modelling is required to assess the network impact with Epsom Road, this will be incorporated into the future work that will be carried out in the detailed design stage of the project.

Type: C6, Community

Issue: Traffic assessment – Bowden Street/McEvoy Streets intersection

Matter Description: The average delay/vehicle for right turners at the Bowden Street eastern arm of the Bowden Street/McEvoy Street intersection is very high indicating the need for drivers to accept dangerously small gaps in the main road traffic stream which is mentioned in the report. Only isolated SIDRA analysis has been undertaken at this location (without the effects of end-constraints adequately captured on McEvoy Street as this road experiences long periods of stationary or queued traffic). It is requested that model results are adjusted accordingly at this location or the modeller describes why the use of isolated intersection modelling is appropriate without the adoption of end constraints within a congested part of the road network.

Response: Additional modelling will be undertaken during the detailed design stage of the project.

However, it is noted that the proposed Alexandria to Moore Park Connectivity Upgrade project proposes to install a median on McEvoy Street allowing right turn in at Bowden Street, and prohibiting the right turn out of Bowden Street. This will change the operation of this intersection. The modelling results for this change would be required before further assessment could be made. Coordination with RMS and the Alexandria to Moore Park Connectivity Upgrade design works will be taken into consideration through the future detailed design stage of the project to examine these issues.

Type: C7, Community

Issue: Traffic assessment – rat-running on Hansard Street

Matter Description: As the purpose of the Connector Road project is to *"improve local connectivity between the proposed GSTC and Ashmore Precinct"* there are likely to be secondary traffic impacts associated with this increased connectivity that go beyond the immediate connections of the proposed link road. There is concern with the potential for traffic travelling eastbound on the Connector Road to continue onto the new Geddes Avenue link and turn right onto Portman to then turn right again onto Hansard before turning left to travel southbound on Botany Road. As the demand for this movement would be high given the proposal to ban the right turn from the Connector Road eastbound approach to Botany Road south, the above described route would become attractive for this traffic. Given the above, would Council consider the full closure of Hansard Street with Botany Road to discourage this rat-run?

Response: There is potential for this movement to occur, however the traffic assessment indicates that the heaviest demand is for access to Epsom Road eastbound. The City will monitor future through-traffic impacts in the locality, including on Hansard Street, and develop in consultation with the community traffic management measures to address these impacts.

Type: C8, Community

Issue: Traffic assessment – forecasts beyond 2021

Matter Description: The lack of traffic demand forecasts beyond 2021 is of concern, although it is recognised that the widespread network failures predicted means that this part of the network will continue to suffer from widespread congestion that will worsen in the future and that additional traffic management measures are required to protect some of the current amenity existing residents enjoy. Council should be supportive of any residents' proposals for additional traffic management measures to counter the secondary traffic impacts associated with this project.

Response: The City has a continued commitment to improving residential amenity and advocating to the state government on behalf of the community to address regional traffic impacts. Refer to the City's response in C10.

The City also monitors through-traffic impacts in the locality and where necessary develops in consultation with the community traffic management measures to address these impacts.

Type: C9, Community

Issue: Design – Road not long enough/ does not address connection from McEvoy Street to Ashmore precinct

Matter Description: The current proposal fails to adequately achieve the proposal aims and fails to appropriately connect Green Square to the Ashmore Precinct. The proposal extent is too small and ending at McEvoy Street/Euston Road and does not fully and adequately address the area between McEvoy Street/Euston Road and Ashmore Precinct. The proposal in its current form fails to provide safe, reasonable linkage from McEvoy Street/Euston Road at Bowden Street to Ashmore Precinct. In particular lacks an adequate, safe linkage for pedestrians and cyclists.

Response: The project provides for a substantially more direct and efficient east-west access between the Green Square town centre, Ashmore and the inner western suburbs than the current situation. The signalised crossing, footpaths and dedicated cycle lanes will substantially improve safety for pedestrians and cyclists. The design allows for future buses, commercial and delivery vehicles to use the route, reducing congestion compared to the existing situation, which is critical to the economic viability of the town centre. Access to Ashmore beyond McEvoy Street would utilise existing streets.

Type: C10, Community

Issue: Traffic assessment – wider traffic impacts (particularly Maddox, Mitchell and, McEvoy Streets and Euston Road)

Matter Description: The REF and the Traffic and Transport Impact Assessment fail to adequately assess traffic impacts to Maddox Street, Alexandria, particularly between McEvoy Street/Euston Road and Mitchell Road (Ashmore Precinct). The failure is particularly regarding the operational life of the proposal (post-construction). The Traffic and Transport Impact Assessment states (Section 4.4.2) “It is considered that existing traffic using the right turn from Bowden Street to McEvoy Street would be displaced onto the parallel corridors of Maddox Street or Wyndham Street, depending on the origin and destination of impact trips”. However the REF and Assessment fail to consider and assess the traffic changes at this location and impact on the community and public safety. This is a residential area dominated by families with young children. Maddox Street between McEvoy Street/Euston Road and Mitchell Road is restricted to vehicles 3t or over. This is currently a significant problem with heavy vehicles illegally driving along the road. This is significant community objection and complaint to City of Sydney regarding the matter.

Response: This discussion in Section 4.4.2 of the Assessment is specifically in relation to the impacts of WestConnex and RMS’s Alexandria to Moore Park Connectivity Upgrade project. The City commissioned in April 2018 a separate traffic study to assess the impacts of the St Peters interchange (WestConnex) on local streets in Alexandria and Erskineville. The study revealed that WestConnex traffic is likely to filter into nearby local streets in Alexandria, and it recommended treatment measures (Alexandria LATM Plan) to limit the filtration of this traffic onto the local streets.

Following community feedback and consultation with RMS the proposed measures include new traffic signals, road closures and continuous footpath treatments (designed so as to give priority to pedestrians). Amongst these measures is the closure of Maddox Street (western arm) at Euston Road. About three quarters of submissions received supported the proposed LATM measures. Although RMS supports most of the proposed measures, it does not support the Maddox Street and Harley Street closures – these intersections need to remain open to maximise traffic flow on the north-south corridor from the St Peters Interchange. Significant community support is needed for RMS to support closing Maddox Street and Harley Street at Euston Road. The City will continue to consult with the community and state agencies on the LATM to achieve final approval of the LATM by late 2019 and start construction of approved treatments in 2020.

Type: C11, Community

Issue: Traffic assessment – impacts to Maddox Street

Matter Description: The proposal will increase and facilitate vehicle movements along Maddox Street. It will also facilitate and encourage heavy vehicles to illegally drive along Maddox Street. This will cause significant community impact and threaten public safety. This aspect must be addressed to ensure the justification of the Connector Road proposal. The proposal must include requirements and controls to mitigate traffic impacts and heavy vehicles illegally driving along Maddox Street. The safety of the community must be protected.

Response: This discussion is in relation to the impacts of WestConnex and RMS's Alexandria to Moore Park Connectivity Upgrade. Refer to the City's response in C10.

It is noted the Connector Road in isolation is likely to reduce traffic on Maddox Street as the new works will provide connectivity from Bowden Street through to O'Riordan Street, Botany Road and the Green Square town centre, making this a more attractive route than Maddox Street which ends at Bourke Road.

Type: C12, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Accessibility

Matter Description: Question 1 – Transport links from Alexandria to Green Square – How do we get there? Noting that there are elderly and disability access required to these areas. The City is not facilitating mobility for the elderly – How will this be provided?

Response: The City encourages and promotes active transport such as cycling and walking for people who are able to do so, and the infrastructure in the Green Square area is designed to achieve this. In addition, provision for a future east-west bus route is accommodated in the design of the Connector Road. (Refer to response to C16.)

Response given at meeting – no further response required

Type: C13, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Landscaping and planting

Matter Description: Question 2 – Landscaping proposed – what is it? Will it be a green street?

Response: It was noted that the western end of the Connector Road interfaces with existing tree planting on Bowden Street which includes Brush Box (*Lophostemon confertus*). The eastern end at Botany Road interfaces with the Green Square town centre and connects with Geddes Avenue where the trees nominated are Chinese elms (*Ulmus parvifolia* 'Todd').

There are two tree species proposed for the Connector Road which include:

- *Ulmus parvifolia* 'Todd' (Chinese Elm) from Botany Road to O'Riordan Street
- *Lophostemon confertus* (Brush Box) from O'Riordan Street to Bourke Road

Response given at meeting – no further response required

Type: C14, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Landscaping and planting

Matter Description: Question 3 – Will mature trees be planted?

Response: It was noted trees in a minimum container size of 400L are proposed for installation and the tree pit detail and soil profile will maximise soil volumes for maximum tree growth.

Response given at meeting – no further response required

Type: C15, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Public transport

Matter Description: Question 4 - Public transport along the proposed route – who will manage? Transport for NSW or the City?

Response: The road design allows for travel lanes of 3.25m to accommodate bus movements. Bus routes are outside scope for this project but provision for buses has been made within the design. The City will work with Transport for NSW and Sydney Buses on future bus stops and network allocation.

Response given at meeting – no further response required

Type: C16, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Community transport

Matter Description: Question 5 - Would the City consider utilising their Community buses for the elderly for transport to the Green Square area?

Response: Response 5 –The 'Village to Village' (orange) bus service runs between Redfern and Broadway via Green Square and Alexandria, Village to Village shuttle bus routes run between 9:00 a.m. and 5:00 p.m. on Thursdays and Fridays.

<https://villagetovillagesydney.files.wordpress.com/2017/06/orange-brochure.pdf>

'Village to Village' services are free, fixed route shuttle buses that fill the gap between public transport and specialist community transport services. They provide access to shops, medical care, culture, community and other transport services for members of the community who experience, or are at risk of experiencing transport disadvantage.

The City has provided Access Sydney Community Transport with a grant since 2007 to operate the 'Village to Village' service. Under the grant conditions, Access Sydney Community Transport is required to regularly review the routes in conjunction with the City and make the necessary adjustments in response to changes resulting from construction and infrastructure and/or changes in community need and demand.

Response given at meeting – no further response required

Type: C17, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Connecting to Ashmore

Matter Description: Question 6 – Noted great connection to Bowden Street, but why is the road not taken all the way through to Alexandria and Ashmore Estate?

Response: The scope of this particular project only considers the road to Bowden Street. Any scope for extension would be addressed as part of a future project definition.

Response given at meeting – no further response required

Type: C18, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Landscaping and planting

Matter Description: Question 7 – Confirm whether Chinese Elms are same species as Chinese Tallowwood

Response: They are different species.

Response given at meeting – no further response required

Type: C19, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Alternative route option

Matter Description: Question 8 – Harley Street would be a natural street to cut back into Green Square (from Bunnings to Mitchell Road) – was this considered?

Response: The proposed location for this road was based on assessment of various alignment options.

Option 1 – Harley Street Extension

The City investigated an alternative option for an east-west road connection between Botany Road and Bourke Road. The Harley Street extension was identified from Botany Road south of the Green Square town centre, to Harley Street between Mitchell Road and Euston Road. This option was abandoned prior to the development of the Green Square Transport Management and Accessibility Plan (TMAP) in 2008 due to the following reasons:

- The route does not directly link with the town centre and is 200m south of the proposed Botany Road/Geddes Avenue access. This access also has the potential to create further traffic conflicts on Botany Road.
- The route does not align with the preferred services route for the Green Square Trunk Drain and to allow joint use of the corridor for sewer and other services upgrades needed for the Green Square renewal area.

This option does not achieve the project objectives of:

- Providing a gateway road that improves road and transport access to the Green Square town centre and which improves east-west road and transport access in this part of Inner Southern Sydney.

- Achieving the integration and timely provision of future servicing infrastructure within the road corridor.

Response given at meeting – no further response required

Type: C20, Alexandria Residents' Action Group – Meeting on 13 December 2017

Issue: Social cohesion and physical connections

Matter Description: Comments from residents about feeling that Alexandria is being 'lumped' in with the Green Square area and not seen for an area in its own right. Connections only go so far but not far enough to the Ashmore Estate/ Alexandria area.

Response: The City's community engagement staff liaises regularly with the community about issues relevant to the area and together with other City staff develops a program of placemaking activities undertaken throughout the year across the City of Sydney.

No further action required as part of this Connector Road project.

Type: C21, Community

Issue: Cycleway

Matter Description: Primary concern with proposed cycleway width of 2.4m. AUSTROAD standard for bi-directional cycle path is 3.0m. This is also the NSW Government's Bicycle Guidelines standard. BIKEast recommends 3.0m

BIKEast also recommends the footpath on the southern side of the Connector Road be a designated shared pathway.

Response: The 3.0m cycle path will be examined within the next detailed design phase of the project. Differing site and land parcel constraints will need to be considered in the overall design to accommodate a 3.0m cycle path but the design will endeavour to increase the width of the cycleway from 2.4m to 3.0m.

The potential for a shared path in a local access could also be considered in the next phase of the project. An assessment of pinch points would need to occur to assess whether a shared path is practical.

Type: S1

Issue: Traffic Modelling

Matter Description: The traffic modelling results provided in the REF and Traffic and Transport Impact Assessment appear to be based on relatively low traffic volumes. The Sydney Coordination Office (SCO) requests that the traffic volume data and detailed traffic modelling results be referred to the SCO and RMS for further assessment.

The proposed raised pedestrian crossing, west of the Botany Road, creates a squeeze point and may cause queuing issues into the through lane for turning vehicles. Queue length data should be provided in the modelling requested above to demonstrate there is adequate queuing capacity.

Response: Modelling files have previously been shared with RMS. Further modelling will be undertaken as part of the detailed design phase of the project, in consultation with RMS and SCO.

The volumes referred to above were collected through ATC's and TMC's, and the Paramics model provided by Bitzios. The pedestrian crossing was not modelled as part of the concept design, and will be assessed through modelling as part of future design development of the road to ensure appropriate storage provision is achieved.

