



Integrated
Management
System

Planning Approval Consistency Assessment Form

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The Planning Approval Consistency Assessment Form should be completed in accordance with the Sydney Metro Planning Approval Consistency Assessment Procedure (SM ES-PW-314) and Sydney Metro Environmental Planning and Approval Manual (SM ES-ST-216)

Existing Approved Project

Planning approval reference details (Application/Document No. (including modifications)):

SSI15_7400 Sydney Metro City & Southwest – Chatswood to Sydenham
 Mod 1 Victoria Cross Station, Artarmon Substation and minor administrative mod
 Mod 2 Central Walk mod
 Mod 3 Martin Place Station mod
 Mod 4 Sydenham Station and Sydney Metro Trains Facility South mod
 Mod 5 Blues Acoustic Shed
 Mod 6 Administrative Changes
 Mod 7 Administrative Changes
 Mod 8 Blues Point Access Site
 Mod 9 Extension to standard construction hours

Date of determination:

Infrastructure Approval date 09 January 2017
 Modification 1 Approval date 18 October 2017
 Modification 4 Approval date 13 December 2017
 Modification 2 Approval date 21 December 2017
 Modification 3 Approval date 22 March 2018
 Modification 5 Approval date 02 November 2018
 Modification 6 Approval date 21 February 2019
 Modification 7 Approval date 29 June 2020
 Modification 8 Approval date 25 November 2020
 Modification 9 Approval date 30 June 2022

Type of planning approval:

Critical State Significant infrastructure

Description of existing approved project you are assessing for consistency:

SSI_7400: The Chatswood to Sydenham component of Sydney Metro City & Southwest comprises a new metro rail line, approximately 16 kilometers long, between Chatswood and Sydenham. New metro stations would be provided at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street and Waterloo, as well as new underground metro platforms provided at Central Station.

Section 3.4.1 of the Submissions and Preferred Infrastructure Report (SPIR) identified the temporary incorporation of the footpath and parking lane on the western side of Cope Street into the Waterloo Station construction site for the duration of construction. This provides the opportunity for additional access and egress points for construction vehicles, directly from Cope Street and additional site area for deliveries and façade installation. The indicative layout is provided in Figure 3-18 of the SPIR. See extract of Figure 3-18 in **Appendix A**.

Section 8.4.17 of the Environmental Impact Statement (EIS) defines the haulage routes for the Project, where Botany, Raglan, Wellington and Cope Street are all utilised as primary and secondary routes. See extract of Figure 8-47 in **Appendix A**. The EIS identifies temporary road closures will occur across the Sydney Metro Chatswood to Sydenham project, however no specific temporary closure details for Cope, Raglan or Wellington Street are proposed under the EIS or SPIR.

Relevant background information (including EA, REF, Submissions Report, Director General’s Report, MCoA):

- Chatswood to Sydenham Environmental Impact Statement, May 2016
- Chatswood to Sydenham Submissions and Preferred Infrastructure Report, October 2016
- Chatswood to Sydenham Conditions of Approval, 9 January 2017, as modified
- Modifications 1-9 Modification Reports and Submission Reports
- Consistency Assessment Waterloo – Temporary closure of Cope Street (JH02 January 2022)
- Construction Traffic Management Plan – Addendum 3 One way road closure (Appendix C) – August 2022

Description of proposed development/activity/works

Describe ancillary activities, duration of work, working hours, machinery, staffing levels, impacts on utilities/authorities, wastes generated or hazardous substances/dangerous goods used.

Additional construction areas and change to traffic flow are required to facilitate safe access for civil and utility activities adjacent to the Waterloo site. This would enable works to be completed behind more robust controls (e.g. traffic barriers) and reduce the exposure of traffic controllers to live traffic. The installation of a more robust perimeter would also improve the security of the site and minimise the interface with the members of the public. Details are outlined below.

Closure of Cope Street between Wellington Street and Raglan Street (see Appendix B) to facilitate the following activities:

Civil and utility works:

- Relocation of existing utilities to make provision for the new road and footpath works.
- New road pavement along Cope Street and changes to the kerb alignment to create a 40km/h 'slow street' intended to slow vehicular traffic and improve pedestrian safety. Cyclists would share the vehicle carriageway and therefore contribute to the slower design speed.
- Installation of traffic signals at the intersection of Cope and Raglan Street
- Increase to the width of pedestrian footpaths creating pedestrian priority for the new precinct.
- Landscaping works including tree planting and rain gardens on the western side of Cope Street to capture and re-use stormwater run-off.

Structure, fitout and façade works

- Removal of the existing capping beam and site hoarding
- Installation of precast architectural panels (predominantly north)
- Installation of metal cladding facade (predominantly south)
- General movement of materials using cranes from Cope Street into the loading bays on the eastern side of the north and south building for fit out works

Additional construction area – Cope Street

Under the existing SPIR the Waterloo construction footprint is approved to occupy the existing eastern face of the station box up to and inclusive of the north bound parking lane. However, the construction footprint is now required to temporarily extend and encompass both parking and traffic lanes of Cope Street to facilitate utility and civil work while the structure and façade works are in progress. Note: the western footpath is currently closed as it forms part of the construction site.

The proposed road closure would remove live traffic from Cope Street between Wellington and Raglan Streets. This includes removal of access to the residential (Land and Housing Corporation (LAHC)) carpark. See **Appendix B** for details of the proposal.

Additional construction area – Raglan Street

Raglan Street requires the temporary closure of the footpath adjacent to the site to pedestrians and the removal of the west bound parking lane to facilitate utility and civil work. The parking spaces and loading zone on the eastbound side of Raglan Street would remain available (no changes) to reduce the effect to the local community and to ensure the businesses are serviced and not impeded by the works.

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The roundabout at the intersection of Cope and Raglan Street would be removed and replaced with lane delineators to control and aid the flow of traffic. Two-direction traffic would be maintained. See **Appendix B** for details on the required.

Additional construction area – Wellington Street

Wellington Street would require the temporary closure of the footpath adjacent to the site to pedestrians and the removal of east bound parking to facilitate utility and civil work. This section of Wellington Street would become one-way eastbound and no change to the westbound traffic and parking conditions. The parking spaces and loading zone on the westbound side of Wellington Street would remain available to reduce the effect to the local community to ensure the residents and businesses are serviced and not impeded by the works. See **Appendix B** for details on the required.

The roundabout at the intersection of Cope and Wellington Street would be removed and replaced with lane delineators to control and aid the flow of traffic.

All roads would be reinstated to pre-existing condition or as per the final design once construction has finished.

The existing hoarding would be removed progressively on Raglan, Wellington and Cope Streets to facilitate access to the site from the extended area created by taking possession of the parking and traffic lanes. This would generally be done once the ground level is completed, however, there would be areas that require access prior to this (e.g. material handling). Refer to the CNVIS for noise impacts. Lighting would be managed in accordance with the VAMP. The additional land referenced above would be delineated with concrete barrier with anti-gawk screens and noise blankets attached. The barrier type would be dependent on recommendations in the final CTMP update.

There are no changes proposed to the approved haulage routes as part of this Consistency Assessment. Note, haul routes would be consistent with those assessed in Waterloo – Temporary closure of Cope Street consistency assessment (JH02)

Timeframe

The temporary works would commence in October 2022 and would continue until August 2023.

There would be no change to the project program as a result of this assessment.

All changes to traffic detailed in this consistency assessment would be for 24 hours a day 7 days a week during construction.

Approved, standard working hours for the Project are as follows:

- 07.00 – 18.00 Monday to Friday
- 08.00 – 18.00 Saturdays
- No works Sundays or Public holidays

If out of hours works are required, they would be undertaken in accordance with the Project Planning Approval and City Southwest Out of Hours Work Strategy Protocol.

Site description

The Waterloo ISD is located within Sydney's suburb of Waterloo, within the Metro Quarter. The Waterloo station comprises the land bounded by Botany Road, Raglan Street, Cope Street and Wellington Street, but excluding the Congregational Church located at 103 Botany Road. It is situated approximately 3km from the Sydney CBD and is surrounded by established residential properties.

Site Environmental Characteristics

Additional construction area – Cope Street

Cope Street is a local road under jurisdiction and control of City of Sydney Council and contains one (1) parking lane and one (1) live lane north bound and one (1) parking lane and one (1) live lane south bound (total four (4) lanes). The Project site is on the western side of Cope Street with residential buildings located on the eastern side of Cope Street. The eastern footpath is 2m wide with vegetation verges typically located between the footpath and roadway (2m). There are street trees located along the eastern footpath, as per the Tree Report (SMCSWSWL-JHG-SWL-EM-REP-000002). The western footpath is 4.5m wide with a Sydney Water asset located underneath the footpath and no vegetation verge (adjacent to the work site).

Additional construction area – Raglan Street

Raglan Street is classified as a local road and is under the control of City of Sydney Council and contains one (1) parking lane and one (1) live lane westbound and one (1) parking lane and one (1) live lane eastbound (total four (4) lanes). The Project site is on the southern side of Raglan Street and businesses located on the northern side of Raglan Street. The existing footpaths are approximately 3.7 - 4.5m wide. The southern footpath no longer contains street trees; the northern footpath contains six trees (T26-T31), as per the Tree Report (SMCSWSWL-JHG-SWL-EM-REP-000002). There are four businesses located on the northern side of Raglan Street and a loading zone to service the commercial businesses.

Additional construction area – Wellington Street

Wellington Street is classified as a local road and is under the control of City of Sydney Council and contains one (1) parking lane and one (1) live lane westbound and one (1) parking lane and one (1) live lane eastbound (total four (4) lanes). The Project site is on the northern side of Wellington Street and there is one business located on the southern side of Wellington Street (i.e. Cauliflower Hotel) along with residential properties. There is a loading zone to service the Hotel. The existing footpaths are approximately 1.6 – 4.1m wide. The southern footpath contains a vegetation verge with six trees (T53-T58); the northern footpath street trees have been removed, as per the Tree Report (SMCSWSWL-JHG-SWL-EM-REP-000002).

Justification for the proposed works

Additional construction area – Cope Street

The Cope Street footpath adjacent to the Waterloo site contains numerous underground services that limit the ability of the footpath to support heavy vehicles and plant (e.g. mobile crane) setup due to the load bearing capacity in this location. The design of the footpath is based on pedestrian activity rather than road traffic (including heavy vehicles). A Building Over or Adjacent to (BOA) application has been lodged to Sydney Water. According to Sydney Water the weight of the plant has the potential to damage the utility asset underneath the footpath and cannot be used for the activities required to deliver the Project in its current state. Hence the additional traffic lanes, which are designed for heavy vehicle movements, would enable the activities and plant described in the EIS and SPIR to take place.

