

Safe Accessible Transport program

Chester Hill –Landscape Character and Visual Impact Assessment

Transport for NSW

Reference: 526819

Revision: 2

2024-08-02



Document control record

Document prepared by:

Aurecon Australasia Pty Ltd
ABN 54 005 139 873
Level 11, 73 Miller Street
North Sydney 2060 Australia
PO Box 1319
North Sydney NSW 2059
Australia

T +61 2 9465 5599
F +61 2 9465 5598
E sydney@aurecongroup.com
W aurecongroup.com

A person using Aurecon documents or data accepts the risk of:

- a) Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.
- b) Using the documents or data for any purpose not agreed to in writing by Aurecon.

Document control		aurecon				
Report title		Chester Hill –Landscape Character and Visual Impact Assessment				
Document code			Project number		526819	
File path						
Client		Transport for NSW				
Client contact			Client reference			
Rev	Date	Revision details/status	Author	Reviewer	Verifier (if required)	Approver
0	2024-07-02		N.Lamb-Egar	R.Buckley		K.Mackenzie
1	2024-07-24	Revised to client comments	N.Lamb-Egar	R.Buckley		K.Mackenzie
2	2024-08-02	Revised to client comments	N.Lamb-Egar	R.Buckley		K.Mackenzie
Current revision		2				


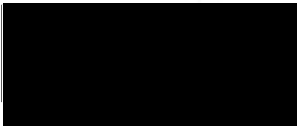
Approval			
Author signature		Approver signature	
Name	Natarsha Lamb-Egar	Name	Katie Mackenzie
Title	Lead Integrated Designer	Title	Project Manager, Associate Environment and Planning

Figure 0-1 Cover image: Chester Hill Heritage Station building (Aurecon, June 2024)

Contents

Definitions	3
Executive Summary	4
1 Introduction.....	6
1.1 The Proposal	6
1.2 Assessment scope	6
2 Methodology and Relevant Guidelines	7
2.1 Assessment tasks.....	8
2.2 Study Area.....	8
2.3 Visual Impact Assessment	8
2.4 Assumptions and Limitations.....	10
2.5 Photomontages	11
3 Existing Environment	12
3.1 Location	12
3.2 Strategic Planning Context.....	12
3.3 Landscape and visual context.....	14
3.3.1 Land zoning	14
3.3.2 Heritage	15
3.3.3 Vegetation	15
3.3.4 Visual context	16
3.4 Urban Landscape Character	17
4 Proposal design.....	22
4.1 Key features of the Proposal	22
4.1.1 Landscaping, materials and finishes	22
4.1.2 Consideration of heritage in design.....	23
4.2 Construction and site establishment	23
5 Visual Impact Assessment.....	27
5.1 Key Viewpoints	27
5.2 Visual Impact Assessment Summary.....	36
6 Urban landscape character assessment	37
6.1 Urban landscape character impacts.....	37
6.1.1 Construction	37
6.1.2 Operational	38
6.1.3 Summary of urban landscape character impacts.....	39
7 Summary and recommendations.....	40
7.1 Urban Landscape and Visual mitigation.....	40
7.2 Conclusion.....	41
References	42

Figures

- Figure 0-1 Cover image: Chester Hill Heritage Station building (Aurecon, June 2024)
- Figure 3-1 Nugent Park (south) trees
- Figure 3-2 Street trees along Chester Hill Road to the south of the site
- Figure 3-3 View looking south towards Nugent Park (north) tree coverage from Waldron Road
- Figure 3-4 Nugent Park north
- Figure 3-5 Covered walkway looking towards station entrance. Materials and narrow path provide a constricted environment.
- Figure 3-6 View beneath covered walkway looking towards Nugent Park south seating area
- Figure 3-7 Urban Landscape Character Zones
- Figure 3-8 View looking towards station building on platform and beneath covered walkway
- Figure 3-9 Rail overbridge and stairway from Chester Hill Road to station platform
- Figure 3-10 View looking north-east at shop-top housing along Chester Hill Road
- Figure 3-11 View looking north-west towards shop-top housing along Waldron Road
- Figure 3-12 Apartment blocks southwest of station
- Figure 3-13 Apartment blocks southeast of station
- Figure 3-14 Nugent Park-south
- Figure 3-15 Nugent Park-north
- Figure 4-1 Concept design artist impression of aerial view from the south - indicative only, subject to detailed design
- Figure 4-2 Concept design artist impression of view under platform canopy - indicative only, subject to detailed design
- Figure 4-3 Concept design artist impression of view of elevated walkway and stairs - indicative only, subject to detailed design
- Figure 4-4 Key features of the Proposal - Indicative only, subject to detailed design.
- Figure 5-1 Viewpoint Locations
- Figure 5-2 Viewpoint CH01: view from Nugent Park South looking north towards Chester Hill station entrance
- Figure 5-3 Viewpoint CH01: Proposal at day 1 of operation (photomontage), indicative only, subject to detailed design.
- Figure 5-4 Viewpoint CH02: view from Chester Hill north shops looking south towards Chester Hill station entrance
- Figure 5-5 Viewpoint CH02: Proposal at day 1 of operation (photomontage), indicative only, subject to detailed design.
- Figure 5-6 Viewpoint CH03: view representative of apartment dwellings overlooking local centre
- Figure 5-7 Viewpoint CH03: Proposal at day 1 of operation (photomontage), indicative only, subject to detailed design.
- Figure 5-8 Viewpoint CH04: View from the station platform looking east towards Chester Hill Road

Tables

- Table 2-1 Viewpoint Sensitivity ratings
- Table 2-2 Viewpoint magnitude ratings
- Table 2-3 Visual Impact Rating Matrix
- Table 3-1 Local Plans
- Table 5-1 Key Viewpoints
- Table 5-2 Summary of visual impacts
- Table 6-1 Summary of Urban landscape character impacts

Definitions

Term	Definition
CCTV	Closed-circuit television – a system of surveillance cameras that are connected to a private network, allowing video monitoring and recording of a specific area or location typically for security purposes.
CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
DCCEEW	Commonwealth Department of Climate Change, Energy, the Environment and Water
DCP	Development Control Plan
DDA	Disability Discrimination Act 1992
DSAPT	Disability Standards for Accessible Public Transport 2002
DPE	Department of Planning and Environment (NSW)
Dwelling	A structure for residential use
EP & A Act	NSW Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection Biodiversity Conservation Act 1999
HO	Heritage Overlay
IBRA	Interim Biogeographic Regionalisation for Australia.
km	kilometre
Landscape	Its constituent elements, its character and the way this varies spatially, its geographic extent, its condition, the way the landscape is experienced, and the value attached to it.
LCZ	Landscape Character Zone
LEP	Local Environmental Plan
LGA	Local Government Area
LPPF	Local planning policy framework: Local planning policies are tools used to implement the objectives and strategies of the Municipal Strategic Statement.
LSPS	Local Strategic Planning Statement
m	metre
Magnitude	The apparent size of a proposed modification in the landscape or when viewed from a given viewpoint.
PCT	Plant Community Type: identified using the PCT classification system described in the BioNet Vegetation information system Classification
Private receiver	A privately owned or used viewpoint type
Public viewpoint	A publicly owned or used viewpoint type
REF	Review of Environmental Factors
SEPP	State Environmental Planning Policies
Study Area	The area designated relevant for assessment of the Proposal
the Proposal	Chester Hill Station Safe Accessible Transport program upgrade
Proposal site	Proposed construction and operational area for the Proposal
Sensitive receiver	Those visual receivers within the Study Area that are likely to view the Proposal from their dwelling, a popular or significant viewing location (such as a lookout).
Transport	Transport for New South Wales (TfNSW)
LCVIA	Landscape Character and Visual Impact Assessment: The assessment of the impacts of the Proposal on urban, landscape and visual values.
Viewpoint	Moderate or high sensitivity location from which views to the construction process or components of the Proposal may be possible.
Viewshed	The area visible from a particular viewing location.
Visual amenity	The qualities of a landscape setting that are appreciated and valued by a viewer.
Visual impact	The result of assessing the sensitivity level of a viewer and the modification level of a development.
Visual sensitivity	The degree to which various user groups would respond to change based on their expectation of a particular experience in each setting for example the expectation of a high level of visual amenity in a national park.

Executive Summary

This report comprises a Landscape Character and Visual Impact Assessment (LCVIA) to support the Chester Hill Station upgrade (the Proposal), being delivered under the Safe Accessible Transport program.

The purpose of this assessment is to consider the factors and inputs related to the construction, operation, and maintenance of the Proposal, and how it would affect the current and future environment in terms of urban design and visual amenity. Additionally, it aims to evaluate and identify opportunities for better integrating the design for users and for the local centre.

The assessment of urban design and landscape character impacts considers impacts of the Proposal against both local planning objectives and project design objectives, including:

- Visual amenity
- Urban landscape character, including:
 - Urban form
 - Heritage conservation
 - Connectivity and perceptions of safety.

This assessment should be read in conjunction with the Review of Environmental Factors (REF), which provides additional information about the background and context of the Proposal. The REF also offers a comprehensive description of the proposed works for the Proposal.

Existing landscape and visual environment

This assessment examines the existing landscape and visual conditions of the Study Area (both physical and statutory) to establish a baseline against which potential effects of the Proposal can be assessed.

The Study Area has been defined within a radius of 200 metres from the location of the Chester Hill Station. This area captures where the Proposal is potentially observable and is more at risk of adverse visual and urban design impacts.

Relevant planning policies and legislation have been reviewed to understand any specific landscape or visual conditions relating to the Study Area, as well as a desktop study to understand the various physical elements that combine to create landscape and visual character.

The Proposal is within an existing railway corridor zoned SP2, with the station listed on the TAHE Section 170 Heritage and Conservation Register. The Study Area around the station comprises Chester Hill local centre, a local reserve (Nugent Park- north and south) and high-density residential apartments.

The landscape character zones identified include:

- LCZ 1 Transport corridor
- LCZ 2 Local centre
- LCZ 3 Residential
- LCZ 4 Parks and recreation

There were four viewpoints assessed within the Study Area which were representative of sensitive visual receivers, including local centre users, park users, overlooking apartment residents and train commuters.

