

Horsley Drive Business Park  
Proposed Lot 3 in Lot 5 DP 1212087  
Warehouse/Distribution and Industrial Facility  
Heritage Impact Statement  
Report prepared for Frasers Property Australia Pty Ltd  
February 2017



## Report Register


The following report register documents the development and issue of the report entitled Horsley Drive Business Park, Proposed Lot 3 in Lot 5 DP 1212087 - Warehouse/Distribution and Industrial Facility—Heritage Impact Statement], undertaken by GML Heritage Pty Ltd in accordance with its quality management system.

Job No.	Issue No.	Notes/Description	Issue Date
17-0003	1	Draft Report	31 January 2017
17-0003	2	Revised Draft Report	2 February 2017
17-0003	3	Final Report	3 February 2017

## Quality Assurance

GML Heritage Pty Ltd operates under a quality management system which has been certified as complying with the Australian/New Zealand Standard for quality management systems AS/NZS ISO 9001:2008.

The report has been reviewed and approved for issue in accordance with the GML quality assurance policy and procedures.

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Date:	3 February 2017	Date:	3 February 2017

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## 1.0 Introduction

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### 1.1 Background

GML Heritage Pty Ltd (GML) has been commissioned by Frasers Property Australia Pty Ltd (Frasers) to prepare a Heritage Impact Statement (HIS) for the proposed development of a warehouse/distribution industrial facility at Wetherill Park. This project forms one component of a larger industrial estate known as the Horsley Drive Business Park (HDBP). Several warehouse facilities within the estate have already been approved and are currently being constructed.

The subject site is in the vicinity of a state heritage item, the Sydney Catchment Authority (SCA) Upper Canal. Therefore, this report assesses the potential heritage impacts of the proposed development on the Upper Canal and will accompany a State Significant Development (SSD 7917) application for the proposed development.

### 1.2 Site Identification

Wetherill Park is located approximately 35km west of the Sydney Central Business District (CBD) in the Local Government Area (LGA) of Fairfield.

Proposed Lot 3 is located within the HDPB at the corner of Horsley Drive and Cowpasture Road, Wetherill Park, and is formally identified as Lot 3 in Lot 5, DP 1212087 (Figures 1.1 and 1.2). The site is located immediately adjacent to the existing Smithfield–Wetherill Park industrial area.

The study area forms part of a site known as the Western Sydney Parklands (WSP) which is a 27km corridor which stretches from Quakers Hill to Leppington. The land is wholly owned by the Western Sydney Parklands Trust (the trust). Frasers has entered into an agreement with the trust to develop the estate.

### 1.3 Heritage Listings

The subject site is not a heritage item; however, it is in the vicinity of the SCA Upper Canal which is listed on the NSW State Heritage Register (SHR). The site is identified as the 'Upper Canal System (Pheasants Nest Weir to Prospect Reservoir)' (SHR listing No. 01373).

### 1.4 Methodology and Terminology

The terminology used in this report is consistent with the *NSW Heritage Manual*, prepared for the NSW Heritage Office; the definitions contained in the *NSW Heritage Model Provisions* (August 2000); and the *Australia ICOMOS Burra Charter, 2013* (the Burra Charter).<sup>1</sup>

The preparation of this HIS has involved the following steps:

- review of historical information, physical assessment and heritage context;
- assessment of potential built heritage impacts arising from the proposed works; and
- recommendation of methods to minimise potential impacts.

This report assesses the heritage impact of the proposed warehouse facility on the heritage significance of the SCA Upper Canal and its curtilage. It also considers the proposal against the

relevant conservation policies set out in the Conservation Management Plan (CMP) for the Upper Canal, Pheasants Nest to Prospect Reservoir.

In preparing this HIS, the following documents and resources related to the site were sourced and reviewed, with relevant information incorporated within this report.

- Heritage Council Response to exhibition of Environmental Impact Statement for Proposed Two Staged Warehouse/Distribution & Light Industrial Facility, Burilda Close, Wetherill Park (SSD 7917), dated 13 December 2016;
- Horsley Drive Business Park, Proposed Two Staged Warehouse/Distribution and Industrial Facility, Burilda Close, Wetherill Park, Environmental Impact Statement (EIS), prepared by WillowTree Planning, dated October 2016;
- Conservation Management Plan (CMP) for the Upper Canal, Pheasants Nest to Prospect Reservoir, NSW, prepared by Edward Higginbotham & Associates Pty Ltd, dated August 2002;
- Construction Environmental Plan, Proposed Lot 3 in Lot DP1212087, Burilda Close, Wetherill Park, prepared by Frasers Property Industrial Constructions Pty Ltd Australia, dated 10 October 2016; and
- Guidelines for Development Adjacent to the Upper Canal and Warragamba Pipelines, prepared by Sydney Catchment Authority, dated November 2012.

## **1.5 Limitations**

This HIS does not assess Aboriginal or historical archaeological values. The easement of the Upper Canal is located outside the study area and was inaccessible for the purpose of preparing this report. The Upper Canal, however, was inspected from within the study area and from the cycleway between the canal and the subject site.

## **1.6 Author Identification**

This report has been prepared by Stela Rahman, Consultant. Review has been provided by Julian Siu, Senior Consultant and Project Director.

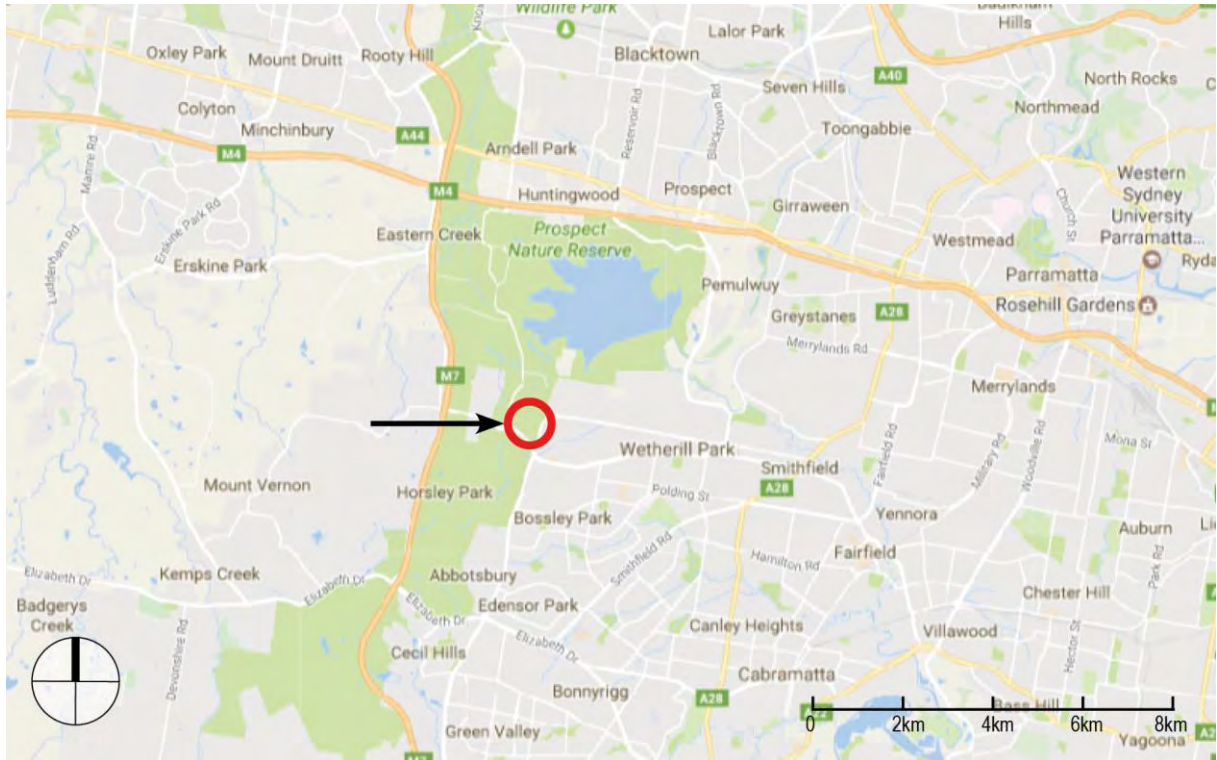


Figure 1.1 Location of proposed industrial facility in Wetherill Park. (Source: Google Maps with GML overlay, 2017)

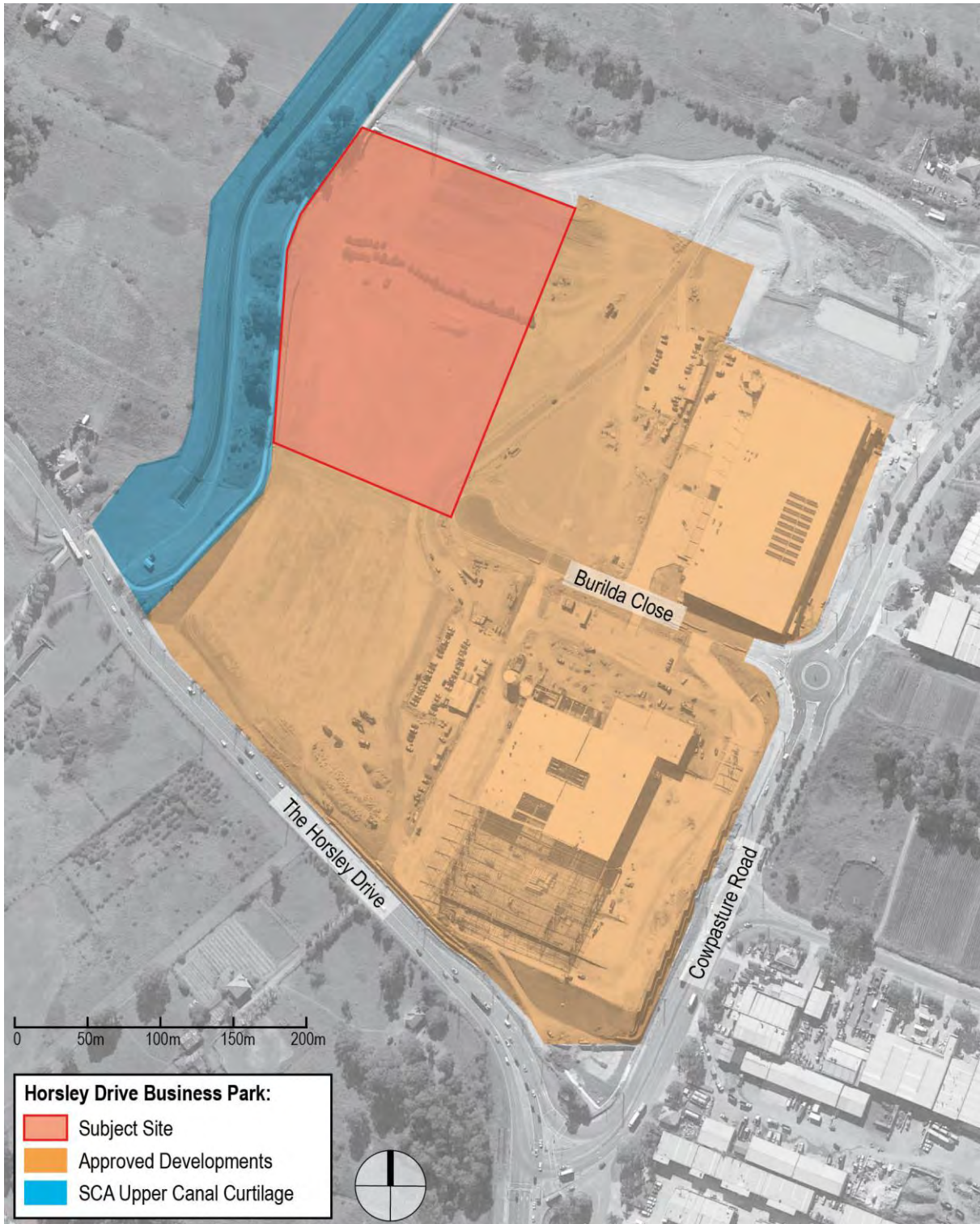


Figure 1.2 Site plan showing the subject site in the context of the Horsley Drive Business Park and SCA Upper Canal curtilage. (Source: Google Maps with GML overlay, 2017)

## 1.7 Endnotes

<sup>1</sup> Australia ICOMOS Inc, *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* 2013, Australia ICOMOS Inc, Burwood, VIC.

## 2.0 Historical Overview

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### 2.1 Introduction

A comprehensive history of the Upper Canal can be found in the heritage study and CMP prepared by Higginbotham & Associates (August 2002). Furthermore, a historic period heritage assessment and HIS were prepared by Biosis for the Western Sydney Parklands Trust (WSPT) for the proposed development of general industrial, light industrial, warehouse and distribution facilities.

This section draws from the CMP and HIS to provide a brief historic overview of the Upper Canal and subject site.

### 2.2 Background to the Upper Nepean Scheme

#### 2.2.1 The Upper Canal System

In 1867, the Governor of NSW appointed a Commission to recommend a scheme for Sydney's water supply, and by 1869 it was recommended that construction commence on the Upper Nepean Scheme. The Upper Canal forms part of the Upper Nepean Scheme and transports water from catchment dams in the Upper Nepean to the Prospect Reservoir. The system uses gravity to move water along from the catchment dams through a series of tunnels, canals and aqueducts which are collectively known as the Upper Canal. This scheme was to be Sydney's fourth water supply system, following the Tank Stream, Busby's Bore and the Botany (Lachlan) Swamps.<sup>1</sup>

The Public Works Department began construction of the Prospect Reservoir in the 1880s and it was completed in 1888. The Upper Nepean Scheme has strong associations with Edward Orpen Moriarty, Engineer in Chief of the Harbours and Rivers Branch of the Public Works Department during this time. He was responsible for both the design and execution of the works and his signature appears on most of the plans of the Upper Nepean Scheme.

Immediately after its completion in 1888, drought and population growth necessitated its further development and this was implemented over a period of almost 50 years by the construction of major storage dams on the Cataract, Cordeaux, Avon and Nepean Rivers. The provision of these major dams changed the role of the Prospect Reservoir from being Sydney's first storage reservoir to that of being a vital service reservoir to cover the daily fluctuations of demand in the distribution system.

