

**Part 3A Major Project Application**  
**Preliminary Environmental Assessment**

**Eveleigh Pedestrian and Cycle Bridge**

**April 2007**

**Submitted to the Department of Planning**  
**Prepared by Redfern-Waterloo Authority**

## Table of Contents

<b>Executive Summary</b>	<b>1</b>
<b>1. Introduction</b>	<b>3</b>
1.1 Purpose	3
1.2 Structure of Preliminary Environmental Assessment (PEA)	4
<b>2. Project Description</b>	<b>6</b>
2.1 Project Outline	6
2.2 Capital Investment Value	7
2.3 Need for the Proposal	7
<b>3. Site Description</b>	<b>10</b>
3.1 Site Location and Context	10
3.2 Site History	16
<b>4. Relevant Environmental Planning Instruments and Policies</b>	<b>17</b>
4.1 State Environmental Planning Policy (Major Projects) 2005	17
4.2 State Environmental Planning Policy No. 55 – Remediation of Land	19
4.3. Draft State Environmental Planning Policy (Infrastructure) 2006	19
4.4 Redfern-Waterloo Built Environment Plan (Stage One)	19
<b>5. Preliminary Environmental Issues</b>	<b>20</b>
5.1 Heritage	20
5.2 Design Considerations	20
5.3 Structural	21
5.4 Visual Impacts	22
5.5 Geotechnical and Contamination	22
5.6 Hydraulic Services	22
5.7 Utility Services - Electrical	22
5.8 Rail Infrastructure Considerations	22
5.9 Construction Management	23
5.10 Environmental Management	24

<b>6. City of Sydney Council and State Government Agency Consultation</b>	<b>25</b>
6.1 City of Sydney	25
6.2 RailCorp	25
6.3 Heritage Council of NSW	25
6.4 Utility Providers	25
6.5 Other State Government Agencies	25
<b>7. Conclusion</b>	<b>26</b>

## **Executive Summary**

The proposed Eveleigh Pedestrian and Cycle Bridge (hereafter referred to as Bridge) is to be located within the Redfern-Waterloo Authority Operational Area and on land within the Redfern-Waterloo Authority Sites which is listed as a State significant site in Schedule 3, Part 5 of *State Environmental Planning Policy (Major Projects) 2005*.

The proposed Bridge is a key transport initiative identified in the *Redfern-Waterloo Built Environment Plan (Stage One)* adopted by Cabinet in August 2006. The proposed Bridge will support the revitalisation of the Redfern-Waterloo area by providing an improved north-south connection over the rail corridor. The rail corridor physically disconnects the northern and southern part of Redfern-Waterloo and limits access to key destinations in the area, such as the Australian Technology Park, the University of Sydney and other employment, recreational and residential areas. The proposed bridge reinstates past connections between the North Eveleigh and Australian Technology Park sites and will enhance the NSW Government's vision of facilitating a research and innovation zone on the western edge of the Sydney CBD stretching from the Australian Technology Park to the University of Sydney and the University of Technology.

The Bridge will also provide an elevated heritage walk offering visitors a view of the heritage elements of both the Australian Technology Park and North Eveleigh.

The Preliminary Environmental Assessment details an approximate design envelope for the proposed Bridge. The proposed Bridge will span from the north-western part of the Australian Technology Park, over the rail corridor and land in the central section of the North Eveleigh site. It is envisaged that the Bridge will be accessed from Locomotive Street at the ATP and Wilson Street, Darlington.

The proposed Bridge will connect to existing pedestrian and cycling routes in the surrounds. The proposed Bridge is consistent with the cycling network routes identified in the NSW government *Action for Bikes – BikePlan 2010* and in the City of Sydney council *Cycle Strategy and Action Plan 2007-2017*.

Part 5, Clause 5 of Schedule 3 of the *State Environmental Planning Policy (Major Projects) 2005* identifies that development with a capital investment value of more than \$5 million is a Part 3A project. As the capital investment value of the proposed bridge is estimated to be \$6 million, the development is considered a Major Project which is subject to the provisions of Part 3A of the *Environmental Planning and Assessment Act*.

The Redfern-Waterloo Authority requests that the Minister for Planning:

§ confirm that the proposed Bridge is a Major Project to which Part 3A of the *Environmental Planning and Assessment Act* applies; and

§ authorise the submission of a Project Application for the proposed Bridge.

The Preliminary Environmental Assessment has been prepared to enable the Director-General to prepare and issue environmental assessment requirements under section 75F (2) of the *EP&A Act*, in order to assist in developing a design for the proposed Bridge and to prepare the Environmental Assessment.

## 1. Introduction

### 1.1 Purpose

The Preliminary Environmental Assessment has been prepared by the Redfern-Waterloo Authority (RWA) to enable the Director-General to prepare environmental assessment requirements to inform the preparation of the Environmental Assessment.

Clause 5, Part 5 of Schedule 3 of the *State Environmental Planning Policy (Major Projects) 2005* (SEPP Major Projects) provides that development with a capital investment value of more than \$5 million on land within the Redfern-Waterloo Authority Sites is a Part 3A Project under the *Environmental Planning and Assessment Act, 1979* (EP&A Act).

