

## Road Safety Project – Bondi Road and Wellington Street Intersection, Bondi

Minor Works Review of Environmental Factors

Bidiagal, Birrabirragal and Gadigal Country

Transport for NSW | August 2024



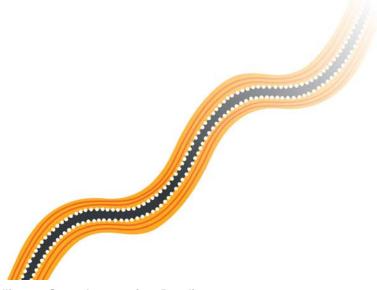
## **Acknowledgment of Country**

Transport for NSW acknowledges the Bidiagal, Birrabirragal and Gadigal Country, the traditional custodians of the land on which the Bondi Road and Wellington Street Intersection improvements work, is proposed.

We pay our respects to their 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.



## **Document controls**

## Approval and authorisation

Title	Road Safety Project – Bondi Road and Wellington Street Intersection, Bondi Minor Works Review of Environmental Factors
Accepted on behalf of Transport for NSW by:	Roopa Jogunoori Project Manager Planning and Programs, Network Solutions Transport for NSW
Signed:	
Dated:	27/08/2024

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#### 1. Introduction

The purpose of the Minor Works Review of Environmental Factors (MWREF) is to describe the proposal, to document the likely impacts of the proposal on the environment, to detail mitigation measures to be implemented and to determine whether or not the proposal can proceed. For the purposes of this work Transport for NSW (Transport) is the proponent and determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The description of the proposed works and assessment of associated environmental impacts has been undertaken in the context of section 171 of the Environmental Planning and Assessment Regulation 2021, *Guidelines for Division 5.1 Assessments* (DPE, 2022), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act) and the Commonwealth Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In doing so the MWREF helps to fulfil the requirements of section 5.5 of the EP&A Act including that Transport 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 MWREF would be considered when assessing:

- Whether the proposal is likely to have 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 and Public Spaces 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 potential for the proposal to significantly impact a matter of national environmental significance, including nationally listed threatened biodiversity matters, or the environment of Commonwealth land. Where a significant impact is considered likely on nationally listed biodiversity matters, either the proposal must be reconsidered, or a Project REF must be prepared.

## 2. The proposal

#### 2.1 Description

#### 2.1.1 Proposal location

Location details	
Title	Road Safety Project – Bondi Road and Wellington Street Intersection, Bondi – Minor Works Review of Environmental Factors
File number	P.0064197
Road name and number	Bondi Road / Wellington Street
Local government area:	Waverley Council
Transport for NSW region:	Greater Sydney

The regional context and location of the Proposal is shown on Figure 2-1 and an overview of the Proposal area is provided in Figure 2-2.



Figure 2-1 Overview of the proposal location



Figure 2-2 Overview of Proposal area

The proposal area is located at the intersection of Bondi Road and Wellington Street, approximately 5 kilometres east of the Sydney CBD. Bondi Road connects the suburbs of Bondi Junction and Bondi. Land uses in the vicinity of the proposal area are predominantly commercial and high to medium density residential. Notable land uses near the proposal area include Bondi Public School, St Patrick's Catholic Church, Montessori East Primary & Pre School and local businesses.

Bondi Road is a state road and strategic transport corridor with peak traffic observed between 7am and 9am weekdays westbound (city bound) and as a corridor leading to Bondi Beach in the afternoon peak between 3pm to 7pm with increased traffic volumes in summer, particularly on weekends.

Bondi Road has a posted speed limit of 50km/h and has two lanes in each direction. Wellington Street has one lane in each direction with an additional left turn lane approaching the Bondi Road intersection.

All roads off Bondi Road within the proposal area are local roads under the control of Waverley Council and their speed limit is 50km/h, with 40km/h school zones around the school access gates. Most kerbside road areas in the proposal area are 'No Parking" with some time restricted parking spaces on Wellington Street.

#### 2.1.2 Proposal description

Transport for NSW (TfNSW) proposes to undertake road safety improvements at the intersection of Bondi Road and Wellington Street, in the suburb of Bondi, within the Waverley Council local government area (LGA). Road safety issues identified at the proposal location relate to a high number of crashes involving motor vehicles, motorcycles, cyclists and pedestrians with 20 crashes and 16 casualties since 2014. Of the crashes, 75% of crashes involved vulnerable road users and 40% of crashes involved turning vehicles. Further detail of crashes at the Bondi Road/Wellington Street intersection is included in Section 2.2.2 of this MWREF.

The key features of the Proposal are shown in Figure 2-3, for further detail refer to the design drawings included in Appendix A.

Key features of the proposal include:

- Remove right turn from Bondi Road (westbound) into Wellington Street
- Remove right turn from Wellington Street (southbound) into Bondi Road.
- Upgrade existing median island and pedestrian refuge to support the removed right turns
- Install double barrier line along the centre of Bondi Road and remove the existing Keep Clear pavement marking.
- Remove lane marking and install left-turn arrows from Wellington Steet (southbound)
- Install signs to regulate the proposed treatment including no right turns and left only on existing and new posts.
- Install signs to reduce the speed limit to 40km/h on Wellington Street between Bondi Road and O'Brien Street
- Mill and resheet of pavement in selected area (refer to the pavement drawing DS2021/00326 SHTPV-001001).

#### Construction methodology

The proposal is anticipated to involve the following Construction methodology:

- Implementation of traffic control
- Implementation of environmental controls
- Removal of existing concrete refuge island
- Install temporary barriers around the proposed new refuge island footprint to enable vehicle movement through the work area.
- Reconstruct concrete refuge island as per the design.
- Signage modification; installation of new signage and removal of existing static signage (including 50 or 75 millimetre posts)
- Coring for post footings where existing posts cannot be used.
- Pavement resurfacing (50 millimetre) mill and resheet of existing wearing course
- · Line marking.
- Removal of traffic control and opening to traffic.

#### Equipment / Machinery to be used

Plant and equipment needed for the proposal would be determined during the construction planning phase. Equipment proposed to be used includes but is not limited to:

- Hand tools
- Utility vehicles

- Line marking machine.
- Pavement painting tool
- Water blasting machine
- Asphalt paver
- Asphalt profiler
- Tipper truck
- Smooth drum roller
- Truck mounted attenuators
- Mobile floodlight towers
- Saw cutter

#### **Construction hours**

Subject to approval, construction is anticipated to commence in late 2024 potentially during the school holidays and take about two weeks to complete (weather permitting). Where possible, construction of the proposal would be carried out during Transport standard construction hours (e.g. sign posting):

- Weekdays: 7.00am to 6.00pm, Monday to Friday
- Weekends: 8.00am to 1.00pm, Saturday
- No work on public holidays

However, subject to Road Occupancy Licenses (ROLs), most of the work may need to be undertaken outside of standard construction hours (up to five nights a week) to minimise disruption of traffic and to provide a safer work environment for the work crews and the public. This would involve the following construction hours:

- 7.00pm to 6.00am, Sunday to Thursday
- No work on public holidays

During out of hours work, higher noise generating activities, such as drilling for the posts, saw cutting and jackhammering, would take place prior to 12.00am (midnight).

Prior notification would be provided to the community regarding work hours, and any planned construction work that is proposed to be carried out outside standard construction hours.



Figure 2-3 Key features of the Proposal

#### 2.1.3 Objectives of Proposal

The objectives of the Proposal include:

- Improve road safety for all road users and pedestrians at the Bondi Road and Wellington Street intersection
- Increase protection for vulnerable road users in urban areas
- Contribute towards Transport's commitment to improve road safety

#### 2.1.4 Ancillary facilities

Ancillary facilities		
Will the proposal require the use or installation of a compound site?	□ Yes	☑ No
Will the proposal require the use or installation of a stockpile site?	□ Yes	☑ No
Are any other ancillary facilities required (eg temporary plants, parking areas, access tracks)?	□ Yes	☑ No

#### 2.1.5 Proposed date of commencement

Construction of the Proposal is scheduled for September and October 2024, potentially during the school holidays.

#### 2.1.6 Estimated length of construction period

The anticipated duration of construction of the Proposal is expected to be about two weeks. Additional shifts and extended duration may be required depending on road occupancy licences (ROL's) and weather conditions.

#### 2.2 Need and options

#### 2.2.1 Options considered

The options considered for the proposal included:

#### Option 1 – Do nothing

No changes.

#### **Option 2 - Separated Signalised Intersection**

- Signalise Bondi Road / Wellington Street intersection.
- Removal of parking on Wellington Street
- Relocate westbound bus stop 'Bondi Road opposite Wellington Street' (ID: 202661) to the east, clear of the intersection and removal of business parking to accommodate the new bus stop

#### Option 3 – One combined signalised intersection (similar to Penkivil Street and Bennett Street)

- Combine Bondi Road / Wellington Street intersection with Watson Street /Bondi Road intersection to operate as one signalised intersection
- Relocate westbound bus stop 'Bondi Road opposite Wellington Street' (ID: 202661) to the east, clear of the intersection and removal of business parking to accommodate the new bus stop
- Removal of parking on Wellington Street
   Removal of pedestrian crossing on the eastern leg of the Bondi Road / Watson Street intersection i.e. no crossing between Wellington and Watson streets

#### Option 4 – Right turn ban from Wellington Street into Bondi Road only

Ban right turn from Wellington Street into Bondi Road

- Reduce speed limit to 40km/h on Wellington Street.
- Upgrading existing Wellington Street median island and pedestrian refuge on the west side
- Signs to restrict right turn from Bondi Road

#### Option 5 – Left in and left out at intersection

- Convert Wellington Street into a left in/left out (LILO) intersection removing the right turn from Bondi Road (westbound) into Wellington Street and from Wellington Street (southbound) into Bondi Road
- Associated line marking and mill and resheet pavement on Bondi Road opposite Wellington Street
- Upgrading existing Wellington Street median island and pedestrian refuge
- Remove lane marking and install left turn arrows on Wellington Street (southbound) and signs to restrict turn from Bondi Road
- Reduce speed limit to 40km/h on Wellington Street.

The options were assessed against the Proposal objectives as shown in Table 2-1.

Table 2-1 Assessment of options against Proposal objectives

Proposal objectives	Option 1 Do nothing	Option 2 - Separated Signalised Intersection	Option 3 - One combined signalised intersection	Option 4 - Right turn ban from Wellington St into Bondi Road	Option 5 - Left in and left out at intersection
Improve road safety for all road users and pedestrians at the Bondi Road and Wellington intersection	Does not meet objective.  The do-nothing option would not improve safety at the intersection.	Partially meets objective. Option 2 would partially improve safety at the Bondi Road and Wellington Street intersection.	Meets objective. Option 3 would partially improve safety at the Bondi Road and Wellington Street intersection	Partially meets objective. Option 3 would not address right turn crashes from Wellington Street into Bondi Road	Meets objective. Option 5 would improve safety at the Bondi Road and Wellington Street intersection
To increase protection for vulnerable road users in urban areas	Does not meet objective.  The do-nothing option would not increase protection for vulnerable road users.	Meets objective. Option 2 would increase protection for vulnerable road users in urban areas by improving safety at the Bondi Road and Wellington intersection.	Meets objective. Option 3 would increase protection for vulnerable road users in urban areas by installing an additional crossing location for pedestrians.	Does not meet objective. Option 4 would not increase protection for vulnerable road users in urban areas.	Meets objective. Option 5 would increase protection for vulnerable road users in urban areas by reducing speed limit to 40km/h on Wellington Street, and by widening the existing median.
Contribute towards Transport's commitment to improve road safety	Does not meet objective. The do-nothing option would not contribute towards Transport's commitment to improve road safety.	Partially meets objective. Option 2 would partially contribute towards Transport's commitment to improve road safety. It would create safety concerns with 'see through' effect from signals at Watson Street (30m away).	Partially meets objective. Option 3 would partially contribute towards Transport's commitment to improve road safety. It would extend the time to clear the combined (30m) intersection which poses safety issue and creates potential for driver confusion due to the complexity and number of traffic movements managed by traffic lights	Partially meets objective. Option 4 would partially contribute towards Transport's commitment to improve road safety.	Meets objective. Option 5 would contribute towards Transport's commitment to improve road safety.

