

Manns Road upgrade – Southbound approach to Stockyard Place intersection

Submissions report

Roads and Maritime Services | October 2019



Manns Road upgrade – Southbound approach to Stockyard Place intersection

Submissions report

Roads and Maritime Services | October 2019

Prepared by GHD Pty Ltd and Roads and Maritime Services
RMS.19.1417 ISBN: 978-1-922338-02-0

COPYRIGHT: The concepts and information contained in this document are the property of Roads and Maritime Services NSW (Roads and Maritime). Use or copying of this document in whole or in part without the written permission of Roads and Maritime constitutes an infringement of copyright.

Executive summary

The proposal

Roads and Maritime Services (Roads and Maritime) is planning a future upgrade of the southbound approach to Stockyard Place intersection on Manns Road, West Gosford (the proposal). The proposal is located within the Central Coast Council local government area (LGA) and extends along Manns Road for about 300 metres.

Key features of the proposal include:

- Providing an additional lane on Manns Road at the intersection for southbound traffic to provide:
 - a single dedicated right turn lane onto Stockyard Place
 - a single dedicated left turn lane into the Home Central commercial retail centre
 - dual through lanes
- Widening of Manns Road to the east from 270 metres north of the intersection to increase from one to two traffic lanes southbound
- Providing a central median on Manns Road from the intersection to about 125 metres north
- Providing a 1.5 metre wide footpath along the east of Manns Road north of the intersection
- Slight relocation of the shared pedestrian and cycle crossing on the east side of the intersection and retention of the shared pedestrian and cycle crossing on the north side of the intersection
- Upgrading and extending drainage infrastructure and stormwater management
- Relocating multiple public utility assets to allow road widening for the intersection upgrade, including undergrounding some existing overhead electricity cables
- Adjusting property boundary fencing, service connections and driveways to accommodate the road upgrade
- Asphalt pavement re-sheeting and line marking on Manns Road north of the intersection (southbound and northbound lanes) and across Stockyard Place to the east of the intersection.

Two construction compound areas are selected for the proposal, one located between Dyer Crescent, Manns Road and the Pacific Highway. The other is located on the southwest corner of the Dell Road and Manns Road intersection.

The proposal forms part of a program to progressively upgrade the Pacific Highway and Manns Road between the Central Coast Highway at West Gosford and the M1 Pacific Motorway at Ourimbah.

Display of the Review of Environmental Factors

Roads and Maritime prepared a review of environmental factors (REF) for the Manns Road upgrade – Southbound approach to Stockyard Place intersection. The REF was displayed for community feedback between Monday 20 May 2019 and 14 June 2019 at Central Coast Council's Gosford Office on Mann Street. It was also available for viewing and download at rms.nsw.gov.au/mannsroad.

The display locations and website link were made available to the community via community update, advertisements in the local paper, social media and direct email.

A community information session was also hosted to give the community the chance to ask the project team questions and learn more about the proposal.

Summary of issues and responses

Public display of the REF and the supporting consultation resulted in a total of eight submissions, of which four were from the general community and four were from businesses. No submissions were received from Council, government agencies or utility service providers.

Of these submissions, two supported the proposal and three opposed the proposal. The remaining three submissions offered no position on whether they supported or opposed to the proposal.

The issues raised and responses to those issues are summarised in the following sections.

Strategic need for the proposal

Respondents requested information about the adjacent sections, as well as the larger program to upgrade the Pacific Highway and Manns Road corridor between the Central Coast Highway at West Gosford and the M1 Pacific Motorway at Ourimbah.

This proposal includes an early phase of work within the larger ongoing program. Traffic modelling indicates that upgrading the two intersections at Stockyard Place and Narara Creek Road is the highest priority to improve travel times and safety at the southern end of the route.

For more information on the overall upgrade, visit <https://www.rms.nsw.gov.au/projects/central-coast/pacific-highway/index.html>

Design features

Respondents raised questions relating to the provision of stormwater treatment in the design.

The proposal would not result in any significant water quality impacts. Providing water quality devices for this proposal are likely to have little overall benefit in the context of the catchment.

Urban design and landscaping

Respondents requested more landscaping as part of the proposal.

A concept landscaping plan has been prepared for the proposal that includes grass, some shrub plantings, concrete paths, walls and drainage. This plan will be further refined during detailed design to make use of available space.

Business impacts

Respondents raised concerns regarding changes to business access resulting from the central raised median strip on Manns Road. Respondents requested design changes and compensation for loss of business.

Providing a raised central median between northbound and southbound lanes would improve the safety of Manns Road.

Roads and Maritime will work with affected owners to ensure deliveries can be received via left in and left out movements. This may require additional upgrades to existing driveways to be incorporated into the proposal design. During detailed design, Roads and Maritime will also investigate information for individual business owners to identify possible routes for deliveries, to assist them with their suppliers and customers, after construction of the central raised median.

Compensation to a land owner would only result from the physical acquisition of land for the proposal and would be carried out in accordance with *Roads and Maritime's Land Acquisitions Policy Statement* (Roads and Maritime, 2012d) and the *Land Acquisition (Just Terms Compensation) Act 1991*.

Next steps

Roads and Maritime as the determining authority will consider the information in the REF and this submissions report and make a decision whether or not to proceed with the proposal.

Roads and Maritime 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.

Executive summary	i
1. Introduction and background	1
1.1 The proposal.....	1
1.2 REF display	1
1.3 Purpose of the report	4
2. Response to issues	5
2.1 Overview of issues raised	5
2.2 Issue: Strategic need for the proposal.....	5
2.3 Issue: Design features	6
2.4 Issue: Urban design and landscaping	6
2.5 Issue: Business impacts.....	7
3. Environmental management.....	9
3.1 Environmental management plans (or system)	9
3.2 Summary of safeguards and management measures	9
3.3 Licensing and approvals	32
4. References	33

Tables

Table 2-1: Respondents5

Table 3-1: Summary of environmental safeguards and management measures..... 10

Table 3-2: Summary of licensing and approval required32

1. Introduction and background

1.1 The proposal

Roads and Maritime is planning a future upgrade of the southbound approach to Stockyard Place intersection on Manns Road, West Gosford (the proposal). The proposal is located within the Central Coast Council local government area (LGA) and extends along Manns Road for about 300 metres. The proposal is shown on Figure 1-1 and Figure 1-2.

The proposal forms part of a larger program to upgrade the Pacific Highway and Manns Road between the Central Coast Highway at West Gosford and the M1 Pacific Motorway at Ourimbah.

A more detailed description of the proposal is found in the Manns Road upgrade – Southbound approach to Stockyard Place Intersection Review of Environmental Factors prepared by Roads and Maritime in May 2019.