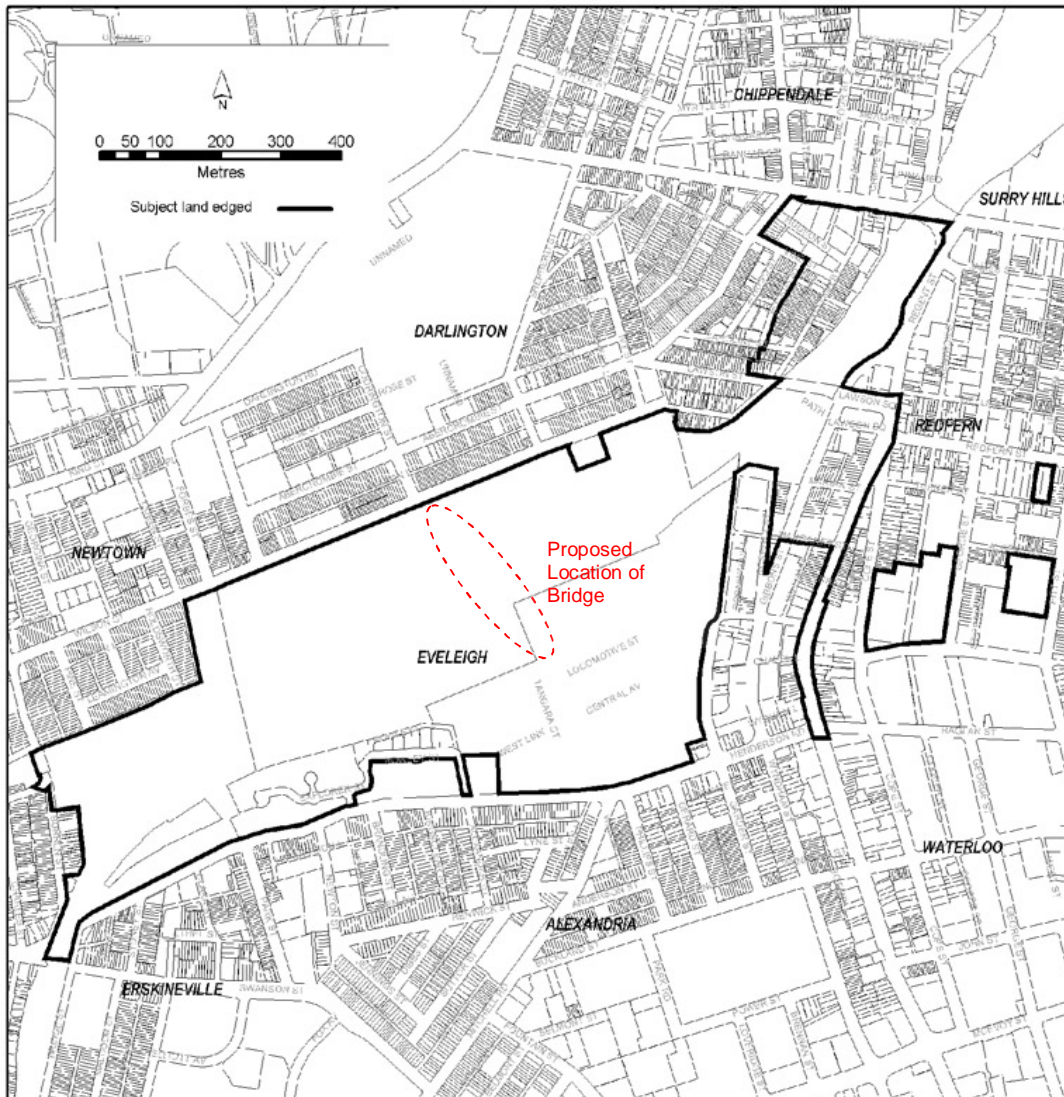
The development is considered to be a major project under Part 3A of the EP&A Act as the:

- § location of the proposed Bridge (within the Australian Technology Park, the rail corridor and North Eveleigh site) is included within the Redfern-Waterloo Authority Sites identified in Map 3, Part 5 of Schedule 3 of the *SEPP Major Projects* (refer to **Figure 1**); and
- § capital investment value of the proposal is estimated to be \$6 million.

The RWA is seeking confirmation from the Minister for Planning that the proposed development is a project under Part 3A of the EP&A Act.

Should the Minister confirm that the development is a Part 3A Project, the RWA requests that:

- § the Minister authorise the submission of a Project Application for the Bridge; and
- § the Director General issue environmental assessment requirements (EAR) for the preparation of the Environmental Assessment for submission with the Project Application.



**Figure 1 Redfern-Waterloo Authority Sites and Proposed Location of Bridge**

## 1.2 Structure of Preliminary Environmental Assessment (PEA)

The PEA provides an overview of the proposal and identifies potential key issues to assist in the formulation of the Director-General's EAR. The EAR will guide the design of the Bridge and the associated Project Application and Environmental Assessment.

The content of the PEA:

- § section 2 details the proposed development, including the need for the development,
- § section 3 provides an analysis of the site and the surrounding context,
- § section 4 details the relevant planning instruments and policies,
- § section 5 identifies the key environmental issues associated with the development and which will require further resolution as the design is developed, and
- § section 6 identifies the government authorities to be further consulted.



**Approximate envelope of proposed pedestrian and cycle bridge**



**Possible location of intermediate bridge piers if progressed in design**



**NOT TO SCALE**

1. CarriageWorks - Contemporary performing arts centre (Carriage Workshops Building)
2. Traverser No. 1
3. Paint Shop Building
4. Blacksmiths' Shop
5. Viewing platform and pedestrian entrance (stairs and ramp)
6. Yaama Dhinawan - Training facility
7. Xplorer Endeavour Service Centre
8. Large Erecting Shop
9. Locomotive Workshop
10. Bay 16 of Locomotive Workshop
11. Corridor between Locomotive Workshop and buildings in South Eveleigh
12. Location of future Sydney Broadcast Property development
13. Rail corridor
14. Up Illawarra Dive

**Figure 2 Approximate Design Envelope of Eveleigh Pedestrian and Cycle Bridge**

## 2. Project Description

### 2.1 Project Outline

The approximate design envelope of the proposed Bridge is detailed in **Figure 2**. The design envelope is the area of land within which the Bridge may be located.

