



Planning &
Environment

***MODIFICATION REQUEST:
Sydney Metro City and Southwest
- Chatswood to Sydenham***

***Central Walk - Modification to
Central Railway Station
SSI 7400 (MOD 2)***



Secretary's Environmental Assessment
Report
Section 115ZI of the
*Environmental Planning and Assessment
Act 1979*
December 2017

Cover Graphic — Indicative eastern concourse beneath Platforms 12-15 and above the new metro platforms (*Central Walk Modification Report*, TfNSW 2017)

© Crown copyright 2017
Published December 2017
Department of Planning and Environment
www.planning.nsw.gov.au

Disclaimer:

While every reasonable effort has been made to ensure that this document is correct at the time of publication, the State of New South Wales, its agents and employees, disclaim any and all liability to any person in respect of anything or the consequences of anything done or omitted to be done in reliance.

Table of Contents

EXECUTVE SUMMARY	II
1. BACKGROUND	1
1.1. Current Modification Requests	1
2. CURRENT MODIFICATION	3
2.1. Description of the Proposed Modifications	3
2.2. Strategic Need and Justification	5
3. STATUTORY CONTEXT	6
3.1. Modification of the Minister’s Application	6
3.2. Delegated Authority	6
4. CONSULTATION AND SUBMISSIONS	6
4.1. Public Notification	6
4.2. Public Submissions	7
4.3. Submissions from Government Agencies and Local Government	7
4.4. Proponent’s Response to Submissions	7
5. ASSESSMENT	8
5.1. Noise and Vibration	8
5.2. Non-Aboriginal Heritage	12
5.3. Traffic, Transport and Access	14
5.4. Other issues	18
6. RECOMMENDATION	21
APPENDIX A MODIFICATION REQUEST	
APPENDIX B SUBMISSIONS	
APPENDIX C RESPONSE TO SUBMISSIONS	
APPENDIX D RECOMMENDED MODIFYING INSTRUMENT	

EXECUTIVE SUMMARY

The Proposal

The Sydney Metro City and Southwest – Chatswood to Sydenham project, was approved by the Minister for Planning on 9 January 2017. Transport for NSW has since submitted a request to modify the project approval for additional works at Central Railway Station. Modification 2 “Central Walk” includes the following changes:

- Eastern concourse – construction of a new concourse to provide an accessible connection to the suburban and metro platforms at a common floor level;
- Eastern entry – a new access will be provided to Central Station and the new eastern concourse from Chalmers Street, Surry Hills;
- Platform Work – upgrade of suburban platforms 16-23, including lighting, signage, platform levelling and finishes; and
- Provision for a future extension of Central Walk to the west of the metro platforms.

The Department publicly exhibited the proposal from 21 June 2017 to 2 August 2017 (42 days) on its website and at locations including the State Library of NSW and the libraries of the City of Sydney (Waterloo, Haymarket and Council Chambers). The Department held community information sessions with Transport for NSW near Central Station, and created a dedicated Metro modifications web page, which linked to the Department’s major project register. Seventeen submissions were received by the Department, consisting of twelve community submissions (with two objections), four public authority submissions (including City of Sydney Council) and a submission from the Member for Sydney, Alex Greenwich MP.

Department’s Consideration

The changes will improve the overall Central Station customer experience, and will simplify customer interchange between light rail, existing city and suburban rail and the new Metro network. The project is justified on the basis that it will accommodate growth in public transport infrastructure and expected passenger demand, improve commuter amenity, and will provide the initial stage of the new east-west underground concourse.

The key issues considered in the Department’s assessment include direct and indirect impacts to local and State heritage listed properties; disruption to existing rail services; and construction related traffic, noise and pedestrian access related impacts.

The Department supports the proposed modification and considers that residual impacts can be managed to acceptable levels subject to additional conditions and additional project commitments that include:

- Addition of the MGM building and Central Station railway for salvage and archival reporting to existing heritage conditions E13 and E16;
- Ongoing consultation requirements with the City of Sydney Council and the Department for activation of the proposed Eastern entranceway/Surry Hills interface; and
- Additional design objective requirements.

Minor changes to the existing conditions are required, to ensure the proposal meets the Department’s requirements and safeguards expected by the community as reflected in the original approval. The Department acknowledges the broader project objective to re-develop the precinct whilst preserving its heritage character, and that increased functionality of Central Station will in turn support the revitalisation of the precinct.

1. BACKGROUND

The Sydney Metro City and Southwest – Chatswood to Sydenham project is primarily an underground metro rail line, 16.5 kilometres in length, between Chatswood Station and Sydenham Station. New metro stations would be provided at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street and Waterloo; and new underground platforms at Central. It forms part of a future modern high capacity rail network which also includes Sydney Metro Northwest (currently under construction) and the proposed Sydenham to Bankstown upgrade project.

Transport for NSW (TfNSW – the Proponent) has submitted a request to modify the Sydney Metro City and Southwest – Chatswood to Sydenham State significant infrastructure approval (SSI 7400) to construct Central Walk, a new east west concourse connecting the metro platform at Central Station with the Sydney Trains suburban line platforms and a new eastern entry on Chalmers Street. This modification addresses changes in impact, compared to the approved project.

The Sydney Metro City and Southwest – Chatswood to Sydenham project was approved on 9 January 2017 by the then Minister for Planning under Section 115ZB of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Sydney Metro City and Southwest – Chatswood to Sydenham is identified as a key priority transport infrastructure project in the NSW Government's *Sydney's Rail Future* and *Long Term Transport Master Plan* and was declared critical State Significant Infrastructure by the then Minister for Planning. Sydney Metro is also identified in the draft *Future Transport Strategy 2056* as a significant Government investment in the long term future of metropolitan rail services to meet customer needs and deliver the first fully accessible network.

Construction of the Chatswood to Sydenham component of the network commenced in June 2017 and is due for completion in 2024. Sydney Metro Northwest will commence operation in 2019. An Environmental Impact Statement for the Sydenham to Bankstown Upgrade was exhibited from 13 September 2017 to 8 November 2017. The Proponent is currently considering submissions.

1.1. Current Modification Requests

The Proponent has sought three modifications in addition to the modification the subject of the report since the Ministers approval. A description of these modifications and their status is provided below in Table 1.

Table 1: Modifications to SSI 7400

Modification	Status	Description
Modification 1 – Services relocations	Approved 18 October 2017	<ul style="list-style-type: none"> relocate Victoria Cross northern services building to 50 McLaren Street, North Sydney; include new northern entry at 50 McLaren Street; and relocate Artarmon substation to 98-104 Reserve Road in the Artarmon industrial area
Modification 3 – Martin Place Metro Station	Assessment	<ul style="list-style-type: none"> reconfigured station layout, including addition of 9-19 Elizabeth Street and alterations to street level layout of the station entries; provision of new unpaid concourse link between northern and southern station entries, beneath 50 Martin Place; and retain existing MLC pedestrian link and connect link to the Sydney Metro Martin Place Station subject to government decision to proceed with an unsolicited proposal
Modification 4 – Sydenham Station and Metro Trains Facility	Approved 13 December 2017	<ul style="list-style-type: none"> construction and operation of Sydney Metro Trains Facility South; Sydenham Station upgrade works; track and signalling works to separate the Metro from Sydney Trains heavy rail; and modification to Sydney Water’s Sydenham water detention basin

2. CURRENT MODIFICATION

2.1. Description of the Proposed Modifications

Transport for NSW has submitted a Modification Request (Modification 2) to modify the Minister's approval, in response to project design refinement of Central Station (**Figure 1 and Figure 2**) and ongoing consultation with stakeholders. The scope of the Central Walk modification request is summarised below.

