



**EXTENT**

PEOPLE-CENTRED  
**HERITAGE**

# HERITAGE INTERPRETATION PLAN **M12 MOTORWAY PROJECT**

**PREPARED FOR TRANSPORT FOR NSW**

**APRIL 2022 — FINAL**



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## Executive summary

Extent Heritage Pty Ltd was commissioned by Transport for NSW to prepare a non-Aboriginal Heritage Interpretation Plan for the M12 Motorway Project.

This report presents eighteen heritage interpretive devices over five locations. The locations are the **Upper Canal System (Pheasants Nest Weir to Prospect Reservoir)**, the **McGarvie Smith Farm**, **Fleurs Aerodrome**, **Fleurs Radio Telescope Site** and the **McMaster Field Station**. These five sites have then been categorised into three themes; **water harvesting**, **agricultural research**, and **technological advancements**.

### Themes

#### Water harvesting:

- The Upper Canal System was built in the 1880s to bring water from Sydney's south-west to the city to ensure a stable water supply for the growing city.
- The McGarvie Smith Farm researched practices for better conservation of water in agriculture to provide farmers more reliable water supplies, such as the turkey nest dam.



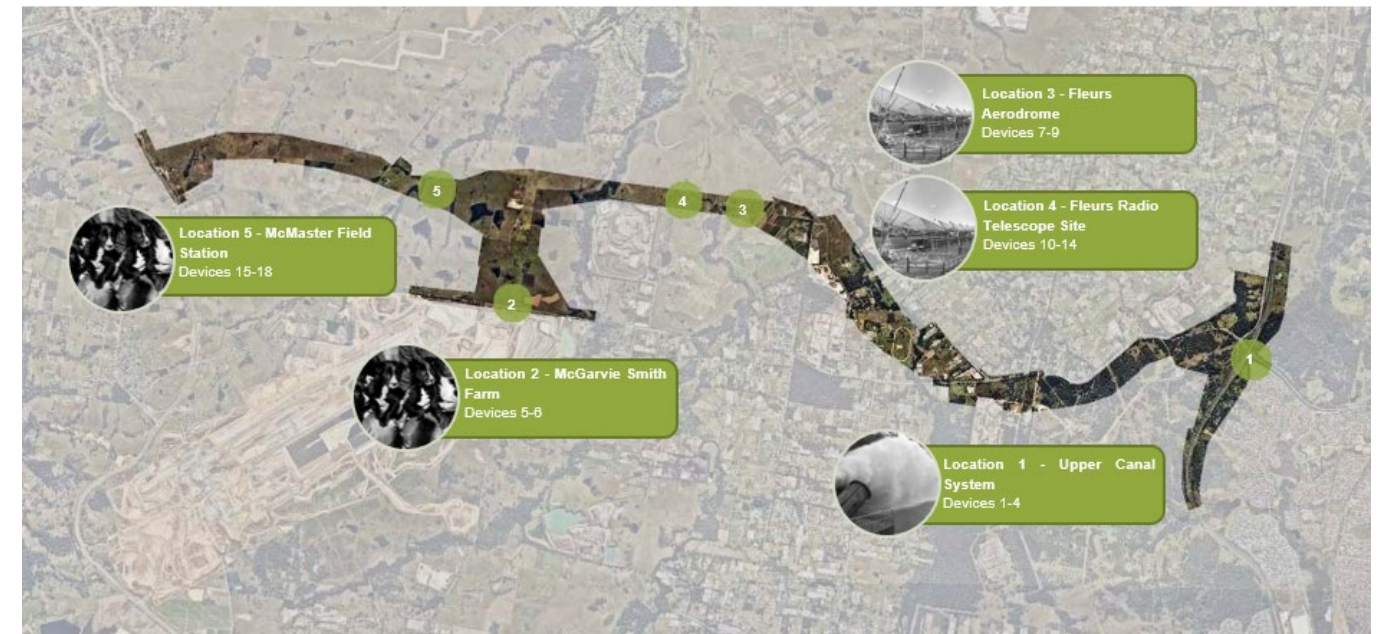
#### Agricultural research:

- The McGarvie Smith Farm was Sydney's first veterinary and animal husbandry school in Sydney and worked in the production and distribution of a single shot anthrax vaccine for livestock.
- The McMaster Field Station was a research facility that sought to bring greater scientific understanding to Australian agriculture.



#### Technological advancements:

- Fleurs Aerodrome was built during World War II as part of the RAAF's strategy of building dispersal airfields and has seen the development of aerial technology in the years since.
- The Fleurs Radio Telescope Site was a CSIRO research station in the 1950s and 60s which pioneered several new forms of radio telescope arrays.



### Interpretative devices

This report proposes four interpretive device types for the M12 Motorway Project.

The first type of device is a series of **signs located along the shared pathway**. These signs contain various primary sources as well as a short account of the history and significance of the site.

The second type of device works in tandem with the first, a series of **inlays set into the shared pathway** which are designed to draw attention to the sign as well as alluding to the content of each sign.

The third device is an **interpretive landscape device located on both sides of the carriageway** indicating where the motorway intersects with what was once **Fleurs Aerodrome**.

The final device is an **art installation located along the shared pathway** create an artistic representation to the large cross array installations that were present at the **Fleurs Radio Telescope Site**.

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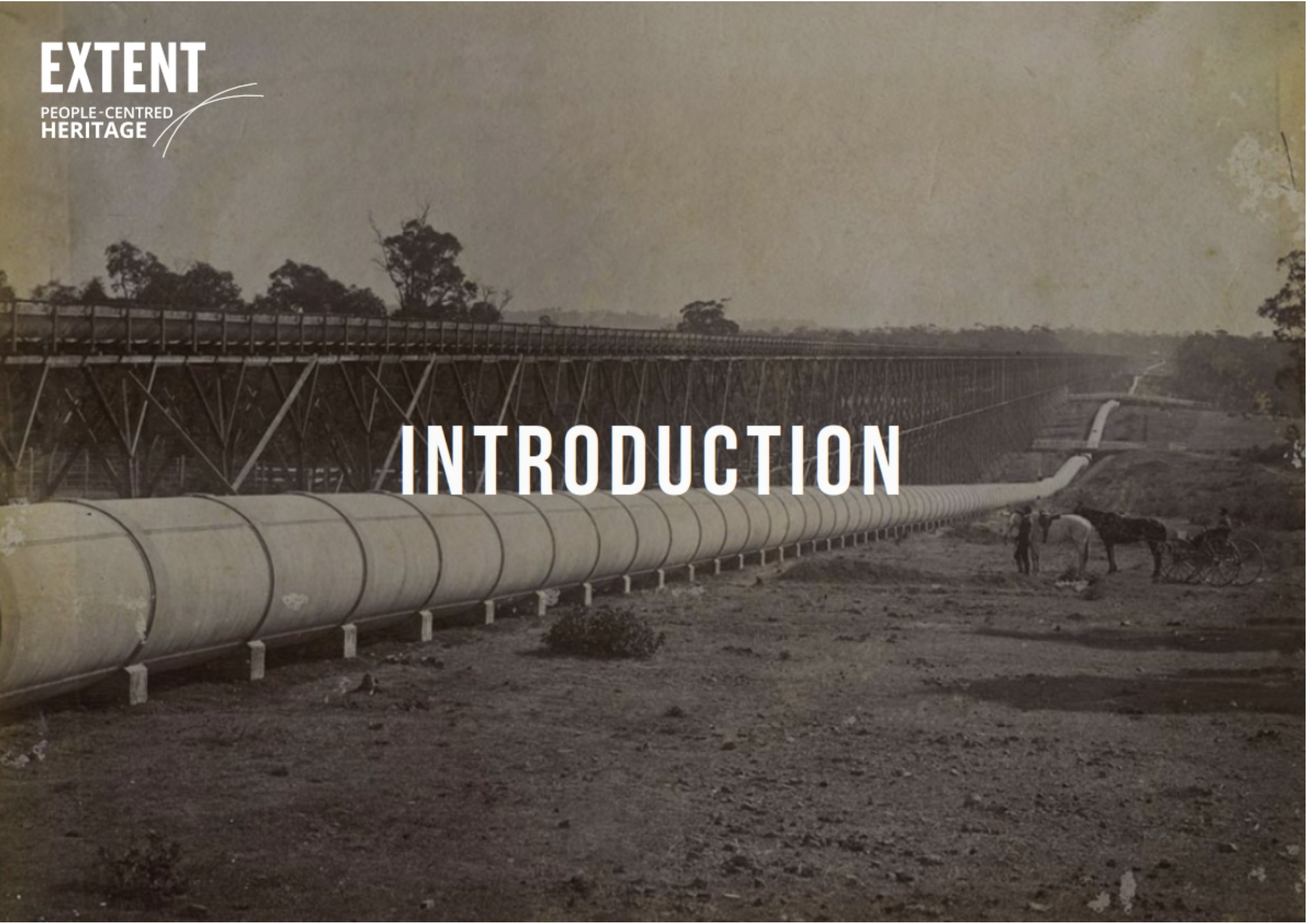
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# INTRODUCTION





## 1.1 Project brief

Extent Heritage Pty Ltd (Extent Heritage) was commissioned by Transport for NSW (TfNSW) to prepare a non-Aboriginal Heritage Interpretation Plan for the M12 Motorway Project (the 'M12 Motorway' or the 'study area'). The M12 Motorway will run over approximately 16 km between the M7 Motorway at Cecil Hills and The Northern Road at Luddenham ('The M12 Motorway Project Boundary' or the 'Project Corridor', Figure 1). It is expected to be opened to traffic in advance of the opening of the Western Sydney International Airport. The road alignment traverses large land parcels that were used for a range of historical activities, including agricultural and astronomical research and contains or is adjacent to several listed heritage items.

Extent Heritage understand that the Aboriginal Heritage Interpretation Plan is being undertaken as a separate scope of works by Balarinji, and so Extent has not included Aboriginal themes and storylines in this report. We have however made consideration of the shared themes between Aboriginal cultural heritage and European heritage, and ensured they are reflected in the non-Aboriginal heritage interpretation where relevant.

Extent Heritage was previously commissioned by TfNSW to prepare the non-Aboriginal Heritage Interpretation Framework for the M12 Motorway. The framework was completed and submitted in February 2021. The Heritage Interpretation Plan will expand on select ideas raised in the Heritage Interpretation Framework as requested by TfNSW.

## 1.2 Objectives

The primary objective of the Plan is to ensure that the traditional, historical, and contemporary non-Aboriginal values of the study area are integrated into the project in a meaningful, culturally appropriate, and practical way. Interpretation is a way of celebrating and communicating values and can be an effective form of impact mitigation on projects of this scale.

This report aims to further develop the direction set out in the Heritage Interpretation Framework (Extent heritage, 2020) and to progress the scheme towards implementation. While the framework focused on developing a thematic structure for the scheme and decision-making on device selection, this Heritage Interpretation Plan (Plan) will provide detail on specific interpretation devices. This will include content development, concept designs and location advice.

Recognising that specific detailing and specifications for construction and implementation may change as the project evolves, this document provides indicative guidance intended to remain relevant across the life of the project.

## 1.3 Use of the Plan

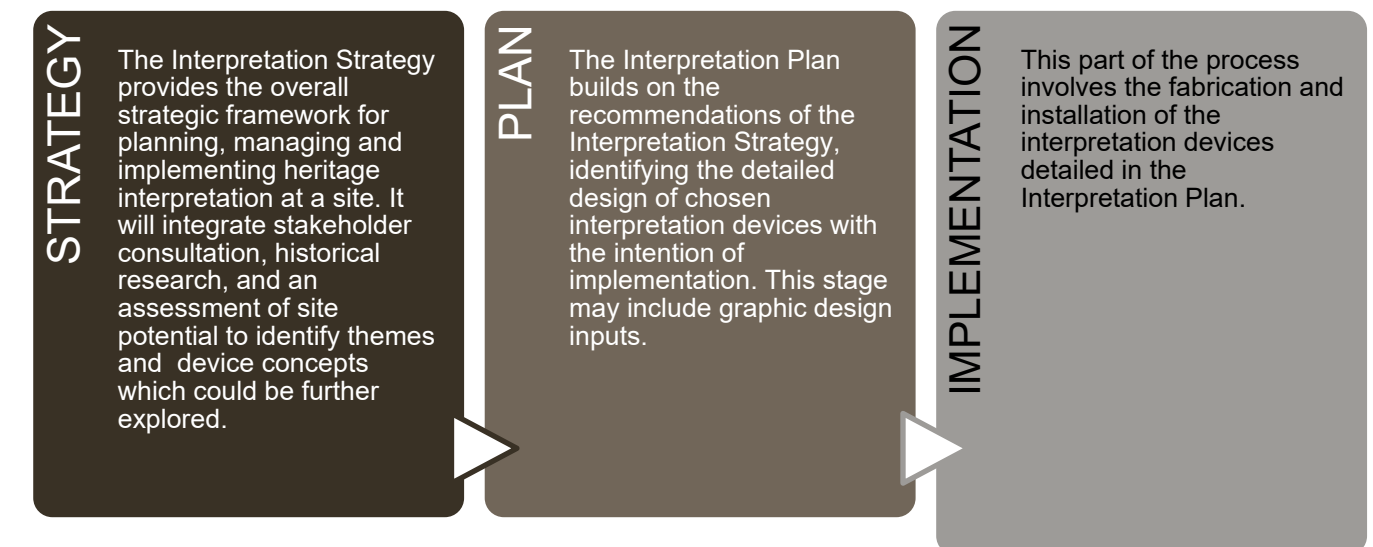
This Plan should be used and consulted to ensure that interpretative initiatives on the M12 are implemented in the cohesive and structured way that has been agreed to in this process. It provides details on all agreed devices, content and a design direction for each of these.

It is anticipated that the Heritage Interpretation Plan will be consulted relating to the following critical decisions and information:

- the significant historical themes and stores that are relevant to the study area;
- the key stories have been selected relating to the study area;
- the specific devices which have been selected across the scheme;
- the locations that have been selected for specific interpretive devices within the study area; and
- the agreed text and graphic design content for the interpretation elements.

## 1.4 The interpretation process

The following Part outlines the interpretation process and the role of the Interpretation Plan in that process. As shown in the flowchart, this Plan should be followed by Implementation.





## 1.5 Methodology

Preparation of the Interpretation Plan entailed the following steps:

### *Summarising the results and key outcomes of the Heritage Interpretation Framework*

In 2021 Extent Heritage completed a Heritage Interpretation Framework for the M12 Motorway project. The Framework formed the basis of this Plan, providing specific direction on the development of devices.

### *Collaborative workshops, meetings and iterative advice*

As part of the Heritage Interpretation Framework, Extent Heritage undertook consultation with the local community and relevant stakeholders including Department of Defence, aviation interest groups, local historical societies, and individual persons with an association to the site. Their feedback was recorded and informed our considerations for the Heritage Interpretation Plan.

Extent have attended fortnightly meetings with the TfNSW team as part of an ongoing collaborative process relating to design and content development.

### *Content development*

Development of content for signage, based on the thematic framework and storylines agreed to in the Heritage Interpretation Framework and content from the Thematic History (Extent Heritage, 2020)

### *Concept designs*

Through a collaborative design process, Extent have prepared concept designs for interpretive signage. The graphic layout has shared features and elements across the scheme, so that they read as a cohesive collection of interpretation devices. The graphic direction has also considered design direction of the Aboriginal Heritage Interpretation Plan, so that they are co-ordinated.

Additionally, Extent have progressively kept updated and informed of the developing nature of major infrastructure projects and the urban environment of the area which will include projects such as the Western Sydney International Airport, Sydney Metro West, and the Badgerys Creek Advanced Water Recycling Centre. These projects all have the potential to integrate and have a collaborated response to their individual heritage interpretation design.

## 1.6 Authorship

This report has been authored by Dr Madeline Shanahan (Senior Associate), Eleanor Banaag (Senior Associate) and Dominic Caron (Research Assistant). Graphic design input and concept designs have been undertaken by Christina Fedrigo. It has been reviewed by Eleanor Banaag and Dr Madeline Shanahan.

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<b>Position</b>	Senior Associate, Archaeology and Cultural Heritage Services Manager
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<b>Project experience</b>	RMC Duntroon Heritage Interpretation Strategy, Department of Defence, 2020. Gunaikurnai Cultural Heritage Interpretation Strategy, ParksVic, 2020. Parramatta RSL Club Heritage Interpretation Strategy, Paynter Dixon, 2019.

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<b>Position</b>	Senior Associate
<b>Qualifications</b>	Masters of Heritage Conservation, University of Sydney (2013) Bachelor of Arts (Hons), Macquarie University (2006) Bachelor of Arts in Ancient History, Macquarie University (2005)
<b>Project experience</b>	Sydenham Metro Station, Interpretation Plan and implementation, Sydney Metro, 2021 Lake Macquarie CUA, Interpretation Plan. Crusaders Union of Australia, 2019 WestConnex Stage 2: interpretation plan, CPB Dragados Samsung Joint Venture, 2016.

<b>Name</b>	Dominic Caron
<b>Position</b>	Research Assistant
<b>Qualifications</b>	Master of Research (Modern History) Macquarie University (2018) Bachelor of Arts with a Diploma of Education, Macquarie University (2016)
<b>Project experience</b>	Canterbury Bankstown Heritage Study, 2021. Bungendore Railway Station Interpretation Study, 2020. Wollondilly Heritage Study, 2020.



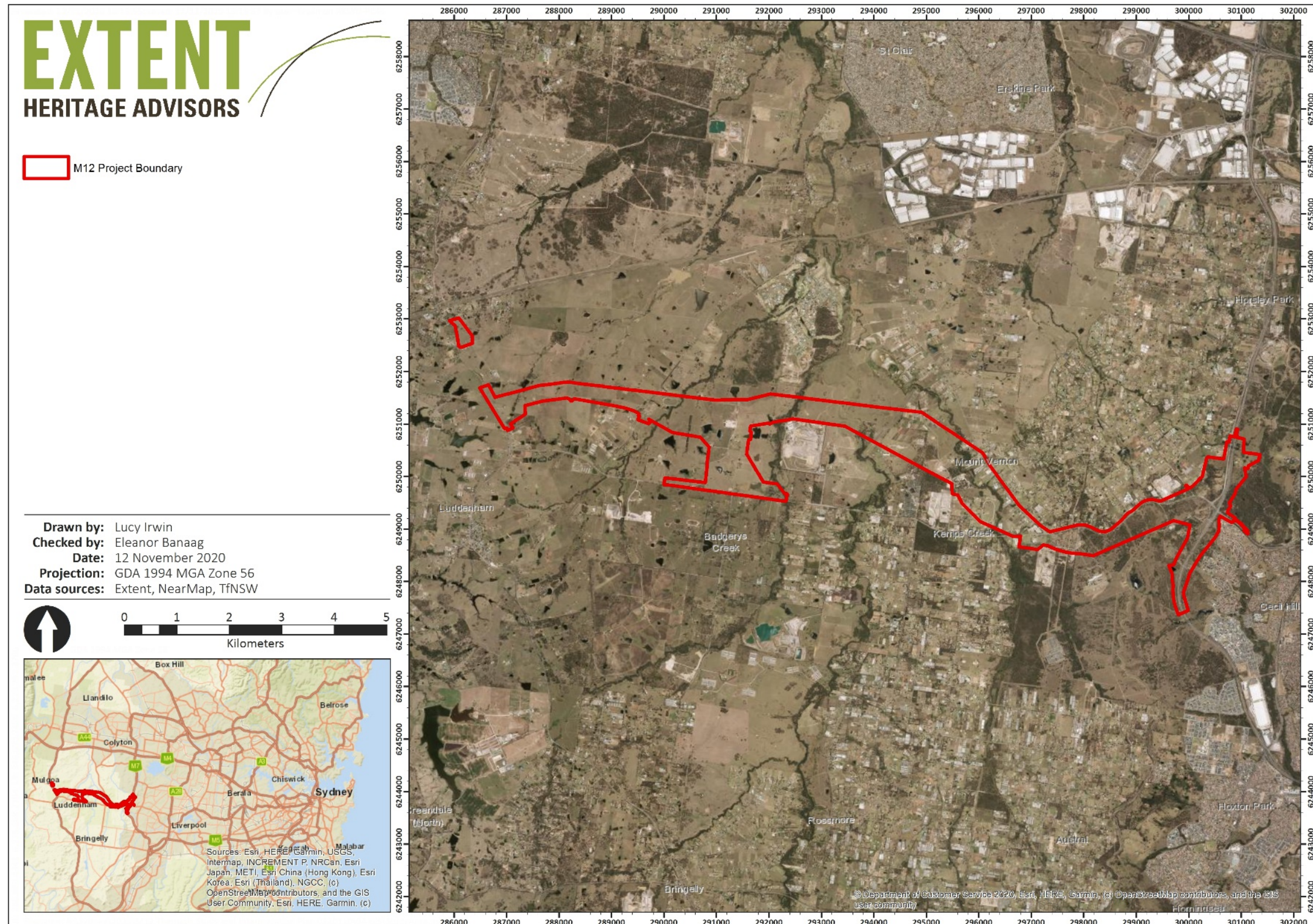


Figure 1. Figure indicating the M12 project corridor.



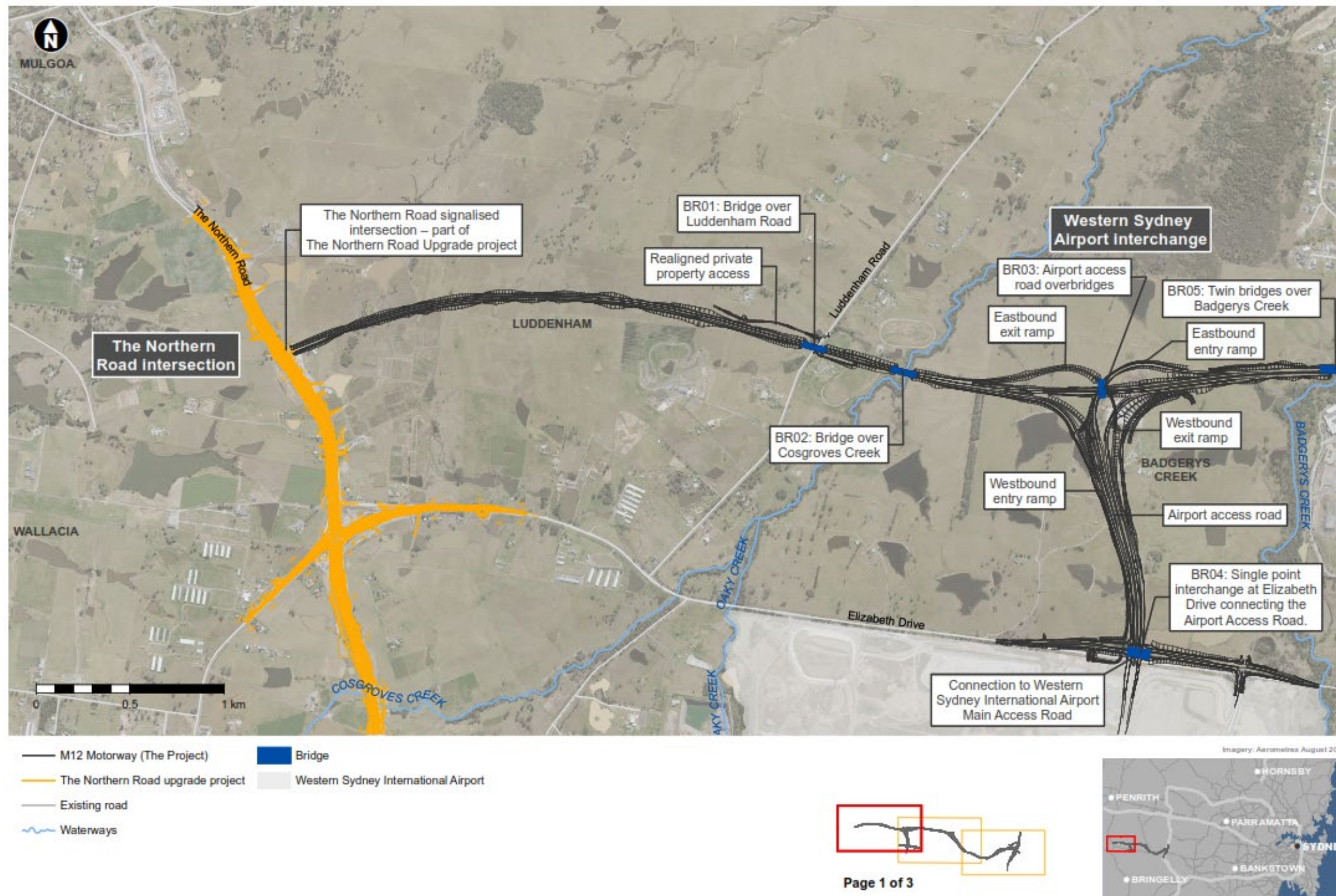


Figure 2. Figure indicating the Project Area for the M12 Motorway, 1 of 3. Source: TfNSW (2021).



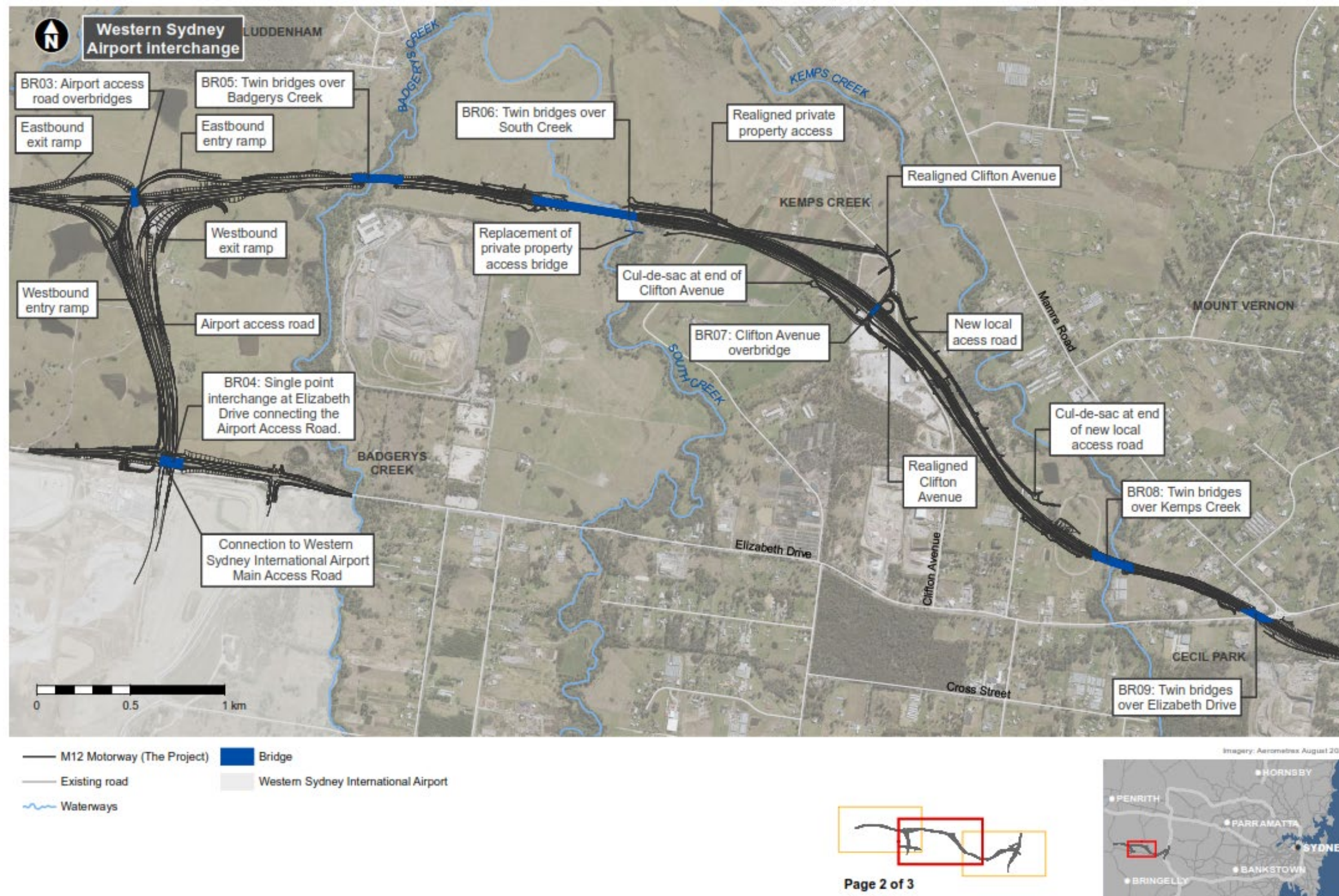


Figure 3. Figure indicating the Project Area for the M12 Motorway, 2 of 3. Source: TfNSW (2021).



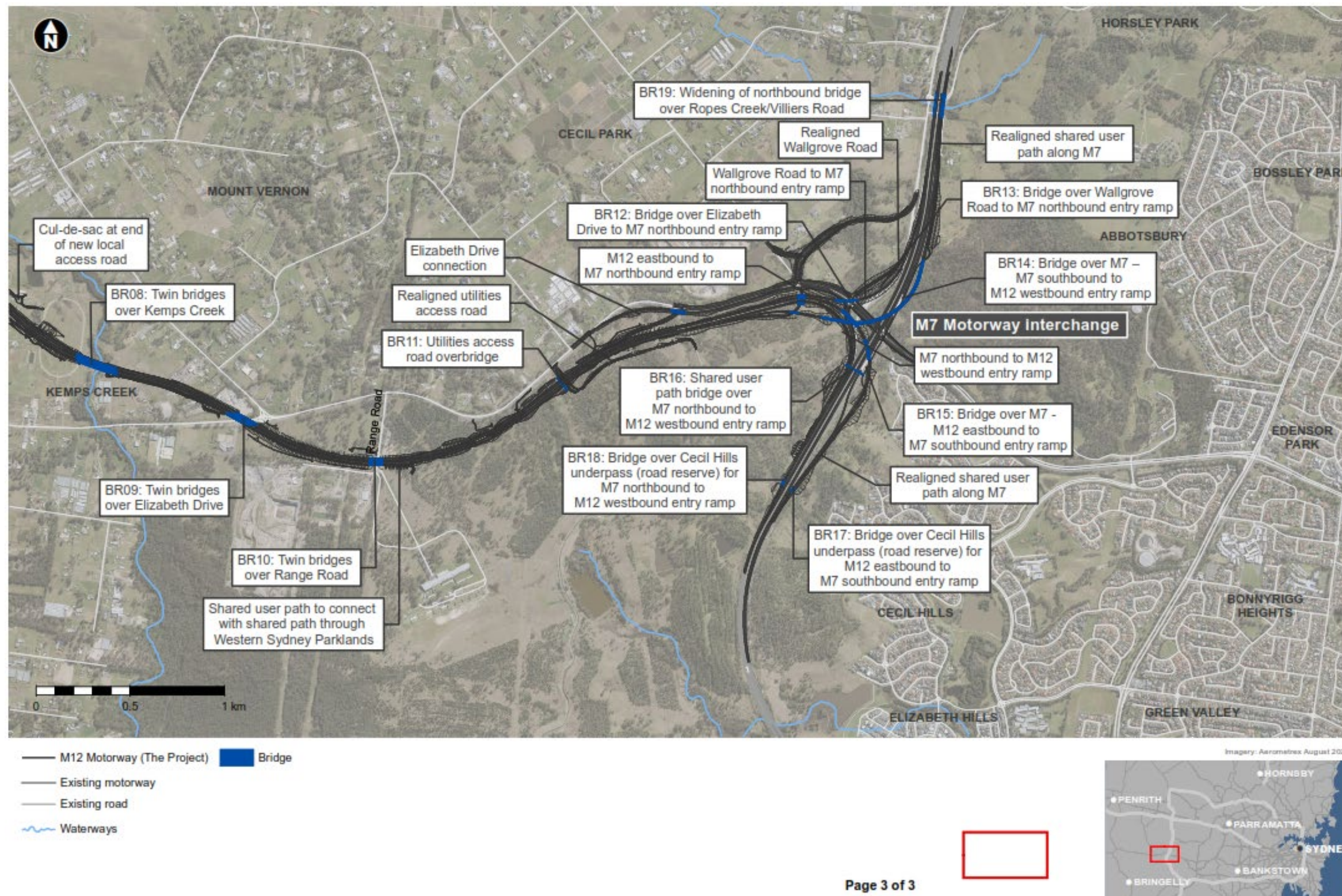


Figure 4. Figure indicating the Project Area for the M12 Motorway, 3 of 3. Source: TfNSW (2021).





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# PLANNING CONTEXT AND GUIDELINES FOR BEST PRACTICE INTERPRETATION

## 2.1 Planning context

This Part sets out the planning context and key pieces of legislation associated with the M12 Motorway scheme.

### Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. In accordance with the act, approval is required for works that will have a significant impact on biodiversity matters. Approval for the M12 Motorway was given by the Australian Minister for the Environment on 3 June 2021.

### Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) requires that environmental impacts are considered in land-use planning, including impacts on Aboriginal and non-Aboriginal heritage. Division 5.2 of the EP&A Act applies for projects designated as State Significant Infrastructure. This influences the way in which other legislation, including the *Heritage Act 1977* is applied.

The Environmental Impact Statement (EIS) was exhibited in October 2019 and a submissions report was published in October 2020. An Amendment Report was also placed on exhibition in October 2020 and an Amendment Report Submissions Report was published in December 2020.

The M12 Motorway was approved by the NSW Minister for Planning and Public Spaces on 23 April 2021. The M12 Motorway Project was a designated Critical State Significant Infrastructure project by the NSW Minister for Planning and Public Spaces on 23 April 2021 in accordance with Division 5.2 of the EP&A Act.

### Heritage Act 1977

The project is subject to certain provisions of the *Heritage Act 1977* (the Heritage Act). The Heritage Act provides several mechanisms by which items and places of heritage significance may be protected. The Act is designed to protect both listed heritage items, such as standing structures and potential archaeological remains or relics.

The Heritage Council of NSW maintains the State Heritage Register (SHR). Only those items which are of state-level heritage significance in NSW are listed on the SHR. Listing on the SHR controls activities such as alteration, damage, demolition and development. Approved projects to which Division 5.2 applies do not require approval under Part 4 of the Heritage Act 1977 (such as a section 60 approval for major works) for items on the SHR. However, Division 5.2 projects must outline proposed heritage management measures.

There is one heritage item on the State Heritage Register that is directly intersected by the M12 Motorway:

- Upper Canal System (Pheasants Nest Weir to Prospect Reservoir), SHR Item # 01373

However, while this site is intersected by the M12 Motorway, it is worth noting that at the point of intersection, the Upper Canal System runs underground and will not be impacted by the construction of the M12 Motorway.

## 2.2 Conditions of approval

The Instrument of Approval for the M12 Motorway, Application No. SSI 9364 was granted 23 April 2021 by the NSW Minister for Planning and Public Spaces.

The Instrument identified a list of Key Issue Conditions which outlined the following requirements for non-Aboriginal heritage interpretation:

Condition of approval	Response
<b>E26:</b> An experienced and qualified heritage specialist(s) must prepare and/or endorse the: Heritage Interpretation Plan required by Condition E27	See <b>Part 1.6 Authorship</b> for a response to this condition.
<b>E27:</b> A Heritage Interpretation Plan must be prepared that identifies and interprets the key heritage values and stories of the heritage items impacted by the CSSI. The Heritage Interpretation Plan must include, but not be limited to: integration of heritage themes and values in the design of the CSSI; design elements (form and fabric) and themes for the CSSI; consideration of the design concepts for Western Sydney International Airport and Sydney Metro Western Sydney Airport; and opportunities for design responses for Aboriginal and non-Aboriginal heritage. The Heritage Interpretation Plan must be provided to Western Sydney International Airport and Sydney Metro Western Sydney Airport to assist in guiding opportunities for integration of heritage themes and values into their design. The Heritage Interpretation Plan must be prepared in accordance with the <i>Interpreting Heritage Places and Items Guidelines</i> (NSW Heritage Office, 2005), and in consultation with Heritage NSW, Aboriginal Cultural Heritage Advisory Committee, LALC and relevant council(s). The Plan must be implemented and inform the Place, Design and Landscape Plan required by Condition E69. The Heritage Interpretation Plan must be submitted to the Planning Secretary and Heritage NSW for information prior to finalising the Place, Design and Landscape Plan required by Condition E69. Note: Nothing in this condition prevents the Proponent from preparing separate Heritage Interpretation Plans for Aboriginal and Non-Aboriginal Heritage.	See <b>Part 1.2 Objectives</b> for an understanding of the purpose of this plan which reflects the Condition to prepare a Heritage Interpretation Plan. See <b>Part 3.4 Thematic framework</b> which demonstrate our integration of heritage themes into the interpretation design and content. See <b>Part 3.5 Selection of devices</b> which demonstrate our understanding of the historic themes and how they have informed the design of heritage interpretation elements. See <b>Part 1.5 Methodology</b> which demonstrates that stakeholder consultation and consideration of heritage interpretation progress of other major infrastructure project such as the Western Sydney International Airport and Sydney Metro West have been made. See <b>Part 2.3 Guidelines for interpretation</b> which demonstrates that NSW Heritage Guidelines for Interpretation have informed the development of this Plan.



<p><b>E70(b)</b></p> <p>The Place, Design and Landscape Plan must be prepared by a suitably qualified and experienced person in consultation with relevant councils, Western Sydney Parklands Trust, Heritage NSW, the community and affected landowners and businesses. The Place, Design and Landscape Plan must include, but not be limited to:</p> <p>(b) identification of opportunities for heritage interpretation during design and construction consistent with the Heritage Interpretation Plan required by Condition E27;</p>	<p>See <b>Part 1.5 Methodology</b> describing the iterative and regular discussions with the project designers to ensure integration of the landscape and urban design with the Heritage Interpretation Plan..</p>
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## 2.3 Guidelines for interpretation

This Part outlines the international and local guidelines, policies and principles that have guided the approach towards developing a meaningful and successful interpretation plan for this project. These guidelines, along with an understanding of the significance of the place, have assisted in ensuring that the correct audiences and opportunities are identified, and the approach towards heritage interpretation specific to that audience or significance is tailored.

### The Burra Charter

*The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (the 'Burra Charter') (Australia ICOMOS 2013) is considered the guiding document of best practice standards for the management of cultural and natural heritage within Australia. The Charter states that it can be applied to all types of places of cultural significance including natural, Indigenous and historic places with cultural values.

Table 1. Relevant Burra Charter articles to interpretation

Article	Number and Description
5. Values	5.1 Conservation of a place should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.

6. Burra Charter Process	<p>6.1 The cultural significance of a place and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the place in accordance with the policy. This is the Burra Charter Process.</p> <p>6.2 Policy for managing a place must be based on an understanding of its cultural significance.</p> <p>6.3 Policy development should also include consideration of other factors affecting the future of a place such as the owner's needs, resources, external constraints, and its physical condition.</p> <p>6.4 In developing an effective policy, different ways to retain cultural significance and address other factors may need to be explored.</p>
24. Retaining Associations and Meanings	<p>24.2 Significant associations between people and a place should be respected, retained, and not obscured. Opportunities for the interpretation, commemoration and celebration of these associations should be investigated and implemented.</p> <p>24.2 Significant meanings, including spiritual values, of a place should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.</p>
25. Interpretation	25.1 The cultural significance of many places is not readily apparent and should be explained by interpretation. Interpretation should enhance understanding and engagement and be culturally appropriate.

### Interpreting heritage places and items guideline

The *Interpreting Heritage Places and Items Guideline* (Heritage Office 2005) describes at a very broad level why it is important to interpret heritage, the responsibility of governments, heritage practitioners, communities and audiences as people who receive the interpretive message, and how good interpretation can be achieved.

The primary principle of these guidelines is that interpretation strengthens the relationships between communities and their heritage. It is about different ways of communicating significance of an item to many people and a range of audiences. It refers to the *Heritage Interpretation Policy* (Department of Planning [former] 2005) for the individual 'ingredients' to achieve best practice in interpretation. Principles include:

Table 2. Interpreting heritage places and items principles.

#	Principle	Description
1	A sense of place	Interpretation will create an encompassing presence and awareness of the site with a community focus.

2	Tangible and intangible heritage	Interpretation will emphasise both the tangible and intangible heritage of the area to create a comprehensive approach to the site as a whole and its position within the wider community context.
3	Media	Interpretation will integrate a wide range of media and platforms to create sustainable and effective interpretation infrastructure.
4	Community engagement	Interpretation development will engage and incorporate community aspects as appropriate to create a sense of community ownership.

The approach taken in the preparation of this Heritage Interpretation Plan has been guided by the above principles.





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# HERITAGE INTERPRETATION FRAMEWORK- KEY FINDINGS

This Part will summarise the key stages and findings of the Heritage Interpretation Framework. The research and reporting undertaken in that phase of work has determined the direction of this Heritage Interpretation Plan.

This Part summarises the research that took place, the establishment of a thematic framework and identification of key stories, the selection of devices and indicative locations.

### 3.1 Heritage Interpretation Framework outline

Extent Heritage was engaged by TfNSW to prepare a Non-Aboriginal (Historic) Heritage Interpretation Framework that incorporated significant heritage items identified during the detailed design development of the M12 Motorway project. This framework formed part of a larger framework of historic heritage reporting for the project.

The report was prepared by a multidisciplinary team with a wide range of experience in interpretation planning. In the development of this report, the team worked collaboratively both internally and within the wider M12 Project delivery teams, focusing on integrating and relating history, heritage values, design, and visitation to the process of interpretation planning.

Given how broad the project boundary was, both geographically and in the historic themes and development, the interpretation framework considered the whole of the M12 Motorway project boundary as being the interpretation canvas with opportunities for interpretation installations at specific locations. These locations have been selected for their relationship to a historic site, or for its association with a historic theme, and will assist in the understanding of the place whilst providing audiences with the ability to delve further into the heritage and history as they desire.

### 3.2 Research undertaken

In the preparation of the history for the framework a range of primary and secondary sources were utilised. As Extent Heritage also prepared a Thematic History for the M12 Motorway Project, which was also used to inform the Framework, and ultimately, this Plan.

Research was also undertaken into different forms of interpretive devices and their differing uses during the Framework stage. High-level audience research and analysis was also undertaken into the people who are most likely to use the M12 Motorway so that the interpretive devices could be developed in a way that best reflects its audience.

### 3.3 Audience analysis

Research undertaken during the Heritage Interpretation Framework established that there will be three main audiences that will likely interact with the heritage interpretations proposed for the M12 Motorway. The interpretation works have been designed with these three groups in mind.

#### *Greater Sydney*

The M12 Motorway will be used by a number of commuters from Greater Sydney. These commuters will be made up of a diverse group of people, some of whom will be regular users of the motorway while others will make more sporadic use.

#### *International arrivals*

The Western Sydney International Airport at Badgery's Creek will bring international arrivals to the region who may travel along the M12 Motorway. These people would be made up of international travellers from a range of countries travelling to Sydney for a variety of purposes. The majority of international visitors to Sydney come from China, New Zealand, and the United States, with significant numbers also coming from the United Kingdom and Japan. International arrivals travelling the M12 Motorway will likely be from these countries.

However, given the location of the devices, people passing along the M12 Motorway as motorists or passengers will not have a chance to engage with the devices. The primary audience for the interpretive devices will be people using the shared path, who will most likely be local residents.

#### *Local residents*

Many of the interactions with the M12 Motorway and its heritage interpretations will be from residents from the areas the M12 Motorway passes through. Approximately 7000 people live in the vicinity of the M12 Motorway, coming from a variety of backgrounds though the majority of the residents are English speakers.



### 3.4 Thematic framework

Research and consultation with TfNSW's project team led to the identification of key themes and stories for the Heritage Interpretation Framework. These themes have been applied in this next stage, the Heritage Interpretation plan. The thematic framework is as follows.

The climate of Australia is harsh and in order to build and expand cities we must have access to potable water. Systems of capturing, storing and distributing water are critical to the development and continued functioning of society. Agriculture is likewise dependant on have a reliable source of water to function.

The Upper Canal System and Hudson Brothers temporary scheme are notable examples of some of the innovations developed to provide Sydney with water. These were developed to overcome the worst drought in Sydney's history, ensuring the continued growth of the city.

Turkey Nest dams were developed at the McGarvie Smith Farm to dam water on flat tracts of land. These dams served a dual purpose of storing water and then disributing it to livestock for them to drink.

Relavant Sites:

- The Upper Canal System
- The McGarvie Smith Farm

Water harvesting



Western Sydney has been central to the development of agriculture and agricultural reseach for not only Sydney but Australia. From serving as a food bowl for the growing city to housing centres of scientific research, Western Sydney has served as a vital hub of agricultural knowledge.

Both the McGarvie Smith Farm and the McMaster Field Station are examples of agricultural research centres. The study of disease and conditions affecting livestock that was undertaken at the McMaster Field Station was something rarely seen at the time, an integration of agricultural science and farming knowledge. The work done at this station allowed for better yeilds and healthier livestock.

The McGarvie Smith Insitute was used to develop and manufacture a single shot anthrax vaccine that helped develop Australia's live export industry. It then became Australia's first veterinary school, and was used as a research station by the University of Sydney.

Relevant Sites:

- The McGarvie Smith Farm
- The McMaster Field Station

Agricultural research



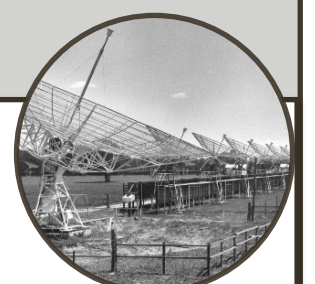
In the mid-twentieth century, there were two sites of significance built on the land of the former Fleurs Estate. The first was the Fleurs Aerodrome, built during the Second World War as part of a series of strategic airfields build by the RAAF. The airfield's role and rapid construction served as a testament to the advancing technologies of the Australian Defence Forces.

In the 1950's the Fleurs Radio Telescope Site was established, a home for the new Mills Cross Radio Telescope Array. The array was a new, more powerful way to design a radio telescope array. The site was home to two more milestones in radio astronomy, the Shain Cross and the Chris Cross.

Relevant Sites:

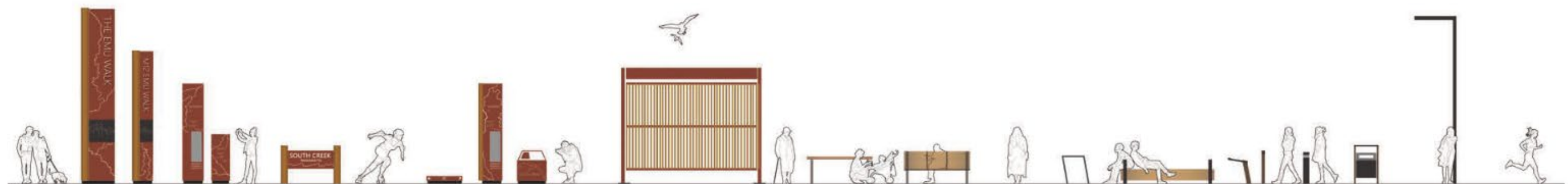
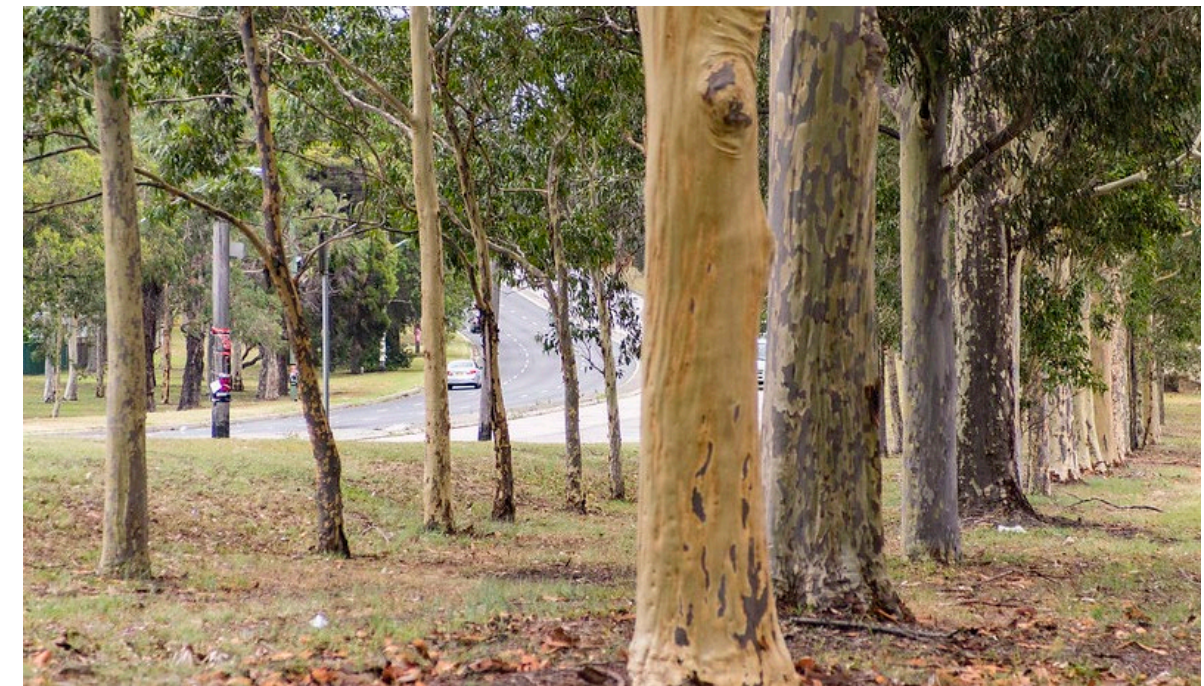
- Fleurs Aerodrome
- Fleurs Radio Telescope Site

Technological advancements



The Heritage Interpretation Framework identified a wide range of ideas and opportunities on the types of interpretation that could be installed for the M12 Motorway project. In collaboration with the project design teams, the following interpretation devices were selected for the shared path of the M12 Motorway.

