6 August 2023

Mr Mark Reynolds
Senior Development Manager, Redfern-Eveleigh
Infrastructure and Place
Transport for NSW
E: mark.reynolds2@transport.nsw.gov.au

Dear Mark

RE: Pedestrian Bridge Heritage Assessment, ERW.

I am writing in response to your request for a review of the potential heritage impacts associated with the proposed 'Pedestrian Bridge Alignment D', which to date, is understood to be the only current viable alignment to allow for pedestrian access between North Eveleigh and South Eveleigh, as outlined in Figure 1, below.

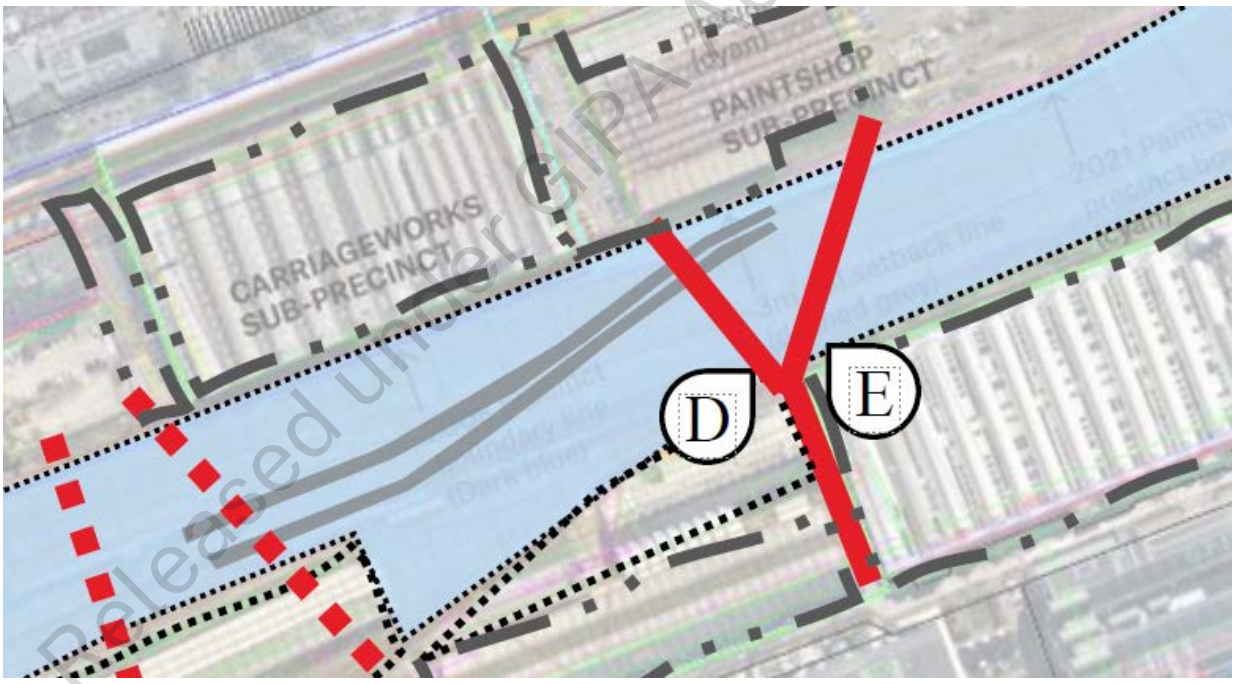

Figure1.0: Proposed Alignment of the Pedestrian Bridge between North & South Eveleigh, noting that Option E has been identified as not viable. (Image Source TfNSW).

It is understood that Option E, shown in Figure 1.0, above, has been discounted as an alignment option as Arup have identified that, after checking the inground services there is no mid rail corridor space available for the required pier support.

Background & Site Context

The following site context and background information has been extracted from existing Curio heritage reports for ease of reference and to provide the overarching context only. It is not intended to represent a comprehensive history of the site.

