Bardwell Park Station Upgrade – Safe Accessible Transport program

Statement of Heritage Impact

Report to Aurecon

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artefact

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EXECUTIVE SUMMARY

Project summary

The Safe Accessible Transport program is an initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

Artefact Heritage and Environment have been engaged by Aurecon, on behalf of Transport for NSW (Transport), to prepare a Statement of Heritage Impact (SoHI) along with an Archaeological Assessment for the Bardwell Park Station upgrade to support a Review of Environmental Factors (REF). Bardwell Park Station is listed under the Transport Asset Holding Entity Section 170 Register (TAHE s170) as Bardwell Park Railway Station Group item #4801896. The study area is also included on non-statutory listings as the Bardwell Park Urban Conservation Area, namely on the Register of the National Estate (RNE # 102101) and the National Trust of Australia (NSW) heritage register (NSW NTHR # 10987).

Approval pathway

This SoHI has been prepared to support a REF for the determination of the concept design of the proposed upgrade works to Bardwell Park Station. The detailed design would be developed following determination of the project, and any new works or significant changes may require further heritage assessment (and additional approval, including a Section 170 Demolition Notice as per Section 170A of the NSW *Heritage Act 1977*).

Recommendations and mitigation measures

The detailed design should be developed to protect and enhance the heritage values of Bardwell Park Railway Station in line with the following recommendations:

Prior to construction:

- The detailed design must consider the Heritage Design Principles developed in the Heritage Design Report (Artefact, 2023) developed as part of the Concept Design stage of the project. These Principles should inform the detailing, materiality, and colour choices of all new elements introduced at the station.
- New installations are to follow the guidelines specified in Section 8.0regarding mitigating impacts to the heritage character of the station. This is through the reuse of heritage fabric, use of sympathetic materials and colour schemes, and maintaining sightlines where possible. The new platform canopies are to be designed to avoid physical contact with the station platform building, which will assist in mitigating intrusions upon heritage fabric. Involvement of a Heritage Architect/Consultant in choosing finishes and colours is recommended in order ensure appropriate colour selection.
- A Photographic Archival Recording (PAR) report should be prepared for the site to document significant fabric and heritage significant views and vistas that would be impacted. This report should be prepared in accordance with relevant guidelines issues by Heritage NSW, and the Department of Climate Change, Energy, Environment, and Water (DCCEEW).

- A Heritage Interpretation Plan (HIP) should be developed during the detailed design phase of the project and interpretative elements integrated into the design prior to AFC design. The HIP would build off the established Heritage Interpretation Strategy developed by Transport for the Safe Accessible Transport program. Consideration should be given to the provision of heritage interpretation as part of the project, which would outline the history, associations and significance of the site and the wider Bardwell Park Station area. Interpretive measures could involve interpretive artwork, signage, panels or displays at entry/exit points to the station.
- Design and construction of the Proposal within the curtilage of the Section 170 listed 'Bardwell Park Station Group' must be undertaken in accordance with the recommendations made in the Statement of Heritage Impact.
- Copies of the 'as built' construction plans, photographs illustrating the completed work and the Archival Record would be lodged with the Transport Heritage team as a documentary record of changes to the station.
- A Heritage Management Plan (including detailed drawings, documentation and specifications) and Work Method Statement would be prepared as part of the CEMP to address heritage impacts and required management procedures to minimise risks.
- The Contractor in collaboration with the Heritage Architect/Consultant must prepare and submit an illustrated services plan to detail all services routes in order to demonstrate compliance with the *Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites* (2017). The illustrated services plan should include, but not be limited to; high voltage (HV), low voltage, communications, PA and CCTV. The illustrated services plan must be submitted and approved by the Transport Heritage Specialist prior to the commencement of permanent works. Detailed design of ancillary works and electrical and data services should be documented in an *Illustrated Services Plan* and approved by the Heritage Architect prior to the commencement of permanent services works.

    - i. installation of electrical and data services is to be completed in accordance with Sydney Trains (2017) *Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites*
    - ii. Ancillary works should be undertaken in accordance with the following Sydney Trains guidelines:
        - – *Conservation Guide: Railway Station Platform Furnishings* (2012)
        - – *Conservation Guide: Railway Station Platforms* (2013)
        - – Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites (2017)

During construction:

- A heritage induction is to be presented to construction workers prior to their commencing works. This induction is to take place for all new construction workers throughout the course of the project.

- Onsite monitoring should be implemented where significant vibrations are likely to take place as a result of demolition and construction.

Care should be taken where works may impact significant heritage fabric (i.e. around the platform building) and where significant heritage items intended for reinstallation are removed as part of the works. Refer to Transport Temporary works and protection at heritage sites fact sheet.

- During construction, suitable measures would be put in place to ensure the retained heritage elements are protected from damage. Measures may include hoardings, use of spotters during the movement of equipment and other measures as necessary.
- Fabric and features of high significance (such as building fabric, platform furniture, and the original light poles) should be retained and reinstalled or reused wherever feasible.
- On completion of work, an update would be prepared for the Section 170 listing on the State Heritage Inventory, with required details.

Archaeology

- Works should proceed in accordance with the *Transport for New South Wales Unexpected Heritage Items Procedure 2024.* [1]
- If unexpected heritage items are encountered during works, all works in the area must cease and an archaeologist must be contacted for advice. Works should not proceed until clearance has been provided.
- In the event that significant relics are unexpectedly encountered, Heritage NSW, DCCEEW would be notified in accordance with s146 of the Heritage Act and further approval under the Heritage Act would be required if impacts to the relics cannot be avoided.

[1] 2022, Transport for NSW - *Unexpected heritage items procedure*

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1.0 INTRODUCTION

1.1 Project background

Safe Accessible Transport is an initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

Artefact Heritage and Environment (Artefact) have been engaged by Aurecon, on behalf of Transport for NSW (Transport), to prepare a Statement of Heritage Impact (SoHI) for the Bardwell Park Station upgrade.

1.2 Study area

The study area comprises Bardwell Park Station and surrounding land as shown in Figure 1. It is located in the suburb of Bardwell Park within the Bayside Council Local Government Area (LGA). It is bounded by Wolli Creek Regional Park to the northwest, and Slade Road to the southeast and the rail corridor to both northeast and southwest. Hartill-Law Avenue traverses the study area in a northwest – southeast orientation.

The study area encompasses the rail corridor to its centre, the Earlwood Bardwell Park RSL to the northwest and a mixed commercial and residential area to the southeast.

A representation of the study area has been provided below in Figure 1.

Figure 1: Location of Bardwell Park Station (Source: Artefact, 2024).

1.3 Authorship

This report has been prepared by Pedro Silva (Heritage Consultant), Daniel Dompierre-Outridge (Heritage Consultant), and Sarah-Jane Zammit (Senior Heritage Consultant) with input and review provided by Scott MacArthur (Principal), all from Artefact Heritage.

1.4 Limitations

This report addresses the impacts to potential archaeological remains based on the provided concept design drawings[2] for the location of new and upgraded infrastructure. The impact assessment has been undertaken under the broad understanding of the potential locations of excavation and or trenching works. The site visit undertaken by Artefact was limited to a visual inspection only. Artefact prepared a Heritage Design Report (HDR) in 2023 as part of the development of the concept design for the TAP upgrade of Bardwell Park Station; this HDR has informed the preparation of this SoHI.

[2] Aurecon, *TAP4: Bardwell Park Concept Design Report,* 07-07-2023

2.0 LEGISLATIVE CONTEXT

2.1 Overview

This section discusses the heritage management framework, notably legislative and policy context, applicable to the proposed development and study area.

2.2 Identification of heritage listed items

Heritage listed items were identified through a search of relevant state and federal statutory and non-statutory heritage registers:

- World Heritage List (WHL)
- Commonwealth Heritage List (CHL)
- National Heritage List (NHL)
- State Heritage Register (SHR)
- Section 170 Heritage and Conservation Registers
- NSW State Heritage Inventory (SHI)
- Bayside Local Environmental Plan (LEP) (2021)
- Register of the National Estate (RNE)
- National Trust of Australia (NSW) heritage register (NSW NTHR).

Items listed on these registers have previously been assessed against the heritage assessment guidelines relevant to their peak governing body. Items that are of Commonwealth, National and World heritage significance have been assessed in accordance with the Environmental Protection and Biodiversity Conservation Act 1999 (the EPBC Act). Items of state or local significance have been assessed against the NSW Heritage Assessment guidelines. Assessments of heritage significance as they appear in relevant heritage inventory sheets and documents, are provided in this assessment.

There are several items of legislation that are relevant to the current study area. A summary of the relevant Acts and the potential legislative implications are provided below.

2.3 The World Heritage Convention

The Convention Concerning the Protection of World Cultural and National Heritage (the World Heritage Convention) was adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organisation (UNESCO) on 16 November 1972, and came into force on 17 December 1975. The World Heritage Convention aims to promote international cooperation to protect heritage that is of such outstanding universal value that its conservation is important for current and future generations. It sets out the criteria that a site must meet to be inscribed on the World Heritage List (WHL) and the role of State Parties in the protection and preservation of world and their own national heritage.

There are no heritage items listed on the World Heritage List within the study area.

2.4 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legislative framework for the protection and management of matters of national environmental significance, that is, flora, fauna, ecological communities and heritage places of national and international importance. Heritage items are protected through their inscription on the World Heritage List, Commonwealth Heritage List, or the National Heritage List. The EPBC Act stipulates that a person who has proposed an action that will, or is likely to, have a significant impact on a World, National or Commonwealth Heritage site must refer the action to the Minister for the Environment and Water (hereafter Minister). The Minister will then determine if the action requires approval under the EPBC Act.

If approval is required, an environmental assessment would need to be prepared. The Minister would approve or decline the action based on this assessment. A significant impact is defined as “an impact which is important, notable, or of consequence, having regard to its context or intensity.” The significance of the action is based on the sensitivity, value and quality of the environment that is to be impacted, and the duration, magnitude and geographic extent of the impact. If the action is to be undertaken in accordance with an accredited management plan, approval is not needed and the matter does not need to be referred to the Minister.

2.4.1 Commonwealth Heritage List

The Commonwealth Heritage List (CHL) has been established to list places of outstanding heritage significance to Australia. Established under the EPBC Act, the CHL comprises natural, Indigenous and historic heritage places on Commonwealth lands and waters or under Australian Government control.

There are no heritage items listed on the CHL within the study area.

2.4.2 National Heritage List

The National Heritage List (NHL) has been established to list places of outstanding heritage significance to Australia, including places overseas. There are nine matters of national environmental significance, these include Australia’s world heritage properties (as listed on the World Heritage List [WHL]), national heritage places, wetlands of international importance (listed under the Ramsar Convention), migratory species, listed threatened and ecological communities, Commonwealth marine areas, the Great Barrier Reef Marine Park, nuclear actions including uranium mining, and water resources in relation to coal seam gas developments and large coal mining developments.

There are no heritage items listed on the NHL within the study area.

2.5 Heritage Act 1977

The NSW *Heritage Act 1977* (Heritage Act) provides protection for items of ‘environmental heritage’ in NSW. ‘Environmental heritage’ includes places, buildings, works, relics, movable objects or precincts considered significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. Items considered to be significant to the State are listed on the SHR and cannot be demolished, altered, moved or damaged, or their significance altered without approval from the Heritage Council of NSW.

2.5.1 State Heritage Register

The SHR was established under Section 22 of the Heritage Act and is a list of places and objects of particular importance to the people of NSW, including archaeological sites. The SHR is administered by Heritage NSW, and includes a diverse range of over 1,500 items, in both private and public ownership. To be listed, an item must be deemed to be of heritage significance for the whole of NSW. For works to an SHR item, a Section 60 application must be prepared for works that are not exempt under Section 57(2) of the Heritage Act. There are no heritage items listed on the State Heritage Register within the study area.

2.5.2 Archaeological relics and works

The Heritage Act also provides protection for 'relics', which includes archaeological material or deposits. Section 4 (1) of the Heritage Act (as amended in 2009) defines a relic as:

> *"...any deposit, artefact, object or material evidence that:*
>
> *(a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and*
> *(b) is of State or local heritage significance"*

Sections 139 to 146 of the Heritage Act prevent the excavation or disturbance of land known or likely to contain relics, unless under an excavation permit. Section 139 (1) states:

A person must not disturb or excavate any land knowingly or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, damaged or destroyed unless the disturbance is carried out in accordance with an excavation permit.

Excavation permits are issued by the Heritage Council of NSW, or its Delegate, under Section 140 of the Heritage Act for relics not listed on the SHR or under Section 60 for impacts within SHR curtilages. An application for an excavation permit must be supported by an Archaeological Research Design (ARD) and Archaeological Assessment prepared in accordance with the NSW Heritage Division archaeological guidelines. Minor works that would have a minimal impact on archaeological relics may be granted an exception under Section 139 (4) or an exemption under Section 57 (2) of the Heritage Act.

Items identified as 'works' do not trigger reporting obligations under the Heritage Act, unless they are associated with artefacts and/or assessed to be of State or local significance. Works generally include:

- Former road surfaces or pavement and kerbing.
- Railway infrastructure
- Former water supply (wells, cisterns, drains, pipes) and other service infrastructure, where there are no historical artefacts in association with the item.
- Building footings associated with former infrastructure facilities, where there are no historical artefacts in association with the item.

2.5.3 Conservation Management Plans

Under Section 38A of the Heritage Act, if a Conservation Management Plan (CMP) is prepared for an item listed on the SHR, the Heritage Council of NSW may endorse the plan, and use the CMP to make regulations or provisions in relation to the SHR item. A CMP is not required under the Heritage Act, however the Heritage Council of NSW continues to recommend the preparation of CMPs as best practice heritage management documents for places of State Heritage significance and to consider suitable site-specific exemptions.

There are no relevant CMPs for the study area.

2.5.4 Section 170 registers

Under the Heritage Act all government agencies are required to identify, conserve and manage heritage items in their ownership or control. Section 170 (s170) requires all government agencies to maintain a Heritage and Conservation Register that lists all heritage assets and an assessment of the significance of each asset. They must also ensure that all items inscribed on its list are maintained with due diligence in accordance with State Owned Heritage Management Principles approved by the Government on advice of the NSW Heritage Council. These principles serve to protect and conserve the heritage significance of items and are based on NSW heritage legislation and guidelines.

There is one item listed on the Transport Asset Holding Entity Section 170 Register (TAHE s170) within the study area and that is Bardwell Park Railway Station Group item #4801896.

2.6 Environmental Planning and Assessment Act 1979 (NSW)

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes the framework for cultural heritage values to be formally assessed in the land use planning and development consent process. The EP&A Act requires that environmental impacts are considered prior to land development; this includes impacts on cultural heritage items and places as well as archaeological sites and deposits.

The EP&A Act also requires that local governments prepare planning instruments (such as Local Environmental Plans and Development Control Plans [DCPs]) in accordance with the EP&A Act to provide guidance on the level of environmental assessment required.

2.6.1 Bayside Local Environmental Plan 2021

The study area falls within the boundaries of the Bayside Local Government Area (LGA). Heritage items listed in Schedule 5 of the *Bayside Local Environmental Plan 2021* (LEP) are managed in accordance with the provisions of Section 5.10 Heritage Conservation of this LEP.

Wolli Creek Valley (#I389) is the only heritage item listed in the LEP that is mapped within the study area (see Figure 2). However, there is a discrepancy between the mapping of the heritage listing and the actual location of the heritage item, as the course of the creek was diverted in the past by the extension of the RSL carpark adjacent to the station. As a result, the creek is no longer in the boundaries of the study area (see 2.9.2).

2.6.2 Bayside Development Control Plan 2022

The Bayside DCP 2022 is a supporting document that supports the provisions contained within the LEP and provides specific design detail in regard to sympathetic development on, or in the vicinity of, items listed on Schedule 5 of the LEP.

Section 3.4 of the DCP 2022 provides sympathetic considerations for development that is in the vicinity of a heritage listed item. These considerations include ensuring that the character, bulk, scale and height of new development does not unreasonably overshadow a nearby heritage item, that colouring and texture of new materials of a new development is sympathetic to a heritage item, and that views of a heritage item should not be obscured from the point of view of areas of public domain.

Given Wolli Creek Valley, which is listed as item # I389 in the Bayside LEP (2021), is in reality not located within the study area, the Bayside DCP 2022 has not been considered further in this SoHI (see section 2.9.2).

2.7 State Environmental Planning Policy (Transport and Infrastructure) (TISEPP) 2021

State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP) aims to facilitate the effective delivery of transport and infrastructure across NSW. The Transport and Infrastructure SEPP assists local government, the NSW Government and the communities they support, by simplifying the process for providing essential infrastructure in areas such as education, hospitals, roads and railways, emergency services, water supply and electricity delivery.

Generally, where there is conflict between the provisions of the TISEPP and other environmental planning instruments, the TISEPP prevails. While the TISEPP overrides the controls included in the LEPs and DCPs, the proponent is required to consult with the relevant local councils when development is likely to have an impact that is not more than minor or inconsequential on a local heritage item) or a heritage conservation area that is not also a State heritage item.

When this is the case, the proponent must not carry out such development until it has (TISEPP 2021 Clause 2.11.2):

> *(a) had an assessment of the impact prepared, and*
>
> *(b) given written notice of the intention to carry out the development, with a copy of the assessment and a scope of works, to the council for the area in which the heritage item or heritage conservation area (or the relevant part of such an area) is located, and*
>
> *(c) taken into consideration any response to the notice that is received from the council within 21 days after the notice is given.*

Consultation with Council as per Clause 2.11 of the TISEPP is not required, as set out in Section 9.2.

2.8 Non-Statutory Considerations

2.8.1 Register of the National Estate

The RNE is no longer a statutory list; however, it remains available as an archive. **Bardwell Park Urban Conservation Area (ID #102101)** is the only heritage item located within the study area listed under the RNE.

2.8.2 National Trust of Australia (NSW) Heritage Register

Listing on the NSW NTHR does not impose statutory obligations and is more an indication of the heritage significance held by the community. **Bardwell Park Urban Conservation Area (ID# 10987)** is the only heritage item located within the study area listed under the National Trust of Australia:

2.9 Summary of heritage listings

2.9.1 Bardwell Park Station Upgrade – Safe Accessible Transport program

The results of heritage register searches for the study area is shown in Table 1. Bardwell Park Station is listed on the TAHE Section 170 heritage register and the heritage curtilage of this item, as well as the locally listed heritage items under the Bayside LEP 2021, is shown in Figure 2.

Table 1: Results of register searches for the Bardwell Park Station and adjacent heritage items

Register	Bardwell Park Station	Other items within the vicinity but outside of the study area
World Heritage List	None	None
National Heritage List	None	None
Commonwealth Heritage List	None	None
State Heritage Register	None	None
Section 170 Registers (Transport Asset Holding Entity s170)	Bardwell Park Railway Station Group (TAHE s170 #4801896)	None
Bayside LEP 2021	Wolli Creek Valley (LEP #I389)	None
Register of the National Estate (RNE) (Non-Statutory)	Bardwell Park Urban Conservation Area (ID #102101)	None
National Trust of Australia (NSW) Heritage Register (Non-Statutory)	Bardwell Park Urban Conservation Area (ID# 10987)	None

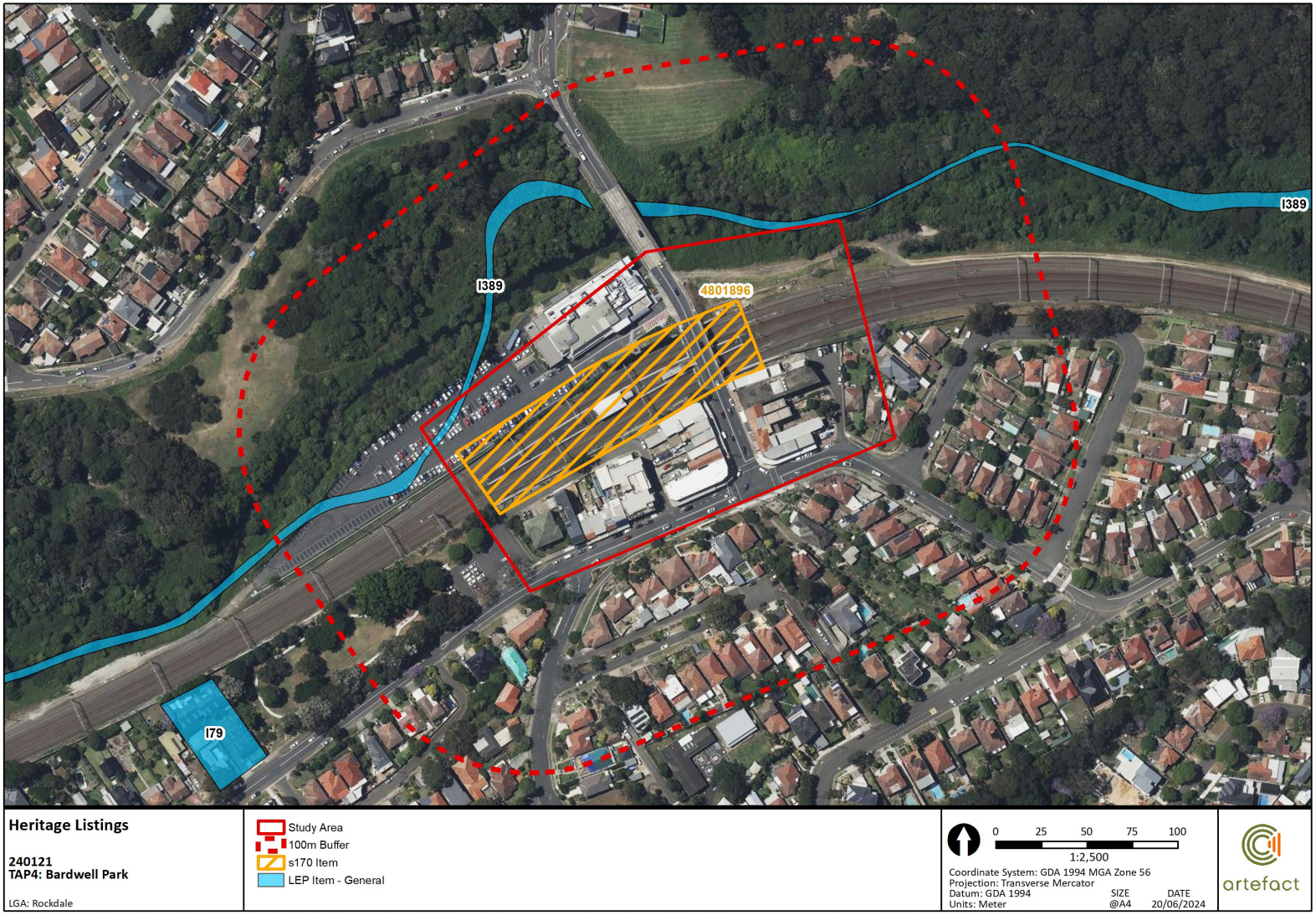


Figure 2: Heritage curtilages at Bardwell Park (Source: Artefact, 2024).

2.9.2 Summary statement of heritage items within the study area

The Wolli Creek Valley local heritage item (listed in the Bayside LEP) winds east-west adjacent to the railway of which Bardwell Park Station is a part.

The mapping of the LEP listing (Figure 2) appears to show that Wolli Creek Valley is included in the study area. This is not the case. The creek's path as shown in the listing does not conform to the actual path of the creek. The mapped curtilage is aligned with the cadastral boundaries, which are inconsistent with the physical creek valley. If the mapped heritage curtilage followed the actual location of Wolli Creek Valley, the heritage listing would not be within the study area.

The discrepancy between the cadastral and physical boundaries of the creek valley is possibly due to the creek following a different path in the past. The topography of the area was altered sometime prior to 1977 to accommodate an extension to the RSL car park north of the station, whose construction likely pushed the creek's path north of its original path. As the Wolli Creek Valley heritage listing was gazetted in 2011, it is likely that this discrepancy has been carried over from an earlier survey that predates the car park extension.

The assessment in this report has taken a conservative approach and used heritage mapping used in the Bayside LEP which runs through the existing carpark and within the study area. Nevertheless, it is recommended that this discrepancy be resolved by Council for clarity around future development in this area.

3.0 HISTORICAL BACKGROUND

3.1 Historical Overview

3.1.1 Early European Colonisation

The study area stands on a 61-acre land grant fronting Wolli Creek belonging to Thomas Hill Bardwell (Figure 3 & Figure 4). Bardwell arrived in Sydney in the early 1830s and was granted land on the Cooks River soon thereafter. Bardwell made his fortune by keeping stores in Sydney and came to own land through rural NSW. He likely used his Wolli Creek estate, which he named the *Bardwell Park* estate, for market gardening and the rearing of horses.[3] Bardwell amalgamated 1,600 acres of land in and around present-day Bardwell Park, clearing the land of its native bush to make way for his orchards, crops, and horses. At its peak, the *Bardwell Park* estate encompassed all the land between present-day Wolli Creek, Dowling St, Forest Rd and Wollongong Rd.