- 







**EXTENT**

PEOPLE-CENTRED  
**HERITAGE**

# DEVICE DESIGN AND PLANNING

This Part progresses the decision making around device selection and storytelling agreed to in the Interpretation Framework into the next stages required for a Heritage Interpretation Plan. It includes the identification of specific device locations, content development and concept design.

## 4.1 Device detail

As part of the framework a series of specific devices were agreed to. The following table includes an itemised list of these and the summary details of each.

Figure 5 details the proposed locations of each of these devices.

Part 5 includes more information relating to the content of each individual sign and their design direction.

Location	Device and Description
<b>Upper Canal System</b>	<p><b>1.</b> Sign located adjacent to the shared path. The sign is titled Innovation and Ingenuity: A Solution to Sydney's Water Crisis. The sign provides an account of one of Sydney's worst droughts and the Hudson Brother's Temporary Scheme.</p> <p><b>2.</b> Sign located adjacent to the shared path. The sign is titled A Feat of Engineering: The History and Design of the Upper Canal System. The sign provides an account of the design and construction of the Upper Canal System.</p> <p><b>3.</b> A cast iron inlay situated in the shared path in the leadup to Device 1. The text reads Innovation and Ingenuity.</p> <p><b>4.</b> A cast iron inlay situated in the shared path in the leadup to Device 2. The text reads A Feat of Engineering.</p>
<b>McGarvie Smith Farm</b>	<p><b>5.</b> Sign located adjacent to the shared path. The sign is titled Turkey Nests and Milking Sheds: The McGarvie Smith Farm. The sign provides an account of the agricultural research that was undertaken at the McGarvie Smith Farm.</p> <p><b>6.</b> A cast iron inlay situated in the shared path in the leadup to Device 5. The text reads Turkey Nests.</p>

Location	Device and Description
<b>Fleurs Aerodrome</b>	<p><b>7.</b> Sign located adjacent to the shared path. The sign is titled RAAF's Home in Badgerys Creek: Fleurs Aerodrome. The sign provides an account of the construction and use of Fleurs Aerodrome during World War II and the site's post-war use.</p> <p><b>8.</b> A cast iron inlay situated in the shared path in the leadup to Device 7. The text reads RAAF in Badgerys Creek</p> <p><b>9.</b> A site for a potential landscape works on either side of the M12 Carriageway where the Fleurs Aerodrome would have been.</p>
<b>Fleurs Radio Telescope Site</b>	<p><b>10.</b> Sign located adjacent to the shared path. The sign is titled Echoes of Space: Radioastronomy. The sign provides an overview of the concept of radioastronomy and identifies Australian sites of radioastronomy research.</p> <p><b>11.</b> Sign located adjacent to the shared path. The sign is titled Australia Looks to the Stats: Fleurs Radio Telescope Site. The sign provides an account of the development of the Fleurs Radio Telescope Site from the Mills Cross through to the CSIROs sale of the site to the University of Sydney.</p> <p><b>12.</b> A cast iron inlay situated in the shared path in the leadup to Device 10. The text reads Echoes of Space.</p> <p><b>13.</b> A cast iron inlay situated in the shared path in the leadup to Device 11. The text reads To the Stars.</p> <p><b>14.</b> A site for a potential art installation emulating the aesthetic of the Fleurs Radio Telescope Site by erecting timber poles that would resemble the posts that were part of the radio telescope arrays.</p>



Location	Device and Description
McMaster Field Station	<p><b>15.</b> Sign located adjacent to the shared path.</p> <p>The sign is titled Sydney's Food Bowl: Farming and Research at Badgerys Creek.</p> <p>The sign provides an account of the development of Western Sydney and as a centre for agriculture.</p> <p><b>16.</b> Sign located adjacent to the shared path.</p> <p>The sign is titled Agricultural Research and Innovation: McMaster Field Station.</p> <p>The sign provides an account of the McMaster Field Station and the research that was undertaken there.</p> <p><b>17.</b> A cast iron inlay situated in the shared path in the leadup to Device 15.</p> <p>The text reads Sydney's Food Bowl.</p> <p><b>18.</b> A cast iron inlay situated in the shared path in the leadup to Device 16.</p> <p>The text reads Agricultural Innovation.</p>



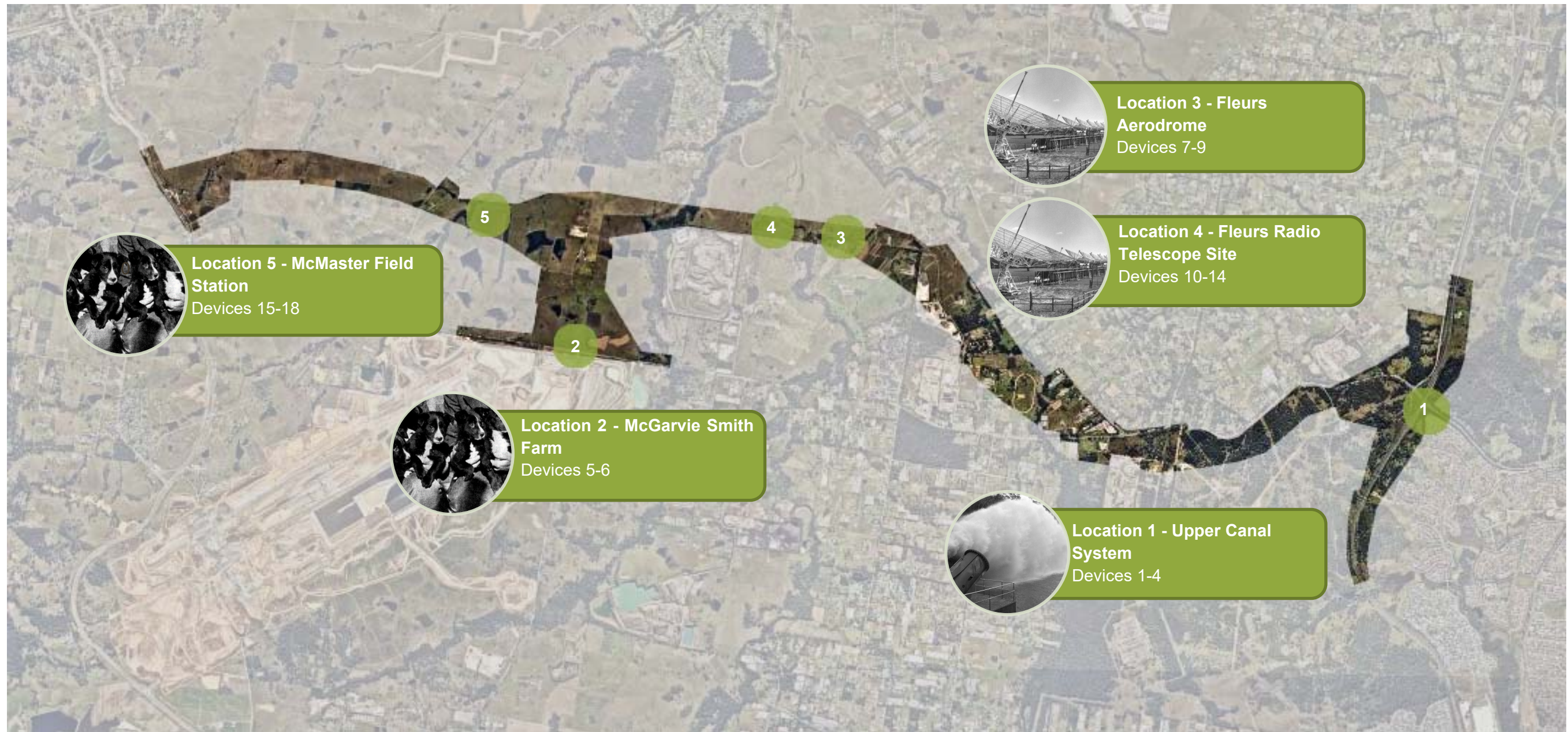


Figure 5. Map of the study area with the five locations marked out, the images attached reflect the site's relation to the site-specific themes in 3.4 Thematic framework.



## 4.2 Concept design directions

### Design language: colour and materiality

These colours and materials acted as the inspiration for the design of the signs, their mountings, and the rostered cutout which will be located at each location.



### Design language: duality and contrast

The themes of duality and contrast can be seen in the designs of the signs, which makes use of contrasting rounded and angular linework.



## 4.3 Material specifications

The following Part includes preliminary advice relating to materiality, dimensions a maintenance. Additional detail should be provided during the implementation phase, in collaboration with manufacturers and installers.

Please note that all measurements are guideline and approximate only. Detailed specifications need to be finalised in the implementation stage in collaboration with fabricators.



Figure 6. Impression of the shared path with signage and path inlay.



## Signage size and materials advice

### *Interpretation graphics panel*

**Size:** 1400 x 380mm (approximate)

Printed in vitreous enamel (VE): a glass coating chemically bonded to steel at high temperatures of around 850°C, providing the hardness of glass and the strength of steel. This process provides a finished product that holds superior UV, scratch and graffiti resistance. Utilised for harsh outdoor conditions or extreme high traffic areas, VE provides the longest lifespan for colour fastness and durability.

### *Graphics stand*

**Size:** Height of the bottom panel: 750mm (approximate)

**Depth of the installed Interpretation graphics panel:** 400mm (approximate)

Made from weathered steel (Corten). Corten is steel cladding designed to provide a rusted coating on the face of the steel, while not rusting the internal structure of the steel sheet. Increasingly utilised as an architectural feature, Corten sheets can be laser cut, folded and fabricated to suit nearly any requirement.



Figure 7. Routed cutout pattern in the vertical surface of the graphics stand.

## Path inlay size and materials advice

### Path theme text

#### *Lettering specifications*

- 250mm high
- Widths vary

#### *Concrete specifications*

- As per detailed design specifications for concrete shared path

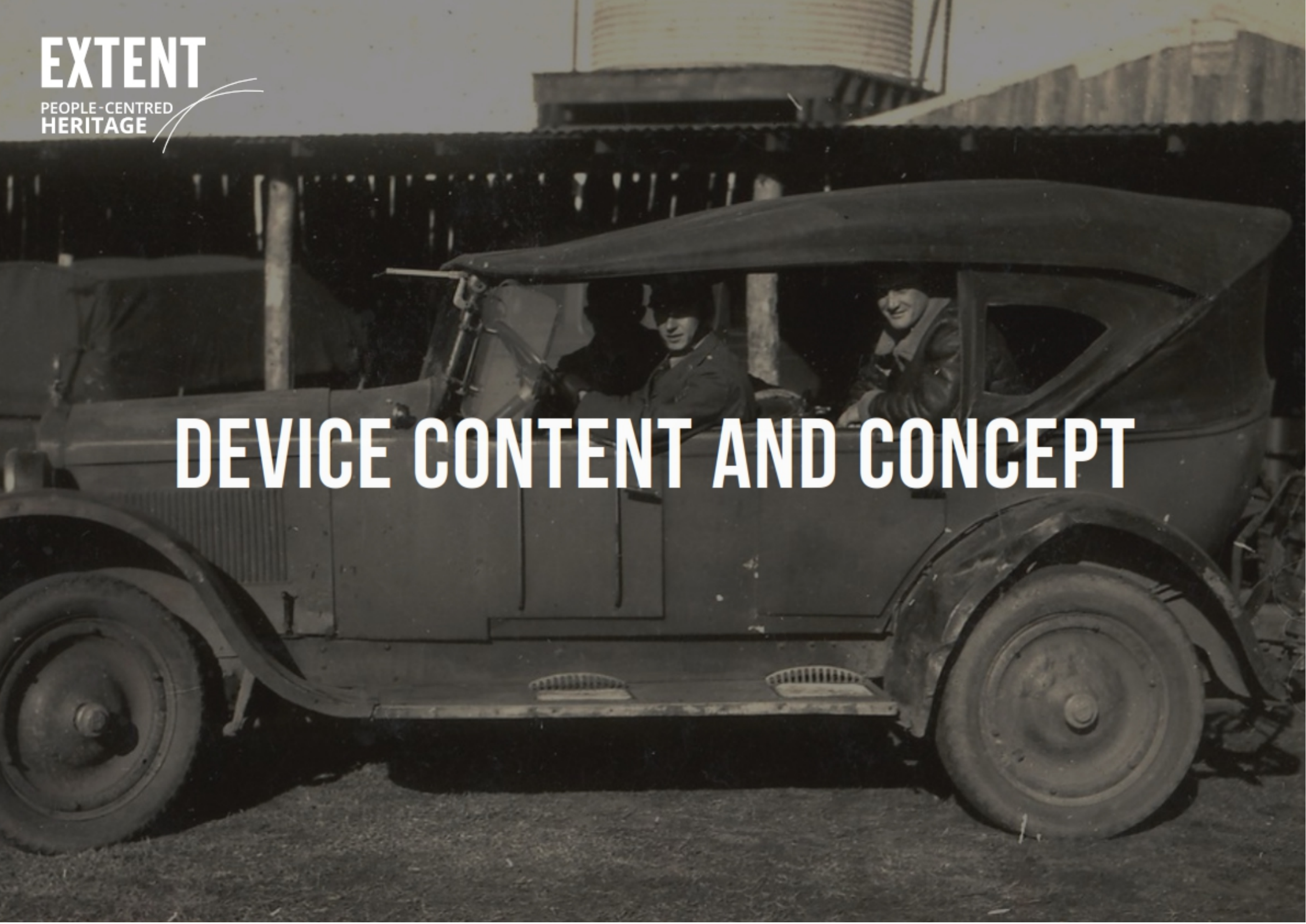
#### *Decorative features*

- Cast iron or mild steel lettering inlayed into concrete shared path

**EXTENT**

PEOPLE-CENTRED  
HERITAGE

# DEVICE CONTENT AND CONCEPT





This Part includes detail relating to each individual device, including location, content and concept designs.

## 5.1 Device 1 (Location 1): Interpretive sign

Device 1 is an interpretive sign describing one of Sydney's worst water crises and the Hudson Brothers' Temporary Scheme. Transport for NSW will consult further with WaterNSW during detailed design of the interpretive signage to refine and finalise the text and visual content.

### Proposed text content

#### **Innovation and Ingenuity: A solution to Sydney's water crisis**

The wooden pipes of the Hudson Brothers' Temporary Scheme were sealed with bitumen, making the water smell and taste slightly of tar.

In this climate characterised by drought and flood, the demand for a reliable source of clean water will always be an issue for the development of a city. Since the nineteenth century, Sydney has had to regulate its water consumption, and planners have had to think carefully about how to support the demands of a growing city.

In the second half of the nineteenth century, Sydney was in desperate need of a new water supply. A series of droughts compounded existing problems caused by aging infrastructure and a growing population. In 1869 the Upper Nepean Scheme was first proposed to address the needs of the city. The scheme was designed to draw water from the Cataract, Cordeaux, Nepean, and Avon rivers and began construction in 1880.

#### **The Hudson brothers' ingenious solution**

In 1885 Sydney's demand for water was dire, with only ten days' worth of water left in the dams. In response to this crisis, the Minister for Public Works enlisted the help of the Hudson brothers, who suggested using timber to construct a temporary system of flumes to bridge incomplete sections of the Upper Canal. Using timber allowed the Hudson brothers and their team to rapidly build the structure, ensuring Sydney's water supply until the Upper Canal System was completed in 1888.

#### **Quenching an ever-growing thirst**

In 1935 the Upper Nepean Scheme expanded further as more of its rivers were dammed. While Sydney is far from immune to the effects of drought, infrastructure like the Upper Canal System helps maintain a consistent and reliable supply of potable water for the city and its inhabitants.

### Proposed visual content



#### *Image caption*

The Hudson Brother's Temporary Scheme being built alongside the Upper Canal System, 1896. The pipeline on the left is part of the Upper Canal System, while the timber fluming on the right is the Hudson Temporary Scheme bridging the incomplete sections of the Upper Canal System.

#### *Image source*

Image file available at: <https://dictionaryofsydney.org/media/2580>

A solution to  
Sydney's water crisis

## Innovation and Ingenuity

**The wooden pipes of the Hudson Brothers' Temporary Scheme were sealed with bitumen, making the water smell and taste slightly of tar.**

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The Hudson Brothers' Temporary Scheme  
flume, built through the Upper Canal  
System, 1885. The flume is the last  
part of the Upper Canal System, while the  
flume flume, and the flume is the Hudson  
Temporary Scheme for the temporary  
scheme of the Upper Canal System.  
Hudson Brothers - Historical of Sydney



Location within study area



Figure 8. Map showing the location of the Upper Canal System Location 1 signage and concrete inlays. *Source: TfNSW (2021).*

## 5.2 Device 2 (Location 1): Interpretive sign

Device 2 is an interpretive sign describing the history of the Upper Canal System. Transport for NSW will consult further with WaterNSW during detailed design of the interpretive signage to refine and finalise the text and visual content.

### Proposed text content

#### **A feat of engineering: The history and design of the Upper Canal System**

'After having suffered considerable hardships for many years on account of the inadequate supply of water, the residents in Sydney and suburbs have at length been relieved from anxiety for the future.'

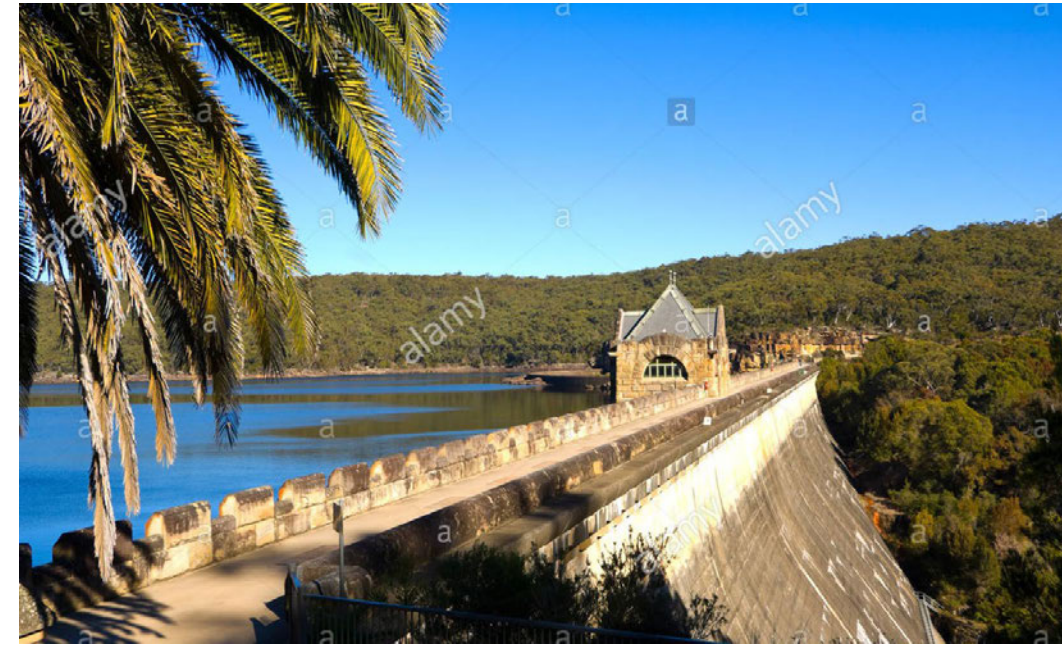
'The New Sydney Water Supply,' *Australian Town and Country Journal*, 3 September 1887

Constructed in the 1880s, the Upper Canal is a feat of engineering, carrying anywhere from 20 to 40 per cent of Sydney's water supply on any given day. Channeling the water from four separate dams, the system is made up of 64 kilometers of gravity-fed tunnels, canals, and aqueducts, transporting water from the Upper Nepean Scheme to the Prospect Reservoir. The canal moves all this water without any pumping; instead, the whole system follows an almost imperceptible downward incline, letting gravity do the work.

Traveling from the town of Appin in Sydney's south-west, the Upper Canal travels through bushland and suburbs, under hills and over rivers. The vast majority of the Upper Canal System, some forty-four kilometers, is visible as a series of open above-ground canals. Nineteen kilometers of the system is made up of underground tunnels, while the remaining kilometer consists of culverts and aqueducts, which carries the water across nine creeks and one railway line.

As the canal travels through different terrains, it adapts to its surroundings, using different forms and materials. In some sections the canal is 'U-shaped' and lined with sandstone masonry, while in other sections, the canal takes on a trapezoidal shape and is lined with concrete. At times, the canal is carved into solid stone and is unlined, using the natural material to carry the water on its way to Sydney's homes.

### Proposed visual content



#### *Image caption*

Cataract Dam is one of the four dams that supplies water to the Upper Canal System, the other three being Cordeaux, Nepean, and Avon. When The Upper Canal Scheme was built, none of these rivers were dammed, but in order to guarantee a consistent water supply, construction of the Cataract Dam began in 1902 and the others followed over the next 33 years.

#### *Image source*

Image file available at: <https://www.alamy.com/stock-photo-cataract-dam-appin-new-south-wales-australia-49679737.html>



**The history and design of the Upper Canal System**

**A Feat of Engineering**

**'After having suffered considerable hardships for many years on account of the inadequate supply of water, the residents in Sydney and suburbs have at length been relieved from anxiety for the future.'**

'The New Sydney Water Supply,' Australian Town and Country Journal, 3 September 1887

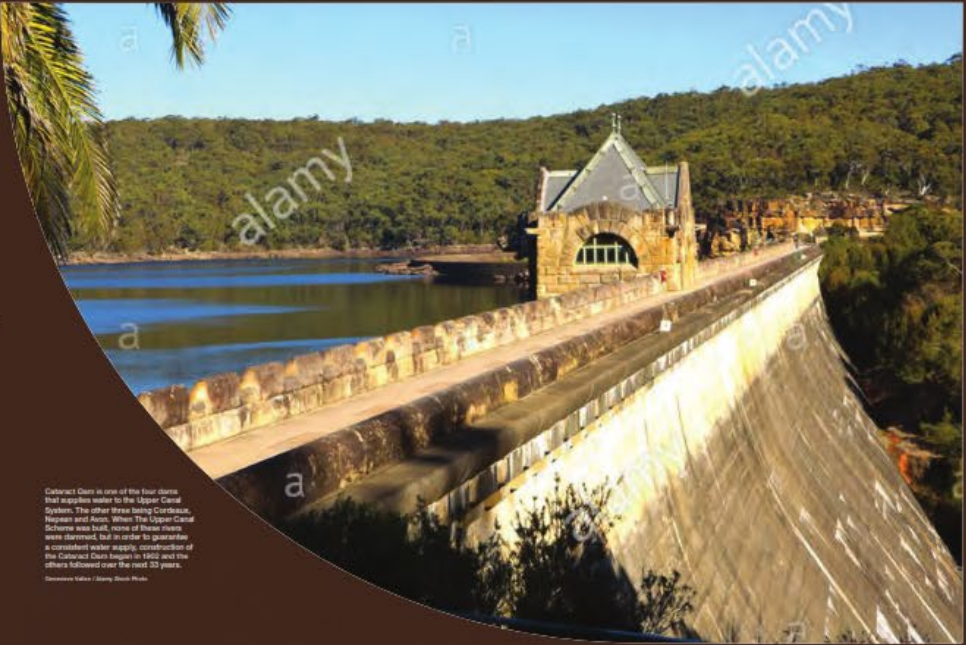
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Cabrera Dam is one of the four dams that provide water to the Upper Canal System. The other three being Cordeaux, Nepean and Rose. When the Upper Canal Scheme was built, none of these dams were designed, but in order to generate a consistent water supply, construction of the Cordeaux Dam began in 1882 and the others followed over the next 50 years.



Location within study area



Figure 9. Map showing the location of the Upper Canal System location 1 signage and concrete inlays. *Source:* TfNSW (2021).



### 5.3 Device 3 (Location 1): Shared path inlay

Device 3 is an inlay in the shared path with the words '**Innovation and Ingenuity**'.

The intention is to alert users to the presence of Device 1.



#### 5.4 Device 4 (Location 1): Shared path inlay

Device 4 is an inlay in the shared path with the word '**A feat of engineering**'.

The intention is to alert users to the presence of Device 2.





## 5.5 Device 5 (Location 2): Interpretive sign

Device 5 is an interpretive sign that provides information on the history of the McGarvie Smith Farm.

### Proposed text content

#### **Turkey nests and milking sheds: The McGarvie Smith Farm**

The very first class of veterinarians ever trained in Sydney studied and practiced just meters from here. The McGarvie Smith Animal Husbandry Farm was Sydney University's first veterinary farm, where students were trained in both animal husbandry and veterinary science from 1937 to 1955.

The farm was named after bacteriologist John McGarvie Smith, who not only donated the land for the institute, but was also famous for developing a single dose anthrax vaccine for sheep and cattle in the 1890's. McGarvie Smith gifted his vaccine to the NSW government on his deathbed, and following his death in 1918 the land was, fittingly, used by the CSIRO to produce the vaccine. This played a critical role in the development of Australia's live export industry. Sydney University acquired the land in 1937, and with assistance from the Department of Public Works, developed a farm and a school here. Paddocks were subdivided, milking sheds, stables and barns were constructed, and crops were sown.

#### **A turkey nest for cattle**

The farm was also an important research institute, pioneering new agricultural techniques and strategies. One of the most significant developments was a revolutionary new way to store water along flat surfaces known as 'the turkey nest dam'. A turkey nest dam is an above ground, shallow dam which would slowly feed water into a cattle trough using gravity. This served a dual purpose of saving water and providing water for livestock. Turkey nest dams have been used across Australia but are most commonly found in NSW. The dam's rather interesting name comes from the fact that turkeys, unlike most birds, build their nests on the ground.

Proposed visual content



*Image caption*

A group of Indian farmers studying farming practices at the McGarvie Smith Farm, 1955. As part of the Colombo Plan (a cooperative economic plan) these farmers came to Australia to study a revolutionary new water conservation technology that could store water while also distributing it to livestock: the turkey nest dam.

*Image source*

Image file available at: <https://trove.nla.gov.au/work/231050974>



*Image caption*

A photograph of John McGarvie Smith in his NSW colonial military uniform. McGarvie Smith served as a rifleman from 1874 until 1882, reaching the rank of Lieutenant. McGarvie Smith was a crack shot and captained a competitive shooting team on a trip to the USA.

*Image source*

Image file available at: <https://trove.nla.gov.au/work/235951934>



## Graphic Panel Layout

The McGarvie Smith Institute

# Turkey Nests and Milking Sheds

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A group of future farmers studying farming practices at the McGarvie Smith Institute, 1937. As part of the Centenary Plan to commemorate the centenary of the McGarvie Smith Institute, the McGarvie Smith Institute is commemorating the centenary of the McGarvie Smith Institute by displaying a collection of photographs and artefacts that would have been used at the McGarvie Smith Institute, the Turkey Nest dam.

A photograph of John McGarvie Smith in his 1918 military uniform. McGarvie Smith served as a lieutenant from 1915 until 1918, receiving the rank of lieutenant. McGarvie Smith was a war hero and captured a German prisoner of war from a trip to the USA.

State Library of New South Wales

## Location within study area

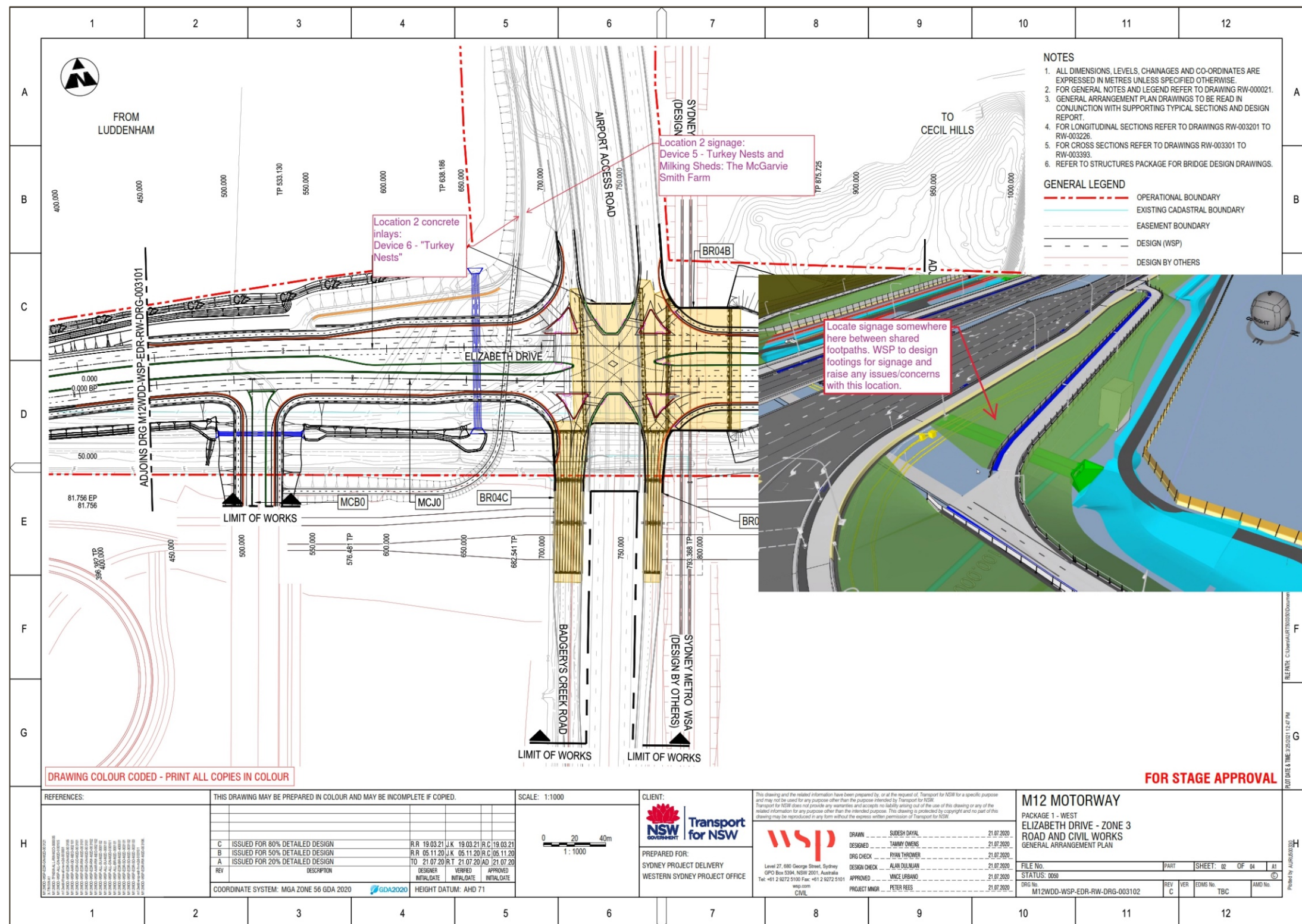


Figure 10. Map showing the location of the McGarvie Smith Farm location 2 signage and concrete inlays. Source: WSP (2021).



## 5.6 Device 6 (Location 2): Shared path inlay

Device 6 is an inlay in the shared path with the word '**Turkey nests**'.

The intention is to alert users to the presence of Device 5.



## 5.7 Device 7 (Location 3): Interpretive sign

Device 7 is an interpretive sign that provides information on the construction and uses of the Fleurs Aerodrome.

### Proposed text content

#### The RAAF's Home in Badgerys Creek: Fleurs Aerodrome

'Per Ardua ad Astra – Through Adversity to the Stars'  
- RAAF Motto

Airpower played a critical role in the Allies' tactics during World War II, with advancements in aerial technology meaning that planes were faster and more versatile than ever before. With the Pacific War drawing ever closer, it became increasingly obvious that Australia lacked the airpower or infrastructure to defend itself. In response to this threat, aerodromes were rapidly built across Australia.

#### Building the Aerodrome

In 1942, construction began on Fleurs Aerodrome, which was named after the historic estate located here. This new aerodrome was a joint project between the Royal Australian Air Force (RAAF) and the US Naval Air Force, which was originally intended to serve as a land base for American planes during the Second World War. Fleurs operated as one of two 'parent' aerodromes in the Greater Sydney region, meaning that it oversaw several 'satellite' aerodromes that fell under its control.

To accommodate the large number of planes that the US Army and Naval Airforce would have needed to land, initial plans for the site included three runways, although only two of these were ever constructed. One of the original farmhouses from the earlier estate was repurposed into accommodation for soldiers stationed on site.

#### The post-war years

After the war, Fleurs Aerodrome remained in use as an Emergency Landing Ground until 1954, when the nearby Fleurs Radio Telescope Site was established. In 1969 the aerodrome was considered as a potential site for Sydney's second airport, but Badgerys Creek was ultimately selected as the preferred location.

### Proposed visual content



#### Image caption

A P-39 Airacoba stationed at Fleurs Aerodrome, July 1942. This plane belonged to the 41st Fighter Squadron of the United States Army Air Force.

#### Image source

Image file available at: <https://www.flickr.com/photos/peacelovescoobie/5632844267/in/photostream/>



## Graphic Panel Layout

Fleurs Aerodrome

# RAAF's Home in Badgerys Creek

## 'Per Ardua ad Astra – Through Adversity to the Stars'

RAAF MOTTO

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P-51 Mustang stationed at Fleurs Aerodrome, July 1942. The plane belonged to the 48th Fighter Squadron of the United States Army Air Force. Source: National Archives, Badgerys Creek

## Location within study area

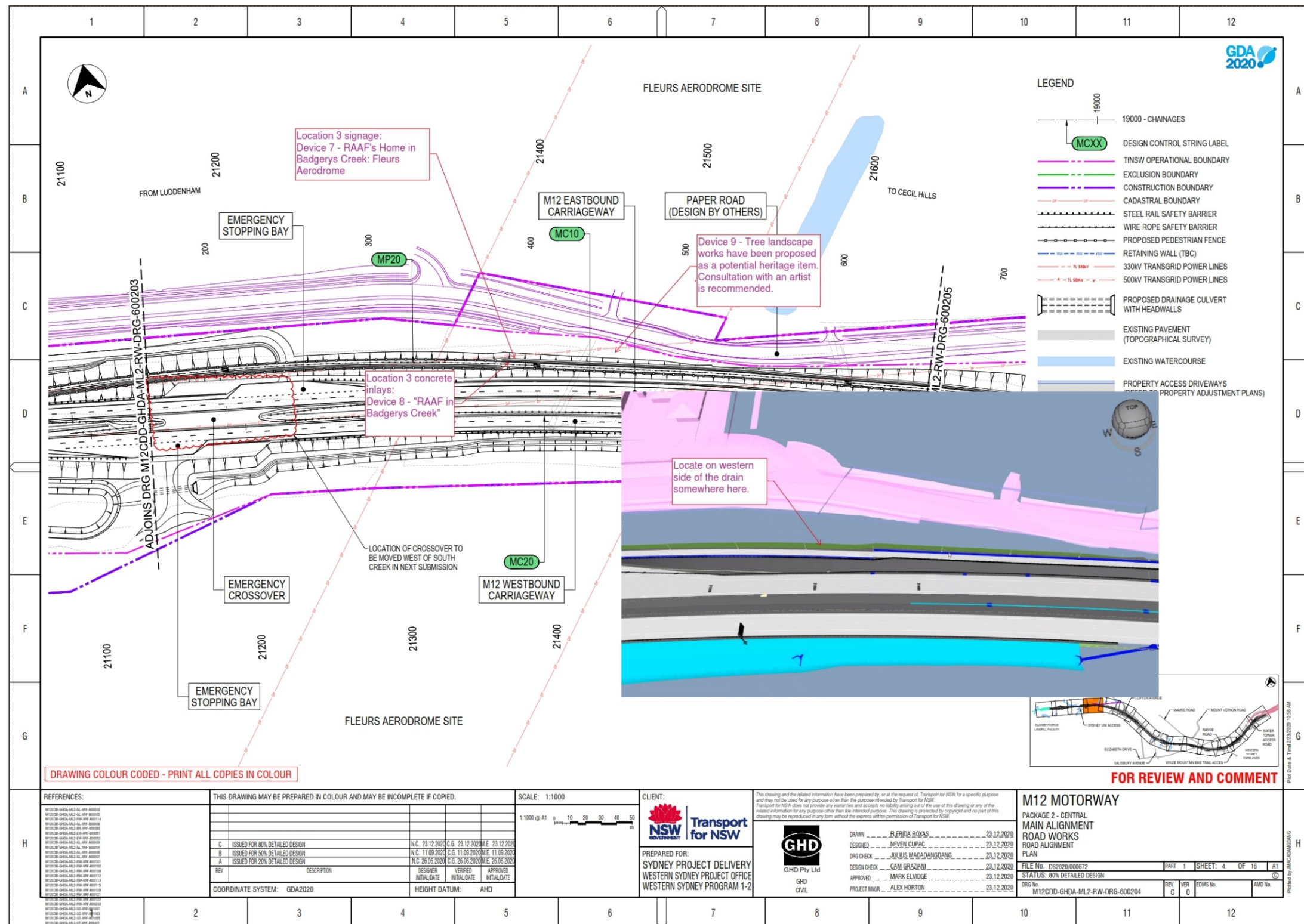


Figure 11. Map showing the location of Fleurs Aerodrome location 3 signage, concrete inlays, and tree landscape works. Source: GHD (2021).



### 5.8 Device 8 (Location 3): Shared path inlay

Device 8 is an inlay in the shared path with the word '**RAAF in Badgerys Creek**'.

The intention is to alert users to the presence of Device 7.





## 5.9 Device 9 (Location 3): Fleurs Aerodrome landscape works

The intent of this interpretation device is to create a physical and visual indicator of the location at which the Fleurs Aerodrome intersects with the M12 Motorway. This physical marker will be done through the planting of tree landscape works bordering both sides of the M12 carriageway.

### Limitations

Given the nature of this device, further input should be sought from a landscape designer to understand the site requirements for an installation of this type, technical specifications (i.e., tree species, soil, and bedding requirements), and potential budget.

### Draft design brief

Fleurs Aerodrome was built during World War II as part of a series of airfields made during the war to help defend Australia in the event of an invasion. Fleurs Aerodrome was one of only two 'parent' aerodromes operating in the Greater Sydney region; parent aerodromes oversaw smaller, 'satellite' airfields in a strategy known as aircraft dispersal. After the war the aerodrome was used for recreational flights.

The M12 Motorway will directly intersect with Fleurs Aerodrome. The purpose of this planting would be to indicate the location of where the aerodrome would have been. The planting would run the width of the runway at the point where it would have intersected with motorway. This tree planting would run parallel to the shared path on both sides of the carriageway, positioned near Devices 7 and 8. The purpose of this planting is to commemorate Fleurs Aerodrome and its association with this important chapter in Australian History.



Figure 12. Veil of Trees, The Domain, Sydney. *Source:* Janet Laurence.

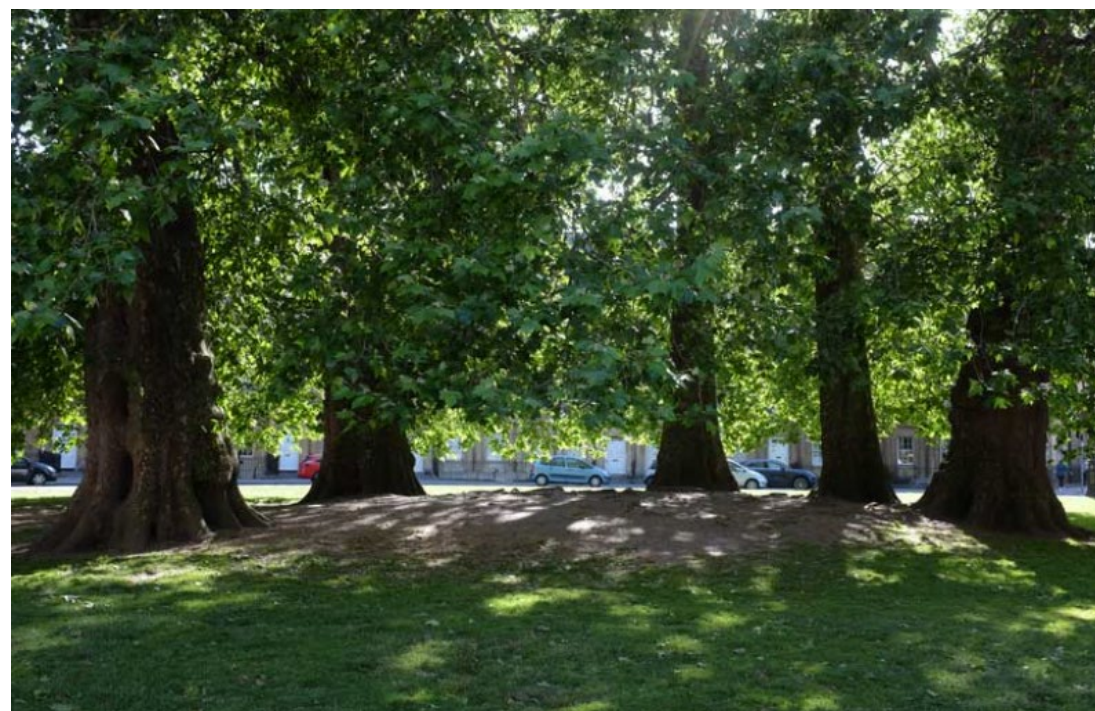


Figure 13. Circle of Trees. *Source:* The Bath Magazine.



Figure 14. Row of trees from Boston's Christian Science Plaza. *Source:* Deeproot.



## Location within study area

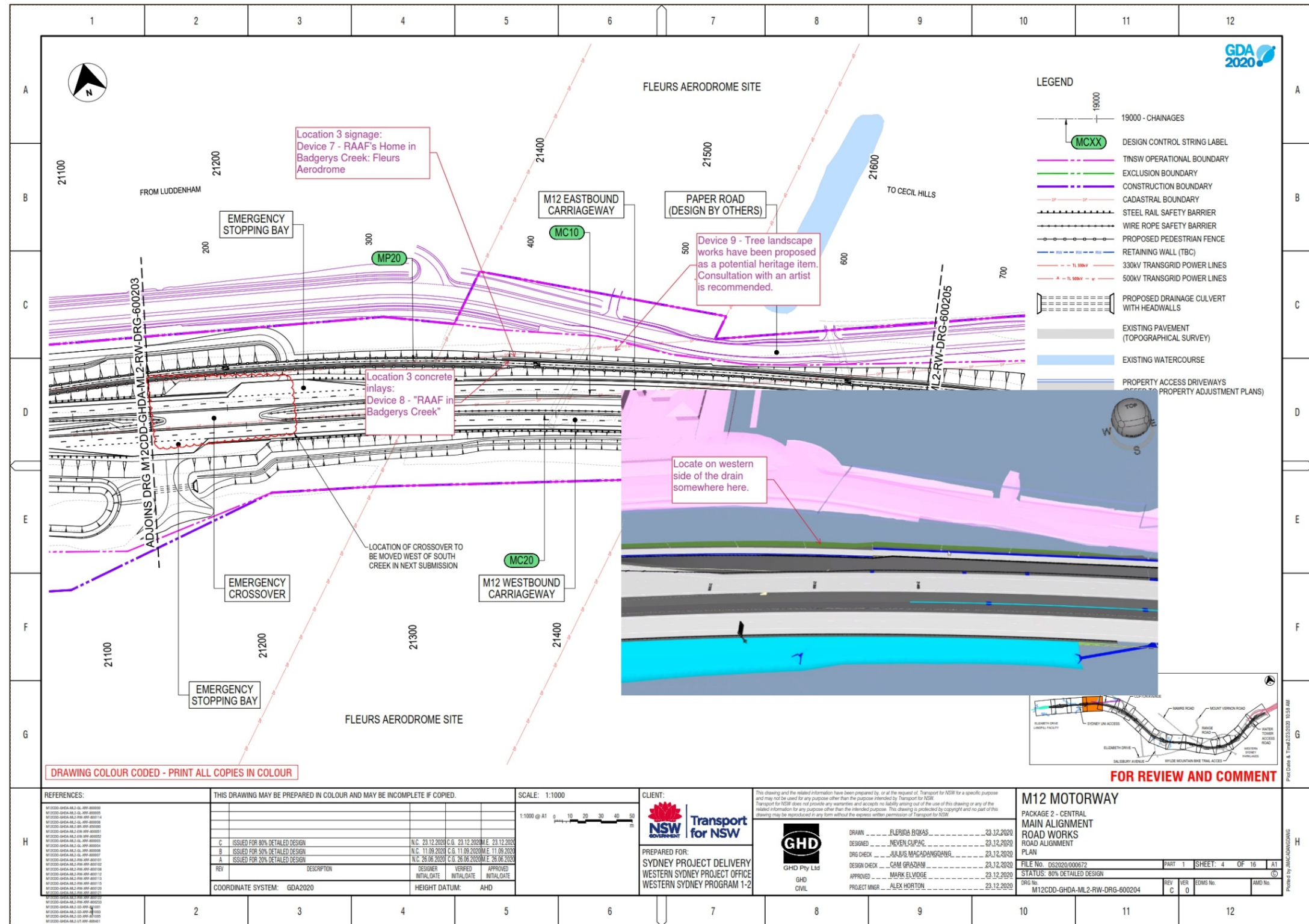


Figure 15. Location 3, Device 9: A proposed planting of trees at the intersection of the M12 Motorway and Fleurs Aerodrome. *Source:* GHD (2021).

## 5.10 Device 10 (Location 4): Interpretive sign

Device 10 is a sign that provides a basic explanation on the science of radiophysics. TfNSW will undertake further consultation with Dr Alice Gorman during detailed design of the interpretive signage to refine and finalise the text and visual content.

### Proposed text content

#### Echoes of space: Radioastronomy

Australia has had several cutting-edge radio telescope stations, including the Fleurs Radio Telescope Site here in Badgery's Creek, and 'The Dish', located in Parkes.

Radiophysics is the study of radiation; looking at where it comes from and how it interacts with matter. It covers a number of sub-fields, including radio communications, radiology, radiolocation, and radio astronomy, which was an important area of research practised nearby at the Fleurs Radio Telescope Site.

#### Radio astronomy

Radio astronomy is the study of radio waves from space. Celestial bodies emit specific signals that can be detected by specialised equipment called radio telescopes. Radio telescopes resemble satellite dishes, concave sheets of metal pointed at the sky. The Fleurs Radio Telescope Site located to the north of here, housed several arrays of radio telescopes. Where traditional optical telescopes use lenses to magnify light, radio telescopes receive, boost, and record faint radio signals from deep space. Individual radio telescopes can be quite small and weak, but because they are electronic, they can be networked together across the country—or even across the globe—to get more accurate results. Also, unlike optical telescopes, which need the dark of the night sky, radio telescopes can receive signals 24 hours a day.

#### The final frontier

Radio astronomy has helped to identify entirely new celestial objects, such as quasars, pulsars, masers, and radio galaxies. They have even picked up a very subtle form of radiation called 'cosmic microwave background radiation', which is thought to date back to be beginnings of the universe. Fleurs Radio Telescope Site helped pioneer the field of radio astronomy and served as a precursor to the iconic Parkes Radio Telescope.

### Proposed visual content



#### Image caption

The Chris Cross radio telescope array at the Fleurs Radio Telescope Site, 1964. Made up of a networked series of 64 dishes, this radio telescope was at the cutting edge of its time. It was also the last CSIRO radio telescope developed at Fleurs Radio Telescope Site before they moved their operation to Parkes.

#### Image source

Image file available at: <https://trove.nla.gov.au/work/231299042?keyword=fleurs%20radio>



Graphic Panel Layout

Radioastronomy

# Echoes of Space

Australia has had several cutting-edge radio telescope stations, including the Fleurs Radio Telescope Site here in Badgery's Creek, and 'The Dish', located in Parkes.

Radiophysics is the study of radiation; looking at where it comes from and how it interacts with matter. It covers a number of sub-fields, including radio communications, radiology, radiolocation, and radio astronomy, which was an important area of research practised nearby at the Fleurs Radio Telescope Site.

**Radio astronomy**

Radio astronomy is the study of radio waves from space. Celestial bodies emit specific signals that can be detected by specialised equipment called radio telescopes. Radio telescopes resemble satellite dishes, concave sheets of metal pointed at the sky. The Fleurs Radio Telescope Site located to the north of here, housed several arrays of radio telescopes. Where traditional optical telescopes use lenses to magnify light, radio telescopes receive, boost, and record faint radio signals from deep space.

Individual radio telescopes can be quite small and weak, but because they are electronic, they can be networked together across the country—or even across the globe—to get more accurate results. Also, unlike optical telescopes, which need the dark of the night sky, radio telescopes can receive signals 24 hours a day.