Central Walk would be located beneath aboveground suburban platforms 16 to 23, as an extension from the Eastern Suburbs concourse to the approved metro concourse. It will be mined to minimise impacts to the platforms and platform canopies, which would also enable continued operation of the suburban rail system and reduce the extent of work required during rail possessions. Surface works will be required on the platforms and underground work beneath the platforms and tracks. The building at 22-28 Chalmers Street, a locally listed heritage item (former MGM building) would be demolished to construct a new station entry and above station entry building. Any potential over station development is not part of the modification request and will be subject to a separate approval process.

Table 2: Modification Description (SSI 7400 MOD 2)

Aspect	Description
Eastern Concourse	<ul style="list-style-type: none"> • construction of underground concourse between platforms 16-23, connecting Eastern suburbs concourse to the Metro concourse at a common floor level • modifications to the Eastern Suburbs concourse including staircase remodelling, ramp removal and new lift installation • escalators and lifts linking the eastern concourse to above ground suburban platforms • ticket gates at Devonshire Street entry realigned and widened • allowance for proposed future western extension
Eastern Entry	<ul style="list-style-type: none"> • located at 20-28 Chalmers Street providing direct access to Central Station from Surry Hills • direct interchange for passengers to and from CBD and South East Light Rail at Chalmers Street stop • provision for future over site development and potential connection to Randle Lane, Cooper Street and Elizabeth Street • ancillary infrastructure such as cycle parking
Aboveground suburban platform works	<ul style="list-style-type: none"> • decluttering to increase platform capacity and pedestrian circulation • releveling/regrading and installation of platform drainage • platform re-surfacing • removal of buildings and staircases • improved wayfinding and lighting
Ancillary infrastructure and services	<ul style="list-style-type: none"> • closure of baggage tunnels (that have been used as interim pedestrian tunnels) • modification to the (approved project) services route, to run underground services through a trench and above ground via a gantry to the south of platforms 4 and 5 • trenching the services route below platforms 4 and 5; • electrical upgrade of Lee Street Substation • mechanical ventilation for the eastern concourse, subsurface drainage, and installation of communication systems

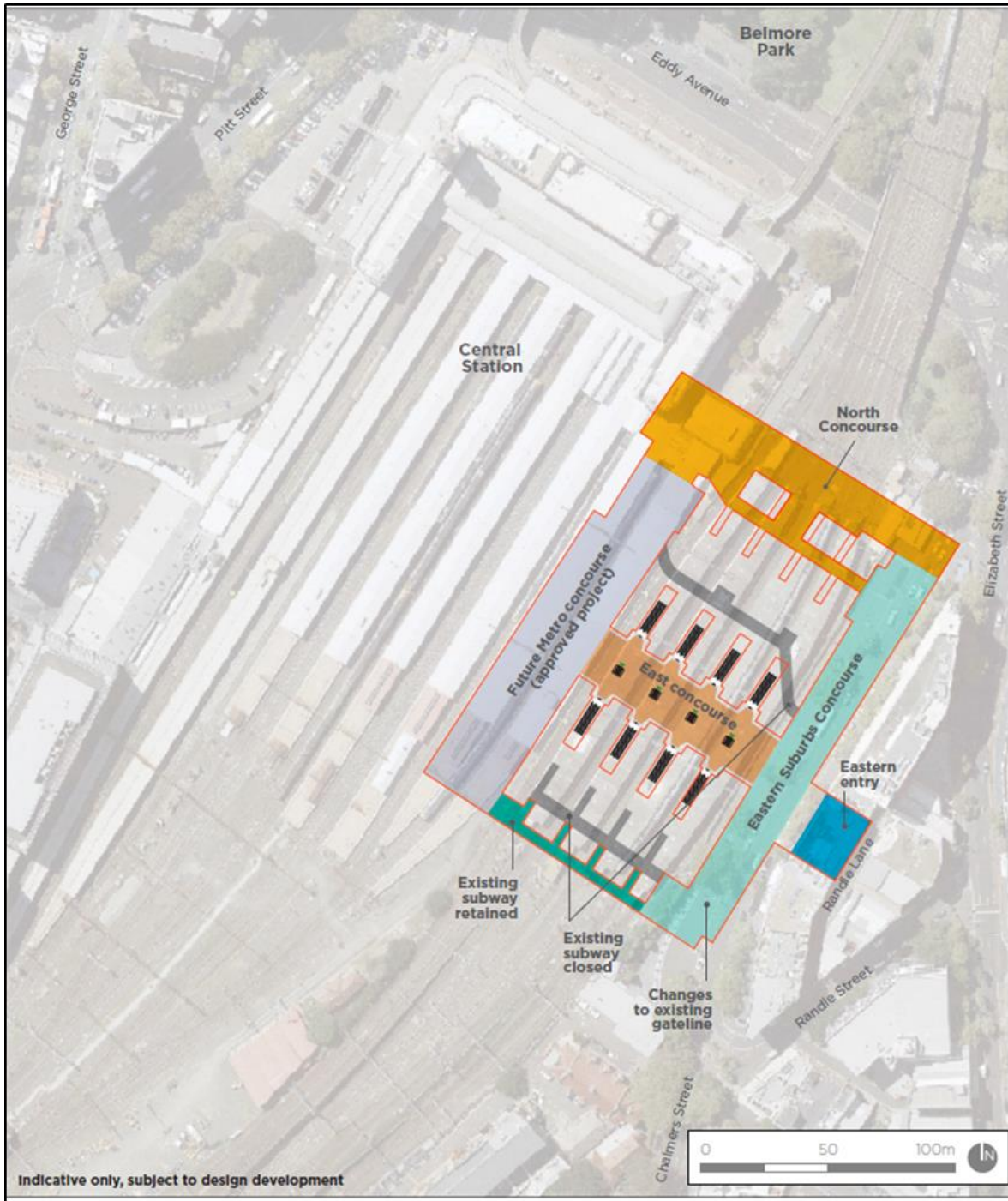


Figure 1: Indicative design layout of Central Walk (TfNSW 2017)

Construction is expected to take approximately three years, and will be scheduled to open at the same time as the approved Sydney Metro Chatswood to Sydenham project in 2024. Out of hours construction is proposed for works associated with the east concourse (refer to Table 3).

Construction will involve mining techniques for the east concourse and under Chalmers Street as this minimises impacts to rail operations. Construction would require temporary closure of some sections of the Eastern Suburbs concourse and the permanent closure of the Olympic Tunnel and the north branches of the southern commuter subway, and the stairs connecting to suburban platforms.

