

Hill Road Upgrade

Submissions Report

March 2022

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Executive summary

The Proposal

Transport for NSW proposes to upgrade Hill Road between Parramatta Road and Old Hill Link Road (the Proposal). The Proposal is located in Lidcombe, near Sydney Olympic Park, and is within the Cumberland local government area (LGA), Parramatta LGA and the Greater Parramatta Priority Growth Area. Adjacent to the Proposal is the Carter Street Precinct, which is the industrial area identified in the *Carter Street Precinct Master Plan 2020* (DPIE, 2020) for redevelopment as a residential area. The Proposal would include the following key elements:

- upgrading Hill Road to include road widening to accommodate additional turn lanes from Parramatta Road to John Ian Wing Parade
- modifying Parramatta Road and Hill Road intersection to provide a widened footpath from Parramatta Road onto Hill Road (northbound) and a new left turn lane to improve traffic flow exiting Sydney Olympic Park
- constructing new shared user paths (SUP) for pedestrian and cyclist travel along the western side of Hill Road between Parramatta Road and Carter Street and on the eastern side of Hill Road between Carter Street and Stockyard Boulevard (formerly referred to as Green Spine Road)
- widening Bombay Street to include additional through and turn lanes at the intersection with Parramatta Road
- converting the Hill Road and Carter Street intersection to a left-in, left-out intersection
- upgrading the Hill Road and John Ian Wing Parade intersection with additional through and turn lanes at the Hill Road northbound approach and Stockyard Boulevard approach, as well as widening the footpath
- widening and signalling the M4 Motorway eastbound off ramp to Hill Road to reduce motorway queuing and improve traffic flow on Hill Road
- adjusting the kerb return on the northwest corner of the Birnie Avenue and Parramatta Road intersection.

Previously, as part of this project, Transport for NSW considered options for a westbound off ramp from the M4 Motorway at Hill Road. Transport for NSW developed and considered many options for the off ramp. However, due to safety, environmental and planning concerns, no options were considered satisfactory to proceed with this aspect of the Proposal.

Subject to planning approval, construction is expected to commence in 2023 and take about 18 months to complete.

For the purpose of this report, and the environmental assessment and maps contained herein, any reference made to Green Spine Road (previous road name nominated in Carter Street Precinct Master Plan) now refers to Stockyard Boulevard.

Display of the Review of Environmental Factors

Transport for NSW prepared a Review of Environmental Factors (REF) for the Hill Road upgrade (TfNSW 2021). The REF was publicly displayed between 15 November 2021 and 12 December 2021, and available for download on the Transport for NSW project webpage.

During this time, Transport for NSW invited the community and key stakeholders to provide feedback on the Proposal and the REF. Transport for NSW widely distributed a “Have your say” community notification via letterbox drop to 17,943 residents and businesses in the area. The community notification provided details of the Proposal and included project benefits, location map, REF, next steps, and details on how people could have their say. The project website link was also advertised via the NSW Roads Facebook page.

In response to the evolving COVID-19 situation, and NSW Health advice, no display of REF at public buildings or pop-up community information sessions were undertaken to limit the spread of Coronavirus.

Summary of issues and responses

The public display of the REF and supporting consultation resulted in a total of 25 submissions, including:

- twenty three individual community submissions, three of which were received through Facebook posts, two by phone calls, and 18 by email
- one from Cumberland City Council
- one from Australia YMCI.

A submission was also received from City of Parramatta Council on 17 January 2022. This submission was not included in the Submissions Report as the issues raised, including the design of pedestrian crossings, urban and landscape features and stormwater drainage, all related to detailed design of the Proposal. Transport for NSW acknowledges receipt of the submission and will continue to work collaboratively with City of Parramatta Council during detailed design to resolve any potential issues.

Of the 25 submissions received, some submissions raised multiple sub issues, eight were out of scope, six related to the deletion of the previous M4 Motorway westbound off ramp proposal, four related to traffic congestion and parking, three were design changes, two were in support of the Proposal, one related to biodiversity, and one related to suggestions for future transport planning.

36 per cent of the submissions supported, or partially supported the Proposal, 4 per cent objected to the Proposal and the remaining 60 per cent did not specifically state whether they supported or objected to the Proposal, instead focusing their submission on particular areas of concern or interest.

The key issues and related sub-issues are summarised in Table ES.1.

Table ES.1 Summary of key issues and sub issues

Key issue (No. of submissions received)	Sub issue(s)
Design (5 submissions)	<ul style="list-style-type: none"> • alternative active transport options • on-road bicycle sensors at traffic lights and intersections • consideration of signalised intersection at M4 Motorway eastbound off ramp allowing a right turn toward Parramatta Road • design clarification of Bombay Street intersection • the provision of a bus transit way along Hill Road.

Key issue (No. of submissions received)	Sub issue(s)
Traffic and transport (10 submissions)	<ul style="list-style-type: none"> increased traffic congestion associated with events at Sydney Olympic Park limited heavy vehicle access to Carter Street due to the restricted right turn into Carter Street increased traffic congestion to local roads from 'rat runs' and detours the Proposal does not address traffic congestion along Parramatta Road.
Biodiversity (1 submission)	<ul style="list-style-type: none"> clarification of the Proposal's impacts to vegetation and trees as well as recommended mitigation measures for the existing vegetation of Hill Road and Parramatta Road.
Stakeholder engagement (2 submissions)	<ul style="list-style-type: none"> ongoing engagement between Council and Transport for NSW on requirements for Road Occupancy Licences and any additional loss of parking community input on long-term transport planning.
Scope change (6 submissions)	<ul style="list-style-type: none"> deletion of the previous M4 Motorway westbound off ramp proposal.
Out of scope works (16 submissions)	<ul style="list-style-type: none"> local road improvements within Newington and Wentworth Point to resolve congestion and safety issues access modification to nearby Holker busway and Bennelong Bridge to reduce congestion enclose Haslams Creek Bridge to minimise traffic noise development applications in Wentworth Point assess traffic impacts in isolation information on the proposed Parramatta Light Rail – include project details and potential environmental impacts (e.g. noise and traffic) additional parking on local roads.

A more detailed summary of the submissions received, and Transport for NSW responses, is available in Chapter 2 of this Report.

After consideration of the issues raised in the public submissions, no changes have been made to the Proposal, environmental assessment or safeguard and management measures as described in the REF.

Next steps

As the determining authority, Transport for NSW will consider the information in the REF and this Submissions Report and make a decision whether or not to proceed with the Proposal. Transport for NSW will inform the community and stakeholders of this decision and where a decision is made to proceed, will continue to consult with the community and stakeholders prior to and during the construction phase.

1. Introduction and background

1.1 The Proposal

Transport for NSW proposes to upgrade Hill Road between Parramatta Road and Old Hill Link Road (the Proposal). The Proposal is located in Lidcombe, near Sydney Olympic Park, and is within the Cumberland local government area (LGA), Parramatta LGA and the Greater Parramatta Priority Growth Area. Adjacent to the Proposal is the Carter Street Precinct, which is the industrial area identified in the *Carter Street Precinct Master Plan 2020* (DPIE, 2020) for redevelopment as a residential area. The Proposal would include the following key elements:

- upgrading Hill Road to include road widening to accommodate additional turn lanes from Parramatta Road to John Ian Wing Parade
- modifying Parramatta Road and Hill Road intersection to provide a widened footpath from Parramatta Road onto Hill Road (northbound) and a new left turn lane to improve traffic flow exiting Sydney Olympic Park
- constructing new shared user paths (SUP) for pedestrian and cyclist travel along the western side of Hill Road between Parramatta Road and Carter Street and on the eastern side of Hill Road between Carter Street and Stockyard Boulevard (formerly referred to as Green Spine Road)
- widening Bombay Street to include additional through and turn lanes at the intersection with Parramatta Road
- converting the Hill Road and Carter Street intersection to a left-in, left-out intersection
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- widening and signalling the M4 Motorway eastbound off ramp to Hill Road to reduce motorway queuing and improve traffic flow on Hill Road
- adjusting the kerb return on the northwest corner of the Birnie Avenue and Parramatta Road intersection.

