Transport for NSW

M1 Princes Motorway Mount Ousley Interchange

Addendum review of environmental factors 2 – Signage, ITS, and additional ancillary facility

May 2025

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Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.

Prepared by Fulton Hogan Construction and Transport for NSW.

Document controls

Approval and authorisation

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Executive summary

The proposed modification

In November 2017, Transport for NSW (TfNSW) determined a review of environmental factors (REF) for the M1 Princes Motorway, Mount Ousley Interchange (MOI) project (the project).

TfNSW proposes to modify the project by undertaking additional construction activities outside the approved project boundary (proposed modification). Key features of the proposed modification include:

- Installation of structural directional signage to the north of the project;
- Installation of Intelligent Transportation Systems (ITS) components to the north of the project; and
- Use of an additional ancillary site to support construction activities.

To address these proposed changes, this addendum REF has been prepared to document potential environmental impacts of the proposed modification.

Background

A review of environmental factors (REF) was prepared for the project on 10 November 2017 (referred to in this addendum REF as the project REF). The project REF was placed on public display between 16 November and 15 December 2017 for community and stakeholder comment. A submissions report, approved 16 March 2018, was prepared to respond to the issues raised.

In addition, an Addendum Review of Environmental Factors was prepared in July 2022.

Since the project REF and submissions report, a review of the concept design was undertaken and the need for the proposed modification identified to facilitate the delivery of the project.

Need for the proposed modification

Section 2 of the project REF addresses the strategic need for the project, the project objectives and the options that were considered. The proposed modification described and assessed in this addendum REF is consistent with the strategic need for the project.

The proposed modification is needed to improve the safety of the project's construction activities, provide additional road management facilities to improve and maintain the performance of the M1 Princes Motorway, and to assist the maintenance of assets and public utilities in proximity to the project.

Further refinement of the concept design identified the need to adjust the directional signage and Intelligent Transportation Systems (ITS) components. The use of TfNSW owned land at Albion Park Rail as an ancillary facility would allow safer access for construction of the project and avoids further disruption to residents adjacent the project site and drivers. It would also provide adequate storage for construction materials, plant and equipment while maintaining safe and efficient operation of the construction site.

Proposal objectives

Section 2.3 of the project REF identifies the proposal objectives and development criteria that apply to the proposed modification.

- Improve safety by addressing conflicting movements and the interaction between light and heavy vehicles
- Improve travel time and efficiency for vehicles travelling on this length of the M1 Princes Motorway
- Provide for the growing freight task including supporting the expanding port at Port Kembla
- Enhance accessibility between the M1 Princes Motorway and Wollongong central business district (CBD).

In addition to the objectives described above, TfNSW would seek to address the following items associated with the project:

- Consider enhanced accessibility between the M1 Princes Motorway and the University of Wollongong (UOW)

- Maintain or improve the visual driving experience and amenity in this section of the M1 Princes Motorway
- Improve amenity by considering the needs of pedestrians, cyclists and passengers
- Minimise disruptions and delays to traffic during construction and ensure that road users are kept informed of travel conditions during works
- Minimise the broader social and environmental impacts of the development
- Achieve an overall result that provides the best value for money for the entire project lifecycle.

The proposed modification would facilitate these objectives.

Options considered

Section 2.4 of the project REF discussed the options considered for the project. In developing alternatives and options for key features of the proposed modification, TfNSW sought to meet project objectives while ensuring that social and environmental impacts from the proposed modification were minimised.

Option 1 would involve carrying out the project as described in the project REF and Submissions Report. This option would not ensure sufficient safe working room for construction and does not allow for construction of crucial features of the proposed modification outside of the approved project boundary. As this does option does not achieve objectives of the project it was not considered further.

Option 2 would involve carrying out all features of the proposed modification including additional directional signage works, ITS works, a temporary ancillary facility and adjustments to the REF proposal area.

Option 2 is the preferred option as it facilitates construction of the project, ensures the connectivity of the utility networks and would also provide adequate storage for construction materials, plant and equipment while maintaining safe and efficient operation of the construction site.

Statutory and planning framework

The project was assessed and approved pursuant to the *Environmental Planning and Assessment Act 1979* (EP&A Act). The proposed modification has also been assessed under Part 5 Division 5.1 of the EP&A Act.

TfNSW is the proponent and determining authority for the proposed modification. The proposed modification is categorised as development for the purpose of a road and road infrastructure facilities and is being carried out on behalf of a public authority (TfNSW).

Under clause 2.108 of the State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP (Transport and Infrastructure)) the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. Consent from Council is not required.

Impacts to Biodiversity for the proposed modification have been assessed and a Biodiversity Development Assessment Report (BDAR) or Species Impact Statement (SIS) are not required.

No matters of national environmental significance (NES) are to be likely to be significantly affected by the proposed modification so a referral under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is not required.

The proposed modification is not considered likely to have a significant impact on the environment and would not require the preparation of an Environmental Impact Statement (EIS).

Community and stakeholder consultation

Consultation with potentially affected property owners, relevant government agencies and other stakeholders was carried out by TfNSW (formerly Roads and Maritime) during the development and concept design phase of the approved project REF and submissions report.

The proposed modification would be undertaken in accordance with the consultation strategy described in section 5.1 of the project REF with no changes proposed as part of this addendum.

The proposed modification is minor in nature, low impact and on land wholly within the road reserve. All relevant stakeholders have been extensively consulted throughout the development of the project and are not required to be consulted about the proposed modification.

Environmental impacts

The main environmental impacts for the proposed modification are:

Biodiversity

There is an increase in the loss of vegetation of 0.30 hectares due to the proposed directional signage and ITS works and modifications to the proposal area. The additional vegetation which would be lost has been assessed as Roadside and Landscape plantings which are not considered to be commensurate with any Plant Community Type (PCT). It may provide marginal habitat for some species however it would only be used intermittently and is not considered a key resource for those species. The proposed modification would not cause additional impact to threatened species or their habitat.

The TfNSW Tree and hollow replacement guidelines (TfNSW, 2025) were used to identify relevant tree and hollow replacement requirements for the proposed modification.

Justification and conclusion

The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. This addendum REF has assessed and taken into account to the fullest extent possible all matters impacting or likely to impact the environment by reason of the proposed modification.

A number of potential environmental impacts from the proposed modification have been avoided or reduced during the design development and options assessment. The proposed modification as described in the addendum REF best meets the project objectives, though would still result in some environmental impacts. Safeguards and management measures as detailed in this addendum REF would ameliorate or minimise these expected impacts.

In accordance with the project REF, the proposed modification would facilitate the delivery of the project and is consistent with the project objectives. The proposed modification would also improve safety for site staff and road users. The proposed modification is considered justified.

The proposed modification would not result in a change to the findings of the project REF, Submissions Report and AREF 2022 and would be unlikely to cause a significant impact on the environment. Therefore, it is not necessary for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report or Species Impact Statement is not required. The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. Consent from Council is not required.

The proposed modification would not likely cause a significant impact on matters of national environmental significance or the environment of Commonwealth land within the meaning of the EPBC Act. A referral to the Australian Government Department of Climate Change, Energy, the Environment and Water is not required.

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Appendices

1. Introduction

1.1 Proposed modification overview

Transport for NSW (TfNSW) proposes to modify the M1 Princes Motorway, Mount Ousley Interchange project (the project) by undertaking additional construction activities outside the approved project boundary (proposed modification). Key features of the proposed modification would include:

- Installation of structural directional signage to the north of the project;
- Installation of Intelligent Transportation Systems (ITS) components to the north of the project; and
- Use of an additional ancillary site to support construction activities.

The location of the proposed modification is shown in

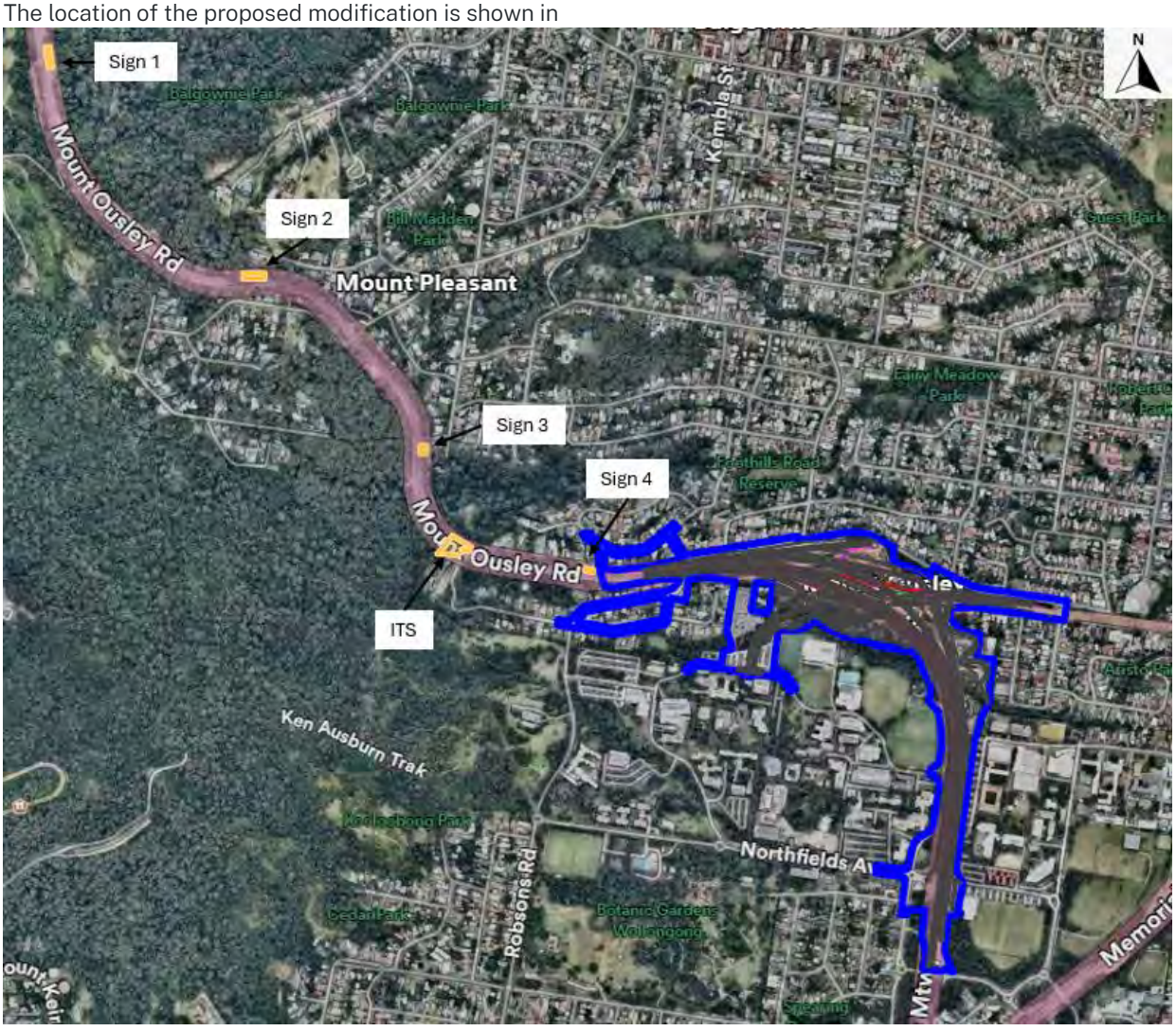


Figure 1-1 to 1-7. Section 3 describes the proposed modification in more detail.

A review of environmental factors (REF) was prepared for the M1 Princes Motorway, Mount Ousley Interchange on 10 November 2017 (referred to in this addendum REF as the project REF). The project REF was placed on public display between 16 November and 15 December 2017 for community and stakeholder comment. A submissions report, approved 16 March 2018, was prepared to respond to issues raised.

In addition, an Addendum Review of Environmental Factors was prepared in July 2022.

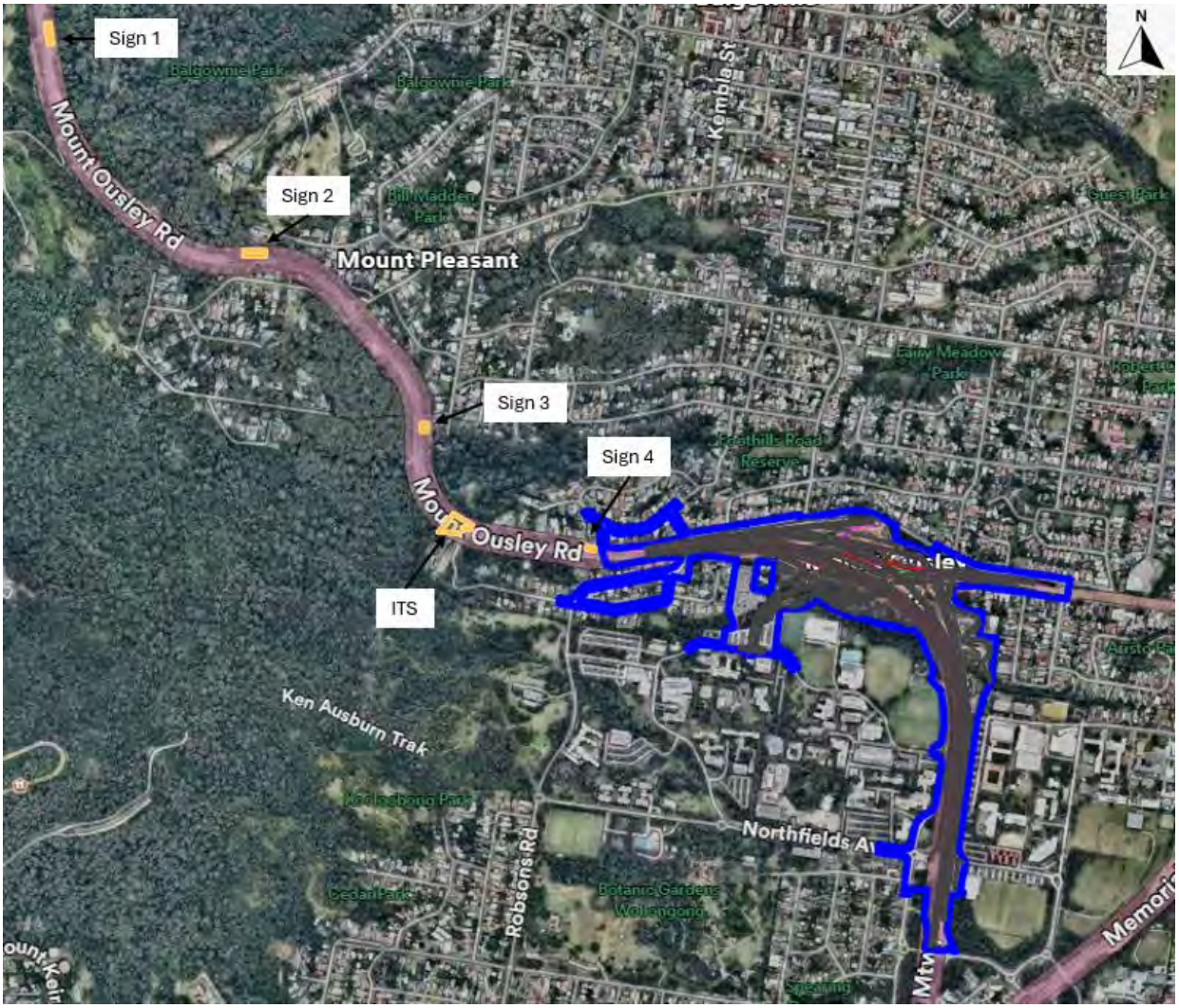


Figure 1-1: Location of the proposed modification

Figure 1-2: The proposed Directional Signage modification 1 area

Figure 1-3: The proposed Directional Signage modification 2 area

Figure 1-4: The proposed Directional Signage modification 3 area

Figure 1-5: The proposed Directional Signage modification 4 area

Figure 1-6: The proposed Intelligent Transportation Systems modification area

Figure 1-7: The proposed Ancillary Facility modification area

1.2 Purpose of the report

This addendum review of environmental factors (REF) has been prepared by Fulton Hogan Construction on behalf of Transport for NSW Southern Region. For the purposes of these works, Transport for NSW is the proponent and the determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This addendum REF is to be read in conjunction with the project REF, submissions report and previous addendum REF for the project. The purpose of this addendum REF is to describe the proposed modification, to document and assess the likely impacts of the proposed modification on the environment, and to detail mitigation and management measures to be implemented.

The description of the proposed work and assessment of associated environmental impacts has been undertaken in context of section 171 of the Environmental Planning and Assessment Regulation 2021, the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act), and the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In doing so, the addendum REF helps to fulfil the requirements of Section 5.5 of the EP&A Act including that Transport for NSW examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity

The findings of the addendum REF would be considered when assessing:

- Whether the proposed modification is likely to result in a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The significance of any impact on nationally listed biodiversity matters under the EPBC Act, including whether there is a real possibility that the activity may threaten long-term survival of these matters, and whether offsets are required and able to be secured
- The potential for the proposed modification to significantly impact any other matters of national environmental significance or Commonwealth land and therefore the need to make a referral to the Australian Department of Climate Change, Energy, the Environment and Water for a decision by the Australian Government Minister for the Environment on whether assessment and approval is required under the EPBC Act.

2. Need and options considered

2.1 Strategic need for the proposed modification

Section 2 of the project REF addresses the strategic need for the project, the project objectives and the options that were considered. The proposed modification described and assessed in this addendum REF is consistent with the strategic need for the project.

The proposed modification is needed to improve the safety of the project's construction activities, provide additional road management facilities to improve and maintain the performance of the M1 Princes Motorway, and to assist the maintenance of assets and public utilities in proximity to the project.

2.2 Proposal objectives and development criteria

Section 2.3 of the project REF identifies the proposal objectives and development criteria that apply to the proposed modification.

- Improve safety by addressing conflicting movements and the interaction between light and heavy vehicles
- Improve travel time and efficiency for vehicles travelling on this length of the M1 Princes Motorway
- Provide for the growing freight task including supporting the expanding port at Port Kembla
- Enhance accessibility between the M1 Princes Motorway and Wollongong central business district (CBD).

In addition to the objectives described above, TfNSW would seek to address the following items associated with the project:

- Consider enhanced accessibility between the M1 Princes Motorway and the University of Wollongong (UOW)
- Maintain or improve the visual driving experience and amenity in this section of the M1 Princes Motorway
- Improve amenity by considering the needs of pedestrians, cyclists and passengers
- Minimise disruptions and delays to traffic during construction and ensure that road users are kept informed of travel conditions during works
- Minimise the broader social and environmental impacts of the development
- Achieve an overall result that provides the best value for money for the entire project lifecycle.