1.2 REF display

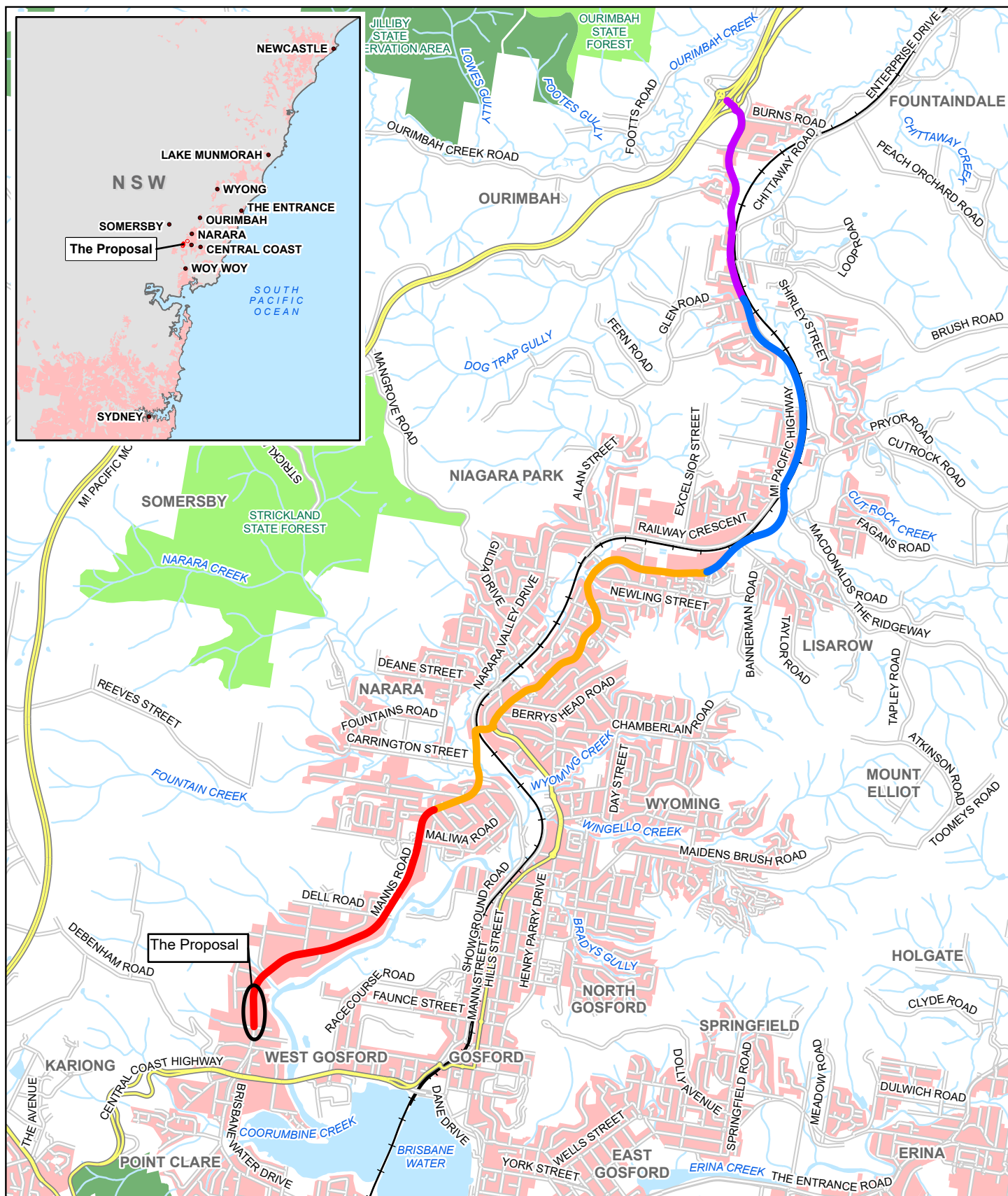
Roads and Maritime prepared a review of environmental factors (REF) to assess the potential environmental impacts of the proposed works. The REF was displayed for community feedback between 20 May 2019 and 14 June 2019 at Central Coast Council's Gosford Office on Mann Street. It was also available for viewing and downloading at rms.nsw.gov.au/mannsroad.

The REF display locations and website link were made available to the community via:

- Community update featuring project background, key features, concept design and display details distributed to West Gosford and Narara postcodes on 20 May 2019
- Advertisements in the Central Coast Express Advocate on 23 May 2019 and 30 May 2019
- Facebook post on NSW Roads on 20 May 2019
- Direct email to key stakeholders and community members who had previously registered interest.

A community information session was hosted on 30 May 2019 to give the community the chance to ask the team questions and learn more about the proposal.

During the display period, Roads and Maritime met with some property owners to discuss their concerns. Roads and Maritime will continue to consult with all affected landholders during the detailed design stage.



Roads and Maritime Services
 Manns Road Upgrade
 Submissions Report - Stockyard Place Intersection Upgrade

