

Transport for NSW

Turrella Station Upgrade

Landscape Character and Visual Assessment



Artist's impression of the Turrella Station upgrade subject to detailed design.

Turrella Station Upgrade

Landscape Character and Visual Impact Assessment

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1.1 Purpose

Envisage Consulting was commissioned by Umwelt Australia Pty Ltd on behalf of Transport for New South Wales (Transport for NSW) to assess impact on landscape character and surrounding viewpoints from the proposed Turrella Station Upgrade (the Proposal).

The specialist assessment forms part of the Proposal's Review of Environmental Factors (REF) prepared to assess all matters affecting or likely to affect the environment by reason of the construction and operation of the Proposal under the provisions of Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The assessment has been prepared in accordance with Transport for NSW's *Guideline for Landscape Character and Visual Impact Assessment, Environmental Impact Assessment Practice Note EIA-N04*, 2020).

1.2 Overview of the Proposal

The Proposal involves an upgrade of Turrella Station as part of Transport for NSW's Transport Access Program, a NSW Government Initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

The introduction of new elements, such as the station entrance, lift, canopy, ramp and traffic barriers could impact the visual environment. This assessment focusses on the visual changes that could affect the landscape character and views from surrounding viewpoints, with those being:

- a new lift providing access from the Reede Street overbridge to the station platforms
- a new station entrance from the Reede Street overbridge:
 - demolition of the existing station access stairs and the section of the eastern platform canopy in order to accommodate the new stairs, lift, landing and canopy
 - construction of a new station entrance landing area
 - construction of new stairs between the proposed landing and the station platforms
- modifications to kerb and line markings to accommodate the construction of a new kiss and ride bay along Turrella Street
- upgrades to the footpath located on the northern side of Turrella Street to provide an accessible and safe path of travel to the new station entrance including installation of traffic barriers
- provision of three new bike hoops accommodating up to six bicycles located on Henderson Street
- improvements to lighting and wayfinding signage.

More detail is provided on these proposed changes in SECTION 4. A full project description is contained within the Proposal's REF.

1.3 Brief Site description

Turrella Station is located in the southern Sydney suburb of Turrella within the Bayside Local Government Area (LGA).

Turrella Station is a small station that services the nearby urban area and is positioned between a residential area to the south and an industrial area to the north. Current access to the station is via stairs from the Reede Street overbridge. The Proposal will ensure the station continues to provide a high level of customer experience and comfort providing equitable access and improved amenities for all existing and future users.

The location is shown in Figure 1-1.

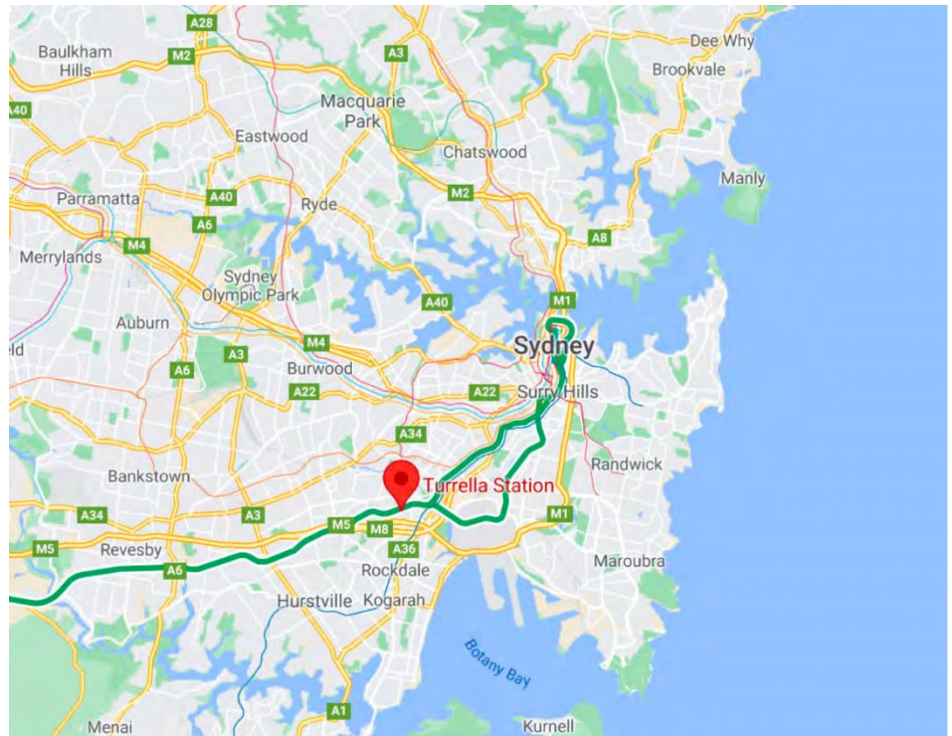


Figure 1-1: Proposal location

1.4 Report format

The report is set out as follows:

- SECTION 2 Defines the assessment methodology
- SECTION 3 Describes the site visual context
- SECTION 4 Describes the Proposal and its main visual changes
- SECTION 5 Presents an assessment of landscape character impact
- SECTION 6 Presents the assessment of visual impact
- SECTION 7 Describes measures to improve visual outcome
- SECTION 8 Presents a summary of key findings and conclusion.

This section outlines the assessment methodology which is consistent with Transport for NSW's *Guideline for Landscape Character and Visual Impact Assessment, Environmental Impact Assessment Practice Note EIA-NO4, 2020* (referred to hereafter as the 'Guideline').

2.1 Assessments

Two assessments are presented in the Guideline to improve design outcomes:

- Landscape character assessment - the assessment of impact on the aggregate of an area's built, natural and cultural character or sense of place – which helps determine the overall impact of a project on an area's character and sense of place.
- Visual impact assessment - the assessment of impact on views - which helps define the day-to-day visual effects of a project on people's views.

The method used to measure impact is based on the combination of sensitivity of the existing area or view to change, and magnitude of the Proposal on that area or view. These terms are defined in the Guideline as:

- Sensitivity: refers to the qualities of an area, the number and type of receivers and how sensitive the existing character of the setting is to the proposed nature of change.
- Magnitude: refers to the physical scale of a project, how distant it is and the contrast it presents to the existing condition.

The combination of sensitivity and magnitude provide the rating of the landscape character impact for a project, or visual impact for individual viewpoints (refer Table 2-1).

Table 2-1: Landscape Character and Visual Impact Rating Matrix (*impact levels in italics*)¹

		Magnitude (of change)			
		High	Moderate	Low	Negligible
Sensitivity (to change)	High	<i>High</i>	<i>High-Moderate</i>	<i>Moderate</i>	<i>Negligible</i>
	Moderate	<i>High-Moderate</i>	<i>Moderate</i>	<i>Moderate-low</i>	<i>Negligible</i>
	Low	<i>Moderate</i>	<i>Moderate-low</i>	<i>Low</i>	<i>Negligible</i>
	Negligible	<i>Negligible</i>	<i>Negligible</i>	<i>Negligible</i>	<i>Negligible</i>

¹ Source: *Transport for NSW (2020)*, with colours and italics added in this report

Landscape character assessment

The Guideline sets out the tasks for landscape character impact assessment:

1. Analyse existing landscape character and its sensitivity
2. Identify landscape character zones (if required because of the size or complexity of the project)
3. Determine the magnitude of change
4. Assess landscape character impact (based on both the sensitivity of the character zone and magnitude of the Proposal in that zone).

The assessment of landscape character impact is provided at SECTION 5.

Visual impact assessment

The Guideline sets out the tasks for visual impact assessment:

1. Identify the extent of visibility of the Proposal
2. Identify existing viewpoints and their sensitivity to change
3. Determine the magnitude of change from each viewpoint
4. Assess visual impact (based on a composite of the sensitivity of the view and magnitude of the Proposal in that view).

The assessment of visual impact is provided at SECTION 6.