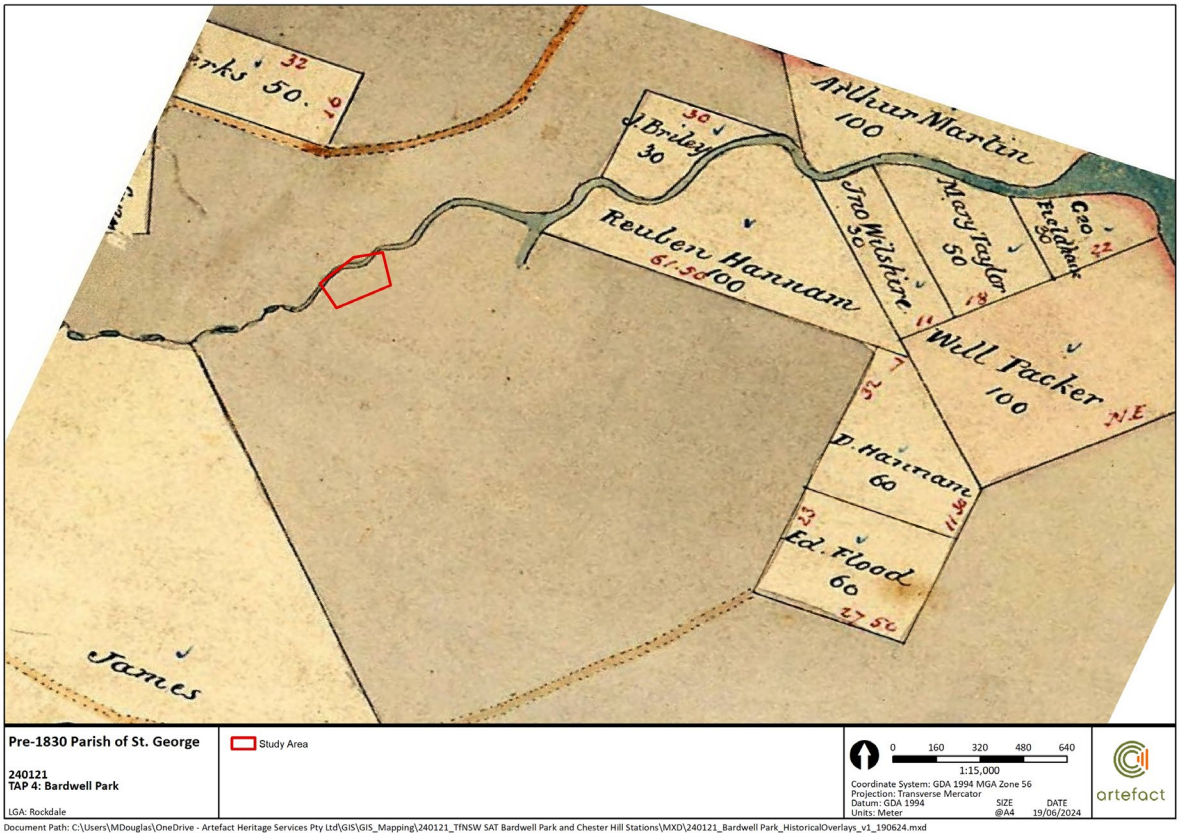


Figure 3. Pre-1830 Parish of St George map showing approximate location of study area prior to Bardwell's land grant (Historic Land Records Viewer with Artefact markup).

[3] *New South Wales Government Gazette*, 8 Jan 1850: 32; *Sydney Morning Herald*, 9 Apr 1844: 3.

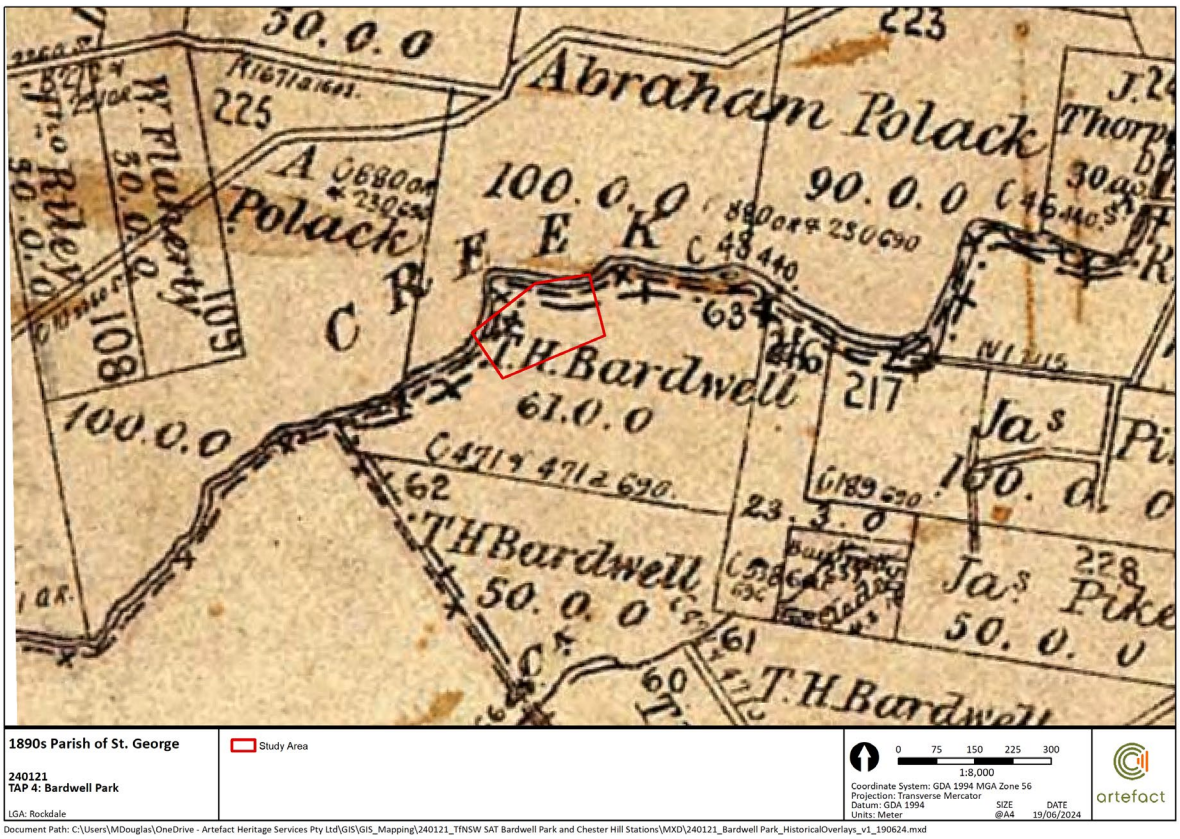


Figure 4. c. 1890s Parish of St George map showing approximate location of study area (Historic Land Records Viewer with Artefact markup).

3.1.2 Nineteenth Century

In the early 1880s, *Bardwell Park* was subdivided and progressively sold. One subdivision notice described the estate as follows:

> *Bardwell Park consists of about 200 acres of beautifully undulating country on the right of the finest road, extending to Wolli Creek. A large portion is well adapted for market gardens and the elevated land is suitable for gentlemen's residences. The line of the Illawarra Railway has been marked out close to the property, and the Cooks River Tramway Terminus will be about a mile only distant from Bardwell Park.*[4]

Thomas Bardwell died in 1883 at his Woollahra residency after stabbing himself with a pair of scissors following a months-long battle with heart disease.[5] With the vast *Bardwell Park* estate broken up, the population of the region grew and was dominated by small homesteads. Market gardens and dairies lined the major waterways, providing families with their major source of income (Figure 7). Pig farms and loam pits are recorded as having been present near the site of Bardwell Park Railway Station in the 1910s, as local residents recalled:

[4] *Sydney Morning Herald* 21 May 1881: 13.
[5] *The Sydney Mail and New South Wales Advertiser*, 6 Jan 1883: 35.

> *Primary production was the main source of income for many people in the district. Chinese market gardens were plentiful along the banks of Wolli Creek and Cook's River, while* ***pig-farming was carried on profitably near where Bardwell Park Station now stands****... [the] Blackwells had loam pits near Bardwell Park Station.*[6]

From at least the 1890s until after World War One, the 'King' family operated a pig, poultry, and vegetable farm at the present site of SJ Harrison Reserve, located roughly 500m west of Bardwell Park Station on the northern banks of Wolli Creek (Figure 5).[7] Recent archaeological investigation at the site of the King family's farm has revealed remnants of outbuildings in the form of brick footings, rubble, flagging, and paving.[8] Similar farming activity likely took place on the present site of the station, which lies close to the southern banks of Wolli Creek (Figure 6).

Figure 5. The King family's pig farm, adjacent to present-day train station (Madden & Muir, 1989: 31).

[6] Madden & Muir, 1989: 34, 39.
[7] Wilson, 2015: 16-19.
[8] Ibid.

Figure 6. View of Wolli Creek from the King family's farm, c. 1910 (Wilson, 2015: 16).

Figure 7. Dairy at Bardwell Park, c. 1920 (Bayside Libraries).

3.1.3 East Hills Line

In 1884, a suburban passenger railway from Redfern to Hurstville opened. known as the Illawarra Line, it passed through the intermediate stops of St. Peters, Tempe, Arncliffe, Rockdale, and Kogarah.[9] The opening of the Illawarra Line was the major impetus for the development in what is now the Bayside LGA.

With the success of the Illawarra Line, local residents and the real estate industry alike began to lobby for the opening of a railway line between Tempe and Salt Pan Creek at Peakhurst following World War One.[10] The proposed line would connect the Illawarra Line in the east to the Bankstown Line in the west by cutting through Bardwell Park and its surrounding suburbs. An "East Hills Railway League" was established in the 1920s in support of the new line.[11] Early transport planning had been leaning towards the establishment of a tramway to connect the Illawarra and Bankstown lines. However, the Railway Commissioner announced in mid-1923 that the 'East Hills Line' would indeed go ahead.[12]

Initially, the development of the line was efficient. By January 1924, the line had been surveyed.[13] The Railway Commissioner issued the proposal to the Department of Public Works in August 1924 and the new line was approved in December the same year.[14] However, the Government failed to allocate funds to the project, and construction did not begin until 1927. Controversial Labor Premier Jack Lang ceremonially turned the soil at the site of the Padstow station in August 1927, marking the commencement of the line's construction (Figure 8).[15] Lang gave a speech at the ceremony, making clear the fact that the East Hills Line and its composite stations were modern and integral to the electrification of Sydney's railway network:

> *In every service on which the community relies vast changes are taking place rapidly, and one of the lessons which we have learned from these changes is that steam as a means of railway transport has been superseded... this railway is an integral part of the scheme for the electrification of the railways of New South Wales.*[16]

The construction of the East Hills Line was marred with conflict and delays. Premier Jack Lang lost his re-election campaign just months after opening the line for construction in September 1927, resulting in a government changeover that delayed progress on the line. The future development of the line was shaped by the Great Depression, which struck in 1929.

[9] *Illustrated Sydney News*, 25 Oct 1884: 14
[10] Heritage NSW, 2009
[11] *Propeller,* 11 May 1923: 5.
[12] Ibid.
[13] *Labor Daily*, 29 Jan 1924: 10.
[14] *Daily Telegraph*, 7 Aug 1924: 4; Heritage NSW, 2009.
[15] *Propeller*, 9 Sept 1927: 1.
[16] *Newcastle Morning Herald and Miners' Advocate*, 5 Sept 1927: 5.

Figure 8. Opening of the East Hills Line at Padstow, 1927 (Canterbury Bankstown Library).

3.1.4 Bardwell Park Railway Station

Like all other stations on the East Hills Line, Bardwell Park Railway Station was constructed as a Depression-era public work intended to relieve local unemployment. When the station finally opened on 21 September 1931, it was composed of an island platform, platform building, overbridge at Hartill-Law Avenue, and a set of stairs descending from the overbridge to the platform. An electrified double track line ran through Bardwell Park Railway Station from the time of its opening. The East Hills Line, which was electrified to Kingsgrove upon its opening, was likely the first in NSW to have experienced electrification without having served steam locomotives.

The form of the station building reflects its Depression-era construction. The station building is a modest, stripped back brick structure with strong inter-war Art Deco influences. The building features a gable roof with stepped parapets and fine decorative brickwork at the east and west ends, as well as soldier lintels on each window. The decorative brickwork serves as a visual reminder of the skilled unemployed who constructed the station. A hipped corrugated iron awning provides shelter to waiting passengers. Historic plans of the building note the platform building and awning roofing material was corrugated fibro sheet, with terracotta ridge tiles. The awnings were originally lined with fibro cement sheet sheets with timber batten cover straps (refer to Figure 9) which were removed and replaced with flat fiber cement sheeting. The station building originally had a brick screen leading to the bathrooms on its eastern elevation; this was a standard feature of the other East Hills Line station buildings.[17] The brick screen was removed between 1984 and 2007.

Aerial imagery of the station from 1943 shows that the vehicular overbridge that transports Hartill-Law Avenue across Wolli Creek was as yet incomplete (Figure 21). The overbridge was apparently long sought by the emerging Bardwell Park community, which was cut off from nearby Earlwood and Canterbury by the Wolli Creek Valley. In 1930, the Railway Department refused to construct the overbridge due to its cost.[18] The overbridge was finally extended across Wolli Creek in 1948 (Figure

[17] AECOM, 2019: 10.
[18] *St George Call*, 26 Sept 1930: 6.

21).[19] The carpark to the north of the station and west of the overbridge began as a modest space in 1964 but was expanded significantly by 1977 and is linked to the development of the Returned Services League (RSL) (Figure 22).

The 1931 overbridge across the railway originally featured a brick safety wall on either side of the road to prevent pedestrian injury (Figure 17). By 2007, the safety screens currently present on the overbridge had replaced the original wall - this may have occurred at the same time as the removal of the brick screen leading to the bathrooms of the station building. Images of the station in 1976 show that a train timetable and small, single-person shelter (potentially a ticket office or payphone) were originally located on the western side of the station building and 'Bardwell Park' signs were located on its both sides (Figure 17). These features were removed between 1984 and 2007 (Figure 18 & Figure 20). Modern additions to the station include a canopy attached to its eastern elevation and new stairs and railings on the overbridge. During the early 2000s, concrete retaining walls were constructed to replace the grassy embankments on either side of the railway tracks (Figure 20).

With the opening of the station, the suburb of Bardwell Park was subdivided, and its population began to grow. In 1937, Canterbury Council proposed to rename the station "Earlwood Railway Station."[20] This decision was met with protest from the community, which had grown around the station and came to associate themselves closely with its name. By 1943, Bardwell Park had a public school, and a post office opened in 1946 to service the burgeoning community. Post-war migration changed the landscape of the area, and migrant hostels and housing commissions were established in the suburbs on the East Hills Line.[21]

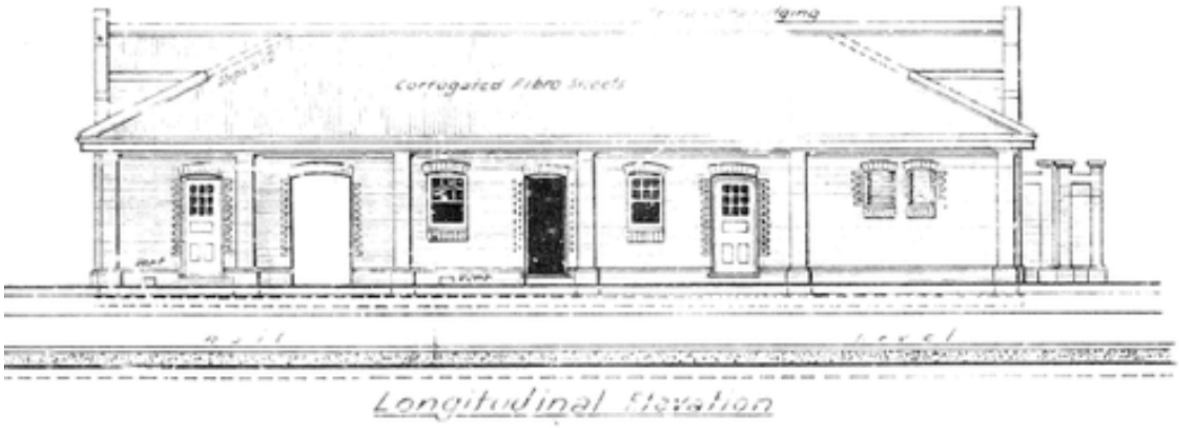


Figure 9. Extract from NSWGR plan of Tempe to East Hills Railway Station Buildings, showing longitudinal elevation of the Kingsgrove Station Signal Building with corrugated Fibro Sheet roofing, 1929.

[19] Heritage NSW, 2009
[20] *Propeller*, 9 Sept 1937: 4.
[21] Heritage NSW, 2009.

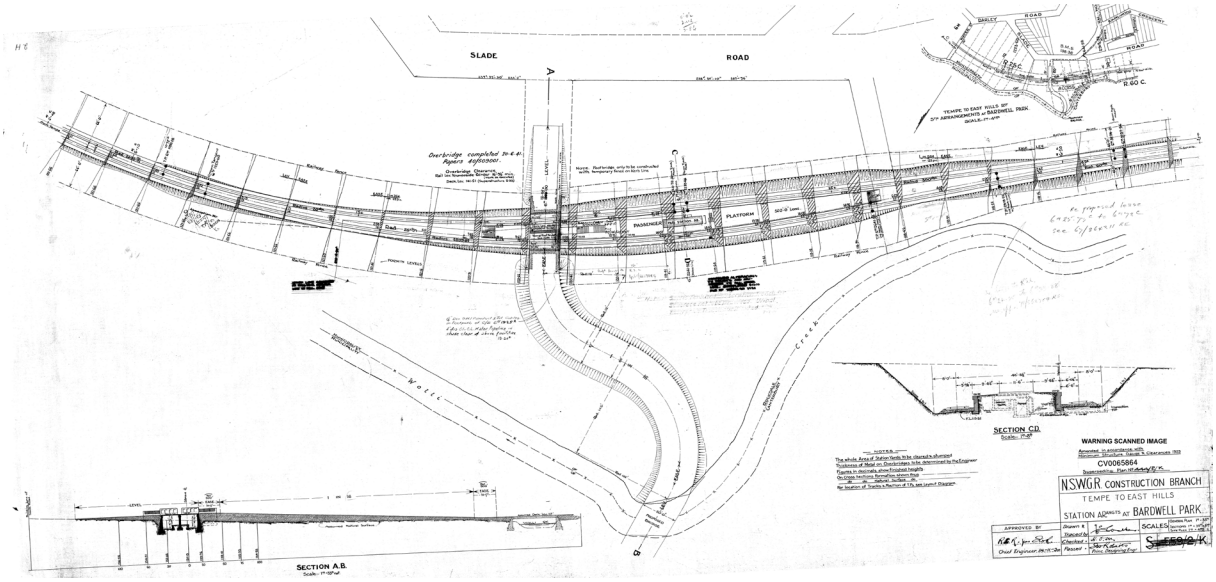


Figure 10. NSWGR Tempe to East Hills – station arrangements, c. 1930 (Virtual Plan Room).

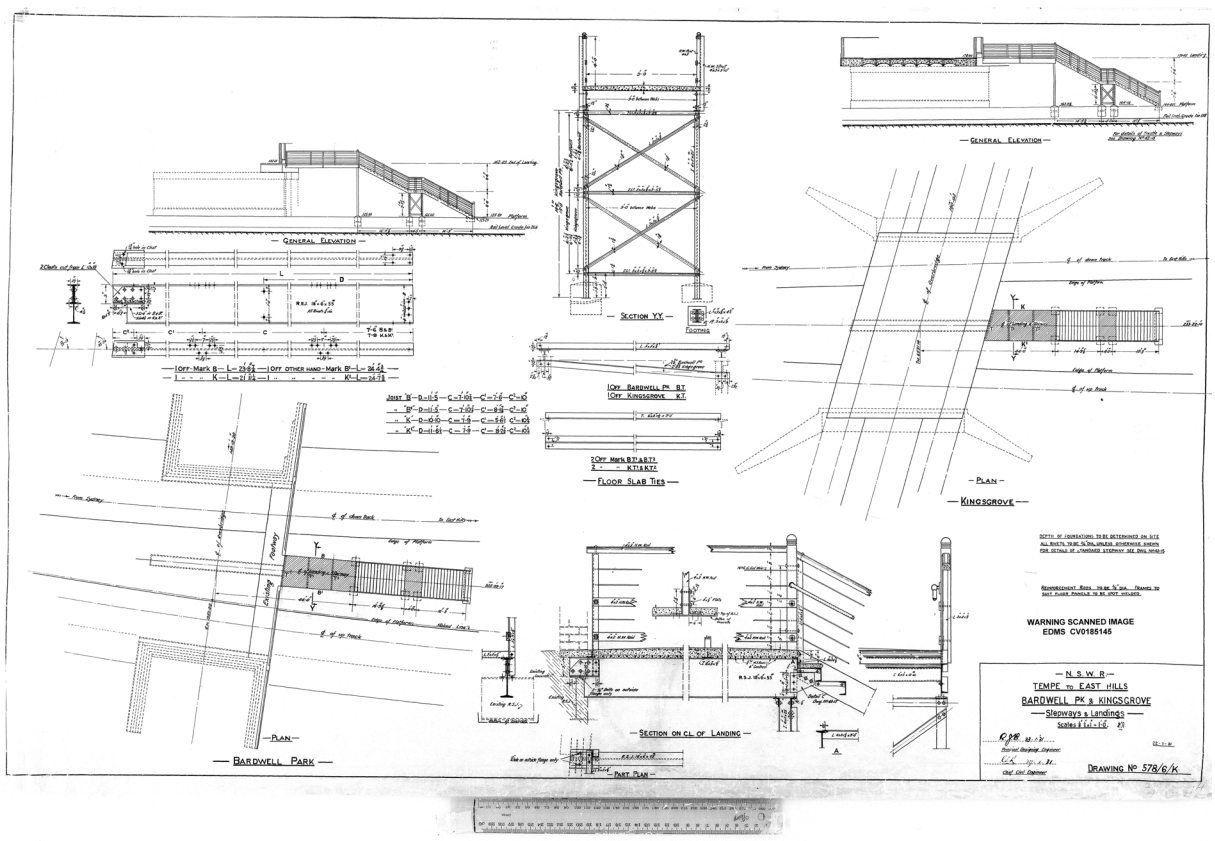


Figure 11. Bardwell Park entry stair structure, 1931 (Virtual Plan Room)

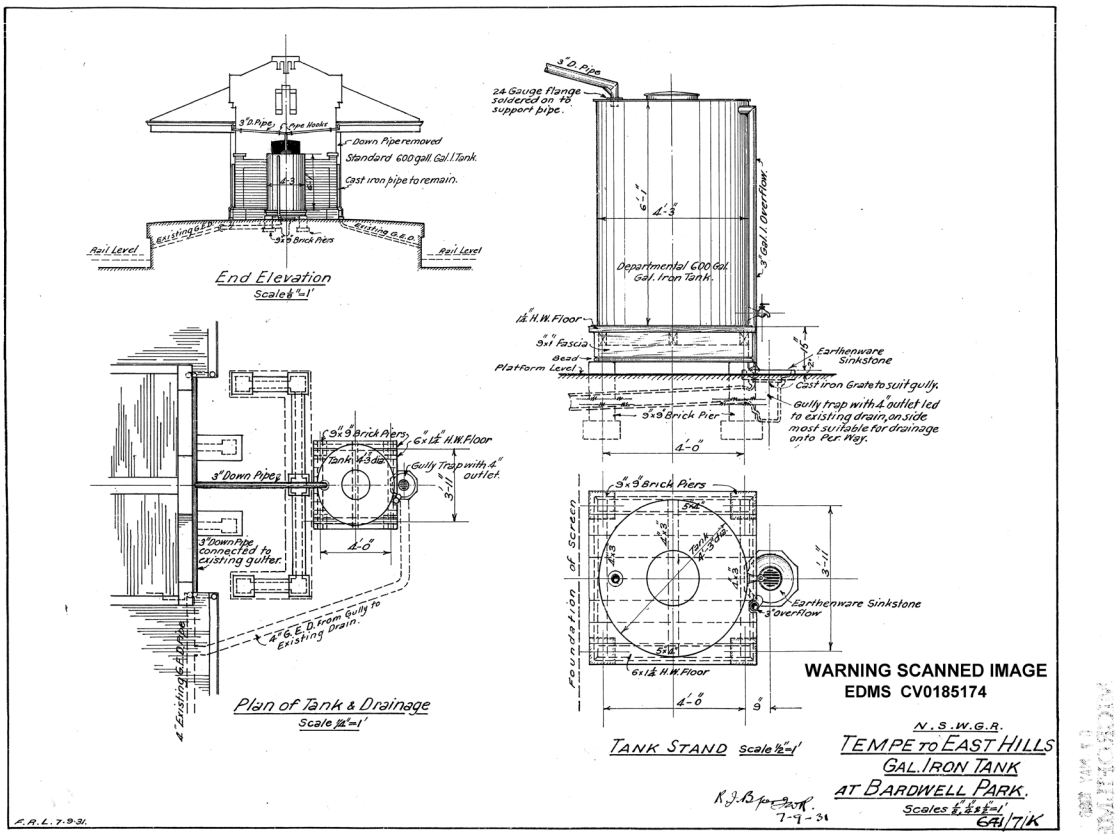


Figure 12. NSWGR Tempe to East Hills – iron tank at Bardwell Park Railway Station, c. 1931 (Virtual Plan Room)

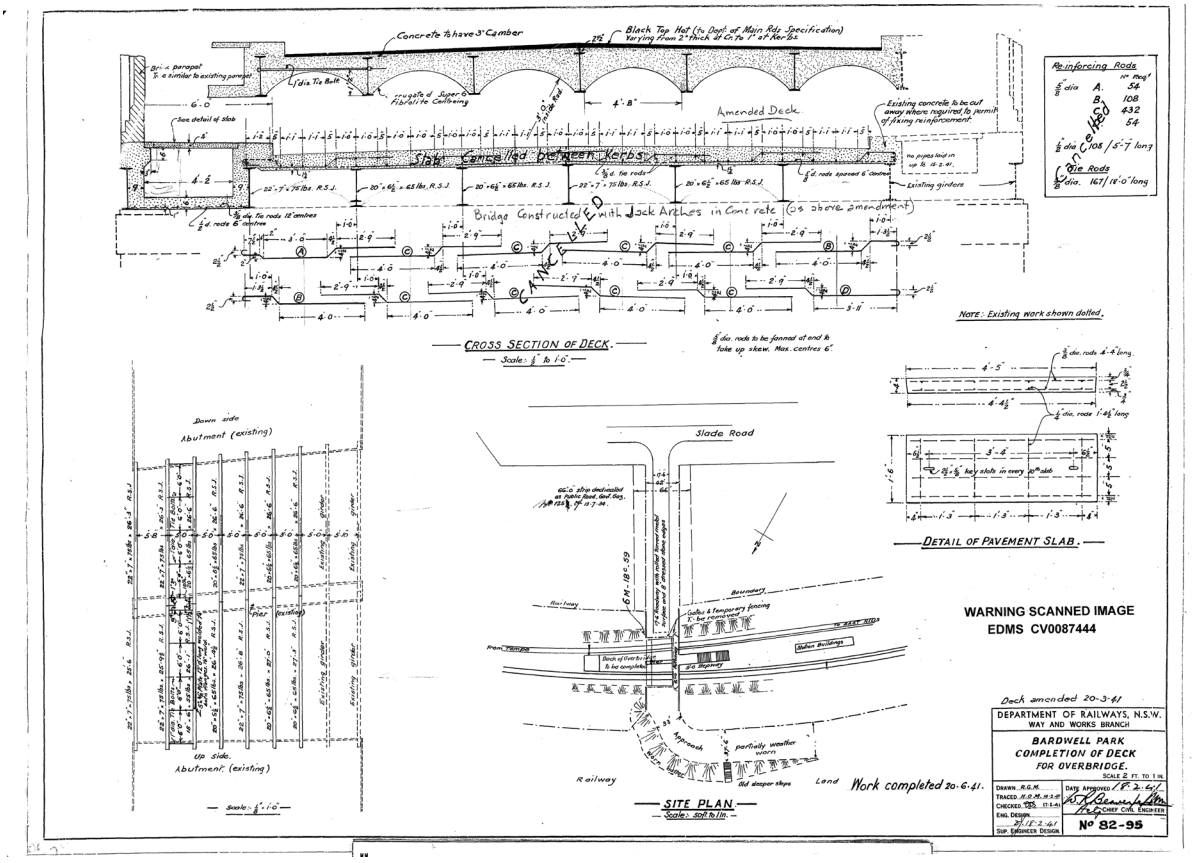


Figure 13. Bardwell Park completion of deck for overbridge, c. 1941 (Virtual Plan Room).