Minor works were undertaken to the Upper Canal to increase its capacity to 150 million gallons per day. The work on the Upper Canal consisted primarily of improving its flow characteristics by concreting rough spots on the bottom and sides, and replacing some stone pitching by concrete. Bypasses were also provided to allow for internal maintenance.

The Upper Canal was built from a variety of materials with section profiles depending upon the nature of the country through which it was passing. Where the ground was soft, the canal was V-shaped and the sides were pitched with shale or sandstone slabs. In other sections, a U-shape was utilised and here the sides were walled with sandstone masonry or, if cut into solid rock, left unlined. Where the canal had to go under a hill, tunnels were excavated. These were left unlined if cut through in solid rock, or lined with brick or stone if cut through softer material. Where the canal crossed creeks or large depressions, such as Elladale, Simpson's, Ousedale, Mullaly, Woodhouse, Nepean and Leaf Creeks, the water was carried across in wrought iron inverted syphons resting upon stone piers.<sup>2</sup>



## 2.2.2 Section 11 of the Upper Canal

This section of the canal is approximately 4.5 kilometres long, being present between '36 3/4 miles [58.8 kilometres] beyond the end of the covered way at the northern end of the Cecil Hills Tunnel, and continues to about 39 9/16 miles [63.3 kilometres], finishing just beyond the commencement of the Trafalgar Tunnel.' The predominant features of Section 11 of the Upper Canal are culverts, flumes, weirs, offtakes and weirs. The canal has a slightly V-shaped cross-section throughout this segment and is concrete lined<sup>3</sup> (Figure 3.12).

## 2.2.3 The Subject Site

The area forms part of a 2000-acre grant provided to George Johnston by Governor Phillip Gidley King in 1805. Johnston named the grant 'King's Gift'<sup>4</sup> (Figure 2.1).

George Johnston was a Scottish-born soldier and farmer who became a marine lieutenant in 1776 and served throughout England, France and the East Indies. Johnston is reported to have been the first man ashore when the First Fleet arrived in Port Jackson and he also played a significant role in the removal of William Bligh as governor in 1808.<sup>5</sup> He passed away in Sydney in 1823 and the property was inherited by his daughter, Blanche, the wife of Captain Weston of the East India Company's Bengal Army. Weston renamed the property 'Horsley' and later the area became known as Horsley Park.

After Blanche's death in 1904, the property was put up for sale with the advertisement in the *Sydney Morning Herald* stating that it was 2045 acres in size at that point. It is also noted that 'the Water Canal forms a boundary at one end', with a portion of the land having been resumed in the 1870s for the development of the Upper Canal, which runs adjacent to the subject site.

Augusta Alice Smart acquired the land and converted the title from Old Systems to Torrens Title on 27 March 1906. By the 1920s, the estate was owned by Arthur Rickard and Co Ltd, who proceeded to subdivide the land and sell allotments during the 1920s. In 1925, the company made an agreement with Fairfield Council to construct access roads on the land. Throughout its history of ownership, the subject site was primarily used for farming and grazing purposes as evidenced in historic aerial photography which also shows that there was no residential development prior to 1930.

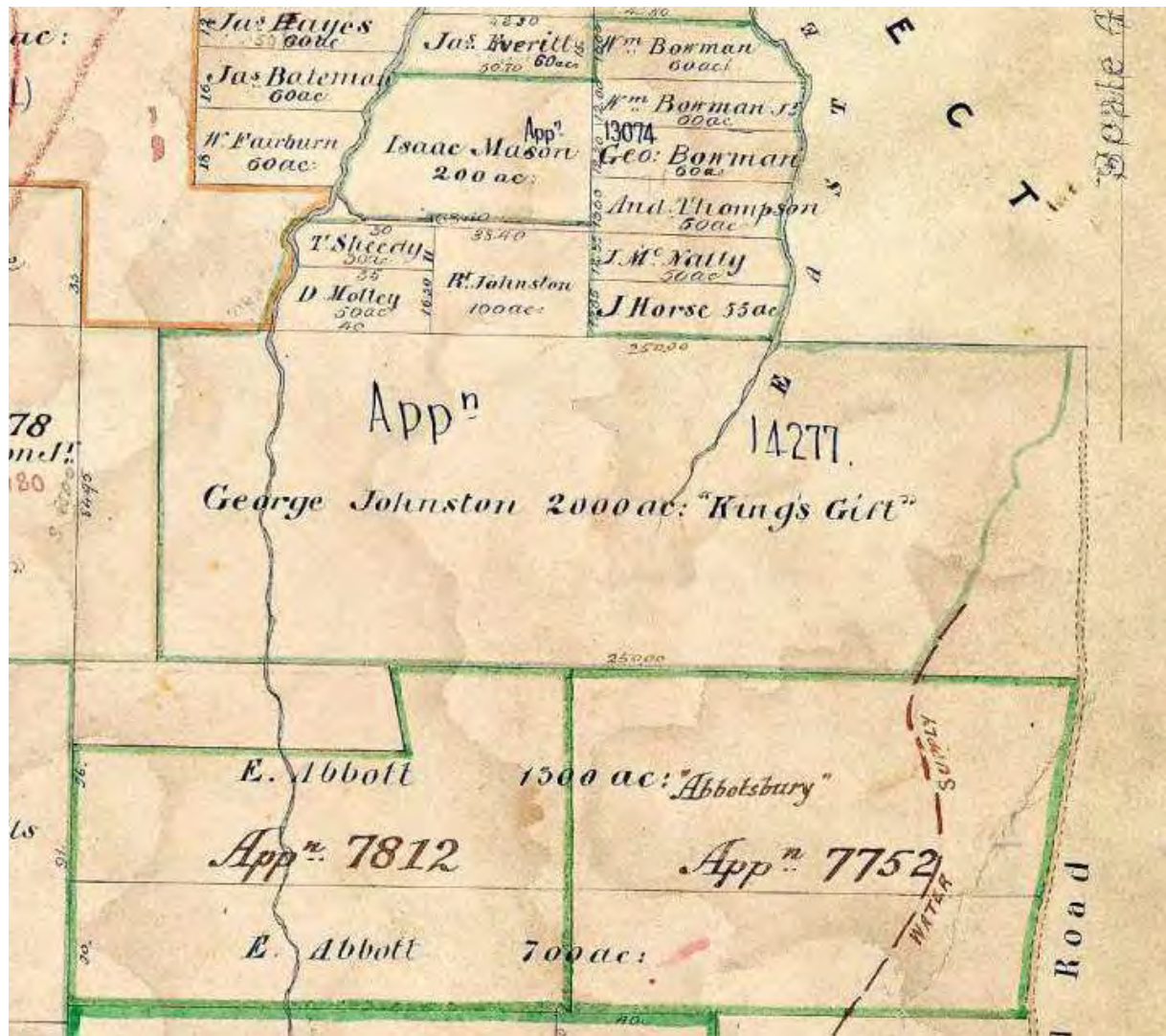


Figure 2.1 An early parish map showing the land grant to George Johnston by Governor Phillip Gidley King—'King's Gift'. (Source: NSW LPI, 2017)



Figure 2.2 1967 parish map showing the land grant to George Johnston and the Upper Canal running through it (subject site indicated by arrow) (Source: NSW LPI, 2017)

## 2.3 Endnotes

- <sup>1</sup> NSW Office of Environment and Heritage, State Heritage Register form, 'Upper Canal System (Pheasants Nest Weir to Prospect Reservoir)', viewed 27 January 2017 <<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5051481>>.
- <sup>2</sup> NSW Office of Environment and Heritage, State Heritage Register form, 'Upper Canal System (Pheasants Nest Weir to Prospect Reservoir)', viewed 27 January 2017 <<http://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5051481>>.
- <sup>3</sup> Edward Higginbotham & Associates Pty Ltd, Conservation Management Plan for the Upper Canal, Pheasant's Nest to Prospect Reservoir, NSW, October 2001, p 68.
- <sup>4</sup> Yarwood, A 1967, 'Johnston, George (1764–1823)', Australian Dictionary of Biography, National Centre of Biography, Australian National University.
- <sup>5</sup> Biosis, Horsley Drive Business Park Stage 2 (SSD 7664) Heritage Impact Statement, prepared for Western Sydney Parklands Trust, November 2016, p 15.



## 3.0 Physical Analysis

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### 3.1 Introduction

A site inspection was undertaken on 23 January 2017 by Stela Rahman from GML. The easement of the Upper Canal is located outside the study area and was inaccessible for the purpose of preparing this report. The Upper Canal, however, was inspected from within the study area and from the cycleway between the canal and the subject site. Views from these areas and the surrounding main roads were assessed to determine the level of visual impact of the new development on the canal and its rural setting.

### 3.2 Site and Physical Context

Proposed Lot 3 in Lot 5 DP 1212087 is located within the Horsley Drive Business Park and comprises 4.3 hectares. The land is owned by the Western Sydney Parklands Trust. Frasers Property has entered into an agreement with the trust to develop the site for industrial/commercial purposes.

Bulk earthworks (including retaining walls) have been completed across the site in accordance with the approval issued under SSD 5169 (8 January 2013). This has resulted in significant changes to the natural topography of the site. As a result, only minor regrading of the site will be required as part of this new development proposal.

The land to the north of the site remains undeveloped and consists of cleared paddocks once used for agricultural purposes. There are some scattered residential dwellings throughout the paddocks.

Land adjoining the site to the west includes the heritage listed Upper Canal and a recently constructed cycleway which provides a physical and visual buffer between the heritage item and the proposed development. The cycleway is located within the SHR curtilage of the SCA Upper Canal.

Beyond the canal, farther to the west is agricultural land and further sections of the Western Sydney Parklands. This land is anticipated to become orchards and market gardens as part of the Horsley Park Urban Farming Masterplan.<sup>1</sup>

The surrounding regional context of the site includes extensive industrial development in Smithfield, Arndell Park and Wetherill Park. The surrounding industrial precincts provide a suitable context for the development of a light industrial facility.

### 3.3 Views Analysis

A series of short to long range views were assessed to determine the level of visual impact of the proposed development on the heritage values of the Upper Canal and its rural setting (Figures 3.1–3.11). Photos were taken from within the subject site, looking west towards the canal; from within the bicycle corridor; and from the surrounding main roads including Horsley Drive, Ferrers Road and Chandos Street.

A summary of visual catchments can be seen in Table 3.1.

Table 3.1 Summary of Views.

View	Description
V1	Medium-range view looking northeast from the cycleway off Horsley Drive. The construction of the approved Nick Scali warehouse can be seen to the right of the image. Bulk earthworks can be seen for the subject site which lies farther north and adjoins the approved warehouse development. The Upper Canal can be seen to the left of the image and is physically separated from the subject site by the recently constructed cycleway which provides a buffer between the heritage item and subject site.
V2	Medium-range view looking south from the subject site to the Horsley Drive. The approved warehouse development can be seen to the left of the image. The canal is located beyond the retaining wall to the right (approved in accordance with SSD 5169). No views of the Upper Canal are afforded from this location.
V3	Medium-range view looking north from the subject site. Dense vegetation can be seen along the cycleway stretching from the Horsley Drive in the south to Chandos Street in the north.
V4	Short-range view looking west from the subject site towards the Upper Canal. No views of the heritage item are afforded from this perspective, as is typical of the site due to the significantly altered topography and dense vegetation.
V5	Long-range view looking north from the subject site. The approved warehouse facility (SSD 7654) can be seen to the right of the image. No significant views of the Upper Canal are afforded from this location however there are some distant views of the undulating rural topography to the far north.
V6	Long-range view looking south from the cycleway off Chandos Street to the far north of the site. The Upper Canal is visible to the right of the image and the subject site is located to the left (indicated with an arrow). The image shows the recently constructed cycleway which forms a physical buffer between the canal and the subject site. Dense vegetation exists on both sides of the cycleway. The construction of other light industrial facilities and approved developments can be seen adjacent to the subject site on the right hand side of the image.
V7	Long-range view looking east from Ferrers Road. The surrounding Smithfield–Wetherill Park Industrial Estate can be seen as well as construction of approved warehouse development in the adjacent lot. The concrete edges of the Upper Canal can be partially seen in the foreground of the image (west of the proposed development).
V8	Medium-range view looking southwest from the Horsley Drive along the Upper Canal.
V9	Long-range view looking southeast from the cycleway towards one of the dilapidated timber dwellings in the paddocks. The dwelling is not identified as a heritage item. This area lies outside of the subject site and forms part of the proposed Stage 2 development of Horsley Drive Business Park. The surrounding industrial context of the site and extensive development can be seen to the south of the dwelling.
V10	Long-range view looking east from the cycleway adjacent to the canal. The rural landscape has a gently undulating topography. Small dwellings can be seen on Trivet Street to the far east. This area lies outside of the subject site and forms part of the proposed Stage 2 development Horsley Drive Business Park.



