



Mona Vale Road West Upgrade

Statement of Heritage Impact

Prepared by:

RPS AUSTRALIA EAST PTY LTD

Level 9, 17 York Street,
Sydney NSW 2000

T: 02 9248 9800
E: sydney@rpsgroup.com.au

Prepared by: Deb Farina/Claire Rayner

Reviewed: Jakob Ruhl

Approved: Deborah Farina

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Prepared for:

SMEC AUSTRALIA PTY LTD

Level 5
20 Berry Street
North Sydney NSW 2060

T: 02 9925 5448
E: Chris.Masters@smec.com

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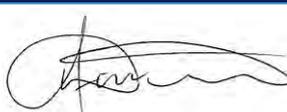
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Executive Summary

RPS has been engaged by SMEC Australia Pty Ltd on behalf of Roads and Maritime Services (Roads and Maritime) to prepare a Statement of Heritage Impact (SoHI) to assess the potential heritage impact of proposed works relating to the upgrade of Mona Vale Road West (the proposal). This SoHI constitutes a preliminary statement of potential heritage impacts resulting from the proposed road upgrade works. RPS has received the proposed construction boundary but has not received final design drawings.

The Proposal Area is a 3.4 kilometre section of Mona Vale Road, between McCarrs Creek Road at Terrey Hills in the west and Powder Works Road, Ingleside in the east (see Figure 1). The eastern portion of this Proposal Area is located within the former Pittwater Council Local Government Area (LGA), and the western portion is located in the former Warringah Council LGA. Following the LGA amalgamation that occurred in early 2016 the entirety of the Proposal Area is now located within the Northern Beaches LGA.

Roads and Maritime propose to upgrade and widen approximately 3.2 kilometres of Mona Vale Road between McCarrs Creek Road, Terrey Hills and Powder Works Road, Ingleside, from a two lane (one in each direction) to a four lane (two lanes in each direction) road. A local connecting road is proposed between Powder Works Road, Mona Vale Road and Harvey Road.

The aims of this SoHI are to identify any non-Indigenous (historic) heritage items which may be present or adjacent to the Proposal Area, assess the potential for as yet unidentified historical archaeology to be present within the Proposal Area and to identify any constraints or impacts that may potentially arise from the proposal.

Searches of Federal, State and local heritage databases identified two sites of heritage significance, being the Baha'i House of Worship and the Group of Monterey Pines. Both items will be impacted by the proposed Mona Vale Road West Upgrade project as described within this report. This report addresses:

- Why these sites are heritage significant
- What impact the proposed works will have on that significance
- What measures are proposed to mitigate negative impacts, and
- Why, if any, more sympathetic solutions are not viable.

The Proposal as currently designed is assessed as having the following impact:

Heritage Item and location	Statutory Heritage Listing	Assessed Heritage Significance (RPS, 2016)	Assessed Impact of proposed works upon heritage significance
The Bahá'I House of Worship 173 Mona Vale Road, Ingleside	Pittwater LEP 2014	State Significant	Minor Part of the proposal area encroaches slightly within the boundaries of the current curtilage. No impact on the setting or fabric.
Group of Monterey Pines	Pittwater LEP 2014	Locally Significant	Major The current concept designs indicate the link road between Powder Works Road and Harvey Road would necessitate the removal of the group of Monterey Pines resulting in an adverse impact to the item.

An assessment of the historical archaeological potential has also been undertaken for the Proposal Area.

Recommendations

Recommendation 1 – Baha'i Temple Management

Consideration should be made during design development to avoid impacts or minimise impacts to the curtilage of the item. If it is not feasible to avoid impacts to the curtilage of the item, the original vegetation and landscaping should be retained within the curtilage where possible. If vegetation is to be removed during construction, these should be replaced with plantings of a similar type and maturity. In addition, screening vegetation should be considered in the final design of the proposal to minimise further impacts on the views and vistas to and from the item. An exclusion zone should be maintained during construction to prevent inadvertent impacts to the item and its surrounding curtilage. Roads and Maritime should consult with the Northern Beaches Council regarding impacts to an item on the Pittwater LEP.

Recommendation 2 – Monterey Pines Mitigation and Management

Consideration should be made during design development to avoid impacts or minimise impacts to the item. If it is not feasible to avoid impacts to the item an archival record should be made of the tree locations and condition prior to removal. A qualified arborist should be engaged to assess the condition of the trees and provide recommendations as to the feasibility of relocation of the trees. Roads and Maritime should consult with the Northern Beaches Council regarding impacts to an item on the Pittwater LEP.

Recommendation 3

Relevant Roads and Maritime personnel, contractors and subcontractors should be made aware of their legislative obligations for heritage under the *Heritage Act 1977*, which may be implemented as a cultural heritage induction. The induction should be presented prior to the commencement of any construction activity within the Proposal Area and include information about local heritage.

Recommendation 4

In the unexpected event that a heritage item (Aboriginal or non-Aboriginal) is identified during the conduct of the proposed activity, the mitigation and management measures set out in the *Roads and Maritime Standard Management Procedure – Unexpected Heritage Items (2015)* should be followed.

Recommendation 5

This SoHI has assessed the heritage values within the Proposal Area as defined in Section 1.1 and Figure 1.1 only. If the construction footprint boundaries are changed at a later date and include areas outside of the current Proposal Area, further archaeological assessment of those additional areas should be completed prior to ground disturbance works commencing. This is applicable to additional construction compounds and lay down areas that may be proposed in the future.

1 Introduction

Roads and Maritime Services (Roads and Maritime) proposes to upgrade a 3.4 kilometre section of Mona Vale Road, between McCarrs Creek Road at Terrey Hills in the west and Powder Works Road, Ingleside in the east (the proposal, see Figure 1.1 & 1.2). RPS has been engaged by SMEC Australia on behalf of Roads and Maritime to prepare a Statement of Heritage Impact (SoHI) as part of the Review of Environmental Factors (REF) for the proposal.

The aims of this SoHI are to identify any non-Indigenous (historic) heritage items which may be present in or adjacent to the Proposal Area, assess the potential for as yet unidentified historical archaeology to be present within the Proposal Area and to identify any constraints or impacts that may potentially arise from the proposal.

1.1 Proposal Area

The Proposal Area encompasses the area of the proposed upgrade of Mona Vale Road from McCarrs Creek Road to Powder Works Road. The Proposal Area includes the current construction boundary as well as portions of the design that extend outside of this boundary. The Proposal Area boundary and the construction boundary are illustrated in Figure 1.1.

The eastern portion of this Proposal Area is located within the former Pittwater Council Local Government Area (LGA), and the western portion is located in the former Warringah Council LGA. Following the LGA amalgamation that occurred in early 2016 the entirety of the Proposal Area is now located within the Northern Beaches LGA.

1.2 Description of the Proposal

Mona Vale Road is the main east-west link between the Pacific Highway, Pymble and Pittwater Road at Mona Vale totalling about 20 kilometres in length and carrying about 36,900 vehicles per day in both directions. Roads and Maritime proposes to upgrade and widen about 3.4 kilometres of Mona Vale Road between McCarrs Creek Road, Terrey Hills and Powder Works Road, Ingleside, from a two lane (one in each direction) undivided road to a four lane (two lanes in each direction) divided road.

The proposal includes the provision of a new local road connection between Bungendore Street and Powder Works Road/Mona Vale Road intersection. It would also involve construction of retaining walls, cuttings, adjustment of underground utilities as well as drainage and landscaping.

A detailed description of the proposal is provided in Section 6.

1.3 Methodology

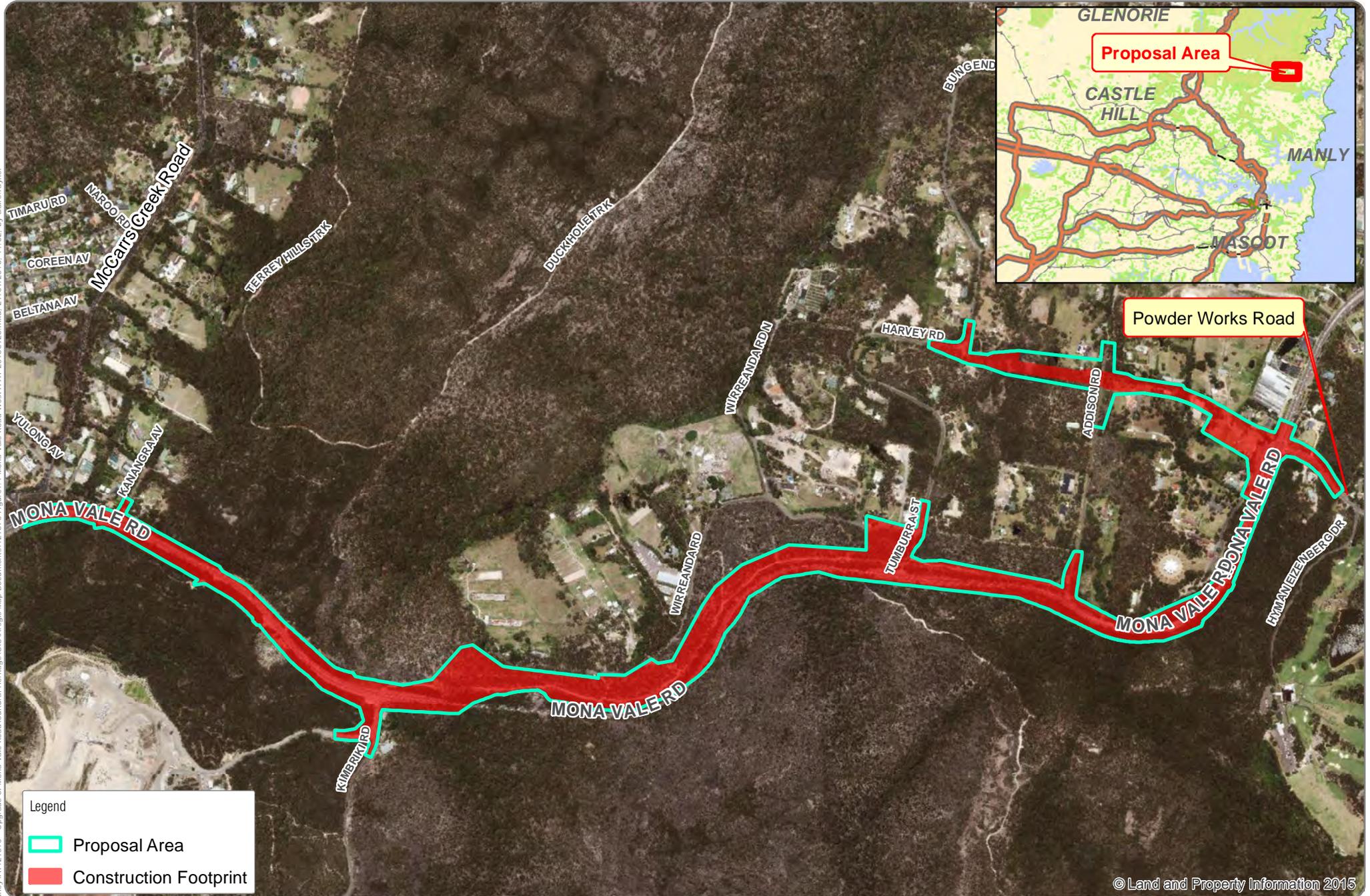
This Statement of Heritage Impact has been prepared in accordance with *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (Burra Charter)* (2013) and associated Guidelines as well as best practice standards set by the NSW Heritage Branch. Best practice guidance followed in this report includes *Assessing Heritage Significance* (Heritage Officer (former), 2001) and *Statements of Heritage Impact* (Heritage Office and Department of Urban Affairs & Planning (former), 1996, revised 2002).

