NSW GOVERNMENT | sydney METRO

City & Southwest

Sydenham to Bankstown Upgrade

Bankstown Station modification report

May 2020

Table of contents

Table index

Figure index

Appendices

1. Introduction

1.1 Overview

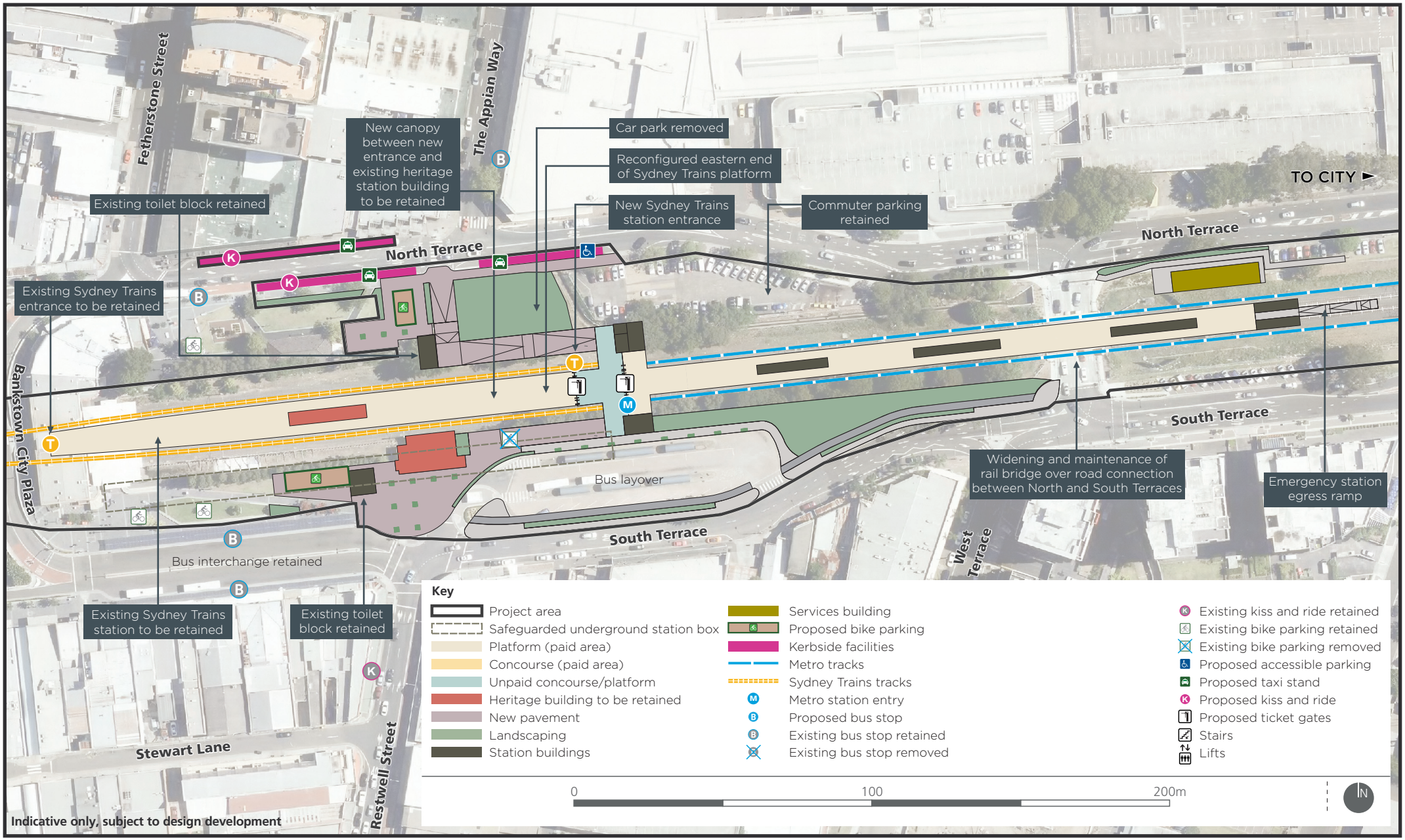
Planning approval for the Sydney Metro City & Southwest Sydenham to Bankstown upgrade (the approved project) was granted by the Minister for Planning (now the Minister for Planning and Public Spaces) under Section 5.19 of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) on 12 December 2018.

The approved project involves upgrading 10 existing stations west of Sydenham (Marrickville to Bankstown inclusive), and a 13 kilometre long section of the Sydney Trains T3 Bankstown Line, between west of Sydenham Station and west of Bankstown Station. The approved project will improve accessibility and interchange for customers and provide increased train frequency and more direct access to key employment centres and new stations, including Waterloo, Pitt Street, Martin Place, Barangaroo, Victoria Cross (North Sydney) and Crows Nest.

1.2 The approved project at Bankstown Station

The key design elements of the approved project for Bankstown Station are summarised below and illustrated in Figure 1.1:

- Station works:
  - The existing Sydney Trains station entrance at Bankstown City Plaza would be retained
  - A new corridor crossing would be provided at the eastern end of the existing Sydney Trains platform and would provide access to both the Sydney Trains platform and new Sydney Metro platforms
  - New station plazas would be constructed at station entrances on both sides of the rail corridor
  - The heritage listed Sydney Trains platforms would be retained with minor modifications required at the eastern end
  - New Sydney Metro platforms would be constructed to the east of the new at-grade corridor crossing
  - All station buildings (including the heritage listed station building and Parcels Office) on the Sydney Trains platforms would be retained
  - A new canopy would be constructed over the Sydney Trains platform between the new station entrance and the existing platform building.
- Station area:
  - The bus layover area on South Terrace would be retained with minor adjustments to accommodate the new station entrance
  - The bus interchange area on South Terrace, near the existing station entrance, would be retained as would the existing bus stop on North Terrace
  - Changes would be made to kerbside facilities and parking along North Terrace, between the new station entrances and the existing entrance. Existing kerbside facilities (i.e. taxi rank) on the northern side of North Terrace would be retained
  - New bike parking would be provided on both sides of the station within the new station plazas
  - The existing car park located adjacent to The Appian Way off North Terrace would be removed, resulting in the loss of 10 off-street spaces.



sydney METRO | city & southwest

Bankstown Station - indicative layout of key design elements - Approved project

FIGURE 1.1

1.3 The proposed modification

Since the approval of the project, further consultation with stakeholders and consideration of the broader master planning being undertaken for Bankstown, as required by the conditions of approval, has resulted in a change to the design of Bankstown Station (the proposed modification).

The proposed modification would involve the following changes to the approved project at Bankstown Station:

- Sydney Metro platforms would be constructed to the east of a new at-grade corridor crossing and west of the existing West Terrace Bridge. A new corridor crossing would be provided to align with, and connect at-grade to, The Appian Way and Restwell Street, providing a new north-south connection across the rail corridor and integrating the two sides of the town centre. This would provide access to the Sydney Trains platform and new Sydney Metro platforms.
- The existing station plaza would be integrated with the new at-grade corridor crossing between The Appian Way and Restwell Street.
- Around 55 metres of the existing Sydney Trains platform would be removed at the eastern end of the existing station and the platform would be extended by about 70 metres to the west.
- The services building would be relocated from the north eastern side of the proposed metro station, to the south eastern side of the proposed metro station.
- The heritage listed Bankstown Parcels Office (former) would be removed to enable the provision of the new at-grade corridor crossing resulting in an improved local precinct
- Minor adjustments to existing bus facilities to accommodate the proposed at-grade corridor crossing and the provision of additional bike parking.

1.4 Purpose and structure of this report

This report provides an assessment of the proposed modification to the approved project in accordance with Section 4.55 of the EP&A Act. This modification report includes a description and justification of the proposed modification and an assessment of the potential changes in environmental and community impacts and benefits resulting from the proposed modification.

The structure and content of this report is as follows:

- Section 1 – provides an introduction to the approved project and the proposed modification
- Section 2 – provides a justification to the proposed modification
- Section 3 – provides a description of alternatives considered and development of the proposed modification
- Section 4 – outlines the consultation process and outcomes
- Section 5 – provides a description of the proposed modification and the changes from the approved project
- Section 6 – provides an environmental screening and additional environmental assessment of changes in potential impacts of the proposed modification
- Section 7 – provides the approach to environmental management and revised mitigation measures resulting from changes in potential impacts of the proposed modification

- Section 8 – provides the justification for the proposed modification and conclusion of the environmental assessment
- Sections 9 and 10 – provides supporting information including references and definitions.

2. Strategic need and justification

This section describes the need and justification for the approved project and outlines the need and benefits of modifying the approved project and a justification for this proposed change.

2.1 Need and justification for the approved project

The approved project forms a key part of Sydney Metro, which is Australia's largest public transport project. In 2024, Sydney will have 31 metro railway stations and a 66 kilometres standalone metro railway system, revolutionising the way Australia's biggest city travels. Sydney's first metro line, the Metro North West, opened on 26 May 2019. Services at the 13 metro stations operate every four minutes in the peak in each direction on Australia's first driverless railway.

Sydney is experiencing sustained population and economic growth. The need for the preferred project, as part of Sydney Metro as a whole, is driven by the challenges being experienced in responding to this growth, including the existing and future capacity of Sydney's transport system.

The rail network is heavily congested, with customers on most rail lines often experiencing significant crowding on trains and station platforms during the morning and evening peaks.

It is forecast that without further investment, Sydney's rail network will reach capacity in the Sydney CBD and on critical suburban rail lines by the mid to late 2020s. Sydney Metro (including the preferred project) would have a long-term target capacity of about 40,000 customers per hour in each direction, similar to other metro systems worldwide. Sydney Metro, together with signalling and infrastructure upgrades across the existing Sydney rail network, would increase the capacity of train services entering the Sydney CBD – from about 120 an hour today to up to 200 services beyond 2024. This is an increase of up to 60 per cent capacity across the network to meet demand.

The T3 Bankstown Line effectively slows down the Sydney Trains network because of the way it merges with other railway lines closer to the city, including the T2 Inner West & Leppington Line, and the T8 Airport & South Line. With at least 15 trains per hour in the peak in each direction when services start in 2024, the conversion and upgrade of the T3 Bankstown Line to metro operations will address one of Sydney's biggest rail bottlenecks, delivering benefits across Sydney's rail network.

Parts of the T3 Bankstown Line are over 120 years old with existing infrastructure in varying conditions. A key challenge for this line is customer accessibility, with five of the stations not having lifts. In addition, a number of these stations have larger than desirable gaps between the platforms and trains, which makes access difficult for some customers, particularly those with a disability, the elderly, and those travelling with young children, prams or luggage.

2.2 Need and justification for the proposed modification

Revised mitigation measure LU2 specified a commitment for Sydney Metro to consult with key stakeholders including the City of Canterbury Bankstown to plan for the strategic transformation of the Bankstown CBD.

To align with the master planning work being undertaken for the Bankstown Station precinct, which is being informed by outcomes of consultation with the City of Canterbury Bankstown, a preference to develop a connection across the rail corridor that directly connects The Appian Way and Restwell Street has been identified. The aim of this connection is to achieve a street level (at-grade) shared zone, with the option to carry vehicles in the future, such as buses (subject to further assessment).

This design would also provide direct emergency service vehicle access to the new Sydney Metro and Sydney Trains station entrances as well as adjacent retail areas.

Sydney Metro is therefore proposing to modify the approved project to provide this at-grade corridor crossing in the new location (the proposed modification), as identified through consultation outcomes informing the master planning work being undertaken for the Bankstown Station precinct. To achieve this improved local precinct outcome, the design change requires the removal of the heritage listed Bankstown Parcels Office (former) and the demolition of the eastern end of the existing Sydney Trains platform. It would also require an extension of the Sydney Trains platform to the west and the westward relocation of the Sydney Metro platforms to adjoin the at-grade corridor crossing.

The proposed modification would provide an improved local precinct, benefiting access for the local population and public transport users. Benefits of the proposed modification include:

- **Improved access:** the modified station design would provide improved access and connectivity from the public domain as well as integration with the CBD.
- **Enhanced wayfinding and integrated development:** at-grade station entrances would contribute to intuitive and legible wayfinding between train, bus and through-pedestrian traffic.
- **Prioritised public precinct:** the improved local access would provide an enhanced customer experience, including an additional public concourse within the at-grade corridor crossing.

The above benefits would support the vision for the strategic transformation of the Bankstown CBD, including alignment with Council's *Complete Streets* policy.

The approved project at Bankstown Station required extensive structural works to the West Terrace rail bridge, including widening to allow for the new Sydney Metro island platform and modified track alignment to be constructed. The relocation of the Sydney Metro platforms to the west as part of this proposed modification does not require works to be undertaken to the West Terrace rail bridge. In addition, the island platform arrangement proposed as part of the approved project has been changed to side platforms, which enables the existing track to be retained close to its current location and a large portion of the platform works can now be undertaken without the need for possession of the rail corridor. Both these aspects would reduce the construction impacts and timeframe associated with delivering a new metro station at Bankstown.

3. Modification development and alternatives

This section describes the design development of the proposed modification and the alternative designs that were considered as part of this design development.

3.1 Station upgrade design development

The station design, location and upgrade options evaluation process for the approved project was described in the Environmental Impact Statement.

The design process involved a detailed analysis of the design and functionality of the existing stations on the T3 Bankstown Line, between west of Sydenham Station and east of Bankstown Station, as well as the local context of each station and its contribution to place. This included:

- The street network
- Current and future bus services and bus routes
- Topography and terrain
- Pedestrian movement and desire lines
- The existing character, scale, and function of the surrounding centre
- Nearby destinations, including schools and colleges, sports facilities and open space, and major retail activities.

Public domain plans for centres that address the nature of existing and possible future interface activities were also considered.

As part of the consideration of the strategic transformation of the Bankstown CBD, a number of options were considered for a revised station design at Bankstown. These are discussed further in Section 3.2 of this report.

3.2 Options evaluation

In the development of the revised station design at Bankstown, two options were considered and assessed against key design drivers. These options are discussed further in Table 3.1.

Table 3.1 Option evaluation

Design drivers	Option 1	Option 2
Description of option	An at-grade cross corridor connection aligning with The Appian Way and Lopez Lane in order to retain the Bankstown Parcels Office (former).	An at-grade cross corridor connection directly linking The Appian Way and Restwell Street.
Quality of cross corridor connection	Does not meet requirement / poor outcome	Exceeds requirements / excellent outcome
Complexity of work for future Liverpool Extension	Exceeds requirements / excellent outcome	Exceeds requirements / excellent outcome
Improves place-making	Does not meet requirement / poor outcome	Exceeds requirements / excellent outcome
Improves pedestrian amenity	Meets requirements / average outcome	Exceeds requirements / excellent outcome

Design drivers	Option 1	Option 2
Requires minimal works and meets Sydney Metro's construction program	Does not meet requirement / poor outcome	Meets requirements / average outcome
Improves modal interchange	Meets requirements / average outcome	Exceeds requirements / excellent outcome
Maximises opportunities for future Bankstown Station precinct master plan	Meets requirements / average outcome	Exceeds requirements / excellent outcome
Has planning / heritage impacts	Exceeds requirements / excellent outcome	Meets requirements / average outcome
Meets Metro's operational requirements	Exceeds requirements / excellent outcome	Exceeds requirements / excellent outcome
Impedes on existing bus layover	Does not meet requirement / poor outcome	Exceeds requirements / excellent outcome

3.3 Preferred option for the proposed modification

Option 2 (see Table 3.1) was identified as the preferred option for the proposed modification. This option was selected as it provides the strongest cross corridor connection, improved place-making outcomes, and supported the vision for the strategic transformation of the Bankstown CBD. Although option 2 would have greater heritage impacts than option 1 as it requires the removal of the heritage listed Bankstown Parcels Office (former), overall it is preferred as it performs best against the design drivers, resulting in an improved local precinct.

4. Stakeholder and community consultation

This section describes the consultation undertaken to date for the proposed modification, and that proposed during the detailed design and delivery of the proposed modification.

4.1 Overview

For the Sydney Metro City & Southwest project, Sydney Metro has been consulting with the community and key stakeholders since June 2014. Consultation continued through preparation of the Environmental Impact Statement and Preferred Infrastructure Report and Sydney Metro continues to proactively engage with the community and stakeholders.

Key stakeholders relevant to the Bankstown Station precinct include, but are not necessarily limited to:

- NSW Government agencies
- City of Canterbury Bankstown
- Directly affected communities, including residents and businesses
- Business and industry groups
- Community groups
- Elected representatives
- Utility and service providers
- Sydney Trains customers
- The broader community.

4.2 Consultation to date

Consultation activities relevant to the proposed modification have been carried out with the City of Canterbury Bankstown. A Bankstown Station Precinct Master Plan inception meeting with City of Canterbury Bankstown was held on 5 December 2019.

In addition, Metron T2M (Southwest Metro Design Services contractor) has consulted with the following stakeholders in preparation of the design for the proposed modification:

- Sydney Water
- Sydney Trains
- Commuters and local community.

In conjunction with the development of the Bankstown Station Precinct Master Plan, Sydney Metro has consulted with:

- Transport for NSW
- Sydney Water
- Greater Sydney Commission.

4.3 Feedback

Feedback from the City of Canterbury Bankstown during the public exhibition of the Environmental Impact Statement outlined concerns related to direct connectivity across the

station, new public space and development of surplus land to create a truly integrated station. Following this feedback and subsequent consultation with City of Canterbury Bankstown, further consideration of the design of Bankstown Station was undertaken, which informed the design development of the proposed modification.

During the meeting held on 5 December 2019, City of Canterbury Bankstown endorsed the proposed at-grade corridor crossing as it created the opportunity to connect The Appian Way and Restwell Street, considered to be a much needed cross corridor connection between the north and south of the Bankstown CBD. Council also advised on preferences for station design, such as materials, finishes, awning depth and footpaths.

4.4 Public exhibition of this report

Under Section 4.55 of the EP&A Act, the Secretary is required to make requests for modification of approvals given by the Minister publicly available.

The Department of Planning, Industry and Environment will advertise and publish the Modification Report for 14 days. During the exhibition period, anyone can make a written submission on the modification report.

The Department of Planning, Industry and Environment will collate and consider the submissions received during the consultation period. After this consideration, Department of Planning, Industry and Environment will determine whether the proposed modification should proceed and will inform the community and stakeholders of this decision.

4.5 Future consultation and engagement

Should the proposed modification be approved, Sydney Metro would continue to work with stakeholders and the community to ensure they are informed about the project (prior to and during construction) and they have opportunities to provide feedback to the project team.

The existing community contact and information tools agreed for the approved project would remain in place throughout the duration of the proposed modification works. Translated materials and content would continue to be provided on the Sydney Metro website. All publications provide information on translation services available through the Translating and Interpreting Service (TIS National) and where appropriate, Sydney Metro would take translators to meetings with stakeholders.

Further details regarding stakeholder and community involvement requirements during project delivery are outlined in the Sydney Metro Overarching Community Communication Strategy and Construction Environmental Management Framework (provided as part of the Submissions and Preferred Infrastructure Report for the approved project).

5. Modification description

This section provides a description of the construction and operation of the proposed modification, including the key infrastructure/features proposed. The key changes from the approved project are also discussed.

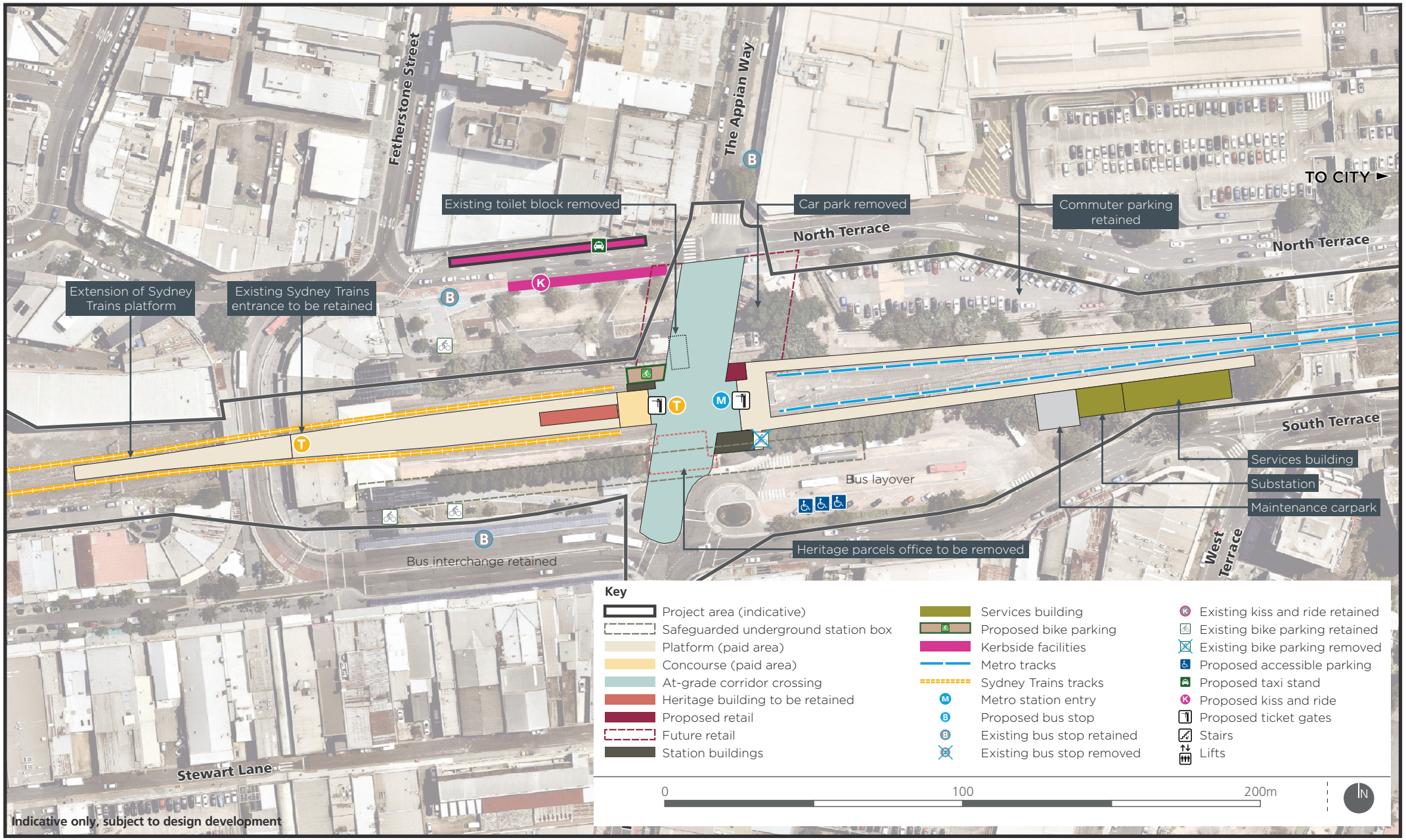
5.1 Proposed modification description

The proposed modification would comprise a corridor crossing, linking The Appian Way and Restwell Street at-grade between the Sydney Trains station and the Sydney Metro station entrances at Bankstown.

Key features of the proposed modification are:

- New Sydney Metro platforms, with a side platform configuration, to the west of the West Terrace rail bridge
- Removal of around 55 metres of existing heritage listed Sydney Trains platforms at the eastern end of the existing station
- Extension of the western end of the Sydney Trains platforms by around 70 metres
- A new corridor crossing to align with and connect to The Appian Way and Restwell Street at-grade, providing a new north-south connection shared zone across the rail corridor and integrating the two sides of the town centre. This would provide access to the Sydney Trains platform and new Sydney Metro platforms
- New station entrance and concourse on the eastern side of the proposed at-grade corridor crossing to access the new Sydney Metro platforms
- New station entrance and concourse on the western side of the proposed at-grade corridor crossing to access the existing Sydney Trains platforms
- Removal of the heritage-listed Bankstown Parcels Office (former) to support the provision of the proposed at-grade corridor crossing that would result in an improved local precinct
- As per the approved project, the existing car park located adjacent to The Appian Way off North Terrace would be removed, with parking loss to be offset along the rail corridor
- A services building, substation and maintenance car park on the south eastern side of the Sydney Metro platforms
- Provision of retail structures along the at-grade corridor crossing (noting, the fit-out and use of these structures would be subject to separate approval). Vehicle access to service these units would be via the at-grade corridor crossing
- The at-grade corridor crossing would be a dismount zone for cyclists. A new secure bike storage would be installed adjacent to the new Sydney Trains station entrance. In addition, bike parking would also be provided adjacent to the station entrance
- Minor adjustments to existing pedestrian crossings to tie into the proposed at-grade corridor crossing
- Transport integration facilities and other precinct and landscaping works including, minor adjustments to existing bus facilities to accommodate the location of the proposed at-grade corridor crossing.

An illustration of the proposed modification is provided in Figure 5.1.



sydney METRO | city & southwest

Bankstown Station - indicative layout of key design elements

FIGURE 5.1

5.2 Key design changes associated with the proposed modification

The design changes from the approved project for the proposed modification are outlined in Table 5.1.