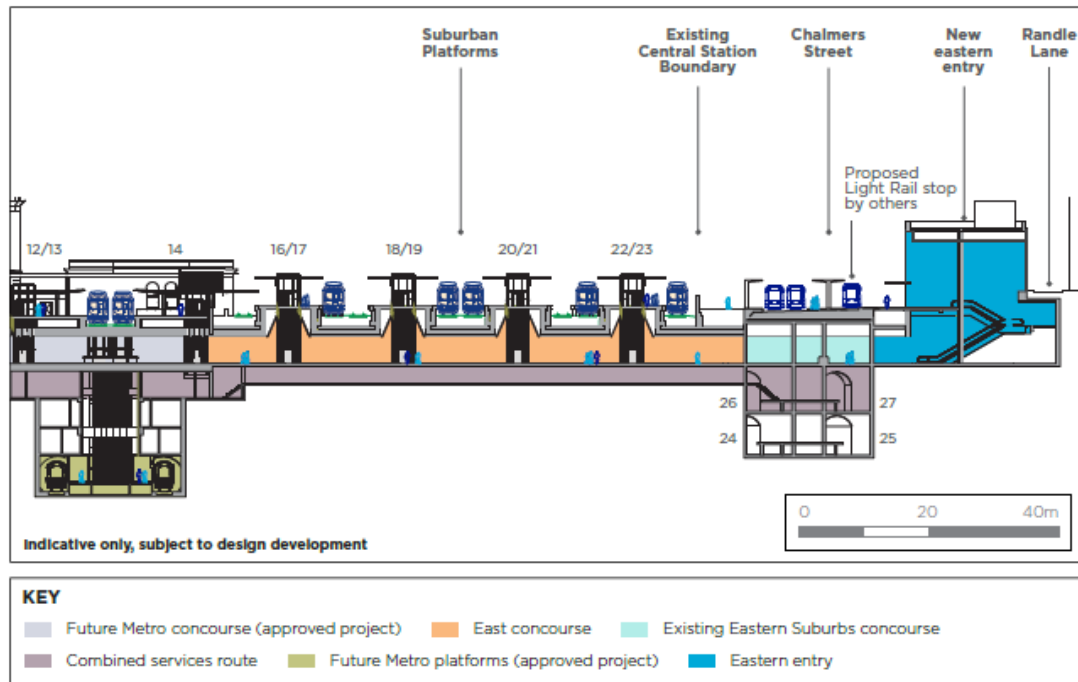


Figure 2: Central Walk long section (TfNSW 2017)

2.2. Strategic Need and Justification

Central Station is the focal point of public transport in NSW and is its largest railway station and transport interchange, with 2700 train services on a typical weekday. Central Walk would reduce pressure on existing aboveground suburban platform stairs and vertical transport, providing improved access to existing platforms as well as new metro platforms, with greater legibility for station users. Concurrent construction of the Central Walk with Sydney Metro would realise construction efficiencies that reduce impacts by consolidating construction compounds and access points, reduce build times, pedestrian inconvenience and cost.

Growth projections have identified that suburban platform clearance times would exceed the time between one train departing the platform and the next train arriving if no changes are made. Based on modelling undertaken by the Proponent, the number of passengers interchanging at Central Station is expected to grow by 79 per cent between 2014 and 2026, and a further 15 per cent between 2026 and 2036. This would result in platform congestion, further worsening station efficiency.

The historic approach to meeting pedestrian capacity has resulted in the conversion of “back-of-house” baggage and utility corridors to underground pedestrian tunnels to improve public access. Multiple level changes, unclear wayfinding between existing concourses and surveillance issues hinder efficient customer transfer and degrade the customer experience. These interim pedestrian tunnels will be replaced by Central Walk to address these deficiencies.

Customer research indicates that the overall amenity of Central Station is poor and any improvements to its function or aesthetics would be supported. Improvements to transport functionality would enable future redevelopment of the station and precinct, representing a substantial net benefit to NSW’s public transport system and surrounding urban interface.

Central Walk would progress Central Station as NSW's premier heritage landmark and public transport hub. The modification would better integrate the Central precinct with its surrounds, particularly improved access between Central and Surry Hills and would provide opportunities to activate the precinct to the east of Central Station in line with the goals of the Central to Eveleigh Urban Transformation Program.

3. STATUTORY CONTEXT

3.1. Modification of the Minister's Application

In accordance with Section 115ZI of the EP&A Act, a proponent may request the Minister to modify the approval for State significant infrastructure. The Minister's approval for a modification is not required if the infrastructure as modified will be consistent with the existing approval. Construction and operation of Central Walk is considered not consistent with the existing approval. Consequently, modification of the Minister's approval under Section 115ZI of the EP&A Act is required.

3.2. Delegated Authority

Under the Minister for Planning's Instrument of Delegation dated 11 October 2017, the functions and powers of the Minister for Planning to determine a modification of the Minister's approval may be delegated to an Executive Director reporting to the Deputy Secretary Planning Services whereby:

- the relevant local council has not made an objection;
- a political disclosure statement has not been made; and
- there are less than 25 public submissions in the nature of objections.

A political disclosure statement has not been made, the relevant local councils have not made an objection, but two public submissions in the nature of objections have been received. Accordingly, the Executive Director, Priority Project Assessments, is delegated the authority to determine the modification request.

4. CONSULTATION AND SUBMISSIONS

4.1. Public Notification

Under Section 115ZL(1)(g) of the EP&A Act, the Secretary is required to make requests for modification of approvals given by the Minister publicly available. Accordingly, the Department made the modification request publicly available and exhibited the modification from Wednesday 21 June 2017 on its website and at:

- NSW Service Centres;
- State Library of NSW;
- City of Sydney Council libraries (Haymarket, Waterloo, Council Chambers), and
- The Nature Conservation Council.

The Department accepted submissions until Wednesday 2 August 2017, a period of 42 days. The modification request was referred to the City of Sydney Council, Inner West Council, Office of Environment and Heritage including the Heritage Office, Environment Protection Authority, Department of Primary Industries and Fire and Rescue NSW who are the relevant authorities in regard to the proposed modification. Health Infrastructure was contacted for comment however no comments were provided.

During exhibition of the modification, the Department attended two community information sessions with Transport for NSW, and created a dedicated Metro modifications web page, which linked to the Department's major project website.

4.2. Public Submissions

Seventeen submissions were received by the Department, consisting of twelve community submissions (with two objections), four from public authorities (including City of Sydney Council) and a submission from the Member for Sydney, Alex Greenwich MP.

Community submissions focused on the future pedestrian access arrangements for Central Station, expressing concern that the western concourse extension would not be constructed concurrently, and highlighted the inconvenience to customers approaching the metro and suburban platforms from the west. Other issues raised in submissions include:

- access to the south of suburban platforms through the Devonshire Street tunnel;
- the eastern entrance should open to Randle Lane;
- the eastern concourse should extend under Elizabeth Street to the Centennial Plaza;
- provide improved wayfinding and visual information displays;
- locate the Metro platforms further east of their current position; and
- undercover secure bike storage area at Central station.

In its submission, Sydney YHA, owner and manager of two properties adjacent to the modification construction works, requested that no demolition works, underground excavation or above ground works be permitted after 9pm or before 9am on any day of the week.

4.3. Submissions from Government Agencies and Local Government

Environment Protection Authority commented on the potential to encounter contaminated soil and groundwater, and provided guidance on frameworks to mitigate potential risks. The EPA also commented on the noise and vibration assessment, as discussed in Chapter 5.