1.4 Report Authorship and Acknowledgements

This report has been prepared by RPS Heritage Manager Sydney, Deborah Farina and RPS Heritage Consultant Claire Rayner, with the assistance of RPS Heritage Consultants, Alexandra Byrne and Georgia Wright. RPS would also like to acknowledge the assistance of Amy Louis and Chris Masters of SMEC Australia Pty Ltd for their assistance in the preparation of this report.

1.5 Limitations

This report does not include an Aboriginal heritage assessment nor does it consider impacts to Aboriginal heritage that may be associated with the proposal. Several potential unlisted heritage items identified in the preliminary heritage assessment were not accessed for this assessment due to dense vegetation and safety concerns. The western half of the local connecting road was not included in the site inspection due to access restrictions. The results of the visual inspection is summarised in Section 4.



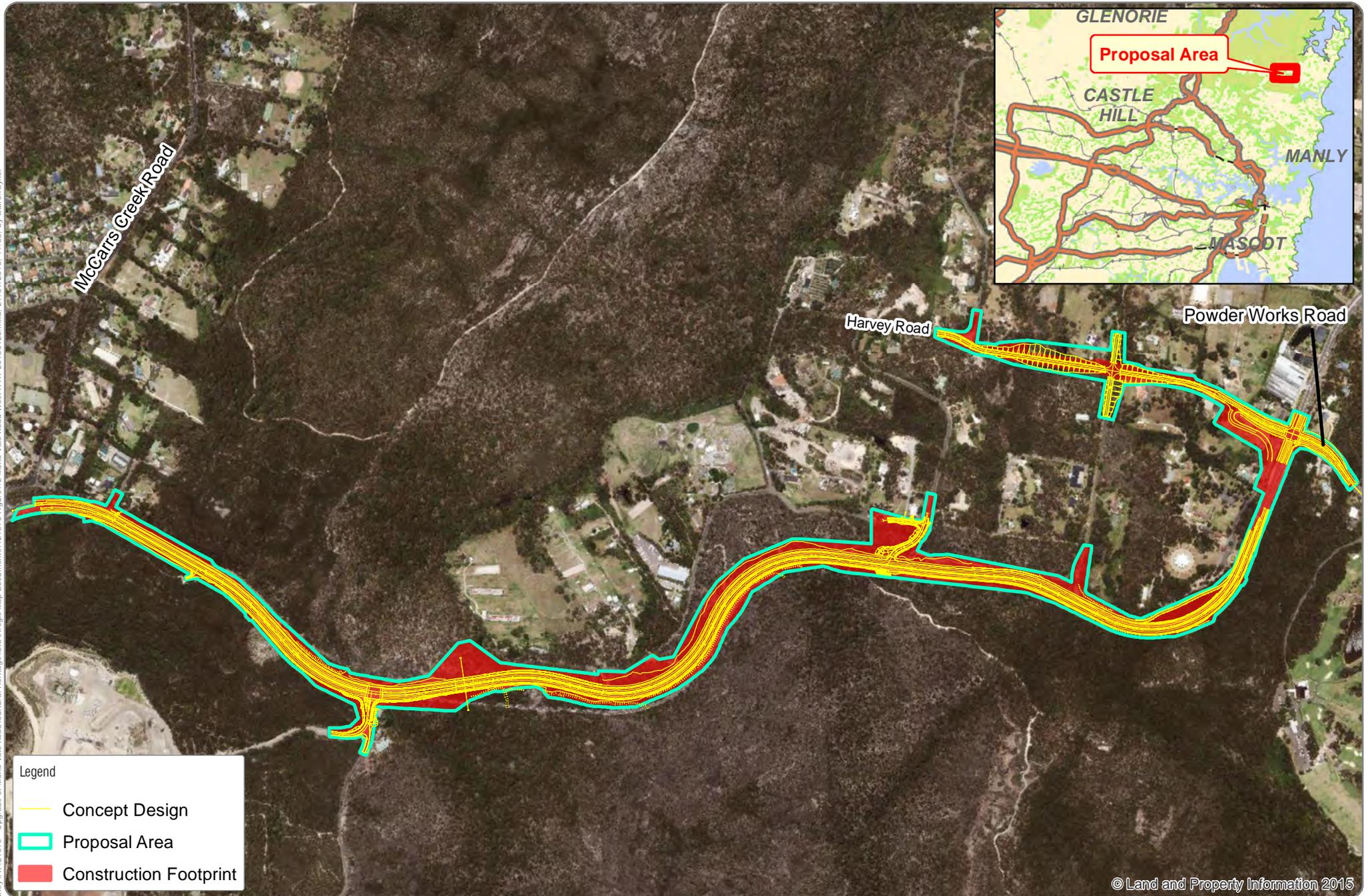
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Legend

- Proposal Area
- Construction Footprint

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- Concept Design
- Proposal Area
- Construction Footprint

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2 Heritage Significance Assessment Framework

2.1 Basis of Assessment of Heritage Significance in NSW

The following section provides an overview of the legislative framework relating to the protection and management of historic heritage. This overview is provided solely as information for the client rather than as legal advice. The findings from a review of national, state, local and government statutory heritage registers are provided in Section 2.2 below.

2.1.1 *Heritage Act 1977* and the NSW Heritage Division

Historical archaeological relics, buildings, structures, archaeological deposits and features are protected under the *Heritage Act 1977* (and subsequent amendments) and may be identified on the State Heritage Register (SHR) or by an active Interim Heritage Order.

The Heritage Council of NSW, constituted under the *Heritage Act 1977*, is appointed by the Minister for Planning and is responsible for heritage in NSW. The Council reflects a cross-section of community, government and conservation expertise with the NSW Heritage Branch being the operational arm of the Council. The work of the NSW Heritage Division includes:

- Working with communities to help them identify their important places and objects;
- Providing guidance on how to look after heritage items;
- Supporting community heritage projects through funding and advice; and
- Maintaining the NSW Heritage Database, an online list of all statutory heritage items in NSW

The 1996 NSW Heritage Manual, published by the NSW Heritage Branch and the then Department of Urban Affairs and Planning, provides guidelines for conducting assessments of heritage significance. The Manual includes specific criteria for addressing the significance of an item and this assessment has been completed in accordance with those guidelines. These criteria are addressed more fully in Section 7 of this report.

2.1.2 *Environmental Planning & Assessment Act 1979* (EP&A Act)

The EPA Act regulates a system of environmental planning and assessment for NSW. Land use planning requires that environmental impacts are considered, including the impact on cultural heritage. Assessment documents prepared to meet the requirements of the EPA Act including Reviews of Environmental Factors, Environmental Impact Statements and Environmental Impact Assessments, should address cultural heritage where relevant. Statutory planning documents such as Local Environment Plans (LEP) and State Environmental Planning Policies (SEPP) typically contain provisions for heritage.

The western portion of the Proposal Area is located within the former Warringah LGA. Part 5.10 of the Warringah LEP (2011) makes standard provisions for heritage.

The eastern portion of the Proposal Area is located within the former Pittwater LGA. Part 5.10 of the Pittwater LEP (2014) makes standard provisions for heritage.

2.1.3 The Burra Charter: The Australian ICOMOS Charter for Places of Cultural Significance 2013

The *Burra Charter* is a set of best practice principles and procedures for heritage conservation. It was developed by Australia ICOMOS (International Council for Monuments and Sites), the Australian group of the international professional organisation for conservation. Although without statutory weight, the *Burra Charter* underpins heritage management in New South Wales and Australia. The policies and guidelines of the Heritage Council of NSW and the NSW Heritage Office are consistent with and guided by the *Burra Charter*.

2.2 NSW Heritage Registers Review

Acknowledged heritage items and places are recorded in statutory and non-statutory registers held at the Federal, State and local level depending on their level of significance. Internationally significant sites of 'outstanding universal value' are inscribed in the World Heritage List (WHL) and in turn, such sites are usually recognised through their inclusion on Federal and state-level registers.

Federal designations include the National Heritage List (NHL) and the Commonwealth Heritage List (CHL) created by the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Both registers are maintained by the Commonwealth Department of the Environment and are available to view on an online database, the Australian Heritage Database. The NHL includes natural, historic and Indigenous places that are of outstanding national heritage value to the Australian nation. The CHL protects natural, Indigenous and historic heritage places on land owned or leased by the Commonwealth or a Commonwealth Authority. To reach the threshold for the NHL, a place must have 'outstanding' heritage value to the nation whereas to be entered on the CHL, a place must have 'significant' heritage value.

Heritage places of state significance are included on the State Heritage Register (SHR) maintained by the Heritage Branch. Places included on the SHR are available on an online database, the NSW Heritage Inventory database. It should be noted that the inventory includes items of state and local significance in NSW, it may not necessarily be comprehensive and inclusion on the inventory does not carry statutory weight in its own right. In order to reach the threshold for inclusion in the SHR, a place needs to meet one of more of the heritage criteria identified by the Heritage Council of NSW. The ultimate decision on whether a place is included on the State Heritage Register is made by the Minister for Heritage.

Places of local significance are included in heritage schedules in Local Environmental Plans (LEPs).

2.2.1 World Heritage

There are **no World Heritage Sites** located within or in the vicinity of the Proposal Area.

2.2.2 National and Commonwealth Heritage

A search of the Australia Heritage Database was undertaken on 25 August 2015 which indicates that there are **no heritage items** within or in the vicinity of the Proposal Area included on the NHL or CHL.

2.2.3 State Heritage

A search conducted on 25 August 2015 found **no heritage items** within or in the vicinity of the Proposal Area included on the SHR.

2.2.4 Section 170 Registers

Section 170 of the *Heritage Act 1977* requires State Government Agencies to keep records of heritage items owned or operated by it. These registers can be found on the NSW Heritage Inventory. A search of this inventory was carried out on 25 August 2015 and **no heritage items** were identified as being located within or in the vicinity of the Proposal Area.

2.2.5 Local Heritage

Searches of Schedule 5 of the *Pittwater Council Local Environmental Plan 2014* and the *Warringah Local Environmental Plan 2011* identified the following items within or within the vicinity of the Proposal Area:

Table 1 Heritage items listed in the Pittwater and Warringah LEPs

Item	Address	LEP	Significance	In Proposal Area Yes/No
Group of Monterey Pines (<i>Pinus radiata</i>)	169 and 169A Mona Vale Road, Ingleside	Pittwater	Local	Yes
Baha'i House of Worship	173 Mona Vale Road, Ingleside	Pittwater	Local	Yes
Laurie Short House	307 McCarrs Creek Road, Terrey Hills	Warringah	Local	No (approximately 950 m north of intersection with Mona Vale Road)

2.3 Previous Heritage Assessments

JCIS prepared a preliminary heritage assessment for the proposal area. This assessment identified a number of potential unlisted heritage items and non-Aboriginal archaeological potential within the Proposal Area. JCIS concluded "none of these items... would seem to be of such significance to act as a serious constraint to the proposed widening." (JCIS Consultants 2012:38).