Table 5.1 Bankstown Station key design changes

Description of approved project	Description for proposed modification
Station works	
The existing Sydney Trains station entrance at Bankstown City Plaza would be retained.	No change.
A new at-grade corridor crossing would be provided at the eastern end of the existing Sydney Trains platform and would provide access to both Sydney Trains and new Sydney Metro platforms.	A new at-grade corridor crossing would be provided to link The Appian Way and Restwell Street. The crossing would be provided at the new eastern end of the Sydney Trains platform and would provide access to Sydney Trains and new Sydney Metro platforms. Toilet facilities would be provided as part of the new metro station.
New station plazas would be constructed at station entrances on both sides of the rail corridor.	Modification of the existing plazas on both sides of the rail corridor to integrate with the new at-grade corridor crossing between The Appian Way and Restwell Street. The existing toilet block located just north of the station would be removed.
The heritage listed Sydney Trains platforms would be retained with minor modifications required at the eastern end.	The heritage listed Sydney Trains island platform would be largely retained. Around 55 metres of the existing Sydney Trains platforms would be removed from the eastern end of the station and the platform would be extended to the west by about 70 metres. Minor works may be required to regrade the existing platform to meet *Disability Discrimination Act 1992* (DDA) requirements.
New Sydney Metro island platform would be constructed to the east of the new at-grade corridor crossing. The services building would be located on the north eastern side of the project site next to the Sydney Metro Station.	New Sydney Metro side platforms would be constructed to the east of the new at-grade corridor crossing and to the west of the West Terrace rail bridge. The services building would be located on the south eastern side of the project site where it would be next to the Sydney Metro station.
All station buildings (including the heritage listed station building and Parcels Office) on the Sydney Trains platforms would be retained.	All station buildings (including the heritage listed station building) on the Sydney Trains platforms would be retained. The heritage listed Bankstown Parcels Office (former) would be removed to enable the provision of the at-grade corridor crossing and consequent improvement of the local precinct.
A new canopy would be constructed over the Sydney Trains platform between the new station entrance and the existing platform building.	No change.

Description of approved project	Description for proposed modification
Station area	
The bus layover area on South Terrace would be retained with minor adjustments to accommodate the new station entrance.	The bus layover area on South Terrace would be retained with minor adjustments to accommodate the new at-grade corridor crossing.
The bus interchange area on South Terrace, near the existing station entrance, would be retained.	No change.
The existing bus stop on the northern side of station on North Terrace would be retained.	No change.
A new 'at-grade' corridor crossing would be provided at the eastern end of the existing Sydney Trains platform and would provide access to both Sydney Trains and new Sydney Metro platforms.	No change.
Changes would be made to kerbside facilities and parking along North Terrace, between the new station entrances and the existing entrance. Existing kerbside facilities (i.e. taxi rank) on northern side of North Terrace would be retained.	No change.
New bike parking would be provided on both sides of the station within the new station plazas.	New bike parking would be provided close to the station entrance.
Removal of existing car park located adjacent to The Appian Way off North Terrace, resulting in the loss of 10 off-street spaces.	No change. The proposed modification would remain consistent with the commitment made for the approved project, which is that parking loss would be offset accordingly along the rail corridor.

5.3 Key changes to construction methodology associated with the proposed modification

Construction of the proposed modification would be generally consistent with the methodology proposed as part of the approved project (refer to Appendix B of the *Sydenham to Bankstown Upgrade Submissions Report (2018b)*).

Table 5.2 highlights the differences between aspects of the construction methodology for the approved project compared to the proposed modification.

Table 5.2 Key construction changes

Construction element	Approved project works	Proposed modification works
Construction program	Upgraded stations would be progressively delivered until 2022. The project is due to open in 2024.	No change to the overall construction program for the project. The construction timeframe for the proposed modification is expected to be less than that required for the construction of the approved project at Bankstown Station.
Construction compounds	Construction compounds would be required at each station to support construction activities and associated works. Compounds would generally be located on land owned by RailCorp, mainly located within the rail corridor. Some compounds would need to be located on land outside of the rail corridor on other public land (i.e. owned by a government agency or council). A total of 23 construction compounds would be required for a period of up to about 18 months.	Two existing compound locations would be used for the proposed modification (C22 and C23), and one additional compound is proposed on the southern side of Depot Place (C24 - see Figure 5.2).
Number of trees at stations with the potential to be impacted	The approved project would involve trimming or removing trees in the vicinity of stations. About 80 trees would potentially be impacted at Bankstown Station. A tree management strategy would be prepared for the approved project, as described in Section 2.3.2 of Appendix B of the Submissions Report.	No change.

sydney METRO | city & southwest

Bankstown Station modification - construction activities

FIGURE 5.2

6. Environmental screening and assessment

This section describes the environmental screening process and findings. A summary is provided of the results of additional assessment undertaken for traffic, non-Aboriginal heritage and landscape character and visual amenity. A full copy of the assessment reports are provided in Appendix A, Appendix B and Appendix C, respectively.

6.1 Environmental impact screening

This screening assessment considers changes to potential operational and construction impacts at Bankstown Station assessed in the Environmental Impact Statement and the Submissions and Preferred Infrastructure Report for the approved project compared to those of the proposed modification. Section 5 of this report identifies the key differences between the design features and construction methodology for the approved project compared to those of the proposed modification.

Table 6.1 indicates where the need for additional environmental assessment has been identified and where the assessment of the approved project remains applicable in relation to the proposed modification at Bankstown Station. The additional environmental assessment is provided in Sections 6.2 to 6.4 of this report.

Table 6.1 Environmental screening assessment for potential change from the approved project

Issue	Potential change in impact	Description
Traffic, transport and access	Yes	A number of the potential impacts from the works at Bankstown Station identified in the Environmental Impact Statement and the Submissions and Preferred Infrastructure Report would differ for the proposed modification. The proposed modification would involve a new construction compound and haulage route. This would result in changes to the impacts to the road network when compared to the assessment provided in the Environmental Impact Statement and the Submissions and Preferred Infrastructure Report. An updated traffic, transport and access assessment is summarised in Section 6.2 and attached in Appendix A of this report.

Issue	Potential change in impact	Description
Noise and vibration	No	Although there would be a slightly different configuration of construction work and compounds around the existing station area, similar equipment would be used and therefore the expected noise levels during construction would be consistent. In addition, the construction program for the proposed modification is expected to be less than that required to construct the approved project at Bankstown Station and the ability to construct a large portion of the new Sydney Metro platforms without the need for possession of the rail corridor would reduce the amount of out of hours work required. A Construction Noise and Vibration Strategy was developed to manage construction noise and vibration for the Sydney Metro City & Southwest project as a whole. The strategy provides the framework for managing construction noise and vibration impacts in accordance with the *Interim Construction Noise Guideline* (DECC, 2009), to provide a consistent approach to management and mitigation across all Sydney Metro projects. Specifically, the Construction Noise and Vibration Strategy identifies the requirements and methodology to develop construction noise impact statements. These would be prepared prior to construction of the proposed modification and the works would be managed in accordance with the Construction and Noise and Vibration Strategy and the relevant mitigation measures for the approved project. The proposed modification would not introduce new sources of operational noise. Tracks would be retained within their existing position, therefore noise from trains would not be located closer to sensitive receivers close to the stations. The applicable noise criteria for Bankstown Station, identified for the approved project, would continue to be applied to the design of the station. As proposed for the approved project, an operational noise and vibration review would be undertaken during detailed design to guide the approach to identifying reasonable and feasible mitigation measures. This would include noise modelling to confirm the results of modelling previously undertaken. Where changes in noise levels and exceedances are modelled, reasonable and feasible mitigation measures would be reviewed. Based on the above, an assessment of potential changes to construction and operational noise and vibration impacts associated with the proposed modification is not considered necessary.
Non-Aboriginal heritage	Yes	The proposed modification would result in the demolition and removal of the heritage listed Bankstown Parcels Office (former) and demolition of sections of the existing heritage listed platforms. This would result in changes to the non-Aboriginal heritage impacts when compared to the assessment provided in the Environmental Impact Statement and the Submissions and Preferred Infrastructure Report. An updated Statement of Heritage Impact has been prepared and is summarised in Section 6.3 and provided in Appendix B of this report.

Issue	Potential change in impact	Description
Aboriginal heritage	No	The proposed modification is located within substantially the same footprint as the approved project. The only minor difference relates to where the proposed modification adjoins The Appian Way and Restwell Street. This is on land already highly disturbed within the road corridor and adjacent to the rail corridor. As such, the potential for Aboriginal archaeology within that area is highly unlikely due to this previous disturbance. An additional assessment of potential changes to Aboriginal heritage impacts associated with the proposed modification is not considered necessary.
Land use and property	No	The existing toilet block on the northern side of Bankstown Station and the Bankstown Parcels Office (former) on the southern side of Bankstown Station would be removed. No other existing private or public buildings would be impacted. Some rail infrastructure including the services building would be located in a different position but would remain within or adjacent to the rail corridor. New retail opportunities would be available along the at-grade corridor crossing. The Sydenham to Bankstown corridor is identified as an urban renewal corridor under the *Plan for Growing Sydney* (Department of Planning and Environment, 2014). The plan nominates Bankstown as a strategic centre where Bankstown will continue to provide shops, jobs, and community services for the wider corridor, consistent with its role as a district centre. The proposed modification would support this vision. While there may be changes in impacts due to the introduction of new retail opportunities the mitigation measures identified for the approved project would be applied to the proposed modification and are considered sufficient to manage the risks and benefits associated with the proposed modification. An additional assessment of potential changes to land use and property impacts associated with the proposed modification is not considered necessary.

Issue	Potential change in impact	Description
Socio-economic impacts	No	Potential social impacts associated with the approved project included property acquisition, changes to community values, community health and safety, and changes to access and connectivity. Potential impacts to community infrastructure from the approved project include direct loss of infrastructure, changes to amenity and access. Through provision of the at-grade corridor crossing the proposed modification would improve access and facilitate community cohesion and integration providing broader benefits to the Bankstown CBD. A localised improvement to connectivity to the CBD may also occur from the at-grade corridor crossing being aligned with The Appian Way and Restwell Street rather than the bus layover and car park. The modification would include removing the existing public toilet block located north to the existing station. This would be a minor negative impact through loss of an existing community facility. Alternative facilities would be available at the station. The mitigation measures identified for the approved project would be applied to the proposed modification and are considered sufficient to manage these risks. An additional assessment of potential changes to social and community infrastructure impacts associated with the proposed modification is not considered necessary.
Business impacts	No	The proposed modification would not introduce new direct or indirect impact types to businesses around Bankstown Station. The at-grade corridor crossing may result in benefits to some businesses in the Bankstown CBD (compared to those identified for the approved project) in relation to passing trade and easier pedestrian access. An additional assessment of potential changes to business impacts associated with the proposed modification is not considered necessary.
Landscape character and visual amenity	Yes	The proposed modification would result in minor changes within the construction footprint, primarily the removal of the Bankstown Parcels Office (former) and the provision of an at-grade corridor crossing. This would result in changes to the landscape character and visual amenity impacts when compared to the assessment provided in the Environmental Impact Statement and the Submissions and Preferred Infrastructure Report. An updated landscape character and visual amenity impact assessment is summarised in Section 6.4 and attached in Appendix C of this report.
Soils and contamination	No	As the construction and operational activities for the proposed modification would be generally consistent with the types of construction activities for the approved project, there would not be additional soil and contamination risks. The mitigation measures identified for the approved project would be applied to the proposed modification. An additional assessment of potential changes to soil and contamination impact associated with the proposed modification is not considered necessary.

Issue	Potential change in impact	Description
Hydrology, flooding and water quality	No	Construction of the modification would not prevent or compromise the proposed drainage works outlined in the *Salt Pan Creek Catchments Floodplain Risk Management Study* and *Plan (*Bankstown City Council, 2011). The proposed works therefore remain consistent with Council's floodplain risk management plans. As the construction and operational activities for the proposed modification are generally consistent with activities for the approved project (ie construction of an at-grade corridor crossing and new Sydney Metro station and operation of the metro) , there would not be additional flooding or water quality risks. Consultation would continue with the City of Canterbury Bankstown, to ensure that flood related outcomes are consistent with floodplain risk management studies. The mitigation measures identified for the approved project would be applied to the proposed modification. An additional assessment of potential changes to hydrology, flooding and water quality impact associated with the proposed modification is not considered necessary.
Biodiversity	No	The proposed modification would not involve additional clearing of native vegetation or additional impacts to potential fauna habitat or threatened ecological communities. No listed threatened flora species were recorded in the project area. An assessment of potential changes to biodiversity impacts associated with the proposed modification is not considered necessary.
Air quality	No	The assessment of the approved project identified potential air quality impacts associated with the generation of dust and exhaust emissions during construction. The proposed modification would not introduce new air quality impacts and the mitigation measures identified for the approved project would be applied to the proposed modification. An assessment of potential changes to air quality impacts associated with the proposed modification is not considered necessary.
Sustainability and climate change	No	The assessment of the approved project identified potential sustainability impacts associated with climate change adaptation and greenhouse gas emissions. The proposed modification would not introduce new sustainability impacts. The mitigation measures identified for the approved project would be applied to the modification and would be sufficient to manage the proposed modification. In addition, the sustainability strategy and objectives and initiatives for Sydney Metro City & Southwest, would also continue to apply to the proposed modification. An assessment of potential changes to sustainability impacts associated with the proposed modification is not considered necessary.

Issue	Potential change in impact	Description
Hazards, risks and safety	No	The assessment of the approved project identified potential hazard and risk impacts associated with the storage, use and transport of dangerous goods and hazardous substances, the rupture or interference of underground utilities, and reduced safety for road users and pedestrians during construction. The proposed modification would not introduce new hazard and risk impacts and the mitigation measures identified in for the approved project would be applied to the proposed modification. An assessment of potential changes to hazard and risk impacts associated with the proposed modification is not considered necessary.
Waste management	No	The assessment of the approved project identified potential waste management impacts associated with the handling and disposal of waste (including spoil) generated during construction and operation. The proposed modification would not introduce new waste streams and it would result in a similar volume of waste (including spoil) generated. The mitigation measures identified for the approved project would be applied to the proposed modification and would be sufficient to manage waste. An assessment of potential changes to waste management impacts associated with the proposed modification is not considered necessary.
Cumulative impacts	No	The assessment of the approved project identified potential cumulative impacts at Bankstown Station. The proposed modification would not introduce a new interface with these or other known nearby developments. The mitigation measures identified for the approved project would also apply to the proposed modification. An assessment of potential changes to cumulative impacts associated with the proposed modification is not considered necessary.

The need for further detailed assessment of traffic and transport, non-Aboriginal heritage, and landscape character and visual amenity was identified. This has been carried out and is summarised in the sections below.

6.2 Traffic, transport and access impact assessment

6.2.1 Overview

This section provides a summary of the results of the traffic, transport and access assessment for the proposed modification. A full copy of the assessment report is provided in Appendix A of this report.

6.2.2 Methodology

The methodology for the assessment, remains as for the approved project, detailed in Appendix D, Volume 2 of the *Sydenham to Bankstown Upgrade Submissions and Preferred Infrastructure Report (2018a)*.

6.2.3 Construction impact assessment summary

A new construction compound (C24) would be required to construct the proposed modification. It is located within the rail corridor to the west of the station, on the southern side of Depot Place (see Figure 5.2). This compound would be accessed via Depot Place, and the previously identified indicative haulage route on Meredith Street / Marion Street.

The total peak volumes of construction traffic and construction workforce traffic are not expected to change. Less than six vehicles per peak hour (in each direction) are expected to access compound C24, equating to less than one vehicle movement every 10 minutes. The construction traffic using the haulage route on Meredith Street / Marion Street would represent less than half a percent of the existing traffic volumes on the identified route and would not have a material effect on intersection performance.

6.2.4 Operational impact assessment summary

The proposed project modification would result in the provision of a new at-grade corridor crossing between The Appian Way and Restwell Street. The corridor crossing would provide a new pedestrian / cycle link increasing north – south connectivity in the area. Existing pedestrian crossing facilities would be retained to facilitate safe crossing, although minor realignment would be required to interface with the new at-grade corridor crossing. The proposed at-grade corridor crossing would connect into the east-west pedestrian cycle link, which will run along the rail corridor and will be delivered as part of the approved project.

This corridor crossing would also cater for emergency service vehicles and vehicles servicing retail units. General traffic and public transport services would not be able to use the new at-grade corridor crossing, although it is being designed to not preclude the use of the link by vehicles such as buses in the future.

A new secure bike storage and bike parking would be installed adjacent to the new Sydney Trains station entrance. This would improve existing bicycle facilities in the area. The proposed modification would result in minor changes in the vicinity of the existing bus facilities to accommodate the new at-grade corridor crossing however these would not impact the capacity or operation of the bus station and nearby bus stops.

The proposed modification would result in a relocation of the taxi stand to the north side of North Terrace, accessible via the existing pedestrian crossing facility.

6.2.5 Mitigation measures

The proposed modification would not introduce new traffic management issues and potential impacts would continue to be managed through the construction traffic management plan. The mitigation measures identified for the approved project would be applied to the proposed modification and would be sufficient to manage traffic transport and access. No additional measures or amendment to existing measures is considered necessary.

6.3 Non-Aboriginal heritage impact assessment

6.3.1 Overview

This section provides a summary of the findings of the non-Aboriginal impact assessment for the proposed modification. A full copy of the Statement of Heritage Impact report is provided in Appendix B of this report.

6.3.2 Methodology

The methodology used in this assessment is consistent with *Statements of Heritage Impact and Assessing Heritage Significance* published by Heritage NSW, Department of Premier and Cabinet, and has been prepared in accordance with the principles contained in the most recent edition of *The Burra Charter: The Australian ICOMOS Charter for Places of Cultural Significance.* The methodology for the assessment, remains as for the approved project, detailed in Technical Paper 3: Non Aboriginal Heritage Assessment of the Environmental Impact Statement.

6.3.3 Construction impact assessment summary

The impacts to the heritage significance of listed heritage items that would result from construction of the proposed modification are outlined in Table 6.2.

Table 6.2 Summary of heritage impacts from the proposed modification

Heritage item / element	Significance	Impacts from approved project	Proposed modification changes	Impacts from proposed modification
Bankstown Railway Station Group (Item SHI 4802067 on S170 and Item I3 on LEP)				
Platform 1/2	High	Major	Removal of around 55 metres of platforms at the eastern end. Modifications to the western end of the platforms to tie in with the proposed platform extension.	Western end of station platform – **Minor** Eastern end of station platform – **Moderate**
Platform building, platform 1/2 (Type 11)	Exceptional	Minor	Adjacent to the new at-grade corridor crossing	Neutral
Overbridge	Moderate	Minor	No impact to overbridge	Neutral
Overhead Booking Office	Moderate	Neutral	No change	Neutral
Footbridge	Little	Neutral	No change	Neutral
Landscape/ natural features	Moderate	Neutral	No change	Neutral
Bankstown Parcels Office (former)	Exceptional	Neutral	Demolition of building	Heritage item (part of) Bankstown Railway Station Group - **Moderate**
Bankstown Parcels Office (former) (*Item I4 on LEP*)				
Bankstown Parcels Office (former)	Exceptional	Neutral	Demolition of building	Heritage item, Bankstown LEP – **Major**

The removal of the Bankstown Parcels Office (former), an item of local heritage significance, would result in a major impact to this item and would result in its delisting from the Bankstown LEP 2015 and updates to the Sydney Trains S170 Register. This item is also part of the overall heritage listing for the Bankstown Railway Station Group (listed on the Bankstown LEP 2015 and the RailCorp s170 heritage register inventory). The removal of this element would result in a moderate impact to the heritage significance of the Bankstown Railway Station Group as a whole, but would not result in the delisting of the Station Group.

The removal of the eastern end and the extension of the western end of the existing Sydney Trains station platform would result in an impact to the original brick retaining wall of the platform, an element of high value to the heritage significance of the Bankstown Railway Station Group as a whole. This would have a minor impact to the Station Group overall and would not result in the delisting of the group.

6.3.4 Operational impact assessment summary

The proposed at-grade corridor crossing and station canopy would potentially have an adverse visual impact to the Bankstown Railway Station Group during operation.

6.3.5 Mitigation measures

The non-Aboriginal heritage assessment for the proposed modification provided a number of recommendations to manage impacts associated with the removal of the Bankstown Parcels Office (former) and removal of a section of the existing Sydney Trains platform. A number of these recommendations were covered by existing mitigation measures. Table 6.3 identifies the new mitigation measure recommended to manage the potential impacts of the proposed modification. In addition, mitigation measure NAH20 would no longer be relevant to the Bankstown Parcels Office (former) and this has been updated in Table 7.1.

Table 6.3 Non-Aboriginal heritage recommended changes to mitigation measures

ID	Impact	Mitigation measures	Relevant location(s)
Design/pre-construction			
NAH23	Bankstown Parcels Office (former)	Prior to the removal of the Bankstown Parcels Office (former), a heritage salvage and movable heritage register should be prepared, identifying those significant elements which can be removed and retained for potential reuse.	Bankstown Parcels Office (former)

6.4 Landscape character and visual amenity impact assessment

6.4.1 Overview

This section summarises an assessment of the potential changes to the impact of the proposed modification on landscape character and visual amenity, and identifies changes to mitigation measures. A copy of the full assessment report is provided in Appendix C of this report.

6.4.2 Methodology

The methodology for the assessment remains as for the approved project, detailed in Technical *Paper 7: Landscape and Visual Impact Assessment* of the Environmental Impact Statement. However, two additional viewpoints have been selected to capture the relocation of the services building to South Terrace and the additional construction compound and extended station platforms to the west of the station.

6.4.3 Construction impact assessment summary

While the overall scale of the construction works would be reduced somewhat, there would continue to be a minor adverse landscape impact during construction. This impact would, however, be experienced over a reduced area.

Impacts to viewpoints would remain substantially the same as for the approved project and would range from minor to moderate adverse. This would be due to demolition works construction activities, equipment and hoarding impact on the visual amenity of the project area.

6.4.4 Operational impact assessment summary

During operation, the minor beneficial landscape and visual impacts identified for the approved project would increase to a moderate beneficial landscape and visual impact. The heritage listed Bankstown Parcels Office (former) and western end of the existing Sydney Trains platforms would be removed. Their contribution to local ‘sense of place’ would be offset by the substantial improvements to the permeability, accessibility and legibility of the precinct for pedestrians with the creation of a north-south at-grade corridor crossing which aligns with the surrounding street pattern, the increased visibility of the station entrances, and opening up of a view through the station precinct.

6.4.5 Mitigation measures

The mitigation measures identified for the approved project would be applied to the proposed modification and are considered sufficient to manage the potential impacts on landscape character and visual amenity. No additional measures or amendment to existing measures is considered necessary.

7. Consolidated revised mitigation measures

This section outlines the approach to managing the proposed modification during construction and operation and indicates where changes to approved mitigation measures are proposed.

7.1 Approach to environmental mitigation and management

7.1.1 Environmental management during construction

The project approach to environmental mitigation and management was described in the Environmental Impact Statement and the Submissions and Preferred Infrastructure Report for the approved project. The approach to environmental management during construction is shown in Figure 7.1 and involves:

- Project design – measures incorporated in the design and construction planning to avoid and minimise impacts
- Revised mitigation measures – identified as an outcome of the environment impact assessment and provided in Section 7.2 of this report
- Implementation of the following project specific construction environmental management frameworks/strategies (described below):
  - Construction Environmental Management Framework
  - Construction Noise and Vibration Strategy
  - Temporary Transport Strategy
  - Utilities Management Framework.

This approach would also be applied to construction of the proposed modification.

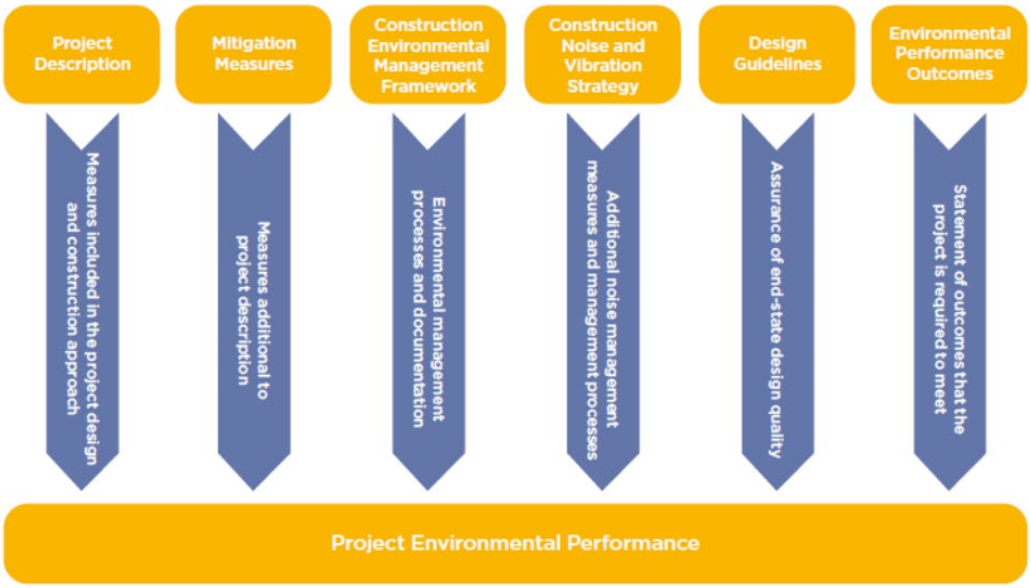


Figure 7.1 Approach to environmental mitigation and management during construction

7.1.2 Operational Environmental Management Plan

Environmental performance during operation would be managed by the implementation of an Operational Environmental Management Plan. The plan would describe how the mitigation measures and performance outcomes would be implemented and achieved during operation, and would specify the environmental management practices and procedures to be followed during operation. The plan would be prepared in consultation with relevant agencies and in accordance with the *Guideline for the Preparation of Environmental Management Plans* (Department of Infrastructure, Planning and Natural Resources, 2004). The plan would include, but not be limited to, the following:

- A description of activities to be undertaken during operation
- Statutory and other obligations, including approvals, consultations and agreements required from authorities and other stakeholders
- Overall environmental policies, guidelines and principles to be applied to operation
- A description of the roles and responsibilities, including relevant training and induction to ensure that employees are aware of their environmental and compliance obligations
- An environmental risk analysis to identify the key environmental performance issues associated with the operation phase
- Details of how environmental performance would be managed and monitored
- A register of heritage assets that would be managed and protected.