Figure 3.1 View diagram showing the location of short to long range views to and from the subject site. (Source: Google Earth with GML overlay, 2017)





Figure 3.2 View 1 looking northeast from the cycleway off Horsley Drive. The construction of the approved Nick Scali warehouse can be seen to the right of the image. Subject site is indicated by the arrow. (Source: GML, 2017)



Figure 3.3 View 7 looking east from Ferrers Road to the subject site. The surrounding Smithfield–Wetherill Park Industrial Estate can be seen as well as construction of approved warehouse development in the adjacent lot. The concrete edges of the Upper Canal can be partially seen in the foreground of the image (west of the proposed development). (Source: GML, 2017)





Figure 3.4 View 2 looking south from the subject site to the Horsley Drive. Construction of the approved Nick Scali warehouse development can be seen to the left of the image. The canal is located beyond the retaining wall to the right. The bulk earthworks and infrastructure were approved as part of SSD 5169. The cycleway and fencing form a physical barrier between the site and the canal and no views of the heritage item are afforded from this location. (Source: GML, 2017)



Figure 3.5 View 5 looking north from the subject site. The approved warehouse facility (SSD 7654) can be seen to the right of the image. No significant views of the Upper Canal are afforded from this location however there are some distant views of the undulating rural topography to the far north. (Source: GML, 2017)





Figure 3.6 View 9 looking southeast from the cycleway towards one of the dilapidated timber dwellings in the paddocks. The dwelling is not identified as a heritage item. The surrounding industrial context of the site and extensive development can be seen to the south of the dwelling. (Source: GML, 2017)



Figure 3.7 View 3 looking north from the subject site. Dense vegetation can be seen along the cycleway stretching from the Horsley Drive in the south to Chandos Street in the north. (Source: GML, 2017)



Figure 3.8 View 4 looking west from the subject site towards the Upper Canal. No views of the heritage item are afforded from this perspective, as is typical of the site due to the significantly altered topography and dense vegetation. (Source: GML, 2017)





Figure 3.9 View 6 looking south from the bicycle track towards the proposed development. The SCA Upper Canal can be seen to the right of the bicycle track. The study area is indicated by the arrow. (Source: GML, 2017)

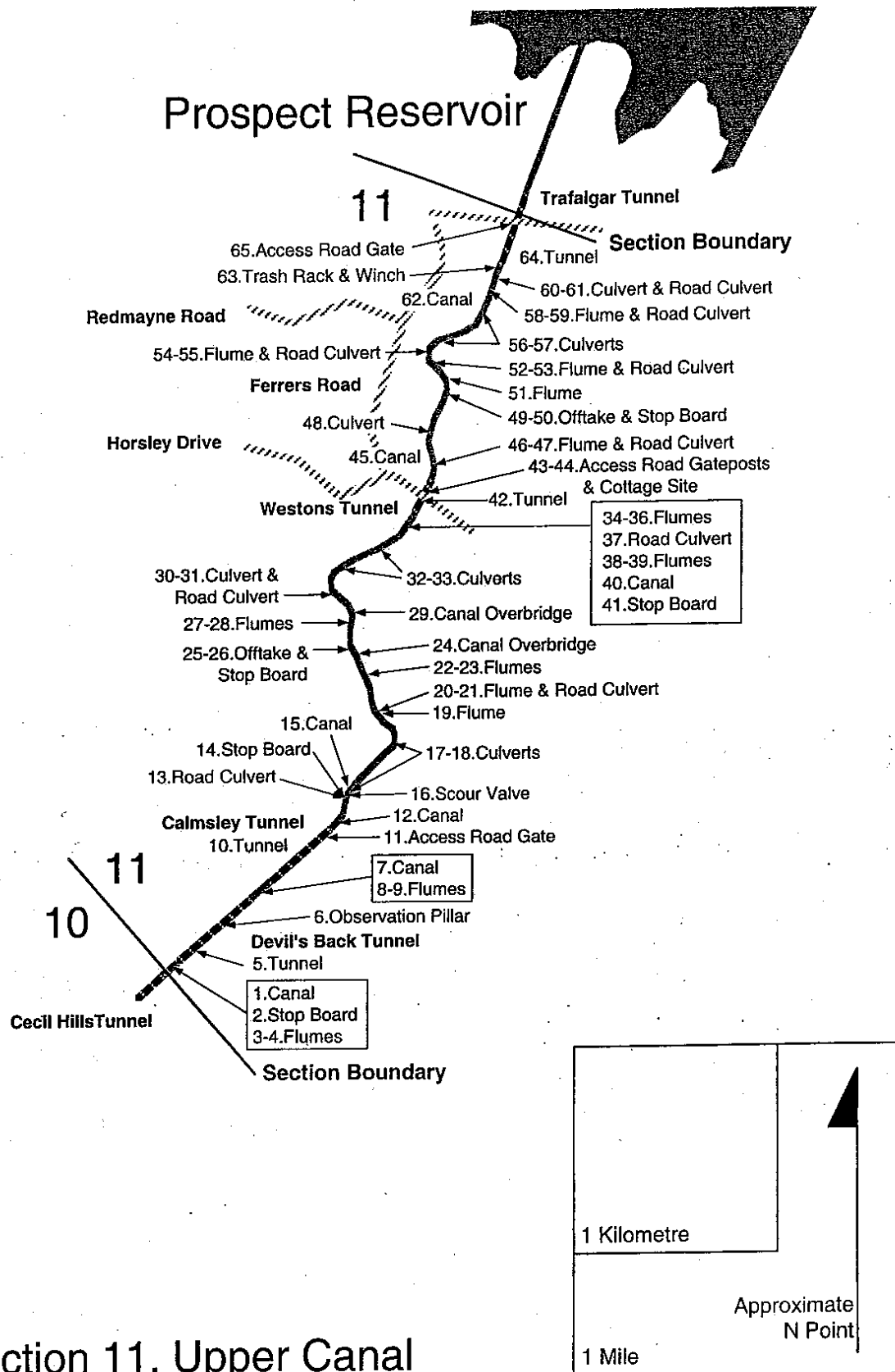


Figure 3.10 View 8 looking southwest along the Upper Canal. (Source: GML, 2017)



Figure 3.11 View 10 looking east from the cycleway along the Upper Canal. Small dwellings can be seen on Trivet Street to the far east. This area lies outside of the subject site and forms part of the proposed Stage 2 development Horsley Drive Business Park. (Source: GML, 2017)





## Section 11, Upper Canal

Figure 3.12 Section 11 of the SCA Upper Canal. (Source: Higginbotham 1992, p 81)<sup>2</sup>

### 3.4 Endnotes

- <sup>1</sup> Western Sydney Parklands, *Horsley Park Precinct Urban Farming Masterplan*, November 2012, viewed 31 January 2017  
<<https://www.westernsydneparklands.com.au/assets/Documents/PDFs/2013-Documents-and-PDFs/20121123-FINAL-Horsley-Park-Urban-Farming-MP-LOW-RES.pdf>>.
- <sup>2</sup> **Edward Higginbotham & Associates Pty Ltd**, *Conservation Management Plan for the Upper Canal, Pheasant's Nest to Prospect Reservoir*, NSW, October 2001, p 81.

## 4.0 Heritage Context

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This section of the report sets out the heritage context of the subject site including heritage items in the vicinity such as the SCA Upper Canal.

### 4.1 Heritage Act 1977 (NSW)

The *Heritage Act 1977* (NSW) (the Heritage Act) is a statutory tool designed to conserve New South Wales' environmental heritage. It is used to regulate the impacts of development on the state's heritage assets. The Heritage Act defines a heritage item as 'a place, building, work, relic, moveable object or precinct'. To assist in management of the state's heritage assets, the Heritage Act distinguishes between items of local and state heritage significance.

The study area is not listed as a heritage item on the NSW State Heritage Inventory. It is, however, immediately adjacent to an item listed on the SHR. The proposed works will have no direct potential impact on areas within the curtilage of the SCA Upper Canal System (SHR No. 01373).

#### 4.1.1 State Heritage Register

The SHR is established under the Heritage Act and is a list of identified heritage items of significance to the state of NSW. The SHR includes items and places (such as buildings, works, archaeological relics, movable objects and precincts) determined to be of state heritage significance.

The SHR is established under Section 22 of the Heritage Act and, pursuant to Section 57(1) of the Heritage Act, the approval of the Heritage Council of NSW is required for the following:

*S57(1) When an interim heritage order or listing on the State Heritage Register applies to a place, building, work, relic, moveable object, precinct, or land, a person must not do any of the following things except in pursuance of an approval granted by the approval body under Subdivision 1 of Division 3:*

- (a) demolish the building or work,*
- (b) damage or despoil the place, precinct or land, or any part of the place, precinct or land,*
- (c) move, damage or destroy the relic or moveable object,*
- (d) excavate any land for the purpose of exposing or moving the relic,*
- (e) carry out any development in relation to the land on which the building, work or relic is situated, the land that comprises the place, or land within the precinct,*
- (f) alter the building, work, relic or moveable object,*
- (g) display any notice or advertisement on the place, building, work, relic, moveable object or land, or in the precinct,*
- (h) damage or destroy any tree or other vegetation on or remove any tree or other vegetation from the place, precinct or land.*

The subject site is adjacent to the SCA Upper Canal System (SHR No. 01373).

### 4.2 Statement of Significance

The following statement of significance is sourced from the NSW State Heritage Inventory citation for the Upper Canal System (Pheasants Nest Weir to Prospect Reservoir).

*The Upper Canal System is significant as a major component of the Upper Nepean Scheme. As an element of this Scheme, the Canal has functioned as part of Sydney's main water supply system since 1888. Apart from maintenance and other improvements, the Upper Canal has changed little. As part of this System, the Canal is associated with Edward Moriarty, Head of the Harbours and Rivers Branch of the NSW Public Works Department.*

*The Canal is aesthetically significant, running in a serpentine route through a rural bushland setting as an impressive landscape element with sandstone and concrete-lined edges;*

*The Canal is significant as it demonstrates the techniques of canal building, and evidence of engineering practice. The Canal as a whole is an excellent example of 19th century hydraulic engineering, including the use of gravity to feed water along the canal (BCubed Sustainability, 2/2006).*

*The Upper Nepean Scheme is significant because:*

- In its scope and execution, it is a unique and excellent example of the ingenuity of late 19th century hydraulic engineering in Australia, in particular for its design as a gravity-fed water supply system.*
- It has functioned as a unique part of the main water supply system for Sydney for over 100 years, and has changed little in its basic principles since the day it was completed.*
- It represented the major engineering advance from depending on local water sources to harvesting water in upland catchment areas, storing it in major dams and transporting it the city by means of major canals and pipelines.*
- It provides detailed and varied evidence of the engineering construction techniques prior to the revolution inspired by reinforced concrete construction, of the evolution of these techniques (such as the replacement of timber flumes with wrought iron and then concrete flumes), and of the early use of concrete for many engineering purposes in the system.*
- The scheme possesses many elements of infrastructure which are of world and national renown in technological and engineering terms.*
- Many of the structural elements are unique to the Upper Nepean Scheme.*

#### **4.2.1 State Environmental Planning Policy (Western Parklands Sydney) 2009**

##### **15 Heritage conservation**

###### *(1) Objectives*

*The objectives of this clause are:*

- (a) to conserve the environmental heritage of the Western Parklands, and*
- (b) to conserve the heritage significance of heritage items in the Western Parklands including associated fabric, settings and views.*

*(2) Requirement for consent Development consent is required for any of the following in the Western Parklands:*

- (a) demolishing or moving a heritage item,*
- (b) altering a heritage item,*
- (c) altering a heritage item that is a building by making structural changes to its interior,*
- (d) erecting a building on land on which a heritage item is located,*
- (e) subdividing land on which a heritage item is located.*

*(3) When consent not required However, consent under this clause is not required if:*

*(a) the applicant has notified the consent authority of the proposed development and the consent authority has advised the applicant in writing before any work is carried out that it is satisfied that the proposed development:*

*(i) is of a minor nature, or is for the maintenance of the heritage item, and*

*(ii) would not adversely affect the significance of the heritage item, or*

*(b) the development is in a cemetery or burial ground and the proposed development:*

*(i) is the creation of a new grave or monument, or excavation or disturbance of land for the purpose of conserving or repairing monuments or grave markers, and*

*(ii) would not cause disturbance to human remains, relics or Aboriginal objects in the form of grave goods, or*

*(c) the development is limited to the removal of a tree or other vegetation that the consent authority is satisfied is a risk to human life or property, or*

*(d) the development is on land to which another State environmental planning policy applies and is exempt development under that other policy.*

*(4) Effect on heritage significance The consent authority must, before granting consent under this clause, consider the effect of the proposed development on the heritage significance of the heritage item concerned. This subclause applies regardless of whether a heritage impact statement is prepared under subclause (5) or a heritage conservation management plan is submitted under subclause (6).*

*(5) Heritage impact assessment The consent authority may, before granting consent to any development on land in the Western Parklands:*

*(a) on which a heritage item is situated, or*

*(b) within the vicinity of land referred to in paragraph (a),*

*require a heritage impact statement to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item.*

*(6) Heritage conservation management plans The consent authority may require, after considering the significance of a heritage item and the extent of change proposed to it, the submission of a heritage conservation management plan before granting consent under this clause.*

*(7) Conservation incentives The consent authority may grant consent to development for any purpose of a building that is a heritage item, or of the land on which such a building is erected, even though development for that purpose would otherwise not be allowed by this Policy, if the consent authority is satisfied that:*

*(a) the conservation of the heritage item is facilitated by the granting of consent, and*

*(b) the proposed development is in accordance with a heritage conservation management plan that has been approved by the consent authority, and*

*(c) the consent to the proposed development would require that all necessary conservation work identified in the heritage conservation management plan is carried out, and*

*(d) the proposed development would not adversely affect the heritage significance of the heritage item, including its setting, and*

*(e) the proposed development would not have any significant adverse effect on the amenity of the surrounding area.*

Schedule 1 of the SEPP 2009 lists heritage items and heritage conservation areas protected under the SEPP. The SCA Upper Canal is a listed heritage item under this schedule (Item No. 7). The study area forms a part of the setting and views of the Upper Canal.

### 4.3 Heritage Items in the Vicinity

In addition to the SCA Upper Canal, a summary of heritage items in the vicinity of the subject site are provided in the table below.

Table 4.1 Heritage Items in the Vicinity of the Proposed Development.

Heritage Item	Address	Listing
Prospect Reservoir and Reservoir Road surrounding area	Reservoir Road	SEPP (Western Sydney Parklands) 2009, Schedule 1—Heritage items—listing number 4  NSW State Heritage Register (SHR 01370)
Spotted Gum Forest	Corner of Chandos Road and Ferrers Road	SEPP (Western Sydney Parklands) 2009, Schedule 1—Heritage items—listing number 5
Group of hoop pines	Corner of Chandos Road and Trivet Street	SEPP (Western Sydney Parklands) 2009, Schedule 1—Heritage items—listing number 6
Calmsley Hill Farm Cottage and curtilage	Darling Street, Abbotsbury	SEPP (Western Sydney Parklands) 2009, Schedule 1—Heritage items—listing number 10
Upper Canal System	Pheasants Nest Weir to Prospect Reservoir	SEPP (Western Sydney Parklands) 2009, Schedule 1—Heritage items—listing number 7  NSW State Heritage Register (SHR 01373)
Remnants of Abbotsbury House	Southdown Road	SEPP (Western Sydney Parklands) 2009, Schedule 1—Heritage items—listing number 7



Figure 4.1 Heritage map showing the SCA Upper Canal curtilage and heritage items in the vicinity (site location indicated by arrow).  
(Source: SEPP [WSP] 2009, heritage map 4)

## 5.0 Development Proposal

---

### 5.1 Introduction

The development proposal is in response to Frasers' operational needs to accommodate additional storage space and industrial uses in the Horsley Drive Business Park. The proposed warehouse/distribution and industrial facility is located within an industrial context, with adjoining warehouse facilities to the immediate east.