The proposed Bridge will be accessed from Locomotive Street at the Australian Technology Park and Wilson Street in Darlington. The Bridge structure will either fully span the rail corridor above the overhead wiring structures, or alternatively, bridge support piers within the rail corridor may be considered. The width of the Bridge will be designed to accommodate pedestrian and cycle traffic. The indicative dimensions of the proposed Bridge structure are:

Approx. length of proposed Bridge from northern boundary of rail corridor to Locomotive Street, ATP	100 m
Approx. length of proposed Bridge directly over rail corridor	100 m
Approx. length of proposed Bridge from southern boundary of rail corridor to Wilson Street, North Eveleigh	120 m
Approx. total length of proposed Bridge	320 m
Approx. height of proposed Bridge over rail corridor (from tracks)	9 m

The key bridge design objectives to be achieved are:

- § The Bridge will be accessible to the general public to achieve improved north-south access over the rail corridor.
- § The access points to the bridge will be via new or existing public spaces such as Locomotive Street at ATP and Wilson Street in Darlington.
- § The architectural and aesthetic design of the Bridge will be functional and responsive to both the heritage qualities of the ATP and North Eveleigh sites but also the future vision for the sites as established in the *Redfern-Waterloo Built Environment Plan*.
- § The Bridge design will consider issues of safety and security for both the users of the Bridge and also the safe operation of the rail corridor. Lighting, directional signage and view lines will be considered in the design. Anti-throw screens will be incorporated in the design. Electronic security devices such as CCTV may be incorporated to maximise security for users.
- § The Bridge will be designed to ensure that there is equitable access and compliance with the *Disability Discrimination Act* to ensure that less mobile people and people with disabilities can use the Bridge. This will require that access to the Bridge be either by ramps and/or lifts.

- § The Bridge design will take into consideration rail operations and structures. This includes overhead wiring structures, overhead wires, signals, clearance to existing structures and services in the rail corridor, lighting glare and spill from the Bridge and the Illawarra Dive tunnels which are located in close proximity.
- § The bridge materials and finishes will be selected on the basis of durability and aesthetics having regard to the potential for vandalism and ongoing maintenance.

A number of design options will be examined and the preferred design option documented as part of the Environmental Assessment. The Director-General's EAR will guide the development of the preferred design.

## **2.2 Capital Investment Value**

The proposed Bridge will have a capital investment value of approximately \$6 million.

## **2.3 Need for the Proposal**

### ***Redfern-Waterloo Built Environment Plan (Stage One)***

The *Redfern-Waterloo Built Environment Plan* (BEP) was adopted by Cabinet in August 2006. The BEP outlines the key strategies to achieve revitalisation of RWA's sites, including land use, urban design, open space and public domain, infrastructure, transport, heritage and ESD. The BEP is aimed at facilitating the provision of over 18,000 jobs in the area, the construction of around 2,000 new dwellings, an upgraded Railway Station, and public domain improvements to improve safety and amenity. The additional employment and residential envisaged at the ATP and the North Eveleigh site needs to be supported by improved connections between the sites, to transport and to other local services and facilities in the wider area.

Of relevance to this proposal are the open space and public domain strategy and transport strategy outlined in Section 3 of the BEP. The rail corridor physically disconnects the northern and southern sections of Redfern-Waterloo and limits access to key destinations such as ATP, North Eveleigh, the University of Sydney and other key educational, recreational and health facilities.

The BEP proposes two pedestrian and cycle links which will improve connections and access in the area. One of these links will be incorporated into the proposed Redfern Railway Station upgrade, while the other connection further to the west, the subject of this Preliminary Environmental Assessment will provide improved connection between the North Eveleigh site and ATP, as well as improved local pedestrian and cycle circulation for the wider area. The proposed Bridge will link to existing footpaths and cycle routes.

The NSW Government's vision of facilitating a research and innovation zone on the western edge of the Sydney CBD stretching from the Australian Technology Park to the University of Sydney and the University of Technology will be significantly enhanced by the creation of new spatial connections such as the proposed Bridge.

In addition, the Bridge will provide an elevated heritage walk offering visitors a view of the heritage elements of both the Australian Technology Park and North Eveleigh.

***City of Sydney Cycle Strategy and Action Plan 2007-2017, and RTA Regional Cycling Network***

The City of Sydney released in April 2007 a *Cycle Strategy and Action Plan 2007-2017*. The proposed Bridge has been identified as a regional network route, a key route in achieving the City's overall strategic cycling network for the southern part of the local government area and across the whole local government area. The proposed bridge will connect to one of the City of Sydney's busiest east-west cycling routes along Wilson Street, Darlington, and provide improved cycle connection from ATP to the University of Sydney. The proposed Bridge route has been identified in the City regional network as R12 Glebe Point – Australia Technology Park route, connecting to other key routes identified in the plan, namely:

§ regional network routes, R9 Sydney Park-Moore Park, R10 Newtown-Bondi Junction, R11 Leichhardt-City South, and

§ local network routes, L6 St Peters-Erskineville-Redfern.

In addition, at a broader regional level the Bridge has been identified as integral to the Roads and Traffic Authority's regional cycleway network for Sydney presented in *Action for Bikes – BikePlan 2010*. The RTA Route 28 from the University of NSW to Sydney University proposes a cycle route from ATP over the rail corridor to the University of Sydney. The proposed Bridge facilitates the delivery of this regional cycle route.