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The Fleurs Radio Telescope Site, 1960s. Made up of a networked array of 66 dishes, the radio telescopes were at the cutting edge of the time. It was also the first CMB radio telescope developed at Fleurs Radio Telescope Site, before they moved their operations to Parkes. National Archives of Australia

## Location within study area

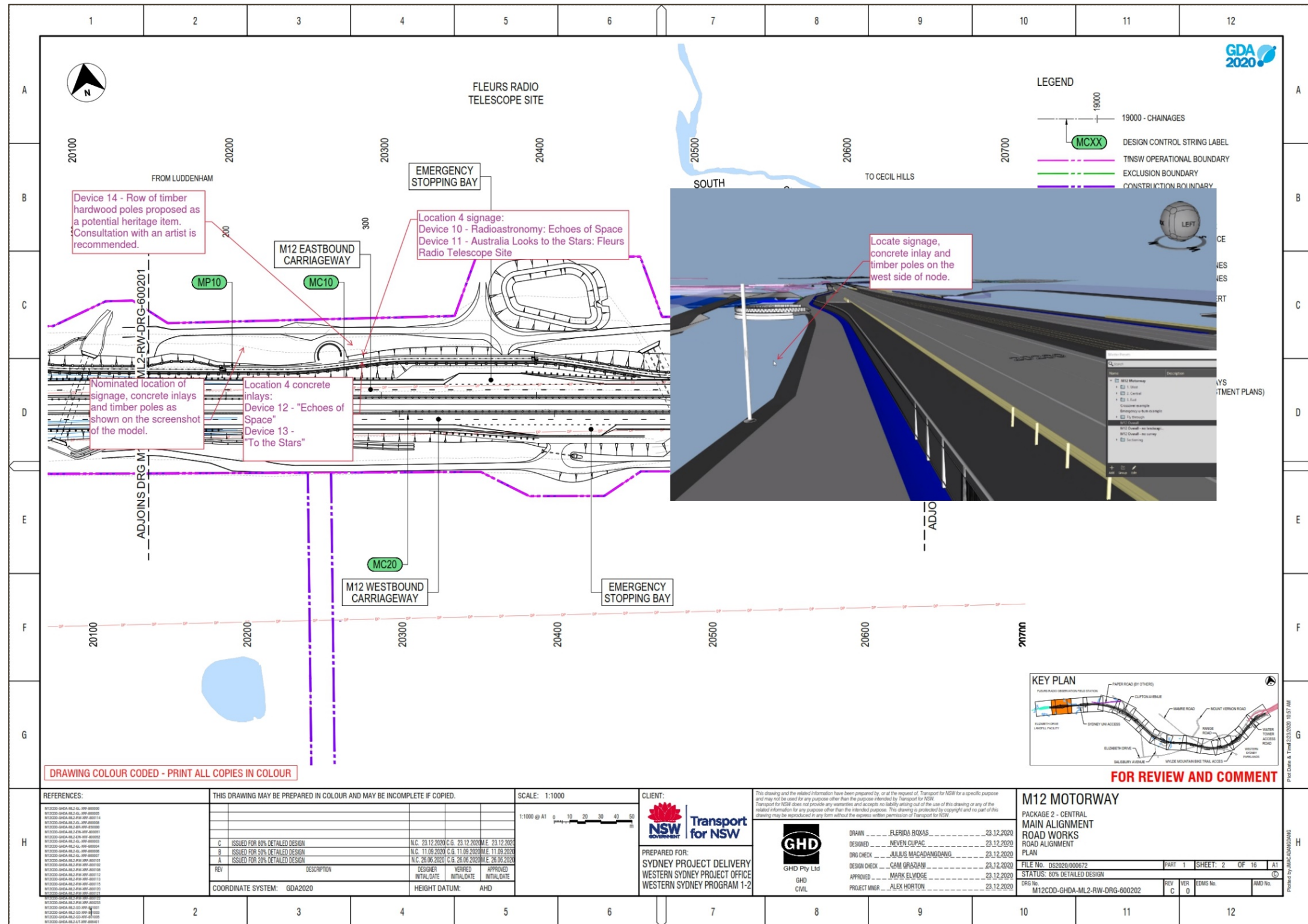


Figure 16. Map showing the location of Fleurs Radio Telescope Site, location 4; signage, concrete inlays, and timber pole installation. Source: GHD (2021).



## 5.11 Device 11 (Location 4): Interpretive sign

Device 11 is a sign that provides information on the development of the Fleurs Radio Telescope Site and its eventual decommission. TfNSW will undertake further consultation with Dr Alice Gorman during detailed design of the interpretive signage to refine and finalise the text and visual content.

### Proposed text content

#### Australia Looks to the Stars: Fleurs Radio Telescope Site

‘Through these radio telescopes Australia was able to maintain its place at the forefront of international radio astronomy.’

- *The Flowering of Fleurs: An Interesting Interlude in Australian Radio Astronomy*, by Wayne Orchiston and Bruce Slee, 2002

In 1953, radio physicist Bernie Mills and his team of CSIRO scientists created a prototype for a new, more powerful radio telescope array, the Mills Cross. After constructing a prototype, the CSIRO needed a location to build their new design, and a part of the historic Fleurs Estate was selected.

#### A hub for research

Fleurs Radio Telescope Site was established in 1954 as the site of the new Mills Cross, which surveyed the sky and catalogued sources of radio emissions from objects in the Milky Way and beyond until 1957. Soon, other radio telescopes were pioneered here too. In 1955 another radio physicist, Alex Shain moved his new aerial array telescope the Shain Cross to Fleurs in order to further test and develop his model. Working alongside the Mills Cross, the Shain Cross carried out surveys of the Milky Way, as well as cataloguing the rotation of Jupiter. In 1956 Fleurs also became home to the Chris Cross a radio telescope, invented by Wilbur Norman ‘Chris’ Christiansen. The Chris Cross required ample space, with sixty-four dishes, each measuring 6 metres wide, and was used to produce maps of the sun and investigate solar bursts.

#### The end of an era

The University of Sydney acquired Fleurs in 1963, where they continued to develop radio telescope technology. They launched the Fleurs Synthesis Telescope (FST) in 1973, which remain in operation until its closure in 1988. The Fleurs Radio Telescope Site was totally closed down in 1996.

### Proposed visual content



#### Image caption

Bruce Slee examining one of the chart recorders for the Mills Cross, 1955. The Mills Cross generated controversy when the data it collected contradicted the data collected by a team at Cambridge. It was eventually shown that the information collected by the Mills Cross was, in fact, correct.

#### Image source

Image file available at: <https://www.atnf.csiro.au/ATNF-DailyImage/archive/2016/25-Aug-2016.html>



*Image caption*

The centre of the Chris Cross array. The array was shaped like a cross (hence the name) running on a north-south and east-west axis, each 'arm' of the cross made up of thirty-two dishes. The centre is where the two arms intersected.

*Image source*

Image file available at: <https://www.atnf.csiro.au/news/newsletter/jun02/fig4.jpg>



Graphic Panel Layout

**Fleurs Radio Telescope Site**

# Australia Looks to the Stars

In 1953, radio physicist Bernie Mills and his team of CSIRO scientists created a prototype for a new, more powerful radio telescope array, the Mills Cross. After constructing a prototype, the CSIRO needed a location to build their new design, and a part of the historic Fleurs Estate was selected.

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The University of Sydney acquired Fleurs in 1963, where they continued to develop radio telescope technology. They launched the Fleurs Synthesis Telescope (FST) in 1973, which remain in operation until its closure in 1988. The Fleurs Radio Telescope Site was totally closed down in 1996.




Below: This is a composite view of the Chris Cross array for the Mills Cross. The Mills Cross generated enormous amounts of data collected by a team of Cambridge. It was eventually shown that the information collected by the Mills Cross was, in fact, correct. (200)

The centre of the Chris Cross array. The array was designed like a cross. Between the array sitting on a north-south and east-west axis, each end of the array made up of 32 dishes. The centre is where the two axes intersected. (Australia Telescope National Facility)

### Location within study area

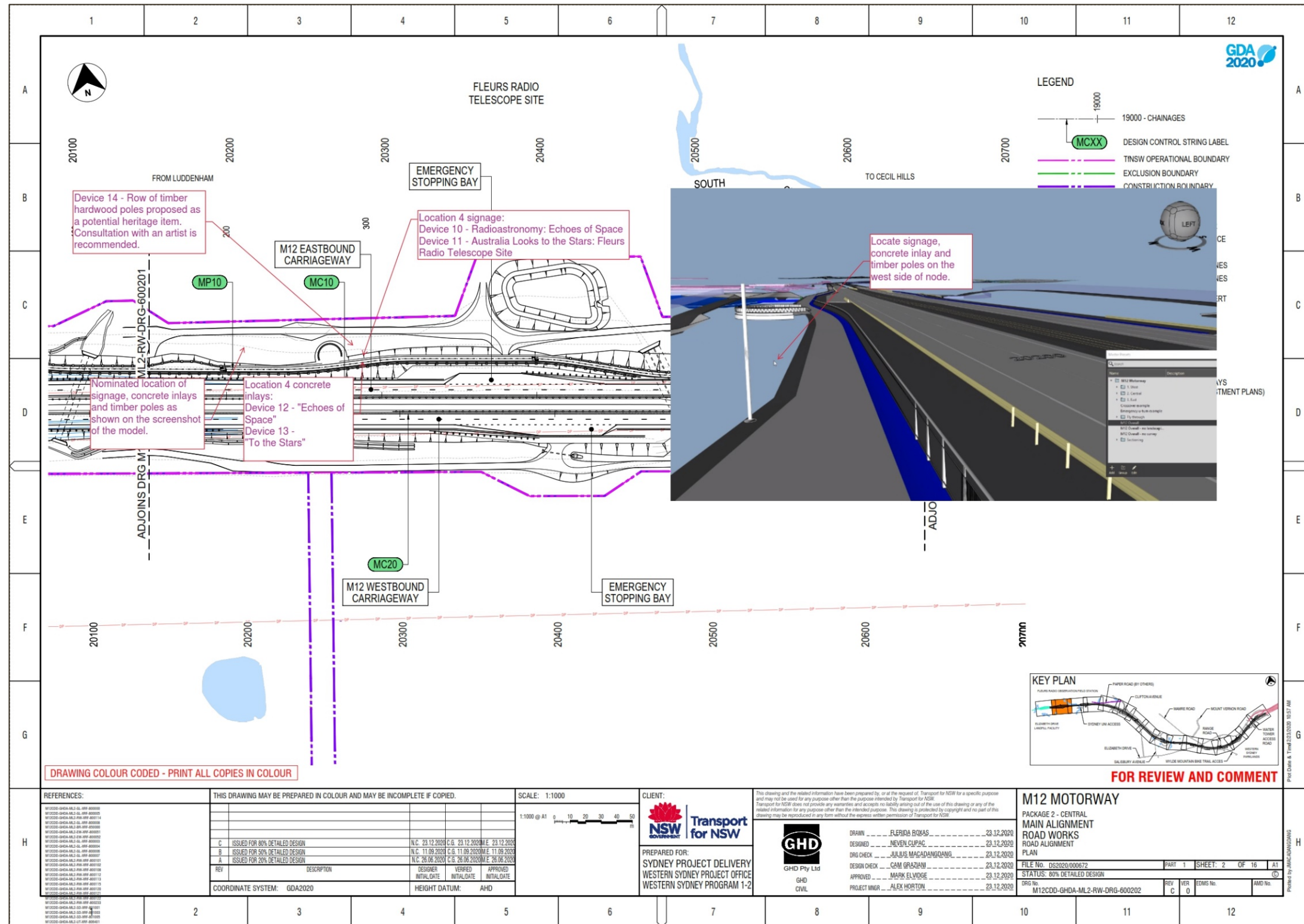


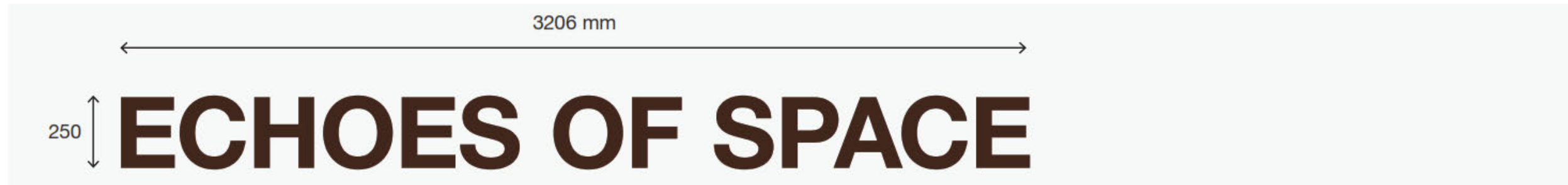
Figure 17. Map showing the location of Fleurs Radio Telescope Site, location 4 signage, concrete inlays, and timber pole installation. *Source:* GHD (2021).



### 5.12 Device 12 (Location 4): Shared path inlay

Device 12 is an inlay in the shared path with the word '**Echoes of space**'.

The intention is to alert users to the presence of Device 10.



#### 5.14 Device 13 (Location 4): Shared path inlay

Device 13 is an inlay in the shared path with the word '**To the Stars**'.

The intention is to alert users to the presence of Device 11.





## 5.15 Device 14 (Location 4): Fleurs Radio Telescope Site installation

The intention of this interpretation device is to create an artistic representation to the large cross array installations that were present at the Fleurs Radio Telescope Site.

Motorway installations are a specialist public art area, given the safety constraints and complexity in achieving the desired result. A public art consultant should provide advice relating to the installation given the proposed concept of a repeated hardwood pole which is stylised to emulate the cross array poles. This same approach has been used at the Lighthorse Interchange between the M4 and M7 motorways, where the repeated orange poles are a clear landscaping element with subtle, esoteric meanings. The public artist is to provide advice on the proposed concept and provide alternative options where relevant.

TfNSW will continue to consult Dr Alice Gorman during the detailed design of the Fleurs Radio Telescope Site installation as suggested by Heritage NSW.

The interpretation concept proposed in this plan is indicative and may change through detailed design based on feedback from the public artist and Dr Alice Gorman.

### Brief for public artist

Fleurs Radio Telescope Site was a CSIRO research facility in the 1950s and 60s which was used to pioneer several new radio telescope arrays. The technology developed at this site was cutting edge for its time and competed with some of the best in the world. The site was then sold to the Sydney University who took over the site, while the CSIRO invested in the radio telescope at Parkes.

The concept proposed for installation includes a row of timber hardwood poles utilising a design interpreting cross array poles and equipment. Sculptural pieces could be designed and constructed with an approach that references the recycled and ad hoc nature of equipment at Fleurs, which was constructed under post war rationing. This could include the use of recycled materials. The poles reflect one of the few extant visual features of the Fleurs Radio Telescope Site and these may or may not remain for much longer, so the purpose of this work is to enshrine their image.



Figure 18. The 'power poles' mark part of the N-S arm of the Shain Cross. Behind it are the Mills Cross and then the Chris Cross. *Source:* ATNF Historic Photographic Archive (5192-9).



Figure 19. Remnant pole at Fleurs. The original installation would have involved hundreds of these poles in a straight row. They would have supported various wires and insulators relating to the Shain Cross. *Source:* Extent Heritage.



Figure 20. View looking south showing the N-S arm and most of the E-W arm of the Mills Cross, with the receiver hut at the centre of the array. *Source:* ATNF Historic Photographic Archive (3476-3).

## Location within site

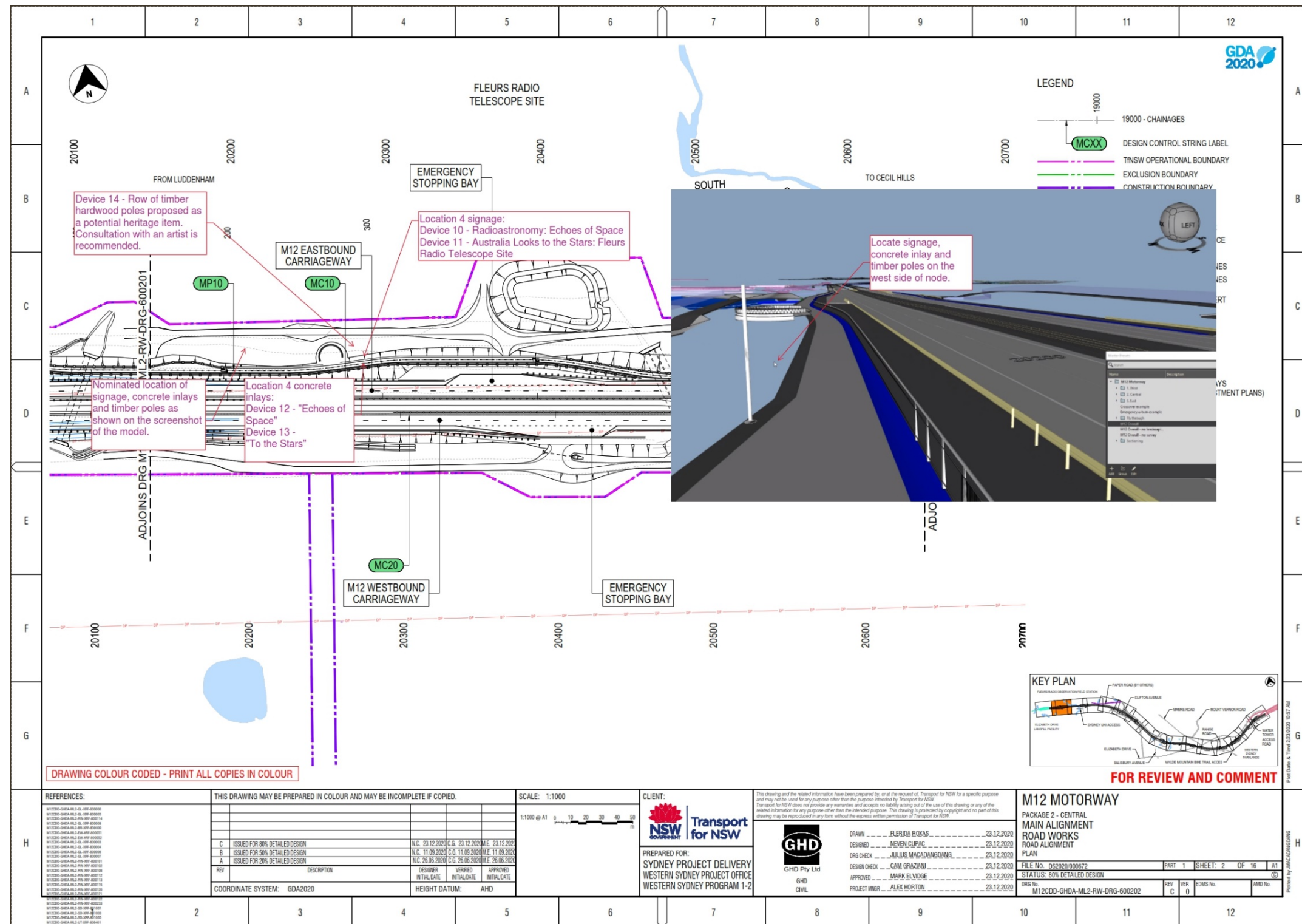


Figure 21. Location 4, Device 14, a proposed installation of a row of timber hardwoods reflecting the poles that would have stood at the Fleurs Radio Telescope Site. *Source:* GHD (2021).



## 5.16 Device 15 (Location 5): Interpretive sign

Device 15 is an interpretive sign that provides information on the agricultural history of Western Sydney and the M12 area.

### Proposed text content

#### **Sydney's food bowl: Farming and research at Badgerys Creek**

After the British arrived in Sydney Cove in 1788, they immediately set about trying to find suitable land for agriculture. Soon they spread west, displacing the Darug people from their traditional lands, and moving the colony's official heard of cattle here to roam and graze. Large land grants were made that allowed the colonists to establish productive farms, but this in turn had a devastating impact on the Darug people's access to food resources.

#### **Exeter Farm**

James Badgery, who was the first European to reside in the area established 'Exeter Farm', where he grew wheat and bred sheep, cattle, and racehorses. Exeter Farm extended northward from Elizabeth Drive, and Badgery gave his name to both the waterway and suburb. The M12 cuts through a notable portion of what was once Exeter Farm. Wheat was a popular crop in the region in the early nineteenth century, but this changed when the crops began suffering from a fungus known as 'rust'. After this outbreak, many farmers switched to growing citrus fruit and planting vineyards, though livestock remained popular.

#### **A hub for agricultural research**

This area soon became an important hub for agricultural research. CSIRO, its predecessor CSIR, and the University of Sydney all had important research stations here, such as the McMaster Field Station and the McGarvie Smith Animal Husbandry Farm. The McGarvie Smith Farm provided veterinary science students with the opportunity to work with large animals such as horses and cattle, and promoted a medical and scientific approach to animal care.

### Proposed visual content



#### *Image caption*

Property of Sir Frederick McMaster, Badgerys Creek, c.1923. McMaster was owned multiple stations where he ran sheep and cattle. He donated a significant amount of money, land, and livestock to the CSIRO across his lifetime.

#### *Image source*

Image file available at: <https://trove.nla.gov.au/work/231176974?keyword=mcmaster%20field%20station>

Graphic Panel Layout

Farming and research  
at Badgerys Creek

# Sydney's Food Bowl

After the British arrived in Sydney Cove in 1788, they immediately set about trying to find suitable land for agriculture. Soon they spread west, displacing the Darug people from their traditional lands, and moving the colony's official heard of cattle here to roam and graze.

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Property of Dr Frederick McMaster.  
Badgerys Creek, ca. 1922. McMaster  
was an early and influential advocate of  
the sheep and cattle. McMaster donated  
a significant amount of money, land, and  
equipment to the CSIRO and the University  
of Sydney.





## Location within study area

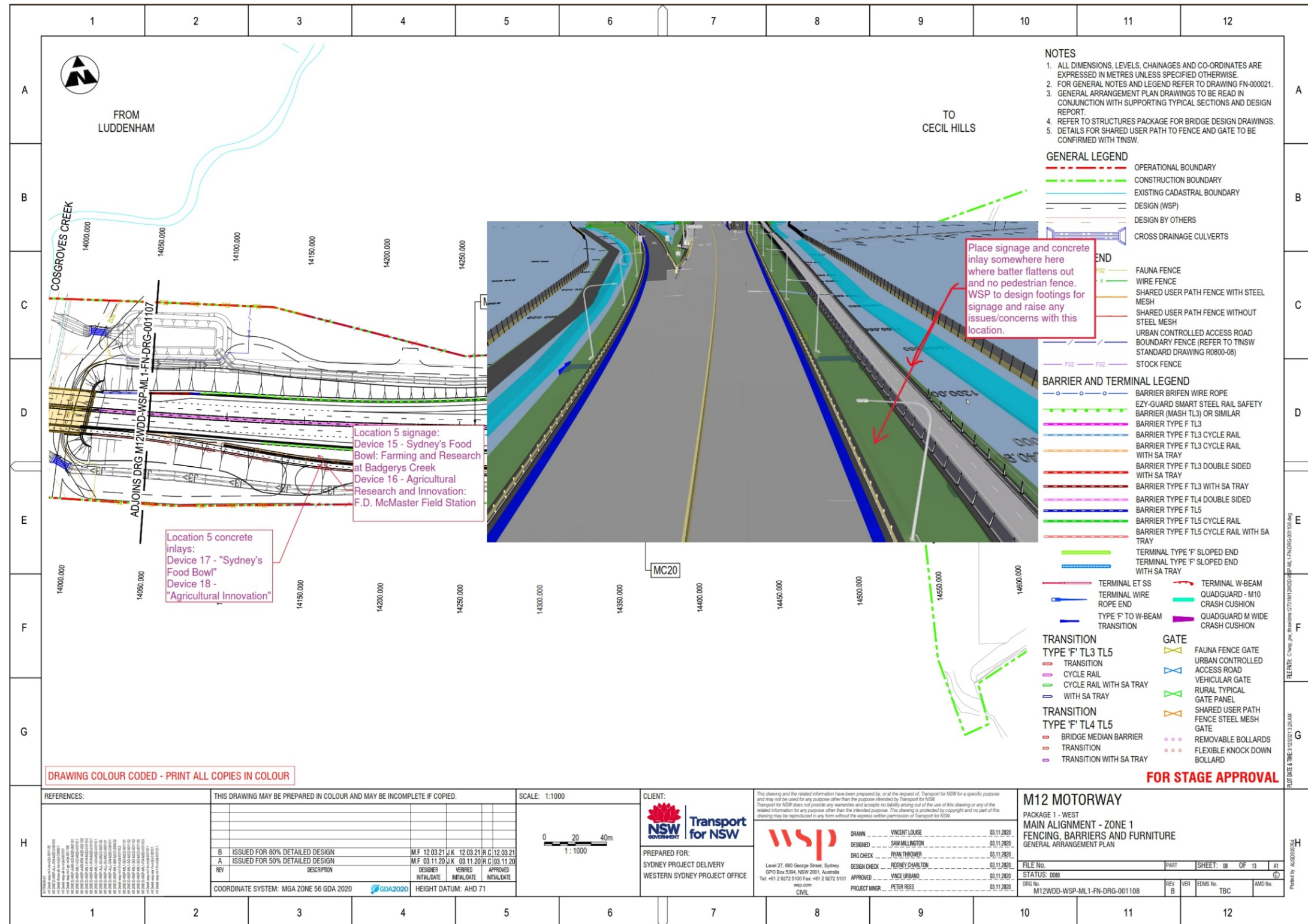


Figure 22. Map showing the location of McMaster Field Station, location 5 signage and concrete inlays. Source: WSP (2021).

## 5.17 Device 16 (Location 5): Interpretive sign

Device 16 is an interpretive sign that provides information on the research undertaken at the FD McMaster Field Station.

### Proposed text content

#### Agricultural Research and Innovation: McMaster Field Station

‘At a time when many primary producers were openly critical of the value of science in agriculture, Sir Frederick saw the need for the scientific approach and did everything possible to promote it.’

- ‘McMaster’s Aid to Science on Land’, *The Sydney Morning Herald*, 3 December 1954

The F D McMaster Field Station opened here in 1938, and was one of Australia’s earliest agricultural research stations. Named after prominent pastoralist and philanthropist Frederick McMaster, the station aimed to pursue targeted research into Australian agriculture. Researchers recognised that many of Australia’s agricultural practices had been inherited from Europe, and were not necessarily suited to the local climate and soils. By introducing a scientific approach, and gathering significant bodies of data, facilities like the McMaster Field Station were able to revolutionise Australian farming.

#### In search of the perfect fleece

Sheep were a particular focus for the scientists here, who wanted to find out how to grow the optimal fleece and sustain healthy, fertile flocks. Wool texture and chemistry, as well as bacterial issues like fleece rot, were studied to better understand their causes. This research was able to create a demonstrable change in the yield and quality of wool for multiple generations of sheep.

#### The Australian Milking Zebu

Their work on cattle also helped to shape the future of dairying in Australia. Jersey cows, which were a favoured breed in the cold damp British climate, had long struggled in Australian conditions. In the 1950s the CSIRO began developing a new breed of cattle at the McMaster Field Station by cross breeding the British Jersey cattle with Pakistani Sahiwal and Sindhi cattle, creating the Australian Milking Zebu (AMZ). The AMZ was a breed of dairy cattle that was adapted to the heat and resistant to cattle ticks. This program was hugely successful not only in Australia, but also internationally, with AMZ cattle being exported to other countries.

### Proposed visual content



#### Image caption

An Australian Milking Zebu (AMZ) at the McMaster Field Station, 1968. The initial Sahiwal cattle used in the creation of the AMZ were donated to the McMaster Field Station by the Pakistani Government. In 1959 the High Commissioner of Pakistan visited the farm to see the progress being made at the station.

#### Image source

Image file available at: <https://trove.nla.gov.au/work/231117149?keyword=mcmaster%20field%20station>



Graphic Panel Layout

**McMaster Field Station**

**Agricultural Research and Innovation**

**'At a time when many primary producers were openly critical of the value of science in agriculture, Sir Frederick saw the need for the scientific approach and did everything possible to promote it.'**

'McMaster's Aid to Science on Land', The Sydney Morning Herald, 3 December 1954

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An Australian Milking Zebu (AMZ) at the F.D. McMaster Field Station, 1958. The initial Sahiwal cattle used in the creation of the AMZ were donated to the F.D. McMaster Field Station by the Pakistan Government. In 1958 the High Commissioner of Pakistan visited the farm to see the progress being made at the station.

East Asia Research and Information Service  
Heritage Australia

## Location within study area

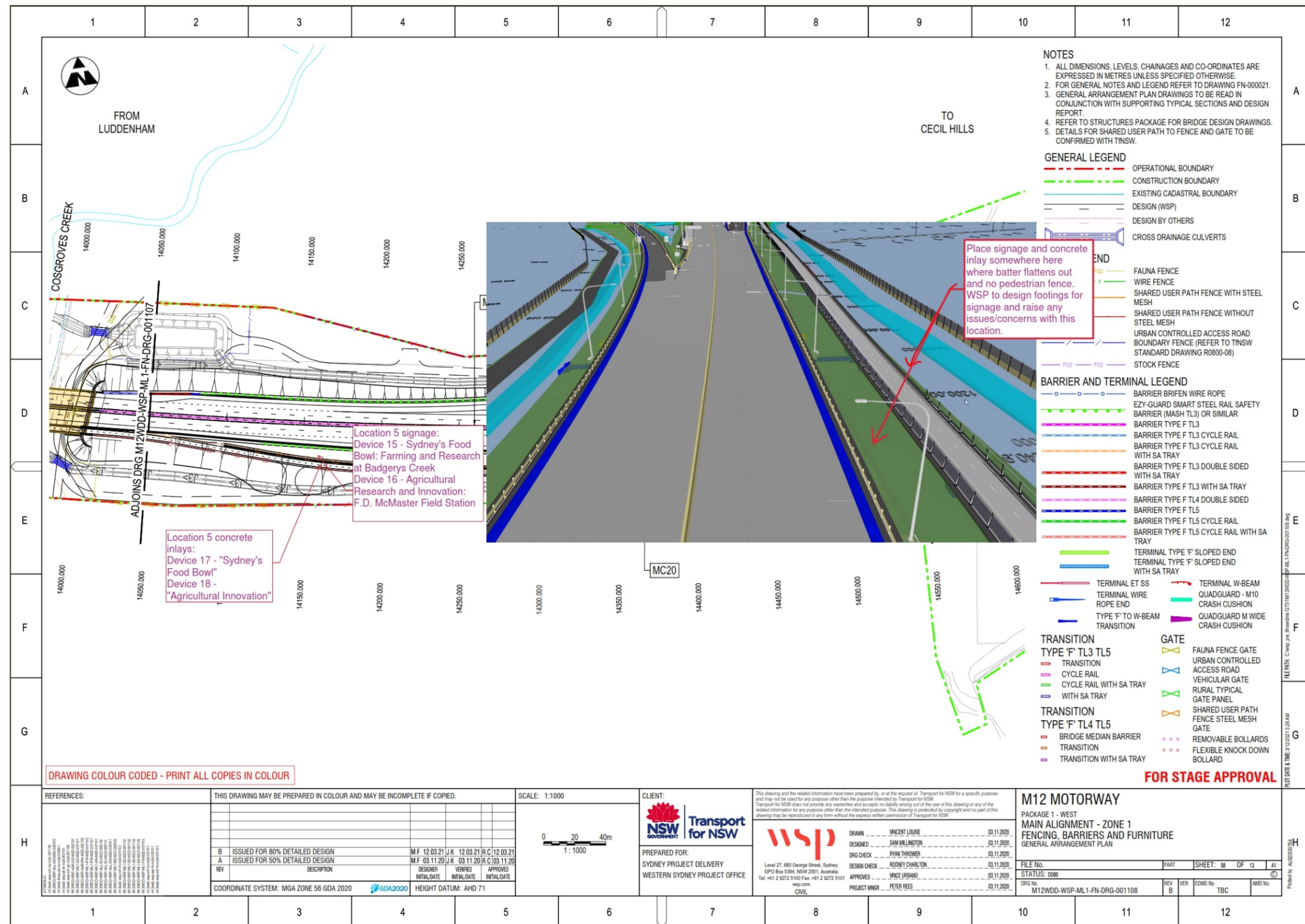


Figure 23. Map showing the location of McMaster Field Station, location 5 signage and concrete inlays. Source: WSP (2021).



### 5.18 Device 17 (Location 5): Shared path inlay

Device 17 is an inlay in the shared path with the word '**Sydney's food bowl**'.

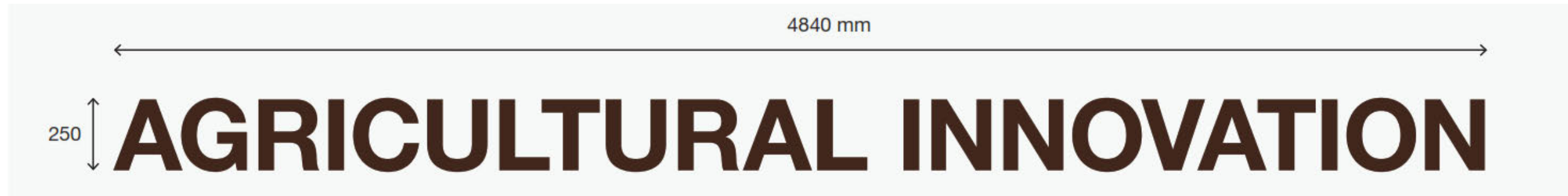
The intention is to alert users to the presence of Device 15.



### 5.19 Device 18 (Location 5): Shared path inlay

Device 18 is an inlay in the shared path with the word '**Agricultural innovation**'.

The intention is to alert users to the presence of Device 16.





## Next steps

This Plan has included detailed advice relating to the specific devices recommended for the M12 Motorway non-Aboriginal Heritage scheme. Details provided include:

- locations of proposed devices;
- text and graphic content;
- concept designs (where applicable); and
- content for consultant briefs (where applicable).

The next step in the finalisation of this Plan is to undertake consultation with relevant stakeholders and consent authorities, namely Heritage NSW. Once the Plan is finalised the next stage will be implementation.

In order to implement the plan the following steps should be taken:

- allocation of budgets for fabrication and installation
- preparation of final content and final print ready artwork
- securing of copyright clearances and permissions
- commissioning of public artists and landscape designers to design and implement devices 1 to 18
- consider appropriate location and design of one or more wayfinding signs to identify the location of heritage places (whether listed or not) along the M12 Motorway to give a bigger picture of heritage places/values along the corridor
- consider removability of shared user path inlays to avoid impact in the future due to maintenance or utility work
- consider whether text can be reduced on signage and if more information can be conveyed via QR codes.

## Management of interpretation installations

The physical interpretive works and infrastructure proposed in this study are intended as self-guided, physically robust and secure elements that will require minimal ongoing supervision and maintenance. The proposed interpretation and infrastructure are intended to have a physical/technological lifespan of approximately fifteen years.

Ongoing inspection of interpretive works should be conducted on a twelve-monthly basis to review element condition, conservation conditions, and security. As some of the interpretation will be located in outdoor public spaces, they may require occasional maintenance or replacement due to the effects of UV exposure, vandalism, and accidental damage.

### *Signs*

- Signs should be wiped down.
- Signs should be checked for graffiti.

### *Inlays*

- Inlays should be checked for damage.
- Shared paths should be swept.

More detailed and accurate advice relating to maintenance should be obtained from fabricators and designers during the implementation process. The advice here, is indicative only.

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## Appendix A. Consultation Correspondence

In accordance with CoA A5, below details a log of engagement or attempted engagement with relevant project stakeholders.

**Table 1: Stakeholder engagement log**

Stakeholder	Initial Engagement	Follow up	Comments
Penrith City Council	Briefing: 19/08/2021 <ul style="list-style-type: none"> <li>Emailed interpretation plan for review: 20/08/2021</li> </ul>	<ul style="list-style-type: none"> <li>13/09/2021 - Phone call to Ari Fernando. Left a voice message</li> <li>13/09/2021 - Emailed Ari Fernando</li> <li>22/09/2021 – Called Ari Fernando left a voice message</li> <li>Called Ari Fernando and Adam Wilkinson on 29.09.2021 and left voicemails 29.09.2021</li> <li>Adam Wilkinson called back and confirmed Ari was correct contact for M12 and confirmed he had asked Ari to call TfNSW. No call received.</li> <li>Emailed on 7/10/2021 notifying that TfNSW intended to close the consultation period</li> </ul>	N/A
Fairfield City Council	Briefing: 12/08/2021 <ul style="list-style-type: none"> <li>Emailed interpretation plan for review: 20/08/2021</li> </ul>	N/A	Comments received on 26/08/2021 in regards to the title of the Upper Canal interpretation.
Liverpool City Council	Briefing: 19/08/2021 <ul style="list-style-type: none"> <li>Emailed interpretation plan for review: 20/08/2021</li> </ul>	<ul style="list-style-type: none"> <li>13/09/2021 – Phone call to Thomas Wheeler (Heritage Officer). Left a voice message.</li> <li>22/09/2021 – Phone call to Thomas Wheeler (Heritage Officer). Left a voice message.</li> <li>22/09/2021 – Phone call to Charles Wiafe. Left a voice message.</li> </ul>	



Stakeholder	Initial Engagement	Follow up	Comments
		<ul style="list-style-type: none"> <li>29/09/2021 - Called Charles Wiafe 29.09.2021 to follow up on comments. Charles asked TfNSW to resend plan. TfNSW resent plan on 29.09.2021 via email requesting confirmation of whether comments would be provided</li> <li>07/10/2021 – Phone call from Charles Wiafe. Advised he would follow up on comments</li> <li>12/10/2021 – Emailed Charles Wiafe and Thomas Wheeler noting that consultation period has closed.</li> </ul>	
Heritage NSW	<p>Briefing: 19/08/2021</p> <ul style="list-style-type: none"> <li>Emailed interpretation plan for review: 20/08/2021</li> </ul>	<ul style="list-style-type: none"> <li>13/09/2021 – Phone call to Hendry Wan. Left a voice message</li> <li>22/09/2021 – Phone call to Hendry Wan. Discussed interpretation plan feedback on this phone call. Hendry confirmed he was happy to provide verbal comments only.</li> </ul>	<p>Issues raised in phone call:</p> <ol style="list-style-type: none"> <li>Heritage NSW raised Aboriginal Cultural Heritage and Non-Aboriginal heritage are included in two separate interpretation plans. <b>Response:</b> TfNSW noted this and explained that while they are in separate plans, there has been work to make sure they are integrated. This will be evident in the Place, Design and Landscape Plan.</li> <li>Fleurs Radio-telescope site interpretation. Heritage NSW suggested advice about interpretation for Fleurs Radio telescope site should come from a specialist with expertise on the site, for example Alice Gorman.</li> </ol>

Stakeholder	Initial Engagement	Follow up	Comments
			<p><b><u>Response:</u></b></p> <p>TfNSW agreed with this suggestion and confirmed that Alice Gorman has peer reviewed additional heritage assessment TfNSW has recently completed for the Fleurs Radio telescope site.</p>
Community and all stakeholders	This non-Aboriginal heritage interpretation report was publicly exhibited between 01 – 28 November 2021 along with the Place Design and Landscape Plan and the Aboriginal Cultural Heritage Interpretation Plan for the project.	n/a	Submissions received during public exhibition of the M12 Non-Aboriginal Heritage Interpretation Plan and TfNSW responses to submissions are included in Table 4.



## Suzette Graham

---

**Subject:** M12 Motorway - Heritage Interpretation discussion  
**Location:** Microsoft Teams Meeting  
**Start:** Thu 12/08/2021 1:00 PM  
**End:** Thu 12/08/2021 1:30 PM  
**Recurrence:** (none)  
**Meeting Status:** Meeting organizer  
**Organizer:** Suzette Graham  
**Required Attendees:** Kerren Ven; Vanessa Holtham  
**Optional Attendees:** Katie Xia

Hi Kerren and Vanessa,

Some time to discuss the heritage interpretation plan for M12 Motorway.  
 Please let me know if it suits, happy to move around.

Thanks,

Kind regards,  
 Suzette Graham  
 Senior Environment Officer  
 Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW  
 27 Argyle Street, Parramatta NSW 2150

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## Suzette Graham

---

**Subject:** M12 Motorway - Heritage Interpretation  
**Location:** Microsoft Teams Meeting  
**Start:** Thu 19/08/2021 10:00 AM  
**End:** Thu 19/08/2021 11:30 AM  
**Recurrence:** (none)  
**Meeting Status:** Meeting organizer  
**Organizer:** Suzette Graham  
**Required Attendees:** Suzette Graham; Eleanor Banaag; Greg Jackson; Ari Fernando; Sophie Worthing  
**Optional Attendees:** Foster Walker; Shannon Schofield; 'rbarrowman@balarinji.com.au'; David Forward; Anthony Price; Karin Felten; Lee McCourt; Denis Gojak; Tiffany LeeShoy; Katie Xia; Dr Madeline Shanahan; Peter Wood

Hi all,

Please accept this invite to a briefing on the proposed M12 Motorway heritage interpretation.  
 We will cover the following:

- 1) Brief Project overview
- 2) Non-Aboriginal heritage interpretation plan
- 3) Aboriginal Artwork strategy for the project
- 4) Questions
- 5) Providing feedback to TfNSW
- 6) Next steps

I have allowed 1.5 hrs, but may only need 1 hr.

Please let me know if you have any questions.

Thanks,  
 Kind regards

Kind regards,  
 Suzette Graham  
 Senior Environment Officer  
 Sydney Infrastructure Development | Safety, Environment and Regulation

**Transport for NSW**  
 27 Argyle Street, Parramatta NSW 2150

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---

## Document Transmittal



**Transmittal No:** M12PPW-TFNSW-TX-000393

**Date:** 20 August 2021 09:40 AM  
**Reason for Issue:** Issued For Review  
**Subject:** M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review  
**Contract No:** M12PPW - M12 - Project Wide  
**Message:**  
Hi all,

Thank you for attending the recent briefings on the M12 Motorway Non-Aboriginal Heritage Interpretation Plan. Please find the Final Draft Plan attached for your review and comment. Please provide comments in the spreadsheet attached and return by **03/09/2021** to:  
**Suzette Graham**  
**Christine Stuart**

The Aboriginal Artwork Strategy is still in development and will be issued for review in due course.

Any issues with Teambinder or the review time frame, please let me know.

Thanks,

Kind regards,  
Suzette Graham  
Environment and Sustainability Manager  
Sydney Infrastructure Development | Safety, Environment and Regulation

**Transport for NSW**  
27 Argyle Street, Parramatta NSW 2150

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Please submit your comments by 03 September 2021

**Transmitted to:**

Company	Name
NSW Office of Environment & Heritage	Hendry Wan
Fairfield City Council	Vanessa Holtham
Fairfield City Council	Kerren Ven
Liverpool City Council	Thomas Wheeler
Liverpool City Council	Charles Wiafe
Penrith City Council	Ari Fernando
Penrith City Council	Tiffany LeeShoy
Penrith City Council	David Forward
Penrith City Council	Peter Wood

**Transmitted cc:**

<https://www.tfnsweambinder.com/TeamBinder217/Transmittal/tbTransmittalDetail.aspx?Box=2&IntTmtl=3735&ShowThread=0&Key=144f0e20-f...> 1/2



29/09/2021, 11:06

Print Preview

Company	Name
Transport for NSW	Christine Stuart
Transport for NSW	Shannon Schofield
Transport for NSW	Foster Walker
Transport for NSW	Greg Jackson
Transport for NSW	Sophie Worthing

[Click here to download all Transmittal files.](#)

Click on Document Nos to download them individually.

Item	Document No	Rev	Sts	Title	Contract No	Design Package No
1	<a href="#">M12PPW-EXTENTHERI-ALL-EN-RPT-000001</a>	B.01	S4	M12 Non-Aboriginal Heritage Interpretation Plan	M12PPW	M12CEN12

**Transmitted by:** Suzette Graham, Transport for NSW

**Attachments:**

M12 - Feedback on Document Comments or Responses.xlsx(41KB)

<https://www.tfnswleambinder.com/TeamBinder217/Transmittal/tbTransmittalDetail.aspx?Box=2&IntTmtl=3735&ShowThread=0&tcKey=144f0e20-f...> 2/2

**From:** [Kerren Ven](#)  
**To:** [Suzette Graham](#)  
**Cc:** [Vanessa Holthaus](#)  
**Subject:** RE: M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review  
**Date:** Thursday, 20 August 2021 2:46:25 PM  
**Attachments:** [image007.png](#)  
[image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)  
[Copy of Copy of M12 - Feedback on Document Comments or Responses.xlsx](#)

**CAUTION:** This email is sent from an external source. Do not click any links or open attachments unless you recognise the sender and know the content is safe.

Hi Suzette,

Please find attached the excel sheet with Council's comments in relation to the Non-Aboriginal Heritage Interpretation Plan as required to address the requirements for condition E26, E27 that will also guide the Place, Design and Landscape Plan.

Kind regards,

**Kerren Ven**  
Strategic Planner | Strategic Land Use Planning  
City Strategic Planning  
PO Box 21, Fairfield NSW 1860

[www.fairfieldcity.nsw.gov.au](http://www.fairfieldcity.nsw.gov.au)



We acknowledge the Cabrogal of the Darug nation who are the Traditional Custodians of this Land. We also pay our respect to the Elders both past, present and emerging of the Darug Nation.



**From:** Suzette Graham via InEight Document  
**Sent:** Friday, 20 August 2021 9:40 AM  
**To:** Kerren Ven  
**Subject:** M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review

## Document Transmittal



**Transmittal No:** M12PPW-TFNSW-TX-000393

**Date:** 20 August 2021 09:40 AM  
**Reason for Issue:** Issued For Review  
**Subject:** M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review  
**Contract No:** M12PPW - M12 - Project Wide  
**Message:**  
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Please find the Final Draft Plan attached for your review and comment.  
Please provide comments in the spreadsheet attached and return by **03/09/2021** to:  
**Suzette Graham**

**Christine Stuart -**

The Aboriginal Artwork Strategy is still in development and will be issued for review in due course.

Any issues with Teambinder or the review time frame, please let me know.

Thanks,

Kind regards,

Suzette Graham  
Environment and Sustainability Manager

Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW  
27 Argyle Street, Parramatta NSW 2150

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Please submit your comments by 03 September 2021

**Transmitted to:**

Company	Name
NSW Office of Environment & Heritage	Hendry Wan
Fairfield City Council	Vanessa Holtham
Fairfield City Council	Kerren Ven
Liverpool City Council	Thomas Wheeler
Liverpool City Council	Charles Wlate
Penrith City Council	Ari Fernando
Penrith City Council	Tiffany LeeShoy
Penrith City Council	David Forward
Penrith City Council	Peter Wood

**Transmitted cc:**

Company	Name
Transport for NSW	Christine Stuart
Transport for NSW	Shannon Schofield
Transport for NSW	Foster Walker
Transport for NSW	Greg Jackson
Transport for NSW	Sophie Worthing

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Click on Document Nos to download them individually.

Item	Document No	Rev	Sts	Title	Contract No	Design Package No
1	<a href="#">M12PPW-EXTENTHERI-ALL-EN-RPT-000001</a>	B.01	S4	M12 Non-Aboriginal Heritage Interpretation Plan	M12PPW	M12CEN12

**Transmitted by:** Suzette Graham, Transport for NSW

TeamBinder Transmittal Reference: (B15EF369-5A06-49F3-8F85-2B5C0CC46B7F)

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**From:** [Suzette Graham](#)  
**To:** [Ari Fernando](#)  
**Cc:** [Tiffany LeeShoy](#); [M12 Teambinder](#); [M12 Detailed Design](#)  
**Subject:** RE: M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review  
**Date:** Monday, 13 September 2021 6:15:00 PM  
**Attachments:** [image009.png](#)  
[image011.png](#)

---

Hi Ari,

Just following up on whether Penrith City Council proposes to submit comments on the M12 Motorway Non-Aboriginal heritage Interpretation Plan?  
And if so, when these would be received?  
The below email indicates a consolidated set of comments would be forthcoming.

Thanks,

Kind regards,  
Suzette Graham  
Environment and Sustainability Manager  
Sydney Infrastructure Development | Safety, Environment and Regulation

**Transport for NSW**  
27 Argyle Street, Parramatta NSW 2150

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---

**From:** Ari Fernando  
**Sent:** Tuesday, 31 August 2021 9:51 PM  
**To:** Ari Fernando  
**Cc:** Tiffany LeeShoy ; Suzette Graham  
M12 Teambinder  
**Subject:** Fw: M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review

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Sue

pl note below comments from Penrith City Council.

Regards

**Ari Fernando**  
Major Projects & Design Coordinator

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---

**From:** Peter Wood  
**Sent:** Friday, August 20, 2021 10:13 AM  
**To:** Ari Fernando; Tiffany LeeShoy  
David Forward  
**Cc:** Alison Veron; Gavin Cherry; James  
Heathcote  
**Subject:** RE: M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review

Hi Ari, Tiffany and David.

I suggest we need a co-ordinated PCC response with one set of commentary into the spreadsheet.

Thanks Tiffany I have now just read your message and agree as above.

Council's original submission is on the Planning Portal SSD website, and may be worth referring to for points on heritage, if you haven't seen it, let me know if you can't find it.

Unfortunately a lot of our original submission has not been responded to as far as proper heritage assessment and conservation where possible, mainly due to predetermined M12 alignment. The response is therefore the emphasis on interpretation and archival recording.

I will be seeking to re-engage Council's Heritage Advisor also to review however given the above I expect he will not have too much to add and we will be appreciative of being informed by Your comments Tiffany and David around the Interpretation strategy and plans.

For consistency and given I signed Council's previous submission, I am happy to bring together the comments and facilitate a meeting to discuss next week.

Thanks

**Peter Wood**  
Development Services Manager

PO Box 60, PENRITH NSW 2751  
[www.visitpenrith.com.au](http://www.visitpenrith.com.au)  
[www.penrithcity.nsw.gov.au](http://www.penrithcity.nsw.gov.au)

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**From:** Suzette Graham via InEight Document  
**Sent:** Friday, August 20, 2021 9:40 AM  
**To:** Ari Fernando  
**Subject:** M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review

**EXTERNAL EMAIL: This email was received from outside the organisation. Use caution when clicking any links or opening attachments.**

## Document Transmittal



**Transmittal No:** M12PPW-TFNSW-TX-000393

**Date:** 20 August 2021 09:40 AM  
**Reason for Issue:** Issued For Review  
**Subject:** M12 Motorway - Non-Aboriginal Heritage Interpretation Plan - For Review  
**Contract No:** M12PPW - M12 - Project Wide

**Message:**

Hi all,

Thank you for attending the recent briefings on the M12 Motorway Non-Aboriginal Heritage Interpretation Plan.