Type: S2

Issue: Bus Stop Location

Matter Description: The proposed bus stops, west of Botany Road, are situated on the approach to the proposed raised pedestrian crossing. This arrangement is not preferred due to the visual obstruction of a parked bus to pedestrians crossing the road. TfNSW requests the bus stops be relocated to the departure sides of the pedestrian crossing or further away on the approach side to ensure sight lines are not impacted.

TfNSW requests that provision for a bus stop on both the northern side of the Connector Road be futureproofed, between Bourke Road and O'Riordan Street, to accommodate future bus services.

Response: The pedestrian crossing is provided with a build-out to provide improved sight lines beyond parked vehicles in the kerbside lane.

AECOM understands that there is currently no commitment to provide a bus route along this corridor, as such delivery of the bus stops may not form part of the initial stage of delivery of the Connector Road.

However, in order to safeguard bus stop locations the detailed design of the Connector Road will assess the potential to move the bus stop to the departure side of the crossing with regard to queue lengths and storage requirements.

Type: S3

Issue: Kerbside space

Matter Description: On-street parking is proposed along sections of the Connector Road. TfNSW requests that the kerbside space be signposted as short term parking or no parking, which could be used by loading or servicing vehicles or point to point transport vehicles.

Response: Only two car share spaces are proposed, and no on-street parking. These car share spaces will be signposted and marked accordingly.

Type: S4

Issue: Swept Path Analysis

Matter Description: Swept path analysis for heavy vehicles, including buses, should be provided for all movements permitted through intersections along the Connector Road.

Response: Drawing issued on 30/4/2018 to RMS (60300384-SHT-02-06-G-0901)

Swept path analysis has been used to determine the kerb return geometry at each intersection. The design parameters adopted for each kerb return are presented in Table 4 (Traffic and Transport Impact Assessment). Refer to Figure 31 and Figure 33 of the Assessment for the vehicle tracking plans (as well as associated kerb return references from Table 4).

To minimise the radius of the kerb return the vehicles turn into the outside lane in each instance. The opportunity to reduce the size of the design vehicle adopted at each kerb return will be considered at detailed design based on the current traffic requirements.

Table 4 Connector Road east kerb return design parameters

Intersection	Turn movement	Kerb return reference	Design vehicle	Design speed
Botany Road	Botany Road (north-bound) to Connector Road (west-bound)	1	12.5m rigid bus	15 km/hr
	Connector Road (east-bound) to Botany Road (north-bound)	2	12.5m rigid bus	15 km/hr
O'Riordan Street	O'Riordan Street (south-bound) to Connector Road (east-bound)	3	12.5m rigid bus	15 km/hr
	Connector Road (west-bound) to O'Riordan Street (south-bound)	4	12.5m rigid bus	15 km/hr
	Connector Road (east-bound) to O'Riordan Street (north-bound)	5	12.5m rigid bus	15 km/hr
	O'Riordan Street (north-bound) to Connector Road (west-bound)	6	12.5m single unit truck/bus	15 km/hr
Bourke Road	Bourke Road (south-bound) to Connector Road (east-bound)	7	12.5m single unit truck/bus	15 km/hr
	Connector Road (west-bound) to Bourke Road (south-bound)	8	12.5m single unit truck/bus	15 km/hr
	Bowden Street (east-bound) to Bourke Road (north-bound)	9	9.9m Council garbage truck	15 km/hr
	Bourke Road (north-bound) to Bowden Street (west-bound)	10	9.9m Council garbage truck	15 km/hr

Figure 31 Vehicle tracking for the Connector Road – Botany Road intersection

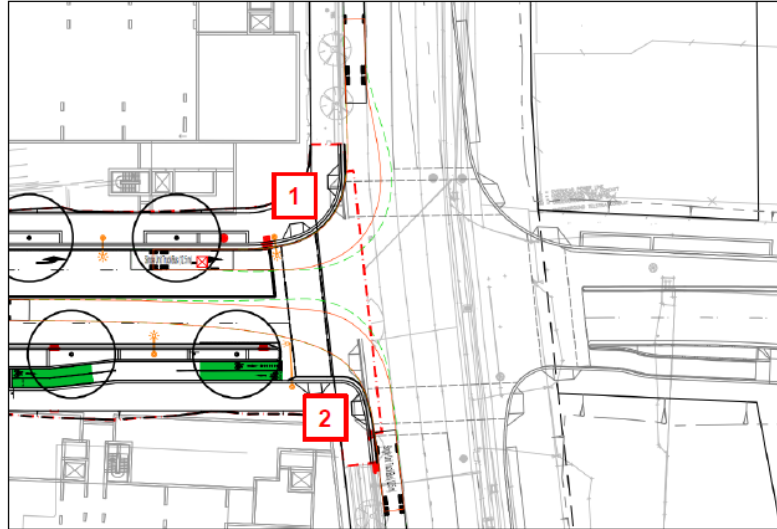


Figure 32 Vehicle tracking for the Connector Road – O'Riordan Street intersection

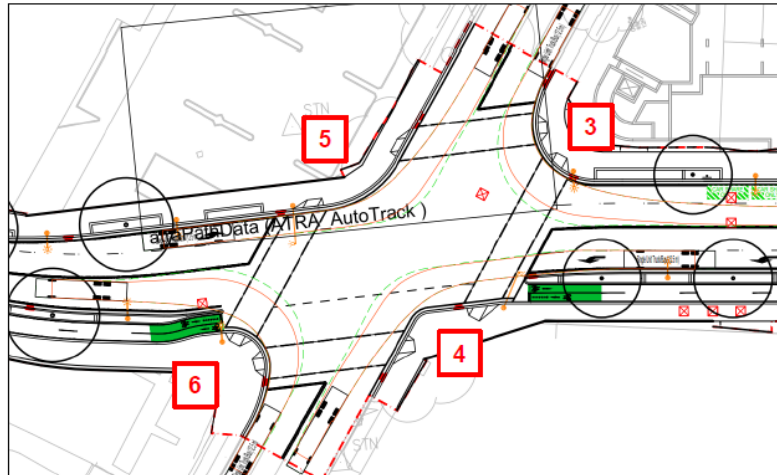
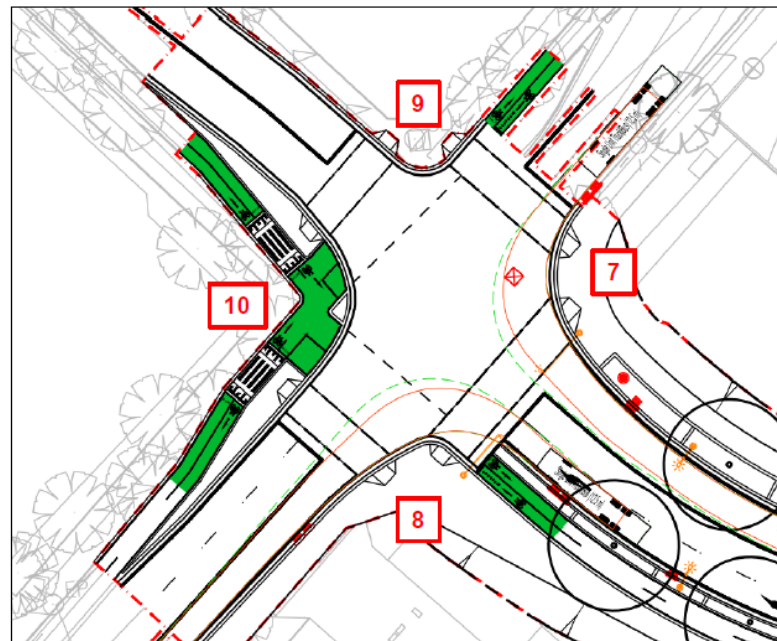


Figure 33 Vehicle tracking for the Connector Road – Bourke Road intersection



Type: S5

Issue: Traffic Signals

Matter Description: Trees are proposed along the length of the Connector Road. Appropriate trees should be planted to ensure the proposed traffic signals are not obscured and clear lines of sight to pedestrians are provided.

It should be noted that the City will require RMS approval of the proposed traffic signal plans before any works can commence.

Response: The proposed street tree layout presented in the Concept Design has been informed by a preliminary review against the stopping sight distance (SSD) requirements to the signals. An SSD of 56m has been adopted for a 50km/hr posted speed (60km/hr design speed) based on “Alert Driving Conditions” and a reaction time of 1.5s which is considered appropriate for a dense urban location such as this. (Refer to Figure 51 to Figure 54, Traffic and Transport Impact Assessment.)

Based on the visibility plays it would be necessary to include outreaches on a number of the signals (primarily due to the location of the cycle path (with the same detail being required on Geddes Avenue and Zetland Avenue). Including the outreaches, the required visibility displays can be incorporated in each location including the proposed trees, noting that pruning may be required until the required clear stem height has been achieved. Some pruning of trees may be required prior to sufficient clear stem height being achieved.

The visibility plays could be improved further at detailed design by incorporating bend-outs in the cycle path, moving the signal poles closer to the carriageway. The acceptability of relying on outreach lanterns to maintain SSD to the signals will also need to be confirmed at detailed design.

Drawing issued on 30/4/2018 to RMS (60300384-SKE-02-06-G-0039, 60300384-SKE-02-06-G-0040)

It is noted RMS approvals are required for signal plans. Plans and approvals will be developed and submitted during the design development stage of the project.

Figure 51 SSD assessment for Botany Road – Connector Road intersection

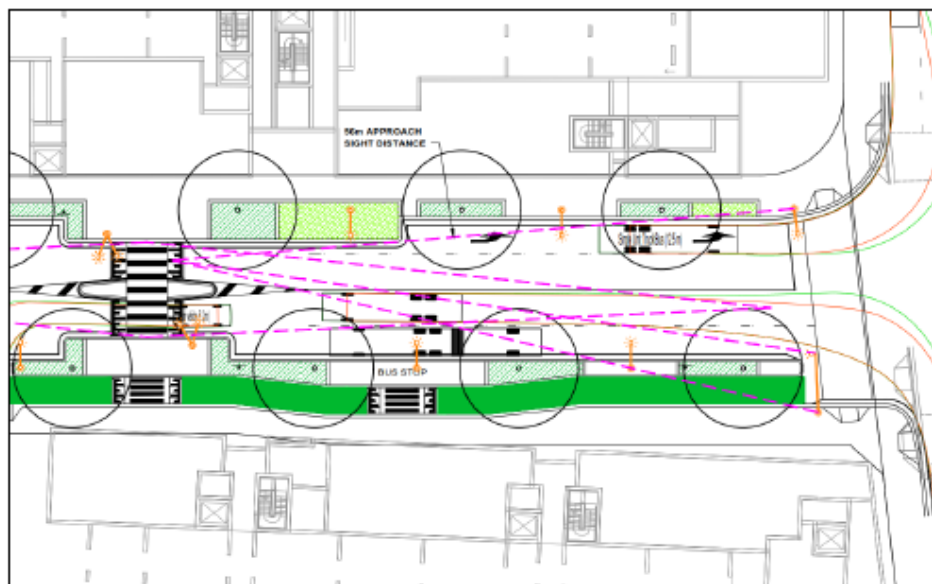


Figure 52 SSD assessment for O'Riordan Street – Connector Road intersection (east)

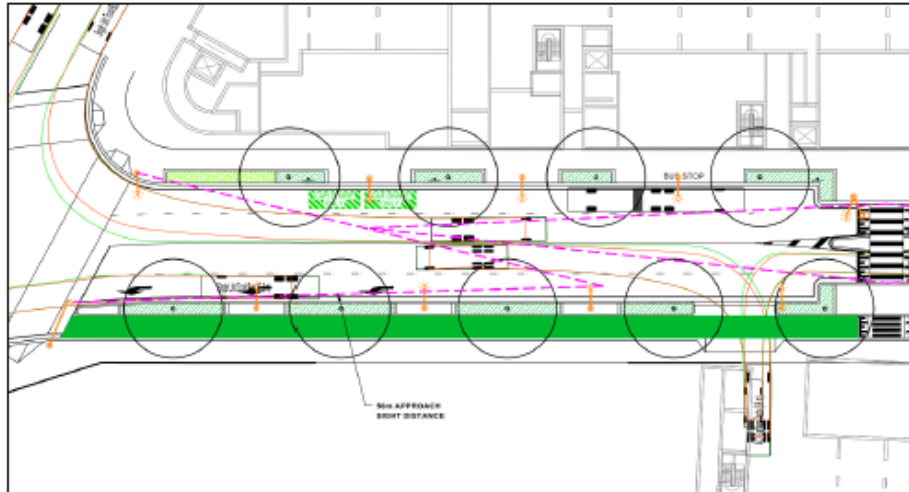


Figure 53 SSD assessment for O'Riordan Street – Connector Road intersection (west)