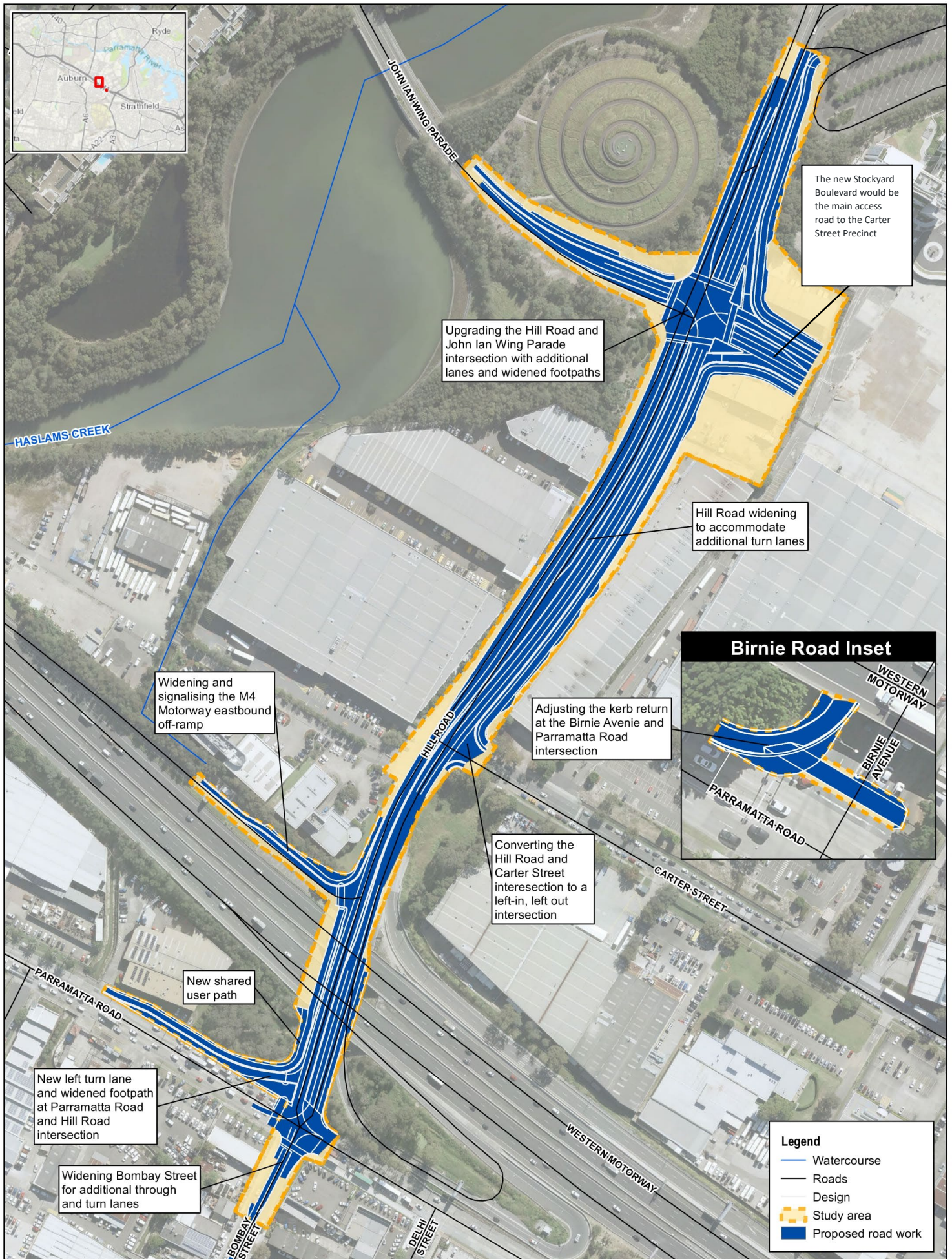
The Proposal features are shown in Figure 1.1.

Previously, as part of this project, Transport for NSW considered options for a westbound off ramp from the M4 Motorway at Hill Road. Transport for NSW developed and considered many options for the off ramp. However, due to safety, environmental and planning concerns, no options were considered satisfactory to proceed with this aspect of the Proposal.

Subject to planning approval, construction is expected to commence in 2023 and take about 18 months to complete.

For the purpose of this report, the environmental assessment and maps contained herein, any reference made to Green Spine Road (previous road name nominated in Carter Street Precinct Master Plan) now refers to Stockyard Boulevard.

A more detailed description of the Proposal is found in the Hill Road upgrade Review of Environmental Factors (REF) prepared by Transport for NSW in November 2021.



1.2 REF display

Transport for NSW prepared an REF for the Hill Road upgrade (TfNSW 2021). The REF was publicly displayed between 15 November 2021 and 12 December 2021, and available for download on the Transport for NSW project webpage.

During this time, Transport for NSW invited the community and key stakeholders to provide feedback on the proposal. Transport for NSW widely distributed the Have your say community notification via letterbox drop to over 17,940 residents and businesses in the area.

In response to the evolving COVID-19 situation, and NSW Health advice, no printed copies of the REF were publically displayed, or pop-up community information sessions undertaken to limit the spread of Coronavirus.

A range of community consultation activities were carried out for the public display including:

- distribution of around 17,943 'Have your say' community notifications via letterbox dropped to residents and businesses within the suburbs of Lidcombe, Newington, Wentworth Point and Sydney Olympic Park
- direct invitation to key stakeholders to provide submissions, including Sydney Olympic Park Authority (SOPA), City of Parramatta Council, and Cumberland City Council
- email blast to community members and stakeholders on the project's e-distribution list
- two geo-targeted social media posts on NSW Roads Facebook page published during the public display period on 15 November 2021 and 10 December 2021.

1.3 Purpose of the report

This Submissions Report relates to the REF prepared for the Hill Road upgrade, and should be read in conjunction with that document.

The REF was placed on public display and submissions relating to the Proposal and the REF were received by Transport for NSW. This Submissions Report summarises the issues raised and provides responses to each issue (Chapter 2).

No design changes are proposed that would require the preparation of a preferred infrastructure report. No revisions have been made to the Proposal, environmental assessment or environmental management measures as described in the REF.

2. Response to issues

Transport for NSW received a total of 25 submissions across the consultation period, until Wednesday 15 December 2021.

There were 23 individual community submissions, three of which were received through two social media posts on Facebook. Key metrics of the posts are summarised in Table 2.1.

Table 2.1 Facebook post summary results

Ad #	Dates	Reach ¹	Reactions ²	Comments ³	Shares ⁴
1	15–22 November 2021	10,252	15	12	3
2	10–12 December 2021	3,424	1	0	1

(1) Reach = the number of unique people who saw the post

(2) Reactions = clicks on emojis including Like, Love, Love, Haha, Wow, Sad, and Angry

(3) Comments = response from people as a post or picture

(4) Shares = number of times people share the post on their own page or with others

Transport for NSW examined the 12 Facebook comments and have accepted three as a formal submission. The other comments were out of scope for the project and did not require a response as part of this Submissions Report.

One submission was received by Australia YMCI on 10 December 2021.

In addition, two submissions were received from Council. A submission was received by Cumberland City Council on 14 December 2021 and has been included in this Submissions Report.

Transport for NSW received a late informal submission on 17 January 2022 from City of Parramatta Council. This submission has not been included in the Submissions Report as the issues raised, including design of pedestrian crossings, urban and landscape features and stormwater drainage, relate to the detailed design stage of the proposal. Transport for NSW acknowledges the receipt of City of Parramatta Council's submission and will continue to work collaboratively with Council through detailed design development to resolve issues raised.

Table 2.2 lists the respondents and each respondent's allocated submission number from the 25 submissions. The table also indicates where the issues from each submission have been addressed in Chapter 3 of this report.

Table 2.2 Respondents

Respondent	Submission No.	Section number where issues are addressed
Individual	1	2.7.6
Individual	2	2.3.3, 2.6.1, 2.7.2
Individual	3	2.3.3, 2.6.1, 2.7.2
Individual	4	2.3.3, 2.6.1, 2.7.2
Individual	5	2.3.3, 2.6.1, 2.7.2
Individual	6	2.7.1
Individual	7	N/A – Support

Respondent	Submission No.	Section number where issues are addressed
Individual	8	2.7.5
Individual	9	2.3.3, 2.6.1, 2.7.2
Individual	10	2.2.1, 2.3.1, 2.3.4, 2.7.6
Individual	11	2.5.2
Individual	12	2.7.1, 2.7.3, 2.7.4
Individual	13	N/A – Support
Individual	14	2.7.1, 2.7.2
Individual	15	2.2.5, 2.7.5
Individual	16	2.7.1
Individual	17	2.7.1, 2.7.2
Individual	18	2.3.3, 2.3.4
Individual	19	2.4.1
Individual	20	2.2.1, 2.2.2
Individual*	21	2.2.3, 2.3.3
Individual*	22	2.7.6
Individual*	23	2.6.1
Australia YMCI	24	2.3.2
Cumberland City Council	25	2.2.4, 2.3.4, 2.5.1

*submission received through Facebook

2.1 Overview of issues raised

Each submission was examined to understand the issues raised. The issues were then extracted and collated, and corresponding responses provided. Where similar issues were raised in different submissions, only one response has been provided.

In summary, of the individual submissions received:

- one objected to the Proposal
- nine supported/partially supported the Proposal
- 15 submissions did not offer a position.

Of the stakeholder submissions received:

- Australia YMCI supported/partially supported the Proposal
- Cumberland City Council partially supported the Proposal but opposed the restricted right turn into Carter Street.

The six key issues raised by the submissions are related to:

- design
- traffic and transport
- biodiversity
- stakeholder engagement
- scope change
- out of scope works.

Detailed description of key issues and related sub-issues are in Sections 2.2 through 2.7.

2.2 Design

2.2.1 Alternative active transport options

Submission number(s)

10, 20

Issue description

Two submissions recommended alternative active transport options for the Proposal, including:

- a dedicated cycle lane in both directions of Hill Road to cross Parramatta Road
- a pedestrian tunnel or overbridge to cross the M4.

Response

A key objective of the Proposal is to enhance active transport links for pedestrians and cyclists and community access to public transport.