2.2 Field investigations

The site was inspected on Thursday, 26 August 2021. The inspection included a walk-over of the station precinct and surrounding streets. The day was dry and sunny. An approximate viewshed (the area within which the Proposal would be seen at eye level above ground²) was determined on site and sensitive viewpoints identified. Private property was not accessed. Potential private viewpoints were assessed from the nearest publicly accessible location.

2.3 Photography

Photographs included in this report have been taken with a full frame sensor camera and 50mm focal length lens and using Global Positioning System (GPS) location data. The 50mm focal length is generally accepted as closest to the view perceived by a human eye. Unless otherwise noted, all photographs within this report were taken by Envisage Consulting on Thursday, 26 August 2021.

² Definition from Guideline p6

3

Visual context of Turrella Station

This section describes the existing site context and assesses the potential impact to landscape character (taking account of its sensitivity and predicted 'magnitude' of impact to determine the impact on landscape character).

3.1 Site location and context

The station's context, and surrounding features, are shown in Figure 3-1 and described below.

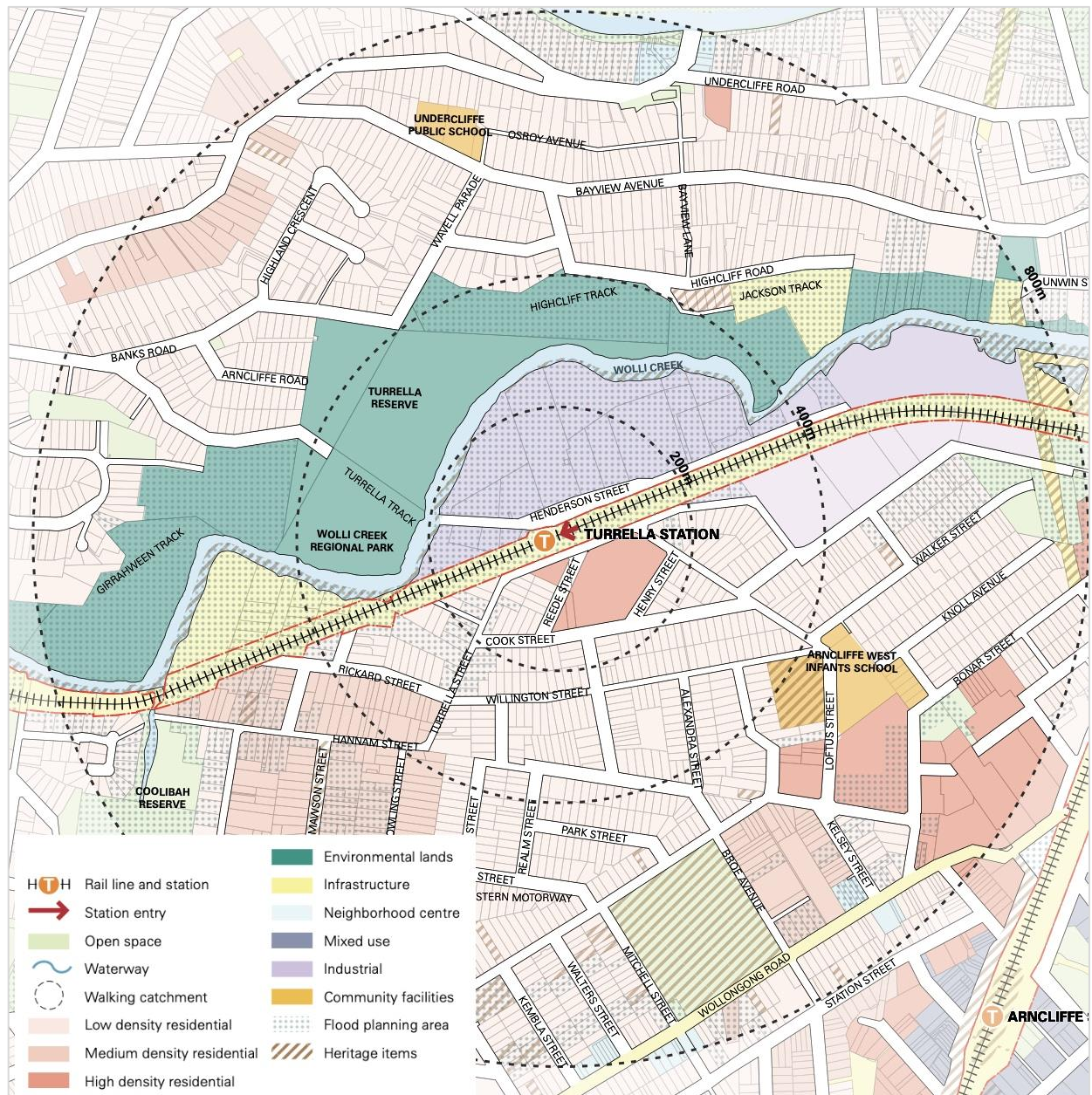


Figure 3-1: Location and visual context³

³ Source: adapted from Turrella Station Urban Design & Public Domain Plan (DesignInc, 2021)

The southern residential area is a mix of recently built high rise apartment buildings and detached housing. There is a local general store across the street from the station at the corner of Turrella and Reede Streets, under an apartment building.

The northern industrial area includes mostly small-scale industrial businesses housed in warehouses and sheds, with a bus depot at the far eastern end of Henderson Street. Further west of the industrial area is the large Turrella Reserve which traces the general course of Wolli Creek. Access to this public parkland is available close to the station via Henderson Street, where the Turrella Track crosses the reserve and connects to Finlays Avenue and the surrounding residential area.

Land use zoning

Land use zoning is established by the *Bayside Local Environmental Plan (BLEP), 2021*, and is shown in Figure 3-2. The two closest residential zones are R4 (High Density Residential, with a height limit of 20.5m) and R2 (Low Density Residential, with a height limit of mostly 8.5m, although an area just south of the R4 zone has a 14.5m height limit).

On the northern side of the railway is an IN2 (light industrial zone, with a height limit of 14.5m). The nearest part of Turrella Reserve is under an environmental protection E1 (National Parks and Nature Reserves) zone.

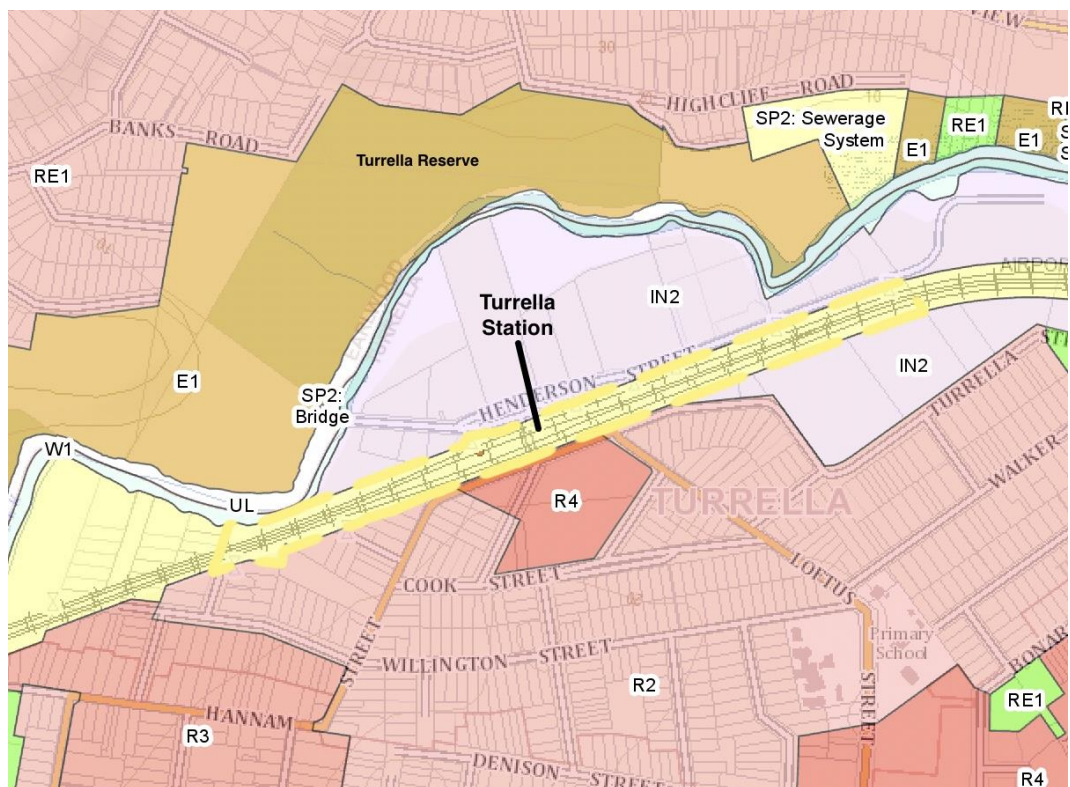


Figure 3-2: Land use zoning around Turrella Station (Bayside LEP, 2021)

Landform and vegetation

The station is located within a cutting, between Turrella Street and Henderson Street, with the access stairs from the Reede Street overbridge to the station. Henderson Street slopes up to the Reede Street overbridge, as does Turrella Street, at a gentler grade. Due to its location within the rail corridor cutting, views to the station buildings are limited and it is not a dominant element in the landscape.