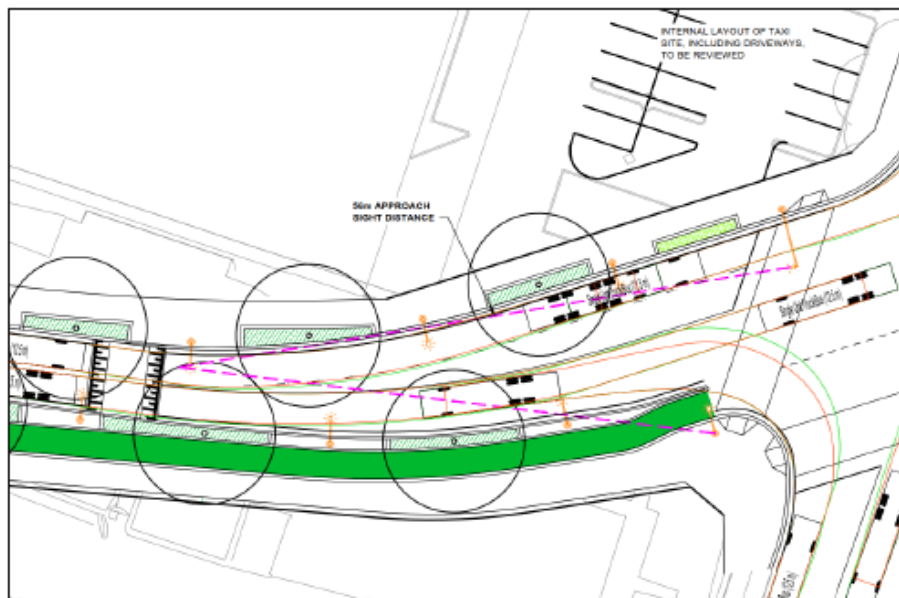
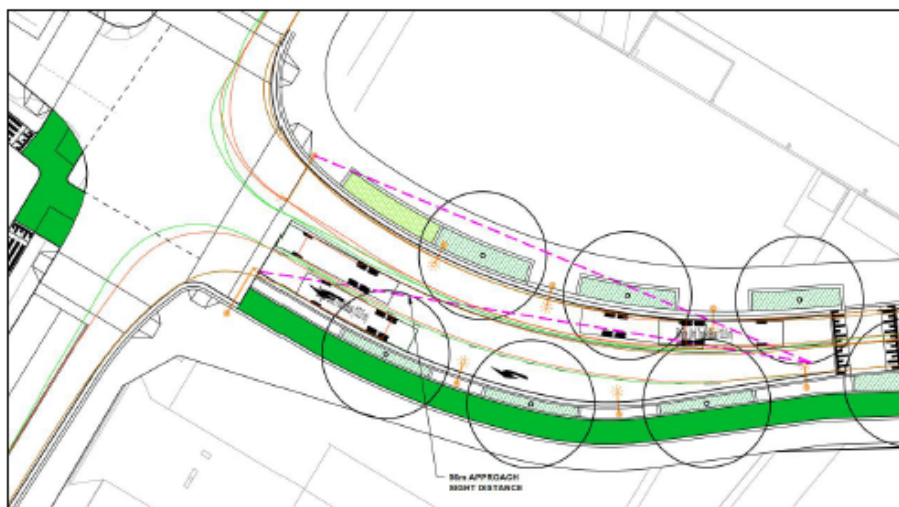


Figure 54 SSD assessment for Bourke Road – Connector Road intersection



Type: S6

Issue: Construction Pedestrian and Traffic Management Plan

Matter Description: TfNSW requests that the City:

- Prepare a Construction Pedestrian and Traffic Management Plan (CPTMP) in consultation with the Sydney Coordination Office within TfNSW, and
- Submit a copy of the final plan to the Coordinator General, Transport Coordination for endorsement, prior to the commencement of any work.

Response: Noted

Type: S7

Issue: Jemena assets

Matter Description: The proposed works may have a significant impact to existing Jemena Gas assets. At this stage, the proposed works are likely to impact Jemena's High Pressure (1050 kpa) and Medium Pressure (210 kpa) Networks. Jemena requests a meeting to discuss further.

Response: An initial meeting was held with Customer & Markets – Commercial, on 12/1/2018. A second meeting was requested with the Network Development Manager to discuss impacts. The City will consult with Jemena at the time the detailed design stage of the project commences.

Type: S8

Issue: Telstra assets

Matter Description: Telstra raises no objection. The following matters are noted:

- Check Dial-Before-You-Dig before any excavation commences.
- Telstra can provide a field representative to assist in damage minimisation.
- Any requirement to relocate Telstra plant can be determined at detailed design phase.

Response: Noted

Type: S9

Issue: Verizon assets

Matter Description: Verizon confirms they own assets along the path of the Connector Road and they have no plans for network expansion in this area.

Response: Noted

Type: S10

Issue: Zebra crossing

Matter Description: Is the Zebra Crossing serving a particular function given it is only some 50m away from the signals?

Response: The following points are noted:

- Traffic calming is co-located with the crossing
- Bus stops are offset and the crossing facilitates crossing for access to these. The offset bus stops arrangement is to avoid the stops being within the queue lengths for the signals (ensuring that sufficient storage is achieved)
- Speed tables/ cushions will be required to manage speeds (3.25m lanes to accommodate future potential buses)
- The crossing reflects the future desire line within the redevelopment parcels, and
- The road design is for local access.

Type: S11

Issue: General comment 1

Matter Description: Consideration of 4-lane Road

Response: The 4-lane arrangement of the Connector Road is designed to facilitate local access. The proposed crossing build-outs can be removed if demand warrants this in the future.

Provision of four lanes in the western section is constrained by land take and maintaining the functionality of the adjacent Ausgrid and Cabcharge sites. Future redevelopment of these adjacent sites is to include appropriate boundary set-backs.

Parking restrictions are proposed to be applied as appropriate to align with intersection performance requirements as outlined in subsequent comments.

Type: S12

Issue: General comment 2

Matter Description: Bus Stop Provision

Response: Refer to response to issue under S2 above.

Type: S13

Issue: General comment 3

Matter Description: Indented pedestrian crossing and bus stop locations

Response: The approach roads to the intersections allow for only a single through lane which is aligned with the centre lane adjacent to the bus stop locations (ie. traffic would be directed to the centre lane rather than the lane with the bus stop).

Storage requirements on the departure side of the signals will be further assessed at detailed design.

Type: S14

Issue: General comment 4

Matter Description: Restriction of right turn movement from Bowden Street into Bourke Road

Response: A desktop review of this of movement shows 55 right turning movements occur during the AM peak and 62 in the PM peak. This leg performs well at LoS 'C' and it is anticipated that the

through and left movements would continue to operate satisfactorily if the prohibited right turn movements were redistributed to through movements. Furthermore, there are a number of alternative routes via O’Riordan Street and Euston Road to access Bourke Road in a southbound direction. Additional modelling will be undertaken as part of the detailed design stage of the project to confirm the intersection performance and impacts of this right turn ban.

Type: S15

Issue: General comment 5

Matter Description: Submission of TCS plans is required

Response: Noted, TCS plans are to be provided once works are complete.

Type: S16

Issue: General comment 6

Matter Description: At all proposed intersections the SAT flows have been set to highway conditions and may not suit the proposed design conditions. The Connector Road would only facilitate localised traffic accessing the Green Square developments and would not support any major increases in demand.

Response: SAT flows are generally determined by the SIDRA software, based on the basic SAT flow rate of 1950tcu and the road geometry and speed.

If additional modelling is required, this will be incorporated into future work with inputs from RMS.

Type: S17

Issue: General comment 7

Matter Description: The suggested queuing in the modelling provided on O’Riordan Street proceeding south during the AM peak will be on average around 1.01km and during the PM peak the queue will be on average around 825m. These queues during both the AM and PM peaks will queue back to the intersection of Botany Road and Bourke Street and Botany Road and Wyndham Street. A number of on-site observations with current traffic conditions have shown that during the AM peak the queue on O’Riordan Street is minimal and does not extend back to Wyndham Street or Bourke Street.

Response: It is noted that the traffic and transport report presents much shorter queues than described above, with a maximum queue at the O’Riordan Street intersection of 256m in the AM peak. Modelling has been based on site surveys, further survey data can be obtained at detailed design to ensure that the queue lengths are verified. The City will seek further coordination with RMS in relation to data sharing, network models and information to assess the upstream/downstream impacts, which will need to be incorporated into future work.

Type: S18

Issue: General comment 8

Matter Description: The modelling provided showed an average queue length of 300m on Botany Road during the peak periods proceeding south. This queue during the morning peak will extend back to the intersection of Botany Road and Bourke Street resulting in additional delays at this critical junction.

Response: The report presents much shorter queues than described above, with a maximum queue on Botany Road of 191m in the PM peak. The City will seek further coordination with RMS in relation to sharing of a network model to assess the upstream/downstream impacts, which will need to be incorporated into future work.

Type: S19

Issue: General comment 9

Matter Description: The modelling showed an average queue length of around 500m during the peak periods proceeding north on Botany Road. This queue during the morning peak would potentially extend past the intersection of Botany Road and Epsom Road and as far back as Collins Street resulting in additional delays on the network. A number of onsite observations have shown that queues proceeding north on Botany Road generally queue back to Epsom Road from the intersection of Botany Road and Bourke Street.

Response: The report presents much shorter queues than described here, with a max queue on Botany Road of 191m in the PM peak. A sharing of a network model from RMS would be required to assess the upstream/downstream impacts, which will need to be incorporated into future work.

Type: S20

Issue: General comment 10

Matter Description: In relation to the Connector Road the modelling showed queue lengths during the AM and PM peaks extending back to the intersection of Bourke Street and Bowden Street. The queue shown in the AM peak will be on average around 260m. In Appendix C Traffic and Transport Impact Assessment the length of the Connector Road from O'Riordan Street to Bourke Street was stated to be around 220m. As there is not enough capacity within the Connector Road eastbound, this will result in queues extending back past Bourke Street and Bowden Street.

Response: The report presents much shorter queues than described here, with a maximum queue on Bourke Street of 152m in the PM peak. The City will seek further coordination with RMS in relation to sharing of a network model to assess the upstream/downstream impacts, which will need to be incorporated into future work.

Type: S21

Issue: General comment 11

Matter Description: Intersection angle at the western leg at O'Riordan Street

Response: The alignment of this intersection is constrained by existing land ownership boundaries, however is provided in accordance with relevant design parameters from Austroads including angle of intersection with O’Riordan Street and deflection through the intersection.

Type: S22

Issue: General comment 12

Matter Description: Exclusive right turn lanes on O’Riordan Street to be provided

Response: The current proposal is that the right turns out of O’Riordan Street into the Connector Road are banned. Where the right turn from the Connector Road eastbound into O’Riordan Street southbound is permitted two lanes are provided on approach to the intersection.

If these turns were permitted, the right turn bays could not be provided without additional land take.

Type: S23

Issue: General comment 13

Matter Description: Right turn on Botany Road southbound

Response: This movement has been banned, as per previous consultation with RMS regarding Botany Road as part of the broader Green Square town centre modelling and traffic management strategy.

Type: S24

Issue: General comment 14

Matter Description: The left turn lane on approach to Botany Road is likely to be inadequate in length.

Response: Modelling shows LoS ‘D’ for this left turn lane, which is considered acceptable. The left turn lane is 35m in length, and the demand is for 21 vehicles per hour. Queues are not forecast to be more than 7m so the lane has storage capacity. It is noted the pedestrian crossing has not been modelled and this work will be undertaken during the detailed design phase of the project.

Type: S25

Issue: General comment 15

Matter Description: Trees on approach to intersections not supported

Response: Refer to S5 response. Proposed trees will be checked against visibility splays.

Type: S26

Issue: General comment 16

Matter Description: Vehicle swept paths information

Response: Refer to S4 response.

Type: S27

Issue: General comment 17

Matter Description: Median on the Connector Road east

Response: This represents the median shown around the pedestrian crossing, as shown at Figure S27 below.

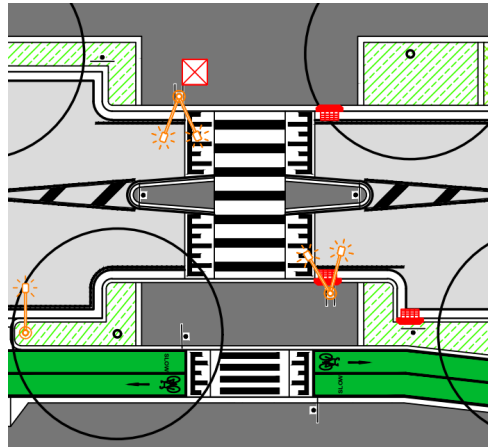


Figure S27. Proposed pedestrian crossing

Type: S28, Cabcharge Australia Limited

Issue: Key issue 1

Matter Description: Removal of existing southernmost driveway and in/out restrictions will render the site unsuitable for current business operations.

Response: Cabcharge has proposed an alternative driveway on Cabcharge's property to the City's project team to address this issue. This proposal and alterations that would be required to Cabcharge's property to minimise disruption and maintain its business operations will form part of negotiations between Cabcharge and the City (which are on-going) or a determination, under the Land Acquisition (Just Terms Compensation) Act 1991. Details of the driveways location and width will be developed in the design development phase of the project in consultation with Cabcharge.

Type: S29, Cabcharge Australia Limited

Issue: Key issue 2

Matter Description: Agreed new access driveways not included in REF

Response: The City acknowledges the two new driveways proposed by Cabcharge on Cabcharge's property (refer to Appendix 5 of this report):

Driveway 1 – New northern access driveway to O'Riordan Street

Driveway 2 – New access driveway onto Connector Road

The driveways location and width will be developed in the design development phase of the project. These driveways will be constructed by the City.

RMS has confirmed in principle that it has no objection to the additional driveway on O’Riordan Street, provided right turns on O’Riordan Street onto Cabcharge property are restricted due to proximity to the proposed signalised intersection.

The current intended timing for completion of the construction of the northern driveway from Cabcharge’s property onto O’Riordan Street will be prior to December 2019.

Type: S30, Cabcharge Australia Limited

Issue: Key issue 3

Matter Description: Right hand turns from Bowden Street to O’Riordan Street and request for intersection design details

Response: The right turn from Bowden Street onto O’Riordan Street travelling south-bound has been included in the modelling, however, the final intersection arrangement will be determined through further consultation the City will undertake with RMS as part of detailed design.

It is noted that the REF stage of the Connector Road is only a concept stage and does not address the level of detail requested by Cabcharge (supporting diagrams confirming the endorsed vehicular turn restrictions within the external road network at all intersections assessed in the REF and the endorsed cycle times and phase split times for each of the traffic signal controlled junctions). Therefore these cannot be provided at this stage of the project. These details will be defined through the concept development stage of the project and will be subject to RMS’ approval. The City will share this information with Cabcharge once available.

Type: S31, Cabcharge Australia Limited

Issue: Key issue 4

Matter Description: Median Strip on O’Riordan Street

Response: The REF drawings note that the inclusion of a median strip in O’Riordan Street, to the north of the new intersection with the Connector Road, ‘may require installation’. The City cannot confirm at the concept stage of the project whether the median strip will be required. The median strip will be subject to further consultation with RMS as part of design development phase of the project. However it is expected that RMS may require the median strip due to the proximity to the new signalised intersection.