The proposed modification would facilitate these objectives.

2.3 Alternatives and options considered

TfNSW investigated several options during preparation of the proposed modification. These options were considered against the following:

- Consistency with the project objectives
- Ensuring that social and environmental impacts from the development are minimised.

The options considered as part of this proposed modification have been broken down into key aspects and discussed in further detail in Sections 2.3.1 to 2.3.3.

2.3.1 Additional Structural Directional Signage outside of the approved project boundary

Option 1 – Do nothing

The 'Do nothing' option would involve carrying out the project as described in the project REF and Submissions Report.

Option 2 - Proposed modification

Install additional Structural Directional Signage on M1 Princes Motorway.

Since the project REF, review and refinement of the concept design for Structural Directional Signage and where these would be installed was carried out. Additional signage installation outside of the approved project boundary is required to meet TfNSW geometric road safety requirements. The additional signage works are wholly located within the road reserve.

2.3.2 Additional Intelligent Transportation Systems components outside of the approved project boundary

Option 1 – Do nothing

The 'Do nothing' option would involve carrying out the project as described in the project REF and Submissions Report.

Option 2 - Proposed modification

Installation of Intelligent Transportation Systems (ITS) components on M1 Princes Motorway.

Since the project REF, review and refinement of the concept design for ITS and where these would be installed was carried out. Additional ITS works outside of the approved project boundary are required for the functioning of over height vehicle detection systems. The additional ITS works are mainly located within the road reserve.

2.3.3 Additional Ancillary Facility outside of the REF proposal area

Option 1 – Do nothing

The 'Do nothing' option would involve carrying out the project as described in the project REF and Submissions Report.

Option 2 - Proposed modification

Use of Transport owned land at Albion Park Rail, that has been previously used as project ancillary facilities, as a temporary ancillary facility to accommodate construction activities such as vehicle parking and storage of materials. The additional ancillary facility is required to support construction activities in the effective delivery of the project.

The perimeter of the temporary ancillary facility is established with secured fencing and signs to restrict public access. No further works are required to establish the temporary ancillary facility.

2.4 Preferred option

Based on a review of all options considered, the preferred options for each of the key aspects associated with the proposed modification have been selected and outlined below.

2.4.1 Additional Structural Directional Signage outside of the approved project boundary

Option 1 (the 'Do nothing' option) was considered, however the additional Structural Directional Signage works are necessary to complete the project. Without these works, majority of the current directional signage would clash with the new directional signage. Due to the dependency of other features of the project on the additional directional signage, Option 1 is not viable.

Option 2 was selected as the preferred option as it allows installation of new infrastructure required to ensure the project operates effectively.

2.4.2 Additional Intelligent Transportation Systems components outside of the approved project boundary

Option 1 (the 'Do nothing' option) was considered, however the additional Intelligent Transportation Systems (ITS) works are necessary to complete the project. Without these works, the ITS would clash with the new retaining/noise walls and drainage network. Due to the dependency of other features of the project on the ITS works, Option 1 is not viable.

Option 2 was selected as the preferred option as it allows installation of new infrastructure required to ensure the project operates effectively.

2.4.3 Additional Ancillary Facility outside of the approved project boundary

Option 1 (the 'Do nothing' option) was considered, however the additional ancillary facility is required to ensure a sufficiently sized and safe temporary ancillary facility for storing materials and parking vehicles. The construction site is tightly constrained and without provision of a temporary ancillary facility in this location, additional area along the M1 Princes Motorway would be required to be used during construction and would require further impact to the local community and environment.

Option 2 provides a temporary ancillary facility and is the preferred option. This option has the advantage of providing safer access for construction of the project. and avoids further disruption to residents adjacent the project site and drivers. It will also have adequate storage for construction materials, plant and equipment while maintaining safe and efficient operation of the construction site.

3. Description of the proposed modification

3.1 The proposed modification

Transport for NSW (TfNSW) proposes to modify the project by undertaking additional construction activities outside the approved project boundary (proposed modification). The proposed modifications are shown in Figures 2.1 to 2.5 and Appendix A.

Key features of the proposed modification would include:

- Installation of structural directional signage to the north of the project;
- Installation of Intelligent Transportation Systems (ITS) components to the north of the project; and
- Use of an additional ancillary site to support construction activities.

3.2 Design

3.2.1 Design criteria

The design criteria for the proposed modification would be consistent with the design criteria described in the project REF and current TfNSW design specifications.

3.2.2 Engineering constraints

Engineering constraints are identified in Section 3.2.3 of the project REF. As part of the review undertaken on the options for this proposed modification, no further engineering constraints were identified.

3.2.3 Main features of the modification

Additional Structural Directional Signage

Additional Structural Directional Signage in four locations along the M1 Princes Motorway southbound. The signage works are wholly located within the road reserve and would include some clearing of vegetation, installation of erosion and sedimentation controls, piling for foundations, installation of structural components and installation of Directional Signage. Design details of the signage to be installed is location in Appendix A.

Additional Intelligent Transportation Systems (ITS) components

Additional ITS installation and connection to existing utilities is required in one location on the M1 Princes Motorway, at Highbank Place and Dallas Street. These works are located wholly within the road reserve.

ITS adjustments would include trenching or under boring, installation of cables, pipes and associated infrastructure, and reinstatement of ground surface levels to that of existing. ITS adjustments would be undertaken within the road reserve and would not require private property connections.

Additional Ancillary Facility

Use of Transport owned land at Albion Park Rail, that has been previously used as project ancillary facilities, as a temporary ancillary facility to accommodate the following construction activities and facilities:

- Offices and amenities
- Storage and laydown area for plant and materials
- Stockpiling
- Construction vehicle parking.

The temporary ancillary facility would be established and managed in accordance with TfNSW's Stockpile Site Management Guideline (Roads and Maritime, 2015). The perimeter would be securely fenced with temporary fencing and signs advising the general public of access restrictions in place.

The site of the proposed temporary ancillary facility would be restored upon completion of construction, including the removal of all construction plant, equipment, buildings, site vehicles and restoration to pre-existing condition.

The location of the ancillary facility is shown in Figure 1-6 above.

3.3 Construction activities

3.3.1 Work methodology

The work methodology for construction activities was described in Section 2 of the project REF. The work methodology for all activities considered as part of this proposed modification would be undertaken in the same manner as described in the project REF.

3.3.2 Construction hours and duration

It is considered that the proposed modification would be undertaken in accordance with the construction hours and duration described in Section 2 of the project REF. Works to be undertaken as described in this proposed modification would be undertaken primarily during standard construction hours with out of hours work (OOHW) to be undertaken where works cannot be undertaken during daytime hours.

It is anticipated that any evening or night works required for the proposed modification described in this addendum REF would be managed in line with the safeguards and mitigation measures provided in the project REF with no changes proposed as part of this modification.

3.3.3 Plant and equipment

It is considered that the proposed modification would use the same plant and equipment described in Section 2 of the project REF. No additional plant and equipment or changes to the scale or intensity of these items are required for the proposed modification.

3.4 Ancillary facilities

The proposed modification would use the same ancillary facilities described in the project REF, with the addition of the temporary ancillary facility at Albion Park Rail, on Transport owned land that has been previously used as project ancillary facilities. This proposed ancillary facility would be managed in accordance with TfNSW's Stockpile Site Management Guideline (Roads and Maritime, 2015) as well as the safeguards in the project REF.

4. Statutory and planning framework

4.1 Environmental Planning and Assessment Act 1979

4.1.1 State Environmental Planning Policies

State Environmental Planning Policy (Transport and Infrastructure) 2021

Chapter 2 (Infrastructure) of State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP (Transport and Infrastructure)) aims to facilitate the effective delivery of infrastructure across the State.

Section 2.108 of SEPP (Transport and Infrastructure) permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposed modification is for a road and road infrastructure facilities and is to be carried out on behalf of Transport for NSW, it can be assessed under Division 5.1 of the EP&A Act. Development consent from council is not required.

The proposal is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under:

- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Precincts – Central River City)
- State Environmental Planning Policy (Precincts – Eastern Harbour City)
- State Environmental Planning Policy (Precincts – Regional) 2021
- State Environmental Planning Policy (Precincts – Western Parkland City) 2021

Section 2.10 to 2.15 of SEPP (Transport and Infrastructure) contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development.

Consultation, including consultation as required by SEPP (Transport and Infrastructure) (where applicable), is discussed in section 5 of this addendum REF.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

State Environmental Planning Policy (Biodiversity and Conservation) 2021 (SEPP (Biodiversity and Conservation)) is an amalgamated SEPP which includes provisions for development associated with a number of former SEPPs. Former SEPPs potentially relevant to the proposed modification included in this review include Vegetation in non-rural areas, Koala Habitat, Bushland in urban areas and Sydney drinking water catchment.

A biodiversity assessment supporting the project REF was prepared in 2017, and an updated assessment was prepared to support an addendum REF in 2022. Due to the time period and potential changes in legislation since the assessment, a site review was undertaken in conjunction with an assessment of the impacts of the proposed modification. The results are summarised in Section 6.1 of this addendum REF.

The biodiversity assessment has considered the impacts of the proposed modification and confirms that the proposal does not trigger any significant matters contained in the SEPP (Biodiversity and Conservation). A Species Impact Statement (SIS) or Biodiversity Development Assessment Report (BDAR) are not required.

State Environmental Planning Policy (Planning Systems) 2021

State Environmental Planning Policy (Planning Systems) 2021 (SEPP (Planning and Systems)) is an amalgamated SEPP which includes provisions for development associated with State and Regional Development, Aboriginal Land and Concurrences and Consents.

Schedule 3, Clause 1 of the SEPP (Planning and Systems) prescribes certain circumstances where infrastructure may be declared as State significant (and, in that instance, an Environmental Impact Statement is required). The proposed modification is not State significant infrastructure and does not require assessment under an EIS. The

Project has been determined under Division 5.1 of the EP&A Act and is consistent with clause 2.108 of SEPP (Transport and Infrastructure) meaning this proposed modification should be assessed as an REF.

4.1.2 Local Environmental Plans

Wollongong Local Environmental Plan 2009

A summary of the Wollongong Local Environmental Plan (LEP) 2009 was provided in the project REF. The proposed modification is also within the Wollongong LGA. The proposed modification falls within the following land use zones:

- SP2 (Infrastructure)
- R2 (Low Density Residential)
- RE1 (Public Recreation).

The proposed modification is for the purposes of a road. The SEPP (Transport and Infrastructure) provides that the proposed modification can be carried out by or on behalf of TfNSW without requiring development consent from Wollongong City Council.

4.2 Other relevant NSW legislation

Protection of Environment Operations Act 1997

A summary of the *Protection of the Environment Operations Act 1997* (POEO Act) was provided in section 4.2.1 of the project REF. The proposed modification is expected to trigger the requirement for an Environmental Protection License (EPL) under Schedule 1 of the POEO Act. Scheduled activities that are likely to apply to the proposal include (bold and underline emphasis added to relevant sections below):

35 Road construction

(1) This clause applies to road construction, meaning the following —

(a) the construction of roads (including the widening or rerouting of existing roads) and any related tunnels, earthworks and cuttings,

(b) any extraction of materials necessary for that construction,

(c) any on site processing (including crushing, grinding or separating) of any extracted materials or other materials used in that construction.

(3) The activity to which this clause applies is declared to be a scheduled activity if the activity results in one or more of the following —

(a) the extraction or processing (over the life of the construction) of more than —

(i) 50,000 tonnes of materials in the case of premises in the regulated area or in the local government areas of Bega Valley, Eurobodalla, Goulburn Mulwaree, Queanbeyan-Palerang Regional or Snowy Monaro Regional, or

(ii) 150,000 tonnes of material in any other case,

(b) the existence of 4 or more traffic lanes (other than bicycle lanes or lanes used for entry or exit) for a continuous length of at least —

(i) 1 kilometre — where the road is in a metropolitan area and is classified, or proposed to be classified, as a freeway or tollway under the Roads Act 1993, or

(ii) 3 kilometres — where the road is in a metropolitan area and is classified, or proposed to be classified, as a main road (but not a freeway or tollway) under the Roads Act 1993, or

(iii) 5 kilometres — where the road is not in a metropolitan area and is classified, or proposed to be classified, as a main road, freeway or tollway under the Roads Act 1993.

Based on the extraction and removal of spoil during construction as well as the distance and designation of the road as a "motorway", an EPL is required during construction of the project and is currently in place. There would be no change to the requirements of the EPL as a result of the proposed modification.

Biodiversity Conservation Act 2016

A summary of the *Biodiversity Conservation Act 2016* (BC Act) was included in section 4.2.2 of the project REF. Since the REF was determined, the *Threatened Species Conservation Act 1995* (TSC Act) has been repealed by the BC Act of which is the primary legislation for biodiversity.

An assessment of the biodiversity impact of the proposed modifications, as well as a review of what was assessed in the project REF, have been undertaken in accordance with the BC Act to determine whether a Species Impact Statement (SIS) is required. Biodiversity is discussed further in Section 6.1 below.

Heritage Act 1977

A summary of the *Heritage Act 1977* (Heritage Act) was included in Section 4.2.3 of the project REF with the proposed modification being consistent with this summary. While the proposed modification would not likely impact on items of heritage value, TfNSW's Unexpected heritage items procedure (TfNSW, 2024) would be applied during construction in the event that an unknown or potential archaeological work or relic, including skeletal remains is found.

National Parks and Wildlife Act 1974

A summary of the *National Parks and Wildlife Act 1974* (NPW Act) was included in the project REF and is consistent with the proposed modification.

A review in accordance with TfNSW's Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) (TfNSW, 2015) was undertaken for the proposed modification. No Aboriginal heritage items were identified.

Based on activities which have created disturbance to the site for road construction and associated activities, the potential for unexpected items of Aboriginal heritage or Aboriginal archaeological remains to be present within the proposal area is considered low. TfNSW's Unexpected heritage items procedure (TfNSW, 2024) would be followed in the event that an unknown or potential Aboriginal object, including skeletal remains, is found during construction. Aboriginal heritage is discussed further in Section 6.2 below.

4.3 Commonwealth legislation

4.3.1 Environment Protection and Biodiversity Conservation Act 1999

Under the EPBC Act a referral is required to the Australian Government for *proposed 'actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land'*. These are considered in Appendix B and section 6 of the addendum REF.

A referral is not required for proposed road actions that may affect nationally listed threatened species, endangered ecological communities and migratory species. This is because requirements for considering impacts to these biodiversity matters are the subject of a strategic assessment approval granted under the EPBC Act by the Australian Government in September 2015.

Findings – matters of national environmental significance (other than biodiversity matters)

The assessment of the proposed modification's impact on matters of national environmental significance and the environment of Commonwealth land found that there would be no change to the findings of the determined activity and would be unlikely to cause a significant impact on matters of national environmental significance or the environment of Commonwealth land. A referral to the Australian Department of Climate Change, Energy, the Environment and Water is not required.

4.4 Confirmation of statutory position

The proposed modification is categorised as development for the purpose of a road and road infrastructure facilities and is being carried out by or on behalf of a public authority. Under section 2.108 of SEPP (Transport and Infrastructure) the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the EP&A Act. Consent from Council is not required.

5. Consultation

5.1 Consultation strategy

The consultation strategy for the project is described in section 5.1 of the project REF. The proposed modification would be undertaken in accordance with the consultation strategy described in the project REF with no changes proposed as part of this addendum.

5.2 Consultation outcomes

The proposed modification is minor in nature, on land wholly within the road reserve, and of low impact to community and stakeholders, therefore, additional consultation has not been carried out.

5.3 Ongoing or future consultation

With regards to activities associated with this addendum REF, no changes are proposed to consultation during construction that was originally described in Section 5.6.2 of the project REF. Consultation activities that were proposed in the project REF including the tools and methods described in Section 5.6.2 will remain consistent for works that form the proposed modification.

In addition to the consultation activities described in the project REF, this addendum REF would be published on the project website in line with the recent legislation changes to section 171(2) of the EP&A Regulation 2021.

6. Environmental assessment

This section of the addendum REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposed modification of the Mount Ousley Interchange. All aspects of the environment potentially impacted upon by the proposed modification are considered. This includes consideration of the factors specified in section 171 of the Environmental Planning and Assessment Regulation 2021. The factors specified in section 171(2) of the Environmental Planning and Assessment Regulation 2021 are also considered in Appendix B.

Site-specific safeguards and management measures are provided to ameliorate the identified potential impacts.

6.1 Biodiversity

The biodiversity impacts of the proposed modification were assessed in two Biodiversity assessments prepared by RA Environmental Consultants; Biodiversity inspection report – M1 Princes Motorway - sign installation (April 2025) and Biodiversity inspection report – M1 Princes Motorway - ITS installation (May 2025). These reports can be found in Appendix D and E respectively.

The reports considered and assessed all features of the proposed modification, with the exclusion of the additional ancillary facility where no vegetation removal is proposed. Based on the findings of these two reports, this addendum REF provides an updated summary of the potential biodiversity impacts from the proposed modification and across the broader project.

In conjunction with the Biodiversity Assessment Report (BAR) prepared in 2017 by Jacobs and the addendum BAR (Jacobs 2022), these reports outline the biodiversity values and potential biodiversity impacts of the proposed modification to species, populations and communities and their habitats listed as threatened under the BC Act and the FM Act. Relevant matters of National Environmental Significance (NES) are considered listed under the EPBC Act.

6.1.1 Methodology

A desktop review and site inspections were undertaken in April 2025 and May 2025 to identify if any new threatened species or ecological communities (threatened biodiversity) had been recorded in the proposed modification area since the addendum BAR (Jacobs 2022).

The site inspection was conducted by a suitably experienced ecologist to identify:

- The presence and location any habitat-bearing trees (e.g., trees with hollows or other potential habitats for fauna, such as possum dreys, bird nests, exfoliating bark, dead wood, or nest boxes).
- The presence of threatened fauna species and their habitats, listed under either the New South Wales (NSW) Biodiversity Conservation Act 2016 (BC Act) or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).
- The presence of any threatened flora species listed under the BC Act or EPBC Act.
- The presence and extent of any Endangered Ecological Communities (EECs) listed under the BC Act or EPBC Act.
- Fallen logs and large areas of surface rock that could support fauna habitat are present.
- The presence of Weeds of National Significance (WONS), Priority Weeds listed under the Biosecurity Act 2015, and any agricultural weeds of concern to the Project.

The Biodiversity inspection report assesses the likelihood of threatened biodiversity occurring within the study area. All threatened biodiversity were identified by literature and database searches aligned.

