

# CABRAMATTA LOOP PROJECT

## TECHNICAL REPORT

**TECHNICAL REPORT 8 —**  
HISTORICAL HERITAGE  
ASSESSMENT AND STATEMENT  
OF HERITAGE IMPACT

*THIS PAGE HAS BEEN LEFT INTENTIONALLY BLANK*



# Cabramatta Loop Historical Heritage Assessment and Statement of Heritage Impact

FINAL REPORT

Prepared for GHD

7 August 2019

## Biosis offices

### NEW SOUTH WALES

#### Newcastle

Phone: (02) 4911 4040  
Email: [newcastle@biosis.com.au](mailto:newcastle@biosis.com.au)

#### Sydney

Phone: (02) 9101 8700  
Email: [sydney@biosis.com.au](mailto:sydney@biosis.com.au)

#### Wollongong

Phone: (02) 4201 1090  
Email: [wollongong@biosis.com.au](mailto:wollongong@biosis.com.au)

#### Albury

Phone: (02) 6069 9200  
Email: [albury@biosis.com.au](mailto:albury@biosis.com.au)

### VICTORIA

#### Melbourne

Phone: (03) 8686 4800  
Email: [melbourne@biosis.com.au](mailto:melbourne@biosis.com.au)

#### Ballarat

Phone: (03) 5304 4250  
Email: [ballarat@biosis.com.au](mailto:ballarat@biosis.com.au)

#### Wangaratta

Phone: (03) 5718 6900  
Email: [wangaratta@biosis.com.au](mailto:wangaratta@biosis.com.au)

## Document information

**Report to:** GHD

**Prepared by:** Maggie Butcher  
Ashley Bridge  
Charlotte Allen  
Anthea Vella

**Biosis project no.:** 27833

**File name:** 27833.Cabramatta.Loop.HHA.FIN06.20190807

**Citation:** Biosis 2019. Cabramatta Loop Environmental Impact Statement: Historical Heritage Assessment and Statement of Heritage Impact. Report for GHD. Authors: M. Butcher, A. Bridge, C. Allen and A. Vella, Biosis Pty Ltd, Office location. Project no. 27833

## Document control

Version	Internal reviewer	Date issued
Draft version 01	James Cole	8/02/2019
Final version 01	Amanda Markham	28/02/2019
Final version 02	James Cole	29/03/2019
Final version 03	James Cole	11/04/2019
Final version 04	Taryn Gooley	30/05/2019
Final version 05	Taryn Gooley	26/07/2019
Final version 06	Taryn Gooley	06/08/2019

## Acknowledgements

Biosis acknowledges the contribution of the following people and organisations in undertaking this study:

- Aryel Pyliotis (GHD)
- Karen Yale (GHD)
- Stephanie Mifsud (ARTC).

Biosis staff involved in this project were:

- Anne Murray (mapping).

© Biosis Pty Ltd

This document is and shall remain the property of Biosis Pty Ltd. The document may only be used for the purposes for which it was commissioned and in accordance with the Terms of the Engagement for the commission. Unauthorised use of this document in any form whatsoever is prohibited.

Disclaimer:

Biosis Pty Ltd has completed this assessment in accordance with the relevant federal, state and local legislation and current industry best practice. The company accepts no liability for any damages or loss incurred as a result of reliance placed upon the report content or for any purpose other than that for which it was intended.



# Contents

<b>Glossary .....</b>	<b>v</b>
<b>Summary .....</b>	<b>vi</b>
<b>1 Introduction .....</b>	<b>1</b>
1.1 Overview.....	1
1.2 The project.....	1
1.2.1 Location.....	1
1.2.2 Key features.....	1
1.2.3 Timing.....	2
1.2.4 Operation.....	2
1.3 Purpose and scope of this report .....	2
1.4 Structure of this report .....	2
<b>2 Methodology.....</b>	<b>8</b>
2.1 Background research.....	8
2.2 Field investigation .....	8
2.3 Statutory framework.....	9
2.3.1 Environment Protection and Biodiversity Conservation Act 1999 .....	9
2.3.2 NSW Heritage Act 1977 .....	9
2.3.3 Environmental Planning and Assessment Act 1979 .....	11
2.3.4 Summary of heritage listings .....	12
2.4 Reporting.....	20
<b>3 Historical context .....</b>	<b>21</b>
3.1 Topography and resources.....	21
3.2 Aboriginal past .....	21
3.3 Historical development.....	22
3.3.1 Earliest Development (1795 – 1799) .....	22
3.4 Establishment of Liverpool and Fairfield (1788–1810).....	23
3.4.1 Establishment of Fairfield (1789–1806) .....	23
3.4.2 Establishment of Liverpool (1799–1810).....	23
3.5 Land grants and agriculture (1803-1845) .....	24
3.5.1 Local land grants and agriculture in Fairfield .....	24
3.5.2 Local land grants and agriculture in Liverpool.....	25
3.6 Development in Liverpool and Fairfield (1818–1915) .....	25
3.7 Chronology of the project site .....	33
3.8 Research themes .....	33
<b>4 Existing environment.....</b>	<b>35</b>
4.1 Site setting.....	35
4.2 Built fabric assessment.....	38

<b>5</b>	<b>Archaeological assessment .....</b>	<b>40</b>
5.1	Archaeological resource .....	40
5.2	Integrity of sub-surface deposits .....	40
5.3	Research potential.....	40
5.4	Summary of archaeological potential.....	41
<b>6</b>	<b>Significance assessment .....</b>	<b>50</b>
6.1	Levels of heritage significance.....	51
6.2	Evaluation of Significance.....	51
6.3	Statement of Significance.....	54
<b>7</b>	<b>Statement of heritage impact.....</b>	<b>55</b>
7.1	Project details.....	55
7.1.1	Discussion of heritage impact(s).....	58
7.1.2	Types of potential impacts.....	59
7.2	Impacts and recommended mitigation measures.....	60
7.3	Statement of heritage impact.....	64
<b>8</b>	<b>Recommendations.....</b>	<b>66</b>
8.1	Recommendations .....	66
	<b>References.....</b>	<b>68</b>
	<b>Appendices .....</b>	<b>70</b>
<b>Appendix 1</b>	<b>Heritage inventory sheets .....</b>	<b>71</b>

## Tables

Table 1	SEARS for heritage .....	3
Table 2	Department of the Environment and Energy requirements relevant to this assessment. ....	5
Table 3	Office of Environment and Heritage requirements relevant to this assessment. ....	5
Table 4	Department of Planning and Environment requirements relevant to this assessment.....	5
Table 5	Summary of heritage listings within and adjacent to the project site.....	13
Table 6	Chronological development of the project site .....	33
Table 7	Identified historical themes for the project site .....	33
Table 8	Assessment of archaeological potential .....	41
Table 9	Summary assessment of significance .....	53
Table 10	Assessment of impacts to heritage items within or adjacent to the project site.....	61