Type: S32, Cabcharge Australia Limited

Issue: Key issue 5

Matter Description: Inadequate Environmental Assessment to identify the impact of the Connector Road on adjoining property owners

Response: The Connector Road is an essential piece of infrastructure the City proposes to deliver to provide a substantially more direct, safe and efficient east-west access between the town centre, Erskineville and the inner westerns suburbs. The new corridor will have a stormwater drainage function and is critical to the economic viability of the Green Square town centre. It is considered the environmental assessment the City has undertaken for the delivery of the Connector Road demonstrates the project is unlikely to result in a significant impact on the environment or community. Potential negative impacts can be mitigated with the measures identified.

With respect to impacts on landowners, the City has been negotiating with affected landowners to acquire the property interests necessary to implement the Connector Road. With respect to the Cabcharge property the land affected by the road reserve is approximately 521sqm impacting the southern driveway and a small area of the warehouse roof overhang. The City recognises this impact and has been negotiating with the landowner to define a compensation package and scope of works required to minimise disruption and maintain Cabcharge's business operations.

Type: S33, Cabcharge Australia Limited

Issue: Key issue 6

Matter Description: Inadequate information provided in relation to:

- a. Construction program
- b. Cabcharge's continued operation until construction starts
- c. Traffic signalisation details during construction

Response:

- a. The City has reviewed the timeframes based on a number of factors. A staged early works package for demolition, earthworks and remediation for construction of the Connector Road is anticipated to commence by mid-2019. Main construction works for the Connector Road are expected to commence from December 2019. At this stage, construction will be undertaken in one stage.
- b. Cabcharge will be able to continue to occupy the south-eastern portion of its property proposed to be acquired until the City commences works on the Connector Road.
- c. The requested details of the proposed traffic signalisation during the construction period cannot be provided at this stage of this project. The REF stage is only a concept design stage and does not address that level of detail. Before construction commences, the City will consult with affected property owners to confirm access and signalisation arrangements during construction of the road. It is also noted that any signalisation will be subject to RMS' approval.

Type: S34, Cabcharge Australia Limited

Issue: Section 1.3 Project objectives

Matter Description: Identified project objectives fail to include measures to minimise potential disruption to adjoining properties during operational phase of project.

Response: The Connector Road is an essential piece of infrastructure the City proposes to deliver that would result in significant community benefits by providing a direct, safe and efficient access between the town centre, Erskineville and the inner westerns suburbs. The new corridor will also fulfil a stormwater drainage function and is critical to the economic viability of the Green Square town

centre. The environmental assessment the City has undertaken for the delivery of the Connector Road demonstrates the project is unlikely to result in a significant impact on the environment or community. Potential negative impacts can be mitigated with the measures identified.

With respect to adjoining properties, the City recognises the impact of the road affectation and has been negotiating with affected landowners to define compensation packages, scope of works required to minimise disruption and establish mitigation measures to allow business operations to continue during all stages of the project. The City is committed to continue to work with these landowners to minimise impacts throughout the detailed design, construction and operation of the road.

Type: S35, Cabcharge Australia Limited

Issue: Section 1.5 Proposed project footprint

Matter Description: Identified 'proposal footprint' excludes Cabcharge property which would be impacted during construction.

Response: The proposal footprint shown at Figure 2 of the REF includes the footprint of the concept design and other areas that would be impacted during construction, including locations of compound sites, stockpiles sites and areas where utilities would be relocated. Figure 2 erroneously excludes the portion of Cabcharge's property affected by the road, however other figures in the REF such as Figure 4, Figure 15 and Appendix A clearly show the impact of the road corridor on the property. The City recognises the impact of this affectation and has been negotiating with Cabcharge (which is ongoing) to agree a compensation package under the Land Acquisition (Just Terms Compensation) Act 1991 to minimise disruption and maintain Cabcharge's business operations. Refer also to response under S29.

Type: S36, Cabcharge Australia Limited

Issue: Section 2.1 Site location

Matter Description: REF identifies the Cabcharge property as a 'major site' but it does not adequately identify mitigation measures.

Response: Major sites affected by the Connector Road corridor include the Ausgrid site, the Cabcharge site, the Perfect Autobody site and Australian Red Cross site. The City recognises the impact of the proposed road corridor on the affected properties and has been negotiating with landowners to acquire the property interests necessary to implement the road. In these negotiations the City seeks to define compensation packages, scope of works required to minimise disruption and mitigation measures to allow business operations to continue. The City intends to continue to liaise and work with affected landowners during the design development phase of the project to minimise potential adverse impacts.

Type: S37, Cabcharge Australia Limited

Issue: Section 2.2 Land ownership

Matter Description: The REF describes the Cabcharge property as an 'office warehouse facility' rather than a 'transport depot'.

Response: Noted

Type: S38, Cabcharge Australia Limited

Issue: Section 3.1 Project overview

Matter Description: Section does not articulate key features of the project.

Response: Section 3.1 is a Project Overview. Details expanding on key features of the project are provided in more detail throughout the REF document, in particular Section 6 Property Access and Section 6.12.2 Economic Assessment.

Type: S39, Cabcharge Australia Limited

Issue: Section 3.3 Staging

Matter Description: No details on sequencing of works are given.

Response: The REF covers the concept design phase of the project. Refer to response (a) under S33 for project staging. Given the relatively small road length in terms of civil construction, the City believes that a single stage construction is the best approach for a contractor to deliver the project. However, as the REF mentions, the project could potentially be delivered in two stages due to environmental factors.

Staging and sequencing forms part of the detailed design stage of the project and feedback will inform this work. The City will always aim to reduce impacts and disruption caused by construction wherever possible.

Type: S40, Cabcharge Australia Limited

Issue: Section 3.9 Land ownership

Matter Description: REF does not describe Cabcharge's operations on the site and offers no criteria to assess whether impacts are minimised.

Response: The design of the Connector Road takes a corner section of the Cabcharge site of about 521sqm. City representatives visited the Cabcharge site on 25 July 2017 to assess the site and its operations. In developing a preferred road alignment different schemes were considered which were disregarded due to their greater impact on the Cabcharge site.

As the REF states, the City will work with Cabcharge to minimise impacts on the business operations during construction and once the road is operational. During the detailed design phase of the project the City will develop driveways access details in consultation with Cabcharge.

Type: S41, Cabcharge Australia Limited

Issue: Section 3.10 Residual land parcel

Matter Description: No mention is made of the Ausgrid residual land parcel in relation to additional access driveway to the Cabcharge property.

Response: At the time the REF was prepared there was uncertainty as to whether the Ausgrid residual land could be used to provide an additional access driveway to the Cabcharge property. The City has been negotiating with Cabcharge (which is ongoing) to seek to define a compensation package (which potentially includes use of the Ausgrid residual land) under the Land Acquisition (Just Terms Compensation) Act 1991 to minimise disruption and maintain Cabcharge's business operations.

Type: S42, Cabcharge Australia Limited

Issue: Section 5.3 Public exhibition

Matter Description: Cabcharge was not notified prior to or during the REF public exhibition.

Response: Cabcharge was notified by letter of the public exhibition dates and was provided with a City contact for the submission process. Cabcharge was also provided extensions of time to the submission period to accommodate the fact the REF was not directly provided to Cabcharge initially.

Type: S43, Cabcharge Australia Limited

Issue: Section 6 Environmental Impact Assessment

Matter Description: Aecom has not consulted with Cabcharge to establish the appropriateness of alternate access arrangements and extent of impacts due to the removal of the southern access to the Cabcharge property.

Response: A site visit was conducted by the City and representatives from Aecom to assess access to the Cabcharge site. The northern access point to the Cabcharge property was identified as a workable access solution which could be developed further during the detailed design phase of the project.

This solution can allow for adequate and functional property access to be maintained as the northern egress will still be operational. Both the southern and northern driveways are 7.9m wide and can accommodate two vehicles passing each other. This is shown in Figure S43. A rearrangement of traffic movements within the site will be required. As previously mentioned, the City will continue to liaise and work with affected landowners to define a compensation package and scope of works required to minimise disruption and maintain Cabcharge's business operations.



Figure S43: Cabcharge driveway study

Type: S44, Cabcharge Australia Limited

Issue: Section 6.12.2 Economic assessment

Matter Description: Full implications regarding impact on the Cabcharge property are not recognised.

Response: Refer to previous responses to the Cabcharge submission and in particular, responses to issues S33 and S34.

Type: S45, Cabcharge Australia Limited

Issue: Section 7.1 Consideration of clause 228 factors

Matter Description: The section makes no reference to impacts on affected properties.

Response: Noted. The assessment in this section concentrates on environmental rather than socio-economic factors and the impacts on properties affected by the road corridor. Other sections of the REF describe impacts to these properties. Further, as mentioned in other responses to the Cabcharge submission, the City recognises the impact on affected properties and has been liaising and negotiating with landowners to define a compensation package and scope of works required to minimise disruption and maintain business operations. The City will continue to liaise with landowners of affected sites throughout the design development phase of the project and during construction to minimise impacts during and once the road is operational.

Type: S46, Cabcharge Australia Limited

Issue: Section 8 Mitigation measures

Matter Description: Table 17 Environmental Safeguards/ Mitigation Measures does not address impacts on Cabcharge property as these impacts are not identified in the REF

Response: The REF identifies the Connector Road affectation on the Cabcharge property and business disturbance. As previously mentioned, the Connector Road is an essential piece of infrastructure the City proposes to deliver that would result in significant community benefits by providing a direct, safe and efficient access between the town centre, Erskineville and the inner western suburbs. The new corridor will have a stormwater drainage function and is critical to the economic viability of the Green Square town centre. The anticipated benefits include improvements to road network performance, active transport and public transport. It will significantly enhance pedestrian and cyclist safety and accessibility by providing new signalised crossings. Within this context the road will have significant positive impacts to the wider community.

The environmental assessment the City has undertaken for the delivery of the Connector Road demonstrates the project is unlikely to result in a significant impact on the environment or community. Potential negative impacts can be mitigated with the measures identified.

The City recognises the impact of the road affectation on the Cabcharge property and has initiated negotiating with the landowners to acquire the property interests necessary to implement the Connector Road. In these negotiations the City seeks to define a compensation packages, scope of works required to minimise disruption and mitigation measures to allow business operations to continue. The City will seek to continue to liaise with Cabcharge landowners to identify measures to maintain Cabcharge's business operations throughout the various stages of the project.

Type: S47, Cabcharge Australia Limited

Issue: Section 9 Conclusion and certification

Matter Description: The REF conclusion that the Connector Road will not result in any significant adverse effect on the environment is ill-founded given the absence of detailed recognition, appreciation and assessment of the project's impact on Cabcharge's property.

Response: Refer to previous responses to the Cabcharge submission and in particular responses to issues S29, S34, S40, S43 and S46.

The City is satisfied the environmental assessment undertaken for the delivery of the Connector Road demonstrates the project is unlikely to result in a significant impact on the environment or community. Potential negative impacts can be mitigated with the measures identified. The City is committed to continue to work with landowners affected by the road corridor to minimise impacts throughout the detailed design, construction and operation of the road.

4.0 Amended and revised mitigation measures

The REF identifies environmental safeguards and mitigation measures that would be adopted for the Connector Road proposal. This Response to Submissions Report includes some changes made in response to comments received during the exhibition process and the City's own review.

The safeguards and mitigation measures describe how the proposal will be managed, via environmental management plans and specific safeguards, to reduce the potential environmental impacts throughout detailed design, construction and operation.

4.1 Construction environmental management plans

A Construction Environmental Management Plan (CEMP) will be prepared in accordance with the requirements of Council's Environmental Management System for the construction phase of the project. The CEMP provides a mechanism through which potential environmental impacts relevant to the proposal will be controlled and outlines a framework of procedures and controls for managing environmental impacts during construction. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements.

4.2 Safeguards and mitigation measures amended

Environmental safeguards are listed in Table 1. These safeguards will minimise the potential adverse environmental impacts of the proposal described in Chapter 3 and assessed in Chapter 6 of the REF.

Safeguards and mitigation measures have been developed in accordance with the Clause 228 Guidelines. They will be incorporated into the detailed design phase of the proposal and during construction and operation.

Relevant licences and approvals required to fulfill the City's legislative responsibilities during the delivery of the proposal are also identified.