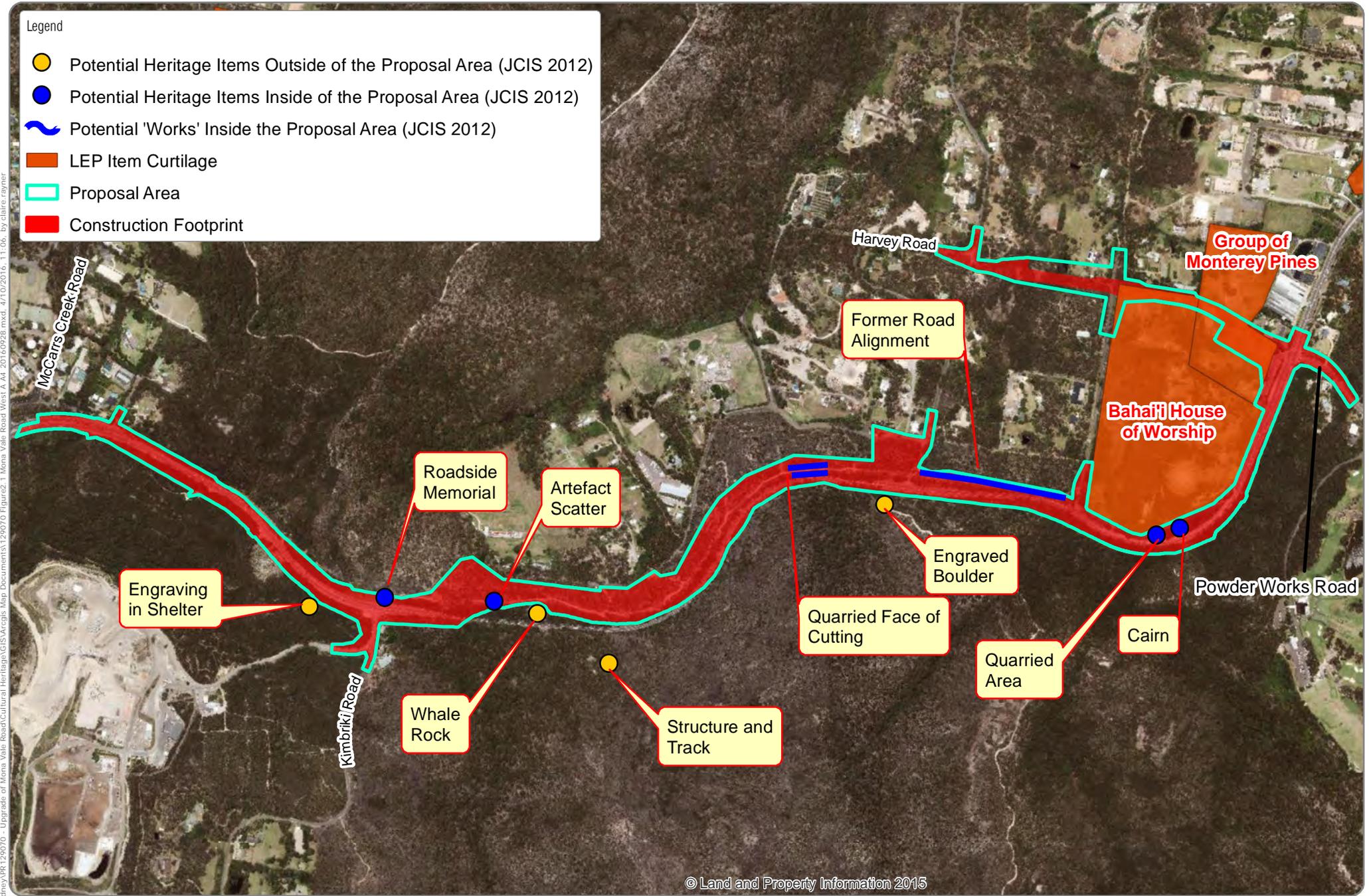
The current proposal area encompasses six of the 11 items identified by JCIS (see Figure 2). This SoHI considers the significance and impact to these six items only. The potential heritage items identified by JCIS and located within the current proposal area are summarised in Table 2 below.

Where possible these items and areas of archaeological potential were inspected and assessed during the visual inspection. The results of this inspection are summarised in Section 4.

Table 2 Six Potential unlisted items (JCIS 2012)

	Item	Description
1	Previous Mona Vale Road Alignment	Two areas of the prior alignment of Mona Vale Road were identified by JCIS; one at the Ingleside end and one at the Terrey Hills end (see Figure 3). The Ingleside end is located to the south west of the Baha'i Temple. It is now covered with bitumen and used as a bike path and electricity easement to the north of the current alignment. Previous road surfaces are considered to be 'works' under The Heritage Act and are considered separate to 'relics'. Works refer to evidence of past

	Item	Description
		<p>infrastructure and have the potential to provide information that can contribute to knowledge of past practices.</p> <p>'Works' may be considered archaeological in nature where they occur beneath modern deposits.</p>
2	Cairn	<p>The cairn marks a trigonometry point known as "Addisons Trig". The cairn and trig point is located to the north of Mona Vale Road, to the east of Addison Road and 120 metres to the south-south-west of the Baha'i Temple, between the old and new road alignments of Mona Vale Road. It comprises a pile of un-mortared stones forming a cairn and a fence post.</p>
3	Quarried Area	<p>This area appears to have been quarried for soil, although correspondence received by Roads and Maritime from a local geologist, John Byrne, suggests it may have been a laterite quarry. The quarried area is located between the old and new road alignments of Mona Vale Road, to the south of the Baha'i Temple. It measures approximately 100 metres in length and 15 metres in width. It may have some connection with the construction of the nearby former road. JCIS note its presence in the 1947 aerial, indicating that it may have been part of the 1939-1942 road works.</p>
4	Quarry Marks on Cutting Faces	<p>These are noted on three locations on the verge of Mona Vale Road, near Whale Rock, near Addison Road and another approximately 120 metres west of the intersection with Tumburra Street. These marks evidence the drilling and cutting through rock during road construction. Given the number of times Mona Vale Road has had its alignment changed, it is uncertain when these individual marks were made.</p>
5	Memorial	<p>This modern roadside memorial comprises a metal crucifix attached to a wooden stake, located on a bush track near the Kimbriki Road junction with Mona Vale Road. There is no other evidence as to who the crucifix is memorialising, however it is located too far from Mona Vale Road to be connected with a motor vehicle accident.</p>
6	Artefact Scatter	<p>This scatter of modern ceramics is located approximately 170 metres west of Whale Rock, eroding out of an access track. JCIS note that the artefacts appear to be part of modern fill.</p>



Legend

- Potential Heritage Items Outside of the Proposal Area (JCIS 2012)
- Potential Heritage Items Inside of the Proposal Area (JCIS 2012)
- ~ Potential 'Works' Inside the Proposal Area (JCIS 2012)
- LEP Item Curtilage
- Proposal Area
- Construction Footprint

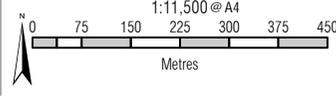
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3 Historical Context

This section outlines a thematic history of the Ingleside/Terrey Hills area. The purpose of this is to provide a context for the existing heritage items as well as to identify potential items not yet registered. This thematic history also assists in assessing heritage significance and can inform appropriate mitigation measures.

3.1 Historical Themes in Evidence

National and state-level patterns of historical development are useful in determining the historical value of a site. Nine historical themes have been developed and adopted by the NSW Heritage Council. They are derived from the Australian historical themes prepared by the Australian Heritage Commission. The following table notes the NSW historical themes considered to be in evidence at Mona Vale/Terrey Hills.

Table 3 NSW historical themes applicable to the Proposal Area

Australian Theme	NSW Theme	Local Themes
3. Developing local, regional and national economies	Transport	Activities associated with the moving of people and goods from one place to another and systems for the provision of such movements
4. 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

3.2 Mona Vale Road

Mona Vale Road is an early thoroughfare linking the Northern Beaches with the Lane Cove area and has been known by various names in the past. There is some conjecture that prior to European colonisation it was an existing Aboriginal pathway, many of which in the Sydney Basin followed ridgelines.

3.2.1 Timeline

Pre1820	Possible Aboriginal track along ridgeline
Circa 1820-1830	Matthew's track/cart track to coast
1869	First survey of road alignment
1880s	Unspecified works to road
1938-1942	Road widening, road name consolidation
1970s	Further road widening and upgrade

Pre 1820

Many of Sydney's important arterial roads followed paths previously established by Aboriginal people. These pathways generally followed ridgelines, which, given Sydney's topography, represented the easiest way to

traverse larger areas. Evidence of Aboriginal use of the area is evidenced in the form of rock engravings in bushland either side of Mona Vale Road.

Circa 1820-1830 – Matthews’s track/Cart track to coast

Mona Vale Road was previously known as Stoney Creek Road. The road was constructed by one of the area’s earliest settlers, Daniel Matthew. Matthew constructed the road to take his timber to market from his saw mill, constructed in 1824 on the corner of Cowan Road, St Ives. This is approximately eight kilometres to the south west of the McCarrs Creek Road/Mona Vale Road intersection. It is possible, however, that the Terrey Hills – Mona Vale section of the road followed an Aboriginal track along the ridgeline (JCIS Consultants 2012:18).

In 1834 Assistant Surveyor Thomas Mitchell mapped the colony as it then stood, including roads, ranges and settlements. A road is noted running along the ridge line from the Great North Road (now Pacific Highway) near Pymble to the termination of the current Mona Vale Road, at Mona Vale (see Plate 1). Then known as Lane Cove Road, it was described at the time as a “path” and was not suitable for vehicular traffic until after 1864. Owing to the sparse population during the early to mid 19th century the name “Lane Cove” applied to the whole area between North Sydney and Hornsby. A former section of Mona Vale Road opposite Manor Road is still named Lane Cove Road.

In 1865, a newspaper article described the district as picturesque:

“The road, or rather pathway through it, winds about – sometimes on the verge of lofty cliffs, sometimes through deep gullies, where the cabbage tree and tree ferns flourish, sometimes over bleak hills and sandy dunes, descending at times to fertile grassy flats, and intercepted at places by pretty lagoons and babbling brooks. One or two of the cottages are pictures of rural taste and neatness. The whole district being nearly surrounded by the waters of Broken Bay on the one side, and those of Port Jackson on the other, and there being no practicable road by which it can be reached from Sydney, either in a vehicle or on horseback, although within little more than a dozen miles as the crow flies, it has remained for many years almost unknown, and, to a certain extent, shut in from the inhabitants of the rest of the colony... there is not and never has been such a thing as a church, chapel, or school-house in the whole district.” (The Empire 1865).

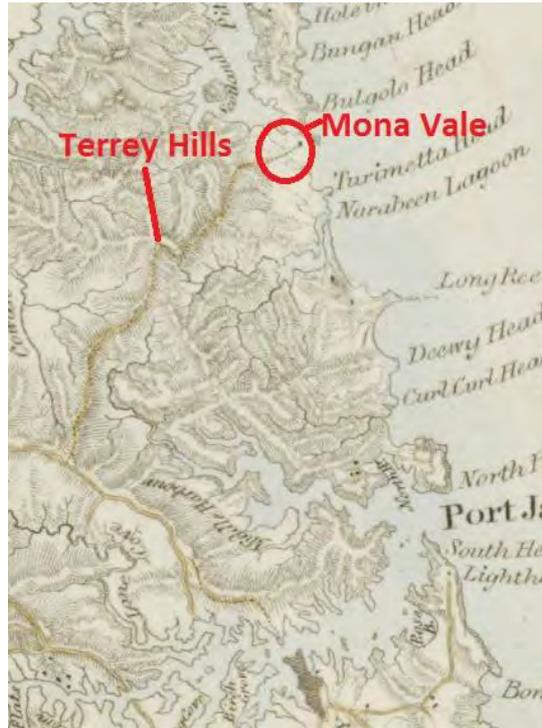


Plate 1 Detail of Mitchell's map of 1834 (Courtesy State Library of NSW).

1869 – 1872 First survey and gazettal

In 1869 the first survey of the road was undertaken. By 1872, Lane Cove Road was established formally as a road, complete with telegraph (see Plate 1).

Following the success of the subdivision of lands at Mona Vale and Ingleside the local population grew in the late 19th century, making access to and from these suburbs to Sydney more important. Although the road was gazetted in 1872, it was clearly not in a fit state for frequent travel by the influx of residents. Many parts of Mona Vale Road were dangerous to vehicles, necessitating upgrades and realignments.