The results of the options analysis identified three options which met or partially met all the objectives of the proposal (option 2, option 3 and option 5). Subsequently, an analysis of advantages and disadvantages was prepared for these three options and is provided in Table 2-2 below.

Table 2-2 Advantages and disadvantages for each option

Option	Advantages	Disadvantages
Option 2 - Separate Signalised intersection	<ul> <li>Vehicle access is maintained to all routes</li> </ul>	<ul> <li>Significant safety concerns with 'see through' effect from signals at Watson Street (30m away)</li> <li>Relocation of bus stop</li> <li>Increase in queue lengths (potentially beyond</li> </ul>
		Ocean Street)  Increase in travel time impacting bus performance
		<ul> <li>Loss of parking on Bondi Road and Wellington Street</li> </ul>
Option 3 - One combined signalised intersection (similar at Penkivil Street and Bennett	<ul> <li>Vehicle access is maintained to all routes</li> <li>Preferred option by Schools</li> </ul>	<ul> <li>Extended time to clear the combined (30m) intersection and complexity of movements poses safety issue</li> <li>Relocation of bus stop</li> <li>Increase in queue lengths</li> <li>Bigger impact on travel time impacting bus</li> </ul>
Street)		performance  Loss of parking on Bondi Road and Wellington Street
Option 4 - Right turn ban from Wellington Street into Bondi Road only	Access from Bondi Road into Wellington is maintained	<ul> <li>Would not address right turn crashes from Bondi Road into Wellington Street, including serious injuries</li> <li>Limited pedestrian safety improvement for crossing</li> </ul>
Option 5 - Left in and left out at intersection (+ introduction of 40km/h on Wellington Street)	<ul> <li>Improves safety by removing conflicting right turn movements and reducing weaving movements on Bondi Road</li> <li>Addresses community concerns with pedestrian safety with right turn movements</li> <li>Larger, safer pedestrian refuge area on Wellington Street</li> <li>Enables implementation of Council's proposal to convert Imperial Avenue and Boonara Avenue to Left In/Left Out and further improve safety</li> </ul>	<ul> <li>Around 3-4 extra vehicles per minute using alternate routes during peak hour</li> <li>May increase U-turns in Wellington Street</li> </ul>

The preferred option is Option 5 as it would meet all three objectives of the proposal by improving safety at the Bondi Road and Wellington Street intersection, increasing protection for vulnerable road users in urban areas (by reducing speed limit to 40km/h on Wellington Street, and widening the existing median refuge) and would overall contribute towards Transport's commitment to improve road safety.

Option 5 would also mitigate all right turn crashes by removing conflicting right turn movements, address community concerns with pedestrian safety at the intersection with removal of right turns and provision of a larger, safer pedestrian refuge area on Wellington Street and supports the

implementation of Councils proposal to convert Imperial Avenue and Boonara Avenue to Left In/Left Out and further improve safety.

#### 2.2.2 Justification for the proposal

Road safety issues have been identified at the Bondi Road / Wellington Street intersection and raised to Transport by Council, the community and local members of parliament. Between February 2014 and December 2023 there have been 20 crashes resulting in 16 casualties.

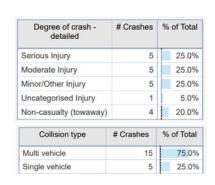
A number of safety improvements have been made since 2014 including reducing the speed on Bondi Road to 50km/h and installation of the pedestrian refuge island and stop control installed in Wellington Street.

Crashes have continued and in 2019 Transport made a commitment to further investigate safety improvements following a serious motorcycle crash and injury.

A summary of crashes at the Bondi Road/Wellington Street is provided below:

## Crash summary

- · Since 2014: 16 casualties from 20 crashes
- 75% of casualties were vulnerable road users
- · 75% of crashes involve multiple vehicles
- · 40% crashes involved right turning vehicles
- Other crashes types included rear end collisions and lane change crashes.
- Crashes are split throughout the week and during the day and night



Year	# Crashes	# Casualties
2014	3	2
2015	3	3
2016	2	1
2017	3	2
2018	3	3
2019	1	1
2020	2	2
2021	1	
2023	2	2



The introduction of the left in and left out of Wellington Street is expected to improve safety for all road users, including pedestrians, at the intersection.

Additionally, the pavement condition on Wellington Street requires maintenance to address a potential trip hazard for cyclists and pedestrians. The proposed widening of the existing median and mill and resheet is expected to solve the issue and allow pedestrians to cross safely which aligns with the objectives of the proposal.

. Other benefits of the proposal would include the following:

- Mitigate all right turn conflicts with the restriction of the right turn movements
- Reduces rear end, lane changing and weaving crashes with reduced intersection queuing and congestion
- Improved safety on Wellington Street by lowering speed limit to 40km/h
- Enables Council's safety improvement project at Imperial and Boonara avenue
- Maintains traffic flow and bus performance on Bondi Road
- Aligns with Road Safety Action Plan

•	Aligns with Movement and Place Principles	

#### 2.3 Statutory and planning framework

#### 2.3.1 State Environmental Planning Policy (Transport and Infrastructure) 2021

The State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP (Transport and Infrastructure)) aims to facilitate the effective delivery of infrastructure across the state, including for roads and road infrastructure facilities. Section 2.109 of the 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 proposal is appropriately characterised as development for the purposes of a road or road infrastructure facilities and is to be carried out by or on behalf of Transport, 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 (Precincts – Eastern Harbour City) 2021, or State Environmental Planning Policy (Planning Systems) 2021.

#### 2.3.2 Other relevant legislation and environmental planning instruments

#### Waverley Local Environmental Plan 2012

The Proposal is situated within the Waverley local government area (LGA) and is subject to the Waverley Local Environmental Plan (LEP) 2012. The Proposal works are zoned 'E1: Local Centre' and are bordered by 'SP2: Infrastructure – Place of Public Worship', 'SP2: Infrastructure – Educational Establishment', 'R2: Low Density Residential', 'R3: Medium Density Residential' and 'R4: High Density Residential' as shown in Figure 2-4. The objectives or the E1 land use zone are:

- To provide a range of retail, business and community uses that serve the needs of people who live in, work in or visit the area.
- To encourage investment in local commercial development that generates employment opportunities and economic growth.
- To enable residential development that contributes to a vibrant and active local centre and is consistent with the Council's strategic planning for residential development in the area.
- To encourage business, retail, community and other non-residential land uses on the ground floor of buildings.
- To strengthen the viability of Waverley's existing business centres as places of vitality for investment, employment and cultural activity.
- To maximise public transport patronage and encourage walking and cycling.
- To encourage the provision of affordable housing.
- To provide for a range of other uses, including light industrial, that serve the surrounding neighbourhood without impacting on the amenity of the adjoining uses.
- To ensure development is of a height and scale that achieves the desired future character of the neighbourhood.
- To promote employment growth by giving preference to commercial development over residential development.
- To provide active ground floor uses to create vibrant centres

Under the Waverley LEP 2012, roads are permitted with consent in zone E1. The provisions of the SEPP (Transport and Infrastructure) override development consent requirements of the relevant LEP and development consent from Council is not required.



Figure 2-4 Land use zoning applying to the Bondi Road / Wellington Street intersection works

#### **Biodiversity Conservation Act 2016**

The *Biodiversity Conservation Act 2016* (BC Act) provides a framework to avoid, minimise and offset impacts on biodiversity. Under the BC Act it is an offence to harm animals and plants, damage areas of outstanding biodiversity value, and damage habitat of threatened species or ecological communities. Under Part 2, Division 2 of the BC Act it is a defence if the harm or damage was necessary for the carrying out of a Division 5.1 EP&A Act activity undertaken in compliance with the determination for that activity, or undertaken consistent with a State significant infrastructure approval under Division 5.2 of the EP&A.

The BC Act establishes a test to establish whether a proposed development or activity is, "likely to significantly affect threatened species." If an activity under Division 5.1 is likely to significantly affect a threatened species, then a Species Impact Assessment will be required to be prepared.

The MWREF considers the potential impacts of the Proposal on threatened species, populations, ecological communities and critical habitat in accordance with the BC Act. No vegetation removal is proposed. The results of the biodiversity assessment are presented in Section 3.7 of the MWREF.

#### Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) provides protection for items of 'environmental heritage' in NSW. 'Environmental heritage' includes places, buildings, works, relics, movable objects or precincts considered significant based on historical, scientific, cultural, social, archaeological, architectural,

natural or aesthetic values. Under the Heritage Act, a person must not disturb or excavate land if they know or have reasonable cause to suspect that they might discover, expose, move or damage a relic unless they have an excavation permit. A permit is also required to disturb or excavate any land on which the person has discovered or exposed a relic. Section 139(4) of the Heritage Act 1977 makes provision for the issuing of an exception in certain prescribed circumstances. An excavation permit is not required for the proposal.

Items considered to be significant to the State can be listed on the State Heritage Register (SHR) and cannot be demolished, altered, moved or damaged, or their significance altered, without approval from the Heritage Council of NSW. Other items may be listed on the National and Commonwealth Heritage Lists, State Heritage Inventory (SHI) or by local Councils in LEPs. Additionally, under Section 170 of the Heritage Act, all government agencies are required to identify, conserve and manage heritage items in their ownership or control. Items are typically listed in a Heritage and Conservation Register and may also be included on the SoHI.

No direct or indirect impacts to Non-Aboriginal Heritage are anticipated as described in Section 3.6 of this MWREF.

#### National Parks and Wildlife Act 1974

The harming or desecrating of Aboriginal objects or places is an offence under section 86 of the *National Parks and Wildlife Act 1974*. Under section 90, an Aboriginal heritage impact permit may be issued in relation to a specified Aboriginal object, Aboriginal place, land, activity or person or specified types or classes of Aboriginal objects, Aboriginal places, land, activities or persons. An Aboriginal heritage impact permit is not required for the proposal.

The proposal is not located near any national parks and not expected to impact on any Aboriginal heritage items or places (refer to Section 3.5). No permits under the *National Parks and Wildlife Act* 1974 are required for the proposal.

#### Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) regulates certain activities with respect to pollution impacts (such as air, water and noise pollution). Part 3.2 of the POEO Act requires an Environmental Protection Licence (EPL) for scheduled development work and carrying out scheduled activities. Item 35(3)(b) of Schedule 1 of the POEO Act applies to road construction, meaning the construction, widening or re-routing of roads. The Proposal is not a 'scheduled activity' under the POEO Act and therefore an EPL is not required.

The POEO Act also identifies a number of pollution offences, including offences relating to:

- Wilful or negligent disposal of waste in a manner that harms or is likely to harm the environment
- Wilful or negligent causing of a substance to leak, spill or otherwise escape (whether or not from a container) in a manner that harms or is likely to harm the environment
- Wilful or negligent causing of any controlled substance to be emitted into the atmosphere in contravention of the regulations under the Ozone Protection Act 1989 and in a manner that harms or is likely to harm the environment
- Water pollution
- Air pollution
- Noise pollution
- Land pollution and waste.

The construction contractor and TfNSW are obliged to notify the EPA if a pollution incident occurs that causes or threatens material harm to the environment. Appropriate mitigation and management

measures will be established and maintained to avoid pollution incidents, and these are outlined in Chapter 3 of this MWREF.