The Heritage Council of NSW commented on the assessment of the impacts on the heritage significance of the Sydney Terminal and Central Railway Station Group (State heritage listed). It recommends additional mitigation measures for the protection of Central Station and requested oversight of the Design Review Panel to ensure protection of the fabric and integrity of the Sydney Terminal group.

Department of Primary Industries raised issues regarding groundwater volume likely to be taken, monitoring and reporting.

City of Sydney Council expressed concern with the additional noise and vibration impacts; and provided comment on design elements and finishes; and strategic opportunities to activate the Randle Lane and eastern entrance precinct.

4.4. Proponent's Response to Submissions

The Department directed the Proponent to prepare a response to submissions received following completion of the formal exhibition period. TfNSW's response to submissions report clarified the issues raised, including the phasing of pedestrian access arrangements within Central Station during construction, justification for not pursuing the western extension, and concerns regarding impacts to amenity. Submission responses are described in the following assessment chapter.

5. ASSESSMENT

Impacts in addition to the those considered for the approved project include:

- construction noise and vibration impacts to additional residents and commercial receivers at Randle Lane, Chalmers and Elizabeth streets;
- direct and indirect impacts to the State heritage listed Sydney Terminal and Central Railway Station group;
- demolition of the former MGM building on Chalmers Street (a local heritage item);
- construction related traffic and pedestrian access impacts from road and footpath
- potential impacts to rail operations;
- closure of Randle Lane, Chalmers Street and Central station pedestrian tunnels; and
- adverse landscape character and visual amenity impacts during construction.

5.1. Noise and Vibration

Issue

While construction activities and hours of construction would be largely consistent with the approved project, there will be impacts to additional commercial, residential and health related receivers. Activities required to construct the project are identified in **Table 3** scenarios:

Table 3: Activities to construct Central Walk

Phase	Activity	Construction Hours	Duration
enabling works	Eastern entry – demolition, site establishment and services relocation	standard construction hours	9 months
	East concourse – platform works	standard construction hours and out of hours (during scheduled and non-scheduled possessions)	30 months;
earthworks	piling and initial excavation	standard construction hours	1 month
excavation	Eastern entry – shaft excavation	standard construction hours	2 months
	East concourse – mined concourse	standard and out of hours construction	20 months
construction	Eastern entry – underground and surface structural works and fit out	standard construction hours	11 months
	East concourse – fit out, testing and commissioning works, and platform works	standard and out of hours construction	7 months

Airborne noise

Receivers near the eastern entry will experience exceedances of the Noise Management Level (NML) of up to 20 dB during construction (Figure 3). Exceedances would occur across all construction scenarios for day and night time construction periods although these would be intermittent.

Change in impact would be greatest for those receivers on Chalmers and Elizabeth streets and Randle Lane in the immediate vicinity of the proposed eastern entry. Noise management levels at the Sydney Dental Hospital would be exceeded by 20 dB during excavation at the eastern entry.

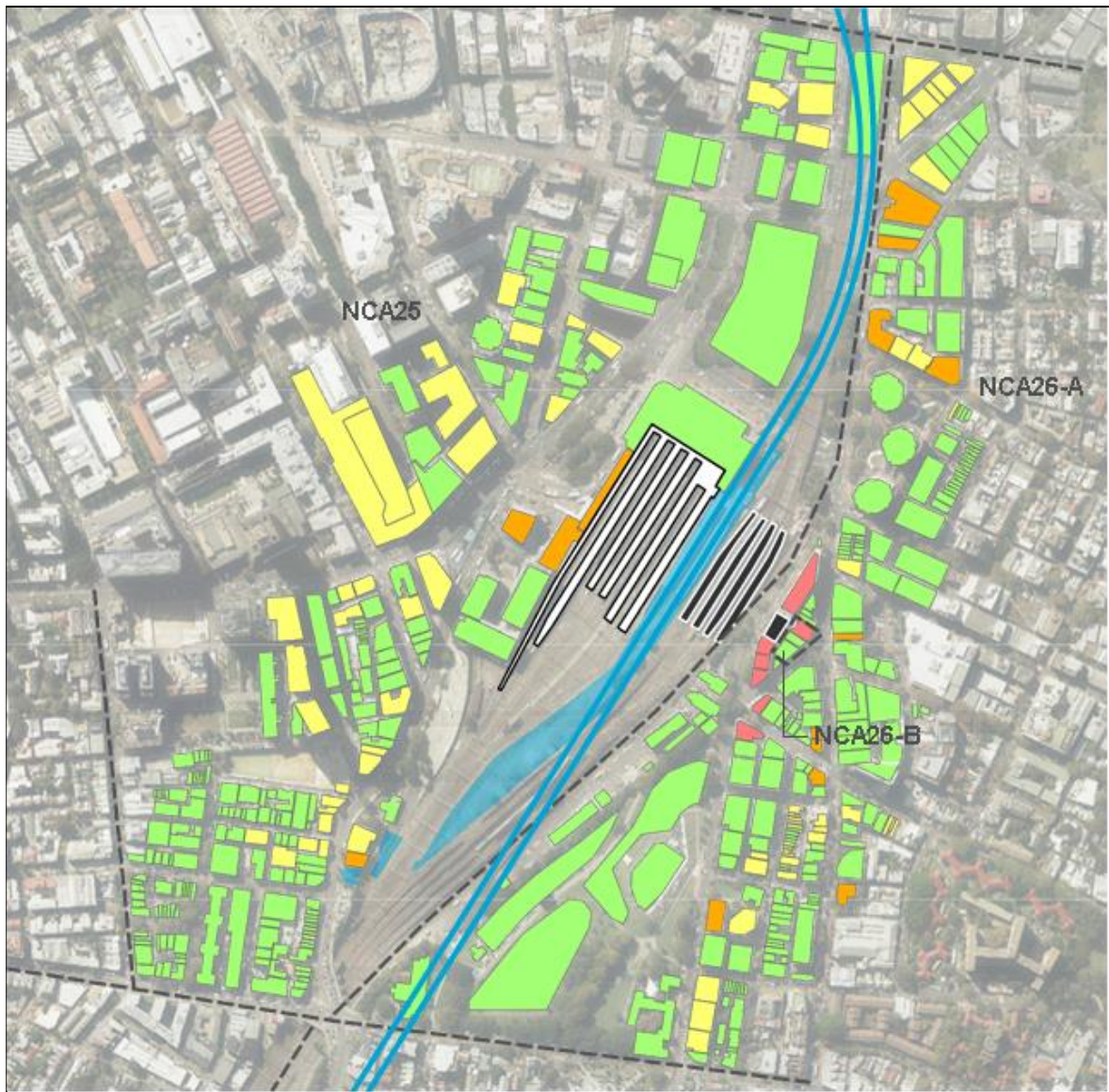


Figure 3: NML exceedances for night time enabling works for combined approved project and Central Walk modification. Red indicates an NML exceedance of 20dB or more, orange 10-20dB, yellow exceedances between 1-10dB, and green indicates compliance with the NML (TfNSW 2017).

Out of hours works on the platforms closest to receivers on Chalmers Street, platforms 22 and 23, will introduce the greatest impacts, however these would be expected to decrease as works progress westwards. Additional impacts to receivers would occur due to the change from standard construction hours for Metro platform fit-out and platform 12-14 reinstatement to 24-hour construction, which is allowed under condition E48 of the approved project. Surface and structural building works would take place during standard hours.