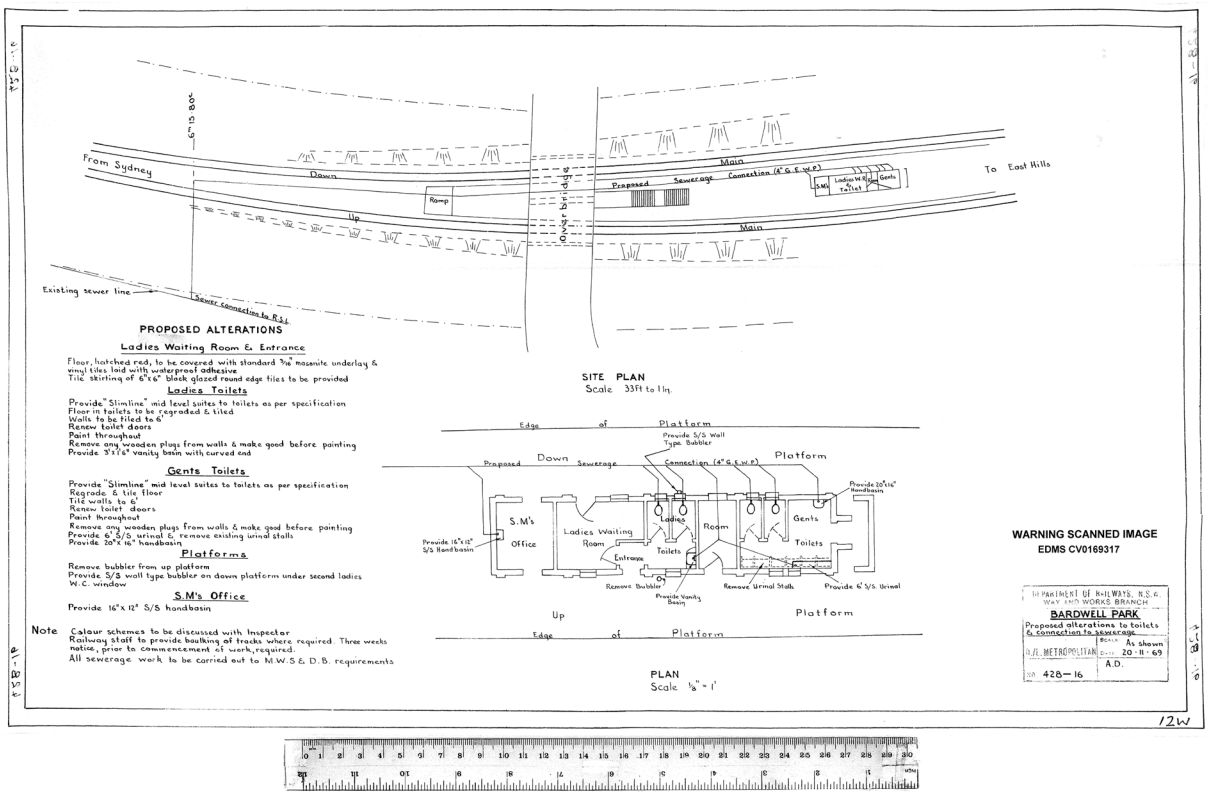


Figure 14. Alterations to station platform building, 1968 (Virtual Plan Room).

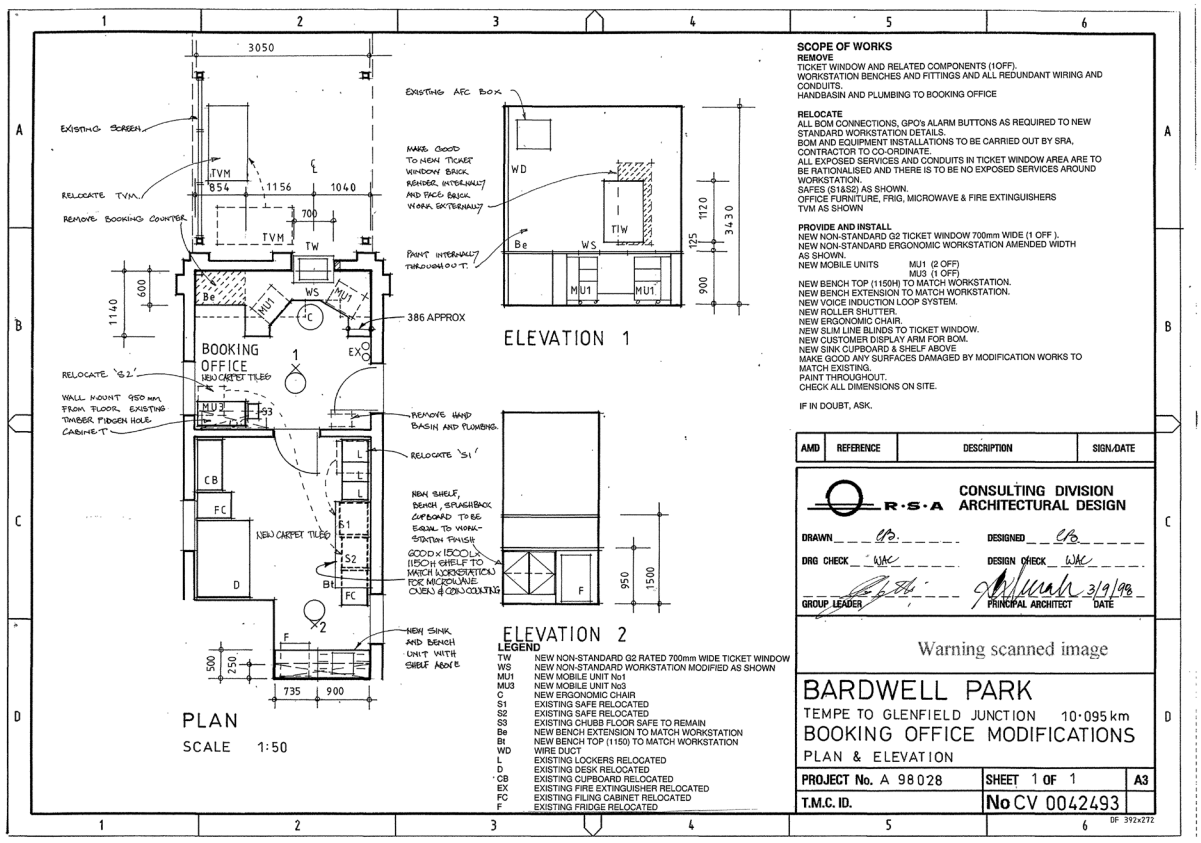


Figure 15. Alterations to Booking Office, 1998 (Virtual Plan Room).

Figure 16. Bardwell Park Railway Station, c. 1940s (Australian Railway Historical Society).

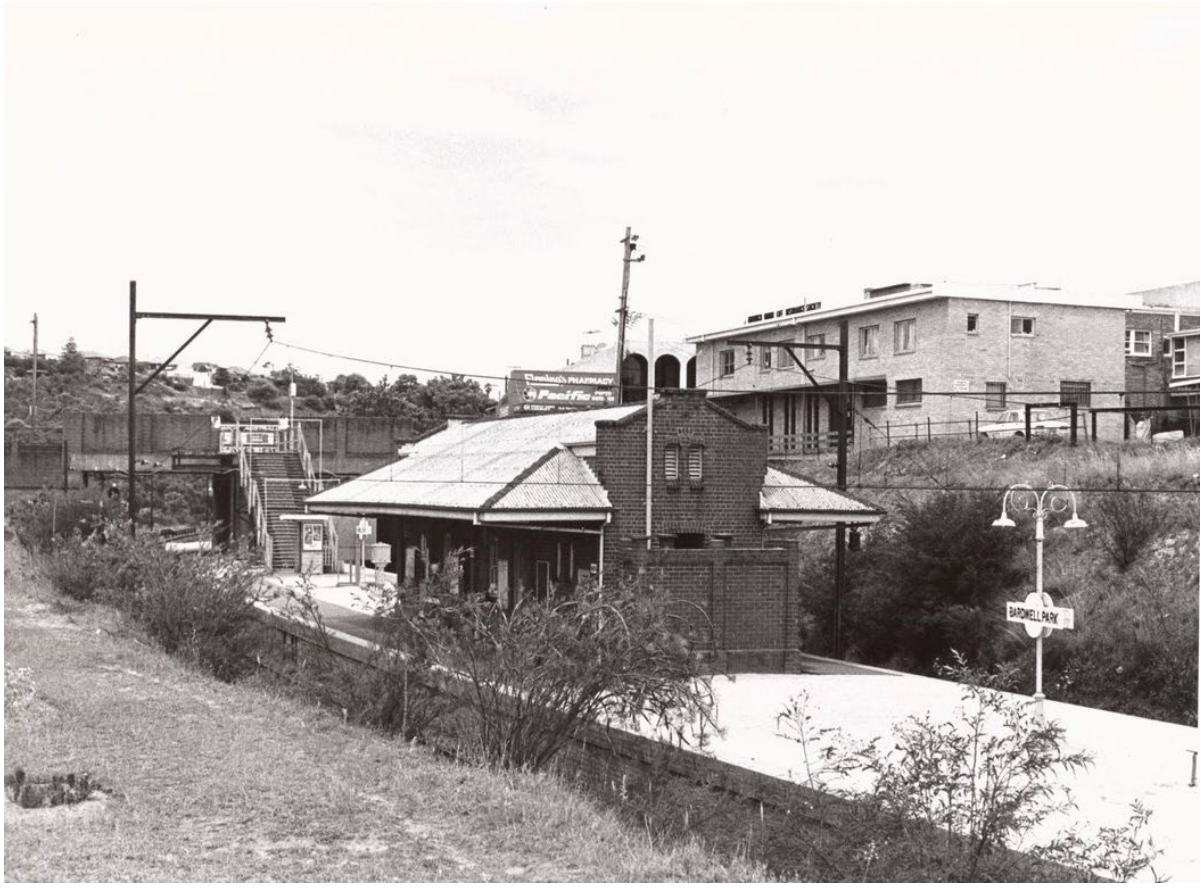


Figure 17. Bardwell Park Railway Station, 1976. Note wall on overbridge, brick screen leading to men's bathroom, small shelter near overbridge stairs, and two original Bardwell Park signs (State Archives of NSW).

Figure 18. Bardwell Park Railway Station, 1984 (Heritage NSW).

Figure 19. Bardwell Park Railway Station, c. 1980s-90s (Australian Railway Historical Society).

Figure 20. Bardwell Park Railway Station during retaining wall construction, n.d. (Australian Railway Historical Society).

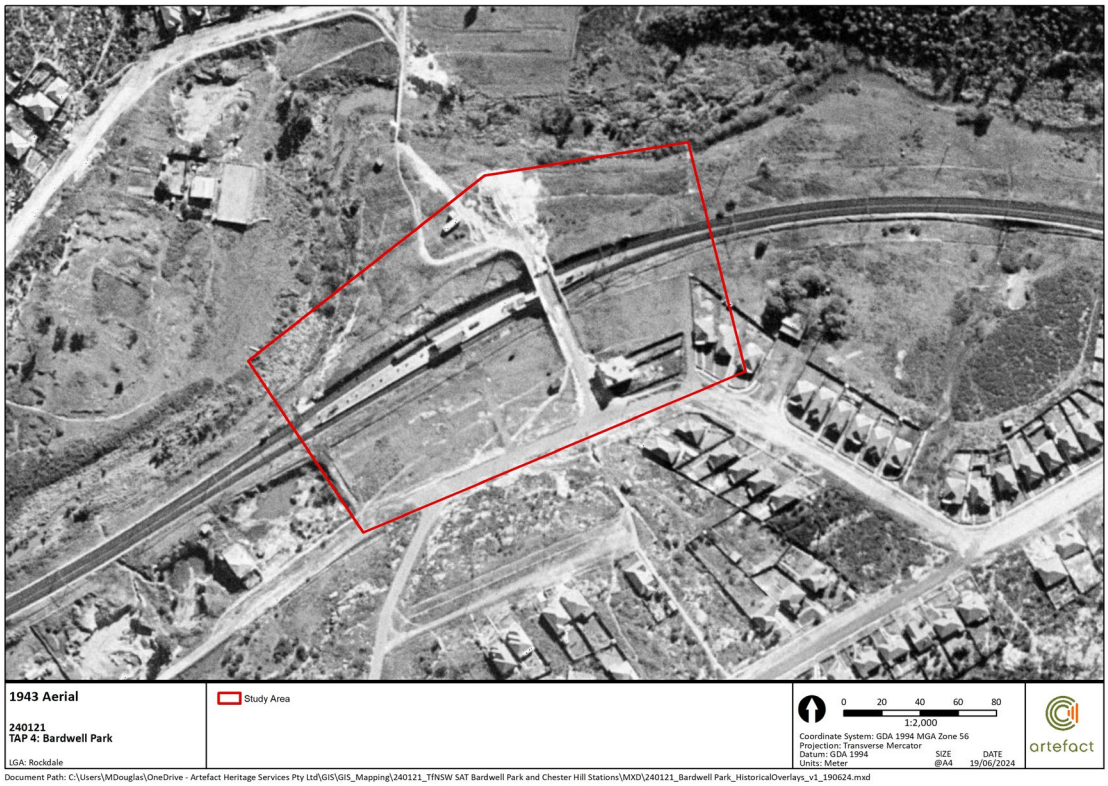


Figure 21. Aerial view of station, 1943 (L: Six Maps).

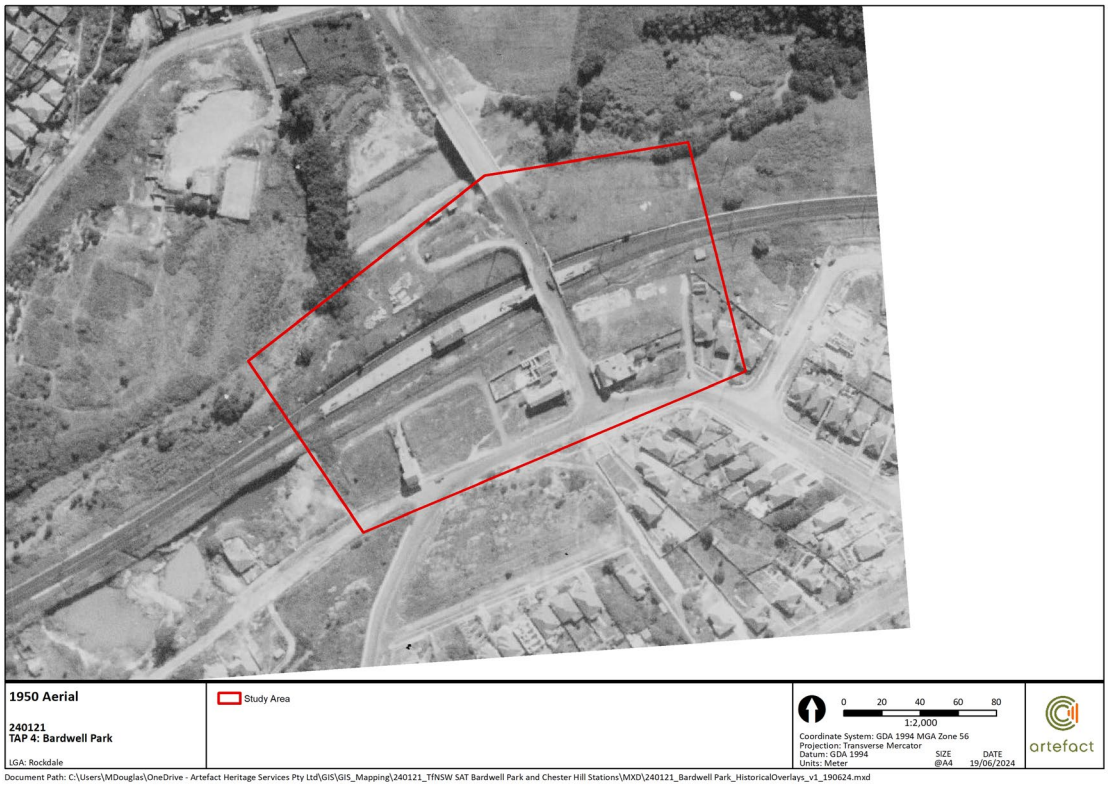


Figure 22. Aerial view of station and study area, 1950 (NSW Spatial Service).

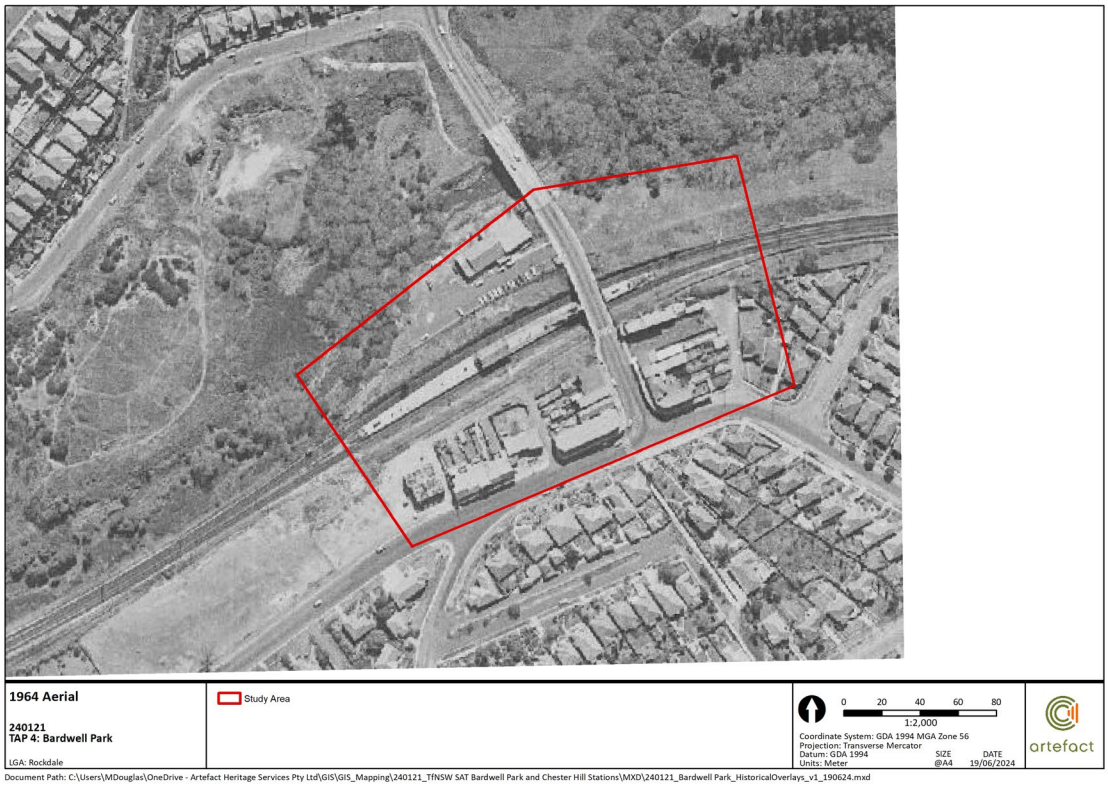


Figure 23. Aerial view of station and study area, 1964 (NSW Spatial Service).

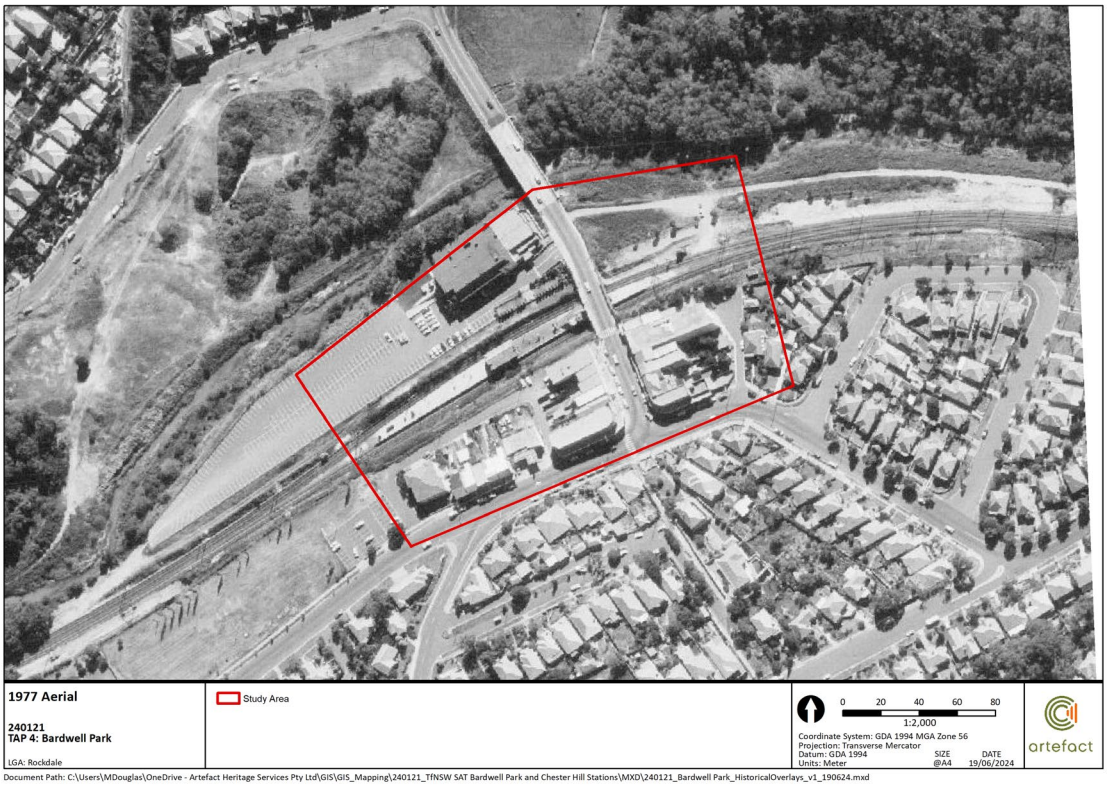


Figure 24. Aerial view of station and study area, 1977 (NSW Spatial Service). Note that by this time the carpark has expanded considerably, likely causing Wolli Creek to be diverted north of its original path.

Figure 25. Aerial view of station and study area, 1985 (NSW Spatial Service).

Figure 26. Aerial view of station and study area, 1990 (NSW Spatial Service).

4.0 PHYSICAL CONTEXT

4.1 Site Inspection

A site inspection was conducted on foot by Monika Sakal (Heritage Consultant) and Pedro Silva (Heritage Consultant) from Artefact Heritage, on 30 May 2024. All photographs were taken by Artefact.

The aim of the site inspection was to gain a preliminary understanding of the context and views of the station, identify areas of potential historical archaeological remains, and to assess the nature of, and potential impacts to, any built heritage items located within, or in the vicinity of, the station.

4.2 Context

The station is located in the Bardwell Park local centre, which includes the Earlwood Bardwell Park RSL (and Memorial) to the north. Further to the north of the station are the Wolli Creek Regional and Girrahween parks forming a backdrop of greenery. Low density residential areas surround the local centre and parks to the north and south.

The following description has been extracted from the SHI listing for Bardwell Park Railway Station.

> *Bardwell Park Railway Station is entered via modern entry steps off a road and pedestrian overbridge with brick supports from the western side of Hartill Law Avenue at the eastern end of the Station. The overbridge crosses over the platform towards the eastern end, the east end of the platform terminating east of the overbridge.*[22]

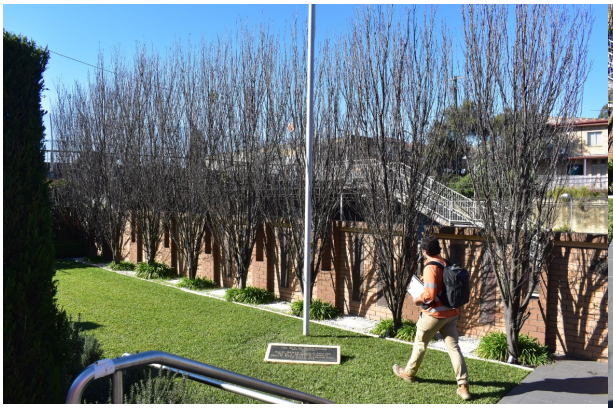


Figure 27. View facing southeast towards the entrance steps and entrance memorial structure.