Please find the Final Draft Plan attached for your review and comment.

Please provide comments in the spreadsheet attached and return by **03/09/2021** to:

**Suzette Graham**  
**Christine Stuart**

The Aboriginal Artwork Strategy is still in development and will be issued for review in due course.

Any issues with Teambinder or the review time frame, please let me know.

Thanks,

Kind regards,  
Suzette Graham  
Environment and Sustainability Manager  
Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW  
27 Argyle Street, Parramatta NSW 2150

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Please submit your comments by 03 September 2021

**Transmitted to:**

Company	Name
NSW Office of Environment & Heritage	Hendry Wan
Fairfield City Council	Vanessa Holtham
Fairfield City Council	Kerren Ven
Liverpool City Council	Thomas Wheeler
Liverpool City Council	Charles Wiafe
Penrith City Council	Ari Fernando
Penrith City Council	Tiffany LeeShoy
Penrith City Council	David Forward
Penrith City Council	Peter Wood

**Transmitted cc:**

Company	Name
Transport for NSW	Christine Stuart
Transport for NSW	Shannon Schofield
Transport for NSW	Foster Walker
Transport for NSW	Greg Jackson
Transport for NSW	Sophie Worthing

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Item	Document No	Rev	Sts	Title	Contract No	Design Package No
1	<a href="#">M12PPW-EXTENTHERI-ALL-EN-RPT-000001</a>	B.01	S4	M12 Non-Aboriginal Heritage Interpretation Plan	M12PPW	M12CEN12

**Transmitted by:** Suzette Graham, Transport for NSW

TeamBinder Transmittal Reference: {51BEF369-5A06-49F3-8F8B-2B5C0CC45B7F}



**From:** [Suzette Graham](#)  
**To:**  
**Cc:** [M12 Detailed Design](#)  
**Subject:** M12 Motorway Interpretation Plan and Construction Environmental Management Plans  
**Date:** Wednesday, 29 September 2021 11:13:00 AM

---

Hi Charles,

Following our phone call this morning, just confirming that I have re-sent the following M12 Motorway documents to you via Teambinder:

- Non-Aboriginal heritage Management Plan – comments were due 3 September 2021
- Construction Cultural Heritage Management Plan – comments were due 27 September 2021
- Noise and Vibration Management Plan – comments were due 23 September 2021
- Contaminated Land Management Plan- Comments were due 22 September 2021
- Flora and Fauna Management Plan – Comments were due 22 September 2021

Can you please advise if Council wish to make comments on these documents, and if so when comments can be expected?

**Thomas** – I have copied you in as an FYI as I know we sent the Interpretation plan to you as well.

Thanks,

Kind regards,  
Suzette Graham  
Environment and Sustainability Manager  
Sydney Infrastructure Development | Safety, Environment and Regulation

**Transport for NSW**  
27 Argyle Street, Parramatta NSW 2150

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**From:** [Suzette Graham](#)  
**To:**  
**Cc:** [M12 Detailed Design](#)  
**Subject:** M12 Non-Aboriginal heritage Interpretation plan  
**Date:** Tuesday, 12 October 2021 1:22:00 PM

---

Hi Charles and Thomas,

Just wanted to let you know that TfNSW is now finalising the M12 Non-Aboriginal heritage interpretation plan for its inclusion in the Place, Design and Landscape Plan (PDLP).  
TfNSW intend to exhibit the PDLP on 1 Nov 2021, and LCC will have another opportunity to comment on the interpretation strategy at this stage.

Thanks,

Kind regards,  
Suzette Graham  
Environment and Sustainability Manager  
Sydney Infrastructure Development | Safety, Environment and Regulation

**Transport for NSW**  
27 Argyle Street, Parramatta NSW 2150

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## General Correspondence

Reference No.: M12PPW-LPCC-TFNSW-CORR-000001  
Contract No: M12PPW - M12 - Project Wide

---

Date: 26 October 2021, 12:20  
To: Suzette Graham, Transport for NSW  
From: Thomas Wheeler, Liverpool City Council  
Subject: RE: M12 Motorway - Non-Aboriginal heritage interpretation plan

---

This mail item is received via EMAIL from Thomas Wheeler on 29-09-21 11:36:40 AM +10:00 and processed by Christine Stuart of Transport for NSW on 2021-10-26 12:19:51 PM +11:00.

From: Thomas Wheeler  
Sent: Wednesday, 29 September 2021 11:36:27 AM  
To: Suzette Graham  
Subject: RE: M12 Motorway - Non-Aboriginal heritage interpretation plan

Hi Suzette

Apologies, I did review the document but failed to send through my comments.

1. In terms of the in lays – these should be designed so that they can be lifted and removed as intact pieces.

Reasoning: Utility providers and even road maintenance crews may in the future need to cut through the location for repair works or laying new services and to prevent destroying the installation, if it can be removed as an intact piece and then put back, this will ensure its long term retention.

2. I am still not convinced that interpretive signage is the best tool to be used due to the predominant audience being either cars driving pass or bike riders. If the signage is really the preferred solution, then I question whether there is too much text and whether the text is actually big enough. Due to the potential audience would more imagery with minimal text be a better solution, supported by QR or HTML devices to provide additional info for those interested.

I hope this helps.

Cheers

Thomas Wheeler

Heritage Officer

---

**Table 2: M12 Motorway Heritage Interpretation Briefing Meeting Summary**

**Meeting details**

**Total Number of Participants:** 18

**Meeting Title: Placeholder:** Heritage Interpretation Plan

**Meeting Start Time:** 8/19/2021, 9:59:29 AM

**Meeting End Time:** 8/19/2021, 11:59:13 AM

**Debug Id:** 411118ac-bf0a-4bdb-8119-19e28c6b555

**Meeting participants**

**Full Name:** Suzette Graham

**Join Time:** 8/19/2021, 9:59:29 AM

**Leave Time:** 8/19/2021, 11:22:31 AM

**Duration:** 1h 23m

**userPrincipal Name:**

**Role:** Organizer

**Full Name:** Greg Jackson

**Join Time:** 8/19/2021, 9:59:49 AM

**Leave Time:** 8/19/2021, 11:22:41 AM

**Duration:** 1h 22m

**userPrincipal Name:**

**Role:** Presenter

**Full Name:** Foster Walker

**Join Time:** 8/19/2021, 10:00:24 AM

**Leave Time:** 8/19/2021, 11:22:30 AM

**Duration:** 1h 22m

**userPrincipal Name:**

**Role:** Presenter

**Full Name:** Shannon Schofield

**Join Time:** 8/19/2021, 10:00:37 AM

**Leave Time:** 8/19/2021, 11:06:30 AM

**Duration:** 1h 5m

**userPrincipal Name:**

**Role:** Presenter

**Full Name:** David Forward



---

**Join Time:** 8/19/2021, 10:01:00 AM  
**Leave Time:** 8/19/2021, 11:22:30 AM  
**Duration:** 1h 21m  
**userPrincipal Name:**  
**Role:** Participant

---

**Full name:** Eleanor Banaag  
**Join Time:** 8/19/2021, 10:01:02 AM  
**Leave Time:** 8/19/2021, 11:22:33 AM  
**Duration:** 1h 21m  
**userPrincipal Name:**  
**Role:** Presenter

---

**Full Name:** Rachael Barrowman - Balarinji (Guest)  
**Join Time:** 8/19/2021, 10:01:02 AM  
**Leave Time:** 8/19/2021, 11:16:45 AM  
**Duration:** 1h 15m  
**Role:** Presenter

---

**Full Name:** Tiffany LeeShoy  
**Join Time:** 8/19/2021, 10:01:05 AM  
**Leave Time:** 8/19/2021, 11:22:32 AM  
**Duration:** 1h 21m  
**userPrincipal Name:**  
**Role:** Participant

---

**Full Name:** Hendry Wan  
**Join Time:** 8/19/2021, 10:01:39 AM  
**Leave Time:** 8/19/2021, 11:22:32 AM  
**Duration:** 1h 20m  
**userPrincipal Name:**  
**Role:** Participant

---

**Full Name:** Rachel Taylor (Guest)  
**Join Time:** 8/19/2021, 10:01:50 AM  
**Leave Time:** 8/19/2021, 11:22:30 AM  
**Duration:** 1h 20m  
**Role:** Presenter

---

**Full Name:** Balarinji

---

---

**Join Time:** 8/19/2021, 10:02:18 AM  
**Leave Time:** 8/19/2021, 11:22:32 AM  
**Duration:** 1h 20m  
**userPrincipal Name:**  
**Role:** Presenter

---

**Full Name:** Peter Wood  
**Join Time:** 8/19/2021, 10:03:19 AM  
**Leave Time:** 8/19/2021, 10:31:40 AM  
**Duration:** 28m 20s  
**userPrincipal Name:**  
**Role:** Participant

---

**Full Name:** Dr Madeline Shanahan  
**Join Time:** 8/19/2021, 10:03:48 AM  
**Leave Time:** 8/19/2021, 10:43:17 AM  
**Duration:** 39m 28s  
**userPrincipal Name:**  
**Role:** Presenter

---

**Full Name:** Katie Xia  
**Join Time:** 8/19/2021, 10:04:52 AM  
**Leave Time:** 8/19/2021, 11:22:32 AM  
**Duration:** 1h 17m  
**userPrincipal Name:**  
**Role:** Presenter

---

**Full Name:** Thomas Wheeler  
**Join Time:** 8/19/2021, 10:14:23 AM  
**Leave Time:** 8/19/2021, 11:59:13 AM  
**Duration:** 1h 44m  
**userPrincipal Name:**  
**Role:** Participant

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**Full Name:** Ari Fernando  
**Join Time:** 8/19/2021, 10:54:17 AM  
**Leave Time:** 8/19/2021, 11:22:34 AM  
**Duration:** 28m 16s  
**userPrincipal Name:**

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**Role:** Participant

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**Full Name:** Rachael Barrowman - Balarinji (Guest)

**Join Time:** 8/19/2021, 11:16:35 AM

**Leave Time:** 8/19/2021, 11:22:32 AM

**Duration:** 5m 56s

**Role:** Presenter

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**Full Name:** Sophie Worthing

**Join Time:** 8/19/2021, 11:18:57 AM

**Leave Time:** 8/19/2021, 11:22:34 AM

**Duration:** 3m 37s

**userPrincipal Name:**

**Role:** Presenter

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**Table 3: M12 Motorway Heritage Interpretation Plan, Review/Comments Log – Direct Stakeholder Consultation**

Relevant section	Comments	Extent Heritage Response	Section Amended
<b>Consultation Feedback</b>			
Section 5.1 Device 1 (Location 1): Interpretive sign	We generally think the interpretation is of an exceptional standard. Whilst we understand the 'keep the taps running' slogan, we feel that it slightly contradicts our culture of trying to save water, telling children to turn off running taps, etc. At first glance it may send a confusing inherent message to people, particularly to children who will be able to read the message. <i>(Fairfield City Council)</i>	Extent Heritage has taken this feedback into consideration and has designed an alternative title for Device 1, Location 1: 'Innovation and Ingenuity: a solution to Sydney's worst water crises. The shared path inlay, Device 3 Location 1, has also been changed to accommodate for the new sign and will now read 'Innovation'.	4.1 Device Detail 5.1 Device 1 (Location 1): Interpretive sign 5.3 Device 3 (Location 1): Shared path inlay
Executive Summary	Has been any consideration for interpretation of the significant Colonial landscapes of the Cumberland Plain? <i>(Fairfield City Council)</i>	The sites addressed are specific locations intersected by the M12 Motorway. While the Cumberland Plain does have significant colonial history, there are no sites of colonial significance intersected by the Motorway that have been identified.	N/A
Section 5.10 Device 10 (Location 4) Section 5.11 Device 11 (Location 4) Section 5.15 Device 14 (Location 4)	Heritage NSW suggested advice about interpretation for Fleurs Radio telescope site should come from a specialist with expertise on the site, for example Dr. Alice Gorman. <i>(Heritage NSW)</i>	Extent Heritage can confirm that Dr. Alice Gorman was consulted with, and peer reviewed the historical research prepared for the Non-Aboriginal Heritage Thematic Study, which was the basis for the content formulated in this Heritage Interpretation Plan, specifically for the devices relating to the Fleurs Radio Telescope site.  Dr. Alice Gorman will be further consulted during detailed design of the Fleurs Radio Telescope Site installation	Section 5.10 Section 5.11 Section 5.15
All shared path inlays and signage devices	In terms of the in lays – these should be designed so that they can be lifted and removed as intact pieces.  Reasoning: Utility providers and even road maintenance crews may in the future need to cut through the location for repair works or laying new services and to prevent destroying the installation, if it can be removed as an intact piece and then put back, this will ensure its long term retention.  I am still not convinced that interpretive signage is the best tool to be used due to the predominant audience being either cars driving pass or bike riders. If the signage is really the preferred solution, then I question whether there is too much text and whether the text is actually big enough. Due to the potential audience would more imagery with minimal text be a better solution, supported by QR or HTML devices to provide additional info for those interested. <i>(Liverpool City Council)</i>	The detailed design of shared path inlays will consider removability to avoid impact in the future due to maintenance or utility work.  The detailed design of the signage will consider whether text can be reduced on signage and if more information can be conveyed via QR codes.	Next Steps Section

**Table 4: M12 Motorway Heritage Interpretation Plan, Review/Comments Log – Following public exhibition of heritage interpretation plans and the PDLF**

Relevant section	Comments	TfNSW response	Section Amended
<b>Consultation Feedback</b>			
Section 5.1 to 5.4 Device 1 to Device 4 (Upper Canal)	WaterNSW endorses the M12 PDLF approach, with regards to Aboriginal and non-Aboriginal heritage <i>(WaterNSW)</i>	WaterNSW's support for the M12 PDLF design framework is acknowledged.	N/A

Relevant section	Comments	TfNSW response	Section Amended
Section 5.1 and Section 5.2 Device 1 and Device 2 (Upper Canal)	WaterNSW manages the Upper Canal and would like to review any public facing material that features this non-Aboriginal heritage prior to publication including signage . WaterNSW is happy to provide any archival material that may assist in the development of wayfinding and signage <i>(WaterNSW)</i>	TfNSW greatly appreciates WaterNSW's support with this.  TfNSW will be progressing with wayfinding and interpretation signage design soon and will contact WaterNSW's Heritage Specialist as part of that process	Section 5.1 Section 5.2
All interpretation devices	Heritage NSW supports the initiative by TfNSW to implement a Heritage Interpretation Plan.  Consultation with the Aboriginal community should continue throughout the project.  Procurement opportunities with Aboriginal individuals and organisations should be considered for the design and delivery of Aboriginal heritage interpretation, where possible.  Interpretive devices should be consistent in design, look and feel in order to integrate and interpret holistically both Aboriginal and Non-Aboriginal values.  While not every heritage place can or should be identified along the M12 Motorway corridor, consideration should be given to include a large-scale map at one of the interpretation nodes, to locate many, if not all, of the heritage places (whether listed or not) along the M12 Motorway to give a bigger picture of heritage places/values along the corridor.  <i>(Heritage NSW)</i>	TfNSW can confirm that consultation with Aboriginal communities will continue via the mechanisms already in place.  Procurement opportunities established by the project's broader Indigenous Participation Plan will apply to items described in the PDLF.  TfNSW agrees with Heritage NSW regarding consistent design, look and feel for interpretative devices and confirms that a detailed design exercise will commence imminently that will meet this recommendation.  TfNSW notes the suggestion of a large-scale map and confirms that a detailed design exercise is about to commence to address this. It is currently envisaged that maps will be provided at entry points and other decision points along the shared path. TfNSW will consider whether it is appropriate to add a similar map to signs at or on more of the nodes.	Next Steps Section



# TRANSPORT FOR NSW M12 MOTORWAY

## ABORIGINAL HERITAGE INTERPRETATION PLAN

APRIL 2022



**DOCUMENT INFORMATION**

CLIENT	TRANSPORT FOR NSW
Project	M12 Motorway
Author(s)	Lauren Beech
Project Manager	Rachel Taylor
Name of Organisation	Balarinji
Name of document	M12 Motorway Aboriginal Heritage Interpretation Plan
Document Version	Final

**DOCUMENT HISTORY AND STATUS**

REVISION	DATE ISSUED	REVIEWED BY	APPROVED BY	DATE APPROVED	REVIEW TYPE
Internal	11 October 2021	Rachel Taylor, Balarinji	Rachel Taylor, Balarinji	15 October	Internal
1	15 October 2021	Rachel Taylor, Balarinji	Rachel Taylor, Balarinji	15 October	Draft
2	25 October 2021	Rachel Taylor, Balarinji	Rachel Taylor, Balarinji	25 October	Final Draft
3	12 November 2021	Rachel Taylor, Balarinji	Rachel Taylor, Balarinji	12 November	Final for exhibition
4	19 April 2022	Suzette Graham, TfNSW	Rachel Taylor, Balarinji	21 April	Final following exhibition

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## APPENDIX A - CONSULTATION

# 1. PROJECT BACKGROUND

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## 1.1 PROJECT BACKGROUND

Transport for NSW (TfNSW) has engaged Balarinji to prepare an Aboriginal Heritage Interpretation Plan for the M12 Motorway Project (the 'M12 Motorway' or the 'study area'). The M12 Motorway will be an east-west 16-kilometre motorway between the M7 Motorway, and The Northern Road with an interchange at Western Sydney Airport. The M12 will be delivered prior to the opening of the Western Sydney International Airport at Badgerys Creek and will provide direct access to the Airport and a connection to Sydney's motorway network.

The M12 corridor is on the land of the Mulgoa, Cabrogal and Cannemegal of the Darug (Dharug, Daruk) language group. Neighbours are the D'harawal language group to the east and south and Gandangara language group to the west and southwest. It passes through the Deerubbin Local Aboriginal Land Council (DLALC) area not far from the northern boundary of Gandangara Local Aboriginal Land Council (GLALC).



# 1. PROJECT BACKGROUND

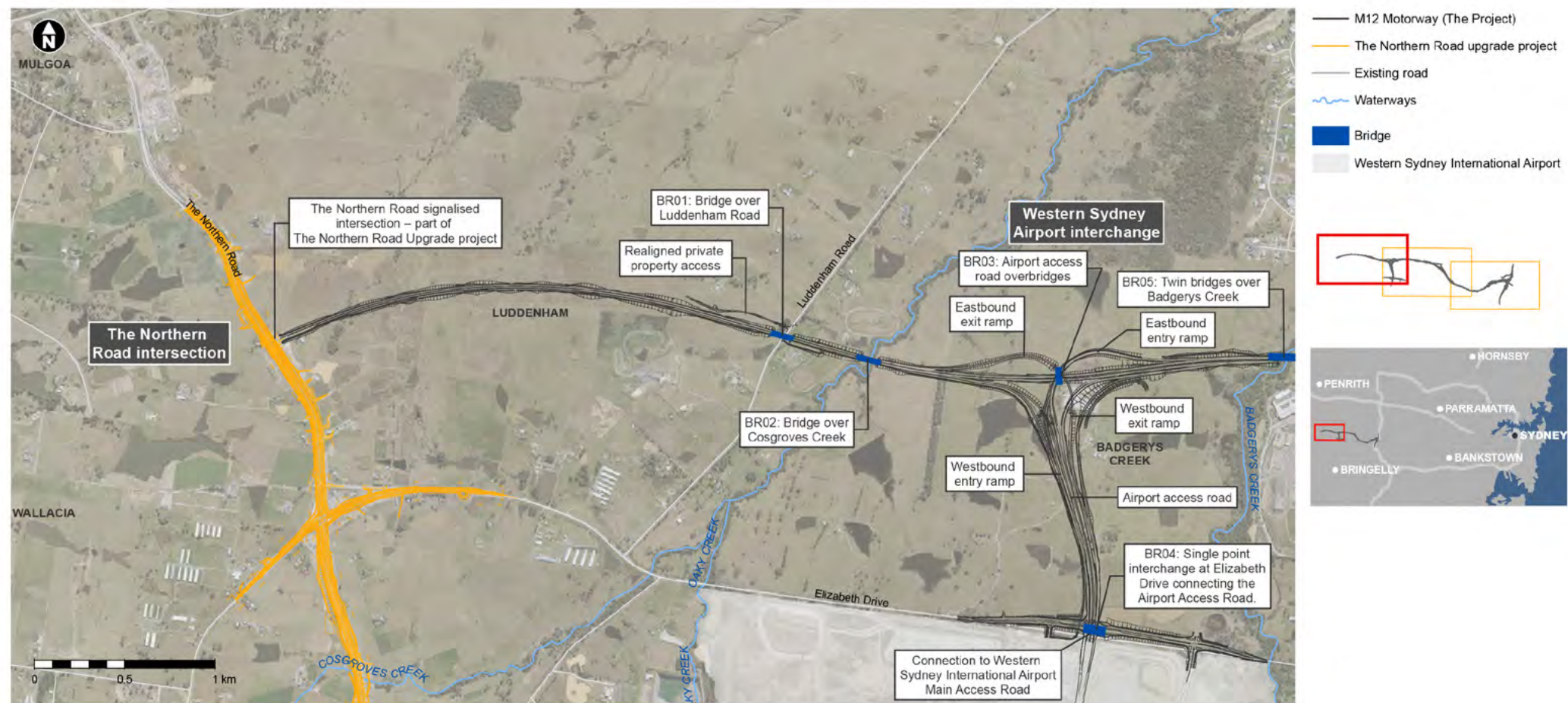


Figure 1.1 Figure indicating the Project Area for the M12 Motorway. Source: Transport for NSW (2021)



# 1. PROJECT BACKGROUND

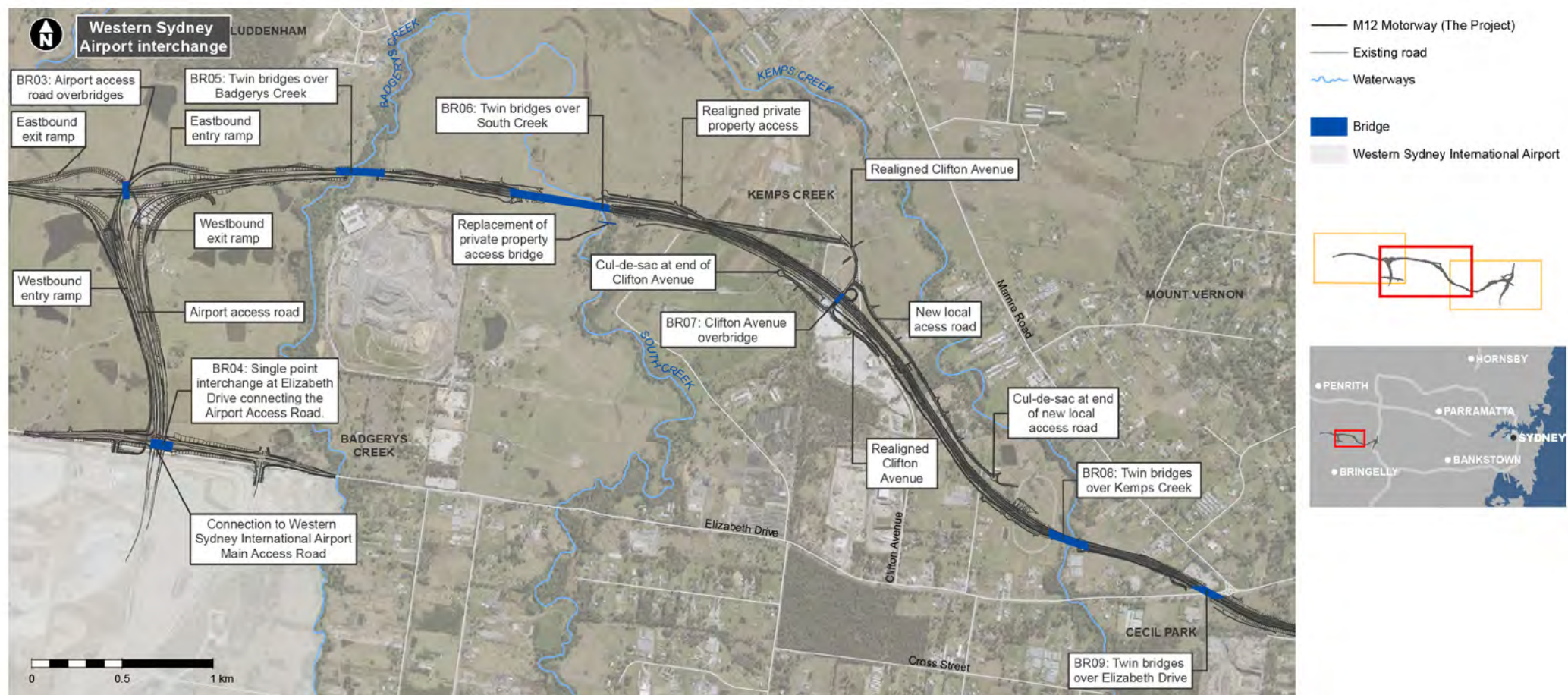


Figure 1.2 Figure indicating the Project Area for the M12 Motorway. Source: Transport for NSW (2021)



# 1. PROJECT BACKGROUND

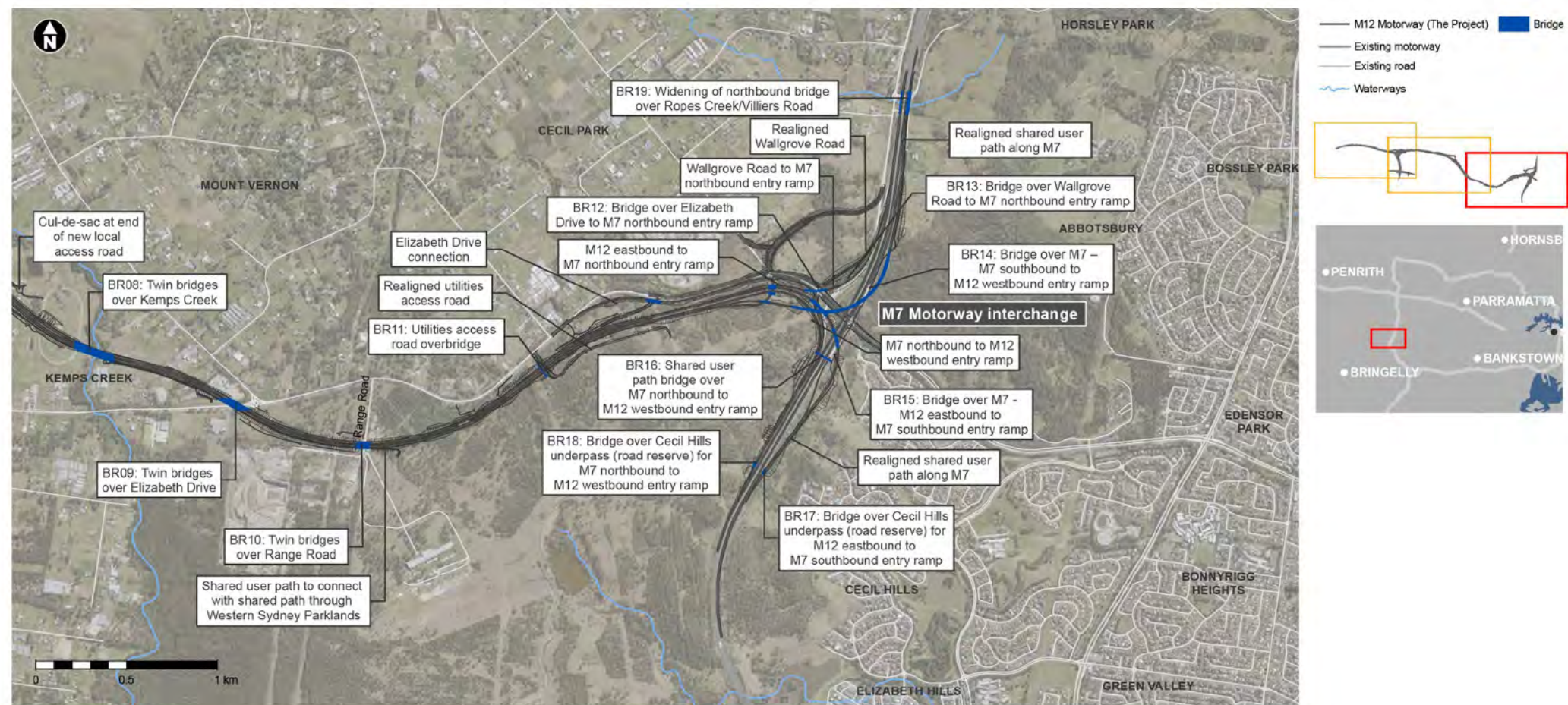


Figure 1.3 Figure indicating the Project Area for the M12 Motorway. Source: Transport for NSW (2021)



# 1. PROJECT BACKGROUND

## 1.2 OBJECTIVES

The objective of this plan is to ensure that the Aboriginal heritage values of the study area are integrated through interpretation devices across the motorway corridor. The plan also aims to support Transport for NSW's strategic objective for the M12 project, which is to **'create a unique and distinct identity interpreting the rich sense of place, Aboriginal and cultural heritage.'**

The proposed interpretation devices will work to engage the community, allowing them to experience and learn about the themes and stories that speak to the Aboriginal cultural heritage embedded in the study area.

This plan aims to further develop the Heritage Interpretation Framework drafted by Extent Heritage in 2020, through detailing the proposed interpretation devices, including fabric, form and location. This plan may evolve over time as the implementation of the interpretative devices develops. It aims to provide an overarching guide for the life of the project.

## 1.3 USE OF THE PLAN

This plan should be used as a guiding document for the implementation and interpretation of the Aboriginal heritage values connected with the study area. It outlines the themes and storylines that should be articulated across

the M12 Corridor. These underpin the proposed interpretation devices which will take the form of design elements embedded in the motorway infrastructure, public art installations, planting and wayfinding and signage.

## 1.4 THE INTERPRETATION PROCESS

The M12 project has provided a genuine opportunity for the Western Sydney Aboriginal community to provide their local stories and interpretation ideas through a collaborative co-design process. The co-design process included:

- Research of the Aboriginal narrative of the area
- Culturally appropriate engagement
- Conceptual design directions
- Art strategy

This process has informed the development of the interpretative devices outlined in this plan.

## 1.5 METHODOLOGY

Balarinji consulted with the Aboriginal community to develop themes and stories for the study area. Creatives from the community were also engaged to co-design interpretation ideas and themes to inform the interpretation plan.

Core components of the methodology employed in the development of this plan include:

- **Research of the Aboriginal narrative of the area**  
Balarinji conducted extensive research into the Aboriginal history of the area to develop a preliminary Aboriginal narrative that could respond to the knowledge of local leaders and knowledge holders.
- **Culturally appropriate engagement**  
In July and August 2018 Balarinji consulted with verified Aboriginal stakeholders via information sessions with key stakeholders such as Knowledge Holders, Traditional Custodians and key Aboriginal organisations to verify desktop research to date and establish who are the endorsed community representatives for the project. Balarinji also engaged with the Registered Aboriginal spaces the M12 Aboriginal Focus Group Meetings.

Following a publicly advertised expression of interest process, a Body of Story workshop was held on 21st August 2018. A wider group of Aboriginal community stakeholders was invited to share knowledge, identify sites, stories and themes and establish the Aboriginal community's response to the M12 corridor's artistic and interpretive opportunities.



# 1. PROJECT BACKGROUND

A Body of Art and Conceptual Design Workshop was held with Aboriginal community-endorsed creatives to facilitate images and themes that interpreted the established Aboriginal narrative.

- **Conceptual Design Directions**  
Balarinji developed a set of cultural design principles that guided the design team to ensure that the themes, stories and values of the site were expressed through the design and interpretation of the M12 corridor.
- **Art strategy**  
Balarinji co-designed with a selected Aboriginal artist cohort a strategy that outlined the interpretation opportunities and the design development of each of the proposed artworks.

The learnings and insights arising from this methodology have informed the development of the M12 Motorway Aboriginal Heritage Interpretation Plan which will be implemented through the fabrication of interpretative devices.



Figure 2 Balarinji Body of Story Workshop 21st of August 2018

# 1. PROJECT BACKGROUND

## 1.6 AUTHORSHIP

This report has been authored by and designed by Balarinji and Transport for NSW. It has been reviewed and endorsed by Kelleher Nightingale Consulting.

COMPANY/ORGANISATION	NAME	QUALIFICATIONS
Balarinji	Rachel Taylor (Author)	M12 Project Lead, Balarinji Head of Project Management and Studio. BA Hons Business Management.
TfNSW	Suzette Graham (Reviewer)	Bachelor of Science Master of Environmental Management
Kelleher Nightingale Consulting	Matthew Kelleher (Reviewer and endorser)	PhD (Archaeology Australian Prehistory), University of Sydney

Table 1 Authors, reviewers and endorser



## 2. PLANNING AND STATUTORY CONTEXT

### 2.1 PLANNING AND STATUTORY CONTEXT

This section outlines the legislation and planning context associated with the M12 Motorway study area.

#### COMMONWEALTH LEGISLATION

##### Environment Protection and Biodiversity Conservation Act 1999

The Environment Protection and Biodiversity Conservation Act 1999 is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage nationally and internationally important flora, fauna, ecological communities and heritage places. Approval for the M12 Motorway Project was made on 3 June 2021 was granted under sections 130(1) and 133(1) of the Act.

#### NSW LEGISLATION

##### Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) provides planning controls and requirements for environmental assessment in the development approval process. Amongst its objects is the promotion of the sustainable development of Aboriginal cultural heritage.

The EP&A Act establishes the framework for Aboriginal heritage values to be formally assessed in land use planning.

In accordance with Division 5.2 of the EP&A Act, an Environmental Impact Statement (EIS) was exhibited in October 2019 and a submissions report was published in October 2020. The EIS submissions report was published in October 2020. An Amendment Report was also placed on exhibition in October 2020 and an Amendment Report Submissions Report was published in December 2020. Division 5.2 applies for projects designated as State Significant Infrastructure. This designation also alters the application of the Heritage Act 1977.

The Minister for Planning and Public Spaces approved the M12 Motorway under Division 5.2 of the EP&A Act on 23 April 2021. The approval incorporated the Minister's conditions of approval.

##### Heritage Act 1977

The project is subject to certain provisions of the Heritage Act 1977 (the Heritage Act). The Heritage Act's purpose is to conserve the state's environmental heritage, to do this it provides the mechanisms by which to identify and protect heritage items.

##### National Parks and Wildlife Act 1974

The National Parks and Wildlife Act 1974 (NPW Act) provides for the protection of Aboriginal objects and places. An Aboriginal object is any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation. An Aboriginal place is 'any place specified or described in the order, being a place that, in the opinion of the Minister, is or was of special significance with respect to Aboriginal culture.'

### 2.2 CONDITIONS OF APPROVAL

The NSW Minister's conditions of approval that relate to the Heritage Interpretation Plan and how they are addressed in this Plan are outlined below. Please note that Non-Aboriginal Heritage interpretation is addressed in a separate plan.

## 2. PLANNING AND STATUTORY CONTEXT

MINISTER'S CONDITIONS OF APPROVAL	WHERE ADDRESSED IN THIS PLAN
<b>E26</b> An experienced and qualified heritage specialist(s) must prepare and/or endorse the: (a) Heritage Interpretation Plan required by Condition E27; (b) Archival photographic digital recording required by Condition E28; and (c) Heritage Report required by Condition E29.	Section 1.6 of this Plan fulfils the requirements of sub-condition (a).
<b>E27</b> A Heritage Interpretation Plan must be prepared that identifies and interprets the key heritage values and stories of the heritage items impacted by the CSSI. The Heritage Interpretation Plan must include, but not be limited to:	This Plan
<b>E27 contd.</b> (a) integration of heritage themes and values in the design of the CSSI;	This Plan – section 3.1
<b>E27 contd.</b> (b) design elements (form and fabric) and themes for the CSSI;	This Plan – section 3 of this Plan for themes for the CSSI and sections 6 and 7 for design elements including form and fabric.
<b>E27 contd.</b> (c) consideration of the design concepts for Western Sydney International Airport and Sydney Metro Western Sydney Airport; and	This Plan – section 5
<b>E27 contd.</b> (d) opportunities for design responses for Aboriginal and non-Aboriginal heritage	This Plan – sections 6 and 7
<b>E27 contd.</b> The Heritage Interpretation Plan must be provided to Western Sydney International Airport and Sydney Metro Western Sydney Airport to assist in guiding opportunities for integration of heritage themes and values into their design.	This Plan – section 5

Table 2 Conditions of approval



## 2. PLANNING AND STATUTORY CONTEXT

MINISTER'S CONDITIONS OF APPROVAL	WHERE ADDRESSED IN THIS PLAN
<b>E27 contd.</b> The Heritage Interpretation Plan must be prepared in accordance with the Interpreting Heritage Places and Items Guidelines (NSW Heritage Office, 2005), and in consultation with Heritage NSW, Aboriginal Cultural Heritage Advisory Committee, LALC and relevant council(s).	This is addressed in in section 2.3 of this Plan and Appendix A.
<b>E27 contd.</b> The Plan must be implemented and inform the Place, Design and Landscape Plan required by Condition E69.	This Plan will be implemented and has informed the Place Design and Landscape Plan.
<b>E27 contd.</b> The Heritage Interpretation Plan must be submitted to the Planning Secretary and Heritage NSW for information prior to finalising the Place, Design and Landscape Plan required by Condition E69. Note: Nothing in this condition prevents the Proponent from preparing separate Heritage Interpretation Plans for Aboriginal and Non-Aboriginal Heritage.	This Plan fulfils the requirement for the Heritage Interpretation Plan for Aboriginal Heritage. Section 8 of this Plan outlines the next steps following consultation.

Table 2 Conditions of approval



## 2. PLANNING AND STATUTORY CONTEXT

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### 2.3 GUIDELINES FOR INTERPRETATION

#### The Burra Charter

The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (The Burra Charter) outlines best practice for the conservation and management of cultural heritage places. Under the charter, the interpretation and management of a heritage place are guided by its cultural significance – the historic, scientific, aesthetic, social and spiritual value of the place for past, present or future generations.

#### Interpreting heritage places and items guideline

The New South Wales Heritage Office's Interpreting Heritage Places and Items Guidelines provides guidance about best practice in heritage interpretation. According to the guidelines, the benefit of heritage interpretation and presenting the significance of a heritage item is that it strengthens relationships between the community and its heritage. It recognises that Aboriginal culture and heritage is central to Aboriginal identity, history spirituality, and customary law and that protocols dictate access to knowledge. The guidelines advise that interpretation should only be taken within the cultural traditions of which it is a part, that the interpretation media should fulfil the needs and character of the audience.

#### Heritage Interpretation Guideline

Transport for New South Wales' Heritage Interpretation Guideline explains the purpose and principles of interpretation and the process of researching, planning and delivering heritage interpretation plans and projects.

## 3. HERITAGE INTERPRETATION FINDINGS

This section summarises the findings, themes and values that have informed the Aboriginal Heritage Interpretation Plan.

### 3.1 THEMES / VALUES

The research and consultation established a value of 'Interconnectedness' that has guided the interpretation plan for the M12 Motorway.

This value of 'Interconnectedness', illustrated in Figure 3, is unique to Aboriginal culture placing the themes of People, Culture and Country in an inextricable web of interrelationships.

Interconnectedness stretches across Time – macro: past, present, future and micro: day, night, dawn, sunset; Culture – passing down of tradition, caring for Country, the rules of respect in welcoming to Country; The Natural World – that has changed and evolved over time and since colonisation; Technology – that has served Country well, as evidenced by the archaeological findings; Travel – the proposed corridor following traditional travel tracks and spiritual Songlines.

The M12 corridor was traditionally the cornerstone of the three cultural groups from the area, a place where they would come together for ceremony. Interconnectedness celebrates the success of the culture and is holistic and enduring, linking people, spirit and land.



Figure 3 Interconnectedness explained.



### 3. HERITAGE INTERPRETATION FINDINGS

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Aboriginal people lived a fluid, resilient existence. They travelled together, dictated by the rules of the land. There were also ancient protocols for crossing land and into another cultural group's boundary. These cultural protocols dictate how stories are shared and how people continue to interact with each other. It is the layers of knowledge and stories that are embedded in the community and the land that instil a strong sense of Interconnectedness.

Interconnectedness celebrates the success of Aboriginal culture and is holistic and enduring, linking people, spirit and land. Most Dreaming stories relate to the physical and spiritual role of the Land as Mother. Everything starts with the Land as Mother and comes from her – people, cycles, seasons, the sky, the stars, the sunlight, the cosmos, all connected through ceremony, through practical living and through ecological management.

Six supporting Cultural Design Principle themes were also developed to support the integration of the 'interconnectedness' value across the interpretive devices along the corridor:

- 1. Narrative integration**
- 2. Protocols & interconnectedness**
- 3. Respect for Country**
- 4. Aboriginal Culture is a living culture**
- 5. Custodianship**
- 6. Place based narratives**



### 3. HERITAGE INTERPRETATION FINDINGS

The following table details each Cultural Design Principle theme.

CULTURAL DESIGN PRINCIPLE	EXPLANATION	HOW IT'S INTEGRATED	WHERE IT'S INTEGRATED
NARRATIVE INTEGRATION	<p>Understanding the differences in the cultural narrative along the M12 corridor is important. Aboriginal Sydney is made up of around thirty Aboriginal cultural groups and the M12 corridor travels through Country which is significant to at least three of these cultural groups.</p> <p>Public Art and Interpretation should pay respect to the diverse cultural groups, acknowledging that they each have differing Creation, Dreaming and historic stories which have significance to places along the M12 corridor.</p>	<p>Working with the Artist cohort plus key community stakeholders through consultations and reviews ensures a diverse perspective on the integration and interpretation of the Aboriginal narrative across the M12 Corridor.</p> <p>The artist cohort is comprised of members of the Darug and D'harawal community as well as locally connected Aboriginal Artists who live and work in Western Sydney.</p> <p>Key Darug Traditional Custodians have been engaged to review and provide guidance on Darug narrative and language integration.</p>	This Cultural Design Principle has been integrated across the M12 corridor
PROTOCOLS AND INTER-CONNECTEDNESS	<p>The locally connected Aboriginal community have advised that there are ancient protocols for crossing into another cultural group's territory. These cultural protocols underpin how knowledge is shared and how people continue to interact with each other.</p>	<p>The design process has supported and facilitated the exchange of knowledge both between and within cultural groups to develop a co-designed and community-endorsed M12 Aboriginal Art Strategy.</p> <p>This process has enriched the Project and will create a legacy for the Aboriginal community through sustaining information for future generations.</p> <p>Ultimately, it is the layers of knowledge and narrative that are embedded in the community and Country that instil a strong sense of interconnectedness.</p> <p>The Project has strived to ensure that all consultation and work with the community has been carried out in a culturally sensitive environment. This has recognised the significance and sensitivity of a number of sites along the corridor. Creating culturally safe protocols has allowed community members to share openly and genuine co-design to occur.</p>	This Cultural Design Principle has been integrated across the M12 corridor

Table 3 Cultural Design Principles

### 3. HERITAGE INTERPRETATION FINDINGS

CULTURAL DESIGN PRINCIPLE	EXPLANATION	HOW IT'S INTEGRATED	WHERE IT'S INTEGRATED
RESPECT FOR COUNTRY	<p>Most Creation and Dreaming stories relate to the physical and spiritual role of the Land as Mother. Everything starts with the Land Mother and comes from her – people, cycles, seasons, the sky, stars, sunlight the cosmos, all connected through ceremony, through cultural practice, and through ecological management.</p> <p>An example of a key constant that links all Aboriginal Nations is the sky which has always been used by Aboriginal people to navigate across Country by the stars and the sun.</p>	<p>Incorporating respect for Country has been the basis for all design thinking and is the foundation for the M12 Aboriginal Art Strategy and the Aboriginal Heritage Interpretation Plan.</p> <p>For example, highlighting the cultural importance of the creek systems through wayfinding, artwork locations and site lines is one way a connections and respect for Country can be incorporated into the project.</p>	<p>The Great Emu in the Sky – Cosmology.</p> <p>Six Seasons Planting – regenerating Country.</p> <p>Eucalypt Canopies – interactive experience to highlight the all-encompassing nature of Country.</p> <p>Wayfinding – placement of wayfinding and signage to highlight significant sites along the corridor.</p>
ABORIGINAL CULTURE IS A LIVING CULTURE	<p>The Aboriginal community celebrates the resilience and continuation of its culture.</p> <p>As such, their stories, and connection to Country, should be evident in the proposed Public Art and Interpretation.</p>	<p>Co-design with the Artists cohort and community stakeholders has ensured that the unique culture of Western Sydney has been made visible through the artworks. This co-design framework has enabled the Artists to highlight narratives that have long been hiding in plain sight.</p>	<p>All of the artworks tell a diversity of stories underpinned by the respect of the unique culture of Western Sydney.</p>

Table 3 Cultural Design Principles



### 3. HERITAGE INTERPRETATION FINDINGS

CULTURAL DESIGN PRINCIPLE	EXPLANATION	HOW IT'S INTEGRATED	WHERE IT'S INTEGRATED
CUSTODIANSHIP	<p>The Aboriginal community believes that people belong to Country rather than Country belonging to people.</p> <p>If you respect and care for Country, Country will care for you. This principle has informed the design intent across the M12 corridor.</p>	<p>Acknowledging the community's custodial responsibilities has been central to the development of the M12 Aboriginal Art Strategy and the Aboriginal Heritage Interpretation Plan.</p> <p>Custodianship is strengthened by sharing the stories and knowledge within cultural groups, as well as with the wider community travelling on the M12.</p> <p>This holds true even for knowledge that can be indicated but not shared in full. There is deep and complex symbology within Aboriginal culture. To indicate that a certain area holds a story that may be referenced, but not fully shared, can elicit respect and acknowledgement of the Aboriginal layer of history that is embedded in the landscape.</p>	<p>Through engaging within a co-design framework the Design Team has been entrusted with cultural knowledge and, in turn, has become a part of the Custodial framework for the corridor.</p> <p>It is hoped that through interpretive projects such as the M12, cross-cultural respect and understanding can be developed. This will occur by Aboriginal people articulating and sharing stories, and by the general public experiencing and acknowledging them.</p>
PLACE-BASED NARRATIVES	<p>Knowledge about Country is passed through oral tradition from generation to generation through experience and location-activated storytelling. Country has multiple purposes and functionalities, however, it always lends its name to the people who are connected to it and have responsibilities for it – those who call that Country home. For example, the people of Darug Country are 'Darug' because they belong to Darug Country.</p>	<p>Co-design with the locally connected Artist cohort along with key community stakeholder consultation and reviews ensured that local narratives informed for all artwork designs.</p> <p>This respects Aboriginal place-based narrative learning which dictates that you cannot gain knowledge about a site without having travelled and experienced that Country.</p>	<p>All of the artworks are interactive and require the traveller to engage with the works from multiple view points. This interactive nature of the artworks encourages travellers to learn and engage with Country in a traditional way.</p>

Table 3 Cultural Design Principles



## 4. AUDIENCE

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The M12 motorway, as a connection between Western Sydney International Airport and Sydney's motorway network, will attract a wide array of users. The audience for the interpretative media can be categorised into three groups.

### **Greater Sydney**

Residents of Greater Sydney will form a set of users of the corridor. Some residents will use the motorway consistently and routinely, others infrequently.

### **International Arrivals/Departures**

The M12 Motorway will be a transport route servicing Western Sydney International Airport and, therefore, one of the first Sydney experiences for International arrivals and a memorable final image for those departing.

### **Local Residents and Workers**

Local residents and workers in the surrounding area will experience the motorway more consistently and frequently than other residents of Greater Sydney. This group will also experience the motorway in a broader variety of ways, such as pedestrian and cycling access. Cyclists and pedestrians have been considered as key users who will engage with the interpretative devices.

The difference of perspectives both between and within groups has been considered in the development of interpretation devices. Varying speeds travelled on the motorway has been taken into account, as well as the varying types of users – such as pedestrians, cyclists, and motorists – have been accommodated for through different interpretive media.

## 5. CONSIDERATION OF DESIGN CONCEPTS FOR ADJACENT PROJECTS

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During the development of the Aboriginal Heritage Interpretation Plan, TfNSW has been progressively kept updated and informed of the developing nature of major infrastructure projects and the urban environment of the area which will include projects such as the Western Sydney International Airport, Sydney Metro West, and the Badgerys Creek Advanced Water Recycling Centre. These projects all have the potential to integrate and have a collaborated response to their individual heritage interpretation design.

The M12 Motorway is at a more progressed stage of development of heritage interpretation features compared to the other projects. This plan will be provided (whilst adhering to best practice Indigenous Cultural and Intellectual Property protocols and permitted purpose) to Western Sydney International Airport, Sydney Metro Western Sydney Airport, the Badgerys Creek Advanced Water Recycling Centre and other adjacent projects where relevant to assist in guiding opportunities for integration of heritage themes and values into their design.

## 6. INTERPRETATION DEVICES

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The celebration of the Aboriginal heritage of the M12 corridor is achieved by sharing traditional and contemporary Aboriginal narratives and symbology.

There is a more than 14,000-years tradition of Aboriginal communities in this area using art to tell stories, recount journeys, share knowledge of the land and pass down beliefs. Art is as important to the contemporary Aboriginal community as it was for their ancestors. Thus art installations have been selected as a key mechanism through which users of the M12 Motorway and shared path are invited to engage with the Aboriginal heritage of the area and explore the values and themes of Interconnectedness.