Ground-borne noise

Ground-borne noise would be largely contained within the corridor for the approved project. New impacts will be introduced outside of the corridor mainly from excavation works required for the eastern entry and eastern concourse, resulting in exceedances of the NML at:

- three residences adjacent to eastern entry by greater than 20 dB;

- the Sydney Dental Hospital by greater than 20 dB;
- two residences near the eastern entry by 10 dB to 20 dB; and
- four commercial receivers by greater than 20 dB

Rock breaking on the eastern entry site would be required for the final four metres of the shaft excavation. This is expected to occur for a period of around two weeks during standard construction hours. Consultation would be carried out with the Sydney Dental Hospital to determine suitable periods when this excavation work would result in a minimised impact to the operation of the Hospital.

Ground-borne vibration

Vibration impacts are anticipated at adjacent residential and heritage listed buildings on Chalmers Street. Vibration at the heritage listed Former R.C. Henderson Ltd Factory, Railway Institute Building and the Sydney Dental Hospital are predicted to exceed the relevant heritage building cosmetic damage screening criterion from excavation activities for the proposed modification works. Vibration at residential buildings at Randle Lane, Chalmers and Elizabeth streets is also predicted to exceed the screening criterion.

Construction traffic noise

Construction traffic noise on Randle Lane will increase by more than the 2 dB allowance criterion in the *NSW Road Noise Policy* due to the significant increase in traffic during both possession and non-possession periods, compared to existing levels which are currently low.

The NML would be exceeded at Randle Lane, by 15 dB during the day time and 12 dB at night when work occurs during rail possessions. Outside of possession periods a 17 dB exceedance during the day is expected.

Operational noise impacts

Ancillary facilities such as air conditioning units in the new eastern (Chalmers Street) entry are expected to result in operational noise impacts at the Sydney Dental Hospital if no mitigation were applied. Consistent with the approved project, these impacts would be managed by designing the facility to include appropriate noise attenuation measures to meet the applicable criteria in the *Industrial Noise Policy*.

Submissions

The EPA acknowledged that the project approval conditions are appropriate for the proposed modification but identified an issue of utility providers carrying out work related to a project outside of standard work hours and during programmed respite periods for the surrounding receivers. It requested the Department consider additional conditions of approval for managing noise and vibration impacts, which include implementing a coordinated approach to the management of utilities and implementation of a Utility Management Strategy.

The City of Sydney raised a number of concerns with the noise and vibration assessment, including the intensity of noise impacts and the vibration criteria although notes the Proponent's commitment to consult with affected receivers during construction.

The YHA, with two properties on the western side of Central Station, requested no construction take place after 9pm or before 9am on any day.

Consideration

The greatest noise increase will occur during enabling and excavation works due to the proximity of sensitive receivers to construction and the time of day works are likely to be scheduled. Enabling works are expected to occur periodically over a 30-month period, with

exceedances above 20 dB affecting approximately fifteen receivers located at Chalmers and Elizabeth streets and Randle Lane.

Whilst out-of-hours works would be disruptive, activities would be scheduled to minimise exposure to noise exceedances. However this would be balanced against minimising disruption to the transport network. Avoidance of network interruptions is one of the key considerations that would inform the works schedule.

The noise and vibration assessment did not quantify the expected reduction in impacts as construction moves further away from sensitive receivers toward the Metro platforms, but is based on the worst-case scenario. The Department accepts that impacts will reduce as they progress, and that generally existing conditions of approval would provide an appropriate safeguard against noise impacts from the proposed activities which are consistent with those in other locations along the alignment.

Currently, by provision of condition E48, excavation can be undertaken at Central Station on a 24 hour 7 day a week basis without an acoustic enclosure, due to the distance of the works to the nearest sensitive receiver. Given the proximity of eastern concourse excavation to sensitive receivers the Department recommends alteration of this condition to exclude this provision for Chalmers Street and the associated excavation works for the eastern entry and concourse.

The Department acknowledges the City of Sydney's concerns regarding the introduction of additional noise and vibration impacts. Overall, these additional noise and vibration impacts, as for the approved project, will require careful management and extensive consultation with residents and other receivers to ensure an acceptable outcome.

Conditions for the approved project that will apply to the modification include:

- condition E33 requires Construction Noise and Vibration Impact Statements to be prepared for each construction site and the development of specific mitigation measures identified through consultation with affected sensitive receivers. The proponent will be required to work with affected receivers, such as the YHA and residents, to develop site specific mitigation measures to limit noise impacts;
- condition E37 and E38 which require detailed measures to manage respite periods for ground-borne noise impacts on internal noise levels for all receivers, specifically where rock breaking and other annoying noise impacts will take place for more than 50% of work hours between 7am and 8pm. The Department notes the Proponent's commitment to limit rock breaking to less than 50%, restricted to standard construction hours through the day, however this condition will come into effect should these requirements change;
- condition E41 sets the trigger levels that govern the requirement for additional mitigation measures for residential receivers in non-residential zones if rock breaking and other annoying activities occur; and
- condition E43 sets the maximum noise level for workplace health and safety of nearby workers which has been enhanced by an additional mitigation measure, which enhances protection of commuters and shop staff during construction.

For traffic noise exceedances, the Proponent has committed to examining opportunities to minimise heavy vehicles movements on Randle Lane at night. These measures would be included in an updated Construction Noise and Vibration Strategy, for the Secretary's approval.

In response to the EPA and the City of Sydney's submissions regarding vibration impacts, the Proponent states that detailed structural assessment and attended vibration monitoring,

as described in the Construction Noise and Vibration Strategy for the approved project, will be undertaken to ensure that ground-borne vibration levels can be appropriately managed. Further, the Department notes that additional protection is provided by Conditions E30 and E31, which require heritage specialist advice for appropriate monitoring of heritage structures for ground-borne vibration impacts, and setting of minimum working distances to prevent cosmetic damage.

The Department acknowledges the EPA's position regarding the co-ordination of utilities upgrades or relocation activities with other project-related construction activities, having identified similar issues on other recent major infrastructure projects. Condition E39 requires the Proponent to coordinate with other projects to minimise impacts. In addition, the Proponent has committed to reducing impacts from third party projects with the creation of the Sydney Metro Utility Working Group. The Group has been established to identify, manage and coordinate the proposed utility works with the planned activities of utilities providers. The Department supports this approach.

Additional mitigation commitments are proposed by the Proponent for the implementation of work health and safety measures for Central Station workers, retail staff and the public. The Department is satisfied that these additional measures, as well as the existing conditions of approval, provide an appropriate framework to manage the construction and operational noise and vibration impacts to acceptable levels. Therefore, only minor amendments to conditions are recommended to existing conditions. These will ensure that exceedances are managed for commercial occupiers, adjacent residents and users of Central Station.

Conclusion

The Department notes the Proponent's commitments to avoid, minimise and manage impacts, including the Sydney Metro's Construction Noise and Vibration Strategy for the approved project. Additional impacts are largely consistent with the approved project hours of construction and construction activities and will be managed in accordance with existing conditions of approval.