#### Roads Act 1993

The Roads Act 1993 (Roads Act) regulates the carrying out of various activities in, on and over public roads. Under Section 138 of the Roads Act, applicants are required to obtain approval from the relevant roads authority for the erection of a structure, the carrying out of work on or over a public road, or the digging up or disturbing the surface of a road.

The Proposal requires construction work on unclassified local roads (under the care and control of Waverley Council). Under Clause 71, a roads authority may carry out road work on any public road for which it is the roads authority and on any other land under its control. Under Schedule 2 Clause 5 (1), Section 138 does not require a public road authority to obtain a road authority's consent to operate road authority functions in, on or over an unclassified road. Therefore, road authority consent is not required for the Proposal. However, a Road Occupancy Licence (ROL) would be obtained by the Contractor for any temporary lane closures.

#### 2.4 Community and agency consultation

#### 2.4.1 SEPP (Transport and Infrastructure) consultation

Part 2.2 of the 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. This is detailed below:

Is consultation with Council required under sections 2.10 - 2.12 and 2.14 of SEPP (Transport and Infrastructure)?		
Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	□ Yes	☑ No
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?	□ Yes	☑ No
Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of the system?	□ Yes	☑ No
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?	☐ Yes	☑ No
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?	□ Yes	☑ No
Will the works involve more than a minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	□ Yes	☑ No

Is consultation with Council required under sections 2.10 - 2.12 and and Infrastructure)?	d 2.14 of SEPP (	Transport
Is there 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?  Based on the nature of works for the Proposal and safeguards identified in this MWREF, it is not anticipated that there would be any	□ Yes	☑ No
direct impacts to non-Aboriginal heritage items.		
Is the proposal within the coastal vulnerability area and is inconsistent with a certified coastal management program applying to that land?	□ Yes	☑ No/NA
Note: See interactive map here: Coastal management mapping (nsw.gov.au). Note the coastal vulnerability area has not yet been mapped.		
Note: a certified coastal zone management plan is taken to be a certified coastal management program.		
Are the works located on flood liable land? If so, will the works change flooding patterns to more than a minor extent?	□ Yes	☑ No
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 <i>Floodplain Development Manual: the management of flood liable</i> land published by the New South Wales Government.		
According of the Waverley LEP flood data, land subject to the Proposal is located within a flooding area, with the main flooding area situated east of Waverley Park. The Waverley Flood Study (Waverley Council, 2021a) identified that that during a Probable Maximum Flood (PMF) event, land subject to the Proposal would be flooded in some locations, the highest risk area being just east of Waverley Oval near the Proposal works. However, there will be no changes to flood patterns due to the minor nature of the works.		
Is consultation with a public authority (other than Council) required and 2.16 of SEPP (Transport and Infrastructure)?	d under sections	s 2.13, 2.15
	□ Yes	☑ No/NA

Is consultation with a public authority (other than Council) required and 2.16 of SEPP (Transport and Infrastructure)?	d under sections	s 2.13, 2.15
Manual: the management of flood liable land published by the New South Wales Government.		
According of the Waverley LEP flood data, land subject to the proposal is located within a flooding area, with the main flooding area situated east of Waverley Park. The Waverley Flood Study (Waverley Council, 2021a) identified that that during a Probable Maximum Flood (PMF) event, land subject to the Proposal would be flooded in some locations, the highest risk area being just east of Waverley Oval near the Proposal works. However, there will be no changes to flood patterns due to the minor nature of the works.		
Are the works adjacent to a national park, nature reserve or other area reserved under the <i>National Parks and Wildlife Act 1974</i> , or on land acquired under that Act?	□ Yes	☑ No
Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	□ Yes	☑ No
Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional facility or group home in bush fire prone land?	□ Yes	☑ No
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)	□ Yes	☑ No
Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in clause 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011).	□ Yes	☑ No
Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961</i> ?	□ Yes	☑ No

#### 2.4.2 Other agency and community consultation

#### Communications and engagement

Due to the significant safety concerns associated with the proposal location, targeted engagement was recommended with key stakeholders. Stakeholder engagement activities were undertaken with Council, local MPs and the local schools – Bondi Public School and Montessori East Schools and Pre-school. This engagement commenced in 2022 and will continue until construction is complete.

Due to this project being a safety improvement project, addressing serious road safety concerns, a community notification advising the community of the changes will be undertaken.

Community consultation on a similar proposal took place in 2013 and since this time other safety improvements have been implemented. Serious crashes have continued to occur and further intervention is needed with the implementation of this project.

Following engagement with schools, Council and local MP the project was paused in 2022 for further consideration.

Ongoing engagement has continued with Council officers and the Waverley Mayor, and these changes were supported at the 18 June 2024 Council meeting.

The 40km/h speed limit change has been added to this project scope as a result of feedback from the schools. This will be included in the community notification.

#### **Construction Communication**

Prior to construction, an advanced community notification will be distributed at least three weeks before work. This will provide the community the opportunity to ask questions and support the change management.

In addition, briefings will be offered to local schools and churches and local businesses will be door knocked.

Construction notices and local signs will be used during the construction phase.

#### Engagement activity and timeline

The table below outlines the engagement activities that were completed and that are planned .

Date	Outcome
April 2022	Meetings with Local MP and Council staff
May 2022	TfNSW met with local schools on Wellington Street to seek feedback on initial project scope
June 2022	Feedback from Schools and Council received
July 2022 – June 2024	Ongoing discussions with council officers on project scope and options assessed
September 2024	Advanced notification of work, three weeks prior distributed to wider area.  Doorknock local businesses  Emails and meetings with local schools and churches  Local signs advising of changes and work
Late Sept/ October 2024	Start of work construction notice to construction zone to continue through construction

#### Council engagement outcomes

The key feedback received from the Council and Transport for NSW's response is summarised in the table below:

Issues raised by Waverley Council	Response/actions from Transport for NSW
Would like intersection signalised	Signalisation not supported due to safety issues caused by see through effect and potential motorist confusion and network impacts (traffic delays and queuing) with the close proximity of the existing Watson Street intersection
Concerns about impacts to local schools	Alternate routes have been provided. Some inconvenience is expected but this is offset by addressing the serious safety issues.
Improve pedestrian refuge area	A minimum 2m wide pedestrian refuge will be provided on the median.

Consider improved raised crossing	Continuous footpath is not supported at this intersection as the traffic volumes are too high.
	There is a signalised midblock pedestrian crossing on Wellington Street adjacent to the school that also serves the students.

#### Engagement with local schools

The key feedback received from **both schools** include:

Issues raised by Schools	Response/actions from Transport for NSW
Would like intersection signalised	Signalisation not supported due to safety issues and potential motorist confusion caused by see through effect and network impacts (traffic delays and queuing) with the close proximity of the existing Watson Street intersection.
Worried about children walking to and from school as more cars will be on local streets	Speed limit on Wellington Street between Bondi Road and O'Brien being lowered to 40km/h at all times.  Council looking at wider 40km/h speed limits in local streets.
Drivers making U-turns in Wellington and nearby streets	To be monitored by Council as required
Speed of drivers on Bondi Road and Wellington Street	Speed limit on Wellington Street being lowered to 40km/h at all times.
Limited alternative route for drivers travelling west	There are alternate routes however there will be some inconvenience to drivers travelling west from Wellington Street required to deliver the safety objectives
Access for school parent drop off/ sign in for Montessori Pre-school on western side	School to discuss potential parking changes with Council
Improve pedestrian refuge area Consider improved raised crossing/ continuous footpath	A minimum 2m wide pedestrian refuge will be provided on the median. Continuous footpath treatment not recommended due to traffic volumes

#### Implementation communications tools

Community and stakeholders can contact the project team via:

- Project phone number
- Project email address

Channels for informing the community of the proposed change and impacts:

- VMS and local signs
- Webpage
- Advanced community notification to local residents and businesses
- Briefings with local schools and churches to discuss changes
- Email to stakeholder list including local schools and Church to circulate information
- Door-knock local businesses and adjacent properties to inform them of the change
- Ongoing construction notices as required

### 3. Environmental assessment

This section provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposal. All aspects of the environmental potentially impacted upon by the proposal are considered. This includes consideration of the factors specified in section 171 of the Environmental Planning and Assessment Regulation 2021. The matters of national environmental significance under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* are also considered in section 5. Site-specific safeguards are provided to ameliorate the identified potential impacts.

#### 3.1 Soil

Description of existing environmental and potential impacts		
Are there any known occurrences of salinity or acid sulphate soils in the area?	□ Yes	☑ No
According to the Waverley LEP 2012, no acid sulphate soils are located within or in the vicinity of the Proposal (Appendix B).		
Does the proposal involve the disturbance of large areas (e.g. >2ha) for earthworks?	□ Yes	☑ No
Minor ground disturbance for installation of the posts for two 'No Right Turn' signs. Hand tools including handheld auger will be used for post installation. Removal if 50mm Asphalt surface with saw cutting		
Does the site have constraints for erosion and sedimentation controls such as steep gradients or narrow corridors?	□ Yes	☑ No
Are there any sensitive receiving environments that are located in or nearby the likely proposal area or that would likely receive stormwater discharge from the proposal?	□ Yes	☑ No
Sensitive receiving environments include (but are not limited to) wetlands, state forests, national parks, nature reserves, rainforests, drinking water catchments).		
The Proposal is located within the Bondi catchment in the Waverley Council LGA. The Bondi catchment drains into towards Bondi Beach (the South Tasman Sea). At its closest point the Proposal is about 500 metres from Bondi Beach.		
Land impacted by the Proposal is all impervious and has been highly modified from its natural state by various forms of urban development and road infrastructure. Water quality of the catchment and waterway within the proposal area are generally highly influenced by their urban context. Low levels of pervious areas reduce the likelihood of the settling or depositing out of pollutants and sediments being transported in stormwater runoff before entry into the contributing waterways.		

Description of existing environmental and potential impacts		
There is only minor excavation required for installation of posts and median that is unlikely to pose a pollution threat to any sensitive receiving environments.		
Is there any evidence within or nearby the likely footprint of potential contamination?  A search of the EPA's contaminated land register for the Waverley LGA was carried out on 24 July 2024 and did not identify any registered contaminated sites within or next to the Proposal. Search results are included in Appendix B.	□ Yes	☑ No
Is the likely proposal footprint in or nearby highly sloping landform?  The topography in the Proposal area is generally a gentle grade downwards from west to east. Land fronting the road corridor is generally at road level.	□ Yes	☑ No
Is the proposals likely to result in more than 2.5ha (area) of exposed soil?	□ Yes	☑ No

## Safeguards

Safeguards to be implemented are:

- E1. Erosion and sediment control measures are to be implemented and maintained to:
  - Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets
  - · Reduce water velocity and capture sediment on site
  - Minimise the amount of material transported from site to surrounding pavement surfaces
  - Divert clean water around the site (in accordance with the Landcom/Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book)).
- E2. Erosion and sedimentation controls are to be checked and maintained on a regular basis and records kept and provided on request.
- E3. Erosion and sediment control measures are not to be removed until the works are complete, and areas are stabilised.