There was no change in the likelihood of occurrence of threatened biodiversity since the addendum BAR (Jacobs, 2022).

6.1.2 Existing environment

No additional native Plant Community Types (PCT)s were identified within the study area for the proposed modification. The areas within the proposed modification are comprised of predominately cleared land with surrounding residential housing and planted/urban trees.

PCT mapping in the BAR (Jacobs 2017) and addendum BAR (Jacobs 2022) remain valid and was used to assess impacts in the Biodiversity inspection reports. The proposed modification area comprises an additional 0.3 hectares of roadside and landscape plantings/urban trees. No Threatened Ecological Communities (TEC)s were recorded in the proposed modification area.

There was limited fauna habitat observed within the study area associated with the proposed modification. Planted trees and shrubs provide shelter and refuge for resident and vagrant fauna species, mainly birds. One hollow bearing trees was identified and marked during the site inspection.

No additional threatened flora and/or fauna species were detected during surveys for the proposed modification.

No aquatic habitats occur within the additional areas for the proposed modification. Impacts of the proposed modification on aquatic habitat remain consistent with those described in the project REF.

Vegetation and fauna habitat within the areas associated with the proposed modification do not provide important wildlife connectivity. Impacts of the proposed modification on wildlife connectivity remain consistent with those described in the project REF.

6.1.3 Potential impacts

Construction

The direct impact associated with vegetation and habitat removal has been calculated using the proposal area for the proposed modification in determining the impacts to biodiversity values.

For the Directional Signage and ITS Components, there is an increase in the loss of Roadside and Landscape plantings, not considered to be commensurate with any Plant Community Type (PCT), of 0.3 hectares for a total project impact of 5.68 hectares. Loss of areas dominated by weeds is 0.05 hectares and is consistent with the REF 2017 and AREF 2022.

For the temporary ancillary facility, no additional vegetation removal is required as the facility was previously established for use as project ancillary facilities.

Removal of threatened flora

No naturally occurring threatened flora were recorded in the revised study area during the 2017, 2022 and 2025 surveys.

Removal of threatened fauna

All planted vegetation in urban areas, particularly planted trees that provide nectar, shelter and food resources, may provide marginal habitat to some threatened species. One hollow bearing tree was found in the study area associated with the proposed modification however it will not be removed as part of the proposed modification.

Operation

The nature and extent of the proposed modification does not increase the indirect effects on biodiversity and the operational impacts of the proposed modification remain consistent with what is described in the project REF.

Conclusion on significance of impacts

The modification is not likely to significantly impact threatened species, populations or ecological communities or their habitats, within the meaning of the BC Act or FM Act and therefore a Species Impact Statement is not required.

The modification is not likely to significantly impact threatened species, populations, ecological communities or migratory species, within the meaning of the EPBC Act.

6.1.4 Safeguards and management measures

No additional safeguards and management measures have been recommended, the impacts remain consistent with the project REF. Refer to Table 7-1 in section 7.2 of this addendum REF for safeguards and management measures.

6.1.5 Biodiversity offsets

As there are no additional areas of PCTs to be impacted for the proposed modification, there is no requirement for additional offsets under TfNSW's No net loss guidelines (TfNSW, 2024). However, as 3 trees will be removed, in accordance with the definition of a Tree under the Tree and hollow replacement guidelines (TfNSW, 2025), this policy applies.

Table 6-1: Tree removal proposed

Tree ID	Species	'Native' or 'Amenity' tree	DBH* (cm)	Tree size category	Contribution required
1	*Eucalyptus botryoides*	Native	45	Medium	$500
2	*Eucalyptus botryoides*	Native	45	Medium	$500
3	*Eucalyptus pilularis*	Native	45	Medium	$500

*DBH–Diameter at breast height.

Consistent with the Tree and hollow replacement guidelines (TfNSW, 2025), trees and hollows can either be replaced within the project boundary or on nearby land with the consent of the owner or, where this is not feasible, payment can be made to the TfNSW Conservation Fund. There is no adequate space within, or on land nearby, the project boundary for replacement of trees, therefore, the project will pay into the TfNSW Conservation Fund prior to commencement of works. Based on the contributions required per tree according to tree size, the payment required is $1500, excluding any additional administration fees.

6.2 Other impacts

This section of the addendum REF describes environmental factors associated with the proposed modification that have negligible to minor impacts, as described in Table 6-2.

6.2.1 Existing environment and potential impacts

Table 6-2: Environmental factors with negligible to minor potential impacts

Environmental factor	Existing environment	Potential impacts
Traffic and transport	The existing environment as it relates to traffic and transport is described in Section 6.1.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification would result in some additional temporary traffic impacts to residents on local roads and motorists on the M1 Princes Motorway. Works would result in construction vehicles accessing M1 Princes Motorway, Highbank Place and Illawarra Highway. Traffic control may also be required during these activities for the safety of workers, motorists and residents. The traffic and transport impacts of constructing the proposed modification would be temporary and appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** Operation of the proposed modification is not expected to result in any additional impacts to traffic and transport.
Noise and vibration	The existing environment as it relates to noise and vibration is described in Section 6.2.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification would result in minor temporary noise and vibration impacts for residents on M1 Princes Motorway, Highbank Place, Illawarra Highway and the immediate surrounding area. Works would be carried out during standard working hours following the Interim Construction Noise Guideline (DECC, 2009) (ICNG) and the Roads and Maritime Noise and Vibration Guideline (2016): • Monday to Friday: 7am to 6pm • Saturday: 8am to 1pm • No work would take place on Sundays or on public holidays. If works are required outside of standard working hours the out of hours work procedure in the project's noise and vibration management plan would be followed. The noise impacts during construction of the proposed modification would be appropriately mitigated with implementation of the safeguards and management measures in Section 7. **Operation**

		Operation of the proposed modification is not expected to result in any additional impacts to noise and vibration.
Landscape character and visual impacts	The existing environment as it relates to Landscape character and visual impacts is described in Section 6.4.2 of the project REF and Section 6.3.2 of the project AREF. The information discussed in the project REF and AREF is still considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification may result in minor temporary visual impacts consistent with those described in Section 6.4.3 of the project REF and subsequent approvals. These impacts would be appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** Operation of the proposed modification is not expected to result in any additional impacts to Landscape character and visual impacts.
Hydrology and flooding	The existing environment as it relates to flooding and hydrology is described in Section 6.5.2 of the project REF. The information discussed in the project REF is still considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification is not expected to impact on hydrology and flooding due to the minor low impact nature of the works. Any potential impacts would be considered to be minor and consistent with those described in Section 6.5.3 of the project REF. These impacts would be appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** Operation of the proposed modification is not expected to result in any additional impacts flooding and hydrology.
Surface and groundwater	The existing environment as it relates to surface and groundwater is described in Section 6.6.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification may result in minor temporary surface water quality impacts if not adequately managed. The works would involve activities such as minor earthworks, trenching, piling and stockpiling which has the potential to mobilise sediments and other introduce other contaminants such oils and greases to surface waters downstream of the proposal area. Dewatering of trenches and excavations during the utility works also have the potential to transport sediments and other contaminants downstream of the proposal area. The proposed modification would increase the amount of disturbed area during construction which could increase the volume of sediments mobilised during rainfall events. This has the potential to impact downstream surface waters through increased turbidity, sedimentation, and the introduction of potential contaminants adhering to sediment laden runoff that may leave site. Features of the proposed modification are not located within or adjacent to any watercourses or other sensitive receiving environments. Macquarie Rivulet is located about 50m from the additional ancillary facility. Direct impacts to watercourses is not likely. Construction of the proposed modification may result in minor temporary groundwater quality impacts if not adequately managed. Groundwater may be affected if the groundwater table is intercepted during utility works. If this is encountered, groundwater may be impacted through contamination of aquifers with sediment, oils and grease. Implementation of safeguards and management measures as described in Section 7, including implementation of appropriate erosion and sediment controls in accordance with The Blue Book –

		Managing Urban Stormwater (Landcom, 2004) and dewatering in accordance with Roads and Maritime (2011) Technical Guideline – Environmental Management of Construction would minimise the potential for water quality impacts **Operation** Operation of the proposed modification is not expected to result in any additional impacts to surface and groundwater.
Topography, geology and soils	The existing environment as it relates to Topography, geology and soils is described in Section 6.7.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification may result in minor temporary impacts to soils. Works would be carried out within the road corridor including the M1 Princes Motorway and local roads surrounding the proposal. Any potential impacts to topography, geology and soils would be temporary and appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** Operation of the proposed modification is not expected to result in any additional impacts to topography, geology and soils.
Property, land use and socio-economic	The existing environment as it relates to property, land use and socio-economic is described in Section 6.8.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification may result in minor temporary property and socio-economic impacts. Works would be carried out within the road corridor including the M1 Princes Motorway and local roads surrounding the proposal. The ITS works within Highbank Place would likely result in some temporary loss of amenity to local residents due to dust, noise and traffic generated during construction activities. The use of the additional ancillary facility on TfNSW owned land during construction would need to be undertaken in consultation with the TfNSW. The site would be rehabilitated to the pre-existing condition or similar, and any damages from construction activities repaired. The additional ancillary facility is in proximity to the Illawarra Regional Airport and is subject to restrictions in relation to the obstacle limitation surface (OLS) associated with the airport. Any potential property, land use, and socio-economic impacts would be temporary and appropriately mitigated with implementation of the safeguards and management measures in section 6.2.2 and section 7. **Operation** Operation of the proposed modification is not expected to result in any additional impacts to property, land use, and socio-economic.
Aboriginal heritage	The existing environment as it relates to Aboriginal heritage is described in Section 6.9.2 of the project REF. Further Aboriginal heritage studies have been completed since the determination of the project REF which have identified Aboriginal sites and objects. TfNSW's	**Construction** Construction of the proposed modification is not expected to impact Aboriginal heritage. A PACHCI Stage 1 assessment was completed on 7 May 2025 and can be found in Appendix F. The assessment found that there are no Aboriginal heritage items listed within the proposed modification area and the works are unlikely to harm known Aboriginal objects or places.

	PACHCI has been completed and an AHIP has been issued for the project.	In the event that an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction the Unexpected heritage items procedure (TfNSW, 2024) would be followed. **Operation** Operation of the proposed modification is not expected to result in any additional impacts to Aboriginal heritage.
Non-Aboriginal heritage	The existing environment as it relates to non-Aboriginal heritage is described in Section 6.10.2 of the project REF. The information discussed in the project REF is considered to be relevant to the proposed modification. There are no heritage items listed within the proposed modification area and there are no newly listed heritage items within the vicinity of the proposal area.	**Construction** Construction of the proposed modification is not expected to impact non-Aboriginal heritage. There are no listed heritage items within the proposed modification area. The potential for previously unrecorded heritage items or archaeological relics to be present within the proposed modification area is considered to be low. In the event that an unexpected find is encountered, the Unexpected heritage items procedure (TfNSW, 2024) would be followed. **Operation** Operation of the proposed modification is not expected to result in any additional impacts to non-Aboriginal heritage.
Air quality	The existing environment as it relates to air quality is described in Section 6.11.2 of the project REF. The information discussed in the project REF is considered to be relevant for the proposed modification.	**Construction** Construction of the proposed modification would result in minor temporary air quality impacts. Construction activities including excavation, materials handling and storage, and use of the additional ancillary facility may result in short-term localised impacts on air quality. There is potential for dust and exhaust emissions generated from diesel plant and equipment to affect nearby receivers if not adequately managed. The air quality impacts during construction of the proposed modification are considered minor and consistent with those outlined in the Project REF. These impacts would be appropriately mitigated with implementation of the safeguards and management measures in section 7. **Operation** Operation of the proposed modification is not expected to result in any additional impacts to air quality.
Sustainability and Climate Change	The existing environment as it relates to sustainability and climate change is described in Section 6.12.2 of the project REF. the information discussed in the project REF is considered to be relevant to the proposed modification.	**Construction** Construction of the proposed modification would not generate a significant increase in greenhouse gas emissions in addition to those described in Section 6.12.3 of the project REF. The proposed modification is located within the same geographical location so the potential risks from extreme weather events during construction is considered to be the same as described in the project REF. **Operation** Operation of the proposed modification is not expected to result in any additional impacts to sustainability and climate change.
Waste and resource use	The existing environment as it relates to waste and resource use is described in Section 6.13.2 of the project REF. The information discussed in the	**Construction**

	project REF is considered to be relevant for the proposed modification.	Construction of the proposed modification would not generate a significant increase waste. The proposed modification would result in the following waste streams: • Green waste from additional cleared vegetation • Road infrastructure materials to be removed or replaced such as redundant utility pipes • Oils, greases and other liquid wastes from the maintenance generated from maintenance of construction plant and equipment. The waste streams are consistent with those outlined in Section 6.13.3 of the project REF. Some additional spoil would be generated from the ITS works however the volume of waste generated is likely to be small in scale when considered against the volume generated from the overall project. The increase in waste generated by the proposed modification is considered minor. The waste impacts of the proposed modification are consistent with those outlined in the Project REF and would be appropriately mitigated with implementation of the safeguards and management measures provided in section 7. **Operation** Potential operational impacts of the proposed modification would be effectively mitigated through implementation of safeguards and management measures in Section 7.

6.2.2 Safeguards and management measures

The impacts of the proposed modification would be managed through implementation of the safeguards and management measures described in Table 7-1 of this addendum REF. To manage the impacts listed in section 6.2 above, additional safeguards required for the proposed modification are detailed below.

Table 6-3: Safeguards and management measures for other impacts

Impact	Environmental safeguards	Responsibility	Timing
Property, land use and socio-economic	All works will be carried out in a manner to not intrude into the obstacle limitation surface (OLS) associated with the Illawarra Regional Airport and to ensure that there is no impact on the airports' airspace operational requirements.	Contractor / TfNSW project manager	Construction

6.3 Cumulative impacts

6.3.1 Potential impacts

The focus area used for the assessment of cumulative impacts has been defined by identifying other developments or activities that are likely to commence during the proposal's scheduled construction timeframe. The proposed modification associated with this addendum REF are anticipated to commence in mid-2025.

The cumulative impacts inclusive of the proposed modification have been assessed in relation to new and future development, that meets the following criteria:

- New and future significant commercial, industrial and residential development within a 1km radius of the proposal area. This radius is limited to the suburbs of Mount Ousley, North Wollongong, Gwynneville, Keiraville, Mount Pleasant and Fairy Meadow, or
- New and future transport infrastructure development in the region that may impact the proposal area.

Given the minor and short-term nature of the proposed modification no cumulative impacts are expected.

6.3.2 Safeguards and management measures

The potential cumulative impacts from the project and concurrent developments are similar in nature and scale to those described in the project REF and the safeguards and management measures proposed in Section 6.14.4 of the project REF remain consistent.

7. Environmental management

7.1 Environmental management plans

A number of safeguards and management measures have been identified to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposed modification. Should the proposed modification proceed, these management measures would be addressed if required during detailed design and incorporated into the Contractors Environmental Management Plan (CEMP) and applied during the construction and operation of the proposed modification.

7.2 Summary of environmental safeguards and management measures

Environmental safeguards and management measures for the Mount Ousley Interchange project are summarised in Table 7-1. Additional safeguards and management measures identified in this addendum REF are included in bold and italicised font. The safeguards and management measures will be incorporated into the detailed design phase of the proposed modification, the CEMP and implemented during construction and operation of the proposed modification, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment.

Table 7-1: Summary of safeguards and management measures

No.	Impact	Environmental safeguards	Responsibility	Timing
GEN1	General - minimise environmental impacts during construction	A CEMP will be prepared and submitted for review and endorsement of the TfNSW Environment Manager prior to commencement of the activity. As a minimum, the CEMP will address the following: • any requirements associated with statutory approvals • details of how the project will implement the identified safeguards outlined in the REF • issue-specific environmental management plans • roles and responsibilities • communication requirements • induction and training requirements • procedures for monitoring and evaluating environmental performance, and for corrective action • reporting requirements and record-keeping • procedures for emergency and incident management • procedures for audit and review. The endorsed CEMP will be implemented during the undertaking of the activity.	Contractor / TfNSW project manager	Pre-construction / detailed design
GEN2	General – notification	All businesses, residential properties and other key stakeholders (eg schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity.	Contractor / TfNSW project manager	Pre-construction
GEN3	General	All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings. Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include: • threatened species habitat • adjoining residential areas requiring particular noise management measures • traffic management • soil and water management	Contractor / TfNSW project manager	Pre-construction / detailed design

