sydney METRO | city & southwest

SYDENHAM TO BANKSTOWN

# ENVIRONMENTAL IMPACT STATEMENT

> Technical Paper 7 - Landscape and visual impact assessment

NSW GOVERNMENT

# Sydney Metro, City & Southwest

## Sydenham to Bankstown upgrade

Technical Paper No. 7
Landscape & Visual Impact Assessment

August 2017

for the NSW Government | Transport for NSW

IRIS Visual Planning + Design

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# ABBREVIATIONS & GLOSSARY

## Abbreviations

CPTED – Crime Prevention Through Environmental Design

DCP – Development Control Plan

EPBC – Environment Protection and Biodiversity Conservation Act, 1999

HCA – Heritage Conservation Area

HV – High Voltage

LEP – Local Environmental Plan

## Glossary

- **Accessibility** – A public transport customer's ability to reach their destination unhindered and as independently as possible. Includes compliance with relevant disability standards.
- **Ancillary works** – Refers to all works outside the station precincts, including services realignment and installation, traction substations, track realignments, noise barriers, security fencing and Trackside Intruder Detection System fencing, drainage works, retaining walls, embankments and cuttings, and maintenance access facilities.
- **Construction compound** – The construction compound is an area within the project area that would include site offices, amenities, workshops, material and plant storage areas, laydown area, storage of rail track and ballast, concrete batching plant etc.
- **Glare** – the uncomfortable brightness of a light source when viewed against a dark background.
- **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.
- **Landscape** - includes all elements that constitute a place including landform, vegetation, buildings, streets, parks and plazas etc.
- **Light trespass** – the spilling of light beyond the boundary of the property or area being lit.

# Glossary

- **Permanent way** – The structure consisting of the rail tracks, fasteners, railway sleepers and ballast (or slab track). Sometimes referred to as 'trackway'.
- **Place-making** – is '*creating public spaces that are locally relevant and 'belong' to the local community, reflecting the community's inputs and aspirations. It seeks to make place more relevant, usable and meaningful.' (Government Architect NSW, 2016)*
- **Project area** – The area of land required to construct and operate the project. It refers to the length of works including the stations, permanent way and ancillary development.
- **Public realm** - Streets, spaces and places. (Government Architect NSW, 2016).
- **Rail corridor (or corridor)** – This area includes all elements within the Sydney Rail land where it forms a linear corridor. The rail corridor includes the permanent way, cuttings and embankments, overhead lines, signalling equipment, vegetation etc.
- **'Sense of place'** - Is the intangible qualities and character of a place, interpreted and valued by people.
- **Site** – Refers to a specific part of the project area. Several sites have been identified to divide this assessment into manageable sections. Sites include each individual station precinct, and the ancillary development.
- **Sky glow** – the brightening of the night sky above our towns, cities and countryside.
- **Station precinct** – Includes the station and any development directly associated with the station such as directly adjacent retail and transport links.
- **Study area** – Extends beyond the project area to include the visual catchment of the project, adjacent open spaces and public realm, and areas of the landscape that provide a setting for the project area.
- **Station catchment** – That part of each suburb located within a radius of about 400 metres of a station.
- **Urban design** - '*is concerned with the arrangement, appearance and function of our suburbs, towns and cities. It is both a process and an outcome of creating localities in which people live, engage with each other, and engage with the physical place around them.'* Australian Urban Design Protocol (2011).
- **Worksite** – This area is the footprint of the construction works (also referred to as the project area). A range of construction activities would take place within this area including the construction of station buildings, public realm areas and ancillary works.

# EXECUTIVE SUMMARY

## Executive Summary

Transport for NSW ('the proponent') is seeking approval to construct and operate the Sydenham to Bankstown upgrade component of Sydney Metro City & Southwest.

The project is located mainly within the existing rail corridor, from about 800 metres west of Sydenham Station in Marrickville, to about one kilometre west of Bankstown Station in Bankstown. The project is located in the Inner West and Canterbury-Bankstown local government areas.

The project for which approval is sought a 13 kilometre long section of the Sydney Trains T3 Bankstown Line and 10 existing stations, between Sydenham and Bankstown, to improve accessibility and enable conversion of the line to metro standards.

A key element of the project is upgrading all stations along the corridor between Marrickville and Bankstown stations, to allow better access, by providing new concourses, level platforms, and lifts at all stations. Improvements would also be undertaken within the immediate area surrounding the stations to deliver accessible interchange with other forms of transport.

The project is subject to assessment and approval by the NSW Minister for Planning under Part 5.1 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). This technical paper describes the urban design of the project, and provides an assessment of the construction and operational impact of the project on the landscape the visual setting of the project.

### Approach to landscape and visual assessment

This assessment has identified the potential landscape and visual impact of works on a number of identified 'sites' including each of the 10 stations, and Corridor and Ancillary development.

The assessment identifies the landscape and visual impact during construction and operation, and during the day and at night for each of these sites.

### Overview of potential impact

The following Section summarises the potential landscape and visual impact which are expected to be experienced at each site.

***Marrickville Station***

Landscape impact

There would be a **moderate adverse landscape impact** at Marrickville Station precinct during construction as there would be a reduction in the precinct accessibility and legibility due to the diversion of passengers around construction works.

Although this station has recently been upgraded by a Transport Access Program (TAP) project, during operation there would be a further **minor beneficial landscape impact**, as station accessibility is improved with a new ramp from Illawarra Road, and the Station Street entrance would be upgraded to include a widened plaza and a 'shared zone', and interchange.

Visual impact

During construction, there would be a **minor** to **moderate adverse visual impact** in views to the project due to the scale of the works near to residential areas, and the extent of works at Station Street and Illawarra Road.

Once operational, there would be a **minor beneficial visual impact** in views along Station Street given the improved finishes, and the creation of a plaza and 'shared zone'.

At night, there would be a **minor adverse visual impact** during construction with the introduction of night works in close proximity to residential properties to the north and south of the corridor.

During operation, there would be a **minor adverse visual impact** from adjacent residential streets to the southeast with the increased intensity of lighting created by the active transport corridor and extended

platforms, located near residential properties particularly to the south of the rail corridor (including Leofrene Avenue, Riverdale Avenue, Byrnes and O'Hara streets).

***Dulwich Hill Station***

Landscape impact

There would be a **moderate adverse landscape impact** at the Dulwich Hill Station precinct during construction due to a reduction in legibility and accessibility as work transitions from the new station construction, to demolition of the existing concourse.

During operation, there would be a **minor beneficial landscape impact**, as station accessibility is improved with a new north and south entry, set back from Wardell Road, a new plaza along Ewart Lane, and consolidated interchange facilities.

Visual impact

There would be a **minor** to **moderate adverse visual impact** in views to the project during construction due to the scale of the works, located near to residential areas, and the extent of works in Ewart Lane and Bedford Crescent. This would include a **moderate adverse visual impact** in views from the Wardell Road rail bridge.

During the operation there would be **minor beneficial visual impact** in views from Ewart Lane owing to the public realm improvements and quality of the architecture. However, the view from Wardell Road would present a **minor adverse visual impact** due to the obstruction and enclosure of the heritage platform buildings and district views currently appreciated from this location.

At night there would be a **minor adverse visual impact** during construction with the introduction of night works in close proximity to residential areas.

There would also be a **minor adverse visual impact** in views at night during operation, from adjacent residential streets to the southeast, with the increased intensity of lighting from the station, near residential properties (including properties on Bedford Crescent, Wardell Road and Ewart Lane).

***Hurlstone Park Station***

Landscape impact

There would be a **moderate adverse landscape impact** at the Hurlstone Park Station precinct during construction due to a reduction in the legibility and accessibility as the existing station is demolished and the new station built, and due to the removal of vegetation to the south of the rail corridor.

During operation, there would be a **moderate beneficial landscape impact** as station accessibility is improved with a larger and more spacious station entry and concourse addressing the Duntroon Street bridge and improved interchange facilities.

Visual impact

During construction, there would be a minor to **moderate adverse visual impact** in views to the project given the scale of the works, located near to residential areas in the south and commercial areas on Floss Street.

During operation of the project there would be a **minor adverse visual impact** in views from Railway Street from the removal of vegetation and introduction of a services building within this residential area, and from residential properties directly adjacent to the station due to the scale of the buildings and proximity.

At night there would be a **minor adverse visual impact** during construction as night construction activity would occur in close proximity to residential areas.

There would also be a **minor adverse visual impact** at night during operation. This would be from the increased intensity of lighting created by the station, near residential properties, including properties on Floss, Duntroon, Commons, Hopetoun and Railway streets.

# EXECUTIVE SUMMARY

## Overview of potential impact

***Canterbury Station***

Landscape impact

There would be a **moderate adverse landscape impact** at the Canterbury Station precinct during construction owing to a reduction in legibility and accessibility as work transitions from the new station construction to demolition of the existing concourse, and removal of vegetation particularly to the southwest of the corridor and northeast along Broughton Street.

During operation, there would be a **moderate beneficial landscape impact**, as station accessibility is improved with a new east and west entry, set back from the constrained environment of Canterbury Road, with new plazas and improved interchange facilities.

Visual impact

During construction, there would be a minor to **moderate adverse visual impact** in views to the project due to the scale of the works, and removal of mature trees. The works would be overlooked by residential properties on Broughton Street to the northeast, and from elevated residential apartments on Charles Street to the southwest.

When operational, there would be a **negligible visual impact** in views to the station as the new built form would be largely absorbed into this densely urban townscape.

At night there would be a **minor adverse visual impact** during construction due to the introduction of night construction activity in close proximity to residential areas. There would also be a **minor adverse visual impact** in views at night during operation. This would be due to the increased intensity of lighting that would be created by the station, brought closer to residential properties on Charles and Broughton Street.

***Campsie Station***

Landscape impact

There would be a **moderate adverse landscape impact** at the Campsie Station precinct during construction due a reduction in the legibility and accessibility as work is staged and customer access is diverted to a temporary access structure during demolition works and construction of the new station concourse and vertical transport structures.

During operation, there would be a **minor beneficial landscape impact**, as a broader more open station entry concourse is created, set back from the constrained footpath environment of Beamish Road.

Visual impact

During construction, there would be a **minor moderate adverse visual** impact on views from Beamish Street where the works are located in close proximity to the local commercial centre. There would also be a **minor adverse visual** impact on views to the project works from Lilian Street and Lane, to the south of the corridor. This impact is due to the scale of the works and establishment of a construction compound, overlooked by residential properties opposite. Similarly, there would be minor adverse visual impact from Wilfred Avenue and North Parade, where demolition and reconstruction of the station and over rail retail buildings along Beamish Street would be seen.

During operation of the project there would be a **minor beneficial visual impact** in views from Beamish Street, where the increased scale and more open form of the new station structures would provide a level of prominence which marks it as an entry to the station. The station architecture would be visually consistent with the character of the surrounding commercial precinct.

At night there would be a **minor adverse visual impact** during construction due to the introduction of night construction activity in close proximity to residential areas, particularly on Lilian Street.

There would also be a **minor adverse visual impact** in views at night during operation with the increased intensity of lighting created by the station, and extending along the platforms to the west, bringing this light closer to residential properties on Lilian Street and Wilfred Avenue.

***Belmore Station***

Landscape impact

There would be a **moderate adverse landscape impact** at the Belmore Station precinct during construction due to a reduction in the legibility and accessibility as work is staged and construction compounds are established to the north and south of the station. There would also be a direct impact on vegetation which would be removed from the reserve at Torbruk Avenue.

During operation, there would be a **minor beneficial landscape impact**, as the open spaces are reinstated and refreshed, a new southern plaza and shared zone would be established, improving accessibility, legibility and the amenity of the precinct.

Visual impact

During construction, there would be a **moderate adverse visual impact** on views to the project works from the Burwood Road overbridge, Torbruk Avenue and Redman Parade, given the scale of the works including the establishment of construction compounds and retaining wall construction in close proximity to public realm areas. There would also be a **minor adverse visual impact** on views from residential areas to the south of the station on Acacia Lane and Street.

During operation of the project there would be a **minor adverse visual impact** in views from Burwood Bridge due to the scale of the elevated concourse and canopy structure, rising above the existing heritage platform building, and intensification of built development to views within the station.

There would also be a **minor adverse visual impact** in views from the Terry Lamb Reserve with the introduction of the services building within a parkland setting. However, there would be a **minor beneficial visual impact** in views to the new southern station entry and plaza on Torbruk Avenue, as although some mature trees would be removed, there would be improved amenity with a new plaza and park treatment. The setting of the northern station entry, viewed from Redman Parade, would have the capacity to absorb the new station buildings.

At night there would be a **minor adverse visual** impact during construction due to a reduction in the amenity of views from residential properties in Redman Parade, upper Acacia Lane and Acacia Street, and Myall Street.

There would also be a **minor adverse visual impact** in views at night during operation, particularly from adjacent residential properties, due to the intensification and greater area of lighting, seen in close proximity.

***Lakemba Station***

Landscape impact

There would be a **moderate adverse landscape impact** at the Lakemba Station precinct during construction due to a reduction in the legibility and accessibility as work is staged and customer access is diverted to a temporary access structure during demolition works and construction of the new station. During operation, there would be a **negligible landscape impact**, as the open space and public realm and interchange facilities are reinstated.

Visual impact

During construction, there would be a **moderate adverse visual impact** on views to the project works from Railway Parade and The Boulevarde. There would also be **minor adverse visual impact** on views to the project works from Jubilee Reserve and areas within The Boulevarde car park, beyond the immediate setting of the station. This is due to the scale of the construction activity, including construction compounds and

temporary station access structures, as well as demolition and station construction works.

During operation, there would be a **minor adverse visual impact** in views towards the station from Railway Parade as the existing mature eucalypts would be lost, altering the scale and amenity of the view. However, there would be a **minor beneficial visual impact** in views from The Boulevarde as the strong architectural statement highlights the station entry, alongside a reinstated parkland setting.

At night there would be a **minor adverse visual impact** during construction relating to the impacts on the amenity of views from residential properties adjacent to the rail corridor in Railway Parade, The Boulevarde. There would also be a **minor adverse visual impact** in views at night during operation, as the new metro platforms would extend lighting to the west, and within close proximity to residential areas.

***Wiley Park Station***

Landscape impact

Construction works in the Wiley Park Station precinct have a **minor adverse landscape impact**. This is due to a reduction in the legibility and accessibility of the precinct as work is staged and customer access is diverted to a temporary access structure during demolition works and the new station is constructed.

During operation, there would be a **minor beneficial landscape impact**, as the public realm and interchange enhancements provide improved legibility, connectivity and amenity. These improvements would be a catalyst for urban renewal within the precinct.

Visual impact

During construction, there would be a **moderate adverse visual impact** on views to the project works from adjacent streets, residential areas and schools to the north and south of the rail corridor, and from King Georges Road. This is due to the scale of the works including construction compounds, temporary access structures and proximity of the construction works from these locations.

During operation, there would be a **minor adverse visual impact** in views towards the station from residential properties to the north of the station as the character would be different from the existing station character with the station buildings having an increased scale and extending west of the existing station footprint, in closer proximity to adjacent residential properties. However, there would be a **minor beneficial visual impact** in views from King Georges Road as the new station architecture would improve the visual prominence of the station entry, and be visually appropriate within the commercial setting.

At night there would be a **minor adverse visual impact** during construction due to the impacts on the amenity of views from nearby schools (Wiley Park Girls High School and Wiley Park Public School) and residential properties adjacent to the rail corridor in The Boulevarde, Stanlea Parade, Wiley Lane, Shadforth Street and Urunga Parade. Although during operation the level of lighting during operation would be consistent with development along King Georges Road, the lit platforms, extending west, would create a **minor adverse visual impact** at night, from residential properties to the north and south of the rail corridor.

***Punchbowl Station***

Landscape impact

There would be a **moderate adverse landscape impact** at the Punchbowl Station precinct during construction due to a reduction in legibility and accessibility, and the introduction of construction compounds within the Warren Reserve and commuter car parks, to the north and south of the station.

During operation, there would be a **moderate beneficial landscape impact**, as the public realm and interchange enhancements

provide an improvement to the legibility, connectivity, safety and amenity of the station precinct.

Visual impact

During construction there would be a **minor adverse visual impact** on views to the project works from residential properties on adjacent residential areas on Urunga Parade, Warren Reserve and surrounding streets and public realm areas. This is due to the scale of the works, including construction compounds, in close proximity to these locations.

During operation, there would be a **minor beneficial visual impact** in views from the Warren Reserve, as the new station buildings would create a strong architectural statement, highlighting the northern station entry. A new northern plaza would also improve the amenity of the rail side interface with the reserve. However, there would be a **minor adverse visual impact** in views from residential properties on Urunga Parade given the intensification of rail infrastructure and removal of vegetation within the corridor.

At night there would be a **minor adverse visual impact** during construction owing to the impacts on the amenity of views from residential properties to the north of the rail corridor on Urunga Parade. Although during operation lighting would be consistent with development along The Boulevarde, the lit platforms, extending west, would create a **minor adverse visual impact** at night, from residential properties to the north of the corridor.

***Bankstown Station***

Landscape impact

There would be a **moderate adverse landscape impact** at the Bankstown Station precinct during construction due to a reduction in legibility and accessibility from the installation of construction compounds to the north and south of the corridor, and removal of vegetation including a mature fig tree on North Terrace and eucalypts adjacent to South Terrace. During operation there would be a **minor beneficial landscape impact**, as the public realm and interchange enhancements would provide an improvement to the legibility, connectivity, safety and amenity of the station precinct.

Visual impact

During construction there would be a **minor** and **moderate adverse visual impact** on views to the project works given the scale of construction activity including construction compounds to the north and south of the corridor, and removal of vegetation including the fig tree on North Terrace. This is due to the scale of the works, including construction compounds, in close proximity to these locations.

During operation, there would be a **minor beneficial visual impact** in views from surrounding streets, commercial and elevated residential properties as the new architecture and public realm improvements would create an architectural statement, identifying the station within this area of the precinct.

At night there would be a **negligible visual impact** during construction due to the absorption of the works into this brightly lit commercial setting. Similarly, during operation the level of lighting would be consistent with development along North and South terraces, and would create a **negligible visual impact** at night.

***Ancillary Works***

Landscape impact

Ancillary works would give rise to a **minor adverse landscape impact** along most of the corridor during construction, between Dulwich Hill Station to Bankstown Station, and for the Bankstown substation connection. This would be due to the establishment of construction compounds and worksites, particularly to the south of the corridor, the clearance of vegetation and major earthworks.

There would be a **moderate adverse landscape impact**, however, between

# EXECUTIVE SUMMARY

## Overview of potential impact

Marrickville and Dulwich Hill stations from the extension of construction activity into a portion of McNeilly Park in Marrickville, creating a direct impact on this park and temporarily reducing access for recreation.

During operation, there would be a **minor adverse landscape impact** experienced along all sections of the rail corridor, between Marrickville Station and Bankstown Station, and along the Bankstown substation connection. This is because removed trees would not be reinstated along much of the corridor and there would be an intensification of rail corridor infrastructure, including new retaining walls, embankments, drainage swales, noise barriers, overhead lines and support structures, signalling equipment, telecommunication masts, segregation fencing, and other operational infrastructure, reinforcing the corridor as a physical and visual barrier within the landscape.

Visual impact

During construction, there would be a **moderate adverse visual impact** on views to the project works at McNeilly Park in Marrickville, and Close Street, Canterbury, where the construction footprint expands into areas of open space adjacent to the rail corridor. There would also be a **minor adverse visual impact** on views to the project from areas of Marrickville, Dulwich Hill, Hurlstone Park, Belmore, Lakemba and Punchbowl due to the removal of vegetation within the corridor, and scale of the works including construction compounds and worksites in close proximity to residential areas and parks.

During operation, there would be mainly **minor adverse visual impacts** to views from surrounding streets and residential properties including areas of Marrickville, Dulwich Hill, Hurlstone Park, Canterbury, and Lakemba, where vegetation is not replaced and the intensification of rail corridor infrastructure, including new retaining walls, embankments, drainage swales, noise barriers, overhead lines and support structures, signalling equipment, telecommunication masts, segregation fencing, and other operational infrastructure would be seen in close proximity.

At night there would be a **negligible visual impact** during construction due to the absorption of the works into the existing, brightly lit night scene.

During operation, the rail corridor would not be lit at night, however, the headlights and internal lighting of a more frequent Metro train service, would be seen along the alignment, and the substations would require some lighting for security. This would be generally consistent with the surrounding night scene and would result in a **minor adverse visual impact** along the railway corridor between Marrickville Station and Punchbowl, and a **negligible visual impact** in Bankstown.

**Summary of mitigation response**

The following mitigation measures are proposed to avoid, reduce and manage the identified potential construction and operational landscape and visual impacts.

During construction, proposed mitigation measures would include:

- location of long-term temporary structures within compounds to minimise visual impact from sensitive receivers
- protection of existing trees where possible
- management of potential lighting impacts
- design and maintenance of hoardings to minimise visual amenity and character impact
- treatment of hoarding to reflect community character and incorporate art opportunities
- management of offensive graffiti and protection of street art.

During operation, proposed mitigation measures would include:

- lighting design to minimise glare and light spill onto private property
- management and specification of trees in accordance with TfNSW and relevant Council standards
- coordinated treatment of fencing, signalling equipment, overhead lines and lighting to minimise visual clutter
- treatment of substations and noise barriers to minimise visual amenity impact and reflect local character
- prepare and implement a Public Art Management Plan which meets the requirements of the Sydney Metro Public Art Strategy.

# 1. Introduction

## 1.1. Overview

### Project background

The New South Wales (NSW) Government is implementing Sydney's Rail Future (Transport for NSW, 2012a), a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of rail customers into the future.

Sydney Metro is a new standalone rail network identified in Sydney's Rail Future, providing 66 kilometres of metro rail line and 31 metro stations. The NSW Government is currently delivering the first two stages of Sydney Metro, shown in Figure 1.1, which consist of Sydney Metro Northwest (between Rouse Hill and Chatswood) and Sydney Metro City & Southwest (between Chatswood and Bankstown).

Sydney Metro Northwest is currently under construction. Sydney Metro Northwest services will start in the first half of 2019, with a metro train running every four minutes in the peak period. Services will operate between a new station at Cudgegong Road (beyond Rouse Hill) and Chatswood Station.

Sydney Metro City & Southwest will extend the Sydney Metro system beyond Chatswood to Bankstown, delivering about 30 kilometres of additional metro rail, a new crossing beneath Sydney Harbour, new railway stations in the lower North Shore and Sydney central business district (CBD), and the upgrade of existing stations from Marrickville to Bankstown. City & Southwest trains would

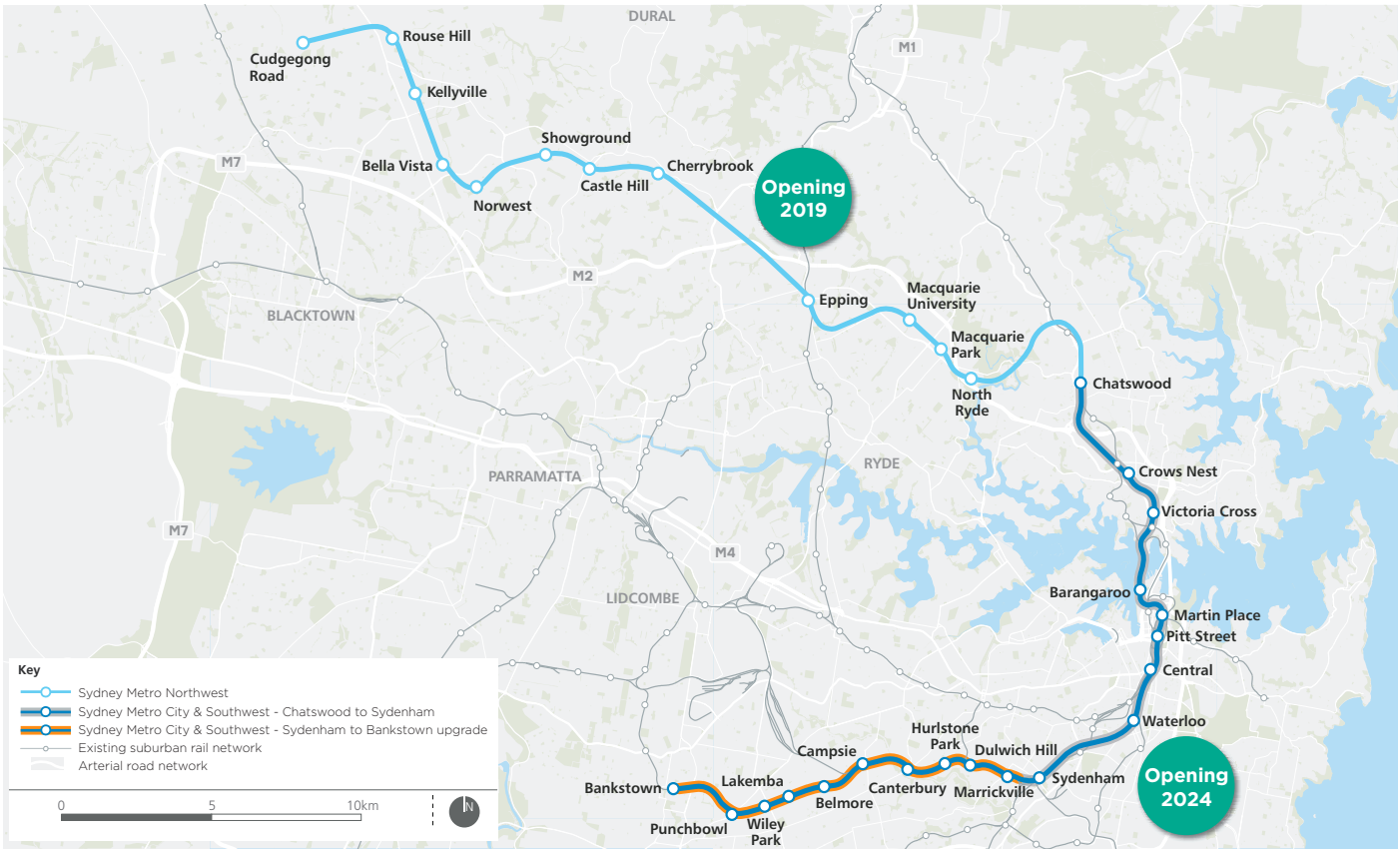



FIGURE 1.1 THE SYDNEY METRO NETWORK

run between Sydenham and Bankstown stations in each direction, at least every four minutes in peak periods, averaging around 15 trains per hour.