On the southern side of Turrella Street the terrain rises steeply up Reede Street, with this landform preventing views of the station from further south of Cook Street. On the northern side of the station, and Henderson Street, the landform falls towards Wolli Creek and Turrella Reserve, before rising again to a residential area.

There are no large trees or shrubby vegetation close to, or within, the station.

3.2 Heritage

A Statement of Heritage Impact (SoHI) has been prepared by Umwelt (October 2021) and includes detailed information on heritage values and likely impacts. The purpose of this section is to provide a brief overview of visual heritage matters relevant to this assessment.

A photograph of the main station building is provided as Figure 3-3.



Figure 3-3: Existing Turrella Station main building⁴

The SoHI refers to the following statement of significance for the Turrella Railway Station Group:

Turrella Railway Station - including the 1931 platform and station building - is of local heritage significance. Turrella Railway Station is of historical significance as a major public work completed as an unemployment relief project during the Great Depression, and as a major transport hub for the suburb of Turrella since 1931. Turrella Railway Station building is of aesthetic significance as an austere 1930s railway building with simple Art Deco detailing and fine brick workmanship that is evocative of the effects of the Depression on building programs for large organisations such as the NSW railways.

The SoHI also states:

Turrella Railway Station generally remains representative of the cohesive collection of 10 East Hills line railway stations from Turrella to East Hills. It is noted, however, that modifications undertaken to the station obscure key elements of the station building, and impact the legibility of the aesthetic significance of the Station Group.

⁴ Source SOHI, Umwelt

The SoHI concludes:

The Proposal has been assessed as having a minor adverse impact on the Turrella Railway Station Group. This is associated with the alterations to the visual presentation and configuration of the station, and particularly the visual impacts of the new lift, stair and canopy structures. The Proposal would also result in the demolition of the original partitions within the male and female toilets, as well as new penetrations to the ceiling and walls for the proposed toilet upgrades and the relocation of the communications room to the cleaner's room. Those impacts to the original fabric at the station group would have a moderate adverse impact overall.

These impacts are relative to the contribution of the element within the station group, as well as the contribution of the item as a whole. Cumulatively the impacts the Turrella Railway Station Group would have a minor overall impact. The SoHI makes several recommendations to improve the Proposal. Relevant recommendations are referred to in SECTION 7 (Mitigation) of this report.

4.1 Overview of Proposal elements

The Proposal location, including the proposed work areas, construction compound and laydown areas are illustrated in Figure 4-1.

The main changes that could affect the landscape character and views from surrounding viewpoints, have been identified as:

- a new lift providing access from the Reede Street overbridge to the station platform
- a new station entrance from the Reede Street overbridge. The new station entrance would include:
 - demolition of the existing station access stairs and the section of the eastern platform canopy in order to accommodate the new stairs, lift, landing and canopy
 - construction of a new station entrance landing area
 - construction of new stairs between the proposed landing and the station platform
- modifications to kerb and line markings to accommodate the construction of a new kiss and ride bay along Turrella Street
- upgrades along the footpath located on the northern side of Turrella Street to provide an accessible and safe path of travel to the new station entrance including installation of traffic barriers
- improvements to lighting and wayfinding signage
- changes during construction such as machinery and the construction compound and laydown areas.

The Proposal layout is shown in Figure 4-2. Detailed Proposal plans and a full project description are included in the Proposal REF.

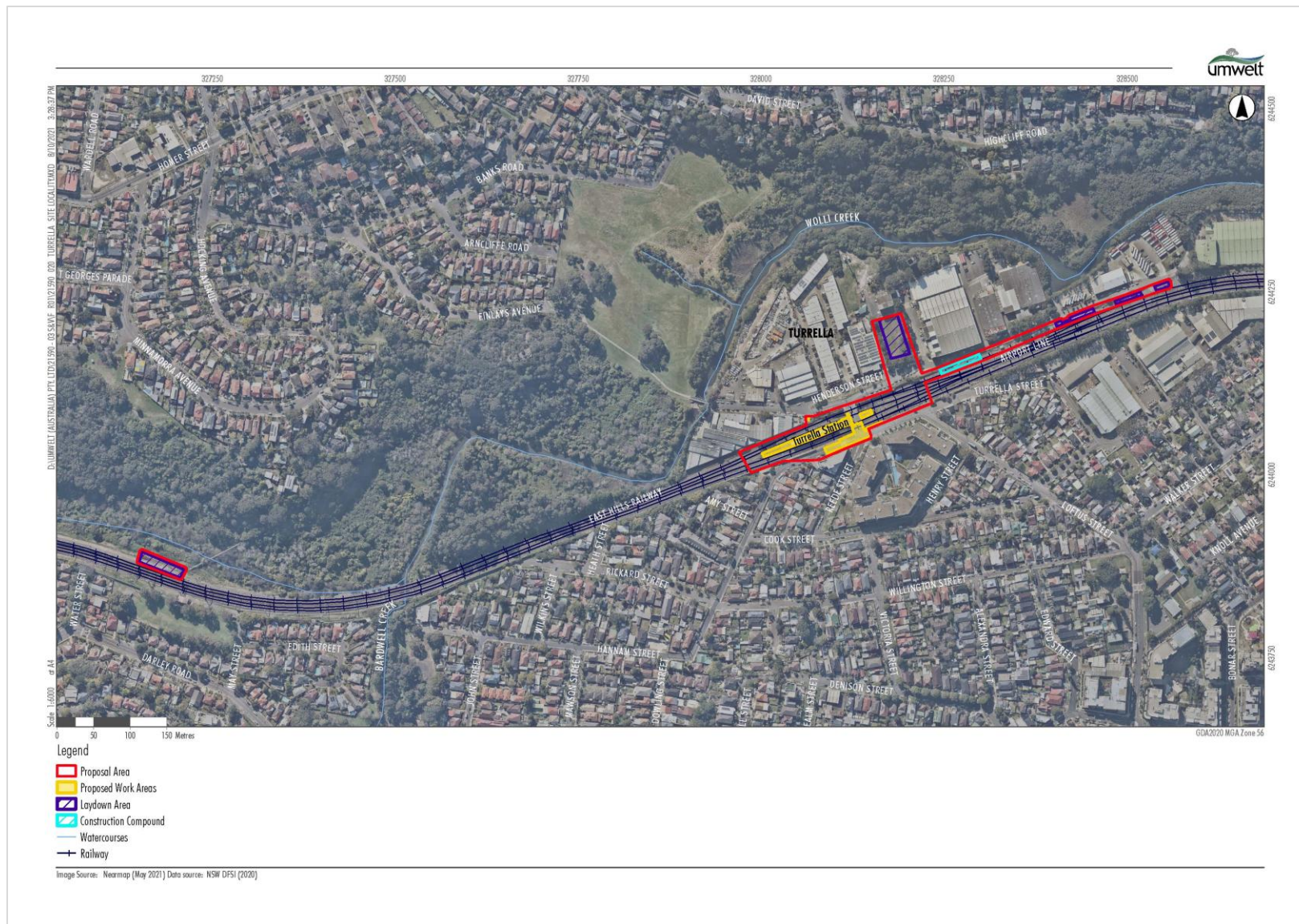


Figure 4-1: Location of proposed works, construction compound and laydown areas, Turrella Station⁵