Figure 28. View facing south looking towards the memorial structure.

[22] Heritage NSW, 2009.

Figure 29. View facing southeast of the station boundary wall, vegetation and adjacent development.

Figure 30. View looking south of adjacent residential development overlooking the station.

4.3 Bardwell Park Station

The station was constructed in 1931 and is composed of an island platform, Type 13 platform building, entrance stair structure and overbridge.

A brief description of the elements is provided below.

4.3.1 Platform building – Type 13 (1931)

The following description has been extracted from the SHI listing of the station.

> ***Exterior***
>
> *A rectangular dark face brick platform building of standard stretcher bond brickwork, of 4 bays length (note: most platform buildings on this line are 5 bays), with the bays defined by simple brick engaged piers. The building has brick stepped parapets at east and west ends. The roof is gabled at east and west ends against the parapets, and is hipped over awnings to north and south which are an integral part of the roof form. Roof cladding is corrugated steel. The stepped parapets each feature a projecting moulded brick capping course and 3 vertical lines of projecting decorative brickwork, as well as pairs of timber louvred vents. Windows are timber-framed double-hung, some with original 6-paned top sashes, or small timber framed windows with frameless glass or glass louvres, or modern aluminium framed windows. Original window openings feature bullnose brick sills and both window and door openings feature stop chamfered brickwork. Original door openings have terrazzo thresholds. There are original ceilings to the awnings, with square lattice vents. All doors are modern timber flush doors. There is a modern gable roofed awning with painted steel posts at the eastern end of the platform building, to shelter the ticket window. Early painted numbers on brick interior designating platform numbers still present.*[23]

[23] Heritage NSW, 2009.

Figure 31. View of west elevation. Brick parapet wall featuring face bricks partially painted mission brown approximately to the top of the awnings on either side. A flush door is located in the centre with two windows above.

Figure 32. Close up of brick capping, downpipe and windows featuring timber louvre vents on the west elevation.

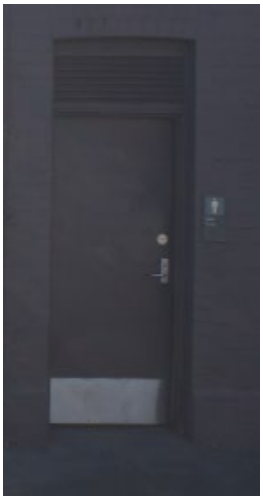


Figure 33. Close up of toilet entrance featuring a modern flush door with kickplate painted mission brown.

Figure 34. View of east elevation concealed by a modern gable roof awning.

Figure 35. Close up of timber louvre windows and brick capping on the east façade above the modern roof awning.

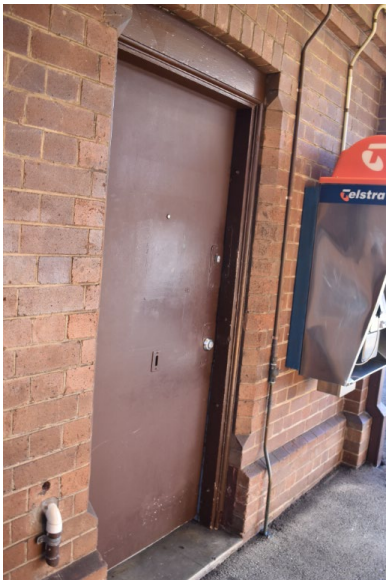


Figure 36. Close up of modern timber flush door and adjacent wall mounted telephone booth on the south façade.

Figure 37. View of the south façade facing west.

Figure 38. View of northwest corner of platform building.

Figure 39. Close up of terrazzo step threshold to the female toilets and boot scraper grill.

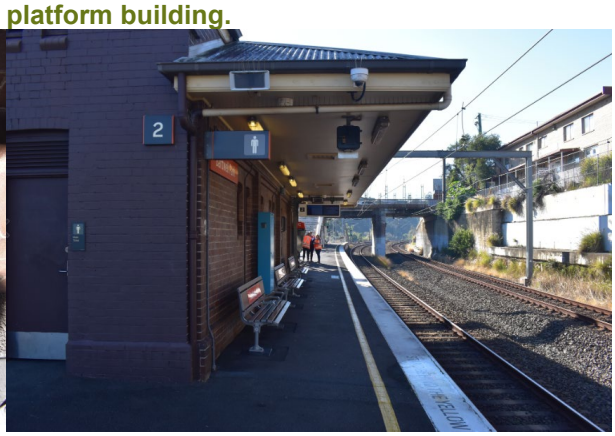


Figure 40. View of southern corner of platform building

Interior

The building comprises a combined booking/parcels office (now also the Station Master's room), ladies' toilets, waiting room and men's toilets. The building is compact in both size and design. Some interior joinery and fitout have survived.

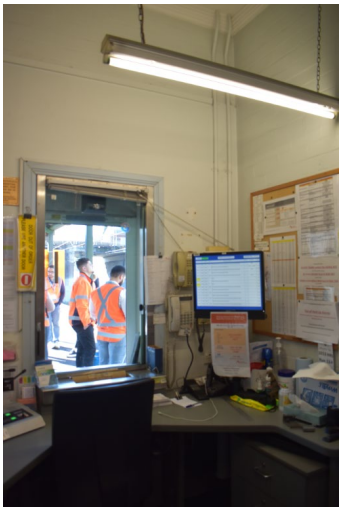


Figure 41. Internal view of office facing east looking towards the aluminium framed ticket window.

Figure 42. Close up of office ceiling with battens and suspended tube lighting facing northeast.

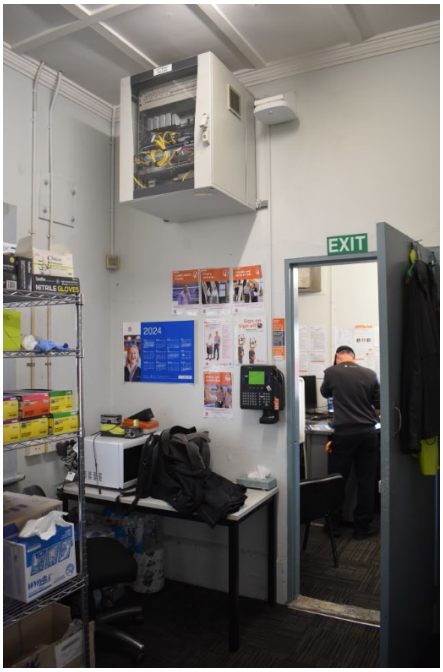


Figure 43. Internal view of office facing northeast looking towards plant. Floor features carpet tiles.

Figure 44. Close up of aluminium framed window within timber frame on the south elevation. An air conditioning unit has been inserted within.

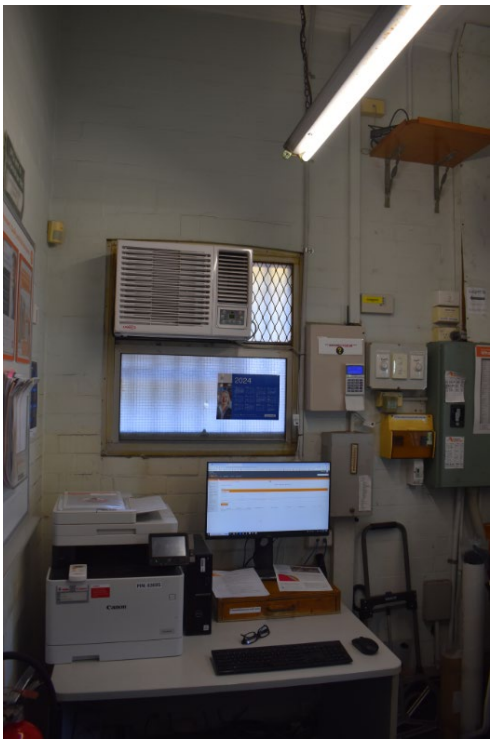


Figure 45. Close up of air conditioning unit inserted within an aluminium framed window on the south elevation.

Figure 46. Close up of aluminium framed ticket window on the east elevation.

Figure 47. Internal view of male toilet facing north towards urinal. Wall tiles run to the height of the window sills and feature a few mismatched tiles.

Figure 48. Internal view of the male toilet facing east. Mismatched wall tiles are evident.

Figure 49. Internal view of batten ceiling with tube lighting.

Figure 50. Close up of timber framed window.

Figure 51. View into male toilet cubicle.

Figure 52. View to entry to female toilet from exterior entrance.

Figure 53. Female toilet cubicle. Wall tiles run just above window sill height.

4.3.2 Entry stair structure (1931)

The SHI listing for Bardwell Park Station provides the following description for the stair structure:

> ***ENTRY STAIR STRUCTURE (1931)***
>
> *The structure consists of steel taper-haunched girders, and provides platform access from the Hartill Law Avenue overbridge. The steps and risers are modern concrete, and the stair has modern white powder-coated aluminium railings.*

Figure 54. Entry staircase and overbridge on Hartill-Law Ave.

Figure 55. Entry staircase featuring the original steel superstructure.

Figure 56. Entry staircase featuring the original steel superstructure

4.3.3 Overbridge, Hartill-Law Avenue (1931)

The SHI listing provides the following description of the overbridge:

> *OVERBRIDGE, HARTILL LAW AVENUE (1931)*
>
> *A brick jack-arched overbridge on brick piers, extended in 1948 for line duplication works.*

Figure 57. View of the underside of the entry staircase and overbridge.

b

Figure 58. View of the southern end of the overbridge, featuring original brick piers with later white paint.

5.0 SIGNIFICANCE ASSESSMENT

5.1 Methodology

Determining the significance of heritage items or a potential archaeological resource is undertaken by utilising a system of assessment centred on the *Burra Charter* (Australia ICOMOS 2013). The principles of the charter are relevant to the assessment, conservation and management of sites and relics. The assessment of heritage significance is outlined through legislation in the *Heritage Act* and implemented through the *NSW Heritage Manual*, the *Archaeological Assessment Guidelines*[24] and the document *Assessing Significance for Historical Archaeological Sites and 'Relics'.*[25]

If an item meets one of the seven heritage criteria and retains the integrity of its key attributes, it can be considered to have heritage significance (see **Table 2**). The significance of an item or potential archaeological site can then be assessed as being of local or State significance. If a potential archaeological resource does not reach the local or state significance threshold, then it is not classified as a relic under the *Heritage Act*.

'State heritage significance', in relation to a place, building, work, relic, moveable object or precinct, means significance to the State in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.

'Local heritage significance', in relation to a place, building, work, relic, moveable object or precinct, means significance to an area in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.[26]

Table 2. NSW heritage assessment criteria

Criteria	Description
A – Historical Significance	An item is important in the course or pattern of the local area's cultural or natural history.
B – Associative Significance	An item has strong or special associations with the life or works of a person, or group of persons, of importance in the local area's cultural or natural history.
C – Aesthetic or Technical Significance	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in the local area.
D – Social Significance	An item has strong or special association with a particular community or cultural group in the local area for social, cultural or spiritual reasons.
E – Research Potential	An item has potential to yield information that will contribute to an understanding of the local area's cultural or natural history.
F – Rarity	An item possesses uncommon, rare or endangered aspects of the local area's cultural or natural history.
G - Representativeness	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places of cultural or natural environments (or the cultural or natural history of the local area).

[24] NSW Heritage Office 1996, 25-27.
[25] NSW Heritage Branch 2009.
[26] This section is an extract based on the Heritage Office Assessing Significance for Historical Archaeological Sites and Relics 2009:6.

5.2 Existing heritage assessments

5.2.1 Statement of Significance

The State Heritage Inventory (SHI) Listing Sheet for the TAHE s170 listing for Bardwell Park Station[27] provides the following statement of significance:

> *Bardwell Park Railway Station - including the 1931 platform, platform building, entry steps structure and overbridge - is of local heritage significance. Bardwell Park Railway Station has historical significance as a major public work completed as an unemployment relief project during the Great Depression, and as a major transport hub for Bardwell Park since 1931. Bardwell Park Railway Station 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 the NSW railways. Bardwell Park Railway Station is representative of the cohesive collection of 10 East Hills line railway stations from Turrella to East Hills.*

Summary for significant criteria

Bardwell Park Station has heritage significance at the local level for its historic, aesthetic, social, rarity and representative values.

5.2.2 Assessment of Significance

The SHI Listing Sheet for the TAHE s170 listing for Bardwell Park Station[28] (# 4801896) provides the following assessment of significance outlined in the table below.

Table 3. Heritage significance assessment for Bardwell Park Station

Criteria	Discussion
A) Historical Significance	*Bardwell Park Railway Station is of historical significance as part of the East Hills line, a major depression-era public work undertaken under the controversial Premiership of Jack Lang and through its relationship to the development of the suburb of Bardwell Park and the broader East Hills region. The austere design of the platform building is reflective of the completion of the East Hills line as a Depression period unemployment relief works project.*
B) Associative Significance	*Does not meet threshold for local or State significance for this criterion.*

[27] Heritage NSW, State Heritage Inventory, *Bardwell Park Railway Station Group,* https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=4801896
[28] Heritage NSW, State Heritage Inventory, *Bardwell Park Railway Station Group,* https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=4801896

Criteria	Discussion
C) Aesthetic Significance	*Bardwell Park Railway Station is of aesthetic significance as an example of a small Inter-War period suburban railway building matching other East Hills line railway station buildings in design and style. The building is very austere in style, with Inter War Art Deco style touches (for example decorative brick strapwork detail to parapets) and is competently executed, exhibiting fine workmanship in its brickwork. The building is noted for its use of monochromatic brickwork, stepped parapets, irregular fenestration and engaged piers.*
D) Social Significance	*The place has the potential to contribute to the local community's sense of place and can provide a connection to the local community's past.*
E) Research Potential	*Bardwell Park Railway Station is of technical significance for its ability to demonstrate design and construction techniques of the inter-war period. The building provides insights into NSW Railways experimentation with styles of architecture and their adaptation to depression period economic conditions.*
F) Rarity	*Bardwell Park Railway Station platform building is not rare, as it is part of a cohesive group of 10 similar to identical Inter-War suburban railway buildings completed in 1931 between Turrella and East Hills.*
G) Representativeness	*Bardwell Park Railway Station is a good representative example of a small, Inter-War East Hills line suburban railway station, with the platform and platform building and stair structure generally intact and demonstrates the effects of the economic Depression of 1929-1930s on railway station construction. It is representative of the cohesive collection of 1931 East Hills line railway stations from Turrella to East Hills, including Padstow and Bexley North.*

5.2.3 Grading of Significant Elements

Individual areas and elements of the Bardwell Park Station have been assessed by Artefact in the HDR for Bardwell Park Station dated July 7 2023, and a level of significance has been applied[29]. This detailed assessment is provided to enable decisions on the future conservation and development of the place.

Five levels of cultural significance have been used in the assessment of the Bardwell Park Station. These categories have been developed based on *Assessing Heritage Significance*,[30] prepared by the NSW Heritage Office, and the categories provide a framework for conservation policies, interpretation and recommended treatment of the fabric (Table 4).

[29] Aurecon *TAP4: Bardwell Park Station Concept Design Report Appendix S,* 2023-07-07
[30] NSW Heritage Office, *Assessing Heritage Significance*, 2001

Table 4: Standard grades of cultural significance

Id.	Level	Justification	Status
E	**Exceptional**	Where an individual space, element, tree or shrub is assessed as making a rare or outstanding contribution to the overall significance of the place. Spaces, elements or fabric exhibit a high degree of intactness and quality. Minor alterations or degradation may be evident, but does not detract from the overall significance of the place. Demolition/removal of the element would diminish the heritage significance of the place.	Fulfils criteria for local or state listings.
H	**High**	Where an individual space, element, tree or shrub is assessed as making considerable contribution to the overall significance of the place. Spaces, elements or fabric exhibit a considerable degree of intactness and were originally of substantial quality. Considerable alteration may have been undertaken, which may alter the presentation and completeness, but does not detract substantially from the overall significance of the place. Demolition/removal of the element would diminish the heritage significance of the place.	Fulfils criteria for local or state listings.
M	**Moderate**	Where an individual space, element, tree or shrub is assessed as making a moderate contribution to the overall significance of the place. Original spaces, elements or fabric may exhibit considerable alteration and/or degradation which detracts from the overall significance of the place. Original space, elements or fabric which were of some intrinsic quality, but are relatively intact may be included. Elements with little heritage value but contribute to the overall cumulative significance of the place may also be included. New elements of high-quality design and aesthetic value may be considered to contribute to the significance of the place. Demolition/removal of the element may diminish the heritage significance of the place. Elements or spaces can be altered or adaptively reused.	Fulfils criteria for local or state listings.

Id.	Level	Justification	Status
L	**Little**	Where an individual space, element, tree or shrub is assessed as making a minor contribution to the overall significance of the place, particularly compared with other elements. Original elements may exhibit extensive alterations or degradations which impact their significance and ability to interpret. New elements of little intrinsic quality or aesthetic value may be considered in this category. Demolition/removal of the element would not diminish the heritage significance of the place. Elements or spaces can be altered or adaptively reused.	Does not fulfil criteria for local or state listings.
I	**Intrusive**	Where an individual space, element, tree or shrub is assessed as detracting from the appreciation and overall significance of a place. The element may be adversely affecting or obscuring other significant areas, elements or items. Demolition/removal of the element is recommended.	Does not fulfil criteria for local or state listings.

Integrity

Integrity relates to whether all the attributes that convey heritage significance are extant within the subject site and not eroded or under threat[31]. Integrity is a measure of the wholeness and intactness of the place and its attributes. Examining the conditions of integrity, therefore requires assessing the extent to which the subject site or element:

a) includes all elements necessary to express its heritage significance;

b) is of adequate size to ensure the complete representation of the features and processes which convey the property's heritage significance;

c) suffers from adverse effects of development and/or neglect.

[31] Guidance on Heritage Impact Assessments for Cultural World Heritage Properties, ICOMOS 2011, p10.

Table 3: Levels of Integrity

Level	Definition
High	The physical fabric of the property and/or its significant features is in good condition, and the impact of deterioration processes controlled. A significant proportion of the elements necessary to convey the totality of the heritage significance conveyed by the property is included[32].
Moderate	The physical fabric of the property and/or its significant features have undergone some modifications. The changes may be reversible.
Low	The physical fabric of the property and/or its significant features have undergone substantial modifications and the original is irretrievable
N/A	Modern and / or intrusive fabric
Unknown	Elements that cannot be evaluated (ie. natural ventilation systems where their continued operation cannot be determined, fabric that cannot be inspected)

Table 5 below lists the different elements of the Bardwell Park Station and provides a significance grading for each, as well as detailed gradings of the fabric of each structure. As per Artefact's HDR for Bardwell Park Station dated July 7 2023, the heritage assessments for the elements have been guided by information in relevant heritage conservation strategies where available. Where no grading exists for a component, or where the existing grading is inaccurate or insufficient for the purposes of this SoHI, Artefact Heritage has prepared a brief assessment.

[32] Sheridan Burke, The long and winding road: a challenge to ICOMOS members, in *Changing World, Changing Views of Heritage: heritage and social change* ICOMOS, 2010.

Table 5: Grading of Significance for Bardwell Park Railway Station Group

Component	Assessment	Grading
Platform Building (1931)	The platform building has historical, aesthetic, and representative values as an example of a major public work evocative of the effects of the Great Depression on public buildings in NSW; it is one of a collection of ten railway stations ranging from Turrella to East Hills. It exemplifies a small Inter-War suburban station building on the East Hills Line constructed during the Depression era in the Type 13 (A11) Railway Functionalist style. The platform building's exterior has retained a high degree of integrity externally and a moderate degree of integrity internally. Some original features (including windows, windowsills, joinery and fitout) are present alongside modern equivalents. The shape and character of the platform building has not changed in spite of these modifications; critical elements, such as the original fine brickwork with austere art deco detailing, are still intact. The gabled roof of the platform building is of the original shape, however the corrugated steel is a more recent addition. Other changes include the removal of the brick wall screening the entrance to the men's toilets on the western elevation, new window openings and blocked window openings and a recently installed canopy positioned closely to the eastern façade.	**High: overall** **Integrity: Moderate** Exterior *High:* Exterior brick walls, stepped parapets, original timber-framed windows and windowsills, early painted signs and platform numbers, "ladies" toilet sign, plastered walls, high ceilings, original louvres, original boot-scraper grills, square lattice vent, soldier lintels, location and configuration of historic downpipes. Gabled roof and hipped awning roof forms. *Moderate*: Gutters, roof flashings. *Little*: Late 1960s urinal, doors, corrugated steel roof, recently installed Colourbond and PVC downpipes. *Intrusive*: Aluminium framed-windows, bricked in windows, boarded windows, mesh-filled glazing in windows. Light-weight replacement doors. Exposed conduit and ducting. Air-conditioning units in windows. Bars over windows. Recent gabled canopy positioned closely adjacent to the eastern façade. New ticket window opening in east elevation. Wall mounted telephone booth. Interior *High:* Original joinery, original ceilings, brick walls, fibrous plaster ceiling with battens, wall and ceiling vents, some timber framed windows, original plastered walls. *Little:* 1960s floor and wall tiles in WCs, vinyl tiles, carpet tiles, flush doors. *Intrusive:* Lighting, services, exposed pipework, cabling and ducting.

Component	Assessment	Grading
Platform (1931)	The island platform at Bardwell Park Railway Station has aesthetic, historical and research significance as well as representativeness at a local level. This platform is generally intact and combined with the similarly largely intact station building, exemplifies a small Inter-war suburban railway station on the East Hills Line.	**Moderate: overall** **Integrity: Moderate** *High:* Early light poles with petticoat bases, boot scraper grills, brick facing on platform. *Moderate:* Seating. *Little:* Asphalt surface, Opal machine, vending machine, signage.
Entry Stair Structure (1931)	The original staircase railings and steps were replaced post-1984, however the steel girder superstructure is original. Based on a comparison with a NSW Railways 1931 plan of Bardwell Park, the new steps and railings generally conform to the original design. The superstructure is one of two surviving examples (the other being located at Turrella station) of the type of staircase initially installed at the ten East Hills Line stations. As most of the other stations on the East Hills Line have subsequently had their staircases entirely replaced, the Bardwell Park example is of significant value for its representativeness and historicity.	**High: overall** **Integrity: Moderate** *High:* Steel girder superstructure. *Little:* Steps and railing.
Overbridge, Hartill-Law Avenue	The overbridge and stairway entry structures are of a design that is typical of East Hills Line stations. The overbridge once featured tall brick parapet walls, and was extended to traverse Wolli Creek in 1948. The current brick piers and flat jack arches are original to the 1948 extension, by which time the footbridge had been redeveloped as a vehicular bridge. A Department of Railways NSW plan dated to 1941 shows the original span of the overbridge deck was completed on June 6 of that year. The brick parapet walls were demolished and replaced by safety barriers sometime after 1984.	**Moderate: overall** **Integrity: Low** *High:* Brick piers, jack arches. *Little:* Asphalt surface, railings. *Intrusive:* Post-1984 safety barriers, paint over original brick piers.

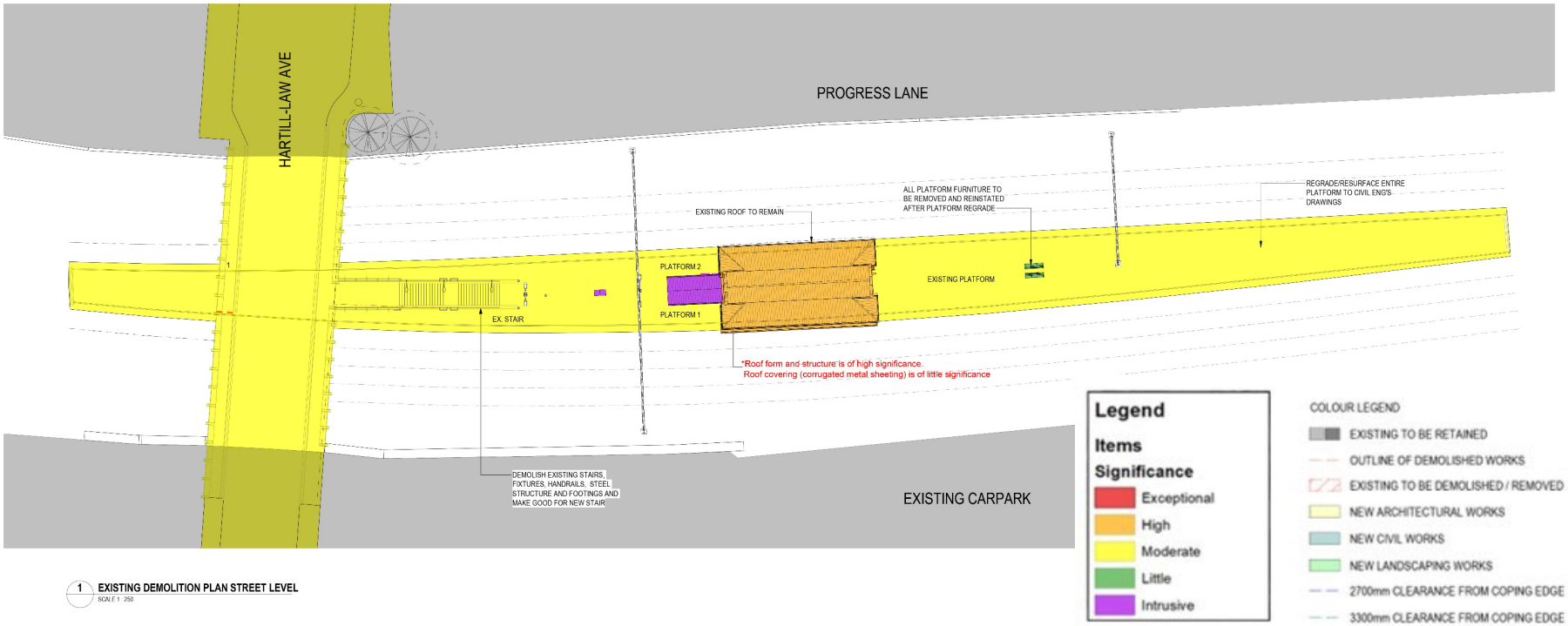


Figure 59 Gradings of significance diagram – existing site plan, not to scale (Source: Design Inc with overlay by Artefact).