No.	Impact	Environmental safeguards	Responsibility	Timing
		• community interaction. • Records of training will be maintained by the contractor, including details of staff attending, dates, nature of training provided, and training provider(s) used.		
GEN4	General	Standard construction hours: • Monday to Friday 7.00 am to 6.00 pm • Saturdays 8.00 am to 1.00 pm • No construction on Sundays or Public Holidays. Work outside standard construction hours (including those detailed within this REF) will be undertaken in accordance with the management and mitigation measures detailed within the Noise and Vibration Management Plan.	Contractor	Construction
GEN5	General	The final locations and configurations of ancillary facilities will be determined by the contractor in consultation with the TfNSW Environmental representative to confirm the suitability of the locations and whether any additional environmental assessment is required. Stockpile and compound sites will be located and managed in accordance with the TfNSW ~~Services~~ *Stockpile Site Management Guideline* (Roads and Maritime, 2015).	Contractor / TfNSW project manager	Pre-construction / detailed design
TT1	Traffic and transport	A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the ***TfNSW*** *Traffic Control at Work Sites Manual* (***TfNSW, 2020***) and *QA Specification G10* ***Traffic Management*** (***TfNSW, 2020***). The TMP will (but is not limited to): • Include individual traffic management requirements at each phase of construction • Outline the general principles and procedures for the development of specific construction Traffic Management Plans (CTMPs) • Ensure safe and continuous traffic movement for construction workers and the general public • Maintain the capacity of existing roads where possible • Identify the requirements for temporary speed restrictions where traffic may pose a safety risk to workers • Maintain continuity of access to local roads and properties, particularly along Mount Ousley Road and University Avenue (may require temporary U-turn facilities) • Provide temporary traffic control where necessary • Identify requirements and placement of traffic barriers • Provide appropriate warning and signage for traffic in the vicinity of work areas • Include methods to minimise road user delays such as undertaking work around live traffic including tie-in and bridge work outside of peak periods • Undertake construction activities off-line where possible to minimise the requirement to operate temporary traffic control and reduced speed zones • Develop a communication plan to advise local residents and businesses of any changes to traffic conditions during construction.	Contractor	Detailed design / pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
TT2	Traffic and transport	Requirements for any changes to local traffic and access arrangements will be confirmed during detailed design in consultation with TfNSW, Wollongong City Council and any affected landowners, including any temporary alternative access arrangements as required.	Contractor	Detailed design
TT3	Traffic and transport	Pedestrian and cyclist access will be maintained throughout construction in its current location where feasible. Where this is not feasible, temporary alternative access arrangements will be provided	Contractor	Pre-construction
TT4	Traffic and transport	Access for public transport services will be maintained. The requirements for any temporary changes will be confirmed following consultation with local bus operators and the community.	Contractor	Pre-construction
TT5	Traffic and transport	A Local Area Traffic Management Plan will be prepared in consultation with the University of Wollongong, to manage traffic on the internal road network within the University of Wollongong campus.	Contractor	Detailed design / pre-construction
NV1	Noise and vibration	A Noise and Vibration Management Plan (NVMP) will be prepared and implemented as part of the CEMP. The NVMP will generally follow the approach in the *Interim Construction Noise Guideline* (ICNG) (DECC, 2009) and identify: • All potential significant noise and vibration generating activities associated with the activity • Feasible and reasonable mitigation measures to be implemented, taking into account *Beyond the Pavement urban design policy* ***(TfNSW, 2023)*** • A monitoring program to assess performance against relevant noise and vibration criteria • Arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures • Contingency measures to be implemented in the event of non-compliance with noise and vibration criteria. In addition to the above, the NVMP will also consider: • Place as much distance as possible between the plant or equipment and residences and other sensitive land uses, particularly at site compounds. • Use of temporary site buildings and materials stockpiles as noise barriers where possible (e.g. on site compounds). • Scheduling construction of any permanent walls so that they can be used as early as possible as noise barriers where possible. • Where practical, scheduling the use of vibration intensive equipment for less sensitive times of the day. • Avoid multiple vibration intensive activities occurring at the same time where possible. • Selection of ancillary sites location shall consider the proximity of the sites to sensitive receivers. Where compounds are close to residences, additional care shall be taken in layout and utilising structures and stockpiles as noise screens. • Where possible, work outside of standard construction hours will be planned so that noisier work is carried out in the earlier part of the evening or night time.	Contractor	Detailed design / pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		• Examining different types of machines that perform the same function and compare the noise level data to select the least noisy machine. For example, rubber wheeled tractors can be less noisy than steel tracked tractors. • Selecting appropriately sized equipment for the task rather than using large equipment when not necessary. • Reducing throttle setting and turn off equipment when not being used. • Regularly inspecting and maintaining equipment to ensure it is in good working order. Also check the condition of mufflers. • Where acceptable from a work health and safety perspective, quieter alternatives to reversing alarms (such as spotters, closed circuit television monitors and 'smart' reversing alarms) will be used particularly during out of hours activities. • Noise monitoring will be undertaken to assess compliance with noise management levels (NMLs) and assess the effectiveness of noise mitigation. • All noise complaints will be investigated and appropriate mitigation measures implemented where practicable to minimise further impacts.		
NV2	Noise and vibration	All sensitive receivers (e.g. schools, local residents) likely to be affected will be notified at least five days prior to commencement of any work associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of: • The project • The construction period and construction hours • Contact information for project management staff • Complaint and incident reporting and how to obtain further information.	Contractor	Detailed design / pre-construction
NV3	Noise and vibration	Further assessment of reasonable and feasible operational noise mitigation in the form of noise barriers and at-property treatments will be assessed and determined during detailed design. At-property treatments will be determined and implemented in consultation with impacted property owners.	TfNSW	Detailed design / pre-construction
NV4	Noise and vibration	Where work is required outside standard construction hours, an out of hours work procedure will be developed in accordance with the TfNSW Construction Noise and Vibration Guideline as an appendix to the NVMP. Construction programming will be developed in consultation with TfNSW to minimise noise impacts – this may include agreement on completing construction in as short a time as possible or implementing time and duration restrictions and respite periods subject to community consultation.	Contractor	Pre-construction
B1	Biodiversity	A Flora and Fauna Management Plan (FFMP) will be prepared and implemented as part of the CEMP. The FFMP will include the following: • Native vegetation removal will be minimised where reasonably practicable through detailed design. • Pre-clearing surveys will be carried out in accordance with Guide 1: Pre-clearing process of the ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024)***	Contractor	Detailed design / pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		• Vegetation removal will be carried out in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024)*** • Habitat will be replaced or re-instated in accordance with Guide 5: Re-use of woody debris and bushrock and Guide 8: ***Artificial hollows*** of the ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024)*** • Native vegetation will be re-established in accordance with Guide 3: Re- establishment of native vegetation of the ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024)*** • The unexpected species find procedure will be followed under ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024)*** if threatened ecological communities that have not been assessed in the biodiversity assessment, are identified in the proposal area.		
B2	Biodiversity	Exclusion zones will be set up at the limit of clearing in accordance with Guide 2: Exclusion zones of the ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024).*** The unexpected species find procedure is to be followed under ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024)*** if threatened flora species that have not been assessed in the biodiversity assessment, are identified in the proposal area. This procedure is important to identify any threatened species that may germinate in disturbed areas during and after construction. *Senna acclinis* and *Solanum celatum* may be present as seed in the soil seed bank and as these species are disturbance specialists, the work areas must be monitored to check whether these species germinate in areas of disturbed soil or topsoil stockpiles. An option that can be considered during the detailed design to reduce the impact to the *Syzygium paniculatum* plants within the proposal area may be to implement a salvage program. Seed could be harvested from the plants to be removed, grown off site in a nursery, and reused in landscaping required for the proposal. This will retain the genetics of these plants in the habitat and will lead to an overall increase in the size of the local population.	Contractor	During construction / prior to construction
B3	Biodiversity	Aquatic habitat will be protected in accordance with *Guide 10: Aquatic habitats and riparian zones of the* ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024)*** and Section 3.35.2 *Standard precautions and mitigation measures of the Policy and guidelines for fish habitat conservation and management Update 2013* (DPI (Fisheries NSW, 2013).	Contractor	During construction
B4	Biodiversity	Interruptions to water flows associated with groundwater dependent ecosystems will be minimised through detailed design where possible.	Contractor	Detailed design
B5	Biodiversity	Changes to existing surface water flows will be minimised through detailed design where possible.	Contractor	Detailed design
B6	Biodiversity	Fauna will be managed in accordance with *Guide 9: Fauna handling of the* ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024).***	Contractor	During construction

No.	Impact	Environmental safeguards	Responsibility	Timing
B7	Biodiversity	Weed species will be managed in accordance with *Guide 6: Weed management of the* ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024).***	Contractor	During construction
B8	Biodiversity	Design of roadside edges shall be done in a manner that reduces potential foraging opportunities for deer (ie limit the amount of grassed areas adjacent to the road). TfNSW will work with the South East Local Land Services Northern Illawarra Wild Deer Management program to determine if the proposal area is suitable for pre-clearing deer control.	Contractor / TfNSW project manager	Detailed design
B9	Biodiversity	Pathogens will be managed in accordance with *Guide 2: Exclusion zones of the* ***Biodiversity Management Guideline: Protecting and Managing Biodiversity on Transport for NSW projects (TfNSW, 2024).***	Contractor	During construction
UD1	Landscape character and visual impact	A UDP will be prepared to support the final detailed project design and implemented as part of the CEMP. The UDP will present an integrated urban design for the project, providing practical detail on the application of design principles and objectives identified in the environmental assessment. The Plan will include design treatments for: • Location and identification of existing vegetation and proposed landscaped areas, including species to be used • Built elements including retaining walls, bridges and noise walls • Pedestrian and cyclist elements including footpath location, paving types and pedestrian crossings • Fixtures such as seating, lighting, fencing and signs • Details of the staging of landscape work taking account of related environmental controls such as erosion and sedimentation controls and drainage • Procedures for monitoring and maintaining landscaped or rehabilitated areas. The UDP will be prepared in accordance with relevant guidelines, including: • Beyond the Pavement urban design policy ***(TfNSW, 2023)*** • Landscape design guideline ***(TfNSW, 2023)*** • Bridge aesthetics ***(TfNSW, 2023)*** • Noise wall design guideline ***(TfNSW, 2023)***.	Contractor	Detailed design / pre-construction
UD2	Landscape character and visual impact	The UDP is to provide details on tree planting with an emphasis on reinstating vegetation character, framing views and providing amenity in public open space.	Contractor	Detailed design
UD3	Landscape character and visual impact	Bridge design is to include throw screens, transparent fences and safety barriers. Opportunities for views from the bridge along the M1 Princes Motorway and toward the Illawarra Escarpment will be maximised.	Contractor	Detailed design
UD4	Landscape character and visual impact	Detailed design solutions to minimise the visual impacts of noise walls will be developed in accordance with ***TfNSW's*** Noise wall design guideline ***(TfNSW, 2023).***	Contractor	Detailed design

No.	Impact	Environmental safeguards	Responsibility	Timing
UD5	Landscape character and visual impact	A consistent design for retaining walls, including surface treatment, colour and detailing will be developed.	Contractor	Detailed design
UD6	Landscape character and visual impact	Project work sites, including construction areas and supporting facilities (such as storage compounds and offices) will be managed to minimise visual impacts, including appropriate fencing or screening (eg use of shade cloth), storage of equipment, parking, stockpile screening and arrangements for the storage and removal of rubbish and waste materials.	Contractor	Construction
UD7	Landscape character and visual impact	Compound and ancillary facilities will be decommissioned and the sites rehabilitated to their existing condition or as otherwise agreed with the landowner on completion of work.	Contractor	Construction
UD8	Landscape character and visual impact	Temporary lighting will be sited and designed to avoid light spill into residential properties and identified sensitive receptors.	Contractor	Construction
UD9	Landscape character and visual impact	Lighting will be designed to minimise light spill into residential properties and sensitive receptors.	Contractor	Detailed design
UD10	Landscape character and visual impact	• All reasonable measures shall be taken to minimise the loss of vegetation at and surrounding the interchange, including rationalisation of the requirements for maintenance access • At locations where higher visual impacts have been identified, the specification and planting of more mature sized shrubs and trees shall be adopted to help reduce the visual impact at opening of the road. Further, early planting shall be considered in relation to construction staging to achieve a greater maturity of plants at opening • Management of the natural environment will include rehabilitation of any affected areas of important native habitat and creek embankments; use of endemic vegetation in these and other areas where habitat values are important; during the detailed design phase identify and retain as many mature trees as possible; rehabilitate and replace any lost public uses.	Contractor	Construction
UD11	Landscape character and visual impact	• The number and location of signage and gantries shall be rationalised to avoid visual clutter and ensure that strategic views are not blocked. The location of light posts shall be rationalised to ensure integration with other structures such as retaining walls, noise walls, bridges and pedestrian lighting.	Contractor	Detailed design
UD12	Landscape character and visual impact	The design development of spill containment basins shall aim to achieve a naturalised form and detailing.	Contractor	Detailed design
UD13	Landscape character and visual impact	The Traffic Incident Response Facility (TIR Facility) will be designed in accordance with the project urban design and landscape objectives. The design will be incorporated into the project Urban Design Plan (UDP).	Contractor / TfNSW project manager	Detailed Design

No.	Impact	Environmental safeguards	Responsibility	Timing
UD14	Landscape character and visual impact	A suitably qualified arborist will be engaged to provide advice on the retention of trees within residential streets potentially affected by utility works.	Contractor	Detailed design / pre-construction
UD15	Landscape character and visual impact	Mature trees potentially affected by the proposed modification will be retained in residential streets (where possible) to maintain the visual character of the area. All trees to be retained should be protected prior to the commencement of construction in accordance with AS4970 the Australian Standard for Protection of Trees on Development Sites and Adjoining Properties.	Contractor	Construction
UD16	Landscape character and visual impact	Compensatory planting of trees will be carried out for trees lost from vegetation clearing for the proposed modification in residential streets.	Contractor	Construction / post construction
HF1	Hydrology and flooding	Prior to construction commencing, final flood and hydrology assessments will be undertaken to inform detail design measures to minimise risks to the environment, properties and the project.	Contractor	Pre-construction
HF2	Hydrology and flooding	Further flood modelling shall be undertaken at detailed design. Floor level surveys shall be conducted at dwellings subject to increased flood levels during the 1% AEP storm event. This will determine if there is any increase in above floor flooding. No new property floor levels will be subject to inundation in the 1% event as a result of the proposal.	Contractor	Detailed design
HF3	Hydrology and flooding	Debris control structures are to be designed for inclusion at culvert inlets, to minimise blockages and ensure that drainage structures function effectively	Contractor	Detailed design
HF4	Hydrology and flooding	Scour protection measures shall be considered to protect culvert outlets; and at the base of the retaining wall adjacent to the Dallas Street Branch creek.	Contractor	Detailed design
SGW1	Surface water and groundwater	A Soil and Water Management Plan (SWMP) will be prepared and implemented as part of the CEMP. The SWMP will: • Identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks will be addressed during construction. • Specify the requirements for source controls • Identify that any water collected from the worksite during construction will be treated and discharged in accordance with *The Blue Book – Managing Urban Stormwater* (Landcom, 2004) and the *Roads and Maritime (2011) Technical Guideline – Environmental Management of Construction Site Dewatering* • Specify the requirements for source controls (such as sediment fences and bunding of chemical storage areas). Where piling, concreting, earthwork, scour protection or other work is required within or adjacent to a waterway, a silt barrier such as a boom, bund or curtain will be installed either downstream of the work site and/or around the piles prior to the commencement of work.	Contractor	Detailed design / pre-construction
SGW2	Surface water and groundwater	A site specific Erosion and Sediment Control Plan/s (ESCP) will be prepared and implemented as part of the SWMP. The ESCP shall be approved by a registered soil conservationist. The ESCP will include arrangements	Contractor	Detailed design / pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		for managing wet weather events, including monitoring of potential high risk events (such as storms) and specific controls and follow-up measures to be applied in the event of wet weather.		
SGW3	Surface water and groundwater	An Emergency Spill Plan will be developed and incorporated into the CEMP, which will include measures to avoid spillages of fuels, chemicals, and fluids into any waterways. The storage, handling and use of the materials will be carried out in accordance with the Occupational Health and Safety Act 2000 and SafeWork NSW's Storage and Handling of Dangerous Goods Code of Practice (Workcover, 2005). Procedures will include: • All fuels, chemicals, and liquids will be stored at least 50 metres away from any waterways or drainage lines and will be stored in an impervious bunded area within the compound site • Bunded areas for refuelling and washdown • Sediment basins with sufficient storage capacity to capture spills • Spill kits • Training of staff.	Contractor	During construction
SGW4	Surface water and groundwater	Permanent water quality controls (spill containment basins and swales) will be incorporated into the design.	Contractor	Detailed design
GS1	Geology and soils	The maintenance of established stockpile sites during construction is to be in accordance with TfNSW's Stockpile Site Management Guideline (Roads and Maritime, 2015).	Contractor	Pre-construction/ construction
GS2	Geology and soils	Mulching will be excluded from areas likely to be inundated within the proposal area to reduce the risk of tannins pollution entering waterways.	Contractor	Construction
GS3	Geology and soils	Soil stabilisation will be carried out with materials such as rocks and erosion matting to reduce the risk of tannins pollution entering waterway.	Contractor	Construction
GS4	Geology and soils	Management measures for stockpile sites will be incorporated in the Soil and Water Management Plan (SWMP) and Erosion and Sedimentation Control Plans (ESCPs) and will include the following measures: • Stockpile sites will be located away from overland flow paths and areas of high topography with minimal upstream catchment • Stockpile sites will be maintained in accordance with TfNSW's Stockpile Site Management Guideline (Roads and Maritime, 2015) • The number and size of stockpile sites will be minimised throughout the proposal • Indicate the stockpile management measures to be implemented if PASS are excavated during piling activities • Vehicle movements will be restricted to designated pathways, where feasible.	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
GS5	Geology and soils	If contaminated areas are encountered during construction, a Contaminated Land Management Plan ***(CLMP)*** will be prepared in accordance with ***TfNSW's Contaminated land management procedure (TfNSW, 2023)***) and implemented as part of the CEMP. All other work that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the TfNSW Environment Manager and/or EPA. The CLMP will include, but not be limited to: • Capture and management of any surface runoff contaminated by exposure to the contaminated land • Further investigations required to determine the extent, concentration and type of contamination • Management of the remediation and subsequent validation of the contaminated land, including any certification required • Measures to ensure the safety of site personnel and local communities during construction.	Contractor	Detailed design / pre-construction
GS6	Geology and soils	A site specific emergency spill plan will be developed, and include spill management measures in accordance with TfNSW's Code of Practice for Water Management (RTA, 1999) and relevant EPA guidelines. The plan will address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including TfNSW and EPA officers).	Contractor	Detailed design / pre-construction
GS7	Geology and soils	If potentially contaminated materials are suspected and/or encountered during construction, these will be managed by an unexpected finds protocol incorporated in the CEMP. Disposal of this material will be at an approved waste disposal facility.	Contractor	Construction
SE1	Socio-economic	All property acquisition will be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime, ***2014***) and the *Land Acquisition (Just Terms Compensation) Act 1991*.	TfNSW	Pre-construction/ construction
SE2	Socio-economic	A Community and Stakeholder Engagement Plan (CSEP) will be prepared in accordance with the Community Involvement and Communications Resource Manual (RTA, 2008), and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The CSEP will include (as a minimum): • Mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions • Contact name and number for complaints. • Consultation with potentially affected residents prior to commencement of and during work in accordance with TfNSW's Community Involvement and Communications Resource Manual (RTA, 2008). Consultation will include but is not limited to door knocks, newsletters or letterbox drops providing information on the proposed work, working hours and a contact name and number for more information or to register complaints. • Consultation would be undertaken to advise of alternative routes to take during construction. • Consultation with emergency services to ensure adequate emergency vehicle access is provided and maintained at all times for the duration of construction.	Contractor	Pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		• Consultation with the community and relevant stakeholders will be undertaken to establish the preferred design for new noise walls.		
SE3	Socio-economic	Heavy vehicle access will be limited near schools and child care centres during drop- off and pick-up times.	Contractor	During construction
SE4	Socio-economic	The shared path will be designed in accordance with the CPTED principles, including the provision of lighting and maximising passive surveillance. TfNSW will consult with UOW regarding the potential extension of their SafeZone coverage including the provision of CCTV.	Contractor	Detailed design
SE5	Socio-economic	In the event that works will require temporary access to a private property or closure of access to a private property, consultation must be undertaken with the affected landowner(s) and/or resident(s).	Contractor	Construction
SE6	Socio-economic	Any use of the UOW P5 North car park as a laydown area during construction would need to be undertaken in consultation with UOW. The area of the carpark, the number of carparking spaces that would be utilised and the length of time that the carpark would be used for should be agreed upon with UOW prior to the proposed use.	TfNSW / Contractor	Pre-construction / construction
SE7	Socio-economic	The UOW P5 North carpark, following its use as a laydown area should be rehabilitated to the pre-existing condition or similar prior to its use as a laydown area and any damages from construction activities repaired including but not limited to, the carpark surface, line marking, signage, lighting and landscaping.	Contractor	Pre-construction / construction
SE8 (New)	*Socio-economic*	***All works will be carried out in a manner to not intrude into the obstacle limitation surface (OLS) associated with the Illawarra Regional Airport and to ensure that there is no impact on the airports' airspace operational requirements.***	*Contractor / TfNSW Project Manager*	*Construction*
A1	Aboriginal heritage	The ***Unexpected heritage items procedure (TfNSW, 2024)*** will be followed in the event that an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction. This applies where TfNSW does not have approval to disturb the object/s or where a specific safeguard for managing the disturbance (apart from the Procedure) is not in place. Work will only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Construction
H1	Non-Aboriginal heritage	The ***Unexpected heritage items procedure (TfNSW, 2024)*** will be followed in the event that any unexpected heritage items, archaeological remains or potential relics of Non-Aboriginal origin are encountered. Work will only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Construction
AQ1	Air quality	An Air Quality Management Plan (AQMP) will be prepared and implemented as part of the CEMP. The AQMP will include, but not be limited to: • Potential sources of air pollution • Air quality management objectives consistent with any relevant Published EPA and/or OEH guidelines • Mitigation and suppression measures to be implemented • Methods to manage work during strong winds or other adverse weather conditions	Contractor	Detailed design / pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
		• Methods for management of stored materials and excavated materials which are hazardous and/or exhibit odour • A progressive rehabilitation strategy for exposed surfaces.		
CC1	Sustainability and climate change	During detailed design and construction, the following measures will be considered and implemented where possible: • Use of LED and low energy equipment for traffic lights and signage • Plant and equipment will be switched off when not in use • Vehicles, plant and construction equipment will be appropriately sized for the task and properly maintained so as to achieve optimum fuel efficiency • The use of alternative fuels and power sources for construction plant and equipment will be investigated and implemented, where appropriate. • Energy efficiency and related carbon emissions will be considered when selecting vehicles and equipment • Vegetation clearing will be reduced as much as feasible, and re-established in suitable areas when construction is completed • Waste will be reduced and recycled as a preference before disposing to landfill.	Contractor	Construction
WM1	Waste management	A Resource and Waste Management Plan (RWMP) will be prepared and implemented as part of the CEMP. The RWMP will include the following (as a minimum): • The type, classification and volume of all materials to be generated and used on site including identification of recyclable and non-recyclable waste in accordance with EPA Waste Classification Guidelines • Quantity and classification of excavated material generated as a result of the proposal • Interface strategies for cut and fill on site to ensure re-use where possible • Strategies to 'avoid', 'reduce', 'reuse' and 'recycle' materials. • Classification and disposal strategies for each type of material • Destinations for each resource/waste type either for on-site reuse or recycling, offsite reuse or recycling, or disposal at a licensed waste facility • Details of how material will be stored and treated on-site. • Identification of available recycling facilities on and off site • Identification of suitable methods and routes to transport waste. • Procedures and disposal arrangements for unsuitable excavated material or contaminated material • Site clean-up for each construction stage. • Provision of appropriate garbage and recycling receptacles. Waste which cannot be recycled or reused will be disposed regularly at a licensed waste facility.	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
WM2	Waste management	The following resource management hierarchy principles will be followed through the project life cycle: • Unnecessary resource consumption will be avoided as a priority • Where avoidance is not possible, waste will be processed for resource recovery (including reuse of materials, reprocessing, recycling and energy recovery) • Where resource recovery is not possible, waste will be disposed as a last resort at an appropriately licensed waste facility – in accordance with the *Waste Avoidance and Resource Recovery Act 2001* and the EPA waste classification guidelines • Procurement will endeavour to use materials and products with a recycled content, provided that material or product is cost-effective and performance- effective.	Contractor	Detailed design, pre-construction, construction
WM3	Waste management	All waste will be classified according to the Waste Classification Guidelines Part 1: Classifying Waste (EPA, 2014).	Contractor	Construction
CI1	Cumulative impacts	The CEMP will be updated as required to address cumulative impacts as other projects/activities begin. This will include a process to review and update mitigation measures as new work begins or if complaints are received.	Contractor	Pre-construction/ construction