Language as a central element of Aboriginal heritage will be incorporated across the corridor. Incorporating Darug language directly responds to the themes, particularly Aboriginal Culture Is A Living Culture and Custodianship. The use of Darug language has not been defined in this report; it is an aspect that requires further development.

The theme of Interconnectedness with its central tenants of Connection to Country will be further explored the use of native planting and through wayfinding across the site. These elements are discussed further in Section 7 Interpretation Devices - Detailed.



## 6. INTERPRETATION DEVICES

The below graphic provides an overview of the location of interpretative devices and installations along the motorway corridor and share path.

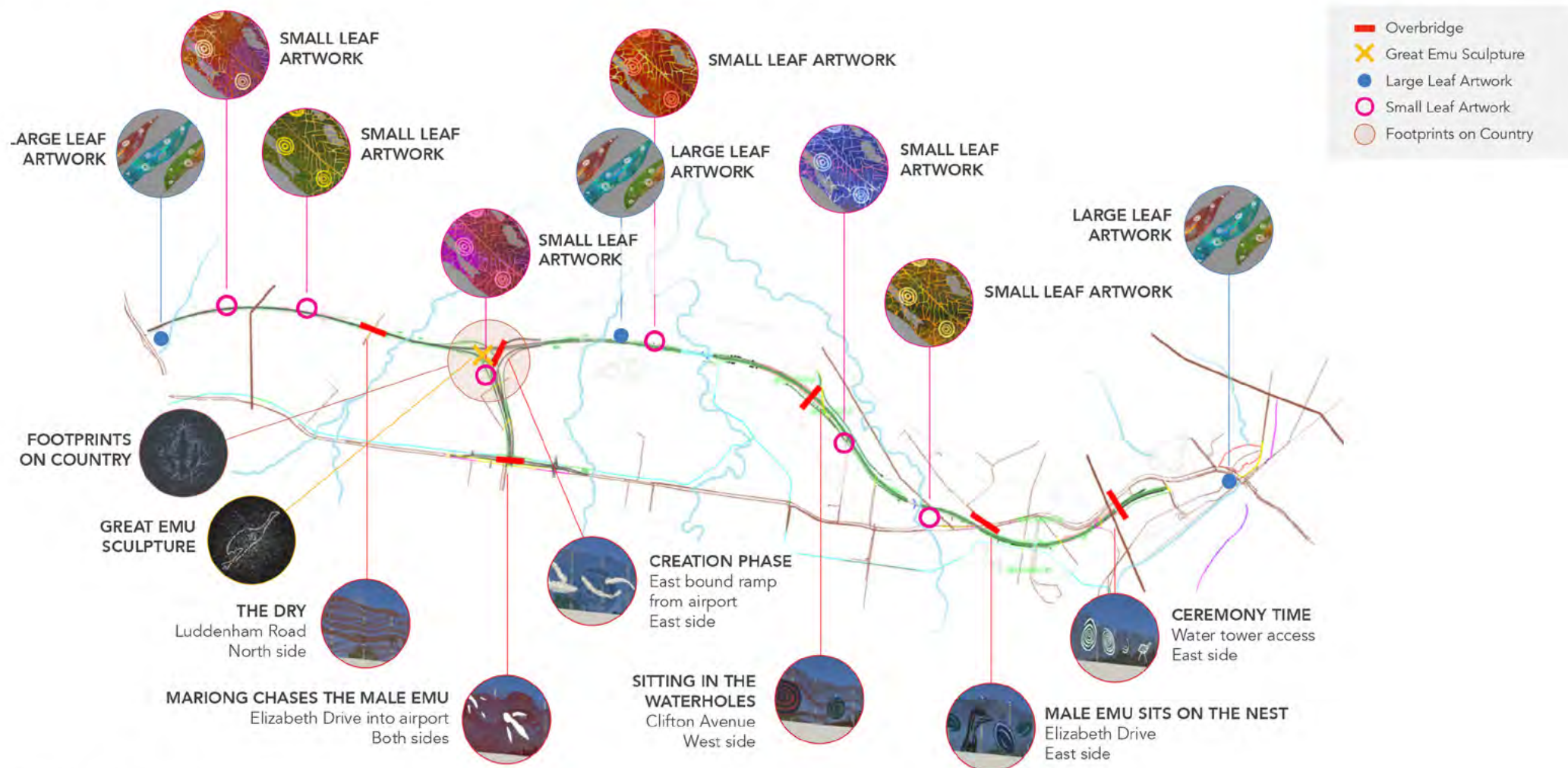


Figure 4 Location interpretative devices across the M12 motorway and share path

## 7. INTERPRETATION DEVICES – DETAILED

### Great Emu in the Sky

The following Emu interpretation is integral to the overarching theme of Interconnectedness; the Emu connects to Belonging, to Land and to the Spirituality of Aboriginal Culture and can be integrated across the corridor. The Emu represents Mother Earth and the Creator Spirit Biame depicted in local Aboriginal art and storytelling throughout the country. The Emu also responds to the physical land as a food source for hunting and guide in cosmology and is depicted in stories of how to travel the land.

The Great Emu in the Sky is a large landmark sculpture that reflects the value of Interconnectedness. It expresses the themes of Place-based Narratives, Narrative Integration, Respect for Country and Custodianship and Protocols. Details of the connections between the artwork and themes are provided in Figure 6: Table of Great Emu Interpretive Themes.

Below the Southern Cross, the Great Emu can be seen stretched across the Milky Way constellation. This forms the inspiration for The Great Emu in the Sky landmark sculpture. The Emu story is interconnected across Australia. Most Aboriginal groups tell their own story of the Emu in the Sky. According to creation stories, Emus were creator spirits that cared for the land. More locally in Ku-ring-gai National Park, in Sydney's north, there are many rock engravings, one of which features the Emu, and at certain times of the year, the Emu constellation shines directly over the engraving.

There is a local Darug Dreaming Story that tells the story of Mariong (the Emu and Mother) and how she became the Milky Way. Mariong is sitting in the river, she stands up, shakes the water off her feathers and creates the stars, then becomes the Milky Way. The sticks which form the nest of the sculpture reference the landscape and materials of the area reflecting the interconnectedness between Country and culture.

The Great Emu in the Sky artwork interpretation is inspired by these stories and the Emu imagery, which features in many of the local artists' works. The Emu within this sculptural work will only be visible from certain viewing perspectives, due to angling of reflective elements and lighting technology. Figure 5 details the different emu forms that will only be seen as certain viewing perspectives. Lighting and native planting will also be used to integrate the Western Sydney six seasons within the artwork, as shown in Figure 7. It links to the Aboriginal principle of custodianship and knowledge sharing: you only see what you are meant to see and once knowledgeholders share their stories to those who respectfully receive the information, it becomes obvious. Custodianship is one of the project's cultural design principles, which are discussed further in Table 4. Figures 8 to 12 show the proposed structure, location and artist impressions of the Great Emu in the Sky artwork interpretation.

## 7. INTERPRETATION DEVICES – DETAILED

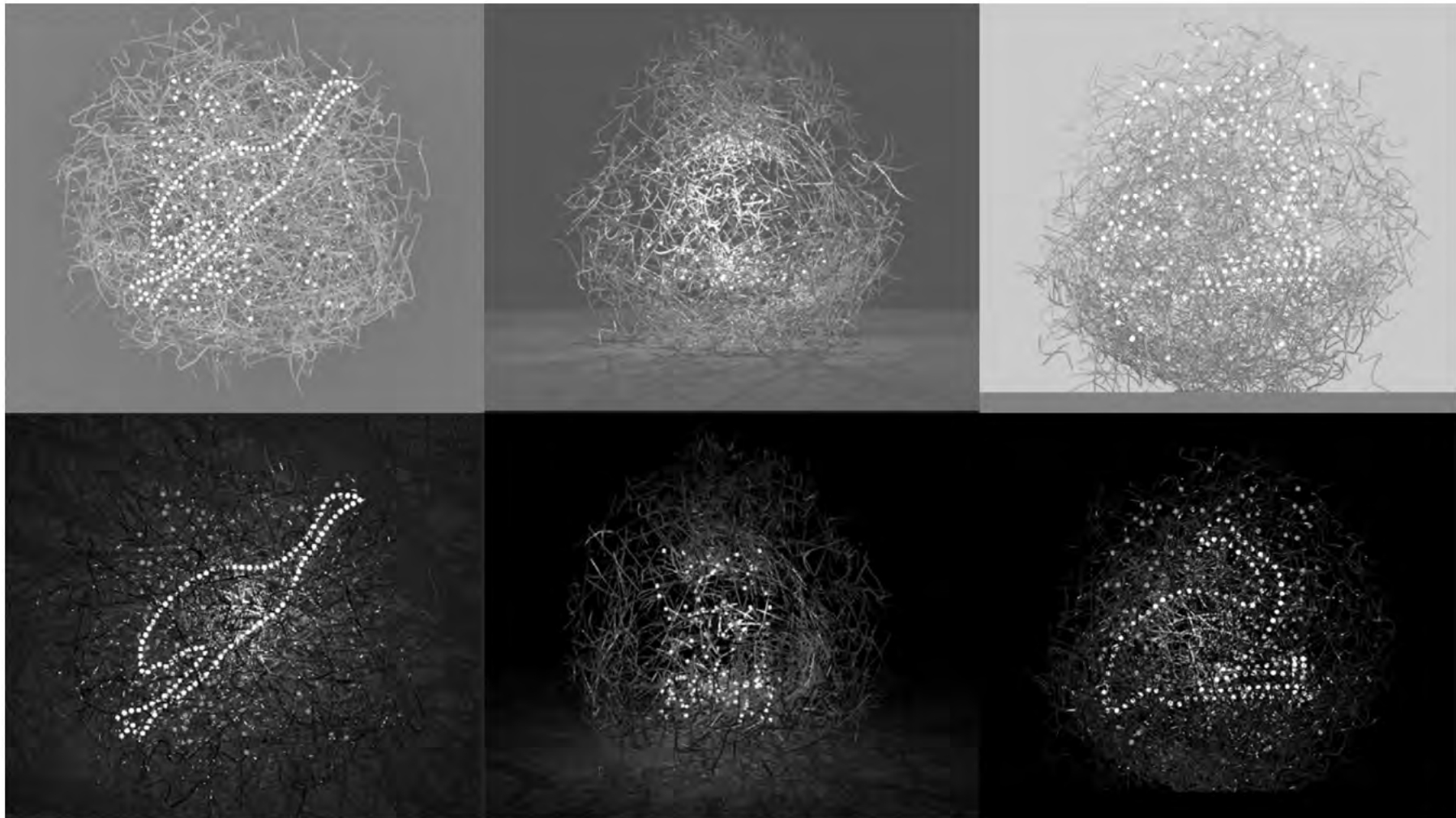


Figure 5 Emu nest and form



## 7. INTERPRETATION DEVICES – DETAILED

The following table explains how the Great Emu in the Sky concept responds to the Cultural Design Principles and interpretation themes.

CULTURAL DESIGN PRINCIPLES	INTERPRETATION THEMES
<b>Interconnectedness</b>	<p>Celebration and interpretation of the M12 corridor acknowledges its Aboriginal history and today's Aboriginal community that connects with the area. There are narratives, songs, dances and cultural practices that are strongly embedded in the landscape and in the passage of the six seasons and time.</p> <p>This key narrative of Interconnectedness is unique to Aboriginal culture and places the concepts of People, Culture and Country in an inextricable web of interrelationships.</p> <p>The Emu Dreaming story is interconnected across Australia. Most Aboriginal cultural groups tell their own version of the Emu in the Sky Dreaming story.</p> <p>According to Creation stories, Emus were Creator Spirits that cared for Country.</p> <p>Below the Southern Cross, the Great Emu can be seen stretched across the Milky Way constellation. This forms the inspiration for The Great Emu in the Sky landmark sculpture.</p> <p>More locally in Ku-ring-gai National Park, there are many rock engravings, one of which features the Emu, and at certain times of the year, the Emu constellation shines directly over the engraving.</p>
<b>Place-based narratives</b>	<p>There is a local Darug Dreaming Story which tells the story of Mariong (the Emu and Mother) and how she became the Milky Way. Mariong is sitting in the river, she stands up, shakes the water off her feathers and creates the stars, then becomes the Milky Way. Depicting this local Darug Dreaming story acts a Welcome to Darug Country.</p>
<b>Protocols and Interconnectedness</b>	<p>Art, music and dance is intrinsic to how Aboriginal people communicate cultural protocols and practice ceremony both traditionally and today. Participation and storytelling through The Great Emu in the Sky sculpture allows these protocols and ceremonies to be shared between generations and the wider community.</p>
<b>Respect for Country</b>	<p>Signature sticks forming the nest in the sculpture reference the landscape and materials of the Darug area – ridge lines, silcrete, sightlines, waterways and the Western Sydney D'harawal Six Seasons are referenced via planting and lighting design.</p>
<b>Custodianship</b>	<p>Narrative and participation – the traveller becomes part of the narrative through participation, the Emu will only be visible from certain viewing points. In turn the traveller becomes the storyteller, linking to the Aboriginal principles of custodianship, knowledge sharing and that narratives are oral. These stories are alive as they continue to be told as people travel through Country.</p>

Table 4 Table of Great Emu interpretative themes



## 7. INTERPRETATION DEVICES – DETAILED

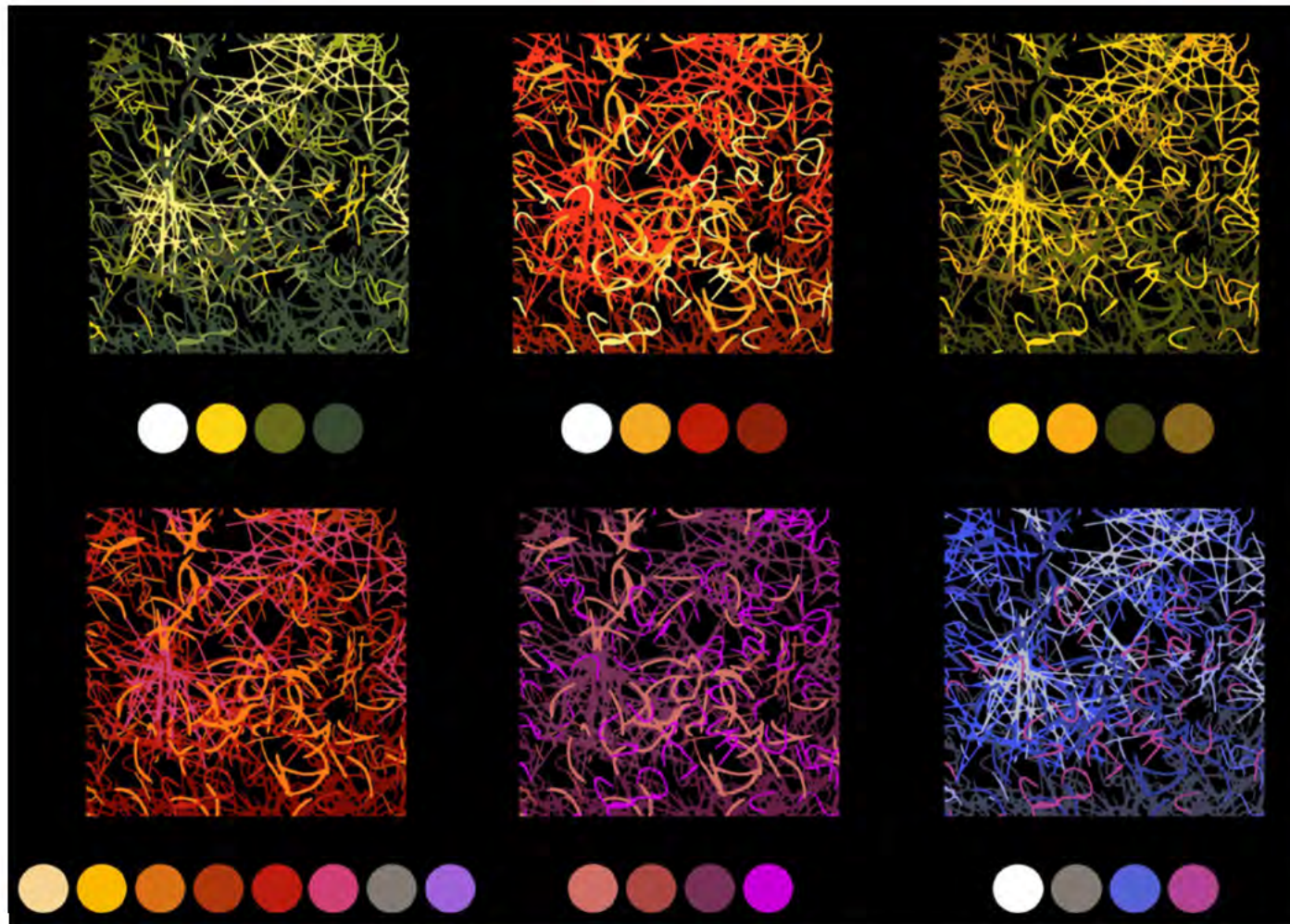


Figure 7 Example of how the Western Sydney Seasons can influence the lighting and planting colour palette

## 7. INTERPRETATION DEVICES – DETAILED

Below demonstrates the indicative structure of the sculpture.

'geodesic' sphere  
internal structure

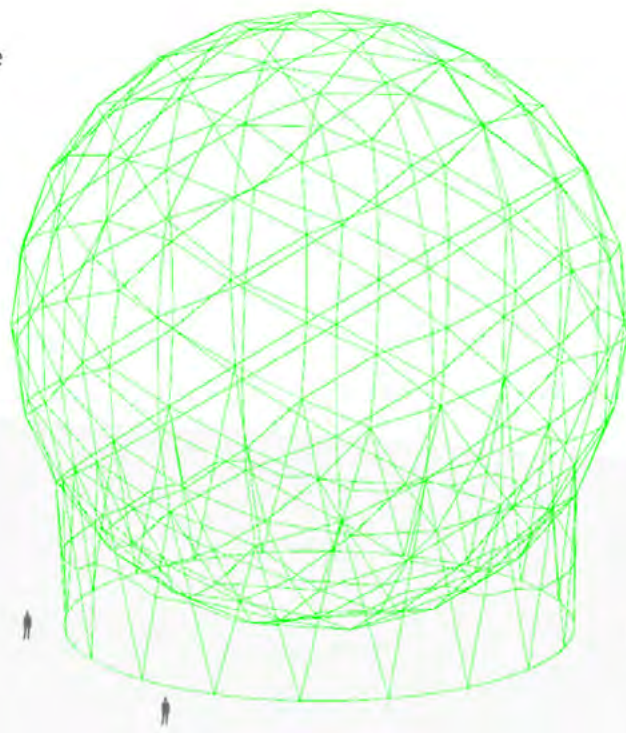


Figure 8 Internal diameter structure 'geodesic' sphere

Structure sphere plus  
pressed aluminum  
stick massing to create  
emu nest.

(stick eccentric layers)

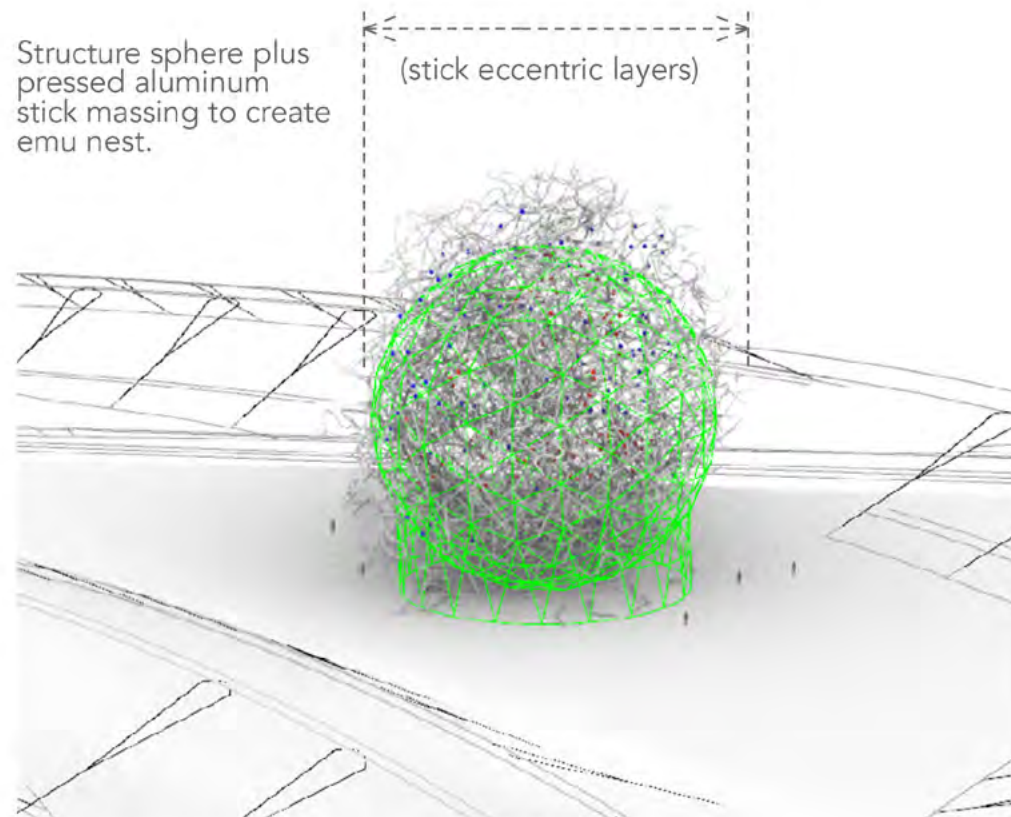


Figure 9 Indicative Structure including stick massing to form nest



## 7. INTERPRETATION DEVICES – DETAILED

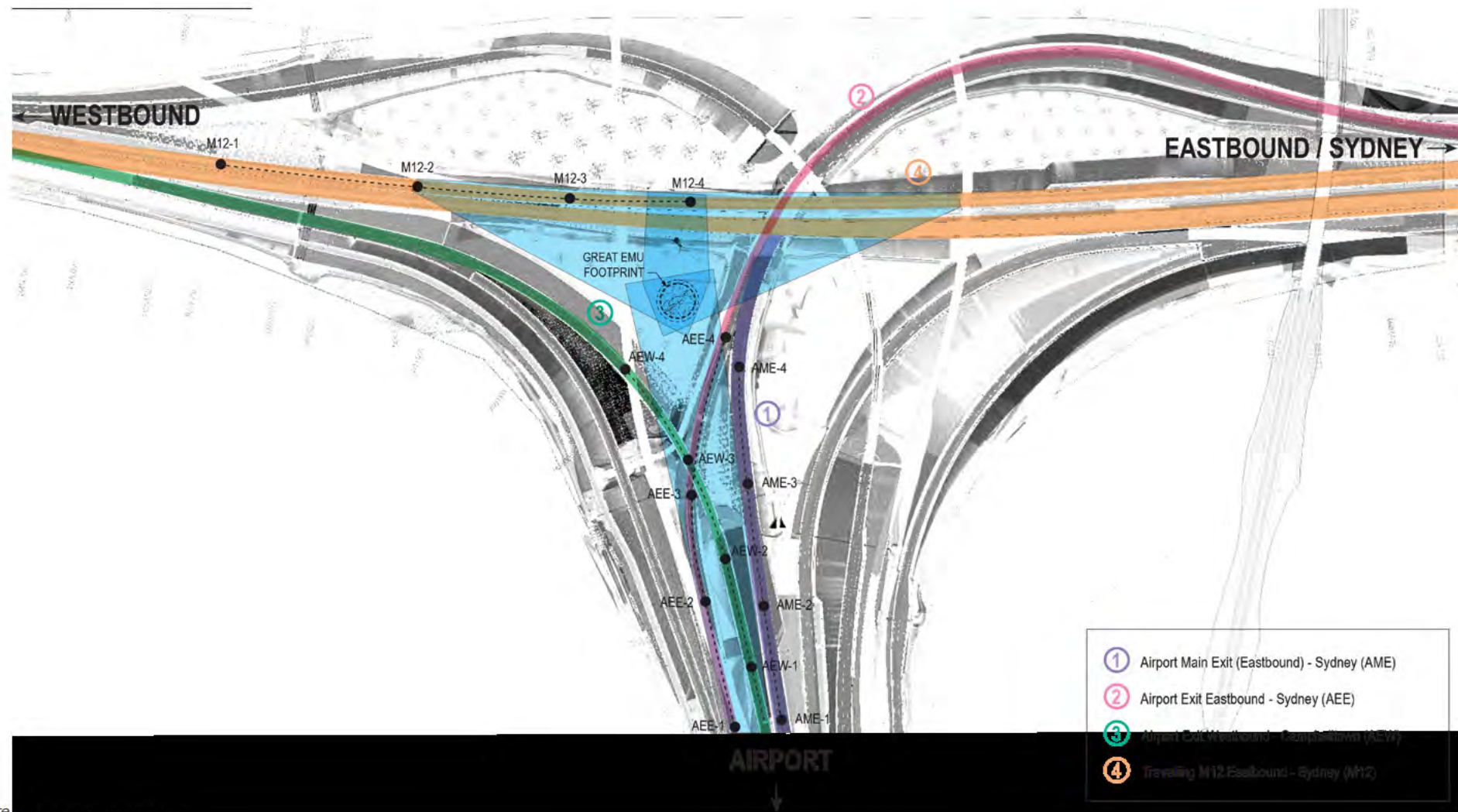


Figure 7-6: Emu Sculpture Location

## 7. INTERPRETATION DEVICES – DETAILED



Figure 11 Artist Impression, view from north over Airport Interchange (Hassell 2021)



Figure 12 Artist Impression, view from south west over Airport Interchange (Hassell 2021)



## 7. INTERPRETATION DEVICES – DETAILED

### Integrated Footprints on Country

Embedding Mariong (Emu) footprints across the shared path shows a connection to Country and the Creation stories of those that have travelled the route before us. According to Creation stories, Mariong (Emu) was a Creator Spirit that cared for Country.

The narratives that traverse the M12 corridor are all interconnected in the same way in which cultural responsibilities and Songlines have been on Darug Country since time immemorial. The footprints connect each of the artworks and narratives from wayfinding through the overbridges, to The Great Emu in the Sky monumental sculpture at the airport interchange – an embedded example of interconnectedness.

Figure 13 shows emu footprint artworks developed by the artist cohort to inform the Integrated Footprints on Country.

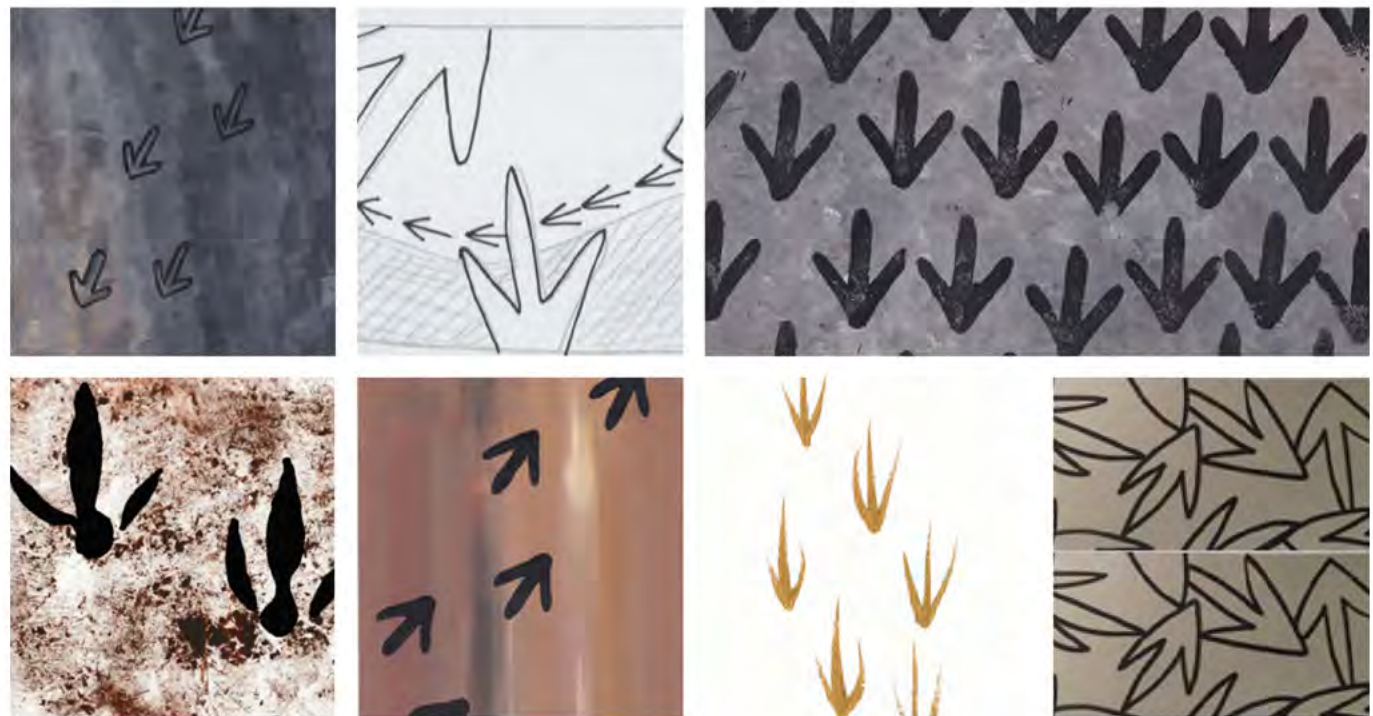


Figure 13 Artist cohort emu footprint artwork



## 7. INTERPRETATION DEVICES – DETAILED

Figure 14 shows how the emu footprints were designed and translated to graphics that can be used as a integrated design intervention across the share path as inlays or way finding and signage.

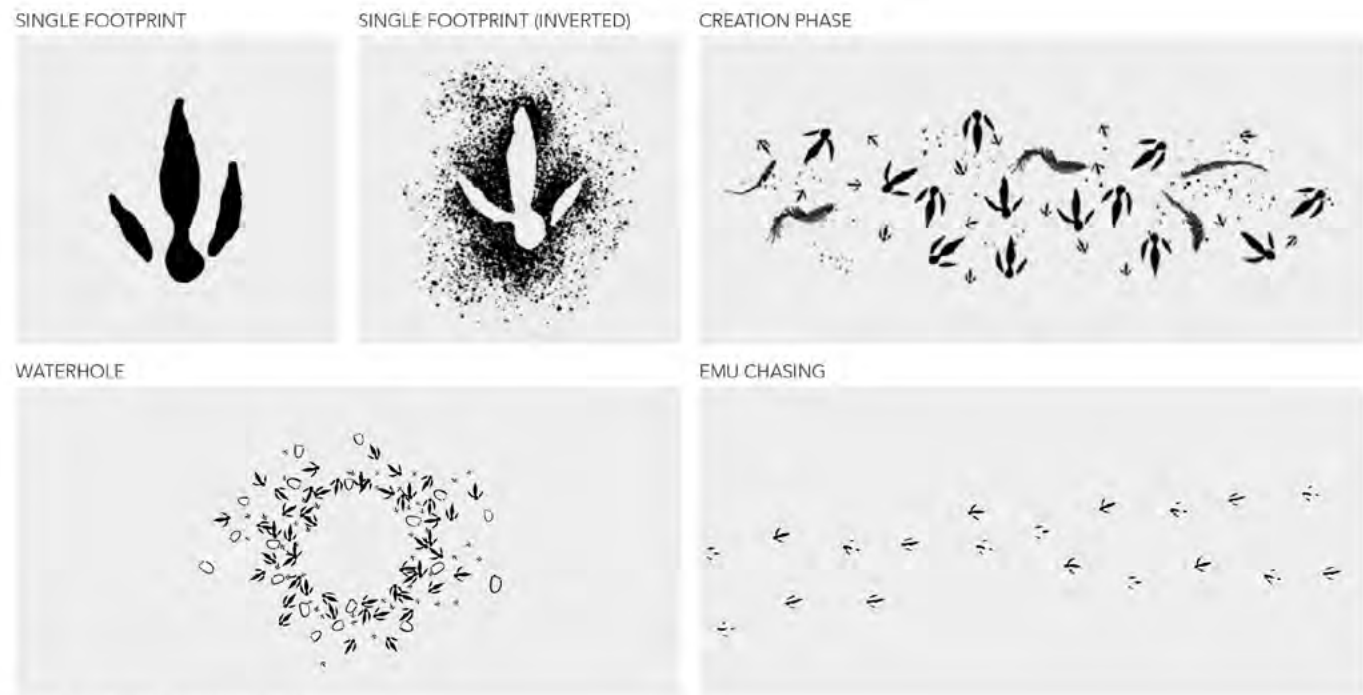


Figure 14 Emu Footprint Styles

## 7. INTERPRETATION DEVICES – DETAILED

### Emu Overbridges

Six of the overbridges along the motorway will be used to tell the six phases in the Mariong (Emu) story (figure 15).

The overbridge artworks will have two layers, the background layer where the design is achieved through the perforated aluminium panel and a story layer which highlights key elements of the artwork story.



Figure 15 Overarching Mariong (Emu) story

## 7. INTERPRETATION DEVICES – DETAILED

### Creation Phase Overbridge

#### Story:

The installation tells the story of Mariong. Mariong sits in the water, then stands up and shakes the water off her feathers, creating the stars that become the Milky Way.

#### Background panel:

The background panel depicts waterholes and emu footprints. This layer will be made from perforated Dulux powder-coated aluminium in the colour Intensity Coast.

#### Story layer:

This layer will feature feathers and stars. The feathers will be made of acrylic or reflective material.



Figure 16 Perforated aluminium design



## 7. INTERPRETATION DEVICES – DETAILED

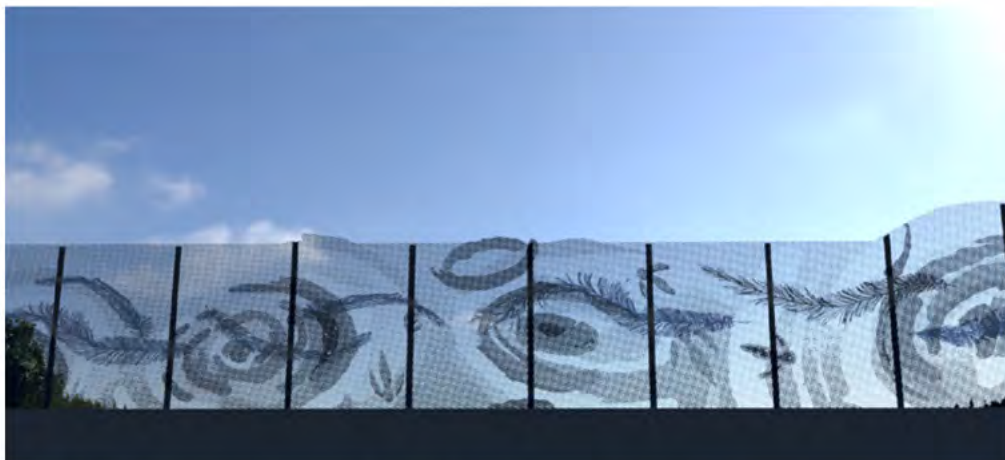


Figure 17 Perforated aluminium design, further angles

## 7. INTERPRETATION DEVICES – DETAILED

### Mariong Chases the Male Emu Overbridge

#### Story:

This overbridge represents the female emu chasing the male.

#### Background panel:

The background panel evokes landscape and the hills. It will be made of perforated Dulux powder-coated aluminium in Intensity Desert.

#### Story layer:

This layer depicts Mariong footprints in motion, made from an acrylic or reflective material.



Figure 18 Perforated aluminium design



## 7. INTERPRETATION DEVICES – DETAILED



Figure 19 Perforated aluminium design, further angles



## 7. INTERPRETATION DEVICES – DETAILED

### Male Emu Sits on the Nest Overbridge

#### Story:

This overbridge represents the nesting season. After the male and female emus create the nest together, the male emu sits on the nest.

#### Background panel:

The nest, grass and sitting emus will form the back layer. This layer will be perforated Dulux powder-coated aluminium in Silver Kinetic Pearl.

#### Story layer:

A male emu and eggs will form the front layer. The emu will be powder-coated aluminium in Elements Magnetite and the eggs will be various acrylic or reflective material.



Figure 20 Perforated aluminium design

## 7. INTERPRETATION DEVICES – DETAILED

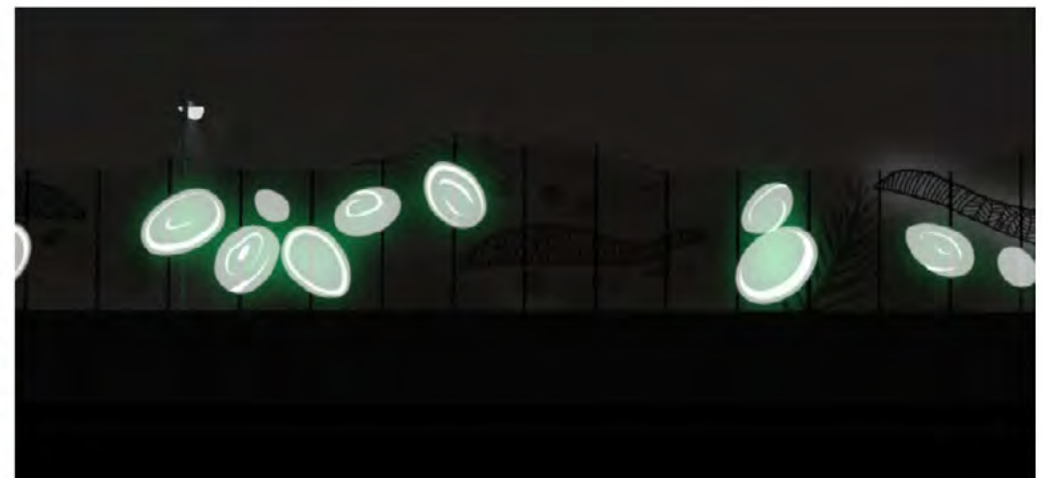
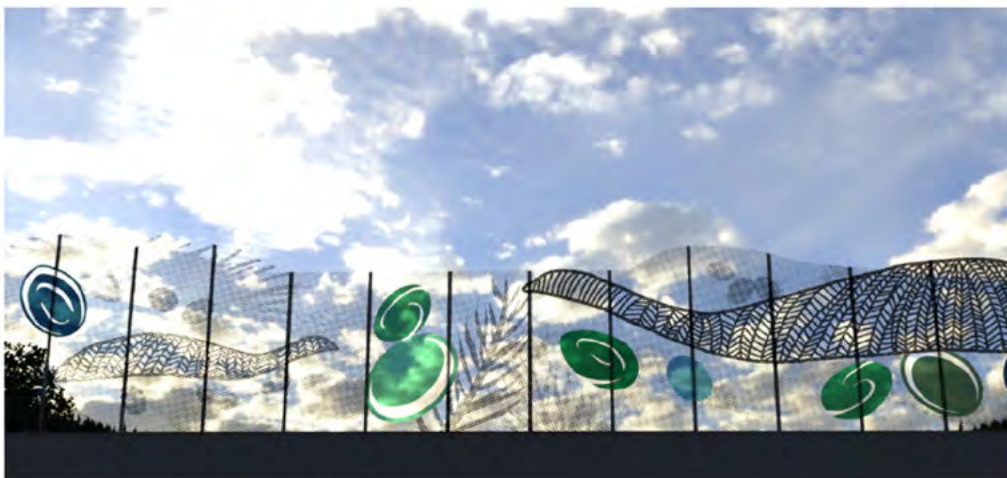


Figure 21 Perforated aluminium design, further angles

## 7. INTERPRETATION DEVICES – DETAILED

### Ceremony Time Overbridge

#### Story:

This artwork will depict ceremony time when the chicks hatch.

#### Background panel:

Nests, grass and emus will be on the background panel. This panel will be perforated Dulux powder coated aluminium in Copper Ore.

#### Story layer:

This panel will feature emu chicks, eggs and grass made from a acrylic or reflective material.

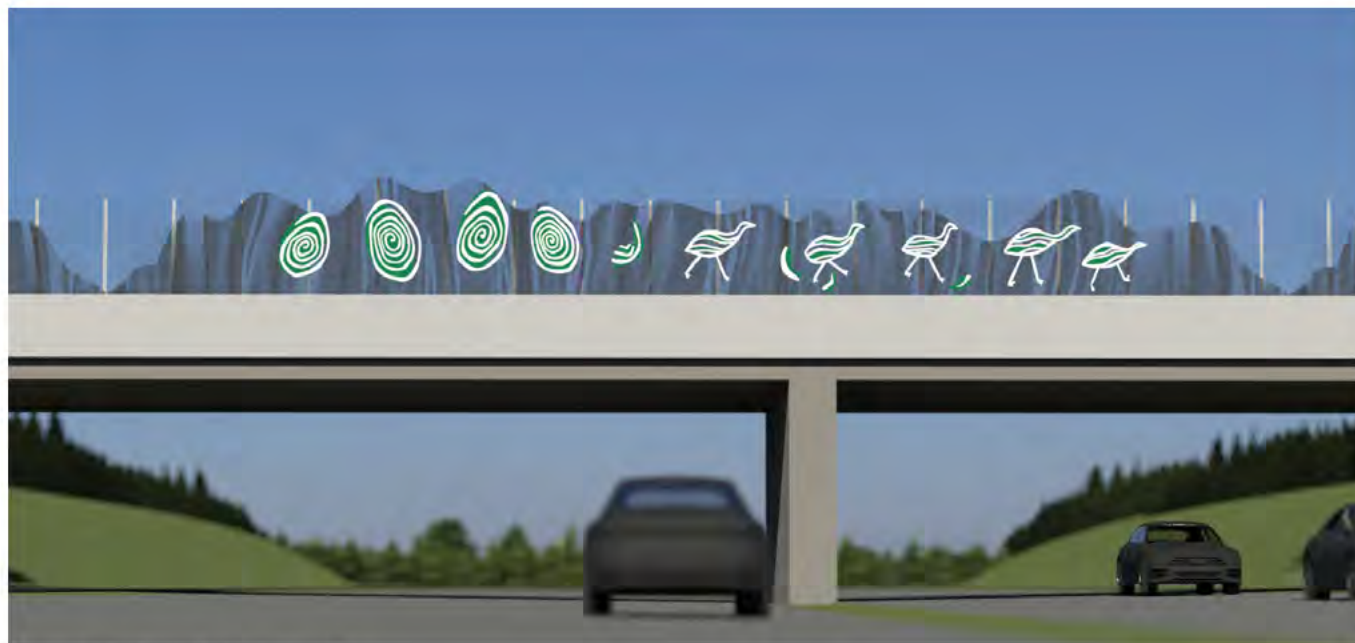


Figure 22 Perforated aluminium design



## 7. INTERPRETATION DEVICES – DETAILED



Figure 23 Perforated aluminium design, further angles

## 7. INTERPRETATION DEVICES – DETAILED

### Sitting in the Waterholes Overbridge

#### Story:

In this phase, Mariong starts searching for remaining cool waterholes as the season heats up.

#### Background panel:

The key elements of this panel will be a dry riverbed with Emu footprints. The back layer will be perforated Dulux powder-coated aluminium in Weathered Steel.

#### Story layer:

This layer will depict stylised waterholes in acrylic or reflective material.

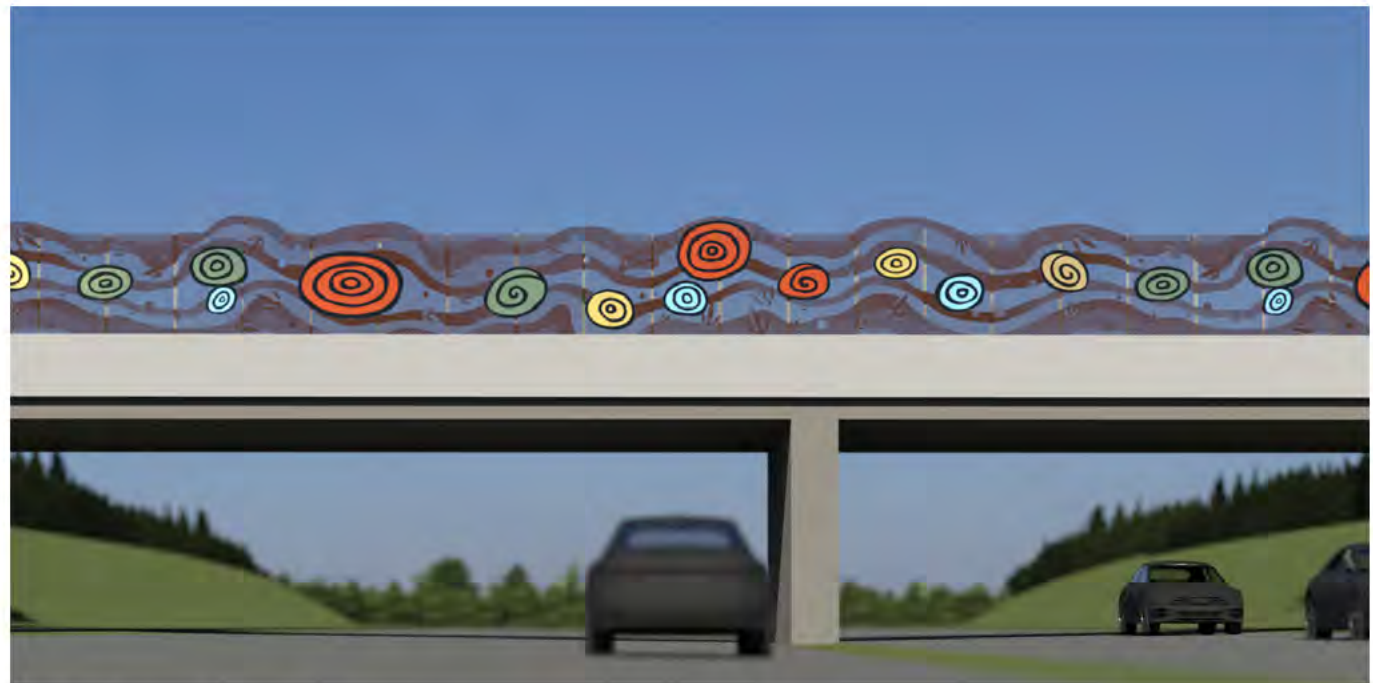


Figure 24 Perforated aluminium design



## 7. INTERPRETATION DEVICES – DETAILED

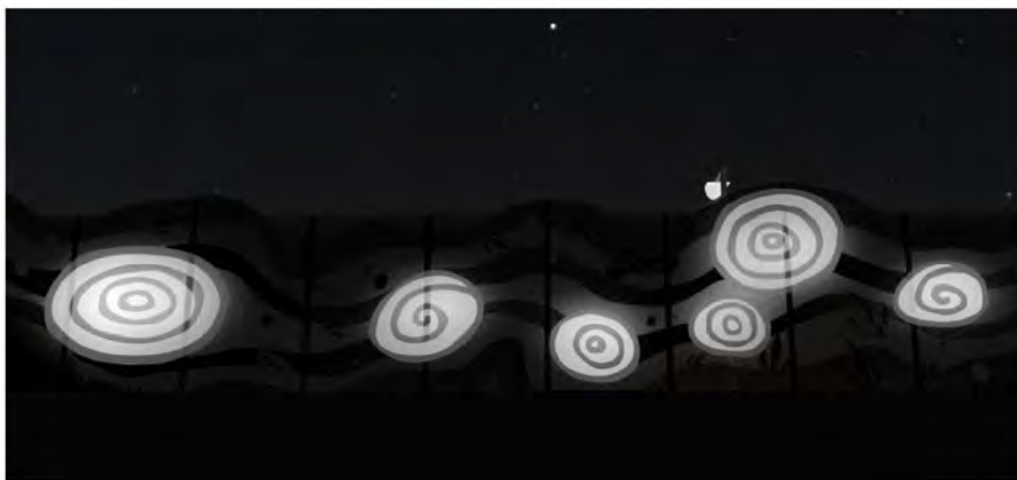
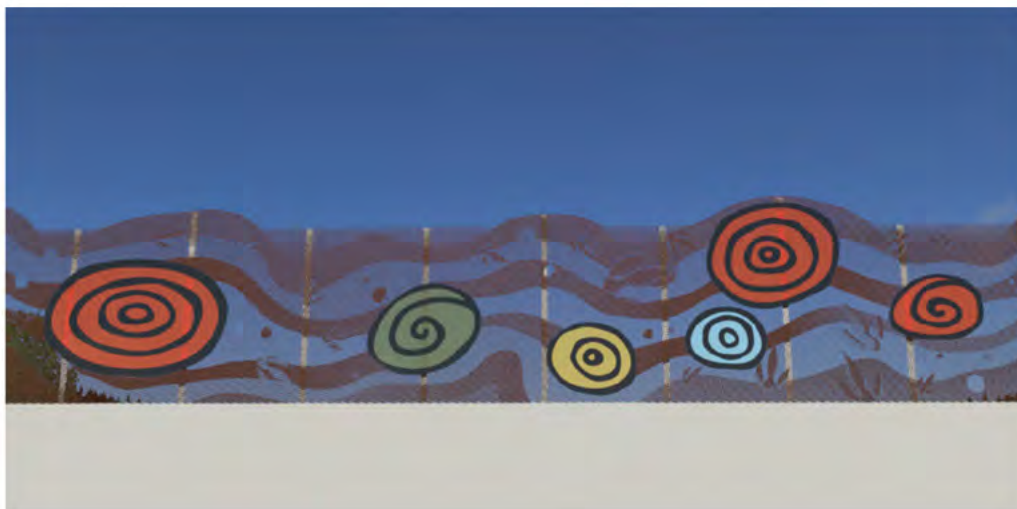


Figure 25 Perforated aluminium design, further angles



## 7. INTERPRETATION DEVICES – DETAILED

### The Dry Overbridge

#### Story:

This artwork will represent the many dried out layers of the earth that hide Aboriginal artefacts.