TABLE 1 – ENVIRONMENTAL SAFEGUARDS / MITIGATION MEASURES

1.0 General	
1.1	An appropriately qualified and experienced site-based environmental manager will be appointed prior to the commencement of construction to oversee the implementation of key plans and environmental controls associated with the project. A project risk assessment including environmental aspects and impacts will be undertaken prior to the commencement of construction with a strategy developed to mitigate all risks as required.
1.2	The City will prepare a Construction Environmental Management Plan (CEMP) in accordance with the requirements of Council's Environmental Management System for the construction phase of the project. The CEMP provides a mechanism through which potential environmental impacts relevant to the proposal will be controlled and outlines a framework of procedures and controls for managing environmental impacts during construction. The CEMP will include necessary sub plans as identified in this table.
1.3	The City will investigate at 2.5% grade for footpaths in accordance with the Sydney streets technical specification.
1.4	Notification of surrounding properties of construction activities and temporary traffic management arrangements will be undertaken at key intervals throughout construction.
1.5	The City will establish a construction liaison group with the developers of the adjoining affordable housing development sites to coordinate construction and reduce potential environmental impacts during construction.
1.6	The City will prepare detailed designs for residue lands as required, which must be approved by the Manager Aquatic Greening and Leisure prior to construction. Where possible, the spaces will include facilities for local recreational enjoyment and may include earth mounds to manage excess cut from the project, screening plants and additional tree planting where appropriate.
1.7	The City will provide service and maintenance access during construction and operation to the telecommunications tower in the northern part of the Ausgrid site at 15 O'Riordan Street.
1.8	The City will work with Cabcharge Australia Limited (9-13 O'Riordan Street) to minimise impacts on the operations of this site during construction and once the road is operational.
1.9	The City will work with Perfect Autobody (22 O'Riordan Street) to minimise impacts on the site's core operations during construction and once the road is operational.
1.10	The City will work with Ausgrid (15 O'Riordan Street) to minimise impacts on the site's core operations during the construction and once the road is operational.
2.0 Traffic	
Pre-Construction	
2.1	The City will consult with Cabcharge Australia Limited (9-13 O'Riordan Street), Ausgrid (15 O'Riordan Street) and Perfect AutoBody (22 O'Riordan Street) to confirm a preferred access arrangement during construction of the road.
2.2	Signage will be placed at entrances / exits to alert truck drivers to the designated entry and exit points.
2.3	Prior to the commencement of construction, a detailed Construction Traffic Management Plan (CTMP) is to be prepared by the Principal Contractor. The CTMP would include the guidelines, general requirements and procedures to be used when activities or areas of work have a potential impact on existing traffic arrangements.
2.4	The CTMP, at a minimum, will address the following: <ul style="list-style-type: none"> – consultation with the consent authorities and relevant approvals, – consultation with State Transit Authority to minimise impacts on existing bus movements, – the likely construction vehicle numbers and frequency, – approach and departure routes, – anticipated special out-of-hours or escorted deliveries, – parking access arrangements during construction, – construction work zone locations, – site entry and exit points, – proposed traffic control signage,

	<ul style="list-style-type: none"> – proposed traffic management at critical locations, and – provision of appropriate pedestrian management measures. <p>The Principal Contractor will implement, update and maintain the CTMP throughout the construction period and until completion.</p>
2.5	<p>Communications Plan</p> <ul style="list-style-type: none"> – The Principal Contractor(s) is to prepare a communication plan to manage and provide updates to businesses and residents in the immediate vicinity throughout the works. Appropriate site, warning and wayfinding signage are to be provided as necessary, and existing businesses and residents are to be notified of the upcoming works potentially impacting on access. – Prior to the proposed start of works consultation and notifications are to occur in excess of 10 days. – The Communications Plan is to include an evaluation of the potential impacted properties/stakeholders at the different stages of the construction activities, taking into account cumulative impacts as a result of other works taking place in the locality. – The Principal Contractor(s) is to appoint a Community Liaison Officer (CLO) as a point of contact at all times prior to and during the works. – The CLO must liaise with the Strategic Community Consultation team from the City of Sydney about their program and community relations to ensure a coordinated approach.
2.6	<p>A summary of the key notifications and timeframes follows:</p> <ul style="list-style-type: none"> – Notifying emergency services and relevant sections of the community and transport industry. – For works which result in significant traffic disruption, such as stop/go operation and diversions, an appropriate advertisement would be placed in local newspapers one (1) week prior to the works. The timing of the notice would be dependent on authority approvals / agreement that the works may proceed. – This may be supplemented by RMS notifying of upcoming works, where warranted, – Emergency service providers would be notified, once road occupancy approval is granted. The local Police Traffic Officer would be advised of any traffic changes and speed zone authorisations, in particular for works with more significant traffic impacts. Prior consultation with ambulance service, fire brigade and police would be undertaken to confirm agreement and any particular requirements, before submitting the road occupancy application. – Notifying residents and businesses affected by disruption to property access or by night works. – For works adjacent to roads but not affecting access, a letter box-drop at least three (3) working days before the proposed date. – For works restricting access, requiring detours or side tracks, a letter box drop at least 5-10 working days before the proposed date. – Notifications would detail the dates and times of the proposed access restrictions and a designated contact. – Lodging any road occupancy licence application and speed zone authorisation, as early as possible (not less than 10 working days before the work) for any major works. – Noting, however, there may be exemptions for emergencies and hazards requiring an initial response, prior to emergency services arriving on site. – Promptly advising the City/Roads and Maritime Services Traffic Management Centre of any unexpected delays or incidents affecting directly adjacent streets (Bourke Road, O’Riordan Street and Botany Road).
2.7	<p>The City will liaise with other contractors working on developments in the town centre precinct to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic.</p>
Construction	
2.8	<p>No construction vehicles are to use Geddes Avenue, Wyndham Street, Johnson Street or Maddox Street to access the site. In addition construction traffic must not access the site via Elizabeth Street, Hansard Street and Joynton Avenue.</p>
2.9	<p>Vehicles routes should generally be via O’Riordan Street, Botany Road, Bourke Road and Bowden Street.</p>
2.10	<p>Access to the works sites will be directly from Bourke Road, O’Riordan Street and Botany Road.</p>

2.11	No idling of trucks is to be permitted in residential streets prior to 7.30 am before site construction commences.				
2.12	No deliveries of materials would occur during peak traffic periods.				
3.0 Hydrology and flooding					
Pre – Construction					
3.1	<p>The City will undertake further hydrological modelling to minimise the flooding risk within the corridor:</p> <ul style="list-style-type: none"> – Connection of the street drainage system to the Green Square Stormwater Trunk Drain with a maximum discharge within the design allowance – Local drainage upgrades within the project boundary – Design an appropriate overland flow path within the road corridor. 				
3.2	<p>A flood emergency response plan is to be prepared as part of the CEMP for the site identifying:</p> <ul style="list-style-type: none"> – A flood-free area for evacuation of personnel and potentially construction equipment. – Daily weather and flood monitoring. – List of equipment to be removed from the site. – Detail of who would be responsible for monitoring the flood threat and how this is to be done. It is expected that flood warning information would be sourced from the BoM website. – Staff training requirements and roles and responsibilities for implementation of the plan. 				
4.0 Noise and Vibration					
Pre-Construction					
4.1	<p>The contractor will prepare a site specific Construction Noise and Vibration Management Plan ('CNVMP') as part of the CEMP and take into account the results of the Noise and Vibration Assessment, dated 27 September 2017 (Renzo Tonin & Associates). The CNVMP will include noise modelling of construction activities after the exact selection of equipment to be used on-site becomes available. The CNVMP will be reviewed and approved by the City of Sydney.</p>				
4.2	<p>The CNVMP is to contain:</p> <ul style="list-style-type: none"> – A process for documenting and resolving issues and complaints. – A construction staging program incorporating a program of noise and vibration monitoring for sensitive receivers. – A process for updating the plan when activities affecting construction noise and vibration change or if additional measures need to be incorporated to resolve complaints or exceedances of the relevant guidelines. – Toolbox talks where noise and vibration management is required. – A process for assessing the performance of the implemented mitigation measures. – A process for staging works where exceedances cannot be avoided, to provide periods of respite to residents.. – A map indicating the locations of sensitive receivers including residential properties. – The results of the quantitative noise assessment completed in accordance with the EPA Interim Construction Noise Guidelines (DECCW, 2009). – Management measures to minimise the potential noise impacts from the quantitative noise assessment and for potential works outside of standard working hours. – A risk assessment to determine potential risk for activities likely to affect receivers (for activities undertaken during and outside of standard working hours). – Mitigation measures to avoid vibration impacts during construction activities. 				
4.3	<p>The following at-source control and management measures should be considered for the management of noise from excavation and construction works to reduce potential noise impacts. Noise reductions of between 3-8dB(A) for individual plant items could be expected where alternative process or localised noise barriers are practical. In other area, the management measures are focused on minimising unnecessary noise generation from the site and the extent and duration of peak noise levels.</p>				
<table border="1"> <thead> <tr> <th data-bbox="209 1951 496 1984">Measure</th><th data-bbox="496 1951 1477 1984">Detail</th></tr> </thead> <tbody> <tr> <td data-bbox="209 1984 496 2018">Source controls</td><td></td></tr> </tbody> </table>		Measure	Detail	Source controls	
Measure	Detail				
Source controls					

Noise barriers	Construction of solid site hoarding along the corridor is unlikely to be practical or feasible.	
Equipment selection	Use the quietest and least vibration emitting construction methods where feasible and reasonable, e.g. use of eccentric rippers rather than rock hammers.	
Limit equipment in use	Only the equipment necessary for the upgrade works will be used at any time. Avoid unnecessary noise when carrying out manual operations and when operating plant. Simultaneous operation of noisy plant and equipment within discernible range of a sensitive receiver should be avoided/ limited where possible.	
Limit activity duration	Any equipment not in use for extended periods shall be switched off. For example, heavy vehicles should switch engines off whilst being unloaded.	
Reversing alarms	Alternatives reverse alarm, such as 'quackers' should be installed where feasible and reasonable.	
Management measures		
Implement community consultation measures	Inform community of construction activity and potential impacts.	
Develop good relations	Good relations with building occupants should be established at the beginning of the works and be maintained throughout the project, as this is of paramount importance. Keeping people informed of progress and taking complaints seriously and dealing with them expeditiously is critical. The person selected to liaise with the building occupants should be adequately trained and experienced in such matters.	
Work staging	Where practical, stage works so that that intrusive works are carried out at least noise sensitive periods. Construction works should not occur over more than two consecutive nights to allow respite to nearby residences.	
Site inductions	All employees, contractors and subcontractors are to receive a project induction. The environmental component may be covered in toolboxes and must include: <ul style="list-style-type: none">• all relevant project specific and standard noise and vibration mitigation measures,• relevant licence and approval conditions,• permissible hours of work,• any limitations on high noise and vibration generating activities,• location of nearest sensitive receivers, and• environmental incident procedures.	
Complaints management procedure	A management procedure would need to be put in place to deal with noise complaints that may arise from construction activities. Each complaint would need to be investigated and appropriate noise amelioration measures put in place to mitigate future occurrences, where the noise in question is in excess of allowable limits.	
Noise monitoring	A monitoring schedule is to be developed and implemented during high noise and vibration generating activities where required. Noise and vibration monitoring would be carried out for any identified sensitive works, where monitoring could be used to proactively identify noisy works that may be otherwise managed and mitigated.	
Vibration control measures		
4.4 Based on available data from a database containing vibration measurements from past projects and from library information, the table below presents the minimum working distances for high vibration generating plant.		
Plant item	Rating / description	Minimum working distance, m

		Cosmetic damage ²	Human response ³
Bobcat	Travelling	1 (nominal)	Avoid contact with structure
Jackhammer	Hand held	1 (nominal)	Avoid contact with structure
Large Hydraulic Hammer	1600 kg	5	73
Excavator	<=30 Tonne (travelling/ digging)	5	15
Truck Movements ¹	Travelling loaded	5	10
Vibratory Rollers	20t	10	100

Notes:

1. Renzo Tonin & Associates project files, databases & library
2. Based on DIN4150. 3 Group 1 Buildings
3. For residential receivers. Provided for reference only. Management measures isolated to structural damage for construction works.

4.5 Site specific buffer distances shall be determined where vibration significant plant items, in particular large rock hammers/breakers and vibratory rollers, operate within Cosmetic Damage minimum working distances detailed in the above table. Where this occurs, minimum buffer distances to affected receivers shall be determined by site measurements prior to the commencement of the regular use of the vibration significant plant on site. The site-specific minimum working distance shall be maintained in order to comply with relevant vibration limits.

1.0 Construction

1.1 **Working hours** – Works will be undertaken during standard working hours as defined in the City of Sydney *Sydney Streets Technical Specifications* (2016) as follows:

- Monday to Friday: 7:30 am to 5:30 pm
- Saturday: 7:30 am to 3:30 pm
- Sunday and public holidays: no work

6.0 Contamination

Pre-Construction

- 6.1 **Access** - Access to the site will be controlled by the Principal Contractor and the site will be off limits to all non-essential personnel.
- 6.2 **Signage** - Signage on the site will be installed detailing site safety requirements and traffic restrictions. Signage at the main access points will include after-hours contact details.
- 6.3 **Fencing/hoarding** – Perimeter security fencing will be maintained around the site to secure work areas and exclusion zones. Regular maintenance and repair of all fences surrounding the site will be undertaken during the period of the remediation work. For remedial works associated with removal of asbestos contamination, measures should be undertaken in accordance with WorkCover requirements and following the instruction of a removal contractor licensed to remove friable asbestos.
- 6.4 **Haul roads/parking areas and traffic management** – Transport to and from site will need to consider traffic management options which take into account any access restrictions to the site. At the site, parking for private, pick-up and delivery and site vehicles is already in place. Additional designated areas may need to be marked as appropriate
- 6.5 **Decontamination facilities** – A decontamination facility for workers (a station with showers, hand and eye washing facilities etc.) should be installed for use during the works. These facilities should be clearly signposted and indicated to site workers during site inductions.
- 6.6 **Contractor's facilities** - All site facilities required for the remediation works will be established in conformance with relevant regulations and authority's requirements. The following facilities may need to be established at the site:
 - site offices
 - temporary site sheds
 - bins for rubbish generated by personnel.