This approach would also be applied to operation of the proposed Bankstown Station modification.

7.2 Revised environmental mitigation measures

Table 7.1 provides the consolidated revised environmental mitigation measures for the project, including the proposed modification. This table supersedes the revised mitigation measures presented in Appendix C of the Submissions Report for the approved project. New mitigation measures are shown in **bold** text with deletions shown with a ~~strikethrough~~.

The measures are broadly grouped according to the main stage of implementation. However, it is noted that the implementation of some measures may occur across a number of stages.

The location/s applicable to each mitigation measure are identified by using a unique identifier as follows:

- All – Project as a whole
- BW – Bridge works
- AS – All stations
- MA – Marrickville Station
- DU - Dulwich Hill Station
- HP – Hurlstone Park Station
- CB – Canterbury Station
- CP – Campsie Station
- BE – Belmore Station
- LA – Lakemba Station
- WP – Wiley Park Station
- PB – Punchbowl Station
- BA – Bankstown Station
- SS – Substations.

Table 7.1 Revised mitigation measures

ID	Impact	Mitigation measures	Relevant location(s)
Traffic, transport and access			
Design/pre-construction			
TC1	Temporary transport arrangements	Guided by the Temporary Transport Strategy, detailed temporary transport plan/s would be developed prior to construction to manage the movement of people along the T3 Bankstown Line during possession periods. The plans would be developed in consultation with key stakeholders (including Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, Sydney Trains, local councils, emergency services, and bus operators), and would address the requirements specified by the Temporary Transport Strategy. The development of each plan would consider, as a minimum: • A review of the road network constraints along any proposed rail replacement bus route • Further traffic analysis of key intersections used by rail replacement buses • Potential impacts to local road networks affected by rail passengers diverting to cars to reach their destinations • The design of temporary facilities at bus stop locations in consultation with the relevant road authority • Expected changes to parking demand at other stations, displacement of existing parking, and any upgrades that may be required.	AS
TC2		Sydney Metro would consult with Transport for NSW, Roads and Maritime Services, the State Transit Authority, the Inner West and Canterbury-Bankstown councils, and bus operators, to identify opportunities to minimise impacts to bus layovers and existing bus stops during operation of rail replacement buses.	AS
TC3		The impacts on the surrounding road network of lane closures resulting from bridge works across the rail corridor would be assessed in detail, to identify the suite of management measures to be implemented for each closure required. This would be undertaken in consultation with Transport for NSW, Roads and Maritime Services, the Sydney Coordination Office, the Inner West and Canterbury-Bankstown councils, emergency services, and relevant bus operators. Planning for partial bridge closures would consider bus rerouting and timetabling, with the intention of minimising impacts to bus customers and bus operators.	BW
TC4	Parking impacts during construction	Opportunities to reduce the loss of existing on and off street car parking (including the amount of spaces reduced and the time associated with this reduction) would be reviewed during detailed design and construction planning.	AS

ID	Impact	Mitigation measures	Relevant location(s)
TC5		Where parking spaces are lost or access is impeded, particularly for extended periods, alternative parking would be provided wherever feasible and reasonable. This would include consideration of other privately owned (or vacant) land within close proximity to affected stations.	AS
TC6	Impacts of intersection performance	Further consideration of the need for intersection modifications would be undertaken, to improve intersection performance at locations most affected by the addition of construction heavy vehicles and rail replacement buses. This would be undertaken in consultation with Transport for NSW, Roads and Maritime Services, the Sydney Coordination Office, and the relevant road authority. The improvements considered would include: • Modification to the existing traffic signal phasing • Lane priority changes • Changing lane designations (line markings and signage) • Kerbside changes (such as removing on street parking or implementing no standing zones at peak times to increase lane capacity) • Physical geometric changes (such as minor kerb cut-backs to enable large vehicles to safely move through intersections) • Restricting turning movements where traffic demand is low.	All
TC7	Changes to cyclist facilities during construction	Where existing cycle facilities (e.g. bike parking) would be temporarily unavailable at a station, suitable replacement facilities would be provided while the facility is unavailable.	AS
TO1	Parking impacts during operation	Further consideration of car parking management at stations would be undertaken in consultation with Roads and Maritime Services, the Sydney Coordination Office, and the Inner West and Canterbury-Bankstown councils, to minimise adverse impacts of operation on parking and other kerbside use in local streets.	AS
TO2	Consideration of cross corridor connections	Sydney Metro, in consultation with Canterbury-Bankstown Council, would investigate the feasibility of the provision of a cross-corridor connection between Bankstown and Punchbowl stations. Should a cross-corridor connection be deemed feasible, Sydney Metro would work with Canterbury-Bankstown Council and the Department of Planning and Environment to safeguard its future delivery.	All

ID	Impact	Mitigation measures	Relevant location(s)
Construction			
TC8	Management of traffic, transport and access	A construction traffic management plan would be prepared and implemented prior to construction. The plan would be prepared in accordance with the Construction Environmental Management Framework, and would detail, as a minimum: • How traffic would be managed when construction works are being carried out • The activities proposed and their impact on the road network and on road users • How these impacts would be addressed. The plan would be prepared in consultation with the Traffic and Transport Liaison Group, and would be approved by the relevant authority before construction commences.	All
TC9	Changes to public transport services and alternative transport arrangements	Modification of existing bus stops, or implementation of new stops and alterations to service patterns, would be carried out by Sydney Metro in consultation with Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and bus operators.	AS
TC10		Sydney Metro would undertake an extensive community awareness and information campaign before changes to public transport services are implemented. This would include a range of communication activities such as: • Information at stations • Wayfinding signage • Clearly marked bus stop locations • Letter box drops • Web based information and transport 'app' where changes to travel are found in a single place • Information via 131 500 • Advertising in local papers • Email information bulletins.	AS
TC11	Impacts on special events	Consideration of special events would be undertaken as part of construction work programming. For special events that require specific traffic and pedestrian management, measures would be developed and implemented in consultation with Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and the organisers of the event.	All

ID	Impact	Mitigation measures	Relevant location(s)
TC12	Impacts of construction compounds and work sites	Vehicle access to and from construction sites would be managed to ensure pedestrian, cyclist, and motorist safety. Depending on the location, this may require manual supervision, barrier placement, temporary traffic signals, modifications to existing traffic signals, or police assistance.	All
TC13	Construction vehicles	Construction vehicles (including contractor staff vehicles) would be managed to: • Minimise parking or queuing on public roads • Minimise use of residential streets to gain access to work sites or compounds • Minimise vehicle movements near schools, particularly during school start and finish times.	All
TC14	Signage	Directional signage and line marking would be used to direct and guide drivers, pedestrians, and other road users past construction compounds and work sites, and on the surrounding road network. This may be supplemented by variable message signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternate routes.	All
TC15	Construction parking impacts	Construction sites would be managed to minimise construction worker parking on surrounding streets. A worker car parking strategy would be developed in consultation with the relevant local council to identify measures to reduce the impact on the availability of on street and off street parking. The strategy would identify potential mitigation measures including alternative parking locations. The strategy would encourage contractor staff to: • Use public transport • Car share • Park in a designated off site area and access construction sites via shuttle bus.	All
TC16	Traffic incidents	In the event of a traffic related incident, co-ordination would be carried out with the Sydney Coordination Office and Transport Management Centre's Operations Manager.	All
TC17	Changes to road, pedestrian and cyclist networks	The community would be notified in advance of proposed road and pedestrian network changes through appropriate forms of community notification.	All
TC18	Impacts on pedestrian or cyclist paths	A condition survey would be undertaken to confirm changes to routes proposed to be used by pedestrians and/or cyclists are suitable (e.g. suitably paved and lit), with identified modification requirements discussed with the Inner West and/or Canterbury-Bankstown councils and implemented prior to use of the routes.	All

ID	Impact	Mitigation measures	Relevant location(s)
TC19	Pedestrian, cyclist and motorist safety	Pedestrian, cyclist, and motorist safety in the vicinity of the construction sites would be addressed during construction planning and development of the construction traffic management plan. Measures that may be implemented to assist in multi modal traffic management include: • Speed awareness signs in conjunction with variable message signs near construction sites to provide alerts to drivers • A community engagement program to provide road safety education and awareness to road users about sharing the road safely with heavy vehicles • Heavy vehicle training for drivers to understand route constraints, safety issues, and limiting the use of compression braking • Safety technology and equipment installed on heavy vehicles to enhance vehicle visibility, eliminate vehicles' blind spots, and monitor vehicle location, speeding compliance, and driver behaviour.	All
TC20	Impacts to access	Access for residents, businesses, and community infrastructure would be maintained. Where disruption to access cannot be avoided, consultation would be undertaken with the owners and occupants of affected properties, to confirm their access requirements and to discuss alternatives.	All
TC21		Access to stations and surrounding properties for emergency vehicles would be provided at all times. Emergency service providers (i.e. police and ambulance) would be consulted throughout construction to ensure they are aware of station closures, changes to access, including bridge lane closures, and changes to station or rail corridor access.	All
TC22	Co-ordination of cumulative traffic effects	The potential cumulative effects of construction traffic from multiple construction sites within the project would be further considered during development of the construction traffic management plan. Where there is potential for cumulative impacts across the project, these issues would be addressed with the assistance of the Traffic and Transport Liaison Group.	All
Operation			
TO3	Walking and Cycling	Sydney Metro would develop a Walking and Cycling Strategy in consultation with Inner West Council, Canterbury-Bankstown Council and other relevant stakeholders, which would identify walking and cycling facilities to encourage active transport to the station precincts.	AS
TO4	Bus	Sydney Metro would work with Transport for NSW, Sydney Coordination Office, Roads and Maritime Services, the Inner West and Canterbury-Bankstown councils, and bus operators to identify improvements to bus stops and services.	AS

ID	Impact	Mitigation measures	Relevant location(s)
TO5	Commuter parking	Sydney Metro would monitor the demand for additional commuter car parking spaces and consider opportunities for, and implications of, meeting this demand between Bankstown and Marrickville stations. Sydney Metro would investigate ways to manage demand, subject to consideration of local station and town centre implications, including local traffic conditions.	AS
Noise and vibration			
Design/pre-construction			
NVC1	Predicted construction noise impacts	In accordance with the *Construction Noise and Vibration Strategy,* construction noise impact statements would be prepared prior to the commencement of construction components, to consider the scale and duration of construction noise impacts, and identify measures to minimise impacts to sensitive receivers. This would include noise modelling to confirm the results of modelling undertaken as part of the Environmental Impact Statement and Submissions and Preferred Infrastructure Report. Where exceedances of the noise management levels are identified, feasible and reasonable mitigation measures would be identified.	All
NVC2		In accordance with the *Construction Noise and Vibration Strategy*, all employees, contractors and subcontractors would receive an environmental induction. The induction must at least include: • Relevant project specific and standard noise and vibration mitigation measures • Relevant licence and approval conditions • Permissible hours of work • Any limitations on high noise generating activities • Location of nearest sensitive receivers • Designated loading/unloading areas and procedures • Site opening/closing times (including deliveries).	All
NVC3	Predicted vibration impacts	Where vibration levels are predicted to exceed the vibration screening level, a more detailed assessment of the structure would be carried out to determine the appropriate vibration limits for that structure.	All
NVC4		For heritage items where vibration screening levels are predicted to be exceeded, the more detailed assessment would include condition assessment and specifically consider the heritage values of the structure in consultation with a heritage specialist to ensure sensitive heritage fabric is adequately monitored and managed.	Heritage items along the project area

ID	Impact	Mitigation measures	Relevant location(s)
NVO1	Predicted operational noise and vibration impacts	An operational noise and vibration review would be undertaken to guide the approach to identifying reasonable and feasible mitigation measures to incorporate in the detailed design. This would include noise modelling to confirm the results of modelling previously undertaken. Where exceedances of the operational noise objectives in the *Rail Infrastructure Noise Guidelines* (EPA, 2013) are identified reasonable and feasible mitigation measures would be identified.	All
NVO2		The height and extent of noise barriers adjacent to the project would be confirmed during detailed design with the aim of not exceeding trigger levels from the *Rail Infrastructure Noise Guidelines* (EPA, 2013). At-property treatments would be offered either on their own or in combination with a noise barrier where there are residual exceedances of the noise trigger levels. Where practicable, operational stage noise mitigation would be installed early to assist with the management of construction noise.	All
NVO3		Operational noise from substations would be controlled by inclusion of appropriate mitigation, such as shielding or enclosures, and specification of equipment selection, to comply with the *Industrial Noise Policy* (EPA, 2000).	All
Construction			
NVC5	Construction noise and vibration management	The *Construction Noise and Vibration Strategy* would be implemented with the aim of achieving the noise management levels where feasible and reasonable. This may include the following example mitigation measures alone or in combination, where feasible and reasonable: • The provision of noise barriers around each construction site • The coincidence of noisy plant working simultaneously close together would be avoided • Residential grade mufflers would be fitted to all mobile plant • Non-tonal reversing alarms would be fitted to all permanent mobile plant • High noise generating activities would be scheduled for less sensitive periods considering the nearby receivers, where reasonable and feasible • The layout of construction sites would consider opportunities to shield receivers from noise • Stationary noise sources would be enclosed or shielded whilst ensuring that the occupational health and safety of workers is maintained • Loading and unloading of materials/deliveries is to occur as far as possible from noise sensitive receivers • Select site access points and roads as far as possible away from noise sensitive receivers	All

ID	Impact	Mitigation measures	Relevant location(s)
		• Dedicated loading/unloading areas to be shielded if close to noise sensitive receivers wherever feasible and reasonable • Use quieter and less vibration emitting construction methods where feasible and reasonable • The noise levels of plant and equipment must have operating Sound Power Levels compliant with the criteria in the *Construction Noise and Vibration Strategy* • Plan traffic flow, parking and loading/unloading areas to minimise reversing movements within the site • Where feasible and reasonable, the offset distance between noisy plant items and nearby noise sensitive receivers would be as great as possible • Where reasonable and feasible heavy vehicle movements would be limited to daytime and evening hours, with night-time movements avoided where possible • Active community consultation and the maintenance of positive, cooperative relationships with schools, local residents and building owners and occupiers, through: – Periodic notification or work activities and progress (e.g. regular letterbox drops, e-consult) – Specific notification (letter-box drop) prior to especially noisy activities – Comprehensive website information – Project information and construction response telephone line – E-mail distribution lists.	
NVC6		Noise intensive plant for construction activities, including ballast tampers would not be used during the night-time period (10pm to 7am) unless: • During a weekend rail possession or shut down • A requirement of a road authority, emergency services or Sydney Coordination Office requires works to be undertaken during this period.	All
NVC7		When working adjacent to schools, medical facilities and child care centres, particularly noisy activities would be scheduled outside normal working hours, where reasonable and feasible.	All
NVC8		When working adjacent to churches and places of worship, particularly noisy activities would be scheduled outside services, where reasonable and feasible.	All
NVC9		Alternative accommodation may be offered to residents living in close proximity to construction works where detailed construction planning identifies unreasonably high noise impacts over a prolonged period. Alternative accommodation arrangements would be offered and discussed with residents on a case-by-case basis.	All

ID	Impact	Mitigation measures	Relevant location(s)
NVC10		High noise and vibration generating activities including ballast tamping may only be carried out in continuous blocks, not exceeding 3 hours each, with a minimum respite period of one hour between each block and these works.	All
NVC11		Ongoing noise monitoring would be undertaken during construction at sensitive receivers during critical periods (i.e. times when noise emissions are expected to be at their highest to identify and assist in managing high risk noise events.	All
NVC12	Vibration monitoring	Where vibration levels are predicted to exceed the vibration screening level, attended vibration monitoring would be carried out to ensure vibration levels remain below appropriate limits for that structure.	All
NVC13	Groundbourne noise	Reasonable and feasible measures would be implemented in accordance with the *Construction Noise and Vibration Strategy* to minimise groundbourne noise where exceedances are predicted.	All
NVC14	Utility adjustments/ relocation works	Reasonable and feasible mitigation measures would be implemented where power supply works would result in elevated noise levels at receivers. This could include: • Carrying out works during the daytime period when in the vicinity of residential receivers • Where out of hours works are required, scheduling the noisiest activities to occur in the evening period (up to 10pm) • Use of portable noise barriers around particularly noisy equipment.	All
NVC15	Road traffic noise	The routes for construction haulage vehicles and bus services associated with the Temporary Transport Strategy would be selected on the basis of compliance with the relevant road traffic noise criteria, where reasonable and feasible. Where compliance with the noise criteria is not possible, reasonable and feasible noise mitigation would be implemented.	All
NVC16	Out of Hours Work Strategy	An Out of Hours Work Strategy would be prepared, in consultation with the Environment Protection Authority, to guide the assessment, management, and approval of works outside recommended standard hours.	All
Non-Aboriginal heritage			
Design/pre-construction			
NAH1	Minimising impacts during design	The project design would minimise adverse impacts to heritage buildings, elements, fabric, spaces and vistas that contribute to the overall heritage significance of the Bankstown Line.	All heritage items
NAH2		The project design would maximise the retention and legibility of heritage buildings, structures, fabric, spaces and vistas that are individually significant and contribute to the overall heritage significance of the Bankstown Line.	All heritage items

ID	Impact	Mitigation measures	Relevant location(s)
NAH3		The project design would complement retained heritage buildings, elements, fabric, spaces and vistas to avoid outcomes that compromise the significance of these heritage items.	All heritage items
NAH4		The project design would be developed with guidance from an appropriately qualified and experienced conservation architect.	All heritage items
NAH5	Reuse of retained items	Where heritage significant items or elements are to be retained within the operational area, an adaptive reuse strategy would be prepared by an appropriately qualified and experienced heritage architect.	All heritage items
NAH6	Interpretation	A Heritage Interpretation Plan would be prepared to document the development of the Bankstown Line and detail the history of each station and its contribution to both the Bankstown Line and the surrounding suburbs. Appropriate heritage interpretation would be incorporated in the design and would provide legible connection between stations.	AS Bankstown Parcels Office (former)
NAH7	Management of moveable heritage and heritage fabric	A moveable heritage item strategy would be prepared by an appropriately qualified and experienced heritage specialist in consultation with Sydney Trains, and would include a comprehensive record of significant railway elements to be impacted. This would include items contained within station and platform buildings as well as of any other significant equipment within the curtilage of the heritage railway stations. The moveable heritage item strategy would form part of the broader interpretation strategy.	AS apart from BA and Bankstown Parcels Office (former)
NAH8	Station Building repurposing and refreshing	Where significant buildings are to be re-purposed, or refreshed: • The inherent character of the building should be retained with new additions, including form, palette and materiality, sympathetic to its heritage values. • A suitably qualified and experienced heritage architect should advise on appropriate materials and finishes which would be sympathetic to the heritage values of each individual station. • The internal layout of the building should be retained where possible, and rooms should not be subdivided unless it can be completed without adverse impact and/or is reversible without any long term adverse impact. • A significant element register should be prepared by a suitably qualified and experienced heritage architect. The register should list significant fabric, assess its condition, tolerance for change and recommend retention or salvage. • Where fabric of high significance is to be removed, adequate assessment should be carried out that outlines impact and justification in accordance with the Statements of Heritage Impact guidelines (NSW Heritage Council 2002).	All

ID	Impact	Mitigation measures	Relevant location(s)
NAH9	Design of new access stairs, concourses, canopies and lift shafts	The design and materials used for the construction of new access stairs, concourses, canopies and lift shafts should be as sympathetic as possible to the existing character of the stations with the aim of minimising visual impacts. The design should use unobtrusive, modern, lightweight materials such as glass panelling and slim frame elements. The Design Review Panel should be consulted in regard to the design, form and material of these additions.	All
NAH10	Design of platform re-levelling	Where platforms are re-levelled, door thresholds and steps should be accessible without raising or relocation of entries. Sub-floor ventilation should remain open to avoid long term impacts to the structures.	All
NAH11	Impacts to the Old Sugarmill	A landscape scheme would be prepared for the Old Sugarmill to re-instate planting within and close to the curtilage of the item. The scheme would consider appropriate period plants and trees. Any boundary wall treatment would be designed in consultation with a heritage architect.	Old Sugarmill
NAH12	Impacts to archaeology	The archaeological research design, including any mitigation measures identified in the Archaeological Assessment and Research Design report, would be implemented.	All
NAH13	Archival recording	Photographic archival recording would be carried out in accordance with the NSW Heritage *Office's How to Prepare Archival Records of Heritage Items* (1998), and *Photographic Recording of Heritage Items Using Film or Digital Capture* (2006).	AS Bankstown Parcels Office (former)
NAH14	Unexpected finds	An unexpected finds procedure would be developed and included in the construction heritage management plan.	All
NAH23	**Bankstown Parcels Office (former)**	**Prior to the removal of the Bankstown Parcels Office (former), a heritage salvage and movable heritage register should be prepared, identifying those significant elements which can be removed and retained for potential reuse.**	**Bankstown Parcels Office (former)**
Construction			
NAH15	Minimising impacts during construction	Methodologies for the removal of existing structures and construction of new structures would be developed and implemented during construction to minimise direct and indirect impacts to other elements within the curtilages of the heritage items, or to heritage items located in the vicinity of works.	All
NAH16		All retained heritage buildings, structures, fabric and moveable heritage items would be protected to avoid damage during works in the vicinity of these items, including from vibration. Retained significant buildings or elements susceptible to damage would be protected by hoardings or screens.	All

ID	Impact	Mitigation measures	Relevant location(s)
NAH17		Prior to construction commencing, a detailed inventory of all buildings, structures, fabric, spaces and vistas of heritage significance that are to be retained or removed would be prepared by appropriately qualified and experienced heritage specialists. The inventory must provide an assessment of the heritage impact based on the significance of each element and sub-element that comprises it and include recommendations for protection and conservation relative to the identified level of heritage significance.	All
NAH18	Unexpected finds	In the event that unexpected archaeological remains, relics, or potential heritage items are discovered during construction, all works in the immediate area would cease, and the unexpected finds procedure would be implemented.	All
NAH19	Human skeleton material	In the event that a potential burial site or potential human skeletal material is exposed during construction, the Transport for NSW Exhumation Management Plan would be implemented.	All
NAH20	Works to heritage fabric	All works to conserve, protect or remove significant heritage fabric would be undertaken by skilled tradespeople with experience working on heritage sites, in consultation with an appropriately qualified conservation heritage architect.	AS ~~Bankstown Parcels Office (former)~~
Operation			
NAH21	Conservation management	A conservation management plan would be prepared for all State Heritage Register listed stations, in accordance with NSW Heritage Council guidelines. The plan would address any changes to the item, including updated assessment of significance of elements and recommendations on curtilage changes. It would also provide suggested site specific exemptions and management policies.	MA, CA, BE
NAH22		A conservation management strategy would be prepared for nominated Section 170 register listed stations not listed on the State Heritage Register, in accordance with NSW Heritage Council guidelines.	DU, HP, CP, LA, WP, PB, BA
Aboriginal heritage			
Design/pre-construction			
AH1	Consultation	Aboriginal stakeholder consultation would continue to be undertaken in accordance with *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECC, 2010).	All
AH2	Avoiding impacts to Aboriginal heritage	The Aboriginal Cultural Heritage Assessment Report would be implemented.	All

ID	Impact	Mitigation measures	Relevant location(s)
AH3	Managing impacts to identified PADs	Archaeological test excavation (and salvage if required) would be carried out at S2B PAD02 at Punchbowl Station. Excavations would be conducted in accordance with the methodology outlined by the Aboriginal cultural heritage assessment report.	S2B PAD02
AH4	Interpretation	Appropriate Aboriginal heritage interpretation would be incorporated into the design in consultation with Aboriginal stakeholders.	All
Construction			
AH5	Unexpected finds	If potential Aboriginal items are uncovered during the works, all works in the immediate area would cease, and the unexpected finds procedure included in the construction heritage management plan would be implemented. During pre-work briefings, employees would be made aware of the unexpected finds procedures and obligations under the *National Parks and Wildlife Act 1974*.	All
Land use and property			
Design/pre-construction			
LU1	Future planning	Sydney Metro would continue to work the Department of Planning and Environment, the Greater Sydney Commission, and the Inner West and Canterbury-Bankstown councils in relation to future planning for the Sydenham to Bankstown corridor.	All
LU2		Sydney Metro would work with the Department of Planning and Environment, Greater Sydney Commission, Canterbury-Bankstown Council and other key stakeholders to plan for the strategic transformation of the Bankstown CBD, including an investigation into the long-term development and viability of an underground station configuration.	BA
LU3		Sydney Metro would establish a working group with Canterbury-Bankstown Council to investigate improved precinct outcomes in the vicinity of Campsie Station.	
Construction			
LU4	Temporary use	Temporary use areas, including public open space, would be restored to their pre-existing condition (as a minimum) as soon as practicable following completion of construction. This would be undertaken in consultation with the relevant council and/or the landowner.	All