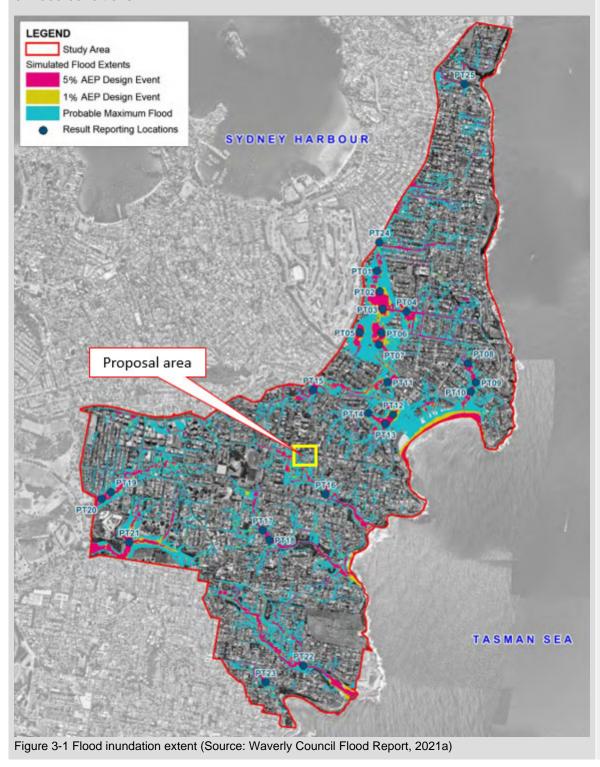
## 3.2 Waterways and water quality

Description of existing environment and potential impacts			
Is the proposal located within, adjacent to or near a waterway?	□ Yes	☑ No	
Is the location known to flood or be prone to water logging?  The Proposal is situated in the Bondi catchment in the Waverley Council LGA. The catchments are primarily drained by the Waverley Council stormwater network. Where capacity of the network exceeds the demand water flows overland towards the South Tasman Sea. This presents a flood risk to property and assets in the area.	☑ Yes	□ No	

#### Description of existing environment and potential impacts

According of the Waverley LEP flood data, land subject to the Proposal is located within a flooding area, with the main flooding area situated east of Waverley Park and the Bondi Road and Wellington Street intersection.

The Waverley Flood Study (Waverley Council, 2021a) identified that that during a Probable Maximum Flood (PMF) event, land subject to the Proposal would be flooded in some locations. The extent of the flooding in the general vicinity of the Proposal is present in Figure 3-1. Given the minor nature and short duration of the proposed works it is unlikely to impact the water quality of the surrounding catchments during water logging or flood conditions.



Description of existing environment and potential impacts		
Is the proposal located within or immediately adjacent to the area managed by WaterNSW covered by chapter 8 of State Environmental Planning Policy (Biodiversity and Conservation) 2021?  Note: See map here: Sydney drinking water catchment map.	□ Yes	☑ No
Would the proposal be undertaken on a bridge or ferry?	□ Yes	☑ No
Is the proposal likely to require the extraction of water from a local water course (not mains)?	□ Yes	☑ No

## Safeguards

Safeguards to be implemented are:

- W1. There is to be no release of dirty water into drainage lines and/or waterways.
- W2. Water quality control measures are to be used to prevent any materials (e.g. concrete, sediment etc) entering drain inlets or waterways.
- W3. An emergency spill kit will be kept on site at all times and maintained throughout the construction work. The spill kit must be appropriately sized for the volume of substances at the work site and personnel inducted in its use.
- W4. If an incident (e.g., spill) occurs, the *Transport Environmental Incident Procedure* (EMF-EM-PR-0001) will be followed and the Transport Contract Manager notified as soon as practicable.
- W5. No vehicle wash-down or re-fuelling will occur on-site.

#### 3.3 Noise and vibration

3.3 Noise and vibration					
Description of existing environmental and potential impacts					
Are there any residential propertic that may be affected by the work			f the pro	posal	
During construction?			☑ Yes	□ No	
The existing environment within and surrounding the Proposal is subject to traffic noise on Bondi Road and adjacent roads and other noises typical of urban environments such as recreational activities. Bondi Road had Annual Average Daily Traffic (AADT) of 25,636 in 2019.					
Sensitive receivers surrounding the Proposal include residences in areas with low, medium and high density residential land zoning (as shown in Figure 3-2). The nearest residential receiver to the proposal is 13 metres to the northeast at 1 Wellington Street, Bondi. Retail and commercial premises are located along Bondi Road. Two educational establishments and two places of worship are adjacent to the Proposal area, as detailed in Table 3-1.					
Table 3-1 Non-residential receivers and	distances from the Proposal				
Non residential sensitive receiver	Distance from proposal to property line	Distance from proposal nearest building			

## Description of existing environmental and potential impacts St Patrick's Catholic Church 8 metres 11 metres Montessori East Primary & Pre 23 metres 80 metres School Bondi Public School 45 metres 50 metres St Matthew's Anglican Church 112 metres 125 metres Legend Proposal area R2 – Low density residential R3 – Medium density residential R4 - High density residential ■ E1 – Local Centre SP2 - Infrastructure RE1 – Public Recreation O St Matthew's Anglican Church O Montessori East Primary & Preschool O Bondi Public School St Patrick's Catholic Church Figure 3-2 Land use in the area of the Proposal **During operation?** П ☑ No The Proposal is not anticipated to generate operational noise. Yes Is the proposal going to be undertaken only during standard working hours? ☑ No Yes The majority of the works would be completed outside of standard working hours to minimise disruptions to traffic and public transport, and reduce the safety risks for work crews and the public. The installation of signage would occur during the day if safe to do so. The works would require direct access to the road and partial lane closures, subject to permitted Road Occupancy Licences. The proposed day work hours would be in accordance with the standard working hours as detailed below:

# Description of existing environmental and potential impacts Weekdays: 7.00am to 6.00pm, Monday to Friday Weekends: 8.00am to 1.00pm, Saturday

The proposed night (outside of standard working hours) work would be subject to ROLs, however is proposed to be the following:

- Night work hours: 7.00pm to 6.00am, Sunday to Thursday
- No work on public holidays

No work on public holidays

During out of hours work, higher noise generating activities such as saw cutting and jackhammering would be completed prior to 12.00am (midnight).

Is any explosive blasting required for the proposal?		☑ No
	Yes	

Would construction noise or vibration from the proposal affect sensitive receivers?

☑ Yes □ No

A construction noise assessment has been carried out using the Transport for NSW 'Construction and Maintenance Noise Estimator' tool. The results of the construction noise assessment are described within this section and provided in Appendix C.

The 'distance based (noisiest plant)' assessment was selected as it represents the highest noise impact associated with the proposed works. In this case, Concrete Saw was selected as the proposal's nosiest activity.

The construction noise estimator was used to identify an appropriate background noise level (RBL) and Noise Management Level (NML) for the proposed works. The 'R3' background noise environment was selected based on the location of the works in an inner suburban environment, and Bondi's 25,636 AADT in 2019, which gives a 40 dB(A) RBL and 45 dB(A) NML for night works.

#### **Noise impacts**

The noise estimator tool produces predicted noise levels above the background at different distances for various receivers. To assist with the assessment, common residential receivers were grouped into noise catchment areas (NCA). NCAs are the areas that are affected by the same works and located at similar distances from the noise generating activity and have the same sightlines. Mitigation distances are the distances up to which noise levels are expected to exceed the noise management level (NML), depending on whether there is line of sight to the noise source.

Table 3-2 summarises the outcome of the assessment, with the mitigation distances which contained residential receivers assigned an NCA. The predicted noise levels and additional mitigation measures to be considered are also presented in the table.

Table 3-2 Noise mitigation measures for identified residential NCAs

Noise level above background (RBL)		_	Mitigation distance –	Mitigation distance behind substant solid barrier
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#### Description of existing environmental and potential impacts

	measures for consideration		line of sight	
Highly intrusive >30 dB(A)	AA, N, PC, SN, R2, DR	70 dB(A)	60 metres NCA1	25 metres
<b>Moderately intrusive</b> 20-30 dB(A)	N, PC, SN, R2, DR	60 dB(A)	155 metres NCA2	60 metres NCA3
Clearly audible 10-20 dB(A)	N, R2, DR	50 dB(A)	360 metres NCA4	155 metres NCA5
Noticeable 5-10 dB(A)	N	45 dB(A)	545 metres NCA6	240 metres NCA7

AA: alternative accommodation, DR: duration respite, N: notification, PC: phone calls, R2: respite period 2, SN: specific notifications

The noise assessment determined that construction noise may be noticeable to residential receivers up to 545 metres from the works where there is line of sight, and up to 240 metres where other buildings form a substantial solid barrier. A map of the NCAs is given in Figure 3-3.



Figure 3-3 Noise area categories (NCAs) for the Proposal. NCAs with dashed outlines have no line of sight

#### Description of existing environmental and potential impacts

Table 3-3 summarises impacts on relevant non-residential receivers. No impact is expected for the two schools as they would not be operating during night works.

Table 3-3 Noise mitigation measures for non-residential receivers

Non-residential receiver	Additional mitigation measures for consideration	Noise level above NML
St Patrick's Catholic Church	AA, N, PC, SN, R2, DR	>25 dB(A)
St Matthew's Anglican Church	-	Below NML
Offices, retail outlets (within 60 metres)	N	<5 dB(A)

AA: alternative accommodation, DR: duration respite, N: notification, PC: phone calls, R2: respite period 2, SN: specific notifications

Based on the above results, the following additional mitigation measures are considered to be feasible and reasonable to implement in addition to the standard measures for the proposed works during construction.

- Letterbox drop notification (N) for receivers within an NCA as shown in
  Figure 33, and to commercial/retail outlets within 60 metres and St Patrick's
  Catholic Church. Notifications shall detail work activities, dates and hours,
  impacts and mitigation measures, indication of work schedule over the
  nighttime period and contact telephone number. Notification will be sent a
  minimum of five working days prior to the start of works.
- Works would be conducted under duration respite (**DR**). It is considered beneficial to increase the number of work shifts per week (up to five nights per week) to reduce the overall works duration.

Respite period 2 (**R2**) is an alternative measure to duration respite, so would not be implemented.

High noise generating work (such as saw cutting and jackhammering) would be completed prior to 12:00am (midnight) each night and would be restricted to up to two nights a week.

Alternative accommodation (**AA**) consideration would be reviewed prior to construction and following receipt any complaints about night period noise (including sleep disturbance) and in accordance with Transport for NSW procedures.

Phone calls (**PC**) and specific notifications (**SN**) are not considered appropriate given the duration of the works and the high density of receivers, which includes low, medium and high density residential.

Noise impacts from the proposal will be minimised with the implementation of the above additional measures in addition to standard safeguards.

#### **Vibration impacts**

The Construction and Maintenance Noise Estimator gives minimum working distances for the use of vibration intensive plant/equipment. The minimum working distances for plant/equipment proposed for the works is given in Table 3-4.