The closure of Cope Street to general traffic is temporary. In acquiring the additional traffic lanes, worker safety can be managed more effectively through the installation of robust site delineation, i.e. barriers with anti-gawk screens and noise blankets. This would create a safer environment and separate workers from live traffic more effectively, particularly traffic controllers. This is particularly relevant during utility and civil roadworks that would otherwise have been conducted using traffic controllers and lower levels of temporary traffic delineation devices that would be moved frequently as work fronts changed. Installing a more robust site boundary would also improve the security of the site from the general public and prevent unwanted disturbance to workers.

Additional construction area – Raglan Street

The traffic changes on Raglan Street are temporary only and required to facilitate utility and civil works. The temporary closure of the footpath adjacent to the site to pedestrians and the removal of the west bound parking lane would improve worker safety as civil and utility works can be managed more effectively through the installation of robust site delineation, i.e. barriers with anti-gawking screens. This would create a safer environment and separate workers from live traffic more effectively, particularly traffic controllers. This is particularly relevant during utility works that would otherwise have been conducted using traffic controllers and lower levels of temporary traffic delineation devices that would be moved frequently as work fronts change. The additional area would also allow recovery of program, lost due to the COVID-19 pandemic.

Additional construction area – Wellington Street

The traffic changes on Wellington Street are temporary only and required to facilitate utility and civil works. The temporary closure of the footpath adjacent to the site to pedestrians and the removal of the east bound parking lane would improve worker safety as civil and utility works can be managed more effectively through the installation of robust site delineation, i.e. barriers with anti-gawking screens. This would create a safer environment and separate workers from live traffic more effectively, particularly traffic controllers. This is particularly relevant during utility works that would otherwise have been conducted using traffic controllers and lower levels of temporary traffic delineation devices that would be moved frequently as work fronts change. The additional area would also allow recovery of program, lost due to the COVID-19 pandemic.

Environmental Benefit

There are environmental benefits to the proposed traffic changes on Cope, Raglan and Wellington Streets. This includes:

- Reduction in the use of ROLs as work can be performed behind barriers. This reduces the interaction of workers (including traffic controllers) and live traffic
- When temporary short-term changes to traffic patterns are undertaken to facilitate construction activities there is a greater risk of vehicle incidents occurring. This is due to moving traffic out of its usual path. By implementing more long-term traffic closures the revised traffic route would become the regular path and would not disrupt the public driving patterns after the initial change.
- Minimise the number of out of hours work required for civil and utility work on Cope Street and improve the acoustic screening to Cope Street receivers as a result of a continuous barrier and noise blankets along the eastern side of Cope Street.
- The establishment of the additional area would also allow recovery of program which was lost due to the COVID-19 pandemic reducing the duration of works in the area.

Control Measures

The works would be adequately managed by the control measures in the existing CEMP. The Environmental Control Map (ECM) prepared for the works is provided in Appendix B and includes the appropriate control measures.

Climate Change Impacts

N/A.

Impact Assessment – Construction

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No change from approved Project.	No additional measures required	Y	Y	
Water	<p>Cope Street: No change from approved Project.</p> <p>Wellington & Raglan Street: Very minor changes due to the placement of barriers which may alter the flow of stormwater during rain events.</p>	No additional measures required ESCP would be implemented to manage surface water during rain events.	Y	Y	
Air quality	<p>Cope St: The larger construction area shifts the Cope Street site boundary closer to residents. The temporary air quality impact as a result of this is similar to the assessment in the EIS/SPIR. The temporary establishment of this area behind barriers/screens would bring construction closer to the residents/business but have a negligible impact on air quality.</p> <p>Wellington & Raglan Street: The temporary air quality impact on Wellington & Raglan Street as a result of establishing the construction work area within the parking lane is similar to the assessment in the EIS/SPIR. The temporary establishment of this area behind barriers/screens would bring construction closer to the residents/business but have a negligible impact on air quality.</p>	No additional measures required ESCP would be implemented to manage air quality during dust generating activities.	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Noise and vibration	<p>No change from the approved Project.</p> <p>The scope of work has not changed for these areas. The use of the Cope Street for construction activities is required to delineate workers from live traffic to complete the utility and civil activities in this location while structural elements and façade are installed concurrently.</p> <p>The use of the parking lanes/footpaths on Wellington and Raglan is consistent with the EIS. No additional scope of work is required other than the site set up and demobilisation to install the traffic barriers/screens. This is likely to occur over 1-2 days and would have a negligible impact and the noise impact is consistent with work zone establishment that would have occurred.</p> <p>Minor changes to noise has been considered in CNVIS (Rev 4) which has modelled scenarios which include the use of barriers/hoarding and without.</p>	The CNVIS (Rev 4) is provided in Appendix E. Mitigation measures identified in the CNVIS would be implemented where appropriate	Y	Y	
Aboriginal Heritage	No change from approved Project.	No additional measures required	Y	Y	
Non-Aboriginal Heritage	No change from approved Project.	No additional measures required	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Community and stakeholder	Inconveniences to the community would be experienced due to the changes in road network operations and loss of parking, including the closure of the LAHC carpark on Cope Street between 209 & 213 Cope Street. The proposed changes are consistent with the approved project.	<p>The community would be notified in accordance with the Community Consultation Strategy. This includes the monthly notification, specific notification and door knocks for local businesses. The residents at 209 & 213 Cope Street would be door knocked and notices displayed informing of the carpark closure.</p> <p>The community would also receive a monthly notification further updating them of any changes to the Project.</p> <p>Consultation with LAHC has occurred in relation to the removal of access to the residential carpark located between 209 & 213 Cope Street. On street (untimed) parking has been identified on Cooper Street which is in close proximity and accessible to the residents who would use the Cope Street carpark. John Holland traffic controllers will monitor and prevent WLC workforce and staff from parking on Cooper Street as agreed with LAHC. This will enable Cope Street residents access to untimed parking in close proximity to their residence.</p> <p>As agreed with LAHC, access to the car park will be facilitated during the closure for LAHC site investigations (e.g. drill rig etc).</p>	Y	Y	

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
		<p>Refer to Appendix D for consultation details.</p> <p>Contact details and notifications will be displayed at 209 & 213 Cope Street to enable residents to provide feedback (if necessary).</p> <p>WLC Community and Stakeholder Manager meets monthly with the following stakeholders where feedback on the car park closure can be obtained:</p> <ul style="list-style-type: none"> - LAHC to discuss issues and interfaces - LAHC tenant representatives to discuss issues related to the construction works - Social Housing Outreach meeting <p>Additionally, the TfNSW Customer Journey Planning division who endorse the TMPs/CTMPs and ROLs; the TfNSW Planning and Programs division who approve TMPs/ CTMPs; and the City of Sydney Council have all been consulted on the CTMP (Appendix C).</p> <p>Notification and directional signage installed prior to the traffic/pedestrian changes.</p>			

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Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Traffic	<p>Parking loss</p> <p>There would be a loss of four (4) parking spaces on Raglan Street, six (6) parking spaces on Wellington Street and all parking spaces on Cope Street (total 21), including the LAHC carpark (total 10). The loss of parking spaces would not have a major impact on parking considering the proximity and availability of other untimed parking spaces on surrounding local streets including Raglan Street, Wellington Street and Cooper Street, which is consistent with the SPIR.</p> <p>Refer to Appendix D for consultation with LAHC and approval for the carpark closure.</p> <p>All private property (residential and business) access would be maintained on Wellington and Raglan Streets. All parking loss stated above is temporary and not permanent.</p> <p>Vehicle and cycle impacts</p> <p>Reduction to one way traffic on Wellington St (east bound) would result in a slight increase in traffic flow on local streets as vehicles are diverted in accordance with the CTMP Addendum #3. The traffic volumes have been assessed and determined to be low (CTMP Addendum #3 Sections 2.1 – 2.3). The increase in traffic volumes diverted onto George Street is expected to be minor.</p> <p>Haul routes would be consistent with those assessed in Waterloo – Temporary closure of Cope Street consistency assessment (JH02).</p>	<p>Traffic and pedestrian management would be implemented in accordance with the CTMP Addendum #3. Road Occupancy Licence (ROL) and any other relevant traffic permits would be obtained prior to site establishment.</p> <p>Speed reduction to 40km/h to assist in managing cyclists on the vehicle detour route.</p> <p>Parking availability reviewed on surrounding local roads in proximity to Raglan, Cope and Wellington Streets and determined to be sufficient.</p> <p>To assist with managing available car parking to Cope Street residents, John Holland traffic controllers will monitor and prevent WLC workforce and staff from parking on Cooper Street as agreed with LAHC. This will enable Cope Street residents access to untimed parking in close proximity to their residence.</p> <p>Directional signage would be used to direct and guide pedestrians to the alternative facilities available.</p>	Y	Y	

(Uncontrolled when printed)

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	<p>Due to the proposed road closures there would be temporary minor impacts to cyclists during the proposal, however, no dedicated cycle routes require alterations. Cyclists would follow light vehicle detour routes (where applicable). This is outlined in CTMP Addendum #3 Section 4.5.</p> <p>Pedestrian impacts Footpaths adjacent to the site would be closed to pedestrians on Raglan, Cope and Wellington St. The closure of the footpaths does not impact on any residents, driveways, or businesses and pedestrians would be directed to the alternative footpath. The existing pedestrian volumes are low and the increased volume on the alternate route is expected to be minimal.</p>				
Waste	No change from approved Project.	No additional measures required	Y	Y	
Social	No change from approved Project.	No additional measures required	Y	Y	

(Uncontrolled when printed)

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Economic	<p>No loading zones or kerbside parking immediately outside local businesses are directly affected, there are expected to be negligible impacts to these businesses from a traffic perspective and therefore a negligible economic impact.</p> <p>No impact to direct access/egress to business is proposed on Raglan or Wellington Street.</p> <p>Access to the LAHC carpark will be closed to residents at 209-213 Cope Street, however, access by LAHC will be facilitated to enable site investigations.</p> <p>Given the temporary nature of the proposal, there would be no changes to the broader economic impact of the approved project, therefore the changes are consistent with the approved project.</p>	<p>Ongoing community engagement and notification with residents as outlined above and interface meetings with LAHC and WLC Community and Stakeholder Manager</p>	Y	Y	
Visual	<p>Cope St: The larger construction area shifts the Cope Street site boundary closer to residents. Traffic signage would be displayed to direct traffic for the change to traffic flow and pedestrian diversions. The location of signage would be outlined in the CTMP Addendum #3 and traffic control plans. This temporary visual impact is considered to be of negligible difference with the visual impact assessment of the Approved Project.</p> <p>Wellington Street: The temporary visual impact on Wellington Street as a result of establishing the construction work area within the parking lane is similar to the assessment in the EIS/SPIR. The temporary establishment of this area behind barriers/screens</p>	<p>Ongoing community engagement and notification as outlined above.</p> <p>Review of barriers/screens for graffiti and manage in accordance with the Visual Amenity Management Plan</p> <p>Lighting to be reviewed as per the mitigation measures in the Visual Amenity Management Plan. This includes:</p> <ul style="list-style-type: none"> - Directing lights away from receivers; - Reviewing site set-up at the beginning of night shift. 	Y	Y	