7.0 Construction

7.1	Remediation capping layer to be located min of 1.5 metres from the finished surface.
7.2	Excavation of contaminated soil – The excavation for the roadway and footpath will require excavation to depths of up to 3m. The excavation to these depths may intersect natural soil in some locations but will primarily be in contaminated fill. It will be a requirement of the construction works that soils are to remain segregated to prevent cross contamination of the natural soils.
7.3	Excavation of asbestos contaminated soils in the section of the proposed Connector Road which passes through the Ausgrid property will be undertaken to the depth required for the construction design or until native soils have been encountered and confirmed by the environmental consultant, whichever occurs first. Natural soils have been encountered around this area at 2. 60 mBGL (8. 20 mAHd) at BH08 during the <i>Parsons Brinckerhoff investigation</i> (2014) and between 3 and 4 mBGL based on the <i>Coffey investigation</i> (2010). These soils should be stockpiled separately from other soils and managed in accordance with specific requirement in the contract. If deeper excavation is required in this area natural material not impacted by asbestos should be stockpiled and managed separately.
7.4	Controls to mitigate potential risks will be completed in accordance with a comprehensive asbestos management plan. Air monitoring should be undertaken during the excavation work at the site boundaries to ensure that controls are effective.
7.5	<p>Contaminated groundwater – Groundwater in the vicinity of the Mobil site (20 O'Riordan Street) has been identified to be contaminated with hydrocarbons and may pose a risk to workers during deeper excavations undertaken for the trunk drain. The following measures should be put in place to reduce the risk of potential exposure:</p> <ul style="list-style-type: none"> – If groundwater is exposed, dewatering should be undertaken to limit potential exposure. Pumped water should be stored in retention basins or fully contained tanks on-site. An environmental scientist will collect a sample to assess the contaminant concentration of the groundwater. If the water is found to be suitable for reuse at the site for dust suppression or other appropriate uses it may be retained and used. This would be appropriate only where no detectable concentrations of concern are identified. Where contaminant concentrations are detected the water should be removed for disposal at an appropriate waste facility. – All personnel must wear the appropriate Personal Protective Equipment (PPE) at all times. – All personnel must wear disposable nitrile gloves when in contact with material identified as contaminated, personnel must also decontaminate any equipment that has come into contact with contaminated material. Decontamination of equipment/tools should be completed by: <ul style="list-style-type: none"> ○ rinsing in a large container with fresh water to remove any accumulated soil ○ washing in a second container containing a 5% Decon 90 solution, using a rubbing brush ○ rinsing with fresh water and allowing to dry prior to use.
7.7	Stockpiling – Stockpile management procedures, soil erosion and sedimentation controls and procedures to manage contamination will be applied to all wastes prior to removal off-site. The location of the stockpiles will be selected to fit with the expected stages of the project. Stockpiles will be located in accordance with the following general requirements:
7.8	<p>Stockpiles will only be placed at locations approved by the superintendent appointed to the project.</p> <ul style="list-style-type: none"> – Stockpiles will be strategically located to mitigate environmental impacts while facilitating material handling requirements. – Contaminated materials will only be stockpiled in non-remediated areas of the site or at locations that do not pose risk of environmental impairment of the stockpile area or surrounding areas (e.g. hardstand areas). – Stockpiles will only be constructed in areas of the site that have been located and prepared in accordance with the requirements of this RAP. All such preparatory works will be undertaken prior to the placement of material in the stockpile. – Stockpiles must be located on sealed surfaces such as sealed concrete, asphalt, high density polyethylene or a mixture of these, to mitigate appropriately potential cross contamination of underlying soil. – Access routes will be established around the material stockpiles to enable access from adjoining haul roads. – All contaminated stockpiles will be covered and wet down to prevent dust contamination. – All asbestos contamination will be managed in accordance with relevant WorkCover and any other regulatory requirements, this will include but is not limited to air monitoring, appropriate signage, and the establishment of an exclusion zone established around the area.

7.9	Reinstatement of contaminated soil – Asbestos-contaminated soil at the Ausgrid property (15 O’Riordan Street) which has been excavated and stockpiled should be reinstated on the Ausgrid property following the completion of the construction works where possible. The reinstatement should be undertaken in accordance with geotechnical design requirements. During reinstatement controls such as wetting of the soil should be employed to mitigate the potential risks and air monitoring should be undertaken at the site boundaries to confirm controls are effective.
7.10	Asbestos-impacted and other contaminated material will be covered with a marker layer, capped with clean fill material and covered by hardstand such as concrete, asphalt or other paving to prevent exposure. The capping layer should be installed below the pavement or footpath. Minimum capping thickness for the various proposed structures will be: <ul style="list-style-type: none"> – 550mm beneath the carriageway – 850mm beneath footpaths where deep services will be installed – 300mm beneath footpaths where no services present – 500mm beneath driveways – 1,100mm beneath rain gardens – 750mm beneath planted median – 300mm beneath concrete unit pavers – 300mm beneath the cycleway.
7.11	The marker layer must be brightly coloured/highly visible, permeable and durable. Marker layer material will be installed directly above the residual contaminated material before the capping layer is placed. Where services or other structures locally extend deeper than the specified capping depth a localised adjustment to the marker layer will be made by the principal contractor.
7.12	In some locations along the proposed Connector Road deeper excavations will be required for installation of streetlights or stormwater piping, which will be up to 1.5m deep. In these areas the marker layer will be placed inside the excavation and any voids filled with clean fill.
7.13	Any imported material used in the capping layer should be certified as virgin excavated natural material (VENM) or excavated natural material (ENM), and should be sampled to confirm that it is suitable for the ongoing use of the site. Where excavated material from the site or other Town Centre sites is used as capping material under the Contaminated Materials Management Plan (JBS&G, 2015) it must be sampled to confirm that it is suitable for use above the marker layer; i.e. no contamination is present which could present an exposure risk. A survey of the completed level should be undertaken following the placement of the marker layer and the placement of the capping layer to confirm the minimum 0.5m thickness has been achieved where hardstand is not present.
7.14	A revised SMP should be prepared to address ongoing management of the site.
7.15	Disposal of excavated soil – Further assessment is required for excavated soil which will be reused on-site or at other City of Sydney sites or disposed of off-site. An in situ waste classification has been prepared that indicates that soils range from general solid waste to hazardous waste based on the lead concentrations and special waste due to the presence of asbestos.
7.16	Excess contaminated fill material not to be reused which requires disposal at a designated landfill will be sampled at the site following excavation and stockpiling in accordance with the stockpile sampling methodology outlines in the National Environment Protection Measures (NEPM), (2013): <ul style="list-style-type: none"> – For stockpiles of less than 200 m³, 1 sample per 25 m³, with a minimum of three (3) samples, will be collected. – For stockpiles greater than 200 m³ but less than 3,000 m³, a minimum of 10 samples will be collected. – For stockpiles greater than 3,000 m³, 1 sample per 250 m³ will be collected.
7.17	All samples will be analysed for the contaminants of concern for the site; Total recoverable hydrocarbons (TRH), Benzene, toluene, ethylbenzene and xylene (BTEX), Poly Acrylic Hydrocarbon (PAH), Polychlorinated biphenyl (PCB), metals and asbestos. Results should be compared to the relevant criteria in the NEPM (2013).
7.18	Any material which is required to be disposed of off-site as waste will be classified in accordance with Part 1 of the NSW EPA waste classification guidelines prior to removal from site.
7.19	Where excavations may encounter potential acid sulfate soil, waste disposal should be undertaken in accordance with the acid sulfate soil management plan (<i>Parsons Brinckerhoff 2014</i>) and Part 4 of the NSW EPA waste classification guidelines.
7.21	Materials tracking – Materials excavated from the site will be tracked in order to provide detailed and accurate information about the location and quantity of all materials both on- and off-site from

the time of their excavation until their disposal. The location of disposal locations will be determined by the City. For any truck leaving the site, the following information will be recorded:

- origin of material
- material type
- approximate volume
- truck registration number.

This information, along with the landfill docket number, will be provided on a daily basis to the City together with corresponding disposal dockets.

- 7.22 **Remedial contingencies** – At this stage it is anticipated that the proposed remedial technologies should be effective in dealing with the contamination present, however contingency strategies may be required in the event of certain scenarios. Anticipated potential contingencies are detailed in the table below.

Scenario	Remedial contingencies/actions required
Highly contaminated soils not identified during previous investigation are encountered	If encountered, work is to be suspended until environmental consultant can further assess impacted soils/materials and associated risks and amend the remediation plans, as necessary, with approval of the City project manager and the site auditor.
Asbestos wastes are encountered in areas outside of the Ausgrid site	If asbestos is encountered subsurface, a management plan will be prepared. Measures such as watering during excavation will be used to mitigate air borne asbestos fibre release may be employed, along with air monitoring. The management plan would be provided to the City and the site auditor for approval. Work to be suspended and asbestos removed by a suitably qualified contactor, in accordance with WorkCover regulations, or other control measures are implemented as required.
Changes in proposed future land uses at the site	A revised RAP will need to be issued, including a review of the remediation works completed for the site.

- 7.23 **Unexpected finds protocol** – Contamination that may not have been detected during previous investigation works may be discovered during the course of excavation works. Such contamination may be discovered due to observations such as:

- | | |
|--|--|
| – odour | – discolouration or staining of soil or rock |
| – seepage of unusual liquids from soil or rock | – unusual odours or sheens on groundwater |
| – unusual metal objects | – presence of underground storage tanks |
| – presence of oil | – presence of waste or rubbish above or below ground |
| – potential asbestos containing material | – unusual colour in soil. |
| – unusual colour in groundwater | |

- 7.24 During removal of building slabs and other site coverings inspection of the underlying soil should be undertaken to identify potential evidence of contamination, such as staining/discolouration, odours, presence of anthropogenic inclusions (for example asbestos-containing material, ash, slag, bitumen, etc.) or oil or hydrocarbon sheen. If any evidence of contamination or materials different from those previously encountered at the site are found further consideration will be undertaken to identify any necessary assessment or actions.

- 7.25 If such contamination is discovered, the following procedure will be implemented:

- Excavation will cease in the vicinity of the discovery.
- The Superintendent will be informed immediately of the event.

	<ul style="list-style-type: none"> – Excavation should stop and a suitably experienced environmental consultant would undertake an assessment of any unexpected finds and determine further actions required e.g. sampling and/or validation of material, potential for remediation and/or management. – Excavation will not recommence until the extent of the contamination has been assessed and, if necessary, additional controls have been implemented. – The material will be separated from other materials and stockpiled for assessment. – Sampling of the materials will be undertaken in accordance with the relevant guidelines. – Samples will be analysed for a range of analytes as required. – Laboratory results will be assessed to determine the appropriate waste classification of the material. – Depending on the classification, material already excavated and stockpiled will be transported to an appropriate waste facility that is licensed to accept waste of the relevant classification or beneficially reused if appropriate. 														
7.26	Any unexpected finds should be documented in the validation report to be prepared at the completion of the work.														
7.27	Contingency – The Contractor shall apply those measures identified in Table 10. 2 of the <i>Remediation Action Plan for East West Relief Route</i> (Parsons Brinckerhoff, 12 February 2016).														
7.28	Characterisation sampling – Material excavated as part of the construction of the drain and roadway and which is proposed to be retained on-site and capped will be sampled for contaminants of concern at a rate meeting the stockpile sampling requirements of the NEPM (2013) to confirm that the proposed capping strategy will provide suitable control for the contamination identified. The NEPM stockpile sampling density requires sampling at 1 per 25 m3 for up to 200 m3 of soil, a minimum of 10 samples for between 200 m3 and 3,000 m3 of soil and 1 per 250 m3 for greater than 3,000 m3 of soil disturbed.														
7.29	Imported fill material sampling - Any imported fill, whether VENM, ENM or other imported material, should be accompanied by relevant documentation. The source site of the material should be inspected and material sampled at a rate of one sample per 100 m3, with a minimum of 10 samples taken from each product imported.														
7.30	Imported fill samples would be submitted for analysis of TRH, BTEX, PAHs, PCBs, metals and pesticides. Results of the analysis should be below detection for hydrocarbons, other organics and pesticides and in the range of background concentrations for metals.														
7.31	All documentation verifying the status of imported materials should be included in the validation report including documentation relation to exemptions).														
7.32	Validation reporting - Following the remediation works a final report will be prepared in accordance with the Guidelines for Consultants Reporting on Contaminated Sites. The validation report will detail the extent and nature of the remedial works undertaken, characterisation and disposal of contaminated soils, reinstatement and capping of asbestos-contaminated soils, the validation of imported clean fill and topsoil (if any) and will consider the overall status of the site.														
7.33	<p>The report should include the following sections:</p> <table> <tr> <td>– scope of works</td><td>– previous investigation results</td></tr> <tr> <td></td><td>– validation criteria</td></tr> <tr> <td>– site conditions and surrounding environment</td><td>– sampling and analysis plan and sampling methodology</td></tr> <tr> <td>– summary of the RAP</td><td>– results of sampling of waste materials and imported fill materials</td></tr> <tr> <td>– nature and extent of the remediation undertaken</td><td>– Discussion of the land use suitability at the completion of remedial works.</td></tr> <tr> <td>– field and laboratory QA/QC</td><td>– contractor supplied information (such as waste disposal documentation)</td></tr> <tr> <td>– site identification and history</td><td></td></tr> </table>	– scope of works	– previous investigation results		– validation criteria	– site conditions and surrounding environment	– sampling and analysis plan and sampling methodology	– summary of the RAP	– results of sampling of waste materials and imported fill materials	– nature and extent of the remediation undertaken	– Discussion of the land use suitability at the completion of remedial works.	– field and laboratory QA/QC	– contractor supplied information (such as waste disposal documentation)	– site identification and history	
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– site identification and history															
7.34	<p>To enable the validation report to be produced, the contractor must supply:</p> <ul style="list-style-type: none"> – the quantities and types of waste disposed of – details of the receiving facility/facilities accepting waste from the site – disposal dockets for the waste disposed 														