⁵ Plan provided by Umwelt

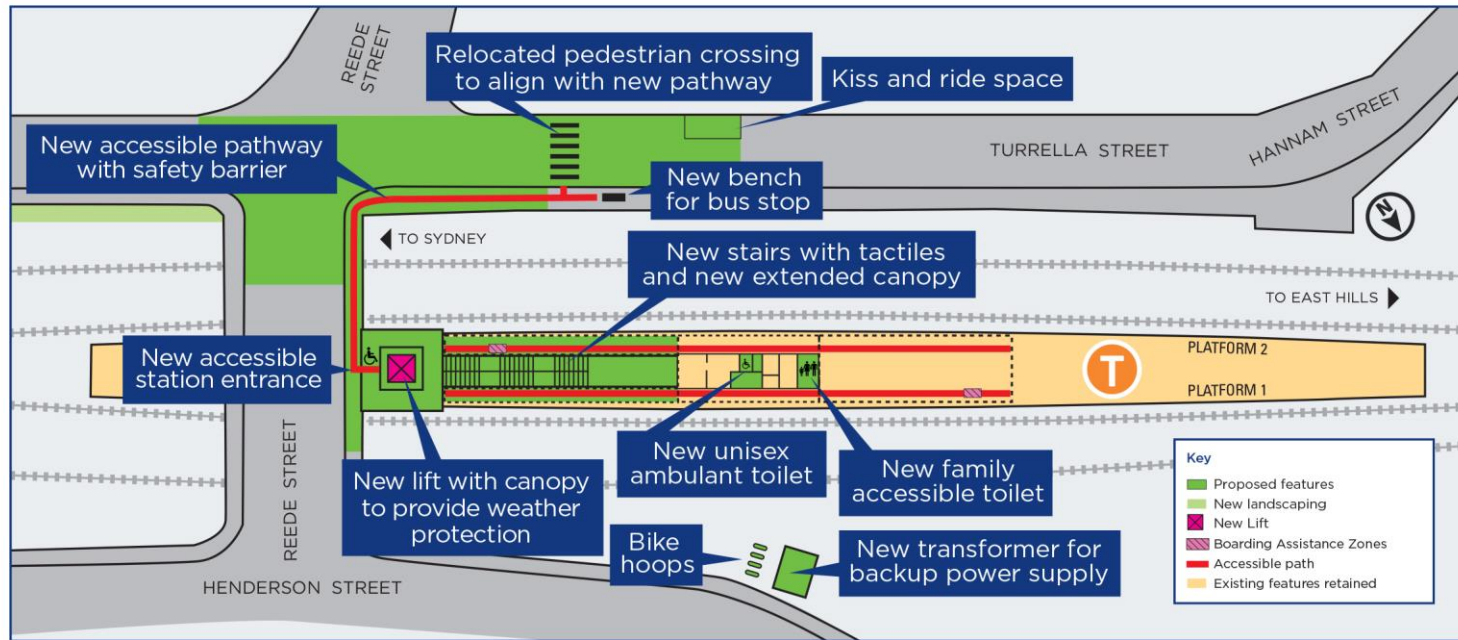


Figure 4-2: Proposal layout

4.2 Main visual changes

Images of the existing station and Proposal are provided respectively as Figure 4-3 and Figure 4-4 and other architectural images of the entry from the overbridge as Figure 4-5 and Figure 4-6.

Station upgrade

The main visible changes to the station would include:

- upgrades to the existing footpath between Reece Street, Turrella Street and the station entrance on the Reece Street overbridge
- demolition of the existing stairs connecting the station platform to Reece Street and replacement with new stairs
- installation of a new lift and associated lift landing between Reece Street and the station platform
- demolition of the existing platform canopy and replacement with a new canopy extending from the lift to the existing station building.

To maintain existing pedestrian access to the station during construction of the new station entry, temporary stairs would be constructed to provide access to the station platform. The design and staging of the temporary access would be determined during detailed design phase.



Figure 4-3: Existing (axonometric) layout of Turrella Station (indicative only, subject to detailed design)⁶

⁶ Provided by Transport for NSW



Figure 4-4: Proposed (axonometric) layout of proposed changes to Turrella Station (indicative only, subject to detailed design)⁷



Figure 4-5: Architectural impression of view of Proposal from Reede Street overbridge (indicative only, subject to detailed design)⁸

⁷ Provided by Transport for NSW

⁸ Provided by Transport for NSW

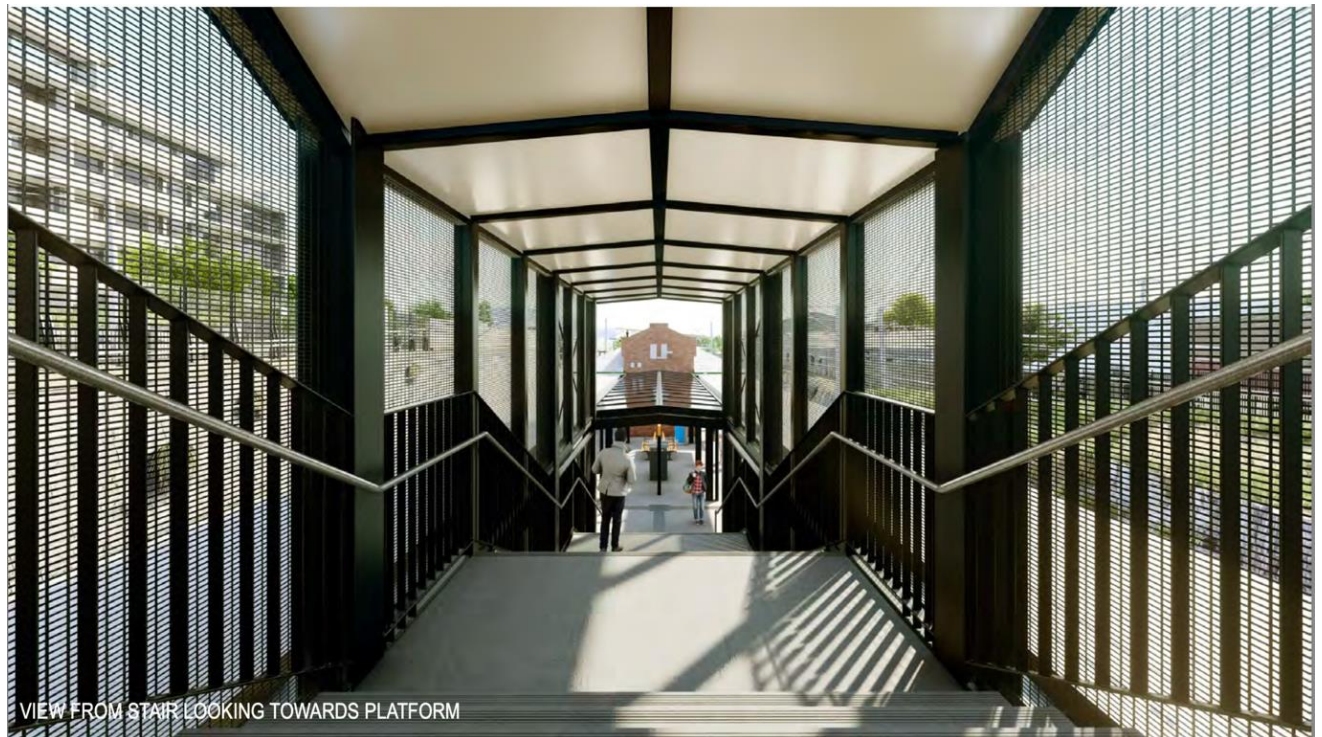


Figure 4-6: Architectural impression of proposed stairs (looking towards station platform) (indicative only, subject to detailed design)⁹

Interchange facilities

The main visible changes around the station would include:

- relocation of the pedestrian crossing on Turrella Street approximately 10m west to provide an accessible path of travel from the 'kiss and ride' bay to the station entrance
- construction of new ramp and path located near the corner of Turrella Street and Reede Street including the installation of new compliant handrails and traffic barriers.