(Uncontrolled when printed)

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
	<p>would bring construction closer to the residents/business and have a reduction in the amenity of the street.</p> <p>Raglan Street The temporary visual impact on Raglan Street as a result of establishing the construction work area within the parking lane is similar to the assessment in the EIS/SPIR. The temporary establishment of this area behind barriers/screens would bring construction closer to the residents/businesses and have a reduction in the amenity of the street.</p> <p>Light Spill The removal of the existing hoarding may increase light spill impacts to residents on Raglan, Cope and Wellington. The use of the additional land at night may result in an impact to receivers on the surrounding streets.</p>	<ul style="list-style-type: none"> - External solar lighting to illuminate Cope Street footpath - Internal diesel powered lighting to illuminate work areas. These will be positioned to minimise noise and light spill. 			
Urban design	No change from approved Project.	No additional measures required	Y	Y	
Geotechnical	No change from approved Project.	No additional measures required	Y	Y	
Land use	<p>The land use change from a roadway or footpath to a construction site area.</p> <p>The existing roadway or footpath will remain in situ as part of this proposal or until the approved scope of work (i.e. civil works) commences.</p>	No additional measures required	Y	Y	
Climate Change	No change from approved Project.	No additional measures required	Y	Y	

(Uncontrolled when printed)

Aspect	Nature and extent of impacts (negative and positive) during construction (if control measures implemented) of the proposed/activity, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Risk	No change from approved Project.	No additional measures required	Y	Y	
Other	No change from approved Project.	No additional measures required	Y	Y	
Management and mitigation measures	<p>The Waterloo CTMP is being updated to reflect the changes to traffic. This would be documented in an addendum.</p> <p>An Environmental Control Map would be prepared to include the additional areas.</p> <p>No change to the CEMP from the approved project.</p>	No additional measures required.	Y	Y	

Impact Assessment – Operation

The proposed works are during construction only.

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Flora and fauna	No change from approved Project.	No additional measures required	Y	Y	
Water	No change from approved Project.	No additional measures required	Y	Y	
Air quality	No change from approved Project.	No additional measures required	Y	Y	
Noise vibration	No change from approved Project.	No additional measures required	Y	Y	
Aboriginal heritage	No change from approved Project.	No additional measures required	Y	Y	
Non-Aboriginal Heritage	No change from approved Project.	No additional measures required	Y	Y	
Community and stakeholder	No change from approved Project.	No additional measures required	Y	Y	
Traffic	No change from approved Project.	No additional measures required	Y	Y	
Waste	No change from approved Project.	No additional measures required	Y	Y	
Social	No change from approved Project.	No additional measures required	Y	Y	
Economic	No change from approved Project.	No additional measures required	Y	Y	

(Uncontrolled when printed)

Aspect	Nature and extent of impacts (negative and positive) during operation (if control measures implemented) of the proposed activity/works, relative to the Approved Project	Proposed Control Measures	Minimal Impact Y/N	Endorsed	
				Y/N	Comments
Visual	No change from approved Project.	No additional measures required	Y	Y	
Urban design	No change from approved Project.	No additional measures required	Y	Y	
Geotechnical	No change from approved Project.	No additional measures required	Y	Y	
Land use	No change from approved Project.	No additional measures required	Y	Y	
Climate Change	No change from approved Project.	No additional measures required	Y	Y	
Risk	No change from approved Project.	No additional measures required	Y	Y	
Other	No change from approved Project.	No additional measures required	Y	Y	
Management and mitigation measures	No change from approved Project.	No additional measures required	Y	Y	

Consistency with the Approved Project

Based on a review and understanding of the existing Approved Project and the project (including the proposed changes), is there a transformation of the Project?	No. The proposed works would not transform the project. The project would continue to provide a new metro rail line between Chatswood and Sydenham.
Is the project (including the proposed changes) consistent with the objectives and functions of the Approved Project as a whole?	Yes. The proposed works would be consistent with the objectives and functions of the approved project.
Is the project (including the proposed changes) consistent with the objectives and functions of elements of the Approved Project?	Yes. The changes identified in this assessment are temporary and are consistent with the objectives and functions of the Approved Project.
Are there any new environmental impacts as a result of the proposed works?	No new environmental risks are outstanding. All risks would be adequately addressed through the application of the mitigation measures in the above tables.
Is the project (including the proposed changes) consistent with the conditions of approval?	Yes. The proposed works would be consistent with the conditions of approval.
Are the impacts of the proposed activity/works known and understood?	Yes. The impacts of the proposed works are understood.
Are the impacts of the proposed activity/works able to be managed so as not to have an adverse impact?	Yes. The impacts of the proposed works can be managed so as to avoid an adverse impact.

Other Environmental Approvals

Identify all other approvals required for the project:	Road Occupancy Licence (ROL) is required and would be obtained prior to site establishment.
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Author certification

To be completed by person preparing checklist.

I certify that to the best of my knowledge this Consistency Checklist:

- Examines and takes into account the fullest extent possible all matters affecting or likely to affect the environment as a result of activities associated with the Proposed Revision; and
- Examines the consistency of the Proposed Revision with the Approved Project; is accurate in all material respects and does not omit any material information.

Name:	Sally Reynolds	Signature:	<i>S. Reynolds</i>
Title:	Environment and Sustainability Manager		
Company:	John Holland	Date:	04/10/2022

Environmental Representative Review

(Additional step for City & Southwest projects only – if this is a CA against a Northwest Project or REF delete this table)

As an approved ER for the Sydney Metro City & Southwest project, I have reviewed this assessment. I am satisfied that mitigation measures are adequate to minimise the impact of the proposed work.

Name:	Swathi Gowda	Signature:	<i>Swathi Gowda</i>
Title:	Environmental Representative	Date:	04/10/2022

This section is for Sydney Metro only.

Application supported and submitted by


Name:	Yvette Buchli	Date:	04/10/2022
Title:	Associate Director Planning Approvals	Comments:	
Signature:	<i>Yvette Buchli</i>		

(Uncontrolled when printed)

Based on the above assessment, are the impacts and scope of the proposed activity/modification consistent with the existing Approved Project?

Yes The proposed activity/works are consistent and no further assessment is required.

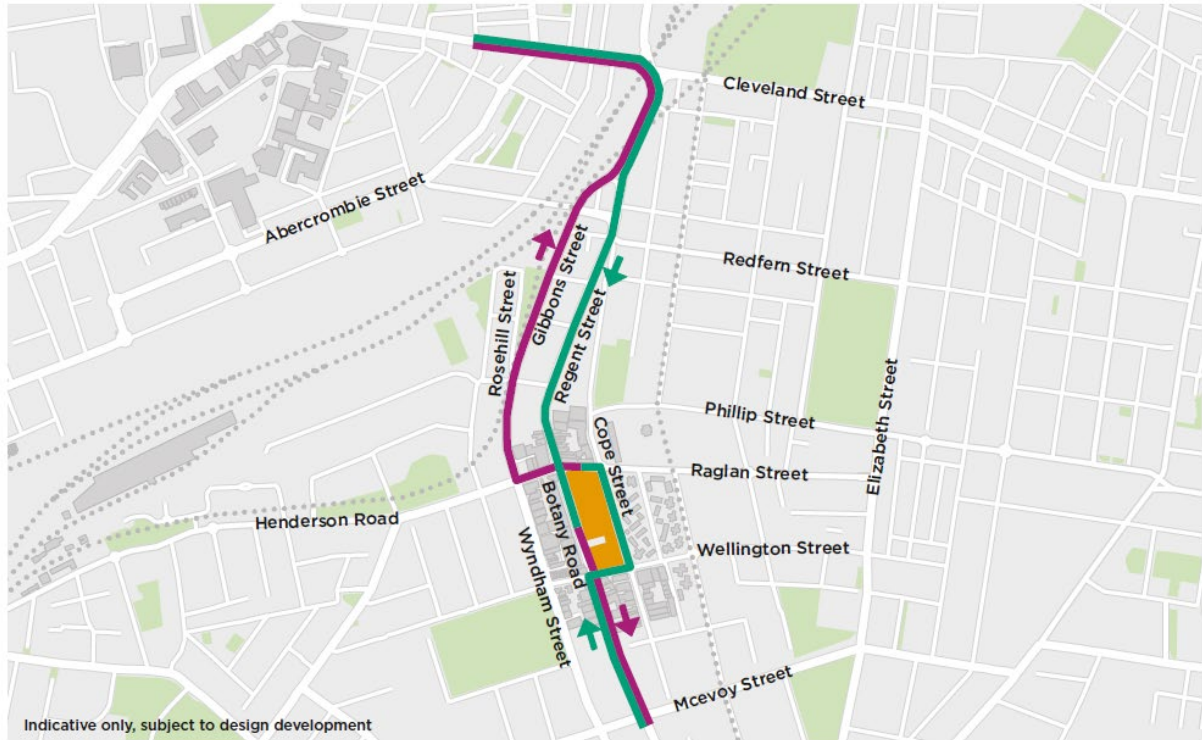
No The proposed works/activity is not consistent with the Approved Project. A modification or a new activity approval/ consent is required. Advise Project Manager of appropriate alternative planning approvals pathway to be undertaken.