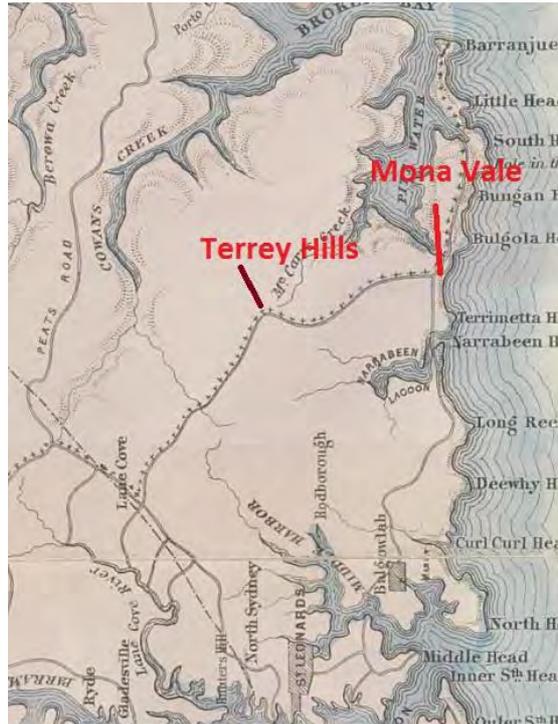


Plate 2 1872 Map of the Colony of New South Wales, published by Basch & Co (Courtesy State Library of New South Wales).

20th and 21st century upgrades

In 1939 a newspaper article noted that the road now called Mona Vale Road was a road of five names (Lane Cove Road, Ryde Road, Gordon Road, Stoney Creek Road and Pittwater Road) depending on which council area you were in. The article notes that the Main Roads Department wrote to each of the local councils requesting that they come up with a single name for the road due to the confusion (Sydney Morning Herald 1939).

In 1937 it was reported that Mona Vale Road (called “Pittwater Road” in the article) was in dire need of repair, particularly along Tumbledown Dick Hill, where the article noted that:

“...the gravel has become badly worn and the road is considered barely wide enough to carry safely the large amount of motor traffic using this route” (Sydney Morning Herald 1937:6)

The alignment of Tumbledown Dick Hill was changed to remove a sharp bend on the descent (Sydney Morning Herald 1939).

In 1978-1979 the section between Highlands Avenue, Pymble and Richmond Avenue North, St Ives was upgraded to six lanes.



Plate 3 Tumbledown Dick Hill – new alignment to left, old alignment to right, 1939 (Courtesy: State Library of New South Wales).

3.3 Development of Terrey Hills and Ingleside

The area now comprising Terrey Hills and Ingleside falls within the traditional lands of the Guringai (or Kuring-gai) people. Their traditional lands stretched from Sydney Harbour to the south, north to Broken Bay, and were bounded by the Pacific coast to the east and the Lane Cove River to the west. Evidence of their inhabitation of the land can be found in bushland near Mona Vale Road in the form of artefact scatters, shelters and rock engravings.

Although early maps note the land as having been owned since the early 1800s, it wasn't until later in the 19th century that people began moving to the area. Mona Vale Road (Lane Cove Road, Stoney Creek Road) was the only evidence of European occupation until the 1880s, when land began to be taken up by selectors. The recorded landowners in 1913 are:

Table 4 : List of Portions and owners adjoining the Proposal Area

South of Mona Vale Road, West to East			
Portion Number	Size	Landowner	Improvements
89	80 acres (ex trig reserve - Pittwater)	Samuel Hills	Nil
88	48 acres	Richard Hardman	Nil – Garigal National Park 1991
91	40 acres	Richard Hardman	Nil – Garigal National Park 1991
90	40 acres	Richard Hardman	Nil – Garigal National Park 1991
78	320 acres (ex trig reserve - Addison)	John Charles Edwards	House and stables (c1884)

North of Mona Vale Road, West to East			
Portion Number	Size	Landowner	
7	288 acres (ex road reserve)	No owner noted	Nil
83	320 acres	No owner noted	Whale rock, Legge's house (c1883), three farms (c1947).
69 REM	Part 100 acres	James Jones	Baha'I Temple, Group of Monterey Pines

This list indicates that a total of four people owned all land adjoining the Proposal Area, being Samuel Hills, Richard Hardman, John Charles Edwards and James Jones. A full examination of these portions, the landowners and potential heritage be found in the preliminary Non Indigenous Heritage Assessment completed for the proposal (JCIS Consultants 2012:11-17). Apart from the recorded heritage items, the only historical evidence for other structures is on Portion 83, specifically Legge's House (c1883) and three farming subdivisions. Edwards' house is not included as a reconnaissance survey in 1894 recorded no buildings on Edwards' Portion 78. This suggests that the buildings of 1884 may have been of temporary or flimsy construction. This would indicate further that as there was no evidence of structures in 1894, a decade after construction, there would be little surviving of these structures in the archaeological record.

The paucity of surviving structures confirms oral history that the area surrounding the Proposal Area was largely remote bushland, with the road itself being the most important feature.

4 Visual Inspection

A visual inspection of the Proposal Area was undertaken on 28 October 2015 by RPS Heritage Consultants, Alexandra Byrne and Georgia Wright. The visual inspection did not include the western half of the local connecting road due to access restrictions.

This section summarises the observations made of the Proposal Area in general as well as detailed analysis of the LEP listed heritage items and potential unlisted heritage items identified in Section 2 (see Figure 2).

4.1 Proposal Area

The relevant section of Mona Vale Road is largely national park in the west and semi-rural in the east. Tumbledown Dick Hill is located at the western end of the Proposal Area and is bisected by Mona Vale Road, with Ku-ring-gai Chase National Park to the north and Garigal National Park to the south. This area is characterised by rolling hills with steep, wooded slopes and rocky gullies. From the top of Tumbledown Dick Hill there are expansive views to the east along the coast line. At the bottom of Tumbledown Dick Hill on its eastern side the ridge falls steeply away to the south, where Kimbriki Resource Recovery Centre (formerly Kimbriki tip) is located.

This landscape continues until approximately one kilometre from the eastern end of the Proposal Area. At this point is another prominent rise known as the "Sugarloaf". Addison's trig point is located to the east of this feature. To the immediate east of the Sugarloaf is the Baha'i Temple on the northern boundary of the alignment and to its east, the Group of Monterey Pines. This area marks the beginning of the outskirts of the suburb of Ingleside, which is characterised by hobby farms and semi-rural properties.

4.2 Listed Heritage Items adjoining the Proposal Area

4.2.1 Group of Monterey Pines

This item comprises a group of five matured Monterey Pines (*Pinus radiata*) located at the north eastern intersection of Baha'i Temple Way and Mona Vale Road, Ingleside. Four of the pines are on the western side of a driveway leading to 169A Mona Vale Road, Ingleside, with the remaining tree located on the driveway's eastern side. The trees appear to be healthy however this should be assessed by a qualified arborist; two have begun to bow towards the west (see Plate 3). The solitary tree on the eastern side of the driveway has a large scar, approximately 3-4 metres in length, near its base, which may have been a result of storm damage or branch removal to keep the driveway clear.



Plate 4 Group of Monterey Pines, facing north from Baha'i Temple Way (RPS 2015)

4.2.3 Baha'i Temple

The Baha'i temple is located to the west of Baha'i Temple Way, on the north western side of Mona Vale Road. The temple is a striking white building with middle-eastern motifs surrounded by formal gardens and native bush vegetation (Plate 4). It is considered to be "one of the four major religious edifices constructed in Sydney during the 20th century" (Dictionary of Sydney 2008). Construction of the temple began in 1957 and finished in 1961; no dome of such proportions had ever been built in Australia prior to this structure. The grounds are well maintained and include a visitor's centre and picnic area (Plate 5).



Plate 5 Baha'i Temple, showing three of the nine entrances (RPS 2015)



Plate 6 Temple grounds, visitor's centre can be seen in the right hand side of the image (RPS 2015)

4.3 Previously Identified Potential Unlisted Heritage Items

The areas within the corridor that were visited include the previous road alignments and the quarry marks within the road corridor. All other potential items were attempted to be ground-truthed but were not

accessible. Several of these, including the cairn, the memorial, the engraved rock and the shelter were located within dense bushland and excessive vegetation prevented any intensive survey of the sites of the potential items.

4.4 Results

The visual inspection did not identify any additional potential unlisted heritage items. The visual inspection did not identify any areas of historical archaeological potential within the Proposal Area.

5 Heritage Significance Assessment

In line with the Burra Charter, prior to making decisions about the future of a heritage item it is first necessary to understand its heritage significance and the values it embodies. The following section contains an assessment of the heritage significance of these items using the NSW state significance criteria as contained within the *Heritage Act 1977* and explained in 'Assessing Significance' (NSW Heritage Office 2001). Consideration is also given to integrity and intactness.

5.1 Baha'i Temple

This item is listed in Schedule 5 of the *Pittwater Local Environmental Plan 2014* as an item of local heritage. The significance assessment below has been taken from the Baha'i Temple Heritage Inventory sheet.

Table 5 Baha'i significance assessment

Criterion	Significance assessment
Historic: An item is important in the course or pattern of NSWs cultural history (or the cultural or natural history of the local area).	Important as the first and only House of Worship in Australia for Bahá'í Faith.
Associative: An item has strong or special associations with the life or works of a person or group of persons of importance in NSWs cultural or natural history.	Not applicable.
Aesthetic: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.	Both the site and the building have high aesthetic value. The House of Worship has a particular symbolic design associated with the Bahá'í Faith. Due to its prominent placement on the ridge, the Bahá'í House of Worship is a highly distinctive aesthetic feature of the landscape. It is a well known landmark and is visible from as far as Manly.
Social: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.	The Bahá'í House of Worship has strong social significance for followers of the Bahá'í Faith..
Research potential: An item has the potential to yield information that will contribute to an understanding of NSWs cultural or natural history.	The building has research potential as an architectural work of John R. Brogan.
Rarity: An item possesses uncommon, rare or endangered aspects of NSWs cultural or natural history (or the cultural or natural history of the local area).	There are currently only 7 Bahá'í Houses of Worship worldwide making this a building of great rarity.
Representativeness: An item is important in demonstrating the principal characteristics of a class of NSWs (or the local areas) cultural or natural places, or cultural or natural environments.	Not applicable.

Statement of Significance

The Baha'i House of Worship was the first house of worship for the Baha'i Faith in Australia (1961) and as a result it is deemed culturally significant at the state level. The unique design and aesthetic appeal has made the Baha'i House of Worship architecturally significant.

5.2 Group of Monterey Pines

This item is listed in Schedule 5 of the *Pittwater Local Environmental Plan 2014* as an item of local heritage.

Table 6 Group of Monterey Pines significance assessment

Criterion	Significance assessment
Historic: An item is important in the course or pattern of NSWs cultural history (or the cultural or natural history of the local area).	The trees represent the only remaining physical evidence of a c. 1900 well-known orchard in the area, "Waratah Farm" owned by the Larkin family. It was later known as "The Pines". Isaac Larkin propagated the first "Narrabeen Plum" on this orchard.
Associative: An item has strong or special associations with the life or works of a person or group of persons of importance in NSWs cultural or natural history.	The trees marked the entrance to Waratah Farm, which is associated with early farm use of the area. However, the association is neither strong enough nor special in terms of importance to NSW's or the local area's cultural history.
Aesthetic: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.	Not applicable.
Social: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.	Not applicable.
Research potential: An item has the potential to yield information that will contribute to an understanding of NSWs cultural or natural history.	Not applicable.
Rarity: An item possesses uncommon, rare or endangered aspects of NSWs cultural or natural history (or the cultural or natural history of the local area).	The trees are the only surviving markers for Waratah Farm, which was a historically significant orchard in the local area. Seeing as many of the orchards in the local area have gone without leaving any evidence, the trees represent rare evidence of the farm's entrance.
Representativeness: An item is important in demonstrating the principal characteristics of a class of NSWs (or the local areas) cultural or natural places, or cultural or natural environments.	The trees are broadly representative of trees used to mark entrances and driveways.

Statement of Significance

The statement of significance as recorded on the heritage inventory sheet for this item is as follows:

This group of trees are a cultural landscape feature associated with land clearing and farm activities at the beginning of the 20th Century. They are also associated with the Larkin family a significant local pioneer family.