7.3 Licensing and approvals

All relevant licenses, permits, notifications and approvals needed for the Mount Ousley Interchange project and when they need to be obtained are listed in Table 7-2. Additional or changed licenses and approval requirements identified in this addendum REF are indicated by underlined and/or struck out font.

Table 7-2: Summary of licensing and approval required

Instrument	Requirement	Timing
Protection of the Environment Operations Act 1997 (s43)	Environment protection licence (EPL) for scheduled activities (road construction) from the EPA.	Prior to start of the activity. **Note: An EPL is already in place for the project.**
National Parks and Wildlife Act 1974 (s90)	Aboriginal Heritage Impact Permit (AHIP) for harm to Aboriginal objects.	Prior to start of the activity. **Note: An AHIP is not required for the proposed modification.**

8. Conclusion

8.1 Justification

The proposed modification would facilitate the construction of the project. The project would improve safety, accessibility and amenity on the M1 Princes Motorway at the base of Mount Ousley, which forms part of the primary road link between Sydney and the Illawarra with average daily traffic of more than 50,000 vehicles per day.

The proposed modification is considered justified as it would facilitate the objectives of the project REF described in Section 2.3. The proposed modification would also achieve the following:

- Provide safe and efficient operation of the construction site by adjustments to the proposal area
- Allow for safe vehicle and plant access during construction by adjustments to the proposal area
- Ensure utility services to local residents are maintained with minimal disruptions to connections resulting from construction of the project
- Provide safe and practical areas to store construction equipment and materials for the project by the addition of the temporary ancillary facility.

The impacts of the proposed modification are considered minor and would be avoided, minimised and mitigated with implementation of the safeguards and management measures described in Section 7. The benefits of the proposed modification would outweigh potential impacts. Therefore, the proposed modification is considered justified.

8.2 Objects of the EP&A Act

Object	Comment
1.3(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.	As outlined within the project REF, the project is required to address traffic congestion issues, road safety and freight transport efficiency. Meeting these needs would help promote the development and growth of Wollongong and the wider Illawarra region. The proposed modification would facilitate the project works which would benefit Wollongong and the wider Illawarra region. The environmental impacts of the proposed modification on natural resources is considered low.
1.3(b) To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.	The proposed modification is considered to have low impact on ecological values as described in Section 6.1 of this addendum REF.
1.3(c) To promote the orderly and economic use and development of land.	The proposed modification would be constructed within the existing road corridor or within land that would only be used temporarily during construction.
1.3(d) To promote the delivery and maintenance of affordable housing.	Not relevant to the project.
1.3(e) To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.	The proposed modification would not threaten the conservation of any threatened species, native species or ecological communities. Only roadside and landscape plantings would be impacted by the proposed modification.

1.3(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).	No heritage items or places have been identified within the area of the proposed modification. Impacts to heritage are not considered likely as a result of the proposed modification.
1.3(g) To promote good design and amenity of the built environment.	The proposed modification has been designed to ensure minimal impacts to amenity including visual impacts.
1.3(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.	Buildings to be constructed for the proposed modification are to be subject to detailed design which would ensure the protection of health and safety of the occupants and would be designed in accordance with the relevant standards.
1.3(i) To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.	This addendum REF has been developed in accordance with the Part 5.1 Guidelines of the EP&A Act and s171 of the regulation using TfNSW approvals process, thus using the state agency framework and incorporating requirements of local government and federal requirements.
1.3(j) To provide increased opportunity for community participation in environmental planning and assessment.	Consultation with the public was not undertaken due to the scope of the proposed modification and the consultation carried out for the REF and AREF.

8.3 Ecologically sustainable development

8.3.1 The precautionary principle

This principle states 'if there are threats of serious or irreversible damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation'.

Evaluation and assessment of alternatives for the proposed modification have aimed to reduce the risk of serious and irreversible impacts on the environment. Specialist studies were carried out for key issues to provide accurate and impartial information to assist in the development process.

The proposed modification has sought to minimise impacts where possible. A number of safeguards have been proposed to minimise potential impacts as were described in the project REF. Additional safeguards have been proposed in this addendum REF to minimise the potential impacts of the proposed modification. These safeguards would be implemented during construction and operation of the project. No safeguards have been postponed as a result of lack of scientific certainty.

A CEMP would be prepared before construction starts. This requirement would ensure the project achieves a high-level of environmental performance. No mitigation measures or management mechanisms would be postponed as a result of a lack of information

8.3.2 Intergenerational equity

This principle states, 'the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

The proposed modification would result in some temporary impacts to local amenity however would not result in any impacts that are likely to adversely impact on the health, diversity or productivity of the environment for future generations. Additionally, some of the features of the proposed modification have been proposed to reduce the potential impacts on the local community by providing a safer and more efficient proposal area to carry out construction.

The proposed modification would benefit future generations by facilitating the construction of the Mount Ousley Interchange ensuring road safety is improved and of benefit for all road users. Should the revised proposal including the proposed modification not proceed, the principle of intergenerational equity may be

compromised, as public safety may be affected by future traffic incidents that may occur without the benefits that would occur from construction of the project.

8.3.3 Conservation of biological diversity and ecological integrity

This principle states the 'diversity of genes, species, populations and communities, as well as the ecosystems and habitats to which they belong, must be maintained and improved to ensure their survival'.

The proposed modification would only impact vegetation that is considered roadside or landscape plantings and is not commensurate with any plant community type or habitat important to threatened species. Further discussion of impacts to biodiversity is given in Section 6.1 however the proposed modification is not considered to have a significant impact on biological diversity and ecological integrity.

8.3.4 Improved valuation, pricing and incentive mechanisms

This principle requires that 'costs to the environment should be factored into the economic costs of a project'.

This addendum REF along with the project REF and submissions report have examined the environmental impacts and benefits of the project and identified safeguards and management measures to mitigate the potential for adverse impacts. The requirement to implement these safeguards and management measures would result in an economic cost to TfNSW. The implementation of safeguards and management measures would increase both the capital and operating costs of the project. This signifies that environmental resources have been given appropriate valuation.

8.4 Conclusion

This addendum REF has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity.

This has included consideration where relevant, of conservation agreements and plans of management under the NPW Act, biodiversity stewardship sites under the BC Act, wilderness areas, areas of outstanding value, impacts on threatened species, populations and ecological communities and their habitats and other protected fauna and native plants. It has also considered potential impacts to matters of national environmental significance listed under the Federal EPBC Act.

A number of potential environmental impacts from the proposed modification have been avoided or reduced during the design development and options assessment. The proposed modification as described in the addendum REF best meets the project objectives but would still result in some impacts on Biodiversity. Safeguards and management measures as detailed in this addendum REF would ameliorate or minimise these expected impacts. The proposed modification would also improve safety for site staff and road users. On balance the proposed modification is considered justified, and the following conclusions are made.

8.4.1 Significance of impact under NSW legislation

The proposed modification would not result in a change to the findings of the project REF, Submissions Report and AREF 2022 and would be unlikely to cause a significant impact on the environment. Therefore, it is not necessary for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report or Species Impact Statement is not required. The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. Consent from Council is not required.

8.4.2 Significance of impact under Australian legislation

The proposed modification would not likely cause a significant impact on matters of national environmental significance or the environment of Commonwealth land within the meaning of the EPBC Act. A referral to the Australian Government Department of Climate Change, Energy, the Environment and Water is not required.

9. Certification

This addendum review of environmental factors provides a true and fair review of the proposed modification in relation to its potential effects on the environment. It addresses to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposed modification.

[redacted]
Environmental Manager
Fulton Hogan Construction

Date: 22/05/2025

I have examined this addendum review of environmental factors and accept it on behalf of Transport for NSW.

[redacted]
Project Manager
Transport for NSW

Date: 22/05/2025

10. EP&A Regulation publication requirement

Respondent	Yes/No
Does this REF need to be published under section 171(4) of the EP&A Regulation?	Yes

11. Terms and acronyms used in this addendum REF

Term /acronym	Description
BAR	Biodiversity Assessment Report
BC Act	*Biodiversity Conservation Act 2016 (NSW).*
CBD	Central Business District
CEMP	Contractor's environmental management plan
EIA	Environmental impact assessment
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW). Provides the legislative framework for land use planning and development assessment in NSW
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process.
EPL	Environmental Protection Licence
ESD	Ecologically sustainable development. Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased
FM Act	*Fisheries Management Act 1994* (NSW)
Heritage Act	*Heritage Act 1977* (NSW)
ITS	Intelligent Transportation Systems
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
NES	Matters of national environmental significance under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999.*
NPW Act	*National Parks and Wildlife Act 1974* (NSW)
OLS	Obstacle limitation surface
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation
PCT	Plant Community Type
POEO Act	*Protection of the Environment Operations Act 1997* (NSW)
QA Specifications	Specifications developed by Roads and Maritime Services for use with road work and bridge work contracts let by Transport for NSW.
Roads and Maritime	NSW Roads and Maritime was dissolved by the Transport Administration Amendment Bill in August 2019, all function are now managed by Transport for NSW
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
SEPP (Biodiversity and Conservation)	State Environmental Planning Policy (Biodiversity and Conservation) 2021
SEPP (Planning Systems)	State Environmental Planning Policy (Planning Systems) 2021

SEPP (Precincts – Central River City)	State Environmental Planning Policy (Precincts – Central River City) 2021
SEPP (Precincts – Eastern Harbour City)	State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021
SEPP (Precincts – Regional)	State Environmental Planning Policy (Precincts – Regional) 2021
SEPP (Precincts – Western Parkland City)	State Environmental Planning Policy (Precincts – Western Parkland City) 2021
SEPP (Resilience and Hazards)	State Environmental Planning Policy (Resilience and Hazards) 2021
SEPP (Transport and Infrastructure)	State Environmental Planning Policy (Transport and Infrastructure) 2021
SIS	Species Impact Statement
TfNSW	Transport for NSW
TSC Act	*Threatened Species Conservation Act 1995* (NSW)
UOW	University of Wollongong
WONS	Weeds of National Significance

12. References

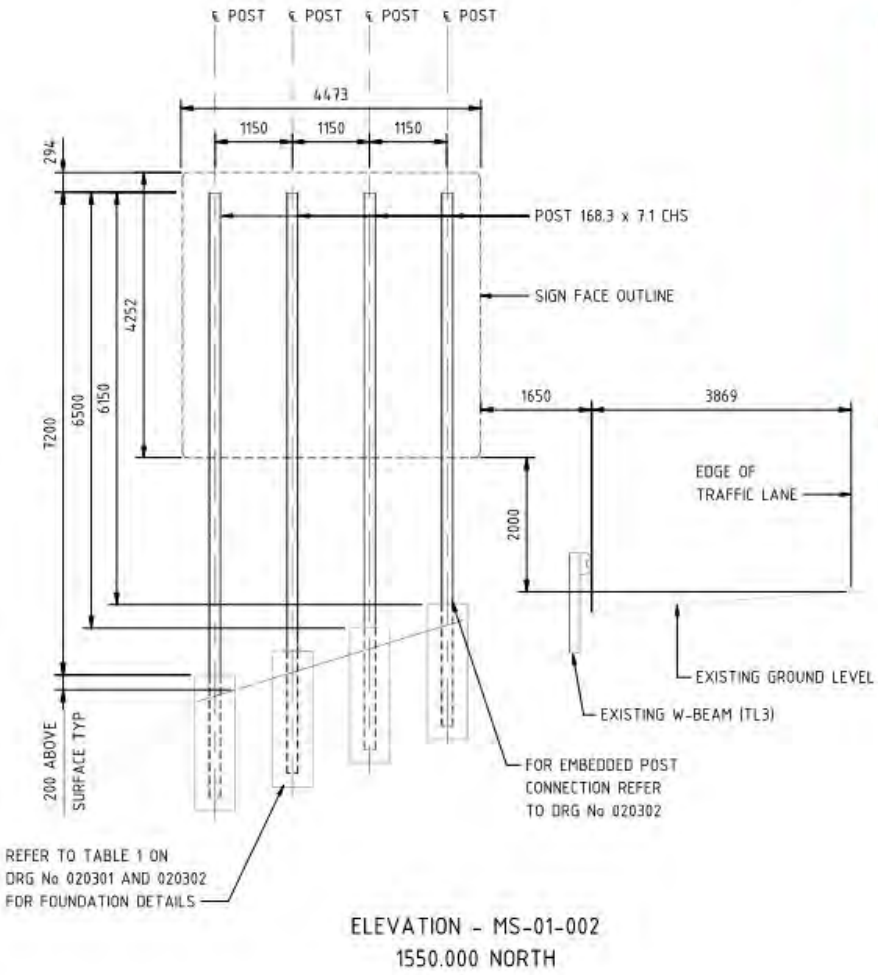
Roads and Maritime Services (2017) *M1 Princes Motorway Mount Ousley Interchange Review of Environmental Factors*

Roads and Maritime Services (2018) *M1 Princes Motorway Mount Ousley Interchange Review of Environmental Factors Submissions Report*

Transport for NSW (2022) *M1 Princes Motorway Mount Ousley Interchange Addendum Review of Environmental Factors*