## Figures

Figure 1	Location of the project .....	6
Figure 2	Key features of the project .....	7

Figure 3	Location of heritage items within the project site and in the vicinity.....	14
Figure 4	1970 historical aerial .....	31
Figure 5	1991 historical aerial .....	32
Figure 6	Assessment of archaeological potential .....	43
Figure 7	Location of works in the vicinity of the Liverpool Railway Station Group.....	57

## Plates

Plate 1	Parish map of Bloomfield's subdivision plans with two crossings present along railway line [1] [2], focusing on the project site, highlighted in red (Source: Direct Info - DP1656).....	26
Plate 2	Plan of the Main South Railway Line [3], focusing on the project site (Source: NSW Land Registry Services, Crown plan 1954.3000).....	28
Plate 3	Extract from an 1867 Crown plan of the road adjacent to the railway line, showing gates [5], drain [6] and the timber beam bridge [4] (Source: NSW Land Registry Services, Crown plan R674.1603).....	29
Plate 4	Image of Federation cottage (Source: State Heritage Inventory listing – Federation Worker's Cottage).....	30
Plate 5	Part of one of the centre project site, partly comprised of flat grassed fields. View to the south .....	36
Plate 6	Part of one of the centre project site, partly comprised of clusters of trees. View to the north .....	36
Plate 7	Cabramatta (Cabramatta Creek), Railway Parade original brick construction. View to the east .....	37
Plate 8	Cabramatta (Cabramatta Creek), Railway Parade, concrete bridge to the east of the original brick bridge. View to the west.....	37
Plate 9	Stockpiling pad of asphalt to the west of the Cabramatta (Cabramatta Creek), Railway Parade. View to the west. ....	38
Plate 10	Indicative design of signalling location hut to be installed within the study area (note the signalling hut will not be fenced as it will be located within the fenced rail corridor).....	56
Plate 11	Indicative design of axle counter to be installed within the study area .....	56
Plate 12	Sussex Street Bridge proposed design .....	64
Plate 13	Cabramatta Bridge proposed design .....	64

## Glossary

<b>ARTC</b>	Australian Rail Track Corporation
<b>BP</b>	Before Present
<b>CHL</b>	Commonwealth Heritage List
<b>CMP</b>	Conservation Management Plan
<b>DCP</b>	Development Control Plan
<b>DP</b>	Deposited Plan
<b>EP&amp;A Act</b>	<i>Environmental Planning and Assessment Act 1979</i>
<b>EPBC Act</b>	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
<b>HA</b>	Historic Assessment
<b>LEP</b>	Local Environmental Plan
<b>NHL</b>	National Heritage List
<b>NSW</b>	New South Wales
<b>OEH</b>	NSW Office of Environment and Heritage
<b>PAC</b>	Planning Assessment Commission
<b>SoHI</b>	Statement of Heritage Impact
<b>SEARS</b>	Secretary's Environmental Assessment Requirements
<b>SEPP</b>	State Environment Planning Policy
<b>SHR</b>	State Heritage Register
<b>SHI</b>	State Heritage Inventory
<b>SSI</b>	State Significant Infrastructure
<b>SSFL</b>	Southern Sydney Freight Line
<b>SSI</b>	State Significant Infrastructure
<b>Project site</b>	The area of impact for the proposed works, including ancillary works

## Summary

---

Biosis Pty Ltd was commissioned by GHD on behalf of Australian Rail Track Corporation (ARTC) to undertake a Heritage Assessment (HA) and Statement of Heritage Impact (SoHI) of an area of land proposed for the Cabramatta Loop project and indicative locations for the signalling works within the rail corridor (the project site) to inform an Environmental Impact Statement (EIS). The project site is located through Liverpool, Warwick Farm and Cabramatta, approximately 26 kilometres south west of Sydney central business district (CBD).

The methodology used throughout this report in order to assess the project utilises:

- Identification of relevant legislation and listings for any items within or adjacent to the area being assessed.
- A history of the area, both general and a specific site history to identify any potential archaeological elements.
- A built heritage assessment of the site and any surrounding listed items.
- An archaeological assessment of potential remains as identified by both the site visit and history, this includes potential mapping.
- An analysis of the significance of any potential archaeological remains in the site and any items within the vicinity.
- The project details.

The information provided by these sections are used to assess the projects impacts in relation to the potential archaeology and heritage within and adjacent to the development area in order to produce mitigation measures and recommendations to minimise impact on the heritage.

The project site, defined by the area of impact of the proposed works, comprises parts of Lot 4 DP 1186349, Lot 4, 5 DP 1129945, Lot 1 DP 1053994, Lot 12 DP 1185796, Lot 11 DP 1185775, Lot 1008 DP 591195, Lot 2 DP 250138, Lot 10 DP 1185718, Lot 2 DP 1129315, Lot 1 DP 865075, Lot 2 DP 1128471, Lot 1 DP 171299 and Lot 1 DP 1164164. This assessment approach has been undertaken to allow for assessment of both the project site as well as any additional areas in the broader area which are likely to be affected by the project, either directly or indirectly. The proposed works involve:

- Providing a new section of track adjacent to the existing train to function as a passing loop, which would allow one train to pass another.
- Construction of 1.65 kilometres of new track and slewing of 550 metres of existing Southern Sydney Freight Line (SSFL) track.
- Installation of two new rail bridges over Sussex Street and Cabramatta Creek.
- Construction of a retaining wall and noise wall on Broomfield Street.
- Construction of a retaining wall in Jacquie Osmond Reserve and between the two Cabramatta Creek bridges.
- Re-configuration of Broomfield Street road alignment, car parking, pedestrian and cycle routes.
- Relocation and protection of identified third party services.

- Construction compounds (locations to be decided).

The proposed development will be assessed as a State Significant Infrastructure (SSI) under Section 89(c) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and Schedule 1 of the State Environmental Planning Policy (State and Regional Development) 2011 (State and Regional Development SEPP) (SSI 18\_9186). The project will be assessed by the Planning Assessment Commission (PAC) under delegation from the Minister of Planning. The Secretary's Environmental Assessment Requirements (SEARs) were issued for this development on 13 June 2018.

This assessment has identified that there may be archaeological material present within the project site related to the early ownership and use of the land for agricultural and animal husbandry purposes. This could include evidence of land clearance, plough lines, agricultural marks, post holes from fence lines and rubbish pits. Evidence of later use as a railway corridor could include evidence of crossings such as gate and fence post holes, impressions or post holes of the foundations of a timber bridge, post holes of gates and bridge drain structural remains. However, due to the ephemeral nature of the early remains and the subsequent upgrade of the rail line, the archaeological potential has been assessed as low. The archaeological materials have also been assessed as not holding heritage significance.