Table 3-4 Minimum working distances for vibration intensive plant and machinery (proposed vibratory plant/equipment to be used for the works in bold)

		Minimum working distance				
Division		Cosmetic	Human response			
Plant item	Rating/Description	Light-framed structure (BS 7385)	Heritage & other sensitive structures (DIN 4150)	EPA's Vibration Guideline		
Vibratory Roller	< 50 kN (Typically 1-2 tonnes)	5 m	14 m	15 m to 20 m		
	< 100 kN (Typically 2-4 tonnes)	6 m	16 m	20 m		
	< 200 kN (Typically 4-6 tonnes)	12 m	33 m	40 m		
	< 300 kN (Typically 7- 13 tonnes)	15 m	41 m	100 m		
	> 300 kN (Typically 13- 18 tonnes)	20 m	54 m	100 m		
	> 300 kN (> 18 tonnes)	25 m	68 m	100 m		
Small Hydraulic Hammer	(300 kg - 5 to 12t excavator)	2 m	5 m	7 m		
Medium Hydraulic Hammer	(900 kg – 12 to 18t excavator)	7 m	19 m	23 m		
Large Hydraulic Hammer	(1600 kg – 18 to 34t excavator)	22 m	60 m	73 m		
Vibratory Pile Driver	Sheet piles	20 m	50 m	100 m		
Pile Boring	≤ 800 mm	2 m (nominal)	5 m	7 m		
Jackhammer	Handheld	1 m (nominal)	2 m	3 m		
Asphalt profiler	Wirtgen W210	4 metres	-	-		
Steel drum roller	Hamm HD70 (Oscilating mode)	2 metres	-	-		
Asphalt paver	Vogele Super 1800-3	1 metre	-	-		

Description of existing environmental and potential impacts		
All vibration intensive plant/equipment proposed for the works would be used within the road pavement. Given the width of the existing footpath and gutter is approximately four metres, impacts from vibratory plant/equipment is not expected. Safeguards are in place to ensure minimum working distances are maintained.		
Would operation of the proposal alter the noise environment for sensitive receivers?	□ Yes	☑ No
Would the proposal result in vibration being experienced by any surrounding properties or infrastructure during operation?	□ Yes	☑ No

## Safeguards

Safeguards to be implemented are:

- N1. Any work that is performed outside normal work hours or on Sundays or public holidays must have measures in place to minimise noise impacts.
- N2. Noise impacts will be minimised in accordance with Transport Construction and Maintenance Noise Estimator (EMF-NV-TT-0067) and Transport Construction noise and vibration guidelines (for roads and maritime) 2022 (EMF-NV-GD-0056). During work hours, a community liaison phone number and site contact would be provided to enable complaints to be received and responded to
- N3. Residences within identified noise catchment areas (NCAs), retail outlets within 60 metres and St Patrick's Catholic Church will be notified by letterbox drop (N = notification). Notification should detail work activities, dates and hours, impacts and mitigation measures, indication of work schedule over the nighttime period and contact telephone number. Notification will be sent a minimum of five working days prior to the start of works.
- N4. The environmental induction program would include specific noise and vibration issues awareness training including, but not limited to, the following:
  - Avoiding use of radios during work outside normal hours
  - Avoiding shouting and slamming doors
  - Where practical, operating machines at low speed or power and switching off when not being used rather than left idling for prolonged periods
  - Minimising reversing
  - Avoiding dropping materials from height and avoiding metal to metal contact on material.
- N5. High noise generating work (such as saw cutting and jackhammering) is to be completed prior to 12:00am (midnight) each night and will be restricted to up to two nights a week.
- N6. Noise curtains are to be used for any noisy works (jackhammering and saw cutting) outside normal work hours.
- N7. Measures will be implemented to minimise or prevent vibration impacts, including:
  - Vibration intensive plant and equipment must comply with minimum working distances requirements outlined in Transport Construction and Maintenance Noise Estimator (EMF-NV-TT-0067)
  - Where minimum working distances are unable to comply with, plant and machinery must be used in static mode or vibration monitoring must be undertaken.

#### 3.4 Air Quality

#### Description of existing environmental and potential impacts ☑ No Is the proposal likely to result in large areas (>2ha) of exposed soils? ☐ Yes Are there any dust sensitive receivers located within the vicinity of the ✓ Yes □ No proposal during the construction period? The air quality within and surrounding the Proposal is characteristic of an urban residential setting. Sensitive receivers with regards to air quality include, but are not limited to, residences, commercial businesses, schools, places of worship, medical centres and recreational areas. The following sensitive receivers have been identified within the Proposal location: Residences on roads fronting the Proposal Commercial businesses on roads fronting the Proposal Schools (Bondi Public School) and childcare centres (Ocean Street Long Day Preschool, Montessori East Primary and Preschool) on Bondi Road and connecting side roads Place of worship (St Patrick's Catholic Church) on Bondi Road Community facilities on Bondi Road Existing air quality within and surrounding the Proposal is largely influenced by motor vehicle traffic along Bondi Road. Motor vehicle emissions include carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>) and particulate matter with a diameter of 10 µm or less (PM<sub>10</sub>). Other possible contributors to local air quality are particulate emissions (dust) from construction activities occurring in the vicinity of the Proposal. Background monitoring data collected at the Randwick air quality monitoring station includes ozone (O3), oxides of nitrogen (NOx, NO, NO2), sulphur dioxide (SO2), visibility using nephelometry, fine particles with diameters of 2.5 µm and 10 µm (PM2.5, PM10), wind speed and direction, ambient temperature and relative humidity. The air quality concentration data for a 24 hour period at Randwick air quality monitoring station was obtained for 10 September 2021 as outlined in Table 3-3. Table 3-3: Air quality concentration data at Randwick air quality monitoring station (NSW Government, 2021)

Randwick Air Quality Monitoring Station							
Pollutant	O <sub>3</sub>	O <sub>3</sub>	NO <sub>2</sub>	NEPH	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Averaging period	Max 1- hour average	Max rolling 4-hour average	Max 1- hour average	Max 1- hour average	Max 1- hour average	24-hour average	24-hour average
Air quality concentration	3.4 pphm	3.4 pphm	1.3 pphm	0.45 10 <sup>-4</sup> m <sup>-1</sup>	0.1 pphm	25.0 μg/m <sup>3</sup>	6.2 µg/m³
Rating	Good	Good	Good	Good	Good	Good	Good

Description of existing environmental and potential impacts		
Searches of the National Pollutant Inventory identified the nearest industrial facility triggering the minimum threshold values of annual pollutant releases is within 2.4 kilometres of the Proposal:  • Bondi Sewage Treatment Plant at Military Road, Bondi opposite Blair Street – Primary ANZSIC Class: Water Supply, Sewerage and Drainage Services.		
Is there likely to be an emission to air during construction?  Potential air quality impacts associated with the generation of dust, and exhaust from construction plant and equipment. Due to the minor scale and nature of works, impacts to local air quality would be minor.	☑ Yes	□ No
Potential air quality impacts due to the generation of dust and exhaust emissions would be short-term and temporary for the duration of construction. Potential impacts would be minimised by the implementation of safeguards and management measures outlined in the Safeguards below.		
No change to air quality is expected at operation. The Proposal would not in vehicles using the road during operation.	crease the nu	ımber of

Safeguards to be implemented are:

- A1. Measures (including watering or covering exposed areas) are to be used to minimise or prevent air pollution and dust.
- A2. Works are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.
- A3. Vehicles and vessels transporting waste or other materials that may produce odours or dust are to be covered during transportation.

## 3.5 Aboriginal heritage

Description of existing environmental and potential impacts		
Would the proposal involve disturbance in any area that has not been subject to previous ground disturbances?	□ Yes	☑ No
The Proposal area has been subject to previous disturbance through activities such as urban development of the road corridor and through ongoing maintenance.		
Have online Aboriginal Heritage Information Management System (AHIMS) searches been completed?	☑ Yes	□ No

Description of existing environmental and potential impacts		
A basic AHIMS Search was carried out on 24 July 2024 and is included in Appendix D. It found no known Aboriginal sites or places near to or within the proposal area.		
Is there potential for the proposal to impact on any items of Aboriginal heritage?	□ Yes	☑ No
The land subject to the Proposal has been previously disturbed as a result of previous construction of roadways, footpaths and buildings. These previous developments have resulted in removal or disturbance to the upper layers of the natural soil profile which is where Aboriginal cultural heritage items are likely to be found. The land subject to the Proposal has also been subject to past disturbance with the introduction of fill materials, levelling, installation of utilities and services (both subsurface and above ground) and roadside landscaping.		
No known Aboriginal sites or places are located near to or within the proposal area and due to the minor nature of works (minimal excavation for signposting and mill and resheet) and their location within the disturbed zone, it is very unlikely that the proposal would impact on Aboriginal Heritage. Safeguards are in place should any Aboriginal heritage items be encountered during construction for the Proposal,.		
Would the proposal involve the removal of mature native trees?	□ Yes	☑ No
Would the proposals impact on any features that may indicate any potential archaeological remains?	□ Yes	☑ No
Is the proposal consistent with the requirements of <i>Procedure for Aboriginal cultural heritage consultation and investigation</i> (PACHCI)??  Due to the minor nature of works and given they would be located within existing built areas and highly impacted surfaces it is considered unlikely there would be any impact on items of Aboriginal Heritage. Consultation with the Aboriginal community and a Procedure for Aboriginal Heritage Consultation and Investigation (PACHCI) assessment are not considered to be required due to the work being minor within the disturbed area and requiring surface works only.	☑ Yes	□ No

Safeguards to be implemented are:

B1. If Aboriginal heritage items are uncovered during the works, all works in the vicinity of the find must cease and the Transport Aboriginal cultural heritage officer and Senior Manager Environment and Sustainability contacted immediately. Refer to steps in the Transport *Unexpected heritage items procedure* (EMF-HE-PR-0076) which must be followed.

#### 3.6 Non-Aboriginal heritage

#### Description of existing environmental and potential impacts ☑ Yes Have online heritage database searches been completed? □ No Transport (including legacy Roads and Maritime) section 170 register NSW Heritage database Commonwealth EPBC heritage list Australian Heritage Places Inventory Local Environmental Plan(s) heritage items Database searches of the Proposal were carried out on 24 July 2024. The search results can be seen in Appendix E. Are there any items of non-Aboriginal heritage or heritage conservation areas ☑ Yes ☐ No listed on relevant heritage databases/registers that are located within the vicinity of the proposal?

There are several local heritage items located near the Proposal as identified in Table 3-4 and Figure 3-4. There are no state or commonwealth heritage items or conservation areas within the Proposal area.

Table 3-4 Non-Aboriginal heritage items located near the Proposal

Item No.	Item name	Address/Legal Description	- 5	Distance to the proposal
l17	Twentieth century, all brick church	220 Bondi Road, Bondi [Lot 1 DP 549166]	Local	4m
l14	Inter-War Free Classical style mixed development	151 Bondi Road, Bondi [Lot 3 DP 2003]	Local	6m
l18	1930's style residential/commercial building	234 Bondi Road, Bondi [Lot 2 DP 230368]	Local	4m
170	Late nineteenth century public school building, Bondi Central Public School	3-11 Wellington Street, Bondi [Lot 1 DP 812880]	Local	10m
5065895	Bondi Public School – Building B00B	3-11 Wellington Street, Bondi [Lot 1 DP 812880]	State (Department of Education S170)	10m
5065894	Bondi Public School – Buildings B00A, B00C- B00E and Grounds	3-11 Wellington Street, Bondi [Lot 1 DP 812880]	State (Department of Education S170)	10m

#### Description of existing environmental and potential impacts

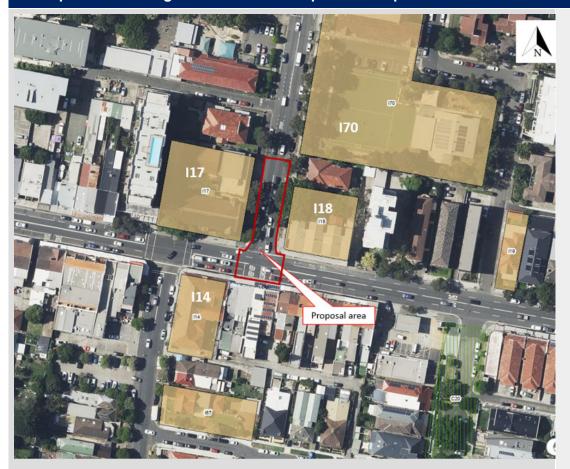


Figure 3-4 Location of non-Aboriginal heritage items

The proposed works do not encroach the heritage curtilage of any non-Aboriginal heritage item. The closest heritage items are located about 4 metres from the proposed works, being the 'Twentieth century, all brick church' and the 'Inter-War Free Classical style mixed development'. Due to the minor nature of works and with the implementation of the safeguards detailed in this MWREF, direct impacts to non-Aboriginal heritage during construction of the proposal are considered unlikely.

There is a potential risk of indirect cosmetic damage to nearby heritage items from the use of vibration intensive plant during construction. This risk will be minimised and impacts would be avoided with the implementation of safeguards detailed in section 3.3 of this MWREF. Any vibration intensive plant used during construction must comply with the minimum working distances requirements outlined in the *Transport Construction and Maintenance Noise Estimator*. Where minimum working distances are unable to comply with, plant and machinery must be used in static mode or vibration monitoring must be undertaken.