Job Number 22-19033
 Revision 0
 Date 27/08/2019

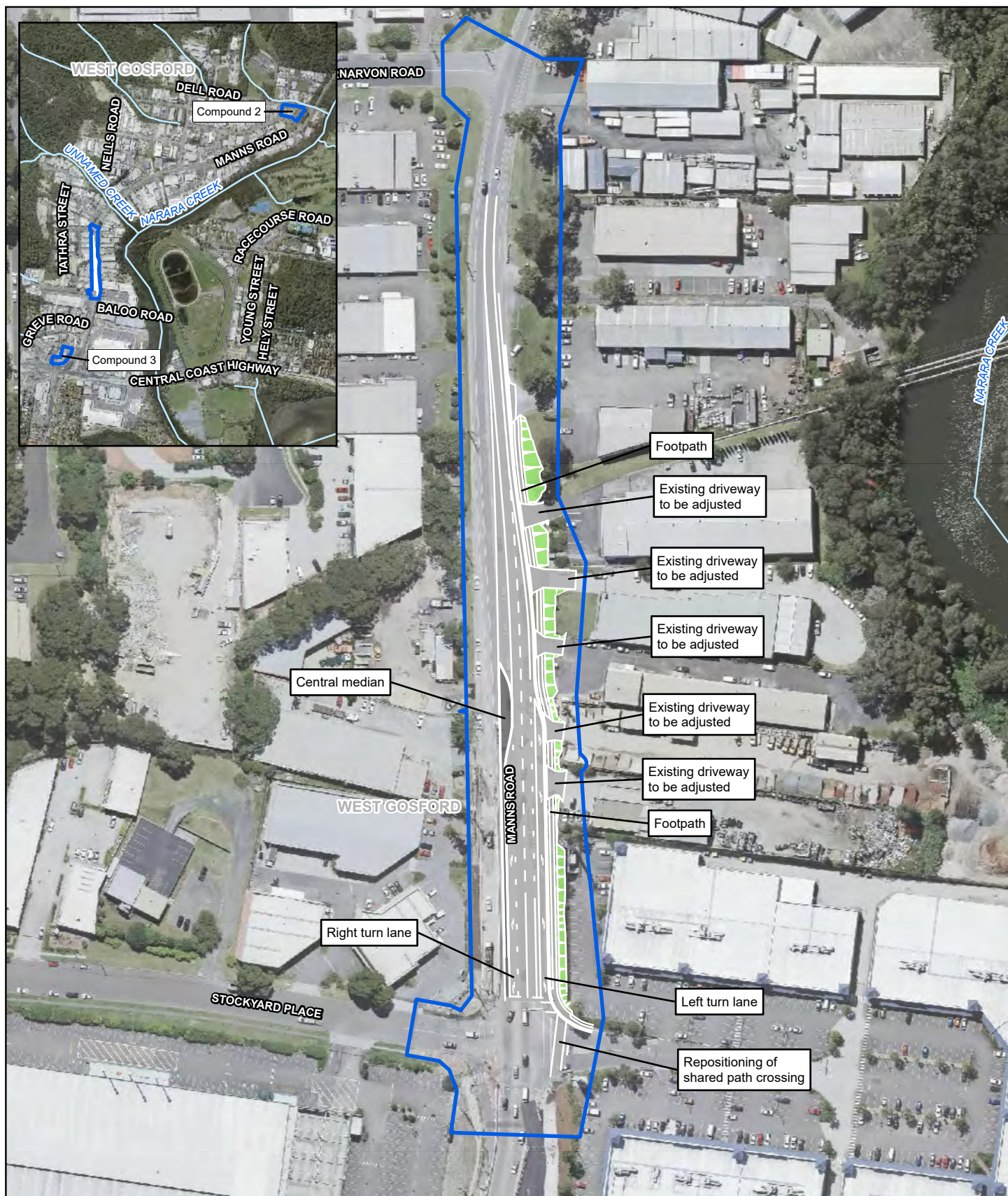
Regional Context

Figure 1-1

\\ghdnet\ghd\AU\Newcastle\Projects\22\19033\GIS\Maps\Proj\22\19033_MannsRoad\SubmissionsReport\StockyardPlace\Map_0.aprx
 Level 3, GHD Tower 24, Hopeysuckle Drive, Newcastle NSW 2300 T 61 2 4979 9999 F 61 2 4979 9988 E ntlmail@ghd.com W www.ghd.com.au

© 2019. Whilst every care has been taken to prepare this map, GHD and LPI make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Data source: LPI: DTDB / DCDB, 2017. Created by: TMorton



LEGEND

 The Proposal

Concept design

Watercourse

Design Features

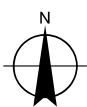
Earthworks

Median

Pavement

Paper Size A4
0 10 20 30 40
Metres

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56



Roads and Maritime Services
Manns Road Upgrade
Submissions Report - Stockyard Place Intersection Upgrade

Job Number 22-19033
Revision 0
Date 27/08/2019

Overview of the proposal and key features

Figure 1-2

\\ghdnet\ghd\AU\Newcastle\Projects\22\19033\GIS\Maps\Proj\22\19033_MannsRoad\SubmissionsReport\StockyardPlace-0.aprx Level 3, GHD Tower 24 Honeysuckle Drive, Newcastle NSW 2300 T 61 2 4979 9999 F 61 2 4979 9988 E ntlmail@ghd.com W www.ghd.com.au

© 2019. Whilst every care has been taken to prepare this map, GHD and LPI make no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and cannot accept liability and responsibility of any kind (whether in contract, tort or otherwise) for any expenses, losses, damages and/or costs (including indirect or consequential damage) which are or may be incurred by any party as a result of the map being inaccurate, incomplete or unsuitable in any way and for any reason.

Data source: LPI: DTDB, 2017. RMS: Aerial Imagery, 2017. Created by:TMorton

1.3 Purpose of the report

This submissions report relates to the REF prepared for the Stockyard Place intersection on Manns Road, West Gosford, 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 Roads and Maritime. This submissions report summarises the issues raised, provides responses to each issue (Chapter 2) and identifies environmental management measures (Chapter 3).

No changes are proposed that would require the preparation of a preferred infrastructure report. No revisions have been made to the assessment as described in the REF. After consideration of the issues raised in the public submissions and changes to the proposal, one revision to the safeguard and management measures as described in the REF has been made.

2. Response to issues

Roads and Maritime Services received eight submissions. Table 2-1 lists the respondents and each respondent's allocated submission number. The table also indicates where the issues from each submission have been addressed in Chapter 2 of this report.

Table 2-1: Respondents

Respondent	Submission No.	Section number where issues are addressed
Business	1	2.5
Business	2	2.5
Business	3	2.5
Business	4	2.3, 2.4
Individual	5	2.2
Individual	6	2.2
Individual	7	2.5
Individual	8	2.5

2.1 Overview of issues raised

A total of eight submissions were received in response to the display of the REF. This included four submissions from individuals, four from businesses and none from government agencies.

Each submission has been examined individually to understand the issues being raised. The issues raised in each submission have been extracted and collated, and corresponding responses to the issues have been provided. Where similar issues have been raised in different submissions, only one response has been provided. The issues raised and Roads and Maritime response to these issues forms the basis of this chapter.

Two submissions supported the proposal, three opposed and three did not offer a position, or were considered out of scope for this proposal. The main issues raised by the submissions related to the strategic need for the proposal and business impacts.

2.2 Issue: Strategic need for the proposal

Submission number(s)

5, 6

Issue description

In summary, the respondents raised the following issues:

- Why the adjacent sections of Manns Road were not being upgraded to two lanes in each direction
- Request for information relating to other sections of the overall upgrade.

Response

Section 2.1 of the REF, outlines the strategic need for the proposal and how it fits within the wider Manns Road upgrade.

The proposal forms part of a larger program to upgrade the Pacific Highway and Manns Road corridor between the Central Coast Highway at West Gosford and the M1 Pacific Motorway at Ourimbah.

In recognition of the complexity and size of this upgrade, Roads and Maritime is developing it in stages. The first stage involves proposed intersection and approach upgrades on Manns Road at Stockyard Place, West Gosford and Narara Creek Road, Narara to improve road safety and reduce travel times.

Traffic modelling indicates that upgrading the two intersections at Stockyard Place and Narara Creek Road is the highest priority to improve travel times and safety at the southern end of the route. This allows the time to fully plan, program, fund and complete other future work along the route which would include two lanes in each direction.

For more information on the overall upgrade, visit <https://www.rms.nsw.gov.au/projects/central-coast/pacific-highway/index.html>

2.3 Issue: Design features

Submission number(s)

4

Issue description

In summary, the respondents raised the following issues:

- Request for stormwater treatment in design.