#### Background Panel:

This panel will feature warped layers of the earth. The back layer will be perforated Dulux powder-coated aluminium in Weathered Steel.

#### Story Layer

This layer will feature a variety of artefacts made from various colours of acrylic or reflective material.

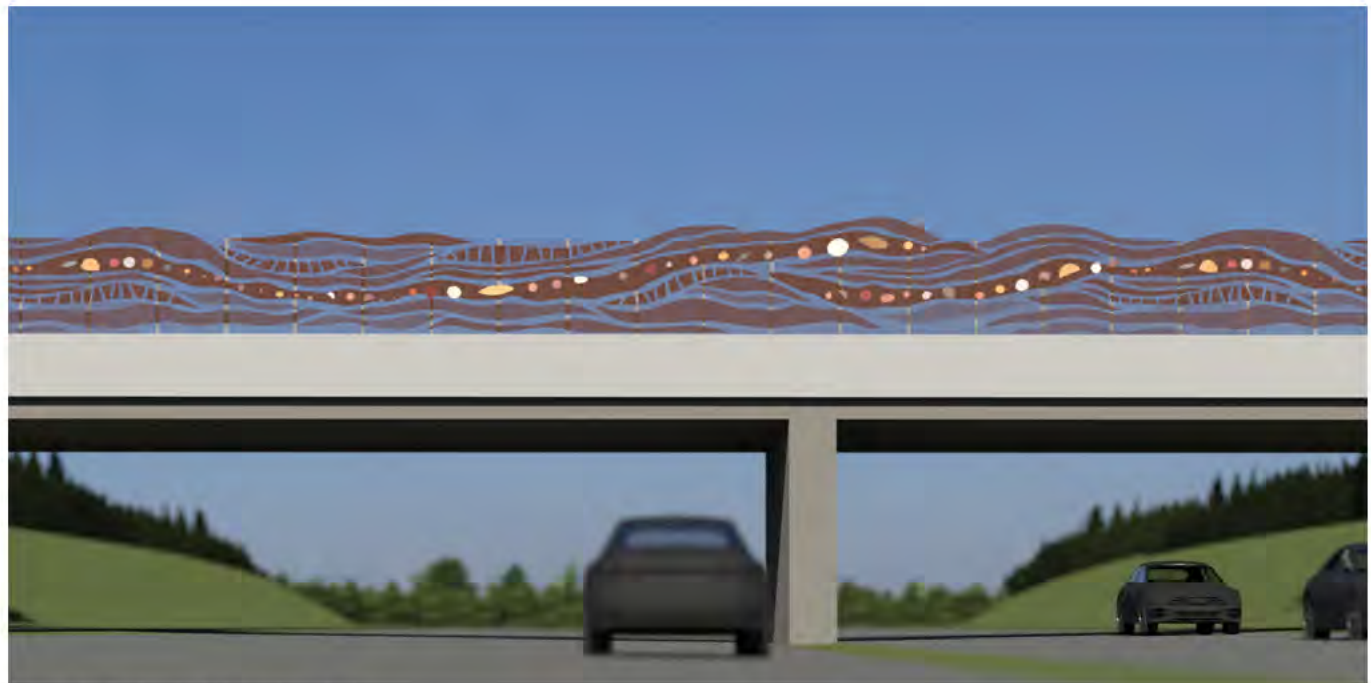


Figure 26 Perforated aluminium design

## 7. INTERPRETATION DEVICES – DETAILED

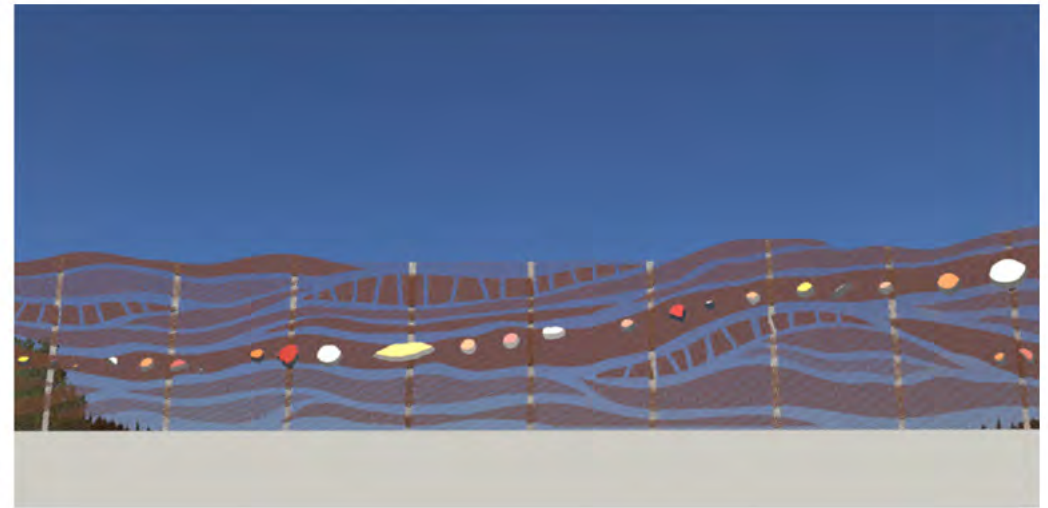


Figure 27 Perforated aluminium design, further angles



## 7. INTERPRETATION DEVICES – DETAILED

### Integrated Wall Elements

The major retaining walls located along Elizabeth Drive and the Airport Interchange will complement the other nearby artworks. The walls will reference the Emu constellation through the use of an elegant, refined and receding material palette incorporating a constellation relief within the Reinforced Soil Walls. In addition, undulating perforated weathering steel panelling will fix to the face of the walls of Elizabeth Drive interchange and incorporate local Darug language and a continuation of the constellation motif.

### Major Retaining Walls - Pattern Finish

The Connection to Country interpretation theme for the M12 Motorway improves the standard and visual appearance of the major retaining walls by applying a subtle constellation pattern that references the surrounding Great Emu story.



Figure 28 Integrated wall elements



Figure 29 Integrated wall elements



Figure 30 View of integrated wall



## 7. INTERPRETATION DEVICES – DETAILED

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### Eucalypt Leaf Canopies

This interpretative element explores the importance that the landscape plays within Aboriginal culture and the community's ability to read the nuances of land while giving insight into how care and understanding of Country were achieved and experienced. As such, the leaf canopies communicate the themes of Respect for Country and Custodianship.

In this interpretation, the scale of layered leaf canopies and people using the shared path has been inverted. This invites travellers to experience the intricate detail of the natural environment that is all around, if people pay attention and listen to the landscape. By changing the scale, the user becomes part of the environment and becomes the lens to tell the story from a different perspective.

The installation interacts with the seasons and time of day, creating shadows and patterns across the share path.

There will be three large leaf canopies, one at each of the entry points adjacent to the shared path on the main line acting as welcome landmarks, further expressing the theme of Protocols and Interconnectedness. The third will be located near the creek lines to acknowledge the importance of creeks and water systems within

Aboriginal community and culture, particularly Wiannmatta – Mother Place (South Creek). There will be six smaller leaf canopies, one at each rest area along the shared path representing each of the Western Sydney six seasons.

## 7. INTERPRETATION DEVICES – DETAILED

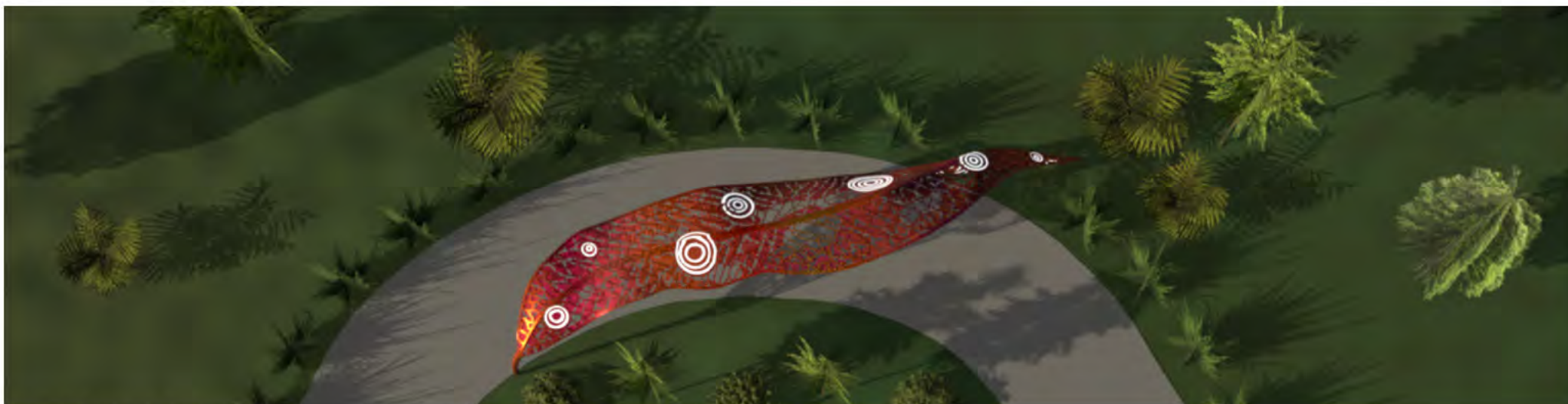


Figure 31 Eucalypt leaf canopy – Aerial view

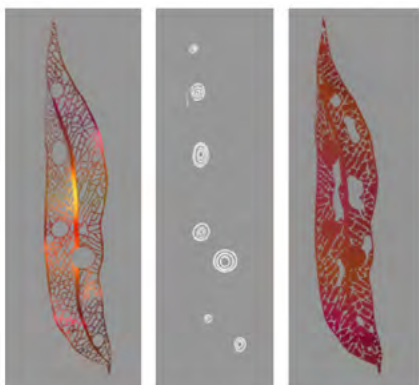


Figure 32 Design layers

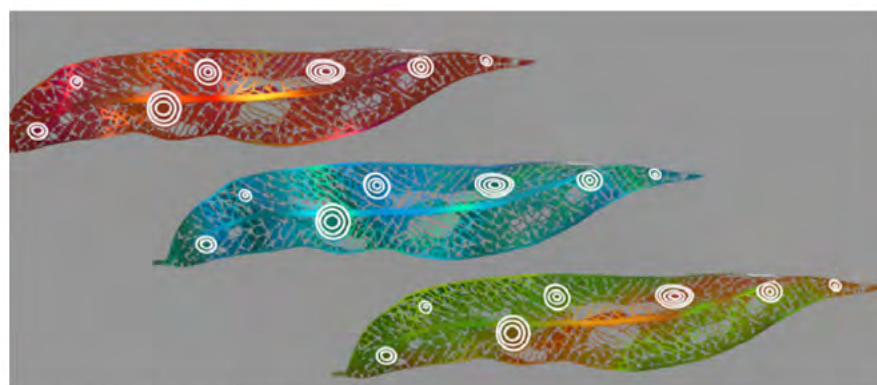


Figure 33 Eucalypt leaf canopies



Figure 34 Eucalypt leaf canopies and the Six Seasons



## 7. INTERPRETATION DEVICES – DETAILED

### Six Seasons Planting

Planting at the rest nodes and along the share path will be organised to reflect the seasonal landscape and signatures of Country, highlighting and celebrating the unique flora and fauna cycles that characterise the six seasons of Western Sydney. Seasonal planting will also be integrated into the Great Emu in the Sky artwork. Although an independent form of interpretation, the planting will serve to reinforce the themes of Respect for Country, Custodianship and Place-based Narratives.

### Wayfinding Style Guide

A wayfinding style guide has been developed to outline how to embed the unique and distinct identity of the Aboriginal stories and heritage into the M12 wayfinding. It will include guidelines on the placement, density, positioning and proportion of artworks, whilst providing flexibility to integrate into the existing Urban Design Wayfinding Framework.



Figure 35 Artist Impression of Eucalypt leaf canopy at rest node (Hassell 2021)



## 8. NEXT STEPS

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Following display of this plan, the design of the interpretation devices will be updated to incorporate relevant feedback and then finalised. Once final designs are ready, they will be incorporated into construction contracts. Engagement with the local Aboriginal community and the artist cohort will continue throughout fabrication and construction of the devices. Following display and consultation (including with Heritage NSW, the Aboriginal Cultural Heritage Advisory Committee and the LALC and relevant council(s)), this plan will be finalised and sent to the Planning Secretary for their information.

# **Appendix A**

Consultation on Aboriginal Cultural Heritage Interpretation Plan



**Table 1: Summary of stakeholder consultation**

STAKEHOLDER	CONSULTATION LOG	FEEDBACK / SUBMISSIONS RECEIVED	TFNSW RESPONSE
Heritage NSW	<ul style="list-style-type: none"> <li>Briefing held with TfNSW and Balarinji – 19 August 2021. Invites sent to Hendry Wan, Jacquie Taylor and Phil Purcell. Hendry Wan attended.</li> <li>Email received from Phil Purcell 19 August 2021</li> <li>Briefing with TfNSW – 02 November 2021, 2:30pm with Hendry Wan and Barry Gunther</li> <li>Public Exhibition – 01 to 28 November 2021</li> </ul>	<ul style="list-style-type: none"> <li>The Aboriginal Cultural heritage team noted they are satisfied with the consultation process undertaken for the Aboriginal artwork and interpretation strategy for the project.</li> <li>Heritage NSW supports the initiative by TfNSW to implement a Heritage Interpretation Plan. Consultation with the Aboriginal community should continue throughout the project. Procurement opportunities with Aboriginal individuals and organisations should be considered for the design and delivery of Aboriginal heritage interpretation, where possible. Interpretive devices should be consistent in design, look and feel in order to integrate and interpret holistically both Aboriginal and Non-Aboriginal values. While not every heritage place can or should be identified along the M12 Motorway corridor, consideration should be given to include a large-scale map at one of the interpretation nodes, to locate many, if not all, of the heritage places (whether listed or not) along the M12 Motorway to give a bigger picture of heritage places/values along the corridor.</li> </ul>	<p>TfNSW can confirm that consultation with Aboriginal communities will continue via the mechanisms already in place. Procurement opportunities established by the project's broader Indigenous Participation Plan will apply to items described in the PDLF.</p> <p>TfNSW agrees with Heritage NSW regarding consistent design, look and feel for interpretative devices and confirms that further design work will commence imminently that will meet this recommendation.</p> <p>TfNSW notes the suggestion of a large-scale map and confirms that further detailed design work is about to commence to address this. It is currently envisaged that maps will be provided at entry points and other decision points along the shared path. TfNSW will consider whether it is appropriate to add a similar map to signs at or on more of the nodes.</p>



# BALARINJI

STAKEHOLDER	CONSULTATION LOG	FEEDBACK / SUBMISSIONS RECEIVED	TFNSW RESPONSE
Aboriginal Cultural Heritage Advisory Committee (ACHAC)	<ul style="list-style-type: none"> <li>Email from TfNSW to ACHAC Secretariat on 04 November 2022</li> <li>Public Exhibition – 01 to 28 November 2021</li> </ul>	No submissions received	N/A
Local Aboriginal Land Councils (LALCs)	<ul style="list-style-type: none"> <li>Email from TfNSW to Deerubbin LALC on 05 November 2022</li> <li>Email from TfNSW to Gandagarra LALC on 05 November 2022</li> <li>Public Exhibition – 01 to 28 November 2021</li> </ul>	No submissions received	N/A
Penrith City Council	<ul style="list-style-type: none"> <li>Briefing held with TfNSW and Balarinji – 19 August 2021 on Aboriginal cultural heritage and non-Aboriginal heritage interpretation. David Forward, Tiffany LeeShoy, Peter Wood and Ari Fernando attended.</li> <li>Email on 13 September 2021 from TfNSW to Ari Fernando</li> </ul>	<ul style="list-style-type: none"> <li>Generally positive verbal feedback in the briefing regarding the proposed Aboriginal cultural heritage interpretation and artwork</li> <li>A submission was received during public exhibition, however no issues regarding Aboriginal cultural heritage interpretation were raised.</li> </ul>	N/A

ANCIENT CULTURE | CONTEMPORARY DESIGN

3

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ABN 36 090 740 113 ACN 090 740 113



STAKEHOLDER	CONSULTATION LOG	FEEDBACK / SUBMISSIONS RECEIVED	TFNSW RESPONSE
	<ul style="list-style-type: none"> <li>following up whether comments would be provided.</li> <li>Public Exhibition – 01 to 28 November 2021</li> <li>Briefing held with TfNSW on 19 November 2021 on public exhibition of the Place Design and Landscape Plan and the Heritage Interpretation Plans</li> <li>Email from TfNSW to Penrith City Council on 05 November 2022</li> </ul>		
Fairfield City Council	<ul style="list-style-type: none"> <li>Briefing held with TfNSW on Aboriginal cultural heritage and non-Aboriginal heritage interpretation – 12 August 2021. Kerren Ven and Vanessa Holtham attended.</li> <li>Email from TfNSW to Fairfield City Council on 05 November 2022</li> <li>Public Exhibition – 01 to 28 November 2021</li> </ul>	<ul style="list-style-type: none"> <li>Generally positive verbal feedback in the briefing regarding the proposed interpretation and artwork</li> <li>Comments received on Non-Aboriginal heritage interpretation, but no comments on Aboriginal cultural heritage interpretation.</li> </ul>	N/A





## BALARINJI

STAKEHOLDER	CONSULTATION LOG	FEEDBACK / SUBMISSIONS RECEIVED	TFNSW RESPONSE
Liverpool City Council	<ul style="list-style-type: none"><li>• Briefing held with TfNSW and Balarinji – 19 August 2021. Thomas Wheeler attended.</li><li>• Email to Charles Wiafe on 21 September 2021 following up comments</li><li>• Email to Charles Wiafe and Thomas Wheeler on 12 October following up comments and advising of finalisation of the plan for the purposes of exhibition.</li><li>• Email from TfNSW to Liverpool City Council on 05 November 2022</li><li>• Public Exhibition – 01 to 28 November 2021</li></ul>	<ul style="list-style-type: none"><li>• Generally positive verbal feedback in the briefing regarding the proposed Aboriginal cultural heritage interpretation and artwork</li><li>• Comments received on the non-Aboriginal interpretation, but no comments on Aboriginal cultural heritage interpretation.</li></ul>	N/A

ANCIENT CULTURE | CONTEMPORARY DESIGN

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[REDACTED]

Please accept this invite to a briefing on the proposed M12 Motorway heritage interpretation

- 1) Brief Project overview
- 2) Non-Aboriginal heritage interpretation plan
- 3) Aboriginal Artwork strategy for the project
- 4) Questions
- 5) Providing feedback to TfNSW
- 6) Next steps

Please let me know if you have any questions

Kind regards

Suzette Graham  
Senior Environment Officer

Transport for NSW  
27 Argyle Street, Parramatta NSW 2150

OFFICIAL

Join on your computer or mobile app

[illegible]

## Suzette Graham

---

**From:** Phil PURCELL [REDACTED] >  
**Sent:** Thursday, 19 August 2021 7:59 AM  
**To:** Suzette Graham  
**Cc:** M12 Detailed Design  
**Subject:** RE: M12 Motorway Heritage Interpretation Plan Consultation under NSW CoA E27

**CAUTION:** This email is sent from an external source. Do not click any links or open attachments unless you recognise the sender and know the content is safe.

Hi Suzette

Thank you for the invitation but as discussed, Heritage NSW (ACH regulation) will not attend the briefing on the Interpretation Plan. We are satisfied with the consultation process designed for Aboriginal community input into designing the art work and thematic Interpretation Plan and I understand from our discussion that it is progressing well. I also acknowledge the expertise of the specialist contracted to facilitate engagement with interested parties. Therefore we defer to the Aboriginal community who are collaborating to design the art work and interpretation plan.

From an Aboriginal cultural heritage planning and regulatory perspective our role in the project assessment is concluded. But feel free to reach out and discuss any modification to the proposed management strategies for heritage.

Good luck with the project and look forward with interest to reading the final interpretation plan.

Regards

phil

**Phil Purcell**  
**Archaeologist**  
Heritage NSW, Community Engagement, Department of Premier and Cabinet  
T [REDACTED]  
[REDACTED]



*I acknowledge and respect the traditional custodians and ancestors of the lands I work across*

### **Heritage NSW and coronavirus (COVID-19)**

Heritage NSW has taken steps to protect the safety, health and wellbeing of our staff, communities and customers. Whilst our offices remain open, we have put in place flexible working arrangements for our teams across NSW and continue to adapt our working arrangements as necessary. Face-to-face meetings and field work/site visits with our customers are subject to rules on gatherings and social distancing measures. We thank you for your patience and understanding at this time.

---

**From:** Suzette Graham [REDACTED]  
**Sent:** Wednesday, 18 August 2021 10:58 AM  
**To:** Phil PURCELL [REDACTED]



**Cc:** M12 Detailed Design <[REDACTED]>  
**Subject:** M12 Motorway Heritage Interpretation Plan Consultation under NSW CoA E27

Hi Phil,

Good to talk to you on the phone just now about the M12 Motorway Aboriginal Artwork Strategy and heritage interpretation.

As discussed, TfNSW has a requirement to consult with Heritage NSW regarding the Interpretation Plan for the project under Condition E27.

In relation to Aboriginal Cultural Heritage, the Interpretation Plan will build on the themes and artworks developed with the local Aboriginal community/ local artists / Balarinji as originally identified in the EIS.

The briefing tomorrow will give an update on this process and how the artwork has developed in detailed design.

We understand if you don't think it necessary to attend the briefing or comment on the Interpretation Plan.

Would you mind providing a response to confirm if this is the case?

I will still send through the Interpretation Plan, once finalised, for your information.

Thank you,

Kind regards,  
Suzette Graham  
Environment and Sustainability Manager  
Sydney Infrastructure Development | Safety, Environment and Regulation  
[REDACTED]

**Transport for NSW**

27 Argyle Street, Parramatta NSW 2150

I work flexibly. Unless it suits you, I don't expect you to read or respond to my emails outside of your normal work hours.

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Our ref: DOC21/1002601

Katie Xia  
Manager, Communications and Stakeholder Engagement  
M12 Motorway  
Community and Place, Greater Sydney  
Transport for NSW  
Level 7, 27 Argyle Street  
Parramatta NSW 2150

By email: [REDACTED]  
cc: [m12motorway@transport.nsw.gov.au](mailto:m12motorway@transport.nsw.gov.au)

Dear Katie

## M12 Motorway – Place, Design and Landscape Plan feedback

Thank you for inviting comments from the Heritage Council of NSW on the [Place, Design and Landscape Plan](#).

As delegate of the Heritage Council, I recommended draft conditions for the SSI 9364 M12 Motorway on 4 November 2020 including a condition to prepare a Heritage Interpretation Plan to interpret Aboriginal and Non-Aboriginal heritage values in design responses (our ref: DOC20/862143).

The approved SSI 9364 (23 April 2021) subject to Minister's Conditions of Approval.

**Condition E27** requires a ***Heritage Interpretation Plan*** be prepared that identifies and interprets the key heritage values and stories of the heritage items impacted by the CSSI. The HIP must **be submitted to Heritage NSW for information** prior to finalising the Place, Design and Landscape Plan (PDLP). The HIP must be implemented and inform the finalisation of the PDLP (see the Attachment for other conditions relevant to heritage interpretation).

**Condition E70** requires the PDLP be prepared in consultation with Heritage NSW.

Following your presentation of the PDLP on 2 November 2021, I provide the following feedback as delegate of the Heritage Council.

### Interpretation of Aboriginal heritage values

Heritage NSW supports the initiative by Transport for NSW to implement a Heritage Interpretation Plan for the M12 Motorway in accordance with the Objective 1.2 "to create a unique and distinct identity interpreting the rich sense of place, Aboriginal and cultural heritage". Sometimes important stories, either about earlier ecology of a place or about earlier human stories are almost completely submerged. In many cases just bringing these to people's awareness allows these stories and associated life lessons to be revived.

The world's oldest civilization provides a wealth of cultural significance to Australia's historical and future identity and South West Sydney has a growing infrastructure where Transport for

NSW has the opportunity within this framework to showcase the diversity of Aboriginal culture and raise the profile of heritage throughout the M12 Urban Design initiatives.

The Government Architect's "Connecting with Country" draft framework provides guidance to ensure Aboriginal heritage and culture are embraced and protected as a central part of the planning, construction and delivery of projects.

These initiatives should not be done as a minimum but to incorporate as many interpretation opportunities as possible that will provide an educational value to the wider community and supplement the recreational and user needs of the community.

Rest stop areas, open space and wayfinding interpretation are ideal areas that can provide an opportunity to incorporate the tangible and intangible philosophy and methodology of Aboriginal culture, Aboriginal knowledge of Country and Care for Country initiatives into the planning and design systems that reflect "above the norm" form of artworks that truly make a statement to promote the Aboriginal heritage values at a higher standard that has not been done previously.

In addition, Aboriginal community voices should always be heard during the design process. Consultation with Aboriginal community should continue to assist in the progress and implementation of these stories, themes, designs and strategies with a view to provide an opportunity for artists to explore their own creative ideas and designs freely without the parameters of restrictions that will inhibit creative progression of urban design and landscape architecture cultural interpretation outcomes.

Procurement opportunities for the design and delivery of the interpretation should also be considered for Aboriginal individuals and organisations where possible.

### **Interpretation of Non-Aboriginal heritage values**

The PDLP proposes to interpret Non-Aboriginal heritage at or along shared paths and interpretation nodes. This is appropriate and is supported. It is recommended that interpretive physical devices have a consistent design, look and feel to integrate and interpret holistically both Aboriginal and Non-Aboriginal values and experiences consistently and seamlessly.

Five heritage places (Upper Canal System, McGarvie Smith Farm, McMaster's Field Station, Fleurs Radio Telescope Site, Fleurs Aerodrome) are interpreted at or along shared paths and interpretation nodes. This is appropriate and is supported. The interpretation of both State and local heritage items as well as potential heritage items is supported.

- Upper Canal System (currently on the State Heritage Register)
- McGarvie Smith Farm (not currently on the State Heritage Register but assessed as of State significance)
- McMaster's Field Station (not currently on the State Heritage Register but assessed as of State significance)
- Fleurs Radio Telescope Site (not currently on the State Heritage Register but assessed as of State significance and potentially of National significance)
- Fleurs Aerodrome (not currently listed but assessed as of local significance)

Retention of physical places and their fabric is the best heritage conservation and interpretation approach and outcome. Not every heritage place can or should be identified along the M12 Motorway corridor (also bearing in mind there may be future potential heritage items). However, consideration should be given to include a large-scale map at one of the



interpretation nodes, to locate many, if not all, of the heritage places (whether listed or not) along the M12 Motorway to give a bigger picture of heritage places/values along the corridor.

### **Recommendations**

1. Consultation with Aboriginal community should continue during the development and implementation of interpretation stories, themes, designs and strategies.
2. Procurement opportunities for the design and delivery of the interpretation of Aboriginal heritage values should be considered for Aboriginal individuals and organisations where possible.
3. Interpretive devices to have a consistent design, look and feel to integrate and interpret holistically both Aboriginal and Non-Aboriginal values consistently and seamlessly.
4. Consideration should be given to include a large-scale map at one of the interpretation nodes, to locate many, if not all, of the heritage places (whether listed or not) along the M12 Motorway to give a bigger picture of heritage places/values along the corridor. Such heritage places include those not located close to, and are not visible from, the shared paths (pedestrian and cyclist links) and interpretation nodes.

If you have any questions regarding this feedback (SSI 9364 M12 Motorway – Place, Design and Landscape Plan), please contact Hendry Wan, Senior Heritage Officer Major Projects at Heritage NSW, on ( [REDACTED] )

Thank you for this opportunity to comment on the relevant heritage matters.

Yours sincerely



**Sarah Jane Brazil**  
Senior Team Leader, Major Projects  
Heritage NSW  
Department of Premier and Cabinet  
**As Delegate of the Heritage Council of NSW**

1 December 2021

**ATTACHMENT:**

**SSI 9364 Minister's Conditions of Approval relevant to heritage interpretation**

- E26** An experienced and qualified heritage specialist(s) must prepare and/or endorse the:
- (a) **Heritage Interpretation Plan** required by **Condition E27**;
  - (b) archival photographic digital recording required by **Condition E28**; and
  - (c) **Heritage Report** required by **Condition E29**.

- E27** A **Heritage Interpretation Plan** must be prepared that identifies and interprets the key heritage values and stories of the heritage items impacted by the CSSI. The Heritage Interpretation Plan must include, but not be limited to:

- (a) integration of heritage themes and values in the design of the CSSI;
- (b) design elements (form and fabric) and themes for the CSSI;
- (c) consideration of the design concepts for Western Sydney International Airport and Sydney Metro Western Sydney Airport; and
- (d) opportunities for design responses for Aboriginal and non-Aboriginal heritage.

The **Heritage Interpretation Plan** must be provided to Western Sydney International Airport and Sydney Metro Western Sydney Airport to assist in guiding opportunities for integration of heritage themes and values into their design.

The Heritage Interpretation Plan must be prepared in accordance with the *Interpreting Heritage Places and Items Guidelines* (NSW Heritage Office, 2005), and in consultation with Heritage NSW, Aboriginal Cultural Heritage Advisory Committee, LALC and relevant council(s).

The Plan must be implemented and inform the **Place, Design and Landscape Plan** required by **Condition E69**.

The Heritage Interpretation Plan must be submitted to the Planning Secretary and Heritage NSW for information prior to finalising the **Place, Design and Landscape Plan** required by **Condition E69**.

*Note: Nothing in this condition prevents the Proponent from preparing separate Heritage Interpretation Plans for Aboriginal and Non-Aboriginal Heritage.*

- E68** Place making, design and landscape outcomes must be informed by input and review by independent and qualified practitioners in the following fields (practitioners may cover more than one field if suitably qualified):

- (a) public art / cultural interpretation public art;
- (b) Aboriginal cultural heritage;
- (c) European cultural heritage;
- (d) landscape architecture; and
- (e) active transport.

These practitioners must be approved by the Planning Secretary at least one (1) month before the commencement of construction and must hold current membership of a relevant professional body, unless otherwise approved by the Planning Secretary. These practitioners must be involved through participation in the Design Review Panel committed to by the Proponent in the documents listed in **Condition A1**, and in the development and review of the **Place, Design and Landscape Plan**.

Advice and recommendations made by the practitioners must be provided to the Planning Secretary for information when submitting the **Place, Design and Landscape Plan** to the Planning Secretary.

*Note: The considerations that the Department will take into account when deciding to approve a practitioner are set out in 'Seeking Approval from the Department for the appointment of independent experts, Post approval guidance for Infrastructure Projects' (DPIE, 2020).*

- E70** The **Place, Design and Landscape Plan** must be prepared by a suitably qualified and experienced person in consultation with relevant councils, Western Sydney Parklands Trust,

Heritage NSW, the community and affected landowners and businesses. The **Place, Design and Landscape Plan** must include, but not be limited to:

- (a) an analysis of the built, natural, heritage and community context and the urban design objectives, principles and standards for the CSSI;
- (b) identification of opportunities for heritage interpretation during design and construction consistent with the Heritage Interpretation Plan required by Condition E27;
- (c) the design of the CSSI elements including their form, materials and detail;
- (d) the design of the CSSI landform and earthworks;
- (e) the location of existing vegetation, areas of vegetation to be retained and proposed planting and seeding details, including the use of local indigenous species for revegetation activities.
- (f) active transport infrastructure, including amenities to be provided along the shared user path;
- (g) developed visualisations, cross sections and plans showing the proposed design outcome;
- (h) demonstrated integration of Crime Prevention Through Environmental Design principles into the detailed design process; and
- (i) details of strategies to rehabilitate, regenerate or revegetate disturbed areas including riparian corridors and successfully establish and maintain the resulting new landscape and associated elements.

**E73** The **Place, Design and Landscape Plan** must be implemented during construction and operation.



**Suzette Graham**

---

**From:** Shannon Schofield  
**Sent:** Thursday, 4 November 2021 4:48 PM  
**To:** [REDACTED]  
**Subject:** M12 Motorway Aboriginal Heritage Interpretation Plan - consultation

To whom it may concern,

The Aboriginal Heritage Interpretation Plan for the M12 Motorway is currently being displayed for consultation from 1 November for four weeks as part of the projects Place Design and Landscape Plan. An interactive project portal has been developed to enhance the engagement experience ([see link](#)).

The Aboriginal Heritage Interpretation Plan can be accessed via this [link](#) and submissions on the plan can be made at the interactive project portal.

Virtual information sessions on the Place Design and Landscape Plan, which incorporates the Aboriginal Heritage Interpretation Plan, are being held on the 9<sup>th</sup> November 2021 at 1pm and 5 pm and can be accessed [here](#).

Please let me know if you'd be interested in a specific briefing on the Aboriginal Heritage Interpretation Plan.

Warm regards,

Shannon Schofield  
Senior Environment and Sustainability Officer  
Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW

[REDACTED]

**Suzette Graham**

---

**From:** Shannon Schofield  
**Sent:** Friday, 5 November 2021 11:20 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** FW: M12 Motorway Aboriginal Heritage Interpretation Plan - consultation

Dear Kevin,

The Aboriginal Heritage Interpretation Plan for the M12 Motorway is currently being displayed for consultation from 1 November for four weeks as part of the projects Place Design and Landscape Plan. An interactive project portal has been developed to enhance the engagement experience ([see link](#)).

The Aboriginal Heritage Interpretation Plan can be accessed via this [link](#) and submissions on the plan can be made at the interactive project portal.

Virtual information sessions on the Place Design and Landscape Plan, which incorporates the Aboriginal Heritage Interpretation Plan, are being held on the 9<sup>th</sup> November 2021 at 1pm and 5 pm and can be accessed [here](#).

Please let me know if you'd be interested in a specific briefing on the Aboriginal Heritage Interpretation Plan.

Warm regards,

Shannon Schofield  
Senior Environment and Sustainability Officer  
Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW

[REDACTED]

**Suzette Graham**

---

**From:** Shannon Schofield  
**Sent:** Friday, 5 November 2021 11:24 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** M12 Motorway Aboriginal Heritage Interpretation Plan - consultation

Dear Melissa,

The Aboriginal Heritage Interpretation Plan for the M12 Motorway is currently being displayed for consultation from 1 November for four weeks as part of the projects Place Design and Landscape Plan. An interactive project portal has been developed to enhance the engagement experience ([see link](#)).

The Aboriginal Heritage Interpretation Plan can be accessed via this [link](#) and submissions on the plan can be made at the interactive project portal.

Virtual information sessions on the Place Design and Landscape Plan, which incorporates the Aboriginal Heritage Interpretation Plan, are being held on the 9<sup>th</sup> November 2021 at 1pm and 5 pm and can be accessed [here](#).

Please let me know if you'd be interested in a specific briefing on the Aboriginal Heritage Interpretation Plan.

Warm regards,

Shannon Schofield  
Senior Environment and Sustainability Officer  
Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW

[REDACTED]



**Suzette Graham**

---

**From:** Shannon Schofield  
**Sent:** Friday, 5 November 2021 10:41 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** M12 Motorway Aboriginal Heritage Interpretation Plan - consultation

Dear Ari,

The Aboriginal Heritage Interpretation Plan for the M12 Motorway is currently being displayed for consultation from 1 November for four weeks as part of the Place Design and Landscape Plan. An interactive project portal has been developed to enhance the engagement experience ([see link](#)).

The Aboriginal Heritage Interpretation Plan can be accessed via this [link](#) and submissions on the plan can be made at the interactive project portal. The Aboriginal Heritage Interpretation Plan draws upon the concepts and artworks included in Balarinji's Aboriginal Art Strategy, which TfNSW has previously briefed Penrith City Council on.

The briefing that has been offered to Penrith City Council on the Place Design and Landscape Plan also includes the key components of the Aboriginal Heritage Interpretation Plan.

Please feel free to get in contact with me if you have any questions.

Warm regards,

Shannon Schofield  
Senior Environment and Sustainability Officer  
Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW

[REDACTED]

## Suzette Graham

---

**Subject:** M12 Motorway - Heritage Interpretation discussion  
**Location:** Microsoft Teams Meeting  
  
**Start:** Thu 12/08/2021 1:00 PM  
**End:** Thu 12/08/2021 1:30 PM  
  
**Recurrence:** (none)  
  
**Meeting Status:** Meeting organizer  
  
**Organizer:** Suzette Graham  
**Required Attendees:** Kerren Ven; Vanessa Holtham  
**Optional Attendees:** Katie Xia

Hi Kerren and Vanessa,

Some time to discuss the heritage interpretation plan for M12 Motorway.  
Please let me know if it suits, happy to move around.

Thanks,

Kind regards,  
Suzette Graham  
Senior Environment Officer  
Sydney Infrastructure Development | Safety, Environment and Regulation  
[Redacted]  
Transport for NSW  
[Redacted]

I work flexibly. Unless it suits you, I don't expect you to read or respond to my emails outside of your normal work hours.

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**Suzette Graham**

---

**From:** Shannon Schofield  
**Sent:** Friday, 5 November 2021 10:48 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** M12 Motorway Aboriginal Heritage Interpretation Plan - consultation

Dear Kerren,

The Aboriginal Heritage Interpretation Plan for the M12 Motorway is currently being displayed for consultation from 1 November for four weeks as part of the Place Design and Landscape Plan. An interactive project portal has been developed to enhance the engagement experience ([see link](#)).

The Aboriginal Heritage Interpretation Plan can be accessed via this [link](#) and submissions on the plan can be made at the interactive project portal. The Aboriginal Heritage Interpretation Plan draws upon the concepts and artworks included in Balarinji's Aboriginal Art Strategy, which TfNSW has previously briefed Fairfield City Council on.

The briefing that has been undertaken with Fairfield City Council on the Place Design and Landscape Plan also included the key components of the Aboriginal Heritage Interpretation Plan.

Please feel free to get in contact with me if you have any questions.

Warm regards,

Shannon Schofield  
Senior Environment and Sustainability Officer  
Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW

[REDACTED]



**Suzette Graham**

---

**From:** Shannon Schofield  
**Sent:** Friday, 5 November 2021 10:10 AM  
**To:** [REDACTED]  
**Cc:** [REDACTED]  
**Subject:** M12 Motorway Aboriginal Heritage Interpretation Plan - consultation

Dear Charles,

The Aboriginal Heritage Interpretation Plan for the M12 Motorway is currently being displayed for consultation from 1 November for four weeks as part of the Place Design and Landscape Plan. An interactive project portal has been developed to enhance the engagement experience ([see link](#)).

The Aboriginal Heritage Interpretation Plan can be accessed via this [link](#) and submissions on the plan can be made at the interactive project portal. The Aboriginal Heritage Interpretation Plan draws upon the concepts and artworks included in Balarinji's Aboriginal Art Strategy, which TfNSW has previously briefed Liverpool City Council on.

The briefings that have been offered to Liverpool City Council on the Place Design and Landscape Plan also include the key components of the Aboriginal Heritage Interpretation Plan.

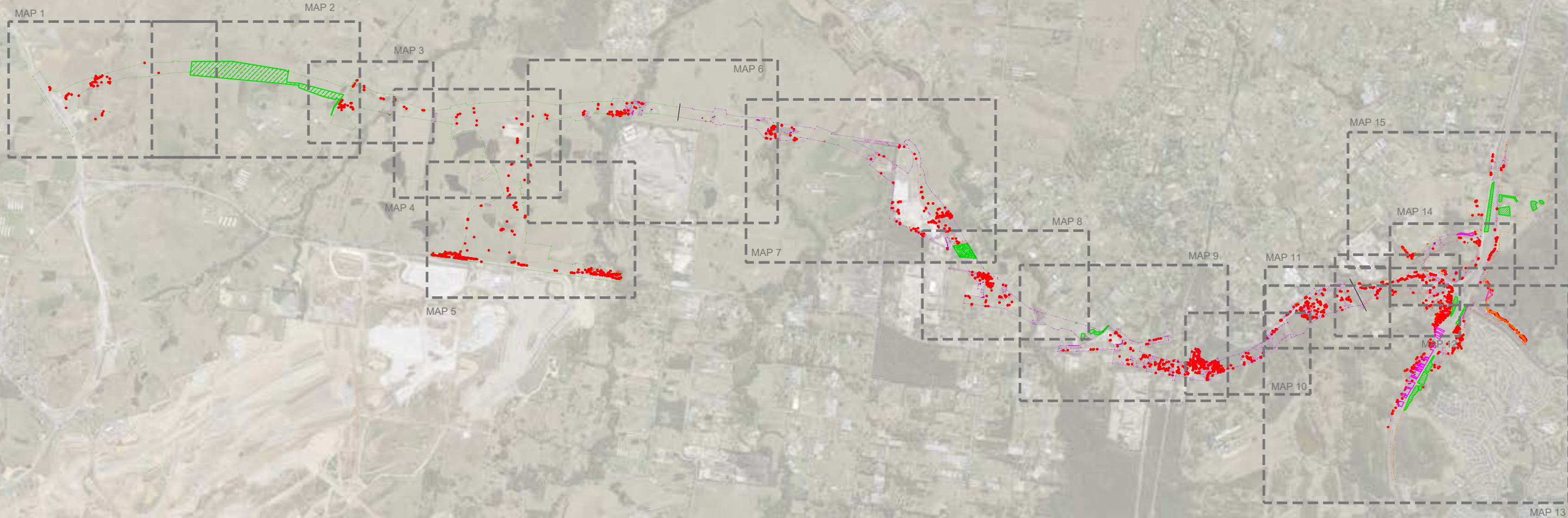
Please feel free to get in contact with me if you have any questions.

Warm regards,

Shannon Schofield  
Senior Environment and Sustainability Officer  
Sydney Infrastructure Development | Safety, Environment and Regulation

Transport for NSW

[REDACTED]



**NOTES:**  
1. INDIVIDUAL TREE ID OMITTED FOR CLARITY  
2. BACKGROUND IMAGERY SUPPLIED BY TINSW ON 20/11/20



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P.O. BOX 2367, DANGAR NSW 2309  
PH 02 4925 0500 FAX 02 4927 8850

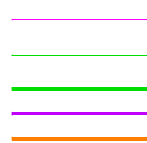
PLAN OF:

TREE SURVEY  
PROPOSED M12 MOTORWAY

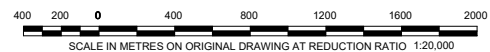
## OVERALL SITE

S01  
S01  
●  
●  
●

SURVEYED STAND ID  
DESKTOP SURVEY STAND ID  
INDIVIDUAL TREE (SURVEYED)  
INDIVIDUAL TREE (HANDHELD GPS)  
INDIVIDUAL TREE (NO ECO DATA)



SURVEYED STAND  
DESKTOP SURVEY  
STAND  
WEST PACKAGE (14/10/20)  
CENTRAL PACKAGE (14/10/20)  
EAST PACKAGE (14/10/20)

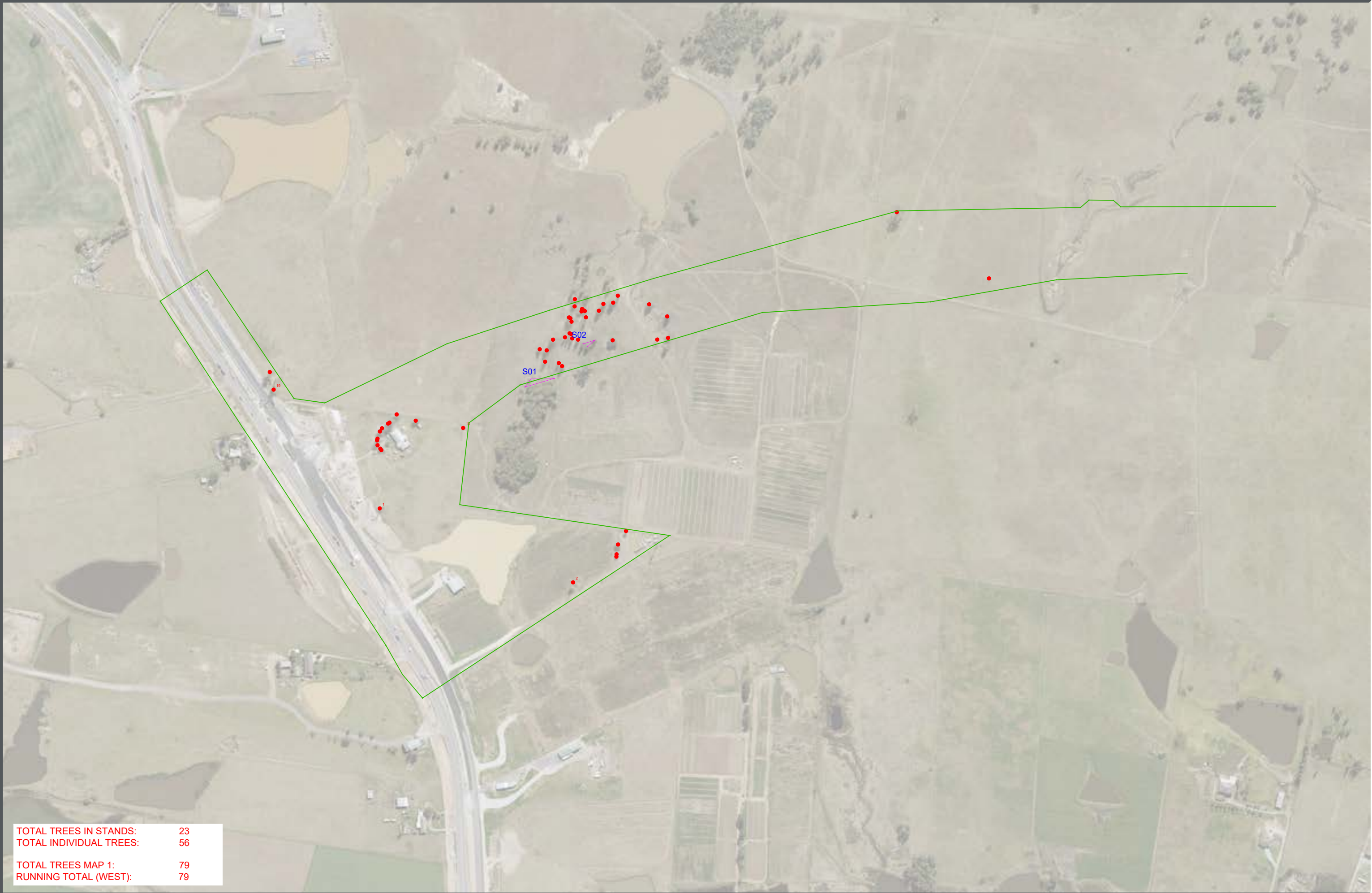


ORIGIN OF COORDS: TS7279  
SURVEYED BY: CCS  
SCALE: 1:20,000 (A1) 1:40,000 (A3)  
JOB REF: CCS-1769  
DWG FILE: CCS-1769\_DWG\_TREE  
SURVEY-1B  
SHEET 1 OF 16

**NOTES:**  
1. REFER TO SPREADSHEET 1769\_TREES\_MAP FOR DETAILS  
2. INDIVIDUAL TREE ID OMITTED FOR CLARITY








TOTAL TREES IN STANDS: 23  
TOTAL INDIVIDUAL TREES: 56

TOTAL TREES MAP 1: 79  
RUNNING TOTAL (WEST): 79



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P.O. BOX 2367, DANGAR NSW 2309  
PH 02 4925 0500 FAX 02 4927 8850

**CADENCE  
CONSULTING  
SURVEYORS**

PLAN OF:

**TREE SURVEY  
PROPOSED M12 MOTORWAY**

**MAP 1**

S01  
S01  
●  
●  
●

SURVEYED STAND ID  
DESKTOP SURVEY STAND ID  
INDIVIDUAL TREE (SURVEYED)  
INDIVIDUAL TREE (HANDHELD GPS)  
INDIVIDUAL TREE (NO ECO DATA)

—  
—  
—  
—  
—

SURVEYED STAND  
DESKTOP SURVEY  
STAND  
WEST PACKAGE (14/10/20)  
CENTRAL PACKAGE (14/10/20)  
EAST PACKAGE (14/10/20)

50 25 0 50 100 150 200 250  
SCALE IN METRES ON ORIGINAL DRAWING AT REDUCTION RATIO 1:2500

ORIGIN OF COORDS: TS7279  
SURVEYED BY: CCS  
SCALE: 1:2,500 (A1) 1:5,000 (A3)  
JOB REF: CCS-1769  
DWG FILE:  
CCS-1769\_DWG\_TREE SURVEY-1B  
SHEET 2 OF 16

**NOTES:**

- REFER TO SPREADSHEET 1769\_TREES\_MAP1 FOR DETAILS
- INDIVIDUAL TREE ID OMITTED FOR CLARITY
- BACKGROUND IMAGERY SUPPLIED BY TfNSW ON 20/11/20





TOTAL TREES IN STANDS: 25  
TOTAL INDIVIDUAL TREES: 0

TOTAL TREES MAP 2: 25  
RUNNING TOTAL (WEST): 104

SEE MAP 1



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CADENCE  
CONSULTING  
SURVEYORS

PLAN OF:

TREE SURVEY  
PROPOSED M12 MOTORWAY

MAP 2

S01  
S01  
S01  
S01  
S01

SURVEYED STAND ID  
DESKTOP SURVEY STAND ID  
INDIVIDUAL TREE (SURVEYED)  
INDIVIDUAL TREE (HANDHELD GPS)  
INDIVIDUAL TREE (NO ECO DATA)