Endorsed by			
Name:	Fil Cerone	Date:	5 October 2022
Title:	Director City & Southwest, Sustainability, Environment & Planning	Comments:	
Signature:			

Appendix A – Referenced Figures



Figure 3-18 Revised Waterloo Station construction site – indicative location and layout



KEY







-  Proposed construction site area
-  Primary, Inbound
-  Primary, Outbound
-  Secondary, Inbound
-  Secondary, Outbound
-  Existing suburban rail

Figure 8-47 Waterloo Station construction site haul routes

Appendix B –Environmental Control Map

ENVIRONMENTAL CONTROL MAP –
ECM_06 Waterloo Station — External Works_Rev5



- Site Entry / Exit Points
- Existing Site Hoarding
- Sensitive Receiver
- Heritage Building
- Site Shade / Office Sheds
- Minor Ancillary Facility
- CA Proposed Area
- SPIR Site Boundary
- Barriers with Anti-Crawk Screens & Nose Blankets
- Traffic Flow

Incident Notification Numbers			General Superintendent		
			Anthony Dadds	0409 944 805	
Environment Coordinator	Tristan Rodrigues	0460 844 512	Superintendent	Tullio DeBortoli	0438 440 514
Stakeholder & Community Manager	Leann Fuller	0447 219 656	EMERGENCY	Police/Fire/Ambulance	000

Appendix C – Construction Traffic Management Plan Addendum #3 (Draft)

Waterloo Integrated Station Development

CONSTRUCTION TRAFFIC MANAGEMENT PLAN ADDENDUM 3 ONE WAY ROAD CLOSURE

DOCUMENT No: SMCSWSWL-JHG-SWL-EM-PLN-000015

Document and Revision History

Document Details	
Title	Construction Traffic Management Plan
Client	Sydney Metro City & Southwest

Revisions

Rev #	Date	Description	Prepared by	Reviewed by	Approved by
A	16/05/2022	Submitted to Sydney Metro for Review & Approval	N. Lasky	R. Madden	A. Knispel
B	31/08/2022	Submitted to Sydney Metro for Review & Approval	N. Lasky	R. Madden	A. Knispel

Glossary

Term	Explanation
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
CSSI	Critical State Significance Infrastructure
CTMP	Construction Traffic Management Plan
DPE	Department of Planning & Environment
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
ER	Environmental Representative
GMR	Global Mandatory Requirements
ISD	Integrated Station Development
JHPL	John Holland Pty Limited
Minister, the	NSW Minister for Planning
OEH	Office of Environment and Heritage
OSOM	Oversize and Over Mass Vehicles
PkMP	Parking Management Plan
PMP	Pedestrian Management Plan
PHSMP	Project Health and Safety Management Plan
RSA	Road Safety Audit
REMMs	Revised Environmental Mitigation Measures
SMCSW	Sydney Metro City and Southwest
SWTC	Scope of Work and Technical Criteria
TGS	Traffic Guidance Scheme
TCWSM	Roads and Maritime Services Traffic Control at Work Sites Manual
TMP	Traffic Management Plan
TRA	Task Risk Assessment
TSE	Sydney Metro Tunnel and Station Excavation Contractor
VMP	Vehicle Movement Plan

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1.1.2 Waterloo Integrated Sydney Metro Upgrade

John Holland Pty Ltd has been awarded by Sydney Metro the contract to deliver the Waterloo Integrated Station Development (ISD).

The Waterloo ISD Project Works comprises of construction of the new station infrastructure to support customer movement and experience.

The Waterloo ISD is located within Sydney's suburb of Waterloo, as shown in Figure 2, within the Metro Quarter. The Metro Quarter Development (MQD) comprises the land bounded by Botany Road, Raglan Street, Cope Street and Wellington Street, but excluding the Congregational Church located at 103 Botany Road. It is situated approximately 3km from the Sydney CBD and is surrounded by established residential properties.

Figure 1: Site Location Plan



1.2 Purpose of this Plan

This Construction Traffic Management Plan (CTMP) will facilitate the construction of the Waterloo Integrated Station Development with minimal impacts on the road user and road network.

John Holland will manage traffic during the Works, particularly identifying the location, nature and duration of work activities, their impact on the roadway, all road users, and the control strategies implemented to mitigate these impacts.

1.3 Scope of Works

This Construction Traffic Management Plan (CTMP) facilitates the safe introduction of the temporary control strategy designed to introduce new construction areas on the adjacent streets around the site to facilitate the construction of the Waterloo Integrated Station Development (i.e. Utilities, Civil, Public Domain, Finishes and Structure).

This CTMP enables the following traffic management controls and devices:

- Survey set out – new pavement marking and barrier locations on Raglan St, Cope St & Wellington St;
- Pavement marking – and removal of redundant lines;
- Installing long term temporary roadworks signage;
- Placement of safety barriers;
- Introduction of Site Gates;
- Vehicle movements to and from the work zone; and
- Positioning of portable VMS.

1.4 Proposed timing and duration

Construction works are proposed to commence in September 2022 for approximately 12 months completing in September 2023.

2 Existing Road Conditions

2.1 Cope Street

Cope Street is a local road under jurisdiction and control of City of Sydney Council. It spans from Redfern Street to the North in Redfern and ends at McEvoy Street to the South in Waterloo. The speed limit is 50 km/h. This area has substantial residential land uses with low daily light vehicle volumes.

Vehicle volumes are low, with traffic surveys undertaken in June 2020 (pre covid restrictions) recorded:

- AM Peak: 8:15AM – 9:15AM
 - 71 northbound, 32 southbound
- PM Peak: 5:00 PM – 6:00 PM
 - 86 northbound, 38 southbound

Traffic surveys during the COVID-19 lockdown in August 2021 recorded:

- AM Peak: 8:00AM – 9:00AM
 - 52 northbound, 28 southbound
- PM Peak: 4:00 PM – 5:00 PM
 - 73 northbound, 31 southbound.

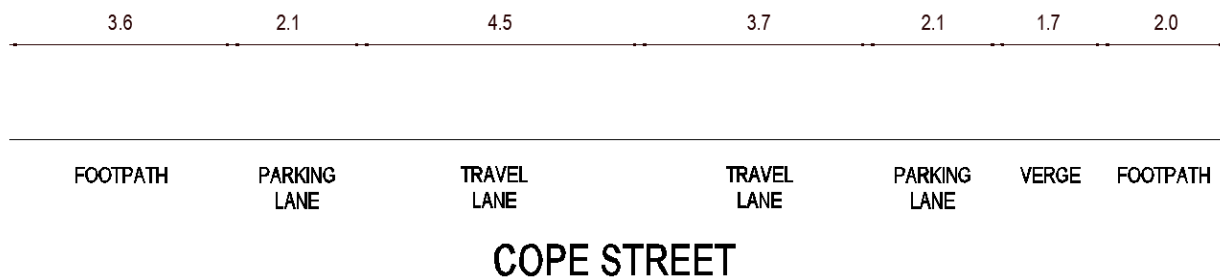
Roundabouts exist at the intersections of Raglan Street and Wellington Street.

Parking is unrestricted between Raglan Street & Wellington Street with “No Stopping” signposted at all intersections. Parking on Cope St (between Raglan St & Wellington St) **has been removed as part of Addendum 2.**

There is no on road cycling facility on Cope Street.

The Eastern footpath is 2m wide with verges typically located between the footpath and roadway (2m). The Western footpath is 4.5m wide with no vegetation verge (adjacent to the work site). There are no pedestrian crossing facilities along Cope Street other than the use of the splitter islands located at the roundabouts.

Figure 3: Cope Street Existing Arrangement (Northbound)



As part of a previous approved CTMP (SMCSWSWL-JHG-SWL-EM-PLN-000013_J_CTMP Addendum 2):

- the two existing bus stops to the South of Raglan St servicing route 355 located on the eastern side of the road have since been relocated and diverted.
- the two garbage collection points located on the eastern side within the Land and Housing Estate that require servicing weekly continue to be serviced as agreed with the road closure.

The open-air off-street car park for the local residents on the eastern side still has access to residents only.

2.2 Raglan Street

Raglan Street is classified as a local road and is under the control of City of Sydney Council. Raglan Street commences from Botany Road and ceases on Elizabeth Street to the East in Waterloo. The speed limit on Raglan Street is 50 km/h.

Vehicle volumes are low, with traffic surveys undertaken in June 2020 (pre covid restrictions) recorded:

- AM Peak: 8:15AM – 9:15AM
 - 247 eastbound, 248 westbound
- PM Peak: 5:00 PM – 6:00 PM
 - 260 eastbound, 300 westbound

Traffic surveys during the COVID-19 lockdown in August 2021 recorded:

- AM Peak: 8:00AM – 9:00AM
 - 160 eastbound, 156 westbound
- PM Peak: 4:00 PM – 5:00 PM
 - 183 eastbound, 208 westbound.

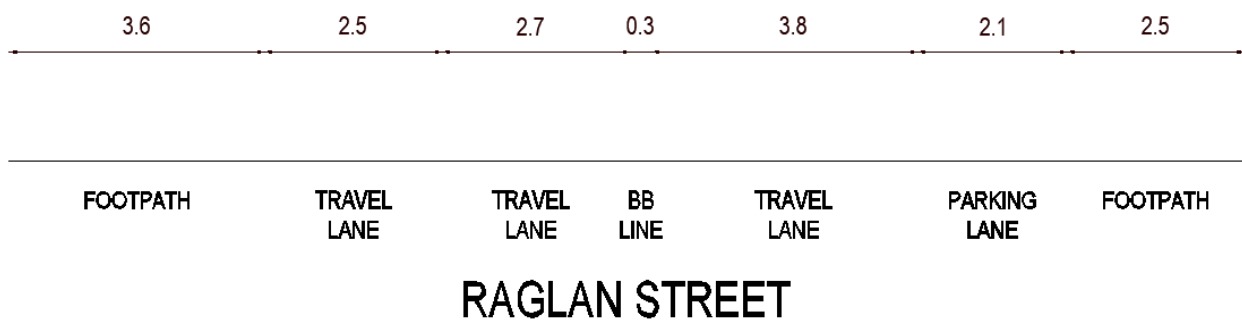
There are no bus stops on Raglan Street (adjacent to the site) between Cope Street and Botany Road, however Sydney Bus routes 355 travel east and west.

There are one hour (Monday -Friday) parking restrictions in this street.

The existing footpaths are approximately 3.7 - 4.5m wide. There are no cycling facilities on this section of Raglan Street.

There are four businesses located on the Northern side of Raglan Street and a loading zone to service the bottle shop.

Figure 4: Raglan Street Existing Arrangement (Eastbound)



2.3 Wellington Street

Wellington Street is classified as a local road and is under the control of City of Sydney Council. Wellington Street commences at Botany Road and continues to Morehead Street Waterloo. The State default speed limit of 50km/h applies. There are no bus stops on Wellington Street (adjacent to the site) between Botany Road and Cope Street, however, Sydney Bus route 355 travels east on Wellington.

There is two-hour parking restriction in this street on the south side and unrestricted parking on the north side.