Response

As discussed in sections 6.5.3 and 6.1.3 of the REF, the proposal would not result in any significant water quality impacts

Drainage upgrades as part of the proposal are limited to road surface drainage and would tie into existing drainage infrastructure near the works. There is limited opportunity for water quality treatment devices within this proposal due to space constraints and underground utility services within the road corridor. Further, water quality devices for this proposal are likely to have little overall benefit in the context of the larger catchment where there is a substantial amount of untreated drainage already flowing into the area from the surrounding commercial area.

2.4 Issue: Urban design and landscaping

Submission number(s)

4

Issue description

In summary, the respondent raised the following issue:

- Request for more landscaping as part of the proposal, including between roadway and properties

Response

Section 6.6.3 of the REF provides a concept landscaping plan for the proposal that includes grass, some shrub plantings, concrete paths, walls and drainage. During detailed design, and as required by the existing safeguards labelled L&V1 and L&V6 in Table 3-1 of this report, landscaping plans would be further refined to make use of the available space, integrate with the surrounding landscape and reduce visual impact where possible. The proposal would not concrete the entire verge. However, further opportunities for additional plantings may also be constrained by underground and overhead services, visibility for driveways and safety considerations for maintenance.

2.5 Issue: Business impacts

Submission number(s)

1, 2, 3, 7, 8

Issue description

In summary, the respondents raised the following issues:

- Concerns regarding access to businesses for both customers and long delivery trucks due to the installation of the central raised median strip on Manns Road
- Noted that the proposal would not directly impact an individual business
- Suggested a shortened raised central median
- Suggested providing a central median turning lane rather than a raised central median
- Request for compensation for loss of business due to proposal.

Response

As outlined in section 6.3.3 of the REF, the existing access arrangements to four businesses within the proposal footprint would be impacted due to the extension of a raised concrete median north of Stockyard Place. It would prevent vehicles from turning right into and out of the accesses.

Section 6.8.3 of the REF outlines consultation carried out with local businesses, including specific concerns that the raised central median in the proposal design may deter some customers from accessing businesses along this section, as well make it difficult for trucks to reverse into properties along Manns Road.

The proposal would improve the safety of Manns Road by providing a raised central median between northbound and southbound lanes, which would reduce crashes from vehicles turning across oncoming traffic. The proposal would also help to manage safety and congestion issues arising from trucks currently reversing to access businesses along Manns Road. This reversing activity, which often blocks both lanes of Manns Road, is one of the current safety and traffic issues that the proposal aims to resolve.

The REF analysed the potential for delivery vehicles and customers to use alternative routes in the local network around Manns Road. Delays were not significant and other options in the local area may be available depending on the type of vehicle. Regarding concerns that trucks with trailers may have difficulty turning around in side streets, any vehicles seeking to enter businesses would need to plan their travel route and obey the traffic rules. In conclusion, providing a raised central median would improve safety in the long-term, and would not cause major diversions or complete loss of access.

Modifications to the length of the central raised median are not possible as it will affect the objective of improving the performance of the traffic light controlled intersection.

Providing a wide central median turning lane would require more width than a conventional raised median, which would result in a significant increase in property acquisition and further impact to adjoining businesses. Also, a wide median is not suitable due to the existing and future high traffic volumes, nearby traffic lights and associated safety issues. A raised central median would separate opposing directions of traffic and prevent potential safety issues associated with stopped and turning vehicles.

Roads and Maritime note the raised median may restrict heavy vehicle deliveries into businesses. Roads and Maritime will work with affected owners to ensure deliveries can be received via left in and left out movements. This may require additional upgrades to existing driveways to be incorporated into the proposal design in accordance with safeguard labelled TRA4 in Table 3-1 of this report.

During detailed design, Roads and Maritime will also investigate information for individual business owners to identify possible routes for deliveries, to assist them with their suppliers and customers, for a short period after construction of the central raised median. This may include the development of information materials for suppliers and customers to assist in communicating changes to turning movements or the short term provision of variable message boards to identify changes and alternative routes, if supported by the local council.

Compensation to a land owner would only result from the physical acquisition of land for the proposal. As stated in section 3.6 of the REF, all land acquisition would be carried out in accordance with *Roads and Maritime's Land Acquisitions Policy Statement* (Roads and Maritime, 2012d) and the requirements of the *Land Acquisition (Just Terms Compensation) Act 1991*.

3. Environmental management

The REF for the Manns Road upgrade – Southbound approach to Stockyard Place intersection identified the framework for environmental management, including safeguards and management measures that would be adopted to avoid or reduce environmental impacts (section 7 of the REF).

After consideration of the issues raised in the public submissions and changes to the proposal, one revision to the safeguard and management measures has been developed at TRA5. This change is shown in ***bold italics***.

Should the proposal proceed, environmental management will be guided by the framework and measures outlined in the following sections.

3.1 Environmental management plans (or system)

A number of safeguards and management measures have been identified to minimise adverse environmental impacts, including social impacts, which may 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 Project Environmental Management Plan (PEMP) and a *Construction Environmental Management Plan* (CEMP) will be prepared to describe safeguards and management measures identified. The PEMP and CEMP will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The PEMP and CEMP will be prepared prior to construction of the proposal and must be reviewed and certified by the Roads and Maritime Environment Officer, Central Coast, 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 PEMP and 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 Manns Road upgrade - Southbound approach to Stockyard Place intersection identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts. These environmental management measures are provided in Table 3-1.

Table 3-1: Summary of environmental 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 Roads and Maritime Environment Manager prior to start 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 proposal 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>	Construction contractor	Construction	Core standard safeguard
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 start of the activity.	Construction contractor	Construction	Core standard safeguard