5.2. Non-Aboriginal Heritage Issue

Direct impacts to additional heritage elements include alteration and removal of elements that contribute to the significance of the State Heritage-listed Sydney Terminal and Central Railway Group, and demolition of the locally-listed former MGM building on Chalmers Street for the new station entrance.

Physical impacts to the Sydney Terminal and Central Railway Group includes:

- for above ground platforms
 - removal and reinstatement of contributory items such as staircases and balustrades for platform upgrades;
 - Addition of escalators and lifts within the new concourse and suburban platforms; and consequential impacts to canopies;
- for below ground platforms
 - permanent use of the unused underground "ghost" platforms for services installations; and changes to layout and fittings of the existing Eastern Suburbs concourse;
- modification of the Devonshire Street tunnel gate line and entranceway;
- trenching for the services route below platforms 4 and 5;
- alterations to pedestrian tunnels and station entrances; and
- removal of archaeological deposits, especially related to earlier phases of station development.

Impacts to the historical relationships between heritage items and their settings and visual connectivity are anticipated. The Eastern Suburbs Railway Line, a component of the Central Electric Precinct and contributor to the significance of the Sydney Terminal group, will be impacted through changes to the Eastern Suburbs platform access routes and existing concourse, from removal of the internal ramp, widening the staircase and inclusion of a lift.

The proponent's assessment states that the significance of impacts to above ground suburban platforms has increased from a rating of moderate for the approved project to major.

Excavation of the eastern entry and eastern concourse would impact on the former Railway Place Residences (beneath the MGM building and Chalmers Street), which are of high research potential and of local significance.

Temporary construction-related heritage impacts will be largely confined to views and settings, from the alteration of pedestrian access, the additional construction site on Chalmers Street, and the use of machinery and plant within the eastern concourse.

Submissions

The Heritage Council noted the likelihood of major physical and visual cumulative impacts, the potential impact to the legibility of historic layers and State significant values of the Sydney Terminal group. It requested additional information and ongoing consultation on detailed design plans; and that the Design Review Panel (as required by existing condition E100), of which it is a member, further consider these issues as well as the management of any fabric to be removed or destroyed.

The City of Sydney acknowledges the impacts to the Central precinct, and considers the location of the eastern entrance and demolition of the former MGM building appropriate with the implementation of mitigation measures including salvage of elements for interpretive use in the new entrance building and for use on other conservation projects.

Consideration

Substantial works are required to upgrade Central Station to meet future demand, and the Department endorses the Proponent's design goal of maintaining Central Station as a landmark public building, heritage place and the largest transport interchange in NSW while ensuring it integrates new modes of public transport.

The Department acknowledges that the modification will affect the heritage significance of the Sydney Terminal and Central Railway Stations Group, but considers that an appropriate framework is in place to minimise and manage heritage impacts. The modification would reinforce the function and prominence of the station and precinct, by introducing a contemporary phase of use, which is intrinsic to its State heritage value.

An addendum to the approved Archaeological Assessment Research Design (AARD) was prepared by the Proponent to address the additional excavation works beneath the suburban platforms, Chalmers Street and the former MGM building. Archaeological Method Statements, required for each stage of archaeological works, will be prepared under this framework document to establish protection, management and mitigation requirements through construction.

The AARD identifies the high potential for State significant finds during excavation, and that any archaeological evidence of government and institutional uses at Central, are rare with high research potential, consistent with the approved project.

The Heritage Council agrees that guidance provided by the amended AARD is appropriate to manage any archaeology uncovered during construction. The Department is therefore satisfied that an appropriate framework for archaeological protection has been provided and no new conditions of approval, beyond minor administrative amendments, are necessary.

The Department recommends that conditions E13 and E16 regarding archival recording and salvage are modified to include the former MGM Building on Chalmers Street, to ensure this heritage item is appropriately recorded before its demolition and its materials re-used where possible.

The inclusion of the new gantry and services route at the southern end of platforms would add to the existing cluttered and highly modified environment of Sydney Yard. The proposed demolition of the former MGM building on Chalmers Street for temporary use as a construction compound, and final form of the proposed eastern entry will also permanently change the views of this streetscape.

The approved project requires the establishment of a Design Review Panel to provide advice on heritage integration with the new works and to interpret the specifically identified Metro project design objectives for advising on the development of the overall project design, including work affecting historic heritage. This framework would also apply to the modification and is consistent with the recommendation of the Heritage Council.

The Design Review Panel will be supported by skilled professionals from the fields of architecture, urban design, landscape design and heritage architecture. It is intended that panel members would provide independent design review and advice periodically throughout the development of the Central Station detailed design with the City of Sydney Council to have an advisory role in relation to key urban design and placemaking outcomes for the city.

The Department considers that design decisions as they relate to heritage matters will receive adequate oversight to ensure the heritage integrity and significance of the Sydney Terminal and Central Railway group is maintained and that the distinctive layers of Central development remain legible.

Overall, the Department accepts that the assessment of impacts to heritage significance of identified items is appropriate and that those impacts are largely unavoidable to achieve the key objective of improving the accessibility, wayfinding and user experience of the station precinct. Further the modification will reinforce and enhance the precinct's ongoing role as the pre-eminent transport interchange in the State on which the heritage significance of the Central Station precinct is based.

Conclusion

The Department considers that the management framework established for the approved project is appropriate to manage and protect historic heritage near the Central Walk modification. The modification will ensure Central Station maintains its function as Sydney's key public transport hub, as reflected in the heritage listing.

5.3. Traffic, Transport and Access

Issue

Construction Traffic

Approximately 33,000 cubic metres of spoil will be generated in addition to the 230,000 cubic metres generated by the approved project at Central Station. Additional construction vehicles would be required for spoil haulage and material delivery around the eastern entry

construction site on Chalmers Street, Surry Hills and on Regent Street Chippendale accessing the Sydney Yard access bridge.

Vehicles associated with demolition of the former MGM building and construction of the eastern entry would access the site via Randle Lane during daytime access for up to nine months. Randle Lane would be closed for around three months during excavations for the new station entry.

Twelve light vehicle and 16 heavy vehicle movements per hour would be generated in the AM peak during rail possessions for excavation and construction. There are typically 30 scheduled possessions a year in varying configurations at Central Station suburban lines.

There is potential for cumulative traffic impacts on the surrounding traffic network, with traffic impacts expected on Eddy Avenue, Elizabeth Street, Chalmers Street south of Devonshire Street, and Cleveland Street from other projects such as the CBD and South East Light Rail (CSELR), although it is noted that construction is almost complete at this location.

Intersection and regional road performance is expected to be consistent with that of the approved project, with only a minor decrease in traffic performance predicted due to the modification. Haul routes will be largely the same as the approved project and will be guided by the approved project objectives, which are to minimise use of residential streets, to avoid a.m. and p.m. peak periods, and to use haulage routes used by other projects to maximise the use of arterial roads.

Pedestrian Access

Chalmers Street footpaths and cycleway would be temporarily closed during construction. Figure 4 shows the location of these works and access routes to the station at completion. The eastern side of Chalmers Street would be closed for up to three months in mid-2019, to accommodate demolition and excavation works for the eastern entry. In late 2019, the western footpath would be closed for up to three months to reinstate the boundary wall.

TfNSW has committed to scheduling the closure of Chalmers Street footpaths outside of the approved project closure of the Devonshire Street pedestrian tunnel, which will close for two weeks, to minimise access disruptions to Central Station.