Bulk earthworks have already been undertaken across the whole site, in accordance with approved State Significant Development application (SSD 5169). As a result, only minor regrading is required for Proposed Lot 3 in Lot 5 DP 1212087. Existing infrastructure and services have also been provided under this development application.

Proposed Lot 3 forms the site for the proposed development and has been designed over two stages. This section of the report details the proposed works and includes perspectives to show key views of the development.

### 5.2 Description of the Proposed Works

The proposed development associated with SSD 7917 involves the construction of a warehouse/distribution and industrial facility with associated ancillary offices. Refer to Appendix A for architectural drawings prepared by Frasers Property, dated 5 October 2016.

The development comprises the following:

- two warehouses (warehouse 1: 13,695m<sup>2</sup>; and warehouse 2: 8,860m<sup>2</sup>);
- loading docks and receiving/dispatching areas along the east and western facades of the facility;
- administration offices and amenities;
- carparking (159 spaces);
- associated landscaping; and
- vehicular access via internal estate roads (previously approved under SSD 5169 on 8 January 2013).



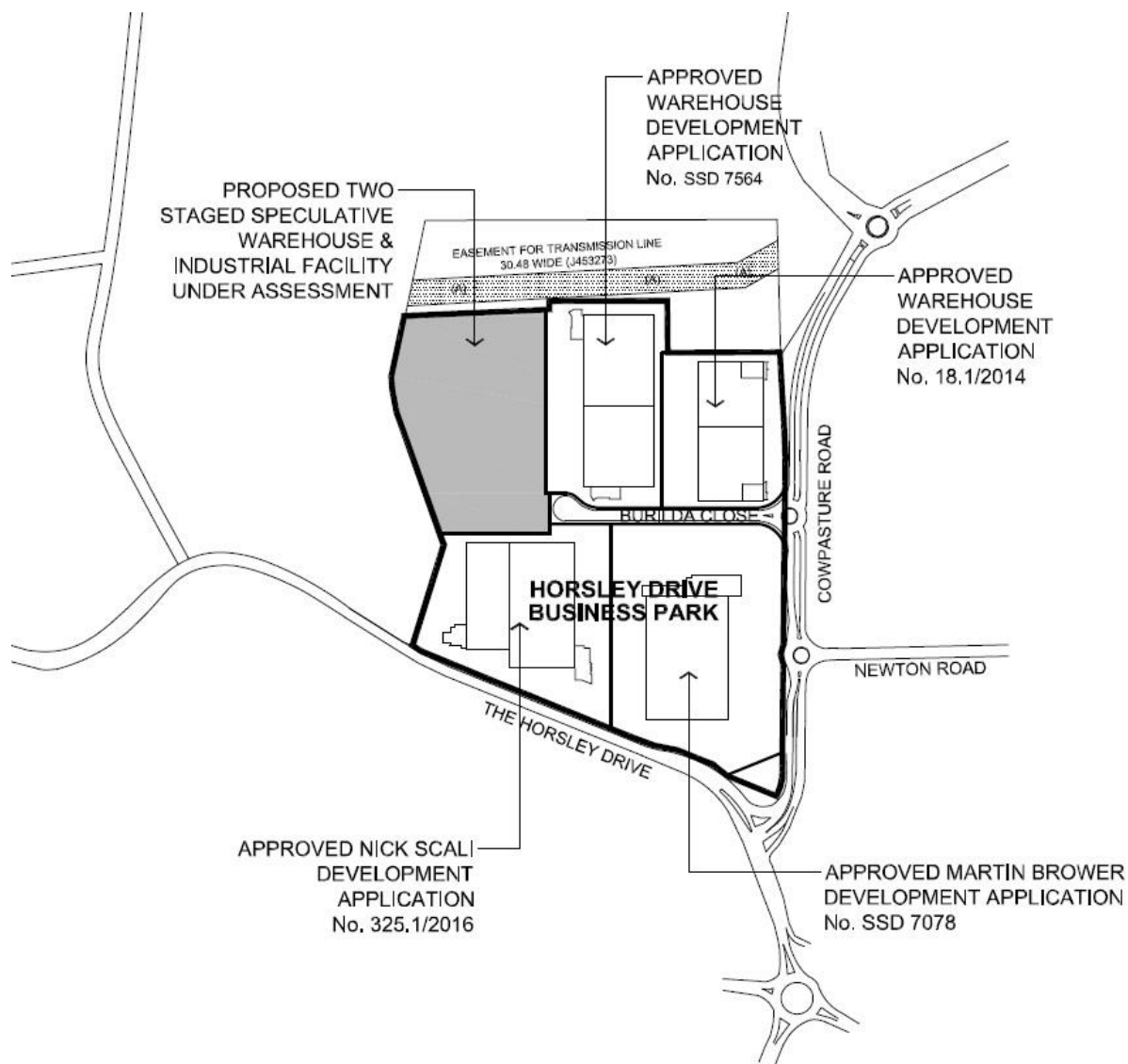


Figure 5.1 Site plan showing the proposed warehouse/distribution and industrial facility (shaded area) in the approved Horsley Drive Business Park, Wetherill Park. (Source: Frasers Property Australia, 2016)

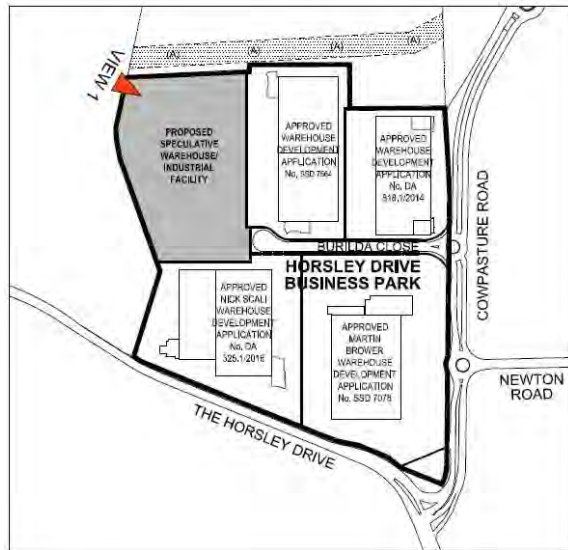


Figure 5.2 Location of view 1. (Source: Frasers Property, 2016)

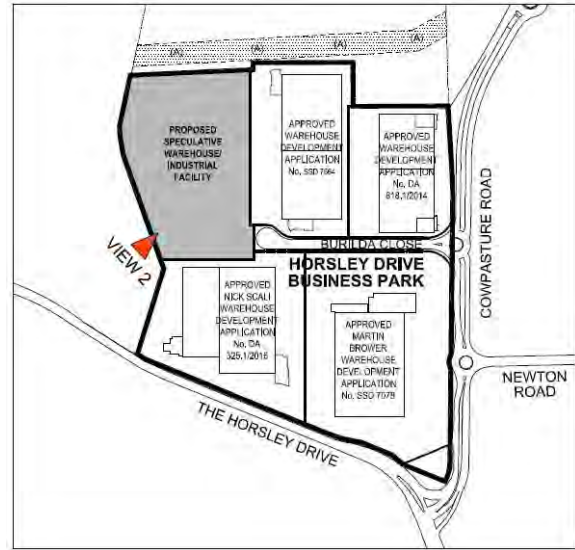


Figure 5.3 Location of view 2. (Source: Frasers Property, 2016)



Figure 5.4 View 1—perspective of the proposed development looking southeast from the cycleway. (Source: Frasers Property Australia, 2016)



Figure 5.5 View 2—perspective of proposed warehouse facility looking northeast from the cycleway. (Source: Frasers Property Australia, 2016)

## 6.0 Assessment of Heritage Impacts

---

### 6.1 Introduction

The SCA Upper Canal is recognised as having state heritage significance. In order to retain the heritage values of the canal, the item should be conserved in accordance with the ICOMOS Burra Charter.

The route of the Upper Canal is associated with a large number of early colonial estates—many of which have given the local areas their current names. The canal holds landmark quality with its sandstone and concrete edges and serpentine route, based on gentle engineered curves, as it negotiates the complex topography along its route.<sup>1</sup>

Subdivision and bulk earthworks (including retaining walls) for the industrial estate were approved under SSD 5169. As such, only minor regrading is required to facilitate construction of the proposed facility.

The warehouse development includes a buffer zone of approximately 40m between the SCA Upper Canal and the closest edge of the building. This buffer zone is also landscaped with trees and shrubs which will provide a visual screen between the warehouse and the canal. Therefore, the proposed development will have no adverse impact on the Upper Canal or its immediate setting.

An assessment of the potential vibration impact during construction was undertaken by Acoustic Logic. The findings established that; based on the distance from the canal, the vibration generated from construction and operational activities would not generate a magnitude which has the potential to generate any adverse impact on the Upper Canal. (Refer to Appendix C).

### 6.2 Heritage Division

The Heritage Division of the NSW Office of Environment and Heritage has published a series of criteria for the assessment of heritage impact. The relevant questions in the *NSW Heritage Manual* 'Statements of Heritage Impact', have been considered in the preparation of this HIS.

#### 6.2.1 New Development Adjacent to a Heritage Item (including Additional Buildings and Dual Occupancies)

- *How is the impact of the new development on the heritage significance of the item or area to be minimised?*
- *Why is the new development required to be adjacent to a heritage item?*
- *How does the curtilage allowed around the heritage item contribute to the retention of its heritage significance?*
- *How does the new development affect views to, and from, the heritage item? What has been done to minimise negative effects?*
- *Is the development sited on any known, or potentially significant archaeological deposits? If so, have alternative sites been considered? Why were they rejected?*
- *Is the new development sympathetic to the heritage item? In what way (e.g. form, siting, proportions, design)?*
- *Will the additions visually dominate the heritage item? How has this been minimised?*
- *Will the public, and users of the item, still be able to view and appreciate its significance?*

## Discussion

The subject site does not contain any identified items of heritage significance however it is adjacent to the SCA Upper Canal, an item of state heritage significance (SHR 01373). The proposed facility will be located away from the canal (setback approximately 40m from the western boundary of the site), and does not involve any direct impact on the Upper Canal or the heritage listed curtilage of the place.

The Upper Canal is further separated from the subject site by the recently constructed cycleway, steel fencing and dense vegetation which provide visual screening of the heritage item. As a result, there are no significant views of the canal from the subject site. In addition to the physical separation from the heritage item, a 4m landscaped buffer zone (consistent with the approved SSD 5169) comprising of trees and shrubs will be provided on the western edge of the new development. This will enhance the existing buffer zone and mitigate the visual impact of the proposed facility. The large setbacks from Horsley Drive to the south and Cowpasture Road to the east will also ensure that no significant views are impacted by the proposal.

The establishment of an industrial facility in a traditionally rural landscape will alter the nature of the setting, however the low elevations of the proposed development would not obstruct any significant view corridors.

The scale, form and bulk of the proposed new facility is consistent with the industrial context of the surrounding area and other approved warehouse developments in the Horsley Drive Business Park. The height of the proposed warehouse/distribution facility is approximately 12 metres which is consistent with the adjacent warehouse on Horsley Drive. This will provide consistency of form along the eastern edge of the canal and mitigate potential visual impacts to the adjacent heritage item. The height of the new facility coupled with its siting at a low elevation will ensure that the new warehouse/distribution centre does not detract from the appreciation of the canal and its setting.

The materials and finishes of the proposed facility respond to the emerging industrial character of the precinct and will not detract from the heritage significance of the canal or its curtilage. The main warehouse walls consist of corrugated Colorbond steel in three tones of grey (Windspray, Shale Grey and Surfmist). The exterior cladding will also comprise precast concrete elements and glazed charcoal brickwork. The use of various tones and cladding will reduce the prominence of the structure and mitigate potential visual impacts to the heritage item.

Alternative sites for the proposal were considered, however these were dismissed as the subject site resulted in the most beneficial outcomes for the proposal. The site selection is based on the surrounding industrial context of the site and its proximity to major road networks. Other important factors include the low archaeological potential in the area and appropriate setbacks from residential development.<sup>2</sup>

### 6.2.2 New Landscape Works and Features (including Carparks and Fences)

- *How has the impact of the new work on the heritage significance of the existing landscape been minimised?*
- *Has evidence (archival and physical) of previous landscape work been investigated? Are previous works being reinstated?*
- *Has the advice of a consultant skilled in the conservation of heritage landscapes been sought? If so, have their recommendations been implemented?*

- *Are any known or potential archaeological deposits affected by the landscape works? If so, what alternatives have been considered?*
- *How does the work impact on views to, and from, adjacent heritage items?*

## Discussion

The approved industrial estate has had some impacts on the setting of the Upper Canal as it has removed a portion of its surrounding rural landscape, however these impacts have been carefully managed through the provision of appropriate setbacks from the main roads and the heritage item, as well as careful consideration of form, scale and materiality of the new warehouse facilities. The 4m landscaped buffer on the western edge of the subject site will mitigate the visual impact of the building within the historic rural setting.

As part of the EIS<sup>3</sup> for the Horsley Drive Business Park, a landscape concept plan was prepared by Arcadia Landscape Architecture, dated November 2016. The plan outlined key principles to integrate the new development within the rural bushland setting and provided recommendations for landscaped setbacks, terraced earth walls and native plantings within the new estate. The development proposal incorporates the core principles from this landscape plan and provides a 4m landscaped setback on the western boundary of the site. This will provide some visual screening of the development when viewed from the west and will reduce the bulk and scale of the new facility in the context of the Upper Canal and the surrounding rural landscape. The landscaping elements will be predominantly native species, including groundcovers, grasses, shrubs and trees, and will provide passive screening of the facility.

An archaeological assessment was undertaken by Biosis in November 2016 to accompany the EIS submitted for the entire industrial estate. The report included background research, an archaeological survey and extensive Aboriginal Heritage Information Management System (AHIMS) search which identified no previously recorded Aboriginal sites within the study area. Based on the findings of the study, the proposed works will not impact on any known Aboriginal sites and are unlikely to impact on any unknown Aboriginal sites. The entire study area was assessed as having low archaeological potential.<sup>4</sup>

### 6.2.3 New Signage

- *How has the impact of the new signage on the heritage significance of the item been minimised?*
- *Will the signage visually dominate the heritage item/ heritage conservation area or heritage streetscape?*

The proposed signage will not be a dominant visual feature of the building and will remain below the roof line. The sensitive positioning of the signage will be compatible with the industrial character of the precinct and will not visually dominate the site or detract from the heritage values of the Upper Canal and its curtilage.