Sydney Metro City & Southwest comprises two core components (shown in Figure 1.1):

- the Chatswood to Sydenham project
- the Sydenham to Bankstown upgrade ('the project' and the subject of this document).

### The project for which approval is sought

Transport for NSW is seeking approval to construct and operate the Sydenham to Bankstown upgrade component of Sydney Metro City & Southwest (the project).

The project involves upgrading 10 existing stations west of Sydenham (from 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, to improve accessibility for customers and meet the standards required for metro operations. The project would enable Sydney Metro to operate beyond Sydenham, to Bankstown.

A key element of the project is upgrading stations along the corridor from Marrickville to Bankstown, to allow better access for more people by providing new concourses, level platforms, and lifts at stations. These upgrades aim to provide a better, more convenient and safer experience for public transport customers by delivering:

- stations that are accessible to people with a disability or limited mobility, the elderly, people with prams, and people travelling with luggage
- upgraded station buildings and facilities for all transport modes that meet the needs of a growing population
- interchanges that support an integrated transport network and allow seamless transfers between different modes for all customers.

The project is subject to assessment and approval by the NSW Minister for Planning under Part 5.1 of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act).

## 1.2. The project

### Location

The location of the project is shown in Figure 1.2.

The key elements of the project are located mainly within the existing rail corridor, from about 800 metres west of Sydenham Station in Marrickville, to about one kilometre west of Bankstown Station in Bankstown. The project is located in the Inner West and Canterbury-Bankstown local government areas.

The term 'project area' is used throughout this document to refer to the area where the physical works for the project would be undertaken. This area encompasses the existing rail corridor (as described above), the 10 existing stations within the corridor, and areas surrounding the rail corridor as shown in Figure 1.2.

### Key features

The key features of the project are summarised below and are shown in Figure 1.2.

#### *Works to upgrade access at stations*

The project includes upgrading the 10 stations from Marrickville to Bankstown as required, to meet legislative requirements for accessible public transport, including the requirements of the Disability Discrimination Act 1992 and the Disability Standard for Accessible Public Transport 2002. The proposed works include:

- works to platforms to address accessibility issues, including levelling and straightening platforms

# 1. INTRODUCTION

## The project


FIGURE 1.2 OVERVIEW OF THE PROJECT

- new station concourse and station entrance locations, including:
  - new stairs and ramps
  - new or relocated lifts
- provision of additional station facilities as required, including signage and canopies.

Works would also be undertaken in the areas around the stations to better integrate with other modes of transport, improve travel paths, and meet statutory accessibility requirements. This would include provision of pedestrian, cyclist, and other transport interchange facilities; as well as works to the public domain, including landscaping.

***Works to convert stations and the rail line to Sydney Metro standards***

Station works

In addition to the station upgrades to improve accessibility, works to meet the standards required for metro services would be carried out, including:

- installation of platform screen doors
- provision of operational facilities, such as station services buildings.

***Track and rail system facility works***

Upgrading the track and rail systems to enable operation of metro services would include:

- track works where required along the rail corridor, including upgrading tracks and adjusting alignments, between west of Sydenham Station and west of Bankstown Station

- new turnback facilities and track crossovers
- installing Sydney Metro rail systems and adjusting existing Sydney Trains rail systems
- overhead wiring adjustments.

Other works

Other works proposed to support Sydney Metro operations include:

- upgrading existing bridges and underpasses across the rail corridor
- installation of security measures, including fencing
- installation of noise barriers where required
- modifications to corridor access gates and tracks
- augmenting the existing power supply, including new traction substations and provision of new feeder cables
- utility and rail system protection and relocation works
- drainage works to reduce flooding and manage stormwater.

Active transport corridor and surrounding development

The project would also provide for:

- parts of an active transport corridor where located within the station areas or surplus rail corridor land, to facilitate walking and cycling connections to each station and between Marrickville and Bankstown
- enabling works to support future development at Campsie Station (future development would be subject to a separate approvals process).

Temporary works during construction

During construction, the project would involve:

- provision of temporary facilities to support construction, including construction compounds and work sites
- implementation of alternative transport arrangements for rail customers, during possession periods and/or station closures, guided by the Temporary Transport Strategy.

## Timing

### *Construction*

Construction of the project would commence once all necessary approvals are obtained (anticipated to be in 2018), and would take about five years to complete.

The T3 Bankstown Line would remain operational for the majority of the construction period. However, to ensure the station and infrastructure upgrade works are completed as efficiently and safely as possible and to accommodate works that cannot be undertaken when trains are operating, it would be necessary to undertake some work during rail possession periods, when trains are not operating. It is anticipated that these rail possession periods would comprise the routine weekend maintenance possessions, together with some longer possession periods during periods of reduced patronage such as school holidays.

A final, longer possession of about three to six months would also be required. This would involve full closure of the line to enable conversion to metro operations. This would include works such as the installation of new signalling, communication systems, and platform screen doors.

During each possession period, alternative transport arrangements would be implemented to ensure that customers can continue to reach their destinations.

### *Operation*

Sydney Metro City & Southwest would be fully operational by 2024, with the opportunity of operation commencing in two phases. Initially, Sydney Metro Northwest services would be extended by the City & Southwest project, and would operate from Chatswood Station to Sydenham Station. Some months later, metro operations would

# 1. INTRODUCTION

## Purpose and scope of this report

extend from Sydenham Station to Bankstown Station, with both phases planned to be completed before the end of 2024. The opportunity for phased opening of the project would enable metro trains to operate from Cudgegong Road Station to Sydenham Station prior to the final conversion of the T3 Bankstown Line to metro operations.

Once the project is operational, Sydney Trains services would no longer operate along the T3 Bankstown Line between Sydenham and Bankstown stations. Customers would be able to interchange with Sydney Trains services at Sydenham and Bankstown stations. Sydney Trains services to and from Bankstown to Liverpool and Lidcombe stations would not be affected.

### 1.3. Purpose and scope of this report

This report has been prepared to support the Environmental Impact Statement for the project. The Environmental Impact Statement has been prepared to accompany the application for approval of the project, and addresses the environmental assessment requirements of the Secretary of the Department of Planning and Environment ('the Secretary's environmental assessment requirements').

This report documents:

- how the project would deliver best 'place' outcomes, and
- the potential landscape and visual impacts of the project.

The scope of this report is an assessment of the landscape and visual impacts of the project area. The 'project area' is the land required to construct and operate the project. At stations, the project area is set within a 'station precinct', which includes other elements that would be associated with the project, such as facilities for integrated transport links. For the purpose of this assessment a 'study area' has been established which extends beyond the project area and station precincts to include the visual catchment of the project and adjacent public realm areas which provide a setting for the project area.

The assessment considers the project area (see Figure 1-2) from east to west and divided into 'sites' for the purposes of this assessment. These sites are:

- Marrickville Station
- Dulwich Hill Station
- Hurlstone Park Station
- Canterbury Station
- Campsie Station
- Belmore Station
- Lakemba Station
- Wiley Park Station
- Punchbowl Station
- Bankstown Station
- Corridor and Ancillary development.

The construction and operational elements of the project have been assessed separately for each of these sites and during the day and night.

### 1.4. Secretary's environmental assessment requirements

The Secretary's environmental assessment requirements relating to placemaking and landscape, and where these requirements are addressed in this report, are outlined in Table 1.1.

TABLE 1.1 SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

| Topic | Secretary's environmental assessment requirements | Where addressed |
|---|---|---|
| **14. Placemaking and Urban design**<br>The project design capitalises on opportunities to improve place, character and quality of the surrounding built and natural environment (including adjoining public spaces).<br>The project contributes to the accessibility and connectivity of communities. | 1. The Proponent must deliver functional 'place' outcomes of public benefit, inclusive of how the project integrates with land use changes occurring within the corridor, and how it contributes to the accessibility and connectivity of existing and future communities (with specific consideration given to the Sydenham to Bankstown Urban Renewal Corridor Strategy (as updated)). This must be done in collaboration with the Department of Planning and Environment and Councils, and must include but is not limited to:<br>(a) the defining of existing and proposed station precincts including implications for urban renewal;<br>(b) identifying urban design strategies and opportunities to enhance healthy, cohesive and inclusive communities (including consideration of government strategies and plans);<br>(c) identifying the urban design and landscaping aspects and user facilities of the project and its components;<br>(d) assessing the impact of the project on the urban and natural fabric;<br>(e) incorporating the use of Crime Prevention Through Environmental Design (CPTED) principles during the design development process. | Refer to the EIS |
| | 2. The Proponent must describe the accessibility elements of the project including relevant accessibility legislation and guidelines and:<br>(a) impacts on pedestrian access in and around stations and connecting streets, peak capacity of street at peak pedestrian times (including consideration of land use change);<br>(b) enhancing the accessibility of each station and the general vicinity of walking and cycling catchments;<br>(c) the provision of infrastructure to support accessible paths of travel and interchange;<br>(d) impacts on cyclists (including provision of and integration with active transport routes) and pedestrian access and safety; and<br>(e) minimising barriers across the rail corridor and opportunities to integrate cycling and pedestrian elements with surrounding networks and in the project. | Refer to the EIS, and Technical Paper 1 – Traffic, transport and access |
| | 3. The Proponent must assess the visual and landscape impacts of the project and any ancillary infrastructure on:<br>(a) views and vistas;<br>(b) streetscapes, key sites and buildings;<br>(c) landscaping, green spaces and existing trees;<br>(d) heritage items including Aboriginal places and environmental heritage; and<br>(e) the local community. | Chapter 5-15 (Landscape and visual assessment) of this technical paper<br>(d) To be read in conjunction with Technical Paper 3 – Heritage impact statement |
| | 4. The Proponent must provide artist impressions and perspective drawings of the project from key receiver locations to illustrate how the project has responded to the visual impact through urban design and landscaping. | Chapter 4 and Chapters 5-15 of this technical paper. |

# 2. Methodology

## 2.1. Guidance for landscape and visual impact assessment

A range of guidance is available for the assessment of landscape and visual impact. In New South Wales the following guidelines are typically referred to:

- RMS Guidance note EIA-N04 Guidelines for Landscape Character and Visual Impact Assessment, 2013.
- The Guidance for Landscape and Visual Impact Assessment, Third Edition, prepared by the Landscape Institute and Institute of Environmental Management & Assessment, UK, 2013.

The methodology used for this assessment is described below and is consistent with the direction offered by these documents.

## 2.2. Method

The Landscape and visual impact assessment of the project includes, for each site:

- a review of the relevant Planning guidance
- identification of the existing environmental conditions
- 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
- an assessment of night-time visual impact during construction and operation
- identification of mitigation measures.

## 2.3. Planning guidance

The Planning guidance for each site has been outlined by identifying relevant clauses that recognise the value of the landscape and visual conditions of the study area. This includes International Agency, Federal, State and Local Government planning guidance for the landscape and visual values of the study area. Additionally, where master plans and guidance documents identify the ambitions for the study area, the relevant clauses have been recorded and their relevance to this assessment explained.

## 2.4. Existing environment

The existing environment has been described in terms of the key landscape and visual features of the study area for each site. Site visits were undertaken and the existing character, landscape, public realm elements and views were recorded through observations and photographs.

Where relevant, the future character and conditions of each site have been anticipated. In some cases, future projects are expected to redefine land use, development density and the character of the study area. This includes projects which are under construction and projects with development approval. It is likely that these projects will contribute to the character and conditions of the site in conjunction with construction and operation of this project.

To a lesser extent, the intent of master plans and precinct strategies has also been considered in the baseline condition, where there is a level of certainty that these plans will be implemented.

## 2.5. Landscape impact assessment

Landscape refers to the overall character and function of a place. It includes all elements within the public realm and the interrelationship between these elements and the people who use it.

This landscape impact assessment addresses the issues identified in the SEARs 15. Placemaking and Urban Design, Item 3 identify landscape impacts, including *'(b) streetscapes, key sites and buildings; (c) landscaping, green spaces and existing trees; ... (e) the local community'.*

***Landscape sensitivity***

Landscape sensitivity refers to the value placed on the public realm and landscape elements, and the level of service they provide to the community. The sensitivity of the landscape may reflect the frequency and volume of users in a location, but may also be valued for other characteristics such as tranquility, visual relief and contribution to microclimate. The value of the places is often described in council and state government master plans and planning guidance documents, reflecting the importance of the public realm to the local, regional and state-wide community.

The sensitivity of the landscape is therefore considered in the broadest context of possible places, from those of national importance through to those considered to have a neighbourhood importance (Table 2.1). However, there are no national or state sensitive landscapes within the study area.

***Landscape modification***

Landscape modification refers to the change to the public realm or landscape element that would occur as a result of the project. This includes direct impacts such as the removal of trees or open space, as well as indirect impacts, such as the functional change of an area due to changing land use and access. Landscape modification can be adverse or beneficial. Table 2.2 lists the terminology used to describe the level of landscape modification.

The levels described in Table 2.2 have been informed by the *National Urban Design Protocol* (2011) principles of good urban places and include enhancing, connected, diverse, enduring, comfortable, vibrant, safe and walkable. In addition, specific note has been made of considerations such as the functioning of footpaths, built edges, feature trees and avenues, visual and physical connections, as well as the types of activities supported in the public realm.

Furthermore, the guidance offered by the Government Architect NSW the draft policy *Better Placed: A design led approach:*

TABLE 2.1 LANDSCAPE SENSITIVITY LEVELS

| Landscape sensitivity | Description |
|---|---|
| | Landscape or place protected with national or international legislation, e.g. the Sydney Opera House World Heritage Listed Building and its surrounding public realm. |
| | Landscape or place that is heavily used and is iconic to the State, e.g. Martin Place and Hyde Park. |
| | Landscape or place that is heavily used and valued by residents of a major portion of a city or a non-metropolitan region, e.g. Fraser Park at Marrickville, Belmore Sports Ground and Bankstown City Plaza. |
| | Landscape or place valued and experienced by concentrations of residents, and/or local recreational users. Provides a considerable service to the community. For example, it provides a place for local gathering, recreation, sport, street use by cafes and/or shade and shelter in an exposed environment e.g. Jubilee Reserve at Lakemba and Warren Reserve at Punchbowl. |
| | Landscape or place valued and appreciated primarily by a small number of local residents e.g. street trees in a local street. Provides a noticeable service to the community. For example, it provides a seat or resting place, passive recreation, and / or some shade and shelter in a local street e.g. Unwins Bridge Road in Marrickville and Urunga Parade in Wiley Park. |

TABLE 2.2 LANDSCAPE MODIFICATION LEVELS

| **Landscape modification** | **Description** |
|---|---|
| Considerable reduction or improvement | Substantial portion of the landscape is changed.<br>This may include substantial changes to parkland access or function, footpath continuity, building access, permeability of local streets, and / or a direct loss of open space or vegetation.<br>Substantial changes to the level of comfort, vibrancy, safety and walkability, enhancement, connectivity, diversity, and enduring legacy of the public realm. |
| Noticeable reduction or improvement | A portion of the landscape is changed.<br>This may include alteration of parkland function, footpath continuity, building access, permeability of local streets, and/or street tree cover.<br>Some alteration to the level of comfort, vibrancy, safety and walkability, enhancement, connectivity, diversity, and enduring legacy of the public realm. |
| No perceived reduction or improvement | Either the landscape quality is unchanged or if it is, it is largely mitigated by proposed public realm improvements.<br>Does not alter or not noticeably alter the level of comfort, vibrancy, safety and walkability, enhancement, connectivity, diversity, and enduring legacy of the public realm. |

*developing an Architecture and Design Policy for New South Wales* (2016) has also been considered. Particularly its overarching principles of: contextual, local and of its place, sustainable, efficient and durable, equitable, inclusive and diverse, enjoyable, safe and comfortable, functional, responsive and fit for purpose, value-creating and cost effective, distinctive, visually interesting and appealing.

## 2.6. Visual impact assessment

This visual impact assessment considers visual amenity as experienced by the users of the site and surrounds. It aims to identify the range of views to the site which may be impacted, including views from residential areas, commercial areas, parks and streets.

This visual impact assessment addresses the issues identified in the SEARs 15. Placemaking and Urban Design, Item 3 identify visual impacts, including *'(a) views and vistas (b) streetscapes, key sites and buildings; ... (e) the local community'.*

***Identification of existing visual conditions***

Viewpoints were selected to illustrate the visual influence of the project. These represent publicly accessible views and vistas from a range of locations and viewing situations. Particular attention was paid to views from places where viewers are expected to congregate such as plazas, parks, public transport nodes and commercial areas, as well as views to and from heritage items.

***Visual sensitivity***

Visual sensitivity refers to the nature and duration of views. Locations from which a view would potentially be seen for a longer duration, where there are higher numbers of potential viewers and where visual amenity is important to viewers, can be regarded as having a higher visual sensitivity. In addition, views recognised by local, state or federal planning regulations would, by nature of their recognition in these documents, have an increased sensitivity.

The sensitivity of a viewpoint is considered in the broadest context of possible views, from those of 'national' importance through to those considered to have a 'neighbourhood' importance (Table 2.3). However, this project does not include any views of national or state sensitivity.

***Visual modification***

Visual modification describes the extent of change resulting from the project and the visual compatibility of these new elements with the surrounding setting. There are some general principles which determine the level of visual modification which include elements relating to the view itself, such as distance, landform, backdrop, enclosure and contrast. There are also characteristics of the project itself, such as scale, form, line and alignment. Visual modification can result in an improvement or reduction in visual amenity.

A high degree of visual modification would result if the development contrasts strongly with the existing setting. A low degree of visual modification occurs if there is minimal visual contrast and a high level of integration of form, line, shape, pattern, colour or texture between the project and the environment in which it is located.

In some circumstances, there may be a visible change to a view which does not alter the amenity of the view. This would be due to the visual absorption capacity of the setting and/or the compatibility of the project with the surrounding visual context.

Table 2.4 lists the terminology used to describe the level of visual modification.

## 2.7. Assessment of night-time visual impact

The assessment of night-time impact has been undertaken with a similar methodology to the daytime assessment. However, the assessment also draws upon the guidance of the Institution of Lighting Engineers (UK) and the *Guidance for the reduction of obtrusive light* (2005), as well as AS4282 Control of the obtrusive effects of outdoor lighting (1997).

AS4282 identifies three potential effects of lighting, at 2.4 Potential effects of outdoor lighting, including:

*'Changes to the amenity of an area due to the intrusion of spill light into otherwise dark areas, both outdoors and indoors, and to the direct view of bright luminaires.*

*A reduction in the ability of transport system users to see essential details of the route ahead, including signaling systems, due to glare from bright luminaires.*

*Changes to night-time viewing conditions due to a general luminous glow, i.e. skyglow, caused by the scattering of light in the atmosphere.'*

This assessment addresses the first of these potential effects; changes to the amenity of an area, with a focus on the outdoors. The standard also notes the potential visual intrusion caused by the daytime appearance of outdoor lighting systems. This potential impact has also been addressed in the daytime assessment.

The Guidance from the Institution of Lighting Engineers (UK) identifies environmental zones, useful for the categorising of night-time settings. This broader approach to the assessment of obtrusive light is consistent with the detail available at the planning application stage of the project and is therefore the basis for the method applied to the night-time visual assessment contained within this report.

TABLE 2.3 VISUAL SENSITIVITY LEVELS

| Visual sensitivity | Description |
|---|---|
| National | Heavily experienced view to a national icon, e.g. view to Sydney Opera House from Circular Quay or Lady Macquarie's Chair, or the view to the Three Sisters from Echo Point, Katoomba. |
| State | Heavily experienced view to a feature or landscape that is iconic to the State, e.g. view along the main avenue in Hyde Park, or a view to Sydney Harbour from Observatory Hill. |
| Regional | Heavily experienced view to a feature or landscape that is iconic to a major portion of a city or a non-metropolitan region, or an important view from an area of regional open space, e.g. views to the Sydney Town Hall from George Street, a Sydney CBD skyline view from Centennial Park. |
| Local | High quality view experienced by concentrations of residents and/or local recreational users, local commercial areas, and/or large numbers of road or rail users e.g. view from McNeilly Park in Marrickville or Anzac Square in Campsie. |
| Neighbourhood | Views where visual amenity is not particularly valued by the wider community such as views from local streets, pocket parks and small groups of residences. |

TABLE 2.4 VISUAL MODIFICATION LEVELS

| Visual modification | Description |
|---|---|
| Considerable reduction or improvement | Substantial part of the view is altered.<br>The project contrasts substantially with surrounding landscape. |
| Noticeable reduction or improvement | Alteration to the view is clearly visible.<br>The project contrasts with surrounding landscape. |
| No perceived reduction or improvement | Either the view is unchanged or if it is, the change in the view is generally unlikely to be perceived by viewers.<br>The project does not contrast with the surrounding landscape. |

# 2. METHODOLOGY

## Assigning impact levels

This guidance document also defines a number of features of these environmental zones at night, including sky glow, glare and light trespass.

The method for night-time visual assessment is as follows.

***Night-time visual sensitivity***

The environmental zone which best describes the existing night-time visual condition for each site was selected. These zones are typical night-time settings and reflect the predominant light levels of each site. Each environmental zone has an inherent level of sensitivity as described in Table 2.5.

***Night-time visual modification***

Following the sensitivity assessment, the level of modification that would be expected within the study area was then identified. These changes are described, as relevant, in terms of:

- sky glow – the brightening of the night sky above our towns, cities and countryside.
- glare – the uncomfortable brightness of a light source when viewed against a dark background.
- light trespass – the spilling of light beyond the boundary of the property or area being lit.

Table 2.6 lists the terminology used to describe the level of visual modification at night.

TABLE 2.5 ENVIRONMENTAL ZONE SENSITIVITY - NIGHT-TIME

| Environmental Zone | Description of Sensitivity |
|---|---|
| E1: Intrinsically dark landscapes | Very high sensitivity visual settings at night including national parks, state forests etc. |
| E2: Low district brightness areas | Highly sensitive visual settings at night including rural, small village, or relatively dark urban locations. |
| E3: Medium district brightness area | Moderately sensitive visual settings at night including small town centres or urban locations. |
| E4: High district brightness areas | Low sensitivity visual settings at night including town/city centres with high levels of nighttime activity. |

TABLE 2.6 VISUAL MODIFICATION LEVELS - NIGHT-TIME

| Visual modification | Description |
|---|---|
| Considerable reduction or improvement | Substantial change to the level of skyglow, glare or light trespass would be expected.<br>The lighting of the project contrasts substantially with surrounding landscape at night. |
| Noticeable reduction or improvement | Alteration to the level of skyglow, glare or light trespass would be clearly visible.<br>The lighting of the project contrasts with surrounding landscape at night. |
| No perceived reduction or improvement | Either the level of skyglow, glare and light trespass is unchanged or if it is altered, the change is generally unlikely to be perceived by viewers.<br>The project does not contrast with the surrounding landscape at night. |

## 2.8. Assigning impact levels

Assessment of landscape impact has been made by combining the landscape sensitivity and landscape modification levels for a landscape element and assigning an impact level (refer Table 2.7).