ID	Impact	Mitigation measures	Relevant location(s)
Socio-economic impacts			
Design/pre-construction			
SO1	Socio-economic impacts	Sydney Metro would continue to work with stakeholders and the community to ensure they are informed about the project and have opportunities to provide feedback to the project team. The existing community contact and information tools would remain in place throughout the duration of the project. Consultation prior to and during construction would involve the use of appropriate tools, including, but not limited to, tools such as community information sessions, forums, briefings, and displays; distribution of project materials in a variety of languages; door knocks; Place Managers; and site signage.	All
SO2	Community facilities	Prior to construction, consultation would be undertaken with sensitive community facilities (including aged care, childcare centres, educational institutions, and places of worship). Consultation would aim to identify and develop measures to manage the specific construction impacts for individual sensitive community facilities. These measures would be incorporated into the relevant management plans.	All
Construction			
SO3	Community facilities and infrastructure	Access to community facilities and infrastructure would be maintained during construction, where possible. Where alternative access arrangements need to be made, these would be developed in consultation with relevant service providers, and communicated to users.	All
SO4	Employment	A workforce development plan would be prepared and implemented during construction, to support local employment and business opportunities, provide skills development, and increase workplace diversity.	All
Business impacts			
Design/pre-construction			
BI1	Managing construction impacts	A business management plan would be prepared and implemented during construction, to define the location specific measures and strategies to minimise impacts on individual businesses during construction. The plan would also include: • A business consultation forum • Roles and responsibilities • Monitoring, auditing, reporting, and complaints management procedures.	All

ID	Impact	Mitigation measures	Relevant location(s)
BI2	Supporting businesses during construction	The Sydney Metro City & Southwest Small Business Owners Support Program would be implemented to provide assistance to small business owners adversely impacted by construction. The program would be administered by a retail advisory/support panel established by Sydney Metro.	All
Landscape and visual impacts			
Design/pre-construction			
LV1	General visual impacts	The design would be guided by the Transport for NSW Around the Tracks – urban design for heavy and light rail.	All
LV2		Sydney Metro would work with the Inner West and Canterbury-Bankstown councils to identify relevant urban design principles, and deliver agreed urban design outcomes on council land, where reasonable and feasible.	All
LV3		Sydney Metro would prepare Station Design and Precinct Plans for each station. The plans would aim to ensure that the stations and facilities are sympathetic and complement local character, and are integrated with future plans for development. The plans would consider the following: • Urban design context • Sustainable design and maintenance • Community safety, amenity and privacy, including 'safer by design' principles where relevant • Opportunities for public art • Landscaping and design opportunities to mitigate the visual impacts of rail infrastructure and operation facilities • Incorporation of salvaged historic and artistic elements on the project design • Details of where and how recommendations from the Design Review Panel have been considered in the plan. Documents to be considered by the plans include, but are not limited to: • Inner West Council's Dulwich Hill Station Precinct public domain master plan • Outcomes of the master plan for Bankstown Station. The plans would be prepared and implemented in consultation with the Department of Planning and Environment, Inner West and Canterbury-Bankstown councils, Chambers of Commerce, and the local community.	AS

ID	Impact	Mitigation measures	Relevant location(s)
LV4	Impacts to trees and screening vegetation	The management of trees during detailed design and construction planning would be guided by the project's Tree Management Strategy, which would be developed in consultation with councils and include consideration of relevant local plans and strategies. Where removal cannot be avoided, trees would be replaced in accordance with the Tree Management Strategy, including replacement of removed trees in a two for one ratio. Opportunities to retain and protect existing trees would be defined during detailed design and construction planning, in accordance with the project's Tree Management Strategy. The design would aim to reduce tree removal to the extent practicable, particularly where they contribute to screening vegetation or landscape character.	All
LV5	Light spill	Lighting would be designed in accordance with *AS 4282 Control of the Obtrusive Effects of Outdoor Lighting*. Lighting would be designed to minimise light spill and glare into adjoining areas.	All
LV6	Noise barriers and fencing	The selection of materials and colours for noise barriers and hoardings would aim to minimise their visual prominence.	Noise barrier locations
LV7		The use of transparent panels in noise barriers would be considered where views to local landscape features and district views would be obstructed.	Noise barrier locations
LV8		Fencing would be designed to be of a high quality urban finish near stations.	AS
LV9	Substations	The detailed design of the substations would ensure that they incorporate appropriate architectural treatments and landscaping to minimise the potential for visual impacts. Surrounding property owners would be consulted during design of the substations.	Substations
Construction			
LV10	Visual impacts	A visual amenity management plan would be prepared and implemented during construction, to define the measures to minimise visual impacts during construction. The plan would include requirements in relation to construction site remediation.	All
LV11		Mitigation measures for landscape and visual impacts would be implemented as soon as feasible and reasonable after the commencement of construction, and remain for the duration of the construction period.	All
LV12	Impacts to trees	Trees to be retained would be protected prior to the commencement of construction in accordance with *AS4970-2009 Protection of trees on development sites* and the project's Tree Management Strategy. Any tree pruning would be undertaken in accordance with the project's Tree Management Strategy, guided by a tree report prepared by a qualified arborist.	All

ID	Impact	Mitigation measures	Relevant location(s)
LV13	Impacts from construction, including compounds and work sites	The design and maintenance of construction compound hoardings would aim to minimise visual amenity and landscape character impacts. Graffiti would be removed promptly, and public art opportunities would be considered.	All
LV14		The selection of materials and colours would aim to minimise their visual prominence.	All
LV15		Lighting of work areas, compounds and work sites would be oriented to minimise glare and light spill impact on adjacent receivers.	All
LV16		Following completion of construction, site restoration would be undertaken in accordance with the visual amenity management plan. Temporary impacts to public open space would be rehabilitated in consultation with the relevant local council and/or landowner.	All
Soils and contamination			
Design/pre-construction			
SC1	General soil and erosion management	Erosion and sediment control measures would be implemented in accordance with *Managing Urban Stormwater: Soils and Construction Volume 1* (Landcom, 2004) and *Managing Urban Stormwater: Soils and Construction Volume 2A* (DECC, 2008). Measures would be designed as a minimum for the 80th percentile, five day rainfall event.	All
SC2	Acid sulfate soils	Prior to ground disturbance in high probability acid sulfate areas, testing would be carried out to determine the presence of acid sulfate soils. If acid sulfate soils are encountered, they would be managed in accordance with the *Acid Sulfate Soil Manual* (Acid Sulfate Soil Management Advisory Committee, 1998) and the *Waste Classification Guidelines* - Part 4: Acid Sulfate Soils (EPA, 2014).	MA, CB, CP
SC3	Saline soils	Prior to ground disturbance in areas of potential soil salinity, testing would be carried out to confirm the presence of saline soils. If saline soils are encountered, they would be managed in accordance with *Site Investigations for Urban Salinity* (DLWC, 2002).	PB, BA
SC4	Contamination	WorkCover dangerous goods searches would be carried out for properties that have potential contamination near Belmore Station, to provide additional site characterisation and identify the risk of contamination in these areas.	BE
SC5		Prior to ground disturbance, a detailed contamination assessment would be undertaken in areas with a medium to high risk of contamination, to confirm the nature and extent of contamination, specific requirements for further investigation and remediation, and/or management requirements of any contamination.	MA, CP, BE, PB, BA

ID	Impact	Mitigation measures	Relevant location(s)
SC6		Hazardous materials surveys would be undertaken during detailed design for all proposed demolition activities, and for utility adjustments as required.	All
SC7		In the event a Remediation Action Plan is required, it would be developed in accordance with *Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998) and a NSW Environment Protection Authority Accredited site auditor would be engaged to audit the works.	MA, CP, BE, PB, BA
Construction			
SC8	Unexpected contamination	In the event that indicators of contamination are encountered during construction (such as odours or visually contaminated materials), work in the area would cease, and the finds would be managed in accordance with the unexpected contamination finds procedure.	All
Operation			
SC9	Soil erosion and sedimentation	During any maintenance work where soils are exposed, sediment and erosion control devices would be installed in accordance with *Managing Urban Stormwater: Soils and Construction* (Landcom, 2004).	All
Hydrology, flooding and water quality			
Design/pre-construction			
FHW1	Stormwater runoff	Where feasible and reasonable, detailed design would result in no net increase in stormwater runoff rates in all storm events, unless it can be demonstrated that increased runoff rates as a result of the project would not increase downstream flood risk.	All
FHW2	Flooding	Detailed design of the project would, as required at Bankstown between Stacey Street and Marion Street, take into account the impact of overland flooding for the full range of floods events up to the Probable Maximum Flood level.	BA
FHW3	Water quality	The project would be designed in accordance with water quality design criteria based on the *Water Sensitive Urban Design Guideline (Roads and Maritime, 2017)* to ensure there is minimal potential for water quality impacts, including incorporating water sensitive urban design elements.	All
FHW4	Water quality monitoring	A construction water quality monitoring program would be developed and would commence prior to construction, to monitor water quality at identified discharge points. The program would include relevant water quality objectives, parameters, and criteria and specific monitoring locations identified in consultation with DPI (Water) and the EPA.	All

ID	Impact	Mitigation measures	Relevant location(s)
Construction			
FHW5	Flooding	Detailed construction planning would consider flood risk for all compounds and work sites. This would include identification of measures to not worsen existing flooding characteristics. Not worsen is defined as: • A maximum increase in flood levels of 50 mm in a one per cent AEP event • A maximum increase in time of inundation of one hour in a one per cent AEP event • No increase in the potential for soil erosion and scouring from any increase in flow velocity in a one per cent AEP flood event.	All
FHW6		The site layout and staging of construction activities would: • Avoid or minimise obstruction of overland flow paths and limit the extent of flow diversion required • Consider how works would affect the existing stormwater network such that alternatives are in place prior to any disconnection or diversion of stormwater infrastructure.	All
FHW7	Watercourse impacts	Works within or near watercourses (including the Cooks River) would be undertaken with consideration given to the NSW Office of Water's guidelines for controlled activities.	All
FHW8	Water quality	Erosion and sediment mitigation measures would be installed and maintained for the duration of the construction period.	All
FHW9	Water quality monitoring	The A water quality monitoring program would continue during construction, to monitor water quality at identified discharge points.	All
FHW10		Discharges from construction water treatment devices would be monitored to ensure compliance with the discharge criteria in the environment protection licence.	All
Operation			
FHW11	Water quality	Operational water discharges would be managed in accordance with the water quality management requirements specified in the environment protection licence.	All
Biodiversity			
Design/pre-construction			
B1	*Direct impacts to biodiversity*	Detailed design and construction planning would avoid direct impacts to vegetation mapped as threatened ecological communities or native plant community types, specifically Downy Wattle Turpentine - Grey Ironbark open forest on shale, Degraded Turpentine - Grey Ironbark open forest on shale and Broad-leaved Ironbark – Grey Box.	All

ID	Impact	Mitigation measures	Relevant location(s)
B2		Pre-clearing surveys and inspections for endangered and threatened flora and fauna species would be undertaken by qualified ecologists prior to any clearing occurring. The surveys and inspections, and any subsequent relocation of species, would be undertaken in accordance with the measures provided in the biodiversity assessment report.	All
Construction			
B3	Direct impacts to biodiversity	Areas of biodiversity value outside the project area would be marked on plans, and fenced or signposted where practicable, to prevent unnecessary disturbance.	All
B4		Impacts to Downy Wattle Turpentine - Grey Ironbark open forest on shale, Degraded Turpentine - Grey Ironbark open forest on shale and Broad-leaved Ironbark – Grey Box would be avoided. The locations of these species and communities would be marked on plans, fenced on site, and avoided.	All
B5		Equipment storage and stockpiling would be restricted to identified compound sites and already cleared land.	All
B6		A trained ecologist would be present during the clearing of native vegetation or removal of potential fauna habitat to avoid impacts on resident fauna and to salvage habitat resources as far as is practicable.	All
B7	Management of weeds	Priority weeds would be managed in accordance with the *Biosecurity Act 2015*. Weeds of national environmental significance would be managed in accordance with the *Weeds of National Significance Weed Management Guide*.	All
Operation			
B8	Management of weeds	Annual inspections would be undertaken for weed infestations and to assess the need for control measures.	All
B9		Any outbreak of priority weeds and/or weeds of national environmental significance would be managed in accordance with the relevant guidelines.	All
B10	Threatened species and habitats	Sydney Metro would take necessary steps to locate and protect threatened species and habitats where they occur inside the Sydenham to Bankstown rail corridor. Suitable protection measures would include fencing, signage and other measures where this would not impede the safe maintenance and operation of trains and related infrastructure.	All

ID	Impact	Mitigation measures	Relevant location(s)
Air quality			
Design/pre-construction			
AQ1	Air quality impacts	An air quality management plan would be prepared and implemented during construction, to define the measures to minimise air quality impacts during construction.	All
Sustainability And Climate Change			
Design/pre-construction			
SCC1	*Sustainability*	Sustainability initiatives and targets would be reviewed and incorporated into the detailed design to support the achievement of the project's sustainability objectives. A best practice level of performance would be targeted using relevant sustainability rating tools e.g. ISCA as built 'excellent' level rating.	All
SCC2		A sustainable procurement strategy would be developed and implemented to apply to Principal Contractors, their subcontractors and their suppliers.	All
SCC3		A workforce development and industry participation strategy would be developed covering both construction and operation.	
SCC4	Climate change	The need for climate change risk treatments would be assessed and incorporated into the detailed design, where required.	All
SCC5	Greenhouse gas emissions	An iterative process of greenhouse gas assessments and design refinements would be carried out during detailed design and construction to identify opportunities to minimise greenhouse gas emissions. Performance would be measured in terms of a percentage reduction in greenhouse gas emissions from a defined reference footprint.	All
Construction			
SCC6	Sustainability	Sustainability reporting (and corrective action where required) would be undertaken during construction.	All
SCC7		The construction workforce development plan would be implemented.	All
SCC8	Greenhouse gas emissions	25 per cent of the greenhouse gas emissions associated with consumption of electricity during construction would be offset.	All

ID	Impact	Mitigation measures	Relevant location(s)
Operation			
SCC9	*Sustainability*	Prior to operation commencing, sustainability initiatives would be reviewed and updated, and relevant initiatives would be implemented to support the achievement of the project's sustainability objectives.	All
SCC10		The operation workforce development plan would be implemented.	All
SCC11	Climate change risks	Periodic review of climate change risks would be carried out to ensure ongoing resilience to the impacts of climate change.	All
SCC12	Greenhouse gas emissions	100 per cent of the greenhouse gas emissions associated with consumption of electricity during operation would be offset.	All
Hazards, risks and safety			
Design/pre-construction			
HRS1	Public safety	A hazard analysis would be undertaken during the detailed design stage to identify risks to public safety from the project, and how these can be mitigated through safety in design.	All
HRS2	Electric and magnetic fields	Substations would be designed to ensure that electric and magnetic fields remain within the limits set by the following guidelines: • RHS 30 (Radiation Health Series 30), *Interim Guidelines on Limits of Exposure to 50/60Hz Electric & Magnetic Fields* (1989), National Health and Medical Research Council • RPS 3 (Radiation Protection Series No.3), *Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz* (2002), Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)	SS
		• AS/NZS 2344:1997 and Amdt 1:2006 *Limits of electromagnetic interference from overhead a.c. powerlines and high voltage equipment installations in the frequency range 0.15 to 1000 MHz.* During commissioning of the substations, monitoring would be undertaken to determine the electric and magnetic field levels. Should exceedances of the criteria be found, measures to reduce these exceedances would be implemented.	
HRS3	Utilities	All utilities adjustments or relocation would be undertaken in accordance with the Utilities Management Framework.	All
Construction and operation			
HRS4	Hazardous materials and substances	All hazardous substances that may be required for construction and operation would be stored and managed in accordance with the *Storage and Handling of Dangerous Goods Code of Practice* (WorkCover NSW, 2005) and the *Hazardous and Offensive Development Application Guidelines: Applying SEPP* 33 (Department of Planning, 2011).	All

ID	Impact	Mitigation measures	Relevant location(s)
Waste management			
Design/pre-construction			
WM1	Waste generation and recycling	Detailed design would include measures to minimise excess spoil generation. This would include a focus on optimising the design to minimise spoil volumes, and the reuse of material on-site.	All
WM2		A recycling target of at least 90 per cent would be adopted.	All
Construction			
WM3	Waste and spoil management	Spoil would be managed in accordance with the spoil management hierarchy.	All
WM4		Target 100 per cent reuse of reusable spoil.	All
WM5		Construction waste would be minimised by accurately calculating materials brought to the site and limiting materials packaging.	All
WM6		All waste would be assessed, classified, managed and disposed of in accordance with the *Waste Classification Guidelines* (EPA, 2014).	All
WM7		Waste segregation bins would be located at various locations within the project area, if space permits, to facilitate segregation and prevent cross contamination.	All

ID	Impact	Mitigation measures	Relevant location(s)
Cumulative impacts			
Pre-construction and construction			
CI1	Cumulative impacts	Sydney Metro would manage and co-ordinate the interface with projects under construction at the same time. Co-ordination and consultation with the following stakeholders would occur, where required: • Department of Planning and Environment • Roads and Maritime Services • Sydney Trains • NSW Trains • Sydney Buses • Inner West Council • Canterbury-Bankstown Council • Sydney Motorways Corporation • Emergency service providers • Utility providers • Construction contractors. Co-ordination and consultation with these stakeholders would include: • Provision of regular updates to the detailed construction program, construction sites and haul routes • Identification of key potential conflict points with other construction projects • Developing mitigation strategies in order to manage conflicts. Depending on the nature of the conflict, this could involve: – adjustments to the construction program, work activities or haul routes; or adjustments to the program, activities or haul routes of Sydney Metro or other construction projects • Co-ordination of traffic management arrangements between projects.	All

7.3 Recommended modifications to conditions of approval

The following changes (additions shown in **Bold** with deletions shown with a ~~strikethrough~~) are recommended to the existing conditions of approval:

A1 The CSSI may only be carried out in accordance with the terms of this approval and generally in accordance with the description of the CSSI in the:

(a) Sydney Metro City & Southwest Sydenham to Bankstown Environmental Impact Statement – Volumes 1A-C and 2–6 (the EIS);

(b) as modified by the Sydney Metro City & Southwest Sydenham to Bankstown Submissions and Preferred Infrastructure Report – Volumes 1, 2A-F and 3 G-J (the SPIR); ~~*and*~~

(c) the Sydney Metro City & Southwest Sydenham to Bankstown Submissions Report (the SR); ***and***

(d) the Sydney Metro City & Southwest Sydenham to Bankstown, Bankstown Station Modification Report.

8. Justification and conclusion

This section provides a justification for the proposed modification and concludes the Modification Report.

8.1 Justification

Sydney Metro is proposing to modify the approved project at Bankstown Station to provide an at-grade corridor crossing between Appian Way and Restwell Street and move the Sydney Metro platform slightly to the west of the location identified as part of the approved project.

The proposed modification is required to align with outcomes of feedback received during the public exhibition of the Environmental Impact Statement and the master planning work being undertaken for the Bankstown Station precinct in accordance with mitigation measure LU2 for the approved project.

The proposed modification would provide an improved local precinct, benefiting access for the local population and public transport users. Benefits of the proposed modification include:

- Improved access: the modified station design would provide improved access and connectivity from the public domain as well as integration with the CBD.
- Enhanced wayfinding and integrated development: at-grade station entrances would contribute to intuitive and legible wayfinding between train, bus and through pedestrian traffic.
- Prioritised public precinct: the improved local access would provide an enhanced customer experience, including additional public concourse within the at-grade corridor crossing.

The above benefits would support the vision for the strategic transformation of the Bankstown CBD.

Construction of the proposed modification would also reduce the construction impacts and timeframe associated with delivering a new metro station at Bankstown as no works are required to the West Terrace rail bridge and a large portion of the platform works can be undertaken without the need for possession of the rail corridor.

The proposed modification is consistent with applicable NSW strategic planning and policy, and strategic transport infrastructure policy, and is also consistent with the project objectives and aims, project benefits and the project elements identified in the Environmental Impact Statement and Submissions and Preferred Infrastructure Report for the approved project.

8.2 Conclusion

The proposed modification has resulted from ongoing consultation with City of Canterbury Bankstown and consideration of the broader master planning being undertaken for the Bankstown Station precinct, as required by the conditions of approval. It involves a number of design changes and changed impacts – all of which are considered to be of a minor nature in consideration of the impacts of the approved project. These additional impacts would also be outweighed by the additional long-term benefits to customers and the public.

While the project-specific mitigation measures identified for the approved project are generally sufficient to address the potential impacts of the proposed modification a new mitigation measure, measure NAH23, has been added to reflect the potential impacts associated with the proposed modification, involving removal of the heritage listed Parcels Office.

The relevant conditions of approval for the approved project would continue to apply to the proposed modification and a new item is identified for inclusion in condition A1 to recognise the proposed modification at Bankstown Station discussed in this report.

9. References

Acid Sulfate Soil Management Advisory Committee (ASSMAC), 1998, *Acid Sulfate Soil Manual (including the Acid Sulfate Soils Assessment Guidelines)*, August 1998

Australia International Council on Monuments and Sites (ICOMOS) Incorporated, 2013, *The Burra Charter*: The Australia ICOMOS Charter for Places of Cultural Significance, adopted in October 2013

Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), 2002. RPS 3 (Radiation Protection Series No.3), *Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz*

AS 4282 *Control of the Obtrusive Effects of Outdoor Lighting*.

AS4970-2009 *Protection of trees on development sites*

AS/NZS 2344:1997 and Amdt 1:2006 *Limits of electromagnetic interference from overhead a.c. powerlines and high voltage equipment installations in the frequency range 0.15 to 1000 MHz.*

Bankstown City Council, 2011. *Salt Pan Creek Catchments Floodplain Risk Management Study and Plan*

Department of Environment and Climate Change (DECC), 2008, *Managing Urban Stormwater: Soils and Construction, Volume 2A Installation of services*, January 2008

DECC, 2009, *Interim Construction Noise Guideline,* July 2009

DECC, 2010, *Aboriginal cultural heritage consultation requirements for proponents 2010, prepared under Part 6 of the National Parks and Wildlife Act 1974,* April 2010

Department of Land and Water Conservation (DLWC), 2002, *Site Investigations for Urban Salinity*, Local Government Salinity Initiative

Department of Planning and Environment, 2014, *A Plan for Growing Sydney,* December 2014

Department of Infrastructure, Planning and Natural Resources, 2004, *Guideline for the Preparation of Environmental Management Plans*

Department of Urban Affairs and Planning and Environment Protection Authority, 1998, *Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land*

Environment Protection Authority (EPA), 2000, *NSW Industrial Noise Policy,* January 2000

EPA, 2013, *Rail Infrastructure Noise Guideline* (the RING), May 2013

EPA, 2014, *Waste Classification Guidelines*, November 2014

Heritage Office, 1998, *How to Prepare Archival Records of Heritage Items*

Heritage Office, 2001, *Assessing heritage significance*, a NSW Heritage Manual update, July 2001

Heritage Office 2006, *Photographic Recording of Heritage Items Using Film or Digital Capture*

Heritage NSW, 2002. *Statements of Heritage Impact*. Accessed online at https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf

Landcom, 2004, *Managing Urban Stormwater: Soils and Construction Volume 1,* 4th Edition, March 2004

National Health and Medical Research Council, 1989. *RHS 30 (Radiation Health Series 30), Interim Guidelines on Limits of Exposure to 50/60Hz Electric & Magnetic Fields),*

Roads and Maritime, 2017, *Water Sensitive Urban Design Guideline,* May 2017

Sydney Metro, 2018a, *Sydney Metro City & Southwest, Sydenham to Bankstown Submissions and Preferred Infrastructure Report*, June 2018

Sydney Metro, 2018b, *Sydney Metro City & Southwest, Sydenham to Bankstown Submissions Report,* September 2018

Transport for NSW, 2017, *Sydney Metro City & Southwest Sydenham to Bankstown Environmental Impact Statement,* September 2017

WorkCover NSW, 2005, *Storage and Handling of Dangerous Goods Code of Practice*

10. Abbreviations and definitions

10.1 Abbreviations

Abbreviation	Definition
CBD	Central Business District
DDA	Disability Discrimination Act 1992
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
ICOMOS	International Council on Monuments and Sites
LEP	Local Environment Plan
LOS	Level of Service
NSW	New South Wales
PAR	Photographic Archival Recording

10.2 Definitions

Term	Definition
Accessibility	A public transport customer's ability to reach their destination unhindered and as independently as possible. Includes compliance with relevant disability standards such as the *Disability Discrimination Act 1992* and the *Disability Standards for Accessible Public Transport 2002*. Also refers to a measure of the ability or ease of customers to travel between various origins and destinations.
Average delay	Duration, in seconds, of the average vehicle waiting time at an intersection.
Chatswood to Sydenham project	One of the two components of the Sydney Metro City & Southwest project, the other being the Sydenham to Bankstown Upgrade.
Community	A physical or cultural grouping of stakeholders with common interests created by shared proximity or use.
Concourse	The paved open area at a station – can be located either behind or in front of ticket barriers.
Construction compound	An area used as the base for construction activities, usually for the storage of plant, equipment and materials, and/or construction site offices and worker facilities.
Heritage listed	An item, building or place included on statutory heritage lists maintained by local, State and/or the Australian Government.
Interchange	A location where customers transfer from one mode of transport to another or between two services of the same mode. Also includes a place where customers join or leave the public transport system on foot, by bicycle, motorcycle, or car.
Kiss and ride	An area allocated for cars to pull out of the active traffic lane and drop passengers off at a station.
Landscape	All aspects of a tract of land, including landform, vegetation, buildings, villages, towns, cities, and infrastructure.
Landscape character	The combined quality of built, natural and cultural aspects that make up an area and provide its unique sense of place.