Summary of findings

The Proposal has minimal potential adverse impacts on the existing urban landscape character zones. It includes elements such as new paths, covered walkways, and improved access to taxis that integrate well with the surrounding streetscape and public spaces. Vegetation impact is minimised by replacing any trees that need to be removed. Additionally, the Proposal upgrades existing public transport facilities with limited layout changes that adhere to height requirements and improve daylighting while minimising overshadowing.

Heritage conservation of the station building is addressed in the Statement of Heritage Impact (Artefact, August 2024). Views of the station building from the surrounding area are not improved due to the proposed extent of platform canopies to either side of the building. From the platform, the canopies and furniture are differentiated from the heritage brick building through the use of contemporary materials and some areas of glazing within the canopy.

Views of the Proposal are experienced from limited sensitive visual receivers including those within Nugent Park (north and south) and some residents within overlooking apartments. Visual impacts for sensitive receivers is moderate to moderate-low adverse, temporarily during construction. Once works are complete, the use of contemporary materials provides improved visual permeability and an improved appearance that integrates the use and visual connections between users. Lighting, CCTV, and visually permeable protection and anti-throw screens on the overbridge improve safety perceptions and practicalities for local centre and public transport users.

The Proposal aims to improve accessibility and connectivity, supporting urban growth and renewal. It includes improved wayfinding, clear sightlines, and enhanced pedestrian access for increased public transport usage and overall improvement of the local area.

1 Introduction

1.1 The Proposal

The NSW Government is improving accessibility at Chester Hill Station. This Proposal is being delivered as part of the Safe Accessible Transport program, an NSW Government initiative announced in February 2024. It aims to make public transport safe, inclusive and easy to use for all passengers, especially people with disability, older people, people with prams or luggage and others who may be experiencing mobility problems.

The program will upgrade stations and wharves to achieve Disability Standards for Accessible Public Transport (DSAPT) compliance and improve amenity, access and safety, acknowledging the important role these locations have to the communities they serve.

1.2 Assessment scope

This Landscape Character and Visual Impact Assessment (LCVIA) has been prepared to determine the extent of visual, urban landscape impacts the Proposal may have on the locality, including the local centre, residential properties and recreational assets. This will inform potential visual mitigation such as re-vegetation and landscaping works that could be carried out around the facility's perimeter to reduce the visual impact on the properties adjacent to the Site.

The LCVIA forms part of the Review of Environmental Factors (REF) which has been prepared having regard to sections 5.5 and 5.7 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act), and section 171 of the NSW *Environmental Planning and Assessment Regulation 2000*, to ensure that Transport for NSW (Transport) takes into account to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the Proposal.

Report Objectives

The objectives of this report are to:

- Understand the existing conditions at the subject site and assess the potential impacts of the proposed change on the visual amenity of the surrounding area and sensitive residential dwellings
- Identify sensitive receivers and provide a rating as to the visual impact of the Proposal on sensitive receptors
- An assessment of urban landscape character considering:
 - local planning objectives in relation to urban design
 - assess the Proposal against urban design and landscape character objectives
- Recommend mitigation strategies to be implemented, including use of vegetation or other screening solutions such as finishes and materials where practical.

2 Methodology and Relevant Guidelines

The LCVIA is based on the following best-practice guidelines:

- Guideline for Landscape Character and Visual Assessment - Environmental Impact Assessment Practice Note EIA-NO4, Transport for New South Wales, 2020
- Guidelines for Landscape and Visual Impact Assessment (third edition), Landscape Institute of Environment Management and Assessment (IEMA), 2013
- Guidance Note for Landscape and Visual Assessment (June 2018), Australian Institute of Landscape Architects.

The assessment considered whether the design made consideration of NSW design guides including:

- Better Placed, Government Architect New South Wales (2023) – an integrated design policy for the built environment in NSW, to promote well designed public places and environments
- Planning and designing for better places, NSW Government (December 2021) – a planning circular providing advice on respecting and enhancing local character
- Beyond the Pavement, TfNSW (2010) – urban design principles and objectives to guide public realm design
- Around the Tracks: Urban design for heavy and light rail, TfNSW, December 2016 – Interim issue.

Transport Design Guidance

Transport has developed a suite of documents that provide guidance to project teams on design objectives and principles. These documents are based on evidence and offer best practice examples related to infrastructure projects.

The integration of this guidance is crucial for the successful implementation of Safe Accessible Transport program projects. The main guideline provided by Transport for the planning, design, construction, and operation of improvements to heavy and light rail systems in NSW is called "Around the Tracks, 2016." This document outlines eight principles that govern the planning and design of rail infrastructure, as well as the urban design process necessary to achieve safe, efficient, and high-quality outcomes.

The objective of the design services is to improve the access of the station for all sections of the community, including people with a disability, older persons, people with prams or luggage and others who may be experiencing mobility problems. The design aims to achieve the following.

- Provide facilities that:
 - Are inviting and safe for customers to use
 - Comply with the Disability Standards for Accessible Public Transport (DSAPT) 2002 to contribute to the Commonwealth Disability Discrimination Act (DDA) targets
 - Are compliant with the current standards of safety, access, and amenity
 - Easily maintained and operated by the Maintainer/Operator.
- Provide safe, direct and continuous access path within the boundary of the site between transportation mode change locations, accessible parking, passenger boarding points and other key facilities.

2.1 Assessment tasks

The LCVIA report has been undertaken in accordance with the following assessment tasks:

1. Contextual and site analysis of the area through a desktop assessment, building an understanding of the current and future land uses within the locality as well as determining the value of the built and natural environment through strategic plans, character statements and aesthetic value
2. Identification of key viewpoints that encapsulate potential impacts on sensitive receptors.
3. Conducted a field survey on 13 June 2024 to ground truth desktop findings and capture photographs from key sensitive locations
4. Preparation of photomontages based on the concept design to demonstrate the effect of the Proposal assets on key views
5. The assessment of visual impacts is assessed on a combination of visual sensitivity and the magnitude of the change, based on the concept design at Year 1 of operation
6. Rating of sensitivity and magnitude of impact for each viewpoint in accordance with Impact Rating Matrix Table 2-3
7. Outline the mitigation strategy to manage and minimise adverse visual impacts as a result of the Proposal assets.

2.2 Study Area

This assessment has adopted a study area of 200 metres around the proposal (see Figure 3-7). The Study Area is determined by the distance at which it is considered that Proposal components would become either indiscernible to the human eye or would occupy such a small proportion of the visual field of view that impacts could be considered negligible. This distance is related to the scale and height of the Proposal components, intervening topography, buildings, or vegetation; and the viewing properties of the typical human eye.

During the site visit, this distance was tested, with the station not discernible any further than adjacent streets.

2.3 Visual Impact Assessment

Following the desktop study, viewpoints were selected to represent key views of sensitive receivers in the area (see Figure 5-1). Each viewpoint was selected as representative views of key receivers surrounding the Proposal. Viewpoints are selected to illustrate:

- a range of:
 - receptor-types including public and private domain views.
 - view-types including elevated, panoramic, and filtered views.
 - viewing distance from the Proposal.
- consideration of main or protected views in the Study Area.

Some views were ruled out during site visit as vegetation, topography or existing buildings would fully screen views toward the Proposal.

Sensitivity

Viewer sensitivity is a measure of how critically a change to the existing landscape setting would be regarded based on (1) the land use of the area and (2) the distance from where it is viewed.

Various landscape settings have differing indexes to the relative importance the viewer places on them. For example, individuals would view changes to the visual setting of their residence more critically than changes to the visual setting in which they travel or work.

As such, levels of viewer sensitivity are based on land use because this largely defines a viewer's expectation of what they would typically expect within a particular setting. This approach is consistent with the visual management system (*Landscape Aesthetics – A Handbook for Scenery Management*, United States Department of Agriculture & Forest Service, 1995).

Viewpoint sensitivity is dependent on:

- Importance (scenic quality) of the view.
- Duration of viewer activity.
- Number of viewers exposed to the Proposal.
- Nature of the visual receptor (type and volume of sensitive receptors or viewers) experiencing the view.

Table 2-1 describes the sensitivity aspects used in the assessment.

Table 2-1 Viewpoint Sensitivity ratings

Sensitivity	Description
High	<p>Large number of viewers, or those with proprietary interest and prolonged viewing opportunities such as residents and users of attractive and/or well-used recreational facilities.</p> <p>Views from a regionally or locally important location such as a scenic lookout whose interest is specifically focussed on the landscape.</p> <ul style="list-style-type: none"> ■ Residential properties. ■ Users of community facilities and open spaces, where the purpose of that recreation is the enjoyment of the landscape. ■ Key tourist areas.
Moderate	<p>Medium number of residents and moderate numbers of visitors with an interest in their environment.</p> <p>Larger number of travellers with an interest in their surroundings.</p> <ul style="list-style-type: none"> ■ Outdoor workers. ■ Recreational parks within urban environments. ■ Schools and other institutional buildings, and their outdoor areas.
Low	<p>Small number of visitors with a passing interest in their surroundings.</p> <p>Viewers whose interest is not specifically focussed on the landscape.</p> <ul style="list-style-type: none"> ■ Indoor workers. ■ Users of main roads or arterial roads. ■ Users of recreational facilities where the purpose of that recreation is not related to the views. ■ Commercial area users.

Magnitude of change

Magnitude refers to the scale, size and character of the Proposal and its proximity to the viewer and the degree to which its affect has been mitigated. For example, a development situated one kilometre from the viewpoint, would have a much-reduced visual effect than one 100 metres away¹. All elements of the Proposal are to be considered including changes to landform, urban structure, vegetation patterns, as well as the nature scale and density of the Proposal within the landscape.

Magnitude is dependent on:

- Scale, regarding the loss or addition of features in the view and changes in its composition.
- Degree of contrast or integration based on scale and form, height, colour, and texture.
- Nature of view in relation to the Proposal accounting for angle, distance, and extent.
- Mitigation, accounting for its effectiveness at reducing impacts over time.

Table 2-2 below describes the magnitude aspects used in the assessment.