Day time visual impact has been assessed by combining the visual sensitivity and visual modification levels for an individual view and assigning an impact level (refer Table 2.8).

Assessment of night-time visual impact involved combining the visual sensitivity of the environmental zone with the night-time visual modification for each site generally and assigning an impact level (refer Table 2.9).

## 2.9. Mitigation measures

Throughout the assessment there has been an acknowledgment of the inherent mitigation and the integrating effects of urban design treatments contained within the project design.

Following the assessment of landscape and visual impact, measures to further mitigate potential impacts have been identified. These measures include opportunities for mitigation on and off site, during construction and operation of the project, both day and night.

## 2.10. Artist's impressions

Artist's impressions have been prepared to illustrate the 'look and feel' of the stations and station precincts. These images were prepared by the design team and are indicative of the design intent.

TABLE 2.7 LANDSCAPE IMPACT LEVELS

| | | Landscape sensitivity | | | | |
|---|---|---|---|---|---|---|
| | | **National** | **State** | **Regional** | **Local** | **Neighbourhood** |
| **Landscape modification** | **Considerable reduction** | Very high adverse | Very high adverse | High adverse | Moderate adverse | Minor adverse |
| | **Noticeable reduction** | Very high adverse | High adverse | Moderate adverse | Minor adverse | Negligible |
| | **No perceived change** | Negligible | Negligible | Negligible | Negligible | Negligible |
| | **Noticeable improvement** | Very high beneficial | High beneficial | Moderate beneficial | Minor beneficial | Negligible |
| | **Considerable improvement** | Very high beneficial | Very high beneficial | High beneficial | Moderate beneficial | Minor beneficial |

TABLE 2.8 DAY TIME VISUAL IMPACT LEVELS

| | | Visual sensitivity | | | | |
|---|---|---|---|---|---|---|
| | | **National** | **State** | **Regional** | **Local** | **Neighbourhood** |
| **Visual modification** | **Considerable reduction** | Very high adverse | Very high adverse | High adverse | Moderate adverse | Minor adverse |
| | **Noticeable reduction** | Very high adverse | High adverse | Moderate adverse | Minor adverse | Negligible |
| | **No perceived change** | Negligible | Negligible | Negligible | Negligible | Negligible |
| | **Noticeable improvement** | Very high beneficial | High beneficial | Moderate beneficial | Minor beneficial | Negligible |

TABLE 2.9 NIGHT-TIME VISUAL IMPACT LEVELS

| | | Visual sensitivity | | | |
|---|---|---|---|---|---|
| | | **E1: Intrinsically dark landscapes** | **E2: Low district brightness** | **E3: Medium district brightness** | **E4: High district brightness** |
| **Visual modification** | **Considerable reduction** | Very high adverse | High adverse | Moderate adverse | Minor adverse |
| | **Noticeable reduction** | High adverse | Moderate adverse | Minor adverse | Negligible |
| | **No perceived change** | Negligible | Negligible | Negligible | Negligible |
| | **Noticeable improvement** | High beneficial | Moderate beneficial | Minor beneficial | Negligible |
| | **Considerable improvement** | Very high beneficial | High beneficial | Moderate beneficial | Minor beneficial |

# 3. PLANNING CONTEXT

State planning guidance

## 3. Planning context

The following Chapter provides a brief review of the State and Local Authority planning documents which provide guidance for the study area as a whole. Specific precinct requirements and further detail has been provided in the relevant site specific chapters as appropriate.

### 3.1. State planning guidance

***Sydenham to Bankstown Urban Renewal Corridor Strategy, NSW Department of Planning and Environment, 2017***

This strategy provides a coordinated approach to infrastructure delivery and development across the entire Sydenham to Bankstown corridor for the next 20 years. The strategy has been developed having regard to the City & Southwest Metro Sydenham to Bankstown project and identifies opportunities for additional housing and jobs around each station and the infrastructure, land use and built form controls required to support future growth.

This Strategy has been developed through an extensive consultation process with the community, stakeholders and built environment professionals. This strategy provides guidance for the transformation and renewal of the precincts surrounding the eleven rail stations along the corridor, from Sydenham Station to Bankstown Station. Key aims of the strategy which are relevant to this assessment are to:

- Provide a '*cohesive framework for housing change that respects valued neighbourhood character while maximising opportunities presented by improved transport access*' (s.1.2, p.5)
- Provide a '*vision and land use plan*' for each station precinct which captures the '*individual character*' and 'elements that make them unique' (s.3.1, p.17)
- Retain streets that contribute to the local character of the area and protect heritage areas, particularly streets with Federation period homes, including proposed new conservation areas in the Marrickville, Dulwich Hill and Hurlstone Park Station precincts as single dwelling neighbourhood character areas (s.3.9, p.32)
- Increase the area of higher housing between Belmore and Punchbowl

- Provision of new, improved or expanded open space in areas where there is a significant change in the amount of new homes; in particular, there is an opportunity for a '*linear park along the rail line between Belmore and Punchbowl stations*' and '*improvements to existing open spaces such as the Terry Lamb Reserve in Belmore*' (s.4.7, p.43)
- Retention of the scale and character of popular local shopping areas such as Haldon Street (Lakemba), Burwood Road (Belmore), Broughton Street (Canterbury), Wardell Road (Dulwich Hill) and Illawarra Road (Marrickville), and encourage revitalisation of quieter shopping areas
- Expansion of the 'GreenWay South West' shared path network, particularly through an additional leg of the GreenWay, which would run '*between Sydenham and Bankstown stations largely along the Sydney Metro rail reserve' with future opportunities to extend the path to regional open spaces at Salt Pan Creek and Sydney Park...*' (s.3.6, p.26).

The aims of this strategy have been considered particularly in relation to the landscape assessment of the station precincts.

## 3.2. Local planning guidance

The project passes through two local government areas, the Inner West Council (including the former Marrickville Council area) and the City of Canterbury - Bankstown (including the former Canterbury Council and Bankstown Council areas). The following section describes the relevant local planning guidance for the project in each local government area.

### Inner West Council

The following documents apply to the Inner West Council area which includes the Marrickville and Dulwich Hill Station precincts, as well as areas of the rail corridor between these stations and to Garnet Road in the west. Due to the recent amalgamation of the Inner West Council, these instruments use the former Marrickville Council area names.

#### *Marrickville Local Environmental Plan, Marrickville Council, 2011*

The Marrickville Local Environmental Plan (LEP) includes guidance on several factors relevant to the precincts surrounding the rail corridor and stations. Of particular relevance to the assessment of landscape and visual amenity, the LEP identifies provisions relating to the height of buildings, heritage items and landuse.

This plan aims to *'promote a high standard of design in the private and public domain'* (Part 1, Clause 1.2). Clause 4.3 (Height of buildings) promotes scale and massing of new development that ensures consistency with the *'desired future character of an area'.* The LEP does not specify heights for development within the rail corridor or stations. However, the building heights for each station precinct provide an insight into the future scale and character of the study area and has been identified in the Planning guidance section of each station precinct Chapter (e.g. section 5.1 Planning guidance).

The LEP identifies numerous local and State heritage listed items within the rail corridor,

stations and station precincts. Where relevant this assessment has considered the *'settings and views*' of these items (Heritage conservation, clause (5.10) of the LEP). Any heritage items located within the project area has been identified in the Planning guidance section of each station precinct Chapter (e.g. at 5.2 Planning guidance).

Each station and the corridor are located within the Zone SP2 – Infrastructure (Rail Facilities). The objectives of this zone include: *'To provide for infrastructure and related uses', 'To protect and provide for land used for community purposes' and 'To prevent development that is not compatible with or that may detract from the provision of infrastructure'* (Part 2, Land Use Table: Zone SP2). Where relevant, the land use within the study area has been identified in the Planning guidance section of each station precinct Chapter (e.g. section 5.2 Planning guidance).

***Marrickville Development Control Plan Marrickville Council, 2011***

The Development Control Plan (DCP) defines twelve urban design principles that are *'essential for the effective functioning of good public environments'.* The DCP states that *'all development applications involving substantial external changes that are visible from or effect public space or have significant land use implications must be consistent with the relevant aspects of the 12 urban design principles that make good public environments'.* These principles include: structure and connections, accessibility, complementary mix of uses and types, appropriate density, urban form, legibility, activation, fit and adaptable public space, 'sense of place' and character in streetscapes and townscapes, consistency and diversity, continuity and change, sensory pleasure. These principles have be considered in the landscape impact assessment of the station precinct, corridor and ancillary development works where appropriate.

Part 2.6 of the DCP sets out the general provisions for *'Acoustic and Visual Privacy',* which address the impact of new developments on the amenity of other land users, particularly residential and other sensitive land uses.

Part 9 of the DCP divides the Local Government Area into 47 planning precincts. Each precinct has a description of existing and desired future character to guide development within the area. The project traverses several precincts, including: Marrickville Town Centre South (Precinct 24), The Warren (Precinct 30), Marrickville Town Centre (Commercial Precinct 40), Marrickville Station West (Precinct 23), Ness Park (Precinct 21), Dulwich Hill Station North (Precinct 18), Dulwich Hill Station South (Precinct 22) and New Canterbury Road West (Precinct 17).

This assessment has considered the relevant objectives that relate to the future desired character of these precincts particularly at stations. The relevant requirements of each station precinct has been identified in the Planning guidance section. (e.g. 5.2 Planning guidance).

***Marrickville Urban Strategy, Marrickville Council, 2007***

This Strategy provides a vision and direction to address a range of planning, community and environmental issues in the former Marrickville (now Inner West Council) Local Government Area and has been used to inform the Marrickville LEP and DCP.

Of relevance to Marrickville and Dulwich Hill stations, this strategy identifies opportunities for improved pedestrian and cycling connections to the rail station and improved car passenger drop-off facilities at rail stations in Urban Strategy No. 5: Improve local public transport, walking and cycling connections to centres (p. 23).

**City of Canterbury – Bankstown**

The following former Canterbury Council documents apply to the Hurlstone Park, Canterbury, Campsie, Belmore, Lakemba, Wiley Park and Punchbowl Station precincts, as well as areas of the rail corridor between these stations from Garnet Road in the east and Punchbowl Road in the west. The former Bankstown Council documents apply to the Bankstown Station precinct and areas of the rail corridor between Punchbowl Road in the east and the western extent of the project near Brancourt Avenue.

***Canterbury Local Environmental Plan, City of Canterbury Council, 2012***

The Canterbury Local Environmental Plan (LEP) includes guidance on several factors relevant to the precincts surrounding the rail corridor and stations. Of relevance to the assessment of landscape and visual amenity, the LEP identifies provisions relating to the height of buildings, heritage items and future landuse.

A key aim of this plan is to *'ensure that development is of a design and type that supports the amenity and character of an area'* (Part 1, Clause 1.2, para 2c). Clause 4.3 Height of buildings, promotes scale and massing of new development that ensures consistency with the *'streetscape and visual amenity of an area'*. The LEP does not specify heights for development within the rail corridor or stations. However, the building height controls for each station precinct provide an insight into the future scale and character of the study area and has been identified in the Planning guidance section of each station precinct (e.g. section 9.1 Planning guidance).

The LEP identifies numerous local and State heritage listed items within the rail corridor, stations and station precincts. Where relevant this assessment has considered the *'settings and views'* of these items (Heritage conservation, clause (5.10) of the LEP). Any heritage items located within the study area has been identified in the Planning guidance section of each station precinct Chapter (e.g. section 9.2 Planning guidance).

Each station and the corridor are located within the Zone SP2 – Infrastructure (Rail Facilities). The objectives of this zone include: *'To provide for infrastructure and related uses', and 'To prevent development that is not compatible with or that may detract from the provision of infrastructure'.* Where relevant, the land use within the study area has been be identified in the Planning guidance section of each station precinct Chapter (e.g. section 9.2 Planning guidance).

***Canterbury Development Control Plan, City of Canterbury Council, 2012***

The Canterbury Development Control Plan (DCP) provides detailed objectives, controls and performance standards to *'guide the form of development, as it relates to its context and the different areas of Canterbury'* (Part 1, Clause 1.1). Other relevant DCP objectives include: *'to achieve good building and landscape design', 'enhance amenity for people in Canterbury'* and *'protect natural features'* (Part 1, Clause 1.1).

Part 6 of the DCP provides generic development controls for aspects of a development that impact on amenity, such as visual impact and visibility, privacy and overshadowing. The objectives and design controls in section 6.6 (Landscaping) indicate the Council's preference for development that uses '*landscaping to integrate the built form* …' (Clause 6.6.5, para iv) and …' *soften the visual and physical impact'* of new development (Clause 6.6.6, para i).

# 3. PLANNING CONTEXT

## Local planning guidance

***Bankstown Local Environmental Plan, Bankstown City Council, 2015***

A key aim of this plan is *'to achieve good urban design in terms of site layouts, building form, streetscape, architectural roof features and public and private safety'* (Part 1, Clause 1.2, para 2i). It also aims to protect and enhance landform and vegetation in a way that maintains the *'landscape amenity of Bankstown'* (Part 1, Clause 1.2, para 2b). Clause 4.3 Height of buildings, promotes scale and massing of new development that is compatible with the *'character, amenity and landform of the area'.*

The LEP identifies local and State heritage listed items within the rail corridor, stations and station precincts. Where relevant this assessment has considered the *'settings and views'* of these items (Heritage conservation, clause (5.10) of the LEP). Any heritage item located within the study area has been identified in the Planning guidance section of each station precinct site Chapter (e.g. section 9.2 Planning guidance).

The station and corridor are located within the Zone SP2 – Infrastructure (Rail Facilities). The objectives of this zone include: *'To provide for infrastructure and related uses'* and *'To prevent development that is not compatible with or that may detract from the provision of infrastructure'* (Part 2, Land Use Table: Zone SP2). Where relevant, the land use within the study area has been identified in the Planning guidance section of each station precinct site Chapter (e.g. section 9.2 Planning guidance).

***Bankstown Development Control Plan, City of Bankstown Council, 2015***

Part A1, section 2 of the Bankstown Development Control Plan (DCP) specifically applies to the Bankstown CBD, including the railway station. A key aim for the Bankstown CBD is: *'To have development that achieves good urban design in terms of building form, bulk, architectural treatment and visual amenity'* (Part A1, section 1, Objective b).

The station is defined as a *'principal gateway'* to the CBD (Part A1, section 2, p. 6). The DCP advocates development around the station to be built *'to the street alignment to reinforce the urban character and strengthen the pedestrian amenity and activity at street level'* (Part A1, section 2, p. 6). Streetscape improvement works along Featherstone Street (north of station) are noted as a key opportunity to *'make the station entry more visible and to provide a high quality north–south pedestrian connection'* (Part A1, section 2, p. 6).

***Bankstown CBD Local Area Plan, City of Bankstown Council, 2011***

In the Bankstown CBD Local Area Plan (LAP) the Bankstown CBD is defined as a *'major activity and transport hub'* that services the City of Bankstown and the wider West Central Subregion (p. 4). The LAP sets out the vision for Bankstown CBD to strengthen its role as a Major Centre and to balance the demands for future growth with the need to protect and enhance environmental values. The station lies at the junction of three precincts, including Bankstown City Plaza and the northern and southern CBD core precincts. A key action aim of the LAP is to *'strengthen the image and amenity of the Bankstown CBD'* (p. 40), through public domain and main street improvements. In particular, the LAP program of works include *'vista and public domain improvements between the Civic Precinct and the railway station'* (p. 40). The Bankstown Station is also identified as a key site for *'redevelopment and expansion'* (p. 59).

***Canterbury Road Master Plan, 2010***

Canterbury Road is a major arterial route in Southwest Sydney, carrying heavy traffic volumes through eight suburbs, between Liverpool/Bankstown to Sydney. The master plan seeks to *'improve the overall sense of place along the Road, and help to generate quality development, without marginalising the current mobility function of Canterbury Road'.* It proposes a *'node of*

*highest intensity, genuinely mixed use at Canterbury Town Centre, and a lower level intensity of pedestrian orientated mixed uses at important intersections along the road'* (Canterbury City Council, 2010, p.19).

Canterbury town centre or the *'urban core'* is focused around Canterbury Railway Station, comprising tall mixed use buildings (three to nine storeys) and active retail with commercial and residential above, creating a mixed use centre. Key objectives for this precinct include:

- revitalise a pedestrian orientated main street shopping experience along Canterbury Road
- re-connect the town centre to the Cooks' River.
- create a continuous river walk overlooked by residents with retail uses at ground level near Canterbury Road
- increase the resident population living close to the town centre to improve the viability of public transport and contribute to the local economy
- re-activate the traditional main street shops by improvements to the public domain, retail maintenance and management.

***Canterbury Town Centre Public Domain Strategy, 2007***

This document provides a coordinated set of design and material principles to guide improvement works within the public domain of Canterbury town centre, focused around Canterbury Railway Station. Key proposals in close proximity to the station include:

- improvements to the streetscape character of Canterbury Road and Charles Street, including boulevard tree planting, wide pavements and active frontages along Canterbury Road
- upgrade of the lower section of Canterbury Road (river area) into a gateway/boulevard
- new plazas/squares at Broughton Street and Canterbury Road, opposite the station
- activation of pedestrian connections between the railway station and new development to the south
- redevelopment of the riverfront district along the Cooks River, including a foreshore walk/cycleway within a unified landscape setting with strong visual and access links via *'river walk link streets'* (i.e. Robert Street and laneways).

# 4. Project Design

## 4.1. Urban design principles

The urban design principles which have been adopted during the design process are outlined in the *Sydney Metro City & Southwest, Sydenham to Bankstown Design Guidelines (AECOM, et al. 2017).* In summary, these principles are:

- be consistent with the principles and strategies of the Bankstown to Sydenham Corridor Strategy: Open space and Sydenham to Bankstown Urban Renewal Corridor Strategy
- take into account heritage considerations
- provide for an activated public domain, pedestrian connectivity and fully integrated transport system
- provide safe and convenient interchange opportunities
- explore opportunities for new development including re-purposing existing unused rail land
- incorporate sustainable design considerations such as photovoltaics, natural ventilation and light and water sensitive urban design
- enhance the immediate and broader urban context.

The design for the project has been prepared in accordance with these principles. In particular, the appearance and visual form of the project have been important considerations in the options assessment and design development process.

## 4.2. Station architecture and precinct elements

Each metro station would have several common elements or design features. These may include:

- **New station concourse** including:
  - stairs and ramps
  - canopies
  - lifts to access the station and station platforms, and to link various transport nodes
- **Platform works**, including platform canopies and platform screen doors
- **Signage and wayfinding** within the station and precinct
- **Station service buildings** to house services, including communications equipment, signalling equipment, electrical equipment and other rail systems equipment
- **Station buildings** on platforms or at station entrances, including control and communication rooms, toilets, staff facilities, storerooms and offices
- New, upgraded or relocated **parking and kerbside facilities** within the station precinct, including accessible parking, kiss and ride and taxi facilities
- Provision of new and/or relocated **bike parking areas**
- Enhancements to the **footpaths** in the vicinity of the station entries and interchange areas
- **Landscaping and street furniture** to maintain high quality urban design outcomes.

LAKEMBA STATION, ARTIST'S IMPRESSION

PUNCHBOWL STATION, ARTIST'S IMPRESSION

## 4.3. Corridor elements

Elements within the corridor would be designed to integrate with the surrounding environment, and minimise visual impact. These elements are:

- **Fencing and screens**
  - galvanised steel mesh anti-throw barrier fencing would be installed on all overbridges and integrated with the bridge parapet
  - black palisade fencing would extend the length of station platforms
  - security fencing would be installed along the rail corridor with permanent gated access at controlled locations.
- **Services buildings** - would be located away from the Sydney Metro station entrances and where possible, set into the existing rail embankment to minimise visual impact.
- **Substations** - would comprise a building and vehicle access, enclosed by fencing
- **Noise Barriers** - would comprise of a consistent palette of materials, colour and texture. The intent is to treat the noise barriers as a landscape element, with simple and resolved detailing that integrates and provides a gradual transition to the adjacent landscape.
- **Retaining walls** - would comprise of a unified suite of materials, that relate to the station precincts. Retaining walls would transition into battered landscape slopes, avoiding abrupt joints. Precast concrete panels with a smooth, non-textured concrete finish would be used to create a high-quality finish. The use of shotcrete is not desirable.
- **Cuttings and embankments** - would be designed to exhibit a 'natural fit' within their landscape setting wherever possible. Where high strength rock is available, natural rock cuttings would be used. Embankments would be stabilised by mass planting with a native screen planting mix.
- **Vegetation -** Plant species would be selected which are appropriate to local conditions and relate to the character of the urban context. For example:
  - the general planting arrangements and species would suit the spatial scale of each public domain setting, without compromising pedestrian capacity and circulation outside stations
  - street trees would provide strong, legible structure planting, to reinforce spatial movement, connectivity with adjacent areas, civic quality, visual continuity, identity and character
  - screen planting would assist in mitigating the visual impact of retaining structures, noise barriers and service facilities where possible.

## 4.4. Construction elements

The construction assessment has been based on the following assumptions in relation to the construction elements that would be required for the project:

- the majority of works would be undertaken during standard daytime working hours (i.e. Monday to Friday 7 am to 6 pm, Saturday 8 am to 1 pm)
- it is expected that some construction activities and deliveries would be undertaken outside of standard working hours during periods of rail shutdown
- construction traffic would include heavy and light vehicles undertaking spoil and waste removal, material deliveries, and the arrival and departure of construction workers
- construction compounds would be required at each station to support construction activities. Compounds would include site amenities and offices, workshops, material storage and laydown areas, plant and vehicle parking, and spoil lay down, loading and removal areas
- long-term compounds would have hoardings or fencing with shade cloth around the perimeter
- station works would have hoardings to delineate works for passengers
- vegetation located fully or partly within the project construction site footprint is likely to be removed
- construction of the project would commence in 2018 and be completed by 2024
- each station would require a construction program of approximately four years.

# 5. MARRICKVILLE

Existing environment

## 5. Marrickville Station

### 5.1. Existing environment

Marrickville Station has a State heritage listing and includes several ornate platform buildings, booking office and overbridge of *'aesthetic significance'.* East and west bound passenger rail uses are on the south side of the island platform, with the Metropolitan Goods Line running to the north. There has been a recent upgrade at Marrickville Station which includes new platform stairs, lifts and entry concourse on Illawarra Road. The rail corridor is in a cutting adjacent to the station and is set below Illawarra Road so that the heritage station buildings are not visually prominent. Furthermore, the new station entry can be seen clearly from Illawarra Road and further limits views into the station and to the platform buildings from the west.

The surrounding land use includes a local commercial precinct along Illawarra Road, consisting predominantly of single and double storey terrace buildings with shopfronts. Adjacent residential areas comprise a mix of terraces, detached houses and unit blocks. A multi-storey mixed use development has recently been built on the triangular site immediately north of the station, including seven storeys of apartments which overlook the corridor.

To the east of the station the rail corridor rises on an embankment so that it is elevated generally around two metres above the adjacent residential properties, and continues to rise to meet a steel truss bridge over Victoria Road. A pedestrian footpath runs between the existing station and Victoria Road to the south of the corridor. In this area, the rail corridor is enclosed by security fencing. Residential boundary walls and fences include graffiti, particularly between Riverdale Avenue and the station. To the northeast a widened area of rail corridor is created by the Metropolitan Goods Line as it diverges from the suburban lines.

Several mature trees are located alongside the northern and southern side of the rail corridor, which filter views from nearby streets and properties.






1 CBD VIEWS FROM SCHWEBEL STREET
2 ILLAWARRA ROAD, SOUTH OF STATION
3 RESIDENTIAL UNITS ON BYRNES STREET
4 ILLAWARRA ROAD, NORTH OF STATION
5 HERITAGE CHARACTER, LOWSET BRICK HOMES ON BYRNES STREET

# 5. MARRICKVILLE

Planning guidance

## 5.2. Planning guidance

Further to the planning review undertaken in section 3 of this report, the following review identifies specific clauses in the LEP and DCP documents, as well as provisions in strategic and master planning documents, which are relevant to the landscape and visual impact assessment of the proposed Marrickville Station precinct.