Location of Proposed Bridge

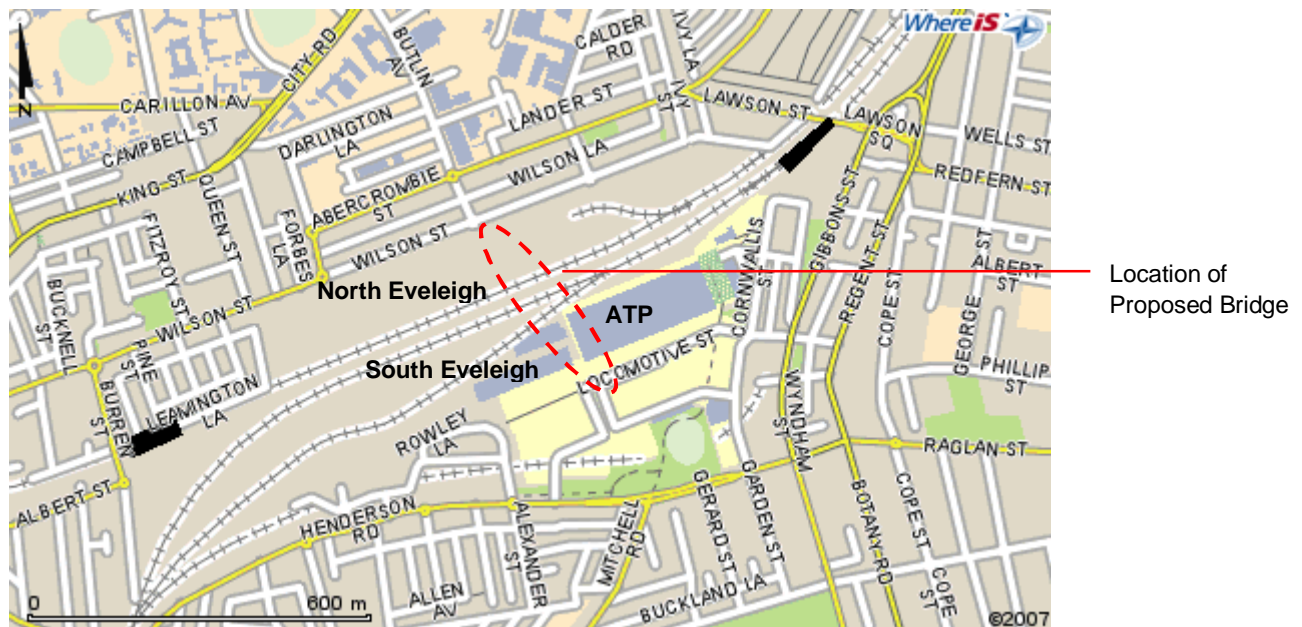
**Figure 3 Proposed City of Sydney Bicycle Network, Cycle Strategy & Action Plan 2007-2017**

### 3. Site Description

#### 3.1 Site Location and Context

The proposed Bridge will be located within the design envelope defined in **Figure 2**. In general the proposed Bridge will extend from the western end of Locomotive Street in the Australian Technology Park to Wilson Street, Darlington, at the intersection with Codrington Street.

The proposed Bridge is located about 750 metres west from Redfern Station, 950 metres from Macdonaldtown Station and 300 metres from the University of Sydney. The Bridge is surrounded by the suburbs of Eveleigh, Redfern, Darlington and Newtown. **Figure 4** indicates the location of the proposed Bridge in the Redfern-Waterloo area.



**Figure 4** Location of the Proposed Bridge

The proposed Bridge will directly impact on four sites which will be described individually below.

#### **Australian Technology Park (ATP)**

ATP is legally described as Lot 500 in DP 1033739. It has a total site area of approximately 13 hectares and is focused on supporting the growth and commercialisation of Australian technology businesses. The ATP is bound to the north by the railway corridor, east by Garden and Cornwallis Streets, south by Henderson Road and west by Alexander Street and operational rail land.

The ATP is listed on the State Heritage Register (Eveleigh Rail Yards). There are a number of significant heritage buildings on the site in close proximity to the location of the proposed Bridge

envelope such as the Locomotive Workshop, Works Managers' Office, and the New Locomotive Workshop.

The Locomotive Workshop is located along the northern boundary of the ATP adjacent to the railway corridor. The building accommodates a number of commercial businesses and operates a conference and events facility.

A six storey Biomedical building located along Central Avenue is the main contemporary building located on the site. A new six storey commercial building on Garden Street is to be completed by the end of 2007. Development will continue on the site with the approval of the Part 3A Major Project Application for a 12 storey commercial development for Sydney Broadcast Property.

The vehicular access to the ATP is currently from Garden Street, with a new access and entrance from Henderson Road to Central Avenue (Davy Road) to be completed in 2007.

A new public plaza is to be constructed at the northern section of the site at the terminus of Davy Road, between Central Avenue and Locomotive Street.

The proposed Bridge will land at the ATP in a public space and be a key point of access to the Bridge. The design of the proposed Bridge will need to consider the historical significance of the Locomotive Workshop and integration with new developments at the ATP, such as the new public plaza and the commercial development proposed by Sydney Broadcast Property.



***Locomotive Street and future location of proposed open space in foreground and Locomotive Workshop (right) and Large Erecting Shop (left) in background.***



*South western corner of the Locomotive Workshop and general area where bridge may land.*

## **South Eveleigh**

The South Eveleigh site is legally described as part of Lot 4 in DP 862514. The north western most boundary of the site contains the XPLOER Endeavour Service Centre and the Large Erecting Shop. The XPLOER Centre currently operates for rolling stock maintenance. Other buildings further east on the site such as the Train Presentation Centre are currently being used for rail operational purposes. In general the site has buildings with large footprints and predominately industrial character. The north eastern section of the South Eveleigh site is adjacent to the western elevation of the Locomotive Workshops with a bitumen road surface of approximately four (4) metres dividing the XPLOER Endeavour Service Centre (closest building on the South Eveleigh site to Locomotive Workshop) from the eastern wall of the Locomotive Workshop.