Ancillary work

The following main visual changes related to ancillary work are required as part of the upgrade:

- relocation of services including lighting, retaining walls, and overhead wiring
- new wayfinding signage in relation to the new lifts and parking spaces
- new transformer on Henderson Street
- lighting upgrades
- relocation of station furniture and rubbish bins
- temporary construction compound and laydown areas for storage of materials and equipment
- temporary work (where required) during construction to maintain existing pedestrian 'level of service' and access to the station.

⁹ Provided by Transport for NSW

Materials and finishes

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 be constructed of the following materials:

- lower lift shafts –concrete
- upper lift shafts – steel frame with glass infill panels
- station entrance and lift landing – concrete base with mesh anti-throw screens, decorative panels and roof
- platform stairs – concrete with stainless steel/metal handrails, throw screens and canopy
- platform canopy – steel frame and glazed glass awning with a solid steel roof over the platform edges and translucent roof in the centre of the platform

The design would be submitted to TNSW's Design Review Panel at various stages for comment before acceptance. An Urban Design Plan (UDP) and/or Public Domain Plan (PDP) would also be prepared for endorsement by TNSW.

Landscape improvements

Landscape improvements are proposed as shown in the Concept Landscape Plan (Figure 4-7: Concept Landscape Plan (indicative only, subject to detailed design)

There would be a mixture of native shrubs and groundcovers planted alongside the existing acoustic fence on Turrella Street east of Reece Street. There would also be a seat installed on Turrella Street on the western side of Reece Street (not shown on the plan).

4.3 Construction

Full details of proposed construction activities and related changes are included in the Proposal REF.

Timing

Subject to approval, construction is expected to commence in early 2022 and take around 18 months to complete. The proposed construction activities, indicative staging and proposed construction traffic for the Proposal are fully detailed in the Proposal REF.

Most of the work required for the Proposal would be undertaken during standard (NSW) Environment Protection Authority (EPA) construction hours. Certain work may need to occur outside standard hours and would include night work. Full details of proposed work hours are included in the Proposal REF.

Compound

A temporary construction compound would be required to accommodate a site office, amenities, laydown and storage area for materials. An area for a construction compound has been proposed within the rail corridor opposite 29 Henderson Street (refer Figure 4-1). Impacts associated with utilising this area have been considered in the REF including requirements for rehabilitation. Several laydown areas would be within the railway corridor alongside Henderson Street and at 27 Henderson Street.

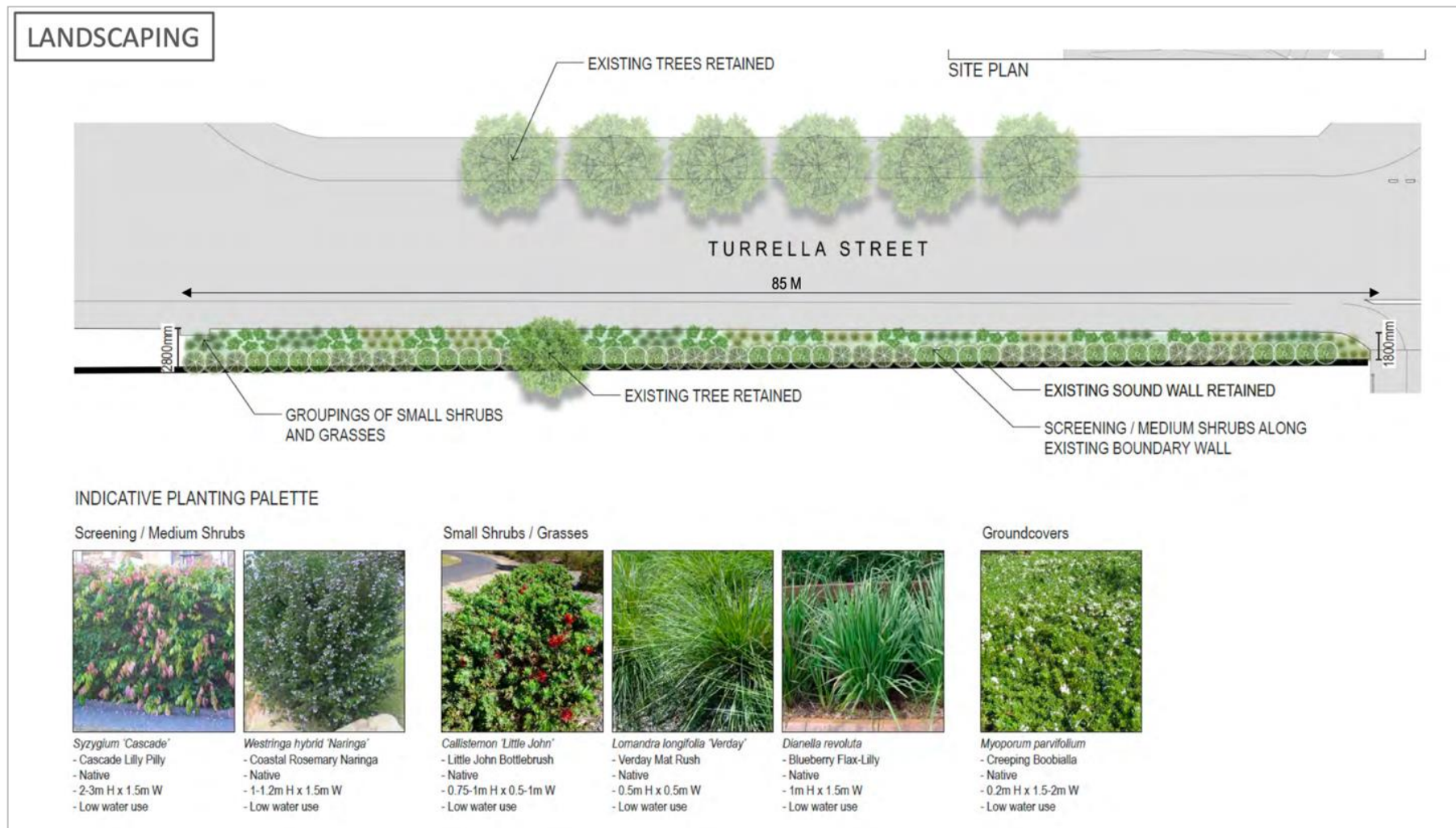


Figure 4-7: Concept Landscape Plan (indicative only, subject to detailed design)¹⁰

¹⁰ Provided by Transport for NSW

Main visible activities during construction

In summary, construction activities visible to the general public could include:

- site compound and laydown areas (fencing, tree protection zones, site offices, amenities, plant and material storage areas) (refer below)
- traffic control measures
- relocating or upgrading of utility / services where required
- safety barriers, lighting, and hoarding around nominated work areas
- removal of the existing stairs from the Reede Street overbridge to the station platform
- piling work and establishment of footings, and construction of, new stairs
- construct new station entrance, including lift area, new canopy and anti-throw screens
- demolition/excavation of existing non-compliant footpath
- construction of the ramp and regrading of the footpath area to tie into the existing footpath on Reede and Turrella Streets
- use of a crane and piling rig
- lift construction areas on platforms
- excavation, including for lift foundations
- construction of structures such as lift shafts, landings and canopies
- works outside the station, including:
 - demolition/excavation of existing non-compliant footpath
 - installation of traffic barriers
 - partial removal of median strip on Reede Street
 - adjustment of line markings and pedestrian crossing on Turrella Street.