The Proposal would enhance cyclist safety and connectivity along Hill Road and in to Sydney Olympic Park through the building of a new shared user pathway (SUP). The SUP would travel from Parramatta Road to Carter Street on the western side of Hill Road where it would connect to an existing SUP continuing on to John Ian Wing Parade towards Sydney Olympic Park.

An Options Assessment (TfNSW 2021) was undertaken for the Proposal to consider the provision of active transport links. The preferred design of the SUP aligns best with Proposal objectives, as well as minimising environmental impacts. The objective of the Proposal is to contribute to the overall connectivity in the wider area, not to deliver all active transport links identified in the Carter Street Master Plan. The active transport links identified in the Carter Street Precinct would be delivered in stages as adjacent developments progress, and would be overseen by the City of Parramatta Council.

In addition, the Proposal is unable to accommodate additional cycling facility upgrades, including the provision of dedicated cycling lanes. Cycling facility upgrades are managed by the City of Parramatta and Cumberland City Councils and this feedback has been referred to them for further consideration.

A pedestrian overbridge or overpass over the M4 Motorway is also out of scope for this Proposal. This feedback would be referred on to the relevant department of Transport for NSW for their consideration.

Refer to Section 2.2 Proposal objectives and development criteria and Section 6.5 Traffic and Transport of the REF for further information.

2.2.2 On-road bicycle sensors

Submission number(s)

20

Issue description

One submission noted existing traffic sensors in the road do not detect waiting cyclist at traffic lights. The lack of sensors require cyclists to press the crossing button or wait for a vehicle to be present to activate traffic sensors. This results in long waiting times.

Response

Safety is a priority for Transport for NSW. A key objectives of the Proposal is to improve existing and future road safety for all road users travelling along Hill Road, including cyclists.

The Proposal would enhance cyclist safety and connectivity to Sydney Olympic Park amenities and facilities through the building of a new SUP. The SUP would travel from Parramatta Road to Carter Street on the western side of Hill Road where it would connect to an existing shared use path continuing on to John Ian Wing Parade towards the Sydney Olympic Park.

Traffic lights in NSW are controlled by the Sydney Coordinated Adaptive Traffic System (SCATS) which allocates the length of green time based on real time traffic flow. Sensors beneath the road measure the flow and density of traffic approaching the lights in each direction and the green time is allocated accordingly. The length of time the light stays green varies in response to changing traffic conditions. This ensures that the traffic light phasing is operating at maximum efficiency. Roads with higher traffic demands are given longer green time to reduce congestion along the network.

Intersection detectors are designed for motorised vehicles. Dedicated on-road bicycle detection loops are not being considered as part of the Proposal. Dedicated on-road bicycle detectors may be considered for future improvements to active transport links in the area. This feedback would be referred to Transport for NSW's Active Transport team and City of Parramatta and Cumberland City Councils for their further consideration.

2.2.3 Consideration of a M4 Motorway eastbound off ramp allowing a right turn toward Parramatta Road

Submission number(s)

21

Issue description

One submission recommended the provision of an M4 Motorway eastbound off ramp with a signalised intersection, allowing vehicles to turn right toward Parramatta Road.

Response

The Proposal's preferred design was determined through an options analysis (TfNSW, 2021), including the treatment of the M4 Motorway eastbound off ramp at the Hill Road intersection. The three options assessed focused on improving traffic along Hill Road and considered the following:

- Sub-option A: unsignalised
- Sub-option B: signalised
- Sub-option C: 50 metres of additional off ramp lane and signalised.

Sub-option C was identified as the preferred design as it would best support the existing and future traffic demands as well as minimise queuing along Hill Road.

Further, when the Proposal is completed, there would be three signalised intersections within short intervals along Hill Road (at Parramatta Road, the M4 Motorway eastbound off ramp and at John Ian Wing Parade – about 530 metre distance). Additional right turning movement from the proposed M4 eastbound off ramp signals would add delay and waiting time for the other traffic approaches, and would likely create safety, traffic queuing and congestion issues.

2.2.4 Design clarification of Bombay Street intersection

Submission number(s)

25

Issue description

One submission noted the Proposal would widen Bombay Street to include an additional through lane, a dedicated right turn lane, and a dedicated left turn lane at the intersection of Parramatta Road and Hill Road.

Response

The Proposal would widen and reconfigure Bombay Street through lane markings to create an additional northbound lane, a dedicated right turn, left turn and through lanes at Parramatta Road intersection.

No further widening of the existing Bombay Street is expected or required for the Proposal.

2.2.5 Proposal to include bus transit way along Hill Road

Submission number(s)

15

Issue description

One submission recommended the Proposal include a bus transit way (dedicated bus lane) along Hill Road.

Response

The purpose of this consultation was to seek feedback on proposed upgrades to Hill Road between Parramatta Road and Bombay Street and Old Hill Link Road. The Proposal does not include a bus transit way (dedicated bus lane).

Feedback on the provision of a bus transit way (dedicated bus lane) along Hill Road would be forwarded to the relevant department within Transport for NSW for further consideration.

2.3 Traffic and transport

2.3.1 Increased traffic congestion associated with events at Sydney Olympic Park

Submission number(s)

10

Issue description

One submission raised a concern of how the Proposal would manage traffic congestion during events at Sydney Olympic Park.

Response

Hill Road provides the only direct access from Parramatta Road into the western and northern areas of the Sydney Olympic Park and its associated amenities and facilities.

The results of traffic modelling of events at Sydney Olympic Park was considered in the REF and Traffic Impact Assessment report (TfNSW, 2021). The proposed upgrades would enhance connectivity and traffic flow into Sydney Olympic Park for public and private vehicles, supporting the major events capability of the Sydney Olympic Park site.

Pedestrian and cyclist connectivity to Sydney Olympic Park would be enhanced by the Proposal through the building of new SUPs, which would travel from Parramatta Road along Hill Road where it would connect to an existing SUPs continuing on to John Ian Wing Parade towards the Sydney Olympic Park.

Transport for NSW would consult with Sydney Olympic Park Authority (SOPA) on traffic management planning during and post construction of the Proposal. Event-day impacts, including potential pedestrian crossing and traffic delays would be managed in consultation with SOPA.

Refer to Section 2.2 Proposal objectives and development criteria and Section 6.5 Traffic and transport of the REF and Appendix G – Traffic impact assessment report for further information.

2.3.2 Limited heavy vehicle access to Carter Street due to the restricted right turn into Carter Street

Submission number(s)

24

Issue description

One submission raised concerns of the limited heavy vehicle access along Hill Road due to the restricted right turn into Carter Street. Key issues identified in the submission were:

- direct access is removed for heavy vehicles travelling north along Hill Road requiring an alternative route
- intersection failure is inevitable due to the increased heavy vehicle demand from the surrounding Business Enterprises (e.g. commercial and industrial businesses) and Carter Street Precinct
- a shift of heavy vehicle traffic to other local roads (e.g. Stockyard Boulevard) which may have a tonnage limit.

The submission recommends a signalised traffic intersection at Hill Road and Carter Street to allow for right turn movements.

Response

The Proposal would create improved connectivity to the Carter Street Precinct and Sydney Olympic Park and improved journey reliability for through traffic to Wentworth Point and Newington.

Tonnage limits on local roads, including Stockyard Boulevard and Uhrig Road, are managed by the City of Parramatta Council and this submission would be forwarded to them for consideration.

To accommodate heavy vehicles in the area, the Proposal maintains a B-Double route left turn movement from Parramatta Road onto Birnie Avenue by adjusting the kerb return on the northwest corner of the Birnie Avenue and Parramatta Road intersection. This design feature would improve heavy vehicle access to the eastern side of the Carter Street Precinct.

When the Proposal is completed, there would be three signalised intersections within short intervals along Hill Road (at Parramatta Road, the M4 Motorway eastbound off ramp and at John Ian Wing Parade – about 530 metre distance). Additional signals in this section of road would likely create safety and traffic congestion issues.

2.3.3 Increased traffic congestion to local roads from ‘rat-runs’ and detours

Submission number(s)

2, 4, 5, 9, 18, 21

Issue description

Six submissions raised concerns with the potential for increased traffic congestion and travel delays from ‘rat-runs’ and detours along local roads in Wentworth Point, Newington, and Lidcombe residences.

Response

The Proposal would build additional capacity into the network, reducing traffic delays and improving travel times along Hill Road. This would benefit the existing and future development of Carter Street Precinct and Sydney Olympic Park as well as the surrounding residential suburbs of Newington, Lidcombe and Wentworth Point. The Proposal would also complement the Federal and NSW State Governments \$100 million commitment to upgrade Homebush Bay Drive and Australia Avenue, which would ease congestion and improve traffic flow into and through Sydney Olympic Park.

Transport for NSW is committed to delivering multi-modal solutions to transport demand within Sydney Olympic Park, Wentworth Point and Newington residential and business areas. In addition to Transport for NSW’s investment in road upgrades at Hill Road and Australia Avenue/Homebush Bay Drive, the NSW Government is also delivering the Sydney Metro West project, with new stations at Sydney Olympic Park and North Strathfield, and planning for Parramatta Light Rail Stage 2, connecting Parramatta Light Rail Stage 1 and the Parramatta CBD to Ermington, Melrose Park, Wentworth Point, Sydney Olympic Park and Carter Street.