Term	Definition
Possession	A period of time during which a rail line is shut down to trains, to permit work to be carried out on or near the line.
Project area	The area that would be directly affected by construction works (also known as the construction footprint). It includes the location of project infrastructure, the area that would be directly disturbed by the movement of construction plant and machinery, and the location of the storage areas/compounds sites etc, that would be used to construct that infrastructure.
Rail corridor	The corridor within which the rail tracks and associated infrastructure are located.
Section 170 register	Under Section 170 of the *Heritage Act 1977*, all state government agencies must keep and administer a database of heritage assets called a Section 170 Heritage and Conservation Register.
Station area	A subset of the project area. It includes the station and the area around the station where works are proposed as part of the project – mainly to provide facilities/space for customers to transfer between other forms of transport (such as bus stops, taxi parking bays, kiss and ride bays, cycle parking/storage).
Sydenham to Bankstown upgrade	The Sydenham to Bankstown upgrade forms the project for the purposes of the Environmental Impact Statement (Transport for NSW 2017). It is one of the two components of the Sydney Metro City & Southwest project, the other being the Chatswood to Sydenham project.
Sydney Metro	Sydney Metro project is a new standalone automated rapid transit rail network in Sydney. The Sydney Metro network consists of Sydney Metro Northwest (opened in May 2019) and Sydney Metro City & Southwest (under construction), which together would provide 66 kilometres of metro rail line and 31 metro railway stations. Planning for Sydney Metro West and Sydney Metro Greater West is currently underway. The Sydney Metro Authority (formerly Transport for NSW) is the proponent of the project.
Sydney Metro City & Southwest	Part of the Sydney Metro network proposed between Chatswood and Bankstown, comprising two core components - the Chatswood to Sydenham project and the Sydenham to Bankstown upgrade.
Sydney Trains	The agency responsible for the provision of suburban passenger train services in/around Sydney.
Tree	A long lived woody perennial plant growing to greater than (or usually greater than) three metres in height, with one or relatively few main stems or trunks.
View	The visual experience from the viewer's perspective.
Visual amenity	The value of a particular area or view in terms of what is seen.
Visual impact	The impacts on the views from residences, workplaces, and public places. This can be positive (i.e. benefit or an improvement) or negative (i.e. adverse or a detraction).
Waste	Waste is defined by the EPA as any matter (whether liquid, solid, gaseous or radioactive) that is discharged, emitted, or deposited in the environment in such volume, constituency, or manner as to cause an alteration to the environment.

Appendices

Appendix A - Traffic, Transport and Access Assessment

Sydney Metro City & Southwest

Sydenham to Bankstown Upgrade, Bankstown Station Modification

Traffic, Transport and Access Assessment

Revision 3 – May-2020
Prepared for Sydney Metro

Sydenham to Bankstown Upgrade, Bankstown Station Modification

Traffic, Transport and Access Assessment

Prepared by

AECOM New Zealand Limited
Level 2, 2 Hazeldean Road, Addington, Christchurch 8024, P O Box 710, Christchurch MC, Christchurch 8140, New Zealand
T +64 3 966 6000 F +64 3 966 6001 www.aecom.com

May 2020

Job No.: 60489141

Quality Information

Document	Sydenham to Bankstown Upgrade
Ref	60489141
Date	May-2020
Prepared by	Derek Walsh
Reviewed by	Rachel O'Hara

Revision History

Rev	Revision Date	Details	Authorised	
			Name/Position	Signature
1	24-April-2020	Draft for Sydney Metro review	Rachel O'Hara Principal Environmental Scientist	
2	1-04-2020	Final	Rachel O'Hara Principal Environmental Scientist	

Table of Contents

1.0 Introduction

Planning approval for the Sydney Metro City & Southwest Sydenham to Bankstown upgrade (the approved project) was granted by the Minister of Planning (now the Minister for Planning and Public Spaces) under Section 5.19 of the Environmental Planning and Assessment Act 1979 (the EP&A Act) on 12 December 2018.

The approved project involves upgrading 10 existing stations west of Sydenham (Marrickville to Bankstown inclusive), and a 13 kilometre long section of the Sydney Trains T3 Bankstown Line, between west of Sydenham Station and west of Bankstown Station. The approved project will improve accessibility and interchange for customers and provide increased train frequency and more direct access to key employment centres and new stations, including Waterloo, Pitt Street, Martin Place, Barangaroo, Victoria Cross (North Sydney) and Crows Nest.

Since project approval, design development for Bankstown Metro station has indicated that a new design is required to meet project requirements. Therefore, a modification to the approved project is required to address changes to the design at Bankstown Station (the proposed modification).

This report provides a description of the proposed modification to the approved project for Bankstown Station and the impacts of those during construction and operation. This document should be read in conjunction with Sydenham to Bankstown Upgrade Submissions and Preferred Infrastructure Report, with specific reference to Volume 2, Appendix D Traffic transport and access assessment. This document does not repeat the assessment of impacts where there has been no change to the approved project. Where there has been a material change to the traffic related matters assessed in the Preferred Infrastructure report that results in amended impacts, these impacts are assessed.

1.1 Structure of the document

This report is structured in a manner that broadly replicates Volume 2, Appendix D Traffic transport and access assessment of the Submissions and Preferred Infrastructure Report. Section 2 outlines the methodology for the assessment, confirms the general transport context of the modified project and project area. Sections 3 to 5 provide the assessment of the impacts for the construction phase and the operational phase of the modified project. Section 6 provides the updated mitigation measures for the modified project.

2.0 Methodology

2.1 Overview

The methodology for this report is as detailed in Appendix D, Volume 2 of the Sydenham to Bankstown Upgrade Submissions and Preferred Infrastructure Report. Where clarification or amendments have been required to this methodology this has been outlined below.

2.2 Baseline Conditions

There have been no changes to existing transport conditions in and surrounding the project area that materially change the description of the existing environment since that described in the Submissions and Preferred Infrastructure Report. Therefore, for the purposes of assessment, no changes to the baseline transport conditions have been considered.

3.0 Construction assessment

3.1 Overview

The features of the proposed modification during construction is shown in Figure 3-1. A description of the key design changes and the key changes to construction methodology associated with the proposed modification are described in Section 5 of the Modification Report.

A new construction compound (C24) would be required to construction the modified project. It is located within the rail corridor to the west of the existing Bankstown Station. This compound would be accessed via Depot Place, and the previously identified indicative haulage route on Meredith Street / Marion Street. The total peak volumes of construction traffic and construction workforce traffic identified in the Submissions and Preferred Infrastructure Report (Sydney Metro 2018) and the Environmental Impact Statement (Transport for NSW 2017) are not expected to change. This is discussed further below.

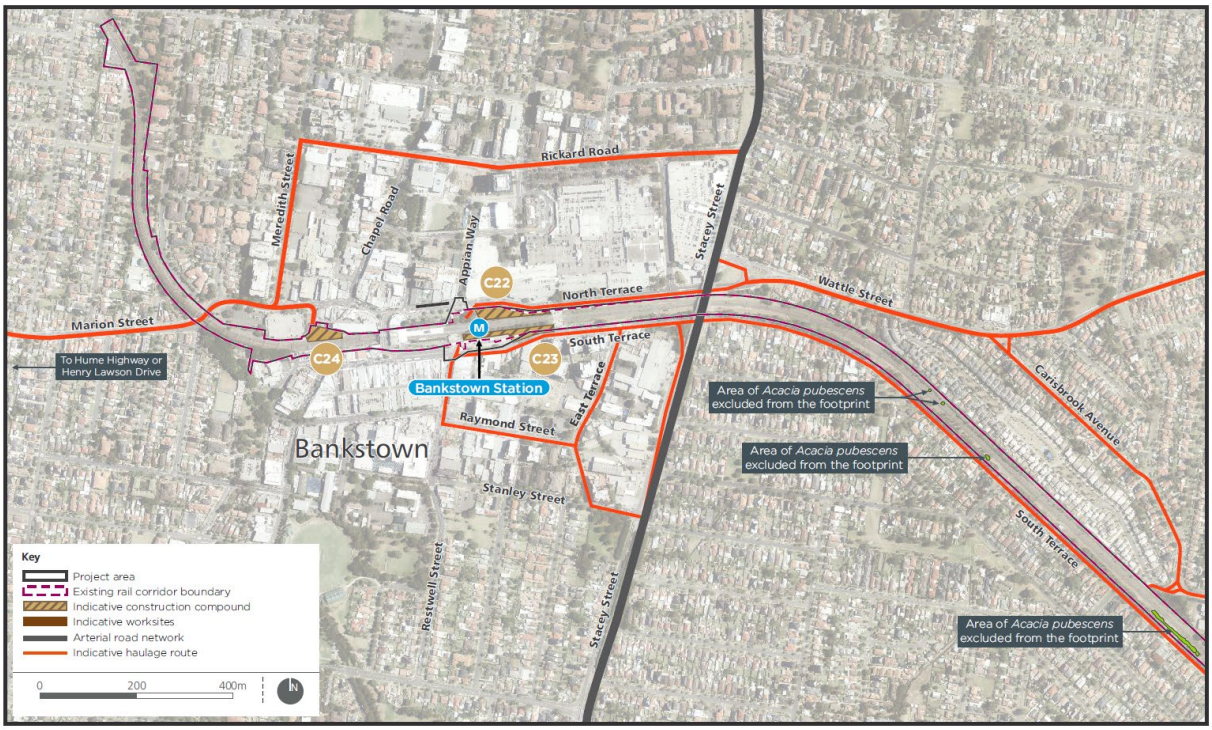


Figure 3-1: Bankstown Station modification –construction activities

3.2 Road network operation and intersection analysis

The Submissions and Preferred Infrastructure Report (Sydney Metro 2018) and the Environmental Impact Statement (Transport for NSW 2017) identified a maximum of 16 additional vehicles (in each direction) generated by project construction activities in both the AM and PM peak hour. These vehicles were assumed to be split equally between the two compounds (C22 and C23) and the performance of affected intersections was interrogated, based on these assumptions. The addition of a new construction compound (C24) means that the total volume of construction traffic would be divided further and would be equally split between the three construction compounds, resulting in less than 6 vehicles per (peak) hour in each direction accessing these compounds. This represents a small decrease in traffic flows that were previously assessed for compounds C22 and C23.

Compound C24 and the associated access routes are the only areas where construction traffic flows are expected to increase as a result of this proposed modification. Construction traffic accessing this compound would use the previously identified indicative haulage route on Marion Street, with the addition of a short section of Marion Street (where the previous haulage route turned into Meredith Street), providing direct access to Depot Place and the new compound. Previous assessment of this haulage route, including the Marion Street / Meredith Street intersection identified that all assessed intersections were forecast to operate at LoS B in the AM peak, with Marion Street / Oxford Avenue and Marion Street / Greenwood Avenue reducing to LoS C in the PM peak. The Marion Street / Meredith Street was forecast to remain at LoS B in the PM Peak.

The additional volume of construction traffic expected as a result of compound C24 is very low. Less than 6 vehicles per peak hour (in each direction) are expected to access the site, equating to less than

one vehicle movement every 10 minutes. The additional construction traffic would represent less than half a percent of the existing traffic volumes on the identified route and would not have a material effect on intersection performance.

Access arrangements to/from the new compound may require site specific temporary traffic management measures to maintain traffic flow and protect vulnerable users. Local temporary traffic management would be required where truck and dog configurations are to be used.

4.0 Operation

4.1 Overview

The features of the proposed modification including an indicative layout of the key design elements is shown in Figure 4-1. A description of the key design changes associated with the proposed modification are described in Section 5 of the Modification Report.

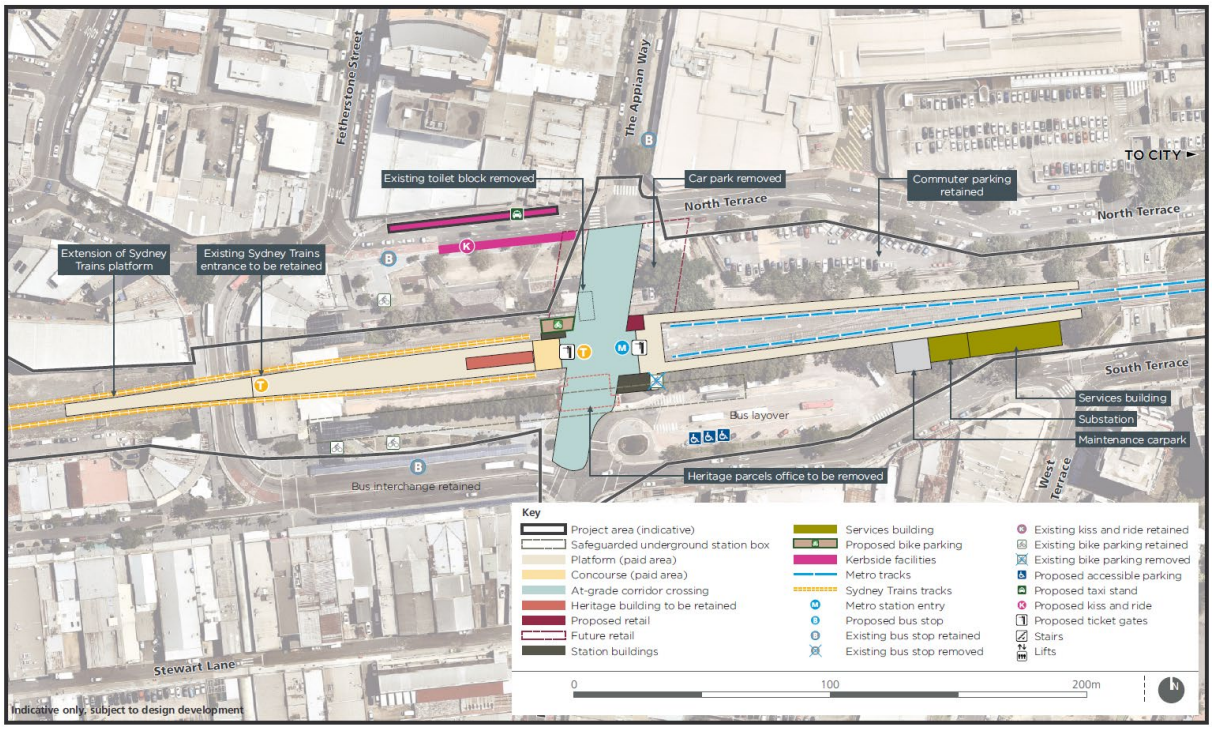


Figure 4-1: Bankstown Station modification – indicative layout

The proposed modification would result in the provision of a new at-grade corridor crossing which would provide a pedestrian and cycle link between The Appian Way and Restwell Street. This link would also cater for service vehicles and emergency access vehicles. General traffic and public transport services would not be able to use the new at-grade corridor crossing, although it is being designed to not preclude the use of the link by vehicles such as buses in the future.

At the intersections at either end of the new at-grade corridor crossing (South Terrace / Restwell Street and North Terrace / The Appian Way), cyclists would be required to dismount and cross North / South Terrace using existing and proposed pedestrian crossing facilities. Cycle parking facilities would be provided along the proposed corridor crossing in the vicinity of the station entrances.

4.2 Walking and cycling

The provision of a new pedestrian / cycle link would increase north – south connectivity in the area. The proposed at-grade corridor crossing would connect into the east-west pedestrian cycle link, which will run along the rail corridor and will be delivered as part of the approved project. Existing pedestrian

crossing facilities would be retained to facilitate safe crossing, albeit minor realignment would be required to interface with the new at-grade corridor crossing. A new secure bike storage comprising approximately 36 spaces would be installed along the at-grade corridor crossing adjacent to the new Sydney Trains station entrance. Additional unsecured bike parking would be provided.

4.3 Public transport

The proposed modification would result in minor changes in the vicinity of the existing bus facilities to accommodate the new at-grade corridor crossing however these would not impact the capacity or operation of the bus station, layover and nearby bus stops.

4.4 Taxis

The proposed modification would result in a reallocation of the taxi stand to the north side of North Terrace, but this stand would continue to be accessible from the at-grade corridor crossing via the existing pedestrian crossing facility.

5.0 Mitigation measures

No changes to the mitigation measures are required as a result of the modified project.

Appendix B - Statement of Heritage Impact

Sydney Metro City & Southwest, Sydenham to Bankstown Upgrade – Bankstown Station Modification

Statement of Heritage Impact

Report prepared for Sydney Metro

May 2020

artefact

Artefact Heritage
ABN 73 144 973 526
Level 4, Building B
35 Saunders Street
Pyrmont NSW 2009
Australia

+61 2 9518 8411
office@artefact.net.au

Document history and status

Revision	Date issued	Reviewed by	Approved by	Date approved	Revision type
1	31 January 2020	Sandra Wallace	Sandra Wallace	31 January 2020	First draft
2	6 April 2020	Sandra Wallace	Sandra Wallace	6 April 2020	Second draft
3	24 April 2020	Sandra Wallace	Sandra Wallace	24 April 2020	Third draft
4	1 May 2020	Karen Yale	Karen Yale	1 May 2020	Final

Project name:	Sydney Metro S2B Bankstown Modification SoHI
Author:	Duncan Jones
Project manager:	Duncan Jones
Project number:	151213
Name of organisation:	Artefact Heritage
Document version:	Final

CONTENTS

FIGURES

TABLES

1.0 INTRODUCTION

1.1 Project background

1.1.1 Overview

Planning approval for the Sydney Metro City & Southwest Sydenham to Bankstown upgrade (the approved project) was granted by the Minister of Planning (now the Minister for Planning and Public Spaces) under Section 5.19 of the Environmental Planning and Assessment Act 1979 (the EP&A Act) on 12 December 2018.

The approved project involves upgrading 10 existing stations west of Sydenham (Marrickville to Bankstown inclusive), and a 13-kilometre-long section of the Sydney Trains T3 Bankstown Line, between west of Sydenham Station and west of Bankstown Station. The approved project will improve accessibility and interchange for customers and provide increased train frequency and more direct access to key employment centres and new stations, including Waterloo, Pitt Street, Martin Place, Barangaroo, Victoria Cross (North Sydney) and Crows Nest.

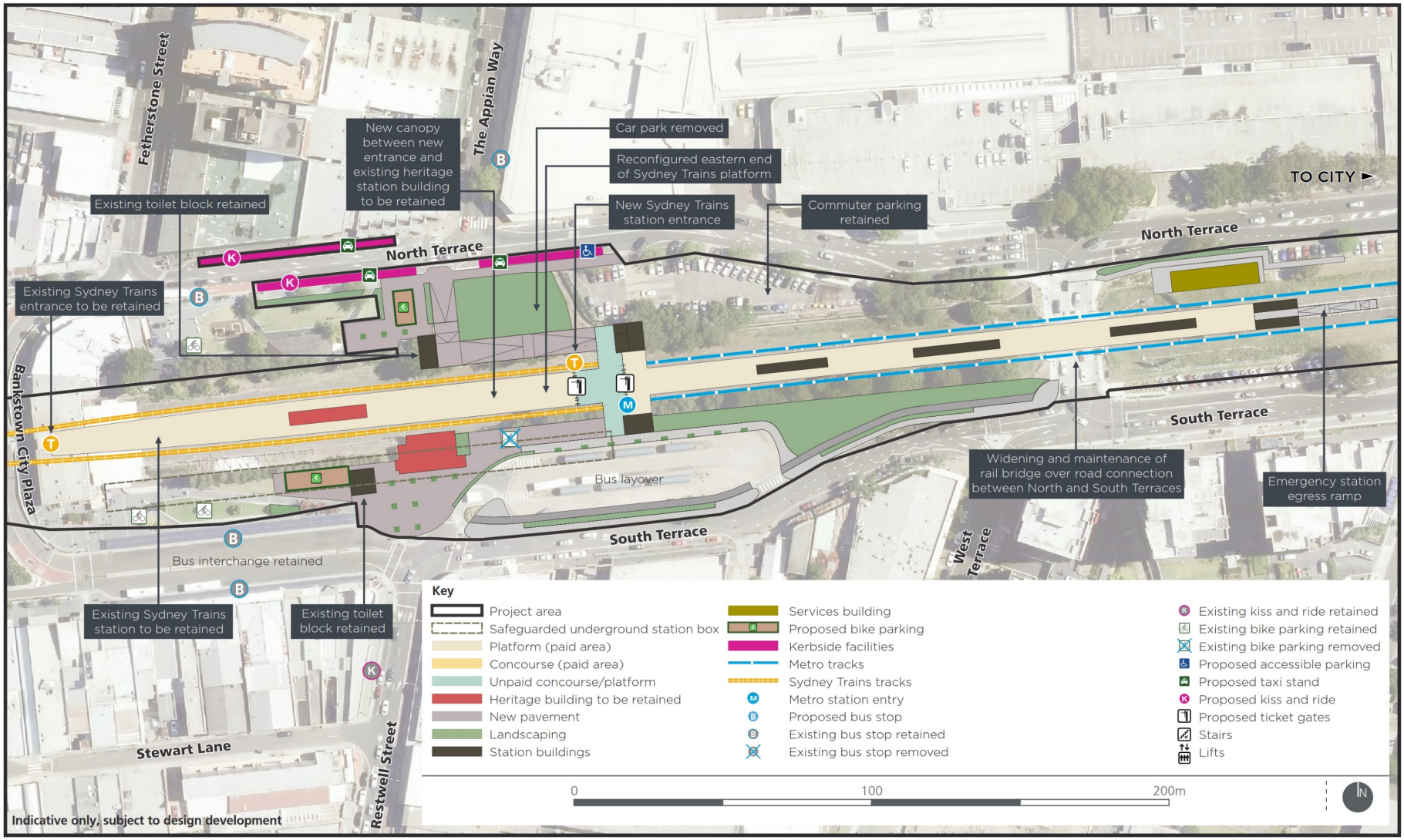
1.1.2 The approved project at Bankstown Station

The key design elements of the approved project for Bankstown Station are summarised below and illustrated in Figure 1:

- Station works:
  - The existing Sydney Trains station entrance at Bankstown City Plaza would be retained
  - A new at-grade corridor crossing would be provided at the eastern end of the existing Sydney Trains platform and would provide access to both the Sydney Trains platform and new Sydney Metro platforms
  - New station plazas would be constructed at station entrances on both sides of the rail corridor
  - The heritage listed Sydney Trains platforms would be retained with minor modifications required at the eastern end
  - New Sydney Metro platforms would be constructed to the east of the new at-grade corridor crossing
  - All station buildings (including the heritage listed station building and Parcels Office) on the Sydney Trains platforms would be retained
  - A new canopy would be constructed over the Sydney Trains platform between the new station entrance and the existing platform building.
- Station area:
  - The bus layover area on South Terrace would be retained with minor adjustments to accommodate the new station entrance
  - The bus interchange area on South Terrace, near the existing station entrance, would be retained as would the existing bus stop on North Terrace

- Changes would be made to kerbside facilities and parking along North Terrace, between the new station entrances and the existing entrance. Existing kerbside facilities (i.e. taxi rank) on the northern side of North Terrace would be retained
- New bike parking would be provided on both sides of the station within the new station plazas
- The existing car park located adjacent to The Appian Way off North Terrace would be removed, resulting in the loss of 10 off-street spaces.