¹ Guideline for Landscape Character and Visual Assessment - Environmental Impact Assessment Practice Note EIA-NO4, Transport for New South Wales, 2020. pg9

Table 2-2 Viewpoint magnitude ratings

Magnitude	Description
High	The Proposal, or part of it, would become the dominant feature or focal point of the view.
Moderate	The Proposal, or part of it, would form a noticeable feature or element of the view which is readily apparent to the receptor.
Low	The Proposal, or part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view.
Negligible	Only a very small part of the Proposal would be discernible, or it is at such a distance that it would form a barely noticeable feature or element of the view.

Overall Impact

With all factors considered, an assessment was made on each landscape character and representative viewpoint against the known extent of the Proposal. Table 2-3 presents the matrix of how the sensitivity and magnitude of impacts combines to provide an impact rating.

By applying the matrix, an assessment of the Proposal may have low, moderate-low, moderate, high-moderate or high impacts, depending on the level of visual modification and viewer sensitivity from the location at which the Proposal can be viewed. Impacts can be beneficial where the modification improves visual amenity or enhances landscape character, however the introduction of built form within the environment is typically considered to have an adverse effect. Where the Proposal is visible and fits into the surrounding environment and there is no overall improvement of the visual amenity, the impact is considered neutral. If the Proposal is not visible, there is negligible impact. The following Table 2-3 shows how the level of impact is determined through the matrix.

Table 2-3 Visual Impact Rating Matrix²

		Magnitude of change			
		High	Moderate	Low	Negligible
Sensitivity	High	High	High-Moderate	Moderate	Negligible
	Moderate	High-Moderate	Moderate	Moderate-Low	Negligible
	Low	Moderate	Moderate-Low	Low	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

2.4 Assumptions and Limitations

This report is subject to the following limitations:

- The LCVIA has been prepared with information provided in the Architectural concept design (July 2023) package. Further changes to the detailed design will not be captured in this assessment.
- Photomontages are based on the Architectural concept design (July 2023) which illustrates the nature and extent of the Proposal.
- All viewpoints have been photographed from publicly accessible locations to demonstrate and reflect, as closely as possible, the potential visual impacts likely to be from a sample of sensitive receivers such as residents.
- Access to sensitive viewpoints on private land, such as residences, were not undertaken for this LCVIA, however, impacts from private properties were considered in the assessment.
- The methodology adopted for this visual impact assessment assumes that if the works would not be seen, there is no impact.

² Guideline for Landscape Character and Visual Assessment - Environmental Impact Assessment Practice Note EIA-NO4, Transport for New South Wales, 2020

- For the purpose of the assessment, unobstructed viewpoints from publicly accessible locations have been used as a worst-case scenario of potential visual impacts.
- The impact assessment is focused on the current land uses and zoning.

2.5 Photomontages

A photomontage is a technique whereby an image of the proposed development is produced using an existing photograph, overlaid with a render of the key Proposal elements, to provide an indicative representation of the scheme. The process entails inserting a computer-generated model of the Proposal into a photograph taken from a geographically referenced viewpoint, using existing elements of a known size, location, and scale to suitably locate the digital representation within the photograph. Objects, such as buildings in the existing view have been modelled to create a reference point to match in the photos.

Rendered photomontages are indicative of the Proposal at Day 1 of operation, based on the concept design and do not indicate any potential changes through detailed design or design mitigation measures.

The following steps were taken to produce the photomontages.

- Viewpoints were selected based on representation of different angles and from different visual receivers towards the Proposal.
- Each selected viewpoint is then re-created 'virtually' in software using 3d design models and reviewed to ensure the view is 'viable'. This document is then used as a 'shoot plan' for site photography capture.
- On site, photography is taken matching the viewpoints locations and orientation selected. A DSLR Canon 7D camera and 17mm lens (27.5mm full frame sensor equivalent) is used to capture the base imagery.
- Using the site photography as a base image each 'virtual' camera is then positioned, in software, using existing survey features to precisely register the 3d design into view.
- 3D federated design models received June 2024 are then rendered with basic materials, and lighting.
- Finally, Adobe Photoshop is used to overlay the 3d rendered design on top of the base image. Final adjustments are 'painted' to occlude design details in front or behind existing structures. Each 'artists impressions' is saved as a JPG uncropped and free of distortion.
- Our method of production is accurate and repeatable using a scientific method.

Selected viewpoint photomontages

The viewpoints selected to produce photomontages are based on those views that are likely to have the highest adverse effects to the most sensitive visual receivers. For the purpose of this assessment, photomontages were produced for three of the four viewpoints including:

- CH01 – representative of recreational users within Nugent Park south
- CH02 - representative of local centre users
- CH03 – representative of overlooking apartments and local centre users.

3 Existing Environment

3.1 Location

The Proposal site is located along Chester Hill Road in Chester Hill, approximately 25km west of Sydney's CBD. Chester Hill is part of the inner Western Sydney area and falls within the City of Canterbury-Bankstown Local Government Area.

Low density residential housing makes up a significant portion of the catchment, with high-density residential dwellings located predominately in adjacent areas following the rail line. Chester Hill Public School is located to the south of the station, with other attractors in the south including Chester Hill Library, Community Centre, Chester Hill RSL and Chester Hill Preschool. These destinations are all connected via Chester Hill Road.

The station is bound in the north and south by Nugent Park, as well as by local shops, cafes and restaurants which offer high levels of activation for the catchment.

The station is on the Main Southern Line and is served by the Sydney Trains T3 Bankstown Line services via two platforms. Chester Hill Station is a key interchange point for T3 Bankstown Line services, connecting passengers to Liverpool and the City Circle via Bankstown. Additionally, Transdev NSW operates several bus routes that service the station, including routes 911, 916, M91, S2 and S4 along Chester Hill Road and Waldron Road.

3.2 Strategic Planning Context

A number of existing National/Commonwealth, State, Regional and Local strategic planning legislation and policies relevant to landscape and visual aspects of the Proposal site are discussed below.

National level

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) - The Site is located within the Cumberland subregion of the Sydney Basin Biogeographic. The EPBC Act lists a number of threatened flora and fauna and ecological communities that need to be protected within this subregion.

State level - New South Wales

Environmental Planning and Assessment Act 1979 (EP&A Act) - The EP&A Act sets out the NSW planning framework, including the management, conservation, and development of land. The EP&A Act is aimed at ensuring that development is both economical and ecologically sustainable by providing for State Environmental Planning Policies (SEPPs) and Local Environmental Plans (LEPs) to be made.

Local planning policy analysis

The City of Canterbury-Bankstown local planning instruments apply to the subject site which contains aims and objectives for the protection of landscape, urban and scenic values. The following local plans are relevant to the Proposal and are further detailed in Table 3-1.

- Canterbury-Bankstown Local Environmental Plan 2023 (LEP)
- Canterbury-Bankstown Development Control Plan 2023 (DCP)

The Canterbury-Bankstown LEP and Canterbury-Bankstown DCP combine to implement Connective City 2036 – the relevant Local Strategic Planning Statement (LSPS). A city centre master plan has not been designed for Chester Hill local centre.

The LEP is Council's principal planning document to regulate effective and orderly development in Canterbury-Bankstown. The LEP provides objectives, zones and development standards such as lot sizes, floor space ratios and building heights.

Table 3-1 provides a summary of how the Proposal has responded to a selection of the most relevant landscape and urban design considerations as identified within the LEP and DCP.

Whilst the requirements of the local government planning documents (including LEP and DCP) are not applicable to the approval, the requirements of these planning instruments have been used as a guide to ensure locally appropriate urban design outcomes are achieved.

Table 3-1 Local Plans

Provisions	Objectives	Relevance to the study
Canterbury-Bankstown LEP 2023		
1.2 Aims of Plan	(b) to protect landforms and enhance vegetation, especially foreshores and bushland, in a way that maintains the biodiversity values and landscape amenity of Canterbury-Bankstown	Design has minimal effect on local vegetation, with any tree removals to be replaced, reducing the potential for an adverse impact.
	(c) to identify, conserve and protect the Aboriginal, natural, cultural and built heritage of Canterbury-Bankstown	In views from adjacent residences the Proposal would be seen in the context of the existing station and separated from residences by adjacent streets, reducing the potential for an adverse visual impact.
	(d) provide development opportunities that are compatible with the desired future character and amenity of Canterbury-Bankstown	Future character is not stipulated in LSPS however is in accordance with respecting and enhancing local character – refer section 3.4.
	(i) to provide a range of recreational and community service opportunities and open spaces to meet the needs of residents of and visitors to Canterbury-Bankstown	The design proposes changes to Nugent Park-south, however, does not change any land zoning or uses, reducing the potential for an adverse impact.
	(j) to achieve good urban design in terms of site layouts, building form, streetscape, architectural roof features and public and private safety	Implementation of design guidance provides improved accessibility and safety provisions to the surrounding centre and community including a night economy. Proposal responds to Heritage design guidelines (refer section 3.3.2).
4.3 Height of buildings	(a) to establish the height of development consistent with the character, amenity and landform of the area in which the development will be located	The height of the Proposal, including the lifts and canopies, would not exceed the height or bulk of buildings within the local centre.
	(b) to maintain the prevailing suburban character and amenity by limiting the height of development to a maximum of 2 storey height in zone R2	As above.
	(d) to minimise overshadowing to existing buildings and open space	There is to be separation between the platform canopy and station building, including glass canopy sections, to provide improved daylighting. The replacement of the covered walkway adjacent Nugent Park south is proposed as a sloped canopy. This would reduce overshadowing.
	(e) to minimise the visual impact of development on heritage items and heritage conservation areas	The station entry elevated walkway is designed to be visually separate from the station building and uses steel and glass to allow the station building to be viewed.
	(f) to support building design that contributes positively to the streetscape and visual amenity of an area.	The replacement covered walkway uses a sloped roof instead of existing pitch roof design, allowing views through and it is of contemporary design.
5.10 Heritage conservation	1(b) Heritage conservation: to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views.	The heritage station building would be retained, while new lifts, stairwell and entry elevated walkway would be contemporary in style and positioned away from the heritage building. The use of glazing around the lift shaft and transparent canopies would also ensure a lightweight appearance, ensuring they are not visually dominant structures.