Vehicle volumes are low, with traffic surveys undertaken in June 2020 (pre covid restrictions) recorded:

- AM Peak: 8:15 AM – 9:15 AM
 - 174 eastbound, 71 westbound
- PM Peak: 5:00 PM – 6:00 PM
 - 131 eastbound, 124 westbound

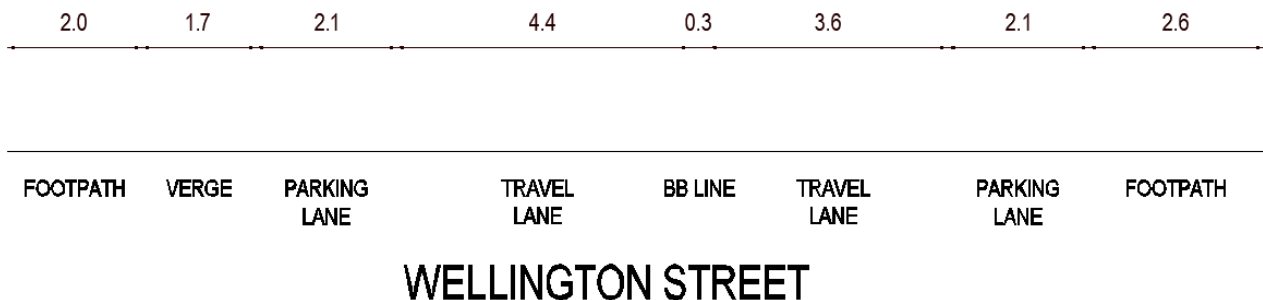
Traffic surveys during the COVID-19 lockdown in August 2021 recorded:

- AM Peak: 8:00AM – 9:00AM
 - 117 eastbound, 62 westbound
- PM Peak 4:15 PM – 5:15 PM
 - 112 eastbound, 102 westbound.

The existing footpath on the southern side maintain a minimum width of 1.6m. There is a short cycling facility on this section of Wellington Street on the southern side prior to crossing Botany Road.

There is one business located on the southern side of Wellington Street (i.e. Cauliflower Hotel) along with residential properties. There is a loading zone to service the hotel.

Figure 5: Wellington Street Existing Arrangement (Eastbound)



3 Proposed Conditions of Roads Affected by CTMP

The intention of this CTMP is to highlight the various stages of implementation on the adjacent streets of the site. John Holland will seek opportunities to reduce the construction footprint once construction works is completed in an area to limit the impact to the local community, residents and road users.

3.1 Cope Street

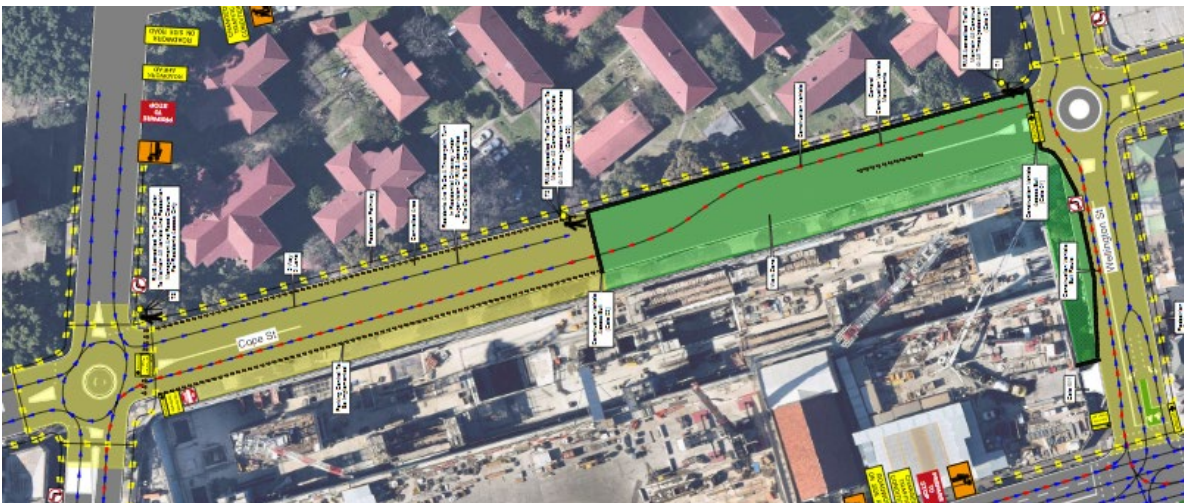
This CTMP proposes multiple set ups on Cope St to facilitate the works and reduce the impact to the local residents and road users. These works can be captured as below:

1. Cope St (Southern) – Road Closure (Currently being implemented).
2. Cope St (Northern) – Road Closure.
3. Cope St – Full Road Closure (between Raglan Street and Wellington Street).

3.1.1 Cope St (Southern) – Road Closure

John Holland currently have this CTMP in place on site. For more information, please refer to previously approved CTMP SMCSWSWL-JHG-SWL-EM-PLN-000013_J_CTMP Addendum 2.

Figure 6: Cope St (Southern) – Road Closure



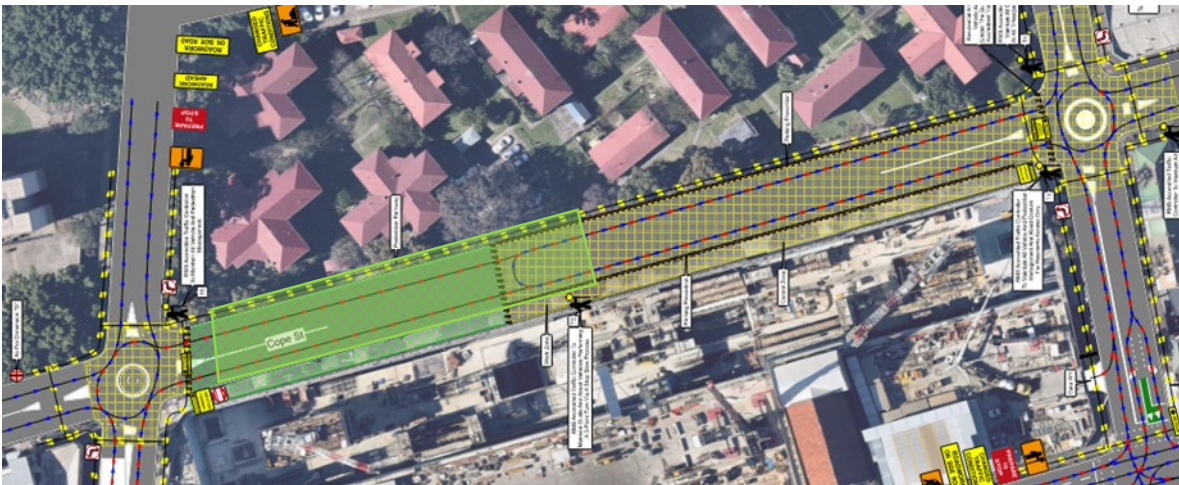
3.1.2 Cope St (Northern) – Road Closure

Similarly, to the above closure (3.1.1 Cope St (Southern) – Road Closure) John Holland propose to mirror the above closure for the North (please refer to Figure 7).

The proposed configuration will:

- continue to have the western footpath closed to pedestrians.
- continue to have no parking on Cope St (Northbound and Southbound).
- not impede the open-air off-street car park and garbage collection points for the Land and Housing Corporation (LAHC) residents. This will be managed by traffic controllers (during day shift construction hours) and temporary traffic light signals (night shift construction hours and for non-construction hours).
- reduce the speed limit to 40km/h for the duration of works.

Figure 7: Cope St (Northern) – Road Closure



3.1.3 Cope St – Full Road Closure between Raglan and Wellington Streets

The proposed configuration will:

- continue to have the western footpath closed to pedestrians.
- continue to have no parking on Cope St (Northbound and Southbound).
- Close the open-air off-street LAHC car park (refer to Appendix L – Approval from LAHC to close car park) to residents.
- continue to service and maintain the garbage collection points for the LAHC residents (refer to Appendix H – Garbage Bins Endorsement).

Figure 8: Cope St Full Road Closure



3.2 Cope St Intersections (with Raglan St & Wellington St)

Whilst the above closures are in place, the roundabouts can remain in place in order to minimise interruptions to the local community, residents and road users. However, the sewer manholes at both intersections (located in the centre of either roundabouts) are required to be lowered to facilitate the final design levels of Cope St.

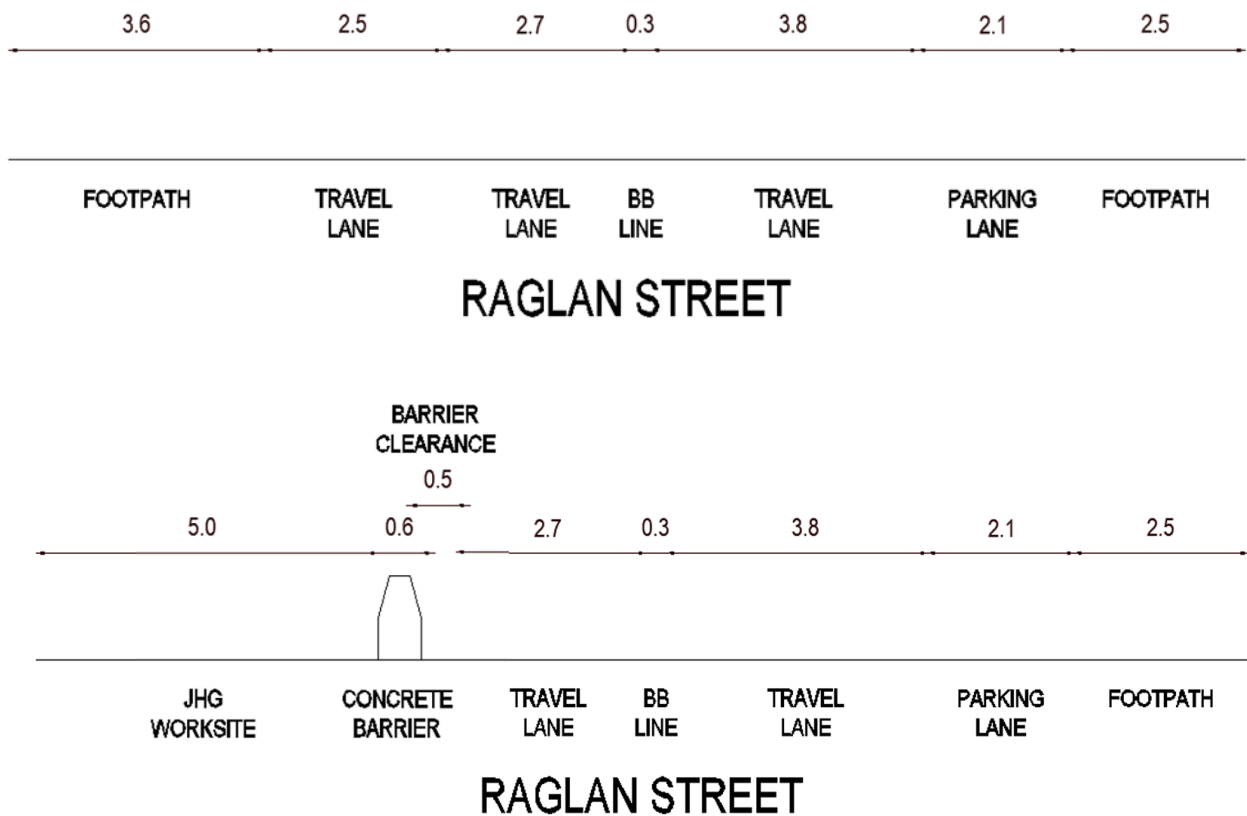
Once the sewer manholes are lowered, the roundabout and pedestrian refuges will be removed, and the new traffic diversions will be implemented to mimic the final traffic set up (refer to Appendix J for detailed drawings for intersections and Appendix F for final intersection drawings).