Transport for NSW would continue to consult with City of Parramatta and Cumberland City Councils on strategies to reduce ‘rat-runs’ on local roads. When developing the Proposal, Transport for NSW considered the potential impacts on all roads and road users in the local area. Improved traffic flows along Hill Road and reduced wait times at proposed upgraded intersections should discourage the use of local roads as short cuts.

2.3.4 The Proposal does not address traffic congestion along Parramatta Road

Submission number(s)

10, 18, 25

Issue description

Three submissions raised concerns the Proposal does not improve traffic congestion along Parramatta Road as Level of Service (LOS) is similar to existing conditions, LOS E or F. A submission also requested that the assessment of Parramatta Road be further analysed.

Response

Hill Road is a key north-south corridor which, over the coming years, will form an increasingly important road link in a growing and developing part of Sydney's Central River City. The Proposal would improve connectivity and ease congestion to and from Parramatta Road and the M4 Motorway.

Currently, the Parramatta Road corridor experiences heavy congestion during both peak periods with the Hill Road and Parramatta Road intersection operating poorly. The Hill Road corridor is also impacted by the poor performance of the Hill Road and Parramatta Road intersection. Traffic demand forecasts indicate that Hill Road would experience a significant increase in traffic volumes in both directions by 2026 and 2036 as a result of land use intensification within the Carter Street Precinct.

The Proposal assessed potential traffic impacts at the following intersections in the study area (TfNSW, 2021):

- Parramatta Road and John Street
- Parramatta Road and Birnie Avenue
- Parramatta Road, Hill Road and Bombay Street
- Hill Road and M4 eastbound on ramp
- Hill Road and M4 westbound off ramp
- Hill Road and Carter Street
- Hill Road and John Ian Wing Parade
- Hill Road and Old Hill Link.

The assessment identified traffic performance at the intersections along Parramatta Road and Birnie Avenue are expected to remain heavily congested operating at LOS E or F. The Proposal would generally improve the road network performance as there would be increased average speed and reduced delays along Hill Road. Improvements on Hill Road supports this increase in traffic demand forecasted.

To ease congestion and improve traffic flow along Parramatta Road and Hill Road, major intersection improvements are proposed at the intersection of Parramatta Road, Hill Road and Bombay Street. Widening and upgrading the intersection would provide:

- dedicated dual right turns from Hill Road into Parramatta Road (westbound)
- new left turn lane from Parramatta Road into Hill Road (northbound)
- additional right turn lane from Bombay Street into Parramatta Road (eastbound).

To improve pedestrian safety and movement along Hill Road the Proposal would also include:

- building new SUPs for pedestrians and cyclists on the western side of Hill Road between Parramatta Road and Carter Street and on the eastern side of Hill Road between Carter Street and Stockyard Boulevard
- widening footpaths at Hill Road and Parramatta Road and John Ian Wing Parade intersections
- modifying the kerb on the northwest corner of Birnie Avenue and Parramatta Road intersection to improve
- improving B-double and heavy vehicle movements through the intersection.

Further road improvement upgrades to ease congestion along Parramatta Road congestion are dealt with across multiple councils as well as part of the region's long term plans including: *Future Transport Strategy 2056*, *Greater Sydney Region Plan – A Metropolis of Three Cities*, *Our Greater Sydney 2056 – Central City District Plan* and *Greater Parramatta Interim Land Use and Infrastructure Implementation Plan*.

Further improvements along Parramatta Road beyond the intersection at Hill Road is outside the scope of this Proposal.

Refer to Section 2.2 Proposal objectives and development criteria, Section 6.5 Traffic and transport of the REF and Appendix G – Traffic impact assessment report for further information.

2.4 Biodiversity

2.4.1 Vegetation impacts and safeguards

Submission number(s)

19

Issue description

One submission requested further information on the Proposal's impact and proposed mitigation on the existing vegetation, including trees and native vegetation, at the corner of Hill Road and Parramatta Road.

Response

The Proposal would impact 0.67 hectares of native vegetation and threatened ecological communities. As outlined in the Biodiversity Assessment Report of the REF (TfNSW, 2021), the assessment confirmed:

- no threatened ecological communities listed under the *Environment Protection Biodiversity Conservation Act 1999* would be impacted
- no threatened flora species have been recorded or are considered by the Proposal
- unlikely to be further impacts of habitat fragmentation as the removal of habitat is minor
- unlikely to significantly impact threatened species or ecological communities or their habitats
- no tree removal is required.

Safeguards and measures to be developed during detailed design, including the preparation of landscape plans and identifying tree exclusion zones would further minimise impacts. An arborist would also be engaged to monitor trees during works in compliance with tree protection guidelines.

Refer to Section 6.1 Biodiversity and Appendix D – Biodiversity Assessment report of the REF for further information.

2.5 Stakeholder engagement

2.5.1 Ongoing engagement between Council and Transport for NSW

Submission number(s)

25

Issue description

One submission requested ongoing engagement between Council and Transport for NSW to advise on:

- any additional loss of parking on Council roads
- requirement for Road Occupancy Licences on Council roads during construction and road maintenance.

Response

Transport for NSW would consult with Cumberland City and City of Parramatta Councils (as required) in relation to impacts of the Proposal on local roads under the care and control of either Council.

Transport has consulted with Cumberland City Council on the loss of five car parking spaces on Bombay Street, as a result of proposed improvements to the intersection of Bombay Street, Parramatta Road and Hill Road. The removal of these car parking spaces, on Bombay Street's southern approach to Parramatta Road, is not expected to impact parking demands or facilities at this location.

A Road Occupancy Licence would be requested from Cumberland City Council during construction and road maintenance (if required), as defined under Section 138 of the *Roads Act 1993*.

2.5.2 Community input on long-term transport planning

Submission number(s)

11

Issue description

One submission requested to provide input to Transport for NSW on long-term transport planning recommendations across the Greater Sydney Region, including Aerotropolis, Parramatta Light Rail, and Sydney Metro West.

Response

Hill Road is a key north-south corridor which, over the coming years, will form an increasingly important road link in a growing and developing part of Sydney's Central River City. The proposed Hill Road upgrades would support future development growth in the Carter Street Precinct, as well as improve connectivity to Wentworth Point, Newington, Lidcombe, Sydney Olympic Park and access to Parramatta Road and the M4 Motorway (eastbound) off ramp to Hill Road.

The Proposal aligns with key NSW future strategic plans and strategies including:

- NSW Premiers and State priorities
- NSW Infrastructure Strategy 2018-2038
- Future Transport Strategy 2056, Road Safety Plan 2021
- Greater Sydney Region Plan – A Metropolis of Three Cities
- Our Greater Sydney 2056 – Central City District Plan
- Greater Parramatta Interim Land Use and Infrastructure Implementation Plan
- Sydney Olympic Park Master Plan 2030
- Carter Street Precinct Master Plan 2020
- Hill Road Master Plan.

Refer to Section 2.1 – Strategic need for the Proposal of the REF for further information.

Customer insights are critical to transport planning and Transport for NSW actively seeks public participation and feedback as we plan transport for the future. Transport for NSW invites community feedback on Future Transport 2056, our 40 year vision for transport for NSW. Feedback can be provided online by visiting: future.transport.nsw.gov.au/feedback-on-strategy/provide-feedback.

Feedback can be provided to the Parramatta Light Rail project team on 1800 139 389 (24 hours) or via parramattalightrail@transport.nsw.gov.au.

Transport for NSW also welcomes community feedback on planning, construction and operation of transport infrastructure projects in NSW. For further information visit Transport for NSW projects webpage at roads-waterways.transport.nsw.gov.au/projects.

2.6 Scope change

2.6.1 Deletion of the previous M4 Motorway westbound off ramp proposal

Submission number(s)

2, 3, 4, 5, 9, 23

Issue description

Six submissions raised concerns with Transport for NSW removing the M4 Motorway westbound off ramp from the Proposal.

Response

Transport for NSW acknowledges community disappointment with the decision to not proceed with plans for a westbound off ramp from the M4 Motorway at Hill Road. Transport for NSW developed and considered many options for the off ramp. However, due to safety, environmental and planning concerns, no options were considered satisfactory to proceed with this aspect of the Proposal. Further information on Transport for NSW's decision to not proceed with the off ramp can be found on the project webpage: roads-waterways.transport.nsw.gov.au/projects/hill-road-upgrade.

The Proposal will improve connectivity to Carter Street Precinct, Sydney Olympic Park and surrounding suburbs. The upgrades would also complement other NSW Government multi-modal transport initiatives in the area which would further enhance connectivity and travel times for all transport users. This includes the WestConnex M4 Motorway, the Sydney Metro West Link and the proposed \$100 million upgrade of Homebush Bay Drive and Australia Avenue intersection. Planning for the proposed Parramatta Light Rail Stage 2 is also underway, with the preferred route connecting Parramatta Light Rail Stage 1 and the Parramatta CBD to Ermington, Melrose Park, Wentworth Point, Sydney Olympic Park and Carter Street.