The proposed bridge will travel adjacent to/within the South Eveleigh site and as result the design of the bridge will need to consider the operational needs of the XPLOER Endeavour Service Centre.



***Corridor between Locomotive Workshop (right) and XPLOER Endeavour Service Centre (left background).***



***XPLOER Endeavour Service Centre in foreground and Large Erecting Shop in background.***

### **Rail Corridor**

The rail corridor is legally described as part of Lot 4 in DP 862514. The rail corridor to be spanned is approximately 100 metres in length from ATP to North Eveleigh and is the southern and northern boundary of the ATP and North Eveleigh sites respectively. The track is approximately at the same level as the North Eveleigh site while the ATP site is approximately four (4) metres below the track.

The rail corridor has overhead wiring structures within the proposed Bridge envelope as well as signals and other rail infrastructure on the tracks.

As the proposed Bridge spans over the rail corridor, rail operations, structures and infrastructure will be an important consideration in the design.



*View along railway corridor looking east. ATP on the right and North Eveleigh on the left.*

## **North Eveleigh**

The North Eveleigh site is legally described as part of Lot 4 in DP 862514. The North Eveleigh site comprises approximately 11 hectares of disused railway land and is physically disconnected from the southern part of Eveleigh and ATP by the railway corridor. The North Eveleigh site is bound by Wilson Street to the north, Little Eveleigh Street to the east, the railway corridor to the south and Iverys Lane to the west.

The North Eveleigh site is listed on the State Heritage Register (Eveleigh Rail Yards). There are a number of heritage buildings on the site in close proximity to the location of the proposed Bridge envelope such as the Carriage Workshops and the Blacksmiths' Shop.

The Carriage Workshop has been restored as a contemporary performing arts centre with associated commercial (CarriageWorks). In addition a viewing platform, pedestrian entry (stairs and ramp) has been built to facilitate pedestrian access from Wilson Street to the CarriageWorks and to the North Eveleigh site. Adjacent to the viewing platform is a two storey building housing a café and training facility. Current vehicular access to the North Eveleigh site is via an existing entrance along Wilson Street on the far western part of the North Eveleigh site.

The North Eveleigh site in its entirety is relatively flat with nominal changes in topography occurring to accommodate vehicular and pedestrian access. At the site's north-western

boundary with Wilson Street, the Wilson Street footpath is in parts three (3) to five (5) metres higher than the level of the site. The extent of the change in levels is not as significant at the site's north-eastern boundary with Wilson Street.

The proposed Bridge will land at North Eveleigh in a public space and be a key point of access to the Bridge. The design of the proposed Bridge will consider the historical significance of the Carriage Workshops and other historical buildings on the site. The design will also consider integration with key elements of the site such as Traverser 1, and the viewing platform/entrance off Wilson Street.



***View looking south towards the rail corridor and ATP. Traverser 1 in foreground and Paint Shop in background.***



***CarriageWorks (Carriage Workshop) on left and viewing platform/entrance on right.***

## 3.2 Site History

As indicated in Section 3.1 the proposed Bridge will be located within the ATP, North Eveleigh and South Eveleigh sites and over the railway corridor.

The ATP, North Eveleigh and South Eveleigh sites have a long association with rail operations and make up what is referred to as the Eveleigh Rail Yards (or Eveleigh Railway WorkShops). The Railway Yards became operational in 1882, predominately for maintaining and repairing locomotives and railway stock, as well as manufacturing rolling stock. The workshops were set up on the north and southern sides of the main western and southern railway lines around the mid to late 1880s. At a same time that the Railway Yards were being opened the Eveleigh Station opened in 1878 (renamed in 1906 to Redfern Station). The northern and southern section of the Railway Yards were connected by two bridges (on the western and eastern sides of the Railway Yards) both which have been demolished and no longer exist.

When in full operation the Railway Yards employed over 3000 workers making it a significant employment hub in the area. Residential development around the Railway Yards proceed in the 1870s and 1880s and was stimulated by the need for housing for workers. The Railway Yard over many years manufactured locomotives and undertook other railway operations. The Yards closed in 1988.

In 1991 the NSW Government announced the creation of the Australian Technology Park on the southern portion of the Yards and it opened in 1994. Significant aspects of this development was the adaptive reuse of the Locomotive Workshops for commercial, the development of new commercial buildings such as the Biomedical Building and construction of roads, public domain and other associated infrastructure.

Other significant developments since the closure of the Railway Yards:

- § Residential development on the north western section of the Yards in the late 1990s.
- § Development of CarriageWorks (contemporary performing arts centre) in the Carriage Workshops, North Eveleigh in January 2007.
- § Establishment of Yaama Dhinawan Hospitality Training College and construction training in the refurbished former canteen and carpenters building, North Eveleigh in late 2006.
- § Viewing platform and pedestrian entrance structure off Wilson Street opposite the CarriageWorks opened in January 2007.
- § Continued rail operations in the South Eveleigh site, including the XPLOER Endeavour Service Centre and Train Presentation Centre.

#### 4. Relevant Environmental Planning Instruments and Policies

The following environmental planning instruments are relevant to the proposal:

§ *State Environmental Planning Policy (Major Projects) 2006,*

§ *State Environmental Planning Policy No. 55 – Remediation of Land, and*

§ *Draft State Environmental Planning Policy (Infrastructure) 2006.*

It should be noted that Schedule 3, Part 5, Clause 3 of *State Environmental Planning Policy (Major Projects) 2006* states that all other environmental planning instruments do not apply to the Redfern-Waterloo Authority Sites, except for other State environmental planning policies.