Figure 1: Layout of the approved design



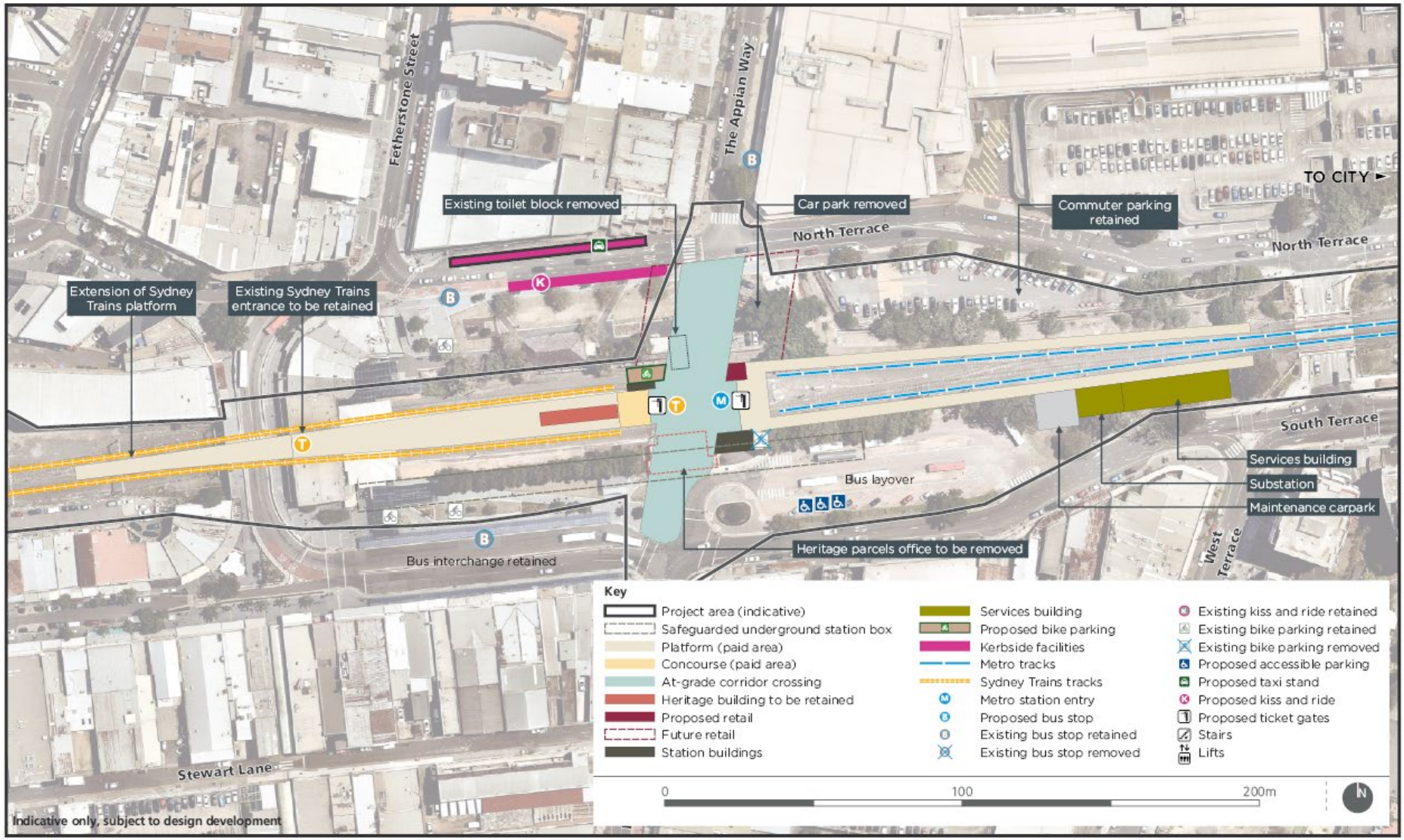
1.1.3 The proposed modification

Since project approval, design development for Bankstown Metro station has indicated that a new design is required to meet project requirements (the proposed modification). As the proposed design is not consistent with existing approvals for the approved project, a modification of the Critical State Significant Infrastructure (CSSI) approval is being sought.

The proposed modification to the approved Sydenham to Bankstown project (SSI 8256) would involve the following principle changes to Bankstown Station (Figure 2):

- New Sydney Metro platforms, with a side platform configuration, to the west of the West Terrace rail bridge
- Removal of the heritage-listed Parcels Office to support the provision of the proposed at-grade corridor crossing.
- Removal of around 55 metres of existing heritage listed Sydney Trains platforms at the eastern end of the existing station
- Extension of the western end of the Sydney Trains platforms by around 70 metres.
- A new corridor crossing to align with and connect to The Appian Way and Restwell Street at-grade, providing a new north-south connection shared zone across the rail corridor and integrating the two sides of the town centre. This would provide access to the Sydney Trains platform and new Sydney Metro platforms.
- New station entrance and concourse on the eastern side of the proposed at-grade corridor crossing to access the new Sydney Metro platforms
- New station entrance and concourse on the western side of the proposed at-grade corridor crossing to access the existing Sydney Trains platforms
- As per the approved project, the existing car park located adjacent to The Appian Way off North Terrace would be removed.
- A services building, substation and maintenance car park on the south eastern side of the Sydney Metro platforms.
- Provision of retail structures along the at-grade corridor crossing (noting, the fit-out and use of these structures would be subject to separate approval). Vehicle access to service these units would be via the at-grade corridor crossing.
- The at-grade corridor crossing would be a dismount zone for cyclists. A new secure bike storage would be installed adjacent to the new Sydney Trains station entrance. In addition, bike parking would also be provided adjacent to the station entrance.
- Minor adjustments to existing pedestrian crossings to tie into the proposed at-grade corridor crossing.
- Transport integration facilities and other precinct and landscaping works including minor adjustments to existing bus facilities to accommodate the location of the proposed at-grade corridor crossing.

Figure 2: The proposed modification



1.2 Scope of heritage assessment

Non-Aboriginal heritage assessments have been previously prepared which provide detailed histories, significance assessments and assessments of heritage impact for the approved project.[1][2] This report has been prepared to address heritage impacts that may result from the proposed modification. Additional heritage significance information has been provided for the Bankstown Parcel Office following the updated site inspection and heritage assessment for that item for this report.

A non-Aboriginal Archaeological Assessment and Research Design (AARD)[3] was prepared as part of the Submissions and Preferred Infrastructure Report assessment for the approved project. This AARD identified that there were no predicted non-Aboriginal significant archaeological remains present at Bankstown Station or in the immediate vicinity of Bankstown Station. As such, no assessment of impacts to non-Aboriginal archaeological remains has been provided in this report as no significant remains have been predicted.

1.3 Authorship

This report has been prepared by Duncan Jones (Principal, Artefact Heritage). Dr Sandra Wallace (Director) provided management input and review.

[1] Artefact August 2017. *Sydney Metro City & Southwest Sydenham to Bankstown – Non-Aboriginal Heritage Impact Assessment*. Report prepared for Transport for NSW.
[2] Artefact June 2018a. *Sydney Metro City and Southwest Sydenham to Bankstown Upgrade – Submissions and Preferred Infrastructure Report, Non-Aboriginal Heritage Assessment*. Report prepared for Transport for NSW.
[3] Artefact June 2018b. *Sydney Metro City and Southwest Sydenham to Bankstown Upgrade – Historical Archaeological Assessment and Research Design*. Report prepared for Transport for NSW.

2.0 HERITAGE SIGNIFICANCE ASSESSMENT

2.1 Introduction

2.1.1 Assessment methodology

The methodology used in this SoHI report is consistent with the heritage assessment methodology utilised in the preparation of non-Aboriginal heritage impact assessment provided for the approved project.[4] This methodology is consistent with *Statements of Heritage Impact*[5] and *Assessing Heritage Significance*[6] published by Heritage NSW, Department of Premier and Cabinet, and has been prepared in accordance with the principles contained in the most recent edition of *The Burra Charter: The Australian ICOMOS Charter for Places of Cultural Significance.*

2.1.2 Heritage items included for assessment

The proposed modification would involve demolition and construction works within the heritage curtilage of two heritage items of local heritage significance, Bankstown Railway Station, and the Bankstown Parcels Office.

Bankstown Railway Station is listed on the following heritage registers as an item of local heritage significance:

- Bankstown Local Environment (LEP) 2011 as “Bankstown Railway Station Group”, LEP# I3
- RailCorp s170 Heritage Inventory Register as “Bankstown Railway Station Group”, SHI# 4802067.

The Bankstown Parcels Office is listed on the following heritage registers as an item of local heritage significance:

- Bankstown Local Environment (LEP) 2011 as “Bankstown Parcels Office (former)”, LEP# I4

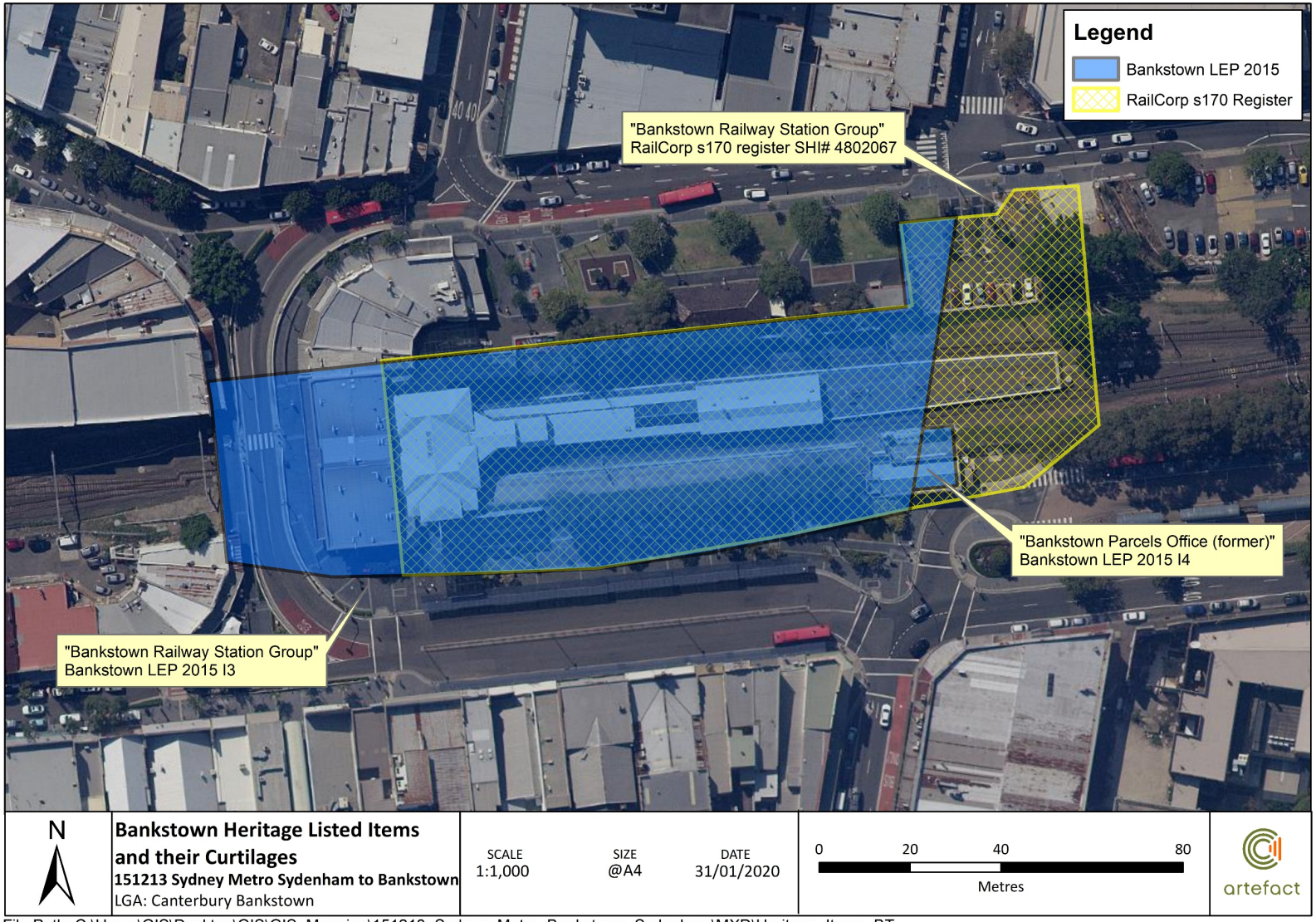
In addition, the Bankstown Parcels Office is listed as an element of significant fabric as part of the heritage listed item:

- RailCorp s170 Heritage Inventory Register as “Bankstown Railway Station Group”, SHI# 4802067.

The locations of the Bankstown Railway Station and the Bankstown Parcels Office, with their heritage curtilages, are illustrated in Figure 3.

[4] Artefact, 2017. pp. 13 – 20.
[5] Heritage NSW, 2002. *Statements of Heritage Impact*. Accessed online at https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf
[6] Heritage NSW, 2015. *Assessing Heritage Significance*. Accessed online at https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/listings/assessingheritagesignificance.pdf

Figure 3: Location of heritage listed items and heritage curtilages at Bankstown Station



File Path: C:\Users\GIS\Desktop\GIS\GIS_Mapping\151213_Sydney_Metro_Bankstown_Sydenham\MXD\Heritage_Items_BT

2.2 Results of site inspection

2.2.1 Introduction

Site inspections of Bankstown Railway Station were conducted in 2016 and 2017 for the Environmental Impact Statement phase of the approved project. Site description information has been provided in that report and is not included here.[7]

2.2.2 Former Bankstown Parcels Office

The former Bankstown Parcels Office is a single storey building that demonstrates many of the Inter War Functionalist style characteristics, including asymmetrical massing, geometric volumes, windows expressed as horizontal bands, parallel lines used as a decorative motif, cantilevered canopies, flat roofs concealed by parapets and circular windows.

The building is located on the southern side of the railway line to the east of the station platform building. The principal entrance to the building is situated on the asymmetrically designed western facade of the building. The entrance is further emphasised by a projecting mass that also rises above the line of the building's parapet, brick columns in antis and lettering within the parapet.

Externally, the southern and northern sides of the building feature a band of windows contained within a projecting rendered architrave. The northern side of the building, which is adjacent to the railway lines, includes a platform and another entry door that is sheltered by a cantilevered canopy. A small flight of steps connects the platform to the ground. The platform has been extended and a lightweight verandah with tubular columns and a steel roof deck added to the building. The eastern side of the building has a loading dock, covered by a cantilevered canopy supported on the northern side by a colonnade of brick piers. Circular porthole windows are located in the eastern southern and northern sides of the building. The windows have wired glass of an unusual pattern. All windows are generally steel framed.

The building demonstrates an exemplary use of well-detailed brickwork, including the use of two colours (dichromatic brickwork). Darker toned bricks are used in the eight horizontal courses that link window areas around the building and add decorative relief to plain wall surfaces. They are also used around the circular windows and across the heads of openings associated with doors. Additionally, contrasting heeler bricks are used between windows in the strips of glazing on the northern and southern sides of the building and as accents along the parapet, where they are recessed below the parapet copings. Further design detailing includes moulded bricks to form columns and piers, raked horizontal joints and the use of Flemish bond.

[7] Artefact, 2017. pp. 293 – 294.

Figure 4: View of western entrance to the parcel's office.

Figure 5: View of the western entry to the parcel's office.

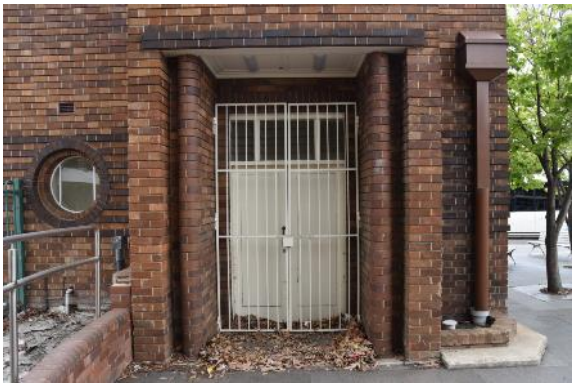


Figure 6: View north to the southern elevation of the parcel's office.

Figure 7: View of the northern façade of the parcel's office from the station platform.

Figure 8: Internal view (east) of the restored parcel's office interior.

Figure 9: Internal view (west) of the restored parcel's office interior.

2.3 Heritage significance assessment for Bankstown Station

2.3.1 Assessment of significance for Bankstown Station

An assessment of heritage significance for Bankstown Station, against the heritage significance criteria outlined in Section 2.1.1, is provided in Table 1. This assessment of significance has been developed from the RailCorp s170 heritage inventory listing for the item.[8]

[8] OEH 2013a. "Bankstown Railway Station Group SHI inventory", accessed online at https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=4802067

Table 1: Assessment of heritage significance for Bankstown Station

Criterion	Explanation
A – Historical Significance	*Bankstown Railway Station is historically significant at a local level as a station which dates from the early 20th century expansion of the railways between Belmore and Bankstown undertaken to accommodate the suburban development particularly the War Service residential development that took place during the interwar period along this line. The collection of railway structures dating from the 1909 opening of the station and its expansion in the 1940s reflects the real estate boom in the area and the development of Bankstown into a major centre.* *The extant 1909 'initial island' platform building, platform and North Terrace overbridge exist alongside 1940s structures namely the Railway Stripped Functionalist former Parcels Office, timber Overhead Booking Office and footbridge, thereby representing the different phases of development of the station.* **Bankstown Railway Station Group has local significance under this criterion**
B – Associative Significance	*Bankstown Railway Station does not show evidence of significant human occupation or is associated with a significant event or group of persons.* **Bankstown Railway Station Group does not meet the threshold for local significance under this criterion**
C – Aesthetic or Technical Significance	*Bankstown Railway Station has local aesthetic significance with its 1909 'initial island' platform building which has characteristic features of this type of station, namely the linear form, gable roof and integrated awnings. The Overhead Booking Office dating from 1940s has been altered considerably but it retains characteristic features namely the weatherboard construction and its continuing location on the footbridge.* *The former Parcels Office, with polychromatic brickwork, Interwar functionalist influenced steel-framed circular porthole windows, steel-framed, multi-paned ribbon windows and concentre lintels and sills, is an excellent example of the use of Railway Stripped Functionalist style in early 20th century suburban railway station architecture.* *The 1940s footbridge has been significantly altered in terms of its configuration and in terms of the stairs leading down to the platforms. However, the original fabric, namely steel girders and concrete slabs and a superstructure comprising of steel beams, columns and trestles, has been retained and this is typical of such footbridges within the suburban network.* *The jack-arch overbridge has been altered with the removal of its brick parapets and the development of commercial strips along its east and west ends. However, it retains typical features of such overbridges within the suburban network, namely the jack-arch and steel girders structure, brick piers and brick abutments.* *Therefore, the form, fabric and detailing of the platform building, former Parcels Office, footbridge and overbridge characterises the type of construction and architectural style employed in early 20th century railway station buildings in the Sydney region.* **Bankstown Railway Station Group has local significance under this criterion**
D – Social Significance	*The place has the potential to contribute to the local community's sense of place and can provide a connection to the local community's past.* **Bankstown Railway Station Group has local significance under this criterion**
E – Research Potential	*Based on existing evidence it is unlikely there would be any significant archaeological remains to be found at Bankstown Railway Station which would yield any further information about the cultural history of NSW Railways which could not be found in other surviving railway buildings or historical documentation.* **Bankstown Railway Station Group has local significance under this criterion**

Criterion	Explanation
F – Rarity	*The initial island platform building at Bankstown Railway Station is a common type of station building. There are 70 known examples of this type within the Sydney Metropolitan area (2009). The Overhead Booking Office is a common type of post 1900s timber Overhead Booking Office. There are approximately 21 known examples of this type within the Sydney Metropolitan area (2009). The footbridge and North Terrace overbridge are common examples of such structures within the suburban network. The only item at Bankstown Railway Station which has aesthetic rarity is the former Parcels Office which is constructed in Railway Stripped Functionalist style. Although the style is commonly employed for platform buildings throughout the Sydney Metropolitan area, the Bankstown former Parcels Office is amongst the few instances in which this architectural style has been employed for a building not located directly on the platform which therefore makes it a relatively uncommon example.* **Bankstown Railway Station Group has local significance under this criterion**
G – Representativeness	*Bankstown Railway Station has an extant platform building which has been altered but it is still retains characteristic features of standard early 1900's platform building and is therefore representative of this type. An excellent example of this type of building which was built around the same time and retains a high level of integrity is located at Petersham Railway Station.* *Although the footbridge has been altered it retains the characteristic superstructure of footbridges and is representative of standard footbridge design. The footbridge was identified as an item of little heritage significance in the 2016 'Railway Footbridges Heritage Conservation Strategy'. However, the strategy recommended detailed physical analysis prior to any change to confirm the significance of the structure.* *The Overhead Booking Office has been altered but it retains characteristics features of this type of building and is therefore a representative example. The OHBO has not been assessed as part of a network-wide comparative analysis of similar structures, and further assessment is required.* *Although the overbridge retains characteristic features of jack-arch overbridges it has been altered considerably with the removal of its brick parapets and the development to its east and west sides, and is therefore not a good representation of jack-arch construction.* **Bankstown Railway Station Group has local significance under this criterion**

2.3.2 Statement of significance for Bankstown Station

The following statement of heritage significance has been derived from the State Heritage Inventory (SHI) listing for the "Bankstown Railway Station Group" item:[9]

> *Bankstown Railway Station complex has local significance as a station which dates from the early 20th century expansion of the railways between Belmore and Bankstown undertaken to accommodate suburban development, particularly the war service residential development which took place during the interwar period. The collection of railway structures dating from the 1909 opening of the station and its expansion in the 1940s reflect the real estate boom in the area and the development of Bankstown into a major centre. The 'initial island' platform building, Railway Stripped Functionalist style former parcels office, timber overhead booking office and footbridge collectively characterise the type of construction and architectural style employed in early 20th century railway station buildings and associated structures in the Sydney region.*

[9] *Ibid*

2.3.3 Heritage significant fabric at Bankstown Station

A description and assessment of heritage significant fabric at Bankstown Station has been derived from the Environmental Impact Statement non-Aboriginal heritage assessment for the approved project and presented in Table 2.[10] Only those elements which would be affected by the proposed modification have been included in this report.

Table 2: Elements of Bankstown Station Group

Elements	Date	Description	Condition	Significance
Platform 1/2	1909	Platform 1/2 has is an island platform arrangement with original brick faces. Sections of the platform brick facing have been replaced with pre-cast concrete, especially on the city (western) side of the station.	Fair to good	High
Platform building, platform 1/2 (Type 11)	1909, 1923	External: Rectangular building eight bays long with stretcher bond brickwork. The bays are defined by engaged brick piers that have decorative concrete corbels and standard steel double bowed brackets that support cantilevered awnings. The awnings which have curtain board fascia are integrated with the gable roof of the building and the roofing material for both the awning and the roof is corrugated steel. The roof has original timber finials. The brickwork is polychromatic with dark bricks throughout and a dado of lighter ochre coloured bricks which are also repeated at a ceiling level as a moulded course. Original chimneys with cement mouldings and terracotta flues have been retained. The external walls rise from a projecting brick plinth with a decorative two-part cement dado moulding which is continuous between door and window openings. Cement window and door frames rise from the dado moulding. Most of the door and window openings are original and the windows feature a decorative moulded cement sill. The original timber windows were double hung with double paned lower sashes and in some cases louvered upper sashes and in others multi-paned upper sashes featuring coloured glass. The doors are timber panelled and had fanlights fitted with multi-paned coloured glass sashes. The eastern end brick gable wall features a louvre within a round brick window framed in voussoir shaped bricks, with four cement keystones. Most of the original windows have been retained, while some have been fitted with steel safety grills towards the inside and in other cases a few windows have been removed and the openings have been bricked in. Most of the original doors have been retained, and some have been fitted with flyscreen meshes towards the outer side and aluminium safety grills towards the inside. The original door opening to the eastern end gable wall has been readjusted so as to centre it, and it has been fitted with a new timber panelled door and fanlight. Part of the western end gable wall has been demolished and the openings created have been fitted with two new multi-paned windows and fanlights.	Good	Exceptional

[10] Artefact August 2017, pp. 328 – 331.

Elements	Date	Description	Condition	Significance
		Internal: The building was originally six bays long and comprised of a booking office, a general waiting room, a ladies waiting room with an attached lavatory and male toilets. In 1923 two bays were added to the eastern end of the building and a parcels office was incorporated as part of the building. Currently the building comprises of a control room, staff locker and lounge areas, public toilets and a store. Original pressed metal ceilings with ceiling roses have been retained in some of the rooms.		
Parcel's Office (former)	1948	External: The parcels office is a Railway Stripped Functionalist style building. It is a polychromatic brick face, flat roofed structure with asymmetrical massing. The building is accessible from the tracks and from the street as it has an entrance portal to its western face, a brick and concrete entrance portico to its eastern face and a timber and metal platform facing the tracks. The building has a number of Interwar Functionalist influenced elements such as steel-framed circular porthole windows, steel-framed, multi-paned ribbon windows which are set within recessed and continuous stretches of concrete sills and lintels. Damage to this building was repaired and the building was sympathetically restored by Sydney Trains, for future commercial use, in 2014.	Good	Exceptional

2.4 Heritage significance assessment for Bankstown Parcels Office

2.4.1 Assessment of significance for the former Bankstown Parcels Office

An assessment of heritage significance for Bankstown Parcels Office, against the heritage significance criteria outlined in Section 2.1.1, is provided in Table 3. This assessment of significance has been developed from the Bankstown LEP 2015 listing for the item.[11]

It is noted that the building's recent restoration has ensured the long-term structural viability of the building and has improved the heritage legibility and integrity of this highly significant fabric. The building demonstrates both the historical and physical context of the urban development of the Bankstown Railway Station and the development of the suburb of Bankstown.