While the archaeology in the project site may not hold heritage significance, there are multiple items within and adjacent to the project site which are listed either on the State Heritage Register (SHR), Section 170 New South Wales (NSW) State Agency Heritage Register or Local Environmental Plans (LEPs). These items include:

- Cabramatta (Cabramatta Creek), Railway Parade & Sussex Street Underbridge
- Federation cottage
- Liverpool Railway Station Group, including station building, goods shed and jib crane
- Villawood Railway Station Group.

The two structures (in the one listing) that have significance within the project site are the Cabramatta (Cabramatta Creek), Railway Parade & Sussex Street Underbridge. These two bridges are grouped under the same listing in a s170 register. The development proposes the build two new bridges adjacent to Cabramatta (Cabramatta Creek), Railway Parade & Sussex Street Underbridge. This will indirectly impact their heritage values.

The item which has significance adjacent to the project site is the Federation cottage, which is still listed but has burnt down. The Federation cottage was situated where the rail corridor is to be widened along Broomfield Street with a noise wall and relocation of services. The development will have indirect impacts on the item.

The signalling work impacts are assessed in relation to the locally or state listed items that they have the potential to either be in the curtilage or adjacent to it. It is understood that the signal installations will include limited earthworks to install or relocate services and the construction of related infrastructure. These impacts are assessed against the listed items heritage values. The recommendations apply to any signalling works within or adjacent to the listed items curtilage areas. Should the signal installation scope change dramatically (e.g. bulk excavation of the sub-surface soils) the recommendations may need to be updated to reflect this. The current recommendations for the signalling works provide general advice to guide their position and design.

The signalling works have the potential to be within or adjacent to the Liverpool Railway Station Group. The Liverpool Railway Station Groups' area is locally listed and buildings are State listed. These works have the potential to indirectly impact the heritage values if these items.



The signalling works also have the potential to be adjacent to the Villawood Railway Station Group. These have the potential to impact the heritage values if these items.

## **Recommendations**

### **Recommendation 1 Finalisation of detailed design and incorporation of mitigation measures outlined in Section 7.2**

The detailed design for the project should be finalised to incorporate as many mitigation strategies as possible in order to avoid or minimise impacts, to the greatest extent possible, on the heritage significance of environmental heritage (in accordance with SEARs Key Issue no.10).

### **Recommendation 2 Implement recommendations from the Noise and Vibration Impact Assessment**

The recommendations from the Noise and Vibration Impact Assessment should be carried out (in accordance with the SEARs Key Issue no.2). The mitigation measures in this document will reduce the impacts of the noise and vibrations from the construction works on the heritage listed items.

### **Recommendation 3 Undertake Dilapidation Survey for all structures within the vibration buffer distance**

A Dilapidation Survey should be undertaken for all items that are assessed by the Noise and Vibration Impact Assessment as falling within the vibration buffer distance. If the report results indicate the structure of and heritage items will be compromised, a structural engineer should be engaged to assess further and determine potential mitigation of the heritage.

### **Recommendation 4 Completion of a Conservation Management Plan**

In accordance with the s170 listing for the Cabramatta (Cabramatta Creek), Railway Parade & Sussex Street Underbridge recommendations and best practice, a CMP should be prepared prior to commencing major works in the listings curtilage.

### **Recommendation 5 Recording and register update**

In accordance with the s170 listing for the Cabramatta (Cabramatta Creek), Railway Parade & Sussex Street Underbridge recommendations and best practice, the changes at the items should be recorded through adequate project records and archival photography. Notify all changes to the Section 170 Heritage & Conservation Register administrator upon project completion.

Contact council to inform them or request the listing for the Federation Workers Cottage to be updated (it is adjacent to the project site) as its significance is in its aesthetic qualities. If it is determined to still have significance the relevant mitigation measures in Table 10 would be recommended or may need to be updated.

### **Recommendation 6 Development of an Unexpected Finds procedure**

SSI projects are not required to obtain an excavation permit under Section 139 of the Heritage Act, as per Section 5.23 (1) (c) of the EP&A Act. Despite this, section 146 of the *Heritage Act 1977* is still applicable to SSI projects. An unexpected finds procedure should be developed by a qualified archaeologist so that in the event of an unexpected find (substantial intact archaeological relics of state or local significance not identified in the archaeological assessment) being discovered, a process will be in place to identify what to do and who to call in that situation.

# 1 Introduction

---

## 1.1 Overview

ARTC proposes to construct and operate a passing loop for 1,300 metre length trains on the SSFL between Sydney Trains' Cabramatta and Warwick Farm stations. The Cabramatta Loop Project ('the project') would allow freight trains to pass and provide additional rail freight capacity along the SSFL.

The project is State significant infrastructure in accordance with Division 5.2 of the EP&A Act. As State significant infrastructure, the project needs approval from the NSW Minister for Planning.

This report has been prepared to accompany the EIS to support the application for approval of the project, and address the environmental assessment requirements of the SEARs, issued on 17 May 2018.

## 1.2 The project

### 1.2.1 Location

The project is generally located within the existing rail corridor between the Hume Highway and Cabramatta Road East road overbridges in the suburbs of Warwick Farm and Cabramatta. In addition, the project includes works to Broomfield Street adjacent to the rail corridor in Cabramatta.

The rail corridor is owned by the NSW Government (RailCorp) and leased to ARTC.

The location of the project is shown in Figure 1.

### 1.2.2 Key features

The key features of the project include:

- New rail track – providing a 1.65 kilometre long section of new track with connections to the existing track at the northern and southern ends.
- Track realignment – moving about 550 metres of existing track sideways (slewing) to make room for the new track.
- Bridge works – constructing two new bridge structures adjacent to the existing rail bridges over Sussex Street and Cabramatta Creek.
- Road works – reconfiguring Broomfield Street for a distance of about 680 metres between Sussex and Bridge streets.
- Construction compounds and work sites with site offices, amenities, areas for plant, equipment and material storage, fencing and security facilities and worker parking.

Ancillary work would include communication upgrade works to existing retaining and noise walls, drainage work and protecting/relocating utilities. In addition, minor works in the form of new signalling would be installed at a number of locations within the rail corridor (indicative locations provided in the EIS).

The key features of the project are shown in Figure 2. Further information on the project is provided in the EIS.

### **1.2.3 Timing**

Subject to approval of the project, construction is planned to start in early 2021, and is expected to take about two years. Construction is expected to be completed in early 2023.

It is anticipated that some features of the project would be constructed while the existing rail line continues to operate. Other features of the project would need to be constructed during programmed weekend rail possession periods when rail services along the line cease to operate. Possession periods typically occur for 48 hours four times per year.

### **1.2.4 Operation**

The project would operate as part of the SSFL and would continue to be managed by ARTC. ARTC is not responsible for the operation of rolling stock. Train services are currently, and would continue to be, provided by a variety of operators.