3.3 Raglan Street

The proposed configuration will:

- close the southern footpath to pedestrians and remove parking.
- close the Westbound (kerbside lane) of Raglan Street between the parking signs allowing single lane traffic to travel in both directions (i.e. West & East).
- not impact the proposed travel lanes (nor the signalised traffic lights) since the parking lanes on the Southern footpath will be removed and be separated from the worksite by concrete barriers with anti-gawk screens.
- not impact the parking spaces and loading zone on the northern side of Raglan St to reduce the effect on the local community and to ensure the businesses are serviced and not impeded by the works.
- reduce the speed limit to 40km/h for the duration of works.

Figure 9: Raglan Street - Existing vs Proposed Arrangement (Westbound)

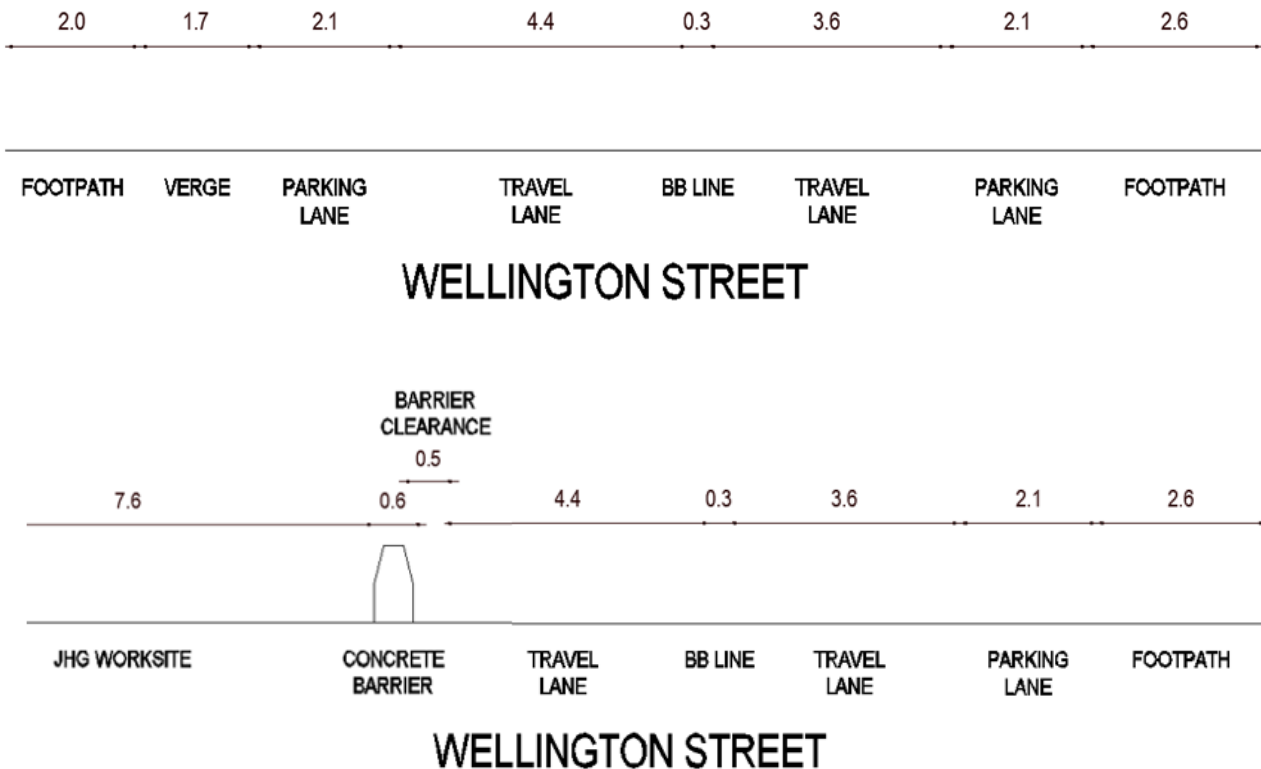


3.4 Wellington Street

The proposed configuration will:

- close the northern footpath to pedestrians and remove parking.
- close the Eastbound (kerbside lane) of Wellington Street between the Wellington Gate and the parking signs allowing single lane traffic to travel in both directions (i.e. West & East).
- not impact the proposed travel lanes (nor the signalised traffic lights) since the parking lanes on the Northern footpath will be removed and be separated from the worksite by concrete barriers with anti-gawk screens.
- not impact the parking spaces and loading zone on the southern side of Wellington Street to reduce the effect on the local community to ensure the businesses are serviced and not impeded by the works.
- reduce the speed limit to 40km/h for the duration of works.

Figure 10: Wellington Street proposed arrangement



4 Impact Assessment

4.1 Public Transport Services

The below bus stops are affected and have been diverted as part of previously approved CTMP (SMCSWSWL-JHG-SWL-EM-PLN-000013_J_CTMP Addendum 2).

- Route 355 Cope Street at Raglan Street – 201772
- Route 355 Cope Street at Wellington Street – 201773

Bus Route 355 operates Marrickville Metro from Bondi Junction via Moore Park and Erskineville.

Figure 11: Affected Bus Stop Facilities Near the Site



The updated bus routes and temporary bus stop are shown in the figure below. The temporary bus stop has been constructed and the temporary bus diversion is in place.

Figure 12: Affected Bus Routes



The proposed modified bus routes and new bus stops are sufficient and no further mitigation measures are expected to be necessary. For bus movements (specifically turning from Cope St onto Botany), please refer to Appendix A.

4.2 Parking Spaces

The proposed work area will affect parking spaces around the Waterloo ISD surroundings. Parking spaces along Cope Street, Wellington Street and Raglan Street will be affected as shown in Figure below.

The affected parking spaces are summarised as follows:

- Wellington Street: loss of 6 parking spaces.
- Cope Street: loss of 54 parking spaces (currently occupied as part of a previously approved City of Sydney TMP).
- Raglan Street: loss of 4 parking spaces.

Parking on the opposite side of the road (i.e. Wellington & Raglan Streets only) to the works area will not be impacted by the works.

Parking along Wellington Street consists of two-hour (2P) and untimed parking spaces. Similar to Wellington Street, Cope Street provides untimed parking spaces on both sides of vehicle travel lanes. Raglan Street consists of one-hour (1P) parking spaces.

Figure 13: Affected Parking Spaces



Other parking options are available on Raglan Street (east of Cope Street), Wellington Street (east of Cope Street), and Cope Street (north of Raglan Street and South of Wellington Street), Cooper Street and George Street.

While no parking surveys have been undertaken for these works due to the unreliability of data associated with the Sydney COVID-19 lockdown, it is expected that these areas would have sufficient capacity to handle the displaced vehicles.

The project team have undertaken an informal review of available parking on surrounding streets and observed over several days and time periods that untimed parking remains available.

4.3 Surrounding Businesses

Due to the proposed road closures, this may influence customer traffic into each business. Furthermore, performance of businesses may be affected due to the loss of available parking spaces. However, as no loading zones or kerbside parking immediately outside local businesses are directly affected, there are expected to be negligible impacts to these businesses from a traffic perspective. Figure 14 identifies the businesses on the surrounding streets.

Figure 14: Businesses near the site



4.4 Pedestrian Management

As shown in Figure 15, the surrounding pedestrian footpaths located along Wellington Street, Cope Street and Raglan Street will be closed. Details of pedestrian footpaths affected are summarised as follows:

- Wellington Street: northern side, between Botany Road and Cope Street
- Cope Street: western side, between Wellington Street and Raglan Street
- Raglan Street: southern side, between Botany Road and Cope Street.

At each of these areas, there are footpaths available on the opposite side of the road. Signalised intersections at Botany Road / Raglan Street and Botany Road / Wellington Street provide safe crossing opportunities for pedestrians.

The closure of the footpaths does not impact on any residents, driveways, or businesses and pedestrians have an alternative footpath available. Therefore, the impacts are expected to be negligible and additional mitigation options are not considered necessary.

Figure 15: Pedestrian Facilities Near the Site



Additionally, due to safety precautions several pedestrian ramps nearby the work zone will be closed. Figures 16 & 17 below shows the locations of the pedestrian ramp closures.

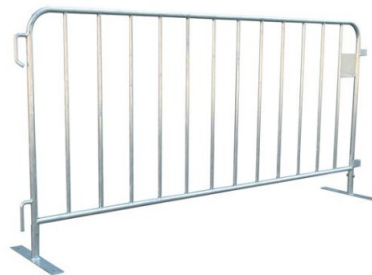
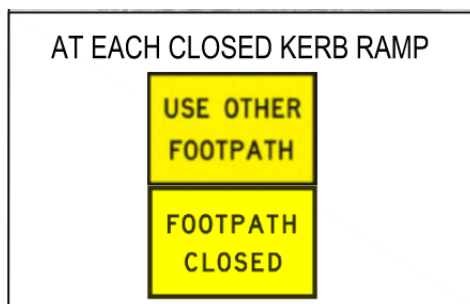
Figure 16: Pedestrian Ramp Closure near Cope Street / Raglan Street Roundabout



Figure 17: Pedestrian Ramp Closure near Cope Street / Wellington Street Roundabout



Where the pedestrian ramps are closed, the below physical barriers (i.e. crowd control barriers) and signage (i.e. arrow pointing to the adjacent available pedestrian ramp and signage) will be in place to ensure pedestrians adhere to the CTMP and are guided to use the available existing pedestrian crossings to safely cross the road.