The operation of the proposal is not expected to contribute to impacts to non-Aboriginal heritage.

Are there any items of potential non-Aboriginal heritage significance which are not listed on relevant heritage databases/registers that are in the vicinity of the	□ Yes	☑ No
proposal?		

Description of existing environmental and potential impacts		
There are some sections of sandstone kerb and gutter along Wellington Street.  There is potential of indirect impact to these sections during mill and resheet.  Safeguards are in place to avoid impacts to sandstone kerb and gutter.		
Is the proposal likely to occur in or near features that indicate potential archaeological remains?	□ Yes	☑ No
Given the nature and location of the proposed excavations, the risk of encountering any archaeological remains is likely to be low. There is the potential of encountering relics from the former tram line in the carriageway of Bondi Road, however the road corridor itself has been subject to various disturbances since the tram lines were removed. Should any unexpected archaeological remains be identified during construction the <i>Standard Management Procedure - Unexpected Heritage Items</i> (RMS, 2015a) would be followed.		

Safeguards to be implemented are:

- H1. If an existing heritage item or item identified on the Transport for NSW s.170 register is on site or in the near vicinity of the works, the item will be protected to prevent any damage or disturbance.
- H2. If unexpected heritage items are uncovered during the works, all works must cease in the vicinity of the material/find and the steps in the Transport *Unexpected heritage items procedure (EMF-HE-PR-0076)* must be followed.
- H3. No construction materials are to be stockpiled or stored against heritage items or trees.
- H4. Site toolbox will cover the location of nearby non-Aboriginal heritage items and the safeguards outlined in this MWREF.
- H5. Impacts to sandstone kerb and gutter must be avoided by implementing an adequate methodology for mill and resheet.

## 3.7 Biodiversity

Description of exis	sting environme	ntal and	potential	impacts			
Have relevant datab	pase searches be	en carrie	ed out?			☑ Yes	□ No
Desktop searches have been undertaken using the following information sources:							
<ul> <li>A search of the BioNet threatened species records within the locality (10km radius) was carried out on 25 July 2024</li> </ul>							
	Commonwealth a one kilometre						
NSW Seed Ma Sydney (26 Jul	pping: Threatene y 2024)	ed Ecolo	gical Comm	nunities G	reater		
The results of these	searches are in	cluded in	Appendix	F.			
Did the database se communities, threat migratory species in Commonwealth and	ened flora and/o or within the vic	r threater	ned or prote ne propose	ected faur d works?		☑ Yes	□ No
The Proposal is situated within a well-established urban environment which has been substantially modified by previous and current development. There are limited areas of habitat value situated within or adjoining the Proposal. No waterways are present within 200 metres of the Proposal location.							
Threatened species identified in the Bionet search results are identified in the table below. Majority of the vegetation within and next to the Proposal has been planted for landscaping amenity purposes rather than being naturally occurring within the area. There is potential for mature trees in the surrounding area to provide habitat for threatened bird and bat species, particularly in Waverley Park. The proposed works are of short-term duration and minor in nature, limited to the road corridor and no vegetation clearing is proposed. Therefore, no impacts on biodiversity are anticipated.							
Scientific name	Common name	BC Act Status	EPBC Act Status	Distance to works	Potential impacts		
Pteropus poliocephalus	Grey-headed Flying-fox	V	V	<50m	Nil		
*V= vulnerable, E = endang EEC = endangered ecologi Migratory							

## Description of existing environmental and potential impacts DICKSON PARK Sighting Key: SPJGI6095882 SPJGI6458751 SPJGI5894401 SPJGI5894411 SPJGI5894491 SPJGI5894815 SPJGI5894816 SPJGI6397186 Flying-fox Bondi Rd Proposal construction/operation footprint (including compound areas) Native Vegetation Map Units Plantation (native and/or exotic) Coastal Headland Banksia Heath Urban Exotic/Native Weeds and Exotics Threatened Species (ATLAS) Fauna Figure 3-5 Threatened species sightings east of the Bondi Road and Wellington Street intersection works Is the proposal likely to impact nationally listed threatened species, ☑ No ☐ Yes ecological communities or migratory species? The proposal is not likely to impact threatened species, ecological communities or migratory species as it does not require the removal of any vegetation or other habitats which threatened species may use. The proposal is located within a highly urbanised area and the works are minor. ☑ No Would the proposal require the removal of any other vegetation? ☐ Yes

Description of existing environmental and potential impacts		
Would the proposal affect any tree hollows or hollow logs?	□ Yes	☑ No
Are there any known areas of outstanding biodiversity value or areas mapped as 'littoral rainforest' or 'coastal wetland' under chapter 2 of State Environmental Planning Policy (Resilience and Hazards) 2021 (SEPP (Resilience and Hazards)) in or within the vicinity of the proposed work?	□ Yes	☑ No
Would the proposal provide any additional barriers to the movement of wildlife?	□ Yes	☑ No
Would the proposal disturb any natural waterways or aquatic habitat?	□ Yes	☑ No
Would the proposal disturb any crevices or other locations (such as on bridges and culverts) for potential bat habitat?	□ Yes	☑ No

Safeguards to be implemented are:

F1. If threatened fauna or flora species are discovered unexpectedly, stop works immediately and follow the Transport Unexpected Threatened Species Find Procedure contained in the Transport Biodiversity Guidelines – Guide 1 (Pre-clearing process (EMF-BD-GD-0032).

#### 3.8 Trees

Description of existing environmental and potential impacts				
Does the proposal involve pruning, trimming or removal of any tree/s?	□ Yes	☑ No		
Do the trees form part of a streetscape, an avenue or roadside planting?	□ Yes	☑ N/A		
Have the trees been planted by a community group, Landcare group or by council or is the tree a memorial or part of a memorial group e.g. has a plaque?	☐ Yes	☑ N/A		
Do the trees form part of a heritage listing or have other heritage value?	□ Yes	☑ N/A		

### 3.9 Traffic and transport

Description of existing environmental and potential impacts		
Is the proposal likely to result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during construction?	☑ Yes	□ No
The proposed works would be undertaken predominantly outside standard hours under the control of an ROL to reduce impact on road users during the peak traffic hours. There would be short-term disruption to traffic flow through partial lane closures, traffic controllers and reduced construction speed limits.		

Pedestrian access will be maintained and usage of way-finding signage will be implemented to guide pedestrians through the changed environment.

Is the proposal likely to result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation?

 $\overline{\mathbf{Q}}$ ☐ No

Yes

The proposed works at the Bondi Road / Wellington Street intersection would result in the removal of two right-turn movements from Bondi Road (westbound) into Wellington Street and Wellington Street (southbound) onto Bondi Road (as identified in Figure 3-6 and Figure 3-7). This would remove key conflicts between vehicles and also pedestrians.

An Alternate Route Assessment (2021) has been completed to assess the potential impacts of removing the right turn movements and the full assessment is included in Appendix G.

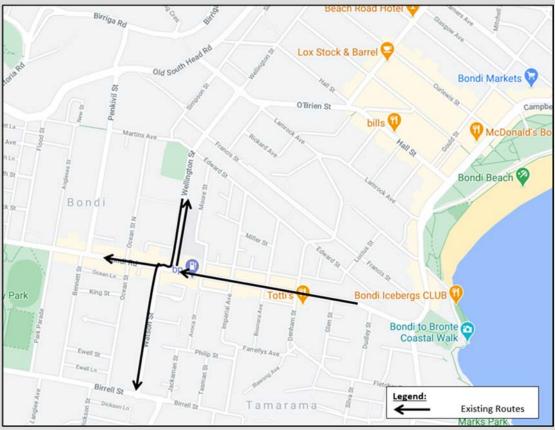


Figure 3-6 Existing routes proposed to be removed

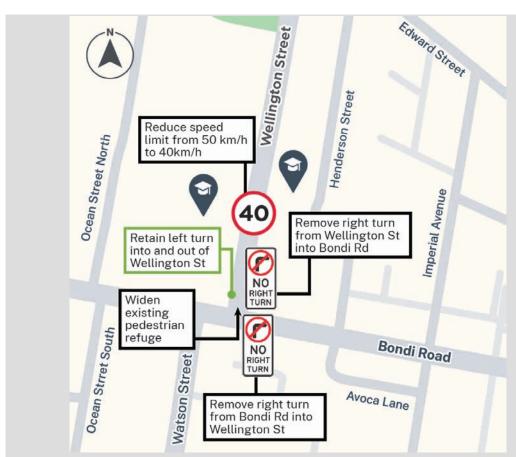


Figure 3-7 Proposed removal of right turn movements

The volume of traffic impacted by the proposed right turn restriction into Wellington Street from Bondi Road is presented in Table 3-5. The table also shows the pedestrian volumes crossing Wellington Street in the network peak hours.

The volumes presented are for the Thursday AM and PM road network peaks as identified by the traffic survey counts undertaken on Thursday 8 August 2019. The traffic counts show that the right turn movement is not used by Transport for NSW scheduled bus services or school bus services, meaning no regular bus services would be directly impacted.

Table 3-5 Peak hour volumes

Approach	Movement	AM peak (7:45 – 8:45AM)	PM peak (5:15 – 6:15PM)
Wellington Street	Right-turn out	176	141
Bondi Road (Westbound)	Right-turn in	31	36
Wellington Street	Pedestrian Crossing	136	139

The Alternate Route Assessment identified that the volume of traffic impacted by the restriction of the right turn into Wellington Street is low, ranging between 31 and 36 vehicles in an hour in the AM and PM peak periods respectively.

Traffic volumes for the right turn movement are also generally the same across the weekday periods.

Similarly, the Alternate Route Assessment identified that the volume of traffic impacted by the restriction of the right turn out of Wellington Street would be

moderate, ranging between 176 and 141 vehicles per hour in the AM and PM peak periods respectively.

There are a number of available alternative routes are shown in Figure 3-8.



Figure 3-8 Likely alternative routes

The Alternate Route Assessment (Appendix G) provides an assessment of the impacts to key intersections which the proposed re-routed traffic would traverse. The assessment found that the volume of traffic affected by the restriction of the right-turn out of Wellington Street is moderate (up to approximately 180 vehicles /hour), with the volume of traffic affected by the restriction of the right-turn into Wellington Street being low (less than 40 vehicles / hour) during the weekday and Saturday peak periods.

Therefore, the key impacts are likely to be associated with the right-turn out (of Wellington Street) diversion traffic, with moderate impacts at the following intersections:

- Bondi Road/Ocean Street
- O'Brien/ Old South Head Road
- Wellington Street/Edward Street

Based on feedback from the Alternate Route Assessment the recommended alternate route includes O'Brien Street and Old South Head Road rather than Martins Avenue.

The proposed right turn restrictions are aimed at improving safety at the Bondi Road / Wellington Street intersection through the removal of both right-turn movements and reducing the number of vehicle conflicts at the intersection.

The restriction of the right-turn into Bondi Road may also improve general traffic operation westbound along Bondi Road which is occasionally blocked when bus stop opposite Wellington Street is in use with a vehicle turning right from the median lane onto Wellington Street. By consequence, it may improve bus operations as right-turn vehicles would no longer block the median side lane while waiting to find gaps in eastbound traffic.		
Is the proposal likely to affect any other transport nodes or transport infrastructure (e.g. bus stops, bus routes) in the surrounding area? Or result in detours or disruptions to traffic flow (vehicular, cycle and pedestrian) or access during operation?	□ Yes	☑ No
The Proposal works are expected to improve the safety of pedestrians crossing at the intersection of Bondi Road and Wellington Street.		
As indicated in the Alternate Route Assessment in Appendix G the right turn movements proposed to be removed are not used by regular bus services, therefore would not result in changes to transport nodes or infrastructure. It is also noted that the restriction of the right-turn movement into / out of Wellington Street could potentially improve operation on Bondi Road for general traffic and buses.		