## **1.3 Purpose and scope of this report**

The purpose of this report is to assess the potential historical heritage impacts from the operation and construction of the proposal. This This Historical Heritage Assessment and Statement of Heritage Impact assessment addresses the relevant SEARs for the EIS, as outlined in Table 1, and the requirements of Environment Protection and Biodiversity Conservation Act 1999, NSW Heritage Act 1977 and the Environmental Planning and Assessment Act 1979 as outlined in Table 2, Table 3 and Table 4. The report:

- Describes the existing environment with respect to the history of the project site, archaeology and heritage items.
- Assesses the impacts of constructing and operating the project on the historic heritage and archaeology.
- Recommends measures to mitigate the impacts identified (including measures to avoid significant impacts and an evaluation of the effectiveness of the mitigation measures) in accordance with relevant best practice guidelines.

The assessment is based on a desktop review of information available for the existing environment and a site visit.

## **1.4 Structure of this report**

- Section 1 –Introduction
- Section 2 – Statutory Framework
- Section 3 – Methodology
- Section 4 – Historical Context
- Section 5 – Physical Inspection
- Section 6 – Archaeological Assessment
- Section 7 – Significant Assessment
- Section 8 – Statement of Heritage Impact
- Section 9 – Recommendations.

**Table 1 SEARS for heritage**

Key issue and desired outcome	Requirement (specific assessment requirements in addition to the general requirement above)	Where addressed in the report	Current guidelines
<b>3 (2) Assessment of Key issues</b> <b>For each key issue the Proponent must:</b>	(a) describe the biophysical and socio-economic environment, as far as it is relevant to that issue		
	(b) describe the legislative and policy context, as far as it is relevant to the issue		
	(c) identify, describe and quantify (if possible) the impacts associated with the issue, including the likelihood and consequence (including worst case scenario) of the impact (comprehensive risk assessment), and the cumulative impacts		
	(d) demonstrate how potential impacts have been avoided (through design, or construction or operation methodologies);	<ul style="list-style-type: none"> <li>Chapter 14 of the EIS</li> </ul>	
	(e) detail how likely impacts that have not been avoided through design will be minimised, and the predicted effectiveness of these measures (against performance criteria where relevant)		
<b>2. Noise and Vibration – Structural</b> <b>Construction noise and vibration</b> <b>(including airborne noise, ground-borne noise and blasting) are effectively managed to minimise adverse impacts on the structural integrity of buildings and items including Aboriginal places and environmental heritage.</b> <b>Increases in noise emissions and</b>	1. The Proponent must assess construction and operation noise and vibration impacts in accordance with relevant NSW noise and vibration guidelines. The assessment must include consideration of impacts to the structural integrity and heritage significance of items (including Aboriginal places and items of environmental heritage).	<ul style="list-style-type: none"> <li>Section 7.2</li> </ul>	<ul style="list-style-type: none"> <li>German Standard DIN 4150-3: Structural Vibration - effects of vibration on structures</li> </ul> <p>These guidelines are not specifically addressed by name in the relevant section, however they</p>

Key issue and desired outcome	Requirement (specific assessment requirements in addition to the general requirement above)	Where addressed in the report	Current guidelines
<b>vibration affecting environmental heritage as defined in the Heritage Act 1977 during operation of the project are effectively managed.</b>			are taken into account when recommendations are made.
<b>10. Heritage</b> <b>The design, construction and operation of the project facilitates, to the greatest extent possible, the long term protection, conservation and management of the heritage significance of items of environmental heritage.</b> <b>The design, construction and operation of the project avoids or minimises impacts, to the greatest extent possible, on the heritage significance of environmental heritage.</b>	<ol style="list-style-type: none"> <li>The Proponent must identify and assess any direct and/or indirect impacts (including cumulative impacts) to the heritage significance of: <ul style="list-style-type: none"> <li>(c) environmental heritage, as defined under the Heritage Act 1977; and</li> <li>(d) items listed on the National and World Heritage lists.</li> </ul> </li> <li>Where impacts to State or locally significant heritage items are identified, the assessment must: <ul style="list-style-type: none"> <li>(a) include a statement of heritage impact for all heritage items (including significance assessment);</li> <li>(b) consider impacts to the item of significance caused by, but not limited to, vibration, demolition, archaeological disturbance, altered historical arrangements and access, visual amenity, landscape and vistas, curtilage, subsidence and architectural noise treatment (as relevant)</li> <li>(c) outline measures to avoid and minimise those impacts in accordance with the current guidelines; and</li> <li>(d) be undertaken by a suitably qualified heritage consultant(s) (note: where archaeological excavations are proposed the relevant consultant must meet the NSW Heritage Council's Excavation Director criteria).</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>Section 7.1</li> <li>Section 7</li> <li>Section 7</li> <li>Section 7.2</li> <li>Section 7.2</li> </ul>	<ul style="list-style-type: none"> <li>NSW Skeletal Remains: Guidelines for Management of Human Remains (Heritage Office, 1998)</li> <li>Criteria for the assessment of excavation directors (NSW Heritage Council, 2011)</li> <li>NSW Heritage Manual (Heritage Office and Department of Urban Affairs and Planning, 1994)</li> <li>Assessing Heritage Significance (NSW Heritage Office, 2001)</li> <li>The Australia ICOMOS Burra Charter</li> </ul> <p>These guidelines are not specifically addressed by name in the relevant section, however they are taken into account when recommendations are made.</p>

**Table 2 Department of the Environment and Energy requirements relevant to this assessment.**

Requirements	Where addressed in this report
<i>The Environment Protection and Biodiversity Act 1999</i> (EPBC Act)	Section 2.3.1

**Table 3 Office of Environment and Heritage requirements relevant to this assessment.**

Requirements	Where addressed in this report
<i>Heritage Act 1977</i> (as amended)	Section 2.3.2

**Table 4 Department of Planning and Environment requirements relevant to this assessment.**

Requirements	Where addressed in this report
<i>Environmental Planning and Assessment Act 1979</i>	Section 2.3.3