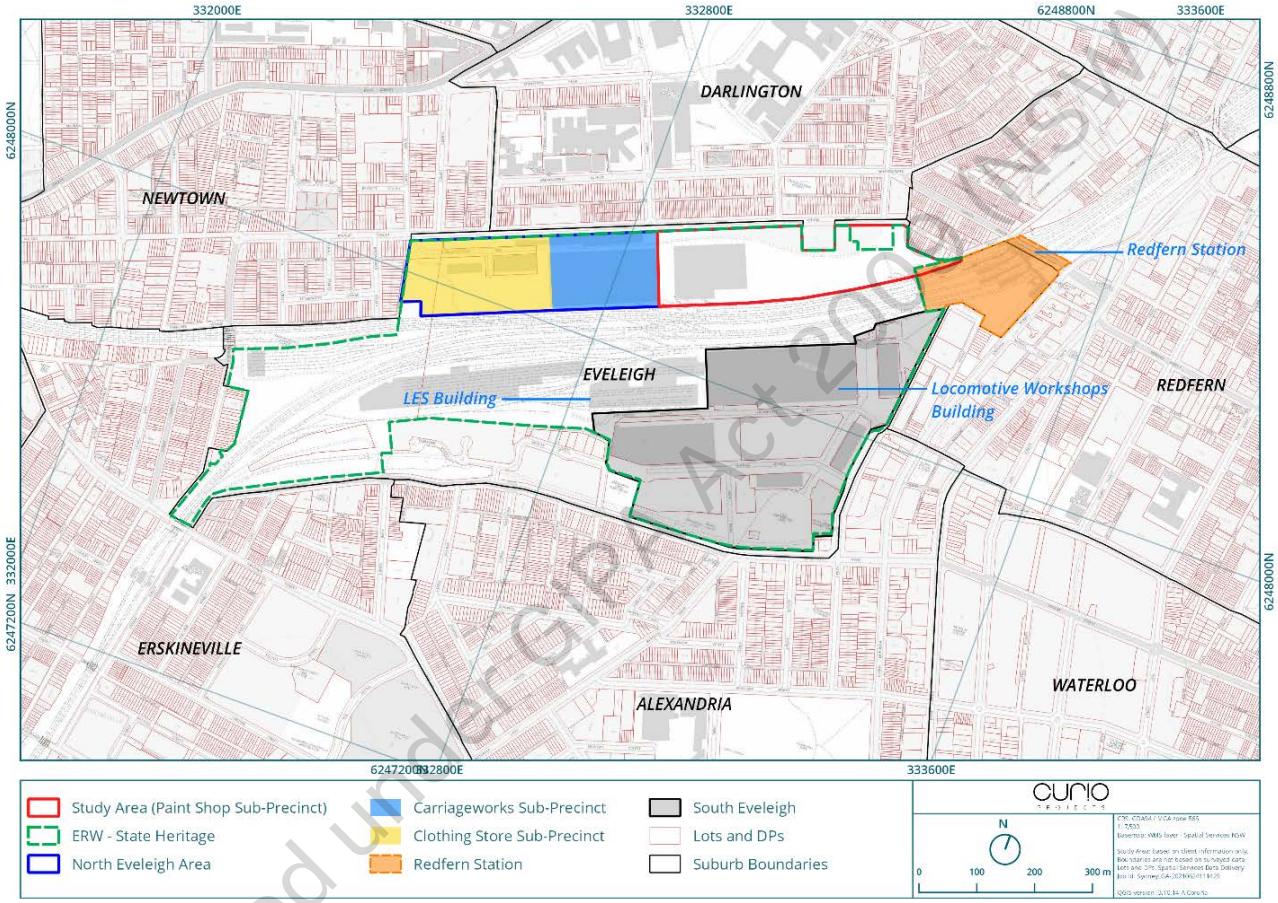

Figure 1.1: Overarching context of North Eveleigh and Sub-Precincts (Source: Curio 2021)

Figure 1.2 Aerial photograph of the general zone of impact for the proposed Pedestrian Overbridge Alignment Option D highlighted in yellow. (Source:GoogleEarth Maps[1] accessed on 6.08.2023, with Curio amendments).

Eveleigh Railway Workshops (ERW)

The construction and opening of Sydney's first railway line in 1855 from Sydney to Parramatta was followed by rapid demand for, and growth of, rail infrastructure and transport in the second half of the nineteenth century. It soon became apparent that the small group of rail workshops at the original Sydney Terminal yards would no longer be sufficient to sustain the maintenance and operational needs of the NSW's burgeoning rail fleet, and that establishment of a new and expanded government-owned maintenance facility was required. Planning for the ERW commenced in 1875, followed by the resumption of the Chisholm Estate in 1878, excavation and land leveling in preparation for construction of the workshop facilities in the early 1880s, and construction of the main workshop buildings commencing in 1885.

The ERW opened sequentially throughout 1887 as buildings were completed: first with the opening of the Locomotive Workshops on the southern side of the railway line, (Bays 1-4 opening first closely followed by Bays 5-15), and later in the same year the opening of Bays 16-25 of the Carriage Workshops on the northern side of the railway line (Figure 1.1 and Figure 1.8).

The operation of the ERW was divided into two main sections: the Locomotive Workshops (south) and the Carriage Workshops (north). The rationale behind the split of the complex to either side of the rail line was to allow both the Locomotive and Carriage Workshop facilities to interact

[1] https://earth.google.com/web/search/Carriageworks,+Wilson+Street,+Eveleigh+NSW/@-33.89517038,151.1945697,32.66166877a,336.81330455d,35y,151.3180346h,44.99667874t,0r/data=CigiJgokCaVEAjBsfjJAESCm7_drfjLAGfqs14Xam0dAIRN7V9DN2knA

independently with the central rail line avoiding any interference with rail traffic, while still allowing sufficient communication between the two workshops as part of an integrated whole.[2]

Redfern Station

The first 'Eveleigh Station' was constructed by NSW Railways in 1876, named after the nearby Eveleigh House, and was located 200 metres to the west of the current Redfern Station (i.e., approximately consistent with the location of Platform 1 of Redfern Station today). The second Eveleigh Station (the current Redfern Station) was built in 1886-87 and officially re-named Redfern Station in 1906.