2.7 Out of scope works

2.7.1 Local road improvements within Newington and Wentworth Point to resolve congestion and safety issues

Submission number(s)

6, 12, 14, 16, 17

Issue description

Five submissions recommended local road improvements within Newington and Wentworth to resolve 'rat runs', traffic congestion and safety issues.

The following road improvements were recommended in the submission:

- pavement upgrades
- roundabout(s)
- pedestrian safety island(s)
- signalised intersection(s).

Response

The purpose of this consultation was to seek feedback on proposed upgrades to Hill Road between Parramatta Road and Bombay Street and Old Hill Link Road.

The Proposal would ease congestion and improve journey reliability for Hill Road traffic to Newington and Wentworth. Traffic modelling, undertaken to inform the traffic impact assessment (TfNSW, 2021) has predicted the Proposal would generally improve the performance of the network in the years 2026 and 2036, and improve average speed and traffic flow across the network during the critical peak hours. Refer to Section 2.2 Proposal objectives and development criteria and Section 6.5 Traffic and transport of the REF and Appendix G –Traffic impact assessment report for further information.

Transport for NSW would continue to consult with City of Parramatta and Cumberland City Councils on strategies to reduce ‘rat runs’ on local roads. When developing the Proposal, Transport for NSW considered potential impacts on all roads and road users in the local area. Improving traffic flow and travel times on Hill Road would discourage the use of local roads as short cuts and ‘rat-runs’.

Upgrades to local roads including Bennelong Parkway and Verona Drive are local roads under the care and control of City of Parramatta Council and are currently being investigated as part of Council’s Hill Road Master Plan. The Hill Road Master Plan can be viewed or downloaded from City of Parramatta Council website: www.cityofparramatta.nsw.gov.au. For further information contact City of Parramatta Council directly by phone: 1300 617 058 or email: council@cityofparramatta.nsw.gov.au.

2.7.2 Access modification to Holker busway and Bennelong Bridge

Submission number(s)

2, 3, 4, 5, 9, 14, 17

Issue description

Seven submissions requested access modifications to the nearby Holker busway and Bennelong Bridge to reduce traffic congestion. The submissions recommended the following:

- allow vehicles to drive along Holker busway
- allow bicyclists to cycle on Bennelong Bridge.

Response

The purpose of this consultation was to seek feedback on proposed upgrades to Hill Road between Parramatta Road and Bombay Street and Old Hill Link Road.

Improvements to the intersection of Hill Road and Holker Street or Holker Busway is out of scope for this Proposal. As these are all roads under the care and control of City of Parramatta Council feedback has been referred to Council for further consideration.

The Proposal also does not include consideration of upgrades to Bennelong Bridge. Bennelong Bridge is under the care and control of City of Parramatta Council. Further information on active transport link upgrades on the bridge should be referred to City of Parramatta Council by contacting Council directly by phone: 1300 617 058 or email: council@cityofparramatta.nsw.gov.au.

2.7.3 Enclose Haslams Creek Bridge to minimise traffic noise

Submission number(s)

12

Issue description

One submission recommended Haslams Creek Bridge be enclosed to minimise road traffic noise.

Response

The purpose of this consultation was to seek feedback on proposed upgrades to Hill Road between Parramatta Road and Bombay Street and Old Hill Link Road.

Haslams Creek Bridge is of local significance for its historic, aesthetic, scientific, rarity and representative values, making any structural changes to the bridge is impermissible. Improvements to Haslams Creek Bridge is out of scope of this Proposal. As this bridge is under the care and control of City of Parramatta Council feedback has been referred to Council for further consideration.

2.7.4 Development applications in Wentworth Point assess traffic impacts in isolation

Submission number(s)

12

Issue description

One submission noted individual Development Applications (DAs) in Wentworth Point for new apartment buildings assess traffic impacts in isolation (of other DAs) by keeping the unit capacity of the building to below 250 units.

Response

The purpose of this consultation was to seek feedback on proposed upgrades to Hill Road between Parramatta Road and Bombay Street and Old Hill Link Road.

DAs are managed by local Council (consenting authority) through the development application process. Consenting authorities may refer relevant planning applications to Transport for NSW for concurrence. Transport for NSW would assess these developments on the potential impacts to transport infrastructure and what measures can be taken to minimise impacts.

2.7.5 Information on the proposed Parramatta Light Rail project

Submission number(s)

8, 15

Issue description

Two submissions referred to the future Parramatta Light Rail project:

- one submission raised concerns with increased noise and traffic impacts from the light rail and requested project design details
- one submission requested that the light rail travel to Clyde.

Response

The purpose of this consultation was to seek feedback on proposed upgrades to Hill Road between Parramatta Road and Bombay Street and Old Hill Link Road. The Proposal does not include light rail improvements.

The Proposal would also complement other NSW Government transport initiatives in the area including the proposed Parramatta Light Rail (PLR) Stage 2, which would connect PLR Stage 1 and Parramatta Central Business District (CBD) to Ermington, Melrose Park, Wentworth Point and Sydney Olympic Park. Parramatta Light Rail Stage 2 would be further developed and informed by consultation with the community and stakeholders. Most recently, in January 2022, the community was invited to provide feedback on the potential impacts and outcomes of the Parramatta Light Rail (PLR) Stage 2 project, via a Social Impacts and Outcomes Survey. As the project develops the community would be further invited to provide feedback on the PLR Stage 2 Environmental Impact Statement (EIS) which assesses the potential social, environmental, and economic impacts of the construction and operation of the project. This would include how project impacts to the community and environment, such as traffic and transport, noise and vibration and visual impact would be managed both during and post construction.

For further information on the Parramatta Light Rail project visit the project webpage: www.parramattalightrail.nsw.gov.au, or contact the PLR project team by phone: 1800 139 389 (24 hours) or email: parramattalightrail@transport.nsw.gov.au.

2.7.6 Additional parking on local roads

Submission number(s)

1, 10, 22

Issue description

Three submissions requested the Proposal include more parking on local roads.

One submission specifically recommended additional angled parking by widening Uhrig Road to alleviate parking issues for event days at Sydney Olympic Park.

Response

Transport for NSW proposes to upgrade Hill Road between Parramatta Road and Old Hill Link Road (the Proposal). Proposed upgrades would support existing and future development growth in the Carter Street Precinct, improve connectivity to Sydney Olympic Park, Lidcombe, Wentworth Point and Newington, and access to Parramatta Road and the M4 Motorway (eastbound) off ramp to Hill Road. Refer to Section 2.2 Proposal objectives and development criteria of the Review of Environmental Factors for further information.

The purpose of this consultation was to seek feedback on the Proposal. Local roads and the provision of car parking is under the care and control of council. We have forwarded this feedback regarding local road parking within proximity of the Hill Road upgrade project to City of Parramatta and Cumberland City Councils for their consideration.

3. Environmental management

The REF for the Hill Road Upgrade identified the framework for environmental management, including safeguards and management measures that would be adopted to avoid or reduce environmental impacts (Section 7.2 of the REF) as well as required licences and approvals (Section 7.3 of the REF).

After consideration of the issues raised in the public submissions and changes to the Proposal, the safeguard and management measures have not been revised as well as required licences are the same described in the REF.

3.1 Environmental management plans (or systems)

A number of safeguards and management measures have been identified in order to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the Proposal. Should the Proposal proceed, these management measures would be incorporated into the detailed design and applied during the construction and operation of the Proposal.

A Construction Environmental Management Plan (CEMP) will be prepared to describe safeguards and management measures identified. The CEMP will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The CEMP will be prepared prior to construction of the Proposal and must be reviewed and certified by environment staff, Eastern Harbour and Central River City, prior to the commencement of any on-site works. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements. The CEMP would be developed in accordance with the specifications set out in the QA Specification G36 – Environmental Protection (Management System), QA Specification G38 – Soil and Water Management (Soil and Water Plan), QA Specification G40 – Clearing and Grubbing and QA Specification G10 – Traffic Management.

3.2 Summary of safeguards and management measures

The REF for the Hill Road Upgrade identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts.

Should the Proposal proceed, the environmental management measures in Table 3.1 will guide the subsequent phases of the Proposal. After consideration of the issues raised in the public submissions, the environmental management measures for the Proposal (refer to Chapter 7 of the REF) have not been revised.