5.3 Potential Unlisted Heritage Items

5.3.1 Previous road alignments

Table 7 Previous road alignments significance assessment

Criterion	Significance assessment
<p>Historic: An item is important in the course or pattern of NSWs cultural history (or the cultural or natural history of the local area).</p>	<p>Mona Vale Road is associated with the early settlement of the local area by colonists. It is significant as the main access route to the Northern Beaches and Narrabeen Lakes and in the introduction of the motor car to Sydney as promoted by the NRMA.</p> <p>The item does meet the local significance threshold for this criterion</p>
<p>Associative: An item has strong or special associations with the life or works of a person or group of persons of importance in NSWs cultural or natural history.</p>	<p>The previous alignments are not known to have a strong or special association with any person or group persons.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Aesthetic: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.</p>	<p>The item does not demonstrate important aesthetic or high degree of creative or technical achievement.</p> <p>The item does not meet the local significance threshold for this criterion</p>
<p>Social: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.</p>	<p>Although the previous alignments provided an important travel route, this is considered an amenity.</p> <p>The item does not meet the local significance threshold for this criterion</p>
<p>Research potential: An item has the potential to yield information that will contribute to an understanding of NSWs cultural or natural history.</p>	<p>There is little evidence to suggest early road construction techniques were employed along this section of Mona Vale Road. Therefore it is unlikely that the previous road alignments would contribute to an understanding of road construction within NSW</p> <p>The item does not meet the local significance threshold for this criterion</p>
<p>Rarity: An item possesses uncommon, rare or endangered aspects of NSWs cultural or natural history (or the cultural or natural history of the local area).</p>	<p>The item is not considered to be rare as a number of previous alignments of Mona Vale Road have been recorded in the past.</p> <p>The item does not meet the local significance threshold for this criterion</p>
<p>Representativeness: An item is important in demonstrating the principal characteristics of a class of NSWs (or the local areas) cultural or natural places, or cultural or natural environments.</p>	<p>The previous road alignments are not considered to be important in demonstrating any characteristics of a class of NSW/ cultural or natural places, cultural or natural environments</p> <p>The item does not meet the local significance threshold for this criterion</p>

Statement of Significance

Mona Vale Road is considered to be significant as an early transport route and in its association with motorist groups. However there is little evidence to suggest the use of innovative or unique road construction techniques and it is unlikely that previous road alignments would contribute greatly to research questions concerning early road construction in NSW. Therefore whilst the previous Mona Vale Road alignments may be considered to be a 'work' under the Heritage Act, they are not considered to be of local significance.

5.3.2 Cairn

Table 8 Cairn significance assessment

Criterion	Significance assessment
<p>Historic: An item is important in the course or pattern of NSWs cultural history (or the cultural or natural history of the local area).</p>	<p>The Cairn marked a trigonometrical point used for surveying. Although used for many years in surveying of the area, as an arbitrary point for measurement the cairn is not considered as important to the area's cultural history.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Associative: An item has strong or special associations with the life or works of a person or group of persons of importance in NSWs cultural or natural history.</p>	<p>The item has no known associations with a person or persons of importance in NSW's cultural or natural history.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Aesthetic: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.</p>	<p>The item is not of aesthetic, creative or technical significance.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Social: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.</p>	<p>The item does not have any known association with a community or cultural group for social, cultural or spiritual reasons.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Research potential: An item has the potential to yield information that will contribute to an understanding of NSWs cultural or natural history.</p>	<p>There is no known research potential attached to this item.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Rarity: An item possesses uncommon, rare or endangered aspects of NSWs cultural or natural history (or the cultural or natural history of the local area).</p>	<p>The Cairn at Addison's trig point is not considered to be rare.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Representativeness: An item is important in demonstrating the principal characteristics of a class of NSWs (or the local areas) cultural or natural places, or cultural or natural environments.</p>	<p>The Cairn is consistent with early examples of trig stations in New South Wales. It is therefore representative of cairns marking trig stations.</p> <p>The item does meet the local significance threshold for this criterion.</p>

Statement of Significance

The Cairn is associated with early surveying practices conducted in the local area. The Cairn does not represent any associative, aesthetic or social heritage values. The item is not considered to contribute to understandings of NSW's culture or natural history and there are numerous examples of these structures in NSW. The item is considered to be consistent with early examples of trigonometry stations in NSW.

The Cairn does not meet the state or local significance thresholds and is not considered to be a heritage item under the Heritage Act.

5.3.3 Quarried Area

Table 9 Quarried Area significance assessment

Criterion	Significance assessment
<p>Historic: An item is important in the course or pattern of NSWs cultural history (or the cultural or natural history of the local area).</p>	<p>This investigation did not find any independent historical sources elucidating the quarried area's provenance however JCIS' suggestion that it may have been part of the 1939-1942 road works is consistent with its appearance. If this is correct it is not a heritage item but a work and therefore not of historic or heritage significance.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Associative: An item has strong or special associations with the life or works of a person or group of persons of importance in NSWs cultural or natural history.</p>	<p>The item has no known associations with a person or persons of importance in NSW's cultural or natural history.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Aesthetic: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.</p>	<p>The item is not of aesthetic, creative or technical significance</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Social: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.</p>	<p>The item does not have any known association with a community or cultural group for social, cultural or spiritual reasons.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Research potential: An item has the potential to yield information that will contribute to an understanding of NSWs cultural or natural history.</p>	<p>There is no known research potential attached to this item.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Rarity: An item possesses uncommon, rare or endangered aspects of NSWs cultural or natural history (or the cultural or natural history of the local area).</p>	<p>The quarried area is not considered to be rare.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Representativeness: An item is important in demonstrating the principal characteristics of a</p>	<p>The quarried area is not considered to be important in demonstrating any characteristics of a class of NSW/ cultural or</p>

Criterion	Significance assessment
class of NSWs (or the local areas) cultural or natural places, or cultural or natural environments.	natural places, cultural or natural environments The item does not meet the local significance threshold for this criterion.

Statement of Significance

The quarried area does not meet the local threshold for any of the heritage significance criteria. This item is not considered to contain any heritage significance. It is therefore not considered to be a heritage item or a “work” under the Heritage Act.

5.3.4 Quarry marks on cutting faces

Table 10 Quarried marks on cutting faces significance assessment

Criterion	Significance assessment
Historic: An item is important in the course or pattern of NSWs cultural history (or the cultural or natural history of the local area).	This investigation did not find any independent historical sources confirming when the quarry marks were made on the cuttings. These marks are consistent with mechanical quarrying which would therefore mark it as a work associated with the upgrade and maintenance of Mona Vale Road during the 20 th century and therefore not of historic or heritage significance. The item does not meet the local significance threshold for this criterion.
Associative: An item has strong or special associations with the life or works of a person or group of persons of importance in NSWs cultural or natural history.	The item has no known associations with a person or persons of importance in NSW’s cultural or natural history. The item does not meet the local significance threshold for this criterion.
Aesthetic: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.	The item is not of aesthetic, creative or technical significance. The item does not meet the local significance threshold for this criterion.
Social: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.	The item does not have any known association with a community or cultural group for social, cultural or spiritual reasons. The item does not meet the local significance threshold for this criterion.
Research potential: An item has the potential to yield information that will contribute to an understanding of NSWs cultural or natural history.	There is no known research potential attached to this item. The item does not meet the local significance threshold for this criterion.
Rarity: An item possesses uncommon, rare or endangered aspects of NSWs cultural or natural history (or the cultural or natural history of the local area).	The quarry marks are not rare and therefore they do not meet this criterion. The item does not meet the local significance threshold for this criterion.

Criterion	Significance assessment
<p>Representativeness: An item is important in demonstrating the principal characteristics of a class of NSWs (or the local areas) cultural or natural places, or cultural or natural environments.</p>	<p>The quarry marks are not considered to be important in demonstrating any characteristics of a class of NSW/ cultural or natural places, cultural or natural environments</p> <p>The item does not meet the local significance threshold for this criterion.</p>

Statement of Significance

The quarry marks do not meet the local threshold for any of the heritage significance criteria. This item is not considered to contain any heritage significance. It is therefore not considered to be a heritage item or a “work” under the Heritage Act.

5.3.5 Memorial

Table 11 Memorial significance assessment

Criterion	Significance assessment
<p>Historic: An item is important in the course or pattern of NSWs cultural history (or the cultural or natural history of the local area).</p>	<p>The memorial does not indicate what it is commemorating and there is no interpretative material associated with it. As an easily movable object with no attempt at identification, protection or interpretation, it is not considered to be of historic or heritage significance.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Associative: An item has strong or special associations with the life or works of a person or group of persons of importance in NSWs cultural or natural history.</p>	<p>Whilst the item may have important associations with the life of the individual/s it is commemorating, the item has no known associations with a person or persons of importance in NSW's cultural or natural history.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Aesthetic: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.</p>	<p>The item is not of aesthetic, creative or technical significance</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Social: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.</p>	<p>Whilst the item may have a strong or special association with the particular community that installed the memorial there is no evidence to indicate who that community is. Therefore the item does not have any known association with a community or cultural group for social, cultural or spiritual reasons.</p> <p>The item does not meet the local significance threshold for this criterion.</p>
<p>Research potential: An item has the potential to yield information that will contribute to an understanding of NSWs cultural or natural history.</p>	<p>There is no known research potential attached to this item.</p> <p>The item does not meet the local significance threshold for this criterion.</p>

Criterion	Significance assessment
Rarity: An item possesses uncommon, rare or endangered aspects of NSWs cultural or natural history (or the cultural or natural history of the local area).	The memorial is not considered to be rare. The item does not meet the local significance threshold for this criterion.
Representativeness: An item is important in demonstrating the principal characteristics of a class of NSWs (or the local areas) cultural or natural places, or cultural or natural environments.	The memorial is not considered to be important in demonstrating any characteristics of a class of NSW/ cultural or natural places, cultural or natural environments. The item does not meet the local significance threshold for this criterion.

Statement of Significance

The memorial does not meet the local threshold for any of the significance criteria. This item is not considered to contain any heritage significance. It is therefore not considered to be a heritage item

5.3.6 Artefact Scatter

Table 12 Artefact scatter significance assessment

Criterion	Significance assessment
Historic: An item is important in the course or pattern of NSWs cultural history (or the cultural or natural history of the local area).	The artefacts noted in the JCIS report comprise sherds of modern ceramics. These are not considered to be historical in nature and therefore have no importance in the course or pattern of NSWs cultural history, or that of the local area. The item does not meet the local significance threshold for this criterion
Associative: An item has strong or special associations with the life or works of a person or group of persons of importance in NSWs cultural or natural history.	The item has no known associations with a person or persons of importance in NSW's cultural or natural history. The item does not meet the local significance threshold for this criterion
Aesthetic: An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement.	The item is not of aesthetic, creative or technical significance. The item does not meet the local significance threshold for this criterion
Social: An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.	The item does not have any known association with a community or cultural group for social, cultural or spiritual reasons. The item does not meet the local significance threshold for this criterion
Research potential: An item has the potential to yield information that will contribute to an understanding of NSWs cultural or natural history.	The artefact scatter does not have the potential to contribute to an understanding of NSWs cultural or natural history. The item does not meet the local significance threshold for this criterion
Rarity: An item possesses uncommon, rare or	The ceramics are of modern construction and are not considered

Criterion	Significance assessment
endangered aspects of NSWs cultural or natural history (or the cultural or natural history of the local area).	to be rare. The item does not meet the local significance threshold for this criterion.
Representativeness: An item is important in demonstrating the principal characteristics of a class of NSWs (or the local areas) cultural or natural places, or cultural or natural environments.	This item appears to be part of modern landfill and therefore does not demonstrate any characteristic of any class of NSWs cultural or natural places, or cultural or natural environments. The item does not meet the local significance threshold for this criterion

Statement of Significance

The artefact scatter does not meet any of the heritage significance criteria. Therefore the artefact scatter is not considered to be a ‘relic’ under section 4(1) of the Heritage Act (as amended 2009).