Appendix A

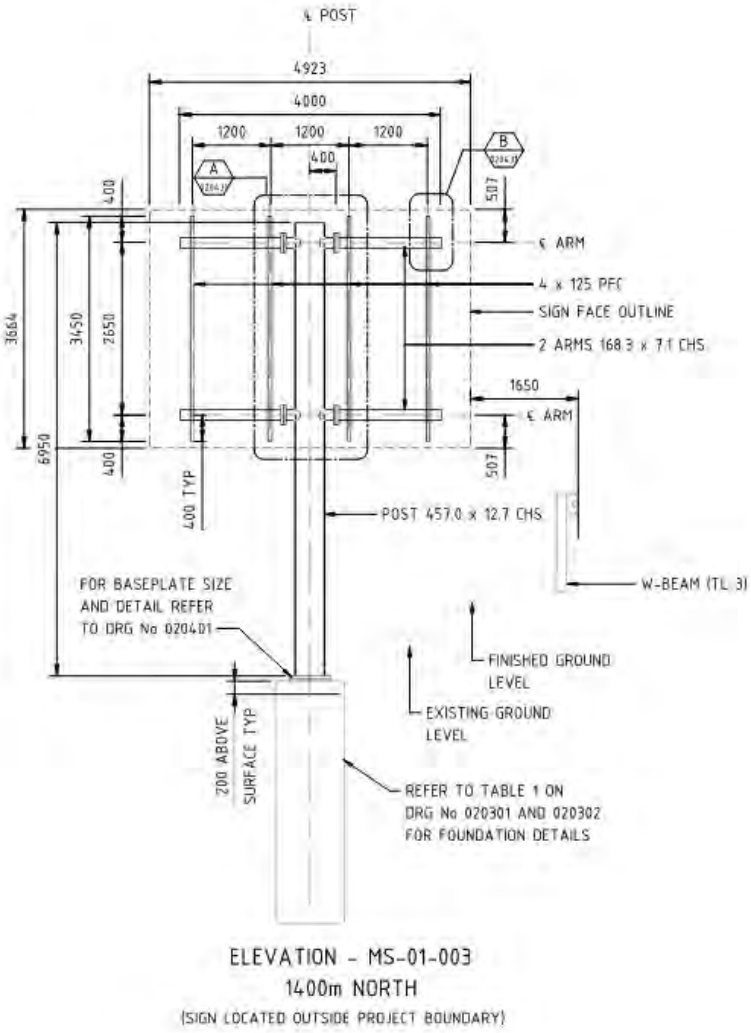
Figures



ELEVATION - MS-01-002
1550.000 NORTH

MS-01-002
SIGN FACE - PRINM-MTO-AD24

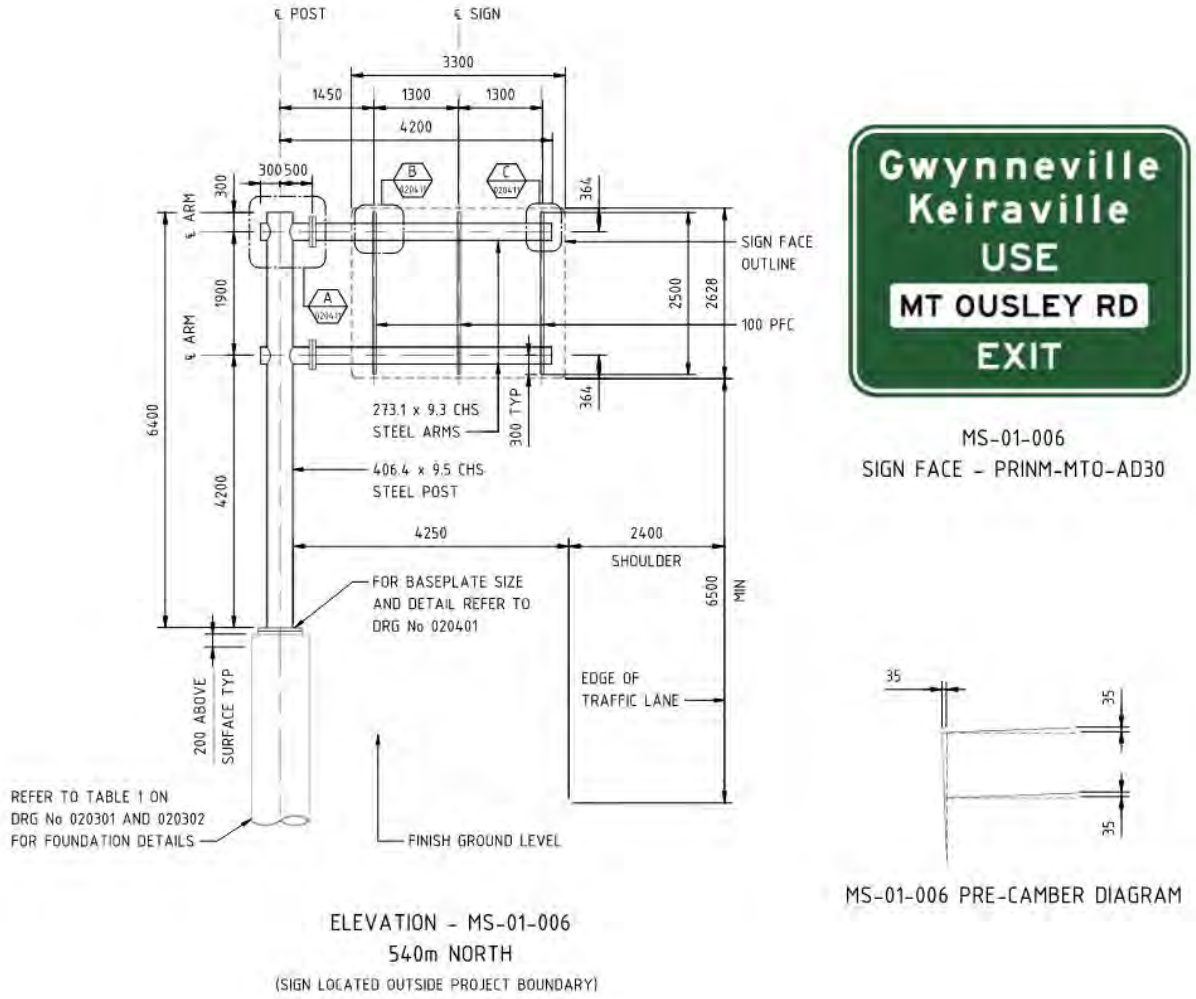
MS-01-002 Directional Signage



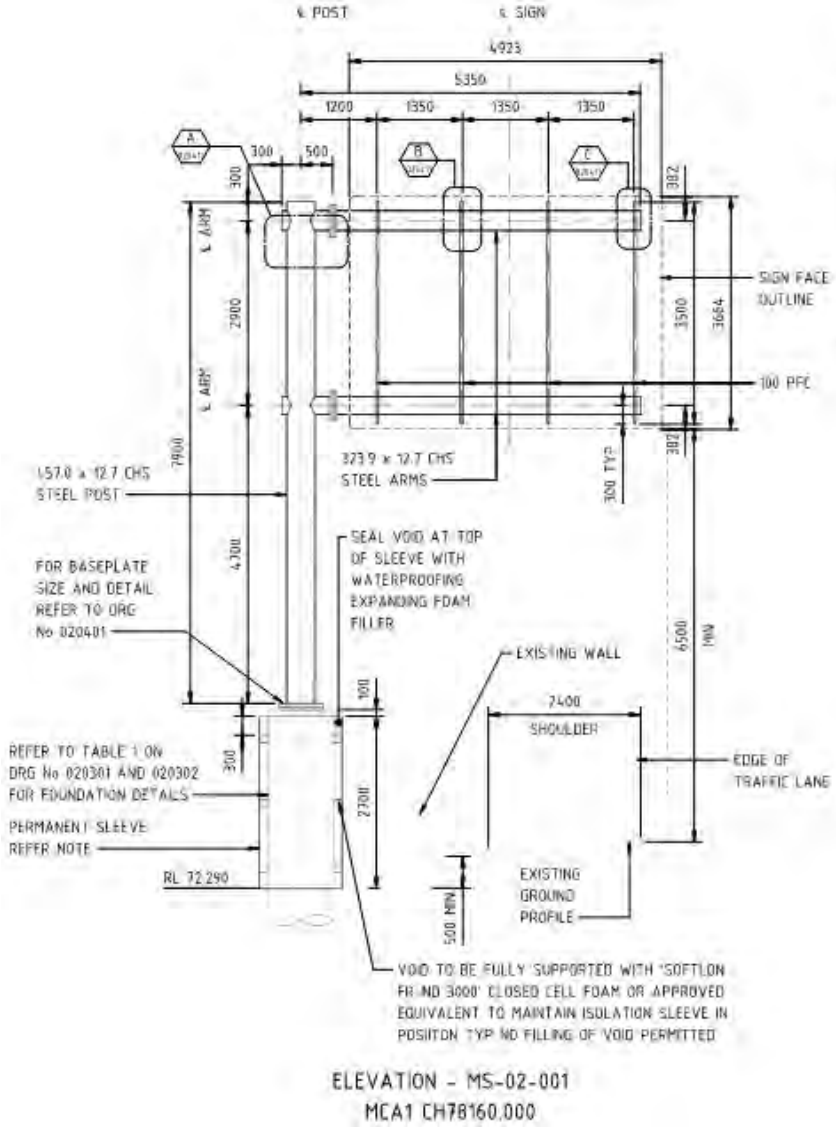
ELEVATION - MS-01-003
1400m NORTH
(SIGN LOCATED OUTSIDE PROJECT BOUNDARY)

MS-01-003
SIGN FACE - PRINM-MTO-AD27 SB

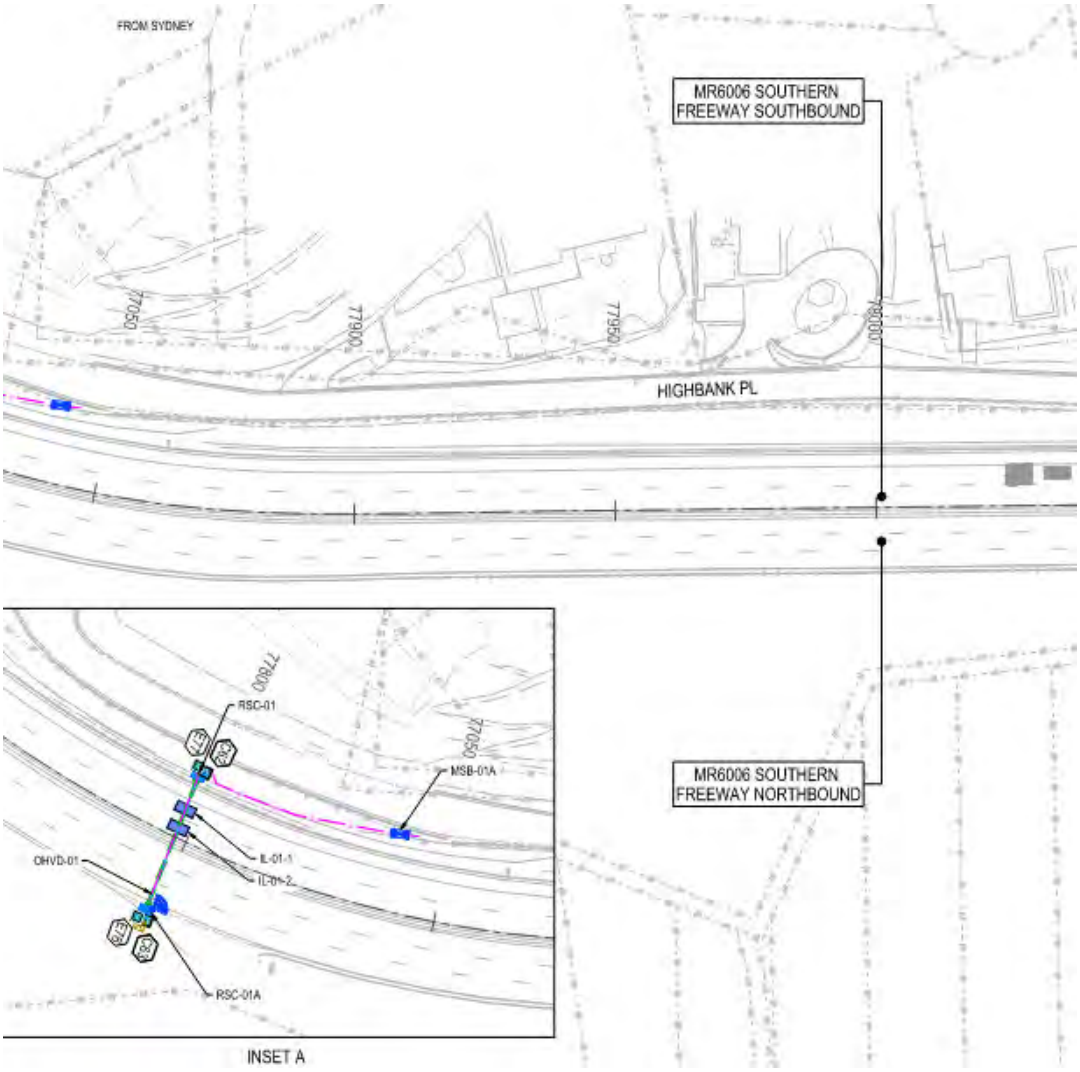
MS-01-003 Directional Signage



MS-01-006 Directional Signage



MS-02-001 Directional Signage



ITS Component – Over Height vehicle detector

Additional Ancillary Facility, Albion Park Rail

Appendix B

Consideration of section 171(2) factors and matters of National Environmental Significance and Commonwealth land

Section 171(2) checklist

In addition to the requirements of the Is an EIS required? (1995/1996) guideline and the *Roads and Related Facilities EIS Guideline* (DUAP, 1996) as detailed in the addendum REF, the following factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have also been considered to assess the likely impacts of the proposed modification on the natural and built environment.

Factor	Impact
Any environmental impact on a community? The proposed modification involves some impact on the community during construction, including noise and vibration impacts, generation of airborne dust, temporary changes to traffic and access, and visual amenity impacts. In the long term the proposed modification would result in improvements to utilities infrastructure, improvements to traffic efficiency and road safety. The proposed modification will increase on the proposed project development footprint described in the project REF and would result in permanent changes to the visual environment and the overall landscape within the proposal area. However, these changes would be considered minor in comparison to the changes proposed in the project REF.	**Short term – negative** **Long term – positive** **Long term – neutral**
Any transformation of a locality? The proposed modification area would undergo temporary transformation during construction due to clearing of vegetation and earthworks required to upgrade the directional signage and ITS infrastructure.	Short term – negative
Any environmental impact on the ecosystems of the locality? The existing ecosystems are subject to a high level of disturbance, and the modification would have no long-term impacts to the locality. An offset strategy has been outlined in Section 6.1 of this addendum REF and is consistent with the strategy outlined in the project REF. The modification would have no long-term impacts on any aquatic ecosystems, habitats or species.	Long term – neutral
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality? Construction works may impact on the flow of traffic to the surrounding area of the proposed modification; however, this will be temporary in nature and traffic will flow more efficiently once the project is operational.	Short term – negative Long term – positive
Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations? The proposed modification would not impact on any known anthropological, archaeological, architectural, cultural, historical, scientific or socially significant items. The proposed modification works will not impact on any other items of special value for present or future generations.	Nil Nil
Any impact on the habitat of protected fauna (within the meaning of the *National Parks and Wildlife Act 1974*)? The proposed modification would not result in an increase in the impacts on habitat of any protected animals. The recommended offset strategy is documented in Section 6.1 of this addendum REF. The proposed modification would have no long-term impacts on any aquatic ecosystems, habitats or species.	Nil

Factor	Impact
Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air? The proposed modification will require the removal of a number of mature trees. Significant impacts to flora, fauna, or any other form of life would not be likely as a result of the proposed modification works as this vegetation is not commensurate to any plant community type and does not represent important habitat to any threatened species.	Nil
Any long-term effects on the environment? The proposed modification would be unlikely to have long-term effects on the environment as the features of the modification will largely result in temporary impacts.	Nil
Any degradation of the quality of the environment? The proposed modification will create impacts that are largely temporary or are located in areas that have already been assessed for impact in the project REF so will not likely caused degradation to the quality of the environment.	Long term – minor
Any risk to the safety of the environment? Traffic management safeguards will be implemented during the construction works to reduce the risk of safety. Once operational, the proposed modification would improve the safety for road users by facilitating the construction of the overall project and providing faster response times to traffic incidents in the area.	Short term – minor negative Long term – positive
Any reduction in the range of beneficial uses of the environment? The proposed modification would not reduce the range of beneficial uses of the environment.	Nil
Any pollution of the environment? There is a potential for accidental spills of chemicals during the construction which could affect the surrounding land, surface water and ground water. Management measures regarding accidental spills can be found in Section 7 of this addendum REF.	Short term – potential minor negative
Any environmental problems associated with the disposal of waste? There are no predicted to be wastes generated by the proposed modification that are not common. Difficulty in disposing of wastes are not considered likely.	Nil
Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply? All resources required for the proposed modification are readily available and are not in short supply. The scope of the proposed modification is not significant compared to the REF.	Nil
Any cumulative environmental effect with other existing or likely future activities? The proposed modification works will be done concurrently with the proposed project works outlined in the Project REF. There is potential for the construction period to overlap with construction of developments within the area and the construction period for the M1 Princes Motorway improvements between Picton Road and Bulli Tops (located 7 km to the north of the proposed modification area). Traffic management of both proposals would be considered to minimise potential delays.	Short term – potential negative
Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	Nil

Factor	Impact
The proposed modification would not result in any impact on coast processes and coastal hazards.	
Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1. The proposed modification falls within the footprint of the Illawarra Regional Plan 2041, and aligns with the following objectives: • Objective 1: Strengthen Metro Wollongong as a connected, innovative and progressive city • Objective 27: Protect major freight networks The proposed modification will improve the performance of the existing interchange and provide benefits to the broader network through travel efficiencies and improved reliability. It will also improve freight networks between Port Kembla and along the Princes Motorway. The proposed modification also falls within the footprint of the Wollongong Strategic Planning Statement 2020, and aligns with the following objectives: • Jobs and Economic Growth • Housing for All • Inclusive and Connected Communities • Climate Action and Resilience • Protect the Natural Environment • Enabling Infrastructure and Transport • Key Localities – Local Strategies, Character and Visions The proposed modification will facilitate the above objectives through facilitating employment opportunities, improving the connectivity of the region, minimising impact to the natural environment and not impacting on high value biodiversity items.	Long term – positive Long term – positive
Other relevant environmental factors There are no other relevant environmental factors associated with the proposed modification.	Nil

Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposed modification should be referred to the Australian Government Department of Climate Change, Energy, the Environment and Water.