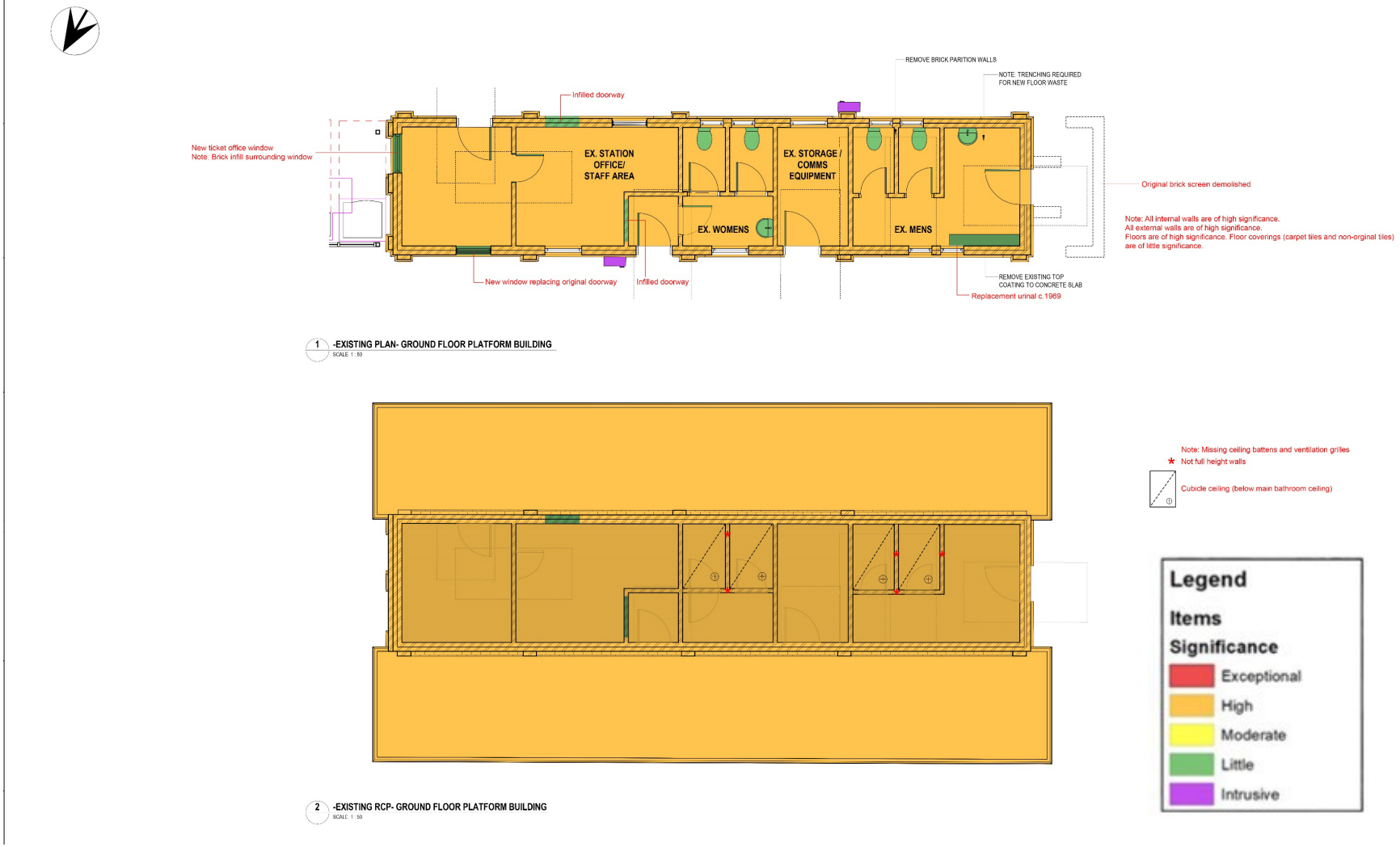


Figure 60 Gradings of significance diagram – existing floor plan and reflected ceiling plan, not to scale (Source: Design Inc with Artefact overlay)

5.2.4 Significant views and vistas

There are significant views of the historic platform and building from various points on the overbridge with which the post-1984 safety screens interfere. Of particular importance is the view of the station whilst descending the staircase. The appearance of the train station is an important element of its heritage values; with its austere brick construction and art deco detailing. It is a manifestation of the deliberate effort by the NSW public service in the inter-war period to make industrial and public infrastructure buildings seem more familiar in the architectural landscape.

6.0 ARCHAEOLOGICAL ASSESSMENT

6.1 Introduction

This section discusses the study area's potential to contain historical archaeological resources. The potential for the survival of archaeological remains is significantly affected by activities which may have caused ground disturbance. This assessment is therefore based on consideration of current ground conditions, and analysis of the historical development of the study area.

'Archaeological potential' refers to the likelihood that an area contains physical remains associated with an earlier phase of occupation, activity or development of that area. This is distinct from 'archaeological significance' and 'archaeological research potential'. These designations refer to the cultural value of potential archaeological remains and are the primary basis of the recommended management actions included in this document.

6.2 Archaeological potential

The archaeological potential of each site is presented in terms of the likelihood of the presence of archaeological remains, considering the land use history and previous impacts at the site. This evaluation is presented using the following grades of archaeological potential:

Table 6: Grading of archaeological potential

Grading	Rationale
Nil	No evidence of historical development or use, or where previous impacts would have removed all archaeological potential
Low	Research indicates little historical development, or where there have been substantial previous impacts, disturbance and truncation in locations where some archaeological remains such as deep subsurface features may survive
Moderate	Analysis demonstrates known historical development and some previous impacts, but it is likely that archaeological remains survive with some localised truncation and disturbance
High	Evidence of multiple phases of historical development and structures with minimal or localised twentieth century development impacts, and it is likely the archaeological resource would be largely intact

6.2.1 Land use summary

The European occupation of the study area has been divided into three general phases of historical activity, which are outlined below in Table 7:

Table 7: Overview of land-use phasing

Phase	Discussion
Phase 1: Colonisation – Land Grant and subdivision (1850s – 1900s)	Land grant to Thomas Hill Bardwell – agricultural and horse rearing. Subdivision - first homesteads, small markets and dairies, pig farms and loam pits.
Phase 2: Train Line Development (1900s – 1950s)	Establishment of new train line, overbridge, station, bridge over Wolli Creek.
Phase 3: Urban Development (1950s – Present)	Residential and commercial development

6.2.2 Discussion of previous disturbance

The landform throughout the study area appears well developed with the exception of a section in the north, northwest and northeast where nearly no development occurred along Wolli Creek. In the north and northeast section, a gravel road is present granting access to the rail corridor from Hartill-Law Avenue and the latter road, along with a bridge over the Wolli Creek, are the only other disturbances present in the otherwise undisturbed area.

Development within the study area includes Earlwood-Bardwell Park RSL and car park to the north, the overbridge and railway (T8 Airport and South Line) to the east, the continuation of the rail corridor to the west, and a carpark and some residential and commercial buildings to the south. The development of the railway and surrounding structures is likely to have resulted in significant ground disturbance.

The construction of the railway was the first major disturbance to the study area commenced in the late 1920s and finished by 1931. From 1943 onwards aerial imagery informs us of the ensuing urban development around the train station, following the pattern of construction around such public transport infrastructure, consisting predominantly of domestic dwellings and small shops. Such public and private development is likely to have required substantial excavation and levelling works.

6.2.3 Relevant archaeological investigations

6.2.3.1 Bardwell Station archaeological analysis (Artefact 2023)

In 2023, Artefact Heritage prepared an archaeological analysis that informed the development of the concept design of Bardwell Park Station. The analysis, which is reproduced in this section, concluded that the proposal area, identical to the study area of this report, contained **nil-low** to **low** potential to contain archaeological resources associated with the early phases of European colonisation within the Bardwell Park area in the last half of the nineteenth century and first half of the twentieth century.

6.2.4 Summary of historical archaeological potential

Based on the review of the information obtained from historical sources, previous heritage assessments and the current condition of the site, it can be concluded that the study area has **nil-low potential** to contain historical archaeological remains **associated with Phase 1**. The archaeological fabric for this phase may consist of evidence of agricultural, loam pits and brick or sandstone footings

which would likely have been impacted by the construction of the station. As for **Phase 2** there is a **moderate-high potential** for remains to be present. These likely would consist of redundant services (including former pits), brick or sandstone foundations and rail and timber sleepers. Remains for Phase 3 are extant and are not considered to be archaeological.

A summary of the historical archaeological potential is provided in Table 8. A visual representation can be seen in Figure 61.

Table 8: Summary of historical archaeological potential

Phase	Land-use	Potential remains	Level of survival
Phase 1: Colonisation – Land Grant and subdivision (1810s – 1900s)	Grazing/agricultural Land clearing, early grants, grazing or farming.	Evidence of land cultivation, remnant fence posts and post holes, loam pit excavation, horseshoes, brick or sandstone footings (homesteads).	**Nil** to **Low**
Phase 2: Train Line Development (1910s – 1950s)	Station, platform, rail and road corridor	Brick, redundant services, foundations (sandstone or brick), former service pits, former timber sleepers and railings.	**Moderate** to **High**
Phase 3: Urban Development (1950s – Present)	Station, platform, rail and road corridor	As remains from this period are extant, they are not considered to be archaeological and are therefore not identified as potential resources.	**Extant**

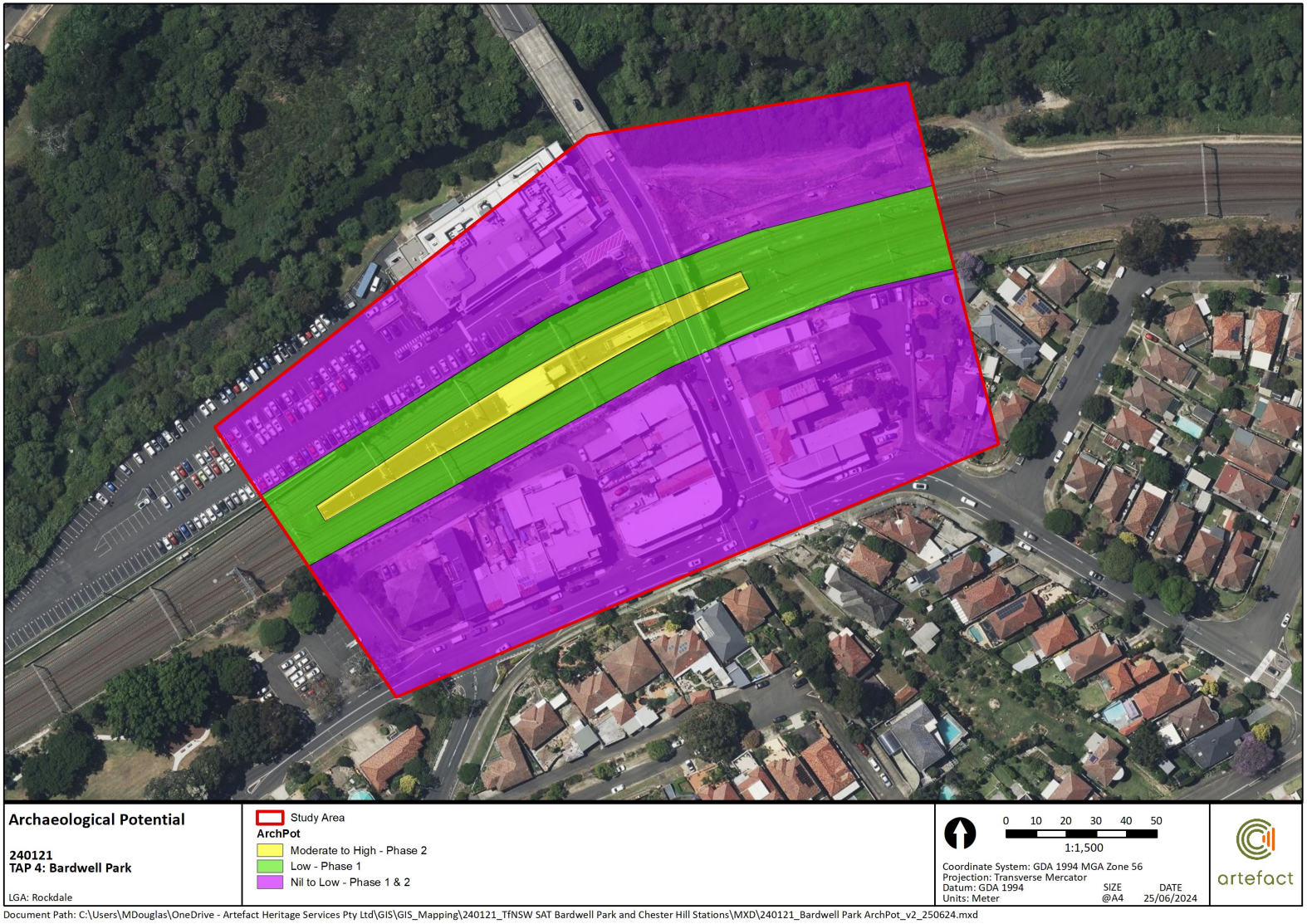


Figure 61. Archaeological potential within study area.

6.3 Archaeological significance

The significance assessment of historical archaeological sites and items requires a specialised framework in order to consider the range of values associated with each site/item. This because of the challenges associated with the often unknown nature and extent of buried archaeological remains and judgment is usually based on anticipated attributes. To facilitate assessment of archaeological significance, the NSW Heritage Branch (now Heritage NSW) arranged the seven heritage criteria into four groups (see below). The value of archaeological sources primarily lies in their research potential or the ability to provide additional information about site/item that is not contained in historical records. The assessment of archaeological research potential is augmented by an additional three questions posed by Bickford and Sullivan[33]. The following significance assessment of the study area's potential archaeological remains has been carried out by using these criteria as outlined in the *Assessing Significance for Historical Archaeological Sites and 'Relics'*.

6.3.1 NSW Heritage criteria for assessing significance related to archaeological sites and relics

6.3.1.1 Archaeological research potential (NSW Criterion E)

The study area has **nil** to **low** potential to contain archaeological remains associated with Phase 1. Archaeological remains associated with this phase of occupation would be ephemeral in nature and have low research potential. Despite the **moderate** to **high potential** for archaeological remains associated with Phase 2 to be present they are unlikely to yield new or further substantial information on railway infrastructure. **If archaeological remains from Phases 1 and 2 are found, they would not meet the threshold of local significance under Criterion E.**

6.3.1.2 Association with individuals, events or groups of historical importance (Criteria A, B & D)

Archaeological resources associated **Phase 1** are likely to consist of ephemeral traces of agricultural practice. For **Phase 2** evidence of former rail buildings and rail may be present. However, remains of this type are unlikely to be intact due to later development within the study area and **would not be considered important** in the course of patterns of the history of the local area or provide evidence of a strong or special association with a particular community or cultural group. As such they **would not meet the threshold of local significance under Criterion A and D**.

However unlikely, **if archaeological remains from Phase 1 are found they would be significant on a local level under Criterion A and B** as they can contribute to a more detailed understanding of these historical periods in Bardwell Park and be directly or indirectly associated with John Thomas Campbell and descendants of former inhabitants of the area.

6.3.1.3 Aesthetic of technical significance (Criterion C)

Potential archaeological remains relating to **Phase 1** would consist of post holes, landscape modifications and other ephemeral features. These features are unlikely to have any aesthetic significance and do not present technical advancements.

Similarly for **Phase 2,** evidence of former rail infrastructure is standardised and very unlikely to demonstrate distinctive aesthetic attributes in form or composition**. If archaeological remains from**

[33] Anne Bickford and Sharon Sullivan, 'Assessing the Research Significance of Historic Sites', in *Site Surveys and Significance in Australian Archaeology*, ed. Sharon Sullivan and Sandra Bowdler (Canberra: Research School of Pacific Studies, ANU, Canberra, 1984), 19–26.

Phases 1 and 2 are found, they would not meet the threshold of local significance under Criterion C.

6.3.1.4 Ability to demonstrate the past through archaeological remains (Criteria A, C, F & G)

The potential archaeological resources associated with **Phase 1** is **nil to low** and even if such remains are identified they would not be considered rare, uncommon or important in demonstrating the principal characteristics of a class of cultural places within the local area.

Likewise, for **Phase 2**, despite the **moderate to high potential** for associated remains to be present, they would not be considered rare, uncommon or representative of a particular cultural place.

If archaeological remains from Phases 1 and 2 are found, they would not meet the threshold of local significance under Criteria A, C, F and G.

6.3.2 Bickford and Sullivan's questions

The most widely used framework is that developed by Bickford and Sullivan and comprises three key questions which can be used as a guide for assessing the significance of an archaeological site.

The emphasis of this framework is on the need for archaeological research to add to the knowledge of the past in a useful way, rather than merely duplicating known information or information that might be more readily available from other sources such as documentary records or oral history. As a result, archaeological significance has usually been addressed in terms of Criterion (e) of the NSW Heritage assessment criteria that is '*the potential to yield information*…'.

The three key questions are addressed below:

- *Can the site contribute knowledge that no other resource can?*

It is not anticipated that the study area will contain an archaeological resource with the potential to provide data that is particularly significant, unique, highly intact, or that may not be better obtained from nearby assessment and archaeological sites with better preservation potential.

- *Can the site contribute knowledge that no other site can?*

It is not anticipated that the study area will contain an archaeological resource with the potential to contribute knowledge that no other site can. In the unlikely event that in-ground evidence of agricultural activity is found, they are common and have limited research potential.

- *Is this knowledge relevant to general question about human history or other substantive questions relating to Australian history, or does it contribute to other major research questions?*

The information that may be obtained from the archaeological resource within the study area is unlikely to contribute knowledge relevant to substantive questions relating to Australian history or other major research questions.

6.3.3 Summary statement of archaeological significance

The subject site has a **nil-low** to **low** potential to contribute to our knowledge of the early phases of the European settlement within in the Barwell Park area in the late 19th century.

The historical record indicates the land was part of grant attributed to Thomas Hill Bardwell and used for small scale agricultural work and horse rearing. After the passing of Thomas Hill Bardwell, the land was subdivided and repurposed for residential and commercial use with small homesteads, market gardens, dairies, pig farms and loam extraction. As such, the study area has associations with Thomas Hill Bardwell.

However, the study area appears to have been substantially disturbed by the construction of the rail line and station along with the subsequent urban development. The likelihood for the survival of archaeological remains associated with historical Phase 1 are very low. Only where deeper subsurface features have not been entirely removed there is a slightly higher degree of potential for archaeological remains to be present. Only intact archaeological remains may reach the local significance threshold under **criterion a) and b).**

The site has a **moderate** to **high** potential to contain archaeological remains associated with the construction of the railway station in the early twentieth century; however, such resources are unlikely to add to our understanding of the period's construction methods of the railways.

While the station is listed as being locally significant (TAHE s170) evidence such as remains of former railway infrastructure and redundant platform services are well documented and **would not meet the threshold of local significance under any criteria**.

6.4 Summary of historical archaeological potential and significance

This archaeological assessment has identified **nil** to **low** potential for historical archaeological remains of local significance associated with Phase 1 and a **moderate** to **high** potential for historical archaeological remains of **nil** significance. These remains are summarised in Table 9.

Table 9: Historical archaeological potential ad significance

Phase	Anticipated remains	Potential for survival	Significance
Phase 1 (1810s – 1900s)	Ephemeral traces of agricultural practice, including postholes representing fences, plough marks, and other land modifications.	**nil** to **low**	Local
Phase 2 (1910s – 1950s)	Brick, redundant services, foundations (sandstone or brick), former service pits, former timber sleepers and railings	**moderate** to **high**	Nil
Phase 3 (1950s – Present)	As remains from this period are extant, they are not considered to be archaeological and are therefore not identified as potential resources.	**extant**	N/A

7.0 THE PROPOSED WORKS

7.1 The proposed works

7.1.1 The Proposal

Transport proposes to provide accessibility upgrades to Bardwell Park Station with key features of the Proposal including:

- construction of an elevated walkway at the existing station entrance from Hartill-Law Avenue to provide access to the platform via a new lift and new stairs
- upgrades to station access and interchange facilities on Hartill-Law Avenue, including:
    - relocation and upgrades to the bus stops
    - a new pedestrian crossing
    - one accessible parking space
    - one accessible kiss and ride space
    - additional bicycle parking
    - upgrade of existing footpaths from the upgraded bus stops and new accessible parking and kiss and ride spaces to the station entry
- modification to the existing station building to include a new family accessible toilet, a new unisex ambulant toilet and a new staff toilet.
- provision of canopies at the Boarding Assistance Zone (BAZ) locations including new bench seats
- regrading and resurfacing of the platform and installation of tactile ground surface indicators (tactiles/TGSIs)
- ancillary works including station power supply upgrades, relocation of utilities, kerb and gutter adjustments, handrails and fencing, relocation of platform seating, additional Opal card readers, improvement to station communication systems (including CCTV cameras), landscaping and wayfinding signage
- placemaking enhancements that consider the war memorial and Connecting to Country.

A temporary site compound to accommodate a site office, amenities, laydown and storage area for materials and plant and equipment, and the like is proposed for the construction phase. It is proposed to be located in the car park on Slade Road, which is owned by Bayside Council.

Artefact, as Heritage Architect, provided comprehensive heritage design advice in the development of the Concept Design and the HDR, which have further informed the current design being assessed. The works will require the modification of heritage fabric; this fabric should be retained for reuse wherever possible.

7.1.2 Project justification

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

A table of the reviewed design drawings[34] is provided below in Table 10.

Relevant design drawings for the proposal are also provided (Figure 62 to Figure 68. Proposed elevations for Platform Building at Bardwell Park Station (Source: Aurecon, 2024))

Table 10: List of drawings

Drawing Number	Title	Revision
000001	COVER SHEET	B
000002	DRAWING LIST	B
000005	NOTES, SYMBOLS, ABBREVIATIONS	B
000070	3D PERSPECTIVE VIEWS	B
000110	DEMOLITION SITE PLAN – STREET LEVEL	B
000111	DEMOLITION SITE PLAN – PLATFORM LEVEL	B
000121	PROPOSED SITE PLAN – ROOF LEVEL	B
000122	PROPOSED SITE PLAN – PLATFORM LEVEL	C
000210	STREET LEVEL PLAN – ZONE 1	B
000211	STREET LEVEL PLAN – ZONE 2	B
000220	PLATFORM PLAN – ZONE 1	C
000221	PLATFORM PLAN – ZONE 2	B
000250	PLATFORM REFLECTED CEILING PLAN – ZONE 1	B
000251	PLATFORM REFLECTED CEILING PLAN – ZONE 2	B
000260	ELEVATIONS – SHEET 01	B
000261	ELEVATIONS – SHEET 02	B
000262	ELEVATIONS – SHEET 03	B
000270	SECTIONS – SHEET 01	B
000271	SECTIONS – SHEET 02	B
000600	STAIR – PLANS AND SECTIONS	B

[34] Aurecon, *TAP4: Bardwell Park Station Concept Design Report*, 2023-07-07

000610	LIFT PLANS	B
000615	LIFT – ELEVATIONS	B
000616	LIFT – SECTIONS	B
000630	CONCOURSE CANOPY 1 – PLANS	B
000645	STREET LEVEL CONCOURSE CANOPY 1 – SECTION DETAILS	B
000655	PLATFORM CANOPY – SECTION DETAILS	B
000660	CANOPIES DETAILS SHEET 01	B
000661	PLATFORM CANOPY – SECTION DETAILS SHEET 02 (FAT AND CANOPY 6)	B
000700	PLATFORM BUILDING - GA PLANS	B
000701	PLATFORM BUILDING – EXISTING/DEMOLITION PLANS	B
000702	PLATFORM BUILDING – PROPOSED PLANS	B
000705	PLATFORM BUILDING – PROPOSED F.A.T.	B
000706	PLATFORM BUILDING – PROPOSED AMBULANT TOILET	B
000707	PLATFORM BUILDING – PROPOSED STAFF AND CLEANERS BATHROOM	A
000710	PLATFORM BUILDING EXISTING ELEVATIONS	A
000711	PLATFORM BUILDING PROPOSED ELEVATIONS	A
0009000	MATERIAL BOARD	B