Safeguards to be implemented are:

TT1. Where possible, current traffic movements are to be maintained during the works. Any disturbance is to be minimised to prevent unnecessary traffic delays. Any unexpected disturbances would be discussed with the affected residence(s).

TT2. A traffic guidance scheme will be prepared in accordance with Transport *Traffic control at work sites manual* (version 6.1, 2022) and Australian Standard 1742.3 *Manual of uniform control devices.* 

#### 3.10 Socio-economic

Description of existing environmental and potential impacts		
Is the proposal likely to impact on local business?	☑ Yes	□ No
Temporary impacts may be experienced by local businesses near to construction activities. Impacts would include an increase in heavy vehicle movements, temporary changes to road access arrangements for motorists and pedestrians (refer to Section 3.9) as well as minor noise (refer to Section 3.3) and dust impacts (refer to Section 3.4).  Potential impacts on local businesses during construction are expected to be minor and of short duration and would be mitigated through the implementation of safeguards and management measures outlined in		
Sections 3.3, 3.4 and 3.10.		
Is the proposal likely to require any property acquisition?	□ Yes	☑ No
Is the proposal likely to alter any access for properties (either temporarily or permanently)?	☐ Yes	☑ No

Description of existing environmental and potential impacts		
Property access for residents and social infrastructure such as schools would be maintained throughout construction. Should there be any temporary disruption to property accesses, the property owner(s) would be notified in advance of the work commencing.		
Is the proposal likely to alter any on-street parking arrangements (either temporarily or permanently)?  There would be no permanent parking changes because of the Proposal. However, about six parking spaces would be temporarily impacted during mill and resheet works ( about 2 night shifts ).	□ Yes	☑ No
Is the proposal likely to change pedestrian movements or pedestrian access (either temporarily or permanently)?  Construction works may require short-term temporary changes to access and movements for pedestrians and cyclists near to the construction works.	☑ Yes	□ No
Is the proposal likely to impact on any items or places of social value to the community (either temporarily or permanently)?  During construction, temporary impacts on local amenity may result for residents, local businesses and users of community facilities close to construction activities due to a potential minor increase in construction noise and dust (refer to Sections 3.3, 3.4 and 3.10). Impacts on night-time amenity may also be experienced for some residents.  Potential construction noise impacts to local schools, places of worship and community facilities would be limited given that most of the works would be occurring outside of standard construction hours where schools are not in use. Potential impacts on local amenity during construction would be mitigated through the implementation of safeguards and management measures outlined in this MWREF.	☑ Yes	□ No
Is the proposal likely to reduce or change visibility of any businesses, farms, tourist attractions or the like (either temporarily or permanently)?	□ Yes	☑ No

Safeguards to be implemented are:

C1. Notification will be given to affected community members prior to the works taking place. The notification is to include:

- · details of the proposal
- duration of works and working hours
- changed traffic or access arrangements
- how to lodge a complaint or obtain more information
- · contact name and details

Notification should be a minimum of 5 working days prior to the start of works.

- C2. Complaints received are to be recorded and attended to promptly in accordance with the TfNSW Community Involvement Practice Notes and Resource Manual.
- C3. Existing access for nearby and adjoining properties is to be maintained at all times during the works unless otherwise agreed to by the affected property owner.

#### 3.11 Landscape character and visual amenity

Description of existing environmental and potential impacts		
Is the proposed work over or near an important physical or cultural element or landscape? (e.g. heritage items and areas, distinctive or historic built form, National Parks, conservation areas, scenic highways etc)?	□ Yes	☑ No
Would the proposal obstruct or intrude upon the character or views of a valued landscape or urban area. For example, locally significant topography, a rural landscape or a park, a river, lake or the ocean or a historic or distinctive townscape or landmark?	□ Yes	☑ No
Would the proposal require the removal of mature trees or stands of vegetation, either native or introduced?	□ Yes	☑ No
Would the proposal result in large areas of shotcrete visible from the road or adjacent properties?	□ Yes	☑ No
Would the proposal involve new noise walls or visible changes to existing noise walls?	☐ Yes	☑ No
Would the proposal involve the removal or reuse of large areas of road corridor, landscape, either verges or medians?	□ Yes	☑ No
Would the proposal involve substantial changes to the appearance of a bridge (including piers, girders, abutments and parapets) that are visible from the road or residential areas?	□ Yes	☑ No
If involving lighting, would the proposal create unwanted light spillage on residential properties at night (in construction or operation)?  During construction, there would be potential for light spill at the works location. Safeguards proposed in this MWREF would manage this potential impact.	☑ Yes	□ No
Would any new structures or features to be constructed result in over- shadowing to adjoining properties or areas?	□ Yes	☑ No

## Safeguards

Safeguards to be implemented are:

V1. Ensure all lights are directed away from residential properties during night work.

#### **3.12 Waste**

Description of existing environmental and potential impacts		
Is the proposal likely to generate >200 tonnes of waste material (contaminated and /or non-contaminated material)?	□ Yes	☑ No
Waste streams likely to be generated during the construction stage include:		
Construction and demolition waste		
Paper and packaging wastes from materials brought to site		
General waste from on site		
The materials required during the proposed construction works are not currently restricted resources although, materials such as metals and fuels are considered non-renewable and should be used conservatively.		
Is the proposal likely to require a licence from EPA?	□ Yes	☑ No
Is the proposal likely to require the removal of asbestos?	□ Yes	☑ No

Safeguards to be implemented are:

- M1. Resource management hierarchy principles are to be followed:
  - · Avoid unnecessary resource consumption as a priority
  - Avoidance is followed by resource recovery (including reuse of materials, reprocessing, recycling and energy recovery)
  - · Disposal is undertaken as a last resort

(in accordance with the Waste Avoidance & Resource Recovery Act 2001).

- M2. Waste is not to be burnt on site.
- M3. Waste material is not to be left on site once the works have been completed.
- M4. Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each shift.

### 3.13 Climate change and greenhouse emissions

Description of existing environmental and potential impacts		
Is the proposal located in an area likely to be permanently or tidally inundated in the future or subject to increased duration and intensity of flooding?	□ Yes	☑ No
According of the Waverley LEP flood data, land subject to the Proposal is located within a flooding area, with the main flooding area situated east of Waverley Park and the Bondi Road and Wellington Street intersection.		
The proposal would not reduce floodplain storage or impede floodwater movement and is therefore not expected to have any impacts on the flood regime.		

Description of existing environmental and potential impacts		
Have opportunities for reduced energy consumption during construction and operation been considered.  If yes, summarise actions taken e.g., material selection, local suppliers and construction staff, etc.  The proposal comprises minor mill and resheet, line-marking, upgrade of a median and signposting and as such does not require substantial energy	□ Yes	☑ No
use. No specific measures to reduce energy consumption during construction are proposed.		
<ul> <li>Greenhouse gas emissions sources during construction are likely to be large</li> <li>Transporting materials to site.</li> <li>Operation of plant and equipment.</li> </ul> During operation sources would include:	est from:	

No additional safeguards have been proposed in relation to climate change and greenhouse gas emissions.

## 3.14 Cumulative impact

Use of the proposal by vehicles

Description of existing environmental and potential impacts		
Are there other projects and developments in the study area which could add to potential impacts in both construction and operation?	□ Yes	☑ No

## 4. Consideration of State and Commonwealth environmental factors

## 4.1 Environmental Planning and Assessment Regulation 2021 checklist

The following factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have been considered to assess the likely impacts of the proposal on the natural and built environment. This consideration is required to comply with sections 5.5 and 5.7 of the EP&A Act.

Environmental factor	Impact
(a) Any environmental impact on a community?  The proposed works may cause minor short-term environmental impacts on the community, such as delays to traffic and noise impacts on residents; however, the potential impacts would be minimised with the implementation of the safeguards as detailed in this MWREF. The proposal would have a positive environmental impact on a community in the long-term due to the improvements to pedestrian and road user safety.	Minor short-term negative  Long-term positive
(b) Any transformation of a locality?  The proposal would not transform the locality. The proposed intersection upgrade works would be contained within the existing road corridor.	Nil
(c) Any environmental impact on the ecosystems of a locality? The proposal is not likely to affect the ecosystems of a locality. Refer to section 3.7.	Nil
<ul> <li>(d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?</li> <li>The proposal would result in a minor reduction in aesthetic value and environmental quality of the locality for road users and nearby residents during construction</li> </ul>	Minor short term negative
<ul> <li>(e) 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?</li> <li>The proposed intersection works is unlikely have an effect on a locality, place or building of significance or other special value for present or future generations, any potential impacts on unknown items would be minimised with the implementation of the safeguards given in Chapter 5 of this MWREF.</li> </ul>	Negligible impact
(f) Any impact on habitat of any protected animals (within the meaning of the Biodiversity Conservation Act 2016)? The proposal would not have any impact on the habitat of any protected animals due to the limited scope of works for the proposed activities and the implementation of the safeguards given in Chapter 5 of this MWREF.	Nil

Environmental factor	Impact
(g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air? The proposal would not endanger any species of animal, plant or other form of life, whether living on land, in water or in the air due to the limited scope of works for the proposed activities and the implementation of the safeguards given in Chapter 5 of this MWREF.	Nil
(h) Any long-term effects on the environment?  The proposal would have positive long-term effects on the environment due to improved safety for pedestrians and road users. There are no anticipated negative long-term effects on the environment from the maintenance works due to the limited scope of these works and the implementation of the safeguards given in Chapter 5 of this MWREF.	Positive long-term
(i) Any degradation of the quality of the environment?  The proposal would potentially degrade the quality of the environment in the short-term, however the potential impacts would be minimised with the implementation of the safeguards given in Chapter 5 of this MWREF.	Minor negative short-term  Negligible long-term
(j) Any risk to the safety of the environment?  The proposal would improve the overall safety for road users at the intersection of the Bondi Road and Wellington Street.	Positive long-term
<ul> <li>(k) Any reduction in the range of beneficial uses of the environment?</li> <li>The proposal would cause a minor reduction in the use of the road from lane closures, which would potentially increase travelling time for road users in the short-term. There would be no long-term reduction in the range of beneficial uses of the environment as a result of the works.</li> </ul>	Minor negative short-term
(I) Any pollution of the environment?  Minor, short-term risks to water quality would be present in the event of a spill or release of material from the work site during construction.  Safeguards have been proposed to address the risk of water pollution.  Any dust impacts would be highly localised and can be managed with the proposed safeguards detailed in Chapter 5 of this MWREF.	Negligible impact
(m) Any environmental problems associated with the disposal of waste?  The waste generated during the proposal would be contained and removed for disposal to approved recycling facilities or to licensed landfill in accordance with the safeguards in Chapter 5 of this MWREF. No environmental problems are anticipated for the disposal of waste.	Nil
<ul> <li>(n) Any increased demands on resources, natural or otherwise which are, or are likely to become, in short supply?</li> <li>The proposal would not increase demand for resources which are likely to become in short supply.</li> </ul>	Nil
(o) Any cumulative environmental effect with other existing or likely future activities?	Nil

Environmental factor	Impact
Noting the relatively limited scale of the proposal and the short-term construction period, no cumulative environmental effects as a result of existing or likely future activities have been identified.	
<ul><li>(p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?</li><li>The proposal would not impact coastal processes or coastal hazards.</li></ul>	Nil
<ul> <li>(q) Any impact on applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1?</li> <li>The proposal would not impact on the strategic plans set out in the</li> </ul>	Nil
relevant strategic planning statements, regional and district plans.	
(r) Any impact on other relevant environmental factors?  All relevant impacts of the activity have been addressed throughout this MWREF.	Nil

#### 4.2 Matters of National Environmental Significance checklist

Under the environmental assessment provisions of the EPBC Act, the following matters of national environmental significance are required to be considered to:

- Assist in determining whether the proposal should be referred to the Australian Government Department of Agriculture, Water and the Environment
- For nationally listed threatened species, ecological communities and migratory species, whether the impacts are significant and should be assessed via a Project REF.