Provisions	Objectives	Relevance to the study
	10(e) Conservation objectives: the proposed development would not have any significant adverse effect on the amenity of the surrounding area.	Two trees on the station platform are proposed to be removed. Replacement trees would be planted. Whilst acknowledging that there have been some changes, the heritage station building is preserved and its relationship to the surrounding landscape character is maintained.
Canterbury-Bankstown DCP 2023		
3.7 Landscape objectives	<p>O1. To promote attractive settings for development and the public domain.</p> <p>O2. To ensure landscape design contributes to the streetscape and amenity.</p> <p>O3. To incorporate the principles of ecologically sustainable development into the landscape design.</p>	As part of the station upgrade, new paving would be installed along Chester Hill Road, along with a covered walkway to the south of the station. These additions have been designed in response to the streetscape and Nugent Park south.
4.2 Heritage Items	<p>O2. To ensure significant elements and features of heritage items are retained and conserved.</p> <p>O3. To ensure development is sympathetic to significant features with particular regard to bulk, form, style, character, scale, setbacks and materials.</p> <p>O6. To ensure that new uses of heritage items are compatible with the fabric and heritage significance of the item.</p>	<p>The proposed works would have a significant impact on the heritage fabric of the overbridge and staircase; however, the layout and use of the station would not be considerably altered. The station's visual setting would be significantly impacted by the installation of new canopies over the platform, staircase and station entry on Chester Hill Road.</p> <p>The use of steel and glass materials in the elevated walkway and lift shaft, would contribute to a visual differentiation from the historic elements.</p>
7.1 Commercial centres general requirements	<p>O1. To ensure development is compatible with the centres hierarchy and desired character of the centres.</p> <p>O2. To promote good design and amenity of the built environment.</p> <p>O3. To enhance the amenity for people who work in, live in and visit the centres.</p> <p>O5. To provide a high quality and activated public domain with good solar access</p>	<p>The Proposal within a local centre comprise upgrades to existing station access, including canopies and introduction of a new lift shaft.</p> <p>The station upgrade has potential to support urban growth and renewal, greater public transport patronage and access to all. This contributes to increased value to the local centre.</p>

3.3 Landscape and visual context

3.3.1 Land zoning

Refer to REF Figure 4-1 for land zone mapping.

The Proposal is located on land zoned as SP2 Railway (Infrastructure) within the Bura / Bass Hill Ward of the City of Canterbury-Bankstown Local Government Area. The following are the objectives of land zones (as detailed in Part 2 of the LEP) within and surrounding the Proposal that are relevant to urban design and visual amenity:

- SP2: Infrastructure
 - To provide for infrastructure and related uses.
 - To prevent development that is not compatible with or that may detract from the provision of infrastructure.
- B2 (Local Centre) - Adjacent land to the north including various local shops and businesses
 - To provide a range of retail, business and community uses that serve the needs of people who live in, work in or visit the area.
 - To enable residential development that contributes to a vibrant and active local centre and is consistent with the Council's strategic planning for residential development in the area.
 - To promote active street frontages on the ground floor of buildings that attract pedestrian traffic and that facilitate active and vibrant centres with inviting public domain areas.

- RE1 (Public recreation) - including Nugent Park (north and south)
 - To enable land to be used for public open space or recreational purposes.
 - To provide a range of recreational settings and activities and compatible land uses.
 - To protect and enhance the natural environment for recreational purposes.

3.3.2 Heritage

Chester Hill Station is of local heritage significance for its historical value as listed on the TAHE Section 170 Heritage and Conservation Register (4801050). The station represents a significant reconstruction of the original Lidcombe-Regents Park line and its extension to Cabramatta.

Although the station has undergone several modifications since its construction in the 1920s, the basic architectural features which characterise the station buildings of the early 20th century has been preserved. The station itself demonstrates the suburban railway travel of the 1920s and 1930s.

Consideration of the following site-specific conservation guidelines are relevant to the LCVIA. These are consistent with recommendations made in the Statement of Heritage Impact (Artefact, August 2024).

- **Character:** the new development should be designed to blend sympathetically with the historic character of the existing station building, overbridge, staircase and platform. The entry into the station from the overhead bridge down a single stairway onto an island platform is characteristic of the original design—the elevated walkway and staircase design should retain this character by designing within the existing layout of the station.
- **Scale bulk and height:** The new elevated walkway, lift-shaft and canopy design at Chester Hill Station should be designed to keep the station building a prominent feature of the station precinct
- **Form:** new developments at Chester Hill Railway Station may represent a good opportunity to better reveal and interpret the representative form of the brick station building, which features a gabled roof, cantilevered awnings and fine decorative elements such as timber finial gable trusses.
- **Material and detailing:** the material, colour and detailing of new structures at Chester Hill should make them readily identifiable as such but also aim to make them recessive rather than dominating over the historic elements.
 - Platform works should be careful to retain the original 1924 fabric of the platform structure including its brick-walled facades.
 - The colour scheme for the additions should help them to be clearly distinctive as new but also recessive, allowing the historic elements to predominate.
- The new canopies proposed to shelter the platforms should be detached from and carefully designed to minimise visual and physical impacts on significant station buildings.
- The installation of a new lift at Chester Hill Station should be integrated into the station design and be compatible with the heritage character of the station but be readily identifiable to commuters. Circulation areas beside the platform edge should be optimised to ensure the safety of users.

There are no other heritage features within a 200m vicinity of the station.³

3.3.3 Vegetation

The site is within the Cumberland subregion of the Sydney Basin Biogeographic area. Eucalyptus forest and woodland are the dominant vegetation communities in the Sydney bioregion occupying more than 50% of the area, with 26% of the bioregion modified (including for intensive and agricultural uses) and 6% covered by heath.⁴

³ Heritage Design Report – Chester Hill Railway Station Group TAP4. Transport for NSW.

⁴ Bioregional Assessments: Terrestrial species and communities. Australian Government

The dominant vegetation community within the area surrounding the site is non-indigenous with some remnants of Castlereagh Ironbark Forest.

There are two trees planted on the west side of the station platform (Brush box - *Lophostemon confertus*).

Adjacent to the rail corridor in the north and south is Nugent Park, both planted with a moderate level of vegetation, native and exotic tree canopy coverage (Figure 3-1.) The rail corridor is also lined with native trees in the north that span the entire length of the station platform. Additionally, streets throughout Chester Hill are planted with mature native and exotic trees (Figure 3-2).



Figure 3-1 Nugent Park (south) trees



Figure 3-2 Street trees along Chester Hill Road to the south of the site

3.3.4 Visual context

The visual character of the surrounding area is of a highly modified environment, including transport infrastructure to the east and west, local shops and businesses to the north and residential developments to the south.

The rail corridor is below the level of the surrounding urban area, with retaining walls and high noise walls intervening between apartment buildings to the south, and steep embankments adjacent Nugent Park north. Infrastructure associated with rail contributes to the setting, including overhead gantries and wires, the central platform between three sets of rail tracks, light poles, occasional bench seats and the brick station building.

Nugent Park is located adjacent to the station in both the north and south and is dominated by trees (Figure 3-3, Figure 3-4). A pedestrian pathway with a canopy extends from the north of the site at Waldron Road, through the park, to the station entrance on Chester Hill Road in the east and is a prominent feature of the area (Figure 3-5, Figure 3-6). The park also features high fences bordering either side of the rail corridor.

The station is located within a local centre, adjacent, parks, public transport connections and shops. It has regular foot traffic and night-lighting of public areas and streets (Figure 3-10).

Views towards the station from the surrounding area are limited due to the difference in levels, bordering trees, built up elements and walkway canopies. Views to the site are likely experienced from the following:

- Local businesses including on Chester Hill Road in the south-east.
- Reserve path located in Nugent Park-south.



Figure 3-3 View looking south towards Nugent Park (north) tree coverage from Waldron Road

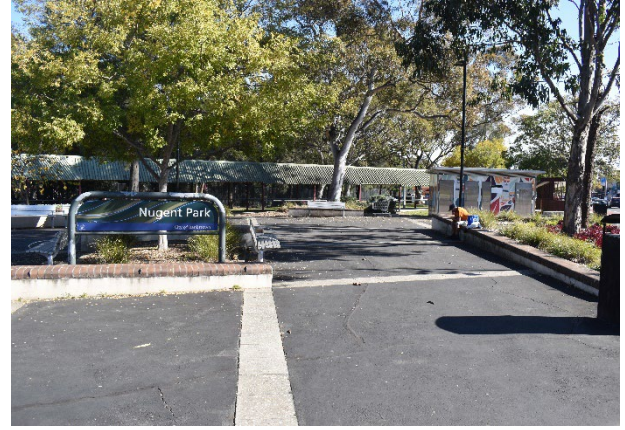


Figure 3-4 Nugent Park north



Figure 3-5 Covered walkway looking towards station entrance. Materials and narrow path provide a constricted environment.