### Marrickville Local Environmental Plan, Marrickville Council, 2011

In addition to the LEP provisions identified in section 3 of this report, the following applies:

***Height of buildings***

The LEP identifies adjacent parcels of land to the north and south of the station along Illawarra Road are permitted to reach maximum building height of 26 metres. To the south east of the station the land use transitions into low density residential along Leofrene, Riverdale and Charlotte avenues, where building heights are capped at 9.5 metres.

***Heritage***

Marrickville Station is on the LEP Environmental heritage list (it also has a State heritage listing and is on the RailCorp Section 170 Heritage and Conservation Register) and includes several ornate platform buildings, booking office and overbridge (identified as having '*aesthetic significance'*). The station is also near the following heritage places: the stone house at 1 Myrtle Street and the stonewalling, terracing and planting along the Schwebel, High, Ruby and Junction Street streetscapes. Where relevant this assessment has considered the *'settings and views'* of these items (Heritage conservation, clause (5.10) of the LEP).

***Land use zoning***

To the north and south of the station, Marrickville has a retail centre focused on Illawarra Road. This precinct is zoned B2 – Local Centre, providing retail and service based shops and more recently, multi-storey mixed use development.

Objectives of this zone include: *'To provide a range of small-scale retail, business and community uses' and 'to provide for spaces, at street level, which are of a size and configuration suitable for land uses which generate active street-fronts.'* (Part 2, Land Use Table: Zone B2).

Land to the east is zoned RE2 – Low Density Residential and its associated planning objectives relate to the provision of *'housing needs of the community'.* (Part 2, Land Use Table: Zone RE2). McNeilly Park is located along the southern side of the rail corridor (zoned RE1 – Public Recreation), west of Marrickville Station. The objectives of this zone include: *'To provide a range of recreational settings and activities and compatible land uses [and] To protect and enhance the natural environment for recreational purposes'.* (Part 2, Land Use Table: Zone RE1)

Opposite McNeilly Park there is a small area of R4 – High Density Residential on Arthur Street, along the northern side of the rail corridor. A relevant objective of this zone is: *'To provide for well connected neighbourhoods that support the use of public transport, walking and cycling'.* (Part 2, Land Use Table: Zone R4).

### Marrickville Development Control Plan, Marrickville Council, 2011

Part 9 of the Marrickville Development Control Plan (DCP) divides the Local Government Area into 47 planning precincts. Each precinct has an existing and desired future character to guide development within the area. The project is located at the junction of three precincts, including the 'Marrickville Town Centre South Precinct' (Precinct 24), 'The Warren Precinct' (Precinct 30) and 'Marrickville Town Centre Commercial Precinct' (Precinct 40).

The 'Marrickville Town Centre South Precinct' covers the northern part of this site and adjacent residential lands to the north. Relevant objectives that relate to the future

desired character of this precinct include:

- '*To protect significant streetscapes and/or public domain elements within the precinct including landscaping, fencing, open space, sandstone kerbing and guttering, views and vistas and prevailing subdivision patterns.*
- *To preserve the predominantly low density residential character of the precinct.*
- *To support pedestrian and cyclist access, activity and amenity including maintaining and enhancing the public domain quality.'* (Part 9, Clause 9.24).

To the south, the 'Warren Precinct' lies between the rail corridor and the Cooks River, encompassing elevated low density residential with pockets of residential flat development and low-lying open space along the Cooks River. Relevant objectives that relate to the future desired character of this precinct include:

- *'To protect significant streetscapes and/or public domain elements within the precinct including landscaping, fencing, open space, sandstone kerbing and guttering, views and vistas and prevailing subdivision patterns.*
- *To preserve the predominantly low density residential character of the precinct.*
- *To support pedestrian and cyclist access, activity and amenity including maintaining and enhancing the public domain quality.*
- *To encourage additional landscaping to developments to improve the visual amenity of this precinct, particularly the presentation to the street.*' (Part 9, Clause 9.30).

To the west, the 'Marrickville Town Centre Precinct' consists of commercial and mixed use development along Illawarra Road. Relevant objectives that relate to the future desired character of this precinct include:

- '*To support excellence in contemporary design*
- *To ensure the street building frontage of infill development complements the siting (location and orientation), scale, form (height, massing and setback), proportion (height to width and solid to void), rhythm, pattern, detail, material, colour, texture, style and general character in the design of the existing predominantly traditional two storey commercial streetscape, without being imitative*
- *To ensure new development at rear upper levels is a maximum of five storeys and is designed to be subservient to retained portions of contributory buildings or infill development to the street building front.*' (Part 9, Clause 9.40).

***Sydenham to Bankstown Urban Renewal Corridor Strategy: Marrickville Station Precinct, NSW Department of Planning and Environment, 2017***

This strategy proposes the following land use and associated built form changes within the immediate surrounds of Marrickville Station:

South of the station

- New urban plazas at the station entrances, Station Street and Riverdale Avenue, with improvements to the streetscape along Leofrene Avenue
- New urban plaza at the intersection of Illawarra Road and Warburton Street
- Medium high rise housing immediately to the south of the railway station (bounded by Station, Leofrene Avenue and Schwebel Street and Illawarra Road) with shop top housing development at a lower height and scale along Illawarra Road
- High rise housing and mixed use (up to 12 storeys) at 369-383 Illawarra Road
- Low rise housing area to the south of Schwebel Street and Greenbank Street, to retain its local character (including steep topography) and transition to the single dwelling areas
- Medium rise housing along Warburton Street and north side of Greenbank Street
- New residential and mixed use precinct around Carrington Road (including north side of Myrtle Street), with improved open space and pedestrian access.

North of the station

- High rise housing and/or mixed use east of Ann Street and north of Byrnes Street
- A new Heritage Conservation Area comprising Silver Street and Gladstone Street.

# 5. MARRICKVILLE STATION

Character and components of the project

## 5.3. Character and components of the project

**Construction phase**

The following section describes the construction phase for Marrickville Station:

- Establishment of a worksite including demolition of:
  - permanent ways (railway lines, ballast, overhead lines) to the east of platforms 1 and 2
  - commercial properties at 2-4 and 6-12 Station Street
  - residential property at 1 Leofrene Avenue
  - Illawarra Road bridge
- Historic booking office on platform 2 would be relocated
- Removal of approximately 14-19 trees including:
  - along the southern rail corridor boundary, south of platform 2
  - on the corner of Leofrene Avenue
  - beside the Station Street entrance
- A construction compound would be located:
  - at Victoria Road, in the rail corridor between the Bankstown and Botany Goods lines
  - south of the corridor along Station Street
- Construction vehicle movement via Illawarra Road, Petersham Road, Station Street, western part of Schwebel Street, Riverdale Avenue, Charlotte Avenue, Myrtle Street and Harriet Street
- Temporary closure of Station Street between Station and Schwebel streets
- Temporary closure of the shared pathway (route L5 cycleway) south of rail corridor, between Victoria Road and Station Street.

**Operation phase**

The following section describes the operational phase for Marrickville Station.

- Existing structures would be retained including:
  - Illawarra Road station concourse entry, including concourse canopy and lifts
  - Station Street entrance (to be upgraded)
  - heritage listed platform buildings (platforms 1 and 2)
- New straight platforms approximately 170 metres long, extending east of the existing platforms to Victoria Road
- Glazed platform barriers along the full length of the metro platforms
- New platform lighting, security and passenger interface infrastructure
- Emergency egress ramps and stair between the eastern end of the platform and Victoria Road
- New Illawarra Road bridge
- New platform canopies along metro platforms 1 and 2
- New platform buildings
- New station services building, located between the metro alignment and Metropolitan Goods Line
- Active transport corridor to the south of rail corridor (between Riverdale Avenue and Station Street)


MARRICKVILLE STATION, ARTIST'S IMPRESSION

- New shared zone on Station Street and Lane including:
  - new bike parking area, taxi and kiss and ride bays
  - proposed cycle route on Warburton and Schwebel streets and Leofrene Avenue
  - accessible ramp on Station Street (west) to overcome non-compliant grade
- New signalised intersection at the intersection of Illawarra Road, Warburton Road and Schwebel Street
- New pedestrian crossing on Illawarra Road, north of Arthur Street
- New tree planting in Station Street shared zone, southern station entry and along pathway south of rail corridor
- Increased rail traffic through platforms 1 and 2.

# 5. MARRICKVILLE STATION

Sensitivity levels


MARRICKVILLE STATION ON ILLAWARRA ROAD

O'HARA STREET PLAYGROUND

## 5.4. Sensitivity levels

The following paragraphs summarise the landscape and visual sensitivity of the study area at this site (refer to Table 2.3 for definitions).

### Marrickville Station

Marrickville station functions as a suburban rail station and is therefore used by concentrations of residents; it provides an important transport hub for the local community. It is also a State heritage listed item, increasing its sensitivity as a visual feature within the local area. The landscape and visual values of the Marrickville Station are therefore of **local sensitivity.**

### Illawarra Road commercial precinct

Illawarra Road is a key arterial and pedestrian link between Marrickville and Sydenham roads in the north and the Cooks River in the south. The streetscape is used by residents and people working locally, acting as a thoroughfare between Marrickville Station and Marrickville's main commercial precinct at the junction of Marrickville Road. The landscape and visual values of this precinct are of **local sensitivity.**

### Rail corridor to Schwebel Street residential area

Streets within this precinct include a mixture of terraces, detached houses and unit blocks which are predominantly used by adjacent residents and people using the L5 cycleway between Marrickville Station and the Cooks River Cycleway. The rear fences of residential properties backing onto a laneway to the south of the station, adjacent to the rail corridor, provide a canvas for graffiti and 'street art'. There are also city views from elevated areas in this location. The landscape and visual values of this precinct are of **neighbourhood sensitivity.**

**O'Hara Street playground**

A small linear park connects Cavey Street and O'Hara Street to the east of Marrickville Station, adjoining the northern boundary of the existing rail corridor. It includes a small playground area with planting that partially screens the rail corridor. It provides a recreational space and localised amenity within this local neighbourhood. The landscape and visual values of this precinct are of **neighbourhood sensitivity.**

## 5.5. Assessment of landscape impact

The following section summarises the potential landscape impact of the construction and operation of the Marrickville Station precinct (refer to Table 2.7 for impact levels).

**Existing conditions:** Marrickville Station has two entries; the main entry is on Illawarra Road, via the bridge the second on Station Street with direct access to platform 2. The Illawarra Road entry has been recently upgraded as part of the Transport Access Program (TAP), including an aerial concourse at Illawarra Road bridge with lifts and stairs to platforms. The Station Street entry has also been updated and extensive works to Station Street itself are nearing completion.

Access and connectivity to and around the station is constrained. The wide rail corridor (passenger and freight) divides neighbourhoods to the north and south of the station. In addition, Illawarra Road is a busy road and difficult to cross near the station. This road also makes access between the station and western areas (including McNeilly Park) less direct.

The steepness of the Illawarra Road bridge and adjacent Station Street also restricts access to the station entrances. Links such as local streets, parks and lanes, as well as the L5 cycle route on the southern edge of the station, provide important local connections. However, the L5 cycleway is below an acceptable width for a shared path and in poor condition. Local streets are also narrow, with poor quality footpaths and little streetscape planting.

The Marrickville Station has a distinctive 'sense of place' due to the character of the heritage platform buildings, and prominence of the new station architecture on Illawarra Road.

**Construction:** An area at the northern end of Station Street would be converted into a compound, requiring temporary closure and diversion of pedestrian and vehicular access to the existing Marrickville Station via Station Street. Several retail buildings on Station Street would be demolished, as would the residential property at 1 Leofrene Avenue. These changes would reduce the legibility and accessibility of the existing Marrickville Station and nearby commercial areas, for customers approaching the station from the southeast.

The Illawarra Road bridge would be demolished and reconstructed, requiring temporary closure and diversion of vehicular and pedestrian traffic. Changes to access may also reduce legibility on the approach to this entry from the north and south, and within the station.

A worksite would also be established to the south of the rail corridor, between Charlotte and Riverdale avenues and the L5 cycleway (south of the rail corridor between Station Street and Victoria Road) would be temporarily closed. Construction of the emergency egress stairs between Victoria Road and the new platform 2 extension may at times encroach on the footpath along Victoria Road, in areas adjacent to hoarding. These changes would reduce accessibility of the station from the southeast.

Safety around the station precinct would be ensured during construction with adequate lighting being provided as required. Passive surveillance from the workforce, would also increase the perception of passive surveillance.

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

**Operation:** The Station Street entrance would include a widened plaza and a 'shared zone', improving the balance between pedestrians, cyclists and vehicles. This area would be activated with retail uses, improving safety (CPTED) and vibrancy.

An accessible ramp on Station Street (west) would improve access from Illawarra Road. New plaza trees would shade the streets and improve the comfort for users. The Illawarra Road bridge would have been replaced. However, the station entrance would be in the same location, with slight adjustments.

A new signalised intersection at Illawarra Road and Warbuton Street, would improve access to the station entries across Illawarra Road. The provision of an active transport corridor to the south of the corridor (incorporating the former L5 cycle route) would also improve the station interface with local streets and improve access to the station from the east.

Tree planting in Station Street, and canopies along the platforms, would improve amenity and comfort for users.

Although the new platform extensions and station services building would be visible from areas to the north of the station, there would be no direct impacts, and no change to the O'Hara Street playground.

The 'sense of place' experienced at Marrickville Station would be reinforced by the improved Station Street plaza area. The integration of the station into the precinct would also support urban renewal opportunities.

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

# 5. MARRICKVILLE STATION

## Assessment of daytime visual impact

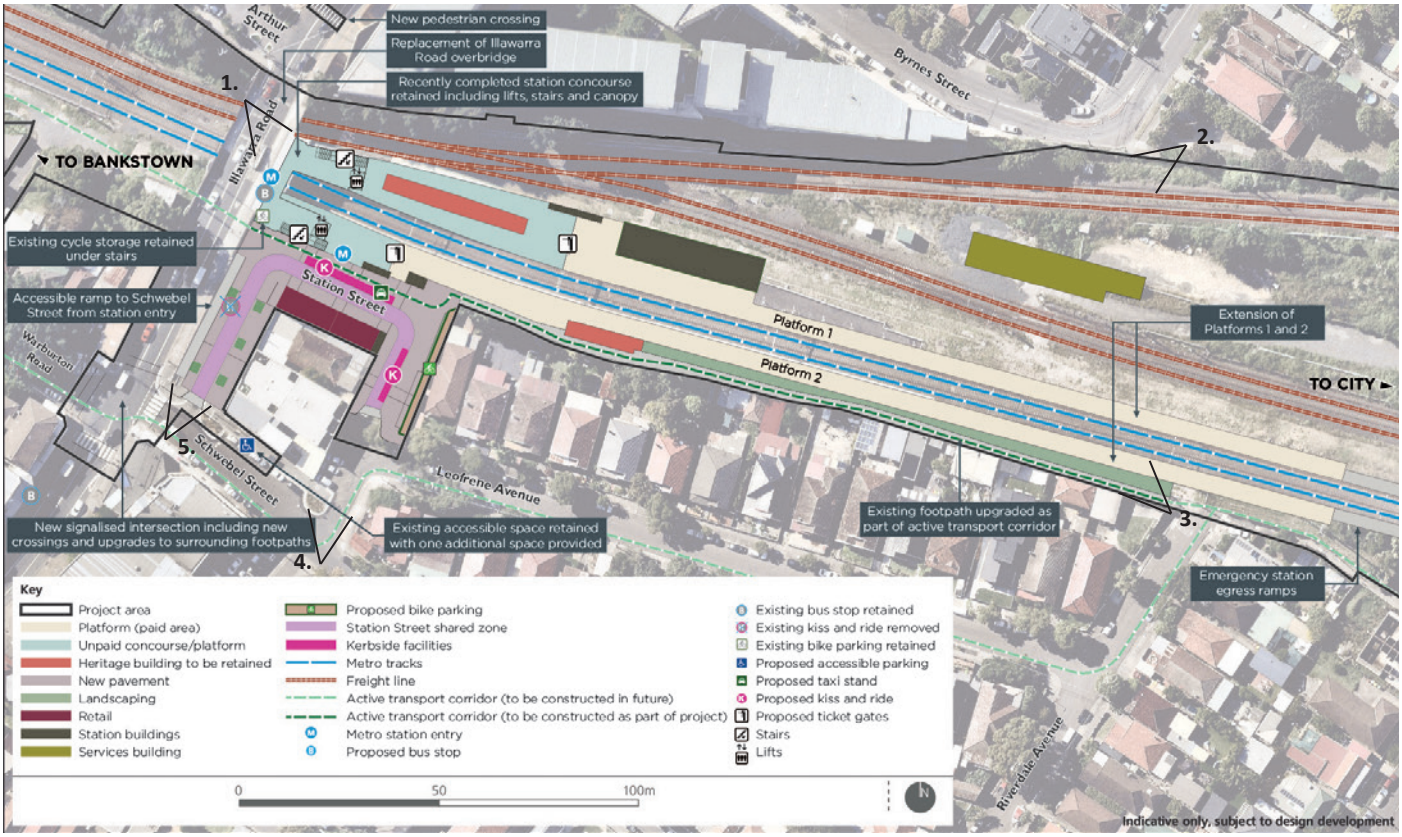



FIGURE 5.1 VIEWPOINT LOCATION PLAN

## 5.6. Assessment of day time visual impact

The following viewing locations were selected as representative of the range of views to the Marrickville Station site:

1. View southeast from Illawarra Road
2. View southwest from O'Hara Street playground
3. View north from Riverdale Avenue
4. View north from Schwebel Street
5. View north from Station Street.

Refer to Figure 5.1 Viewpoint location plan.

The following sections summarise the daytime visual impact of the construction and operation of Marrickville Station, identified in the representative viewpoint assessment and site visit observations.

### Viewpoint 1: View southeast from Illawarra Road

The main station entry on Illawarra Road bridge is the focal point in this view. This entry has been recently upgraded as part of the Transport Access Program (TAP), including the new aerial concourse addressing the Illawarra Road bridge, with a canopy structure (centre of view), lifts and stairs to platforms (left of view). The Illawarra Road (foreground of view) is a busy corridor with one lane in each direction and bus stops. In this section, the bridge rises steeply, with narrow footpaths. The bridge has protective screens above the brick side walls, obstructing the station platforms and rail corridor in this view. In the background (right of view) two storey commercial and retail shopfronts can be seen on Illawarra Road, with a built form at a similar height and scale to the existing station architecture.

**Construction:** Demolition and reconstruction of the Illawarra Road bridge would be seen in the foreground of this view. The station entry, however, would be retained, including the concourse, overhead canopy, stairs, and lifts. Establishment of the bridge construction worksite would comprise much of this view, with temporary hoarding and machinery likely to obstruct views to the station entry. Due to the bridge construction works, there would be a considerable reduction in the amenity of this view which is of local sensitivity, resulting in a **moderate adverse visual impact** during construction.

**Operation:** The new Illawarra Road bridge would be reinstated in the foreground of this view. The Illawarra Road station entry would remain as a focal point. The new station platforms, platform buildings, platform canopies and trains would not be visible. Overall, there would be no perceived change in the amenity of this view, which is of local sensitivity. This results in a **negligible visual impact** during operation.


1 VIEW SOUTHEAST FROM ILLAWARRA ROAD

# 5. MARRICKVILLE STATION

## Assessment of daytime visual impact

2 VIEW SOUTHWEST FROM O'HARA STREET PLAYGROUND

3 VIEW NORTH FROM RIVERDALE AVENUE

### Viewpoint 2: View southwest from O'Hara Street playground

This playground is set below the rail corridor and separated from the track by chainmesh fencing and low shrubs, visible in the foreground of view. The Metropolitan Goods Line is located on embankment, visible in the middle ground, behind the chainmesh fencing and vegetation. Beyond this, the T3 Bankstown Line track, trains, overhead wiring and support structures are visible. The eastern end of heritage listed buildings on Platform 1 and 2 can be glimpsed from this location (although obstructed by a train in this image). Mature trees along the path (Route L5) to the south of the corridor are also visible in the background, beyond the T3 Bankstown Line. A multi-storey mixed use development is located on the triangular site immediately north of the station at the corner of Byrnes Street and Illawarra Road (right of view), including seven storeys of apartments which overlook the corridor.

**Construction:** A construction compound would be established in the centre middle ground of this view, extending south of the Metropolitan Goods Line. Installation of the station services building immediately south of the Metropolitan Goods Line would also be visible. Equipment used to construct the new station platform extensions and works on Station Street may be seen above the compound. The vegetation along the southern path would also be removed reducing the vegetated character of this view. As the rail corridor is slightly elevated above the adjacent streetscape, these elements would be visually prominent. This activity would be viewed by users of O'Hara Street playground and nearby residents living in O'Hara Street and Byrnes Road (including the multi-storey building, right of view). It is expected that there would be a considerable reduction in the amenity of this view which is of neighbourhood sensitivity. This results in a **minor adverse visual impact** during construction.

**Operation:** At park level, the planting and fence along the southern boundary would remain. Beyond the park, trains using the Metropolitan Goods Line would continue to be seen. Immediately south of this line, vegetation within the rail corridor would have been removed and the station services building would be visible in the centre of this view. The new permanent way alignment would be generally in the same location and the extended platforms and platform canopies would be seen, extending across the view. The heritage platform buildings are unlikely to be visible, due to intervening elements, and with the platform 2 building having been relocated to the east. Vegetation to the south of the corridor would also be replaced with new trees and would be less prominent at this distance. Due to the scale, height and contrast of the proposed station services building and station, it is expected that the project would result in a noticeable reduction in the amenity of this view, which is of neighbourhood sensitivity, resulting in a **negligible visual impact** during operation.

### Viewpoint 3: View north from Riverdale Avenue

The rail corridor is the focal point of this view, elevated on an embankment of ballast, with overhead wiring and support structures, power poles and security fencing aligned along the corridor. Trains are visible travelling across the view. A multi-storey mixed use development can be seen immediately north of the station at the corner of Byrnes Street and Illawarra Road (centre background of view), including seven storeys of apartments. The path along the south of the corridor (L5 cycleway), is visible (left of view), consisting of a narrow concrete path, located to the rear of residences, and linking Victoria Road with the Station Street station entry. There is graffiti on the walls and fences adjacent to this path.

**Construction:** A worksite would be seen, in the middle ground of this view, extending along the existing rail corridor. This work would include, realignment of the existing permanent way and construction of the extended station platforms and platform canopies, which would rise above the surrounding landform. The southern footpath would be closed for renovation and trees along this route would be removed. This activity would contrast with the residential setting, creating a considerable reduction in the amenity of this view which is of neighbourhood sensitivity. This results in a **minor adverse visual impact** during construction.

**Operation:** The alignment of the permanent way would be generally in the same location, raised up on embankment and with perimeter security fencing. The new platforms, platform canopies and trains would be seen across the centre of this view. These elements would be elevated and rise above the adjacent residential properties on Leofrene Avenue. A new active transport corridor would replace the existing path, providing a pedestrian corridor between Riverdale Avenue and the Station Street station entry. The new active transport corridor would improve the visual edge between the rail corridor and adjacent residential properties, including new tree planting, surfaces finishes and fencing. However, the proximity and scale of the station works would contrast to the adjacent residential setting. There is expected to be a noticeable reduction in the amenity of this view, which is of neighbourhood visual sensitivity, resulting in a **negligible visual impact** during operation.

# 5. MARRICKVILLE STATION

## Assessment of daytime visual impact


4 VIEW NORTH FROM SCHWEBEL STREET


5 VIEW NORTH FROM STATION STREET

**Viewpoint 4: View north from Schwebel Street**

This view includes Leofrene Avenue in the middle ground, and Station Street extending from the foreground of this view to become a narrow rear lane in the background. On Leofrene Avenue and Schwebel Street, to the east (right of view), single storey residential properties with street trees, low fences and brick walls can be seen. To the west (left of view) the rear windows and vehicular access to retail properties on Station Street can be seen. This includes heritage character low set brick buildings in the background. The Station Street entry to Marrickville Station is obstructed by built form in the fore and middle ground of this view. A leafy backdrop filters views to the multi-storey mixed use development located immediately north of the station.

**Construction:** Number 1 Leofrene Avenue, in the centre of this view, would be demolished, as would several retail properties (2-4 and 6-12 Station Street) in the background of this view, on the Station Street laneway. A construction site would be established across this area and in the northern part of Station Street (background of view). The retail buildings, seen in the foreground (left of view), would be retained. This construction activity would be clearly visible in the middle and background of the view and be visually prominent. Overall, there would be a considerable reduction in the amenity of this view, which is of neighbourhood sensitivity. This would result in a **minor adverse visual impact** during construction.