These construction activities are temporary in nature. Subsequently, any potential visual impacts would also be temporary, and would be non-existent upon the completion of the Proposals construction. These temporary impacts are discussed further in SECTION 5 and 6 of this report

5

Landscape character impact assessment

5.1 Description of landscape character

The components that make up landscape character – such as land use, landform and vegetation – have been described in the previous section on site context. The main landscape characteristics are illustrated in Figure 5-1 to Figure 5-3 and in summary are:

- The landform which rises steeply on the southern side of the station and falls gently to the northern side down to Wolli Creek.
- The difference in land use on each side of the railway – consisting of the light industrial on the northern side and a mix of detached housing and newer apartment buildings on the southern side.
- The dominance of large apartments in the vicinity of the Turrella Street and Reede Street intersection, extending up Reede Street, which is steep in gradient.
- The absence of large trees or other vegetation close to or within the station precinct, with the closest trees being a few immature street trees along the southern side of Turrella Street, just east of Reede Street.
- Background views to trees in Turrella Reserve seen to north-west along Henderson Street.



Figure 5-1: Apartment buildings dominate the southern side of Turrella Station



Figure 5-2: Light industrial on northern side of Turrella Station (Turrella Reserve in background)



Figure 5-3: View from western end of Turrella Street (acoustic wall to station on left)

5.2 Impact to landscape character

The assessment of impact to landscape character considers both the 'sensitivity (to change)' of the landscape character with the 'magnitude (of change) from the Proposal, as described previously in SECTION 2 and defined below.

5.2.1 Sensitivity (to change) of landscape character

Due to the highly urban nature of the area surrounding Turrella Station, and the absence of any landscape or cultural elements of note (apart from the station buildings), the landscape character has a low sensitivity to the type and scale of the proposed visual change.

5.2.2 Magnitude (of change) to landscape character

Construction

During construction, the Proposal would have a temporary, moderate magnitude of change on landscape character as:

- Construction activities would affect a relatively large proportion of the station, particularly close to the Reede Street overbridge, and contrast somewhat with surrounding scale and character through the appearance of construction machinery, fencing and periodic use of tall, moving cranes.
- The main construction compound would be within the railway corridor to the east of the Reede Street overbridge (Henderson Street side) which would be visible from the nearest streets and overbridge. There would also be a large laydown area on the opposite side of Henderson Street within the industrial zone, which would be screened from views from the station and Henderson Street by boundary trees. There would also be about four other smaller laydown areas within the railway corridor.

Operation

Following construction, the Proposal would have a low magnitude of change on landscape character as:

- The new station entry and lift shaft would increase the height of built elements near Turrella Station (about 4.7m higher than the current road surface of the overbridge), however the changes would generally be compatible in form and scale with the existing urban surroundings, which includes tall apartment buildings on Turrella and Reede Streets.
- Removal of the existing stairs and construction of a new entry would provide a more contemporary look to the station.
- Other upgrades such as the proposed landscaping along Turrella Street and a new seat at the bus stop on Turrella Street would improve the visual environment and general amenity for users.

5.2.3 Landscape character impact

By combining the ratings given for the landscape character sensitivity (to change), with that for the magnitude of change, an overall level of assessed impact to landscape character is shown in Table 5-1 for both construction and operation:

Table 5-1: Assessment of landscape character Impacts

Phase	Sensitivity	Magnitude	Landscape character impact
Construction	Low	Moderate	Moderate-low
Operation	Low	Low	Low

6

Visual impact assessment

This section describes the likely extent of visibility of the Proposal, identifies viewpoints and their sensitivity to change, and assesses the magnitude of change and impact to each viewpoint.

6.1 Extent of visibility

Turrella Station has a limited viewshed or area of visibility, as it is only visible from the nearest urban area to a maximum of about 250m. The extent of visibility includes the residential area and associated apartment buildings to the east, the light industrial area to the west and public spaces and roads close to the station.

Potential viewpoints to the Proposal are described below, with a map identifying those viewpoints and the approximate viewshed provided as Figure 6-1.

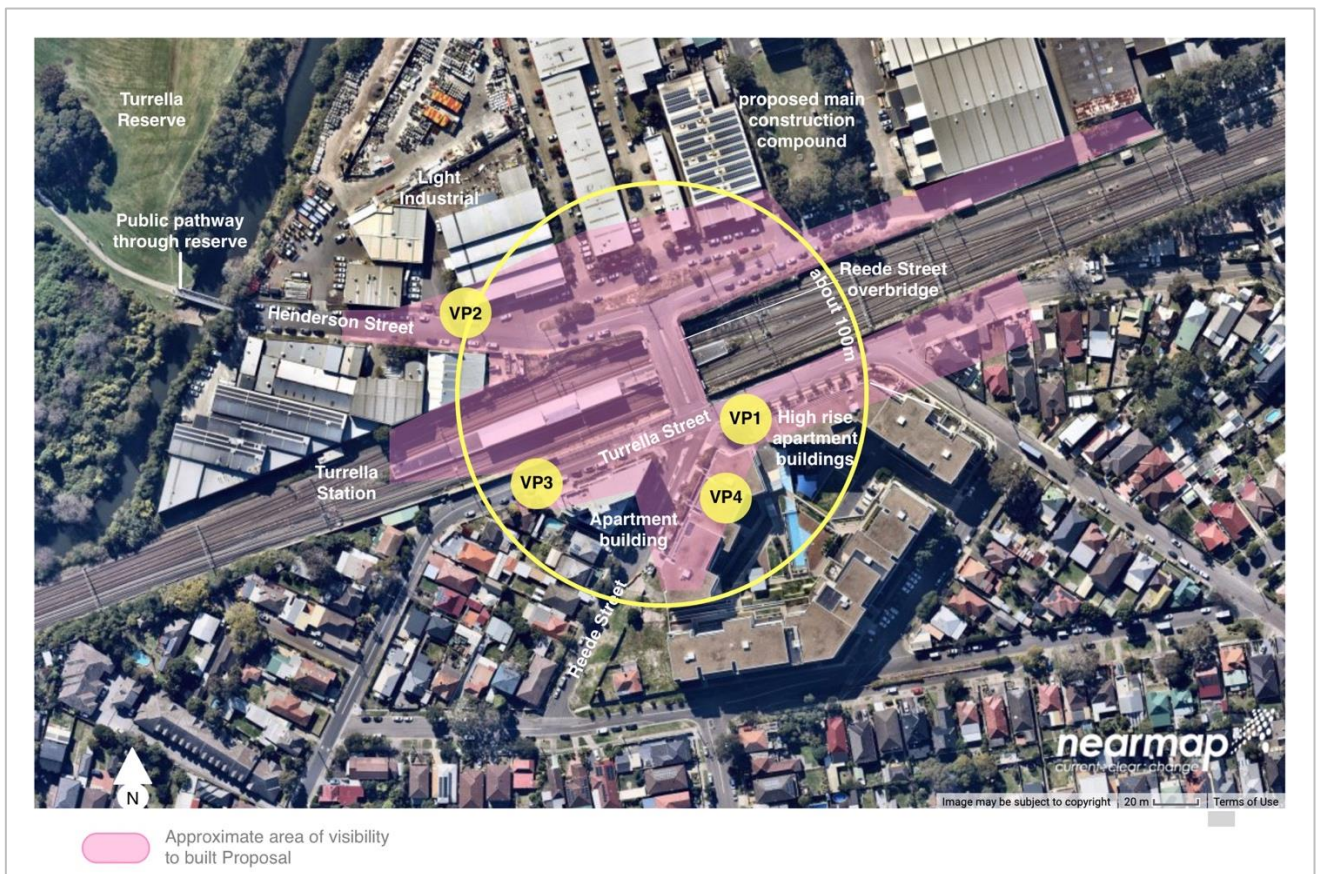


Figure 6-1: Approximate visibility and main viewpoints

6.2 Main viewpoints

Four public and private viewpoints (VPs) have been identified within the viewshed as potentially sensitive to visual change:

- VP1: Public space near the general store, at the corner of Reede and Turrella Streets
- VP2: Henderson Street, representing views from part of the public thoroughfare that connects through to Turrella Reserve and other residential areas
- VP3: Turrella Street, western end, representing public street views and residential views east of station
- VP4: Apartments, corner of Reede and Turrella Streets, representing views from these apartments on the southern side of the station.