Under the EPBC Act strategic assessment approval a referral is not required for proposed road actions that may affect nationally listed threatened species, populations, endangered ecological communities and migratory species. Impacts on these matters are assessed in detail as part of this addendum REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
Any impact on a World Heritage property?	Nil
Any impact on a National Heritage place?	Nil
Any impact on a wetland of international importance?	Nil
Any impact on a listed threatened species or communities?	Nil
Any impacts on listed migratory species?	Nil
Any impact on a Commonwealth marine area?	Nil
Does the proposed modification involve a nuclear action (including uranium mining)?	Nil
Additionally, any impact (direct or indirect) on Commonwealth land?	Nil

Appendix C

Statutory consultation checklists

Matters of National Environmental Significance and Commonwealth land

Certain development types

Development type	Description	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Car park	Does the project include a car park intended for the use by commuters using regular bus services?	No		Section 2.110
Bus depots	Does the project propose a bus depot?	No		Section 2.110
Permanent road maintenance depot and associated infrastructure	Does the project propose a permanent road maintenance depot or associated infrastructure such as garages, sheds, tool houses, storage yards, training facilities and workers' amenities?	No		Section 2.110

Council related infrastructure or services

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Stormwater	Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	No		Section 2.10
Traffic	Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area?	No		Section 2.10
Sewerage system	Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of any part of the system?	No		Section 2.10
Water usage	Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	No		Section 2.10
Temporary structures	Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	No		Section 2.10
Road and footpath excavation	Will the works involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	Yes	Wollongong City Council	Section 2.10

Local heritage items

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Local heritage	Is there is a local heritage item (that is not also a State heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential?	No		Section 2.11

Flood liable land

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Flood liable land	Are the works located on flood liable land? If so, will the works change flood patterns to more than a minor extent?	No		Section 2.12

Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the manual entitled Floodplain Development Manual: the management of flood liable land published by the New South Wales Government.

Public authorities other than councils

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the *National Parks and Wildlife Act 1974*, or on land acquired under that Act?	No		Section 2.15
National parks and reserves	Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No		Section 2.15
Aquatic reserves and marine parks	Are the works adjacent to an aquatic reserve or a marine park declared under the *Marine Estate Management Act 2014*?	No		Section 2.15
Sydney Harbour foreshore	Are the works in the Sydney Harbour Foreshore Area as defined by the *Sydney Harbour Foreshore Authority Act 1998*?	No		Section 2.15
Bush fire prone land	Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional centre or group home in bush fire prone land?	No		Section 2.15
Artificial light	Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory)	No		Section 2.15

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Defence communications buffer land	Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in section 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011).	No		Section 2.15
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act 1961*?	No		Section 2.15

Appendix D

Biodiversity inspection report – M1 Princes Motorway – sign installation (April 2025)

Mount Ousley Interchange
Fulton Hogan Construction Pty Ltd
Level 3, 90 Bourke Road Alexandria NSW 2015
[redacted]

RA Environmental Consultant
4 Hay Street,
Helensburgh, NSW. 2508
[redacted]
ABN 63668587527

Attention: [redacted]

1 April 2025

Mount Ousley Interchange – M1 Princess Highway, Wollongong, traffic sign installation

Before the removal and/or trimming of vegetation along the M1 motorway to facilitate the installation of two traffic signs and to ensure that these signs are visible to passing motorists, Fulton Hogan Pty Ltd requested that an experienced ecologist inspect the area to identify:

- The presence and location of any habitat-bearing trees (e.g., trees with hollows or other potential habitats for fauna, such as possum dreys, bird nests, exfoliating bark, dead wood, or nest boxes).
- The presence of threatened fauna species and their habitats, listed under either the New South Wales (NSW) Biodiversity Conservation Act 2016 (BC Act) or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).
- The presence of any threatened flora species listed under the BC Act or EPBC Act.
- The presence and extent of any Endangered Ecological Communities (EECs) listed under the BC Act or EPBC Act.
- Fallen logs and large areas of surface rock that could support fauna habitat are present.
- The presence of Weeds of National Significance (WONS), Priority Weeds listed under the Biosecurity Act 2015, and any agricultural weeds of concern to the Project.

The inspection was conducted by [redacted], a suitably experienced ecologist, with Fulton Hogan Staff Member [redacted] on March 27, 2025.

The following section reports on the methods used, the outcomes of the site inspection, and a list of recommendations for impact avoidance. Should you have any further questions or queries, please do not hesitate to contact me.

Yours sincerely,

[redacted]

[redacted]

Ecologist

[redacted]

Background

This pre-clearance inspection is a requirement for the Mount Ousley Interchange Project's approvals and associated documents, which include the following:

- Cardo (now Stantec) (2022). M1 Princes Motorway Mount Ousley Interchange. Addendum Review of Environmental Factors. Prepared for Transport for New South Wales.
- Roads and Traffic Authority (2011). Biodiversity Guidelines. Protecting and managing biodiversity on RTA projects.
- Transport for New South Wales (2022a). Environmental Protection. Mount Ousley Interchange. Specification D&C G36.
- Transport for New South Wales (2022b). Clearing and Grubbing. Mount Ousley Interchange. Specification D&C G40.

Methods

Study area.

The proposed location of each sign and the extent of the vegetation that would be trimmed or removed is shown in Figure 1 - Figure 4.

Results and discussion

The native plants to be trimmed or removed include four *Acacia implexa* (Hickory), one *A. melanoxylon* (Blackwood), two *Eucalyptus botryoides* (Bangalay), and one *E. pilularis* (Blackbutt) (Table 1). The locations of these trees and the extent of the vegetation that will be trimmed or removed are shown in Figure 2, Figure 3, and Figure 4).

Table 1. Native trees that will be trimmed or removed.

Sign 1	Sign 2
Acacia implexa (Hickory) (four individuals with multiple stems)	*Eucalyptus pilularis* (Blackbutt) (one individual)
Acacia melanoxylon (Blackwood) (one individual with two stems)	*Eucalyptus botryoides* (Bangalay) (two individuals)

Where practical, retain the native tree logs and cut stumps on site to provide habitat for fauna. The reuse of logs and tree stumps follows the recommendations made in *Guide 5: Reuse of wood debris and bush rock in Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects* (Roads and Traffic Authority (RTA), 2011). The ecological benefits of retaining and reusing fallen logs and stumps include:

- Nest sites that provide a safe place to sleep, undertake winter torpor, breed, and conduct maternal activates (e.g., lay eggs and/or care for dependent young) (Lindenmayer *et al.* 2002).
- A safe place for frogs to hibernate during the cooler Winter Months and bask in the warmer Summer months (Department of Environment and Climate Change, 2008; Craig *et al.* 2014).
- A safe place for fauna to forage while avoiding the threat of predation (Lindenmayer *et al.* 2002; Law *et al.* 2019).

Weed inventory

Several Weeds of National Significance (WONS) and priority weeds listed under the Biosecurity Act 2015, as well as weeds of concern to the Project, were recorded at both locations. The weeds of greatest concern that were identified within or immediately adjacent to proposed signage include *Asparagus aethiopicus* (Ground Asparagus), *Lantana camara* (Lantana), *Ligustrum lucidum* (Broad or Large-leaved Privet), *L. sinense* (Narrow or Small-leaved Privett), and *Sporobolus fertilis* (Giant Parramatta Grass) (Table 2).

Four small and medium-sized *L. lucidum* trees will be trimmed or removed at Sign 1. The woody material cut from these weed trees should be removed from the site and disposed of in an appropriate manner.

Fauna habitats.

Hollow or habitat-bearing trees.

One hollow bearing tree was identified at Sign 1 (Figure 2 and Figure 5). The hollow entrance was located on the stem and is approximately 15cm long and 2 cm wide (Figure 5).

At the time of the survey, no other fauna habitats were observed in the remaining trees that could be removed or trimmed.

Compliance with Specification D&C G40 'Clearing and Grubbing' Mount Ousley Interchange (2022b).

The following statements have been made to address the reporting requirements outlined in TfNSW Specification D&C G40, 'Clearing and Grubbing, Mount Ousley Interchange (TfNSW, 2022b). Transport for NSW (2022b) states that:

Before clearing and grubbing commence, undertake a joint inspection with the Contractor's project Ecologist and the Principal's representative to inspect the clearing limits and temporary exclusion fencing and to identify opportunities to preserve habitat trees that fall within or are likely to be affected by the clearing limits.

- **Include a statement from an Ecologist that identifies the species and location of any weeds growing anywhere in the road reserve and over the length to be cleared and grubbed.**

As stated above, several WONS and priority weeds listed under the Biosecurity Act (2015), or weeds of concern to the Project, were observed. The weeds of greatest concern identified at or adjacent to the proposed signage include *A. aethiopicus*, *L. camara*, *L. lucidum*, *L. sinense*, and *S. fertilis* (Table 2).

- **Identifies all locations of threatened flora species and trees that have been marked or otherwise identified for preservation.**

The project REF and AREF, prepared by Roads and Maritime Services (RMS) (Jacobs, 2017) and Cardno (Stantec, 2022), identified four threatened flora species that occur in the region. This included the following species:

- *Rhodamnia rubescens* (Scrub Turpentine) (listed as Critically Endangered under the BC Act) (Scrub Turpentine - profile | NSW Environment, Energy and Science)

- *Senna acclinis* (Rainforest Cassia) (listed as Endangered under the BC Act) (Rainforest Cassia - profile | NSW Environment, Energy and Science)
- *Solanum celatum* (listed as Endangered under the BC Act) (Solanum celatum - profile | NSW Environment, Energy and Science)
- *Syzygium paniculatum* (Magenta Lily Pilly) (listed as Endangered under the BC Act and Vulnerable under the EPBC Act)

Each location was searched, and no regionally threatened flora species were observed during this assessment.

- **List any trees outside the limits of clearing that are unsound and likely to fall upon the roadway or onto private property.**

Two small dead stags at Sign 2 have been marked for removal. No further unsound trees that could fall onto the roadway or private property were observed at or near the two locations where the signs are to be installed.

- **Identifies Endangered Ecological Communities (EECs), marking areas within and outside the formation.**

No Threatened Ecological Communities (TECs) listed under the BC Act or the EPBC Act were identified at the site or near the location where the signs are to be installed.

- **Identifies, marks, and lists all hollow-bearing trees, as well as other areas that contain potential habitat within the areas to be cleared.**

As stated previously, one hollow bearing tree was identified among the trees that could be removed or trimmed at Sign 1 (Figure 2 and Figure 5). The entrance to this hollow is shown in Figure 5. This hollow-bearing tree has been marked with high-visibility pink flagging tape (Figure 5).

No further fauna habitats (e.g., fallen logs, bird nests, possum dreys, rotting tree stumps, and surface rocks) were identified at either sign.

Further information.

Non-threatened and invasive fauna.

No invasive, non-threatened, or threatened fauna species were encountered during this survey.

Threatened fauna.

No threatened fauna species were observed within the areas surveyed. The native vegetation at these two locations could represent foraging habitats for several BC and EPBC Act-listed species, including:

- *Callocephalon fimbriatum* (Gang-gang Cockatoo)
- *Daphoenositta chrysoptera* (Varied Sittella)
- *Glossopitta pusillia* (Little Lorikeet)
- *Lathamus discolor* (Swift Parrot)
- *Miniopterus australis* (Little Bent-winged Bat) (subterranean (bridge, culvert, or cave) roosting microbat)
- *Miniopterus orianae oceanensis* (Large or Eastern Bent-winged Bat) (subterranean (bridge, culvert, or cave) roosting microbat)

- *Ninox strenua* (Powerful Owl)
- *Petauroides volans* (Southern Greater Glider)
- *Pteropus poliocephalus* (Grey-headed Flying-fox (GHFF)
- These threatened species are highly mobile and can forage over broad areas. As such, it is unlikely that the conservation status of these species will be impacted by the installation of these two traffic signs.

The hollow-bearing tree could provide roost habitat for threatened *Falsistrellus tasmaniensis* (Eastern False Pipistrelle), *Micronomus norfolkensis* (Eastern Coastal Free-tailed Bat), *Scoteanax rueppellii* (Greater Broad-nosed Bat), *Scotorepens orion* (Eastern Broad-nosed bat), as well as the non-threatened microbat *Vespadelus darlingtoni* (Large Forest Bat) and *V. vulturnus* (Little Forest Bat).

Impact avoidance

To be consistent with RTA (2011) and Fulton Hogan (2023), it is recommended that the following should be undertaken during any tree-felling works:

- The habitat tree has been marked with a high-visibility pink flag.
- Before the felling of any tree, the presence of visible fauna should be noted, and the felling of occupied trees should be avoided until they become unoccupied.
- The felling of trees should follow the two-stage systems/principles, including:
  - The surrounding non-habitat trees should be felled at least 48 hours before the felling of the habitat trees. This will allow fauna an opportunity to move from habitat trees and allow time to concentrate rescue efforts on the trees that are most likely to be inhabited.
  - Following this, the habitat (habitat and hollow bearing trees) trees are to be felled under the supervision of and with guidance from the Project Ecologist.
- Any larger native felled tree is to be left on the ground for 24 hours (TfNSW 2022c). Before being left, and only if it is safe to do so, inspect the trees and ensure that no hollows are blocked. If a hollow is blocked, the tree should be moved into a position that allows the hollows to remain open.
- Trees close to the road that are felled at night are moved, positioned, and stacked in a safe location.
- After 24 hours, the larger native trees that have been felled can be mulched, or, where practical and safe to do so, the logs and cut stumps that could provide habitat for fauna can be retained.
- Where practical, retain the native tree logs and cut stumps on site to provide habitat for fauna (RTA 2011).
- A suitably qualified ecologist must supervise the removal of the habitat-bearing trees.
- Fauna handling and procedures are to follow the fauna protection procedure guidelines in TfNSW (2022c) and Appendix B of Fulton Hogan (2023).
- All captured fauna will be relocated into two patches of conserved and protected habitat within the project boundary, where the nest boxes have been installed.
- Records must be kept of any fauna captured, relocated, or taken into care by a licenced Wildlife Carer.

Avoid impacts beyond the Project boundary by:

- Before any works commence, the boundary of the proposed work must be marked out by installing high-visibility exclusion fences or para-webbing. Some high visibility associated with the early works program has been installed.
- If deemed practicable, installation of 'no-go' – 'do not enter' sensitive environment interpretative signage that explains the need for the protective fencing. The interpretive signs are placed at all site entrances or access points, as well as at any other location deemed appropriate.
- All staff and subcontractors involved in construction activities must be made aware of the clearing limits and are prohibited from encroaching on areas beyond these boundaries.
- If required, install sediment controls between the works and any drainage lines.
- Care must be taken not to spread exotic weeds across or beyond each Project boundary. Standard hygiene protocols must be implemented for all plant and equipment used in the construction works. This should include a clean-on entry and clean-on exit for all plant and vehicles. The most appropriate location to conduct the inspections and clean-down operations is to be determined. However, if practicable, any plant or equipment used on-site should remain on-site.

Figure 1. The location of where the two signs are to be installed.

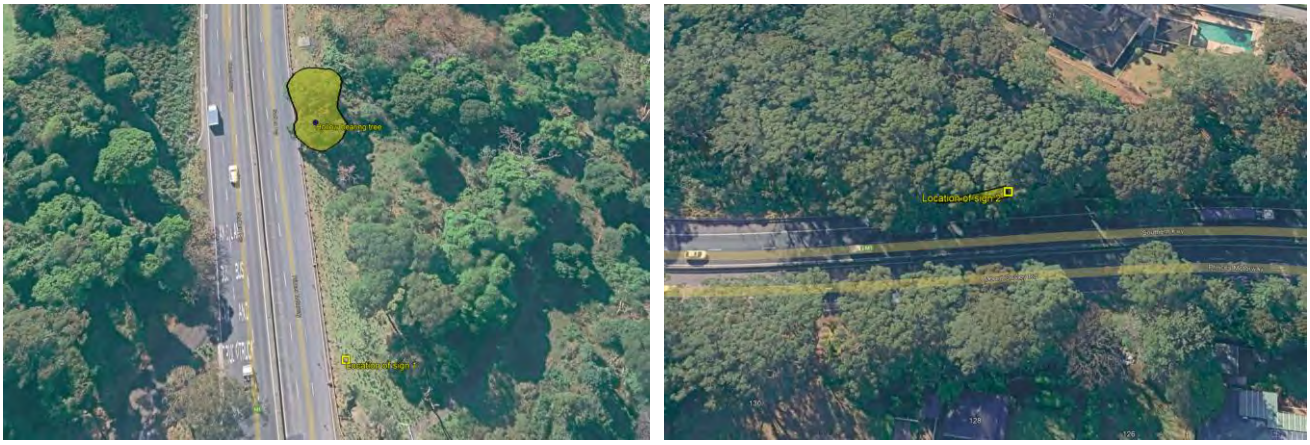


Figure 2. The location where the two signs are to be installed, vegetation that would be trimmed or removed, and the hollow bearing tree.

Figure 3. View of the vegetation, the trees that could be trimmed or removed at Sign 1.

Figure 4. View of the vegetation, the trees that could be trimmed or removed at Sign 2.

Figure 5. The hollow entrance and pink flagging used to mark this hollow bearing tree

Table 2. Weed species that were identified within the project boundary.

Species name	Common name	Location	Weeds of National Significance	Priority Weed *Biosecurity Act 2015*	High-threat or agricultural weed
Agapanthus africanus	Agapanthus	Sign 1 only	-	-	-
Asparagus aethiopicus	Ground Asparagus	Sign 2 only	Yes	Yes	Yes
Chloris gayana	Rhodes Grass	Sign 1 only	-	-	Yes
Ehrharta erecta	Panic Veldt Grass	Sign 2 only	-	-	Yes
Lantana camara	Lantana	Sign 2 only	Yes	Yes	Yes
Ligustrum lucidum	Large or Broad leaf Privet	Sign 2 only	Yes	Yes	Yes
Ligustrum sinense	Narrow or Small-leaf Privet	Sign 2 only	Yes	Yes	Yes
Sporobolus fertilis	Giant Parramatta Grass	Sign 1 only	-	Yes	Yes

Source: Local Land Services (2022) and Priority Weeds for the South East, as per the Department of Primary Industries web page that was last accessed on 6 May 2024 NSW WeedWise.

References

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Craig. M. D., Grigg, A. H., Hobbs. R. J., and Hardy. G. E. St. J. (2014). Does course woody debris density and volume influence the terrestrial vertebrate community in restored bauxite mines? Forest Ecology and Management. V 318, Pp 142 – 150. Does coarse woody debris density and volume influence the terrestrial vertebrate community in restored bauxite mines? - ScienceDirect

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Law, B., Chidel, M., Britton, A., and Threlfall, C. (2018). Comparison of microhabitat use in young regrowth and unlogged forest by the eastern pygmy-possum (*Cercartetus nanus*). Australian Mammalogy. 40. Pp 1–9.

Lindenmayer. D. B., Claridge. A. W., Gilmore. A. M., Michael. D., Lindenmayer. D. B. (2008). The ecological roles of logs in Australian forests and the potential impacts of harvesting intensification of log-using biota. Pacific Conservation Biology. V8. Pp 121 -140. The_ecological_roles_of_logs_in_Australian_forests.pdf

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Roads and Maritime Services (Jacobs) (2017b). M1 Princes Motorway Mount Ousley Interchange. Review of Environmental Factors. Biodiversity Assessment.