Table 3.1 Summary of safeguards and management measures

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN1	General – minimise environmental impacts during construction	<p>A CEMP will be prepared and submitted for review and endorsement of the Transport for NSW Environment Manager prior to commencement of the activity.</p> <p>As a minimum, the CEMP will address the following:</p> <ul style="list-style-type: none"> • any requirements associated with statutory approvals • details of how the project will implement the identified safeguards outlined in the REF • issue-specific environmental management plans • roles and responsibilities • communication requirements • induction and training requirements • procedures for monitoring and evaluating environmental performance, and for corrective action • reporting requirements and record-keeping • procedures for emergency and incident management • procedures for audit and review. <p>The endorsed CEMP will be implemented during the undertaking of the activity.</p>	Contractor/Transport for NSW project manager	Pre-construction/detailed design	QA G36 Environment Protection
GEN2	General – notification	All businesses, residential properties and other key stakeholders (e.g. schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity.	Contractor/Transport for NSW project manager	Pre-construction	QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
GEN3	General – environmental awareness	<p>All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings.</p> <p>Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include:</p> <ul style="list-style-type: none"> • threatened species habitat • adjoining residential areas requiring particular noise management measures. 	Contractor/Transport for NSW project manager	Pre-construction/ detailed design	QA G36 Environment Protection
B1	Biodiversity	<p>A Flora and Fauna Management Plan would be prepared in accordance with Transport for NSW's <i>Biodiversity Guidelines: Protecting and Managing Biodiversity on Projects</i> (RMS, 2011) and implemented as part of the CEMP. It will include, but not be limited to:</p> <ul style="list-style-type: none"> • plans showing areas to be cleared and areas to be protected, including exclusion zones, protected habitat features and revegetation areas • requirements set out in the <i>Landscape Guideline</i> (RMS, 2008) • pre-clearing survey requirements • procedures for unexpected threatened species finds and fauna handling • protocols to manage weeds and pathogens. 	Contractor	Detailed design/ pre-construction	Section 4.8 of QA G36 Environment Protection
B2	Vegetation	Native vegetation removal would be minimised through the detailed design process	Proposal design engineer	Detailed design	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
B3	Vegetation	Vegetation removal would be undertaken in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011a).	Contractor	Construction	Additional safeguard
B4	Vegetation and habitat	<p>A detailed landscape plan would be prepared during detailed design and include detailed species and planting guides as well as areas disturbed for construction. Where areas of habitat are to be re-established, this would occur consistent with <i>Guide 3: Re-establishment of Native Vegetation of the Roads and Maritime Biodiversity Guidelines</i> (RTA, 2011b).</p> <p>A detailed landscape plan would aim to:</p> <ul style="list-style-type: none"> • enhance habitat • reconstruct habitat in strategic areas to link areas of conservation value increasing buffer zones. 	Contractor	Detailed design	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
B5	Vegetation and habitat	Exclusion zones would be set up at the limit of clearing in accordance with <i>Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA 2011c). Exclusion zones would be established to avoid damage to native vegetation and fauna habitats identified for retention and prevent the distribution of weeds. The location of exclusion fencing to be installed would be identified by project environmental management plans and the function and importance of the exclusion zones would be communicated to construction personnel.	Contractor	Construction	Additional safeguard
B6	Vegetation and habitat	Weed species would be managed in accordance with Guide 6: Weed management of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011d).	Contractor	Construction	Additional safeguard
B7	Vegetation and habitat	A weed management plan consistent with the <i>Roads and Maritime Biodiversity Guidelines</i> (RTA, 2011e) would be developed as part of the construction environmental management plan. The weed management plan would include descriptions and mapping of major weed infestations and appropriate management actions to be undertaken in relation to each infestation.	Contractor	Construction	Additional safeguard
B8	Vegetation and habitat	Pest species would be managed within the study area.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
B9	Vegetation and habitat	Pathogens would be managed in accordance with Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011f).	Contractor	Construction	Additional safeguard
B10	Vegetation and habitat	Measures to prevent the spread of pathogens would be detailed in the construction environmental management plan. Measures would be consistent with Roads and Maritime <i>Biodiversity Guidelines – Guide 7 Pathogen Management</i> (RTA, 2011g). This would include measures to minimise the spread of Chytrid fungus and would be implemented during construction.	Contractor	Construction	Additional safeguard
B11	Habitat	Habitat removal would be minimised through detailed design.	Contractor	Detailed design	Additional safeguard
B12	Habitat	Pre-clearing surveys would be undertaken in accordance with <i>Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA, 2011c). Pre-clearing surveys would be undertaken by an experienced ecologist to identify any nesting/roosting animals present in the study area. This would include inspections of affected existing structures for microbats that may be present in cracks, fissures, scuppers, lifting holes or similar. An experienced ecologist would also be present during any clearing of native vegetation.	Contractor	Pre- construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
B13	Habitat	Pre-clearing surveys, if required, would be undertaken in accordance with Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011c).	Contractor	Construction	Additional safeguard
B14	Habitat	The unexpected species find procedure would be followed under Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects ((RTA, 2011e)) if threatened flora species, not assessed in the biodiversity assessment, are identified in the study area.	Contractor	Construction	Additional safeguard
B15	Habitat	The unexpected species find procedure would be followed under <i>Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects</i> (RTA 2011a) if threatened ecological communities, not assessed in the biodiversity assessment, are identified in the study area.	Contractor	Construction	Additional safeguard
B16	Habitat	Habitat removal would be undertaken in accordance with Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011a).	Contractor	Construction	Additional safeguard
B17	Habitat	Habitat would be replaced or re-instated in accordance with Guide 5: Re-use of woody debris and bushrock and Guide 8: Nest boxes of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011h), where possible.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
F1	Flooding	Appropriate sediment and erosion controls (as detailed in the construction environmental management plan (CEMP)).	Contractor	Construction	Additional safeguard
F2	Flooding	To reduce any potential flood impacts during construction, any stockpiles should be outside the 1% AEP flood extent. Where this is not possible, stockpiles should not be placed in floodways and suitable erosion control is used.	Contractor	Construction	Additional safeguard
F3	Flooding	If the site compound cannot be situated outside the 1% AEP flood extent, any site building should be above flood planning level (1% AEP = 0.5m freeboard) and a site management plan that can reduce flood losses to personnel and equipment is developed and followed.	Contractor	Construction	Additional safeguard
F4	Flooding	Any works on existing drainage networks should be scheduled with consideration of rain/flash flood forecasts provided by the Bureau of Meteorology.	Contractor	Construction	Additional safeguard
WQ1	Soil and water	A Soil and Water Management Plan (SWMP) would be prepared and implemented as part of the CEMP. The SWMP would identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks would be addressed during construction.	Contractor	Detailed design/ pre-construction	Section 2.1 of QA G38 Soil and Water Management