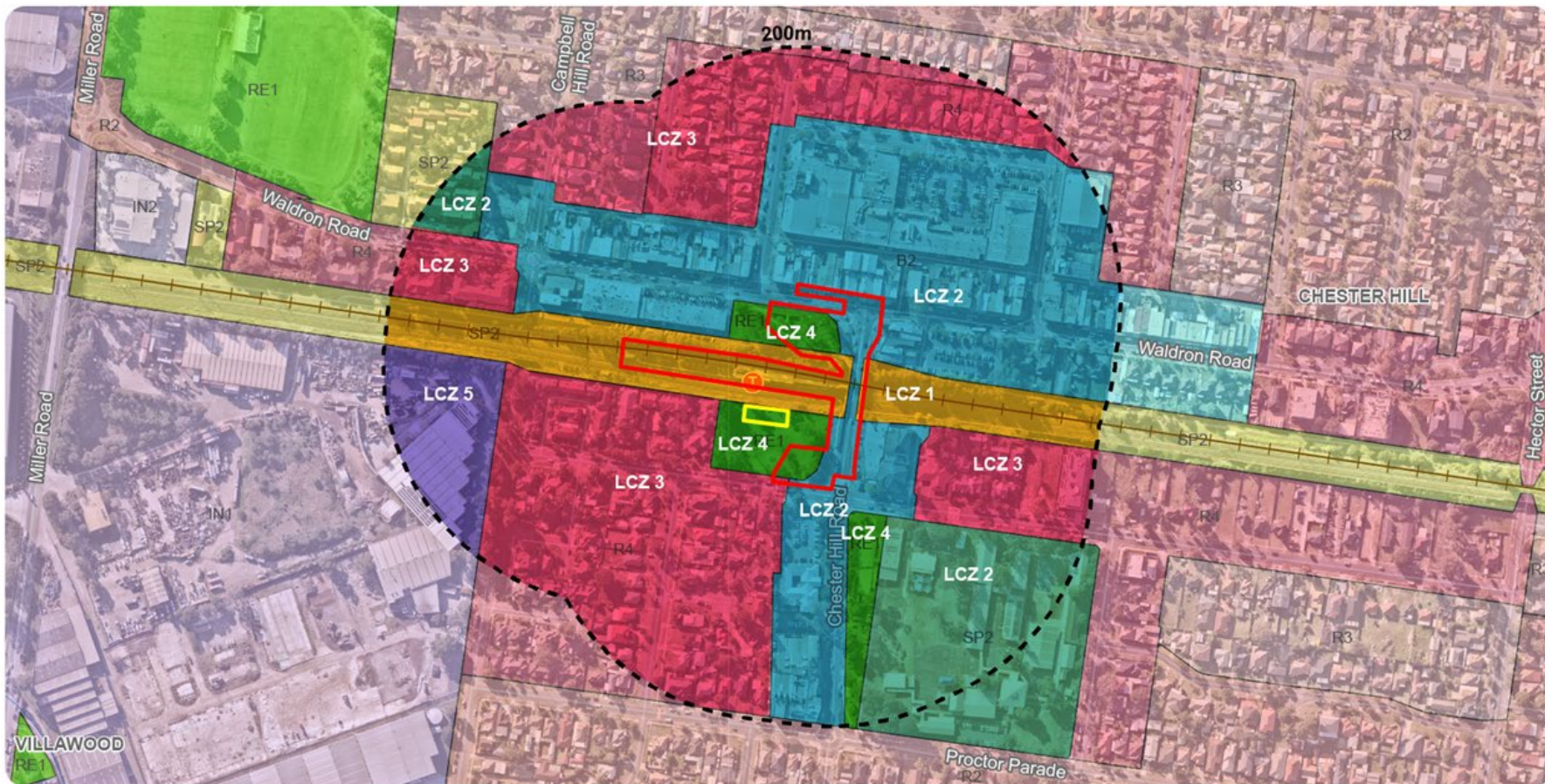
Figure 3-6 View beneath covered walkway looking towards Nugent Park south seating area

3.4 Urban Landscape Character

The existing character of Chester Hill predominantly consists of low-density residential areas outside the local centre, with medium and high-density residential developments in close proximity to the station.

There are four identified Urban Landscape Character Zones (LCZs) within the Study Area as described below and shown in Figure 3-7, including:

- LCZ 1 Transport corridor (SP2 Rail Infrastructure)
- LCZ 2 Local centre (B2, SP2 – Community facilities)
- LCZ 3 Residential (RE4)
- LCZ 4 Parks and recreation (RE1)
- LCZ 5 Industrial (IN1)..



Source: Aurecon, TINSW, NSW Spatial Services (DCS), ESRI



Projection: GDA2020 MGA Zone 56

Safe Accessible Transport Program - Chester Hill Landscape and Visual Impact Assessment

Figure 3-7 Urban Landscape Character Zones

LCZ 1 - Transport corridor

The rail station and rail line are located lower than the surrounding built environment and accessed by stairs from the overbridge at Chester Hill Road. The station is not readily visible, however the covered walkways along the overbridge to connecting bus stops and rail platform, are prominent.

The station building of heritage significance is a small painted brick building to the central platform (see Figure 3-8). The rail overbridge piers are also of brick construction (not part of heritage listing).

The rail line connects commuters between the city and Bankstown (T2 and T3 routes), and links to eight bus routes, with bus stops along Chester Hill Road and Waldron Road, beside Nugent Park (LCZ 4).

Additional facilities associated with the station include a taxi rank, kiss and ride parking bays and bike parking. Security fencing and noise walls adjacent residential lots are located along the top of the rail embankment. The safety barriers across the rail bridge, including covered walkway and safety screens; contribute to a constrained pedestrian environment which limits views of the rail station below (see Figure 3-9).

In this highly modified environment, landscape amenity is afforded, to the edge of the railway corridor within Nugent Park north and south (LCZ 4).



Figure 3-8 View looking towards station building on platform and beneath covered walkway



Figure 3-9 Rail overbridge and stairway from Chester Hill Road to station platform

LCZ 2 - Local centre

The local centre comprises restaurants, cafés, shops and facilities to service the community of Chester Hill. Located along Waldron Road and continuing to Chester Hill Road to Wellington Road, it is made up of one and two storey brick buildings with ground level shops. These shops are mostly located to one side of the road opposite Nugent Park (LCZ 4). Some of these shops have offices or residential dwellings to the top floor (see Figure 3-10 and Figure 3-11).

A larger shopping mall (Chester Square Shopping Centre) is located one street back from Waldron Road and is accessible by Charles Place pedestrian lane or adjacent streets.

Street trees are within side pavements, as well as low hedging (*buxus spp.*), both of which help provide landscape amenity to the commercial streetscape. Metal bollards around plantings are in heritage red, matching the barriers along the rail overbridge.

There is a small area for café seating located at the corner of Chester Hill Road / Waldron Road and also a wide pavement area with seating at the corner of Wellington Road.



Figure 3-10 View looking north-east at shop-top housing along Chester Hill Road



Figure 3-11 View looking north-west towards shop-top housing along Waldron Road

LCZ 3 - Residential

Residential dwellings near to the station are made up of two to three-storey apartment blocks, located on Wellington Road to the west of Nugent Park (LCZ 4) (see Figure 3-12) or east of Chester Hill Road (see Figure 3-13). These apartments, with limited outdoor spaces and views towards the rail corridor, are obscured by noise walls (for lower-level apartments). There are also three-storey apartment blocks to the northwest side of the rail corridor, with views towards the station obscured by intervening tall trees. All apartment blocks are of red-brick material.

The apartment residents are affected by the proximity of the rail corridor and the station's location. They benefit from convenient access to the station, but they also experience noise from passing trains and have partial views overlooking the rail corridor.

One and two-storey dwellings with fenced yards are located south of Wellington Road and are unlikely to have views of the station precinct.

Shop-top houses to the north-east of the site along Chester Hill Road are one to two storeys high (Figure 3-10). Similarly, shop-top houses to the north of the site along Waldron Road are one to two-storey high (Figure 3-11).

Residential properties along Wellington Road located to the south of the Proposal site typically contain detached dwellings, at one or two storey height. Houses are typically made of timber or bricks.



Figure 3-12 Apartment blocks southwest of station



Figure 3-13 Apartment blocks southeast of station

LCZ 4 - Parks and recreation

Nugent Park is located to the north and south of the rail line, on Chester Hill Road. It provides two landscaped parks to the centre of the local centre (LCZ 2).

Nugent Park-south (see Figure 3-14) at the corner of Chester Hill Road and Wellington Road, comprises two small playground areas, bench seating set in a grassed area with mature planted canopy trees and a brick path which cuts through the park on the diagonal. A lowered seating area adjacent the bus stop connects the park to public transport access.

Nugent Park-north (see Figure 3-15) is a more urban park consisting of a paved area with bench seating to the edge of retained garden beds. The park serves as a corner access route, dominated by the covered walkway which traverses the rail overbridge, through to the covered bus stop waiting area on Waldron Road. The park has many tall mature planted trees, some grasses and garden areas which provides screening of the rail corridor.

The parks provide landscape amenity and some recreation to a highly modified town centre.

Additionally, there is a school and community space (Chester Hill Public School and Helen Westwood Chester Hill Community Centre) including recreation grounds to the south of the site however the character of the school is not considered to be impacted by the station upgrade due to distance and intervening buildings.



Figure 3-14 Nugent Park-south



Figure 3-15 Nugent Park-north

LCZ 5 - Industrial

To the west of the Study Area are industrial areas comprising large format warehousing, storage work zones, containers and regular heavy vehicle transits. The Orchard Industrial Estate that is accessed from Orchard Road, is surrounded by security fencing and gates to limit access outside of working hours. The area is highly modified, with little to no landscape amenity.

4 Proposal design

The assessment of impacts is based on the following description of the Proposal and construction provided in the Chester Hill Station Upgrade REF, Chester Hill Station Upgrade Concept Design Architectural package (14.04.2023), Chester Hill Urban Design Plan July 2023, and based on the bulk, scale and finishes of key assets.

4.1 Key features of the Proposal

Key features of the station upgrade Proposal as relevant to visual and urban design include the below. See Figure 4-4 for the indicative layout plan.

- construction of an elevated walkway at the existing station entrance from the Chester Hill Road overbridge to provide access to the platform via a new lift and new stairs
- changes to canopies at the station including:
 - replacement of the existing platform canopies
 - provision of a new canopy west of the platform building
 - replacement of existing street-level canopies along Chester Hill Road at the overbridge, the approach to the station entrance, and bus stops
- provision of one new accessible parking space and a new accessible kiss and ride space with seating on Chester Hill Road (west)
- relocation of the taxi rank to Wellington Road with a new footpath through Nugent Park south and a new shelter and seating
- upgrades to both bus stops on Chester Hill Road including shelter and seating
- provision of additional bicycle parking in Nugent Park north and south
- regrading and resurfacing of localised areas on the platform and installation of tactile ground surface indicators (TGSIs)
- modifications to the existing station building, including the provision of a new unisex ambulant and a family accessible toilet, and a new storage room
- ancillary work, including station power supply upgrade, protection and relocation of services and utilities, handrails and fencing, new ticketing facilities including additional Opal card readers, improvement to station communication systems (including CCTV cameras, help points and a public phone), landscaping and wayfinding signage.

4.1.1 Landscaping, materials and finishes

Materials and finishes for the Proposal would be selected based on the criteria of durability, low maintenance and cost effectiveness, to accord with heritage requirements, to minimise visual impacts, to integrate within the context of the place and to be aesthetically pleasing.