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 proposal. 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. This includes the hollow bearing tree in the northeast of the proposal footprint.</p>	Construction contractor	Construction	Core standard safeguard
HYD1	Surface water pollution	A Soil and Water Management Plan (SWMP) will be prepared and implemented as part of the CEMP. The SWMP will identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks will be addressed during construction.	Construction contractor	Construction	<p>Core standard safeguard</p> <p>Section 2.1 of QA G38 <i>Soil and Water Management</i></p>
HYD2	Soil and water	<p>A site specific Erosion and Sediment Control Plan/s will be prepared and implemented as part of the SWMP.</p> <p>The Plan will include arrangements 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.</p>	Construction contractor	Construction	<p>Core standard safeguard</p> <p>Section 2.2 of QA G38 <i>Soil and Water Management</i></p>
HYD3	Water quality	<p>Specific measures to be incorporated into the SWMP include:</p> <ul style="list-style-type: none"> • Use existing grass lined drainage channels for clean water diversion where available • Install additional stabilised diversion drains where necessary to separate clean and dirty areas and incorporate necessary sediment and erosion controls • Treat highly chlorinated water prior to release in accordance with water company guidelines. 	Construction contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
HYD4	Flooding and hydrology impacts	<p>The SWMP would include measures to maintain surface water flows during work on existing and new drainage and avoid localised flooding of the road and adjacent properties including:</p> <ul style="list-style-type: none"> • The provision of temporary alternative drainage arrangements during works on existing drainage lines • Removing debris, soil/gravel, equipment and other obstructions routinely following periods of work and before forecast wet weather • Not stockpiling materials below the mapped 10 year flood level in accordance with blue book requirements • Regular inspection during high rainfall events • Scheduling works wherever possible during low rainfall periods. 	Construction contractor	Construction	Additional safeguard
N&V1	Construction noise and vibration management	<p>A Noise and Vibration Management Plan (NVMP) will be prepared and implemented as part of the CEMP. The NVMP will generally follow the approach in the Interim <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> (Roads and Maritime Services, 2014) • A monitoring program to assess performance against relevant noise and vibration criteria • Arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures • Contingency measures to be implemented in the event of non-compliance with noise and vibration criteria. 	Construction contractor	Construction	<p>Core standard safeguard</p> <p>Section 4.6 of QA G36 <i>Environment Protection</i></p> <p><i>Interim Construction Noise Guideline</i> (DECC, 2009)</p> <p><i>Beyond the Pavement: urban design policy, process and principles</i> (Roads and Maritime, 2014)</p>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N&V2		<p>Include measures in the NVMP to shield sensitive receivers from noise, including:</p> <ul style="list-style-type: none"> • Placement and layout of construction compounds to locate primary noise sources away from sensitive receivers • Use solid structures (sheds, containers, etc.) at shields for sensitive receivers • Enclose fixed noise sources such as pumps, compressors, fans, screens (where practicable). 	Construction contractor	Construction	Additional safeguard
N&V3		Where exceedances of construction noise management levels remain after the implementation of standard noise mitigation measures, additional noise mitigation measures are to be outlined in the construction NVMP, which will be implemented where reasonable and feasible. Guidance on suggested additional noise mitigation measures for each receiver are provided in the specialist noise report attached to this REF.	Construction contractor	Construction	Additional safeguard
N&V4	Construction vibration impacts	Include a complaints procedure in the NVMP to address complaints and corrective actions. This should include the requirement to undertake noise monitoring if applicable.	Construction contractor	Construction	Additional safeguard
N&V5		<p>All sensitive receivers (for example local residents) likely to be affected will be notified at least five calendar days prior to start of any works associated with the activity which may have an adverse noise or vibration impact. The notification will provide details of:</p> <ul style="list-style-type: none"> • The proposal • The construction period and construction hours • Contact information for proposal management staff • Complaint and incident reporting • How to obtain further information. 	Construction contractor	Construction	Core standard safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N&V6		<p>An out-of-hours work procedure for assessing and managing activities requiring work outside of standard hours will be developed and would include the following:</p> <ul style="list-style-type: none"> • Five working days prior to the activity starting, contact the receivers from the local community which are potentially affected by the proposed work and inform them by letter of the proposed work, location, type of work, days and dates of work and hours involved. The contact will be made before the start of work • A 24-hour community liaison phone number and permanent site contact will be provided so complaints can be received and addressed in a timely manner • Measures to investigate and respond to any valid noise complaints. 	Construction contractor	Construction	Additional safeguard
N&V7		Building condition surveys will be conducted at receivers (as required) within 50 metres of proposed vibration generating activities (buildings and other structures).	Construction contractor	Construction	Additional safeguard
N&V8		Where construction activities are scheduled to use vibration generating equipment, and there are occupied buildings within the relevant buffer distances specified in Table 5-27 of the Manns Road upgrade – Southbound Approach to Stockyard Place Intersection Noise and Vibration Assessment, a notification to the affected properties would occur prior to the start of the construction activity.	Construction contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
N&V9		Develop a monitoring plan in the NVMP that covers potential high vibration activities including works within 13 metres of sensitive receivers. The plan would include trial monitoring to determine actual vibration levels likely from the activity and a procedure for dealing with exceedances of the vibration criteria, which would include ceasing activities and investigation of alternative work methods.	Construction contractor	Construction	Additional safeguard
N&V10	Construction noise impacts – machinery	Where practical, construction equipment and machines will be selected to minimise noise emissions, fitted with appropriate silencers and be maintained in good working order.	Construction contractor	Construction	Additional safeguard
TRA1	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 Roads and Maritime <i>Traffic Control at Work Sites Manual</i> (RTA, 2010) and <i>QA Specification G10 Control of Traffic</i> (Roads and Maritime Services, 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 and any local parking changes • 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 	Construction contractor	Construction	<p>Core standard safeguard</p> <p>Section 4.8 of QA G36 <i>Environment Protection</i></p> <p><i>Traffic Control at Work Sites Manual</i> (RTA, 2010)</p> <p><i>QA Specification G10 Control of Traffic</i> (Roads and Maritime Services, 2008)</p>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> Consideration of other developments which may be under construction to minimise traffic conflict and congestion which may occur due to the cumulative increase in construction vehicle traffic Monitoring, review and amendment mechanisms. 			
TRA2	Traffic congestion	Construction activities which could substantially affect traffic congestion will be carried out outside peak periods, as far as is practicable.	Construction contractor	Construction	Additional safeguard
TRA3	Access	Heavy vehicle traffic will be restricted, as much as possible, to the existing main roads (such as Manns Road) to minimise impacts on local roads and streets.	Construction contractor	Construction	Additional safeguard
TRA4		Property and access adjustments would be designed to cater for the required vehicles accessing each site.	Detailed designer	Detailed design	Additional safeguard
TRA5		<p>Further consultation with businesses would be carried out to identify appropriate alternate options/routes for long vehicles.</p> <p><i>This may include the development of information materials for suppliers and customers to assist in communicating changes to turning movements or the short term provision of variable message boards to identify changes and alternative routes, if supported by the local council.</i></p>	Detailed designer	Detailed design	Additional safeguard
TRA6		Where access to property/businesses would be disrupted for an extended period, alternative access would be provided.	Construction contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
BIO1	Environmental management	<p>A Flora and Fauna Management Plan will be prepared in accordance with Roads and Maritime's <i>Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA Projects</i> (RTA, 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> (RTA, 2008) Pre-clearing survey requirements Procedures for unexpected threatened species finds and fauna handling Procedures addressing relevant matters specified in the <i>Policy and guidelines for fish habitat conservation and management</i> (DPI, 2013) Protocols to manage weeds and pathogens. 	Construction contractor	Construction	Core safeguard <i>Landscape Guideline</i> (RTA, 2008) <i>Policy and guidelines for fish habitat conservation and management</i> (DPI, 2013) <i>Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA Projects</i> (RTA, 2011)
BIO2	Habitat loss	Measures to further avoid and minimise the proposal footprint and native vegetation or habitat removal will be investigated during detailed design and implemented where practicable and feasible.	Detailed designer	Detailed design	Core standard safeguard
BIO3		The hollow-bearing tree within the proposal footprint opposite Carnarvon Road will be investigated during detailed design for preservation from disturbance.	Detailed designer	Detailed design	Additional safeguard
BIO4		If the hollow-bearing tree does not need to be removed, it will be demarcated and avoided during construction work in accordance with the Roads and Maritime <i>Biodiversity Guidelines</i> (Roads and Traffic Authority, 2011).	Construction contractor	Construction	Additional safeguard <i>Roads and Maritime Biodiversity Guidelines</i> (Roads and Traffic Authority, 2011).