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
WQ2	Soil and water	The SWMP would a site-specific Erosion and Sediment Control Plan/s for managing wet weather events, including monitoring of potential high risk events (such as storms) and specific controls and follow-up measures to be applied in the event of wet weather.	Contractor	Detailed design/ Pre-construction	Section 2.2 of QA G38 Soil and Water Management
WQ3	Soil and water	The SWMP would be prepared for the project in accordance with: Managing Urban Stormwater–Soils and Construction, Volume 1 Managing Urban Stormwater, 4th edition ('the Blue Book'). Managing Urban Stormwater–Soils and Construction, Volume 2D Main Road Construction.	Contractor	Detailed design/ Pre-construction	Additional safeguard
WQ4	Erosion and sedimentation (Construction)	<p>Measures would be implemented during construction to minimise the risk of erosion, sedimentation and pollution. These measures may include:</p> <ul style="list-style-type: none"> • avoid disturbance where practicable, otherwise minimise the area of disturbance, particularly on and adjacent to river banks • designate of 'no-go' zones for construction plant and equipment • install upstream diversion channels to direct clean runoff from upstream catchments around or through disturbed areas (maintaining separation from runoff containing sediment) • shape disturbed land to minimise slope lengths and gradients and improve drainage • install/line catch drains to carry any sediment laden runoff to appropriate sediment control measures 	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> • minimise stockpiling of material • remove cleared or excavated materials as soon as practicable after excavation and appropriately dispose of or stockpile off-site • locate stockpiles away from drainage lines and creek channels • seed disturbed areas for temporary soil stabilisation • employ appropriate measures to prevent/ minimise wind-blown dust from leaving the site (e.g. watering) • establish designated areas for plant and construction material storage within site compounds and other locations within the Proposal • store all chemicals and fuels associated with construction in secure roofed and bunded areas • retain erosion and sediment controls until disturbed areas are stabilised. 			
WQ5	Erosion and sedimentation (Operation)	Measures would be implemented during operation to minimise the risk of erosion and sedimentation. These measures may include monitoring and remediation during scheduled road maintenance or planting where vegetation cover has not established or has only partially established.	Transport for NSW	Operation	Additional safeguard
WQ6	Water quality	Detailed design would consider practicable measures to optimise pollution mitigation, and accidental oil/fuel spill containment. This would include GPTs or similar proprietary products.	Transport for NSW	Detailed design	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
WQ7	Water quality	Oil/fuel spill mitigation measures would be incorporated into the longitudinal drainage system (e.g. sandbagging of last pit in the drainage network following a spill event) as the longitudinal drainage system has been designed to be separate to any transverse drainage systems, in accordance with good practice and Transport for NSW water management policy.	Transport for NSW	Detailed design	Additional safeguard
WQ8	Water quality	Suitable protection measures would be provided at pipe outlets and at locations where there is a risk of creek bank instability due to discharges from the pavement drainage system.	Transport for NSW	Detailed design	Additional safeguard
C1	Contaminated land	<p>A Contaminated Land Management Plan would be prepared in accordance with the <i>Guideline for the Management of Contamination</i> (TfNSW, 2013) and implemented as part of the CEMP. The plan will include, but not be limited to:</p> <ul style="list-style-type: none"> capture and management of any surface runoff contaminated by exposure to the contaminated land further investigations required to determine the extent, concentration and type of contamination, as identified in the detailed site investigation (Phase 2) management of the remediation and subsequent validation of the contaminated land, including any certification required measures to ensure the safety of site personnel and local communities during construction. 	Contractor	Detailed design/ Pre-construction	Section 4.2 of QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
C2	Contaminated land	If contaminated areas are encountered during construction, appropriate control measures would be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area would cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport for NSW Environment Manager and/or EPA.	Contractor	Detailed design/ Pre-construction	Section 4.2 of QA G36 Environment Protection
C3	Accidental spill	A site specific emergency spill plan would be developed, and include spill management measures in accordance with the Transport for NSW <i>Code of Practice for Water Management</i> (RTA, 1999) and relevant EPA guidelines. The plan would address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Transport for NSW and EPA officers).	Contractor	Detailed design/ Pre-construction	Section 4.3 of QA G36 Environment Protection
C4	Contaminated land	An Asbestos Management Plan would be developed for the construction of the Proposal in accordance with the National Environment Protection (Assessment of site contamination) Measure 1999. The Plan would include an unexpected finds procedure to address any previously unidentified asbestos contamination encountered during construction.	Contractor	Pre-construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
C5	Excavation	Excavated material that is not suitable for onsite reuse or recycling would be transported to a site that may legally accept that material for reuse or disposal. Soils leaving the site will be waste classified so that correct resource recovery and or off-site disposal occur.	Contractor	Construction	Additional safeguard
C6	Excavation	Where excavated material cannot be classified as virgin excavated natural material, it would be classified and disposed of to an appropriately licensed landfill in accordance with the Waste Classification Guidelines—Part 1: Classifying Waste and Part 2: Immobilisation of Waste.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
T1	Traffic and transport	<p>A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the Transport for NSW <i>Traffic Control at Work Sites Manual</i> (RTA, 2010) and <i>QA Specification G10 Control of Traffic</i> (TfNSW, 2008). The TMP will include:</p> <ul style="list-style-type: none"> • confirmation of haulage routes • measures to maintain access to local roads and properties • site specific traffic control measures (including signage) to manage and regulate traffic movement • measures to maintain pedestrian and cyclist access • requirements and methods to consult and inform the local community of impacts on the local road network • access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads • a response plan for any construction traffic incident • consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic • monitoring, review and amendment mechanisms. 	Contractor	Detailed design/ Pre-construction	Section 4.8 of QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
T2	Traffic and transport	Where possible, current traffic movements and property access are to be maintained during the works. Any disturbance is to be minimised to prevent unnecessary traffic delays.	Contractor	Construction	Additional safeguard
T3	Traffic and transport	Comply with Council requirements regarding traffic control, access and road/pedestrian access.	Contractor	Construction	Additional safeguard
T4	Traffic and transport	<p>The following measures would be applied during event day traffic:</p> <ul style="list-style-type: none"> • consultation with SOPA • where possible, current traffic movements and property access are to be maintained during the event. Any disturbance is to be minimised to prevent unnecessary traffic delays • if traffic disturbance is unavoidable, a TMP would be prepared. 	SOPA	Construction & Operation	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N1	Noise and vibration	<p>A Noise and Vibration Management Plan (NVMP) would be prepared and implemented as part of the CEMP. The NVMP would generally follow the approach in the Interim <i>Construction Noise Guideline</i> (ICNG) (DECC, 2009) and identify:</p> <ul style="list-style-type: none"> all potential significant noise and vibration generating activities associated with the activity feasible and reasonable mitigation measures to be implemented, taking into account <i>Beyond the Pavement: urban design policy, process and principles</i> (TfNSW, 2014) a monitoring program to assess performance against relevant noise and vibration criteria arrangements for consultation with affected property owners and sensitive receivers, including notification and complaint handling procedures contingency measures to be implemented in the event of non-compliance with noise and vibration criteria. 	Contractor	Detailed design/ Pre- construction	Standard safeguard NV1 Section 4.6 of QA <i>G36 Environment Protection</i>
N2	Noise and vibration	<p>All sensitive receivers likely to be affected would be notified at least seven days prior to commencement of any works associated with the activity that may have an adverse noise or vibration impact. The notification would provide details of:</p> <ul style="list-style-type: none"> the Proposal the construction period and construction hours contact information for project management staff complaint and incident reporting. 	Contractor	Detailed design/ Pre- construction	Standard safeguard NV2 Section 4.6 of QA <i>G36 Environment Protection</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N3	Noise	Where feasible, the use of noisy equipment such as jackhammers, vibratory rollers and profilers should be confined to standard hours or should be scheduled to be carried out early in the evening or night period.	Contractor	Construction	Additional safeguard
N4	Noise	Provide periods of respite from the use of noise intensive plant. Respite periods should be increased during periods where the community is more sensitive to noise such as evening and night-time hours.	Contractor	Construction	Additional safeguard
N5	Noise	Notify the community before starting any noise intensive work in accordance with the community consultation strategy.	Contractor/Transport for NSW	Construction	Additional safeguard
N6	Noise	Orientate stationary and directional noise sources away from sensitive receivers.	Contractor	Construction	Additional safeguard
N7	Noise	Use vehicles, obstacles and stockpiles onsite to provide shielding to receivers, especially for static noise sources.	Contractor	Construction	Additional safeguard
N8	Noise	Use equipment that has noise levels equal to or less than the sound power levels as defined in Appendix H of the REF.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N9	Noise and vibration road traffic	<p>Measures to reduce potential impacts from construction traffic:</p> <ul style="list-style-type: none"> specifying designated travel routes to and from the project site to avoid local roads and roads where residential receivers are potentially impacted restricting deliveries to standard working hours where possible prohibiting the use of engine/compression brakes in or near residential areas promoting driving behaviour that reduces potential noise impacts prohibiting engine be left idling near residential receivers when not in use strategic positioning of site accesses to minimise the chance of trucks passing by residential receivers, especially at night. 	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N10	Sleep disturbance	<p>Measures to reduce sleep disturbance:</p> <ul style="list-style-type: none">• works outside of standard hours should be performed in accordance with the CNVG• scheduled activities that are likely to cause maximum noise events such as deliveries, moving material or equipment, compacting and demolition works to avoid the night-time period (10 pm to 7 am)• avoid dropping tools or materials from height, striking materials, dragging materials or making metal on metal contact• educate workers on the importance of minimising noise and avoid creating short duration high noise level events• inform surrounding residents by mail, email or SMS of planned works prior to the works commencing.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N11	Vibration	<p>Measures to minimise the risk of vibration impacts:</p> <ul style="list-style-type: none"> the required locations for vibration intensive equipment would be reviewed during detailed design when more specific information is available all equipment would be maintained and operated in an efficient manner, in accordance with manufacturer's specifications, to reduce the potential for adverse vibration impacts ensure safe working distances where work is required within the nominated safe working distances objectives for human comfort, implementation of additional vibration mitigation measures would follow as outlined in Appendix H of the REF. 	Contractor	Construction	Additional safeguard
N12	Vibration	<p>If vibration intensive equipment is to be used within the safe working distances, the following would apply:</p> <ul style="list-style-type: none"> lower powered equipment to be considered attended vibration monitoring or vibration trials would be undertaken when proposed works are within the safe working distances to ensure that levels remain below the criterion as described in Appendix H of the REF. 	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N13	Vibration	<p>To minimise potential vibration impacts to the heritage listed item, the following would be considered:</p> <ul style="list-style-type: none"> • pre-construction arborist survey and advise safe working distances • regular surveys of the trees. 	Contractor	Construction	Additional safeguard
N14	Operational noise and vibration	At-property architectural treatments would be provided to mitigate any operational noise impacts, subject to the property development timing, and application of those treatments being deemed feasible and reasonable. Treatment would be determined following an inspection of the property, and any mitigation offered would be implemented in consultation with impacted property owners.	Transport for NSW	Detailed design/ pre-construction	Additional safeguard
H1	Aboriginal heritage	A <i>Standard Management Procedure – Unexpected Heritage Items</i> (TfNSW, 2015) would be implemented as part of the CEMP. It would provide specific guidance on measures and controls to be implemented for managing unexpected impacts on Aboriginal heritage.	Contractor	Detailed design/ pre-construction	Section 4.9 of QA G36 Environment Protection
H2	Non-Aboriginal heritage	A Non-Aboriginal Heritage Management Plan (NAHMP) would be prepared and implemented as part of the CEMP. It would provide specific guidance on measures and controls to be implemented to avoid and mitigate impacts to Non-Aboriginal heritage.	Contractor	Detailed design/ pre-construction	Section 4.10 of QA G36 Environment Protection