[11] OEH 2013b. "Bankstown Parcels Office (Former)SHI inventory", accessed online at https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=1060249

Table 3: Assessment of significance for former Bankstown Parcels Office

Criterion	Explanation
A – Historical Significance	*The Bankstown Parcels Office is significant because it provides evidence of the consolidation of Bankstown as an important centre and the importance of the station in the economic and social development of the locality.* **Bankstown Parcels Office has local significance under this criterion**
B – Associative Significance	*The Bankstown Parcels Office does not show evidence of association with any known significant event or group of persons.* **Bankstown Parcels Office does not meet the threshold for local significance under this criterion**
C – Aesthetic or Technical Significance	*The building is an exceptional and well resolved example of the Inter War Functionalist style that displays many of the characteristics of that style. These include asymmetrical massing, geometric volumes, windows expressed as horizontal bands, parallel lines used as a decorative motif, cantilevered canopies, flat roofs concealed by parapets and circular windows. The building is an important element in the immediate townscape, terminating the vista along Restwell Street and providing focus for the area around the railway line and bus interchange.* **Bankstown Parcels Office has local significance under this criterion**
D – Social Significance	*The Bankstown Parcels Office does not contribute to the community's sense of place by itself and is only important to the community for amenity reasons.* **Bankstown Parcels Office does not meet the threshold for local significance under this criterion**
E – Research Potential	*The fabric of the Bankstown Parcels Office demonstrates many of the techniques that relate to brick construction during the inter-war era and demonstrates how bricks could be used in a convincing decorative fashion. Instances of this to be seen in the building include dichromatic brickwork, raking of joints, use of a number of different brick types and exploitation of brick courses to provide decorative relief.* **Bankstown Parcels Office has local significance under this criterion**
F – Rarity	*The building is understood to be rare example of a purpose designed Inter War Functionalist style railway building, and a rare surviving example of a free-standing parcels office building as well as a parcels office building designed in the Inter war Functionalist style. It is considered to be one of only six similar Functionalist railway buildings in the state and one of only two surviving parcels offices.* **Bankstown Parcels Office has local significance under this criterion**
G – Representativeness	*The building is an exceptional example of the inter-war functionalist style and has recently been sympathetically restored. The building is considered to be representative of the Functionalist railway buildings within the state of NSW, of which it is one of two surviving parcel office buildings.* **Bankstown Parcels Office has local significance under this criterion**

2.4.2 Statement of Significance for the former Bankstown Parcels Office

The following statement of heritage significance has been derived from the State Heritage Inventory (SHI) listing for the "Bankstown Parcels Office (former)" item:[12]

> *The former Bankstown Parcels Office is significant because it provides evidence of the consolidation of Bankstown as an important centre and the importance of the station in the economic and social development of the locality. The building is also significant because of its associations with the NSW Railways, which promoted the development of Sydney's suburbs and other regions through the consolidation and expansion of railway services. It is an exceptional and well resolved example of the Inter War Functionalist style that displays many of the characteristics of that style. The building is understood to be rare example of a purpose designed Inter War Functionalist style railway building, and a rare surviving example of a parcel's office designed in this style.*
>
> *The exterior of the building has retained a very high level of intact original fabric, which demonstrates many of the techniques that relate to brick construction during the inter-war era and demonstrates how bricks could be used in a convincing decorative fashion.*
>
> *The building is also an important component of the townscape in this section of Bankstown.*

[12] *ibid*

3.0 HERITAGE IMPACTS FROM PROPOSED MODIFICATION

3.1 Introduction

3.1.1 Assessment methodology

The impact assessment methodology used in this SoHI report is consistent with the impact assessment methodology utilised in the preparation of non-Aboriginal heritage impact assessment provided for the approved project.[13] This methodology is consistent with *Statements of Heritage Impact*[14] published by Heritage NSW, Department of Premier and Cabinet, and has been prepared in accordance with the principles contained in the most recent edition of *The Burra Charter: The Australian ICOMOS Charter for Places of Cultural Significance.*

3.2 Direct (physical) impact assessment

3.2.1 Heritage impacts to platform 1/2

The demolition of the existing eastern portion of the station platform for the introduction of the at-grade corridor crossing , associated retail and service structures, and the new Metro side platforms would result in a **moderate** direct (physical) impact to the existing heritage fabric of the platform and associated coping, which are listed as elements of high significance. As the southern brick platform retaining wall in this area has been largely replaced with precast concrete, impacts to significant platform fabric would only occur on the northern side where masonry is still present. It is expected that 55 metres would be removed. The truncation of the station platform by 55 metres would also modify the s170 curtilage for Bankstown Station.

The proposed extension of the western end of both Sydney Trains platform would require modification of the brick end of the platform retaining wall to develop the new interface. Concept design does not indicate the extent of the modification; however, it is expected to only include existing brick coping on platform descent ramps on the Country end of the line. The proposed extension of the western end of the platform would result a **minor** direct impact.

3.2.2 Heritage impacts to Bankstown Station overbridge

The Bankstown Station overbridge would not be modified in the proposed modification design. As such, there would be a neutral direct impact to this element of significant fabric.

3.2.3 Heritage impacts to platform 1/2 station building

The platform 1/2 station building would not be modified by the proposed modification. However, a new entrance concourse would be constructed linking the at-grade corridor crossing with the current platform building. Concept design information does not indicate that the at-grade corridor crossing would extend onto the Sydney Trains platform and there would be no modification to the existing platform 1/2 station building. The proposed modification would therefore result in **neutral** direct impacts to this element of significance.

[13] Artefact, 2017. pp. 18 – 20.
[14] Heritage NSW, 2002. *Statements of Heritage Impact*. Accessed online at https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf

3.2.4 Heritage impacts to the landscape/natural features

Garden landscaping, as well as existing amenities and toilet facilities located to the north and south of the railway corridor are not assessed as having heritage significance. The modification or removal of some of these items would not result in direct heritage impacts to any heritage significant item.

The proposed removal of the modern landscaping elements and trees in area around the station would result in a **neutral** direct (physical) impact to Bankstown Station overall.

The removal of the small amenities/toilet building would not result in an adverse direct (physical) impact to Bankstown Station. The demolition of a portion of the modern parking lot and landscaping to the north would not result in an adverse direct (physical) impact to Bankstown Station as these buildings are not considered heritage significant fabric.

3.2.5 Heritage impacts to the Parcel's Office (former)

The demolition of the heritage listed former Bankstown parcels office and subsequent construction of the at-grade corridor crossing involves the removal of an original and significant station building from the Bankstown Station Railway Group. Additionally, the demolition of the building would substantially alter the heritage character of the station. The demolition of the building would result in the delisting of the item on the Bankstown LEP 2015.

The proposed demolition of the former Bankstown parcel's office would result in the following direct (physical) impacts to the multiple listings under which the item is registered:

- **Major** adverse impact to the "Bankstown Parcels Office (Former)" listed on the Bankstown LEP 2015.
- **Moderate** adverse impact to the "Bankstown Railway Station Group", listed on the RailCorp s170 heritage inventory register.

3.3 Indirect (visual) impacts

3.3.1 Demolition of amenities building and surrounding landscape

The removal of the amenities/toilet building and the construction of a new bike parking building on the northern side of the station would alter the sightlines from the northern side of the station. Overall, the changes would be minor and would not adversely affect heritage significant views and vistas of the station. These works would result in a **negligible** visual impact.

3.3.2 Construction of proposed laydown area

A construction laydown area is proposed to be established to the west of Bankstown Station, within the rail corridor on the northern side of the Bankstown Line. The site would be accessed from Depot Place.

This construction facility would not be visible from heritage significant elements of Bankstown Station or the Bankstown Parcel Office. As such, the laydown area would result in **neutral** indirect (visual) heritage impacts to either item.

3.3.3 Demolition of the Parcels Office (former) and construction of a new at-grade corridor crossing

The proposed demolition of the heritage listed former Bankstown parcels office would result in a **major** indirect (visual) impact to a highly visible heritage-listed item within the station group and a rare example of a free-standing parcels office building designed in the Inter war Functionalist style.

Although it is noted that the introduction of an at-grade corridor crossing to the east of the station platform building, and new void where the parcel office would have been, could introduce new visual relationships towards the station group from the east, improved views of the platform station building would not mitigate the loss of views of the significant parcel office structure.

The proposed demolition of the former Bankstown parcel's office would result in the following visual impacts to the multiple listings under which the item is registered:

- **Major** adverse impact to the "Bankstown Parcels Office (Former)" listed on the Bankstown LEP 2015.
- **Moderate** adverse impact to the "Bankstown Railway Station Group", listed on the RailCorp s170 heritage inventory register.

3.3.4 New station entrances

The location of ticket gates and canopies over the new station entrances from the at-grade corridor crossing may result in blocking heritage significant sightlines towards the Sydney Trains platform 1/2 station building. New materials and fabric would also introduce visual clutter into the station precinct. The proposed construction of the station entrances would result in an adverse **minor** to **moderate** indirect (visual) heritage impacts to Bankstown Station and would be considered further during detailed design.

3.3.5 Western platform extension

The extension of the Sydney Trains platform to the west of the current platform would involve extending existing platform surfaces (asphalt and concrete). The platform extension would be largely located outside of heritage significant view lines of Bankstown Station (as it is located below and to the west of the existing Bankstown City Plaza overbridge). These works would therefore result in **negligible** visual heritage impacts to Bankstown Station.

3.3.6 Eastern platform and at-grade corridor crossing modifications

The demolition of the existing eastern portion of the existing station platform for the introduction of new metro station platforms and the at-grade corridor crossing would alter the existing visual heritage character of Bankstown station and adversely impact the existing visual relationships between the station platform and surrounding station buildings (particularly the station platform building) by severing the platform structure through the construction of the at-grade corridor crossing. This would effectively separate the existing visual connections of the station group, including the existing visual relationship between the platform building and the platform itself.

The proposed new platforms and at-grade corridor crossing would result in a **moderate** visual impact to the heritage significance of Bankstown Station.

3.3.7 Sydney Metro services building

A new services building would be constructed on the eastern end of the proposed new Metro southern platform. This services building would be situated approximately 120 metres to the east of the Sydney Trains platform 1/2 station building and sightlines between Bankstown Station and the new building would be screened by the new proposed concourse. The construction of the Sydney Metro services building would result in **neutral** visual impacts to Bankstown Station.

3.3.8 Cumulative visual heritage impacts to Bankstown Station

The accumulation of new and modern structural elements (new at-grade corridor crossing, extension of the station platforms, new station entrances) and the demolition of a heritage listed item (former Bankstown parcels office) would noticeably alter the overall visual character of Bankstown Station.

The existing station platform would effectively be separated through the introduction of the at-grade corridor crossing, altering the original use of the platform and the visual relationship between the platform and the station buildings, particularly between the platform building and the eastern end of the platform. While platform buildings would be conserved, and its external detailing retained, its isolation to the western end of the platform would result in adverse heritage impacts. The demolition of the Parcels Office would also alter the heritage significant character of the station and the wider precinct by removing the current post-war stripped functionalist brick structure to be replaced with the at-grade corridor crossing with modern materials.

Overall, the station works would likely result in a **moderate** visual impact to the heritage significance of Bankstown Station, to be updated once further design detail has been provided for future drafts of this report.

3.4 Summary of heritage impacts

3.4.1 Direct (physical) heritage impacts

A summary of direct (physical) heritage impacts assessed in this report is provided in Table 4.

Table 4: Summary of adverse direct (physical) heritage impacts from the proposed modification, and comparison with approved project impacts

Element	Significance grading of element	Direct heritage impacts from approved project	Direct heritage impacts from proposed modification
Platform 1/2	High	Major	• Western end of station platform – **Minor** • Eastern end of station platform - **Moderate**
Platform building, platform 1/2 (Type 11)	Exceptional	Minor	Neutral
Overbridge	Moderate	Minor	Neutral
Overhead Booking Office	Moderate	Neutral	Neutral
Footbridge	Little	Neutral	Neutral

Element	Significance grading of element	Direct heritage impacts from approved project	Direct heritage impacts from proposed modification
Landscape/natural features	Moderate	Neutral	Neutral
Parcels Office (former)	Exceptional	Neutral	• Heritage item, Bankstown LEP – **Major** • Heritage item (part of) Bankstown Railway Station Group - **Moderate**

3.4.2 Indirect (visual) heritage impacts

A summary of indirect (visual) heritage impacts assessed in this report is provided in Table 5.

Table 5: Summary of adverse indirect (visual) heritage impacts from the proposed modification, and comparison with approved project impacts

Station element	Indirect heritage impacts from approved project	Indirect heritage impacts from Bankstown proposed modification
Demolition of amenities building and surrounding landscape	No design detail provided	Negligible
Construction of proposed laydown area	No design detail provided	Neutral
Demolition of Parcels Office (former) and at-grade corridor crossing a	Neutral – retention was proposed	• Heritage item, Bankstown LEP – **Major** • Heritage item (part of) Bankstown Railway Station Group - **Moderate**
New concourse	No design detail provided	Minor to moderate
Western platform extension	No design detail provided	Negligible
Eastern platform and at-grade corridor crossing modifications	No design detail provided	Moderate
Services building	No design detail provided	Neutral
Overall (cumulative) indirect heritage impacts	Moderate	Moderate

4.0 STATEMENT OF HERITAGE IMPACT

4.1 Heritage options assessment

In order to address heritage impact assessment procedures outlined in the Heritage guidelines[15] prepared by the NSW Heritage Office (now Heritage and Community Engagement of the Department of Premier and Cabinet [DPC]) for the demolition of a heritage listed item, alternate design options for the proposed modification have been assessed for relative heritage impacts in Table 6.

[15] 'Statements of Heritage Impact', Heritage Office and Department of Urban Affairs and Planning 2002.

Table 6: Project and Heritage options assessment for proposed modification of Bankstown Station

Option No.	Description of design option	Option outcomes	Adverse direct heritage impacts	Adverse indirect heritage impacts
Option 1	Option 1 comprised an at-grade cross corridor connection aligning with Lopez lane and works to the West Terrace Bridge to accommodate the proposed Metro platforms. In order to retain the Parcels Office, it required extensive modification to the bus layover and West Terrace bridge	• Excellent outcomes would be achieved for future links with a Liverpool extension, Metros operational requirements, pedestrian amenity and minimal heritage impacts • Average outcomes would be achieved for a modal interchange or opportunities to integrate with a future town centre masterplan. • Poor outcomes would be achieved for a cross corridor connection and place-making, constructability and programming of works. This option also impeded the existing bus bay	• Bankstown Railway Station Group (heritage item LEP, s170): **Moderate** direct (physical) impact • Bankstown Parcels Office (former) (heritage item, LEP): **Neutral** direct (physical) impact	• Bankstown Railway Station Group (heritage item LEP, s170): **Minor** indirect (visual) impact • Bankstown Parcels Office (former) (heritage item, LEP): **Neutral** indirect (visual) impact
Option 2 (proposed modification)	Option 2 comprised an at-grade cross corridor connection directly linking the Appian Way and Restwell Street. This would also require the removal of the Heritage listed Parcels Office to accommodate the at-grade corridor crossing and impact to the existing Sydney Trains platform which is also heritage listed	• Excellent outcome would be achieved for cross corridor connection, place-making, for future links with a Liverpool extension and Metro's operational requirements. Also, excellent outcomes would be achieved for pedestrian amenity a modal interchange, bus bay integration and opportunities to integrate with a future town centre masterplan • Average outcomes would be achieved for constructability, programming of works and heritage impacts.	• Bankstown Railway Station Group (heritage item LEP, s170): **Moderate** direct (physical) impact • Bankstown Parcels Office (former) (heritage item, LEP): **Major** direct (physical) impact	• Bankstown Railway Station Group (heritage item LEP, s170): **Moderate** indirect (visual) impact • Bankstown Parcels Office (former) (heritage item, LEP): **Major** indirect (visual) impact

4.2 Proposed modification design justification

City of Canterbury Bankstown identified a preference to develop a cross-rail corridor connection that directly connects The Appian Way and Restwell Street. This aim was to achieve a street level (at-grade) pedestrian and cycle way connection, with the option to be open to vehicles in the future. This design would also provide direct emergency service vehicle access.

Sydney Metro is therefore proposing to modify the approved project to provide an at-grade corridor crossing between The Appian Way and Restwell Street and move the Sydney Metro platform slightly to the west of the approved location. This would require the removal of the former Bankstown Parcels Office (heritage listing RailCorp s.170 (4802067) Bankstown LEP (I4)) and impact to the existing Sydney Trains platform which is also heritage listed as part of the Bankstown Railway Station Group (RailCorp s.170 (4802067) Bankstown LEP (I3)).

The proposed modification would provide an improved local precinct, benefiting access for the local population and public transport users. Benefits of the proposed modification include:

- **Improved access:** the modified station design would provide improved access and connectivity from the public domain as well as integration with the CBD.
- **Enhanced wayfinding and integrated development**: at-grade station entrances would contribute to intuitive and legible wayfinding between train, bus and through-pedestrian traffic.
- **Prioritised public precinct**: the improved local access would provide an enhanced customer experience, including an additional public concourse within the at-grade corridor crossing.

The approved project at Bankstown Station required extensive structural works to the West Terrace rail bridge, including widening to allow for the new Sydney Metro island platform and modified track alignment to be constructed. The relocation of the Sydney Metro platforms to the west as part of this proposed modification does not require works to be undertaken to the West Terrace rail bridge. In addition, the island platform arrangement proposed as part of the approved project has been changed to side platforms, which enables the existing track to be retained in its current location and a large portion of the platform works can now be undertaken without the need for possession of the rail corridor. Both these aspects would reduce the construction impacts and timeframe associated with delivering a new metro station at Bankstown.

4.3 Statement of heritage impact

4.3.1 Heritage considerations for the proposed modification

Heritage guidelines[16] prepared by the NSW Heritage Office (now Heritage and Community Engagement of the Department of Premier and Cabinet [DPC]) outline design considerations for projects that involve the demolition of a heritage listed item. These considerations are discussed in Table 7 below.

[16] Heritage NSW, 2002. *Statements of Heritage Impact*.

Table 7: Heritage considerations for the proposed modification

Heritage Consideration	Discussion
Have all options for retention and adaptive reuse been explored?	An option to conserve the Bankstown Parcels Office has been considered but has not progressed as the proposed modification provides an improved outcome for cross corridor connectivity and legibility and responds best to the master plan and vision for the Bankstown CBD.
Is the demolition essential for the heritage item to function?	The demolition of the Parcels office would not prevent Bankstown Station from functioning as a transport hub.
Can all of the significant elements of the heritage item be kept, and any development be located elsewhere on site?	As the building façade and much of the interior are all considered significant fabric, demolition of any part of the structure apart from concrete pads and steps on the eastern side would involve the loss of significant fabric. Opportunities exist to reuse salvaged elements of the structure and to provide heritage interpretation in the at-grade corridor crossing space, in accordance with existing Revised Environmental Management Measures for non-Aboriginal heritage outlined for the approved project.
Is the resolution to partially demolish sympathetic to the heritage significance of the item.	The demolition of the Parcels office would remove a significant structure of high value to the significance of the station overall, as well as being listed as an item of local significance on its own. The demolition of this structure, as well as the demolition of portions of platform brick retaining wall coping, would not be sympathetic to the heritage significance of either the Bankstown Parcels Office (former) or the Bankstown Station Group.
Is demolition essential at this time or can it be postponed in case future circumstances make its retention and conservation more feasible?	The proposed corridor crossing is required to connect Restwell Street and The Appian Way and is intended for station access as well as cross corridor public pedestrian access and cycleway connection, and emergency vehicle access. Therefore, it is required to support the delivery of the metro line and cannot be postponed beyond that timeframe.
Does the existing use of the station contribute to the significance of the heritage item? Why does the use need to be changed? What changes to the fabric and the site are required as a result of the change of use?	Bankstown Railway Station is a functional train station on the Sydney Trains network and is being changed into an interface between the Sydney Trains network and the new Metro trains as part of the Sydney Metro network. These works would require the conversion of the existing eastern end of the station platform in order to allow a workable interface between the Sydney Trains and Sydney Metro stations. The Bankstown Parcels Office is currently located to the south of the station. It has not been used as a parcel office for several decades, and while the building has been renovated for potential use as a commercial business, the building is currently not in active use. The Parcels Office would be removed to provide adequate space for the at grade corridor crossing. The at grade corridor crossing would also require the removal of 55 m of original platform retaining wall brick coping at the eastern end of the station.
How is the impact of the addition (new Metro platforms, concourses and at grade crossing) on the heritage significance of the item to be minimised?	Architectural design detail for the Metro platforms, concourses and at-grade crossing would be developed during detailed design.

Heritage Consideration	Discussion
Will new additions visually dominate the heritage item?	Architectural design detail for the Metro platforms, concourses and at-grade crossing would be developed during detailed design.
Are the additions sympathetic to the heritage item? In what way (e.g. form, proportions, design)?	Architectural design detail for the Metro platforms, concourses and at-grade crossing would be developed during detailed design.
How has the impact of new services on the heritage significance of the item been minimised?	New services to operate the proposed Bankstown Metro Station would be developed during detailed design. The design of new services would be developed in accordance with relevant REMMs already approved for the Sydenham to Bankstown Metro project.
Has the advice of a heritage consultant been sought? Have the consultant's recommendations been implemented? If not, why not?	Heritage advice has been sought for the approved project as part of the EIS, SPIR as well as for the proposed modification and design development.

4.3.2 Statement of heritage impact

A statement of heritage impact has been prepared according to NSW Heritage Office guidelines[17] in Table 8 below.

Table 8: Statement of heritage impact for the proposed modification

Development	Discussion
What aspects of the Proposal respect or enhance the heritage significance of the study area?	The new eastern entrance concourse to Bankstown Station may provide opportunities for heritage interpretation of the former Parcels office and Bankstown Railway Station Group more broadly.
What aspects of the Proposal could have a detrimental impact on the heritage significance of the study area?	The proposed modification would involve the removal and subsequent delisting of the "Bankstown Parcels Office (former)", currently listed on the Bankstown LEP 2015 as item I4, of local heritage significance. The removal of the Parcels Office would also result in direct impacts to the significance of Bankstown Railway Station, as the parcels office is considered an element of that item. The proposed at-grade corridor crossing and associated platform changes would result in adverse indirect heritage impacts to the Bankstown Railway Station Group.
Have more sympathetic options been considered and discounted?	An option to conserve the Bankstown Parcels Office has been considered but has not progressed as the proposed modification provides an improved outcome for cross corridor connectivity and legibility and responds best to the master plan and vision for the Bankstown CBD.

[17] *ibid*

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The proposed modification would involve the following adverse heritage impacts:

- The removal of the Bankstown Parcels Office (former), an item of local heritage significance, would result in a major impact to this item Demolition of the item would result in its delisting from the Bankstown LEP 2015 and updates to the Sydney Trains S170 Register.
- The removal of the Bankstown Parcel Office, as an element of significant fabric as part of the overall heritage listing for the Bankstown Railway Station Group (listed on the Bankstown LEP 2015 and the RailCorp s170 heritage register inventory), would result in a moderate impact to the heritage significance of the Bankstown Railway Group.
- The removal of the eastern end and the extension of the western end of the station platform would result in a moderate direct impact to the original brick retaining wall of the platform, an element of high value to the heritage significance of the Bankstown Railway Station Group overall.
- The proposed modification would result in moderate adverse visual impacts to the Bankstown Railway Station Group. Opportunities to minimise visual impacts would be developed during detailed design.

5.2 Mitigation measures

- Revised Environmental Management Measures prepared for the Submissions and Preferred Infrastructure Report for the approved project would be implemented during the preparation of detailed design for the proposed modification.
- One mitigation measure (NAH20) would no longer be relevant to the Bankstown Parcels Office (former):
    - All works to conserve, protect or remove significant heritage fabric would be undertaken by skilled tradespeople with experience working on heritage sites, in consultation with an appropriately qualified conservation heritage architect.
- An additional Revised Environmental Management Measure for the proposed modification is recommended:
    - Prior to the removal of the Bankstown Parcels Office (former), a heritage salvage and movable heritage register should be prepared, identifying those significant elements which can be removed and retained for potential reuse.

6.0 REFERENCES

Artefact August 2017. *Sydney Metro City & Southwest Sydenham to Bankstown – Non-Aboriginal Heritage Impact Assessment*. Report prepared for Transport for NSW.

Artefact June 2018a. *Sydney Metro City and Southwest Sydenham to Bankstown Upgrade – Submissions and Preferred Infrastructure Report, Non-Aboriginal Heritage Assessment. Report* prepared for Transport for NSW.

Artefact June 2018b. *Sydney Metro City and Southwest Sydenham to Bankstown Upgrade – Historical Archaeological Assessment and Research Design.* Report prepared for Transport for NSW.

Heritage NSW, 2002. Statements of Heritage Impact. Accessed online at https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/hmstatementsofhi.pdf

Heritage NSW, 2015. Assessing Heritage Significance. Accessed online at https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/listings/assessingheritagesignificance.pdf

ICOMOS, January 2011. *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties*.

OEH 2013a. “Bankstown Railway Station Group SHI inventory”, accessed online at https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=4802067

OEH 2013b. “Bankstown Parcels Office (Former)SHI inventory”, accessed online at https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=1060249

artefact

Artefact Heritage

ABN 73 144 973 526
Level 4, Building B
35 Saunders Street
Pyrmont NSW 2009
Australia

+61 2 9518 8411
office@artefact.net.au
www.artefact.net.au

Appendix C - Landscape and Visual Impact Assessment

IRIS Visual Planning + Design

Sydney Metro, City & Southwest

Sydenham to Bankstown Upgrade

Bankstown Station Modification

Landscape and Visual Impact Assessment

May 2020

Table of Contents

1. Introduction

1.1 Approach and structure

Planning approval for the Sydney Metro City & Southwest Sydenham to Bankston upgrade (the approved project) was granted by the Minister of Planning (now the Minister for Planning and Public Spaces) under Section 5.19 of the Environmental Planning and Assessment Act 1979 (the EP&A Act) on 12 December 2018.

The approved project involves upgrading 10 existing stations west of Sydenham (Marrickville to Bankstown inclusive), and a 13 kilometre long section of the Sydney Trains T3 Bankstown Line, between west of Sydenham Station and west of Bankstown Station. The approved project will improve accessibility and interchange for customers and provide increased train frequency and more direct access to key employment centres and new stations, including Waterloo, Pitt Street, Martin Place, Barangaroo, Victoria Cross (North Sydney) and Crows Nest.

Since project approval, design development for Bankstown Metro station has indicated that a new design is required to meet project requirements. Therefore, a modification to the approved project is required to address changes to the design at Bankstown Station (the proposed modification).

This report considers the landscape and visual impacts of a proposed modification to the approved project, at Bankstown Station. It identifies the landscape and visual impacts of the approved project and the changes in landscape and visual impact resulting from the proposed modification. This includes the re-assessment of the landscape and views previously assessed for the approved project. Where necessary, additional views have been included to identify the potential visual impact of the proposed modification in areas where there were previously no key scope elements.