Construction would introduce changes to pedestrian tunnels below the suburban platforms, resulting in the temporary deterioration of pedestrian flow. Poor performance of pedestrian flows will be mostly restricted to platforms 16 and 17 in the AM peak, and platforms 18/19 in the PM peak. Phasing of pedestrian tunnel closures will minimise these impacts. The Olympic tunnel will be permanently closed at the commencement of Phase 2.

Train services

Rail possessions are a routine component of rail network operations used to undertake safety and maintenance work out of hours including nights and weekends. Buses replace trains during these times to minimise disruption to the public transport network. All works would be scheduled to coincide with Sydney Trains maintenance and construction activities for the approved project.

Construction impacts will be minimised by mining the concourse tunnel. Mining under Chalmers Street, suburban platforms and tracks will minimise disruption to the transport network in comparison to a cut-and-cover method which would require substantial closure of Chalmers Street and suburban passenger rail lines for extended periods.

Submissions

Public and City of Sydney submissions note the additional time and distance required for commuters approaching Central from the west to reach the Metro concourse, which would require walking the full extent of the Devonshire Street tunnel before turning back in a westerly direction toward the centre of the station or walking through the congested Central concourse. Submissions suggested additional station entrances be provided, including a direct entrance from Devonshire Street tunnel into the new concourse, and widening the tunnel to accommodate more pedestrians. Submissions also requested the concourse from Chalmers Street to Railway Square be constructed in its entirety to improve pedestrian flow.

The EPA requested consideration of work trains to move spoil to minimise heavy vehicle movements.

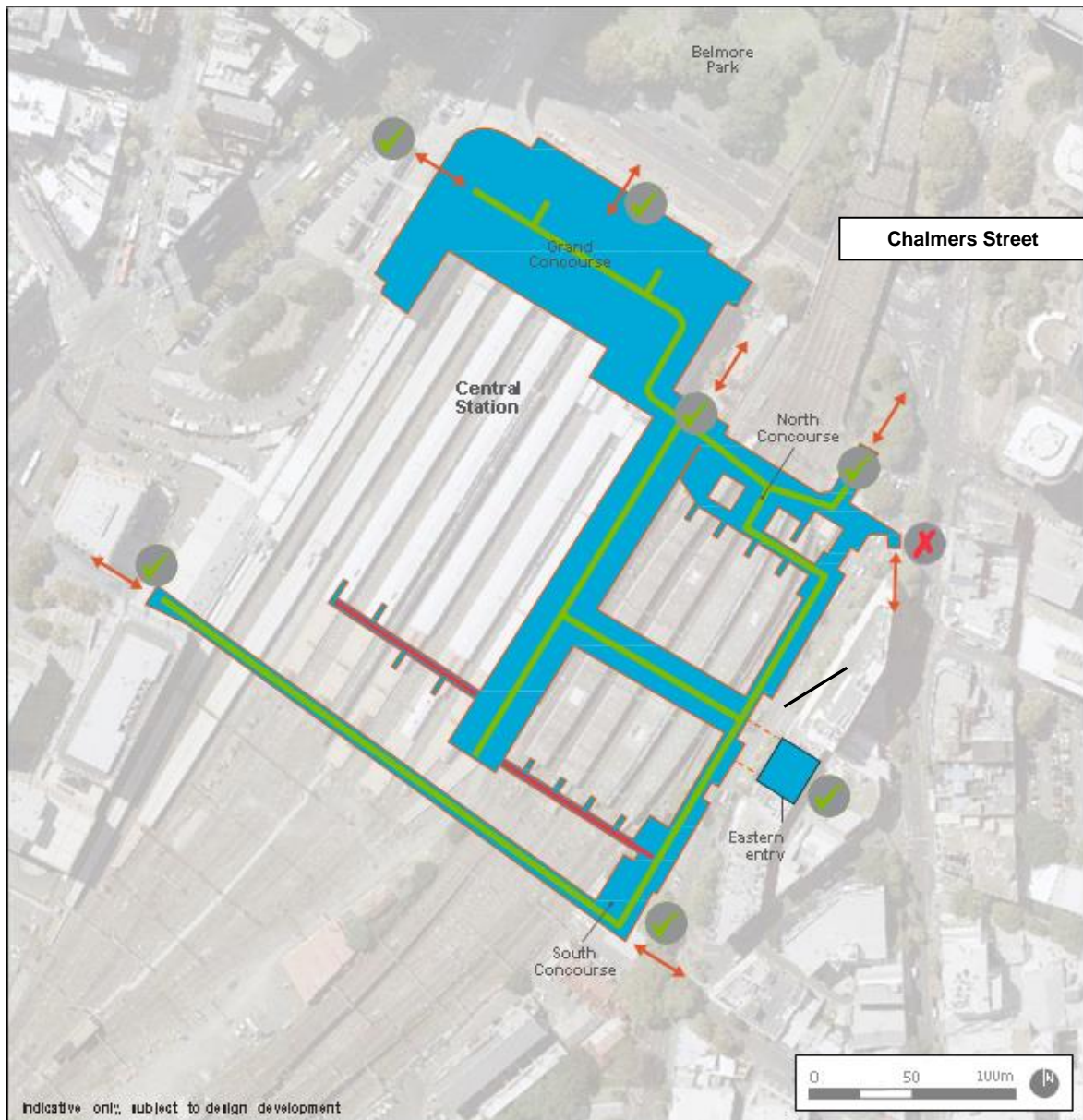


Figure 4: Future station accessible routes at Central with the approved project and the proposed modification

Consideration

The Department acknowledges that Central Walk construction will contribute additional impacts and disruption to traffic, train services and pedestrian access within Central and to the network more broadly, and that impacts will require careful management.

Despite this, the Department considers that construction traffic can be managed to avoid unacceptable impacts by implementing the existing conditions of approval. These conditions include establishment of the Traffic and Transport Liaison Group to manage construction traffic with the Sydney Coordination office, RMS and Council consultation and input. This will ensure that the impacts of this proposal are considered within the context of other construction and traffic activity within the broader network and provide a regional response to managing traffic flows. In addition, a Construction Traffic Management Framework is also required to manage construction traffic at the local level which considers site vehicle movements, cumulative construction vehicle management, and a process to respond to local circumstances.

The Department acknowledges the proposed supplementary mitigation measures and strategies that address pedestrian flows through the station and on platforms, such as encouraging passengers to exit platforms at the closest stair case or escalator, signage and marshalling of passengers waiting to board to minimise those waiting adjacent to hoarding and directing passengers so that there is even distribution along the platforms.

TfNSW has committed to maintaining vehicle access in Randle Lane. However, if access cannot be maintained, the proponent will seek agreement with affected owners and residents to provide alternative parking or storage arrangements. The Department agrees with this approach, and as such has recommended this measure as an additional condition of approval.

The existing approval requires that heavy vehicle movements be minimised during peak periods. The proponent has advised that using trains to remove spoil as recommend by the EPA, would substantially impact on passenger services as long periods of network shutdowns would be required. Notwithstanding, condition E84 requires the Proponent to investigate opportunities to maximise spoil removal by non-road methods and this would also apply to the Central Walk modification. The findings of this investigation must be provided to the Secretary before construction commences, to ensure the issue is appropriately considered.