4.5 Cyclist Paths

Due to the proposed road closures there will be minor impacts to cyclists during works.

A dedicated cycle path exists along the southern side of Wellington Street, travelling westbound.

Cyclists will otherwise follow light vehicle detour routes. As the vehicle speed in the detour area is to be reduced to 40 km/h, it is expected that impacts to cyclists will be negligible.

The eastbound direction on Wellington Street does not have a dedicated cycle lane, and cyclists are on-road. Eastbound movements are retained during construction.

Figure 18: Affected Cyclist Facilities Near the Site



4.6 Existing Vehicle Routes

Existing vehicle routes will be affected due to the proposed works of the subject site. The road closure will divert vehicles travelling along the existing vehicle routes of Cope Street.

To support these changes, alternative routes for each existing vehicle route are provided below:

- Cope Street travel: Detour route is via Raglan Street westbound, Botany Road southbound, or else Raglan Street eastbound and George Street southbound (Figure 2).

Redistribution of traffic and the impact of this is detailed and assessed in the SIDRA modelling technical note (Appendix C).

Figure 2: Cope Street Alternative Route for Existing Southbound Travel



4.7 Additional Traffic Signage

Additional traffic signage is required to be placed due to the proposed works of the subject site. The signage will provide additional awareness to drivers that site access gates are limited to construction personnel only.

The gate locations along Cope Street are shown in the TGS. Each will also have the same “NO ENTRY” and “CONSTRUCTION VEHICLES EXCEPTED” signage.

4.8 Heavy Vehicle Manoeuvres

Heavy vehicle movements around the work area along the Waterloo ISD site are another factor to be considered. Swept path analysis of a 12.5m heavy-rigid vehicle (HRV) and 12.5m bus has been undertaken.

Swept path analysis has been undertaken for key heavy vehicle and light vehicle movements for this project and is available in Appendix A – Swept Paths.

Shown in the swept path analysis for the 12.5m bus is the proposed diversion of route 355 which currently travels southbound along Cope Street. The movement of a bus is possible even through the sharp left turn into Botany Road (bus is to straddle Westbound lanes).

Like the 12.5m bus, the 12.5m HRV provides smooth manoeuvring through the key turning points of the subject site. A key consideration is the possible removal of roundabouts around the site.

Heavy Vehicle Entry and Exit movements into Wellington Street and Raglan Street gates will be completed under traffic control.

Refer to Appendix A – Swept Paths for other heavy vehicle manoeuvres.

Site access/egress will be managed by traffic controllers / gate keepers and will be positioned at strategic points to minimise traffic flow and pedestrian interaction. The existing gates (1x Raglan, 2x Botany and 1x Wellington) will remain to be in use.

Figure 20: Existing Access & Egress for Waterloo Station



4.9 Impacts to Traffic Control Signals

4.9.1 Botany Road / Raglan Street

No changes to the TCS required. Only impact to intersection is that parking lane of southern side of eastern (Raglan Street) approach is occupied as work area.

4.9.2 For Botany Road / Wellington Street

No changes to the TCS required. Only impact to intersection is that parking lane of northern side of eastern (Wellington Street) approach is occupied as work area.

5 Community Notification

5.1 VMS Strategy

This section provides the operational strategy for Variable Message Signs (VMS) for these works.

This section is prepared in accordance with the VMS requirements set out in Austroads Guide to Traffic Management Part 10: Traffic Control and Communication Devices Section 5 – Electronic Signs (“Austroads Guide”), and Transport for NSW’s Guide to use of Portable Variable Message Signs for Temporary Traffic Management on NSW Roads.

5.2 VMS Locations

5.2.1 VMS Placement

Three VMS are to be used for these works. The locations are shown in Figure 21 below.

The precise placement of the VMS must be in accordance with the Austroads Guide.

Figure 21: VMS Locations



5.2.2 VMS Specifications

- The colour of the text is to be white or yellow, with a black background
- Contrast level between 8 and 12 is to be used during daytime hours
- Automatic dimming is to be used at night in order to reduce glare.

5.3 VMS Details

5.3.1 Prior to the Works

For two weeks prior to the works and remain for two weeks post implementation, the VMS is to display two frames of information:

1. COPE ST
DETOUR
DD/MM

Where DD/MM is the commencement of the road closure.

In addition to the above, JHG will have Traffic Controllers on site for the first week to guide traffic to the new arrangements.

5.3.2 Post Works

The VMS are to be removed.

5.4 Other Notification

Community notification will be undertaken in accordance with Waterloo ISD Community Communications Strategy.

This will include advertising significant traffic management changes, detours, traffic disruptions and work outside any working hours contained in the Planning Approval at least 5 Business Days before any detour, disruption, work or change occurs. These advertisements must be placed in local newspapers that cover Waterloo ISD area.

6 Road Safety Audit

A formal Road Safety Audit has been undertaken of this CTMP Addendum. This report has been reviewed by an accredited Level 3 accredited Road Safety Auditor.

The RSA and responses are attached in Appendix E – Road Safety Audit.

6.1 Records

Records associated with this management plan and monitoring programme will be maintained.

7 Other notes

7.1 Emergency Response

The Emergency Evacuation and Response Plan for this project is available in JHG-SWL-HS-PLN-000002. Other relevant emergency plans are:

- JH-MPR-RCC-006 Crisis Management
- JH-MPR-WHS-005 First Aid & Rehabilitation Management.

Additional emergency response documentation can be found in the Project Health and Safety Management Plan Section 6.1 *Emergency Preparedness and Crisis Management*. This is to be implemented for all incidents involving construction traffic.

The proposed road closures are to be communicated to emergency services through TCG and TTLG.

The nearest emergency services are located at the following areas:

- Fire: Alexandria Fire Station – 177-187 Wyndham St, Alexandria NSW 2015
- Police: Redfern Police Station – 1 Lawson St, Redfern NSW 2016
- Public Hospital: Royal Prince Alfred – 50 Missenden Rd, Camperdown NSW 2050.

8 Consultation

8.1 TCG

The proposed changes included in the Addendum has been presented to the TCG on:

- 14/09/2021
- 22/10/2021
- 09/11/2021
- 23/11/2021
- 07/12/2021
- 14/01/2022
- 01/02/2022
- 15/02/2022
- 15/03/2022
- 29/03/2022
- 11/04/2022
- 10/05/2022
- 24/05/2022
- 07/06/2022
- 19/07/2022
- 02/08/2022
- 16/08/2022

8.2 TTLG

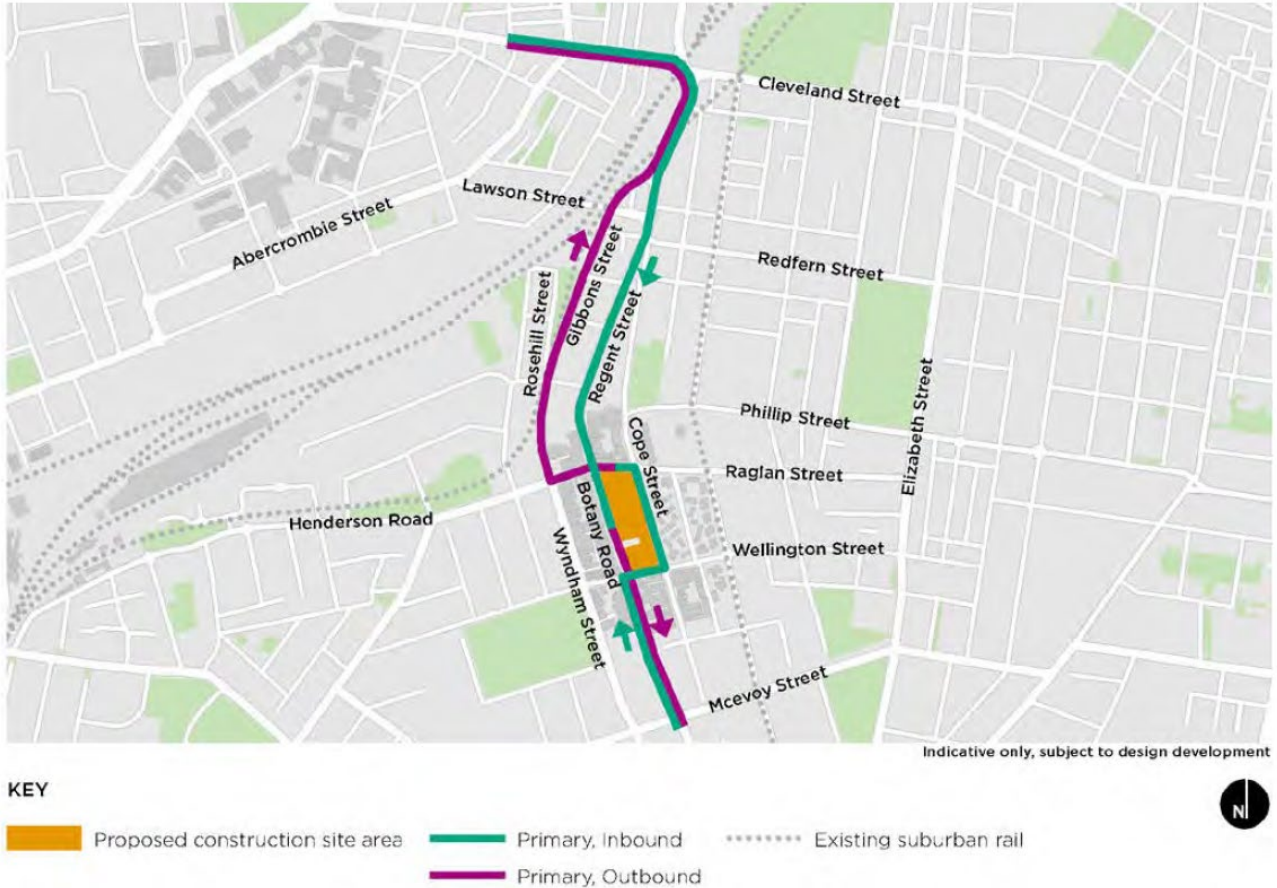
The proposed changes included in the Addendum has been presented to the TTLG on:

- 29/09/2021
- 27/10/2021
- 25/11/2021
- 22/12/2021
- 27/01/2022
- 22/03/2022
- 20/04/2022
- 18/05/2022
- 27/07/2022

Appendix A – Swept Paths Analysis

Appendix B – Traffic Guidance Scheme

Appendix C – Haulage Routes & Endorsement from COS to Utilise George St as an Alternate Route



Source: Chatswood to Sydenham Environmental Impact Statement May 2016 Technical Paper 1: Traffic and Transport

Appendix D – SIDRA Modelling Technical Note

Appendix E – Road Safety Audit

Appendix F – Final Intersection Arrangement

Appendix G – COS Removal of Roundabout Endorsements

Appendix H – COS Garbage Bins Endorsement

Appendix I – Temporary Bus Shelter Correspondence

Appendix J – Detailed Design of Intersections

Appendix K – Bus Turning from Raglan onto Botany

Appendix L – Pedestrian Management Plan

Appendix M – LAHC Endorsement to Close Parking

Appendix D – Consultation

Sally Reynolds-JHG

Subject: FW: Cope Street Closer Proposal - Waterloo integrated station development
Attachments: Cope Street Closure Proposal.pdf
Importance: High

From: John Lambert <John.Lambert@facs.nsw.gov.au>
Sent: Friday, 16 September 2022 1:55 PM
To: Leanna Fuller-JHG <Leanna.Fuller@jhg.com.au>
Cc: Angela Walsh <Angela.Walsh@facs.nsw.gov.au>; LAHC SE Capital & Sales <LAHCSECapital&Sales@facs.nsw.gov.au>
Subject: FW: Cope Street Closer Proposal - Waterloo integrated station development
Importance: High

Hi Leanna,

I understand that Peter has been in touch with you in regard to this matter.