This report includes an assessment of the landscape impact, daytime and night time visual impact. It considers the impact of the proposed modification during construction and operation.

1.2 Methodology

The methodology for the assessment of landscape and visual impacts is detailed in the Environmental Impact Statement (August 2017), Technical Paper 7: Landscape and Visual Impact Assessment, at pages 20-25. It includes the following key steps:

- identification of the existing environment
- description of the proposed modification
- identification of the landscape and visual sensitivity of key receptors
- an assessment of landscape impact during construction and operation
- an assessment of the daytime visual impact during construction and operation
- a general assessment of night time visual impact during construction and operation
- identification of mitigation measures.

The assessment will clearly identify where the changes between the approved project and proposed modification result in an increased or decreased impact.

2 Modification description

The proposed modification would comprise an at-grade corridor crossing, linking The Appian Way and Restwell Street between the Sydney Trains station and the Sydney Metro station entrances at Bankstown.

Key features of the proposed modification are:

- New Sydney Metro platforms, with a side platform configuration, to the west of the West Terrace rail bridge.
- Removal of around 55 metres of existing heritage listed Sydney Trains platforms at the eastern end of the existing station.
- Extension of the western end of the Sydney Trains platforms by around 70 metres.
- A new corridor crossing to align with and connect to The Appian Way and Restwell Street at-grade, providing a new north-south connection shared zone across the rail corridor and integrating the two sides of the town centre. This would provide access to the Sydney Trains platform and new Sydney Metro platforms.
- New station entrance and concourse on the eastern side of the proposed at-grade corridor crossing to access the new Sydney Metro platforms
- New station entrance and concourse on the western side of the proposed at-grade corridor crossing to access the existing Sydney Trains platforms
- Removal of heritage-listed Bankstown Parcels Office (former) to support the provision of the proposed at-grade corridor crossing.
- As per the approved project, the existing car park located adjacent to The Appian Way off North Terrace would be removed.
- A services building, substation and maintenance car park on the south eastern side of the Sydney Metro platforms.
- Provision of retail structures along the at-grade corridor crossing (noting, the fit-out and use of these structures would be subject to separate approval). Vehicle access to service these units would be via the at-grade corridor crossing.
- The at-grade corridor crossing would be a dismount zone for cyclists. A new secure bike storage would be installed adjacent to the new Sydney Trains station entrance. In addition, bike parking would also be provided adjacent to the station entrance.
- Minor adjustments to existing pedestrian crossings to tie into the proposed at-grade corridor crossing.
- Transport integration facilities and other precinct and landscaping works including minor adjustments to existing bus facilities to accommodate the location of the proposed at-grade corridor crossing.

Transport integration facilities and other precinct and landscaping works including minor adjustments to existing bus facilities to accommodate the location of the new at-grade corridor crossing. The features of the proposed modification during construction is shown in Figure 2-1, and the indicative layout of the key design elements during operations is shown in Figure 2-2. A description of the key design changes and the key changes to construction methodology associated with the proposed modification are described in Section 5 of the Modification Report.

Figure 2-1: Bankstown Station modification - construction activities

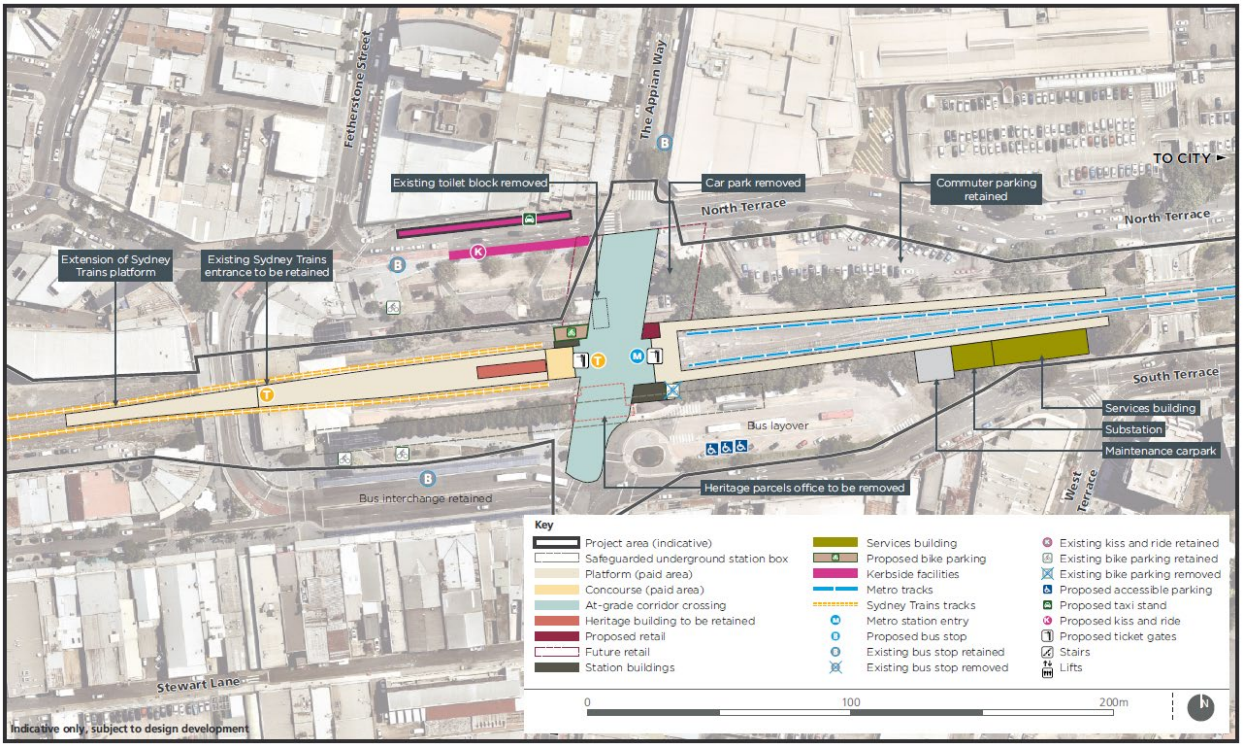


Figure 2-2: Bankstown Station modification - Indicative layout of key design elements

3 Landscape character

3.1 Landscape character impacts of the approved project

Construction works for the approved project was assessed to result in a **minor adverse landscape impact** on the Bankstown Station and surrounding areas. This is due to a reduction in the legibility and accessibility of the precinct as work is staged and customer access is diverted around the site. The closure of open space, car parks and removal of trees and vegetation along the rail corridor would also reduce the functionality and visual quality of the station precinct.

During operation, the approved project was assessed to result in a **minor beneficial landscape impact** at Bankstown Station, as the public realm and interchange enhancements would improve legibility, connectivity, and amenity. The heritage buildings within the station precinct would also be retained, maintaining some remnants of heritage character which would contribute to the overall 'sense of place' of the new station precinct.

The following section 3.2 identifies the landscape character impacts of the proposed modification independent of the approved project. It will then identify where impact levels of the proposed modification have changed from the approved project (see section 3.3).

3.2 Landscape character impacts of the proposed modification

3.2.1 Impact during construction

The project area of the proposed modification would be similar to the approved project with some minor changes where the station entry to the existing Bankstown Station is moved west to align with The Appian Way in the north and Restwell Street in the south. The project area would no longer extend to the north east of West Terrace rail bridge between North and South Terraces. There would also be an additional compound within the rail corridor at Depot Place, west of the station.

The construction works would include the demolition of the heritage listed Bankstown Parcels Office (former) around 55 metres of the existing eastern end of the Sydney Trains platform and the toilet block adjacent to North Terrace. While the heritage listed Bankstown Parcels Office (former) is not visually prominent, and does not have a particular function within the precinct s as it is currently untenanted, its removal would adversely affect the character and 'sense of place' in the vicinity of the station.

The trees located in the area previously identified for the services building would now be retained, however, there may be some additional trees removed in the vicinity of the construction compound (C24) to the west of the existing station and to provide access to construct the proposed side platforms for the metro station. Overall, there would be a similar number of trees removed with the proposed modification.

Construction activity would occur within the station and around the surrounding precinct and have minor impacts on access and legibility of the station. The roads and footpaths would remain (except for some minor diversions), there would be minor changes to accommodate the new station entrance to the bus layover area on South Terrace, and minor changes to the open space to the north of the station.

While the proposed modification includes two station entry buildings, an entry to Metro on the east and Sydney Trains to the west, the scale and intensity of the construction activity for these buildings would be

less, as they would be at-grade and single storey structures, rather than a large structure built over the rail corridor and platforms.

Overall, there would be a noticeable reduction in the landscape quality and functioning of this precinct during construction. The station precinct is of local landscape sensitivity, resulting in a **minor adverse** landscape impact.

3.2.2 Impact during operation

During operation, the quality of the interchange facilities and station access at Bankstown Station would be improved. A new at-grade corridor crossing would allow direct pedestrian access across the rail corridor between The Appian Way and Restwell Street. It would also provide access to the new Sydney Metro station and a new entry to the Sydney Trains station.

There would be a north-south at-grade corridor crossing and unpaid concourse which would improve connectivity for pedestrians by increasing pedestrian permeability in this area of the city. It would create a new public realm area with landscaping, street furniture and lighting. Trees would be provided within this area and in areas around the station to replace some of the trees removed during construction. The services building, substation and a maintenance vehicle car park would be located to the south east of the station. This building would be located adjacent to the existing bus layover on the south and set back from the West Terrace rail bridge, replacing the landscaped rail corridor embankment with built structures.

Overall, this would result in a considerable improvement in the landscape quality and functioning of this precinct, which is of local sensitivity, and a **moderate beneficial** landscape impact during operation.

3.3 Change to landscape character impacts

While the overall scale of the construction works would be reduced somewhat, there would continue to be a **minor adverse** landscape impact during construction. This impact would be experienced over a reduced area, and would require less possession periods, and over a shorter duration than the approved Project at Bankstown Station.

During operation, the **minor beneficial** landscape impacts identified for the approved project would increase to a **moderate beneficial** landscape impact. While the heritage listed Bankstown Parcels Office (former) and city end of the existing Sydney Trains platforms would be removed, their contribution to local 'sense of place' would be offset by the substantial improvements to the permeability, accessibility and legibility of the precinct for pedestrians with the creation of a north south at-grade corridor crossing and unpaid concourse which aligns with the surrounding street pattern, the increased visibility of the station entries, and opening up of a view opened through the station precinct.

Table 3-1 includes a summary of these landscape character impacts. Any assessments that would increase or decrease from the approved project have been highlighted in **bold**.

Table 3-1 Landscape character impacts

Location	Sensitivity rating	Construction impact		Operation impact	
		Approved project	Proposed modification	Approved project	Proposed modification
Bankstown Station precinct	Local	Minor adverse	Minor adverse	Minor beneficial	**Moderate beneficial**

4 Daytime visual amenity

4.1 Daytime visual amenity impacts of the approved project

The following viewpoints were selected as representative views to Bankstown Station and were used to identify the visual impact of the approved project:

- Viewpoint 1: View east along North Terrace
- Viewpoint 2: View southwest from North Terrace
- Viewpoint 3: View northeast from South Terrace.

The assessment contained in the Environmental Impact Statement identified the following impacts.

Construction of the approved project would create a moderate adverse impact on views to the project works from adjacent streets, plazas, commercial and residential areas surrounding the station. This would be a result of the extent, nature and scale of the works including construction compounds, temporary access structures, and construction of the station and associated buildings.

During operation, there would be a minor beneficial visual impact in views towards the station from North and South Terrace, as the architecture and scale of the new station architecture would improve the visual prominence of the station entry and be visually compatible within the surrounding commercial setting.

4.2 Daytime visual amenity impacts of the proposed modification

In addition to the above viewpoint locations used to assess the approved project, two additional viewpoints have been selected to capture the relocation of the services building to South Terrace, and the additional construction compound and extended station platforms to the west of the station.

The views used to assess for the proposed modification include:

- Viewpoint 1: View east along North Terrace
- Viewpoint 2: View southwest from North Terrace
- Viewpoint 3: View northeast from South Terrace
- Viewpoint 4: View west from South Terrace
- Viewpoint 5: View west from the Bankstown Station platform.

The location of these viewpoints is shown on Figure 4.1 Viewpoint location plan. The following section provides an assessment of these representative viewpoints.

Figure 4-1 Viewpoint location plan

Figure 4-2 Viewpoint 1: View east along North Terrace

4.2.1 Viewpoint 1: View east along North Terrace

During construction the toilet block (right of view) and car park (centre of view) would be demolished and a worksite would extend from the existing station in the west to the rail bridge in the east. Trees along this section of the rail corridor would be removed including two large fig trees (centre of view). Construction vehicles would be seen accessing the site along North Terrace. Site fencing and hoarding would be installed along North Terrace, above this, construction equipment for the Metro Station entry building, new Sydney Trains station entry building and new canopy over the new station buildings, would be seen. Overall, there would be a considerable reduction in the amenity of this view, which is of local visual sensitivity, resulting in a **moderate adverse visual impact** during construction. This level of impact is consistent with the approved project.

During operation an at-grade corridor crossing and unpaid concourse, extending between North Terrace and the existing plaza at South Terrace, would open up a view south to Restwell Street in the background. The concourse would connect to North Terrace and include new landscape treatments, including planting, paving and furniture, improving the setting of the station. Two new station buildings would be seen to the east and west of the concourse, marking the entry to the new and existing stations. There would also be a new canopy extending over the Sydney Trains platform between the new station entrance and the existing platform building. The scale and character of the new concourse, buildings and canopy structure would be consistent with the surrounding urban setting and create a new visual feature, marking the station entry. Overall, there would be a considerable improvement in the amenity of this view and a **moderate beneficial visual impact** (refer to Figure 4-2 and Table 4-1, Viewpoint 1). This is a greater beneficial impact level than the approved project.

Figure 4-3 Viewpoint 2: View southwest from North Terrace

4.2.2 Viewpoint 2: View southwest from North Terrace

During construction, works to install the new Metro station would be seen extending across the rail corridor and car park (left of view). This work would require the removal of vegetation along the rail embankments, to the north and south of the rail corridor, seen in the middle ground of this view. Construction of the new station buildings would be visible in the background (centre of view). As this view already contains an unsurfaced car park and is located adjacent to a busy road and 'back of house' areas of the Bankstown Central Shopping Centre, this work would not contrast substantially with the existing character of this view. Overall, this work would result in a noticeable reduction in the amenity of views from this part of North Terrace, which is of local visual sensitivity, and a **minor adverse visual impact** during construction. This level of impact is consistent with the approved project.

During operation, the removal of mature trees and vegetation along the rail corridor would open up views to the new Metro station platforms, lighting, security fencing, signalling equipment, catenary structures and overhead wiring. The street trees along North Terrace and mature fig trees would be retained. The car parking area would be reinstated and there would be a new concourse with planting in the background of this view. There would be glimpses to the new station buildings, however, these would not be visually prominent. Overall, there would be a noticeable improvement in the amenity of this view, which is of local sensitivity, resulting in a **minor beneficial** visual impact. (Refer to Figure 4-3 and Table 4-1, Viewpoint 2). This level of impact is consistent with the approved project.

Figure 4-4 Viewpoint 3: View northeast from South Terrace (corner of Restwell Street)

4.2.3 Viewpoint 3: View northeast from South Terrace

During construction, a worksite and compound would be visible, extending across much of the middle ground of this view. Works would include the demolition of the Bankstown Parcels Office (former) (centre of view) and eastern end of the Sydney Trains platforms and trees along the rail embankments to the north and south of the corridor (right of view). Much of this activity would be visible above the hoarding and would create a noticeable reduction in the amenity of this view, which is of local sensitivity, resulting in a **minor adverse visual impact** during construction. This level of impact is consistent with the approved project.

During operation, a new at-grade concourse would be seen in the centre of the view, creating a new vista across the rail corridor between Restwell Street and The Appian Way. Two new single storey buildings would be visible, with a canopy extending above these and along the Sydney Trains platform, marking the entry to the proposed Metro Station and new entry to the existing Sydney Train station. These new structures and concourse would be a new feature of this view and consistent in character with the surrounding urban setting. Overall, there would be a noticeable improvement in the amenity of this view, which is of local visual sensitivity, and a **minor beneficial visual impact** during operation (refer to Figure 4-4 and Table 4-1, Viewpoint 3). This level of impact is consistent with the approved project.

Figure 4-5 Viewpoint 4: View west from South Terrace

4.2.4 Viewpoint 4: View west from South Terrace

During construction a worksite and compound would be established across the centre middle ground of this view, between North and South Terrace, south of the rail bridge. The existing vegetation along the rail embankments would be removed, opening up views to the rail existing corridor and station beyond. Works to install the new Metro platforms and the services building would be seen in the middle ground of this view. Overall, the leafy character and enclosure of this view would be reduced. The scale and extent of construction activity would create a noticeable reduction in the amenity of this view, which is of local sensitivity, resulting in a **minor adverse visual impact** during construction. While this view was not assessed for the approved project, there would have been trees removed on this site and construction works undertaken in this location as a part of the approved project and a similar visual impact level would have be expected.

During operation, due to the reduced vegetation cover along the rail embankments, there would be a clear view to the northern end of the new Metro platforms, elevated on the rail embankment, and a large services building and pad mount at the corner of South Terrace (centre of view). The scale of the services building would be consistent with the surrounding urban setting, stepping down from the taller, medium rise retail and medium to high rise residential buildings to the south of South Terrace.

Overall, due to the removal of vegetation and introduction of built structures into this view, the proposed modification would result in a noticeable reduction in the visual amenity of this view, and a **minor adverse visual impact** (refer to Figure 4-5 and Table 4-1, Viewpoint 4). While this view was not assessed for the approved project, the more open view to the rail corridor created by the removal of trees and new platforms seen in this view would result in a similar level of visual impact to the approved project.

Figure 4-6 Viewpoint 5: View west from the Bankstown Station platform

4.2.5 Viewpoint 5: View west from the Bankstown Station platform

During construction, a worksite would be established across the fore and middle ground of this view and work to construct new platforms for the Sydney Trains Bankstown Station would be visible extending west along the rail corridor. A construction compound would be established to the north of the rail corridor in the background of this view. This view would not be readily available to passengers due to the site extending under the existing rail overbridge and away from the main use areas of the station. Furthermore, the construction compound would be located to the rear of buildings along Bankstown City Plaza in an area with 'back of house' uses and character. Overall, this construction activity would create a noticeable reduction in the amenity of this view, which is of neighbourhood visual sensitivity, resulting in a **negligible visual impact** during construction. This view was not assessed for the approved project as there was no work proposed in this location.

During operation, the view would include new platforms extending through the overbridge and to the middle ground of this view. The new station area would extend alongside the rail corridor to the adjacent buildings, replacing the existing rail corridor embankments. The character of this area would be improved with the introduction of an active station area. While it is expected that the proposed modification would improve the existing character of this section of the rail corridor, the location of platforms in this area would open up views to the adjacent 'back of house' areas of the adjacent shopping precinct and multi-storey car park. Overall, there would be no perceived change in the amenity of these views, resulting in a **negligible visual impact** (refer to Figure 4-6 and Table 4-1, Viewpoint 5). This view was not assessed for the approved project as there were no operational elements proposed in this location.

4.3 Change to daytime visual amenity impacts

During construction, the **minor** and **moderate adverse visual impacts** would continue to be experienced in views from North and South Terrace. There would be two buildings constructed at the station, however, the scale of the station buildings would be less. There would continue to be trees removed along the corridor and extensive construction activity and construction compounds established along the rail corridor, adjacent station precinct. While the proposed modification would also include the demolition of the heritage Parcels Office (former) and the demolition of parts of the existing Sydney Train platforms (also heritage listed), these are not visually prominent features in views, and their removal would be absorbed into the visual impacts identified for the approved scheme.

In views from South Terrace, near the rail bridge, there would be **minor adverse visual impact** experienced from the public realm, adjacent commercial and elevated residential properties due to works to construct the services building, pad mount and maintenance car park, including the removal of trees along the rail corridor. This vegetated corner site, is visible at the terminus of views along West Terrace. The building is set back from this corner, assisting with its absorption into views within this area.

The proposed modification would also include construction activity extending west beyond the Bankstown City Plaza bridge. Due to the limited visibility and the high visual absorption capacity of this area, located adjacent to the 'back of house' areas of Bankstown City Plaza, there would be a **negligible visual impact** expected during construction.

During operation, a **minor beneficial visual impact** would remain in views from South Terrace, near the alignment of the proposed at-grade corridor crossing and unpaid concourse. While the removal of the heritage listed Bankstown Parcels Office (former), the new at-grade corridor crossing would create a new vista across the rail corridor aligned with The Appian Way.

The proposed modification would result in a **moderate beneficial visual impact** in views from North Terrace, near the alignment of the at-grade corridor crossing and unpaid concourse. This is an increased improvement from the approved scheme and is due to the creation of a new vista across the rail corridor and to Restwell Place.

In views from North Terrace to the east of the station, there would continue to be minor beneficial visual effects due to the new station and at-grade corridor crossing, seen in the middle to background of these views.

During operation there would be a **minor adverse visual impact** in views from South Terrace, near the rail bridge towards the proposed services building, pad mount and maintenance car park. This would introduce additional built form to this area of the station precinct which is a locally prominent corner.

Table 4-1 includes all impacts assessed for the approved project as well as the assessment of the proposed modification. Any assessments that would increase or decrease from the exhibited project have been highlighted in **bold**.

Table 4-1 Daytime visual amenity impacts

	Viewpoint	Sensitivity rating	Construction impact		Operation impact	
			Approved project	Proposed modification	Approved project	Proposed modification
1	View east along North Terrace	Local	Moderate adverse	Moderate adverse	Minor beneficial	**Moderate beneficial**
2	View southwest from North Terrace	Local	Minor adverse	Minor adverse	Minor beneficial	Minor beneficial
3	View northeast from South Terrace	Local	Minor adverse	Minor adverse	Minor beneficial	Minor beneficial
4	**View northwest from South Terrace**	**Local**	N/A	**Minor adverse**	N/A	**Minor adverse**
5	**View west from the Bankstown Station platform**	**Local**	N/A	**Negligible**	N/A	**Negligible**

5 Night-time visual amenity

5.1 Night-time visual amenity impacts of the approved project

At night, the lighting required during night works would result in a noticeable change in the amenity of views from the setting of Bankstown Station. Work would include 24-hours rail possession periods and associated use of machinery and construction vehicle access via local streets. As this is a precinct of high district brightness, a **negligible visual impact** would be experienced at night during construction.

During operation, the level of lighting during operation would be consistent in character with the brightly lit development in and around Bankstown Station, resulting in a **negligible visual impact** at night.

5.2 Night-time visual amenity impacts of the proposed modification

To minimise impact on the daytime operations of the rail network, there would be night works required to construct the proposed modification, although there would be less nightworks than the approved project at Bankstown Station. Night works would be undertaken in close proximity to the surrounding urban area of Bankstown, including residential, commercial and retail properties along North and South Terrace. Due to the scale of the work it is expected that there would be a noticeable reduction in amenity of views from these areas during any night works. Overall, this would result in a **negligible visual impact** during construction, as the existing setting of the station precinct is brightly lit and this additional lighting would be largely absorbed into the surrounding setting at night.

During operations there would be two new brightly lit station entry buildings and new at-grade concourse extending across the rail corridor between North Terrace and the plaza at South Terrace. There would also be new kerbside facilities and parking along North Terrace which would be well lit at

night. The footprint of the Metro Station would extend east towards the rail overbridge, introducing brightly lit station platforms to this area which would be visible due to the removal of trees along the corridor. There would also be lighting at the new services building on South Terrace, including security lighting at the maintenance car park. These areas would be viewed from the elevated residential properties on South and East Terrace. The existing Sydney Trains platforms would be extended to the west, beyond the Bankstown City Plaza bridge, increasing the amount of lighting in this area, however, this area is well visually contained and the existing commercial buildings and streets are brightly lit. Overall, during operation this additional lighting would be largely absorbed into the existing brightly lit urban setting, a high district brightness environment, resulting in a **negligible** visual impact at night.

5.3 Change to night-time visual amenity

A **negligible** visual impact would remain at night during construction due to the similar extent and scale of night construction activity required for the proposed modification. This additional lighting would be absorbed into the existing brightly lit urban setting which extends across the setting of the proposed project area.

During operation, the visual impact on views at night would also remain as **negligible**, as the lighting would be of a similar level and generally consistent with the surrounding high district brightness environment.

Table 4-1 includes a summary of these night-time visual amenity impacts.

Table 5-1 Bankstown Station – night-time visual amenity impacts

Location	Sensitivity rating	Construction impact		Operation impact	
		Exhibited project	Proposed modification	Exhibited project	Proposed modification
Bankstown Station precinct	E4: High district brightness	Negligible	Negligible	Negligible	Negligible

6 Mitigation measures

The mitigation measures identified for the approved project would be applied to the proposed modification and are considered sufficient to manage the potential impacts on landscape character and visual amenity. No additional measures or amendment to existing measures is considered necessary.

Document·Status¶

Revision¤	Author¤	Reviewer¤		Approved·for·Issue¤		
		Name¤	Signature¤	Name¤	Signature¤	Date¤
Rev·1¤	K·Yale¤	Aryel·Pyliotis¤		Michael·England¤	¤ 	05/05/20¤