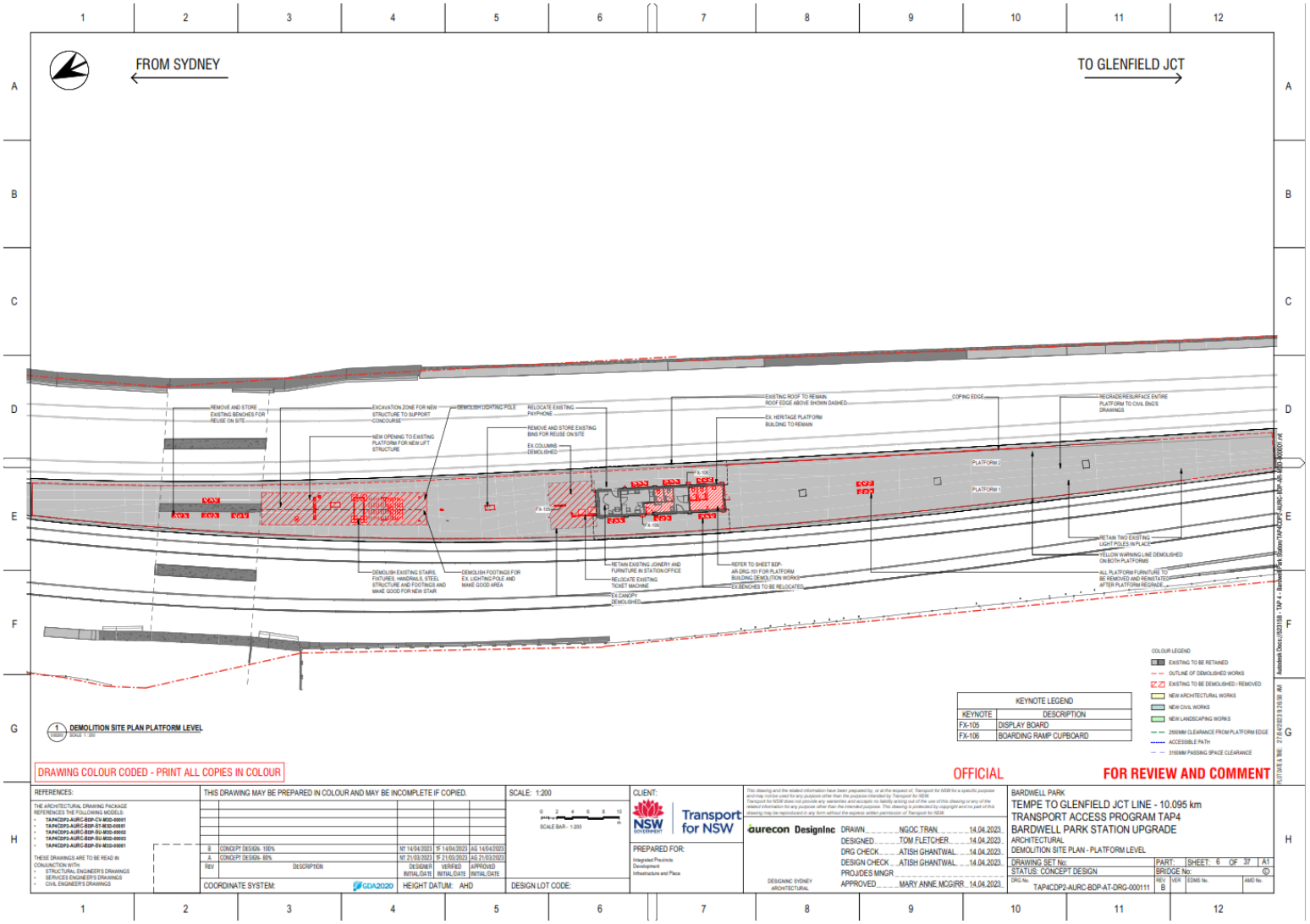


Figure 62: Proposed demolition plan for Bardwell Park Station (Source: Aurecon, 2024)

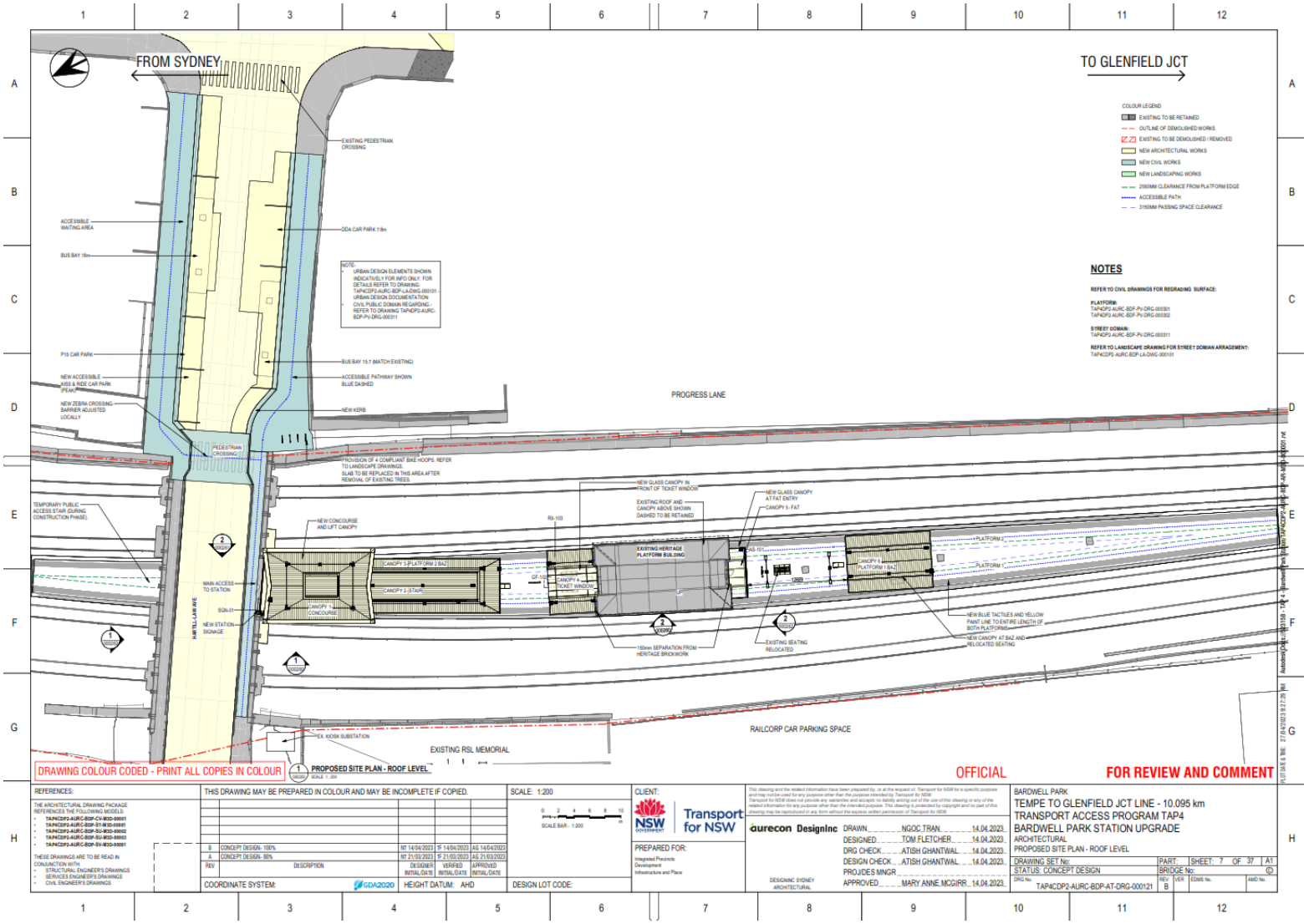


Figure 63: Proposed site plan for Bardwell Park Station (Source: Aurecon, 2024)

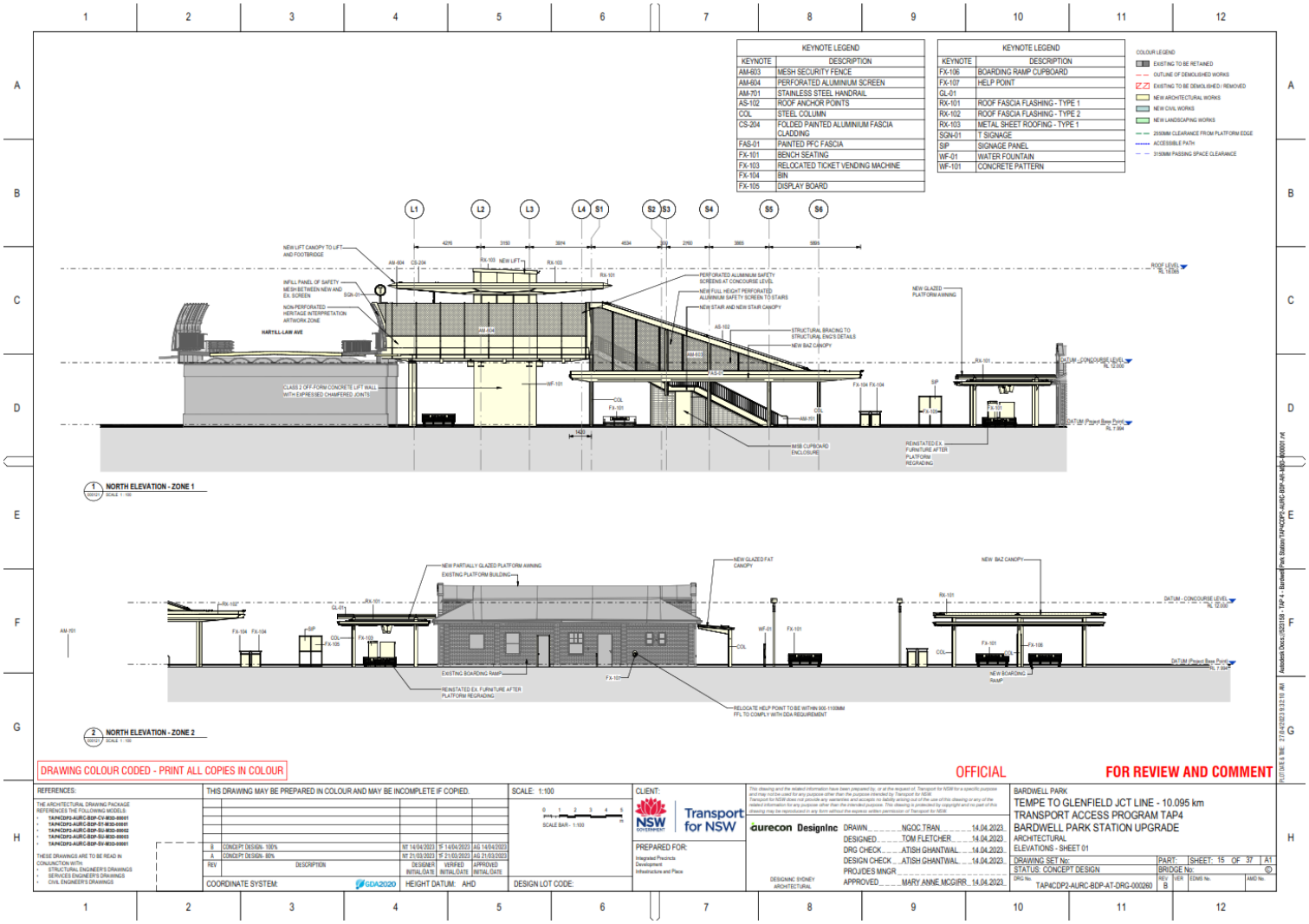


Figure 64 Proposed elevations for Bardwell Park Station (Source: Aurecon, 2024)

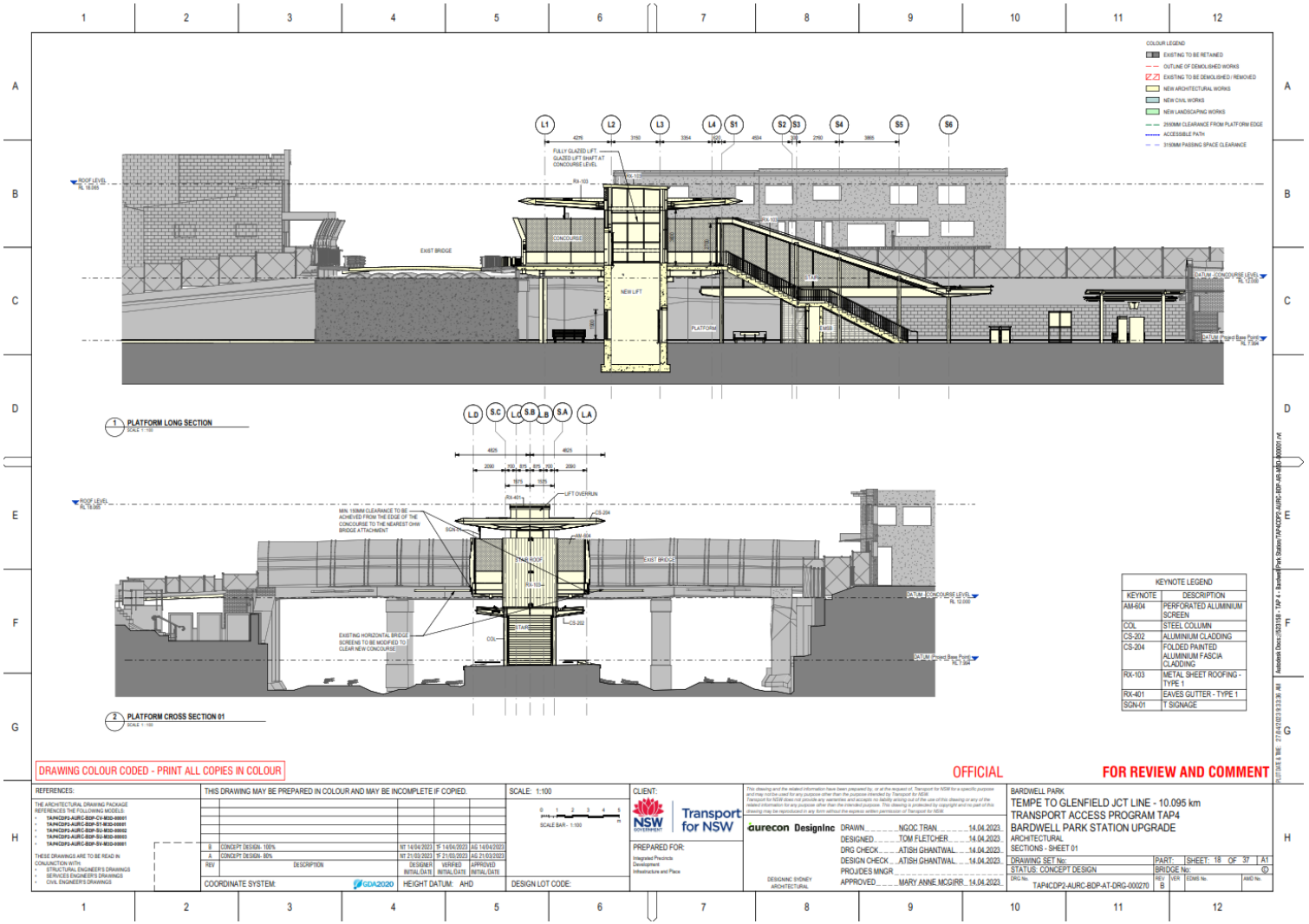


Figure 65: Proposed sections sheet 1 for Bardwell Park Station (Source: Aurecon, 2024)

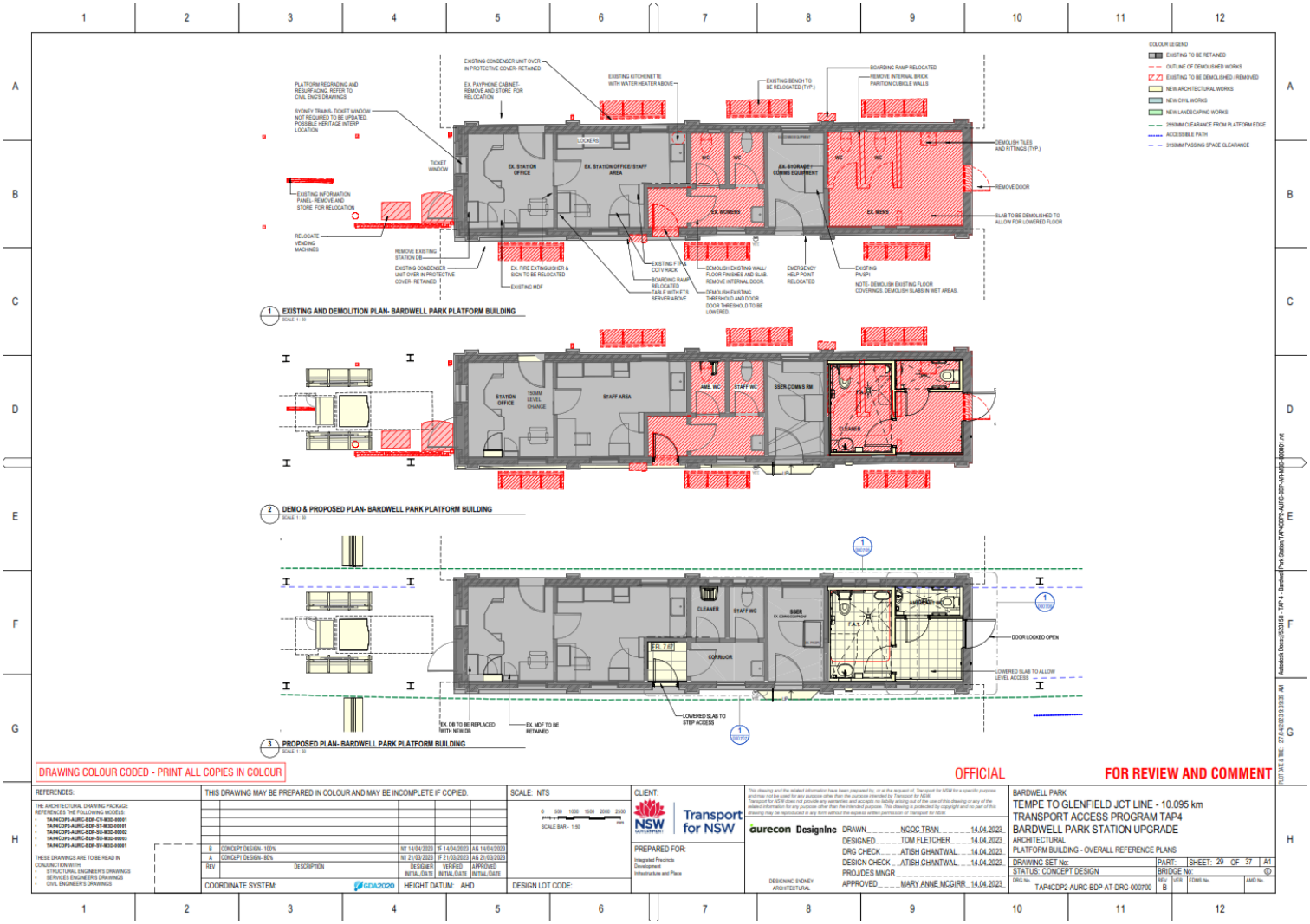


Figure 66: Existing, demolition and proposed plan for Platform Building at Bardwell Park Station (Source: Aurecon, 2024)

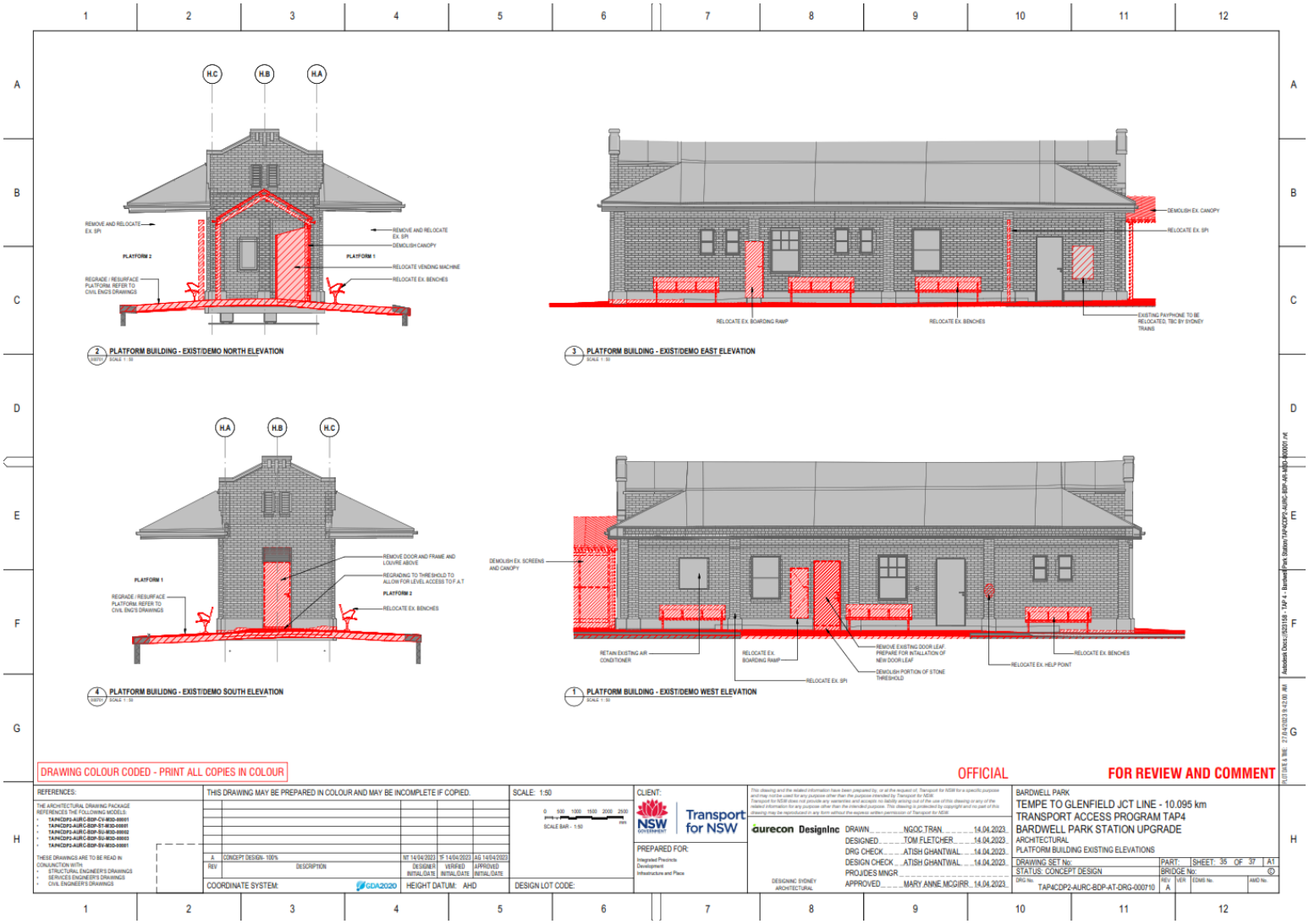


Figure 67. Elevations of demolition plan for Platform Building at Bardwell Park Station (Source: Aurecon, 2024)

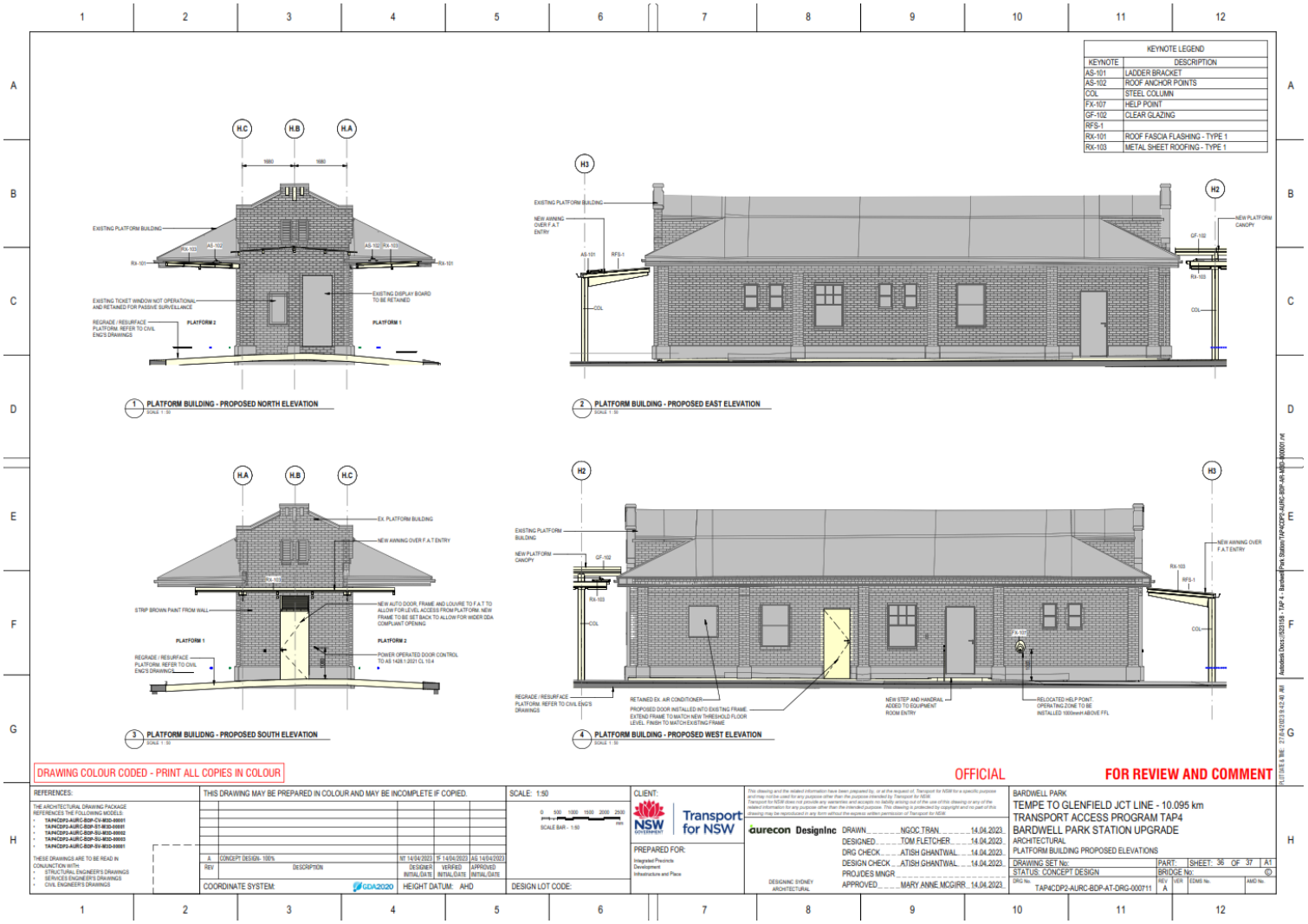


Figure 68. Proposed elevations for Platform Building at Bardwell Park Station (Source: Aurecon, 2024)

8.0 HERITAGE IMPACT ASSESSMENT

8.1 Overview

This section assesses the heritage impact of the Proposal. Justifications are also provided for the proposed works.

Within this approach, the objective of a heritage impact assessment is to evaluate and explain how the proposed works will affect the heritage value of the study area and/or place. A heritage impact assessment should also address how the heritage value of the site/place can be conserved or maintained, or preferably enhanced by the proposed works.