6 Statement of Heritage Impact

In accordance with the Heritage Division's guidelines for Statements of Heritage Impact, this section addresses the potential impact of the proposed works on the heritage significance of the affected heritage items.

6.1 Summary of Proposal

The proposal generally comprises (see Appendix B):

- Widening to provide an additional two traffic lanes (one in each direction) on Mona Vale Road between McCarrs Creek Road and Powder Works Road
 - Widening on the southern side of the existing carriageway between McCarrs Creek Road and Kimbriki Road
 - Deviation of the entire dual carriageway from the current road to the north of a rock outcrop between Kimbriki Road and Tumburra Street
 - Widening on the northern side of the existing carriageway from about 700 metres west of Tumburra Street to Addison Road
 - Widening on both sides of the existing carriageway between Addison Road and Powder Works Road.
- Provision of a new traffic signal intersection at Kimbriki Road including additional dedicated turning lanes and a truck climbing lane
- Restricting traffic movements at the intersection of Mona Vale Road and Tumburra Street to left-in and left-out only
- Deviating the Mona Vale Road and Tumburra Street intersection locally to the west by about 40 metres to improve the existing steep grade on Tumburra Street
- Closing the existing intersection at Mona Vale Road and Addison Road to general traffic and making future access at this intersection restricted to emergency vehicles only
- Providing a new local road connection between Bungendore Street and Powder Works Road utilising the existing Harvey Road corridor and extending the new local road east of Addison Road to meet with the intersection of Mona Vale Road and Powder Works Road
- Removing the existing eastbound bus stop on Mona Vale Road at the intersection with Kimbriki Road; and bus stops on either side of the intersection at Tumburra Street and re-directing bus services along the new local road connection and Tumburra Street to serve existing and future land uses
- Relocating the existing access to the National Baha'i Centre by about 120 metres west along the new road
- Providing new and improved fauna connectivity between Mona Vale Road and the new local road connection by way of a fauna underpass on the new local road between Bungendore Street and Addison Road
- Minor widening of Powder Works Road for a distance of about 80 metres east from the intersection with Mona Vale Road

- Providing a 40 metre wide fauna bridge over Mona Vale Road, east of Kimbriki Road, linking Ku-ring-gai and Garigal National Parks enabling new and improved fauna connectivity between the National Parks by way of unimpeded passage
- Constructing retaining walls and/or sandstone cuttings at various locations along the alignment
- Constructing a shared use path on the northern side of Mona Vale Road for the full upgrade length
- Relocating and/or adjusting underground and above ground utilities where required including the upgrade of street lighting for the full upgrade length
- Upgrading of the existing pavement and cross drainage structures including the construction, reconstruction and extension of pavement drainage lines
- Landscaping over the length of the proposal
- Installing traffic monitoring cameras at all signalised intersections to assist with traffic management.

RPS has been advised by SMEC that the construction compound established for the Mona Vale East Upgrade would be used during construction of the current proposal.

6.2 Potential Heritage Impact Assessment

The assessment of heritage impact has been undertaken in accordance with the methodology described in Section 1.3. To ensure consistency in discussion of the potential impact of the proposal, the terminology described in the table below has been referenced throughout this SoHI. This terminology and the corresponding definitions are taken from the guidelines produced by ICOMOS (2011). Details of areas where heritage impacts are likely is shown in Figure 2.

The current concept designs indicate that the proposal would directly impact the Group of Monterey Pines and a small portion of the curtilage of the Baha'i House of Worship. There are no heritage impacts to the potential unlisted heritage items recorded by JCIS (2012) as these items do not meet the local significance threshold to be considered heritage items.

Table 13 Terminology for assessing the magnitude of heritage impact

Grading	Definition
Major	<p>Actions that would have a long-term and substantial impact on the significance of a heritage item. Actions that would remove key historic building elements, key historic landscape features, or significant archaeological materials, thereby resulting in a change of historic character, or altering of a historical resource.</p> <p>These actions cannot be fully mitigated</p>
Moderate	<p>This would include actions involving the modification of a heritage item, including the setting of a heritage item or landscape, partially removing archaeological resources, or the alteration of significant elements of fabric from historical structures.</p> <p>The impacts arising from such actions may be able to be partially mitigated</p>
Minor	<p>Actions that would result in the slight alteration of heritage buildings, archaeological resources of the setting of an historical item.</p> <p>The impacts arising from such actions can usually be mitigated.</p>
Negligible	<p>Actions that would result in very minor changes to heritage items</p>

Grading	Definition
Neutral	Actions that would have no heritage impact

6.2.1 Group of Monterey Pines

Statement of heritage impact

The proposal would include the construction of new local road connection between Harvey Road and Powder Works Road utilising the existing Harvey Road corridor and extending the new local road east of Addison Road to meet with the intersection of Mona Vale Road and Powder Works Road. These works would necessitate the complete removal of all of the mature pines that comprise the item.

The proposal would therefore directly impact the item resulting in major impacts to the heritage significance of the item.

Mitigation Measures

- Consideration should be made during design development to avoid impacts or minimise impacts to the item.
- If it is not feasible to avoid impacts to the item an archival record should be made of the tree locations and condition prior to removal.
- A qualified arborist should be engaged to assess the condition of the trees and provide recommendations as to the feasibility of relocation of the trees.
- Roads and Maritime should consult with the Northern Beaches Council as to proposed impacts on a Pittwater LEP item.

6.2.1 Baha'i House of Worship

Statement of heritage impact

The proposed local road connection between Harvey Road and Powder Works Road would encroach on the northern boundary of the Baha'i House of Worship curtilage. The proposed works also include the relocation of the existing access to the item by about 120 metres west along the new road. These works would potentially impact the setting of the item including views and vistas to and from the item. The relocation of the access to the item would only have a minor impact to the setting of the item as the approach to the temple would be similar to the existing approach.

These impacts are assessed to be minor in nature as they are unlikely to detract from the heritage significance of the item.

Table 14 : Impact Assessment of Baha'i House of Worship

Heritage Significance Criterion	Impact assessment
Historic: Important as the first and only House of Worship in Australia for Baha'i Faith.	Nil
Aesthetic: Both the site and the building have high aesthetic value. The House of Worship has a particular symbolic design associated with the Baha'i Faith. Due to its prominent placement on the ridge, the Baha'i House of Worship is a highly distinctive	Minor

Heritage Significance Criterion	Impact assessment
aesthetic feature of the landscape. It is a well known landmark and is visible from as far as Manly.	
Social: The Baha'i House of Worship has strong social significance for followers of the Baha'i Faith.	Nil
Research potential: The building has research potential as an architectural work of John R. Brogan.	Nil
Rarity: There are currently only 7 Baha'i Houses of Worship worldwide making this a building of great rarity.	Nil

Mitigation Measures

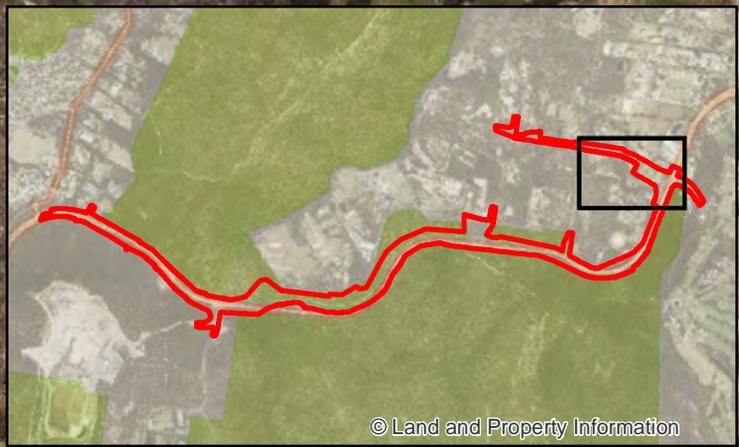
- Consideration should be made during design development to avoid impacts or to minimise impacts to the curtilage of the item.
- If it is not feasible to avoid impacts to the curtilage of the item, the original vegetation and landscaping should be retained within the curtilage where possible. If vegetation is to be removed during construction, these should be replaced with plantings of a similar type and maturity.
- Screening vegetation should be considered in the final design of the proposal to minimise further impacts on the views and vistas to and from the item.
- An exclusion zone should be maintained during construction to prevent inadvertent impacts to the item and its surrounding curtilage.
- Roads and Maritime should consult with the Northern Beaches Council as to impacts on a Pittwater LEP item.



Legend

-  Concept Design
-  LEP Item Curtilage
-  Proposal Area
-  Construction Boundary

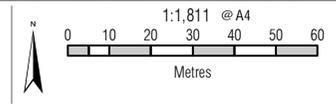
Group of Monterey Pines



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A DD-MM-YYYY Revision Details		INI
No.	Date	Revision Details

PREPARED FOR:	CHECKED BY/DATE:	IN/DD-MM-YYYY	CO-ORDS:	MGA
	APPROVED BY/DATE:	IN/DD-MM-YYYY	DATUM:	N/A
	GIS REF:	129070 Figure6.1 Impacts to pines		
	JOB REF:	SPA	DATE OF PLAN:	29-09-2016



- NOTES:
- Digital Cadastral DataBase © YYYY NSW Dept. of Lands
 - Base Data © 2004 SENSIS

N:\Projects\Centics_Sydney\PR129070 - Upgrade of Mona Vale Road\Cultural Heritage\GIS\Arcgis Map Documents\129070 Figure6.1 Impacts to pines.mxd, 4/10/2016, 11:07, by claire.rayner

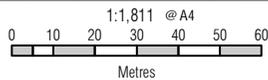


N:\Projects\Conics_Sydney\PR129070 - Upgrade of Mona Vale Road\Cultural Heritage\GIS\Arcgis Map Documents\129070 Figure6.2 Impacts to temple.mxd, 4/10/2016, 11:08, by claire.raymer

No.	Date	Revision Details	INI
A	DD-MM-YYYY	Revision Details	INI

PREPARED FOR:

CHECKED BY/DATE: IN/DD-MM-YYYY
 APPROVED BY/DATE: IN/DD-MM-YYYY
 GIS REF: 129070 Figure6.2 Impacts to temple
 JOB REF: SPA
 CO-ORDS: MGA
 DATUM: N/A
 DATE OF PLAN: 29-09-2016



NOTES:

- Digital Cadastral DataBase © YYYY NSW Dept. of Lands
- Base Data © 2004 SENSIS

7 Conclusions and Recommendations

7.1 Conclusions

The report has considered the historical and archaeological context of the Proposal Area and the significance of the listed and potential unlisted heritage items identified by JCIS (2012). The findings of the report are summarised below:

- There are two listed heritage items located within the Proposal Area. These are
 - The Baha'i House of Worship (Pittwater LEP 2014)
 - Group of Monterey Pines (*Pinus radiata*) (Pittwater LEP 2014)
- There is one listed item located approximately 950 metres north of the Proposal Area
 - Laurie Short House (Warringah LEP 2011)
- The Baha'i House of Worship has been assessed to be significant at the local level with potential for state significance.
- The Group of Monterey Pines has been assessed to be significant at the local level.
- The current concept designs indicate the local connecting road between Powder Works Road and Harvey Road would result in minor impacts to the heritage curtilage of The Baha'i House of Worship
- The current concept designs indicate the local connecting road between Powder Works Road and Harvey Road would necessitate the removal of the group of Monterey Pines resulting in a major impact to the item.
- The preliminary heritage assessment for the proposal identified eight potential unlisted heritage items within the current Proposal Area (JCIS 2011). These included:
 - Previous Mona Vale Road alignments
 - A stone cairn
 - A quarried area
 - Quarry marks on cutting faces
 - A modern memorial
 - An artefact scatter of modern ceramics
 - An engraving on a boulder
 - An engraving in a shelter
- Two of the potential unlisted heritage items were assessed during the site inspection for this SoHI. The remaining six items were not assessed due to accessibility and safety concerns.
- None of the potential unlisted items identified by JCIS are considered to meet the threshold for local significance and there are heritage constraints associated with these items.
- No further potential unlisted items were identified during the site inspection.
- No areas of archaeological potential were identified during the background research of site inspection.