Availability and constructability are also important criteria to ensure that materials are readily available and the structure can be built with ease and efficiency. Materials would also be selected for their application based on their suitability for meeting design requirements.

Each of the upgraded or new facilities would be constructed from a range of different materials, with a different palette for each architectural element. Subject to detailed design, the Proposal would include the following:

- lift shafts – precast concrete and glass
- elevated walkway – concrete base with lightweight screens, architectural treatment and metal roof sheeting

- platform stairs – concrete with lightweight screens and steel canopy
- platform canopies – steel frame and cement cladding.

Indicative photomontages showing the features of the Proposal are included in the assessment of the visual impacts of the Proposal (refer to Figure 4-1 to Figure 4-3 and Section 5.1).

4.1.2 Consideration of heritage in design

Heritage considerations would be incorporated into the Proposal's design as follows:

- The new elevated walkway, stairs, lift and raised stair canopy have been designed to allow for direct sightlines to the heritage station building.
- Transparent materials have been used throughout the design to retain the visual prominence of the heritage station building, including glass in the lift and mesh screens along the new elevated walkway and stairs.
- The platform canopy has been designed to provide a more sympathetic relationship to the heritage building through materials and finishes that align with the brick of the heritage station building.
- Proposed upgrades to the heritage station building itself have minimised heritage impacts where possible, including through minimising structural changes to the building and through the use of doors and trim that would be painted to replicate the existing heritage features.

4.2 Construction and site establishment

Subject to planning approval, construction is expected to commence in early 2025 and take approximately 18 months to complete. Construction stages and activities are often concurrent, with timeframes subject to detailed design and final construction methodology.

The construction of the new station entry would involve:

- removal of the existing stairs linking the Chester Hill Road overbridge to the platform
- removal of existing walkway canopies along Chester Hill Road and station platform
- installation of a foundation (around 16 metres long adjacent to the existing platform) for the station entry and lift shaft)
- construction of a new elevated walkway with canopy and protection and anti-throw screens
- construction of a new 17 person lift from the new elevated walkway to the platform
- construction of new stairs to the platform from the elevated walkway, including canopy and protection and anti-throw screens
- provision of protection and anti-throw screens along the elevated walkway and the new stairs

The design and staging of temporary pedestrian access would be determined during the detailed design phase of the Proposal.

A temporary site compound would be required to accommodate a site office, amenities, laydown and storage area for materials and plant and equipment. The site compound is proposed to be located in Nugent Park south with a 10-meter-wide vehicle access to be constructed off Chester Hill Road. The area nominated for the site compound is on land owned by Council. Impacts associated with using this area have been considered including requirements for rehabilitation.



Figure 4-1 Concept design artist impression of aerial view from the south - indicative only, subject to detailed design



Figure 4-2 Concept design artist impression of view under platform canopy - indicative only, subject to detailed design

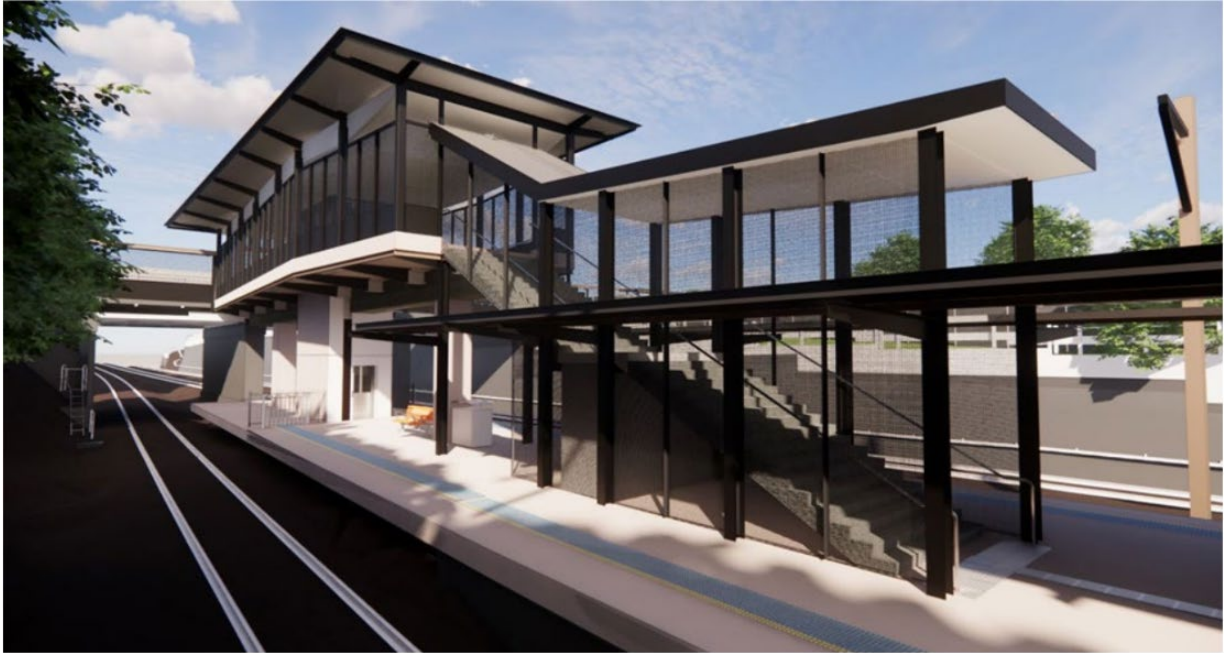


Figure 4-3 Concept design artist impression of view of elevated walkway and stairs - indicative only, subject to detailed design

Proposed key features of Chester Hill Station upgrade



KEY










 Proposed Features	 New stairs	 Bicycle hoops	 Bus stop
 Existing Features	 New lifts and landings	 Accessible kiss and ride space	 Taxi
 Boarding Assistance Zone	 New accessible water refill	 Accessible parking space	
 Accessible path of travel	 New family accessible toilet		

Figure 4-4 Key features of the Proposal - Indicative only, subject to detailed design.

5 Visual Impact Assessment

5.1 Key Viewpoints

A total of four viewpoints (VPs) have been identified within the Study Area, as listed in Table 5-1 and shown in Figure 5-1. The viewpoints were selected based upon a two-stage process involving a preliminary desktop study and a site visit.

The desktop study included an assessment of potential sensitive viewpoints including public open space and residential properties within the Study Area. The site visit was undertaken by the project team on 13 June 2024. During the site visit the representative viewpoints were confirmed and an assessment was made of each potential representative viewpoint against the known extent of the Proposal. An indicative photomontage was produced for three of the VPs, demonstrating the most noticeable impacts (refer to Section 5.1).

A potential viewpoint, representing apartments to the northwest of the station at 147 Waldron Road, was determined not to have views of the station during the site visit; with tall trees surrounding the apartment building and further trees along the rail corridor embankment, screening views.

Viewpoints were selected based on where the key assets would be most noticeable.

Table 5-1 Key Viewpoints

Viewpoint	Location	Visual receivers
CH01	Reserve path (Nugent Park south)	Recreational users
CH02	Chester Hill Road (Cake Palace)	Local shoppers
CH03	Chester Hill Road southeast	Apartment residents and local shoppers
CH04	Station platform	Train commuters

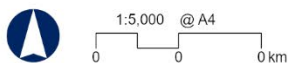


Project No: P422314
Map Author: Virgil Robinson
Date: 17/07/2024
Revision: 0

- Proposal area
- Vehicle access path
- Railway
- Site compound
- T Train Station
- Viewpoint locations
- Study area



Source: Aurecon, TINSW, NSW Spatial Services (DCS), ESRI



Projection: GDA2020 MGA Zone 56

Safe Accessible Transport program - Chester Hill Landscape and Visual Impact Assessment

Figure 5-1: Viewpoint locations

<div>CH01</div>	<p>Location: Nugent Park south</p> <p>Proposal 100 m to the north</p> <p>View experienced by recreational park users and pedestrians accessing station or local centre</p>
<p>Existing Setting</p>	<p>Nugent Park south is a moderately vegetated public reserve with canopy trees, seating and a playground; located south of the rail corridor (see Figure 5-2). The station and Chester Hill Road bridge is visible from the park, through mesh fencing to the top of the rail corridor embankment. The station platform is not visible from the park, due to the rail corridor sitting at a lower level within a cutting.</p> <p>Solid noise walls are located between the rail corridor and the west end of the park, with visually permeable mesh fencing that enable views to the station entry.</p>
<p>Sensitivity</p>	<p>Moderate – park users in an urban environment</p>
<p>Magnitude of change</p>	
<p>Construction</p>	<p>A temporary site compound would be established in Nugent Park south, accommodating a site office, amenities, laydown and storage area for materials and plant and equipment. The proposed construction access would be located closest to the rail corridor, resulting in the partial demolition of a walkway canopy. Additionally, a new pavement crossover and the demolition of the paved seating area within the park would be carried out to create a 10m wide access. This would result in reduction of park space, causing a high modification for users of the park. The west end of the park, including playgrounds, would not be impacted by the compound and access, however the amenity of the park for users would temporarily be reduced.</p>
<p>Operational (day 1)</p>	<p>See Figure 5-3 Viewpoint CH01: Proposal at day 1 of operation. The introduction of a path diagonally across the south-east corner of the park, provides a low level of modification adjacent to the Chester Hill Road pedestrian path and near bus stop shelters. The replacement walkway canopies along Chester Hill Road would provide improved contemporary design aesthetic, with a less obtrusive canopy. The paved/seating area to be re-instated to a standard to align with Council's requirements.</p> <p>The station entry and elevated walkway, including stairway and lift shaft are visible providing improved contemporary design aesthetic through use of materials as well as an increase in built form over the rail corridor. The upgrade replaces the existing covered walkway and station entrance with a slightly larger but more visually permeable structure. The magnitude of change for park users is considered low beneficial.</p>
<p>Key mitigation measures</p>	<ul style="list-style-type: none"> Visual and physical access between the parks lowered seating area and covered walkway to be retained. Screens to back of covered walkway to be of high design aesthetic to face the park, with potential to provide public art and/or cultural interpretative element.
<p>Visual impact ratings</p>	
<p>Construction</p>	<p>Moderate sensitivity + high adverse magnitude of change = high-moderate adverse visual impact</p>
<p>Operational (day 1)</p>	<p>Moderate sensitivity + low beneficial magnitude of change = low beneficial visual impact</p>



Figure 5-2 Viewpoint CH01: view from Nugent Park South looking north towards Chester Hill station entrance



Figure 5-3 Viewpoint CH01: Proposal at day 1 of operation (photomontage), indicative only, subject to detailed design.