	<ul style="list-style-type: none"> – details of any imported materials (including VENM certification, laboratory results, origin and supplier, exemption details, quantities and areas of placement).
7.35	Soil validation to be undertaken in accordance with Section 9 (Table 9. 1) of the <i>Remediation Action Plan for East West Relief Route (Parsons Brinckerhoff, 12 February 2016)</i> .
7.36	Work health and safety – As part of the work health and safety (WHS) plan to be prepared for the works, the health and safety of site workers and nearby site users should be addressed when considering site security, excavation safety, vibration, noise, odour and dust levels. The plan should address the risks during the remediation works and ensure they are addressed. The plan should cover site specific requirements associated with the lead contamination present within surficial soil at the site which would likely include the use of personal protective equipment and dust suppression measures where necessary.
7.37	All work associated with the remediation of the site should conform at a minimum, to the requirements of the <i>NSW Work Health and Safety Act 2011</i> and associated regulations.
7.38	Typically the OHS plan should address the following issues: <ul style="list-style-type: none"> – regulatory requirements – responsibilities – hazard identification and control – air monitoring (including action levels) during excavation and construction (if necessary) – noise – odors – chemical hazard control – handling procedures – Personal Protection Equipment (PPE) – work zones – decontamination procedures – emergency response plans – contingency plans – Incident reporting.
7.39	The plan should include emergency contact numbers such as police, fire brigade, hospital and contact details for all relevant personnel. Response to any incidents occurring on site should be in accordance with the plan.
7.40	Site management plan update – Following the completion of the construction and remediation work the SMP currently in place for the Ausgrid property will need to be revised to account for the change in conditions. The revised SMP must contain: <ul style="list-style-type: none"> – site details and background, including a conceptual site model – legislative/regulatory framework – responsibilities of the owner, contractors and primary stakeholders – document controls – licensing and approval requirements – training and induction requirements – record keeping requirements – emergency contacts and response procedures – risk assessment – environment management activities and controls – performance criteria, monitoring and reporting – auditing, review and corrective action requirements – plans/maps detailing the areas to be managed, and – any forms or checklists required for monitoring, reporting, auditing or recordkeeping.
8.0 Air Quality	
Pre-Construction	
8.1	<p>The contractor will provide a site-specific Air Quality Management Plan as part of the CEMP. The plan is to ensure appropriate controls and procedures are implemented during construction activities to avoid or minimize air quality impacts. The plan will include safeguards and management measures included by not limited to:</p> <ul style="list-style-type: none"> – minimising areas of exposed surfaces through construction site planning and programming

	<ul style="list-style-type: none"> – implementation of control measures to minimise dust emissions from stockpile sites and other areas – covering of truck loads when transporting materials to and from the site – avoiding/modifying construction activities during high wind periods – progressive rehabilitation of completed sections of works, and – regular monitoring of particulate matter and review of the efficacy of dust suppression measures and revision of these as required.
Construction	
8.2	All construction work must be in accordance with the site-specific Air Quality Management Plan and include the following at a minimum.
8.3	Odour and Vapour – Control measures to be implemented to minimise the impact of odour and vapour, including the following: <ul style="list-style-type: none"> – workers fitted with appropriate respirators for continuation of site works in the area – wetting down the excavated material with the use of water sprays (and/or commercial odour suppressants if required) – all contaminated material loaded onto trucks for off-site disposal to be securely covered.
8.4	Cover stockpiles (where possible) that are not in use to minimise dust and particle movement.
8.5	Undertake watering of stockpiles during windy days (days where wind speed is expected to be more than 20km / hour).
8.6	Construction plant and equipment will be maintained in good working condition in order to limit impacts on air quality.
8.7	Vehicles must not be left running when idle.
8.1	Dust – During earthworks, dust minimisation systems shall be put in place by the contractor, such as water carts or sprinkler systems to prevent airborne migration of dust and contaminants. All stockpiled soil will be covered to minimise dust generation. All trucks will be covered when transporting material to and from the site.
8.2	Visual surveillance for dust generation will occur at all times. Work must cease when high levels of airborne dust cannot be controlled.
9.0 Water Quality	
Construction	
9.1	Measures will be implemented to ensure debris is not tracked off site and onto public roads e.g. cattle grids, vehicle wash downs, street sweeping etc.
9.2	Water quality control measures will be implemented to prevent materials such sediment entering drain inlet.
9.3	All fuels, chemicals and liquids will be stored in an impervious bunded area a minimum of 40 metres away from flooded or poorly drained areas.
9.4	Refueling of plant and equipment is to occur in impervious bunded areas located a minimum of 40m from drainage lines.
9.5	Emergency spill kits will be kept on site at all times. All staff to be made aware of the location of the spill kit and be trained in its use.
9.6	Surface water management – During the period of site works any open excavations will be minimised in size and bunded as required with sand bags or hay bales. Stockpiled soils will be removed from site once classified, in the interim soils will be suitably covered and bundled to prevent run off of contaminated water or soil to the surrounding environment, including storm drains. Control measures should be established to prevent surface water runoff entering and leaving excavation and stockpile areas. Control measures may include: <ul style="list-style-type: none"> – temporary bunding or diversion drains – plastic sheeting placed under stockpiles – silt fences/hay bales to surround stockpiles – protection of existing drains with silt fencing/hay bales.
9.7	These mitigation measures should be regularly inspected to ensure that they are in good condition and if necessary upgraded where their performance is deteriorating.
9.8	Subsurface seepage and accumulated excavation water – Water accumulated in excavations will be sampled for the appropriate contaminants of concern and upon receipt of the analytical results, management or disposal options will be formulated.

9.9	Sediment – Drains, gutters, roads and access ways shall be maintained free of sediment to the satisfaction of Council. Where required, gutters and roadways shall be swept regularly to maintain them free from sediment. Control measures, as for surface water should be implemented and maintained.
9.10	Refuelling/storage of fuels/oils/ hazardous substances/ dangerous goods - Any handling, storage and/or disposal of fuel, oil and other chemicals will be undertaken in accordance with the AS1940 – 2004: The Storage and Handling of Flammable and Combustible Liquids and/or the NSW DECC (2009) Waste Classification Guidelines. All potentially hazardous substances onsite should have an appropriate material safety data sheet (MSDS) to be kept with the site management plan. If fuels are to be stored onsite or refuelling of plant or machinery is necessary, this should be done in appropriate areas such as designated storage trays or hardstand. Drip trays should be used to prevent spills impacting the ground surface during refuelling activities. Appropriate spill response kits should be accessible for use in the event of a leak or spill.
10.0 Visual Amenity	
Construction	
10.1	The construction site to be maintained in a tidy manner with the placement of fencing and scrim around the construction perimeter of the site.
11.0 Indigenous and Non-Indigenous Heritage	
Construction	
11.1	If previously unidentified European heritage archaeological items are uncovered during the works; all works must cease in the vicinity of the material/find and City staff notified immediately.
11.2	If previously unidentified Aboriginal heritage archaeological items are uncovered during the works, all works must cease in the vicinity of the material/find and the Site Construction Manager immediately notified.
12.0 Arboricultural	
Pre-Construction	
12.1	Trees nominated as significant or of high retention value located outside of the road corridor are considered worthy of preservation. Careful consideration will be given to their retention. Proposed site design and placement of buildings and infrastructure will consider the recommended Tree Protection Zones to minimise adverse impact.
12.2	Trees nominated as being of moderate retention value located outside of the road corridor will be retained wherever possible. These trees are considered to be worthy of preservation but are less critical for retention.
12.3	Trees nominated in as being of low or very low retention value are not considered to be worthy of special measures to ensure their preservation. These trees should not be viewed as a constraint to the development.
12.4	Measures in accordance with AS 4970:2009 are to be implemented prior to and during construction to minimise adverse impacts on the trees.
12.5	Materials, plant, equipment and stockpiles will not be placed within the drip-lines of any trees not marked for removal.
12.6	Roots will only be cut when absolutely necessary and this will be done by a qualified arborist.
12.7	Weed removal/control will be done by suitably qualified and/or experienced licensed subcontractors.
12.8	Management of declared noxious weeds will be done according to the requirements of the <i>Noxious Weeds Act 1993</i> .
12.9	The location and full extent of any lopping, trimming, clearing or other vegetation disturbance will be delineated for the works.
13.0 Erosion and Sediment Control	
Construction	
13.1	Erosion and sediment control measures will be implemented as part of the CEMP and maintained in accordance with the <i>Landcom/Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book)</i> to: <ul style="list-style-type: none"> – Prevent sediment moving off site and sediment-laden water entering any water course, drainage lines, or drain Inlets. – Reduce water velocity and capture sediment on site.

	<ul style="list-style-type: none"> – Minimise the amount of material transported from site to surrounding pavement surfaces. – Divert clean water around the site.
13.2	Erosion and sedimentation controls will be checked and maintained on a regular (including clearing of sediment from behind barriers) by the appointed Site Construction Contractor.
13.3	Erosion and sediment control measures will not be removed until the works are complete or areas are stabilised.
13.4	Work areas will be stabilised progressively during the works.
14.0 Resource Management	
14.1	Preparation of a Waste Management Plan to manage construction waste in accordance with the City of Sydney waste management targets
14.2	Resource management hierarchy principles will be followed: <ul style="list-style-type: none"> – Avoid unnecessary resource consumption as a priority. – Avoidance is followed by resource recovery (including reuse of materials, reprocessing, recycling and energy recovery). – Disposal is undertaken as a last resort.
14.3	Each subcontractor must ensure that they will monitor and report on all waste generated during the construction phase.
14.4	Each subcontractor must ensure that they adhere to the target that at least 80% (by mass) of all waste generated during construction is either recycled or re-used (i.e. diverted from going to landfill).
14.5	Waste material will not be left on site once the works have been completed.
14.7	Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each working day.
14.8	Waste material taken off site will be appropriately classified and managed in accordance with the <i>Waste Classification Guidelines</i> (DECC, April 2008).
15.0 Utilities and Services	
Construction	
15.1	A Condition (Dilapidation) report will be prepared for streets and roads impacted by the proposed Connector Road (100m north and south of the proposed Connector Road route at Botany Road O'Riordan Street and Bourke Road and 50m.
15.2	Damage resulting from the construction of the project, aside from that resulting from normal wear and tear must be repaired. Alternative arrangements for repair may be negotiated with the relevant authority utility owner.
16.0 Community Consultation	
Construction	
16.1	A Communication Plan will be prepared and included in the CEMP. The Communication Plan must include (at a minimum): <ul style="list-style-type: none"> – A map identifying locations of potential adjacent residences and a list of relevant stakeholders. – An evaluation of the potential impacted properties/stakeholders at the different stages of the construction activities, taking into account any cumulative impact as a result of other works taking place in the locality. – Requirements to provide details and timing of proposed activities to affected residents and businesses, including regular project updates regarding key progress milestones, through flyers, website announcements or letterbox drops. – Procedure to notify adjacent land owners or users for changed conditions during the construction period such as traffic/pedestrian access.
16.2	The contractor must appoint a Community Liaison Officer (CLO) who will be the first point of contact for any property owner, tenant and general public enquiries and/ or complaints and their satisfactory resolution.
16.3	The CLO must liaise with the Strategic Community Consultation team from the City of Sydney about their program and community relations to ensure a coordinated approach.
16.4	A complaints handling procedure and register will be included in the CEMP and maintained for the duration of the project. The complaints procedure is to include contact name and contact details for complaints.
17.0 Natural Hazards	

Pre-Construction	
17.1	The placement of “sub-grade improvement” under the proposed road which would comprise impact rolling (which imparts compactive effort on deep material) or subgrade removal and replacement to a depth of 1.5m below the finished surface level, to provide a “bridge” over the poor quality material below. This approach will be confirmed following additional specific geotechnical testing along the route.
18.0 Cumulative Impacts	
Pre-Construction	
18.1	Regular communication between the contractor and the relevant construction liaison groups must be maintained to ensure programs of construction activities are properly scheduled to minimise potential cumulative impacts.
19.0 Licensing and Approval	
The following licenses and approvals are required:	
19.1	Approval from Sydney Water to connect the stormwater network to the Green Square Stormwater Drain under Section 48 of the <i>Sydney Water Act 1994</i> .
19.2	Approval from the City of Sydney Local Pedestrian, Cycling and Traffic Calming Committee is required for proposed traffic works.
19.3	Approval under the <i>Local Government Act 1993</i> to classify the land for the Green Square to Ashmore Connector as road once it opens in 2020.
19.4	Approval under Section 116 and 138 of the <i>Roads Act 1993</i> to connect the proposed Green Square to Ashmore Connector to a classified road.
19.5	Authorisation under Section 138 of the <i>Roads Act 1993</i> to undertake works within a classified road (Roads and Maritime Services) including the preparation of a traffic control signal plan for the following intersections at: <ul style="list-style-type: none"> a) Botany Road / the proposed Connector Road b) O’Riordan Street / the proposed Connector Road c) Bourke Road / the proposed Connector Road (remaining connection).

Appendix 1: Concept design

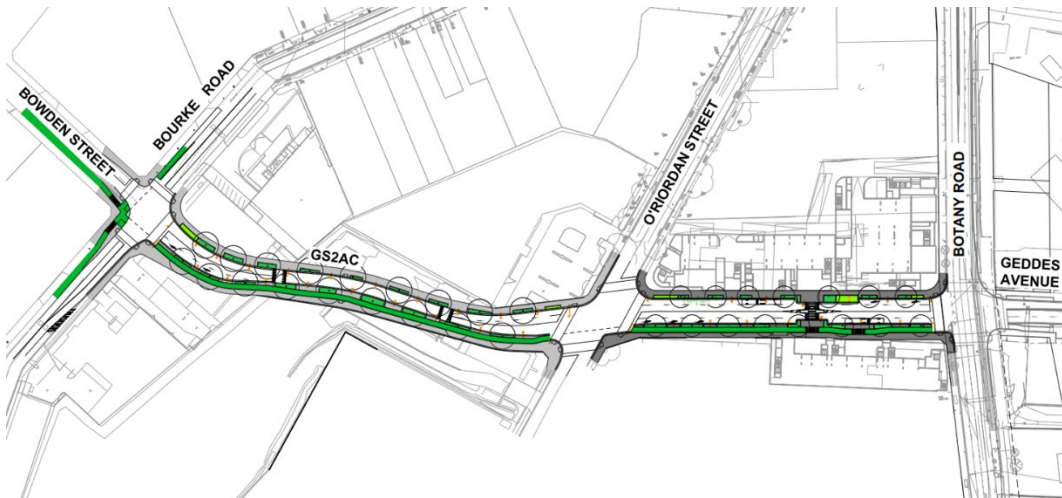
View to Green Square town centre in five years (artists' impression)



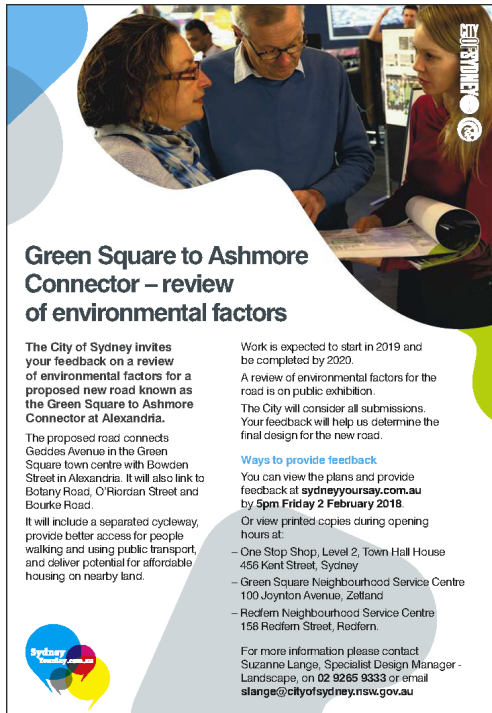
View from Bowden Street (artists' impression)



Concept layout



Appendix 2: Public Notice Advertisements



Green Square to Ashmore Connector – review of environmental factors

The City of Sydney invites your feedback on a review of environmental factors for a proposed new road known as the Green Square to Ashmore Connector at Alexandria.