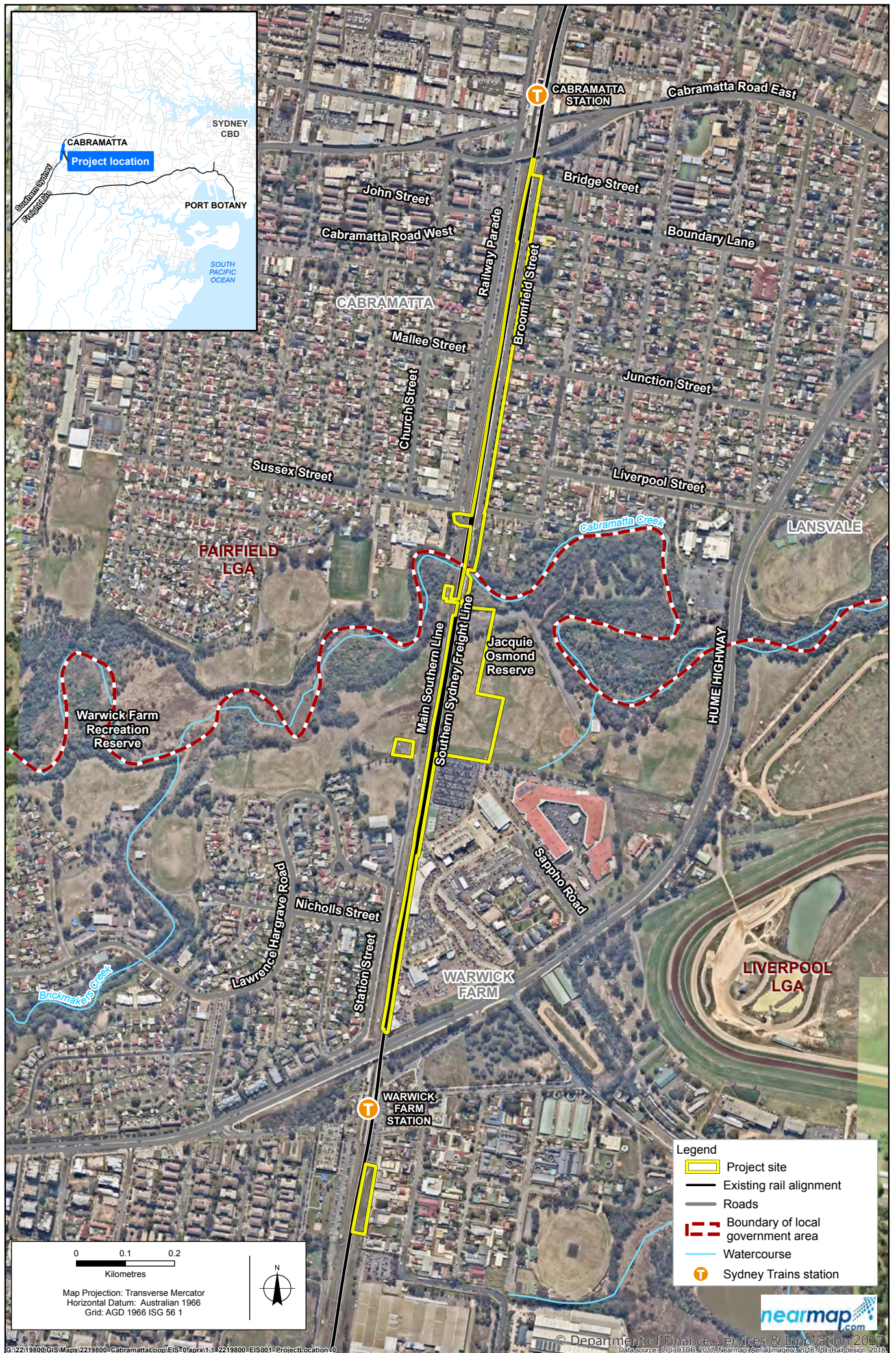


Figure 1.1 Location of the project



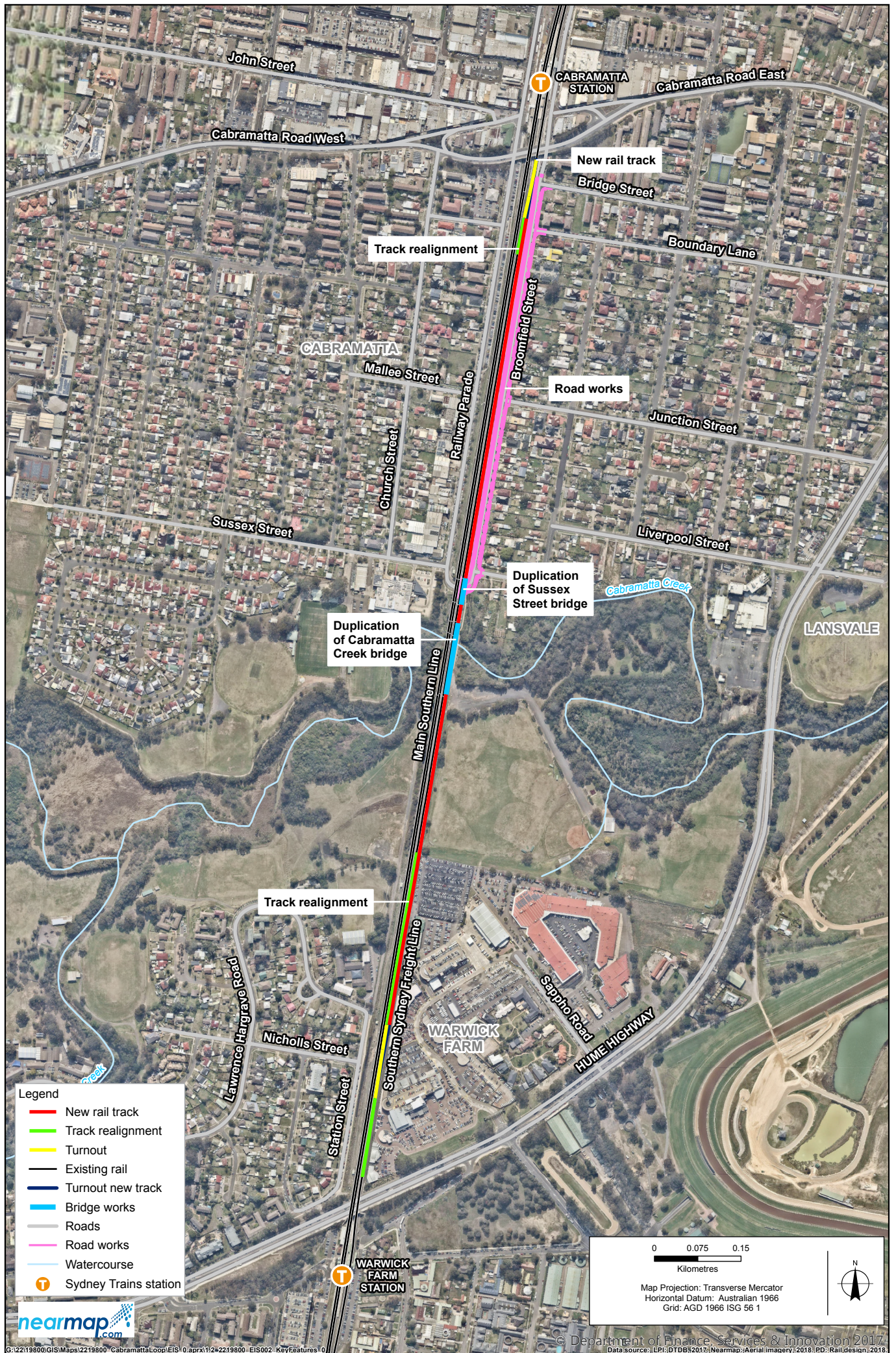


Figure 1.2 Key features of the project



## 2 Methodology

---

The approach to this SoHI is presented below. The methodology has been developed to meet the requirements of the Heritage Manual (Statements of Heritage Impact, Heritage Office and Department of Urban Affairs & Planning 1996, revised 2002). The following tasks are outlined below, and have been undertaken to complete and finalise SoHI:

- Background research
- Field investigation
- Draft report
- Final report.