**Operation:** Views to the Station Street entrance would be opened up, and a widened plaza and a 'shared zone' would be seen next to the entry, in the background of this view. This streetscape would include street trees, new pavement, taxi and kiss and ride bays and cycle parking. Additional retail buildings would also be seen to the west (left of view) on Station Street, opposite the station. It is expected that these changes would result in a noticeable improvement in the amenity

of this view, which is of neighbourhood sensitivity, resulting in a **negligible visual impact** during operation.

### Viewpoint 5: View north from Station Street

The Station Street station entrance is the focal point in this view, seen in the middle ground at the end of Station Street. The rail corridor is located below Illawarra Road bridge. The heritage listed overbridge and station entry on Illawarra Road are visible (centre left of view). Both station entries have been recently upgraded as part of the Transport Access Program (TAP), including a new aerial concourse adjoining the Illawarra Road bridge, with a canopy structure, lifts and stairs to platforms (centre of view). The Station Street entry has also been updated including improvements to the Station Street streetscape. Built form addressing the eastern side of Station Street, in the foreground, consist of single and double storey terrace buildings with shopfronts and awnings. A multi-storey mixed use development located immediately north of the station can be seen in the centre background of view. A row of mature pine trees along the rail corridor boundary filter views to this building.

**Construction:** The north part of Station Street (background of view) would be converted into a worksite. Demolition of several retail properties (2-4 and 6-12 Station Street) would be visible within this worksite. The retail buildings seen in the foreground (right of view) would be retained. The Illawarra Road station entry would be maintained, however, the Illawarra Road bridge would be demolished and rebuilt, with an accessible ramp along Station Street. This construction activity would be clearly visible in the fore and middle ground of the view. Overall, construction activity would be prominent and there would be a considerable reduction in the amenity of this view, which is of local sensitivity. This would result in a **moderate adverse visual impact** during construction.

**Operation:** The Station Street entrance would be retained. A widened plaza and a 'shared zone' would be located next to the entry, in the background of this view, and include shade trees, pavements consistent with the character of the finishes along Station Street in the fore and middle ground of this view. Additional retail buildings would also be glimpsed adjacent to the station. An accessible ramp would be visible to the western side of Station Street (left of view) aligned parallel with Illawarra Road. The Illawarra Road bridge would also have been reconstructed and have a contemporary character. Due to the minimal change visible, it is expected that this would result in no perceived change in the amenity of this view, which is of local sensitivity, resulting in a **negligible visual impact** during operation.

# 5. MARRICKVILLE STATION

Assessment of night-time visual impact

## 5.7. Assessment of night-time visual impact

The setting of the Marrickville Station is an area of **E3: Medium district brightness** (refer to Table 2.5 for definitions). This is due to the combination of the brightly lit station buildings and platforms, and commercial areas at Illawarra Road, and surrounding area of moderately lit residential streets, with lit trains using the adjacent railway corridor.

**Construction:** There would be night works required at this location during construction. This would include during the 24 hour possession periods, and include 24-hour construction vehicle access via local streets. The night works would be undertaken within the railway corridor and adjacent areas. These works would extend from the existing Marrickville Station to Victoria Road, and north to the Botany Goods line.

The rail corridor is in close proximity to adjacent residential properties, particularly at Leofrene, Riverdale and Charlotte avenues in the south, and O'Hara, Cavey and Queen streets in the north. There are also likely to be elevated views, over the construction compounds and worksites, from residential units in the high rise development on Byrnes Street. From these residential properties, there may be additional light visible including views to both direct light sources and general skyglow above the construction worksite. Properties adjacent to the northern end of Riverdale Avenue and Charlotte Avenue, and backing onto the rail corridor at Leofrene Avenue, are likely to experience the greatest impact. Measures would be put in place to ensure direct light spill does not extend onto neighbouring residential properties.

There are also numerous residential properties on the slopes of adjacent local hillsides, including areas rising to Schwebel Street in the south and Calvert Street in the north. These properties have elevated views across the corridor, and would be likely to overlook the additional lighting required for construction works. Generally, there would be additional light sources and skyglow seen above the rail corridor. This additional lighting would be largely absorbed into the surrounding night scene.

Overall, it is expected that this lighting would result in a considerable reduction in the amenity of views from residential properties, creating a **minor adverse visual impact** at night.

**Operation:** The station would be brightly lit at night including additional lighting at the new Station Street shared zone and along the platforms extending between Illawarra and Victoria roads. Lighting along the active transport corridor, to the south of the rail corridor, would also be visible. This linear area of increased lighting intensity would be near residential properties on Leofrene Avenue, Riverdale Avenue, Byrnes and O'Hara Streets.

Overall it is expected that during operation the lighting of the project would create a noticeable reduction in visual amenity from adjacent residential properties due to the intensification of lighting in close proximity. As this is a medium district brightness environment, these would be a **minor adverse visual impact** at night.

## 5.8. Summary of impact

The following tables summarise the potential landscape and visual impacts of the Marrickville Station site. Measures proposed to mitigate these impacts are contained in section 16 of this report.

TABLE 5.1 LANDSCAPE IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | Marrickville Station precinct | Local | Noticeable reduction | Minor adverse | Noticeable improvement | Minor beneficial |

TABLE 5.2 DAY TIME VISUAL IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | View southeast from Illawarra Road | Local | Considerable reduction | Moderate adverse | No perceived change | Negligible |
| 2 | View southwest from O'Hara Street playground | Neighbourhood | Considerable reduction | Minor adverse | Noticeable reduction | Negligible |
| 3 | View north from Victoria Road | Neighbourhood | Considerable reduction | Minor adverse | Noticeable reduction | Negligible |
| 5 | View north from Schwebel Street | Neighbourhood | Considerable reduction | Minor adverse | Noticeable improvement | Negligible |
| 4 | View northeast from Station Street | Neighbourhood | Noticeable reduction | Minor adverse | No perceived change | Negligible |

TABLE 5.3 NIGHT-TIME VISUAL IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | Marrickville Station precinct | E3: Medium district brightness | Noticeable reduction | Minor adverse | Noticeable reduction | Minor adverse |

# 6. DULWICH HILL STATION

Existing environment

## 6. Dulwich Hill Station

### 6.1. Existing environment

Dulwich Hill is a predominantly residential area with a character of early twentieth century detached houses. The rail corridor is in a cutting and divides the village centre, which includes a small precinct of heritage character shopfronts and modern development along Wardell Road.

Dulwich Hill Station has a local heritage listing, it includes a single island platform with original platform building, an overhead booking office, access stairs and overbridge of 'aesthetic significance'. The booking office is an understated building, providing station access from Wardell Road. East and west bound passenger rail lines are located either side of the island platform, with the Metropolitan Goods Line further to the north. Commuter car parking is located to the north and south of the rail corridor, shaded by small trees.

Further to the north, the Sydney Light Rail follows the former Rozelle freight rail corridor. The light rail stop includes a single platform connected to a drop off zone and parking at Bedford Crescent by a combined lift and stair structure. The Dulwich Hill Light Rail Stop is located a short distance from the station, however, the pedestrian connection is indirect being via Bedford Crescent and Wardell Road. To the west, Jack Shanahan Park is a local skatepark located between the light rail and the metropolitan goods and T3 Bankstown Line at Ness Avenue and with a pathway connection to the Dulwich Hill Light Rail Stop.

The South Dulwich Hill HCA is located to the north and south of the corridor. In this area, a high concentration of early twentieth century detached Federation style houses create a unified heritage character. The streetscapes possess an open, suburban quality due to the low density and single storey residential development with wide verges and generous building setbacks. In the remaining areas to the north and south of the rail corridor a variety of residential buildings including flats and apartments (up to three storeys), duplexes and detached houses surround Wardell Road commercial precinct. There are two commuter car parks in Bedford Crescent and Ewart Lane, north and south of the rail corridor respectively, overlooking the station.






1 DULWICH HILL STATION
2 WARDELL ROAD, SOUTH OF STATION
3 BEDFORD CRESCENT ENTRANCE TO DULWICH HILL LIGHT RAIL STATION
4 ENTRANCE TO DULWICH HILL LIGHT RAIL STATION FROM JACK SHANAHAN RESERVE
5 EWART LANE

# 6. DULWICH HILL STATION

Planning guidance

## 6.2. Planning guidance

Further to the planning review undertaken in section 3 of this report, the following review identifies specific clauses in the LEP and DCP documents, as well as provisions in strategic and master planning documents, which are relevant to the landscape and visual impact assessment of the proposed Dulwich Hill Station precinct.

### Marrickville Local Environmental Plan, Marrickville Council, 2011

In addition to the LEP provisions identified in section 3 of this report, the following applies:

***Height of buildings***

Adjacent parcels of land to the south of the station along Wardell Road are permitted to reach maximum building heights of up to 23 metres. To the north, building heights at the eastern end of Bedford Crescent are permitted to reach 14 metres, whereas the western end is capped at 9.5 metres.

***Heritage***

Dulwich Hill Station has a local heritage listing (also on the RailCorp Section 170 Heritage and Conservation Register), which includes an overhead booking office, access stairs and overbridge of 'aesthetic significance'. The station is also adjacent to the South Dulwich Hill HCA, which contains a high concentration of detached, single storey Federation bungalows stretching either side of the rail corridor between Cannonbury Grove and Livingstone Road. Where relevant this assessment has considered the *'settings and views'* of these items (Heritage conservation, clause (5.10) of the LEP).

***Land use zoning***

Dulwich Hill has a small retail centre focused upon Wardell Road and extending to the north and south of the station. This precinct is zoned B1 – Neighbourhood Centre, providing retail and service based shops. Objectives of this zone include: *'To provide a range of small-scale retail, business and community uses' and 'to provide for spaces, at street level, which are of a size and configuration suitable for land uses which generate active street-fronts.'* (Part 2, Land Use Table - Zone B1). Most of the land use around this retail precinct is zoned R1 – General Residential and R2 – Low Density Residential, with the exception of a small block of land to the south of the station zoned R4 – Medium Density Residential, between Ewart Street, Murray Lane, Bayley Street and Dudley Street. The objectives of these zones relate to the provision of *'housing needs of the community'* (Part 2, Land Use Table - Zone R1, R2 and R4).

### Marrickville Development Control Plan, Marrickville Council, 2011

Part 9 of the DCP divides the Local Government Area into 47 planning precincts. Each precinct has an existing and desired future character to guide development within the area. The project is located at the junction of three precincts, including the 'Dulwich Hill Station North Precinct' (Precinct 18), 'Ness Park Precinct' (Precinct 21) and 'Dulwich Hill Station South Precinct' (Precinct 22).

The Dulwich Hill Station North Precinct covers the northern part of this site including the station, adjacent commercial centre along Wardell Road and surrounding low-density residential land to the north. Relevant objectives that relate to the future desired character of this precinct include:

- *'To protect significant streetscapes and/or public domain elements within the precinct including landscaping, fencing, open space, sandstone kerbing and guttering, views and vistas and prevailing subdivision patterns.'* … and
- *'To retain, maintain and enhance existing pedestrian and cyclist connectivity to Dulwich Hill railway station.'* (Part 9, Clause 9.18)

To the north, the 'Ness Park Precinct' covers residential land to the east of Wardell Road. Relevant objectives that relate to the future desired character of this precinct include:

- *'To protect significant streetscapes and/or public domain elements within the precinct including landscaping, fencing, open space, sandstone kerbing and guttering, views and vistas and prevailing subdivision patterns.'*
- *'To support pedestrian and cyclist access, activity and amenity including maintaining and enhancing the public domain quality.'* (Part 9, Clause 9.21)

To the south, the 'Dulwich Hill Station South Precinct' covers the commercial centre along Wardell Road and surrounding residential land to the south of the station. Relevant objectives that relate to the future desired character of this precinct include:

- *'To protect and enhance the character of streetscapes and public domain elements within the precinct including views and vistas, prevailing subdivision patterns, building typologies, materials and finishes, setbacks, landscaping, fencing, open space, carriageway and footpath design and kerb and guttering.'*
- *'To promote sustainable transport (public transport, walking and cycling) by providing higher development density around Dulwich Hill Station; restricting the provision of off-street car parking around Dulwich Hill Station; increasing provision of parking and car -sharing (off-street and on -street) and carefully managing general on -street car parking.'* (Part 9, Clause 9.22)

***Sydenham to Bankstown Urban Renewal Corridor Strategy: Dulwich Hill Station Precinct, Department of Planning and Environment, 2017***

This strategy proposes the following land use and associated built form changes within the immediate surrounds of Dulwich Hill Station:

South of the station

- Main street shop top housing along Wardell Road
- New urban plaza on Ewart Lane at station entrance
- Medium-high rise housing (maximum of 8 storeys) along Ewart Lane and Bayley Street, transitioning to low rise residential development to the south-east and south-west
- Retain the '*heritage and conservation areas which contribute to the character of the area along with the 'village-like' feel of the neighbourhood*' (p.2).

North of the station

- Medium rise housing along Bedford Crescent and west of Hercules Street
- Medium to high rise housing east of Hercules Street with a new linear park along the light rail corridor
- Low rise housing (2-3 storeys) north of Keith Lane and along The Parade, between Terrace and Garnet Lanes
- Improvements to 'quality of the footpaths, street trees and lighting, especially around Wardell Road and the railway station' (p.2).

# 6. DULWICH HILL STATION

Character and components of the project

## 6.3. Character and components of the project

### Construction phase

The following section describes the construction phase for Dulwich Hill Station:

- Establishment of a worksite including demolition of:
  - permanent ways (railway lines, ballast, overhead lines) between platforms 1 and 2
  - parts of the commuter car park on Ewart Lane and southern side of Bedford Crescent, including on-street parking and adjacent footpath
  - overhead booking office and stairs (heritage listed) on Wardell Road (following construction of new footbridge)
- Removal of approximately 4 - 6 trees including:
  - along the northern rail corridor
  - on south side of Bedford Crescent
- Cessation of commercial property leases at the station
- Construction compound located in Ewart Lane, south of the corridor, at the existing commuter car park between Wardell Road and Ewart Street
- Widening the rail corridor to the south
- Installation of a new retaining wall to replace the exposed sandstone cutting
- Temporary closure of footpaths:
  - on western side of Wardell Road overbridge
  - between Ewart Lane and Wardell Street
  - on southern side of Bedford Crescent
- Temporary closure and retrofit of existing station building on platform 1-2
- Protection and maintenance of Wardell Road overbridge
- Construction vehicle movement via Wardell Road, Ewart Street, Ewart lane and Ness Avenue.

### Operation phase

The following section describes the operational phase for Dulwich Hill Station:

- Reconstructed curved island platform approximately 170 metres long
- Glazed platform barriers along the full length of the metro platforms
- New platform lighting, security and passenger interface infrastructure
- New retaining wall along the southern rail corridor boundary
- New overhead footbridge between Bedford Crescent and Ewart Lane (linking with existing light rail stop access), vertical transport connections to platforms and Ewart Lane, and overhead canopy
- New platform canopies along metro platforms 1 and 2
- Emergency egress ramps and stair between the western end of the platforms and Ewart Lane
- New northern station entry and transport interchange on Bedford Crescent including:
  - kiss and ride
  - taxi parking
- New southern station entry and transport interchange on Ewart Lane including:
  - stair and lift access to concourse
  - services building
  - bike parking area
  - reconfigured commuter car park in Ewart Lane
  - active transport corridor (incorporating the L9 cycleway) along Ewart lane

DULWICH HILL STATION, ARTIST'S IMPRESSION

- Retained existing structures:
  - platform building on platform 1-2 (heritage listed)
  - Wardell Road overbridge (heritage listed)
  - light rail stop entry on Bedford Crescent, including lift and stairs
  - parking on north side of Bedford Crescent
  - bus stops on Dudley Street and Wardell Road
- New trees and planting at the new southern station entrance plaza, Ewart Lane and on Bedford Crescent
- Increased rail traffic through platforms 1 and 2.

# 6. DULWICH HILL STATION

Sensitivity levels

## 6.4. Sensitivity levels

The following paragraphs summarise the landscape and visual sensitivity of the study area at this site (refer to Table 2.3 for definitions).

### Dulwich Hill Station

Dulwich Hill Station functions as a suburban passenger rail station and is used by residents. The location of a light rail stop and bus stops near this station results in it functioning as a local transport hub, with the opportunity for interchange between modes. The station buildings are local heritage listed, increasing its importance as a visual feature within the local area. The landscape and visual values of the Dulwich Hill Station are therefore of **local sensitivity.**

### Dulwich Hill Light Rail Stop

The Dulwich Hill Light Rail Stop is used by those travelling in Sydney's inner west, between Dulwich Hill and Lilyfield and beyond to the Sydney CBD. The location of this station adjacent to the Dulwich Hill railway station increases its importance as a local transport hub with opportunities for interchange between transport modes. Views from this precinct are largely contained by landform to the east and vegetation to the west. The landscape and visual values of the light rail stop are of **local sensitivity.**

### Jack Shanahan Park

Following renovations in 2014, the Jack Shanahan Park (referred to locally as the Dulwich Hill Skatepark) includes a new multi-use court and large street skate area. This facility attracts a wide range of users during the day and night. Mature trees and parkland areas provide amenity for the local area and recreational opportunities for the community. The landscape and visual values of this precinct are of **local sensitivity.**

### Wardell Road commercial precinct

Wardell Road provides a local traffic and pedestrian thoroughfare through Dulwich Hill, linking Marrickville Road in the north with Permanent Avenue and the Cooks River to the south. The rail corridor is in a cutting as it passes under Wardell Road, dividing this precinct. This area functions as a local retail centre and provides access to both the Dulwich Hill Station and Dulwich Hill Light Rail Stop. The landscape and visual values of Wardell Road are of **local sensitivity.**

### South Dulwich Hill heritage residential area

This precinct has a unified heritage character and forms part of South Dulwich Hill HCA in the Marrickville LEP. These areas are used primarily by residents and visitors to the neighbourhood. Due to the heritage character of this area, the landscape and visual values of this precinct are of **local sensitivity.**

### Dulwich Hill residential areas

This area is predominantly used by residents of the flats and apartments (up to three storeys), duplexes and detached houses within this precinct. The landscape and visual values of this precinct are of varied quality and are of **neighbourhood sensitivity.**






1 WARDELL ROAD COMMERCIAL PRECINCT
2 BEDFORD CRESCENT COMMUTER PARKING
3 SOUTH DULWICH HILL HERITAGE RESIDENTIAL AREA
4 SHOPFRONT ON BEDFORD CRESCENT
5 EWART ROAD RESIDENTIAL AREA

# 6. DULWICH HILL STATION
Assessment of landscape visual impact

DULWICH HILL LIGHT RAIL STOP


JACK SHANAHAN RESERVE

## 6.5. Assessment of landscape impact

The following section summarises the potential landscape impact of the construction and operation of the Dulwich Hill Station precinct (refer to Table 2.7 for impact levels).

**Existing conditions:** Dulwich Hill Station has one main entry on the west side of the Wardell Road overbridge, including a small heritage listed overhead booking office and concourse level with the overbridge. At this location, the rail corridor is in cut, and an uncovered staircase provides access between the concourse and a single island platform. Access and connectivity to and around the station is limited to this one entry. Footpaths along the overbridge are narrow, and the Wardell Road approach to the overbridge is very steep from the south.

Commuter car parking is located to the north and south of the rail corridor in Bedford Crescent and Ewart Lane. Pedestrian access to the station along Ewart Lane is constrained by the steep terrain, narrow road corridor and lack of footpaths. The Ewart Lane car park and streetscape has no planting, presenting a poor pedestrian environment and general level of amenity.

North of the station, the terrain is quite flat. There is a small drop off zone and car park in Bedford Crescent, with streetscape planting and narrow footpaths on both sides linking to the Wardell Road commercial area and overbridge. The Sydney Light Rail L1 Dulwich Hill Line terminus is also accessed from Bedford Crescent by a combined lift and stair structure. The light rail stop includes an at grade crossing to Jack Shanahan Park, a local skatepark located between the light rail and the metropolitan goods and T3 Bankstown Line at Ness Avenue.

Overall, access around the station is constrained and the lack of shade and narrow footpaths present an uncomfortable pedestrian environment. The wide rail corridor (passenger and freight) divides the community and there is indirect access from

the station to the light rail terminus and Jack Shanahan Park.

**Construction:** During the initial stages of construction, the existing station entry would remain open, including the overhead booking office and stairs. A construction compound would be established to the south of the station adjacent to Ewart Lane, requiring the removal of the existing commuter car park. The worksite would also be established on Bedford Crescent in the north, requiring the removal of some trees along this edge of the rail corridor.

The worksite would extend over the central portion of the station platforms between Bedford Crescent and Ewart Lane to facilitate the construction of the new footbridge. There would be a reduced platform area available for commuters during this time.

Construction of the northern station entrance would require demolition of the southern side of Bedford Crescent, including the removal of several street trees, some on-street parking and a portion of the adjacent footpath.

The light rail lift and stair at Bedford Crescent, however, would remain open during construction, requiring the diversion of the existing footpath. The removal of commuter parking and the closure or diversion of footpaths in some areas, would reduce the legibility and accessibility of this precinct by vehicle and for pedestrians. However, the continued use of the existing station entry would assist in wayfinding for customers during the initial stages of construction.

Once the new footbridge and station entrances at Bedford Crescent and Ewart Lane have been constructed, the overhead booking office and stairs would be removed, requiring temporary closure of the footpath on the western side of the Wardell Road overbridge. This would reduce east west connectivity within the precinct during this time.

There would continue to be a reduced platform area available for commuters as demolition works occur to the east of the station and on Wardell Road. The continued presence of construction would reduce the legibility of the station entries and approach routes. Legibility of the station precinct would be reduced somewhat during this time while new routes and connections are learned.

The staged works, which require several changes to station access, removal of street trees, closure of car parks, and the temporary diversion of pedestrian pathways, would reduce the connectivity, legibility and amenity of this station precinct. Therefore, it is expected that there would be a considerable reduction in the landscape quality and functioning of this precinct which is of local sensitivity. This results in a **moderate adverse landscape impact** during construction.

**Operation:** The location of the new station entry, approximately 65 metres to the west of Wardell Road, and off the main pedestrian and vehicular thoroughfare makes access to the station somewhat less direct for pedestrians and less visually prominent from the high street. However, by moving the station entry away from the heavily trafficked Wardell Road, where the public realm is highly constrained, more spacious and well laid out concourse and plaza spaces would be created. Furthermore, the single station entrance on Wardell Road would be replaced by two new station entrances, at Bedford Crescent in the north and Ewart Lane to the south.

The northern entrance would connect directly with the existing light rail stop lift and stair structure and include a kiss and ride zone, and taxi parking. This would consolidate access and improve pedestrian safety (CPTED) and legibility particularly for those customers transferring between the light and commuter rail network. The footpath and street trees in this location would also be reinstated, restoring local amenity.

The southern station entrance would have stair and lift access to the concourse. There would be improved access and legibility for cyclists with a bike parking area. There would also be an active transport corridor (reinstating the L9 cycleway) along the south of the corridor.

There would be new planting in the entry plazas at Bedford Crescent and Ewart Lane, and the canopy structures extending over the footbridge and metro platform would provide shade, comfort and amenity in meeting and waiting areas.

The 'sense of place' experienced at the Dulwich Hill Station would be transformed by the project, with the improved prominence of the station architecture, and new location, set back from Wardell Road. Although the prominence of the heritage architecture of the station would be reduced, the introduction of new plazas would provide opportunities for locally distinctive placemaking initiatives. The integration of several public transport modes and improvements to the accessibility of the station would support urban renewal opportunities.

Although the removal of the heritage listed overhead booking office and stairs would alter the legibility, 'sense of place' and character of the precinct, the platform building would be retained and new station entrances and overall design would result in a noticeable improvement in the functionality of this precinct, which is of local sensitivity. This results in a **minor beneficial landscape impact** during operation.

# 6. DULWICH HILL STATION

## Assessment of daytime visual impact

### 6.6. Assessment of day time visual impact

The following viewing locations were selected as representative of the range of views to this site:

1. View south from Jack Shanahan Reserve
2. View southeast from Dulwich Hill Light Rail Stop
3. View south from Bedford Crescent to Dulwich Hill Light Rail Stop entrance
4. View west to Dulwich Hill Station from Wardell Road rail bridge
5. View west from corner of Wardell Road and Dudley Street
6. View southeast from Ewart Lane.

Refer to Figure 6.1 Viewpoint location plan.