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
BIO5	Weed removal and spread	Protocols for preventing or minimising the spread of priority and environmental weeds will be developed and implemented in accordance with the <i>Roads and Maritime Biodiversity Guidelines (Guide 6: Weed Management)</i> (RTA 2011).	Construction contractor	Construction	Additional safeguard <i>Roads and Maritime Biodiversity Guidelines (Guide 6: Weed Management)</i> (RTA 2011).
BIO6	Weed invasion and edge effects	Ongoing weed management and control in accordance with the <i>Roads and Maritime Biodiversity Guidelines</i> (Roads and Traffic Authority, 2011).	Roads and Maritime	Operation	Additional safeguard <i>Roads and Maritime Biodiversity Guidelines</i> (Roads and Traffic Authority, 2011).
SOIL 1	Contaminated land	If contaminated areas are encountered during construction, appropriate control measures will be implemented to manage the immediate risks of contamination. All other works that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Roads and Maritime Environment Manager and/or EPA.	Construction contractor	Construction	Core standard safeguard Section 4.2 of QA G36 <i>Environment Protection</i>
SOIL 2		If compound 3 will be utilised as a construction compound, a site investigation for potential contamination will be completed prior to use to ensure suitability.	Roads and Maritime	Detailed design	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
SOIL 3	Exposure of soil to erosion	<p>A soil and water management plan (SWMP) will be prepared as part of the CEMP in accordance with the requirements of Roads and Maritime contract specification G38 prior to the start of construction. The SWMP will address the following:</p> <ul style="list-style-type: none"> • Roads and Maritime <i>Code of Practice for Water Management, the Roads and Maritime Erosion and Sedimentation Procedure</i> • The NSW Soils and Construction – <i>Managing Urban Stormwater Volume 1 'the Blue Book'</i> (Landcom, 2004) and Volume 2 (DECC, 2008) • <i>Roads and Maritime Stockpile Site Management Guideline</i> (Roads and Maritime, 2015) • <i>Technical Guideline: Temporary Stormwater Drainage for Road Construction</i>, (Roads and Maritime 2011) • <i>Technical Guideline: Environmental Management of Construction Site Dewatering</i>, (Roads and Maritime 2011). 	Construction contractor	Construction	Additional safeguard <i>QA G36 Environment Protection</i>
SOIL 4		Prepare and implement a progressive erosion and sediment control plan prior to the start of each stage of construction.	Construction contractor	Construction	Additional safeguard
SOIL 5		Develop an inspection and maintenance programme to check the adequacy of controls, particularly after a rainfall event.	Construction contractor	Construction	Additional safeguard
SOIL 6		Disturbed areas of the site would be progressively scheduled for ground stabilisation and/or final landscaping treatment where possible at the end of each construction stage.	Construction contractor	Construction	Additional safeguard
SOIL 7	Accidental spill	Erosion and sediment controls would be retained and maintained until effective soil cover (at least 70 per cent coverage) is achieved.	Construction contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
SOIL 8		Controls will be implemented at exit points to minimise the tracking of soil and particulates onto pavement surfaces. Any material transported onto pavement surfaces will be swept and removed at the end of each working day.	Construction contractor	Construction	Additional safeguard
SOIL 9		A site specific emergency spill plan will be developed for inclusion in the CEMP, and include spill management measures in accordance with the <i>Roads and Maritime Code of Practice for Water Management</i> (RTA, 1999) and relevant EPA guidelines. The plan will address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Roads and Maritime and EPA officers).	Construction contractor	Construction	Core standard safeguard Section 4.3 of QA G36 <i>Environment Protection</i> <i>Roads and Maritime Code of Practice for Water Management</i> (RTA, 1999)
SOIL 10		Fully equipped emergency spill kits will be kept on-site at all times	Construction contractor	Construction	Additional safeguard
SOIL 11	Storage and disposal of construction materials	Excess spoil not required or able to be used for backfilling will be stockpiled in a suitable location before being reused or removed from the site, and disposed of appropriately in accordance with the NSW EPA <i>Waste Classification Guidelines</i> (2014).	Construction contractor	Construction	Additional safeguard NSW EPA <i>Waste Classification Guidelines</i> (2014)