### 2.1 Background research

Background research undertaken for the project consisted of the following tasks:

- Review of existing literature such as previously prepared heritage studies.
- Review of statutory framework and implications to the project.
- Review of Heritage Schedules:
  - LEP and other relevant planning instruments
  - The Section 170 Register
  - The State Heritage Register
  - The National Heritage Register
  - The Commonwealth Heritage Register.

Electronic sources such as the National Library of Australia's Trove will also be searched. Resources at the NSW Department of Lands online viewer were inspected including historical parish maps and a title search for the properties located within the project site.

### 2.2 Field investigation

A field investigation of the project site was undertaken in order to understand the landscape in and around the proposed works and identify any known and unknown heritage items, should they be present. This included an assessment of the surrounding streetscape and visual relationships with adjacent heritage items. The investigation includes an assessment of disturbance which assisted with predictive modelling for areas of archaeological potential and significance assessment.

High quality heritage mapping was undertaken in ArcGIS and MapInfo Professional by an experienced GIS unit.

## 2.3 Statutory framework

This assessment will support an EIS for a SSI application under Section 89(c) of the EP&A Act and Schedule 1 of the SEPP (State and Regional Development) 2011. The project will be assessed by the PAC under delegation from the Minister of Planning. In NSW cultural heritage is managed in a three-tiered system: national, state and local. Certain sites and items may require management under all three systems or only under one or two. The following discussion aims to outline the various levels of protection and approvals required to make changes to cultural heritage in the state.

### 2.3.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Act 1999* (EPBC Act) is the national Act protecting the natural and cultural environment. The EPBC Act is administered by the Department of the Environment and Energy (DEE). The EPBC Act establishes two heritage lists for the management of the natural and cultural environment:

- The National Heritage List (NHL) contains items listed on the NHL have been assessed to be of outstanding significance and define 'critical moments in our development as a nation'.<sup>1</sup>
- The Commonwealth Heritage List (CHL) contains items listed on the CHL are natural and cultural heritage places that are on Commonwealth land, in Commonwealth waters or are owned or managed by the Commonwealth. A place or item on the CHL has been assessed as possessing 'significant' heritage value.<sup>2</sup>

A search of the NHL and CHL did not yield any results associated with or adjacent to the project site.

### 2.3.2 NSW Heritage Act 1977

Heritage in NSW is principally protected by the *Heritage Act 1977* (as amended) which was passed for the purpose of conserving items of environmental heritage of NSW. Environmental heritage is broadly defined under Section 4 of the *Heritage Act 1977* as consisting of the following items: 'those places, buildings, works, relics, moveable objects, and precincts, of State or Local heritage significance'. The Act is administered by the Heritage Council, under delegation by the Heritage Division, Office of Environment and Heritage (OEH). The *Heritage Act 1977* is designed to protect both known heritage items (such as standing structures) and items that may not be immediately obvious (such as potential archaeological remains or 'relics'). Different parts of the *Heritage Act 1977* deal with different situations and types of heritage and the Act provides a number of mechanisms by which items and places of heritage significance may be protected.

While State Significant Infrastructure (SSI) projects do not need to comply with the provisions and conditions of the *Heritage Act 1977*, the values protected under this act need to be considered under this assessment.

#### 2.3.2.1 State Heritage Register

Protection of items of State significance is by nomination and listing on the State Heritage Register (SHR) created under Part 3A of the *Heritage Act 1977*. The Register came into effect on 2 April 1999. The Register was established under the *Heritage Amendment Act 1998*. It replaces the earlier system of Permanent Conservation Orders as a means for protecting items with State significance.

A permit under Section 60 of the *Heritage Act 1977* is required for works on a site listed on the SHR, except for that work which complies with the conditions for exemptions to the requirement for obtaining a permit. Details of which minor works are exempted from the requirements to submit a Section 60 Application can be

---

<sup>1</sup> Department of Environment and Energy 2019a

<sup>2</sup> Department of Environment and Energy 2019b

found in the Guideline 'Standard Exemptions for Works requiring Heritage Council Approval'. These exemptions came into force on 5 September 2008 and replace all previous exemptions.

- The Liverpool Railway Station Group is a State Heritage Listed item and is in the vicinity of the project site. Its buildings are State listed, its area is listed under the Liverpool LEP 2008 as shown in Figure 3.

### 2.3.2.2 Archaeological relics

Section 139 of the *Heritage Act 1977* protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation where a person has 'reasonable cause to suspect' that archaeological remains may be affected by the disturbance or excavation of the land. This section applies to all land in NSW that is not included on the SHR.

Amendments to the *Heritage Act 1977* made in 2009 changed the definition of an archaeological 'relic' under the Act. A 'relic' is defined by the Heritage Act as:

*'Any deposit, object or material evidence:*

*(a) which relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and*

*(b) which is of State or Local significance'.*

It should be noted that not all remains that would be considered archaeological are relics under the NSW *Heritage Act 1977*. Advice given in the Archaeological Significance Assessment Guidelines is that a 'relic' would be viewed as a chattel and it is stated that,

*'In practice, an important historical archaeological site will be likely to contain a range of different elements as vestiges and remnants of the past. Such sites will include 'relics' of significance in the form of deposits, artefacts, objects and usually also other material evidence from demolished buildings, works or former structures which provide evidence of prior occupations but may not be "relics".<sup>13</sup>*

If a relic, including shipwrecks in NSW waters (that is rivers, harbours, lakes and enclosed bays) is located, the discoverer is required to notify the NSW Heritage Council.

Section 139 of the *Heritage Act 1977* requires any person who knows or has reasonable cause to suspect that their proposed works will expose or disturb a 'relic' to first obtain an Excavation Permit from the Heritage Council of NSW (pursuant to Section 140 of the Act), unless there is an applicable exception (pursuant to Section 139(4)). Excavation permits are issued by the Heritage Council of NSW in accordance with sections 60 or 140 of the *Heritage Act 1977*. It is an offence to disturb or excavate land to discover, expose or move a relic without obtaining a permit. Excavation permits are usually issued subject to a range of conditions. These conditions will relate to matters such as reporting requirements and artefact cataloguing, storage and curation.