In order to consistently identify the impact of the proposed works, the terminology contained in the following table has been references throughout this document. The terminology and definitions are based on those contained in guidelines produced by the International Council on Monuments and Sites (ICOMOS)[35] and the Heritage Council of NSW[36] and are shown in Table 11.

Table 11: Terminology for assessing the magnitude of heritage impact.

Grading	Definition
Major adverse	Actions that would have a severe, long-term and possibly irreversible impact on a heritage item. Actions in this category would include partial or complete demolition of a heritage item or addition of new structures in its vicinity that destroy the visual setting of the item. These actions cannot be fully mitigated.
Moderate adverse	Actions that would have a moderate adverse impact on a heritage item. Actions in this category would include removal of an important part of a heritage item's setting or temporary removal of significant elements or fabric. The impact of these actions could be reduced through appropriate mitigation measures.
Minor adverse	Actions that would have a minor adverse impact on a heritage item. This may be the result of the action affecting only a small part of the place or a distant/small part of the setting of a heritage place. The action may also be temporary and/or reversible.
Negligible	Actions that are so minor that the heritage impact is considered negligible.
Neutral	Actions that would have no heritage impact.
Minor positive	Actions that would bring a minor benefit to a heritage item, such as an improvement in the item's visual setting.
Moderate positive	Actions that would bring a moderate benefit to a heritage item, such as removal of intrusive elements or fabric or a substantial improvement to the item's visual setting.

[35] Including the document Guidance on Heritage Impact Assessments for Cultural World Heritage Properties, ICOMOS, January 2011.
[36] https://www.environment.nsw.gov.au/resources/heritagebranch/heritage/material-threshold-policy.pdf

Grading	Definition
Major positive	Actions that would bring a major benefit to a heritage item, such as reconstruction of significant fabric, removal of substantial intrusive elements/fabric or reinstatement of an item's visual setting or curtilage.

Table 12: Terminology for heritage impact types

Impact	Definition
Physical	Impacts resulting from works located within or outside the curtilage boundaries of the heritage item, caused by removing or altering the item or fabric of heritage significance
Visual	Impact to views, vistas and setting of the heritage item resulting from proposed works within or outside the curtilage boundaries of the heritage item.
Potential	Impacts resulting from increased noise, vibrations and construction works located within or outside the curtilage boundaries of the heritage item.
Archaeological	Impacts to potential archaeological remains located within the curtilage boundaries of the heritage item.

8.1.1 Physical heritage impacts

The proposed works require a considerable modification of the internal appearance and form of the platform building. The building has retained a high degree of integrity externally and a moderate degree of integrity internally; it is of high heritage significance overall. The proposed works include the partial demolition of the interior of the platform building, including the removal of tiles, doors, fittings, wooden toilet partitions, as well as demolishing the slab of the toilet block in order to align it with the platform level. A new dividing wall be constructed to create the family accessible toilet and unisex ambulant toilet, while two female toilets will be repurposed as a cleaner storage room and staff toilet. New fittings and fixtures will be installed alongside new replacement doors, tiles, and trim that will match existing heritage features. This reconfiguration process will produce irreversible changes in the building's heritage fabric, though it will not change the overall shape or usage of the building.

As recommended by Artefact's HDR dated July 7 2023, the intrusion upon, and loss of, heritage fabric can be offset by the reuse of original materials such as bricks, station furniture, and light poles, along with the use of sympathetic materials and matching trim. A further mitigating factor will be the removal of the new canopy which abuts the platform building at the eastern end that shelters the current Opal machine, although it is noted that a new canopy will be installed in this location. The overall result will likely be a **moderate adverse** physical impact on the historical value of the platform building. Extensive options analysis was undertaken in a prior stage, as discussed below in Section 8.2.1 and the appendices in Section 11.0.

The platform itself is to be regraded and resurfaced as part of the works; while the platform is of moderate heritage significance overall, the asphalt surface specifically is of little significance. The platform light poles, which are heritage elements of high significance with original petticoat bases, are to be removed. Although it is noted that their reinstallation is presented as an option in the concept design. Excavation and piling works are planned for the platform in the space below the staircase, in preparation for the new staircase and lift shaft; the lift shaft installation will include concrete formwork, combined with steelwork and glazing. Further platform excavations will take place for the installation of light poles and station furniture. New canopies framed in steel and sheeted with a neutral light grey

colour (to match the existing platform building roof) will be installed in a series, rather than as a continuous roof. This design is intended to retain the original sense of the building and platform as separate entities. The resulting effect will likely be a **minor adverse** impact to the platform surface, and a **moderate adverse** impact to the fabric of the platform. The potential permanent loss of the light poles with petticoat bases which result in a **moderate adverse** impact, as they of high significance to the historic heritage of Bardwell Park Station.

The entry stair structure will be demolished and replaced by a new set of stairs and lift, along with a new elevated walkway, constructed with a canopy and protection and safety screens. The proposed entrance canopy and lift have been designed using simple geometric shapes, which will contrast with traditional rectangular geometry of the station building and brick bridge piers. However, the overall form of the entrance retains the character of the original stairway entrance into the station from the overhead bridge.

With the removal of the original steel superstructure and construction of a large, canopied concourse and new staircase, these modifications would have a substantial adverse impact on the on the heritage significance of the original staircase. However, the works would also result in a positive outcome for users of the station, as the works would improve the safety of the staircase, and would improve the accessibility of the station overall. Interpretive materials, such as historic photos and plans showing the original outline of the staircase, could also be an effective measure in mitigating the adverse effect of its demolition.

The temporary site compound that is proposed to be built in the car park on Slade Road would be unlikely to produce more than a **negligible** physical impact, as the site is located away from the Bardwell Park Station's fabric. It will be removed following conclusion of the station upgrade works.

The overall impact of the proposed works to the station fabric would be **moderate adverse.** While there are substantial local adverse impacts to elements of the station, the overall impact is mitigated in part by the application of appropriate scale, form, materiality, and detailing.

In relation to impacts on Wolli Creek Valley (local heritage item under the Bayside LEP), as previously noted in section 2.9.2, the LEP listed position of the item is within the study area, however the actual position of the creek is outside the study area. This is likely due to the realignment of the creek in the 1980s for the construction of the RSL carpark. The proposed works are distant enough from both the LEP listed position of the creek, as well as the actual position of the creek, that they will have a **neutral** physical impact on the creek.

8.1.2 Visual heritage impacts

Bardwell Park Station is notable for having largely retained its character as an austere, steel and brickwork structure of the Inter-War period, despite some changes to its fabric (such as the replacement of the stairs and staircase railings). The visual setting of Bardwell Park Station stands to be adversely impacted primarily by the installation of more extensive canopies over the station entry, stairs, and platforms. It is recommended that these canopies be of a distinct character that differentiates them from the heritage character of the platform and platform building, and should be constructed of materials and forms which are sympathetic to the heritage character of the station as a whole. They should not come into physical contact with the fabric of the platform building. Additionally, it would be preferable that these canopies be of a gabled design which echoes that of the platform building's roof form, rather than a butterfly design which contrasts with the building.

Whether the design is the butterfly or gabled form, the installation of new canopies over the platform, staircase, and street-level entrance will have a **moderate adverse** impact on the visual setting of the station, as their presence has the potential to significantly alter the appearance of the station as a suburban railway station deliberately designed to suit the aesthetic landscape of the Inter-War period.

Furthermore, these new canopies will restrict the visibility of the platform building from the overbridge; the distinctive parapet façade of the building will also be less visible from the platform.

The new staircase and lift must accommodate the demand for better and more equitable accessibility. The existing staircase is unsuitable for this purpose and must therefore be replaced. Where new installations are required, they should use a design language similar to the original. In the case of Bardwell Park's architectural style, this means favouring a rectangular geometry composed of brick and steel rather than rounded shapes such as concrete support pillars for the new staircase. Extensive options analysis was undertaken in a prior stage, as discussed below in Section 8.2.1 and Section 11.0. As regards the new lift shaft, the proposed glazing is appropriate in the visual context of the station, however cladding by preference ought to be in brick. Introduction of inappropriate materials that are not compatible with the heritage character of the station such as brick tile or aluminium framing would have a **moderate adverse** visual impact.

The distinctive colour palette of Bardwell Park Station is an important facet of its heritage character as a piece of Inter-War architecture, and should inspire, be repeated, or otherwise echoed by new installations; thus darker browns and neutral greys in combination with highlights of galvanised steel are preferable. This would help alleviate the proposed works' negative visual impacts on the station.

The temporary site compound that is proposed to be built in the car park on Slade Road would be unlikely to produce more than a **negligible** visual impact, as the site is located a certain distance away from Bardwell Park Station. Furthermore the compound, though visible from the station, would be removed following the conclusion of the station upgrade works, ensuring that impacts caused by the presence of the compound are temporary.

In relation to impacts on Wolli Creek Valley (local heritage item under the Bayside LEP), as previously noted in section 2.9.2, the LEP listed position of the item is within the study area, however the actual position of the creek is outside the study area. This is likely due to the realignment of the creek in the 1980s for the construction of the RSL carpark. The proposed works are distant from both the LEP listed position of the creek, as well as the actual position of the creek, that they will have a **neutral** visual impact on the creek.

8.1.3 Construction related potential heritage impacts

The machinery anticipated for the proposed works has the potential to have a negative impact on the fabric of the existing heritage items via vibration, and settlement of structures due to excavation. Such machinery includes jackhammers, vibrating rollers, slew cranes of several hundred tonnes, excavators, and concrete and dump trucks. Vibration monitoring is to be undertaken in accordance with the standards provided by Transport for works in the vicinity of heritage elements. During the construction works, temporary access stairs will be established on the eastern side of Hartill-Law Avenue, opposite the existing station entrance, connecting to the station platform. This requires the removal of a section of anti-throw screens[37]. This will constitute a temporary **minor adverse** visual impact, as the temporary stairs will most likely not affect heritage fabric, and will be removed after construction. Illustrated below in Figure 69.

[37] Aurecon, *TAP4: Bardwell Park Station Concept Design Report*, 2023-07-07

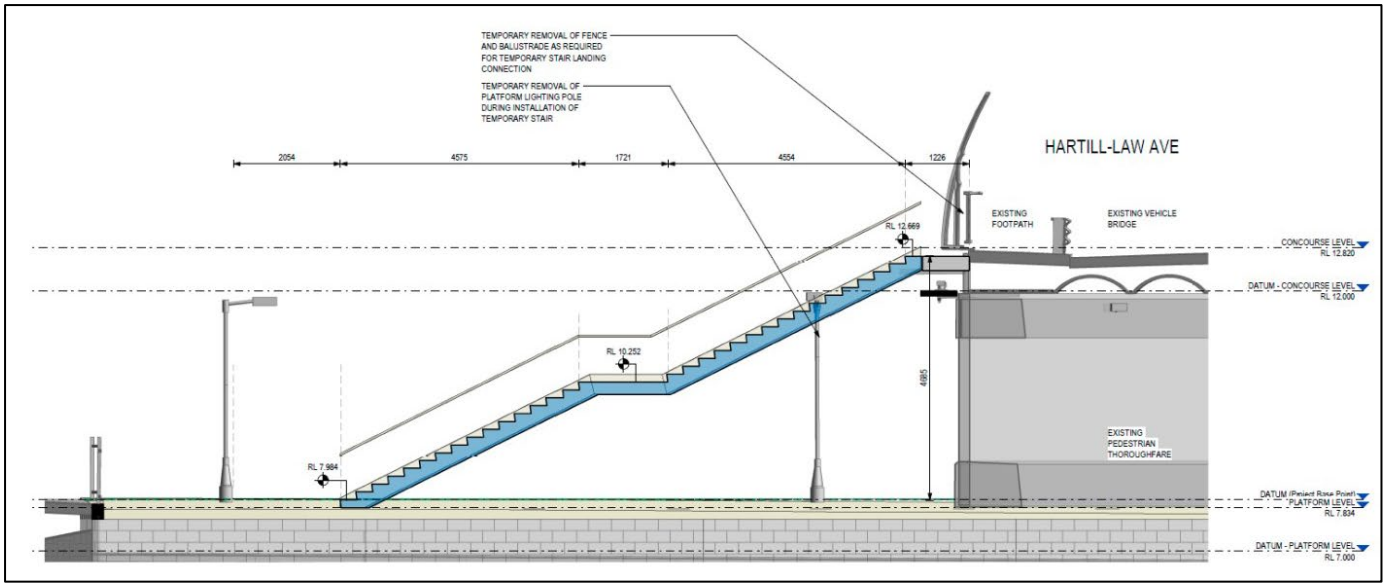


Figure 69 Temporary customer access stairs (source: Aurecon, 2023)

8.1.4 Impacts to Heritage Items in vicinity

This section assesses the potential physical and visual impacts of the proposed works on the heritage item within the study area. The potential heritage impacts of the proposed works are outlined in Table 13.

Table 13: Assessment of heritage impact.

Item Name	Item/Listing Number	Potential physical impacts	Potential visual impacts
Wolli Creek Valley	LEP #I389	The works have been assessed as having **nil** physical impacts to the item, as the listed item in reality is not physically within the bounds of the study area.	The works have been assessed as having **nil** visual impacts to the item, as the listed item in reality is not physically within the bounds of the study area.[38]

8.1.5 Impacts to archaeological resources

The study area has a **nil-low** potential to contain archaeological 'relics' of local significance and a **moderate-high** potential to contain 'works' of nil significance. While proposed works will involve ground disturbance such as the excavation for a lift shaft and piling for the elevated walkway, geotechnical investigations, and trenching for the installation of new services, they will be likely impacting archaeological fabric assessed as having nil significance. Therefore, the overall assessment of impacts to archaeological resources is considered to be **negligible**.

[38] See Sections 2.9.2, 8.1.1, and 8.1.2 for further clarification about the discrepancy between the item listing description and its actual location.

8.1.6 Cumulative heritage impacts:

Cumulative impacts refer to the combined, overlaid or added actions and interactions within a particular place associated with the past, present and the reasonably foreseeable future.

Bardwell Park Station has been subject to a number of upgrades throughout the years, such as services and safety upgrades.

These modifications to Bardwell Park Station's heritage fabric have included the installation of intrusive elements such as aluminium-framed windows; bricking up windows; the replacement of the overbridge's original brick parapets by with safety barriers; and the installation of canopies on the overbridge walkway, staircase, and the platform. Several of these modifications have had a detrimental, intrusive effect on the station's heritage values by introducing elements (particularly the canopies) that are not in keeping with the station's Inter-War, Depression-era character.

Overall, the Proposal would result in a **moderate adverse** cumulative impact on the Bardwell Park Station. This is due to the removal of fabric of high significance (the overbridge staircase) and the introduction of more extensive (and intrusive) canopies. This is in part offset by the installation of interpretive elements, the reuse of salvaged site materials, and the use of sympathetic new materials and forms.

8.2 Heritage considerations for the proposal

Heritage guidelines[39] prepared by the NSW Heritage Office (now Heritage NSW, DCCEEW) outline design considerations for projects that involve demolitions and new works.

Design considerations are discussed in Table 14.

Table 14: Heritage considerations for Bardwell Park Station (Source: Heritage NSW DCCEEW, 2023).

Heritage Consideration	Discussion
Demolition of a heritage item	
If demolition is proposed, why is it necessary?	Demolition and alteration of certain elements of the station are considered necessary in order to make way for improvements for the accessibility of the station's services and allow the station to remain as an operational asset. The demolition of the existing staircase is necessary due to the difficulty of modifying it to accommodate the spatial constraints and access requirements of the proposed lift. No other suitable locations are available at the station for the installation of the lift. The reconfigurations of the platform building's interior are necessary in order to accommodate the new services (accessible unisex family toilet, unisex ambulant toilet, staff toilet). These modifications are being undertaken to comply with modern accessibility standards set out in the *Disability Standards for Accessible Public Transport* (2002), issued under the *Commonwealth Disability Discrimination Act* (1992).

[39] 'Guidelines for preparing a statement of heritage impact', Department of Planning and Environment, 2023

Heritage Consideration	Discussion
Have options for retention and adaptive re-use been explored? If yes, set out why these options have been discarded?	The proposed works are the most sympathetic and least impactful means of performing the necessary accessibility upgrades to Bardwell Park Station, as explored in the Heritage Design Report. Other designs were considered which would have resulted in a greater adverse impact to the heritage character of the station. One option proposed the demolition of the existing staircase, and replacing it with new stairs, elevated walkway, and a platform with a lift shaft at street level. The lift shaft was proposed to be clad with an aluminium frame at platform level, and glass at street level. Concrete would have been used throughout its construction. The design further proposed a canopy for both the staircase and the station entry. These would have been made of highly reflective materials in geometric patterns inspired by local flora and fauna (such as the eucalyptus, grey headed flying fox, longicorn beetle). This design promoted visibility of the station via “skeletal” frames and relatively transparent materials, including on staircase and platform canopies. The design also retained the single-access entry point to station from the Hartill-Law Avenue entrance. However, these benefits would have been outweighed by inappropriate design choices, such as the use of reflective materials and aluminium cladding, which are not in keeping with the station’s heritage characteristics. The proposed butterfly canopy roofs would have been more likely to compete with, rather than complement the existing gabled roof of the platform building. These canopies would also have been substantial, and likely to detract from the platform building, which traditionally has been the dominant feature of the platform. Where textures and colours would normally be inspired by the station structures (subdued, matte), this option sought inspiration from the surrounding landscape instead; the incorporation of iconography referring to local waterways and fauna is unsympathetic the original presentation of Bardwell Park Station-austere art deco is preferrable in this context. The second option proposed similar installations as the first, however with different colouration of the aluminium cladding, a geometric pattern suggesting an insect shell on the underside of the concourse roof, and a gabled platform canopy instead of a butterfly arrangement, which would have been more in keeping with the platform building’s roof. The canopy would also have incorporated a partially glazed roof, and would have remained physically separate from the building- this would have promoted a distinction between old and new elements while somewhat increasing visibility of heritage features (such as the parapet facades of the building). This second option also opted for design elements that were not necessarily appropriate considering the station’s heritage character. For instance, the insect patterning would have created an uncomfortable contrast with the historic ambiance of the station. A further issue with the design was that while the canopy form was closer to the platform building’s roof profile, the mass and scale of the canopies was such that they would still detract from the building. Extensive research has been undertaken to assess retention of the cultural heritage significance of all existing built heritage fabric on site; this research is presented in detail in Artefact’s HDR for Bardwell Park (2023); the options analysis of the HDR is attached below as an appendix to this report (Section 11.0). The

Heritage Consideration	Discussion
	station's ongoing use as an active transport asset is not changing, however some spaces and elements within the station building are being adapted for modern use and standards. Recommendations have been outlined in section 10.3.
Identify and include advice about how significant elements, if removed by the Proposal, will be salvaged and reused.	The platform light poles will be removed as part of the regrading and resurfacing phase, and should be retained for reinstallation. Internal reconfiguration of the platform building necessitates demolition of brick walls. This heritage material should be salvaged for adaptive reuse where possible.
Partial demolition of a heritage item	
Is the partial demolition essential for the heritage item to function?	The demolition of the staircase and partial demolition platform building interior are considered necessary to make the station and its facilities accessible. Removal of heritage-significant light poles from the platform is necessary in order to resurface the asphalt. Extensive options analysis was undertaken in a prior stage, as discussed below in section 8.2.1. Partial excavation of the section of the platform nearest the overbridge is required for the new lift shaft and stairs.
Are important features and elements of the heritage item affected by the proposed partial demolition (e.g. fireplaces in buildings)?	Demolition is planned for the existing wooden toilet partition walls, doors, trim, and tiling of the platform building which are of little heritage significance. The toilet block slab is to be demolished to render it level with the rest of the platform. The entry staircase, whose existing steel girder superstructure is of high heritage significance overall, is being entirely demolished and replaced with new stairs and a lift. The platform's light poles are of high heritage significance, and are being removed as part of asphalt resurfacing. It is recommended that these light poles be retained for reinstallation wherever possible.
Will the proposed partial demolition have a detrimental effect or pose a risk to the heritage item and its significance? If yes, what measures are proposed to avoid/mitigate the impact?	The demolition of heritage fabric including the original staircase and within the interior of the platform building poses a risk to the heritage significance of Bardwell Park Station. The reuse of heritage fabric in combination with the use of sympathetic materials and colour palettes, should help mitigate some of the loss of the original heritage fabric. Interpretive installations, such as historic photos and plans showing the outline of the original staircase, are intended which could also assist in mitigating the adverse effects of demolition.
Identify and include advice about how significant elements, if removed by the proposal, will be salvaged and reused.	Light poles with petticoat bases should be reused upon completion of the resurfacing works.

Alterations and additions	
Do the proposed works comply with Article 22 of The Burra Charter, specifically Practice note article 22 — new work (Australia ICOMOS 2013b)?	The new works will be clearly identifiable as distinct from the heritage elements of the station via the use of modern materials and a different design language. For instance, the new platform canopies will be physically separated from the platform building, and will follow a flatter "butterfly" form which is distinct from the building's gabled roof; the new entry and staircase/lift canopy will also follow the butterfly form. These canopies will be framed in steel and will feature glass and concrete work for the lift shaft; these materials are distinct from the station's original brickwork construction. However, on balance, the preferred design for the canopies would be a gabled roof from so as to match the roof of the station building.
Are the proposed alterations/additions sympathetic to the heritage item? In what way (e.g. form, proportion, scale, design, materials)?	The canopies are designed as separate "islands" rather than as a continuous cover in order to maintain the distinction of platform and platform building as two separate structures; their central position maintains the original symmetry of the station. The use of steel framing and metal roofing is distinct from, yet sympathetic to, the brick construction of the platform building. The canopies' scale has been developed to minimise their impact on the station's heritage character. Changes to the platform building involve modification of the internal configuration without necessarily impacting its original functionality. New services are proposed to be installed in such a way as to limit their impact on heritage fabric as well as the visual character of the building.
Will the proposed works impact on the significant fabric, design or layout, significant garden setting, landscape and trees or on the heritage item's setting or any significant views?	The overall layout of the station building should not generally be affected by the new installations, however the demolition of the original staircase will result in a **major adverse** effect on the historic fabric of the station. The construction of more extensive canopies will have a **major adverse** impact on the historic visual setting of the station as a whole.
How have the impact of the alterations/additions on the heritage item been minimised?	The impact caused by the addition of new canopies, lift, and staircase should be minimised by the use of sympathetic materials and colour palette; minimal disturbance of heritage fabric is advised.
Physical changes to fabric identified as significant	
Has the fabric that will be impacted by the proposed works been assessed and graded according to its significance?	The fabric of the station has been assigned a range of significance values from high (such as the platform building and overbridge staircase) to negligible (such as the building's corrugated steel roof, and the platform's signage and asphalt surface).
Has specialist advice from a heritage professional, architect, archaeologist or engineer been sought?	Heritage advice has been sought from Artefact Heritage at multiple stages in pursuance of a Concept Design and resulted in development of the HDR. Specialist archaeological advice has been sought which has ascertained that no archaeological resources are likely to be present within the work area.
Painting	
Does the existing colour scheme contribute to the heritage significance of the heritage	The current colour palette of station is composed of neutral browns and greys, with a dark asphalt platform surface. Part of

item? If yes, will the same scheme be used in the proposed painting works? If not, why not?	the platform building's exterior brickwork was painted a neutral brown colour following the removal of the men's bathroom and bricks screen in the 1980s. The rest of the building's walls are bare brick, and it features a pale grey corrugated metal roof. The staircase and overbridge's protection and safety barriers are grey steel. The Concept Design renders propose the use of a similarly neutral colour palette for the new station entry, staircase, and platform canopies, which should help mitigate the impact on the visual curtilage of the station.
New services and service upgrades	
How have the impacts of the installation of new services on heritage significance been minimised?	New services should be installed discreetly on new fabric in order to minimise their impact on the heritage fabric as well as the visual setting of the heritage item. Generally new services and fixtures should be installed in accordance with the following guidelines: - *Sydney Trains Heritage Technical Note Installation of New Electrical and Data Services* - *Sydney Trains Heritage Technical Note Fixing Methods at Heritage Sites*
Has specialist advice from a heritage consultant, architect, archaeologist or services engineer been sought?	Heritage advice has been sought from Artefact Heritage at multiple stages of the design in pursuance of a Concept Design and resulted in the development of the HDR and recommendations and mitigations provided in this SoHI.. Specialist archaeological advice has been sought which has ascertained that no archaeological resources are likely to be present within the work area.
New signage	
How has the impact of the new signage on the significance of the heritage item been minimised?	New signage is intended to be installed on new materials (i.e. canopies and frames) rather than heritage fabric. Furthermore, it is advised that historic names be used in station signage to promote historic connections to the locale.
Is the signage in accordance with required local planning provisions?	The proposed signage should comply with the provisions set out in AS1428 (Design for access and mobility) sections 2 and 4
Access	
Will the heritage item be accessed by the public? If so, has the advice of an access consultant been sought to investigate options of Disability Discrimination Act compliant access that may have least impact on the heritage item?	The proposed works are part of the Transport initiative to upgrade the accessibility of transport hubs throughout NSW. The need for greater and more equitable accessibility has been taken into account in the concept design alongside heritage conservation requirements.
Interpretation	
Can interpretive features be integrated into the design?	Heritage opportunities exist within the scope of proposed works, such as the installation of interpretive panels at the station entrance and on the walls of the platform building, and artworks within the proposed new canopies.
Will the proposed works contribute to a continued understanding of the heritage item's history and significance?	The installation of interpretive panels demonstrating the history of Bardwell Park Station has the potential to contribute positively to the public's understanding of infrastructure development in NSW.

Works adjacent to a heritage item or within the heritage conservation area (listed on an LEP)	
Will the proposed works affect the heritage significance of the adjacent heritage item or the heritage conservation area?	The proposed works are unlikely to pose a risk to the heritage significance of the LEP-listed Wolli Creek Valley, which runs adjacent to Bardwell Park Station (see Section 2.9.2 for further information).
Will the proposed works affect views to, and from, the heritage item? If yes, how will the impact be mitigated?	Views to Bardwell Park Station will be adversely impacted by the installation of canopies on the platform, stairs and station entry, the replacement of the current staircase with a new set of stairs and single lift, as well as the installation of a new overbridge walkway. The potential impact of these canopy installations on views to the station would be mitigated by the use of sympathetic materials and an appropriate colour palette. The canopies also have been scaled so as to minimise their impact on the visual setting of the station. It is recommended that a heritage professional be consulted regarding the selection of the colour palette.