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
L&V1	Landscape character and visual impact	<p>An Urban Design Plan will be prepared to support the final detailed proposal design and implemented as part of the CEMP.</p> <p>The Urban Design Plan will present an integrated urban design for the proposal, providing practical detail on the application of design principles and objectives identified in the environmental assessment. The Plan will include design treatments for:</p> <ul style="list-style-type: none"> • Location and identification of existing vegetation and proposed landscaped areas, including species to be used • Built elements including retaining walls • Pedestrian and cyclist elements including footpath location, paving types and pedestrian crossings • Fixtures such as seating, lighting, fencing and signs • Details of the staging of landscape work taking account of related environmental controls such as erosion and sedimentation controls and drainage • Procedures for monitoring and maintaining landscaped or rehabilitated areas. <p>The Urban Design Plan will be prepared in accordance with relevant guidelines, including:</p> <ul style="list-style-type: none"> • Beyond the Pavement urban design policy, process and principles (Roads and Maritime, 2014) • Landscape Guideline (RTA, 2008) • Bridge Aesthetics (Roads and Maritime 2012) • Shotcrete Design Guideline (RTA, 2016). <p>The Urban Design Plan will also take this environmental assessment and the urban design principles.</p>	Detailed designer	Detailed design	<p>Standard core safeguard</p> <p>Beyond the Pavement urban design policy, process and principles (Roads and Maritime, 2014)</p> <p><i>Landscape Guideline</i> (RTA, 2008)</p> <p>Bridge Aesthetics (Roads and Maritime 2012)</p> <p>Shotcrete Design Guideline (RTA, 2005)</p>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
L&V2	Visual impacts	Develop a limited range of materials, colours and textures for all built elements to achieve a simple uncluttered design. The types of materials proposed are to reflect the locality and be appropriate for its intended application.	Detailed designer	Detailed design	Additional safeguard
L&V3		Compounds, storage areas, stockpiles and associated work areas will be located in cleared or disturbed areas as far as possible.	Construction contractor	Construction	Additional safeguard
L&V4		The construction site will be kept tidy and rubbish free.	Construction contractor	Construction	Additional safeguard
L&V5		Work areas will be restored progressively and maintained until established.	Construction contractor	Construction	Additional safeguard
L&V6		The site will be rehabilitated and landscaped in accordance with an approved landscape plan.	Construction contractor	Construction	Additional safeguard
L&V7	Vegetation removal	Existing vegetation will be maintained and protected wherever possible. Trimming of trees rather than clearing will be carried out where possible. The existing large tree currently located within the verge of the proposal footprint about 200 metres north of the intersection will be investigated for long-term retention in landscape design.	Construction contractor	Construction	Additional safeguard
L&V8	Light spill	Temporary lighting for construction will be sited and designed to minimise light spill into identified sensitive receptors.	Construction contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
PRP1	Property acquisition	All property acquisition will be carried out in accordance with the <i>Land Acquisition Information Guide</i> (Roads and Maritime, 2012) and the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .	Roads and Maritime	Detailed design	Standard core safeguard <i>Land Acquisition Information Guide</i> (Roads and Maritime, 2012) <i>Land Acquisition (Just Terms Compensation) Act 1991</i> .
PRP2		Carry out regular and ongoing engagement with the property owners affected by property acquisition.	Roads and Maritime	Detailed design	Additional safeguard
PRP3	Land use impacts	Consult with potentially affected landholders before and during construction in accordance with the Communications Plan to minimise the potential for impacts on land use.	Roads and Maritime	Detailed design	Additional safeguard
PRP4	Neighbouring properties	Maintain safe access to impacted properties along Manns Road during construction. Any disruption to access and properties will be minimised and will only be carried out following consultation and agreement with individual property owners affected by the work.	Construction contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
SOC1	General construction impacts	<p>A Communication Plan will be prepared and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The Communication Plan will be prepared in accordance with the <i>Community Involvement and Communications Resource Manual</i> (RTA, 2008) and 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 land number for enquiries and complaints. <p>The Communication Plan will be prepared in accordance with the <i>Community Involvement and Communications Resource Manual</i> (RTA, 2008).</p>	Construction Contractor	Construction	<p>Standard core safeguard</p> <p><i>Community Involvement and Communications Resource Manual</i> (RTA, 2008)</p> <p>Additional safeguard</p>
SOC2		<p>Additional aspects to be considered in the Communication Plan would comprise:</p> <ul style="list-style-type: none"> • Communication with the community with timely and relevant information to enable them to understand the likely nature, extent and duration of vibration, dust, noise and utility impacts, access changes, and changes to parking • Communications will include roadside signage, letterbox dropped newsletters, newspaper advertisements, construction hoarding or proposal signs including contact details, Roads and Maritime web based information and proposal enquiries line. 	Construction Contractor	Construction	Additional safeguard
SOC3	Traffic delays	A detailed traffic management plan would be prepared. The plan would provide details of the traffic management to be implemented during construction to ensure traffic flow on the surrounding network is maintained where possible. Consult with Council regarding traffic management and parking.	Construction contractor	Pre-construction and construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
SOC4	Altered access	Access to properties would be maintained at all times. Further consultation with businesses would be carried out to identify appropriate alternate routes within the local road network for long vehicles. Further, appropriate temporary alternative access and if necessary temporary signage regarding changed access, will be provided for affected residents and visitors of community facilities during construction.	Construction Contractor	Construction	Additional safeguard
SOC5		Provide safe alternative pedestrian access to designated crossing points on Manns Road and local properties at all times during construction. Supply signage for pedestrians to road crossings and properties as required.	Construction Contractor	Construction	Additional safeguard
SOC6	Property impacts	Carry out targeted consultation with property owners regarding potential strip acquisition of properties and any impacts to car parking and infrastructure within the properties.	Roads and Maritime	Detailed design and construction	Additional safeguard
SOC7	Parking impacts	Construction personnel/vehicle parking would be provided in construction compounds or the work site. All construction personnel will be informed that parking should be within the compounds or work sites, and to avoid parking on local roads.	Construction contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
SOC8	Business impacts	<p>Roads and Maritime will carry out targeted consultation with local businesses next to the proposal to develop appropriate strategies to manage:</p> <ul style="list-style-type: none"> • Access and visibility during construction • Identification and clear signage for alternate access (pedestrian and vehicle) routes. <p>Ongoing consultation will provide specific information with regard to:</p> <ul style="list-style-type: none"> • Timing and duration of work • Changes to access in/out of the property for customers and deliveries • Alternate routes of travel • Alternate parking available on side streets • Design of property/access adjustments to reduce loss of parking and visibility. 	Roads and Maritime	Detailed design	Additional safeguard
AIR1	General air quality impacts	<p>An Air Quality Management Plan (AQMP) will be prepared and implemented as part of the CEMP. The AQMP will include, but not be limited to:</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 • Methods to manage work during strong winds or other adverse weather conditions • A progressive rehabilitation strategy for exposed surfaces. 	Construction contractor	Construction	Core standard safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
AIR2	Dust emissions	Dust suppression measures will be implemented in accordance with the CEMP. This will include watering down the site, covering trucks when transporting dust generating material and covering, placing and managing stockpiles in accordance with <i>Stockpile Management Guideline</i> (RTA, 2011b).	Construction contractor	Construction	Additional safeguard <i>Stockpile Management Guideline</i> (RTA, 2011b)
AIR3	Exhaust emissions	Construction plant and equipment will be maintained in a good working condition in order to limit impacts on air quality and plant and machinery will be turned off when not in use.	Construction contractor	Construction	Additional safeguard
AIR4	Impacts on sensitive receivers	Local residents will be advised of hours of operation and duration of work and supplied with a contact name and number for queries regarding air quality.	Construction contractor	Construction	Additional safeguard
OTH1	Unexpected find of an Aboriginal heritage	<p>The <i>Standard Management Procedure – Unexpected Heritage Items</i> (Roads and Maritime, 2015) would be followed in the event an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction. This applies where Roads and Maritime does not have approval to disturb the object/s or where a specific safeguard for managing the disturbance (apart from the Procedure) is not in place.</p> <p>Work would only restart once the requirements of the Procedure have been satisfied.</p>	Construction contractor	Construction	<p>Core standard safeguard.</p> <p>Section 4.9 of QA G36 <i>Environment Protection</i></p> <p>Unexpected Heritage Items (Roads and Maritime, 2015)</p>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
OTH2	Non-Aboriginal heritage	<p>The <i>Standard Management Procedure – Unexpected Heritage Items</i> (Roads and Maritime, 2015) will be followed in the event any unexpected heritage items, archaeological remains or potential relics of non-Aboriginal origin are encountered.</p> <p>Work will only restart once the requirements of the Procedure have been satisfied.</p>	Construction contractor	Construction	<p>Core standard safeguard</p> <p>Section 4.10 of QA G36 <i>Environment Protection</i></p>
OTH3	Unexpected groundwater inflow	In the event groundwater is encountered unexpectedly during excavation, dewatering will be carried out in accordance with the <i>Roads and Maritime Technical Guideline for dewatering</i> .	Construction contractor	Construction	Additional safeguard <i>Roads and Maritime Technical Guideline for dewatering</i>
OTH4	Waste	<p>A Waste Management Plan (WMP) will be prepared and implemented as part of the CEMP. The WMP will 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 (reuse, 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 will be prepared taking into account the <i>Environmental Procedure – Management of Wastes on Roads and Maritime Services Land</i> (Roads and Maritime, 2014) and relevant Roads and Maritime Waste Fact Sheets.</p>	Construction contractor	Construction	<p>Core Standard safeguard</p> <p><i>Environmental Procedure - Management of Wastes on Roads and Maritime Services Land</i> (Roads and Maritime Services, 2014)</p>