7.2 General Recommendations

Based on the findings of this report summarised above the following recommendations have been formulated with consideration of all available information and the potential impact of the proposal, and have been prepared in accordance with the relevant legislation:

Recommendation 1 – Baha'i Temple

- Consideration should be made during design development to avoid impacts or minimise impacts to the curtilage of the item.
- If it is not feasible to avoid impacts to the curtilage of the item, the original vegetation and landscaping should be retained within the curtilage where possible. If vegetation is to be removed during construction, these should be replaced with plantings of a similar type and maturity.
- Screening vegetation should be considered in the final design of the proposal to minimise further impacts on the views and vistas to and from the item.
- An exclusion zone should be maintained during construction to prevent inadvertent impacts to the item and its surrounding curtilage.
- Roads and Maritime should consult with the Northern Beaches Council regarding impacts to an item on the Pittwater LEP

Recommendation 2 – Monterey Pines

- Consideration should be made during design development to avoid impacts or minimise impacts to the item.
- If it is not feasible to avoid impacts to the item an archival record should be made of the tree locations and condition prior to removal.
- A qualified arborist should be engaged to assess the condition of the trees and provide recommendations as to the feasibility of relocation of the trees.
- Roads and Maritime should consult with the Northern Beaches Council regarding impacts to an item on the Pittwater LEP

Recommendation 3

Relevant Roads and Maritime personnel, contractors and subcontractors should be made aware of their legislative obligations for heritage under the *National Parks and Wildlife Act 1974* and *Heritage Act 1977*, which may be implemented as a cultural heritage induction. The induction should be presented prior to the commencement of any activity within the Proposal Area and include information about local heritage

Recommendation 4

In the unexpected event that a heritage item (Aboriginal or non-Aboriginal) is identified during the conduct of the proposed activity, the mitigation and management measures set out in the Roads and Maritime *Standard Management Procedure – Unexpected Heritage Items (2015)*.

Recommendation 5

This SoHI has assessed the heritage values within the Proposal Area as defined in Section 1.1 and Figure 1.1 only. If the construction footprint boundaries are changed at a later date and include areas outside of the current Proposal Area, further archaeological assessment of those additional areas should be completed

prior to ground disturbance works commencing. This is applicable to additional construction compounds and lay down areas that may be proposed in the future.

8 References

City Plan Heritage (2014). "Pittwater Community Based Heritage Study Review" Unpublished report to Pittwater Council, Mona Vale.

Dictionary of Sydney (2008). "Baha'i House of Worship." Dictionary of Sydney.

JCIS Consultants (2012). Preliminary Environmental Impact - Mona Vale Road Upgrade Terrey Hills to Ingleside, NSW - Non Indigenous Heritage Assessment. Unpublished report to GHD Pty Ltd and Roads and Maritime Service.

Kelleher Nightingale Consulting (2015). Mona Vale Road Upgrade, Terrey Hills to Ingleside: Aboriginal Cultural Heritage Constraints Mapping and Archaeological Survey Report. Unpublished report to Roads and Maritime Service, Sydney.

NSW Heritage Office (2001). Assessing heritage significance. New South Wales Heritage Manual. Sydney, NSW Heritage Office.

Sands Directories: Sydney and New South Wales, Australia, 1858-1933. Balgowlah, Australia, W & F Pascoe Pty Ltd.

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Sydney Morning Herald (1937). Road Reports - Pittwater Road Danger Spot. Sydney Morning Herald. Sydney, Fairfax Publications.

Sydney Morning Herald (1939). "A Road with Five Names". Sydney Morning Herald. Sydney, Fairfax Publications: 1.

The Empire (1865). The Story of Mona Vale. The Empire. Sydney, The Empire Newspaper: 1.

Appendix A

Inventory Sheets for Baha'i House of Worship and Monterey Pines

Pittwater Heritage Inventory

SHI Number
2270338

State Heritage Inventory

Item Name: **Baha'i House of Worship**

Location: **173 Mona Vale Road, Ingleside [Pittwater]**

Address: 173 Mona Vale Road
Suburb / Nearest Town: Ingleside 2101
Local Govt Area: Pittwater
State: NSW
Other/Former Names: Baha'i Temple
Area/Group/Complex:
Aboriginal Area: Guringai
Curtilage/Boundary: Lot 52 DP1152609
Item Type: Built
Owner:
Admin Codes:
Current Use: Place of public worship
Former Uses:
Assessed Significance: **Local**
Statement of Significance: This was the first house of worship for the Baha'i faith in Australia (1961) and as a result it is deemed culturally significant. The unique design and aesthetic appeal has made the Baha'i House of Worship architecturally significant.

The listing includes the interiors of the building; however detailed analysis and assessment should be undertaken at the time of any future changes to the interior in order to ascertain the relative heritage significance.

Historical Notes or Provenance: The site was purchased in 1955 and construction commenced in 1957. The Baha'i Faith is an independent religion which began in Persia (Iran) in the mid 19th Century. The House of Worship at Ingleside is one of seven worldwide. The Baha'i faith was brought to Australia by Americans Clara and Hyde Dunn in 1920. This was the first House of Worship to be dedicated when completed in Australia in 1961. The present site was purchased in November 1955, for five thousand, five hundred pounds and construction commenced in April 1957. On 17 November 1961 the dedication ceremony was attended by Baha'is from all around the world (Bosler 1992).
Themes: National Theme
8. Culture
State Theme
Religion
Local Theme
(none)

State Heritage Inventory

Date: 16/07/2014

Full Report with Images

Page 1

State Heritage Inventory

Item Name: **Baha'i House of Worship**

Location: **173 Mona Vale Road, Ingleside [Pittwater]**

Designer: John R. Brogan

Maker / Builder: C.M. Remy

Year Started: 1957 Year Completed: 1961 Circa: No

Physical Description: The Baha'i House of Worship is located on a high portion of the ridge at Ingleside.

The building is rich in religious symbolism. It has nine sides symbolising unity. Each side has an archway opening incorporating filigree work with the repeating motif of a nine pointed star. The corners of the nine sides are pronounced and capped with a small dome on the lower tier. The second tier is narrower than the base with the nine sides dominated by a large arch windows with filigree work. The building is capped with a nine sided dome with an aluminium lantern placed on the apex. The construction method is cement casting on steel reinforcing. The exterior walls have an exposed quartz aggregate finish. The building is 39.6m high from the basement to the top of the spire. The width of the auditorium is 22.3m while its diameter below dome is 16.8m. The main doors are 4.9m x 4.0m and the main windows are 6.7m x 4.0m in size. The height of the spire is 4.7m and diameter is 2.4m. The auditorium has rows of timber seats, a lectern, and Persian style carpets the floor. It has a total seating capacity of 600 persons. The basic design for the building, prepared by C.M. Remy, called for a brick construction. The restricted availability of suitable material, however, made the estimated cost prohibitive.

Plans were then modified and full use made of the latest technology of the time which was cement casting on steel reinforcing. J. Brogan was the Sydney architect who supervised construction. After the foundations had been laid, steel pylons were emplaced to support the walls; and the ringbeam, also cast from cement, supported the dome. The concrete walls carry a sparkling white quartz aggregate façade. The quartz, mined at Tamworth, had to be put in a horizontal mould over a layer of powder. White concrete was then poured over the quartz. The dome is white cement and fine quartz aggregate cast in situ. Fibreglass moulds were used for the prefabrication. The construction of the dome culminated in the historic placement by helicopter of the aluminium lantern on the apex of the dome (Bosler 1992) (Tropman 1993).

Physical Condition: Very good.

Modification Dates:

Recommended Management: The temple should be retained and conserved. A Heritage Assessment and Heritage Impact Statement should be prepared for the temple prior to any major works being undertaken. Photographic Archival Recording should be undertaken before major changes in accordance with the NSW Heritage Office guidelines for Photographic Recording of Heritage Items using Film or Digital Capture (2006).

Management:

Further Comments:

Criteria a) Important as the first House of Worship in Australia for Baha'i faith

Pittwater Heritage Inventory

SHI Number
2270338

State Heritage Inventory

Item Name: **Baha'i House of Worship**

Location: **173 Mona Vale Road, Ingleside [Pittwater]**

Criteria b)

Criteria c) Both the site and the building have high aesthetic value. The House of Worship has a particular symbolic design associated with the Baha'i faith. Due to its prominent placement on the ridge, the Baha'i House of Worship is a highly distinctive aesthetic feature of the landscape. It is a well known landmark and is visible from as far as Manly.

Criteria d) The Baha'i House of Worship has strong social significance for followers of the Baha'i faith.

Criteria e) The building has research potential as an architectural work of John R. Brogan.

Criteria f) The Baha'i House of Worship is extremely rare, as there are currently only 7 world wide.

Criteria g)

Integrity / Intactness: Intact

References:	Author	Title	Year
	Nan Bosler,	Baha'i House of Worship Ingleside	1992
	Tropman & Tropman	Ingleside/ Warriewood Urban Land Release Area Heritage Study	1993

Studies:

Parcels:	Parcel Code	LotNumber	Section	Plan Code	Plan Number
	LOT	52		DP	1152609

Latitude:

Longitude:

Location validity:

Spatial Accuracy:

Map Name:

Map Scale:

AMG Zone:

Easting:

Northing:

Listings:	Name:	Title:	Number:	Date:
	Local Environmental Plan			4/02/1994
	Heritage study			

Custom Field One:

Custom Field Two:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry: Date First Entered: 30/10/2003 Date Updated: 15/07/2014 Status: Partial

State Heritage Inventory

Date: 16/07/2014

Full Report with Images

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Pittwater Heritage Inventory

SHI Number
2270338

State Heritage Inventory

Item Name: **Baha'i House of Worship**

Location: **173 Mona Vale Road, Ingleside [Pittwater]**

Image:



Caption: Baha'i House of Worship

Copyright:

Image by: City Plan Heritage

Image Date: 9/05/2012

Image Number:

Image Path:

Image File: Baha'i House of Worship_1.jpg

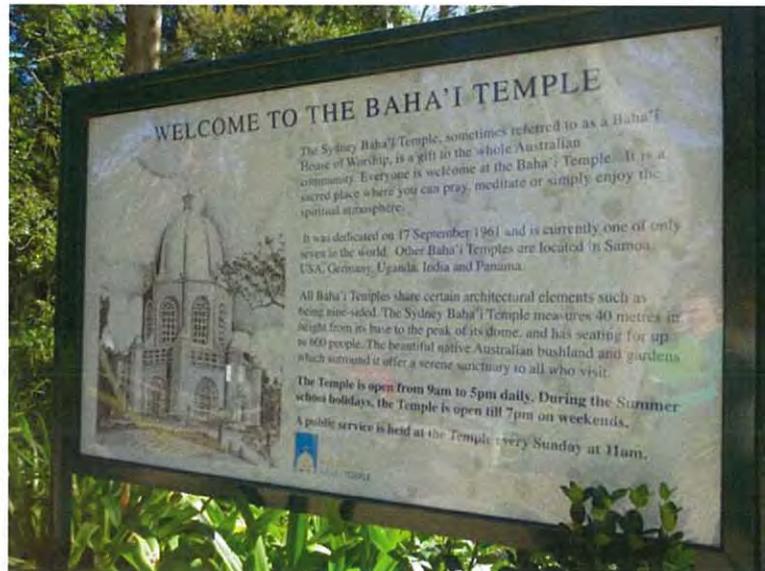
Thumb Nail Path:

Thumb Nail File:

Item Name: **Baha'i House of Worship**

Location: **173 Mona Vale Road, Ingleside [Pittwater]**

Image:



Caption: Plaque near the Baha'i House of Worship

Copyright:

Image by: City Plan Heritage

Image Date: 9/05/2012

Image Number:

Image Path:

Image File: Baha'i House of Worship_2.jpg

Thumb Nail Path:

Thumb Nail File:

Pittwater Heritage Inventory

State Heritage Inventory

SHI Number

2270346

Study Number

Item Name: **Group of Monterey Pines (Pinus Radiata)**

Location: **169, 169A and 169B Mona Vale Road, Ingleside [Pittwater]**

Address: 169, 169A and 169B Mona Vale Road **Planning:** Sydney North
Suburb / Nearest Town: Ingleside 2101 **Historic Region:** Sydney
Local Govt Area: Pittwater **Parish:** Narrabeen
State: NSW **County:** Cumberland

Other/Former Names: Larkins Pines

Area/Group/Complex: **Group ID:**

Aboriginal Area: Guringai

Curtilage/Boundary: If the entire land of Lots 201 and 202 DP 1054875 could not be listed, then an area that allows a diameter of 10 metres around each tree as measured from the centre of the trunk is considered the primary curtilage.