The station was extended multiple times from 1891 until 1925 with the addition of new platforms and the construction of a footbridge at the southern end of the platform allowing access to the Eveleigh workshops from the station for workers. The footbridge was key in connecting both North and South Eveleigh and created a pedestrian thoroughfare for Eveleigh workers walking between the workshops and the Station as part of their daily commute to work (Figure 1.3).

The functional connection between ERW and Redfern Station significantly influenced the development and growth of Redfern Station throughout the years of function of the ERW. These influences remain most visible today at the southern end of Platform 1 (overlapping function between the Platform 1 Office, Elston's Sidings, and the Carriage Workshops), and in the general growth of the station that was required to manage and adapt to its primary use throughout the late 19th and 20th centuries by the ERW workforce (Figures 1.4-1.7)

Figure 1.3: Southern footbridge across railway at Redfern Station, connecting North and South Eveleigh (Source: State Rail Authority Archives, State Archives NSW, NRS21573_2_PR000642_c)

[2] OCP Architects 2017a

Figure 1.4: View from Cornwallis Street across rail line to the south eastern end of Carriage Works. South Eveleigh Work Managers Office and Water Tower in foreground, undated (Source: OCP CMP 2002)

Figure 1.5 Footbridge viewed from Redfern Station looking towards the Locomotive Workshops. Image title School children arriving and leaving Redfern Station – Royal Tour, 25.02.1952, (Source: State Archives NSW NRS-22469-1-1-H540162).

Figure 1.6 1983 Photocard of the footbridge taken from the North East looking towards MacDonaldtown, Locomotive Workshops to the left.

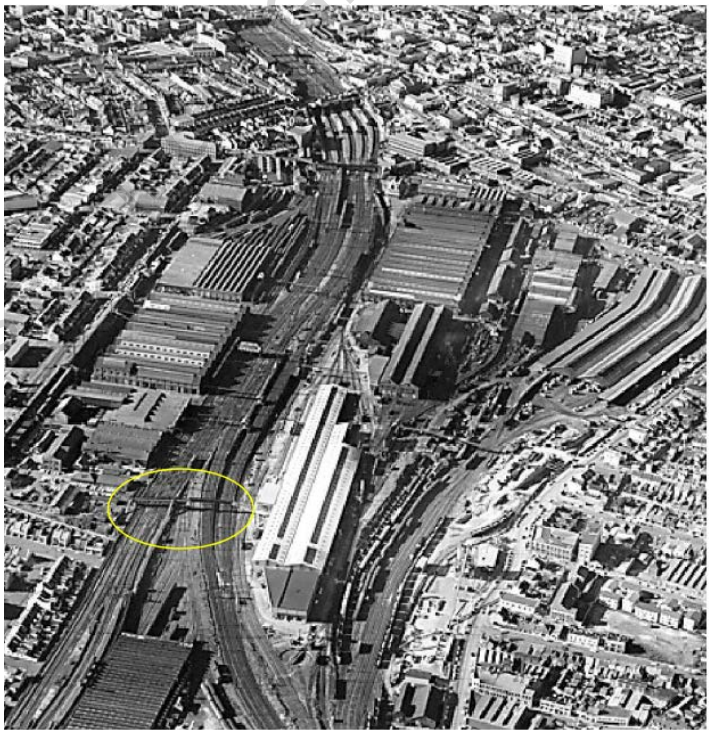

Figure 1.7 Aerial View showing the footbridge and traffic crossings, with Carriageworks located to the right Locomotive Workshops to the left, with the pedestrian footbridge circled in yellow. (Source: Mitchell Library, State Library of New South Wales (1012320)).