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
OTH5		<p>The following resource management hierarchy principles will be followed:</p> <ul style="list-style-type: none"> • Avoid unnecessary resource consumption as a priority • Avoidance will be followed by resource recovery (including reuse of materials, reprocessing, and recycling and energy recovery) • Disposal will be a last resort (in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i>). 	Construction contractor	Construction	Additional safeguard
OTH6	Utilities	<p>Prior to the start of work:</p> <ul style="list-style-type: none"> • The location of existing utilities and relocation details will be confirmed following consultation with the affected utility owners • If the scope or location of proposed utility relocation work falls outside of the assessed proposal scope and footprint, further environmental assessment will be conducted. <p>Roads and Maritime will consult with relevant service providers during detailed design to identify possible interactions and develop procedures to be implemented to minimise the potential for service interruptions which have the potential to impact on existing land use.</p>	Roads and Maritime	Detailed design	Core standard safeguard
OTH7	Hazards and risk management	<p>A Hazard and Risk Management Plan (HRMP) will be prepared and implemented as part of the CEMP. The HRMP will 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 arrangements, including information on the materials present on the site, material safety data sheets, and personnel trained and authorised to use such materials 	Construction contractor	Construction	Core standard safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
		<ul style="list-style-type: none"> 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 will 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>			
OTH8	Demand on resources	<p>Procurement and planning of construction will incorporate the following strategies:</p> <ul style="list-style-type: none"> Procurement will endeavour to use materials and products with a recycled content where material or product is cost and performance effective Excavated material will be reused on-site for fill where feasible to reduce demand on resources. Any additional fill material required will be sourced from appropriate local sources and/or other Roads and Maritime proposals. 	Construction contractor	Construction	Additional safeguard
OTH9	Energy efficiency	<p>Vehicles, plant and equipment would be selected and managed according to the following:</p> <ul style="list-style-type: none"> The selection process for vehicle and plant will consider energy efficiency and related carbon emissions Equipment will be serviced frequently to ensure it is operating efficiently Machinery will be operated efficiently to ensure optimal performance, minimise downtime and improve fuel efficiency. 	Construction contractor	Construction	Additional safeguard

No.	Impact	Environmental safeguards	Responsibility	Timing	Reference
CUM1	Cumulative impacts	The <i>construction environmental management plan</i> will consider potential cumulative construction impacts from surrounding development activities, such as traffic and dust as they become known.	Construction contractor	Construction	Additional safeguard
CUM2		Ongoing coordination and consultation will be carried out with other proponents to ensure potential cumulative impacts are appropriately assessed and managed.	Roads and Maritime	Detailed design	Additional safeguard

3.3 Licensing and approvals

Table 3-2 summarises the licences and approvals required for the proposal. There are no changes from those listed in Table 7-2 of the REF.

Table 3-2: Summary of licensing and approval required

Instrument	Requirement	Timing
<i>Water Management Act 2000</i> (s91C)	Drainage work approval from DPI (Water).	Prior to start of the activity.

4. References

- GHD (2019) Southbound approach to Stockyard Place intersection on Manns Road, West Gosford, Review of Environmental Factors
- Department of Environment and Climate Change NSW (DECC) (2009) *Interim Construction Noise Guideline*. NSW Government.
- Department of Environment and Conservation, NSW (DEC) (2006) *Managing Urban Stormwater: Soils and Construction*. Parts 2A – 2E. NSW Government.
- Environment Protection Authority, NSW (EPA) (2014). *Waste Classification Guidelines*. NSW Government.
- Landcom (2004) *Managing Urban Stormwater: soils and construction*. Volume 1. Parramatta, NSW.
- Roads and Maritime Services (2008) *QA Specification G10 Control of Traffic*.
- Roads and Traffic Authority (2008) *Landscape Guideline*
- Roads and Maritime Services (2012) *Land Acquisition Information Guide*.
- Roads and Traffic Authority (1999) *Code of Practice for Water Management*.
- Roads and Traffic Authority (2008a) *Community Involvement and Communications Resource Manual*.
- Roads and Traffic Authority (2010) *Traffic Control at Work Sites Manual Version 4*.
- Roads and Traffic Authority (2011) *Stockpile Management Guideline*.
- Roads and Traffic Authority (2011a) *Biodiversity Guidelines*. Guide 9: Fauna handling.
- Roads and Traffic Authority (2011b) *Biodiversity Guidelines*. Guide 6: Weed Management.
- Roads and Traffic Authority (2011c) *Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA Projects*.
- Roads and Traffic Authority (2015) *Roads and Maritime Stockpile Site Management Guideline*.
- Roads and Maritime Services (2014) *Beyond the Pavement: urban design policy, process and principles*.
- Roads and Maritime Services (2015) *Standard Management Procedure – Unexpected Heritage Items*.
- Roads and Maritime Services (2013) *Land Acquisition Information Guide*.
- Roads and Maritime Services (2015) *The Standard Management Procedure – Unexpected Heritage Items*.
- Roads and Maritime Services (2014) *Environmental Procedure – Management of Wastes on Roads and Maritime Services Land*.



rms.nsw.gov.au/



13 22 13



Customer feedback
Roads and Maritime
Locked Bag 928,
North Sydney NSW 2059

October 2019
RMS.19.1417
ISBN: 978-1-922338-02-0