## 6.3 Heritage Objectives of the Fairfield LEP

As the site is located within the WSP, the provisions of the Fairfield Local Environmental Plan 2013 do not apply.

## 6.4 Heritage Guidelines of the Fairfield City Wide DCP 2013

Section 11 of the *State Environmental Planning Policy (State and Regional Development) 2011* states that development control plans (whether made before or after the commencement of this policy) do not apply to State Significant Development.

## 6.5 CMP Conservation Policies

Table 6.1 below sets out the relevant conservation policies from the 2002 CMP and includes an assessment of the proposal against those policies.

Table 6.1 CMP Conservation Policies and Compliance of the Proposed Development.

Policy No.	Conservation Policy	Compliance of the Proposal
6.5 Protection of Setting	It is important that measures are taken to ensure the retention and conservation of the setting of the Upper Canal, not only for its conservation, but also to ensure security and quality of the water supply.	Complies. The setting of the Upper Canal will be retained and conserved.  This is achieved through a large setback between the heritage item and new development, and the introduction of mature plants and vegetation to the west of the subject site to create a landscape buffer between the canal and the new development. The scale of the warehouse is consistent with adjacent industrial development.
6.13 Conservation of the Historical Landscape and its plantings	<p>1. Surviving landscape features associated with the Upper Canal should be conserved.</p> <p>2. The largely intact rural or woodland character of the canal landscape should be retained and protected from potential encroachments of an inappropriate nature such as residential or industrial development.</p>	<p>Complies. No plantings or landscape features associated with the rural setting of the Upper Canal will be removed as part of the proposed development.</p> <p>Complies. The proposed development is sited on land previously cleared for industrial purposes. The subject site is set back from the heritage item approximately 40 metres and does not encroach on the heritage listed curtilage of the place.</p> <p>The loading dock and driveways that are located along the northern, western and eastern boundaries of the site will be screened utilising predominately locally endemic Cumberland Plain Woodland species of trees, large shrub screen planting and native grasses. Species include: <i>Tristaniopsis</i> 'Luscious', <i>Cupaniopsis anarcoides</i>, <i>Waterhousia floribunda</i>, <i>Banksia ericifolia</i>, <i>Dodonaea viscosa</i>, <i>Grevillea</i> 'Sandra Gordon', <i>Dianella</i> 'Little Rev', <i>Lomandra</i> 'Katrinus' and <i>Lomandra</i> 'Verday'.<sup>5</sup> The introduction of these native species will ensure that the rural landscape setting of the Upper Canal is retained and enhanced.</p>
6.16.6 General Principles	<p>1. New buildings or structures should be similar in style, scale, form and building materials to those of heritage significance formerly constructed along the Upper Canal.</p> <p>2. When placing new items next to heritage items, care should be taken to use similar materials, scale, form and size, where appropriate.</p>	<p>There are no identified buildings of heritage significance along this segment of the Upper Canal. The proposed facility will be visually consistent with other approved warehouses in the industrial estate with regard to style, scale and form.</p> <p>Complies. The proposed scale and fabric of the new facility will be sympathetic to the canal and its heritage listed curtilage. The subject site is located at a low elevation and does not afford any significant views of the canal. The scale and materiality are consistent with surrounding development.</p>

Policy No.	Conservation Policy	Compliance of the Proposal
	<p>3. New items should not introduce poor standards of workmanship or materials which are incompatible with historical construction along the canal.</p> <p>4. New items should be unobtrusive and should not obscure adjacent heritage items or detract from their setting.</p> <p>5. Significant fabric should not be disturbed or demolished by the construction of new items.</p>	<p>Complies. The materials and finishes of the proposed facility respond to the emerging industrial character of the precinct and will not detract from the heritage significance of the canal or its curtilage. The use of various tones and cladding such as colorbond, precast concrete and glazed brick will ensure there are no large blank walls facing the canal and will help to mitigate the visual impact of the structure.</p> <p>Complies. Given the setbacks from The Horsley Drive and Cowpasture Road, the careful consideration of scale and fabric, no significant views will be impacted by the proposal and the development will not visually dominate the canal or its rural landscape setting. Views of the canal and its historic setting will continue to be appreciated along the cycleway.</p> <p>Complies. The proposed works will have no direct impact on the Upper Canal or its heritage listed curtilage. Furthermore, a review of the potential vibration impact during construction was undertaken by Acoustic Logic. The findings established that based on the distance from the canal, the vibration generated from construction and operational activities would not generate a magnitude which has the potential to generate any adverse impact on the Upper Canal. (Refer to Appendix C).</p>

## 6.6 Endnotes

- <sup>1</sup> Edward Higginbotham & Associates Pty Ltd, *Conservation Management Plan for the Upper Canal, Pheasant's Nest to Prospect Reservoir*, NSW, October 2001, p 89.
- <sup>2</sup> Biosis, *Horsley Drive Business Park Stage 2 (SSD 7664) Archaeological Report*, prepared for Western Sydney Parklands Trust, October 2016, p 49.
- <sup>3</sup> WillowTree Planning, *Horsley Drive Business Park, Proposed Two Staged Warehouse/Distribution and Industrial Facility, Burilda Close, Wetherill Park, Environmental Impact Statement*, prepared for Frasers Property, October 2016.
- <sup>4</sup> Biosis, *Horsley Drive Business Park Stage 2 (SSD 7664) Archaeological Report*, prepared for Western Sydney Parklands Trust, October 2016, p 49.
- <sup>5</sup> WillowTree Planning, *Horsley Drive Business Park, Proposed Two Staged Warehouse/Distribution and Industrial Facility, Burilda Close, Wetherill Park, Environmental Impact Statement*, prepared for Frasers Property, October 2016, p 44.

## 7.0 Conclusion and Recommendations

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### 7.1 Summary Statement of Heritage Impacts

The proposed warehouse/distribution facility will have no direct impact on the SCA Upper Canal or its heritage listed curtilage. There will be some indirect impact on the historic rural setting of the heritage item as a portion of the rural setting will be removed and built up. This will result in a minor loss of heritage significance which will be mitigated through a number of measures. There will be minor impact on significant views due to the siting of the new facility and topographic features of the land.

The building will be constructed within an industrial precinct that is already being developed. The scale, form and bulk is consistent with surrounding development and provides an appropriate physical buffer to the heritage listed canal. Due to the substantial distance between the canal and the proposed facility, there will be no adverse impacts resulting from vibration during the construction or operation of the development. The extent of the works proposed under the subject application do not encroach on the upper canal, nor do they pose any significant risk.

### 7.2 Recommendations

- Conserve the heritage values of the Upper Canal by ensuring there are no physical impacts within its curtilage (Lot 1 DP 596354) during site preparation, construction, or operation of the proposed development. The subject site lies outside of the easement of the canal so no access by persons or vehicles will be required.
- Retain building setbacks and the landscaped buffer zone between the proposed facility and Upper Canal. This will help to mitigate the impact of alteration to the rural setting of the canal and create a green view corridor down the canal corridor. New plantings should be a mixture of native plantings that soften the appearance of the new warehouse introduced along the canal interface. New plantings should also not obstruct views to and along the canal.
- Retain the cycleway and boundary planting.
- Conserve surviving landscape features associated with the Upper Canal and retain the rural character as much as practicable, particularly on the northern and western boundary of the site which will have the most direct interface with the canal and historic rural landscape. The proposed carpark to the north should be screened as much as possible by trees and shrubs to mitigate visual impacts as viewed from the north. Similar screening should be utilised for the loading dock on the western boundary.
- Lighting features along the outer edges of the site should be visually recessive. They should be scaled appropriately so they do not dominate this portion of the cycleway, neutral in colour and carefully designed to not detract from the appreciation of the setting. Due to the low elevation of the proposed building, there will be no visual impacts resulting from glare or reflectivity off the facility.
- To avoid adverse impacts to the SHR curtilage of the Upper Canal, it is important for all contractors working on the site to be aware of the heritage values of the adjacent canal. This should include an induction to contractors explaining the heritage values of the canal and protection measures to safeguard the heritage item during the construction phase.



## **8.0 Appendices**

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### **Appendix A**

Architectural Drawings prepared by Frasers Property Australia, dated 5 October 2016

### **Appendix B**

State Heritage Inventory Form for the Upper Canal System (Pheasants Nest Weir to Prospect Reservoir)

### **Appendix C**

Review of Vibration Impact to Upper Canal, prepared by Acoustic Logic, dated 1 February 2017



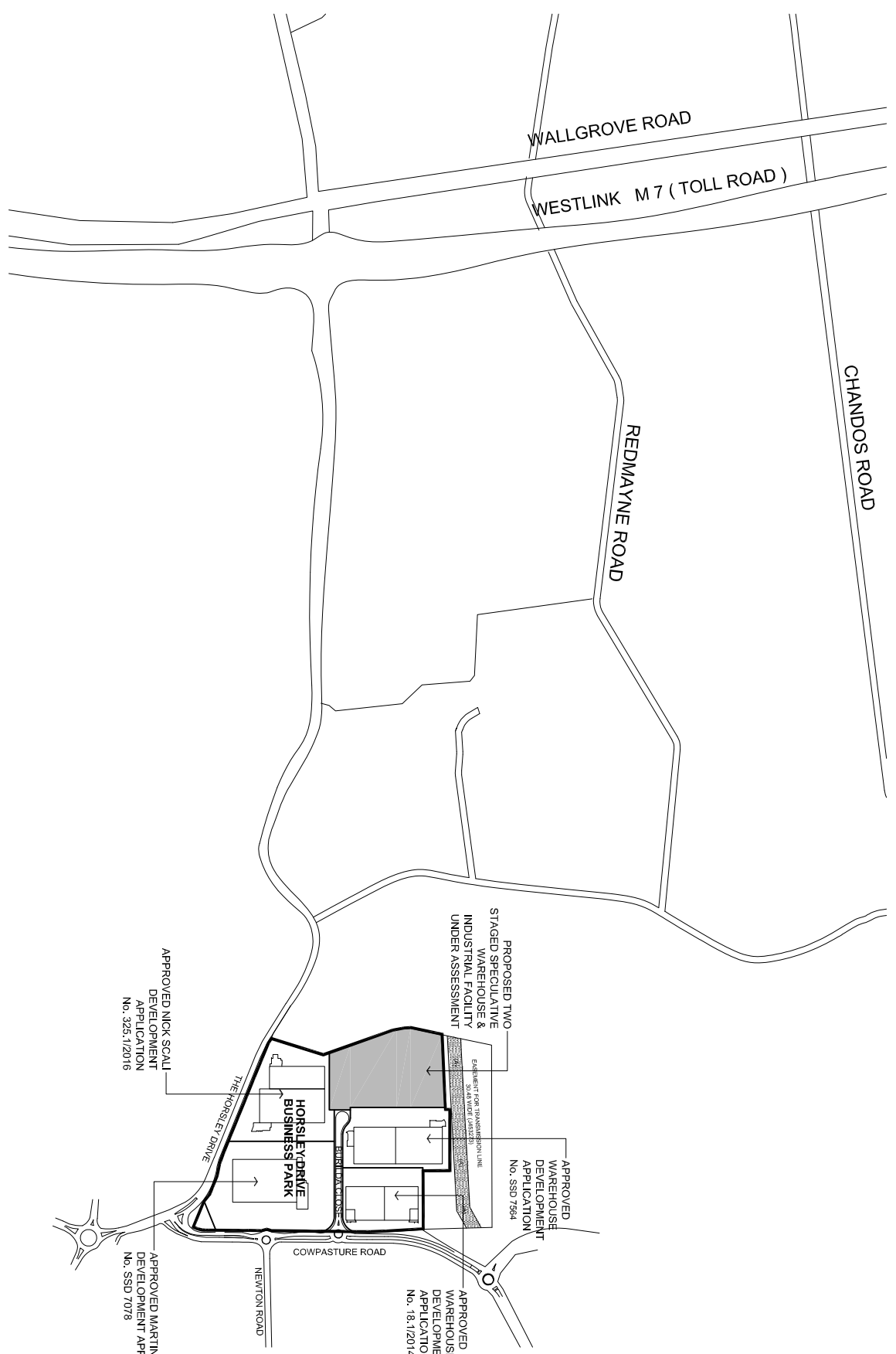
## **Appendix A**

Architectural Drawings prepared by Frasers Property Australia, dated 5 October 2016

**TWO STAGED  
SPECULATIVE WAREHOUSE &  
INDUSTRIAL FACILITY**

AT PROPOSED LOT 3 IN LOT 5 DP1212087,  
BURILDA CLOSE, WETHERILL PARK  
HORSLEY DRIVE BUSINESS PARK

SP4 - WSPT - DA - 000	A	TITLE SHEET
SP4 - WSPT - DA - 001	A	LOCATION PLAN
SP4 - WSPT - DA - 002	A	SITE ANALYSIS
SP4 - WSPT - DA - 003	A	SITE PLAN
SP4 - WSPT - DA - 004	A	TRUCK TURNING DIAGRAMS - SHEET 1
SP4 - WSPT - DA - 005	A	TRUCK TURNING DIAGRAMS - SHEET 2
SP4 - WSPT - DA - 006	A	STAGING PLANS
SP4 - WSPT - DA - 100	A	WAREHOUSE / INDUSTRIAL FACILITY PLAN
SP4 - WSPT - DA - 110	A	OFFICE 01 - FLOOR PLANS
SP4 - WSPT - DA - 111	A	OFFICE 02 - FLOOR PLANS
SP4 - WSPT - DA - 200	A	ELEVATIONS
SP4 - WSPT - DA - 210	A	SECTIONS
SP4 - WSPT - DA - 400	A	LIGHTING PLAN
SP4 - WSPT - DA - 500	A	COLOURED ELEVATIONS
SP4 - WSPT - DA - 600	A	OFFICE 01 - PERSPECTIVE
SP4 - WSPT - DA - 610	A	OFFICE 02 - PERSPECTIVE
SP4 - WSPT - DA - 620	A	STREETSCAPE CONTEXT SKETCHES