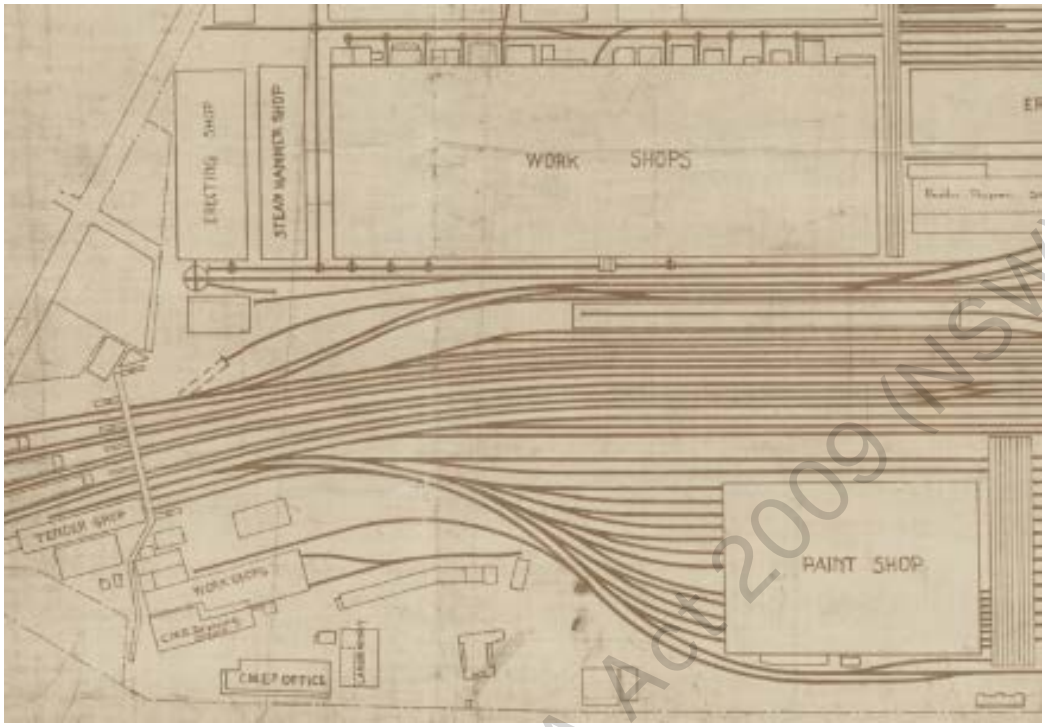

Figure 1.8 : Detail from NSWR Plan of Eveleigh Yard, Dated 8.9.1924 (Source: SLNSW Z/SP/E12/3, https://collection.sl.nsw.gov.au/digital/PpDwGz3V0WRVl)

Traverser No.1

The first traversers within the North Eveleigh Carriage Workshops site were installed in Bays 17 and 23 of the Carriage Workshops building. These original steam-driven ground traversers were removed from the Carriage Workshops Building in 1901 and 1902, replaced by new external electrical traversers installed at either end of the Carriage Workshops building.[3]

The Traverser at the eastern end of the Carriage Workshops came to be referred to as Traverser No.1, running on six rail lines between the Paint Shop and Carriage Workshop buildings (Figure 1.8) The six rails of the Traverser extend on a north- south orientation between the two buildings, along which the traverser moved whilst transporting carriages to their allocated spots for work. In 1969, the current traverser was installed which remains in situ adjacent to the rail corridor along the southern boundary of the Precinct.

The 2002 CMP describes Traverser No.1 as:

> *Traverser No. 1 runs on six rails between the Paint Shop and the Carriage Shops. The rear axle drives six wheels at the front. The traverser motor is a Crompton Parkinson, 400-440 volts, which operates at 950 revs and is 50 horsepower. A dog clutch can engage either the drive system or a capstan, which is mounted on the centre line of the traverser. The capstan can be used for towing train carriages to the traverser via*

[3] Godden 1990: 71

cable, which runs from the capstan around pedestal wheels, set immediately in front of it. The pedestal wheels are frozen.

There are two cabins mounted on the traverser, one on either side of the centre line. The operator's cabin is to the east and a small storeroom is mounted to the west. The central section between the two cabins is roofed with corrugated iron on a timber and steel frame. The traverser is operable, and it appears to be in poor condition structurally. The traverser was altered when relocated from Yennora. Wings each side are supported on their inner face by being attached directly to the main section and on its outer face there are four small unflanged wheels, two wheels on either side of the two rails.

The traverser runs on three overhead wires and is connected to these via three trolley poles with wheels. It is possible to disconnect the wiring, simply by winding short lengths of rope which would disconnect the wheel of the pantograph from the overhead wires.[4]

'The traversers played an essential role in moving vehicles into and out of the work bays in the main building and the Paint Shop. Carriages were moved on and off the traverser using tractors, steam engines and powered capstans with ropes.[5]'

Bogies would be stored adjacent to the western façade of the Paint Shop next to the traverser and short rails are still found in this location (Figures 1.13-1.15).[6] Rail motors would also be stored adjacent to Traverser No.1.

The open space between the Paint Shop and the Carriage Workshop buildings, where Traverser No.1 is located, was also likely a common location for meeting or gatherings of large groups of people. For example, "the corned beef rush during the 1917 railway strike" as seen in Figure shows a queue of workers lined up in front of the Traverser No.1 control box, possibly striking workers receiving food handouts from the union.[7]

The trolley itself was replaced by a more modern one which was relocated from Yennora in 1971 which ran on 600w DC power including two overhead wires. Traverser No.1 is still in near operational condition between the Paint Shop and Carriage Workshop buildings.

[4] OCP CMP Vol 1, 2002: 237
[5] OCP 2002a, Vol. 1: 110
[6] ibid.
[7] ibid: 96

Figure 1.9: Traverser No.1 at the Eveleigh Carriageworks c.1937 carrying a 400 class Rail Motor (Source: SRAO)

Figure 1.10: Photograph taken outside of Traverser No.1 during "the corned beef rush during the 1917 railway strike" (Source: ML Videodisk "At Work and Play", the Sam Hood Collection)

THE BRIDGE OF SIGHS (SIZE) AT EVELEIGH.