Item Type: Landscape **Group:** Parks, Gardens and **Category:** Tree groups - street

Owner: State Government

Admin Codes: **Code 2:** **Code 3:**

Current Use:

Former Uses:

Assessed Significance: **Local** **Endorsed Significance:**

Statement of Significance: This group of trees are a cultural landscape feature associated with land clearing and farm activities at the beginning of the 20th Century. They are also associated with the Larkin family a significant local pioneer family.

Historical Notes or Provenance: The pines were planted in c1900 by the Larkin family who established Waratah farm on the site. Early photographs from the Larkin family show these pines as small trees in the early 20th Century.

Themes: National Theme State Theme Local Theme
1. Environment Environment - naturally evo (none)

Designer:

Maker / Builder:

Year Started: 1900 **Year Completed:** **Circa:** Yes

State Heritage Inventory

Full Report with Images

Date: 16/07/2014

Page 1

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Pittwater Heritage Inventory

State Heritage Inventory

SHI Number

2270346

Study Number

Item Name: **Group of Monterey Pines (Pinus Radiata)**

Location: **169, 169A and 169B Mona Vale Road, Ingleside [Pittwater]**

Physical Description: A group of over twelve large Monterey Pines (*Pinus radiata*) approximately 40m high situated on the main ridge of Ingleside along Mona Vale Road near the intersection with Powderworks Road. The pines mark the site of a c1900 farm and orchard that formerly occupied the site. (Tropman 1993)

Physical Condition: Naturally good.

Modification Dates:

Recommended Management: Manage to retain and conserve heritage significance. Maintain in accordance with best arboricultural practice to enhance safe and useful life expectancy. Plan for succession planting with the same species.

Management: Recommended Management No Action, follow existing management controls

Further Comments:

Criteria a) These trees have historical significance as they were planted by one of the earliest farmers in the Ingleside area.

Criteria b) These trees are associated with patterns of farming activity as well as local pioneer family the Larkins.

Criteria c) The trees are an important local landmark.

Criteria d)

Criteria e)

Criteria f)

Criteria g) Representative of farm planting patterns in rural areas at the beginning of the twentieth century.

Integrity / Intactness:

References:	Author	Title	Year
	Tropman & Tropman	Warriewood Ingleside Urban Land Release Heritage Study	1993
	Tropman and Tropman		1993

Studies:	Author	Title	Number	Year
	City Plan Heritage	Pittwater Community Based Heritage Study Review		2014

Parcels:	Parcel Code	LotNumber	Section	Plan Code	Plan Number
	LOT	202		DP	1054875
	LOT	201		DP	1054875

Latitude:

Longitude:

State Heritage Inventory

Full Report with Images

Date: 16/07/2014

Page 2

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Pittwater Heritage Inventory

State Heritage Inventory

SHI Number

2270346

Study Number

Item Name: **Group of Monterey Pines (Pinus Radiata)**

Location: **169, 169A and 169B Mona Vale Road, Ingleside [Pittwater]**

Location validity:

Spatial Accuracy:

Map Name:

Map Scale:

AMG Zone:

Easting:

Northing:

Listings:

Name:

Title:

Number:

Date:

Local Environmental Plan

4/02/1994

Heritage study

Custom Field One:

Custom Field Two:

Custom Field Three:

Custom Field Four:

Custom Field Five:

Custom Field Six:

Data Entry:

Date First Entered: 13/11/2003

Date Updated: 15/07/2014

Status: Partial

Image:



State Heritage Inventory

Full Report with Images

Date: 16/07/2014

Page 3

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Pittwater Heritage Inventory

State Heritage Inventory

SHI Number

2270346

Study Number

Item Name: **Group of Monterey Pines (Pinus Radiata)**

Location: **169, 169A and 169B Mona Vale Road, Ingleside [Pittwater]**

Caption: Group of Monterey Pines (Pinus Radiata)

Copyright: Pittwater Council

Image by: City Plan Heritage

Image Date:

Image Number:

Image Path:

Image File: Group of Monterey Pines_1.jpg

Thumb Nail Path:

Thumb Nail File:

Pittwater Heritage Inventory

State Heritage Inventory

SHI Number

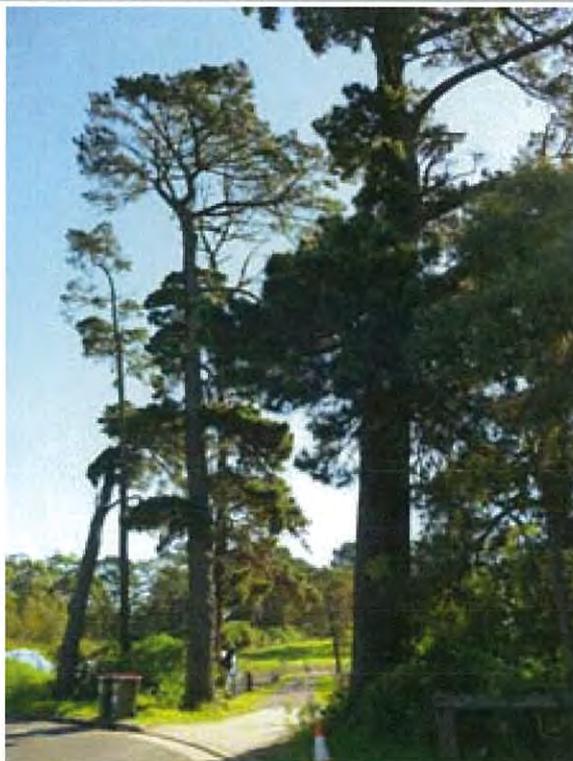
2270346

Study Number

Item Name: **Group of Monterey Pines (Pinus Radiata)**

Location: **169, 169A and 169B Mona Vale Road, Ingleside [Pittwater]**

Image:



Caption: Group of Monterey Pines (Pinus Radiata)

Copyright: Pittwater Council

Image by: City Plan Heritage

Image Date:

Image Number:

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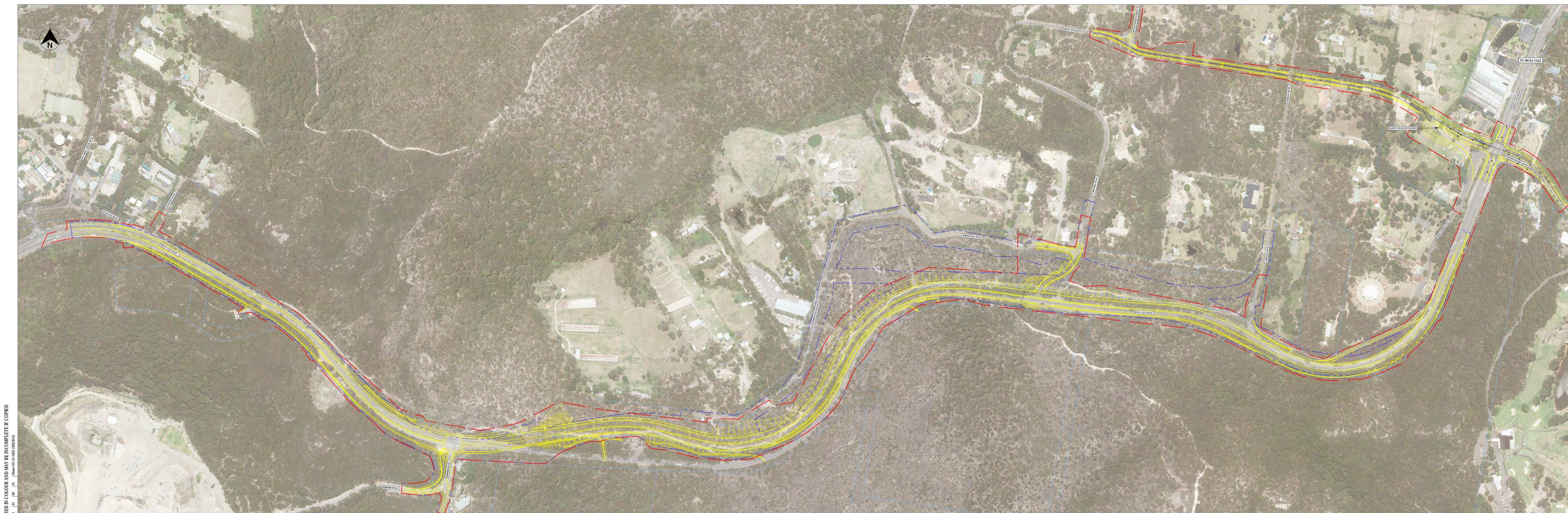
Image File: Group of Monterey Pines_2.jpg

Thumb Nail Path:

Thumb Nail File:

Appendix B

Design Drawings



LEGEND :

- RMS DESIGNATED CONSTRUCTION BOUNDARY
- PROPOSED REVISED CONSTRUCTION BOUNDARY

THIS DRAWING MAY BE PREPARED IN COLOUR AND MAY BE INCOMPLETE IF COPIED FROM AN A3 SIZE ORIGINAL.

NOT FOR CONSTRUCTION

PLAN

DRAWING FILE LOCATION / NAME C:\p\work\hills\monna_vale\2016\0825097\SK-3000.dwg		DESIGN LOT CODE XXXXXX	DESIGN MODEL FILE(S) USED FOR DOCUMENTATION OF THIS DRAWING SK-3000.dwg		PLAT DATE / TIME 17/08/2016 11:40:14 AM	PLAT BY Nikola Loncar	CLIENT NORTHERN BEACHES L.G.A. MUNICIPALITY: MONNA VALE ROAD UPGRADE BETWEEN MCCARRS CREEK ROAD, TERREY HILLS AND POWDER WORKS ROAD, INGLESIDE ROAD ALIGNMENT AND DETAILS OVERALL ROAD PLAN
EXTERNAL REFERENCE FILES XXXXXX	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	SCALES ON A3 SIZE DRAWING	DRAWINGS / DESIGN PREPARED BY aurecon www.aurecongroup.com
	0	15/07/2016	STRATEGIC CONCEPT DESIGN ISSUED FOR 20% REVIEW				DRAWN N.LONCAR
	1	16/08/2016	PROPOSED CONSTRUCTION BOUNDARY REVISED				DWG CHECK A.BAYADI
	2	17/08/2016	PROPOSED CONSTRUCTION BOUNDARY REVISED				DESIGN E.WILSON
							DESIGN CHECK M.PIOLN
							DESIGN MGR T.SNAPE
							PROJECT MGR G.DWYER
CO-ORDINATE SYSTEM MGA ZONE 56							PREPARED FOR PROJECT DELIVERY GREATER SYDNEY
							RMS REGISTRATION No. DS2016/000911
							ISSUE STATUS STRATEGIC CONCEPT DESIGN
							EDMS No.
							SHEET No. 2
							PART 1
							ISSUE 2