However, SSI projects are not required to obtain an excavation permit under Section 139 of the Heritage Act, as per Section 5.23 (1) (c) of the EP&A Act. Despite this, section 146 of the *Heritage Act 1977* is still applicable to SSI projects. If during the course of the development, substantial intact archaeological relics of state or local significance not identified in the archaeological assessment are unexpectedly discovered during excavation, work must cease in the affected area and the Heritage Office must be notified in writing in accordance with section 146 of the *Heritage Act 1977*. Depending on the nature of the discovery, additional assessment may be required prior to the recommencement of excavation in the affected area.

---

<sup>3</sup> NSW Heritage Branch, Department of Planning 2009, p.7

### **2.3.2.3 Section 170 Heritage and Conservation Registers**

Section 170 of the *Heritage Act 1977* requires that culturally significant items or places managed or owned by Government agencies are listed on departmental Heritage and Conservation Register. Information on these registers has been prepared in accordance with Heritage Division guidelines.

Statutory obligations for archaeological sites that are listed on a Section 170 Register include notification to the Heritage Council in addition to relic's provision obligations. There is one item in the project site that is listed on a State government instrumentality Section 170 Register:

- Cabramatta (Cabramatta Creek), Railway Parade & Sussex Street Underbridge, (Rail Corp Section 170 Register) Sussex Street, Railway Parade, Cabramatta, NSW. This item is also listed under the Fairfield LEP.

### **2.3.3 Environmental Planning and Assessment Act 1979**

The EP&A Act establishes the framework for cultural heritage values to be formally assessed in the land use planning, development consent and environmental impact assessment processes. The EP&A Act requires that environmental impacts are considered prior to land development and the level of significance of the impact assessed; 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 (LEP) and Development Control Plans (DCP)) in accordance with the EP&A Act to provide guidance on the level of environmental assessment required.

The aim of the LEP's in relation to heritage is to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings, views and archaeological sites. The LEP's list items of heritage significance within the Local Government Area (LGA) and specify aims and objectives to be addressed in any development application. The project site is subject to the Fairfield LEP 2013 and Liverpool LEP 2008.

#### **2.3.3.1 Fairfield Local Environmental Plan 2013**

The Fairfield LEP 2013 contains schedules of heritage items that are managed by the controls in the instrument. While SSI projects do not need to comply with the provisions and conditions of the Fairfield LEP 2013, the values protected under the LEP need to be considered under this assessment. Heritage items in the vicinity of the project site is identified in Figure 3.

The project site is situated within the vicinity of three heritage items of local significance:

- Federation cottage (I10), 132 Broomfield Street, Lot 11, section 6, DP 1656. Local listing located adjacent to the railway line.
- Railway viaducts and underbridge (I19), Railway Parade and Sussex Street (Cabramatta Creek). Local listing located underneath railway line.
- Villawood Railway Station Group (I103), 19 Villawood Road. Local listing located adjacent to the railway line.

#### **2.3.3.2 Fairfield City Wide Development Control Plan 2013 and Cabramatta Town Centre Development Control Plan 2014**

The Fairfield City Wide DCP 2013 and Cabramatta Town Centre DCP 2014 outlines built form controls to guide development. The Fairfield City Wide DCP and Cabramatta Town Centre DCP supplements the provisions of the Fairfield LEP.



The objectives of the Fairfield City Wide DCP and Cabramatta Town Centre DCP are to conserve the significance of natural and built environment, and new development needs to be designed so that it does not diminish the significance of adjacent or nearby heritage items.

#### **2.3.3.3 Liverpool Local Environmental Plan 2008**

The Liverpool LEP 2008 contains schedules of heritage items that are managed by the controls in the instrument. While SSI projects do not need to comply with the provisions and conditions of the Liverpool LEP 2013, the values protected under the LEP need to be considered under this assessment.

One heritage item of local significance is located within the project site:

- Liverpool Railway Station Group, including station building, goods shed and jib crane, off Bigge Street.

#### **2.3.3.4 Liverpool Development Control Plan 2008**

The Liverpool DCP 2008 contains provisions for development of and in the vicinity of heritage items and archaeological sites. The objectives of the Liverpool DCP are to conserve archaeological sites and the heritage significance of heritage items and heritage conservation areas of Liverpool including associated fabric, setting, curtilage and view, as well as to facilitate the implementation of the objectives and provisions relating to heritage conservation contained in the Liverpool LEP 2008. The Liverpool DCP also aims to promote and encourage heritage conservation and the consideration of the heritage context in development, enhance the amenity and heritage values of the Liverpool local government area and enable appropriate and expert consideration of proposed development to be made by applicants and the Council. The Liverpool DCP encourages the retention and appropriate development of significant items, a high standard of contemporary design in the heritage context, the preservation of culturally significant vegetation and to encourage and promote public awareness, appreciation and knowledge of heritage conservation.

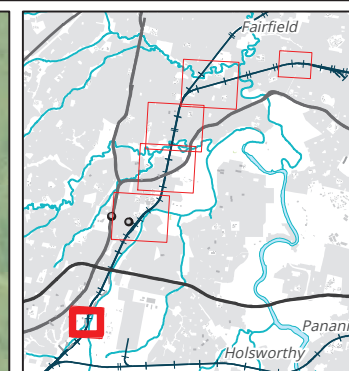
#### **2.3.4 Summary of heritage listings**

A summary of heritage listings within and in the vicinity of the project site is presented in Table 5 and Figure 3.1 to Figure 3.6.

**Table 5 Summary of heritage listings within and adjacent to the project site**

Site number	Site name	Address / Property description	Listings		Significance
			Individual item	As a Conservation Area	
<b>I10</b>	Federation cottage	132 Broomfield Street, Lot 11, section 6, DP 1656	Fairfield LEP 2013	-	Local
<b>I19</b>	Cabramatta (Cabramatta Creek), Railway Parade & Sussex Street Underbridge	Railway Parade and Sussex Street (Cabramatta Creek)	Fairfield LEP 2013 RailCorp Section 170 Register	-	Local
<b>I103</b>	Villawood Railway Station Group	19 Villawood Road	Fairfield LEP 2013	-	Local
<b>72</b>	Liverpool Railway Station Group	Bigge Street (off), Lot 31, DP 859887; Part Lot 5, DP 226933	State Heritage Register Liverpool LEP 2008	-	State