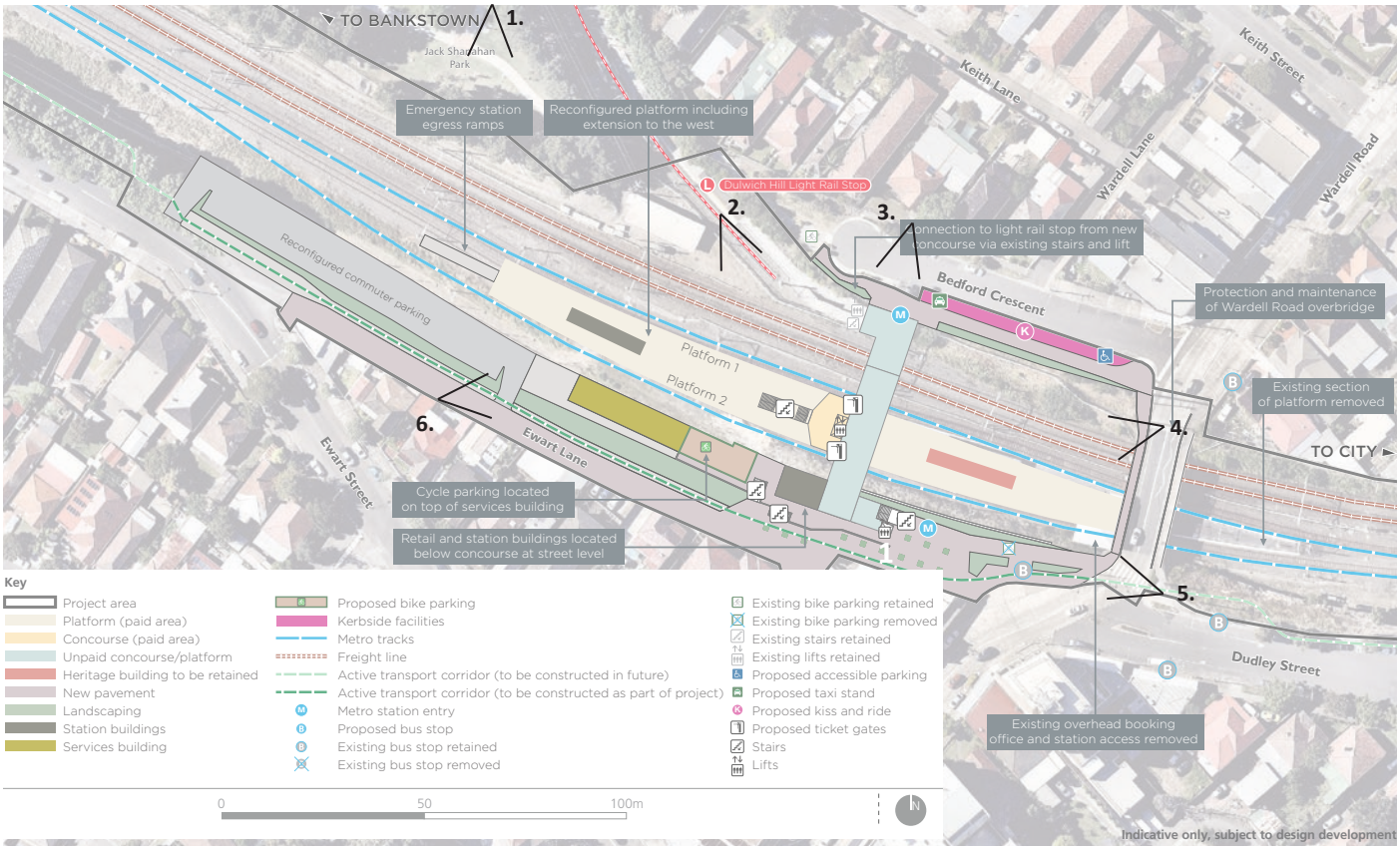
The following sections summarise the daytime visual impact of the construction and operation of Dulwich Hill Station, identified in the representative viewpoint assessment and site visit observations.

#### Viewpoint 1: View south from Jack Shanahan Reserve

The Jack Shanahan Reserve and skate park is visible in the foreground of this view. The rail corridor can be seen, filtered views through intervening parkland vegetation, creating the southern park boundary. In this view the rail corridor is elevated on embankment and the view includes trains, overhead wiring and support structures, as well as corridor perimeter fencing. Residential buildings in Ewart Lane can be glimpsed in the background.

**Construction:** The Metropolitan Goods Line, would continue to be seen in the foreground of this view. Beyond this, demolition and

FIGURE 6.1 VIEWPOINT LOCATION PLAN



reconstruction of the platform would be occurring, including widening and extending the platform to the west. The rail corridor widening works to the south would be seen in the background, including construction of a new retaining wall rising above the track. Above the retaining wall, construction of the combined service and the bike parking area would also be seen, partly obstructing views to residential buildings on Ewart Lane, in the background. This activity would create a noticeable reduction in the amenity of this view which is of local sensitivity. This results in a **minor adverse visual impact** during construction.

**Operation:** From this location, the new metro platform, platform canopy structures, and segregation fencing along the metro track would be visible, beyond the Metropolitan Goods Line. The combined service and bike parking area in Ewart lane would also be visible, in the background, partly obstructing the view to commercial and residential areas south of the station beyond. These changes would comprise a small part of this view, and the new structures would be largely consistent with the character of the existing station and rail corridor. Therefore, the project would not create a perceived change in the amenity this view, which is of local sensitivity, resulting in a **negligible visual impact** during operation.

### Viewpoint 2: View southeast from Dulwich Hill Light Rail Stop

This view is from the platform at Dulwich Hill light station. Security fencing along the platform and the Bedford Crescent lift shift and staircase dominate the fore and middle ground. The platform is level to the adjacent T3 Bankstown Line rail corridor, offering filtered views through security fencing to the sandstone cuttings, track, platforms, overhead wiring and support structures. Beyond this, the residential towers within Dulwich Hill commercial area along Wardell Street south and Ewart Lane provide a backdrop to this view.

1 VIEW SOUTH FROM JACK SHANAHAN RESERVE

2 VIEW SOUTHEAST FROM DULWICH HILL LIGHT RAIL STATION

# 6. DULWICH HILL STATION

## Assessment of daytime visual impact

3 VIEW SOUTH FROM BEDFORD CRESCENT TO DULWICH HILL LIGHT RAIL STATION ENTRANCE

4 VIEW WEST FROM THE CORNER OF WARDELL ROAD AND DUDLEY STREET

**Construction:** The light rail lift and stair access at Bedford Crescent would remain open during construction, as would the Sydney Trains network and Metropolitan Goods Line, seen in the fore ground of this view. Demolition and reconstruction of the platform would be clearly visible in the middle ground. The rail corridor widening works to the south would also be visible in the background, including construction of a new retaining wall rising above the track. Above the retaining wall, installation of the footbridge, southern station entrance and adjacent combined services and bike parking area in Ewart Lane would be clearly seen, partially obstructing views to the residential towers in the Dulwich Hill commercial area. This activity would create a noticeable reduction in the amenity of this view which is of local sensitivity. This results in a **minor adverse visual impact** during construction.

**Operation:** The new metro platform, platform canopy structures, security screens and segregation fencing along the metro track would be visible in the middle ground of this view. Although the curved alignment and general layout of the permanent way would be retained, the rail corridor would be widened to the south, replacing the natural rock face with a concrete retaining wall along the entire length of the metro platform. The new footbridge and canopy structure, extending over the rail corridor, would be a prominent skyline feature, obstructing views to commercial and residential areas to the south of the station. Despite these changes, the new structures would be consistent with the character of the surrounding rail corridors, there would not be a perceived change in the amenity this view. This view is of local sensitivity, resulting in a **negligible visual impact** during operation.

### Viewpoint 3: View south from Bedford Crescent to Dulwich Hill Light Rail Stop entrance

This location represents views from residences in Bedford Crescent and the adjacent commuter car park. The lift shaft, visible in the middle ground of this view, was constructed as part of the Sydney Light Rail L1 Dulwich Hill Line project, and provides access to the Light Rail stop and Jack Shanahan Reserve. The rail corridor is in a cutting and defined by wire mesh fencing and vegetation, concealing views to any rail structures or buildings. Residential towers (up to 7 storeys) within the commercial area of Dulwich Hill along Wardell Street south and Ewart Lane are visible in the background.

**Construction:** The removal of the commuter car parking to the south of Bedford Crescent, streetscape planting, bollards, footpath and fencing along the rail corridor, would be visible in the middle ground of this view. Works would include installation of the new northern station entrance and footbridge which would be clearly seen in the middle ground, rising above the cutting. This work would be seen in the context of the existing backdrop of built form along Wardell Road and Ewart Lane. The light rail lift and stair access at Bedford Crescent would remain open during construction, requiring the diversion of the existing footpath and associated pedestrian management devices. As the station is in cutting, demolition of the platforms and station buildings would not be visible from this location. It is expected that there would be a considerable reduction in the amenity of this view which is of local sensitivity. This results in a **moderate adverse visual impact** during construction.

**Operation:** The new northern station entrance, including the footbridge and canopy structure, would be prominent in the middle ground of this view, rising higher than the existing light rail lift structure. An entry plaza with new paving and planting would be created and transform the foreground of this view. Car parking to the east (left of view) would be replaced with a transport interchange including taxi parking and a kiss and ride zone. As there would be more station structures visible, rising above the existing built form, the project would create a noticeable reduction in the amenity of this view. This view is of local sensitivity, resulting in a **minor adverse visual impact** during operation.

### Viewpoint 4: View west to Dulwich Hill Station from Wardell Road rail bridge

This is an elevated view over the station from the Wardell Road rail bridge. The entire rail corridor, including sandstone cuttings, track, platforms, station buildings, overhead wiring and support structures are visible in the middle and foreground of this view. To the north of the station (right of view) the Metropolitan Goods Line is aligned parallel to the T3 Bankstown Line and platforms. In the background of the view, the undulating and leafy suburban character of Dulwich Hill south can be seen.

**Construction:** Demolition and reconstruction of the central island platform would be clearly visible. The rail corridor would be widened to the south, including the removal of the sandstone cutting and construction of a new retaining wall along the entire length of the new platform. The heritage listed platform building would be protected by temporary fencing and hoarding during construction and later refurbished, to be integrated into the operation of the metro platform. A construction compound, and construction of the footbridge, lifts and stairs, southern station entrance would be seen in the middle and background of this view, obstructing district views to the southwest of the station. A construction compound would also be seen in the middle ground of this view, to the north of the station, requiring removal of trees along the cutting and opening up views to the existing light rail lift in the background. Overall, it is expected that there would be a considerable reduction in the amenity of this view which is of local sensitivity. This results in a **moderate adverse landscape impact** during construction.

**Operation:** This view would include the entire metro station seen in context with the surrounding residential and commercial setting of Dulwich Hill. Although the curved alignment and general layout of the permanent way would be retained, the rail corridor would be widened to the south, replacing the natural rock face with a concrete retaining wall along the entire length of the metro platform. The heritage platform building would be retained, however it's visual setting would be altered as the new footbridge, station entrances, overhead and platform canopy structures would be of a larger scale, creating a strong visual contrast with the small scale and detailed heritage architecture. The footbridge would be set back and the height of this canopy would, however, provide some space around this building so that it can be seen in its entirety. From this location, the footbridge and canopy structure would rise above the horizon line, and become a dominant element in this view, obstructing district views. Overall, the project would comprise a large portion of this view, increasing the scale of development seen at the station, therefore there would be a noticeable reduction in the amenity of this view. As this view is of local visual sensitivity, this would result in a **minor adverse visual impact** during operation.

# 6. DULWICH HILL STATION

## Assessment of daytime visual impact

5 VIEW WEST FROM CORNER OF WARDELL ROAD AND DUDLEY STREET

### Viewpoint 5: View west from corner of Wardell Road and Dudley Street

This view across the Wardell Road rail bridge and along Ewart Lane includes the overhead booking office as the focal point. This building contains the main station entry and consists of a simple square, timber weatherboard clad building. The rail corridor is in cutting and there is a glimpse of the track, platforms, platform buildings, overhead wiring and support structures filtered views through safety and security fencing. Mature street tree planting *(London planetree* and *Lophostemon species)* along Ewart Street are seen in the background of this view. Beyond this, the undulating and leafy suburban character of Dulwich Hill south provides a backdrop to this view.

**Construction:** A construction compound and worksite would be located on Ewart Lane, in the middle and background of the view. The compound would be within the rail corridor and would be enclosed by temporary security fencing and hoarding, partially obstructing views to the rail corridor and associated demolition and construction works required for the rail corridor widening and new metro platform works. Construction of the footbridge and new southern entrance would be seen above the hoarding, including construction of the lift shafts and east facing access stairs. Construction vehicles would be visible when accessing this site via Wardell Road. Following construction of the new station entrances, demolition of the overhead booking office would be visible, unobstructed in the foreground of this view. Reinstatement works at the overbridge, including footpath reconstruction, throw protection screens and security fencing, would also be seen in the foreground of this view. It is expected that there would be a noticeable reduction in the amenity of this view which is of local sensitivity. This results in a **minor adverse landscape impact** during construction.

**Operation:** The overhead booking office, located in the centre of this view, would have been removed. The new footbridge and canopy structures would be visible in the middle to background of this view, spanning Ewart Lane and Bedford Crescent. A southern station entry also with an overhead canopy would be located adjacent to the street, in the middle ground of this view. Both canopies would rise above the skyline and obstruct distant views. Alongside the new station buildings a plaza would extend along Ewart Lane. This plaza would be shaded by trees, and include new paving and furnishings. It is expected that the rail corridor landscape would have the capacity to absorb these new structures into the view, and that the newly configured station and station architecture would contribute to an improvement in the quality of this view. The project would create a noticeable improvement in the amenity this view, which is of local sensitivity, resulting in a **minor beneficial visual impact** during operation.

### Viewpoint 6: View southeast from Ewart Lane

This view represents the outlook from residential properties on Ewart Lane and adjacent residential areas of south Dulwich Hill. The commuter car park and Ewart Lane create a vehicular dominated character to the foreground of this view. To the south (right of view) are several residential properties, of one to five storeys, presenting both garages and windows to the lane. In the middle ground, the permanent way and platforms are visible elevated above the viewer, on an embankment and allowing a clear view to trains, overhead wiring and support structures. Adjacent to the corridor are numerous light posts, corridor fencing, power lines and an electrical substation, adding clutter to the view. The heritage platform buildings are obstructed by these intervening elements and landform. The Wardell Road rail bridge, overhead booking office are visible to the east (right of view) in the background of this view, beyond the commuter car park. To the north (left of view) the upper part of the light rail lift shaft, mature street tree planting between the base of the rail embankment and Ewart Street block views to the light rail corridor.

**Construction:** The commuter car park would be closed and replaced with the construction compound, surrounded by temporary security fencing and hoarding. Construction vehicles would be seen accessing this site via Ewart Lane. Construction of the footbridge, southern station entrance, and a combined service and bike parking area would be seen to the north (left of view), above the surrounding station level, in the middle ground of this view. This work would extend across the Lane between the viewer and Wardell Road to create a plaza. Following construction of the new station buildings, demolition of the overhead booking office would occur in the background of the view. This activity would be mostly obstructed by the new station buildings. Due to scale and proximity of this work to local residences, it is expected that there would be a considerable reduction in the amenity of this view which is of neighbourhood sensitivity, resulting in a **minor adverse landscape impact** during construction.


6 VIEW SOUTHEAST FROM EWART LANE

**Operation:** The commuter car park would be reconfigured and reinstated to the south, and the foreground of this view would be transformed into a plaza, with new trees filtering views towards the station. In the centre middle ground of the view there would be the new station buildings, and a combined service and bike parking area. These buildings would be visually prominent, rising above the existing light rail lift shaft on Bedford Crescent (left of view), and above surrounding residential development (right of view). The prominence of the footbridge would mark the entry to the station, and reflect the urban density of the built form of the commercial properties, in the background of the view. The metro platforms, canopies, and platform screens within the station, and segregation fencing along the metro track, would also be visible

extending west from the new station buildings (left of view). The new station architecture would contribute to the quality of this view, as would the improvements to the public realm. The introduction of trees would filter and soften lower level views towards the station. Overall, despite the scale of the built form, this would result in a noticeable improvement in the amenity this view. This view is of neighbourhood sensitivity, resulting in a **negligible visual impact** during operation.

## 6.7. Assessment of night-time visual impact

The setting of the Dulwich Hill Station is an area of **E3: Medium district brightness** (refer to Table 2.5 for definition)**.** This is due to the brightly lit station buildings and platforms, lit trains using the railway corridor, adjacent light rail stop and moderately lit surrounding commercial and residential areas.

**Construction:** There would be night works required at this location during construction, namely during the 24 hours possession periods, including 24-hour construction vehicle access via local streets. Much of the night works would occur within the station itself, to the southwest at Ewart Lane and north to Bedford Crescent. It is likely that additional light sources and skyglow would be seen from adjacent residential areas on Ewart Lane and Wardell Road. There would also be works on Bedford Crescent, opposite residential properties on the north side of the street. This may result in some additional light visible from these properties including views to both direct light sources and general skyglow above the southeastern area of the station. Overall, it is expected that this lighting would create a noticeable reduction in the amenity of views from residential properties on Bedford Crescent and Ewart Lane, resulting in a **minor adverse visual impact** at night.

**Operation:** The station would be brightly lit at night including additional lighting around the new footbridge and along the platforms extending to the northeast of the station. There would also be headlights seen on the additional metro trains using platforms 1 and 2-3. This lighting would be generally consistent with the intensity of lighting seen at the existing station.

At the southern entry to the station, the location of lighting on the elevated footbridge, and within the plaza would extend the lighting beyond the existing station area, and towards residential areas on Wardell Road and Ewart Lane. Similarly, near Bedford Crescent, the new footbridge, station entry plaza, and interchange areas would be brightly lit. This increased area of increased intensity of lighting would be near residential properties on both Ewart Lane and Bedford Crescent. It is expected that there would be a reduction in amenity in views at night from these locations.

Overall, it is expected that during operation the lighting of the project would create a noticeable reduction in visual amenity, particularly from adjacent residential properties, due to the intensification of lighting in close proximity. As this is a medium district brightness environment, the project would give rise to a **minor adverse visual impact** at night.

## 6.8. Summary of impact

The following tables summarise the potential landscape and visual impacts of the Dulwich Hill Station site. Measures proposed to mitigate these impacts are contained in section 16 of this report.

TABLE 6.1 LANDSCAPE IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | Dulwich Hill Station precinct | Local | Considerable reduction | Moderate adverse | Noticeable improvement | Minor beneficial |

TABLE 6.2 DAY TIME VISUAL IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | View west to Dulwich Hill Station from Wardell Road rail bridge | Local | Noticeable reduction | Minor adverse | No perceived change | Negligible |
| 2 | View south from Jack Shanahan Reserve | Local | Noticeable reduction | Minor adverse | No perceived change | Negligible |
| 3 | View south from Bedford Crescent to Dulwich Hill Light Rail Stop entrance | Local | Noticeable reduction | Minor adverse | Noticeable reduction | Minor adverse |
| 4 | View west to Dulwich Hill Station from Wardell Road rail bridge | Local | Considerable reduction | Moderate adverse | Noticeable reduction | Minor adverse |
| 5 | View west from corner of Wardell Road and Dudley Street | Local | Noticeable reduction | Minor adverse | Noticeable improvement | Minor beneficial |
| 6 | View southeast from Ewart Lane | Neighbourhood | Considerable reduction | Minor adverse | Noticeable improvement | Negligible |

TABLE 6.3 NIGHT-TIME VISUAL IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | Dulwich Hill Station precinct | E3: Medium district brightness | Noticeable reduction | Minor adverse | Noticeable reduction | Minor adverse |

# 7. HURLSTONE PARK STATION
Existing environment






1 VIEW SOUTH TO STATION FROM THE DUNTROON STREET BRIDGE
2 CRINAN STREET
3 RESIDENTIAL AREAS OF HURLSTONE PARK
4 DUNTROON STREET, SOUTH OF STATION
5 STATION WITH 101 DUNTROON STREET IN THE BACKGROUND

## 7. Hurlstone Park Station

### 7.1. Existing environment

Hurlstone Park is a predominantly residential suburb consisting of mainly detached houses. Hurlstone Park Station and its underbridge at Foord Avenue have local historical importance and are on the RailCorp S170 Heritage and Conservation Register. The station concourse building is a simple brick structure creating an understated address to Floss Street. Within the Station, the platform buildings (c 1915) have a historic character, with gabled roof and decorative mouldings. A distinctive excavated sandstone rock face is located to the rear of platform 2, and is identified as a 'landscape/natural feature' within the heritage listing. East and west bound passenger rail uses are on the southern side of the island platform, with the Metropolitan Goods Line running to the north. The rail corridor is in a cutting and the station is accessed via an overbridge and overhead booking office on Floss Street. The overbridge provides elevated views to the northeast and southwest along the rail corridor, with clear views to the station buildings. The Hurlstone Park commercial centre is located along Crinan Street, spreading north and south of the station, consisting predominantly of single and double storey terrace buildings with shopfronts amidst a low density suburban setting.

## 7.2. Planning guidance

Further to the planning review undertaken in section 3 of this report, the following review identifies specific clauses in the LEP and DCP documents, as well as provisions in strategic and master planning documents, which are relevant to the landscape and visual impact assessment of the proposed Hurlstone Park Station precinct.

### Canterbury Local Environmental Plan, City of Canterbury Council, 2012

In addition to the LEP provisions identified in section 3 of this report, the following applies:

***Height of buildings***

Adjacent parcels of land to the north and south of the station along Crinan and Duntroon Street are permitted to reach a maximum building height of 14 metres.

***Heritage***

Hurlstone Park Station is listed in the LEP as a heritage item (also on the RailCorp Section 170 Heritage and Conservation Register). Where relevant this assessment has considered the *'settings and views'* of these items (Heritage conservation, clause (5.10) of the LEP).

***Landuse zoning***

Hurlstone Park has a small retail centre focused along Crinan Street, to the north and south of the station. This precinct is zoned B2 – Local Centre, providing retail and service based shops. Objectives of this zone include: *'To provide a range of retail, business and entertainment and community uses' and 'to facilitate and support investment, economic growth and development for active, diverse and well-designed centres'* (Part 2, Land Use Table - Zone B2). There are two small blocks of land to the north of the station zoned R4 – High Density Residential, focused along Floss and Duntroon streets. The objectives of these zones relate to the provision of *'a variety of housing types within a high density residential environment'* (Part 2, Land Use Table - Zone R4). Otherwise, the land use around the station is zoned R3 – Medium Density Residential with small pockets of RE1 – Public Recreation.

***Sydenham to Bankstown Urban Renewal Corridor Strategy: Hurlstone Park Station Precinct, Department of Planning and Environment, 2017***

This strategy proposes the following land use and associated built form changes within the immediate surrounds of Hurlstone Park Station:

South of the station

- Medium rise housing (maximum of 5 storeys) between Floss Street and the rail corridor, and retention of the surrounding low density neighbourhood character.

North of the station

- The '*revitalisation of Crinan Street with cafes, outdoor dining, more retail and specialty shops, and streetscape improvements such as street trees and refurbished shop fronts*' (p.9)
- Heritage-sensitive shop top housing along Crinan and Floss Streets (maximum of 5 storeys) (p.22)
- Medium rise housing between the rail corridor and Crinan Street
- Retain the surrounding low density neighbourhood character with identification of seven potential new heritage conservation areas, including Crinan Street shops, Duntroon Street, Floss Street, Hampden Street, Melford Street and Tennent Parade (p.15).

# 7. HURLSTONE PARK STATION

Character and components of the project

## 7.3. Character and components of the project

### Construction phase

The following section describes the construction phase for Hurlstone Park Station:

- Establishment of a worksite including demolition or removal of:
  - platforms 1 and 2
  - the heritage listed platform building on platform 1
  - heritage listed overhead booking office on Floss Street, footbridge and stairs
  - heritage listed rock face to rear of platform 2
  - permanent ways (railway lines, ballast, overhead lines) between platforms 1 and 2
- Temporary closure and retrofit of existing station building on platform 2
- Removal of approximately 2 - 5 street trees impacted by this site including on:
  - Duntroon Street
  - Crinan Streets
- Widening of rail corridor to the south and installation of a new retaining wall, to replace the exposed sandstone cutting (heritage listed)
- A construction compound to be located on the Floss Street car park to the north of the station
- Temporary closure of the footpath on north side of Duntroon Street (at proposed station entry), extending over the west side of Floss Street overbridge
- Temporary closure of the Floss Street car park
- Construction vehicle movements along Crinan and Floss streets.