8.2.1 Statement of Heritage Impact

A statement of heritage impact has been prepared according to NSW Heritage Office guidelines in Table 15 below.

Table 15. Preliminary Statement of Heritage Impact for the proposed works

Development	Discussion
What aspects of the Proposal respect or enhance the heritage significance of the study area	The Concept Design emphasises the use of existing penetrations in the fabric of the platform building. It also specifies that new services (such as upgraded CCTV cameras, new station power supply, and upgraded lighting and electrical works) should be installed in as discreet a manner as possible, avoiding attachments to significant heritage fabric wherever practicable, and generally in accordance with Sydney Trains heritage technical notes. The concept design anticipates the reinstatement of platform furniture and signage. The new elevated walkway, stairs, lift, and stair canopy should be designed to enable direct sightlines to the station building, with an emphasis on transparent materials to retain the visual prominence of the station building. The new platform canopy should be designed to provide a more sympathetic relationship to the station building through materials and finishes that align with the brick of the building. Ideally, a neutral colour palette will be selected to match the existing heritage elements; it is recommended that a heritage professional be consulted in order to ensure appropriate selections of materials and colours are made. It is further recommended that a gabled roof form be used in the design of the new canopies, in order to more closely match the gable roof of the station building. The Proposal identifies heritage interpretation opportunities such as interpretive panels at the station entrance and on the walls of the platform building, artworks within the proposed new canopies, and interpretation spaces within former door and window openings of the platform building. Opportunities exist to enhance the heritage of the station by undoing past intrusive works such as: repainting the lower parts of the overbridge brick piers in a more appropriate colour that matches the remaining face-brick surface; removing defunct service conduits and consolidating active conduits; unblocking

Development	Discussion
	windows and replacing their wire-mesh glazing with transparent hardened glass; and replacing light-weight doors with historically accurate reconstructed doors.
What aspects of the Proposal could have a detrimental impact on the heritage significance of the study area?	The removal of the current staircase is necessary to make the station accessible however, despite the replacement of the original stairs and railings, the staircase largely retains its original 1931 form. This means that its complete replacement will result in a net loss of historic and representative heritage significance to the station. The installation of interpretive materials, such as historic photos and plans showing the original outline of the staircase, could be an effective measure in mitigating the adverse effect of its demolition. The works within the station building involve a considerable amount of demolition and internal reconfiguration however, reuse of building materials from the site, combined with the application of sympathetic doors and trim, could mitigate the loss of heritage fabric. These modifications are likely to have a **moderate adverse** impact on the historic and aesthetic values of the building. The replacement of the current platform canopies will have a greater visual impact on the character of the station, as the new canopies will be more extensive. Sympathetic materials and simple forms have been selected in order to minimise their impact on the station's curtilage. New services (cameras, lighting, cabling) are to be installed as part of the station upgrade. It is recommended that they be installed on new elements rather than any significant fabric and hidden from view where possible. Existing penetrations are to be used in preference to disturbing significant fabric. The minimum number of fixings and attachments needed for these services is to be used.
Have more sympathetic options been considered and discounted?	The proposed works are the most sympathetic and least impactful means of performing the necessary accessibility upgrades to Bardwell Park Station, as explored in the Heritage Design Report. Other designs were considered which would have resulted in a greater adverse impact to the heritage character of the station. One option proposed the demolition of the existing staircase, and replacing it with new stairs, elevated walkway, and a platform with a lift shaft at street level. The lift shaft was proposed to be clad with an aluminium frame at platform level, and glass at street level. Concrete would have been used throughout its construction. The design further proposed a canopy for both the staircase and the station entry. These would have been made of highly reflective materials in geometric patterns inspired by local flora and fauna (such as the eucalyptus, grey headed flying fox, longicorn beetle). This design promoted visibility of the station via "skeletal" frames and relatively transparent materials, including on staircase and platform canopies. The design also retained the single-access entry point to station from the Hartill-Law Avenue entrance. However, these benefits would have been offset by inappropriate design choices, such as the use of reflective materials and aluminium cladding, which are not in keeping with the station's heritage characteristics. The proposed butterfly roofs of the canopies would have been more likely to compete with rather than complement the existing gabled roof of the platform building. These canopies would also have been substantial, and likely to detract from the platform building, which traditionally has been the dominant feature of the platform. Where textures and colours would normally be inspired by the station structures (subdued, matte), this option sought inspiration from the surrounding landscape instead; the incorporation of iconography referring to local waterways and fauna is alien to the original presentation of Bardwell Park Station- austere art deco is preferrable in this context. The second option proposed similar installations as the first, however with different colouration of the aluminium cladding, a geometric pattern suggesting an insect shell on the underside of the concourse roof, and a gabled platform canopy instead of a butterfly arrangement, which would have been more in keeping with the platform building's roof. The canopy would also have

Development	Discussion
	incorporated a partially glazed roof, and would have remained physically separate from the building- this would have promoted a distinction between old and new elements while somewhat increasing visibility of heritage features (such as the parapet facades of the building). This second option also opted for design elements that were not necessarily appropriate considering the station's heritage character. For instance, the insect patterning would have created an uncomfortable contrast with the historic ambiance of the station. A further issue with the design was that while the canopy form was closer to the platform building's roof profile, the mass and scale of the canopies was such that they would still detract from the building.

8.3 Assessment against relevant policies

8.3.1 Burra Charter

The conservation articles provided in Table 16 below from the *Burra Charter*, which are of particular relevance to the proposal, should be followed.

Table 16: Relevant articles from the *Burra Charter*[40]

Article No.	Article	Proposal
22.1	*New work such as additions or other changes to the place may be acceptable where it respects and does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation.*	New structures and additions have been proposed which are sympathetic with existing heritage features in terms of form, alignment, and materials. While the introduction of extensive new platform canopies represents a change to the station's visual character, it does not interfere with the community's usage of the space. Furthermore, the new canopy design deliberately avoids physical contact with the existing heritage fabric of the platform building. The loss of the current staircase superstructure, which is of high heritage significance, is more problematic. Design choices which match the overall heritage character of the station would mitigate the impact caused by the removal of heritage fabric.
22.2	*New work should be readily identifiable as such, but must respect and have minimal impact on the cultural significance of the place.*	The materials chosen for construction of the new platform canopies, staircase, and lift shaft should be of a similar composition to the original station structure (i.e. metal, glass). Installation of new services is intended to be as unobtrusive as possible, by using existing penetrations and placing services on new materials rather than the existing heritage fabric, and attaching new fixtures to brick bonding as opposed to the bricks themselves.

[40] Australia ICOMOS 2013. *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance.*

9.0 CONCLUSION

9.1 Conclusion

Bardwell Park Station is listed on the TAHE s170 heritage register as Bardwell Park Railway Station Group (SHI # 4801896) as an item of local heritage significance. Bardwell Park Station is locally heritage significant due to its historic, and aesthetic values, as well as its representativeness as an example of the cohesive collection of ten East Hills line railway stations from Turrella to East Hills.

The study area contains a heritage item listed on the Bayside LEP 2021, 'Wolli Creek Valley (item I389), which is of local heritage significance. No significant non-Aboriginal archaeological remains have been identified in the study area for the project.

Based on the concept drawings for Bardwell Park Station Upgrade which were issued on 1 July 2023, the proposed works would result in the following heritage impacts:

- Modifications to the interior of the station platform building would result in a **moderate adverse** physical impact and a **negligible** to **minor** visual impacts to the heritage significance of the station.
- Demolition of the existing staircase and replacement by a more accessible lift and stair will have a **moderate adverse** impact on the physical heritage of Bardwell Park Station due to the loss of the original stair superstructure. Excavation into the platform surface for piling works in support of the new lift will produce a **minor adverse** impact to the heritage fabric of the station, as the asphalt surface is of low heritage significance.
- The installation of new canopies over the platform, staircase, and street-level entrance will have a **moderate adverse** impact on the visual setting of the station, as their presence has the potential to significantly alter the appearance of the station as a suburban railway station deliberately designed to suit the aesthetic landscape of the Inter-War period. Furthermore, these new canopies will restrict the visibility of the platform building from the overbridge; the distinctive parapet façade of the building will also be less visible from the platform.
- Installation of new services (upgrades to lighting, CCTV camera network, station power supply) will have a **minor adverse** impact on the heritage and visual setting of the station if installed in discreet areas on new material, in preference to heritage fabric. Removal of highly significant heritage features such as light poles with petticoat bases can be offset by their reinstallation wherever possible.
- A temporary site compound is proposed to accommodate a site office, amenities, laydown and storage area for materials and plant and equipment, and the like. Proposed to be located in the car park on Slade Road which is owned by Bayside Council. The impacts of the temporary compound are assessed as **negligible**, as it will be removed and the car park reinstated following conclusion of the station upgrade works.

The overall impact of the works to the station's heritage will be **moderate adverse** due to the extensive and irreversible alterations taking place, including demolition of heritage fabric and

installation of new structures, that will alter the station's visual character as a typical Inter-War suburban railway station.

9.2 Approval pathway

This Statement of Heritage Impact has been prepared to support a REF for the Proposal at Bardwell Park Station. The detailed design would be developed following determination approval, and any new works or significant changes may require further heritage assessment (and possible additional approval). These works trigger the TAHE s170(a) notification requirements.

As per Clause 2.11 of the TISEPP, consultation with Council is required where the Proposal is likely to affect the heritage significance of a local heritage item (that is not a State heritage item) in a way that is more than minor or inconsequential. Notification under this section of the TISEPP would not be required as the Proposal is not expected to affect the heritage significance of this item.

9.3 Recommendations and mitigation measures

Consideration should be given to the following recommendations.

9.3.1 Built

The detailed design should be developed to protect and enhance the heritage values of Bardwell Park Railway Station in line with the following recommendations:

Prior to construction:

- The detailed design must consider the Heritage Design Principles developed in the Heritage Design Report (Artefact, 2023) developed as part of the Concept Design stage of the project. These Principles should inform the detailing, materiality, and colour choices of all new elements introduced at the station.
- New installations are to follow the guidelines specified in Section 8.0 concerning mitigating impacts to the heritage character of the station via the reuse of heritage fabric, use of sympathetic materials and colour schemes, and maintaining sightlines where possible. The new platform canopies are designed to avoid physical contact with the platform building, which will assist in mitigating intrusions upon heritage fabric. Involvement of a Heritage Architect/Consultant in choosing finishes and colours is recommended in order ensure appropriate colour selection.
- A Photographic Archival Recording (PAR) report should be prepared for the site to document significant fabric and heritage significant views and vistas that would be impacted. This report should be prepared in accordance with relevant guidelines issues by Heritage NSW, and the Department of Climate Change, Energy, Environment, and Water (DCCEEW).
- A Heritage Interpretation Plan (HIP) should be developed during the detailed design phase of the project and interpretative elements integrated into the design prior to AFC design. The HIP would build off the established Heritage Interpretation Strategy developed by Transport for the Safe Accessible Transport program. Consideration should be given to the provision of heritage interpretation as part of the project, which would outline the history, associations and significance of the site and the wider Bardwell Park Station area. Interpretive measures could involve interpretive artwork, signage, panels or displays at entry/exit points to the station.

- Design and construction of the Proposal within the curtilage of the Section 170 listed 'Bardwell Park Station Group' must be undertaken in accordance with the recommendations made in the Statement of Heritage Impact.
- Copies of the 'as built' construction plans, photographs illustrating the completed work and the Archival Record would be lodged with the Transport Heritage team as a documentary record of changes to the station.
- A Heritage Management Plan (including detailed drawings, documentation and specifications) and Work Method Statement would be prepared as part of the CEMP to address heritage impacts and required management procedures to minimise risks.
- The Contractor in collaboration with the Heritage Architect/Consultant must prepare and submit an illustrated services plan to detail all services routes in order to demonstrate compliance with the *Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites* (2017). The illustrated services plan should include, but not be limited to; high voltage (HV), low voltage, communications, PA and CCTV. The illustrated services plan must be submitted and approved by the Transport Heritage Specialist prior to the commencement of permanent works. Detailed design of ancillary works and electrical and data services should be documented in an *Illustrated Services Plan* and approved by the Heritage Architect prior to the commencement of permanent services works.

    - i. installation of electrical and data services is to be completed in accordance with Sydney Trains (2017) *Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites*
    - ii. Ancillary works should be undertaken in accordance with the following Sydney Trains guidelines:
        - – *Conservation Guide: Railway Station Platform Furnishings* (2012)
        - – *Conservation Guide: Railway Station Platforms* (2013)
        - – Heritage Technical Note: Installation of New Electrical and Data Services at Heritage Sites (2017)

During construction:

- A heritage induction is to be presented to construction workers prior to their commencing works. This induction is to take place for all new construction workers throughout the course of the project.
- Onsite monitoring should be implemented where significant vibrations are likely to take place as a result of demolition and construction:
    a) Care should be taken where works may impact significant heritage fabric (i.e. around the platform building) and where significant heritage items intended for reinstallation are removed as part of the works. Refer to Transport Temporary works and protection at heritage sites fact sheet.

- During construction, suitable measures would be put in place to ensure the retained heritage elements are protected from damage. Measures may include hoardings, use of spotters during the movement of equipment and other measures as necessary.
- Fabric and features of high significance (such as building fabric, platform furniture, and the original light poles) should be retained and reinstalled or reused wherever feasible.
- On completion of work, an update would be prepared for the Section 170 listing on the State Heritage Inventory, with required details.

9.3.2 Archaeology

- Works should proceed in accordance with the *Transport for New South Wales Unexpected Heritage Items Procedure 2024.* [41]
- If unexpected heritage items are encountered during works, all works in the area must cease and an archaeologist must be contacted for advice. Works should not proceed until clearance has been provided.
- In the event that significant relics are unexpectedly encountered, Heritage NSW, DCCEEW would be notified in accordance with s146 of the Heritage Act and further approval under the Heritage Act would be required if impacts to the relics cannot be avoided.

[41] 2022, Transport for NSW - *Unexpected heritage items procedure*

10.0 REFERENCES

AECOM. *Bexley North Railway Station Statement of Heritage Impact*. Report to Transport for NSW. 2019.Australia Bureau of Statistics. “Bardwell Park.” Accessed March 2023. https://www.abs.gov.au/census/find-census-data/quickstats/2021/SAL10196

Australia ICOMOS. *Charter for Places of Cultural Significance*. 2013. Banks, Joseph. Endeavour Journal. 1770.

Collins, David. *An Account of the English Colony*. 1798.

Gapps, Stephen. *The Sydney Wars: conflict in the early colony 1788-1817*. Sydney: NewSouth Publishing, 2018.

Gapps, Stephen. *Cabrogal to Fairfield City: a history of a multicultural community*. Wakeley, NSW: Fairfield City Council, 2010.

Gammage, Bill. *The Biggest Estate on Earth* Sydney: Allen & Unwin, 2012.

Griffith, Billy. *Deep Time Dreaming*. Sydney: Black Inc. 2018.

Heritage NSW. "Bardwell Park Railway Station Group," State Heritage Inventory, 2009. Accessed on 22 Dec 2022 via https://www.hms.heritage.nsw.gov.au/App/Item/ViewItem?itemId=4801896.

Illustrated Sydney News. "Opening of the Railway to Hurstville." 25 Oct 1884. pg. 14. Accessed on 22 Dec 2022 via http://nla.gov.au/nla.news-article64035746.

Karskens, Grace. *The Colony: A history of Early Sydney*. Sydney: Allen and Unwin, 2009.

Madden, B. & Muir, L. *Earlwood’s Past: A History of Earlwood, Undercliffe and Clemton Park, NSW.* Canterbury: Canterbury Municipal Council. 1989.

McDonald. ‘Heritage Conservation Strategy’, Report, 2005.

Nanson, G, Young, R., Stockton, Eugene D. “Chronology and Palaeoenvironment of the Cranebrook Terrace.” *Archaeology in Oceania* Vol. 22, no.2, 1987, p.72-78.

NSW Heritage Office. *Interpreting Heritage Places and Items Guidelines*. 2005.

NSW Heritage Office. *Heritage Interpretation Policy*. 2005. Bardwell Park Station TAP Heritage Interpretation Strategy Page 42

New South Wales Government Gazette. "Ecclesiastical Jurisdiction." 8 Jan 1850. pg. 32. Accessed on 22 Dec 2022 via http://nla.gov.au/nla.news-article228773908.

Propeller. “Bardwell Park Station." 9 Sept 1937. pg. 4. Accessed on 22 Dec 2022 via http://nla.gov.au/nla.news-article235627304.

St George Call. "Rockdale Council." 26 Sept 1930. pg. 6. Accessed on 22 Dec 2022 via http://nla.gov.au/nla.news-article232195614.

Sydney Morning Herald. "Advertising." 21 May 1881. pg. 13. Accessed on 22 Dec 2022 via http://nla.gov.au/nla.news-article13474297.

Sydney Morning Herald. "Advertising." 9 Apr 1844. pg. 3. Accessed on 22 Dec 2022 via http://nla.gov.au/nla.news-article12412481.

Sydney Trains. *Heritage Interpretation Guidelines*. 2019.

Tench, Watkin. *A Complete Account*. 1793.

TfNSW. *Creativity Guidelines for Transport Systems*. 2016.

TfNSW. *TAP4 Art Strategy*. Draft August 2022.

The Argus. The Late Thomas Hill Bardwell." 23 Oct 1884. pg. 7. Accessed on 22 Dec 2022 via http://nla.gov.au/nla.news-article6060036.

The Sydney Mail and New South Wales Advertiser. "The Death of Mr. T.H. Bardwell." 6 Jan 1883.pg. 35. Accessed on 22 Dec 2022 via http://nla.gov.au/nla.news-article162080643.

Waterhouse, Henry. *HRNSW*, Volume 5, 12 March 1804.

Williams, Alan, Brown, Oliver, Richards, Michelle J. “The Cranebrook Terrace Revisited.” *Australian Archaeology*, 2017.

Wilson, G.C. *Uncovering the Hidden History of the Wolli Creek Valley. Archaeological investigations in the Wolli Creek Valley*. Report to Wolli Creek Preservation Society. 2015.

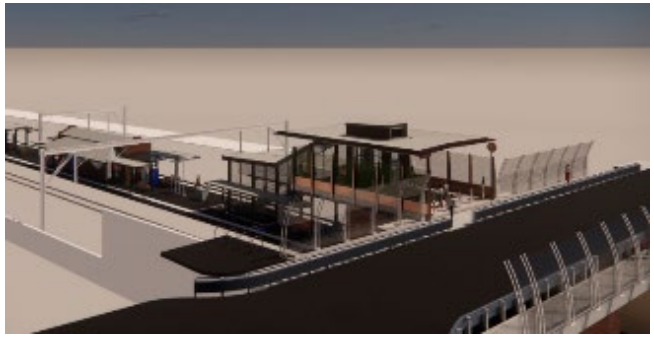
White, John. *Journal*, 1790

11.0 APPENDIX: OPTIONS ANALYSIS

The following information has been copied from Artefact's HDR dated 7 July 2023.

Table 7-1: Options analysis

11.1 Option 1

Illustration	Description	Heritage comment
 	• The existing stair is demolished and replaced by concourse with a single lift shaft. • The new lift shaft is positioned centrally within the new concourse platform at street level and set back from the footpath. A single stair structure extends down from the concourse level to the platform and station building. • The new lift shaft is clad with an aluminium frame at platform level and glass at concourse level to provide enhanced visibility. • The lift shaft of concrete construction complies with fire-engineering structural requirements at the platform level. • No canopy was originally proposed for the new stair structure, in keeping with the existing design and to minimise visual impact. However, it was decided, with input from TfNSW, that the additional shelter provided by a canopy is required. • The slight butterfly canopy features a symmetrical geometric pattern and highly reflective metallic materials. The canopy edge features a thick steel fascia, defining the canopy form. A central portion of the canopy roof features glazing. • Given the close proximity of the Bardwell Creek corridor, the geometric pattern of the canopy	Positive aspects of the design: • The installation of a lift and accessible toilet enhances the functionality of Bardwell Park Railway Station by increasing access to public transport for less-abled people. • The positioning of the new concourse, lift and stair retains the significant original singular access into the station platform via the overbridge at Hartill-Law Avenue, characteristic of all East Hills stations built in the inter-war period. • The skeletal frame and relatively transparent walls of the concourse allow for some visibility of the station building and platform from the Hartill-Law Avenue entrance and concourse. Mixed: • The centrally positioned lift shaft partly obscures the view of the station building and platform from the opening to the footpath but the view of the historic elements of the station is retained from elsewhere on the overbridge. • The solid mass of the lift shaft at the platform level is in keeping with the solid brick form of the station building and overbridge piers. However, to better match the station building and brick piers of the overbridge, it should not be clad in aluminium (a shiny, modern material at odds with the traditional finishes of the historic elements) but be clad in dark face brick. • The lack of a stair canopy maintains the low-key appearance of the existing stair (with no canopy) as well as the visibility of the platform station. The addition of a stair canopy restricts the view

has been inspired by the local flora and fauna such as the skeletal wing pattern of the Grey headed flying fox, the winds of the Longicorn Beetle as well as the natural skeletal form of eucalyptus leaves.

- New glass butterfly canopies are proposed to replace the existing canopy on the eastern façade of the station building and to be a new addition to the western façade.
- The butterfly roof form is a design response to the existing station building roof, the inverse of the gable form and hipped roofed awnings. The height of the canopy is designed so that it does not extend above the height of the station building's awnings.
- A solid butterfly canopy is proposed to extend over the boarding assisted zone.
- New canopies with transparent roof cladding are proposed on either side of the new stair structure.
- The stair is to be supported on centrally positioned, rounded columns.

of the station building and compromises the visual connection between Hartill-Law Avenue and the station platform.

- The lowered and sloped roof form and maintenance of the canopy height from the stair landing allows some visibility of the station building providing the required amenity. It is recommended that the canopy roof over the stairs be further reduced in scale by matching the slope of the stairs rather than stretching out horizontally from halfway down the stairs.
- The addition of canopies closely adjacent to both ends of the station building is visually intrusive as it obstructs the view of the building overall and of the brick parapets specifically. This is mitigated somewhat through the use of glazing, offering some transparency.

Negative:

- The loss of the fabric of the original 1931 stair structure, assessed as being of high significance, constitutes an adverse impact (although this doesn't apply to the stairs or railings, which have already been reconstructed). The design should try to incorporate the existing stair structure, if possible, rather than replace it. If it must be demolished, it is preferable that the new structure refer to forms found elsewhere in the precinct rather than using centralised circular columns.
- The butterfly roofs over the concourse and stairs are more likely to compete with, rather than reference or harmonise with the gabled roof and stepped parapet of the historic station building.
- Consideration should be given to reduce the mass and scale of the canopies' roofs so as not to detract from the station building. To better address the existing station building, a harmonising, rather than contrasting, gabled roof a stepped form (mimicking the parapet) should be considered.
- The textures and colours of the new development should not be contrasting but should attempt to be integrated with the generally subdued colours and matt textures of the existing station building and overbridge piers, and at least be coloured in recessive dark colours as appropriate. Any opaque sections of canopy should be finished in galvanised steel to match the existing roof on the station building.

		• The incorporation of iconography referring to local waterways and fauna is alien to the original presentation of Barwell Park Railway Station, which was a standardised railway design repeated along ten or so stations of the East Hills Line. A preferable approach would be to incorporate references to the austere Art Deco detailing of the station building.

11.2 Option 2

Illustration	Description	Heritage comment
 	Option 2 is the same as Option except for: • The concourse sheltering the lift at street level features differently coloured aluminium cladding and a tapered fascia giving the structure a lighter, more modern appearance. • The underside of the roof has a geometric pattern designed to suggest an insect shell, in reference to the surrounding wetlands. • Whereas the canopy adjacent to the station building in Option 1 has upturned butterfly wing roofs, the new canopy in Option 2 has a more traditional, slightly gabled shape. The roof in both structures is glazed for better lighting of the platform and to encourage visibility of the station building and its end parapets. • There is a new canopy sheltering each platform beside the new central canopy. These have dark grey steel frames and Colorbond roof sheeting. They maintain a 500m gap with the existing platform awnings.	Positive aspects of the design: • The incorporation of a glazed roof in the central part of the canopy adjacent to the station building maintains some of the visibility of the distinctive parapet façades of the station building. • The new canopies sheltering each platform pay homage to the position and function of the existing awnings beside the station building. Mixed: • The separation between the new canopies and existing station building awnings allows for a greater distinction between the new and old elements. It is recommended for the distance between the station building and abutting canopies to be increased further if possible, to avoid the new canopies distracting from the historical building. • It is recommended for the central canopy form adjacent to the station building be further simplified to increase visibility of the station building and avoid competing with it. • The tapered fascia detail in the roof over the concourse at street level helps minimise mass and visual dominance of the canopy but makes it appear more modernist in contrast with the historical elements of the station.

		• The roof cladding used on opaque sections of the canopies should galvanised steel to match the roof cladding of the station building. Negative: • The insect patterning may not be easily read as such by members of the public. It contrasts uncomfortably with the historic ambiance of the station and should be removed from the proposal. It is preferred that the new canopies adopt an historic colour scheme based on paint scrape analysis or the Railways ESB010 painting guidelines, which will harmonise with the historic station building while being clearly distinct from it (because of their new form and materials). • Consideration should be given to reduce the mass and scale of the canopies' roofs so as not to detract from the station building. To better address the existing station building the angle of the central canopy's gabled roof should be the same as the station building roof. Alternatively, perhaps a stepped form (mimicking the parapet) could be considered. • All options to reduce the proposed canopy coverage and height should be explored, including not constructing them at all.

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