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
H3	Non-Aboriginal heritage	<i>The Standard Management Procedure – Unexpected Heritage Items</i> (TfNSW, 2015) would be followed in the event that any unexpected heritage items, archaeological remains or potential relics of Non-Aboriginal origin are encountered. Work would only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Detailed design/ pre-construction	Section 4.10 of QA G36 Environment Protection
H4	Non-Aboriginal heritage	Commitment to not destroying, modifying or physically affecting any heritage items outside of the study area.	Contractor	Detailed design/ pre-construction	Additional safeguard
H5	Non-Aboriginal heritage	Ensuring the Proposal's urban design considers local heritage values.	Proposal design engineer	Detailed design	Additional safeguard
H6	Non-Aboriginal heritage	Ensuring that any new ancillary facility locations avoid heritage impacts and secure the necessary approvals. The revegetation of affected areas, including within the curtilage of heritage item I20, with similar species of trees, shrubbery and seedlings.	Proposal design engineer	Detailed design/ pre-construction	Additional safeguard
H7	Non-Aboriginal heritage	Preparing management guidelines under the CEMP to protect tree roots, trunks, branches and tree crowns and to avoid working within any tree drip lines.	Contractor	Construction	Additional safeguard
H8	Non-Aboriginal heritage	Protection of heritage item A52 if there is any future proposals to work within the curtilage of the item.	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
S1	Socio-economic	<p>A Communication Plan would be prepared and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The plan would include as a minimum:</p> <ul style="list-style-type: none"> mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions contact name and number for complaints. <p>The plan would be prepared in accordance with the <i>Community Involvement and Communications Resource Manual</i> (RTA, 2008).</p>	Contractor/Transport for NSW	Pre-construction, Construction	SE1 QA G36 Environment Protection
S2	Socio-economic	Early and on-going communication and consultation would occur with property owners, business owners and residents about the property acquisition process.	Transport for NSW	Pre-construction	Additional safeguard
S3	Property acquisition	All property acquisition will be carried out in accordance with the <i>Land Acquisition Information Guide</i> (TfNSW, 2012) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .	Transport for NSW	Pre-construction	Additional safeguard
S4	Socio-economic	On-going communication and consultation with the owners of the impacted businesses would occur. This would include working with the business owners to manage and plan project construction activities and delivery to minimise impacts on their business operations.	Transport for NSW	Pre-construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
S5	Socio-economic	Ensure that works consider other active or planned construction projects in the area and that traffic and construction impact management approaches align to reduce cumulative impacts where possible. Consultation with local councils and relevant authorities could assist in early identification and mitigation.	Transport for NSW	Pre-construction, Construction	Additional safeguard
A1	Air quality	<p>An Air Quality Management Plan (AQMP) would be prepared and implemented as part of the CEMP. The AQMP would include, but not be limited to:</p> <ul style="list-style-type: none"> • potential sources of air pollution • air quality management objectives consistent with any relevant published EPA and/or OEH guidelines • mitigation and suppression measures to be implemented • compliance with Stockpile Site Management Guidelines (Roads and Maritime, 2015) • methods to manage work during strong winds or other adverse weather conditions • a progressive rehabilitation strategy for exposed surfaces. 	Contractor	Detailed design	Standard safeguard AQ1 Section 4.4 of <i>QA G36 Environment Protection</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
W1	Waste	<p>A Waste Management Plan (WMP) would be prepared and implemented as part of the CEMP. The WMP would include but not be limited to:</p> <ul style="list-style-type: none"> • measures to avoid and minimise waste associated with the Proposal • classification of wastes and management options (re-use, recycle, stockpile, disposal) • statutory approvals required for managing both on and off-site waste, or application of any relevant resource recovery exemptions • procedures for storage, transport and disposal • monitoring, record keeping and reporting. <p>The WMP would be prepared taking into account the Environmental Procedure - Management of Wastes on Roads and Maritime Services Land (RMS, 2014) and relevant Transport for NSW Waste Fact Sheets.</p>	Contractor	Pre-construction	Standard safeguard WR1 Section 4.2 of QA <i>G36 Environment Protection</i>
W2	Waste	Waste material would not be left on site once the work has been completed.	Contractor	Construction	Standard safeguard WR2 Section 4.2 of QA <i>G36 Environment Protection</i>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
W3	Waste	All wastes, including contaminated wastes, would be identified and classified in accordance with Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes. Disposal of any non-recyclable waste will be in accordance with the POEO Act and Waste Classification Guidelines: Part 1 Classifying Waste.	Contractor	Construction	Additional safeguard
G1	Construction greenhouse	<p>Plant and equipment would be switched off when not in use. Vehicles, plant and construction equipment would be appropriately sized for the task and properly maintained so as to achieve optimum fuel efficiency.</p> <p>Materials would be delivered with full loads and would come from local suppliers, where possible. The energy efficiency and related carbon emissions would be considered in the selection of vehicle and plant equipment.</p>	Contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
HR1	Hazards and risk management	<p>A Hazard and Risk Management Plan (HRMP) would be prepared and implemented as part of the CEMP. The HRMP would include, but not be limited to:</p> <ul style="list-style-type: none">• details of hazards and risks associated with the activity• measures to be implemented during construction to minimise these risks• record keeping arrangement, including information on the materials present on the site, material safety data sheets, and personnel trained and authorised to use such materials• a monitoring program to assess performance in managing the identified risks• contingency measures to be implemented in the event of unexpected hazards or risks arising, including emergency situations. <p>The HRMP would be prepared in accordance with relevant guidelines and standards, including relevant Safe Work Australia Codes of Practice, and EPA or Office of Environment and Heritage publications.</p>	Contractor	Detailed design/ pre-construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
CI1	Cumulative construction impacts	<p>The Consultation Plan would include consultation with proponents of the Carter Street Precinct, Stadium Australia Redevelopment, Sydney Olympic Park High School at Wentworth Point, Hill Road Master Plan, Parramatta Light Rail Stage 2 and Sydney Metro West projects to:</p> <ul style="list-style-type: none">• increase awareness of construction timeframes and impacts• coordinate impact mitigation and management such as respite periods.	Contractor	Pre-construction	Standard safeguard C11 Section 4.2 of QA G36 <i>Environment Protection</i>
CI1	Cumulative construction impacts	<p>The Contractor’s CEMP would be revised as required to consider potential cumulative impacts from surrounding development activities as they become known. This would include input from consultation with the proponent and/or lead contractor.</p>	Contractor	Pre-construction and construction	Additional safeguard

3.3 Licensing and approvals

No changes in licences and approvals have been revised for the Proposal (Section 7.3 of the REF). A summary of licensing and approvals for the Proposal are summarised in Table 3.2.

Table 3.2 Summary of licensing and approvals required

Instrument	Requirement	Timing
Protection of the Environment Operations Act 1997 (s43)	Environment protection licence (EPL) for scheduled activities such as road construction from the EPA.	Prior to start of the activity.
Protection of the Environment Operations Act 1997 (s43)	Environment protection licence (EPL) for non-scheduled activities for the purposes of regulating water pollution.	Prior to start of the activity.
Environmentally Hazardous Chemicals Act 1985 (s28)	A licence to carry on any prescribed activity with respect to an environmentally hazardous chemical or a declared chemical waste from the EPA.	Prior to start of the activity
Water Management Act 2000 (s91C)	Drainage work approval from DPI (Water).	Prior to start of the activity.
Water Management Act 2000 (s91D)	Flood work approval from DPI (Water). [Note exemption under s41E of the Water Management (General) Regulation 2011.]	Prior to start of the activity.
Roads Act 1993 (s138)	If required, a road occupancy licence may be required in consultation with Cumberland Council and/or City of Parramatta Council.	Prior to start of the activity.

4. References

- DECC 2009, Interim Construction Noise Guideline
- DPIE 2020, Carter Street Precinct Master Plan 2020
- RMS 2008, Roads and Maritime Landscape Guideline
- RMS 2011, Transport for NSW's Biodiversity Guidelines: Protecting and Managing Biodiversity on Projects
- RMS 2014, Environmental Procedure - Management of Wastes on Roads and Maritime Services Land
- RTA 1999, Transport for NSW Code of Practice for Water Management
- RTA 2008, Community Involvement and Communications Resource Manual
- RTA 2010, Transport for NSW Traffic Control at Work Sites Manual
- RTA 2011a, Guide 4: Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects
- RTA 2011b, Guide 3 Re-establishment of Native Vegetation of the Roads and Maritime Biodiversity Guidelines
- RTA 2011c, Guide 1: Pre-clearing process of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects
- RTA 2011d, Guide 6: Weed management of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects
- RTA 2011e, Roads and Maritime Biodiversity Guidelines
- RTA 2011f, Guide 2: Exclusion zones of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects
- RTA 2011g, Biodiversity Guidelines – Guide 7 Pathogen Management
- RTA 2011h, Guide 5: Re-use of woody debris and bushrock and Guide 8: Nest boxes of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects
- RTA 2011i, Guide 9: Fauna handling of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects TfNSW 2008
- TfNSW 2012, Bridge Aesthetics
- TfNSW 2013, Guidelines for the Management of Contamination
- TfNSW 2014, Beyond the Pavement: urban design policy, process and principles
- TfNSW 2015, Standard Management Procedure – Unexpected Heritage Items
- TfNSW 2021, Review of Environmental Factors, Hill Road upgrade, November 2021

Appendix A

Hill Road Upgrade, Review of Environmental Factors, November 2021

Appendix B

‘Have your say’ for Hill Road Upgrade at Sydney Olympic Park and Lidcombe

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