### Operation phase

The following section describes the operational phase for Hurlstone Park Station:

- New straight platforms approximately 170 metres long
- Glazed platform barriers along the full length of the metro platforms
- New platform lighting, security and passenger interface infrastructure
- Emergency egress ramps and stair between the western end of the platforms and Railway Street
- New station entry with widened concourse at the Duntroon Street overbridge with vertical transport connections to platforms, and canopy
- New platform canopies along metro platforms 1 and 2
- New station entry on the Duntroon Street bridge comprising:
  - new paved plaza
  - throw protection screens on the Duntroon Street overbridge
  - bus stops
- Active transport corridor to the south of the station
- Existing structures to remain:
  - heritage listed building on platform 2 (retrofit for metro station use)
  - heritage listed rock face to rear of platform 2
- New services building in rail corridor, southwest of station near Railway Street
- New pedestrian crossing at:
  - Duntroon Street
  - Crinan Street
- Kiss and ride, and taxi stand northeast of the station on Floss Street
- Accessible parking to the south of the station on Duntroon Street
- Bike parking area in the Floss Street carpark
- Increased rail traffic through platforms 1 and 2.

HURLSTONE PARK STATION FROM FLOSS STREET, ARTIST'S IMPRESSION

## 7.4. Sensitivity levels

The following paragraphs summarise the landscape and visual sensitivity of the study area at this site (refer to Table 2.3 for definitions).

### Hurlstone Park Station

Hurlstone Park station functions as a suburban rail station. It is used by residents and provides an important transport hub for the local community. It is also a local heritage item (on both the LEP Environmental heritage list and RailCorp Section 170 Heritage and Conservation Register) and a visual feature within the local area. The excavated rock face to the rear of Platform 2 is identified as a 'landscape/natural feature' in the listing statement (RailCorp Section 170 Heritage and Conservation Register). Hurlstone Park Station is therefore of **local sensitivity.**

### Crinan Street commercial precinct

Crinan Street provides a local traffic and pedestrian thoroughfare through Hurlstone Park, linking Canterbury Road in the north with the train station. It functions as a traditional retail precinct, spreading north and south of the train station. There is a small commuter car park overlooking the station, immediately north of the rail corridor. The landscape and visual values of this precinct are of **local sensitivity.**

### Hurlstone Park residential precinct

Streets within this precinct include a high concentration of single storey detached houses surrounding the commercial precinct, with some apartment and flat development along the rail corridor, near the station in Floss Street. This area is predominantly used by residents and their visitors. The landscape and visual values of this precinct are of **neighbourhood sensitivity.**


CRINAN STREET CAFES

# 7. HURLSTONE PARK STATION

Assessment of landscape impact

## 7.5. Assessment of landscape impact

The following section summarises the potential landscape impact of the construction and operation of the Hurlstone Park Station precinct (refer to Table 2.7 for impact levels).

**Existing conditions:** Hurlstone Park Station has one main entry on the Floss Street overbridge, to the east of the station. The rail corridor is in a cutting and a small overhead booking office provides stair access to platform 2 on the south and an island platform on the north. Access and connectivity to and around the station is restricted by this single entry point. Bus stops for interchange are located on the overbridge, outside the station entry, where there is also a pedestrian crossing. There is no taxi and kiss and ride provision. There are some bike racks on the station concourse.

A small commuter car park is located to the north of the station in Floss Street, shaded by street trees and pathways on both sides. Further north, a row of local shops along Crinan Street forms the village centre. Approaches to the station from the centre are relatively steep. However, the narrow carriageway, low vehicular speed and concentration of single and double storey terrace buildings with awnings shading adjacent footpaths provides a comfortable and attractive public domain for pedestrians.

A distinctive excavated sandstone rock face is located to the rear of platform 2, and is identified as a 'landscape/natural feature' within the heritage listing.

**Construction:** The temporary structures required to maintain operations during construction would be located to the west of the existing station, set back from the Duntroon Street overbridge. These structures would not be directly connected to the high street and residential areas, reducing the accessibility and legibility of the station and precinct.

The Floss Street car park would be closed and replaced by a temporary construction compound. The existing heritage listed overhead booking office, footbridge and stairs would be demolished and a construction site established. Temporary access to the worksite and compound would be from Railway Street, Foord Avenue, Floss Street car park and Floss Street (east of overbridge). The heritage listed platforms and building on platform 1 would be also be removed and reconstructed. A worksite would be established along the southern side of the track, between Foord Avenue and the station, requiring removal of several trees.

This work would require temporary closure of footpaths and diversions of pedestrian traffic along the Duntroon Street overbridge, Floss, Crinan and Duntroon streets. There would also be a reduced area of platform available for commuters during this time, reducing the accessibility of the suburban rail network from this station.

The removal of commuter parking, and the closure and diversion of footpaths in some areas would reduce the legibility and accessibility of this precinct by vehicle and for pedestrians. Due to the scale of works, and demolition of the entire station, this construction activity would result in a considerable reduction in the landscape quality and functionality of this precinct. As this precinct is of local sensitivity, this would result in a **moderate adverse landscape impact** during construction.

**Operation:** The existing station entrance on Duntroon Street would be replaced with a new station entrance building, spanning the width of the overbridge, and with a generous plaza and concourse area. This would provide a safe and legible station entry, well connected to the Crinan Street commercial area.

To the north and south of the new station entrance there would be some landscape treatment and pavement resurface works, to integrate the station with the local streets. This would include the reinstatement of the

Floss Street commuter carpark, and new bike parking area to the west. There would be upgraded pavements and new pedestrian crossings on Crinan Street and across the Duntroon Street bridge, where bus stops would be located. These improvements would extend south to Floss Street in the east where taxi and kiss and ride facilities would be located, and south to Duntroon Street where accessible parking would be located. These works would improve pedestrian safety and streetscape amenity.

The trees and canopy structures, extending along the footbridge and metro platform, would also provide shade, comfort and amenity for customers. The heritage listed excavated rock face to the rear of Platform 2 would be retained, protecting this important station landscape feature.

The new station architecture would have a greater visual presence within the village than the relatively understated existing station buildings. Furthermore, the location of the new station entry would provide a direct access to the commercial centre on Duntroon Street, supporting urban renewal opportunities.

Although the removal of the heritage listed overhead booking office, footbridge and stairs would alter the 'sense of place' and character in these streetscapes, the new station building would improve legibility of the station entry, and the design would have an improved character and prominence.

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


FLOSS STREET


CRINAN STREET COMMERCIAL PRECINCT

# 7. HURLSTONE PARK STATION

## Assessment of daytime visual impact

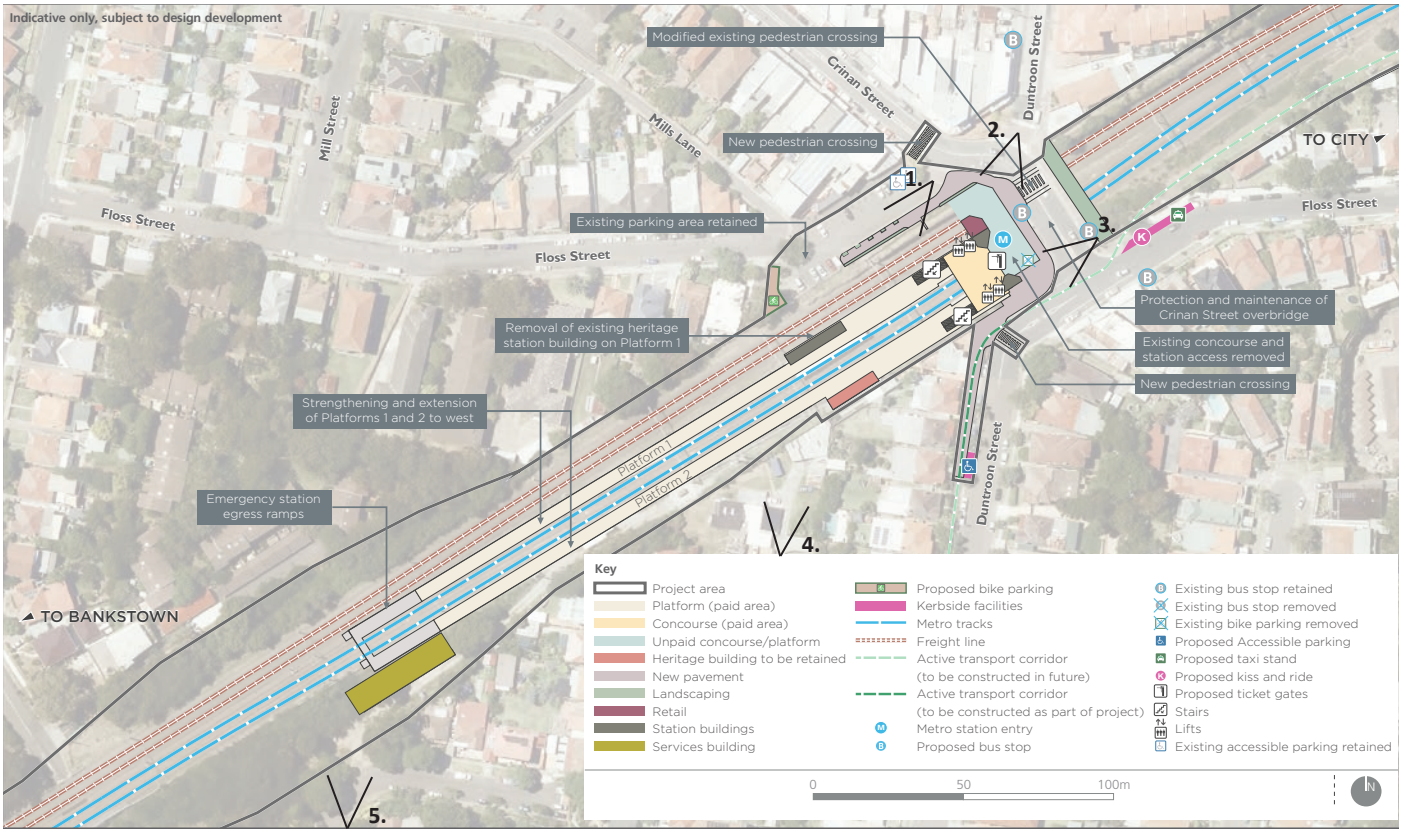



FIGURE 7.1 VIEWPOINT LOCATION PLAN

## 7.6. Assessment of day time visual impact

The following viewing locations were selected as representative of the range of views to this site:

1. View southwest from the Floss Street commuter car park
2. View southwest across Floss Street
3. View southwest from the Duntroon Street rail bridge
4. View north from Commons Street
5. View from Railway Street.

Refer to Figure 7.1 Viewpoint location plan.

The following sections summarise the daytime visual impact of the construction and operation of Hurlstone Park Station, identified in the representative viewpoint assessment and site visit observations.

### Viewpoint 1: View southwest from the Floss Street commuter car park

This view is from the Crinan Street entrance to the Floss Street car park, beside the Hurlstone Park high street. From this location, most of the rail corridor is hidden by a timber boundary fence, leaving only the overhead wiring and upper parts support structures visible. Mature vegetation along the north and south side of the rail corridor is also visible, providing some visual enclosure to the corridor.

**Construction:** The Floss Street car park would be closed during certain periods of construction to allow for the establishment of a construction compound, which would be visible in the centre of this view. The construction compound would be enclosed by site security fencing and hoarding, and construction vehicles would be seen accessing the site from this location. This activity would create a considerable reduction in the amenity of this view which is of local sensitivity. This results in a **moderate adverse visual impact** during construction.

**Operation:** The commuter carpark would be reinstated, and an avenue of trees established alongside the corridor. Bike parking would be visible in the western corner of the carpark, in the background of this view. The existing timber fencing would be replaced with palisade security fencing, opening-up views to the rail corridor and station platforms which would be located at a level below the carpark. New platforms, buildings and canopies, would be seen aligned parallel to the carpark and extending west along the corridor. The scale and form of these new canopy structures would be larger than surrounding residential built form, and create an overall greater developed character to this view. Overall, the rail corridor, and adjacent landscape, is considered to have the capacity to absorb these new structures. There would be no perceived change in the amenity this view, which is of local sensitivity, resulting in a **negligible visual impact** during operation.

1 VIEW SOUTHWEST FROM THE FLOSS STREET COMMUTER CAR PARK

# 7. HURLSTONE PARK STATION

## Assessment of daytime visual impact

2 VIEW SOUTH FROM DUNTROON STREET

### Viewpoint 2: View southwest across Floss Street

This view, from the Floss Street rail bridge, shows the pedestrian crossing and main entrance to the station in the middle ground (left of view) and the Floss Street car park (right of view). The brick wall of the Duntroon Street bridge obstructs views into the rail corridor, however, some overhead wiring and support structures are visible above the wall. In the background, there are distant views to mature vegetation along the northern and southern side of the rail corridor.

**Construction:** A construction compound and worksite would be seen in the middle ground of the view, extending across the station (left and centre of view) and the Floss Street car park (right of view). Demolition of the overhead booking office and station entrance, and construction of the footbridge and canopy, would be seen unobstructed in this view. Construction vehicles would be seen travelling along Crinan and Duntroon streets, and accessing the construction compound in the fore and middle ground. Overall, this activity would result in a considerable reduction in the amenity of this view which is of local sensitivity, and result in a **moderate adverse visual impact** during construction.

**Operation:** The overhead booking office would be replaced with a new station building which extends the full length of the bridge, and would include ticket gates, wayfinding signage and retail. The new station buildings would be a prominent feature of this view and would obstruct views to the rail corridor. Although the scale of the station entry building would increase in both height and width, this would be an incremental change, which would be visually appropriate in the station setting. Overall, there would be no perceived change in the amenity this view, which is of local sensitivity, resulting in a **negligible visual impact** during operation.

### Viewpoint 3: View southwest from the Duntroon Street rail bridge

This view, from the southern end of the Duntroon Street rail bridge, shows the main station booking office in the foreground (right of view). The station platforms and heritage listed platform buildings are located below the level of the overbridge, and can be seen glimpsed through rail corridor and roadside fencing. The excavated sandstone rock face to the rear of platform 2, identified as a 'landscape/natural feature' within the station's heritage listing, can also be seen. Views to the residential houses and terraces located to the south of the corridor and along Duntroon Street are filtered by intervening vegetation. In particular, the building at 101-105 Duntroon Street, has a number of windows and a rooftop terrace which are in close proximity and overlooking the rail corridor (centre of view). In the background, distant views to the surrounding leafy suburbs provide a depth to this view.

3 VIEW SOUTHWEST FROM THE FLOSS STREET RAIL BRIDGE SOUTH

**Construction:** A construction site would be established over the station area, surrounded by site security fencing or hoarding. Demolition of the overhead booking office (right of view) and installation of the new station entry and concourse building, would be prominent in this view, and in close proximity views from the north facing terrace and windows of 101 Duntroon Street. This work would obstruct distant suburban views, and views across the station. Properties in Duntroon Street would be retained, and seen adjacent to this construction activity. It is likely that works to demolish and reconstruct the platforms would also be visible, including the removal of the heritage listed building on platform 1. The rail corridor would be widened to the south, and a concrete retaining wall constructed in front of the heritage listed rock face, and extending along the entire length of the metro platform. The heritage listed building on platform 2 would be protected by temporary fencing during construction and later refurbished. Overall, it is expected that there would be a considerable reduction in the amenity of this view which is of local sensitivity. This results in a **moderate adverse visual impact** during construction.

**Operation:** The overhead booking office would be replaced with a new station building which extends the full length of the bridge, and would include ticket gates, wayfinding signage and retail. The new station buildings would be a prominent feature of this view and would obstruct views to the rail corridor. The scale of the station entry building would increase considerably as it would extend across a larger area, and have a greater visual mass. The canopy architecture would rise to a similar height to the buildings on Duntroon Street, and in close proximity, creating a visually continuous built edge. Overall, due to the extent of change, which would be visible in close proximity to 101 Duntroon Street in particular, it is expected that there would be a considerable reduction in the amenity this view, which is of local sensitivity, resulting in a **moderate adverse visual impact** during operation.

# 7. HURLSTONE PARK STATION

## Assessment of daytime visual impact

4 VIEW NORTH FROM COMMONS STREET

### Viewpoint 4: View north from Commons Street

This view has been selected to represent views from neighbouring residential properties to the south of the station. Existing vegetation, fencing and built form along the southern side of the rail corridor, and in the rear gardens of properties on Duntroon and Commons Street, filter views to the rail corridor. The location of the station, set in cutting, below the adjacent landform level, obstruct much of the station platforms. The rooves of the adjacent platform buildings, overhead wiring and upper parts support structures are visible from the rear gardens of adjacent residential properties and glimpsed between houses as shown in this view.

**Construction:** From this location, a slot view through the existing houses would include the worksite, adjoining the rear boundary line of residential properties in Duntroon and Commons streets. Demolition of the heritage building on platform 1 would be glimpsed. Construction of the platform canopy structures would also be visible above the westward extension of the platforms. The new footbridge and station entry canopies may also be seen in some views from this area. The proximity of this activity to residents would create a considerable reduction in the amenity of this view, which is of neighbourhood sensitivity, resulting in a **minor adverse visual impact** during construction.

**Operation:** The canopy structures along the platforms would be visible in the background of this view. System segregation fencing along the metro track would also be visible. The western part of the large canopy structure, spanning the footbridge, concourse and access stairs, may also be visible rising above the station. The visual containment of the station due to the cutting, intervening vegetation and buildings would allow for the absorption of the new station into the view. The proximity of these new structures to residents would create

a considerable reduction in the amenity of this view. The view has neighbourhood sensitivity, resulting in a **minor adverse visual impact** during operation.

### Viewpoint 5: View from Railway Street

This view towards the railway corridor is flanked by single storey residential properties, along a local residential street, filtered with street trees. Mature vegetation can be seen in the centre of the view, along the southern side of the rail corridor, obstructing views to the rail corridor.

**Construction:** From this location, the removal of trees along the rail corridor and establishment of a worksite, between Railway Street and the permanent way, would be seen in the middle ground of this view. This would reduce the leafy character of the view, and contrast with the adjacent residential properties and leafy gardens. Construction activity and equipment would be seen rising above the site. The proximity of this activity to residents would create a considerable reduction in the amenity of this view, which is of neighbourhood sensitivity, resulting in a **minor adverse visual impact** during construction.

**Operation:** The emergency access stair and ramps would be seen in the centre, background of the view, at the western end of the extended Metro station platforms. There would also be a services building located in the background to the east (right of view), located partly behind the adjacent residential properties. System segregation fencing along the metro track would also be visible in the middle ground. The proximity of these new structures to residents would contrast with the surrounding leafy street and would create a considerable reduction in the amenity of this view. The view has neighbourhood sensitivity, resulting in a **minor adverse visual impact** during operation.

5 VIEW FROM RAILWAY STREET

# 7. HURLSTONE PARK STATION

Assessment of night-time visual impact

## 7.7. Assessment of night-time visual impact

The setting of the Hurlstone Park Station is an area of **E3: Medium district brightness** (refer to Table 2.5 for definition). This is due to the brightly lit station buildings and platforms, lit trains using the adjacent railway corridor, and moderately lit surrounding commercial and residential areas.

**Construction:** There would be night works required at this location during construction, namely during the 24 hours possession periods, including 24-hour construction vehicle access via local streets. Much of the night works would occur within the station itself and adjacent areas, including the construction compound to the north of the track at the Floss Street car park, and worksite to the south of the track between Foord Avenue and the station, and at 107 Duntroon Street.

This construction activity may result in some additional light visible from residential properties adjacent to the rail corridor in Duntroon Street, Commons Street, Railway Street, Foord Avenue and Floss Street, including views to both direct light sources.

Overall, it is expected that this lighting would create a noticeable reduction in the amenity of views from residential properties alongside the rail corridor, resulting in a **minor adverse visual impact** at night.

**Operation:** The station would be brightly lit at night including additional lighting around the new footbridge and along the platforms extending to the southwest of the station. There would also be headlights seen on the additional metro trains using platforms 1 and 2. This lighting would be generally consistent with the intensity of lighting seen at the existing station.

The new Duntroon Street station entrance would be brightly lit. From the north, and located adjacent to the existing commercial areas, this lighting would be contained and generally absorbed into the surrounding commercial precinct.

To the south, the new station entry and associated interchange areas on Duntroon Street would be brightly lit. This new plaza would increase the intensity of lighting near residential and commercial properties on Duntroon Street. It is expected that there would be a reduction in amenity in views at night from these adjacent residential areas.

Overall, it is expected that during operation the lighting of the project would create a noticeable reduction in visual amenity, particularly from adjacent residential properties, due to the intensification of lighting in close proximity. As this is a medium district brightness environment, there would be a **minor adverse visual impact** at night.

## 7.8. Summary of impact

The following tables summarise the potential landscape and visual impacts of the Hurlstone Park Station site. Measures proposed to mitigate these impacts are contained in section 16 of this report.

TABLE 7.1 LANDSCAPE IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | Hurlstone Park Station precinct | Local | Considerable reduction | Moderate adverse | Considerable improvement | Moderate beneficial |

TABLE 7.2 DAY TIME VISUAL IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | View southwest from the Floss Street commuter car park | Local | Considerable reduction | Moderate adverse | No perceived change | Negligible |
| 2 | View southwest across Duntroon Street | Local | Considerable reduction | Moderate adverse | No perceived change | Negligible |
| 3 | View southwest from the Duntroon Street rail bridge south | Local | Considerable reduction | Moderate adverse | Considerable reduction | Moderate adverse |
| 4 | View north from Commons Street | Neighbourhood | Considerable reduction | Minor adverse | Considerable reduction | Minor adverse |
| 5 | View from Railway Street | Neighbourhood | Considerable reduction | Minor adverse | Considerable reduction | Minor adverse |

TABLE 7.3 NIGHT-TIME VISUAL IMPACT

| | | | Construction | | Operation | |
|---|---|---|---|---|---|---|
| **No.** | **Location** | **Sensitivity** | **Modification** | **Impact** | **Modification** | **Impact** |
| 1 | Hurlstone Park Station precinct | E3: Medium district brightness | Noticeable reduction | Minor adverse | Noticeable reduction | Minor adverse |

# 8. CANTERBURY STATION

Existing environment


1

2

3

4

5

1 CANTERBURY HOTEL
2 CANTERBURY ROAD STATION ENTRANCE
3 PLAZA SOUTH OF THE STATION
4 VIEW FROM STATION TO CHARLES STREET
5 BROUGHTON STREET

## 8. Canterbury Station

### 8.1. Existing environment

Canterbury Station has a State heritage listing and includes several ornate platform buildings, overhead booking office, signal box and an overbridge of 'aesthetic significance'. East and west bound passenger rail uses are located to the south of the island platform, with the Metropolitan Goods Line running to the north. The rail corridor is in cutting and the station platforms are set below Canterbury Road.

Canterbury's commercial and retail centre extends north and south from the train station and contains a mixture of commercial, retail, industrial and residential developments. To the north, the streetscape consists of mainly double storey terraces with heritage character shopfronts facing Canterbury Road. Larger modern development sits behind this 'high street'.

To the south, the land between the station and Cooks River consists of light industry, which is undergoing renewal for mixed use and higher density residential development, featuring buildings with a larger footprint and rising to eight storeys. A multi-storey mixed use development has been recently built along Charles Street, immediately to the south of the station and extends along the rail corridor. It includes eight storeys of apartments and ground level retail.

There are extensive areas of parkland on the banks of the Cooks River, including Canterbury Park Racecourse, Tasker Park, Heynes Reserve and Sutton Reserve, linked by the Cooks River Cycleway. Several mature trees are located alongside the rail corridor and along Broughton Street, filtering views to the station and corridor.

## 8.2. Planning guidance

Further to the planning review undertaken in section 3 of this report, the following review identifies specific clauses in the LEP and DCP documents, as well as provisions in strategic and master planning documents, which are relevant to the landscape and visual impact assessment of the proposed Canterbury Station precinct.

### Canterbury Local Environmental Plan, City of Canterbury Council, 2012

In addition to the LEP provisions identified in section 3 of this report, the following applies:

***Height of buildings***

The LEP identifies adjacent parcels of land to the north and south of the station along Broughton and Charles streets are permitted to reach maximum building heights of up to 27 metres.

Canterbury Station has a State heritage listing, including the platform buildings, overhead booking office, overbridge and signal box. The station and the rail bridge to the west crossing the Cooks River, are also heritage items on the LEP Environmental heritage list and RailCorp Section 170 Heritage and Conservation Register. The station is also near the Federation post office building at the junction of Jeffrey and Broughton streets and the former Hotel Canterbury at the junction of Canterbury Road and Tincombe Street, both local heritage items. Where relevant this assessment has considered the *'settings and views'* of these items (Heritage conservation, clause (5.10) of the LEP).