I wish to advise that LAHC are aware of and acknowledge the necessity to close Cope Street, Waterloo between Raglan St and Wellington St. We have consulted with DCJ-Housing and they are also aware of the closure and impact to the car park to our property.

Please continue to liaise with my team going forward in the case of any future concerns or questions.

Thank you,

Regards,

JOHN LAMBERT
| Regional Portfolio Manager - South East Region |
| NSW Land and Housing Corporation | Department of Planning and Environment |
T: 42245723 (X 45723) | M: 0411135829
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E: john.lambert@facs.nsw.gov.au
W: www.dpie.nsw.gov.au



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Environment

Our Vision: Together, we create thriving environments, communities and economies.

The Department of Planning and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

Proposal for temporary Cope Street closure

Overview

The Waterloo Station project is part of the Sydney Metro (Australia's biggest public transport project). The project will connect Sydney's north-west, west, south-west and greater-west to fast, reliable turn-up-and-go metro services with fully accessible stations.

The construction of Waterloo Station is being undertaken by John Holland. The scope includes improvements to the surrounding streets and footpath areas. Cope Street is one of the locations that this work takes place.

This proposal considers the opportunity to temporarily close the section of Cope Street between Raglan and Wellington Streets to facilitate the construction works as efficiently as possible, as well as minimise the number of traffic changes which need to be implemented. The management measures that would be implemented to reduce the impact of the proposed closure on the local community are also included.

A brief overview of the scope of work is included below, along with the benefits of the temporary closure of Cope Street.

Scope of work

The main works being undertaken to Cope Street include:

- Relocation of existing utilities to make provision for the new road and footpath works.
- New road pavement along Cope Street and changes to the kerb alignment to create a 40km/h 'slow street' intended to slow vehicular traffic and improve pedestrian safety. Cyclists will share the vehicle carriageway and therefore contribute to the slower design speed.
- Installation of traffic signals at the intersection of Cope and Raglan Street
- Increase to the width of pedestrian footpaths creating pedestrian priority for the new precinct.
- Landscaping works including tree planting and rain gardens on the western side of Cope Street to capture and re-use stormwater run-off.
- The eastern façade works for the new station are also constructed with access from Cope Street.

Refer to Figure 1 to Figure 3 for details and artist impressions of the completed works.

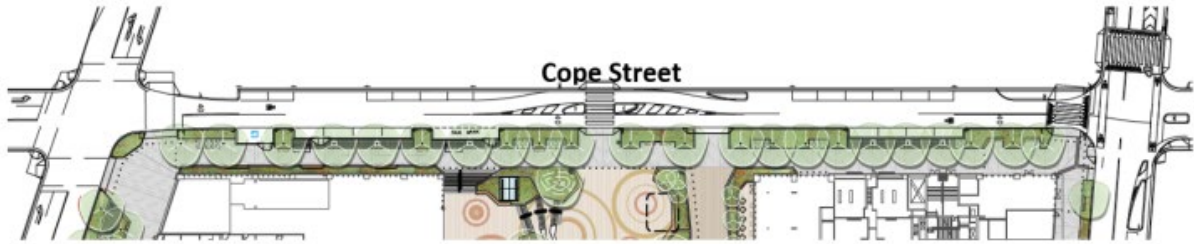


Figure 1 – Plan view showing the design concept for Cope Street with narrowed carriageway and landscaped footpath.



Figure 2 – Impression view of Cope Street after works are complete



Figure 3 – Existing view looking South on Cope Street with new station building overlaid.

Assessment of the temporary closure

The closure of Cope Street would remove access to the Land and Housing Corporation (LAHC) residential car park located between 209 and 213 Cope Street. The car park has 10 spaces available to LAHC residents. A review of existing on street parking has been undertaken by John Holland to determine availability within close proximity for residents as an alternative during the road closure. The review determined available untimed street parking is available on Cooper Street, which runs parallel to Cope Street to the east.

Services such as garbage collection will be impacted during the closure. John Holland is currently managing the LAHC waste bins on Cope Street south and propose to continue in the same manner, with the John Holland site team coordinating movement of the bins to Raglan / Wellington Streets for collection.

Where other services are identified that are impacted, John Holland will work with LAHC to facilitate a solution and prevent disruption to that service.

The current site set-up on Cope Street for the partial lane closure uses temporary moveable barriers and requires traffic controllers to manage the interface with the public. However, this does not prevent the public from accessing the site. Feedback from Redfern Police, Sydney Metro and Security subcontractor suggests installing a more robust perimeter fence will prevent unauthorised access to the site and remove the traffic controllers from unsafe interactions with the public.

The installation of perimeter fencing adjacent to the eastern footpath may result in reduced visibility. To improve visibility and ensure the pathway is well lit for pedestrians additional lighting

will be installed. Security cameras will also be positioned on the fence to manage security requirements and pedestrian safety.

Benefits of the temporary closure of Cope Street

The activities that are required to be completed and the benefit to the project and LAHC are outlined in Table 1.

Table 1: Benefits of the temporary closure of Cope Street

Activity	Detail	Benefit to LAHC
Multiple construction activities occur concurrently	<ul style="list-style-type: none"> • Civil works to improve the road and footpath • Façade installation to the station requiring a large crane to be located on Cope Street. This work will move progressively along Cope Street while the civil works occur. 	<ul style="list-style-type: none"> • Reduce the overall time needed to complete the work
Utility work within Cope Street	<ul style="list-style-type: none"> • With Cope Street closed to traffic, utility work required within the roadway will be completed without traffic control and during day shift. This improves worker safety and reduces the requirement for night work 	<ul style="list-style-type: none"> • Reduction in night shift required and therefore noise impacts on residents on Cope Street. Night shift would only be required where the utility provider stipulates, such as for outages for cut-overs.
Craneage	<ul style="list-style-type: none"> • A large crane is required to lift pre-cast panels onto the building façade. • This crane will move progressively along Cope Street during this activity. • Coordination will occur between the civil road works and the crane activities to allow the work to be completed concurrently 	<ul style="list-style-type: none"> • Reduce the overall time needed to complete the work • Minimises the number of changes to road configuration if Cope Street was not closed
Material delivery	<ul style="list-style-type: none"> • Delivery of material required to facilitate construction (e.g. façade and internal fitout of the station) 	<ul style="list-style-type: none"> • Reduce the overall time needed to complete the work
Interaction with local community	<ul style="list-style-type: none"> • 17 community incidents since February 2022 on and round Cope Street 	<ul style="list-style-type: none"> • Reduced interaction with LAHC residents

Activity	Detail	Benefit to LAHC
		<ul style="list-style-type: none"> Increased safety for John Holland workforce and residents.

Timeframes

The closure is proposed to be in place for a period of 12 months commencing in August 2022 and re-opened in August 2023.

By having this section of Cope Street closed for 12 months, there is an anticipated time saving of 3 months across the utility, civil and public domain (e.g. landscaping etc) works due to the concurrent work fronts and improved construction access.

With the above-mentioned timeframe, it is also important to note the potential for some impact of any unknown issues, such as inclement weather and or potential Covid restrictions on the target dates. Where constraints such as this are identified, John Holland will notify LAHC of any change to the duration of the closure.

LAHC and John Holland Interface

The closure of Cope Street will require specific management measures to be implemented to ensure any impacts are managed appropriately and any disruption minimised. The following section outlines the measures proposed. Consultation with LAHC will continue during the closure and any additional requirements can be raised with John Holland and management measures implemented.

- John Holland management of the LAHC waste bins on Cope Street is proposed to continue in the same manner it has been occurring to date (with the south end closure), with the John Holland site team coordinating movement of the bins to Raglan / Wellington Streets for collection.
- During the period of the proposed road closure, the vehicle access into the existing LAHC car park on Cope Street would not be available. To help reduce the impact of this on LAHC residents, John Holland has had discussions with CoS who have confirmed that they can provide 10 x parking passes which would allow the holder to park along the adjacent Cooper Street without the signposted time restrictions applying, noting there are already untimed parking spaces on Cooper Street.
- Pedestrian access will be maintained on the eastern footpath during the closure.
- Separation of the construction zone and the local road. The road closure removes public traffic from this section of road and maintains a consistent traffic arrangement through to when it is re-opened. This avoids any confusion for traffic and pedestrians with multiple different traffic arrangements being put in place and reduces the risk of a member of public entering the work area.

Consultation and Feedback

The Project Stakeholder and Community Manager has consulted with the following groups and Table 2 provides a summary of the outcome of this consultation

Table 2 Consultation Summary

Date	Stakeholder	Response
9 August 2022	<ul style="list-style-type: none"> Redfern Police & NSW Fire and Rescue 	<ul style="list-style-type: none"> Endorsement for closing Cope Street fully to allow for permanent barrier between community and worksite.
28 June 2022	<ul style="list-style-type: none"> City of Sydney 	<ul style="list-style-type: none"> Endorsed closure and provided ideas around ensuring parking on Copper Street remains vacant for residents
23 June 2022	<ul style="list-style-type: none"> Sydney Metro 	<ul style="list-style-type: none"> Supportive of full closure to ensure safety of workers and community.

Attachment 1: Location of works



Figure 4 – Plan view of proposed Cope Street traffic closure

Appendix E – Construction Noise and Vibration Impact Statement Rev 4

Separate file due to size