There are now upwards of 4,000 men employed at the shops at Eveleigh, a big proportion of whom make their homes in the suburbs. Our artist depicts the daily scramble of the men endeavoring to catch their trains after knock-off. The overhead bridge was built to obviate the danger of men crossing the lines, but long ago became useless for the purpose intended on account of the expansion of the shops. The department has several times promised to widen the footway, and until this is done the men claim that there is as much, or more, danger to life and limb than if they had to cross the permanent way. Perhaps this thumb-nail sketch will bring the necessity closer to the notice of the departmental heads responsible for an alteration. If not, then the Safety First method must be tried.

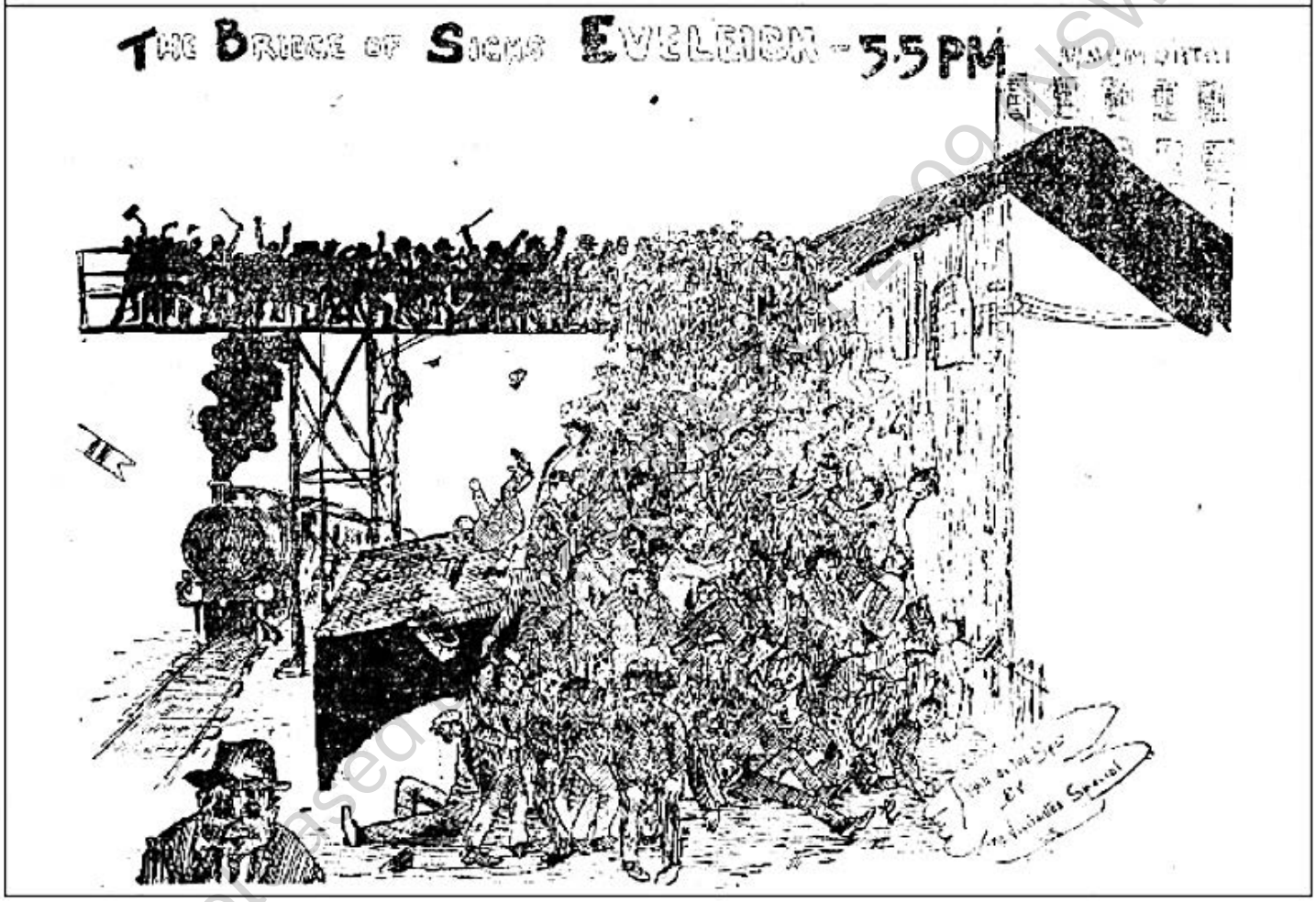

Figure 1.11 Co-operator (Sydney NSW 1910-1917), Thursday 16 March 1916, page 1.

Figure 1.13 :Southern view of Traverser No.1 between the Paint Shop and Carriageworks with the Channel 7 building in the background (Source: Curio 2021)

Figure 1.14: Southern view of Traverser No.1 (Source: Curio 2021)

Figure 1.15: Western view of Traverser No.1 with Carriage Workshops in the background (Source: Curio 2021)

Views to and from South Eveleigh (View 2)

The view lines and vistas from Traverser No.1 to South Eveleigh still showcase a strong and significant visual connection between both precincts which was established in the beginning of the ERW history.