The viewpoints are described and assessed in Table 6-1 to Table 6-4.

Table 6-1: Viewpoint (VP) 1 – Public space near General Store (corner of Reede and Turrella Streets)


Viewpoint characteristics	<p>This viewpoint represents views available from near the general store and café, which is the only close shop to the station and a community focus. The view toward the station is shown in Figure 6-2.</p>  <p>Figure 6-2: VP1 - Existing view</p>
Sensitivity	<p>The sensitivity of this viewpoint is rated as moderate as:</p> <ul style="list-style-type: none"> This is a public viewpoint which is a focus of community activity, however, it is within a highly urban area near Turrella Station, with the railway line and the overbridge structure/throw screens already dominating this view.
Proposed view	<p>A photomontage of the Proposal from this viewpoint is provided as Figure 6-3.</p>
Magnitude of change (construction)	<p>CONSTRUCTION: The magnitude of change during the temporary construction period is rated as moderate as:</p> <ul style="list-style-type: none"> Views of construction activities such as the lift and landing would be visible within 50m. Machinery such as cranes would also be seen at times, although work on the station platform would not be visible. The construction compound and laydown areas would not be visible. There may be some nightwork during which lights would be in operation, however, lights would be directed toward the work.
Magnitude of change (operation)	<p>OPERATION: The magnitude of change at operation is rated as low as:</p> <ul style="list-style-type: none"> The new station entry and lift shaft would increase the height of built elements in the view (about 4.7m higher than the road surface of the overbridge), however would be generally compatible in form and scale with the existing surroundings. Construction of a new entry would provide a more contemporary and universally accessible access to the station seen from this viewpoint. The extent of fencing along Turrella Street would increase, adding visual clutter and have an adverse visual impact. The proposed landscaping along Turrella Street (to the right of this viewpoint) and a new seat at the bus stop on Turrella Street would improve the visual environment and general amenity.
Visual impact level (construction)	<p>CONSTRUCTION: The moderate sensitivity ranking, combined with a moderate magnitude of change, leads to an overall predicted moderate level of impact during construction.</p>
Visual impact level (operation)	<p>OPERATION: The moderate sensitivity ranking, combined with a low magnitude of change, leads to an overall predicted moderate to low level of impact.</p>



Figure 6-3: VP1 – Likely view once constructed (subject to detailed design)

Table 6-2: Viewpoint (VP) 2 – Henderson Street


Viewpoint characteristics	<p>This viewpoint represents views available from the western end of Henderson Street, which is part of the public thoroughfare that connects through to Turrella Reserve and other residential areas to the north-west (refer Figure 6-4).</p>  <p>Figure 6-4: VP2 - Existing view</p>
Sensitivity	<p>The sensitivity of this viewpoint is rated as low as:</p> <ul style="list-style-type: none"> ▪ The public thoroughfare is positioned within the industrial area on the northern side of the station. ▪ The existing station occupies a large proportion of the existing view. ▪ The dominant feature of the view is high-rise apartments in the background with station fencing and part of the station platform shelter visible in the middle ground. ▪ The view includes overhead utilities, posts and bins and is not scenic.
Proposed view	<p>A photomontage of the Proposal from this viewpoint is provided as Figure 6-5.</p>
Magnitude of change (construction)	<p>CONSTRUCTION: The magnitude of change during the temporary construction period is rated as low as:</p> <ul style="list-style-type: none"> ▪ Views of construction activities would be within 50m and construction of the lift and landing to the overbridge would be visible. Some machinery such as cranes and would also be seen at times, with partial views also of construction at the level of the station platform. ▪ The main construction compound and laydown areas would not be visible. ▪ There may be some nightwork during which lights would be in operation, however, lights would be directed toward the work.
Magnitude of change (operation)	<p>OPERATION: The magnitude of change at operation is rated as low as:</p> <ul style="list-style-type: none"> ▪ The view to the high-rise would remain dominant and no parts of the Proposal would breach the skyline. ▪ The new station entry and lift shaft would increase the height of built elements in the middle ground of the view (about 4.7m higher than the current road surface of the overbridge), however would be generally compatible in form and scale with the existing surroundings and seen against the apartment buildings to the east. ▪ All changes would be seen within the context of the surrounding industrial zone, and railway infrastructure.
Visual impact level (construction)	<p>CONSTRUCTION: The low sensitivity ranking, combined with a low magnitude of change, leads to an overall predicted low level of impact during construction.</p>
Visual impact level (operation)	<p>OPERATION: The low sensitivity ranking, combined with a low magnitude of change, leads to an overall predicted low level of impact.</p>



Figure 6-5: VP2 - Likely view once constructed (subject to detailed design)

Table 6-3: Viewpoint (VP) 3 – Turrella Street, western end



Viewpoint characteristics	<p>This viewpoint represents views available from the western end of Turrella Street, representing public street views and private residential views near street level (refer Figure 6-6). The location is opposite the station.</p>  <p>Figure 6-6: VP3 - Existing view</p>
Sensitivity	<p>The sensitivity of this viewpoint is rated as low as:</p> <ul style="list-style-type: none"> Both the public views from Turrella Street, and the private views from the street level (from detached houses plus nearby lower levels of the apartment buildings in this vicinity) are within a highly urban area. Railway and road infrastructure associated with this area near Turrella Station already dominate this view, including the railway line, station, station stairs and fencing/throw screens.
Proposed view	<p>A photomontage of the Proposal from this viewpoint is provided as Figure 6-7.</p>
Magnitude of change (construction)	<p>CONSTRUCTION: The magnitude of change during the temporary construction period is rated as low as:</p> <ul style="list-style-type: none"> Views of some of the construction activities of the lift and stairs would be within 50m, however, partially obscured by the existing throw screens. Some machinery such as cranes and would also be seen at times, with partial views also of construction on the station platform and overbridge. Yet all changes would be seen where existing railway infrastructure is already visible. The main construction compound and laydown areas would not be visible. There may be some nightwork during which lights would be in operation, however, lights would be directed toward the work.
Magnitude of change (operation)	<p>OPERATION: The magnitude of change at operation is rated as low as:</p> <ul style="list-style-type: none"> The new station entry and lift shaft would increase the height of built elements in the view (about 4.7m higher than the current road surface of the overbridge), however, would generally be compatible in form and scale with the existing surroundings. Other changes along Turrella Street would increase the extent of fencing which would add clutter and be a negative visual component. Planned re-painting of the existing acoustic wall (just to west of photograph) would improve its presentation.
Visual impact level (construction)	<p>CONSTRUCTION: The low sensitivity ranking, combined with a low magnitude of change, leads to an overall predicted low level of impact during construction.</p>
Visual impact level (operation)	<p>OPERATION: The low sensitivity ranking, combined with a low magnitude of change, leads to an overall predicted low level of impact.</p>



Figure 6-7: VP3 - Likely view once constructed (subject to detailed design)

Table 6-4: Viewpoint (VP)4 – Apartments, corner Reede and Turrella Streets

Viewpoint characteristics	<p>This viewpoint represents views from the apartment buildings at the corner of Reede and Turrella Streets, east of Turrella Station (refer Figure 6-8). As this is private property, the assessment is based on predicted views and likely change due to Proposal.</p> 
Sensitivity	<p>The sensitivity of this viewpoint is rated as low as:</p> <ul style="list-style-type: none"> Views would vary, with some apartments at higher levels having wide views over the railway and to residential and more distant areas to the west. Railway and road infrastructure dominate the view, and include the railway line, station, station stairs and fencing/throw screens.
Magnitude of change (construction)	<p>The magnitude of change during the temporary construction period is rated as low as:</p> <ul style="list-style-type: none"> Views of some of the construction activities would be within 50m, with clearer views possible from some higher apartments. Some machinery such as cranes and would also be seen at times, with views also of construction at the level of the station platform and overbridge. Yet all changes would be seen where existing railway infrastructure is already visible. The main construction compound and laydown areas would not be visible. There may be some nightwork during which lights would be in operation, however, lights would be directed toward the work.
Magnitude of change (operation)	<p>The magnitude of change at operation is rated as low as:</p> <ul style="list-style-type: none"> The new station entry and lift shaft would increase the height of built elements in the view (about 4.7m higher than road surface of overbridge), however would generally be compatible in form and scale with the existing surroundings. Other changes along Turrella Street would increase the extent of fencing which would add clutter and be a negative visual component. Other upgrades such as the proposed landscaping along Turrella Street and re-painting of the existing acoustic wall would improve the visual environment.
Visual impact level (construction)	CONSTRUCTION: The low sensitivity ranking, combined with a low magnitude of change, leads to an overall predicted low level of impact during construction.
Visual impact level (operation)	OPERATION: The low sensitivity ranking, combined with a low magnitude of change, leads to an overall predicted low level of impact.