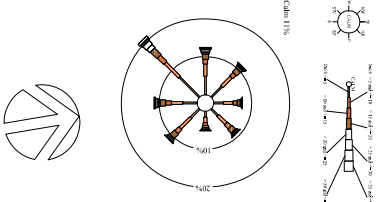
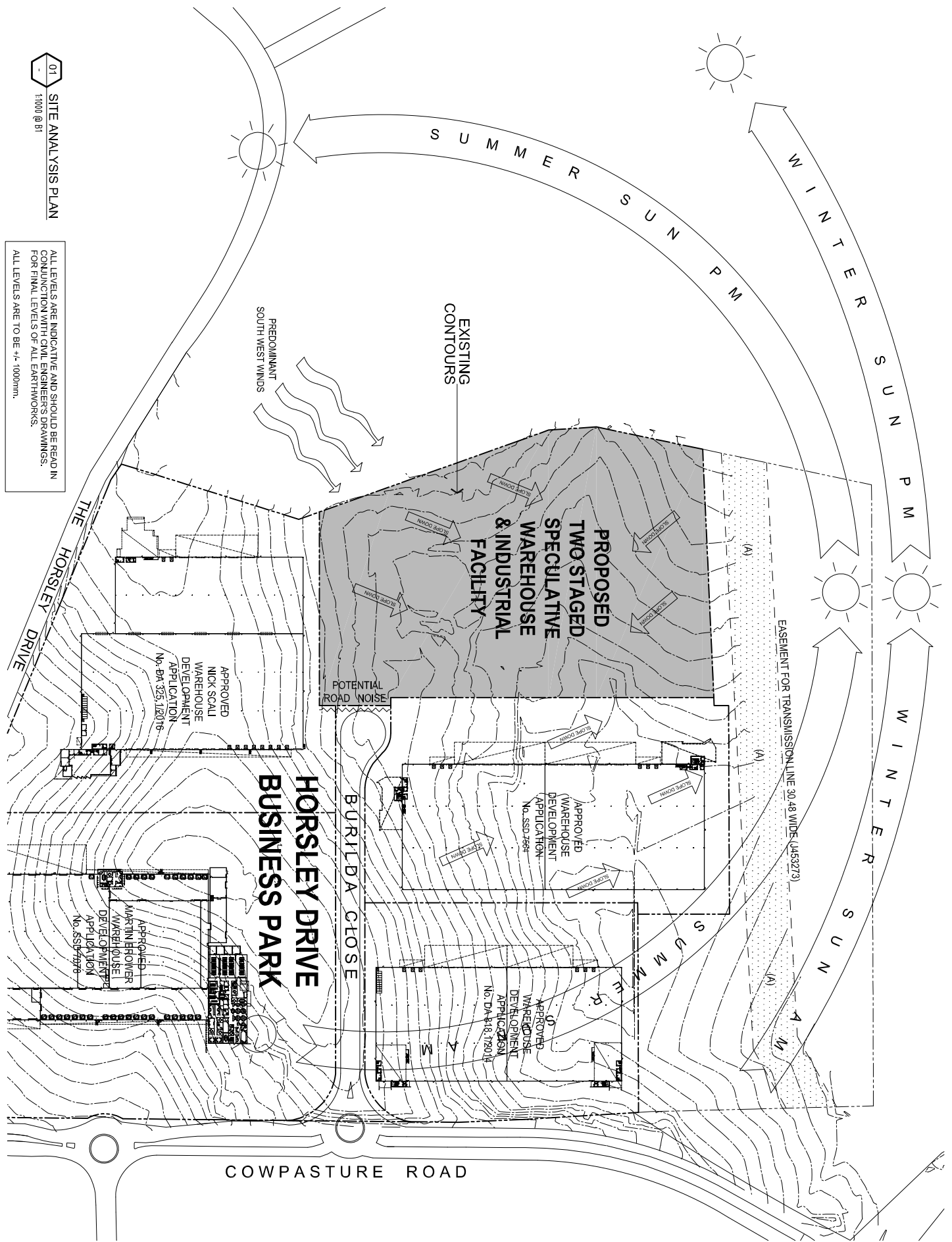


01 LOCATION PLAN  
1:4,000 @ B1

ALL LEVELS ARE INDICATIVE AND SHOULD BE READ IN CONJUNCTION WITH CIVIL ENGINEERS DRAWINGS. FOR FINAL LEVELS OF ALL EARTHWORKS. ALL LEVELS ARE TO BE +/- 1000mm.



COMMERCIAL & INDUSTRIAL DIVISION  
10.10.15  
PROJECT 10.10.15  
PROPOSED LOT 3 IN LOT 5 09/12/2007  
BRIDDA CLOSE, WETHERILL PARK  
DRAWING TITLE  
LOCATION PLAN



**FRASERS PROPERTY**

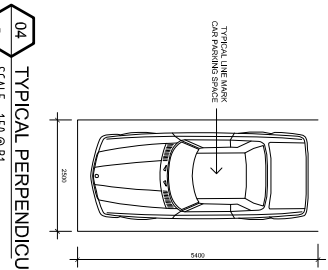
COMMERCIAL & INDUSTRIAL DIVISION  
 1 BUREAU ROAD, SUITE 101, MELBOURNE VIC 3000  
 PHONE 03 9594 1116  
 FAX 03 9594 1117  
 EMAIL info@frasers.com.au  
 WEBSITE www.frasers.com.au

PROJECT  
 TWO STAGED SPECULATIVE WAREHOUSE & INDUSTRIAL FACILITY  
 PROPOSED LOT 3 IN LOT 5 P9172067  
 BURILDA CLOSE, WETHERILL PARK  
 DRAWING TITLE  
 SITE ANALYSIS

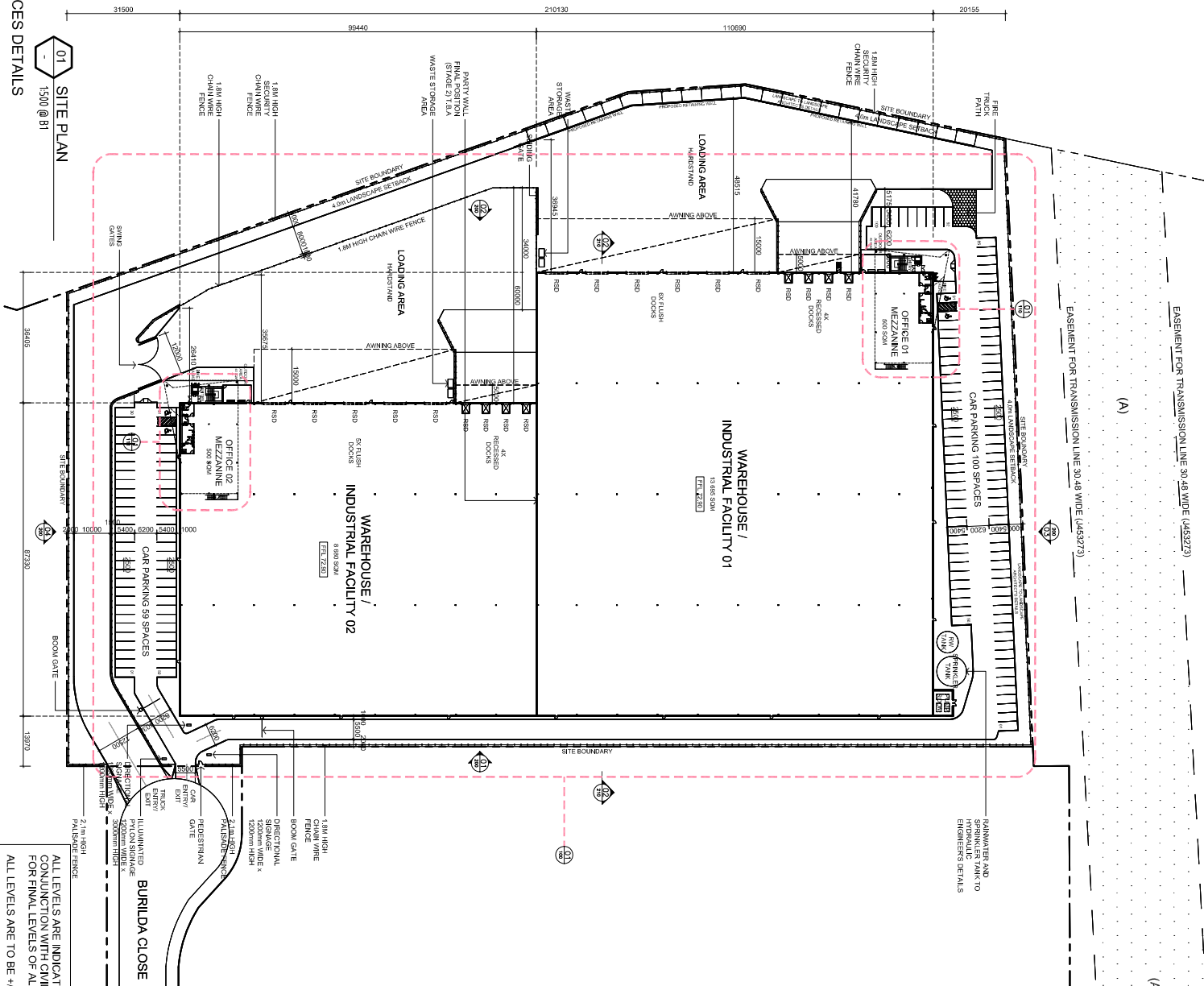
01 SITE ANALYSIS PLAN  
 1:1000 @ B1

ALL LEVELS ARE INDICATIVE AND SHOULD BE READ IN CONJUNCTION WITH CIVIL ENGINEER'S DRAWINGS.  
 FOR FINAL LEVELS OF ALL EARTHWORKS.  
 ALL LEVELS ARE TO BE +/- 1000mm.

DEVELOPMENT AREAS	
SITE AREA	43 976 SQM.
WAREHOUSE / INDUSTRIAL FACILITY 01	13 695 SQM.
MEZZANINE OFFICE	500 SQM.
ENTRY FOYER	40 SQM.
TOTAL BUILDING AREA	14 235 SQM.
AMINING	1 725 SQM.
WAREHOUSE / INDUSTRIAL FACILITY 02	8660 SQM.
MEZZANINE OFFICE	500 SQM.
ENTRY FOYER	40 SQM.
TOTAL BUILDING AREA	9 220 SQM.
AMINING	844 SQM.
TOTAL BUILDING AREA	23 455 SQM.
CAR PARKING	159 SPACES
MASTER PLAN APPROVED CAR PARKING REQUIRED (1 space per 200sqm GFA)	117 SPACES
SITE COVERAGE	53%

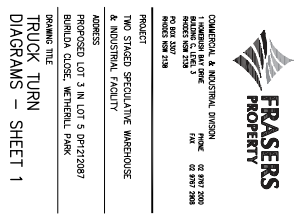


01 SITE PLAN  
1:500 @ B1



ALL LEVELS ARE INDICATIVE AND SHOULD BE READ IN CONJUNCTION WITH CIVIL ENGINEERS DRAWINGS.  
FOR FINAL LEVELS OF ALL NETWORKS.  
ALL LEVELS ARE TO BE +/- 1000mm.





ALL LEVELS ARE INDICATIVE AND SHOULD BE READ IN CONJUNCTION WITH CIVIL ENGINEER'S DRAWINGS. FOR FINAL LEVELS OF ALL EARTHWORKS.

03  
-  
1600 @ B1



COMMERCIAL & INDUSTRIAL DIVISION  
1 HENDERBURY BAY DRIVE  
BUILDING C, LEVEL 3  
BAYVIEW NSW 2128  
PO BOX 3307  
BAYVIEW NSW 2128

PHONE 02 9767 2000  
FAX 02 9767 2008

**PROJECT**  
**TWO STAGED SPECULATIVE WAREHOUSE**  
**& INDUSTRIAL FACILITY**

PROPOSED LOT 3 IN LOT 5 DP1212087  
BURILDA CLOSE, WETHERILL PARK

TRUCK TURN  
DIAGRAMS - SHEET 2

ALL LEVELS ARE INDICATIVE AND SHOULD BE READ IN CONJUNCTION WITH CIVIL ENGINEERS DRAWINGS. FOR FINAL LEVELS OF ALL EARTHWORKS. ALL LEVELS ARE TO BE  $\pm 100\text{mm}$ .