Factor	Impact
(a) Any impact on a World Heritage property?	Nil
(b) Any impact on a National Heritage place?	Nil
(c) Any impact on a wetland of international importance (often called 'Ramsar' wetlands)?	Nil
(d) Any impact on nationally threatened species, ecological communities or migratory species?	Nil
(e) Any impact on a Commonwealth marine area?	Nil
(f) Does the proposal involve a nuclear action (including uranium mining)?	Nil
Additionally, any impact (direct or indirect) on the environment of Commonwealth land?	Nil

# 5. Summary of safeguards and environmental management measures

This section provides a summary of the site specific environmental safeguards and management measures identified in described in chapters 3 and 4 of this REF. These safeguards will be implemented to reduce potential environmental impacts throughout construction and operation. A framework for managing the potential impacts is provided with reference to environmental management plans and relevant Transport QA specifications. Any potential licence and/or approval requirements required prior to construction are also listed

Table 5-1: Summary of site-specific safeguards for proposed work

Safeguards for the proposed work		
Soil	E1. Erosion and sediment control measures are to be implemented and maintained to:	
	<ul> <li>Prevent sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets</li> <li>Reduce water velocity and capture sediment on site</li> <li>Minimise the amount of material transported from site to surrounding pavement surfaces</li> <li>Divert clean water around the site (in accordance with the Landcom/Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book)).</li> </ul>	
	E2. Erosion and sedimentation controls are to be checked and maintained on a regular basis and records kept and provided on request.	
	E3. Erosion and sediment control measures are not to be removed until the works are complete, and areas are stabilised.	
Waterways and water quality	W1. There is to be no release of dirty water into drainage lines and/or waterways.	
	W2. Water quality control measures are to be used to prevent any materials (eg. concrete, sediment etc) entering drain inlets or waterways.	
	W3. An emergency spill kit will be kept on site at all times and maintained throughout the construction work. The spill kit must be appropriately sized for the volume of substances at the work site and personnel inducted in its use.	
	W4. If an incident (e.g., spill) occurs, the <i>Transport Environmental Incident Procedure</i> (EMF-EM-PR-0001) will be followed and the Transport Contract Manager notified as soon as practicable.	
	W5. No vehicle wash-down or re-fueling will occur on-site.	
Noise and vibration	<ul> <li>N1. Any work that is performed outside normal work hours or on Sundays or public holidays must have measures in place to minimise noise impacts.</li> <li>N2. Noise impacts will be minimised in accordance with Transport Construction and Maintenance Noise Estimator (EMF-NV-TT-0067) and Transport Construction noise and vibration guidelines</li> </ul>	

#### Safeguards for the proposed work (for roads and maritime) 2022 (EMF-NV-GD-0056). During work hours, a community liaison phone number and site contact would be provided to enable complaints to be received and responded N3. Residences within identified noise catchment areas (NCAs), retail outlets within 60 metres and St Patrick's Catholic Church will be notified by letterbox drop (N = notification). Notification should detail work activities, dates and hours, impacts and mitigation measures, indication of work schedule over the night time period and contact telephone number. Notification will be sent a minimum of five working days prior to the start of works. The environmental induction program would include specific N4. noise and vibration issues awareness training including, but not limited to, the following: Avoiding use of radios during work outside normal hours Avoiding shouting and slamming doors • Where practical, operating machines at low speed or power and switching off when not being used rather than left idling for prolonged periods Minimising reversing Avoiding dropping materials from height and avoiding metal to metal contact on material. N5. High noise generating work (such as saw cutting and jackhammering) is to be completed prior to 12:00am (midnight) each night and will be restricted to up to two nights a week. N6. Noise curtains are to be used for any noisy works (jackhammering and saw cutting) outside normal work hours. N7. Measures will be implemented to minimise or prevent vibration impacts, including: Vibration intensive plant and equipment must comply with minimum working distances requirements outlined in Transport Construction and Maintenance Noise Estimator (EMF-NV-TT-0067) Where minimum working distances are unable to comply with, plant and machinery must be used in static mode or vibration monitoring must be undertaken. Air quality A1. Measures (including watering or covering exposed areas) are to be used to minimise or prevent air pollution and dust. Works are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely. A3. Vehicles and vessels transporting waste or other materials that may produce odours or dust are to be covered during transportation.

# works in the vicinity of the find must cease and the Transport Aboriginal cultural heritage officer and Senior Manager Environment and Sustainability contacted immediately. Refer to

If Aboriginal heritage items are uncovered during the works, all

B1.

Aboriginal heritage

Safeguards for the proposed work				
	steps in the Transport <i>Unexpected heritage items procedure</i> (EMF-HE-PR-0076) which must be followed.			
Non-Aboriginal heritage	<ul> <li>H1. If an existing heritage item or item identified on the Transport for NSW s.170 register is on site or in the near vicinity of the works, the item will be protected to prevent any damage or disturbance.</li> <li>H2. If unexpected heritage items are uncovered during the works, all works must cease in the vicinity of the material/find and the steps in the Transport <i>Unexpected heritage items procedure (EMF-HE-PR-0076)</i> must be followed.</li> <li>H3. No construction materials are to be stockpiled or stored against heritage items or trees.</li> <li>H4. Site toolbox will cover the location of nearby non-Aboriginal heritage items and the safeguards outlined in this MWREF.</li> <li>H5. Impacts to sandstone kerb and gutter must be avoided by implementing an adequate methodology for mill and resheet.</li> </ul>			
Biodiversity	F1. If threatened fauna or flora species are discovered unexpectedly, stop works immediately and follow the Transport Unexpected Threatened Species Find Procedure contained in the Transport Biodiversity Guidelines – Guide 1 (Pre-clearing process (EMF-BD-GD-0032).			
Traffic and transport	TT1. Where possible, current traffic movements are to be maintained during the works. Any disturbance is to be minimised to prevent unnecessary traffic delays. Any unexpected disturbances would be discussed with the affected residence(s).  TT2. A traffic guidance scheme will be prepared in accordance with Transport <i>Traffic control at work sites manual</i> (version 6.1, 2022) and Australian Standard 1742.3 <i>Manual of uniform control devices</i> .			
Socio-economic	<ul> <li>C1. Notification will be given to affected community members prior to the works taking place. The notification is to include: <ul> <li>details of the proposal</li> <li>duration of works and working hours</li> <li>changed traffic or access arrangements</li> <li>how to lodge a complaint or obtain more information</li> <li>contact name and details</li> </ul> </li> <li>Notification should be a minimum of 5 working days prior to the start of works.</li> <li>C2. Complaints received are to be recorded and attended to promptly in accordance with the TfNSW Community Involvement Practice Notes and Resource Manual.</li> <li>C3. Existing access for nearby and adjoining properties is to be maintained at all times during the works unless otherwise agreed to by the affected property owner.</li> </ul>			

Safeguards for the proposed work			
Landscape character and visual amenity	V1. Ensure all lights are directed away from residential properties during night work.		
Waste	<ul> <li>M1. Resource management hierarchy principles are to be followed:</li> <li>Avoid unnecessary resource consumption as a priority</li> <li>Avoidance is followed by resource recovery (including reuse of materials, reprocessing, recycling and energy recovery)</li> </ul>		
	<ul> <li>Disposal is undertaken as a last resort</li> <li>(in accordance with the Waste Avoidance &amp; Resource Recovery Act 2001).</li> </ul>		
	<ul> <li>M2. Waste is not to be burnt on site.</li> <li>M3. Waste material is not to be left on site once the works have been completed.</li> <li>M4. Working areas are to be maintained, kept free of rubbish and cleaned up at the end of each shift.</li> </ul>		

## 5.1 Licensing and approvals

List of licences and/or approvals required for the proposal:

Table 5-2: Summary of licensing and approval required

Instrument	Requirement	Timing
Roads Act 1993 Road Occupancy License from Transport Management Centre (TMC)	For any lane closures	Prior to the start of construction

## 5.2 Other requirements

Requirement		
Environmental management plan sent to Transport Senior Manager Environment & Sustainability or delegate (SMES) for review.	□ Yes	☑ No

## 6. Certification, review and decision

#### 6.1 Certification

This minor works REF provides a true and fair review of the proposal 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 proposal.

#### Prepared by:



Paula Camarero Senior Environment and Sustainability Officer Transport for NSW Date: 2 August 2024

#### 6.2 Environment staff review

The Minor Works REF has been reviewed and considered against the requirements of sections 5.5 and 5.7 of the EP&A Act.

In considering the proposal this assessment has examined and taken into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of that activity as addressed in the Minor Works REF and associated information. This assessment is considered to be in accordance with the factors required to be considered under section 171 of the Environmental Planning and Assessment Regulation 2021.

The proposal described in the Minor Works REF will have some environmental impacts which can be ameliorated satisfactorily. Having regard to the safeguard and management measures proposed, this assessment has considered that these impacts are unlikely to be significant and therefore an approval for the proposal does not need to be sought under Division 5.2 of the EP&A Act.

The assessment has considered the potential impacts of the activity on areas of outstanding value and on threatened species, ecological communities or their habitats for both terrestrial and aquatic species as defined by the *Biodiversity Conservation Act 2016* and the *Fisheries Management Act 1994*.

The proposal described in the Minor Works REF will not affect areas of outstanding value. The activity described in the Minor Works REF will not significantly affect threatened species ecological communities or their habitats. Therefore, a species impact statement is not required.

The assessment has also addressed the potential impacts on the activity on matters of national environmental significance and any impacts on the environment of Commonwealth land and concluded that there will be no significant impacts. Therefore, there is no need for a referral to be made to the Australian Government Department of Agriculture, Water and the Environment for a decision by the commonwealth minister for the Environment on whether assessment and approval is required under the Environment Protection and Biodiversity Conservation Act 1999.

The Minor Works REF is considered to meet all relevant requirements.

#### 6.3 Environment staff recommendation

It is recommended that the proposal to complete safety improvements at the intersection of Bondi Road and Wellington Street as described in this Minor Works REF proceed subject to the implementation of all safeguards identified in the Minor Works REF and compliance with all other relevant statutory approvals, licences, permits and authorisations.

The Minor Works REF has examined and taken into account to the fullest extent possible all matters likely to affect the environment by reason of the activity in accordance with the EP&A Act, EP&A Regulation and the Guidelines approved under clause 170 of the EP&A Regulation. The Minor Works REF has established that the activity is not likely to significantly affect the environment or threatened species, ecological communities or their habitats.

The Minor Works REF has concluded that there will be no significant impacts on matters of national environmental significance or any impacts on the environment of Commonwealth land.

If the proposal has not commenced within two years of the determination date the Transport Senior Manager Environment & Sustainability or delegate (SMES) must be consulted to identify any new or updated assessment or approval requirements.

#### Recommended by:



Joseph Fanous Senior Environment and Sustainability Manager, Assets and Operations Transport for NSW

Date: 27-8-2024

#### Noted by:



Roopa Jogunoori Project Manager – Program Delivery, Network Solutions, Planning & Programs Transport for NSW

Date: 27/08/2024

#### 6.4 Determination

In accordance with the above recommendation and sections 5.5 and 5.7 of the EP&A Act, I determine that Transport for NSW may:

proceed with the activity



Kym Warner

Director, Program Delivery, Network Solutions, Planning & Programs Transport for NSW

Date: 28/08/2024