The *Redfern-Waterloo Built Environment Plan (Stage One)*, August 2006 also applies to the site and proposal.

A brief discussion on each environmental planning instrument is provided in the following section.

##### 4.1 State Environmental Planning Policy (Major Projects) 2005

###### ***Planning Consent and Part 3A Major Project Declaration***

Clause 6 (1) of the *SEPP Major Projects* indicates that development that, in the opinion of the Minister for Planning is development of a kind described in Schedule 3 (State significant sites) as a project to which Part 3A of the Act applies. Clause 5 of Schedule 5, Part 5, of the *SEPP Major Projects* indicates that development with a capital value of more than \$5 million on land within the Redfern-Waterloo Authority is a Part 3A project. The proposed Bridge is identified on Map 3 to Schedule 3 and will have a capital value of \$6 million. It is therefore requested that the Minister form the opinion that the proposed Bridge is a project subject to which Part 3A of the *Environmental Planning and Assessment Act* (EP&A Act) applies.

###### ***Planning Provisions (Division 3 of Part 5)***

Clause 7 indicates the land use zones and related land use objectives for Redfern-Waterloo Authority Sites. The proposed Bridge falls within the following zones as shown on the map marked 'Redfern-Waterloo Authority Sites Zoning Map' in Schedule 3 (Part 5, Clause 7).

<b>Land Use Zones</b>	<b>Objectives of the Zone</b>	<b>Permissible Development</b>
Business Zone – Business Park (Sub Clause 8(1))	(a) <i>to establish business and technology parks to encourage employment generating activities that provide for a wide range of business, technology, educational and entertainment facilities in the Zone,</i>  (b) <i>to support development that is</i>	Sub clauses 8 (2) and (3) details the development which is permissible in the zone. Access facilities such as the proposed Bridge are permissible in the zone with consent.

	<p><i>related or ancillary to business, technology or education,</i></p> <p>(c) <i>to support development for retail uses that primarily serve the needs of the working population in the Zone and the local community,</i></p> <p>(d) <i>to ensure the vitality and safety of the community and public domain,</i></p> <p>(e) <i>to ensure buildings achieve design excellence</i></p> <p>(f) <i>to promote landscaped areas with strong visual and aesthetic values to enhance the amenity of the area.</i></p>	
Business Zone – Mixed Use (Sub Clause 10(1))	<p>(a) <i>to support the development of sustainable communities with mix of employment, educational, cultural and residential opportunities,</i></p> <p>(b) <i>to encourage employment generating activities by providing a range of office, business, educational, cultural and community activities in the Zone,</i></p> <p>(c) <i>to permit residential development that is comparable with non-residential,</i></p> <p>(d) <i>to maximise public transport patronage and encourage walking and cycling,</i></p> <p>(e) <i>to ensure the vitality and safety of community and public domain,</i></p> <p>(f) <i>to ensure buildings achieve design excellence,</i></p> <p>(g) <i>to promote landscaped areas with strong visual and aesthetic values enhance the amenity of the area.</i></p>	<p>Sub clauses 10 (2) and (3) details the development which is permissible in the zone. Access facilities such as the proposed Bridge are permissible in the zone with consent.</p>
Special Purpose Zone – Infrastructure (Sub Clause 15(1))	<p>(a) <i>to provide for railway infrastructure and related facilities,</i></p> <p>(b) <i>to prevent development in the Zone that is not compatible with or may detract from the provision of railway infrastructure and related facilities,</i></p> <p>(c) <i>to ensure vitality and safety of the community and public domain</i></p> <p>(d) <i>to ensure the buildings achieve design excellence,</i></p> <p>(e) <i>to promote landscaped area with strong visual and aesthetic values to enhance the amenity of the area.</i></p>	<p>Sub Clause 15 (2) and (3) details the development which is permissible in the zone. Sub Clause 15 (2) (c) indicates that access facilities (such as tunnels or bridges) that traverse the railway corridor may be carried out in the zone with consent.</p> <p>Access facilities such as the proposed Bridge are permissible in the zone with consent.</p>

The design of the proposed Bridge will address the objectives of the zone. The Environmental Assessment will detail how the proposed Bridge is consistent with the zone objectives.

The provisions related to building height and floor space ratio (Clause 21) are not relevant to this proposal.

#### **4.2 State Environmental Planning Policy No. 55 – Remediation of Land**

*SEPP 55* seeks to ensure the remediation of contaminated land in order to reduce the risk of harm to human health or any other aspects of the environment. Clause 7 of *SEPP 55* requires the consent authority to consider whether land is contaminated, and to be satisfied that the land is suitable for the proposed use, prior to granting consent to the carrying out of any development on that land. Essentially should the land be contaminated the consent authority must be satisfied that the land is suitable for the proposed use. If the land requires remediation to be undertaken to make the land suitable for the proposed use, the consent authority must be satisfied that the land will be remediated before the land is used for that purpose.

A number of contamination investigations have been prepared for both the ATP and North Eveleigh Site. A further contamination assessment will be undertaken related to the proposed Bridge and form part of the Environmental Assessment.

#### **4.3. Draft State Environmental Planning Policy (Infrastructure) 2006**

Draft *SEPP Infrastructure* is intended to assist in the effective delivery of public infrastructure and outlines issues to be addressed when proposing development near and over the rail corridor. This includes any likely damage to rail infrastructure, use of cranes over the rail corridor, and electrolysis impacts. The Environmental Assessment will address issues relevant to development over and near rail infrastructure.