The proposed road connects Geddes Avenue in the Green Square town centre with Bowden Street in Alexandria. It will also link to Botany Road, O'Riordan Street and Bourke Road.

It will include a separated cycleway, provide better access for people walking and using public transport, and deliver potential for affordable housing on nearby land.

Work is expected to start in 2019 and be completed by 2020.

A review of environmental factors for the road is on public exhibition.

The City will consider all submissions. Your feedback will help us determine the final design for the new road.

Ways to provide feedback

You can view the plans and provide feedback at sydneyyoursay.com.au by 5pm Friday 2 February 2018.

Or view printed copies during opening hours at:

- One Stop Shop, Level 2, Town Hall House 456 Kent Street, Sydney
- Green Square Neighbourhood Service Centre 100 Joynton Avenue, Zetland
- Redfern Neighbourhood Service Centre 158 Redfern Street, Redfern.

For more information please contact Suzanne Lange, Specialist Design Manager - Landscape, on 02 9265 9333 or email slange@cityofsydney.nsw.gov.au

Central (22 November)



Green Square to Ashmore Connector – review of environmental factors

The City of Sydney invites your feedback on a review of environmental factors for a proposed new road known as the Green Square to Ashmore Connector at Alexandria.

A review of environmental factors for the road is on public exhibition.

The City will consider all submissions. Your feedback will help us determine the final design for the new road.

Ways to provide feedback

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For more information please contact Suzanne Lange, Specialist Design Manager - Landscape, on 02 9265 9333 or email slange@cityofsydney.nsw.gov.au

Southern Courier (21 November)

Sydney Morning Herald (1 December)



GREEN SQUARE TO ASHMORE CONNECTOR – REVIEW OF ENVIRONMENTAL FACTORS

The City of Sydney invites your feedback on a review of environmental factors for a proposed new road known as the Green Square to Ashmore Connector, at Alexandria.

The proposed road connects Geddes Avenue in Green Square town centre with Bowden Street in Alexandria. It will also link to Botany Road, O'Riordan Street and Bourke Road.

It will include a separated cycleway, provide better access for people walking and using public transport, and deliver potential for affordable housing on nearby land.

Work is expected to start in 2019 and be completed by 2020.

A review of environmental factors for the road is on public exhibition.

The City will consider all submissions. Your feedback will help us determine the final design for the new road.

Ways to provide feedback

You can view the plans and provide feedback at sydneyyoursay.com.au by 5pm Friday 2 February 2018.

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For more information, please contact **Suzanne Lange**, Specialist Design Manager - Landscape on 02 9265 9333 or at email slange@cityofsydney.nsw.gov.au

Appendix 3: Notification Letter

City of Sydney
Town Hall House
456 Kent Street
Sydney NSW 2000
Telephone +61 2 9265 9333
Fax +61 2 9265 9222
council@cityofsydney.nsw.gov.au
GPO Box 1591 Sydney NSW 2001
cityofsydney.nsw.gov.au

17 November 2017



Green Square to Ashmore Connector – review of environmental factors

We would like your feedback on a proposed new road, known as the Green Square to Ashmore Connector, at Alexandria.

The road would connect Geddes Avenue, in the Green Square town centre, with Bowden Street in Alexandria. It would also link to Botany Road, O'Riordan Street and Bourke Road

The proposal includes a separated cycleway, better access for people walking and using public transport, and potential for affordable housing on nearby land.

Work is expected to start in 2019 and be completed by 2020.

The review of environmental factors for the road is on public exhibition, covering:

- engineering, environmental and planning factors
- design and operational requirements
- construction impacts and risk mitigation strategies
- impacts on flora and fauna
- legislative requirements and approvals.

The City will consider all submissions. Your feedback will help us determine the final design for the new road.

Ways to provide feedback

You can view the plans and provide feedback at sydneyyoursay.com.au by 5pm Friday 2 February 2018.

Or view printed copies during opening hours at:

- One Stop Shop, Level 2, Town Hall House, 456 Kent Street, Sydney
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For more information, please contact **Suzanne Lange**, Specialist Design Manager - Landscape on **02 9265 9333** or at email slange@cityofsydney.nsw.gov.au


A handwritten signature in blue ink, appearing to read 'Kim Woodbury'.

Kim Woodbury
Chief Operating Officer

city of villages

Appendix 4: eNews items







A new road in Green Square


We're reviewing the environmental factors of a new road to be known as the Green Square to Ashmore Connector.

The road will connect Geddes Avenue in Green Square town centre with Bowden Street in Alexandria. It will also link to Botany Road, O'Riordan Street and Bourke Road. Your feedback is welcome.

[Read more](#)

Sydney Your Say eNews (7 December)





Have your say

We're inviting your feedback on a review of environmental factors for a new road, the Green Square to Ashmore Connector. This road connects Geddes Avenue in Green Square town centre with Bowden Street in Alexandria. It will also link to Botany Road, O'Riordan Street and Bourke Road.

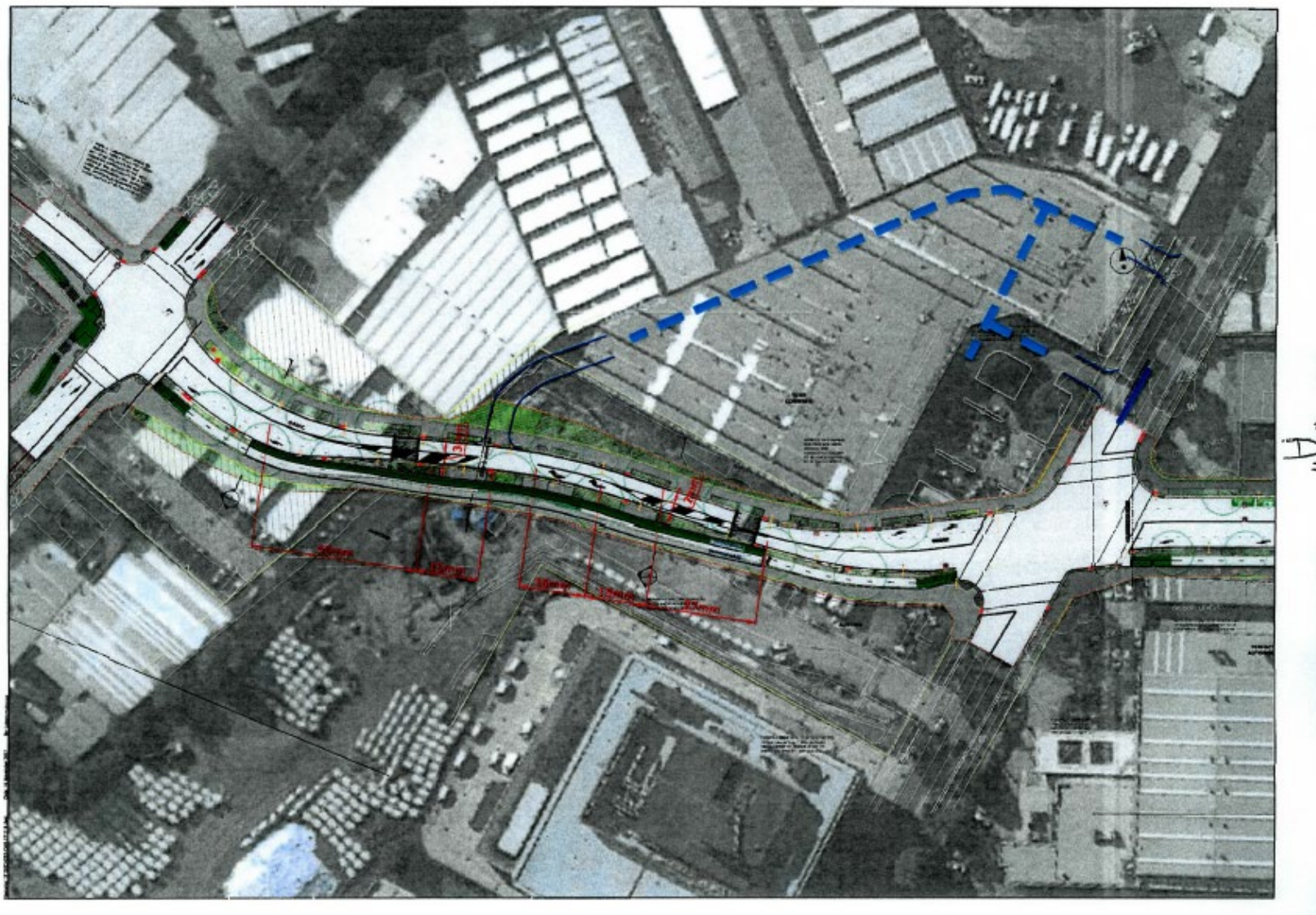
A proposal to name a new Zetland street 'Kingsborough Way' and a nearby park 'Hyperion Park' is also open for feedback. The street and park will be built by early 2018 on a site between Bourke Street, McPherson Lane and Merton Street in Zetland.

[Sydney Your Say](#)

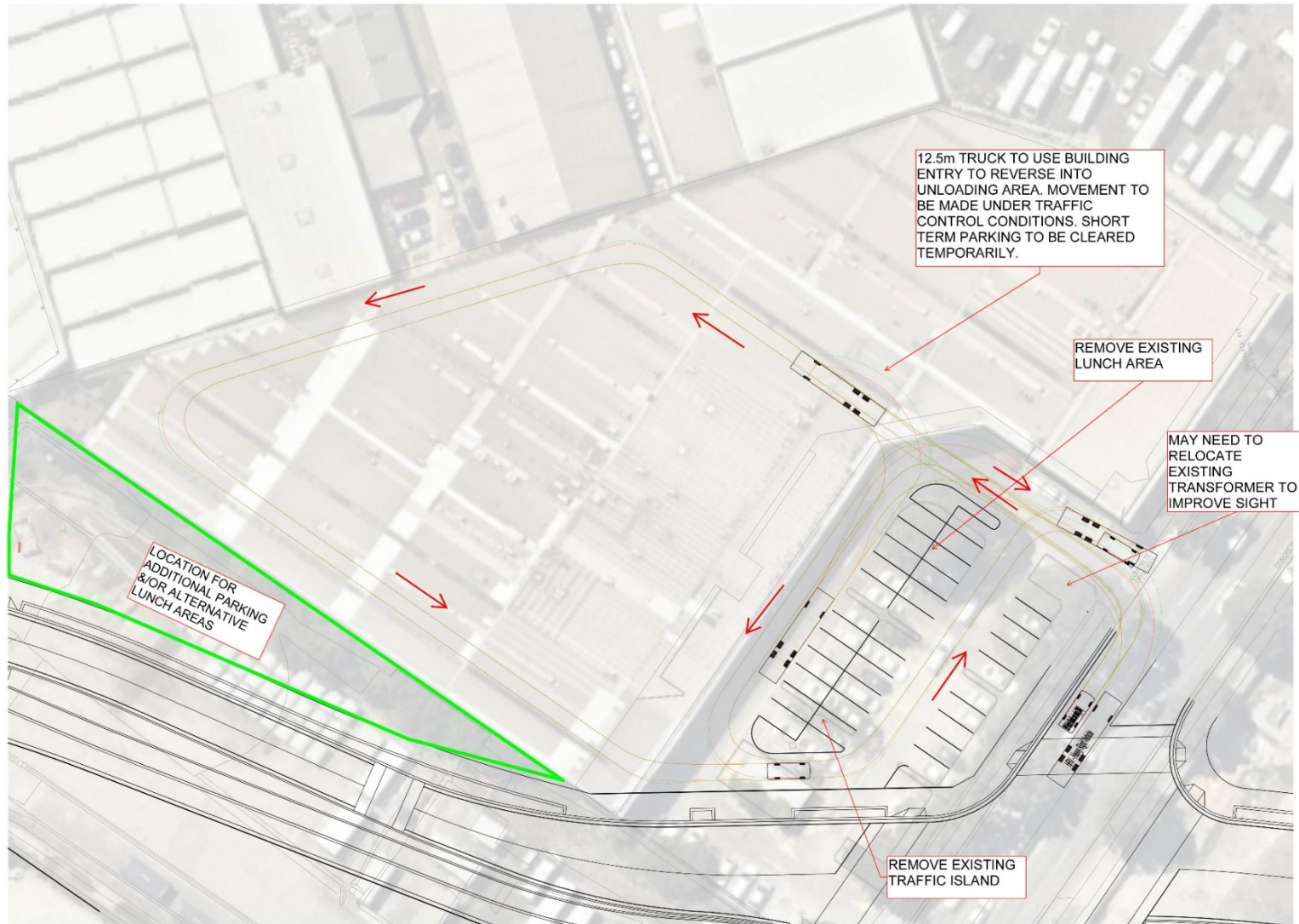
Green Square community eNews (1 December)

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Appendix 5: Driveway access (Cabcharge Australia Limited)



Appendix 6: Driveway access (Cabcharge Australia Limited)



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