#### Legend

Study area

Historical heritage

Item - General

**Figure 3.1: Location of heritage items within the project site and in the vicinity**

0 25 50 75 100 125

Metres

Scale: 1:2,500 @ A3

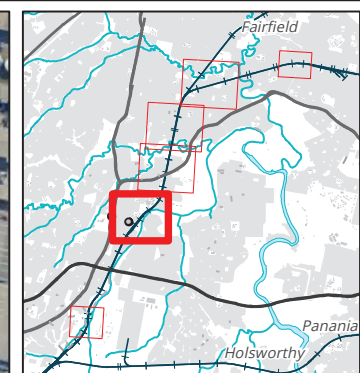
Coordinate System: GDA 1994 NSW Lambert



Albury, Ballarat, Melbourne,  
Newcastle, Sydney, Wangaratta & Wollongong

Matter: 27833  
Date: 27 February 2019  
Checked by: TLG Drawn by: AEDM, Last edited by: amurray  
Location: \\bio-data-01\matters\127800s\27833\Mapping\27833\_F3\_HeritageItems

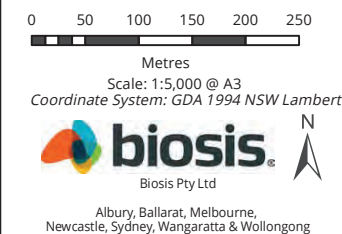




#### Legend

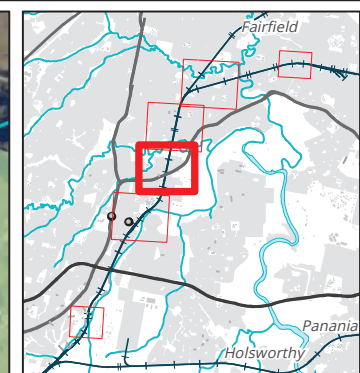
- Study area
- State heritage
- Historical heritage
  - Conservation Area - General
  - Item - General
  - Item - Landscape

**Figure 3.2: Location of heritage items within the project site and in the vicinity**



Matter: 27833  
Date: 27 February 2019  
Checked by: TLG Drawn by: AEDM, Last edited by: amurray  
Location: \\bio-data-01\matters\27833\Mapping\27833 F3 HeritageItems





#### Legend

Study area

Historical heritage

Item - General

Item - Landscape

**Figure 3.3: Location of heritage items within the project site and in the vicinity**

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

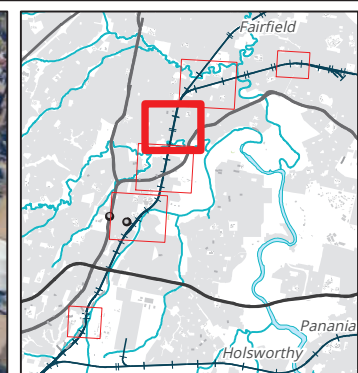
Coordinate System: GDA 1994 NSW Lambert



Biosisis Pty Ltd  
Albury, Ballarat, Melbourne,  
Newcastle, Sydney, Wangaratta & Wollongong

Matter: 27833  
Date: 27 February 2019  
Checked by: TLG Drawn by: AEDM, Last edited by: amurray  
Location: \\bio-data-01\matters\127800s\27833\Mapping\27833\_F3\_HeritageItems





#### Legend

Study area

Historical heritage

Item - General

**Figure 3.4: Location of heritage items within the project site and in the vicinity**

0 50 100 150 200 250

Metres

Scale: 1:5,000 @ A3

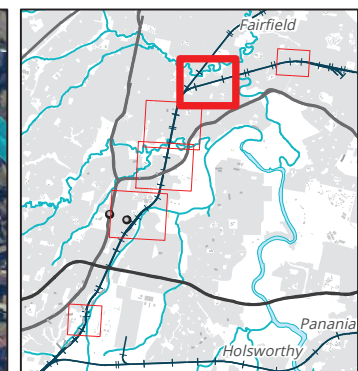
Coordinate System: GDA 1994 NSW Lambert




Albury, Ballarat, Melbourne,  
Newcastle, Sydney, Wangaratta & Wollongong

Matter: 27833  
Date: 27 February 2019  
Checked by: TLG Drawn by: AEDM, Last edited by: amurray  
Location: \\bio-data-01\matters\5127800s\27833\Mapping\27833 F3 HeritageItems





### Legend

 Study area

## Historical heritage

 Item - General

**Figure 3.5: Location of heritage items within the project site and in the vicinity**



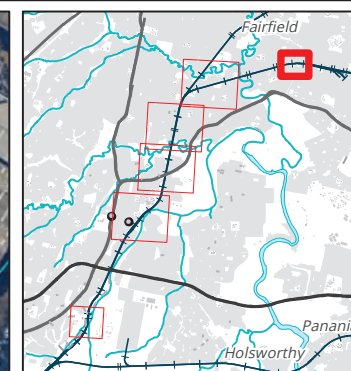
Metres  
Scale: 1:5,000 @ A3  
Coordinate System: GDA 1994 NSW Lambert



Albury, Ballarat, Melbourne,  
Newcastle, Sydney, Wangaratta & Wollongong

Matter: 27833  
Date: 27 February 2019,  
Checked by: TLG, Drawn by: AEDM, Last edited by: amurray  
Location: \\bio-data-01\matters\$\127800s\27833\mapping\27833\_F3\_Heritageltems





#### Legend

Study area

Historical heritage

Item - General

**Figure 3.6: Location of heritage items within the project site and in the vicinity**

0 25 50 75 100 125  
Metres

Scale: 1:2,500 @ A3  
Coordinate System: GDA 1994 NSW Lambert



Albury, Ballarat, Melbourne,  
Newcastle, Sydney, Wangaratta & Wollongong

Matter: 27833  
Date: 27 February 2019  
Checked by: TLG Drawn by: AEDM, Last edited by: amurray  
Location: \\bio-data-01\matters\27800s\27833\Mapping\27833\_F3\_HeritageItems



## 2.4 Reporting

Following the site survey a historical assessment and SoHI was prepared. The report incorporated the following components:

- Introduction – incorporating the standard introduction required for specialist reports.
- Methodology for the assessment – including a review of statutory instruments and heritage listings relevant to the project site.
- Historical Context - A history of the occupation of the project site was prepared to inform the understanding of archaeological potential and significance. The assessment drew from information from primary sources as well as secondary sources.
- Existing environment - The results of the site survey and details of any heritage items were identified.
- Archaeological Assessment - Assessment of archaeological potential for the project site. The level of potential (low, moderate or high) was based upon the results of the historical context and site survey and informed the assessment and management recommendations.
- Significance Assessment - An assessment of significance of the archaeological resource was prepared. Significance guided the appropriate management measures. The assessment of significance was undertaken in accordance with the Heritage Office guidelines *Assessing heritage significance* (2001).
- Statement of Heritage Impact - The report concludes by identifying if measures are necessary in order to either protect the known and potential archaeological resource or undertake further detailed study to guide the best heritage management approach. Includes the sections Assessment of construction, operation and cumulative impacts and Recommended mitigation measures.
- Mapping was prepared for various parts of the report and identified the project site in a regional and local context. Mapping was used to illustrate the location of identified areas of assessment of potential and impacts.