Roads and Traffic Authority (2011). Biodiversity Guidelines. Protecting and managing biodiversity on RTA projects.

Transport for New South Wales (2022a). Environmental Protection. Mount Ousley Interchange. Specification D&C G36.

Transport for New South Wales (2022b). Clearing and Grubbing. Mount Ousley Interchange. Specification D&C G40.

Transport for New South Wales (2023). M1 Princes Motorway Mount Ousley Interchange. Review of environmental factors consistency review.

Appendix E

Biodiversity inspection report – M1 Princes Motorway – ITS installation (May 2025)

Mount Ousley Interchange
Fulton Hogan Construction Pty Ltd
Level 3, 90 Bourke Road Alexandria NSW 2015
[redacted]

RA Environmental Consultant
4 Hay Street,
Helensburgh, NSW. 2508
[redacted]
ABN 63668587527

Attention: [redacted]

2 May 2025

Mount Ousley Interchange – M1 Princess Highway, Wollongong, ITS installation

To facilitate the installation of ITS components and to ensure that it is visible to passing motorists, Fulton Hogan Pty Ltd must remove and/or trim a small area of vegetation along the M1 motorway.

A review of several photographs revealed that the vegetation that will be removed and/or trimmed consists mostly of exotic weeds. These weeds present include *Arundo donax* (Arundo Grass, or Giant Reed), *Rubus frusticosus* (Black Berry), *Senna pendula var. glabrata* (Easter Senna), *Tagetes minuta* (Stinking Roger) (Figure 1). A desktop review indicated that no Threatened Ecological Communities listed under either the NSW *Biodiversity Conservation Act 2016* (BC Act) or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) will be directly or indirectly impacted. No threatened flora or fauna species or their habitats are likely to be impacted by the proposed works.

The following section addresses the reporting requirements outlined in TfNSW Specification D&C G40.

Please do not hesitate to contact me if you have any further questions or queries.

Yours sincerely,

[redacted]

[redacted]

Ecologist

[redacted]

Compliance with Specification D&C G40 'Clearing and Grubbing' Mount Ousley Interchange (2022b).

The following statements have been made to address the reporting requirements outlined in TfNSW Specification D&C G40, 'Clearing and Grubbing, Mount Ousley Interchange (TfNSW, 2022b). Transport for NSW (2022b) states that:

Before clearing and grubbing commence, undertake a joint inspection with the Contractor's project Ecologist and the Principal's representative to inspect the clearing limits and temporary exclusion fencing and to identify opportunities to preserve habitat trees that fall within or are likely to be affected by the clearing limits.

- **Include a statement from an Ecologist that identifies the species and location of any weeds growing anywhere in the road reserve and over the length to be cleared and grubbed.**

As stated above, several WONS and BC Act priority weeds and weeds of concern to the Project were observed. The weeds that were identified included *Arundo donax* (Arundo Grass, or Giant Reed), *Rubus fruticosus* agg (Black Berry), *Senna pendula var. glabrata* (Easter Senna), and *Tagetes minuta* (Stinking Roger).

The removed or trimmed vegetation is to remain on site. The aim of leaving cut vegetation on site is to minimise the likely spread of any weed propagules beyond the proposed works area.

- **Identifies all locations of threatened flora species and trees that have been marked or otherwise identified for preservation.**

No threatened flora species were observed within the subject site during this assessment. Because of effects of the plant pathogen *Austropuccinia psidii* (Mrytle Rust), historical disturbances (as indicated by the presence of road ballast and concrete access road), and the observed weed infestation, it was considered unlikely this area would support any threatened flora species (Jacobs 2017; Cardno (now Stantic 2023)).

- **List any trees outside the limits of clearing that are unsound and likely to fall upon the roadway or onto private property.**

No unsound trees of dead stags that could fall onto the roadway or private property were observed.

- **Identifies Endangered Ecological Communities (EECs), marking areas within and outside the formation.**

No Threatened Ecological Communities (TECs) listed under the BC Act or the EPBC Act were identified.

- **Identifies, marks, and lists all hollow-bearing trees, as well as other areas that contain potential habitat within the areas to be cleared.**

No fauna habitats (e.g., fallen logs, bird nests, possum dreys, rotting tree stumps, and surface rocks) were identified.

Further information.

Non-threatened and invasive fauna.

No invasive, non-threatened, or threatened fauna species were encountered during this survey.

Chance find / Stop work protocols

If a fauna species is encountered, the unexpected find procedure in Fulton Hogan (2023) is to be followed. This should involve stopping all work in the vicinity, setting up an exclusion area, and notifying the appropriate Environmental Manager.

Impact avoidance

Avoid impacts beyond the boundary of the proposed works by:

- Before any works commence, the boundary of the proposed work must be marked out by installing high-visibility exclusion fences or para-webbing.
- All staff and subcontractors involved in construction activities must be made aware of the clearing limits and are prohibited from encroaching on areas beyond these boundaries.
- Care must be taken not to spread exotic weeds across or beyond each Project boundary. Standard hygiene protocols must be implemented for all plant and equipment used. This should include a clean-on entry and clean-on exit protocol for all plant and vehicles.

Figure 1. The vegetation that will be removed, and/or trimmed.

References

Cardo (now Stantec). (2022). M1 Princes Motorway Mount Ousley Interchange. Addendum Review of Environmental Factors. Prepared for Transport for New South Wales.

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Roads and Maritime Services (Jacobs) (2017b). M1 Princes Motorway Mount Ousley Interchange. Review of Environmental Factors. Biodiversity Assessment.

Transport for New South Wales (2022b). Clearing and Grubbing. Mount Ousley Interchange. Specification D&C G40.

Appendix F

Stage 1 Procedure for Aboriginal Cultural Heritage Consultation and Investigation (PACHCI) (TfNSW, 2025)

7 May 2025

[redacted]
Senior Environment and Sustainability Officer
L1, 101 Crown Steet
WOLLONGONG NSW, 2500

Dear [redacted],

Preliminary assessment results for Mount Ousley Interchange – Additional signage, based on Stage 1 of the *Procedure for Aboriginal cultural heritage consultation and investigation* (the procedure).

The project, as described in the Stage 1 assessment, was assessed as being unlikely to have an impact on Aboriginal cultural heritage.

The assessment is based on the following due diligence considerations:

- The project is unlikely to harm known Aboriginal objects or places.
- The AHIMS search did not indicate moderate to high concentrations of Aboriginal objects or places in the study area.
- The study area does not contain landscape features that indicate the presence of Aboriginal objects, based on the Heritage NSW's *Due diligence Code of Practice for the Protection of Aboriginal objects in NSW* and the Transport for NSW's procedure.
- The cultural heritage potential of the study area appears to be reduced due to past disturbance.
- There is an absence of sandstone rock outcrops likely to contain Aboriginal art.

Your project may proceed in accordance with the environmental impact assessment process, as relevant, and all other relevant approvals.

If the scope of your project changes, you must contact me and your regional environmental staff to reassess any potential impacts on Aboriginal cultural heritage.

If any potential Aboriginal objects (including skeletal remains) are discovered during the course of the project, all works in the vicinity of the find must cease. Follow the steps outlined in the Transport for NSW's *Unexpected Archaeological Finds Procedure*.

For further assistance in this matter do not hesitate to contact me.

Yours sincerely

[redacted]

[redacted]
Aboriginal Cultural Heritage Officer – Southern

Stage 1 Transport for NSW assessment

Procedure for Aboriginal cultural heritage consultation and investigation

Aim

The project manager (or their representative) must provide the information requested in this checklist to the regional Aboriginal cultural heritage adviser. This information will assist them in determining whether the project may affect Aboriginal cultural heritage in accordance with Stage 1 of the procedure.

Please **provide** this completed cover sheet, along with the required information, to your regional Aboriginal cultural heritage adviser.

Contact details for this project

Name of project:
Mount Ousley Interchange

Project manager
[redacted]

Environmental officer undertaking/managing the environmental impact assessment
[redacted]

Corporate communications officer, if any
N/A

Date:
1/05/2025

Action	Status ☑
Item 1 Attach an overview of the project. The overview must include the known scope and extent of the proposed works; compound site requirements; access and movement of plant; re-location and/or provision of utilities; the location of noise walls, sedimentation basins, shared pathways, cycle ways, etc…	☑
Item 2 Attach a map/plan of the study area that clearly outlines the extent and scope of the project. The map/plan should also include topographical information where available.	☑
Item 3 If land acquisition is required, provide details about this.	N/A
Item 4	☑

Attach a brief description of current and past land use, where known. For example, the study area land is currently used as a car park/road reserve/farming/etc. and was formally used for a car park/road reserve/farming/etc…	
Item 5 Describe the timeframe for the project along with key milestones and deliverables.	☑
Item 6 Please attach the results of the Office of Environment and Heritage's Aboriginal Heritage Information Management System **(AHIMS) Basic Search** - http://www.environment.nsw.gov.au/licences/WhatInformationCanYouObtainFromAHIMS.htm If required, please include the results of an **AHIMS Extensive Search**. These results should be plotted on a map/plan covering the study area.	☑
Item 7 Attach the results of the following heritage searches relevant to the study area: • Native Title Register search • State Heritage Inventory search • Australian Heritage Database search	☑
Item 8 Attach a copy of any heritage assessment (Aboriginal or non-Aboriginal) previously prepared for the study area/project?	☑
Item 9 Attach a copy of any environmental impact assessment previously prepared for the study area/project?	☑

Item 1: Project Overview

TfNSW proposes to modify the Mount Ousley Interchange Project (MOI) through amendments to the REF proposal area and additional construction activities. Key features of the proposed modification include:

- Additional Direction Signage outside of the REF proposal area (as defined in the project REF) on the M1 Princes Motorway
- Additional Intelligent Transportation Systems (ITS) components outside of the REF proposal area (as defined in the project REF) on the M1 Princes Motorway

Typical activities involved in the Directional Signage and ITS works will include, but are not limited to, the following activities:

- Placement and removal of traffic control devices as necessary to access the work zone along the Motorway.
- Access along the shoulders piling plant, underbore machine, light vehicles.
- Access on foot for visual inspection in and around new works.
- Minor clearing and excavation, using excavators.
- Installation of structural piles and steel components
- Excavation of entry pit approximately 30m^2

Item 2: Proposed location of works

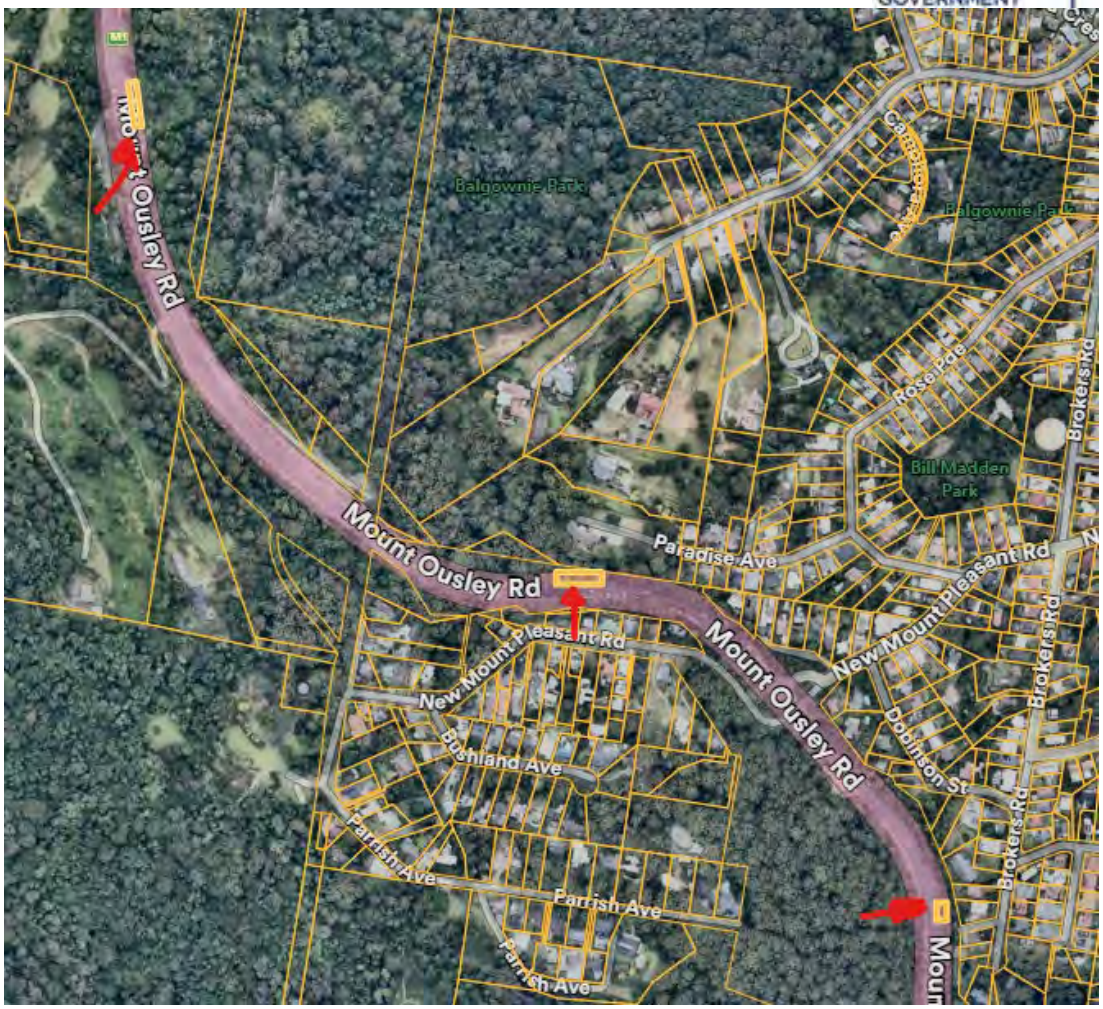


Figure 1: Proposed map of Directional Signage locations

Figure 2: ITS Underbore location and over height detector installation

Item 3: Land Acquisition

There is no land acquisition associated with this project. All works within the Road Reserve

Item 4: Location Description

The greater location context for the project is all M1 Princes Motorway Road Reserve. Previously the area has been subject to earthworks and has been reshaped for the purposes of developing batters and road works activities.

Item 5: Key Project Deliverables and Milestones

Directional Signage late May 2025 for 12 months pending M1 Princes Highway Closures
ITS August 2025 for 12 months pending M1 Princes Highway Closures

Item 6: AHIMS Basic & Extensive Searches

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -34.4049, 150.8531 - Lat, Long To : -34.3872, 150.884, conducted by [redacted] on 01 May 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.

A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

4	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

Note: 3 of the record Aboriginal sites are within the MOI Project and have been removed under the current Project AHIP. The other location is not affected by the proposed works and is located more than 1km away.

Item 7: Relevant Searches

Native Title Register Search

Search National Native Title Register

The National Native Title Register (NNTR) is a register established under s. 192 of the *Native Title Act 1993* (Cth).

The NNTR contains determinations of native title made by:

- the High Court of Australia
- the Federal Court of Australia
- or a recognised body such as South Australia's Supreme Court and Environment Resources and Development Court.

An Excel version of the NNTR is available here.

Further information about the NNTR is available.

Tribunal file no.	
Federal Court file no.	
Short name	
Case name	
State or Territory	New South Wales
Registered Native Title Body Corporate*	
Representative A/TSI body area	
Local government area	Wollongong City Council
Determination type	ALL
Legal process	ALL
Determination outcome	ALL
Determination date between	and
Sort by	Determination date

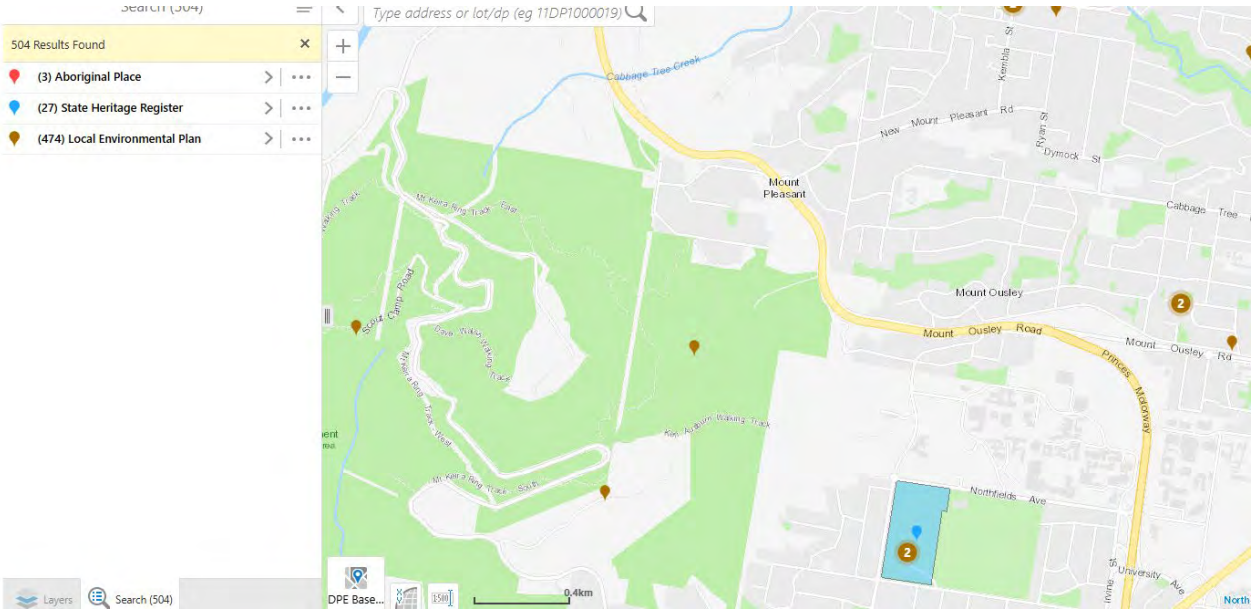
Search >

*Please note: current contact details for the Registered Native Title Body Corporate are available from the Office of the Registrar of Indigenous Corporations www.oric.gov.au

Your search returned **1** matches.

Short name	Case name	Legal process	Determination date	Outcome
Illawarra Local Aboriginal Land Council	New South Wales Aboriginal Land Council v New South Wales Native Title Services Limited	Unopposed	06/02/2007	Native title does not exist

State Heritage Inventory



Australian Heritage Database