CH02

Location: Chester Hill Road (northeast)

Proposal: 30 m to the southwest direction

View experienced by local centre commercial users

Existing Setting

The viewpoint shown in Figure 5-4 is from the footpath outside cafes located within the local shopping centre at Chester Hill Road, near Waldron Road. A two-laned road is to the foreground of the view.

Nugent Park north is to the west of the rail corridor, comprising landscape planting, some exotic canopy trees and paved public park, with a canopy over the walkway which cuts diagonally through the park from Waldron Road and to the west side of the road bridge to the station entrance.

Tall native trees are located behind the covered walkway.

Views of the station include partial views of the stairs and no view of the station buildings or platform due to its lowered elevation beneath the level of the road. It is a highly modified urban environment with numerous fences, screens and canopies which provides an enclosed scene.

Sensitivity

Low – local shoppers

Magnitude of change**Construction**

During construction temporary access would be constructed to continue to provide access to the station platforms, established at the existing station entrance. Walkway canopies would be removed with new canopies installed. While the construction works would be visible to station visitors, it would only be partially visible to local shoppers within the local centre along Waldron Road/Chester Hill Road. The magnitude of change is considered low.

Operational (day 1)

See Figure 5-5 Viewpoint CH02: Proposal at day 1 of operation. The station entrance, elevated walkway and lift shaft would be constructed at a greater height than the existing walkway. The proposed design incorporates glass elements to improve visual permeability and enhance views for users of the surrounding area. Additionally, replacement walkways would have sloped canopy which would be less obtrusive, while perforated metal screens would provide improved visual permeability. The upgrade, whilst providing a larger structure, is of an improved design aesthetic which is considered a low beneficial improvement.

Key mitigation measures

Screens to back of covered walkway to be of high design aesthetic to face the park, with potential to provide public art and/or cultural interpretative element.

Visual impact ratings**Construction**Low sensitivity + low adverse magnitude of change = **low adverse visual impact****Operational (day 1)**Low sensitivity + low beneficial magnitude of change = **low beneficial visual impact**



Figure 5-4 Viewpoint CH02: view from Chester Hill north shops looking south towards Chester Hill station entrance



Figure 5-5 Viewpoint CH02: Proposal at day 1 of operation (photomontage), indicative only, subject to detailed design.

<div>CH03</div>	<p>Location: Chester Hill Road (southeast)</p> <p>Proposal: 50 m to the northwest</p> <p>View experienced by apartment residents overlooking local centre</p>
<p>Existing Setting</p>	<p>The viewpoint is representative of view from apartments behind Chester Hill Road shops, that have views over the local centre (views within private dwellings were not accessed during the site visit).</p> <p>The viewpoint (Figure 5-6) is from the footpath outside shops located within the local shopping centre at Chester Hill Road, near Wellington Road. In the foreground is a two-laned road plus bus stops and the pavement is wide.</p> <p>To the west is Nugent Park south comprising canopy trees over a grassed public park. A taxi zone parking is opposite and bus stops are slightly to the north, adjacent a covered walkway which continues to the station entrance and over the road bridge.</p> <p>Views of the station are limited, partially screened by the solid walkway canopy. There is a partial view of the station building on the platform, due to its lowered elevation beneath the level of the road. It is a highly modified urban environment with fencing, screens and canopies which provide an enclosed scene towards the rail corridor.</p>
<p>Sensitivity</p>	<p>Moderate – representative of residential in apartments overlooking local centre.</p>
<p>Magnitude of change</p>	
<p>Construction</p>	<p>A construction laydown area would be located in the park directly opposite the viewpoint. Construction works would include removal of walkway canopies, with new canopies installed, pavement works and a new path installed in the park. The works are in the foreground view, however, would be surrounded by existing vehicle movement and local centre activity. The magnitude of change is considered moderate.</p>
<p>Operational (day 1)</p>	<p>See Figure 5-7 Viewpoint CH03: Proposal at day 1 of operation. The replacement walkway would have a sloped roof which would be less prominent, and screens would be a perforated metal which provide improved views towards the park. New paving and kerb treatments are commensurate with existing scale and use of hard materials. The station entrance roof and lift shaft view in the middleground would be higher than the existing walkway canopies, however of glass and steel thereby more visually permeable. The upgrade provides an improved design aesthetic, with the scale and layout of structures commensurate with the existing conditions and within the rail corridor. The magnitude of change is considered low beneficial.</p>
<p>Key mitigation measures</p>	<p>Screens to back of covered walkway to be of high design aesthetic to face the park, with potential to provide public art and/or cultural interpretative element.</p>
<p>Visual impact ratings</p>	
<p>Construction</p>	<p>Moderate sensitivity + moderate adverse magnitude of change = moderate adverse visual impact</p>
<p>Operational (day 1)</p>	<p>Moderate sensitivity + low beneficial magnitude of change = low beneficial visual impact</p>



Figure 5-6 Viewpoint CH03: view representative of apartment dwellings overlooking local centre



Figure 5-7 Viewpoint CH03: Proposal at day 1 of operation (photomontage), indicative only, subject to detailed design.

Location: Station platform

Proposal in foreground view, looking east from the platform

View experienced by train commuters

Existing Setting	<p>The viewpoint (Figure 5-8) is representative of the view by commuters. It captures the heritage station building in the foreground and overbridge at Chester Hill Road in the middleground, where stairs provide the access from street level to the platform.</p> <p>The rail corridor is within a cutting, with embankments to the edge of the corridor. To the north (left of view), existing tall trees within Nugent Park screen views of the local centre. To the south (right of view), there are solid noise walls to the top of the embankment and then mesh fencing closer to the road with views of trees to the top or through the wall/fencing.</p> <p>The immediate visual environment comprises two trees within raised planters on the platform (behind view). The station building is a feature on the platform, with the roofline partially obscured by the platform canopy.</p>
Sensitivity	Low – commuters temporarily waiting on platform.
Magnitude of change	
Construction	During construction temporary access would be constructed to continue to provide access to the station platforms, established at the existing station entrance. Existing canopies would be removed with new canopies installed and works would be carried out within the station building. The construction works would be very noticeable to station visitors, experienced in foreground views for short durations while waiting /disembarking from trains. The magnitude of change is considered high.
Operational (day 1)	The proposed entrance design, whilst a larger structure than existing, incorporates glass elements to improve visual permeability. Additionally, the replacement canopy would include glass sections to provide improved lighting and visual separation from the heritage station building. Canopies on the platform are extended, with solid roofing material and areas of glazing. This does not distinguish the heritage building from the surrounding area or improve platform passive surveillance. The upgrade, whilst providing a larger entry structure is of an improved design aesthetic, is considered a low beneficial improvement. Refer to Figure 4-2 and Figure 4-3 for indicative artists impressions of the Station at platform level.
Key mitigation measures	Use of transparent material for platform canopies would provide some visual surveillance towards and from the platform and provide views of the heritage station building from vantage areas near the station.
Visual impact ratings	
Construction	Low sensitivity + high magnitude of change = moderate adverse visual impact
Operational (day 1)	Low sensitivity + low beneficial magnitude of change = low beneficial visual impact



Figure 5-8 Viewpoint CH04: View from the station platform looking east towards Chester Hill Road

5.2 Visual Impact Assessment Summary

Table 5-2 Summary of visual impacts

Viewpoint number and location		Receiver sensitivity	Construction		Operational	
			Magnitude of Change	Visual impact	Magnitude of Change	Visual impact
CH01	Park users in urban environment	Moderate	High adverse	High-moderate adverse	Low beneficial	Low beneficial
CH02	Local shoppers	Low	Low adverse	Low adverse	Low beneficial	Low beneficial
CH03	Residents overlooking local centre	Moderate	Moderate adverse	Moderate adverse	Low beneficial	Low beneficial
CH04	Station platform	Low	High adverse	Moderate adverse	Low beneficial	Low beneficial

6 Urban landscape character assessment

The assessment of urban landscape character impacts considers impacts of the Proposal against both local planning objectives and design objectives, including:

- Landscape character
- Urban form
- Heritage conservation
- Connectivity and perceptions of safety.

The impacts are assessed during the construction phase and day one of operation.

6.1 Urban landscape character impacts

6.1.1 Construction

Landscape character

Within Nugent Park south (LCZ 4), a temporary site compound would be located to accommodate a site office, amenities, laydown and storage area for materials and plant and equipment. The existing paved (brick) seating area would be demolished to allow access to the site compound, providing a temporary change to the park's amenity and access.

Urban form

During construction, existing walkway canopies and the station stairwell are to be removed and then replaced. Temporary access stair would be provided during construction to retain platform access. Works to structures, pavements and roads are within the station, Chester Hill Road and a new taxi stand to Wellington Road. There are limited changes to the urban form during construction within LCZ 1 and LCZ 2.

Heritage conservation

Works are proposed within the heritage station building and to its exterior, and existing canopies would be removed. The works are proposed to retain and conserve heritage elements within LCZ 1. The magnitude of change is high, given the proximity of work, though are temporary measures. There are no heritage elements within other character zones.

Connectivity and perceptions of safety

Pedestrian access to the station and public transport facilities is retained during construction, through temporary access stairs to the station platforms at the existing station entrance. There may be some short pedestrian and traffic diversions required temporarily. A construction management plan would incorporate safety and surveillance; therefore, perceptions of safety would not be reduced for any of the character zones.

Summary of construction impacts

Overall, there would be a temporary, considerable reduction in the landscape and urban design functionality and landscape character of the station precinct during construction. The Transport corridor (LCZ 1) would be subject to temporary high adverse magnitude of change, resulting in a moderate urban landscape character impact. The changes would have some impact on the pedestrian connectivity within a limited area of the local centre (LCZ). Nugent Park (LCZ 4) would experience temporary reduction of use and amenity, with a moderate magnitude of change and other areas of the park retained for use. There are no impacts to the urban landscape character of the residential zone (LCZ 3) or industrial area (LCZ 5).