From the southern extent of the Chief Mechanical Engineer's building, there is a significant heritage view line across the Paint Shop Sub-Precinct towards South Eveleigh. This view was critical to the function and management of the overall ERW complex, as it is from this vantage that the Chief Mechanical Engineer could monitor and have a key view across the entire ERW precinct.

From the northern extent of Traverser No.1, the LES and Media City building across the railway line to the south are in view (Figure 1.16 and Figure 1.18). The closer a person moves to the southern extent of Traverser No.1, more of the Eveleigh Locomotive Workshops building becomes visible (Figure 1.17). The full extent of the Locomotive Workshops is visible across the main rail corridor from the vantage point at the southern boundary of the Traverser corridor.

Another significant view line from the site to South Eveleigh is located from the western edge of the Trackfast Depot on the Wilson Street level looking south towards the Locomotive Workshops and newly built Commonwealth buildings.

Figure 1.16: Southern view of Traverser No.1, Carriage Workshop and Paint Shop with a view line to South Eveleigh (Source: Curio Projects)

Figure 1.17: South Eastern view from the southern end of Traverser No.1 with South Eveleigh and the Locomotive Workshops in the background (Source: Curio Projects)

Figure 1.18: Southern View from Traverser No.1 with the Carriage Lifting Crane in the foreground and the LES building and Channel 7 building visible in South Eveleigh (Source: Curio Projects 2021)

Views within North Eveleigh Precinct (View 4)

The visual connection of the Paint Shop Sub-Precinct to the rest of the North Eveleigh Precinct highlights the relationship between each area (Figure 1.20)

The western perimeters of the Paint Shop Sub-Precinct, which abuts the Carriageworks Sub-Precinct (Figure 1.16 and Figure 1.20**Error! Reference source not found.**) includes a key view west between t he Carriage Workshop and Blacksmith Workshop down Carriageworks Way to the Clothing Store Sub-Precinct (Figure 1.19). This view line would have been important during the running of the ERW for communication between workers across the main workshops and stores in the precinct.

Figure 1.19 Looking west down Carriageworks Way towards the the Clothing Store Sub-Precinct (Source: Curio Projects 2021)

The Carriage and Wagon Superintendents office was located where the Carpenters Plumbers and Food Distribution building is currently located on site just north of the Former Suburban Car Workshops and west of the Compressor House. From this office, the Carriage and Wagon superintendent would have had the best view east, south and west. West towards the Clothing Store Sub-Precinct, south towards the Paint Shop, Traverser No1, and the Carriage Workshop, and east towards the Telecommunications Equipment Centre, Fan of Tracks and other key elements contributing to the function of the ERW.

Figure 1.20: Southern view of Traverser No.1 and South Eveleigh in the background (Source: Curio 2021)

Figure 1.21 Southern view towards Traverser No.1 and the railway line on the abutting the southern boundary of the subject site (Source: Curio 2021)

Figure 1.22: South eastern view along the southern boundary of the subject site south of the Paint Shop and Carriage Lifting Crane (Source: Curio 2021)

HIS Conclusions Regarding The Traverser – Masterplan

The Curio HIS which accompanied the recently approved Masterplan concluded that:

Positive outcomes of the masterplan with respect to physical impacts to heritage fabric include the retention and adaptive re-use of key items of exceptional and high heritage significance including the Paint Shop (including southern annexe and in situ carriage lifting crane), former Suburban Car Workshop/Paint Shop Extension (partial retention), Chief Mechanical Engineers Building, Scientific Services Building No. 1, and Telecommunications Equipment Centre. Other heritage features and fabric proposed for in situ retention (final details subject to future detailed design) include the traverser corridor and Traverser No. 1, sections of the brick retaining wall, fan of tracks (partial retention), remnant footings of former pedestrian footbridge, and sections of the Skipping Girl fence.[8]

[8]Curio Projects, RNE Precinct Renewal—Paint Shop Sub-Precinct | Non-Aboriginal Heritage Study (FINAL DRAFT), December 2021

Assessment of Proposed Pedestrian Bridge Overbridge Alignment Option D

It is understood that the underside of the pedestrian overbridge structure needs to be 9 metres clear of the rail tracks. Therefore, to create the 9 metre clearance required, the Southern stair tower will need to be approximately 15 metres in height (~5 stories), and the Northern stair tower will need to be approximately 9 metres in height (~3 stories). The two options for Alignment Option D are:

- a pedestrian overbridge with ramp, and
- a pedestrian overbridge with stairs and lifts, no ramp.

Impacts to Traverser No. 1

Both concepts will require the removal of Traverser No. 1 to enable the installation of the North Eveleigh piers and pedestrian bridge entry point from North Eveleigh. This would be a major physical, visual and relational impact on the Eveleigh Railway Workshops (ERW) for the following reasons:

1. The recently approved masterplan was designed to ensure that the physical fabric of the traverser was conserved, interpreted and maintained insitu with sight lines protected, given it's significance in terms of it's pivotal role within the ERW precinct and it's rarity, in terms of being only 1 of 2 traversers left insitu within the ERW site that can demonstrate the former functionality of the site and the important role of the traverser as a key functional element for the transportation and relocating of locomotives on site in this exact location.