## ING PLAN - STAGE 01



## STAGING PLAN - STAGE 02



**FRASERS**  
PROPERTY

COMMERCIAL & INDUSTRIAL DIVISION  
1 HUNTERSBURY BAY DRIVE  
BUILDING C, LEVEL 3  
RIVINGTONS NSW 2158  
PO BOX 3307  
RIVINGTONS NSW 2158

PHONE 02 937  
FAX 02 937

**TWO STAGED SPECULATIVE WAREHOUSE  
& INDUSTRIAL FACILITY**

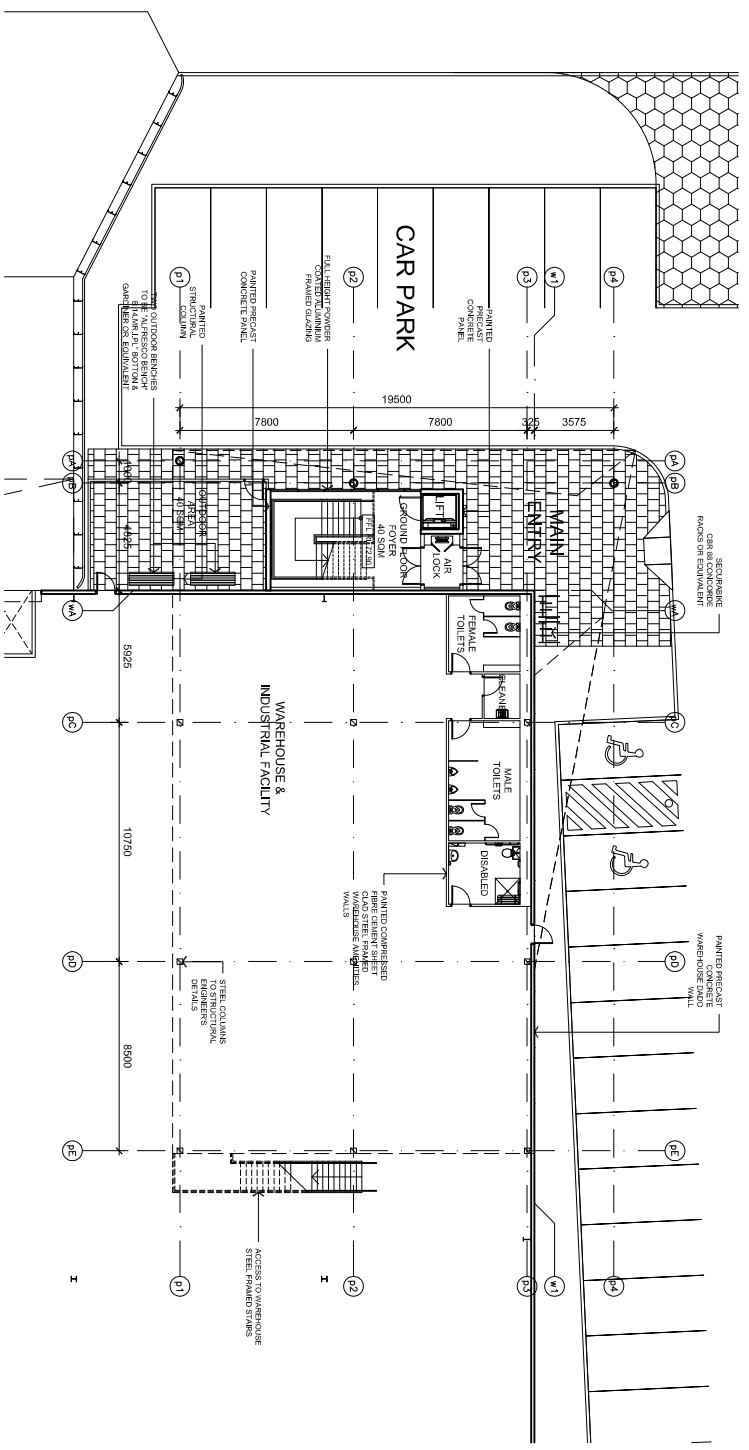
PROPOSED LOT 3 IN LOT 5 DP1212087  
BURILDA CLOSE, WETHERILL PARK

## STAGING PLANS

SCALE	1:500 @ 81
DRAWN	MP
CHECKED	JQ
DATE	05.10.16
JOB NUMBER	0000-00-000

SP4-WSP-T-DA-006











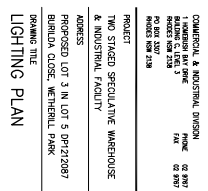
Architectural floor plan of the proposed warehouse facility. The plan shows a long, narrow building with various sections labeled. At the top left is the 'ADJACENT PRIVATE PROPERTY' and 'WAREHOUSE OFFICE BLDG.'. The main building has sections for 'STORAGE', 'WAREHOUSE / DISTRIBUTION CENTRE & WAREHOUSE FACILITY', and 'STORAGE'. The bottom right section is labeled 'LOI 2 COOLING WAREHOUSE'. The plan includes dimensions: 12200' in length and 2700' in width. It also shows 'THE EAST DOOR' and 'THE WEST DOOR'. The plan is oriented with 'N' (North) at the top.



**FRASERS**  
PROPERTY

## SECTIONS

SCALE	1:400 @ 81
DRAWN	MP
DESIGNED	JD
DAT	05.10.16
JOB NUMBER	000-00-000
DRAWING NUMBER	
	ISSUE
<b>SP4-WSP7-DA-210</b>	<b>A</b>



DRAWING TITLE  
LIGHTING PLAN

ALL LEVELS ARE INDICATIVE AND SHOULD BE READ IN CONJUNCTION WITH CIVIL ENGINEER'S DRAWINGS. FOR FINAL LEVELS OF ALL EARTHWORKS.



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ALL LEVELS ARE TO BE +/- 1000mm.



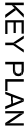
**FRASERS**  
PROPERTY

COLOURED ELEVATIONS

SP4-WSP-T-DA-500





Architectural rendering of a modern building with a white facade, large glass windows, and a prominent yellow-green section. The building is surrounded by trees and a paved area with parked cars.

**FRASERS**  
PROPERTY



SP4-WSP-T-DA-610



DO NOT SCALE DRAWINGS. ENTER IN THE DIMENSIONS ON THE  
 3D PRINTED MEASUREMENTS AND SCALE DRAWINGS.

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SECTION	DESCRIPTION	DATE
A	3D SCALE	05/10/16

## **Appendix B**

State Heritage Inventory Form for the Upper Canal System (Pheasants Nest Weir to Prospect Reservoir





Home > Topics > Heritage places and items > [Search for heritage](#)

# Upper Canal System (Pheasants Nest Weir to Prospect Reservoir)

## Item details

<b>Name of item:</b>	Upper Canal System (Pheasants Nest Weir to Prospect Reservoir)
<b>Other name/s:</b>	includes the Southern Railway Aqueduct; Cataract Tunnel; water supply
<b>Type of item:</b>	Complex / Group
<b>Group/Collection:</b>	Utilities - Water
<b>Category:</b>	Water Supply Canal
<b>Location:</b>	Lat: -33.91548201400 Long: 150.828630839
<b>Primary address:</b>	, Prospect, NSW 2148
<b>Local govt. area:</b>	Blacktown
<b>Local Aboriginal Land Council:</b>	Tharawal

## Property description

Lot/Volume Code	Lot/Volume Number	Section Number	Plan/Folio Code	Plan/Folio Number
LOT	11		DP	1055232
LOT	12		DP	1055232
PART LOT	1		DP	1062094
LOT	1		DP	1086624
LOT	2		DP	1086624
LOT	1		DP	1086645
LOT	2		DP	1086645
LOT	2		DP	1086648
LOT	1		DP	596351
LOT	2		DP	596351
LOT	2		DP	596352
LOT	1		DP	596353
LOT	2		DP	596353
LOT	1		DP	596354
LOT	1		DP	596355
LOT	1		DP	603946
LOT	2		DP	603946
LOT	3		DP	603946
LOT	1		DP	610145
LOT	1		DP	610146
LOT	1		DP	613552
LOT	1		DP	616147
LOT	2		DP	616147
LOT	1		DP	616271
LOT	2		DP	616271
LOT	1		DP	619850
LOT	2		DP	619850
LOT	1		DP	623825
LOT	2		DP	623825
LOT	1		DP	625921

LOT	2		DP	625921
LOT	3		DP	625921
LOT	1		DP	717439
LOT	2		DP	717439
LOT	3		DP	717439
LOT	1		DP	719962
LOT	2		DP	719962
LOT	3		DP	719962
LOT	1		DP	725231
LOT	1		DP	730136
LOT	2		DP	730136
LOT	3		DP	730136
LOT	1		DP	732571
LOT	2		DP	732571
LOT	1		DP	744563
LOT	1		DP	744620
LOT	1		DP	744834
LOT	1		DP	744927
LOT	51		DP	811015
LOT	1		DP	910746
LOT	1		DP	910751
LOT	1		DP	910752
LOT	1		DP	913122
LOT	1		DP	980178
LOT	2		DP	980178
LOT	3		DP	980178
LOT	4		DP	980178
LOT	1		DP	986715

The Upper Canal forms a major component of the Upper Nepean Scheme. The Upper Nepean Scheme supplies water from the Cataract River at Broughtons Pass to the Crown Street reservoir, a distance of 63.25 miles. The Upper Canal commences by tunnel from Pheasant's Nest Weir on the Nepean River and extends through the Local Government areas of Wollondilly, Liverpool, Holroyd, Fairfield, Campbelltown and Camden.

## Boundary:

### All addresses

Street Address	Suburb/town	LGA	Parish	County	Type
	Prospect	Blacktown			Primary Address
	Wilton	Wollondilly			Alternate Address
	West Hoxton	Liverpool			Alternate Address
	Denham Court	Campbelltown			Alternate Address
	Leppington	Camden			Alternate Address
	Catherine Field	Camden			Alternate Address
	Currans Hill	Camden			Alternate Address
	Mount Annan	Camden			Alternate Address
	Gilead	Campbelltown			Alternate Address
	Appin	Wollondilly			Alternate Address
	Horsley Park	Fairfield			Alternate Address
	Cecil Park	Liverpool			Alternate Address

## Owner/s

Organisation Name	Owner Category	Date Ownership Updated
Water NSW	State Government	

## Statement of significance:

The Upper Canal System is significant as a major component of the Upper Nepean Scheme. As an element of this Scheme, the Canal has functioned as part of Sydney's main water supply system since 1888. Apart from maintenance and other improvements, the Upper Canal has changed little.

As part of this System, the Canal is associated with Edward Moriarty, Head of the Harbours and Rivers Branch of the NSW Public Works Department.

The Canal is aesthetically significant, running in a serpentine route through a rural bushland setting as an impressive landscape element with sandstone and concrete-lined edges;

The Canal is significant as it demonstrates the techniques of canal building, and evidence of engineering practice. The Canal as a whole is an excellent example of 19th century hydraulic engineering, including the use of gravity to feed water along the canal (BCubed Sustainability, 2/2006).

The Upper Nepean Scheme is significant because:

- \* In its scope and execution, it is a unique and excellent example of the ingenuity of late 19th century hydraulic engineering in Australia, in particular for its design as a gravity-fed water supply system.
- \* It has functioned as a unique part of the main water supply system for Sydney for over 100 years, and has changed little in its basic principles since the day it was completed.
- \* It represented the major engineering advance from depending on local water sources to harvesting water in upland catchment areas, storing it in major dams and transporting it the city by means of major canals and pipelines.
- \* It provides detailed and varied evidence of the engineering construction techniques prior to the revolution inspired by reinforced concrete construction, of the evolution of these techniques (such as the replacement of timber flumes with wrought iron and then concrete flumes), and of the early use of concrete for many engineering purposes in the system.
- \* The scheme possesses many elements of infrastructure which are of world and national renown in technological and engineering terms.
- \* Many of the structural elements are unique to the Upper Nepean Scheme.

(Edward Higginbotham & Associates, SCA Heritage and Conservation Register, 18 December 2000)

**Date significance updated:** 22 Apr 10

*Note: There are incomplete details for a number of items listed in NSW. The Heritage Division intends to develop or upgrade statements of significance and other information for these items as resources become available.*

## Description

**Date condition updated:** 13 Feb 06

**Current use:**

water supply

**Former use:**

Aboriginal land; private farming land

## History

**Historical notes:**

Aboriginal & European settler history:

The area of Prospect Reservoir is an area of known Aboriginal occupation, with favourable camping locations along the Eastern Creek and Prospect Creek catchments, and in elevated landscapes to the south. There is also evidence to suggest that the occupation of these lands continued after European contact, through discovery of intermingled glass and stone flakes in archaeological surveys of the place. The area was settled by Europeans by 1789.

Prospect Hill, Sydney's largest body of igneous rock, lies centrally in the Cumberland Plain and dominates the landscape of the area (Ashton, 2000). Very early after first settlement, on 26 April 1788, an exploration party heading west led by Governor Phillip, climbed Prospect Hill. An account by Phillip states that the exploration party saw from Prospect Hill, 'for the first time since we landed Carmathen Hills (Blue Mountains) as likewise the hills to the southward'. Phillip's 'Bellevue' (Prospect Hill) acquired considerable significance for the new settlers. Prospect Hill provided a point from which distances could be meaningfully calculated, and became a major reference point for other early explorers (Karskens 1991). When Watkin Tench made another official journey to the west in 1789, he began his journey with reference to Prospect Hill, which commanded a view of the great chain of mountains to the west. A runaway convict, George Bruce, used Prospect Hill as a hideaway from soldiers in the mid-1790's.

During the initial struggling years of European settlement in NSW, Governor Phillip began to settle time-expired convicts on the land as farmers, after the success of James Ruse at Rose Hill (Higginbotham 2000). On 18 July 1791 Phillip placed a number of men on the eastern and southern slopes of Prospect Hill, as the soils weathered from the basalt cap were richer than the sandstone derived soils of the Cumberland Plain. The grants, mostly 30 acres, encircled Prospect Hill (Ashton 2000). The settlers included William Butler, James Castle, Samuel Griffiths, John Herbert, George Lisk, Joseph Morley, John Nicols, William Parish and Edward Pugh (Higginbotham 2000).

The arrival of the first settlers prompted the first organised Aboriginal resistance to the spread of settlement, with the commencement of a violent frontier conflict in which Pemulwuy and his Bidjigal clan played a central role (Flynn 1997). On 1 May 1801 Governor King took drastic action, issuing a public order requiring that Aboriginal people around Parramatta, Prospect Hill and Georges River should be 'driven back from the settlers' habitations by firing at them'. Kings edicts appear to have encouraged a shoot-on-sight attitude whenever any Aboriginal men, women or children appeared (Flynn 1997).

With the death of Pemulwuy, the main resistance leader, in 1802, Aboriginal resistance gradually diminished near Parramatta, although outer areas were still subject to armed hostilities. Prompted by suggestions to the Reverend Marsden by local Prospect Aboriginal groups that a conference should take place 'with a view of opening the way to reconciliation', Marsden promptly organised a meeting near Prospect Hill. (ibid 1997). At the meeting, held on 3 May 1805, local Aboriginal representatives discussed with Marsden ways of ending the restrictions and indiscriminate reprisals inflicted on them by soldiers and settlers in response to atrocities committed by other Aboriginal clans (ibid 1997). The meeting was significant because a group of Aboriginal women and a young free settler at Prospect named John Kennedy acted as intermediaries. The conference led to the end of the conflict for the Aboriginal clans around Parramatta and Prospect (Karskens 1991). This conference at Prospect on Friday 3 May 1805 is a landmark in Aboriginal/European relations. Macquarie's 'Native Feasts' held at Parramatta from 1814 followed the precedent set in 1805. The Sydney Gazette report of the meeting is notable for the absence of the sneering tone that characterised its earlier coverage of Aboriginal matters (ibid 1997).

From its commencement in 1791 with the early settlement of the area, agricultural use of the land continued at Prospect Hill. Much of the land appears to have been cleared by the 1820s and pastoral use of the land was well established by then. When Governor Macquarie paid a visit to the area in 1810, he was favourably impressed by the comfortable conditions that had been created (Pollon & Healy, 1988, 210).