Submissions requested consideration be given to widening Devonshire Street tunnel to improve pedestrian flows; direct access from the Devonshire Street tunnel to Metro platforms; and completion of a western concourse to link across the intercity and country platforms to Lee Street. In its response, the Proponent identified a number of engineering constraints that would cause significant disruption to pedestrian access and rail services, including:

- the proximity of suburban platforms to the Devonshire Street tunnel; and
- the impacts that tunnel interventions would have on suburban platform and rail operations.

It is also stated, and acknowledged by the Department, that the western concourse is beyond the scope of the metro works, and would be delivered as a component of the Government's commitment to the Central Precinct Renewal Project separate to this modification.

The Department considers that the issues around pedestrian flow and integration within the Surry Hills precinct and within the station itself are adequately addressed by approved conditions. The Interchange Access Plans (condition E91) and Station Design and Precinct

Plans (Condition E101) are required to inform the design of access to the metro station, to ensure that an optimal passenger, pedestrian and cyclist access is provided, and ensure an integrated urban and place-making outcome is achieved.

The Department considers that the proposed modification would result in a more legible and accessible layout for station users that removes reliance on the north concourse as the main interchange point between Metro, suburban trains and the light rail. The modification supports direct Metro access, improved pedestrian movement and amenity, and decreased pedestrian crowding and congestion.

Conclusion

On balance, the improved pedestrian flow and general accessibility that would be realised with the operation of Central Walk are considered to outweigh temporary impacts to the traffic and transport environment. The Department considers the additional mitigation measures to address potential traffic, transport and access impacts, with the existing conditions of approval are sufficient to reduce impacts to an acceptable level.

5.4. Other issues

Visual Amenity, Urban Design and Landscape

The visual assessment concludes that the impact will be no greater than predicted for the approved project, with impacts from the eastern entry construction site resulting in negligible and temporary visual impacts to the eastern Devonshire Street entrance and surrounding environment. The proposed eastern entry to Central Walk will further change the urban character of Chalmers Street through the demolition of the former MGM building and construction of the eastern entrance, disrupting the heritage and visual relationship between the Sydney Dental Hospital, the MGM building and the RC Henderson factory on Randle Lane as shown in Figure 5.

Chalmers Street will be permanently closed to general traffic between Elizabeth and Randle streets with the introduction of the CSELR. These changes, along with those proposed for the modification, will bring substantial changes and opportunities to the Chalmers Street urban setting upon project completion.

The Department acknowledges the updated design guidelines drafted to meet the requirements of specific elements of the modification for platform upgrades, concourse and eastern entry design, to ensure that high quality outcomes are achieved.



Figure 5: Eastern entry artist impression (TfNSW 2017).

Conditions of approval issued for the approved project would also apply to the proposed modification, including:

- Condition E101, governing the integration and development of Station Design and Precinct Plans;
- Condition E92, guiding the final design and integration of public domain and transport initiatives around each station; and
- Condition E102, which mandates the requirement to achieve a minimum visual impact of 'minor benefit' for all design elements of the project.

The Design Review Panel, established for the approved project (Condition E100) to advise on detailed design and on the application of design objectives would also consider key elements of the Central Walk modification and surrounds. The Department supports the updated design guidelines for the modification, that place heritage and place-making as core design objectives.

The Department also notes the Proponent's commitment to integrate the eastern entrance with local planning controls and strategic planning initiatives in consultation with City of Sydney Council. This is considered an appropriate framework to ensure the interface between the modification and the urban environment is appropriately designed and integrated.

Business Impacts

Three businesses would be acquired to construct Central Walk. These include 20-28 Chalmers Street (former MGM building), currently operating as a budget hotel and restaurant; and a takeaway at the eastern Devonshire Street tunnel entrance which is subject to a TfNSW lease termination.

Transport for NSW has committed to managing the transfer or termination of any leases within the former MGM building, and to making every effort to acquire the affected property through negotiated purchase.

During construction, businesses near the modification may be exposed to dust, elevated noise and vibration impacts and obstruction to pedestrian access which could impact on customers and staff. Disruption to utilities, such as periodic shutdown of electricity and water, may also occur.

Operational impacts include the possibility of increased rents associated with a newly developed streetscape, however the positives of improved customer access and amenity are considered to outweigh this, at least in terms of overall customer benefit and flow on effects to business.

The Construction Environment Management Framework and the Business Management Plan are two project-specific measures required by the existing approval conditions that the Department considers will minimise impacts to an acceptable level. The Business Management Plan is intended to identify specific measures and strategies that can be employed to minimise disturbance to businesses by consulting with business owners on upcoming construction activities, proactively providing support for businesses and ensuring access is always maintained.

Given that construction impacts will be temporary, negative business impacts to the broader area are outweighed by the positive changes to amenity provided by improvements to the aesthetic, function and design of Central Station as provided by Central Walk.

Aboriginal Heritage

There is potential for extant Aboriginal artefacts and remains to be encountered, although exhumation of the Devonshire Street cemetery to facilitate construction of earlier phases of Central station and the Eastern Suburbs line would have reduced this likelihood.

Potential to uncover Aboriginal objects is recognised near platforms 4 and 5 for the Sydney Yard services trench and a narrow section of the Chalmers Street Road corridor which was not impacted by previous Central Station work and such the quaternary sand deposit remains largely intact.

The Department is satisfied that the Aboriginal Cultural Heritage Assessment Report, required for Condition E24, updated where necessary and implemented would provide adequate guidance for the management of potential Aboriginal cultural heritage discovered during site excavations. The Department recommends amending Condition E24 to include the scope of the Central Walk modification. The Construction and Environmental Management Framework for the approved project would also apply.

The Department is also satisfied that the existing unexpected finds procedure, and other measures to avoid or minimise impacts to objects should they be uncovered during construction of the project, will provide adequate protection of any discovered Aboriginal objects.

6. RECOMMENDATION


While there will be some additional and new impacts from the creation of “Central Walk” when compared to the approved project, the Department is satisfied these can be managed by the implementation of the proponent’s commitments and with existing and amended conditions of approval.

Careful management of heritage, noise and traffic issues will be key factors in reducing impacts to acceptable levels. Overall it is concluded that the proposed modification’s operational benefits outweigh its potential impacts and that any residual impacts can be managed and would not, subject to conditions, result in any long term adverse or irreversible effects.

It is recommended that the Executive Director, Priority Projects Assessment, as delegate for the Minister for Planning:

- consider the findings and recommendations of this report;
- determine that the application falls within the scope of section 115ZI of the EP&A Act;
- approve the modification application Modification Sydney Metro City and Southwest – Chatswood to Sydenham Modification to “Central Walk” Mod 2, subject to conditions; and
- sign the attached instrument of modification (Attachment D).

Recommended by:



21/12/17

Glenn Snow
Director Transport Assessments

DECISION

Approved by:



David Gainsford 21/12/17.
Executive Director
Priority Projects Assessments

APPENDIX A MODIFICATION REQUEST

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8551

APPENDIX B SUBMISSIONS

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8551

APPENDIX C RESPONSE TO SUBMISSIONS

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=8551

APPENDIX D RECOMMENDED MODIFYING INSTRUMENT