***Landuse zoning***

Canterbury's retail centre focused along Canterbury Road, to the north and south of the station. This precinct is zoned B2 – Local Centre, providing retail and service based shops. Objectives of this zone include: *'To provide a range of retail, business, entertainment and community uses' and 'to facilitate and support investment, economic growth and development for active, diverse and well-designed centres'* (Part 2, Land Use Table: Zone B2) There are two small blocks of land to the north of the station zoned R4 – High Density Residential, along Broughton and Charles streets. The objectives of these zones relate to the provision of *'a variety of housing types within a high density residential environment'* (Part 2, Land Use Table: Zone R4). Otherwise, the land use around the station is zoned R3 – Medium Density Residential with large pockets of Public and Private Recreation (RE1 and RE2) along the Cooks River.

***Sydenham to Bankstown Urban Renewal Corridor Strategy: Canterbury Station Precinct, Department of Planning and Environment, 2017***

This strategy proposes to maintain the '*main street shop top housing*' (p.18) along Canterbury Road whilst accommodating a new retail strip along Robert and Jeffrey Streets to support new growth. The strategy proposes the following land use and associated built form changes within the immediate surrounds of Canterbury Station:

Southwest of the station

- Main street shop top housing along Canterbury Road
- Medium-high rise housing (up to 8 storeys) between the rail corridor, Cooks River and Robert Street
- High rise housing and/or mixed use (up to 12 storeys) east of Canterbury Road.

Northeast of the station

- New retail strip along Robert and Jeffrey Streets to support new growth
- High rise housing and/or mixed use along Broughton and Tincombe streets
- Medium to high rise housing (up to 8 storeys) south of Broughton Street
- A new urban plaza linking the station with Broughton Street.

# 8. CANTERBURY STATION

Character and components of the project

## 8.3. Character and components of the project

**Construction phase**

The following section describes the construction phase for Canterbury Station:

- Establishment of a worksite including demolition of:
  - platforms 1 and 2 (heritage listed platform buildings to be retained)
  - permanent ways (railway lines, ballast, overhead lines) between platforms 1 and 2
  - heritage listed overhead booking office and concourse/footbridge on Canterbury Road, including stairs and ramp access to platforms
  - art deco public amenities building in Broughton Street
- Removal of approximately 11 - 27 trees impacted including:
  - south side of Broughton Street
  - trees to the south of Platform 1
- Cessation of commercial property leases at the station
- Construction compounds to be located at:
  - Broughton Street, north of station
  - Charles Street, at the car park site northwest of station
- Temporary closure of adjacent footpaths, including south side of Broughton Street and west side of Canterbury Road overbridge
- Construction of a new service building, northwest of the station, on Charles Street
- Construction vehicle movement via Canterbury Road, Broughton and Charles Streets.

**Operation Phase**

The following section describes the operational phase for Canterbury Station:

- New straight platforms approximately 170 metres long, extending west from the existing station
- Glazed platform barriers along the full length of the metro platforms
- New platform lighting, security and passenger interface infrastructure
- Emergency egress ramps and stair between the western end of the platforms and Charles Street
- New northern entry and interchange plaza on Broughton Street comprising:
  - lift and stair access to aerial concourse
  - kiss and ride zone, accessible parking, taxi stand, bus stops and bus shelter
  - bike parking area
  - new amenities building
  - new retail
  - streetscape and entry plaza planting
- New southern entry comprising:
  - lift and stair access to platform level concourse
  - bike parking area
  - new retail
  - connection to existing plaza with connections through to Charles Street
- New overhead footbridge between Broughton Street and existing plaza to the south of the station, with aerial concourse (approximately 200 metres west of Canterbury Road), vertical transport connections to platforms, and overhead canopies
- New platform canopies along metro platforms 1 and 2

CANTERBURY STATION, ARTIST'S IMPRESSION

- Existing structures to remain:
  - heritage buildings on platform 1 and 2
  - Canterbury Road overbridge
  - heritage signal box building east of Canterbury Road
  - Canterbury Road bus stops
- New services building, northwest of the station, on Charles Street
- New padmount substation on Broughton Street
- Active transport corridor to the south of the corridor
- Increased rail traffic through platforms 1 and 2.

# 8. CANTERBURY STATION

Sensitivity levels

## 8.4. Sensitivity levels

The following paragraphs summarise the landscape and visual sensitivity of the study area at this site (refer to Table 2.3 for definitions).

### Canterbury Station

Canterbury station functions as a suburban rail station. It is used by concentrations of residents and provides an important transport hub for the local community. It is also a State heritage listed item, and includes several ornate platform buildings, overhead booking office, signal box and overbridge of '*aesthetic significance*'. These features increase its sensitivity as a visual feature within the local area. The landscape and visual values of Canterbury Station are therefore of **local sensitivity**.

### Canterbury Road commercial precinct

This precinct contains commercial, retail, industrial and residential developments. It attracts residents and workers to access these businesses and the station. The run-down character of many of these premises and contrasting new development create a disjointed quality to the area. The landscape and visual values of this precinct are of **local sensitivity.**

### Canterbury residential area

The residential areas of Canterbury are mostly used by residents of the neighbourhood and their visitors. In some areas, a high concentration of single storey detached houses creates a residential character which contrasts with the high density residential development along the rail corridor. The high rise development provides elevated viewing locations and increased numbers of potential views. The landscape and visual values of this precinct are of **neighbourhood sensitivity.**

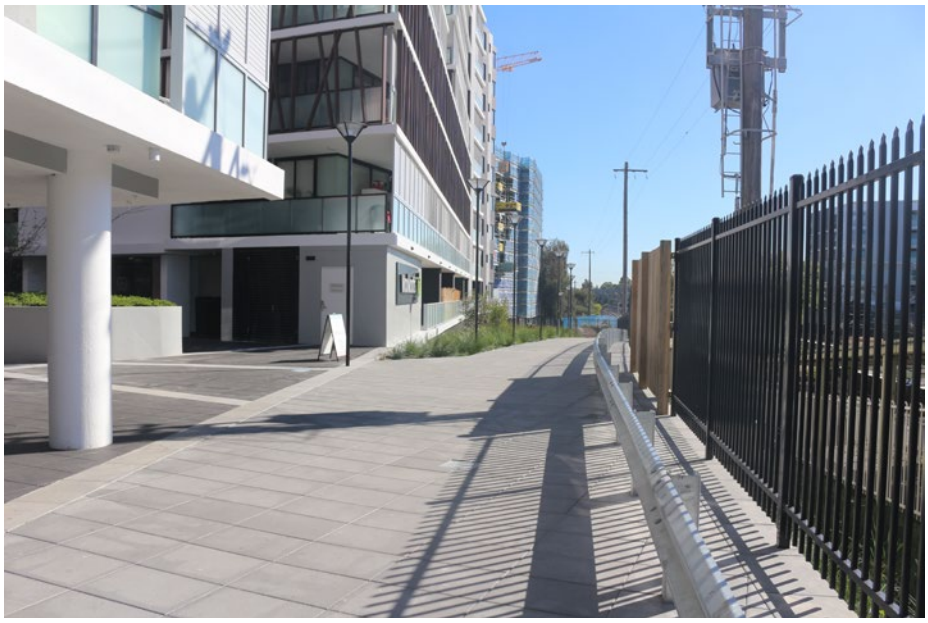





1 CANTERBURY ROAD COMMERCIAL AREA
2 HIGH DENSITY RESIDENTIAL UNITS ON CHARLES STREET
3 LOW DENSITY RESIDENTIAL ON BROUGHTON STREET
4 HERITAGE LISTED SUBSTATION
5 NARROW FOOTPATH ON CANTERBURY ROAD AT STATION ENTRY

# 8. CANTERBURY STATION

Assessment of landscape impact



PLAZA SOUTH OF THE STATION

BUS STOPS ON BROUGHTON STREET

## 8.5. Assessment of landscape impact

The following section summarises the potential landscape impact of the construction and operation of the Canterbury Station precinct (refer to Table 2.7 for impact levels).

**Existing conditions:** Canterbury Station entry is currently located on Canterbury Road. This road is a busy connector thoroughfare with heavy traffic, extended clearways, steep gradients and narrow, uneven footpaths, creating an unpleasant pedestrian environment. It forms the principal north-south spine connecting the town centre with the station. To the north of the station a five-way intersection further reduces pedestrian movement and connectivity to the station. The station does not have any dedicated taxi or kiss and ride interchange bays, and no bike parking. The rail corridor and Canterbury Road also create a barrier for north-south movement, limiting pedestrian and cycle connectivity throughout the station precinct, in particular limiting connections to the Cooks River.

The land between the rail station and the Cooks River is undergoing renewal for mixed use and higher density residential uses. Recent mixed use developments, to the southwest of the station, have created a pedestrian plaza aligned parallel to the station, with some commercial and retail entries, and several pedestrian connections through to Charles Street.

There are mature street trees on Broughton Street, and some trees to the south of the corridor including a mature conifer on the corner with Canterbury Road.

**Construction:** Worksites would be established to the northeast and southwest of the rail corridor extending to Broughton and Charles streets. This would require the removal of vegetation, areas of existing open space and demolition of an art deco amenities building on Broughton Street.

Works to construct the new station buildings and platform alterations would extend between these worksites, and across parts of the station platforms.

There would be a reduced platform area available for commuters as demolition works and construction occurs within the station. Adjustments to the station access arrangements, and diversion and reduction of footpath widths would also reduce the legibility and accessibility of this precinct for pedestrians and vehicles, including along pedestrian plaza to the southwest of the station, Canterbury Road, Broughton and Charles streets.

The presence of construction activity and removal of mature trees, open space and historic buildings would also reduce the amenity of the areas near the station and comfort for pedestrians.

Demolition and reconstruction of the platforms would occur within the station. The heritage listed buildings on platform 1 and 2 would also be protected and retained during this time, however the platform canopies would be removed, slightly altering the character of the station during this time.

Following construction of the new station buildings, the existing station entry building on Canterbury Road would be demolished. This would require temporary closure of the footpath on the western side of the Canterbury Road overbridge. The heritage listed signal box building to the east of Canterbury Road would, however, be retained.

The perception of safety within the public realm may also be reduced as new approaches to the station bring users away from Canterbury Road to an area where there is less passive surveillance. However, measures would be in place to ensure the security of customers at this time.

Overall, due to the scale of construction, it is expected that there would be a considerable reduction in the landscape quality and functioning of this precinct which is of local sensitivity. This results in a **moderate adverse landscape impact** during construction.

**Operation:** The new station entries would be located away from Canterbury Road, reducing its visibility and connectivity with the commercial areas to the northeast. However, the proposed location would set the station back from the busy and constrained environment of Canterbury Road, and allow for the creation of more spacious entrance plaza and prominent station entry on Broughton Street. The station would include an aerial concourse, spanning the rail corridor.

There would be upgraded footpaths to the north of the corridor, between Canterbury Road and the new station entry, and to the south of the corridor, access to the existing pedestrian plaza would be restored. An active transport corridor to the south of the corridor would also improve circulation.

The provision and layout of transport interchanges would be improved. To the north on Broughton Street there would be a new accessible parking, kiss and ride, and taxi stand complementing reconfigured and existing bus stops. There would also be bike parking and retail, located in a plaza at the station entry, with improved pavements and planting.

To the south the existing pedestrian plaza would connect the station with Canterbury Road, and to existing connections through to Charles Street. This connection would be improved by the introduction of retail and a bike parking within the station, further activating the existing plaza. The new aerial concourse would create a cross-corridor connection between Broughton Street, via existing plazas, to Charles Street, improving the permeability and the accessibility of the station precinct.

Street trees and canopy structures would provide shade, comfort and amenity in station meeting and waiting areas, and the increased area of platform canopies would provide shade and improved the comfort for users within the station.

The 'sense of place' experienced at Canterbury Station would be transformed by the project, with the station being set back from Canterbury Road and comprising an entirely new concourse structure. The introduction of prominent new station architecture, and plazas connecting to the existing and emerging urban renewal precincts, would create a new place with a distinctive identity within Canterbury.

Although the relocated station entries would change the legibility, 'sense of place' and character in this station precinct, the new station entrances and associated access, street activation and level of comfort would improve. Overall, there would be a considerable improvement in the functioning and quality of this landscape, which is of local sensitivity, resulting in a **moderate beneficial landscape impact** during operation.

# 8. CANTERBURY STATION

## Assessment of daytime visual impact

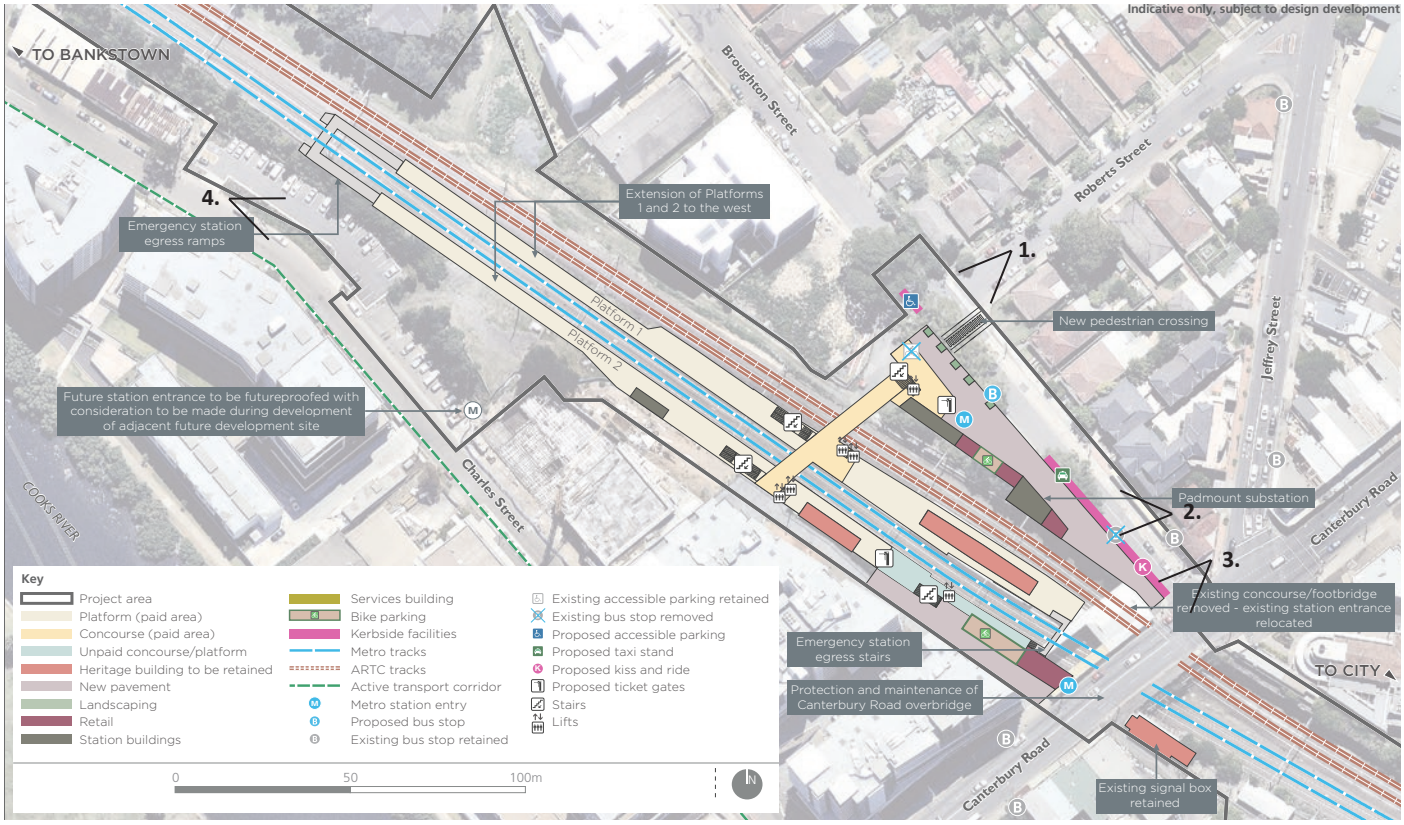



FIGURE 8.1 VIEWPOINT LOCATION PLAN

## 8.6. Assessment of day time visual impact

The following viewing locations were selected as representative of the range of views to this site:

1. View southwest from Robert Street
2. View northwest from Broughton Street
3. View southwest from corner of Broughton Street and Canterbury Road
4. View northeast from Charles Street.

Refer to Figure 8.1 Viewpoint location plan.

The following sections summarise the daytime visual impact of the construction and operation of Canterbury Station, identified in the representative viewpoint assessment and fieldwork visit observations.

### Viewpoint 1: View southwest from Robert Street

This view is in a low density residential street extending between the Canterbury commercial precinct and Broughton Street. A small area of open space extends along the eastern perimeter of the station, between Broughton Street and the rail corridor (centre of view), including an Art Deco public amenities building (out of view), seating and lawn area. The large trunks and canopies of mature Camphor laurel and Eucalyptus street trees along Broughton Street partially obstruct views to the rail corridor, allowing filtered glimpses to the track as it emerges from the cutting and extends towards the Cook River valley. The heritage listed building on platform 1 is visible (left of view). The western parts of the platforms, overhead wiring and support structures are visible in the middle ground, with the recently constructed residential towers in Charles Street seen beyond the rail corridor. Higher density residential buildings recently built in Broughton Street alongside the rail corridor are also visible (right of view).

1 VIEW SOUTHWEST FROM ROBERT STREET

**Construction:** The construction compound on Broughton Street would be seen in the middle ground of this view, occupying the open space alongside the rail corridor. The mature camphor laurel streets trees visible in Broughton Street would be retained. The Art Deco amenities building would be demolished and installation of the new station buildings would be visible beyond the compound hoarding. Construction vehicles would be seen moving along Broughton Street, with site access located adjacent to the development site at 2 Broughton Street. In the background of the view, the rail corridor would be widened to the south, requiring removal of existing fencing and vegetation along the rail embankment. The platforms would be reconstructed and extended to the northwest (right of view), and the heritage listed platform buildings would be retained. Construction of the aerial concourse and footbridge would be seen to east (centre of view). Overall, there would be a considerable reduction in the amenity of this view, which is of neighbourhood sensitivity, resulting in a **minor adverse visual impact** during construction.

**Operation:** The new northern entry plaza would be located in the centre of this view, including a new pedestrian crossing across Broughton Street (left of view). The new station building entry with stairs and adjacent lift would be located in the centre of this view, connecting to the new aerial concourse. The canopy structure would be elevated over the concourse. This new built form would obstruct views to the residential towers in Charles Street somewhat. Existing mature street trees in Broughton Street would shade the station entry plaza and filter views to the rail corridor. The footbridge and central canopy structure would be prominent built form aligned in the centre of this view, seen against a highly urban backdrop of mid-rise residential development, so that it would be somewhat absorbed into the character of the view. The platforms and canopy structures, extending west from the station would also

# 8. CANTERBURY STATION

## Assessment of daytime visual impact

2 VIEW NORTHWEST FROM BROUGHTON STREET


3 VIEW SOUTHWEST FROM CORNER OF BROUGHTON STREET AND CANTERBURY ROAD

be visible through security fencing. Overall, it is expected that there would not be a perceived change in the amenity of this view, which is of neighbourhood sensitivity. This would result in a **negligible visual impact** during operation.

### Viewpoint 2: View northwest from Broughton Street

This view is from Broughton Street, and represents views from the bus stop and adjacent residences to the north of the station. An art deco amenities building is visible in the foreground, located in a linear reserve along the north of the station. This building, as well as the mature street camphor laurel street trees and container style facilities buildings within RailCorp land, partially obstruct views to the rail corridor, with only glimpses to the overhead wiring, support structures and track seen. The residential towers in Charles Street are visible beyond the rail corridor in the background of this view.

**Construction:** The reserve between Broughton Street and the rail corridor would become a worksite and the amenities building and bus shelters would be demolished. Three camphor laurel street trees in Broughton Street would also be removed. Construction of the padmount substation and bike parking areas would be seen in the centre of view. Further to the west, construction of the new northern station entry and footbridge would also be visible (right of view). Construction vehicles would be seen moving along Broughton Street. Overall, due to the extent of change seen in this view, there would be a considerable reduction in the amenity of this view, which is of local sensitivity, resulting in a **moderate adverse visual impact** during construction.

**Operation:** The footpath along Broughton Street would be replaced with a wider pathway, with new paving and streetscape planting, providing a legible and comfortable link for pedestrians, between Canterbury

Road and the new northern station entry plaza. New kiss and ride bays and taxi parking with overhead canopy structure would be seen along this section of Broughton Street. A padmount substation and adjacent bike parking areas would also be visible in the centre of view, beside the rail corridor. Further to the west, the new northern station entry plaza, aerial concourse and canopy structure would rise prominently in this view. These new buildings and structures would block views to the metro corridor and high rise buildings on Charles Street. Although much of this view would change, these changes would be absorbed into the surrounding highly urban environment. Overall, it is expected that there would not be a perceived change in the amenity of this view, which is of local sensitivity. This would result in a **negligible visual impact** during operation.

### Viewpoint 3: View southwest from corner of Broughton Street and Canterbury Road

This viewpoint is located adjacent to the heritage listed post office building. In the foreground of the view is the heavily trafficked Canterbury Road and the station entrance, including the overhead booking office (c. late 1980s), with awnings extending to the road and brick garden walls. To the left of view, the heritage listed signal box building is visible, beside the southern overbridge abutment. The bus shelters and three mature camphor laurel street trees on Broughton Street are also visible from this location (right of view). In the background of this view recent medium-density development can be seen to the south of the station. The rail corridor and station is in a cutting and therefore not visible from this location.

**Construction:** The entire middle ground of this view would become a worksite and the existing station building and bus shelters on Broughton Street, would be demolished. To the west (right of view), construction of the new northern entry plaza may also be visible from this location. Construction vehicles would be seen moving along Canterbury Road and Broughton Street. Overall, due to the extent of change seen in this view, there would be a considerable reduction in the amenity of this view, which is of local sensitivity, resulting in a **moderate adverse visual impact** during construction.

**Operation:** The Canterbury Road station entry would be removed and views would be opened up to the metro corridor, including the new platforms and moving trains. The heritage listed platform buildings would also become visible. The footpaths along Canterbury Road would be reinstated. On Broughton Street, new paving and kiss and ride bays, with a canopy structure would be seen. Although the Canterbury Road station entry building would be removed, it is a recent addition, and does not have the historic and visual importance of the platforms buildings. The loss of this building would open up views to the metro corridor which would be absorbed into the view to the high rise buildings on Charles Street seen beyond. This would create no perceived change in the amenity of this view, which is of local sensitivity, resulting in a **negligible visual impact** during operation.

# 8. CANTERBURY STATION

## Assessment of daytime visual impact

4 VIEW SOUTHEAST FROM CHARLES STREET

### Viewpoint 4: View northeast from Charles Street

This view includes several medium-density residential buildings on Charles Street (right of view), and on Broughton Street in the background of the view, beyond the rail corridor. A surface car park and vacant RailCorp land, on Charles Street, is visible in centre, foreground of this view. In this location, the T3 Bankstown Line is raised on embankment. Vegetation along the rail embankments filter views to the corridor, so that only the overhead wiring and upper parts of the support structures and trains are visible.

**Construction:** The car park and RailCorp land, visible in the middle ground (centre of view), would be converted into a construction compound. Construction of the services building would be seen in the middle ground and beyond this, the western station entry plaza in Charles Street and the cross-corridor aerial concourse. Works on the adjacent rail corridor would also be visible, including platform extension works, installation of the platform canopies, barriers and segregation fencing. This work would be overlooked by adjacent residential properties. Overall, the project would create a noticeable reduction in the amenity of this view, which is of neighbourhood sensitivity, resulting in a **negligible adverse visual impact** during construction.

**Operation:** The surface car park would be reinstated and the new services building would be visible. Rising to an approximate height of four metres, it would be a relatively small structure compared to the adjacent medium-rise apartment buildings. A vacant block of Railcorp land would be visible beside the services building, prepared for future development (subject to separate approval). Beyond this, the new southern station entry plaza would be visible (centre of view), including a new plaza between Charles Street and the station, with new paving, bike parking area, stair and lift access to the station. The aerial concourse

and canopy structure would also be visible in the background of the view, rising above the station, and providing a new skyline feature. Vegetation along the rail embankment would  have been removed to allow room for the new metro platforms. The platforms canopies, security fencing, signaling equipment and trains moving through the station would be visible to the west of the station (left of view). The new station would have a character consistent with the highly urban character of this view, and would absorb these changes. Overall, it is expected that there would be no perceived change in the amenity of this view, which is of neighbourhood sensitivity, resulting in a **negligible visual impact** during operation.