Nelson Lawson, third son of explorer William Lawson (1774-1850), married Honoria Mary Dickinson and before 1837 built "Greystanes House" as their future family home on the western side of Prospect Hill. Lawson had received the land from his father, who had been granted 500 acres here by the illegal government that followed the overthrow of Governor Bligh in 1808.

Governor Macquarie confirmed the grant, where William Lawson had built a house, which he called "Veteran Hall", because he had a commission in the NSW Veterans Company. The house was demolished in 1928 and the site is now partly covered by the waters of Prospect Reservoir. Greystanes was approached by a long drive lined with an avenue of English trees - elms (*Ulmus procera*), hawthorns (*Crataegus* sp.), holly (*Ilex aquifolium*), and woodbine (*Clematis* sp.) mingling with jacarandas (*J. mimosifolia*). It had a wide, semi-circular front verandah supported by 4 pillars. The foundations were of stone, the roof of slate, and the doors and architraves of heavy red cedar. It was richly furnished with articles of the best quality available and was the scene of many glittering soirees attended by the elite of the colony. Honoria Lawson died in 1845, Nelson remarried a year later, but died in 1849, and the property reverted to his father. Greystanes house was demolished in the 1940s (Pollon, 1988, 116, amended Read, S., 2006 - the house can't have been 'on the crest' of Prospect Hill as Pollon states, if its site was covered by the Reservoir).

By the 1870s, with the collapse of the production of cereal grains across the Cumberland Plain, the Prospect Hill area appears to have largely been devoted to livestock. The dwellings of the earliest settlers largely appear to have been removed by this stage. By the time that any mapping was undertaken in this vicinity, most of these structures had disappeared, making their locations difficult to pinpoint (Higginbotham 2000).

The land was farmed from 1806-1888 when the Prospect Reservoir was built. In 1867, the Governor of NSW appointed a Commission to recommend a scheme for Sydney's water supply, and by 1869 it was recommended that construction commence on the Upper Nepean Scheme. This consisted of two diversion weirs, located at Pheasant's Nest and Broughton's Pass, in the Upper Nepean River catchment, with water feeding into a series of tunnels, canals and aqueducts known as the Upper Canal. It was intended that water be fed by gravity from the catchment into a reservoir at Prospect. This scheme was to be Sydney's fourth water supply system, following the Tank Stream, Busby's Bore and the Botany (Lachlan) Swamps.

Designed and constructed by the Public Works Department of NSW, Prospect Reservoir was built during the 1880s and completed in 1888. Credit for the Upper Nepean Scheme is largely given to Edward Orpen Moriarty, the Engineer in Chief of the Harbours and Rivers Branch of the Public Works Department from 1858-88 (B Cubed Sustainability, 2005, 7).

#### Upper Canal System:

In 1867, the Governor of NSW appointed a Commission to recommend a scheme for Sydney's water supply, and by 1869 it was recommended that construction commence on the Upper Nepean Scheme. This consisted of two diversion weirs, located at Pheasant's Nest and Broughton's Pass, in the Upper Nepean River catchment, with water feeding into a series of tunnels, canals and aqueducts known as the Upper Canal. It was intended that water be fed by gravity from the catchment into a reservoir at Prospect. This scheme was to be Sydney's fourth water supply system, following the Tank Stream, Busby's Bore and the Botany (Lachlan) Swamps.

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## Historic themes

Australian theme (abbrev)	New South Wales theme	Local theme
3. Economy- Developing local, regional and national economies	Environment - cultural landscape-Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	Developing local, regional and national economies-National Theme 3
3. Economy- Developing local, regional	Environment - cultural landscape-Activities associated with the interactions between humans, human societies and the shaping of their physical	Landscapes and countryside of rural charm-



and national economies	surroundings	
3. Economy- Developing local, regional and national economies	Environment - cultural landscape-Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	Landscapes of urban and rural interaction-
3. Economy- Developing local, regional and national economies	Environment - cultural landscape-Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	Landscapes of scenic beauty-
4. Settlement- Building settlements, towns and cities	Land tenure-Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Changing land uses - from rural to suburban-
4. Settlement- Building settlements, towns and cities	Land tenure-Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Resuming private lands for public purposes-
4. Settlement- Building settlements, towns and cities	Land tenure-Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Granting Crown lands for private farming-
4. Settlement- Building settlements, towns and cities	Land tenure-Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Sub-division of large estates-
4. Settlement- Building settlements, towns and cities	Land tenure-Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Early farming (Cattle grazing)-
4. Settlement- Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	19th Century Infrastructure-
4. Settlement- Building settlements, towns and cities	Towns, suburbs and villages-Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	Creating landmark structures and places in regional settings-
4. Settlement- Building settlements, towns and cities	Utilities-Activities associated with the provision of services, especially on a communal basis	Providing drinking water-
7. Governing- Governing	Government and Administration-Activities associated with the governance of local areas, regions, the State and the nation, and the administration of public programs - includes both principled and corrupt activities.	Developing roles for government - providing reticulated water-
7. Governing- Governing	Government and Administration-Activities associated with the governance of local areas, regions, the State and the nation, and the administration of public programs - includes both principled and corrupt activities.	Developing roles for government - public water supply-
7. Governing- Governing	Government and Administration-Activities associated with the governance of local areas, regions, the State and the nation, and the administration of public programs - includes both principled and corrupt activities.	Building and operating public infrastructure-

## Assessment of significance

**SHR Criteria a)** The Upper Nepean Scheme has functioned as part of the main water supply system for Sydney since 1888. Apart from the augmentation and development in supply and other improvements, [Historical significance]

the Upper Canal and Prospect Reservoir portions of the Scheme have changed little and in most cases operate in essentially the same way as was originally envisaged.

**SHR Criteria b)**

[Associative significance]

The construction of the Upper Nepean Scheme made the big advance from depending on local water sources to harvesting water in upland catchment areas, storing it in major dams and transporting it to the city by means of major canals and pipelines.

**SHR Criteria e)**

[Research potential]

The Upper Nepean Scheme provides detailed and varied evidence of engineering construction techniques prior to the revolution inspired by reinforced concrete construction. Although concrete was later used to improve the durability of the System, much of the earlier technology is still evident along the canal.

It also provides extensive evidence of the evolution of engineering practice, such as the replacement of timber flumes by wrought iron flumes to be followed by concrete flumes. The early utilisation of oncrete for many engineering purposes n the Syste, also demonstrates the growing emergence of an engineering technology based upon man-made materials.


**SHR Criteria f)**

[Rarity]

Many of the the original control installations such as the 'Stoney gates', stop logs, penstocks, gate valves are still in service and continue to illustrate the technology of the time.

The Upper Nepean Scheme is unique in NSW, being the only extensive canal, reservoir and dam network to supply a large city and its population with fresh water from a distant source in the hinterland. This type of water supply system is also rare in Australia and only has major comparative examples in other countries.

**Assessment criteria:**

Items are assessed against the  **State Heritage Register (SHR) Criteria** to determine the level of significance. Refer to the Listings below for the level of statutory protection.

## Procedures /Exemptions

Section of act	Description	Title	Comments	Action date
21(1)(b)	Conservation Plan submitted for endorsement	Upper Canal CMP, Pheasant's Nest to Prospect Reservoir, Vols 1-3 (Aug 2002)		Jun 27 2003
57(2)	Exemption to allow work	Standard Exemptions	<p>SCHEDULE OF STANDARD EXEMPTIONS</p> <p>HERITAGE ACT 1977</p> <p>Notice of Order Under Section 57 (2) of the Heritage Act 1977</p> <p>I, the Minister for Planning, pursuant to subsection 57(2) of the Heritage Act 1977, on the recommendation of the Heritage Council of New South Wales, do by this Order:</p> <p>1. revoke the Schedule of Exemptions to subsection 57(1) of the Heritage Act made under subsection 57(2) and published in the Government Gazette on 22 February 2008; and</p> <p>2. grant standard exemptions from subsection 57(1) of the Heritage Act 1977, described in the Schedule attached.</p> <p>FRANK SARTOR</p> <p>Minister for Planning</p> <p>Sydney, 11 July 2008</p> <p>To view the schedule click on the Standard Exemptions for</p>	Sep 5 2008

Works Requiring Heritage Council Approval link below.

 **Standard exemptions** for works requiring Heritage Council approval

## Listings

Heritage Listing	Listing Title	Listing Number	Gazette Date	Gazette Number	Gazette Page
Heritage Act - State Heritage Register		01373	18 Nov 99		
Heritage Act - s.170 NSW State agency heritage register					
SEPP Major Developments - Heritage Item	Appendix 10 Schedule 5 item		02 Jul 06		
Local Environmental Plan	Liverpool LEP 2008				
Local Environmental Plan	Campbelltown LEP - District 8 (Central Hills Lands				
Local Environmental Plan	Wollondilly				
National Trust of Australia register					

## Study details

Title	Year	Number	Author	Inspected by	Guidelines used
Sydney Water Section 170 Register	1996		Graham Brooks and Associates		N o

## References, internet links & images

Type	Author	Year	Title	Internet Links
Written	AECOM - AGL (Biosys Consulting P/L, working for-report on cultural heritage)	2010	Camden Gas Project Stage 3 - Northern Expansion - October 2010 - Environmental Assessment - Cultural heritage excerpt	
Written	Australian Museum Business Services	2008	Statement of heritage impact: Pheasant's Nest and Broughton's Pass Weirs: Environmental Flow Releases for the Upper Hawkesbury-Nepean River	
Written	B Cubed Sustainability	2006	Upper Canal Aqueduct Scour Valves Upgrade Heritage Impact Statement (June 2006)	
Written	B Cubed Sustainability P/L	2005	Prospect (Reservoir) Scout/Outlet - Heritage Impact Statement	
Written	Biosys P/L	2016	Gledswood Hills bridge crossing over the Upper Canal: European Heritage Archaeological Monitoring Report	
Written	Biosys P/L	2016	Gledswood Hills Collector Road adjacent to the Upper Canal: European Heritage Archaeological Monitoring Report	
Written	Britton, Geoffrey	2002	Upper Canal Cultural Landscape (Appendix 1.4 in Higginbotham CMP 2002)	
Written	Caitlin Allen, Conservation Archaeologist, NSW Government Architect's Office	2003	Southern Railway Aqueduct on the Upper Canal at Mount Annan Refurbishment and Repair Heritage Impact Assessment	
Written	Cardno MBK	2003	Effects of Mining of Longwalls 5A5, 5A6, 5A7 and 5A8 - Interim Report - Open Canals and Concrete Aqueducts C and D (August 2003)	
Written	Cardno P/L	2015	Dilapidation Report - Gledswood Hills - SCA Mollesman Tunnel (Molles Main)	

Written	Eco Logical Australia	2013	East Leppington Precinct - Vegetation Management Plan	
Written	Edward Higginbotham & Associates	2002	Conservation Management Plan for the Upper Canal, Pheasant's Nest to Prospect Reservoir	
Written	Edward Higginbotham, Terry Kass, Vince Murphy, John Collocott, Toby Fiander, Siobhan Lavelle	1992	Heritage Study of the Upper Canal, Prospect Reservoir & Lower Canal (Upper Nepean Scheme): Volume 3 - Conservation Policy	
Written	GML Heritage	2014	East Leppington - update of Aboriginal heritage works (letter)	
Written	Godden Mackay Logan Heritage Consultants	2014	East Leppington (Willowdale) Precinct 3 - Heritage Assessment and Impact Statement Report	
Written	JMD Design	2014	Upper Canal Landscape and Interface Strategy	
Written	JMD Design	2014	Willowdale SCA Canal Interface Montages (various views of canal/adjacent housing)	
Written	JMD Design	2014	Willowdale - Master Plan	
Written	JMD Design	2014	Willowdale - Landscape Features	
Written	Lawrie Greenup	2009	Upper canal and infrastructures affected by LW409 mining :archival photographic recording	
Written	Martin James	2006	Upper Canal Aqueduct Scour Valves Upgrade Review of Environmental Factors	
Written	NSW Office of Environment & Heritage	2013	Issue of Aboriginal Heritage Impact Permit 1132181	
Written	RTA Operations	2003	Statement of Heritage Impact	
Written	Sophy Townsend, URS	2003	Final Report - Review of Environmental Factors for the Proposed Maintenance and Preventative Works on the Upper Canal due to Impacts of Mining at Westcliff Colliery (March 2003)	
Written	Sydney Catchment Authority	2012	Guidelines for development adjacent to the Upper Canal & Warragamba Pipelines	

Note: internet links may be to web pages, documents or images.



(Click on thumbnail for full size image and image details)

## Data source

The information for this entry comes from the following source:

**Name:** Heritage Office  
**Database number:** 5051481  
**File number:** EF14/4424; 10/1860; H00/238

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## **Appendix C**

Review of Vibration Impact to Upper Canal, prepared by Acoustic Logic, dated 1 February 2017

**MANAGING DIRECTORS**

MATTHEW PALAVIDIS  
VICTOR FATTORETTO

**DIRECTORS**

MATTHEW SHIELDS  
BEN WHITE



20161481.1/0102A/R0/BW

01/02/2017

Frasers Property Industrial Constructions Pty Ltd  
Level 3  
1C Homebush Bay Drive  
RHODES NSW 2138

**HDBP Lot 3 - Two Staged Speculative Warehouse/Industrial Facility -  
Review of Vibration Impact to Upper Canal**

This letter confirms that an acoustic (vibration) review of the proposed HDBP Lot 3 - Two Staged Speculative Warehouse/Industrial Facility on the Upper Canal with the vicinity of the site has been undertaken.

Based on the proximity of the upper Canal which is located to the west of the site vibration generated from the site (including vibration from construction and operation activities) will not generate a magnitude which has the potential to generate any impact on the Upper Canal. Based on experience with similar facilities within proximity to infrastructure such as the Upper Canal the proposed HDBP Lot 3 - Two Staged Speculative Warehouse/Industrial Facility will have no negative impact on the infrastructure as a result of vibration from the site.

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

A handwritten signature in blue ink that reads 'B.G. White.'.

Acoustic Logic Consultancy Pty Ltd  
Ben White

---

**SYDNEY**

A: 9 Sarah St Mascot NSW 2020  
T: (02) 8339 8000  
F: (02) 8338 8399

**SYDNEY MELBOURNE BRISBANE CANBERRA  
LONDON DUBAI SINGAPORE GREECE**

ABN: 11 068 954 343

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