6.3 Summary of visual impact to identified viewpoints

The Proposal's assessed impact to identified viewpoints is summarised in Table 6-5 and Table 6-6.

Table 6-5: Assessment of visual impacts to viewpoints – Construction

Viewpoint	Sensitivity	Magnitude	Assessed visual impact
VP1: Public space near corner of Reede and Turrella Streets	Moderate	Moderate	Moderate
VP2: Henderson Street (part of the public thoroughfare)	Low	Low	Low
VP3: Turrella Street, western end	Low	Low	Low
VP4: Apartments, corner Reede and Turrella Streets	Low	Low	Low

Table 6-6: Assessment of visual impacts to viewpoints – Operation

Viewpoint	Sensitivity	Magnitude	Assessed visual impact
VP1: Public space near corner of Reede and Turrella Streets	Moderate	Low	Moderate-low
VP2: Henderson Street (part of the public thoroughfare)	Low	Low	Low
VP3: Turrella Street, western end	Low	Low	Low
VP4: Apartments, corner Reede and Turrella Streets	Low	Low	Low

This section describes the currently proposed mitigation measures of the Proposal and additional measures that are recommended to improve the visual outcome.

7.1 Current mitigation measures

The Proposal incorporates the following mitigation measures:

- An Urban Design Plan (UDP) and Public Domain Plan (PDP)
- All lighting would be designed and installed in accordance with *AS4282 Control of the Obtrusive Effects of Outdoor Lighting*.
- Any existing and future graffiti would be removed in accordance with Transport for NSW's standard requirements.

The Proposal also includes several features that would improve the visual appeal of the station precinct, such as:

- A Concept Landscape Plan
- Painting of the acoustic walls along Turrella Street and a new seat on Turrella Street.

7.2 Heritage-related mitigation

The SoHI (Umwelt, 2021) makes two recommendations that are particularly relevant to landscape character and visual impact:

- *Lift canopy structure – options should be explored to reduce the size of the horizontal beam supporting the lift canopy. This would help to minimise the dominance of the lift structure in views to and from the station.*
- *Enclosed stairway – the detailed design should explore options for high transparency materials to the enclosed canopy to allow better views to the station building as well as to lighten the appearance of the structure against the other proposed modifications to the east end of the station.*

Both of those recommendations are strongly supported in this report to ensure a lightweight design of a scale that is as visually sympathetic as possible to the small scale of the heritage station building.

7.3 Recommended additional mitigation measures

In addition, the following measures are recommended to improve the visual outcome:

1. Reduce visual clutter by minimising new fencing and signage

The combination of existing and planned security fencing and other fencing currently creates a poor visual outcome. The different types of fencing currently in the vicinity of Turrella Station include:

- white low existing fencing along Reede Street overbridge

- throw/security screens along overbridge and Turrella Street boundary (the existing fences have rusted in many places which is a poor aesthetic)
- black security palisade fencing along the northern (Henderson Street) side of railway.

The plans for the Proposal indicate there would be an increase in both the amount and type of fencing, which would increase visual clutter and present an uncoordinated and visually unappealing set of built elements that detract from the Proposal.

The following measures are recommended to improve this outcome:

- Investigate removing the existing white fencing along Turrella Street and instead attach a handrail to the security fencing/throw screens if a handrail is required, removing the need for two different types of fencing.
- Alternatively, investigate using fencing similar to the black palisade security fence on northern side (Henderson Street).
- Investigate whether a new fence is necessary along the roadside of the overbridge and along the roadside of Turrella Street, and if a simpler handrail could be substituted and/or fencing used in a more targeted way.
- Consider using dark coloured fencing as it is generally less visible and easier to see through, thus receding better into the background.

2. Landscaping improvements

Include several moderate sized street trees along the eastern section of Turrella Street (possibly of the same species as on the opposite side of the street). Trees would improve the aesthetics and add important shade, reducing heat island effects recognised as being prevalent in urban areas.

3. Acoustic walls

The selected colour for the acoustic walls along Turrella Street should consider the overall design of the Proposal.

The Proposal would improve accessibility at Turrella Station by installing a lift, new stairs and upgrading other facilities such as footpaths. The lift shaft and landing would be the most significant visual change as the lift would be about 4.7m above the existing overbridge road surface, introducing a new built element. However, the Proposal is relatively compatible with the existing station in scale and form.

Two assessments were conducted to determine the level of visual impact of the Proposal: impact on landscape character and impact to viewpoints.

Impact to landscape character

During construction, local landscape character would be temporarily reduced by construction activities, including large machinery and temporary security fencing. The impact to local landscape character has been assessed as Moderate-low during construction, and Low following construction.

Visibility and visual impact to surrounding viewpoints

Four potentially sensitive viewpoints, both private and public, were assessed. During the temporary construction period, views of construction activity would be prominent and unavoidable from VP3 and from some residents in apartments at VP4. The assessed impact on views during construction is summarised in Table 8-1.

Table 8-1: Assessment of impacts to viewpoints – Construction

Viewpoint	Sensitivity	Magnitude	Assessed visual impact
VP1: Public space near corner of Reede and Turrella Streets	Moderate	Moderate	Moderate
VP2: Henderson Street (part of the public thoroughfare)	Low	Low	Low
VP3: Turrella Street, western end	Low	Low	Low
VP4: Apartments, corner Reede and Turrella Streets	Low	Low	Low

Following construction, the station would be slightly more visible from the south (near residents (VP3 and VP4)) and the public space near the general store at the corner of Turrella and Reede Streets (VP1), due to the proposed lift and landing at the overbridge. Views from the northern side of the station (VP2) show less change, as this viewpoint is generally lower, and the lift would be seen against the apartments to the east. Overall, there would be no more than a predicted Moderate-low impact to surrounding viewpoints during operation, as summarised in Table 8-2.

Table 8-2: Assessment of impacts to viewpoints – Operation

Viewpoint	Sensitivity	Magnitude	Assessed visual impact
VP1: Public space near corner of Reede and Turrella Streets	Moderate	Low	Moderate-low
VP2: Henderson Street (part of the public thoroughfare)	Low	Low	Low
VP3: Turrella Street, western end	Low	Low	Low
VP4: Apartments, corner Reede and Turrella Streets	Low	Low	Low

Recommendations

Two recommendations relating to the stair and lift design in the SoHI are strongly supported in this report to ensure a lightweight design of a scale that is as visually sympathetic as possible to the small scale of the heritage station building.

In addition, measures have been recommended to improve the visual outcome by:

- reducing visual clutter - by minimising new fencing and signage
- landscaping improvements – including trees along railway side, eastern Turrella Street
- acoustic walls – consider colour in terms of overall station design.

Conclusion

The Proposal would result in temporary visual impact during construction of a relatively Moderate to Low nature. Once constructed, the Proposal would be compatible with the existing urban form in scale and form, however, suggested design changes to the stairs and lift design, plus improving the visual presentation of proposed fencing, are recommended to improve the visual outcome.

DesignInc (2021). *Turrella Station Urban Design & Public Domain Plan*.

Transport for NSW (2020). *Guideline for Landscape Character and Visual Impact Assessment, Environmental Impact Assessment Practice Note EIA-N04*

Umwelt (2021). *Statement of Heritage Impacts – Turrella Station Upgrade*.