   In particular, despite the poor current condition of the fabric of the traverser, the ongoing physical and visual relationship between the railway line, South Eveleigh, Traverser No.1, the Paintshop and Carriageworks was considered significant enough to require retention within any redevelopment of the site as part of the masterplanning process. This was supported by both the historical research, the significance assessments in the Conservation Management Plan and heritage studies prepared for the site, and ground-truthed in the multiple stakeholder consultation meetings with Heritage NSW, the NSW Government Architect's State Design Review Panel, Redwatch and other associated stakeholder groups.

2. Options for emergency access routes, greening of the space between the Paintshop and Carriageworks, and/or any type of built form within the location of the traverser itself and/or within the Paintshop-Traverser-Carriageworks central corridor were discounted on the basis that the impacts to both the heritage fabric and views and vistas would lead to an unacceptable and irreversible heritage impact.

3. Recently the displaced Traverser from South Eveleigh was de-acquisitioned (July 2023) and removed from the ERW S170 register of moveable heritage assets after 6 years of protected negotiations with Heritage NSW, TfNSW and Heritage Transport for NSW. The asset was removed from its insitu location between the Large Erecting Shed and the Locomotive Workshop in the 1990s by the NSW State Government to allow for the redevelopment of the site into ATP. It was retained within Bay 10 of the Locomotive Workshops for several years after its displacement and was unable to be relocated anywhere meaningful on site, as its core significance related to location, function and fabric. Several reports were

commissioned to examine its significance and it was concluded that the loss of the functionality and insitu location of the traverser was the core reason for the loss of its significance. Coupled with this, was the agreed position that the remaining Traversers at North Eveleigh, including Traverser No. 1 were more significant due to their insitu retention in their original locations and that their retention was of upmost importance.

Therefore, in all options presented, the removal and/or relocation of Traverser No. 1 to allow for the construction of the North Eveleigh bridge piers and entry is considered to be a major and heritage impact that is unlikely to gain any support from key stakeholders, including Heritage NSW, DPE and the NSW Government Architect's State Design Review Panel.

Option D – with ramps

The proposed alignment of the pedestrian overbridge with an option for access via ramps will require extensive intervention, both physical and visual across both North and South Eveleigh, as highlighted in Figure 1.23 below.

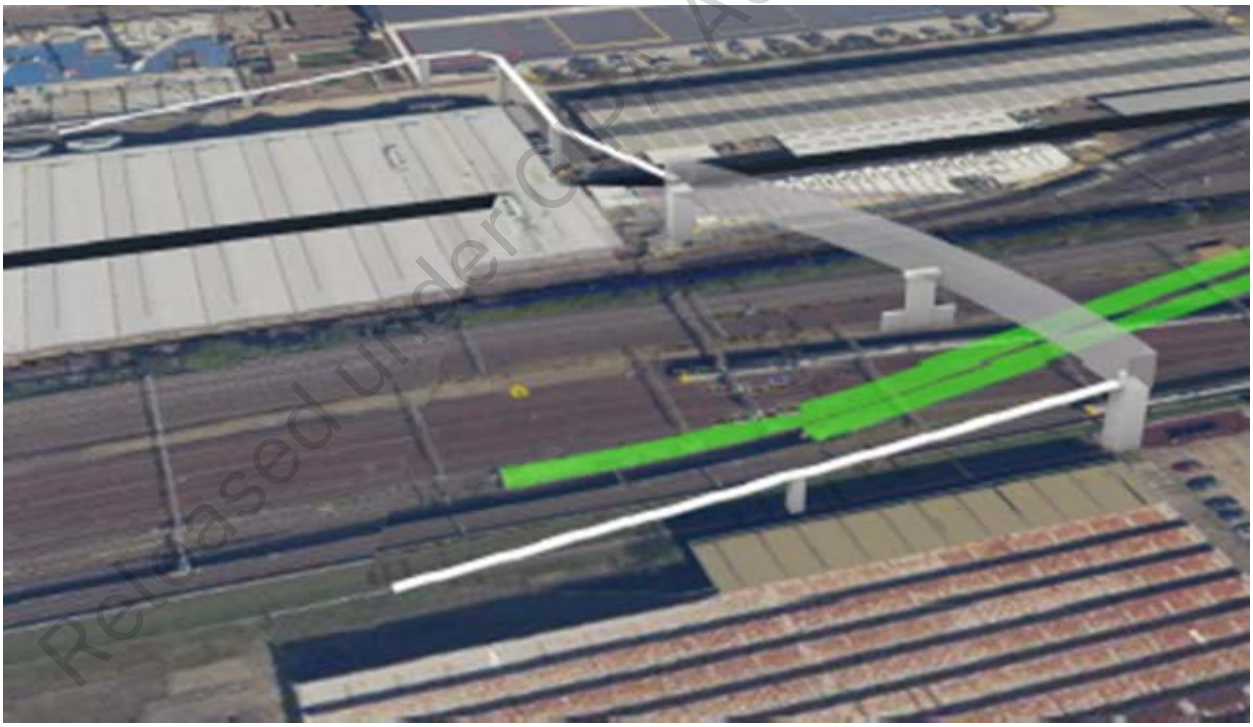

Figure 1.23 Concept of Pedestrian Overbridge Alignment Option D (Source: TfNSW)