#### **4.4 Redfern-Waterloo Built Environment Plan (Stage One)**

The proposed Bridge is a key transport and access initiative identified in the *Redfern-Waterloo BEP*. As outlined in Section 3.1 Land Use Strategy and 3.6 Transport Strategy of the *Redfern-Waterloo BEP* the proposed Bridge will support the revitalisation of the Redfern-Waterloo area by providing an improved north-south connection over the rail corridor. As identified in the *BEP*, the rail corridor physically disconnects the northern and southern part of Redfern-Waterloo and limits access to key destinations in the area, such as the ATP, the University of Sydney and other employment, recreational and residential areas. The proposed bridge reinstates past connections between the North Eveleigh and Australian Technology Park sites. The Bridge will also provide an elevated heritage walk offering visitors a view of the heritage elements of both the Australian Technology Park and North Eveleigh.

## **5. Preliminary Environmental Issues**

The potential key environmental issues are briefly discussed in this section. These issues will be considered in the design of the Bridge and will be addressed in detail in the Environmental Assessment.

### **5.1 Heritage**

The North Eveleigh and ATP sites, form what is referred to as the Eveleigh Railway Yards which is an item listed on the State Heritage Register (SHR No. 01140).

The proposed Bridge will extend from Wilson Street, Darlington to the ATP and span across the railway corridor. The proposed Bridge will land at grade within the ATP and the North Eveleigh sites, within the design envelope shown in **Figure 2**.

Sub Section 29(1) of the *Redfern-Waterloo Authority Act* indicates that the provisions of the *Heritage Act 1977* do not apply to the carrying out of development that is a project to which Part 3A of the Act applies. Sub Section 29(2) states that an item on the State Heritage Register is not to be altered or demolished unless the Minister (or delegate) has consulted with the Heritage Council about the matter and has taken into consideration any advice duly provided by the Council and the Minister is satisfied that the proposal it is necessary for sustainable improvement of the Redfern-Waterloo Authority operational area. Consultation with the Heritage Council will be undertaken prior to the Environmental Assessment being submitted.

The proposed Bridge is located adjacent to a number of significant historical buildings and elements such as the Carriage Workshops, and Locomotive Workshops.

The design of the Bridge will need to be sensitive to the historical significance of the site, as well as the scale and character of the significant adjacent buildings and elements such as the Carriage and Locomotive Workshops. The proposed Bridge design will contribute to the character of the Railway Yards and provide an elevated heritage walk offering visitors a view of the heritage elements of both the Australian Technology Park and North Eveleigh.

Heritage issues will be considered in developing the Bridge design and a heritage impact assessment will be prepared for the Environmental Assessment. The heritage impact statement will address European and aboriginal heritage and archaeology.

### **5.2 Design Considerations**

The proposed Bridge will be an important piece of public infrastructure that will need to be well designed and its access well integrated into the public spaces at ATP and North Eveleigh. The

proposed Bridge will be accessed at ATP from Locomotive Street and at North Eveleigh either from Wilson Street or from a public space on the North Eveleigh site. The access locations to the Bridge will be resolved during the design phase.

**Overall Design** The architectural and aesthetic design of the proposed Bridge will be innovative, functional and responsive to both to the heritage qualities of the ATP and North Eveleigh but also the future vision for the sites as established in the *Redfern-Waterloo Built Environment Plan*.

**Public Safety and Security** The Bridge design will consider issues of safety and security for both the users of the Bridge and also the safe operation of the rail corridor. Night lighting, directional signage and view lines will be considered in the design. Access to the bridge via the public spaces at ATP and North Eveleigh will need to be considered. Anti-throw screens and electronic security devices (such as CCTV) will also be considered in the design to maximise safety for users.

**Equitable Access** The proposed Bridge will be designed to ensure that there is equitable access and compliance with the *Disability Discrimination Act* to ensure that less mobile people and disabled people can use the Bridge. This will require that access to the Bridge will be either by ramps and/or lifts.

**Consideration of Rail Infrastructure/Operations** The proposed Bridge design will take into consideration all rail operations and structures. This includes overhead wiring structures, overhead wires, signals, clearance to existing structures and services in the rail corridor, lighting glare and spill from the Bridge and the Illawarra Dive tunnels which are located in close proximity.

**Materials/Finishes** The bridge materials and finishes will be selected on the basis of durability and aesthetics having regard to vandalism and ongoing maintenance.

**Building Standards** The design of the proposed Bridge will comply with applicable Australian Standards and other relevant regulations and Codes of Practice.

The Environmental Assessment will address in detail the above design objectives and provide details of the design using visuals such as perspectives or photomontages.

### 5.3 Structural

The Environmental Assessment will include preliminary structural drawings and assessment prepared by a qualified structural engineer. Any proposed Bridge support piers within the rail corridor will be designed for train collision loads in accordance with RailCorp standards and meet RailCorp clearances. The design and construction of the Bridge will comply with all relevant Australian Standards and regulations.

## **5.4 Visual Impacts**

The proposed Bridge will be an impressive structure over the railway corridor and will be able to be viewed from various places in Redfern, Darlington, Eveleigh and further a field. The design of the bridge will include consideration of views and vistas through the North Eveleigh and ATP sites, and opportunity to enhance and create exciting new views/vistas to and through the sites. The Environmental Assessment will provide a visual analysis of the bridge as well as visual opportunities created by the proposed bridge. Appropriate visual material such as perspectives or photomontages will be provided.

## **5.5 Geotechnical and Contamination**

The Environmental Assessment will include geotechnical and contamination site investigations and assessment undertaken by a qualified consultant. The Environmental Assessment will demonstrate compliance with the requirements of *SEPP 55*.