TOTAL TREES IN STANDS:	600
TOTAL INDIVIDUAL TREES:	49
TOTAL TREES MAP 3:	649
RUNNING TOTAL (WEST):	753

SEE MAP 2







TOTAL TREES IN STANDS: 131  
TOTAL INDIVIDUAL TREES: 36  
TOTAL TREES MAP 4: 167  
RUNNING TOTAL (WEST): 920

SEE MAP 5



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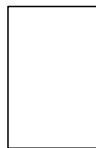
PLAN OF:

TREE SURVEY  
PROPOSED M12 MOTORWAY

MAP 4

S01  
S01  
S01  
S01  
S01

SURVEYED STAND ID  
DESKTOP SURVEY STAND ID  
INDIVIDUAL TREE (SURVEYED)  
INDIVIDUAL TREE (HANDHELD GPS)  
INDIVIDUAL TREE (NO ECO DATA)







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PH 02 4925 0500 FAX 02 4927 8850

**CADENCE  
CONSULTING  
SURVEYORS**

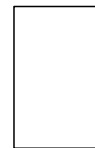
PLAN OF:

**TREE SURVEY  
PROPOSED M12 MOTORWAY**

## MAP 5

S01  
S01  
S01  
S01  
S01

SURVEYED STAND ID  
DESKTOP SURVEY STAND ID  
INDIVIDUAL TREE (SURVEYED)  
INDIVIDUAL TREE (HANDHELD GPS)  
INDIVIDUAL TREE (NO ECO DATA)







TOTAL TREES IN STANDS:	1383
TOTAL INDIVIDUAL TREES:	76
TOTAL TREES MAP 6:	1459
RUNNING TOTAL (WEST):	3192





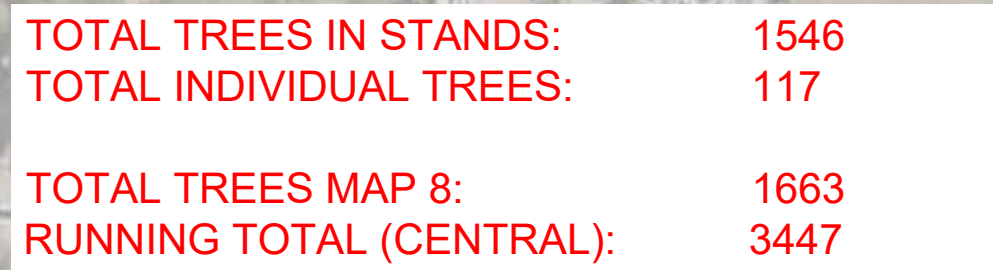


SEE MAP 6

TOTAL TREES IN STANDS:	1578
TOTAL INDIVIDUAL TREES:	206
TOTAL TREES MAP 7:	1784
RUNNING TOTAL (CENTRAL):	1784







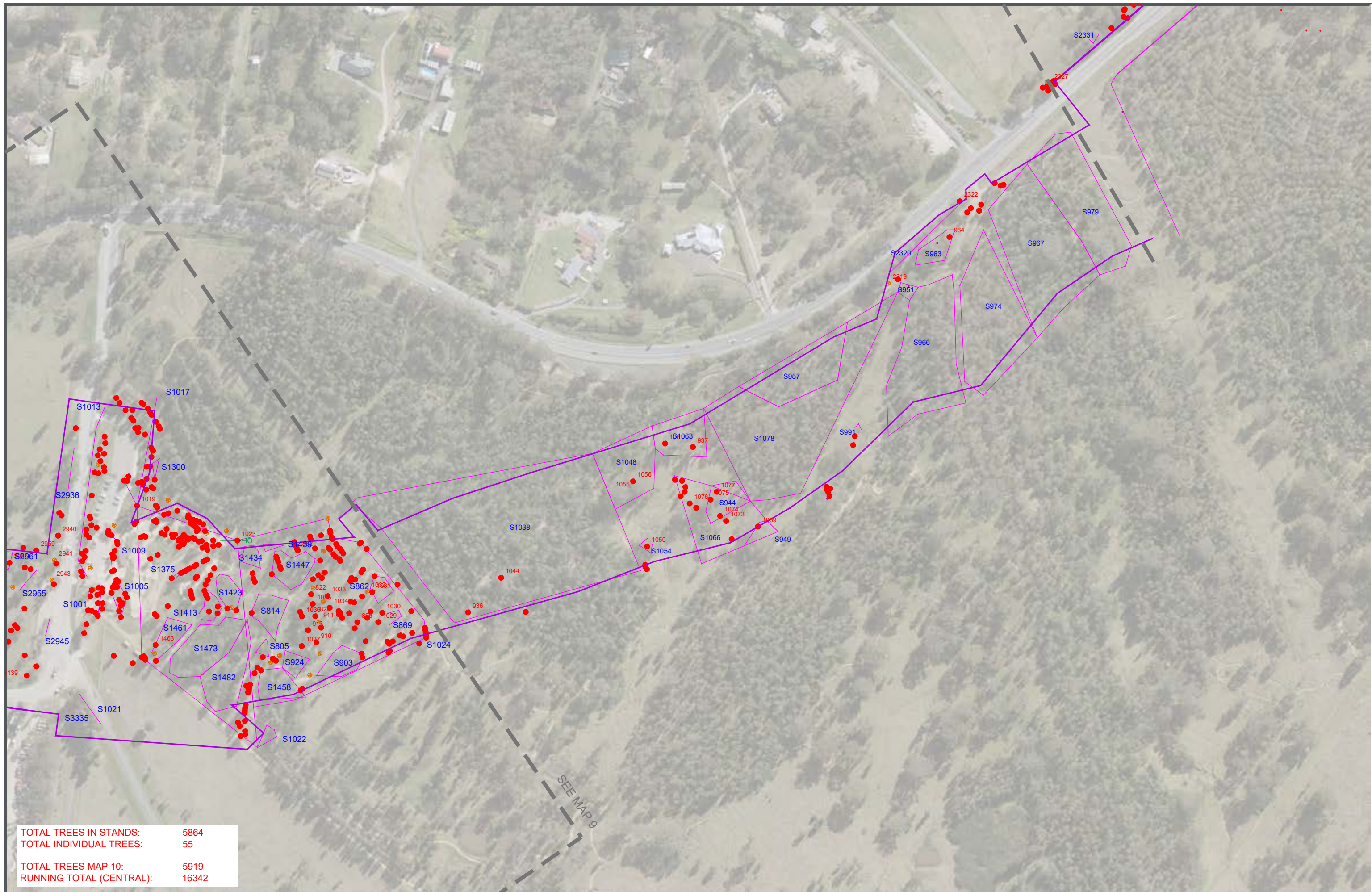




TOTAL TREES IN STANDS:	6486
TOTAL INDIVIDUAL TREES:	490
TOTAL TREES MAP 9:	6976
RUNNING TOTAL (CENTRAL):	10423







TOTAL TREES IN STANDS:	5864
TOTAL INDIVIDUAL TREES:	55
TOTAL TREES MAP 10:	5919
RUNNING TOTAL (CENTRAL):	16342



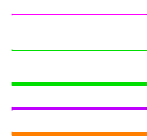
PLAN OF:

TREE SURVEY  
PROPOSED M12 MOTORWAY

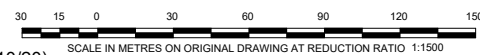
MAP 10

S01  
S01  
  
  


SURVEYED STAND ID  
DESKTOP SURVEY STAND ID  
INDIVIDUAL TREE (SURVEYED)  
INDIVIDUAL TREE (HANDHELD GPS)  
INDIVIDUAL TREE (NO ECO DATA)



SURVEYED STAND  
DESKTOP SURVEY  
STAND  
WEST PACKAGE (14/10/20)  
CENTRAL PACKAGE (14/10/20)  
EAST PACKAGE (14/10/20)



ORIGIN OF COORDS: TS7279  
SURVEYED BY: CCS  
SCALE: 1:1,500 (A1) 1:3,000 (A3)  
JOB REF: CCS-1769  
DWG FILE: CCS-1769\_DWG\_TREE  
SURVEY-1B  
SHEET 11 OF 16

NOTES:

1. REFER TO SPREADSHEET 1769\_TREES\_MAP10 FOR DETAILS
2. INDIVIDUAL TREE ID OMITTED FOR CLARITY
3. BACKGROUND IMAGERY SUPPLIED BY TfNSW ON 20/11/20











TOTAL TREES IN STANDS:	4714
TOTAL INDIVIDUAL TREES:	156
TOTAL TREES MAP 12:	4870
RUNNING TOTAL (EAST):	4870



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CADENCE  
CONSULTING  
SURVEYORS

PLAN OF:

TREE SURVEY  
PROPOSED M12 MOTORWAY

# MAP 12

- S01
- S01
- 
- 
- 

SURVEYED STAND ID  
DESKTOP SURVEY STAND ID  
INDIVIDUAL TREE (SURVEYED)  
INDIVIDUAL TREE (HANDHELD GPS)  
INDIVIDUAL TREE (NO ECO DATA)



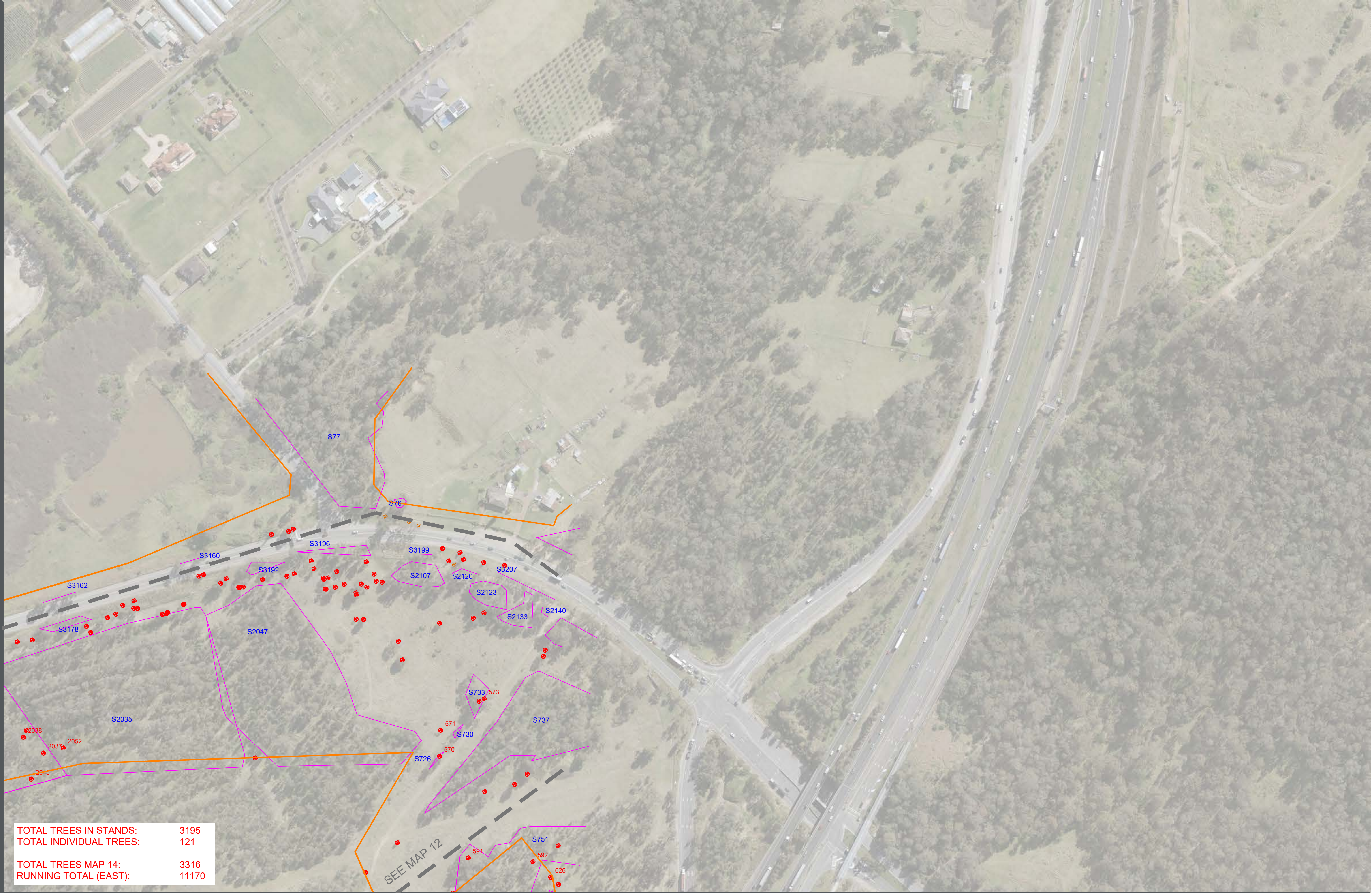




TOTAL TREES IN STANDS:	2551
TOTAL INDIVIDUAL TREES:	433
TOTAL TREES MAP 13:	2984
RUNNING TOTAL (EAST):	7854







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**CADENCE  
CONSULTING  
SURVEYORS**

PLAN OF:

**TREE SURVEY  
PROPOSED M12 MOTORWAY**

**MAP 14**

S01  
S01  
•  
•  
•

**SURVEYED STAND ID  
DESKTOP SURVEY STAND ID  
INDIVIDUAL TREE (SURVEYED)  
INDIVIDUAL TREE (HANDHELD GPS)  
INDIVIDUAL TREE (NO ECO DATA)**

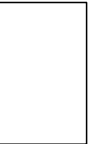






TOTAL TREES IN STANDS: 1289  
TOTAL INDIVIDUAL TREES: 108

TOTAL TREES MAP 15: 1397  
RUNNING TOTAL (EAST): 12567







**Transport  
for NSW**

## RESPONSE TO COMMENTS

### M12 Motorway Detailed Design Urban Design Review Panel

<b>Date</b>	11 December 2020		
<b>Time</b>	11am -1pm		
<b>Venue</b>	MS Teams Meeting		
<b>Chairperson</b>	Greg Jackson		
<b>Invitees</b>	Mary Anne McGirr Adrian Pilton Gareth Collins Deanne Forrest Shannon Schofield Foster Walker Adam Smith Tom O'Connor Josh Small Ross Mills Greg Jackson	MM AP GC DF SS FW AS TO JS RM GJ	Panel Member Panel Member Panel Convenor Project Manager, M12, TfNSW Environment M12, TfNSW Environment M12, TfNSW Environment M12, TfNSW Environment M12, TfNSW Hassell Urban Designer Hassell Urban Designer Senior Urban Designer TfNSW
<b>Apologies:</b>	Suzette Graham Rachel Taylor	SG RT	Environment M12 Balarinji

Please refer to table on following page for panel comments and M12 Team response

		Action	TfNSW Response	Panel Close Out/Further Comment
1.	<b>Minutes from the Previous Meeting</b>			
	N/A – Initial Meeting	Note		
2.	<b>Previous Actions</b>			
	N/A – Initial Meeting	Note		
3.	<b>Response to new Actions Arising</b>			
	<b>Presentation of M12 Project Urban Design Response</b> Introduction and background to the project – TfNSW Urban Design Framework – Hassell Aboriginal Artwork – TfNSW	Note		
	<b>Response from Panel</b>			
1	General overall positive response and support for the project including <ul style="list-style-type: none"> <li>principles and objectives established during the EIS, including the connection to country</li> <li>the development of the project since EIS</li> <li>the modification to the alignment through the Western Sydney</li> </ul>	Note		



		Action	TfNSW Response	Panel Close Out/Further Comment
	Parklands to support the future Southern Parklands Precinct			
2	The interface with Enterprise zones in the planned precincts would be problematic if bulky monolithic buildings form the backdrop to the project. It is important that the project uses the available width in the corridor to establish a 'sacrosanct' area of vegetation to separate it from adjacent built form	TfNSW/ Hassell to respond	The M12 Planting design incorporates vegetated areas between the edge of the corridor and travel lanes of at least 20m on sides without the shared path and generally 30-40m where the verge incorporates a shared path. Additionally the draft DCP TfNSW has sighted includes provision for setback and built form controls governing development in the Enterprise Zones themselves.	Closed
3	The potential restrictions on tree planting due to concerns over wildlife strike are of grave concern, risking the project's identity, amenity and legacy as a significant piece of infrastructure important to Sydney and NSW. The Panel urges TfNSW to use the available pathway of obtaining ecologist advice to provide an evidence base support the provision of tree canopy as envisaged in the EIS, signed off at an appropriate level within TfNSW	TfNSW/ Hassell to respond	TfNSW appends the latest advice from Biodiversity Australia which continues to constrain the provision of tree planting within 3km of runways. Within this constraint the project incorporates substantial provision for tree planting elsewhere including meeting its 2:1 replacement condition (attachment A).  Also appended are planting plans extracts indicating proposed plant structure (attachment B).	Closed
4	It is the panel's preference for the earthworks batters to be as flat as possible. 1:4 or flatter would greatly assist the project to sit in its context, especially where the surrounding context is flatter near the South Creek Floodplain,	TfNSW/ Hassell to respond	TfNSW notes this preference. Earthworks balance is in heavy deficit. The detailed design earthworks specification (R44 Clause 2.4) will contain provision in contracts for flattening batters as far as possible with any material unsuitable to be	Closed

		Action	TfNSW Response	Panel Close Out/Further Comment
	and in the areas such as the new airport interchange where the height of the infrastructure is greatest. This risk to the project's quality is heightened if the risk of wildlife strike prevents substantial planting and batters remain prominent.		reused to flatten slopes.	
5	There is concern that the proposed shared path of 3m clear width is at odds with the emerging TfNSW preference of separated paths of minimum 4.5m width encouraging the broader adoption of active transport.	TfNSW/ Hassell to respond	<p>TfNSW expects that most users will be cyclists with very few pedestrians in the extent west of the Western Sydney Parklands. Elizabeth drive has provision for separated paths in areas where there will be greater interaction between pedestrian and cyclist activity.</p> <p>The shared path has been designed to provide minimum 3m clear width over its entire length, incorporating widening to provide setback from adjacent structures where necessary.</p>	Closed
6	If the shared path runs offline through the Western Sydney Parklands, there would be a need to consider CPTED issues.	TfNSW/ Hassell to respond	TfNSW has handed responsibility of this link to the Greater Sydney Parklands, but will continue to be involved in its development to ensure any CPTED concern is addressed.	Closed
7	The use of smart lighting technology for the shared use path lighting is supported.	Note		Closed
8	There is support for using guardrail in the verge rather than Wire Rope Safety barrier as it is simpler visually and its narrower deflection allows trees to be	Note		Closed



		Action	TfNSW Response	Panel Close Out/Further Comment
	planted closer to the carriageway.			
9	Creek bridges as indicated in the EIS have cluttered arrangement of piers over many spans. It is expected that this would be refined during detailed design	TfNSW/ Hassell to respond	Bridge piers numbers have been reduced at creek bridges. Pier diameters have increased. We believe this improves the proportions of the bridge substructure as described in <i>Bridge aesthetics</i> (attachment C).	Closed
10	Box Girder bridges should be tapered rather than having vertical sides.	TfNSW/ Hassell to consider for East Package scope	East package bridge design unprogressed since last meeting but will consider use of tapered sides, noting other bridges on M7 have vertical sided girders. Elizabeth Drive bridge girder (void formed) has tapered sides (attachment D).	Closed
11	The panel supports not providing noise walls	Note		Closed
12	Artwork generally – the overall approach is supported particularly:	Note		Closed
12a	Aboriginal Artwork – Emu in the Sky: concept is supported. Supporting imagery shows the importance of getting the scale right, regardless of the final dimensions shown. It has great potential to be a showcase for the project	TfNSW/ Hassell/ Balarinji to respond	Detail design has progressed to reduce the diameter of the Dome to 30m and raise it 6m above ground level. We believe this is optimal in the context of the interchange. Refer attachment E	Closed
12b	Aboriginal Artwork – Leaf shelters: supported once their three dimensional character shown.	Note	Leaf structures have commenced. Refer attachment F	Closed

		Action	TfNSW Response	Panel Close Out/Further Comment
12c	Aboriginal Artwork – Bridges: The proposed approach for applying artwork on bridges needs more work to ensure the three dimensional qualities of the other pieces is carried through to these pieces. Extending the work below the parapet line and increasing the layered effect of the screen's composition would help in this regard	TfNSW/ Hassell/ Balarinji to respond	Bridges have progressed to incorporate the artwork represented in a 'story' layer and 'base layer'. The artworks project above and below the parapet line (attachment G)	Closed
12d	Aboriginal Artwork – Emu Footprints: as shown look a bit 'stuck' on and not in keeping with the rest of the three dimensional quality of the rest of the artwork.	TfNSW/ Hassell/ Balarinji to respond	Footprint are envisaged as inlays to pavement in advance of node locations along shared path (attachment H)	Closed
4.	<b>Next Meeting</b>			
	The next meeting will be held in early 2021. Items for discussion to potentially cover <ul style="list-style-type: none"> <li>Airport interchange and access road development</li> <li>Creek Bridge development</li> <li>Aboriginal artwork, particularly on bridges</li> <li>General progress</li> </ul>	Note		

## STATUS OF ACTIONS FROM LAST MEETING

		Status	Responsible/ Revised
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Objective Ref A35454070

			Due Date
1.	Item Close out of Panel Comments	Complete	



**Transport  
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## RESPONSE TO COMMENTS

### M12 Motorway Detailed Design Urban Design Review Panel

<b>Date</b>	13 October 2021		
<b>Time</b>	2:30pm -5pm		
<b>Venue</b>	MS Teams Meeting		
<b>Chairperson</b>	Greg Jackson		
<b>Invitees</b>	Mary Anne McGirr Adrian Pilton Gareth Collins Deanne Forrest Shannon Schofield Katie Xia Michael Liang Kiano Marvian Leanne Tobin Martin Virveste Matilda Brown Rachel Taylor Josh Small Ross Mills Greg Jackson Kash Rangan Craig Burton Sam Westlake	MM AP GC DF SS KX ML KM LT MV MB RT JS RM GJ KR CB SW	Panel Member Panel Member Panel Convenor Project Manager, M12, TfNSW Environment M12, TfNSW CSE M12, TfNSW M12W, TfNSW M12W, TfNSW Panel Member CM Plus Balarinji Balarinji Hassell Urban Designer Hassell Urban Designer Senior Urban Designer TfNSW CM Plus CAB Consulting Context
<b>Apologies:</b>	Tom O'Connor	TO	Environment M12

Please refer to table on following page for panel comments and M12 Team response



		Action	TfNSW Response	Panel Close Out/Further Comment
1.	<b>Minutes from the Previous Meeting</b>			
	N/A	Note		
2.	<b>Previous Actions</b>			
	N/A	Note		
3.	<b>Response to new Actions Arising</b>			
	<b>Presentation of M12 Project Urban Design Response</b> Introduction and background to the project – TfNSW Urban Design Framework – Hassell Aboriginal Artwork – TfNSW	Note		
	<b>Response from Panel</b>			
<b>3.1 Overall</b>				
1.1	The Panel supports the overall urban design response presented, including the vision of connection to country, as well as project wide initiatives of elements such as the shared path alignment, and materials.	Note		Closed
1.2	A question was raised around putting the corridor underground to avoid land take and resultant prominent structures particularly at the M7/M12 Interchange	TfNSW	The incorporation of a tunnel into the design of the M7/M12 interchange was considered during the strategic options analysis for the project. At the time it was found that the inclusion of a tunnel as part of the project would have considerable construction, operation and	

		Action	TfNSW Response	Panel Close Out/Further Comment
			maintenance costs, and was not considered a feasible option as part of the project design	
<b>3.2. Bridges - General</b>				
2.1	For the most part bridges on the project express a number of typologies united by a cohesive approach. However, the piers at the Bridge over Luddenham Road lack the design quality integration with similar bridges on rest of the project. Improvement to this aspect of the structure is recommended.	TfNSW	<p>During the EIS the bridge over Luddenham Road was identified as one of the typology of bridges over local and arterial roads which 'would feature an extended off form, tapered trouser leg pier'. During detailed design, similarly between bridges of typology was reduced:</p> <ul style="list-style-type: none"> <li>- The bridge over Range Road was shortened to have no piers</li> <li>- In response to its location at a threshold to land use change associated with the Aerotropolis, the bridge over Elizabeth Drive near Mamre Road was developed with a design including lighting and more sculptural piers.</li> </ul> <p>This means that Luddenham Road retains its original intent and subsequent design response. It is felt that this is appropriate to maintain given</p> <ul style="list-style-type: none"> <li>- the bridge's position within a planned precinct rather than at the edge of it</li> <li>- that people travelling along Luddenham Road would not encounter another M12 bridge for 9.5km, reducing the need for it to reflect being part of a typology.</li> </ul>	
2.2	Similarly, the approach to the creek bridges generally doesn't seem to lead to a good outcome at Cosgroves Creek bridge due to its relative greater height and shorter span	TfNSW	TfNSW believes this may be more a response to the graphic used to illustrate the bridge rather than the design itself. <b>Attachment A</b> shows the view which would be experienced by a person passing under the bridge for the Panel's consideration as to whether the comment is reflects their position	
<b>3.3 Landscape Design - General</b>				



		Action	TfNSW Response	Panel Close Out/Further Comment
3.1	There is a lot of focus on the objects and structures being included into the landscape, however, there is not enough focus on the landscape itself. The project needs to reveal the nature of the landscape in the area rather than adding objects into it.	TfNSW	It is felt that the design presented in the EIS addresses this aspect, in the description of the hills, plains and ridgetop design response and associated treatments. If the panel wishes this aspect can be part of further discussion at a future session	
3.2	The work to avoid limitations of controls around wildlife strike risk are supported. The issue of spacing should be pushed to ensure canopy is provided where needed. Notwithstanding this, the opportunity to interpret the open grassland landscape character crafted through fire which would have predominated during Aboriginal occupation, and subsequently lost as active management abated, should be considered This approach may complement the reduced opportunity for canopy imposed by wildlife strike risks	TfNSW	Noted. Further work will be undertaken particularly around the context of the Great Emu Sculpture and Fleurs Aerodrome which will form the basis of a future submission to the Panel.	
3.3	A small point but important. The drawings referred to <i>Eucalyptus subvelutina</i> but it seems to me that it should read <i>Angophora subvelutina</i> which is an indicator species of the extent of flooded land over the Cumberland Plain	GHD/WSP	Noted. The comment will be forwarded for inclusion in updated documents	
<b>3.4 Cultural Heritage Interpretation - General</b>				
4.1	The overall approach interpretation is seen as a positive move. Improvement is needed to make the response more cohesive:	Note		Closed

		Action	TfNSW Response	Panel Close Out/Further Comment
4.2	The rationale in differentiating natural and cultural (and further separating Aboriginal and Non-Aboriginal) needs refinement so that a legible narrative is created for the corridor as a whole.	TfNSW	Noted. The interpretive aspects of the project will shortly undergo further development will form the basis of a future submission to the Panel.	
4.3	Bringing out the Aboriginal Stories is seen as being important for both the project to meet its objectives but also acknowledging the broader movement toward acknowledging country.	Note		Closed
4.4	The challenge therefore is to determine to what extent Non-Aboriginal heritage should sit within the corridor to remain meaningful - it shouldn't act as the background of the Aboriginal Interpretation, but rather as a standalone element.	TfNSW	Noted. The interpretive aspects of the project will shortly undergo further development will form the basis of a future submission to the Panel.	
4.5	It would also be desirable to extend the interpretation beyond physical media by using broadcast or web-based technology.	TfNSW	Noted. The interpretive aspects of the project will shortly undergo further development will form the basis of a future submission to the Panel. It is expected that some aspects of this idea are beyond the scope of the immediate project but may be able to be pursued by Transport separately.	
<b>3.5 Aboriginal Cultural Interpretation - General</b>				
5.1	The overall approach to the interpretation of Aboriginal Heritage is supported in the way it has been derived from the inclusive involvement of the local Aboriginal community and respectfully interprets the material in a contemporary, appropriate manner	Note		Closed



		Action	TfNSW Response	Panel Close Out/Further Comment
5.2	At a detailed level, the choice of Porphyry doesn't represent the local geology as well as a shale-derived material or even sandstone/basalt representing volcanic intrusions into the dominant sedimentary layers	TfNSW	A particular colour of porphyry has been selected to interpret the red of the silcrete which occurs in the area. However, the alternatives will be considered as they will better reflect the site's underlying geology, particularly if material can be salvaged from earthworks.	
<b>3.6 Aboriginal Cultural Interpretation – Great Emu</b>				
6.1	The conceptual approach to the Great Emu sculpture is broadly supported as an appropriate telling of an important story	Note		Closed
6.2	A concern is the visibility of the Emu during the day – strength and arrangement of lighting is fundamental to the success of the concept	TfNSW	Noted. The interpretive aspects of the project will shortly undergo further development will form the basis of a future submission to the Panel	
6.3	A further concern is the maintenance requirement that the structure may impose	TfNSW	Noted. The interpretive aspects of the project will shortly undergo further development will form the basis of a future submission to the Panel	
<b>3.7 Aboriginal Cultural Interpretation – Leaf Canopies</b>				
7.1	The use of the leaf structures is conceptually strong and supported.	Note		Closed
7.2	The panel has made concerns that the 'leaf' in the rest nodes may be too small to provide shade for the public.	TfNSW	Noted. The leaf will be supported by tree planting to augment the shade cast by the structure itself.	
7.3	The scale of the structure itself may preclude more subtle means of interpretation, and other discrete characteristics of plants (veins, cellular structure, etc).	TfNSW	It is felt that the articulation of the structure at a detailed level does convey the character of a leaf. <b>Attachment B</b> shows detailed design which illustrates a structure indicating ribs. Further the shadow cast by the cladding reflects the quality of dappled shade cast by a eucalypt	

		Action	TfNSW Response	Panel Close Out/Further Comment
<b>3.8 Aboriginal Cultural Interpretation - Emu Footprints</b>				
8.1	The emu footprints concept is supported, inviting visitors on the journey with the Emu (Mariong).	Note		Closed
8.2	Ochre coloured pigment could be used instead of sandblasting to identify the tracks and reduce risk of creating trip hazards	TfNSW	Noted. It is felt important that a tactile indication of an upcoming change is necessary to convey sufficient warning. Sandblasting will be unlikely to depth which creates a hazard. However, including ochre may improve the intent of conveying change and will be considered further	
<b>3.9 Aboriginal Cultural Interpretation – Emu Overbridges</b>				
9.1	There is agreement that the approach illustrated to tell the story of Mariong on overbridges has the potential to be a highly successful intervention.	Note		Closed
9.2	Some reservation is expressed about whether the approach needs to be simplified - if it is too busy the meaning may be missed given the speed at which travellers encounter them	TfNSW	It is acknowledged that the meaning may not obvious, as it is unlikely travellers will encounter all the bridges forming the complete Mariong story in a single journey. An opportunity may exist of the type considered at item 4.5 to broaden the understanding of the story. At the very least the complete narrative would be able to be found on the project website.	
9.3	The constrained horizontal line of the artwork at the lower edge should be reconsidered to be more variable so that the screen more dominates the parapet rather than being subservient to it	TfNSW	Treating the lower edge as variable was considered however it was not considered feasible – <ul style="list-style-type: none"> <li>- Fixing points for the artwork panels need to be above the top edge of the parapet to allow them to be accessed from the bridge deck safely. The nature of the material limits the amount of unsupported weight beyond a fixing point it could carry</li> </ul>	



		Action	TfNSW Response	Panel Close Out/Further Comment
			- The panel face needs to be provided to at least parapet level to avoid gaps in the screen itself.	
9.4	Acrylic may not be as durable in the long term and the use of aluminium for the story layer is supported	Note		Closed
9.5	A 3d mesh for the background layer may improve the texture/light effect	TfNSW	Noted. The suggested material will be considered for its ability to convey the intent	
<b>3.10 Aboriginal Cultural Interpretation - Six Seasons Planting</b>				
10.1	The use of the six Aboriginal seasons to reflect the Aboriginal interpretation of the site is an effective way to introduce this information	Note		Closed
10.2	It should be seen as a distinct aspect of a broader commitment by the project to restoration of the landscape and waterways as a way of restoring and revitalising Old Knowledge and the traditions of respect and caring for Country	Note	The story will be part of the site interpretive information. Additionally it will be shared with agencies concurrently undertaking planning in the area for consideration of broader application.	Closed
<b>3.11 Aboriginal Cultural Interpretation - Wayfinding Signage</b>				
11.1	Interpretive signage should be envisaged as a modern songline, conveying material appropriate to be revealed which would otherwise be hidden. Revealing this information should be seen as an important educational opportunity for residents, schools and visitors.	Note		Closed
11.2	Signs located near waterways should explain their interconnectedness as part of a system which has wide sensitivity to	TfNSW	Noted. The interpretive aspects of the project will shortly undergo further development will form the basis of a future submission to the Panel	

		Action	TfNSW Response	Panel Close Out/Further Comment
	disruption			
11.3	Signs should also be used to impart information such as Aboriginal use or connection to plants	TfNSW	Noted. The interpretive aspects of the project will shortly undergo further development will form the basis of a future submission to the Panel	
11.4	Signage should be coordinated with interpretation being undertaken by other agencies such as Western Sydney Parklands	TfNSW	Noted. It is likely that signage provided by the M12 will precede signage undertaken by other agencies. However M12 will	
<b>3.12 Non-Aboriginal Cultural Heritage Interpretation - General</b>				
12.1	The Non-Aboriginal heritage areas and items could be stronger with appropriate scaled landforms possibly using indigenous grasses and artfully placed tree plantings.	TfNSW	Noted. The interpretive aspects of the project will shortly undergo further development will form the basis of a future submission to the Panel	
12.2	If possible, there could be an inclusion of telescopes in nodes to watch the planes overhead, as it also pays homage to the Satellite Communications Site.	TfNSW	This suggestion will be considered, particularly for residual land regarded as being suitable to form future open space with good views of airport land	
<b>3.13 Lighting</b>				
13.1	Lighting of various aspects of the project is supported, but needs to be appropriately designed to not be overwhelming or distracting, or affect migratory paths of insects such as Bogong moths	TfNSW	Noted. We will review this aspect.	
<b>4.</b>	<b>Next Meeting</b>			
	<ul style="list-style-type: none"> <li>Early 2022</li> </ul>	Note		



Objective Ref A35454070



# **M12 Motorway Place, Design and Landscape Plan**

## **Submissions Report**



Transport for NSW | May 2022



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## Document Controls

### Approval and authorisation

Title	M12 Motorway Place, Design and Landscape Plan Submissions Report	
Name	Deanne Forrest	Rebecca Rafter
Title	M12 Project Director	M12 Community Engagement Senior Manager
Signed		
Date	23 May 2022	23 May 2022

### Document status

Document status	Date	Prepared by	Reviewed by
Draft 0.1	17.01.2022	Katie Xia	Suzette Graham
Draft 0.2	12.03.2022	Katie Xia	Suzette Graham
Final 0.1	20.05.2022	Suzette Graham	Suzette Graham

## Executive Summary

The M12 Motorway is an east-west 16 kilometre surface motorway between the M7 Motorway, Cecil Hills and The Northern Road, Luddenham. The motorway will provide increased road capacity and reduce congestion and travel times in the future. It will also improve the movement of freight in and through Western Sydney and is expected to serve the Western Sydney Aerotropolis and the South West Growth Area.

The M12 Motorway project is part of the Western Sydney Infrastructure Plan (WSIP) – a \$4.4 billion road investment program jointly funded by the Australian and NSW governments.

The project received planning approval from NSW and Australian Governments in April 2021 and June 2021 respectively. Construction is expected to start from mid-2022 and be completed before the opening of the Western Sydney International Airport.

Under the NSW Conditions of Approval (CoA) E64 through to E73, a Place Design and Landscape Plan (PDLP) must be prepared, exhibited and along with feedback received, submitted to the Planning Secretary for information. Design features in the PDLP must then be implemented during construction of the M12 Motorway.

## Place, Design and Landscape Plan

The Place, Design and Landscape Plan (PDLP) will guide the M12 Motorway project and is a response to growth in the region and the visually changing landscape brought on by the development of the Western Sydney International (Nancy-Bird Walton) Airport (WSIA), the surrounding business area (known as the Aerotropolis), and the transformation of the Western Parkland City.

The PDLP outlines an urban design and landscape vision that incorporates a walking and cycling path, public art and vegetation opportunities to address infrastructure design challenges in an area with significant Aboriginal and non-Aboriginal culture and heritage.

The PDLP was exhibited by Transport for NSW (TfNSW) for 28 days from 1 November to 28 November 2021. The PDLP was available to view and download from the Transport for NSW M12 Motorway PDLP online portal, and accessible by anyone with internet access via a smartphone and/or computer.

Topics covered under the PDLP for exhibition and consultation include:

- Landscape design
- Species selection
- Public elements on shared user path
- Materials and finishes
- Lighting and wayfinding.

The Heritage Interpretation Plans (including Aboriginal and non-Aboriginal heritage), prepared under M12 Motorway Infrastructure Approval condition E27, informed the PDLP and were exhibited during the same consultation period.

Unfortunately, due to COVID-19, hard copies could not be provided at public libraries or local councils. This also meant that traditional face-to-face engagement opportunities, and community drop in sessions were replaced by virtual and digital engagement.



Virtual consultation activities supporting the display of the PDLP included two online community information sessions, a Community Guide to the PDLP (letterbox dropped properties along the M12 alignment), advertisements in the local newspapers, a paid social media campaign, a media release, emails to contacts on the established distribution list, and website updates.

There were also numerous briefings with key stakeholders including a Member of Parliament, State and Federal organisations and local Councils.

A number of existing external engagement channels were also used to complement community consultation including the M12 project email address, a toll-free project phone number and postal address. The PDLP portal also provided background information, an interactive map, technical documents including the full PDLP as well as chapter excerpts, project updates, videos and information on how to provide feedback. Recorded information sessions were also available for those who missed the live virtual information sessions.

The complete PDLP document including the web portal remains available on the TfNSW website.

## Submissions Report

As part of the NSW Conditions of Approval (CoA) E70 and A5, this Submissions Report has been prepared to outline feedback and issues raised during the exhibition period of the PDLP.

A total of 21 submissions were received by TfNSW from 19 submitters. Of the 21 submissions received, 5 were outside the scope of consultation for the PDLP.

The submitters comprised of:

- Eight individual community members
- Four special interest groups or businesses
- Seven government authorities.

A summary of the key issues raised by submitters and TfNSW responses are provided below:

Key submission issue	Response
Shared user path design lacking delineation between pedestrians and cyclists with inclusive cycle infrastructure.	<p>The decision to provide a shared user path was on the basis that the M12 shared user path will have lower use initially and be eventually complemented by a broader network catering for diverse users. The shared user path has been considered as part of a network created with other transport projects that will cater for a variety of pedestrian and cycle journeys with appropriately designed infrastructure.</p> <p>TfNSW will investigate inclusive infrastructure features and inform Bicycle NSW.</p>
Request for more tree canopy along the shared user path.	<p>Current proposed tree canopy has been provided to the maximum extent possible taking into consideration the proximity to the Western Sydney International Airport and need for wildlife strike prevention.</p>

Key submission issue	Response
Concerns around impacts to native flora and endangered species within the project footprint	<p>Biodiversity impacts are being mitigated in accordance with the conditions of approval and management measures outlined in the Environmental Assessment Documentation for the project. These include measures to be undertaken to minimise and mitigate impacts as detailed in the Overarching Construction Flora and Fauna Management Plan: <a href="https://roads-waterways.transport.nsw.gov.au/projects/01documents/m12-motorway/m12-overarching-flora-fauna-management-sub-plan.pdf">https://roads-waterways.transport.nsw.gov.au/projects/01documents/m12-motorway/m12-overarching-flora-fauna-management-sub-plan.pdf</a></p> <p>Measures include refining the project footprint during detailed design to minimise impacted areas, enforcing exclusion areas, offsetting unavoidable impacts on threatened species and communities in accordance with the conditions of approval, and providing alternate habitat for hollow dependant fauna as outlined in the Habitat Compensation Plan.</p>
Concerns around biodiversity and impacts to native fauna as part of motorway construction	<p>Fauna crossings are being provided as part of the project, at each of the major creek bridges and a separate overhead facility in Western Sydney Parklands.</p> <p>During detailed design an additional fauna crossing under the motorway was added in the east to improve connectivity at road connections near remnant patches of bushland.</p>
Consideration of additional native Australian plant species	<p>Where possible, TfNSW have included the use of species that are indigenous to the Cumberland Plain Woodlands of Western Sydney or the M12 area for optimum success in revegetation/restoration surrounding the M12 project. TfNSW will consider the use of the locally occurring <i>Brachychiton populneus</i> (Kurrajong), if appropriate conditions can be provided.</p>
Concerns regarding lack of non-Aboriginal heritage around Cecil Park and Kemps Creek.	<p>A comprehensive Non-Aboriginal Heritage Assessment was completed as part of the M12 Environmental Assessment Documentation and a thematic study has been prepared to address heritage sites along the motorway alignment.</p>
Opportunities for continued Aboriginal engagement and participation during the M12 construction	<p>TfNSW can confirm that continued Aboriginal engagement and collaboration for the project will continue via mechanisms already in place including procurement opportunities outlined by the M12 project's Indigenous Participation Plan.</p>
Consideration of materials and finishes used in the design features of the PDLP	<p>Selected materials and finishes have undergone an extensive design development and review process and are considered fit for purpose.</p>



Key submission issue	Response
Landscape interface with other community precincts such as the Western Sydney Parklands	TfNSW will continue to collaborate and engage as the project develops, noting that some areas will be considered as part of other TfNSW projects such the Elizabeth Drive Upgrade.
Concerns regarding aviation safety including wildlife management, specifications of the Great Emu in the Sky sculpture, associated lighting and species selection.	TfNSW will continue to work with and consult with Western Sydney International Airport as detailed designs progress. This will include the development of a monitoring regime for the height of planting forms.

## Next steps

The final PDLP and Submissions Report (this document) will be provided to the Department of Planning and Environment (formerly the Department of Planning, Industry and Environment) for information and will be made available on the M12 Motorway project website.

## Ongoing community and stakeholder engagement

TfNSW will continue to engage with community members, government agencies and other stakeholders as features of the PDLP progress through detailed design and future construction.

Engagement will include community notifications, meetings and updates to the project website and PDLP portal. Ongoing engagement is part of best-practice communications and to ensure members of the public and stakeholders remain informed as the project progresses through program milestones. It also provides opportunities for ongoing feedback which will help mitigate potential issues as project moves towards construction.

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# 1. Introduction and background

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## 1.1 Background

The M12 Motorway is an east-west 16 kilometre motorway between the M7 Motorway, Cecil Hills and The Northern Road, Luddenham. The motorway will provide increased road capacity and reduce congestion and travel times in the future. It will also improve the movement of freight in and through Western Sydney and is expected to serve the Western Sydney Aerotropolis and the South West Growth Area. The project is expected to be open to traffic prior to the opening of the Western Sydney International Airport (WSIA).

The Place, Design and Landscape Plan (PDLP) forms part of the M12 Motorway project and the features of the PDLP will be implemented during the construction of the M12 Motorway.

The PDLP addresses how changes to the landscape has been designed in keeping with the culture and heritage of the area by adopting a 'Connection to Country' design framework that will create a unique and memorable transport infrastructure connecting other parts of Sydney to the Western Parkland City.

Under the NSW Infrastructure Approval conditions E69 and E70, the PDLP must be prepared to inform the final design of the M12 Motorway project and be put on public exhibition for consultation and feedback. Public exhibition and consultation occurred over a four week period between Monday 1 November and Sunday 28 November 2021. As part of the project requirements, responses to the PDLP consultation must be documented along with any subsequent design changes to the PDLP.

The Heritage Interpretation Plans (including Non-Aboriginal and Aboriginal heritage), prepared under M12 Infrastructure Approval condition E27, informed the PDLP and were exhibited during the same consultation period.

The final PDLP and Submissions Report (this document) must be provided to the Department of Planning and Environment (formerly the Department of Planning, Industry and Environment) for information before implementation.

## 1.2 Place, Design and Landscape Plan exhibition

The Place, Design and Landscape Plan (PDLP) was exhibited by Transport for NSW (TfNSW) for 28 days between 1 November and 28 November 2021. The PDLP was available to view and download from the TfNSW M12 Motorway PDLP online portal, and remains accessible by anyone with internet access via a smartphone and/or computer.

Topics covered under the PDLP for exhibition and consultation include:

- Landscape design
- Species selection
- Public elements on shared user path
- Materials and finishes
- Lighting and wayfinding.

Due to COVID-19 and public health orders at the time of consultation, traditional face-to-face engagement channels and community drop in sessions were replaced by virtual and digital engagement methods. Hard copies of the full PDLP document could not be provided at public libraries or local councils, however, could be printed and posted to stakeholders on a request basis.

Communication and engagement activities supporting the display of the PDLP included:

- One media release
- Dedicated PDLP web portal housing technical documents, videos, artist impressions, recordings and an interactive map
- 6000 hard copies of the Community Guide to the PDLP letterbox dropped to properties along the M12 alignment
- Two online community information sessions
- Six advertisements across three local newspapers:

Print media	Publication date	Publication date
The Western Weekender Penrith	5 Nov 2021	26 Nov 2021
Liverpool Champion	3 Nov 2021	24 Nov 2021
Fairfield City Champion	3 Nov 2021	24 Nov 2021

- Four social media posts
- Television and print media coverage (Channel 7, Sydney Morning Herald, the Daily Telegraph and the Daily Mail)
- Emails to over 500 contacts on the established distribution list
- Website updates.

A number of existing external engagement channels were also used to complement community consultation including the M12 project email address, a toll-free project phone number and postal address.

Stakeholder briefings included:

- Member for Mulgoa, Tanya Davies MP
- Penrith City Council
- Fairfield City Council
- Western Sydney International Airport
- Western Parkland City Authority
- Western Sydney Planning Partnership Office
- Heritage NSW
- Design Review Panel.

Some stakeholders declined a PDLP briefing and some declined to provide a submission. Refer to **Appendix B** for all stakeholder engagement activities.

### 1.3 Purpose of the document

This report identifies the submitters and issues raised during exhibition of the PDLP (Section 2) and includes a response to those issues raised. Where changes will be made as a result of feedback, this will be specified.



This report also outlines any feedback which cannot be immediately adopted or where items are under further design clarification.

## 1.4 Relevant Conditions of Approval

Table 1 outlines the NSW Conditions of Approval (CoA) relevant to the M12 PDLP consultation.

*Table 1 Conditions of Approval relevant to the PDLP consultation*

CoA	Requirement	Purpose	Comments
A5	<p>Where the terms of this approval require a document or monitoring program to be prepared or a review to be undertaken and submitted to the Planning Secretary, and the terms of this approval require the document, monitoring program or review to be prepared/undertaken in consultation with identified parties, evidence of the consultation must be submitted to the Planning Secretary with the relevant document, monitoring program or review. The evidence must include:</p> <p>(a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval;</p> <p>(b) a log of the dates of engagement or attempted engagement with the identified party;</p> <p>(c) documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations;</p> <p>(d) outline of the issues raised by the identified party and how they have been addressed; and</p> <p>(e) a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.</p>	Information	<p>Appendix A</p> <p>Appendix B</p> <p>Appendix C</p> <p>Section 3 and Section 4</p> <p>Section 3 and Section 4</p>
E70	<p>The Place, Design and Landscape Plan must be prepared by a suitably qualified and experienced person in consultation with relevant councils, Western Sydney Parklands Trust, Heritage NSW, the community and affected landowners and businesses. The Place, Design and Landscape Plan must include, but not be limited to:</p> <ul style="list-style-type: none"> <li>an analysis of the built, natural, heritage and community context and the urban design objectives, principles and standards for the CSSI;</li> <li>identification of opportunities for heritage interpretation during design and construction consistent with the Heritage Interpretation Plan required by Condition E27;</li> <li>the design of the CSSI elements including their form, materials and detail;</li> <li>the design of the CSSI landform and earthworks;</li> </ul>	Information	<p>This has been prepared and all stakeholders have been engaged with as part of the PDLP development.</p>



CoA	Requirement	Purpose	Comments
	<ul style="list-style-type: none"> <li>the location of existing vegetation, areas of vegetation to be retained and proposed planting and seeding details, including the use of local indigenous species for revegetation activities.</li> <li>active transport infrastructure, including amenities to be provided along the shared user path;</li> <li>developed visualisations, cross sections and plans showing the proposed design outcome;</li> <li>demonstrated integration of Crime Prevention Through Environmental Design principles into</li> <li>the detailed design process; and</li> <li>details of strategies to rehabilitate, regenerate or revegetate disturbed areas including riparian corridors and successfully establish and maintain the resulting new landscape and associated elements.</li> </ul>		
E27	<p>A Heritage Interpretation Plan must be prepared that identifies and interprets the key heritage values and stories of the heritage items impacted by the CSSI. The Heritage Interpretation Plan must include, but not be limited to:</p> <ul style="list-style-type: none"> <li>(a) integration of heritage themes and values in the design of the CSSI;</li> <li>(b) design elements (form and fabric) and themes for the CSSI;</li> <li>(c) consideration of the design concepts for Western Sydney International Airport and Sydney Metro Western Sydney Airport; and</li> <li>(d) opportunities for design responses for Aboriginal and non-Aboriginal heritage.</li> </ul> <p>The Heritage Interpretation Plan must be provided to Western Sydney International Airport and Sydney Metro Western Sydney Airport to assist in guiding opportunities for integration of heritage themes and values into their design.</p> <p>The Heritage Interpretation Plan must be prepared in accordance with the Interpreting Heritage Places and Items Guidelines (NSW Heritage Office, 2005), and in consultation with Heritage NSW, Aboriginal Cultural Heritage Advisory Committee, LALC and relevant council(s).</p> <p>The Plan must be implemented and inform the Place, Design and Landscape Plan must be implemented</p>	Information	<p>Section 4.2</p> <p>Section 4.5</p> <p>Non-Aboriginal Heritage Interpretation Plan</p> <p>Aboriginal Cultural Heritage Interpretation Plan</p>

CoA	Requirement	Purpose	Comments
	<p>during construction and operation required by Condition E69.</p> <p>The Heritage Interpretation Plan must be submitted to the Planning Secretary and Heritage NSW for information prior to finalising the Place, Design and Landscape Plan required by Condition E69.</p> <p>Note: Nothing in this condition prevents the Proponent from preparing separate Heritage Interpretation Plans for Aboriginal and Non-Aboriginal Heritage.</p>		



## 2. Submissions received

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### 2.1 Submitters

A total of 21 pieces of feedback and submissions were received by TfNSW from 19 submitters. Of the feedback and submissions, six were outside the scope of consultation for the PDLP.