This impact whilst having a major detrimental visual impact when viewed from all aspects of the rail corridor, North Eveleigh and South Eveleigh is most detrimental when assessed from the South Eveleigh landing locations. The key visual impacts associated with the required piers and ramp itself would have an irreversible effect on the visual sightlines along Locomotive Street as it runs past the Locomotive Workshops and Large Erecting Shed. The impact on the small green park itself, from a

heritage perspective is negligible, due to the fact that the park is modern and has no historical associations with the use of the site. It would be extremely difficult to mitigate the visual effect of the ramp using materiality and design, given the required bulk and form in order to achieve the.

In addition, whilst pedestrian overbridges were a highly significant part of the functional relationship between North and South Eveleigh, the proposed alignment of Option D with ramps would impact the key historic sightlines along Locomotive Street.

In conclusion from a heritage perspective, the installation of the pedestrian overbridge with entry/exit ramps for cycling and pedestrian access would have:

- a major irreversible physical and visual impact on the location, readability and understanding of one of the last remaining traversers on site, Traverser No. 1 at North Eveleigh;
- a major irreversible physical, and visual impact the significant central corridor and locational/spatial relationship between the Paintshop, Traverser No.1 and Carriageworks;
- a major irreversible impact on significant views to and from and across the railtracks and surrounding precincts; and
- an irreversible negative impact on the visual and physical significance of Locomotive Street and its surrounding streetscape as it relates to the Locomotive Workshops and Large Erecting Shed.

<u>Option D – without ramps</u>

The proposed Option D without ramps, as indicated in Figure 1.24 below has less heritage associated impacts than the ramp option, although the required impacts to Traverser No. 1 as discussed in the earlier sub-sections are considered unacceptable from a heritage perspective, and unlikely to gain Heritage NSW approval.

Any mitigation options that aim to offset the impacts associated with the relocation of the traverser for interpretation in a new location would result in a major impact and therefore, almost full loss of significance for the asset as its' significance is primarily associated with its specific location and representation of the site's former functionality within that specific location.

It is understood that of the options, this option without ramps, is the least desirable option as it does not allow for cycling access and would reduce the pedestrian user experience, however, when assessed in terms of visual impacts to South Eveleigh, and within the whole of the ERW precinct, the physical and visual impacts of this proposal are reduced without the introduction of the ramps to the North and South Eveleigh entry/exit points.

In summary:

- There is heritage precedence for a pedestrian bridge overpass between North and South Eveleigh, with the need for ease of access across the two halves of the ERW site identified as having been important to the functionality and day to day use of the ERW;

- Removal and relocation of Traverser No. 1 is a major heritage impact that is unlikely to gain heritage approvals as it is not commensurate the CMP and heritage studies and does not comply with the carefully thought-out principles installed in the recently approved masterplan for the Paint Shop Sub-Precinct;
- The landing of the Pedestrian Overbridge at South Eveleigh is considered to be appropriate and would not have a major physical and visual impact on the Locomotive Workshops, Large Erecting Shed or immediate surround precinct of Locomotive Street;and
- Depending on design, bulk and scale, the impact of the actual overbridge itself has the potential to have a major irreversible impact on significant views to and from and across the railtracks and surrounding precincts.

Figure 1.24 The proposed concept for the Pedestrian Bridge Overpass Option D without the ramp. (Source: TfNSW).

Conclusions and Recommendations

1. It is considered that the proposed Option D for the bridge, with or without ramps has a fundamental conflict with the landing of the bridge in the Traverser No. 1 location of the Paint Shop Sub-Precinct, from a heritage perspective. The landing of the bridge in this location does not comply with the CMP, Masterplan and would have an irreversible impact on the significance of the Traverser and its importance within the ERW Site.
2. The proposed ramps add an additional level of physical and visual impacts that would be unacceptable from a heritage perspective, as a result of the bulk, landing locations and required associated infrastructure. They would be unlikely to gain Heritage NSW support and/or potential support from the NSW Government Architect's State Design Review Panel.
3. The proposed South Eveleigh landing location without the ramps is considered to have less of an impact on the significance of the ERW site then the introduction of ramps. Notwithstanding this, there is the potential for a major irreversible visual impact on the readability of the rail lines, the rail corridor and the overall precinct via the introduction of the proposed overbridge, due to the height clearance and engineering requirements.

4. An alternative solution to the location of the bridge access point at Traverser No. 1 will be required if the overbridge is to gain heritage approvals.
5. Ramps are not likely to be a viable option in any design solution for the overbridge due to the potential visual and physical impacts.

Should you have any further questions please do not hesitate to contact me at s74 Out of scope@curioprojects.com.au or s74 Out of scope

Yours sincerely,

s74 Out of scope

CEO
Curio Projects Pty Ltd.