6.1.2 Operational

Landscape character

There are minimum impacts to the landscape character zones, with the Proposal upgrading existing public transport elements in a highly modified environment.

In response to landscape objectives, the design plan includes:

- a low level of modification proposed to Nugent Park south with a new path to the corner of the park. The new path provides improved access to a taxi stand for pedestrians.
- incorporation of new paving and a covered walkway to the south of the station and the new kiss and ride, specifically designed to respond to the surrounding streetscape and Nugent Park. This ensures that the design integrates well with the existing landscape and public spaces.
- minimal impact on local vegetation. This is achieved by replacing any trees that need to be removed (two trees within raised planters on platform), reducing the potential adverse impact on the landscape.

The Proposal aligns with the objective of respecting and enhancing the existing local character of the area. While the specific future character is not stipulated in the LSPS, the design of the plan takes into consideration the unique qualities and characteristics of the locality. Overall, the Proposal seeks to carefully consider landscape character and urban design principles to create a harmonious and connected environment that respects the local context and heritage.

Urban form

The Proposal upgrades existing public transport facilities and there are limited changes to the existing layout, responding to design objectives including:

- Height requirements: The design meets the height of building requirements including lifts and canopies, does not exceed the local centre's existing buildings.
- Improved daylighting: Glass canopy sections are included to provide better daylighting, with separation between the platform canopy and station building.
- Reduced overshadowing: The replacement covered walkway adjacent to Nugent Park features a sloped canopy with perforated panels on bench backs, minimising overshadowing.
- Visual separation and contemporary design: The station entry elevated walkway, using steel and glass, allows a clearer view of the heritage station building while remaining visually separate.

Heritage conservation

- Preservation of heritage design guidelines: The Proposal also responds to heritage design guidelines, ensuring that any historical or cultural aspects of the area are appropriately considered and incorporated into the design. This helps preserve the landscape character and urban design integrity.
- Retained heritage building: The heritage station building is kept, with new lifts, stairwell, and entry elevated walkway designed below the roofline and positioned away from the heritage structure.
- Lightweight appearance: Glazing around the lift shaft and transparent canopies give a lightweight appearance, ensuring they do not dominate visually.
- Retained high amenity elements: The design retains high amenity features such as landscape, trees, and heritage character elements intact.
- Retention and enhancement of heritage station: The heritage station is retained and enhanced in the design. This is achieved through the differentiation of canopies and elevated walkway, using steel and glass materials to visually differentiate them from the heritage elements. This approach respects the historical value of the station while giving it a modern touch.

- The contrast between the heritage station building and the platform canopies is apparent, however the station is only visible from the station platform and has limited visual connectivity with the surrounding local centre and parks. There is limited change in this regard to the existing conditions.

Accessibility/connectivity and perceptions of safety

- Areas around the station such as the station entry, plaza and park are generally lit at night. The new lighting within the covered walkway is set to improve lighting levels. Increased lighting along with CCTV would have a beneficial impact on perceptions of safety for night-time users.
- There are pockets of poor visibility that hinder passive surveillance, such as between the station and Nugent Park. The upgrade of structures would incorporate the use of visually permeable materials including perforated metal screens, glass lift shaft and glazed sections in the canopy, which would improve visibility between the station precinct and surrounding environment, in particular to Chester Hill Road. Visibility towards the platform from surrounding elevated areas remains impeded by solid canopies above the platform, and trees within Nugent Park north also screen platform surveillance.
- Additionally, the Proposal for the station upgrade is intended to support urban growth and renewal. By improving the station's access, introducing new canopies, and implementing a new lift shaft, the design aims to contribute to increased public transport patronage and accessibility for all. This is expected to bring greater value to the local centre and contribute to its overall improvement and development.
- Station entrance has improved wayfinding through scale of entry canopy, taller than surrounding canopies, introduction of covered elevated walkway over platform and widening of path to allow improved pedestrian access.
- Providing clear sightlines between public and private spaces, ensuring that all publicly accessible areas of the design such as paths, bicycle parking, lifts and seating areas are connected by clear sightlines from travelling lanes or local roads, ensuring passive surveillance by motorists where possible and pedestrians.

Overall, there would be a minor improvement to the urban design functionality and urban landscape character of the transport corridor.

6.1.3 Summary of urban landscape character impacts

The urban landscape character assessment ratings are summarised in the below table, for construction and operational impacts.

Table 6-1 Summary of Urban landscape character impacts

			Construction		Operational	
Viewpoint number and location		Sensitivity	Magnitude of Change	Urban landscape impact	Magnitude of Change	Urban landscape impact
LCZ 1	Transport corridor	Low	High	Moderate	Low beneficial	Low beneficial
LCZ 2	Local centre	Low	Low	Low	Negligible	Negligible
LCZ 3	Residential	Moderate	Negligible	Negligible	Negligible	Negligible
LCZ 4	Parks and recreation	Moderate	Moderate	Moderate	Low adverse	Low adverse
LCZ 5	Industrial	Low	Negligible	Negligible	Negligible	Negligible

7 Summary and recommendations

7.1 Urban Landscape and Visual mitigation

Construction

Construction impacts are difficult to avoid, with mitigation covered by the construction environmental management plan (CEMP). The key urban design, landscape and visual elements to consider during construction include:

- Maintain pedestrian, cycling and vehicular connections between urban areas and public amenity areas to promote a healthy, cohesive and well-connected local community.
- Consolidate construction elements within a compound and provide screening of compound from public areas.
- Consider public art and or heritage information on site hoarding to provide connection of works for the community.
- Minimise impact on sensitive receivers such as residential properties and local businesses through careful consideration of interface between station and work zones.
- Limit tree removal and protection of existing trees, tree root and landscaped zones.

Operational

The visual impacts are considered beneficial and there are limited landscape and urban adverse effects as a result of the Proposal. An Urban Design and Landscape Plan (UDLP) will be prepared by the Contractor prior to finalisation of detailed design for endorsement by Transport. The following recommendations provide further beneficial impacts if implemented.

- The station upgrade shall be integrated within the urban setting by creating clear visual sight lines between key destinations. This would be improved through use of transparent roofing material for platform canopies, to allow views between the station platform and surrounding environment including Nugent Park and Chester Hill Road. Transparent canopies would also allow the heritage station building to be visible from the surrounding area.
- Inclusion of creative initiatives to enhance community ownership and appreciation of the area's history. Public art could be incorporated in the detailed design phase and applied to elements such as perforated screens and solid walls. Perforated screens that face Nugent Park would be very noticeable to park users.
- The solid noise walls within Nugent Park are subject to graffiti. Landscape screening including increasing the difficulty to access the walls may assist in reducing the likelihood of graffiti.

7.2 Conclusion

The Proposal has low to moderate temporary adverse visual impacts during construction. These urban landscape and visual impacts can be managed by measures stipulated within the CEMP.

Once built the Proposal would have minimal adverse impacts on the existing urban landscape character and visual environment.

Visual impacts as assessed by sensitive receiver representative viewpoints, are considered beneficial. The existing station environment has limited visibility due to a lack of visual permeability created by un-inviting covered walkways, the station entrance lacking hierarchy, narrow paths and the station being located within a cutting, below the level of the surrounding local centre. The upgrade of walkway canopies provides improved visual permeability of the station, public transport areas and connections with Nugent Park. Additionally, the modern design of the station entrance and public urban realm, provides beneficial impacts to the amenity of the local centre and the station.

The Proposal achieves local planning and design objectives, including:

- Landscape character – integrating well with the surrounding streetscape and public spaces with minimal effects to vegetation.
- Urban form – there is limited changes to the existing urban layout, with the scale and form commensurate with the scale of the local centre.
- Heritage conservation – the heritage station building is retained with sufficient contrast to surrounding built elements from the perspective of the platform view, however the extension of canopies on the platform means that the station building is less visible from the surrounding area.
- Connectivity and perceptions of safety – improved lighting, and visual permeability provided through design of structures and materials, create a more open area within the local centre and adjacent parks, with improved visual surveillance.

The station platform and heritage station building still have limited visibility and passive surveillance when viewed from the surrounding area (Nugent Park and Chester Hill Road), due to the difference in elevation and the screening provided by the new platform canopy. This would be mitigated through use of a transparent canopy (such as glass), that both the platform and station building could be seen through whilst providing increased beneficial visual impacts.

In considering the overall potential impacts and proposed mitigation measures outlined in this LCVIA, the Proposal is **unlikely to significantly affect the environment** including urban landscape character, or visual amenity.

References

Australian Institute of Landscape Architects, Guidance Note for Landscape and Visual Assessment, June 2018.

Canterbury Bankstown Development Control Plan 2023

Chester Hill Station Upgrade TAP4, Architectural concept design (TAP4CDP2-AURC-CHH-AT-DRG-000212), 5 July 2023

Chester Hill Station - TAP Urban Design Plan, Rev. E, 10 July 2023, Spackman Mossop Michaels

Chester Hill Railway Station Group TAP 4 – Heritage design report, 7 July 2023, TfNSW

Landscape Institute of Environment Management and Assessment (IEMA), Guidelines for Landscape and Visual Impact Assessment (third edition), 2013.

Government Architect New South Wales, Better Placed, 2023

NSW Government, Planning and designing for better places, December 2021

TfNSW, Around the Tracks: Urban design for heavy and light rail, December 2016 – Interim issue

TfNSW, Beyond the Pavement – urban design principles and objectives to guide public realm design, 2010

TfNSW, Guideline for Landscape Character and Visual Assessment - Environmental Impact Assessment Practice Note EIA-NO4, 2020.

TfNSW, Managing Heritage - issues in rail projects guidelines, December 2016

Document prepared by

Aurecon Australasia Pty Ltd

ABN 54 005 139 873

Level 11, 73 Miller Street
North Sydney 2060 Australia

PO Box 1319
North Sydney NSW 2059
Australia

T +61 2 9465 5599

F +61 2 9465 5598

E sydney@aurecongroup.com

W aurecongroup.com