The submitters comprised of:

- Eight individual community members
- Four special interest groups or businesses
- Seven government authorities.

### 2.2 Overview of issues raised

Each submission has been examined individually to understand the issues being raised.

The issues raised in each submission have been extracted and collated, and corresponding responses to the issues have been provided. Where similar issues have been raised in different submissions, only one response has been provided.

The issues raised and TfNSW responses to these issues form the basis of Section 3 and Section 4.

Of the 21 submissions received, nine supported the PDLP and six were against. The rest were either neutral in their position or did not offer one.

### 2.3 Common themes

The top issues raised during the PDLP consultation comprised of:

- Urban design
- Landscape design
- Flora and fauna
- Aboriginal heritage.

A summary of the issues is outlined below:

- Confirmation that the shared user path on the eastern end of the M12 will be delivered before the M12 Motorway is complete
- Maximise tree canopy along the project footprint while adopting native Australian plant species
- Minimising impacts to native flora and fauna particularly with wildlife crossings
- Landscape interface with other community precincts such as the Western Sydney Parklands
- Incorporating non-Aboriginal heritage around Cecil Park and Kemps Creek
- Opportunities for continued Aboriginal engagement and participation during the M12 construction
- Concerns regarding aviation safety including wildlife management, specifications of the Great Emu in the Sky sculpture, associated lighting and species selection.

A detailed breakdown of the issues raised by individuals, community interest groups, businesses and government organisations is shown in Figure 1.1:

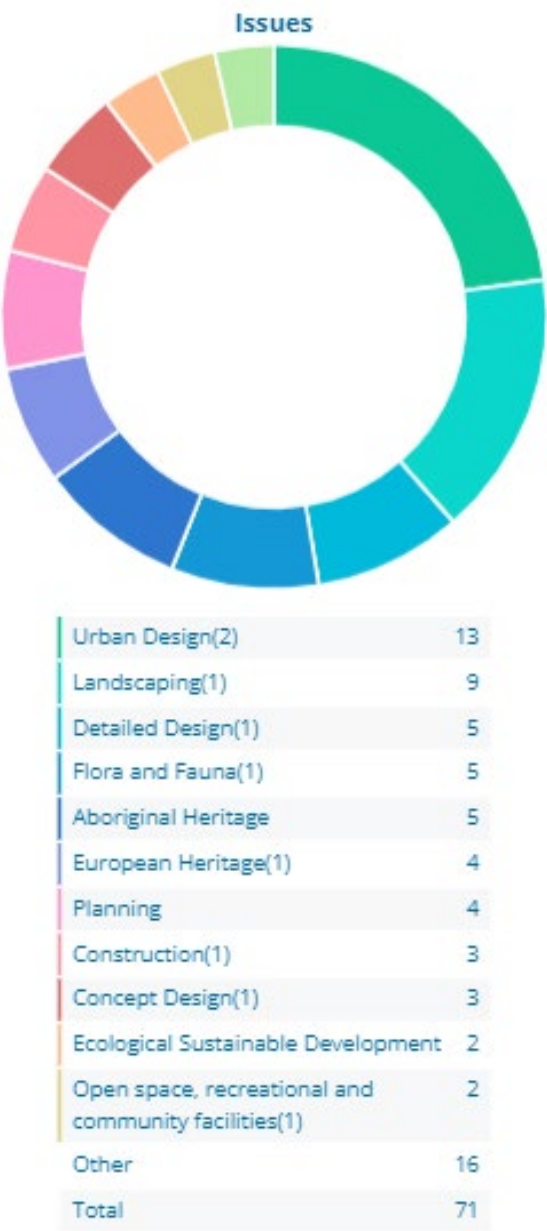


Figure 1.1 Issues raised.



## 3. Response to submissions from community and organisations

### 3.1 Introduction

A total of 12 community submitters provided 14 submissions comprising of eight individual community members and four from special interest groups or businesses.

A list of the community submissions is provided in Table 3.1, including the sections where the issues are being addressed. The community issues raised and TfNSW's response to these issues form the basis of this chapter.

Of the 12 community submitters, five submitters expressed support for the PDLP either via the classification of their submission or mentioned support for the project within their submission. Six submitters objected to the project and three submitters raised issues without specifying whether they were in support or in opposition to the PDLP.

Table 3.1 – issues and comments raised by community members and organisations

Submitter	Submission number	Category of issue raised	Section addressed
Individual	1	Urban Design	3.2
Individual	2	Public elements on the shared user path	3.4
Individual	3	Connection with M4	3.7
Individual	4	M7 Motorway	3.7
Individual	5	Urban design, lighting and wayfinding	3.2
	6	Species selection	3.3
	7	Species selection Public elements on the shared user path	3.3 3.4
Urban Estate Developments	8	Mamre Road connection	3.7
Individual	9	M12 Motorway not needed	3.7
Cecil Park Resident Action Group	10	Noise walls and noise assessment for eastern end of the M12 Motorway	3.7
Mulgoa Valley Landcare Group	11	Biodiversity impact and wildlife strike	3.5
Individual	12	Non-Aboriginal heritage	3.6
Bicycle NSW	13	Public elements on shared user path	3.4

Individual	14	Supports the PDLF.	N/A
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## 3.2 Urban design

### *Submission numbers*

1 and 5

### *Issue description*

#### **Great Emu in the Sky sculpture**

A submitter expressed concerns around the cost of the artwork, based on media reports at time referencing a \$7 million figure.

#### **Bridge design**

A submitter provided several pieces of feedback incorporating bridge design and if the February theme had been included.

There were also concerns regarding wildlife crossings and the use of a wildlife bridge.

### *Response*

#### **Great Emu in the Sky sculpture**

Many design features of the M12 Place, Design and Landscape Plan were described early on during the Environmental Impact Statement period, which carried a robust consultation process. The design framework has been shaped by consultation with various stakeholders including Aboriginal groups, knowledge holders and artist cohort. The design framework aligns with the TfNSW Reconciliation Action Plan.

While plans for the M12 feature a Great Emu in the Sky sculpture, reports to date about its scope or cost have been based on speculation as TfNSW has not finalised designs for the various package of artwork illustrated in the PDLF.

#### **Bridge design**

The month of February is referenced in the Creation Time theme for the bridge.

With regards to fauna crossings, these have been included in the design of the M12. The bridges across the four main creeks (Kemps Creek, South Creek, Badgerys Creek and Cosgroves Creek) have been designed to offer dry passage for ground dwelling fauna.

There are also four fauna rope crossings for tree dwelling species included in the design. Three are located beneath creek bridges (Kemps Creek, Badgerys Creek and Cosgroves Creek) and will be detached from underneath the new structures. The fourth is located across the motorway at a cutting between Range Road and Water Tower Access Road within Western Sydney Parklands.



### 3.3 Species selection

#### Submission numbers

6 and 7

#### Issue description

##### Inclusion of additional plant species

The submitter has suggested that the project consider incorporating other waratah colours such as yellow, white and pink as well as the inclusion of additional native Australian trees as part of the planting palette such as *Toona ciliata*, *Melia azedarach* and *Brachychiton acerifolius*.

#### Response

##### Inclusion of additional plant species

TfNSW thanks the submitter for the considered suggestions and interest in the PDLP. The different coloured cultivars of waratahs suggested are not indigenous to the Cumberland Plain Woodlands of Western Sydney or the M12 area local plant community types and are therefore not as suitable for use in the revegetation areas surrounding the M12 project. As an example, the yellow waratah was developed using *Telopea speciosissima* (NSW) crossing with the *T. truncata* (TAS) and *T. oreades* (VIC). Their use would be more appropriate in local parks and gardens and in residential gardens where growing conditions are better suited to their requirements.

The NSW Waratah originates from sandstone areas and the new colours have been hybridised with other protea species, which are known as interspecific hybrids. The true species of NSW Waratah, *Telopea speciosissima*, may be incorporated into the project in areas where the Shale Sandstone Transition Forest plant community has been identified.

The suggested trees are not indigenous to the Cumberland Plain Woodlands of Western Sydney or the M12 area local plant community types and would struggle to be successful in revegetation/restoration areas surrounding the M12 project. TfNSW will use the locally occurring *Brachychiton populneus* (Kurrajong), which is listed as vulnerable, where appropriate conditions can be provided.

### 3.4 Public elements on shared path

#### **Submission numbers**

2, 7 and 13

#### **Issue description**

##### **The shared user path should be separated between cyclists and pedestrians**

Two submitters requested the physical separation of pedestrians and cyclists along the shared user path.

##### **The shared user path should have a minimum width of 3 metres plus a 0.5 metre buffer on each side**

A submitter suggested that the shared user path have a minimum width of 3 metres for path with 0.5m buffer on each side.

##### **Inclusion of amenities along the shared user path including public toilets, seating, bike racks and maximum tree coverage**

Submitters recommended extra seating along the shared user path, public toilets along with bike racks and maximum tree planting for shading.

##### **Regional connectivity**

A submitter suggested that the shared path connect with the regional cycling network.

##### **Inclusive cycling infrastructure, prioritising safety while minimising impacts to cyclists during motorway construction**

A submitter sought assurance that the cycling infrastructure will be built in an inclusive manner, and with impacts to cyclists during construction minimised and safety maintained.

#### **Response**

##### **The shared user path should be separated between cyclists and pedestrians**

TfNSW advocates a context sensitive design approach for active transport provisions. The decision to provide a shared path in its current design was on the basis that the M12 shared user path will have lower use initially, to be eventually complemented by a broader active transport network and land use activities which will cater for a variety of pedestrian and cycle journeys. The M12 shared path will include physical characteristics that discourage excessive speed.

##### **The shared user path should have a minimum width of 3 metres plus a 0.5 metre buffer on each side**

The shared path will be a minimum of 3 metres wide incorporating an additional buffer against surfaces and edges that would constrain this width.

##### **Inclusion of amenities along the shared user path including public toilets, seating, bike racks and maximum tree coverage**

There are six rest area nodes provided along the shared user path spaced at intervals of about 1.9km. The nodes are of generous scale and include seating and shade from trees and interpretive leaf structures.

Public Toilets will be available in the Wylde Mountain Bike facility upon its reopening. As the area develops it is expected that additional amenities will be available in other areas of parkland planned to be established adjacent to the M12 alignment.

Tree canopy has been provided to the maximum extent possible, given constraints due to wildlife strike required by the Western Sydney International Airport.



## Regional connectivity

The M12 shared user path will connect to existing regional connections at the M7 Motorway and The Northern Road. Planned future connections are sometimes provided as stubs, such as at Luddenham Road, or not precluded at locations where a connection identified in planning documents is currently on privately owned land.

Additional connections beyond the aforementioned locations are beyond the scope of the M12 project.

## Inclusive cycling infrastructure, prioritising safety while minimising impacts to cyclists during motorway construction

Apart from the existing interface with the M7 Motorway and The Northern Road shared user paths, there are no existing dedicated pedestrian or cycling facilities in the project footprint. During construction there will be some adjustments needed such as temporary closures to the M7 Motorway shared user path during construction, however, a detour will be established with the M7 interchange and stakeholders notified (please refer to the EIS Submissions Report).

During operation, it is expected the M12 shared user path will have similar controls to the M7 shared path which govern how users have right of way over vehicles undertaking maintenance.

## 3.5 Biodiversity impacts

### Submission number

11

### Issue description

#### Biodiversity impacts

Concerns raised regarding impacts to local flora and fauna including a 13km restriction imposed on flora and fauna. Believes projects in the area need to do more to offset losses and impacts to flora and fauna.

### Response

Biodiversity offsets for the project are being delivered in accordance with the NSW Biodiversity Offset Policy for Major Projects. Biodiversity Offsets have been provided in the Penrith, Camden, Liverpool and Wollondilly local government areas under the following biobanking agreement numbers; 190, 112, 284, 119, 70, 120, 213, 250, 375, 156 and 143. These agreements are available online at: <https://www.environment.nsw.gov.au/bimsprapp/SearchBiobankingAgreement.aspx?Star%3D1>

Biodiversity impacts are being mitigated in accordance with the Conditions of Approval and management measures outlined in the Environmental Assessment Documentation for the project.

Impacts to native vegetation and fauna will be managed through implementation of an overarching construction flora and fauna management plan for the project. This plan outlines requirements for clearing limits, exclusion fencing, pre-clearance surveys, vegetation clearing procedures, unexpected finds procedures, weed management and monitoring, de-watering processes, aquatic fauna relocation and the provision of supplementary fauna habitat (e.g. nest boxes).

Revegetation will be undertaken incorporating seeding and plants propagated from a seed collection program which has already commenced. Revegetation across the project would be carried out in accordance with Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011) (Guide 3: Re-establishment of native vegetation) and the Place, Design and Landscape Plan. Habitat would also be replaced or re-instated in accordance with Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011) (Guide 5: Re-use of woody debris and bushrock and Guide 8: Nest boxes), incorporated into a Habitat Compensation Plan. Specifically, the project would implement connectivity measures in accordance with TfNSW Wildlife Connectivity Guidelines for Road Projects.

Fencing has been designed to be located to reduce roadkill of fauna species and funnel animals to creek crossings where safe passage would be available. Detailed design has retained fauna passage at all four main creek lines (Cosgroves, South, Kemps and Badgerys Creeks). The project has focused on maintaining connectivity along riparian areas, where there is limited, current connectivity. Upon completion, riparian vegetation removed for the purposes of construction will be replaced and the area rehabilitated with the aim to improve the existing conditions where feasible.

TfNSW would welcome representations from Mulgoa Landcare group in regard to potential offset sites that meet the requirements for the project.

### 3.6 Non-Aboriginal heritage

#### **Submission number**

12

#### **Issue description**

##### **Non-Aboriginal heritage**

A submitter expressed concerns that the not enough European heritage was considered in the PDLF especially around Cecil Park and Kemps Creek

#### **Response**

TfNSW refers the submitter to the [Non-Aboriginal Heritage Thematic Study](#) and the [Non-Aboriginal Heritage Assessment](#) of the Environmental Impact Statement (Appendix J) for further information including a comprehensive history of the project area. The non-Aboriginal heritage assessment was prepared to meet the Secretary's Environmental Assessment Requirements for the project as issued by the Department of Planning and Environment.

### 3.7 Out of scope items

Feedback and submissions received on topics not part of the M12 PDLF exhibition and consultation (see section 1.2 of this report) are deemed out of scope and cannot be actioned as part of the PDLF process. Where feasible, these may be considered as part of the overall project as it progresses.

For feedback or submissions received on topics previously addressed during the M12 EIS or Amendment Report consultation periods, responses issued at the time remain appropriate. Relevant submissions reports can be found online at:

<https://pp.planningportal.nsw.gov.au/major-projects/projects/m12-motorway>



### ***Submission numbers***

3, 4, 8, 9 and 10

### ***Issue description***

#### **Connection with the M4 Motorway**

A submitter did not support the M12 project as due to a lack of connection with the M4 Motorway at the western end.

#### **M7 Motorway**

A submitter expressed support for the M12, however, expressed concern that the M7 will be even more congested once the M12 opens.

#### **Mamre Road connection**

A submitter expressed concern over a lack of connection or interchange with Mamre Road.

#### **M12 Motorway not needed**

A submitter believes the M12 is not needed if Elizabeth Drive is widened instead.

#### **Noise walls and noise assessment for the eastern end of the M12 Motorway**

A Cecil Park Resident Action Group representative expressed concerns over the absence of noise walls shown in the draft PDLP for the eastern end of the motorway. There was also a suggestion that the design life of the M12 noise assessment should extend to 2046 to cater for cumulative noise impacts resulting from future projects in the area.

### ***Response***

#### **Connection with the M4 Motorway**

The M12 Motorway provides a critical east-west connection, with direct access to the Western Sydney International Airport, which will alleviate traffic from Elizabeth Drive.

Other road projects and investigation of north-south connections including those with the M4 Motorway are underway including The Northern Road upgrade which provides connectivity to the M12 in the west. This project is now complete and open to traffic.

Please refer to the [EIS Submissions Report](#) for more information.

#### **M7 Motorway congestion**

The eastern end of the M12 Motorway which connects with the M7 is currently subject to an Unsolicited Proposal which includes a proposal to increase capacity by widening the M7 Motorway. The NSW Government is currently assessing this proposal.

#### **Mamre Road connection**

A connection or interchange with Mamre Road is outside the current scope of the M12 project. However, the M12 Motorway design does not preclude a grade separated interchange and link between Devonshire Road and Mamre Road to be made in the future without significantly impacting M12 Motorway traffic.

Motorists along Mamre Road will be able to access the M12 via Elizabeth Drive.

#### **M12 Motorway not needed**

Previous suggestions regarding the widening of Elizabeth Drive in lieu of building the M12 Motorway were addressed within the EIS Submissions Report.

It was deemed not feasible due to insufficient capacity along Elizabeth Drive, as a standalone connection to the Western Sydney International Airport. This would not meet the requirements set out in the Western Sydney Infrastructure Plan.

TfNSW is investigating the upgrade of Elizabeth Drive as a separate project to the M12 Motorway, to support the Western Sydney Aerotropolis and related planned development in the area.

### **Noise walls and noise assessment for the eastern end of the M12 Motorway**

Detailed designs for the eastern end of the M12 Motorway have not been finalised, therefore, noise mitigation measures such as noise walls continue to be under consideration as part of the design process. The M12 East project team will engage with stakeholders and the community once all noise modelling and associated mitigation measures have been updated.

With regards to noise modelling and assessments being limited to 2036, it is industry practice to assess operational noise impacts for new roads for the year the road will open and 10 years after opening. For the M12 Motorway these assessment timeframes are 2026 and 2036 respectively. This methodology is in accordance with the [NSW Road Noise Policy](#) (DECCW, 2011) . As land use changes across the Western Parkland City along with future infrastructure builds, there will be relevant environmental requirements and planning conditions for other projects to address mitigation measures regarding cumulative noise impacts.



## 4. Response to submissions from government authorities

### 4.1 Introduction

In addition to the 12 community submissions addressed in **Section 3** of this report, TfNSW also received a total of seven pieces of feedback or submissions from government authorities in response to the PDLP exhibition and consultation. Two government authorities declined to make a submission.

A list of all government authority submissions is provided in Table 4.1, with an overview of issues or comments raised including where the issue has been addressed in this report. Each submission is outlined and individual responses have been provided specific to each submission.

Table 3.1 – issues and comments raised by government authorities

Submitter	Issues raised	Section addressed
WaterNSW	Heritage and shared user path alignment Species selection Public elements of the shared user path Wayfinding and interpretation signage	4.2
Penrith City Council	Landscape design Species selection Public elements of the shared user path	4.3
Greater Sydney Parklands	Landscape design Public elements of shared user path Future consultation	4.4
Heritage NSW	Aboriginal heritage Non-Aboriginal heritage Wayfinding and signage	4.5
State Emergency Services	Flooding and evacuation management	4.6
Western Sydney International Airport	Project design Species selection Wildlife management Obstacle limitation surface Lighting Public elements of the shared user path	4.7

Planning	Cross connectivity	4.8
<b>Feedback</b>		
WaterNSW manages the Upper Canal and would like to review any public facing material that features this non-Aboriginal heritage prior to publication including signage. WaterNSW is happy to provide any archival material that may assist in the development of wayfinding and signage.		
Council		
Liverpool City Council	No response received	N/A

## 4.2 WaterNSW

### 4.2.1 Heritage and shared user path alignment

#### Feedback

WaterNSW endorses the M12 PDLP approach, with regards to Aboriginal and non-Aboriginal heritage, as well as the shared user path alignment within the Western Sydney Parklands.

#### Response

WaterNSW's support for the M12 PDLP design framework is acknowledged.

### 4.2.2 Species selection

#### Feedback

WaterNSW endorses and the species selection proposed for the area that encompasses the Upper Canal.

WaterNSW notes that the planting pallet for Landscape Character Zone 6 reflects locally native species in this area and encourages this approach.

#### Response

WaterNSW's support for the M12 PDLP species selection is acknowledged.

### 4.2.3 Public elements of the shared user path

#### Feedback

WaterNSW supports the realignment of the Mirror Dam Cycleway passing over the Upper Canal as it improves access and visual experience for users.

#### Response

WaterNSW's support for the shared user path is acknowledged.

### 4.2.4 Wayfinding and signage



## **Response**

TfNSW greatly appreciates WaterNSW's support with this.

TfNSW will be progressing with wayfinding and interpretation signage design soon and will contact WaterNSW's Heritage Specialist as part of that process.

## **4.3 Penrith City Council**

### **4.3.1 Landscape design**

#### **Issue description**

Council has suggested that the M12 PDLP design prioritise trees to the north and west of the shared user path to improve amenity and maximise shade. As an example, there are several locations where clusters of trees are not proposed near the shared user path.

Council sought clarification with regards to the three metre setback between the tree and the edge of the shared user path. Council suggests that this setback be reconsidered to maximise tree canopy on the shared user path.

Council also sought clarification with regards to a lack of trees on the cut batter drawing and suggests they be considered anywhere with suitable design element conditions and arrangements.

#### **Response**

The operational requirements of the motorway and the Western Sydney International Airport's wildlife strike restrictions have influenced the type, location, spacing and quantity of trees within the project boundary, including the against the shared user path. Tree planting north and west of the shared user path has been included where possible.

The three metre setback is a conservative figure used to ensure trees are appropriately distanced from the shared user path to protect nearby infrastructure from tree roots and maintain sight lines. This will be reviewed prior to installation when actual conditions on ground can better be appreciated.

Trees are generally limited to the top and bottom one third of cut batters as much of the batter face is expected to be rock based on geotechnical investigations to date. Additionally, planting is positioned for ease of access by construction and maintenance personnel.

### 4.3.2 Species selection

#### Issue description

Council suggests reconsidering the use of *Ceratopetalum gummiferum* as it is not native to the region and requires different soil and conditions.

Canopy species are limited in scope. Council recommends that if possible, and within the constrained palette, increasing species selection for resilience, integration with surrounding landscape, and biodiversity.

Council questioned if the translation of the Aboriginal six seasons can be more overt.

#### Response

The restrictions placed on plant species selection to minimise the threat of wildlife strike around the Western Sydney International Airport dramatically reduced the number of suitable locally native tree species. As such, the landscape design includes other native tree species that were reviewed and approved for use by the aviation ecologist, including *Ceratopetalum gummiferum*.

The Western Sydney International Airport's obstacle limitation surface (OLS) and wildlife strike restrictions limit the type, location, spacing and quantity of canopy trees within the project boundary. The project team went through a rigorous design review process to maximise species diversity and quantity while meeting the Airport's operational requirements. The landscape design and planting schedules have been reviewed and approved by the aviation ecologist and incorporated according to their recommendations in the documentation.

Due to the Airport's wildlife strike restrictions, many of the emblematic plant species from the six seasons planting concept are not approved for use in proximity to the airport. The landscape design uses the vegetative associations listed in the Aboriginal Art Strategy Report to enhance the representation of the six seasons planting concept where possible.

### 4.3.3 Public elements of the shared user path

#### Issue description

Council sought clarification on accessibility of the M12 interpretation nodes and if access is provided by emergency services. Council wishes to know if the design is universal and inclusive, and if disability groups have been consulted as part of the design process.

The project should provide water stations given the location of the shared user path and its environment.

Council does not support the use of concrete seating due to concerns regarding material quality and comfort. Seats should also have a back and armrests. Additionally, seat profile is not conducive to comfort when standing up from the seat (overhand is too small). Council suggests adopting the AS1428 profiles for seat design. There should be space provided next to the seat for side-by-side seating as well as circulation space in front of the seat for expected usage.



### **Response**

The nodes are located along the shared user path which is designed to be accessible. As the nodes are directly accessed from the shared user path, they are also designed in general to be accessible. Disability groups have not been consulted as part of the design process.

Water will be available near the M12 shared user path in the Wylde Mountain Bike Facility. Potable water is not generally available in the M12 footprint restricting the opportunity for water stations to be provided more broadly. TfNSW intends to investigate the provision of water stations at the entry points to the M12 shared user path on projects which intersect with it and are currently in planning, such as the Elizabeth Drive upgrade.

The rest nodes are not intended as destinations to be used for extended periods, but rather for people cycling and walking to undertake short rests as part of a broader journey. The precast concrete seat has undergone an extensive design development and review process and is considered fit for this purpose.

## **4.4 Greater Sydney Parklands**

### **4.4.1 Landscape design**

#### **Feedback**

Request to contribute to opportunities to integrate Western Sydney Parklands identification within the proposed bridge overpasses and landscaping.

Specific areas of interest include the arrival experience at the main park entries into Cecil Park (Range Road and Water Tower access) to ensure well-designed delivered outcomes on the ground; integrated stormwater basins, not visually intrusive at our entries / at locations where park visitors interact.

### **Response**

TfNSW will continue to collaborate with and consult the Greater Sydney Parklands as detailed plans are developed and throughout construction. Some of the elements identified may be more appropriate to consider as part of the Elizabeth Drive Upgrade project.

### **4.4.2 Public elements of the shared user path and future consultation**

#### **Feedback**

Greater Sydney Parklands supports the work undertaken by TfNSW to address matters previously raised, including the development of modifications to the Wylde Mountain Bike Trail, funding of the Mirror Dam Cycleway and proposed landscaping and place design of the M12 through the Western Sydney Parklands to create a green corridor.

Greater Sydney Parklands welcomes further collaboration with TfNSW as the eastern end progresses through detailed design, including the finalisation of the landscape plans for the PDLF for a cohesive and identifiable landscape character adjacent to the Western Sydney Parklands.

## **Response**

TfNSW will continue to collaborate as the PDLP progresses and consult with Greater Sydney Parklands throughout the finalisation of the detailed design of the project. Some of the elements identified may be more appropriate to consider as part of the Elizabeth Drive Upgrade project.

## **4.5 Heritage NSW**

### **4.5.1 Aboriginal and non-Aboriginal heritage, wayfinding and signage**

#### **Feedback**

Heritage NSW supports the initiative by TfNSW to implement a Heritage Interpretation Plan.

Consultation with the Aboriginal community should continue throughout the project.

Procurement opportunities with Aboriginal individuals and organisations should be considered for the design and delivery of Aboriginal heritage interpretation, where possible.

Interpretive devices should be consistent in design, look and feel in order to integrate and interpret holistically both Aboriginal and Non-Aboriginal values.

While not every heritage place can or should be identified along the M12 Motorway corridor, consideration should be given to include a large-scale map at one of the interpretation nodes, to locate many, if not all, of the heritage places (whether listed or not) along the M12 Motorway to give a bigger picture of heritage places/values along the corridor.

## **Response**

TfNSW can confirm that consultation with Aboriginal communities will continue via the mechanisms already in place.

Procurement opportunities established by the project's broader Indigenous Participation Plan will apply to items described in the PDLP.

TfNSW agrees with Heritage NSW regarding consistent design, look and feel for interpretative devices and confirms that a detailed design exercise will commence imminently that will meet this recommendation.

TfNSW notes the suggestion of a large-scale map and confirms that a detailed design exercise is about to commence to address this. It is currently envisaged that maps will be provided at entry points and other decision points along the shared path. TfNSW will consider whether it is appropriate to add a similar map to signs at or on more of the nodes.



## 4.6 NSW State Emergency Services

### 4.6.1 Flooding and evacuation management

#### ***Feedback***

The NSW State Emergency Services (NSW SES) has identified the M12 as a potential future evacuation route for the South West Sydney Growth Centre. Evacuation capacity and flood affectation should be a consideration in the M12 design to reduce the potential risk to life.

#### ***Response***

Flooding impacts associated with the amended project were previously raised and addressed in the [M12 Amendment Report Submissions Report](#). Please refer to this report for information.

TfNSW has also recently published its Overarching CEMP with the Flood Management Sub-Plan in Appendix B8.

TfNSW will consult with NSW SES throughout the construction phase of the project.

## 4.7 Western Sydney Airport (WSA) Co.

### 4.7.1 Project design

#### ***Issue description***

Western Sydney Airport (WSA) Co. appreciates the collaborative and forward-thinking approach of the M12 project team in relation to the design of a motorway which ensures that aviation safeguarding for the future operations of the Western Sydney International Airport (WSIA) are maintained through the detailed design of the M12. Specific comments have been raised to ensure that aviation safeguarding matters including wildlife attraction, lighting and airspace protection are appropriately addressed, as well as a range of other miscellaneous matters.

Confirmation be provided that a future interchange at Devonshire Road would not interfere with works under the M12 PDLP.

#### ***Response***

The design envisages the potential for a future interchange at Devonshire and Mamre Roads. The elements indicated in the PDLP will largely be maintained with any interchange, however, some may need to be relocated to ensure their value is retained.

### 4.7.2 Species selection

#### ***Issue description***

That WSA and M12 continue discussions in relation to landscape species selection, and that further review be undertaken in relation to the species list previously identified.

That species identified be reviewed to ensure no intrusions into the OLS. WSA is to be consulted in any revised species selection

## **Response**

Noting that TfNSW is comfortable with the broad process undertaken to reach the design outcome illustrated, TfNSW will continue discussions in relation to landscape species selection with WSA to resolve particular concerns.

Species have been selected for their performance against the OLS, noting that the roadside environment constrains the maximum height species will achieve compared to their natural environment. Notwithstanding this TfNSW suggests that height of planting forms part of the monitoring regime.

### **4.7.3 Wildlife management**

#### ***Issue description***

WSA recommends that a Wildlife Management and Monitoring Plan be prepared in relation to the landscaping proposed under this application and for WSA to be consulted with during the preparation of this plan.

WSA seeks confirmation that the basin revegetation and basins themselves have been considered as part of the wildlife risk assessment and that further information be provided in relation to wet basins identified within the document.

TfNSW to confirm that the wildlife buffer shown at Figure 4-05 has not informed wildlife hazard risk assessments undertaken.

Recommends TfNSW to update Figures 4-04 / 4-05 to reflect the accurate 3km, 8km and 13km wildlife buffers (as relevant).

WSA recommends that the document be reviewed and updated to reflect the ongoing construction of WSI.

## **Response**

TfNSW suggests that a development monitoring regime be part of further discussion with WSA, along with other stakeholders. Under standard practice responsibility for maintenance after construction will be divided between TfNSW, councils and potentially other agencies.

The description of basins in the draft PDLP is incorrect. Wet basins are not proposed east of Kemps Creek as described, with biofiltration basins being used instead throughout. This will be updated in the final PDLP document.

TfNSW confirms that buffer zones shown in the figures on pages 4-04 and 4-05 are indicative, and the assessment informing the landscape design was undertaken using the buffer zones established by the Aerotropolis SEPP. Text clarifying this will be added to the figures.

TfNSW acknowledges that historical data has been used in several images including of WSIA. However, TfNSW believes that the rate of land use change within the WSIA site and more broadly in the Aerotropolis means that there is little benefit in updating these images due to their not being material to the content of the PDLP and short period of currency



#### 4.7.4 Obstacle Limitation Surface

##### ***Issue description***

Maximum RLs of the Great Emu in the Sky artwork be detailed for WSA assessment. Above identified details be included in relation to the crane maintenance of the artwork.

##### ***Response***

The detailed design for the artwork is still being finalised and TfNSW will consult with WSA as this progresses.

#### 4.7.5 Lighting

##### ***Issue description***

WSA seeks confirmation that proposed lighting used (including for the Great Emu in the Sky sculpture) is safeguarded for aviation e.g. will not cause glare, confusion, or distraction to pilots.

##### ***Response***

The detailed design for the artwork is still being finalised and TfNSW will consult with WSA as this progresses.

#### 4.7.6 Public elements of the shared user path

##### ***Issue description***

TfNSW to provide further information regarding the eastern portion of the shared path and confirm that it will be delivered prior to completion of the M12 Motorway.

WSA seeks confirmation that a Crime Prevention Through Environmental Design (CPTED) has been undertaken as part of the design development (either within or outside the context of the PDLP).

##### ***Response***

TfNSW is collaborating with Greater Sydney Parklands on the connection between the M7 Motorway and Range Road, along the general alignment indicated in the PDLP. The commitment in the EIS for the path to be operational concurrent with the rest of the project still remains.

A CPTED assessment has been addressed as part of the detailed design packages.

## 4.8 Planning Partnership Office

### 4.8.1 Cross connectivity

#### ***Feedback***

The Planning Partnership Office is interested in cross-connectivity to ensure future communities, and this is already embedded in the M12 design, including accommodating future walking and cycling links along the riparian corridors that the M12 will cross.

#### ***Response***

TfNSW can confirm that existing landowners have been given a licence to use dedicated crossings points at Cosgroves Creek and Badgerys Creek. It is expected that a similar method will be appropriate for active transport provisions as recreation areas are identified and as more information about exact locations, identity of the operator and maintenance regimes are known.



## 5. Conclusion

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This Submissions Report along with the final PDLP will be submitted to the NSW Minister for Planning (formerly the NSW Minister for Planning and Public Spaces), and the Department of Planning and Environment (DPE), formerly known as the Department of Planning, Industry and Environment for information.

The final PDLP and Submissions report will be made available on the TfNSW M12 Motorway project website.

TfNSW will continue to consult with community members, government agencies and other stakeholders during the final stages of detailed design and construction of the project.

## Appendix A – Communication and engagement tools

TOOL	AUDIENCE	OUTCOME
Project information line 1800 517 155	Community and stakeholders	The project telephone line is a channel for the community and stakeholders to contact the project team throughout the PDLP consultation process. All phone calls are handled by a Communications team member and responded to.
Project email address: <a href="mailto:m12motorway@transport.nsw.gov.au">m12motorway@transport.nsw.gov.au</a>	Community and stakeholders	The project email address remains a communications channel for the community and stakeholders to contact the project team throughout the PDLP consultation process. The communications team is responsible for monitoring, recording and coordinating responses to incoming emails.
Project webpage <a href="https://nswroadwork/m12">https://nswroadwork/m12</a>	Community, stakeholders and media	A project web page was established for the M12 to house all relevant information. The webpage remains a gateway to the dedicated PDLP project portal and virtual engagement room.
PDLP interactive portal <a href="https://caportal.com.au/rms/m12">https://caportal.com.au/rms/m12</a>	Community, stakeholders and media	<p>A dedicated PDLP virtual engagement room was developed with all information, documents, videos, artist impressions. This is important for canvassing community feedback and input into submissions. Submissions were made via the portal which were sent to the M12 project inbox. Community and stakeholders can register for the two live stream sessions on offer.</p> <p>The portal is accessible via a computer with internet access, and on smart devices connected to the internet. The portal will remain online indefinitely.</p>
PDLP mapping tool	Community stakeholders, local residents and businesses	An online mapping tool is featured on the portal to showcase the PDLP and provide an opportunity to visually highlight key features of the PDLP and design.
PDLP videos	Community, stakeholders, local residents and businesses	<p>Three PDLP videos featuring subject matter experts were developed ahead of 1 November launch date. Videos are featured in the interactive portal and used as part of the social media campaign to drive awareness and generate excitement for the PDLP.</p> <p>Videos are an important element in helping to visually explain aspects of the program, overlaid with relevant footage or image to create understanding around the PDLP development process.</p> <p>A videographer was engaged to carry out this work by the project team to work with the communications team in executing this series.</p>
Community information sessions / live stream events.	Community and stakeholders	Due to the COVID-19 pandemic, previous face-to-face community drop in/information sessions and displays were replaced with online engagement and live stream events. Project team members were available at these sessions to provide an overview of the PDLP answer questions.



TOOL	AUDIENCE	OUTCOME
One-on-one meetings	Community and stakeholders	<p>One-on-one meetings with subject matter experts were offered, on a by-request basis, for those wishing to discuss areas of the PDLP in more detail, or for those unable to join the live-stream sessions.</p> <p>There were no requests made for these during the exhibition period.</p>
Briefings	<p>Federal and State MPs and local councils</p> <p>Government agencies including Western Sydney Parklands, WSA Co, Heritage NSW, PPO, DPIE</p> <p>Community Interest Groups</p>	<p>The project team met with government agencies, and community interest groups to provide an overview of the program and gauge early feedback. All stakeholder briefings were completed before the exhibition and consultation period closed. Dates and times are included in Appendix B.</p> <p>Where possible, feedback has been used to make changes and help the project understand specific areas of interest in the live stream sessions.</p>
Media release	Media	<p>A PDLP media release was developed by the media team, in collaboration with the project team.</p> <p>No media event was held before or during exhibition.</p>
Community Brochure	State and Federal MPs, Community, stakeholders, local residents and businesses	<p>6000 PDLP brochures were developed and distributed to all residents along the M12 corridor to announce the start of public exhibition and consultation. The brochure was distributed on the day the exhibition began.</p> <p>The brochure consisted of a fold-out map, artist impressions and project contact details.</p>
FAQs	External	<p>A Frequently Asked Questions document was developed to answer queries likely raised during the consultation process, and provide the community with project context.</p> <p>It contains key information and responses to frequently asked questions about the project. FAQs will be based on key issues and mitigation measures.</p>
Advertising (print and broadcast)	Wider community	<p>Local media advertising was used to inform the public:</p> <ul style="list-style-type: none"> <li>• The start of the PDLP exhibition and consultation</li> <li>• Details of the PDLP project portal and contact information</li> </ul>
Social media (Facebook)	Community, stakeholders, local residents and businesses	<p>Social media posts were scheduled to mark the start of exhibition and consultation. A social media campaign, featuring four posts, was developed to generate excitement to encourage traffic to the portal for viewing and submissions.</p>

TOOL	AUDIENCE	OUTCOME
Consultation Manager database	Internal	<p>Stakeholder management software Consultation Manager was used to record stakeholder information including contact details, issues and activities during the PDLP exhibition and consultation, including key stakeholder briefings and submissions received.</p> <p>This information is being used to build hardcopy and email distribution lists for project updates and collateral.</p>



## Appendix B – Summary of stakeholder engagement

STAKEHOLDER	BRIEFING	DATE AND TIME	SUBMISSION STATUS
TANYA DAVIES MP, MEMBER FOR MULGOA	Yes	28 October 2021 12:30pm	No submission received
FAIRFIELD CITY COUNCIL	Yes	03 November 2021 04:30pm	Declined to make a submission via email (Appendix C)
LIVERPOOL CITY COUNCIL	No	n/a	No submission received.  TfNSW followed up via email on LCC's interest in a briefing – 25 October 2021, 28 October 2021, 8 November 2021 and 18 November 2021. No response received.  TfNSW followed up via email in regard to providing a submission - 29 November 2021 and 02 December 2021. No response received.
PENRITH CITY COUNCIL	Yes	19 November 2021 01:30pm	Submission received
HERITAGE NSW	Yes	02 November 2021 02:30pm	Submission received
WESTERN PARKLAND CITY AUTHORITY	Yes	01 November 2021 01:30pm	Declined to make submission.
WESTERN SYDNEY AIRPORT CO.	Yes	16 November 2021 10:00am	Submission received.
BICYCLE NSW	No	n/a	Submission received
PLANNING PARTERSHIP OFFICE	Yes	12 November 2021 01:30pm	Received feedback via email.
GREATER SYDNEY PARKLANDS	No	n/a	Submission received.

## **Appendix C – Evidence of Consultation**

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**From:** [Kerren Ven](#)  
**To:** [Katie Xia](#)  
**Cc:** [Chris Brown](#); [Alison Mortimer](#)  
**Subject:** RE: Follow up: M12 PDLP submission  
**Date:** Friday, 10 December 2021 4:34:39 PM  
**Attachments:** [image020.png](#)  
[image005.png](#)  
[image006.png](#)  
[image007.png](#)  
[image008.png](#)  
[image015.png](#)  
[image016.png](#)

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**CAUTION:** This email is sent from an external source. Do not click any links or open attachments unless you recognise the sender and know the content is safe.

Hi all,

Apologies Katie, I thought I had replied to your email dated 29 November.

After discussion with my manager it was decided that a submission would not be required given that Council officers are currently liaising with Kurt Briddie from TfNSW the on the project works at the detailed design stage.

Kind regards,

**Kerren Ven**  
Strategic Planner | Strategic Land Use Planning  
City Strategic Planning  
PO Box 21, Fairfield NSW 1860  
P 9725 0222 |

[www.fairfieldcity.nsw.gov.au](http://www.fairfieldcity.nsw.gov.au)  
[mail@fairfieldcity.nsw.gov.au](mailto:mail@fairfieldcity.nsw.gov.au)



*We acknowledge the Cabrogal of the Darug nation who are the Traditional Custodians of this Land. We also pay our respect to the Elders both past, present and emerging of the Darug Nation.*

---

**From:** Alison Mortimer  
**Sent:** Wednesday, 8 December 2021 6:39 PM  
**To:** Kerren Ven <[KVen@fairfieldcity.nsw.gov.au](mailto:KVen@fairfieldcity.nsw.gov.au)>  
**Cc:** Katie Xia <[Katie.Xia@transport.nsw.gov.au](mailto:Katie.Xia@transport.nsw.gov.au)>; Chris Brown <[CBrown@fairfieldcity.nsw.gov.au](mailto:CBrown@fairfieldcity.nsw.gov.au)>  
**Subject:** RE: Follow up: M12 PDLP submission

Hi Kerren

Have you any inputs as per the below?

Regards

**Alison Mortimer**  
Manager City Assets  
City Assets and Operations  
PO Box 21, Fairfield NSW 1860  
P 9725 0106 |

[www.fairfieldcity.nsw.gov.au](http://www.fairfieldcity.nsw.gov.au)  
[mail@fairfieldcity.nsw.gov.au](mailto:mail@fairfieldcity.nsw.gov.au)



*We acknowledge the Cabrogal of the Darug Nation who are the Traditional Custodians of this Land. We also pay our respect to the Elders both past, present and emerging of the Darug Nation.*

---

**From:** Katie Xia <[Katie.Xia@transport.nsw.gov.au](mailto:Katie.Xia@transport.nsw.gov.au)>  
**Sent:** Tuesday, 7 December 2021 2:22 PM  
**To:** Alison Mortimer <[AMortimer@fairfieldcity.nsw.gov.au](mailto:AMortimer@fairfieldcity.nsw.gov.au)>; Chris Brown <[CBrown@fairfieldcity.nsw.gov.au](mailto:CBrown@fairfieldcity.nsw.gov.au)>  
**Subject:** FW: Follow up: M12 PDLP submission

Hi Alison and Chris

I haven't been able to get a hold of Kerren regarding the M12 Place, Design and Landscape Plan – we were hoping to receive a submission from Fairfield Council.

Are you able to advise if Council still wishes to make a submission?

Thank you  
Katie

Katie Xia  
Manager, Communications and Stakeholder Engagement  
M12 Motorway  
Community and Place | Greater Sydney  
**Transport for NSW**

I work flexibly. Unless it suits you, I don't expect you to read or respond to my emails outside of your normal work hours.

M 0460 300 284  
Level 7, 27 Argyle Street, Parramatta NSW 2150

I acknowledge the Aboriginal people of the country on which I work,  
their traditions, culture and a shared history and identity. I also pay my respects to  
Elders past and present and recognise the continued connection to country.

---

**From:** Katie Xia  
**Sent:** Thursday, 2 December 2021 10:46 AM  
**To:** Kerren Ven <[KVen@fairfieldcity.nsw.gov.au](mailto:KVen@fairfieldcity.nsw.gov.au)>  
**Subject:** Follow up: M12 PDLP submission

Hi Kerren

Just following up on the below as I have not received confirmation of submission by Fairfield City Council.

As consultation closed on 28 November, we are now progressing to next steps which is collating feedback and developing the Submissions Report.

We are hoping to receive a submission from Fairfield City Council, however, if Council requires an extension or does not wish to provide feedback, please could you advise by COB tomorrow 3 December.

Feel free to give me a call if you'd like.

Thank you  
Katie

Katie Xia  
Manager, Communications and Stakeholder Engagement  
M12 Motorway  
Community and Place | Greater Sydney  
**Transport for NSW**

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M 0460 300 284  
Level 7, 27 Argyle Street, Parramatta NSW 2150

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their traditions, culture and a shared history and identity. I also pay my respects to  
Elders past and present and recognise the continued connection to country.

---

**From:** Katie Xia  
**Sent:** Monday, 29 November 2021 12:12 PM  
**To:** Kerren Ven <[KVen@fairfieldcity.nsw.gov.au](mailto:KVen@fairfieldcity.nsw.gov.au)>  
**Subject:** M12 PDLP submission

Hi Kerren

Hope all is well on your end!

Just wanted to check if Fairfield City Council is lodging a submission to the PDLP that just closed for consultation? I haven't seen anything come through.



**Cheers**  
**Katie**

Katie Xia  
Manager, Communications and Stakeholder Engagement  
M12 Motorway  
Community and Place | Greater Sydney  
**Transport for NSW**

I work flexibly. Unless it suits you, I don't expect you to read or respond to my emails outside of your normal work hours.

**M** 0460 300 284  
Level 7, 27 Argyle Street, Parramatta NSW 2150

I acknowledge the Aboriginal people of the country on which I work,  
their traditions, culture and a shared history and identity. I also pay my respects to  
Elders past and present and recognise the continued connection to country.

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**From:** [Katie Xia](#)  
**To:** [WiafeC@liverpool.nsw.gov.au](mailto:WiafeC@liverpool.nsw.gov.au)  
**Subject:** FW: Follow up: Revised briefing session: M12 Motorway Place, Design and Landscape Plan  
**Date:** Thursday, 18 November 2021 1:41:00 PM

---

Hi Charles

I am following up on the below as I haven't heard back from Liverpool City Council.

Submissions for the M12 Place, Design and Landscape Plan close Sunday 28 November 2021.  
Please let me know if you and your colleagues would like a briefing beforehand.

Kind regards  
Katie

Katie Xia  
Manager, Communications and Stakeholder Engagement  
M12 Motorway  
Community and Place | Greater Sydney  
**Transport for NSW**

I work flexibly. Unless it suits you, I don't expect you to read or respond to my emails outside of your normal work hours.

**M** 0460 300 284  
Level 7, 27 Argyle Street, Parramatta NSW 2150



I acknowledge the Aboriginal people of the country on which I work,  
their traditions, culture and a shared history and identity. I also pay my respects to  
Elders past and present and recognise the continued connection to country.

---

**From:** Katie Xia  
**Sent:** Monday, 8 November 2021 9:51 AM  
**To:** [WiafeC@liverpool.nsw.gov.au](mailto:WiafeC@liverpool.nsw.gov.au)  
**Subject:** Follow up: Revised briefing session: M12 Motorway Place, Design and Landscape Plan

Good morning Charles

Just following up on the below as I haven't heard back from you.

We have two community live stream sessions tomorrow – 1pm and 5pm. Council may like to tune into these public forums, or receive an update via the live stream tomorrow and we can set up a separate meeting for follow up queries.

Let me know what you'd prefer.



**From:** [Katie Xia](#)  
**To:** [WiafeC@liverpool.nsw.gov.au](mailto:WiafeC@liverpool.nsw.gov.au)  
**Subject:** Follow up: M12 PDLP submission  
**Date:** Thursday, 2 December 2021 10:48:00 AM

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Hi Charles

Just following up on the below as I have not received confirmation of submission by Liverpool City Council.

As consultation closed on 28 November, we are now progressing to next steps which is collating feedback and developing the Submissions Report.

We are hoping to receive a submission from Liverpool City Council, however, if Council has lodged feedback via the Detailed Design section on urban design, or if Council would like an extension or does not wish to provide feedback, please could you advise by COB tomorrow 3 December.

Feel free to give me a call if you'd like.

Kind regards  
Katie

Katie Xia  
Manager, Communications and Stakeholder Engagement  
M12 Motorway  
Community and Place | Greater Sydney  
**Transport for NSW**

I work flexibly. Unless it suits you, I don't expect you to read or respond to my emails outside of your normal work hours.

**M** 0460 300 284  
Level 7, 27 Argyle Street, Parramatta NSW 2150



I acknowledge the Aboriginal people of the country on which I work, their traditions, culture and a shared history and identity. I also pay my respects to Elders past and present and recognise the continued connection to country.

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**From:** Katie Xia  
**Sent:** Monday, 29 November 2021 12:17 PM  
**To:** 'WiafeC@liverpool.nsw.gov.au' <WiafeC@liverpool.nsw.gov.au>  
**Subject:** M12 PDLP submission

Hi Charles

I hope you're doing well.

I didn't hear back from Liverpool City Council during the exhibition and consultation period of the M12 PDLP, which formally closed for consultation yesterday. I wanted to see if Council will be lodging a submission as I haven't seen anything come through.

Kind regards  
Katie

Katie Xia  
Manager, Communications and Stakeholder Engagement  
M12 Motorway  
Community and Place | Greater Sydney  
**Transport for NSW**

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