## **5.6 Hydraulic Services**

The design of the proposed bridge will be informed by a detailed hydraulic design concept. The hydraulic services will be designed to comply with the relevant Australian Standards, Building Codes of Australia, Sydney Water and local government authority requirements. The hydraulic design concept will consider stormwater and subsoil drainage, including pits, pipe work, trenching and connection to the existing mains. Stormwater drainage collected from the proposed Bridge will be prevented from being discharged into the rail corridor.

The Environmental Assessment will include a hydraulic design concept prepared by a qualified consultant.

## **5.7 Utility Services - Electrical**

Electrical services will be required for lighting and lift services if required. Electrical service to the Bridge will be via an external power supply (non RailCorp source).

The Environmental Assessment will include an assessment of preliminary services required for the proposed Bridge.

## **5.8 Rail Infrastructure Considerations**

The design of the bridge, construction method and operation will need to ensure minimal disruption to RailCorp's operations. In designing the Bridge consideration will be given to rail infrastructure on the rail corridor and adjacent to the corridor.

This includes:

- § overhead wiring structures,
- § overhead wires,
- § signals and signal structures,
- § any RailCorp services such as pipes and cables and structures,
- § stray current and electrolysis from rail operations,
- § glare from materials and night lighting,
- § any rail corridor fencing,
- § anti throw devices,
- § existing operations and perimeter security installation of the XPLOER Endeavour Service Centre,
- § impact on the adjacent Illawarra Dive or any other tunnels in the vicinity during construction and operation of the Bridge,
- § if support piers are proposed in the rail corridor, consideration will be given to collision loads and other issues raised by RailCorp, and
- § any other matters raised by RailCorp.

The design and construction of the bridge will comply with the applicable RailCorp standards, as well as relevant Australian Standards for bridges.

The Environmental Assessment will address these issues in detail.

## **5.9 Construction Management**

A Construction Management Plan will be prepared. This will be included in the draft Statement of Commitments to be provided with the Environmental Assessment. The Construction Management Plan will assess any potential construction impacts, having regard to any impacts on rail infrastructure and operations. The Construction Management Plan will detail environmental management, mitigation and monitoring measures. The Plan will address:

- § construction methodology,
- § construction program,
- § track possession plan,
- § dilapidation surveys of rail infrastructure,
- § continued access to RailCorp facilities for maintenance, emergencies and work purposes,
- § construction traffic management including access,
- § construction noise and vibration management,
- § stormwater management,
- § waste management,
- § location of temporary compound/s and facilities/s,

- § working hours, and
- § any other relevant matters.

### **5.10 Environmental Management**

Environmental considerations are important aspect of all construction works, including commitment to ESD principles in terms of design and construction. An Environmental Management Plan will be prepared. This will be included in the draft Statement of Commitments to be provided with the Environmental Assessment. The Plan may address:

- § conservation and management of resources,
- § pollution control,
- § material selection,
- § waste minimisation and management,
- § maintenance of environmental safeguards,
- § consultation and liaison with communities and authorities,
- § environmental awareness and/or training for staff and sub-consultants, and
- § environmental review, monitoring auditing and reporting systems.

## **6. City of Sydney Council and State Government Agency Consultation**

Appropriate consultation will occur with relevant local and state government agencies during the Environmental Assessment process. This section identifies these agencies.

### **6.1 City of Sydney**

City of Sydney is the relevant local government authority. The Council will be consulted as part of the Environmental Assessment process.

### **6.2 RailCorp**

RailCorp is considered a critical stakeholder. The Redfern-Waterloo Authority has commenced preliminary discussions with RailCorp, including attendance at the RailCorp City Region Configuration Control Board meetings. It is expected that RWA will continue discussions with the various RailCorp stakeholders, including the Control Board during the design of the Bridge (and prior to lodgement of the Environmental Assessment).

### **6.3 Heritage Council of NSW**

As indicated in Section 5.1 of this report, Consultation with the Heritage Council will occur prior to the lodgement of the Environmental Assessment, given the Bridge is located on an item listed on the State Heritage Register. The views of the Heritage Office will be considered in developing the design and preparing the Environmental Assessment.

### **6.4 Utility Providers**

Energy Australia and Sydney Water will be consulted to determine if any infrastructure issues need to be addressed in the design of the Bridge.

### **6.5 Other State Government Agencies**

As the CarriageWorks facility is adjacent to the location of the proposed Bridge, Arts NSW and CarriageWorks will be consulted during the design of the Bridge.

Police NSW will be consulted due to their interest in safer by design and crime prevention in public spaces. Police NSW will be consulted as part of the Environmental Assessment process.

## 7. Conclusion

The proposed Bridge provides an important and much needed link on the western edge of the Sydney CBD. The link will not only reinstate previous connections between the North Eveleigh and ATP sites and create an improved north south connection in Redfern-Waterloo, but will also achieve the NSW Government's vision of facilitating a research and innovation zone stretching from the Australian Technology Park to the University of Sydney and the University of Technology.

The Preliminary Environmental Assessment identifies the indicative envelope of the proposed Bridge (not the final design) and the key issues that will be addressed in the Environmental Assessment for the proposed Bridge. The Preliminary Environmental Assessment has been prepared to assist the Minister and Director-General of Planning to:

- § confirm that the proposed Bridge is a Major Project to which Part 3A of the *Environmental Planning and Assessment Act* applies,
- § authorise the submission of a Project Application for the proposed Bridge, and
- § enable the Director-General to prepare and issue environmental assessment requirements under section 75F (2) of the *EP&A Act*, in order to finalise the Bridge design and to prepare the Environmental Assessment.