



Linden Street Upgrade

Community consultation report

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1 Executive summary

1.1 Consultation summary

This report provides a summary of the engagement activities carried out by us for the proposed Linden Street Upgrade in Sutherland.

The Linden Street corridor is a key east-west connection between Woronora Bridge and Princes Highway. It is used by up to 65,000 customers a day and is crucial to keeping people moving around the Sutherland Shire and Greater Sydney.

Customers struggle to get through this pinch point in peak periods and are left sitting in a queue of traffic. To help customers reach their destination, we are proposing to upgrade three intersections along the corridor. These are:

- River Road and Linden Street
- Linden Street and Leonay Street
- Linden Street and The Grand Parade.

Consultation was held between Monday 22 July and Monday 19 August 2019 to seek feedback from the community and stakeholders to consider when making a decision on the proposal. Key engagement activities carried out in July and August included:

- four posts on the NSW Roads Facebook page
- a notification and post card distributed to local residents in the project area from Monday 22 July
- community consultation sessions held in Menai and Sutherland
- information available on the project webpage at rms.work/Linden
- consultation with local sporting organisations and local residents.

These activities combined reached an audience of about 220,000 people. During the consultation period we received over 500 pieces of feedback across all communications channels. Key issues included:

- the proposal to ban The Grand Parade eastbound through movement
- congestion and safety issues at Leonay Street
- impacts from possible alternate routes on Oakwood and Tamar streets
- the closure of Galga Street
- the changes to Linden Street (north).

We also received a petition regarding the proposal to ban The Grand Parade eastbound through movement signed by more than 250 people.

1.2 Decision and next steps

We would like to thank everyone who took the time to consider our proposal and provide feedback.

We have considered all feedback received and have decided to proceed with the original proposal. However, in response to community feedback we are working with Sutherland Shire Council on improvements for nearby roads.

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2 Introduction

2.1 Background

The Linden Street corridor is a key east-west connection between Woronora Bridge and Princes Highway. It is used by up to 65,000 customers a day and is crucial to keeping people moving around the Sutherland Shire and Greater Sydney.

In February 2019 the NSW Government announced it would allocate \$40 million in funding to upgrade Linden Street. This announcement was made as part of a \$450 million investment to remove a further 12 pinch points around Sydney.

2.2 Project overview

The Linden Street Upgrade proposes to add an extra lane between River Road and Leonay Street, as well as making changes to traffic movements. These upgrades will improve safety, traffic flow and journey reliability. We are proposing to upgrade three intersections along the corridor, these are:

2.2.1 River Road and Linden Street

- Road widening to provide an extra through lane for traffic heading south towards Sutherland.
- Moving the existing concrete median and traffic islands to create space for the extra lane.
- Changing the road markings on Linden Street (north) so both lanes can turn right onto River Road to head north towards Menai.
- Removing the left turn from Linden Street into Galga Street to improve safety and reduce the risk of collision.
- Redirecting the existing footpath running alongside Linden Street through Galga Street (effective closure of Galga Street) and Oakwood Street to allow room for the extra lane.
- Adjusting the traffic light phasing to give more green light time to the busiest parts of the intersection.
- Tree removal, trimming and landscaping.

2.2.2 Linden Street and Leonay Street

- Road widening to create an extra lane for traffic traveling south on Linden Street towards Sutherland.
- Moving the existing concrete median and traffic lights to create space for the extra lane.
- Adding right-turn arrows to the Leonay Street traffic lights to allow easier and safer right turns onto Linden Street.
- Tree removal, trimming and landscaping.

2.2.3 Linden Street and The Grand Parade

- Road widening to create an extra lane for traffic traveling north on Linden Street (south) towards Menai.
- Installing a traffic island so customers can only turn left and right out of The Grand Parade.
- Adjusting the traffic light phasing, taking the time from the through movement on The Grand Parade and giving it to the busier parts of the intersection.
- Tree removal, trimming and landscaping.

2.3 Proposed project benefits

The proposed project benefits for our customers are:

- Saving up to eight minutes on a daily return journey in busy periods between Woronora Bridge and the Princes Highway.
- Getting traffic moving on this critical corridor by reducing congestion and improving traffic flow at this pinch point.
- Improving safety for customers.

3 Consultation approach

3.1 Consultation aims

We consulted with the community and key stakeholders on the proposal to:

- seek comment, feedback, ideas and suggestions to consider when making a decision on the final scope of work
- build a database of community members interested in the project to engage with during the proposal's development and delivery
- provide an opportunity for the community to learn more about the proposal, meet with the project team, ask questions, and provide feedback on the proposal.

3.2 Community and stakeholder engagement

Consultation on the proposal was carried out from Monday 22 July to Monday 19 August 2019. A number of activities were carried out during the consultation period to give community members and stakeholders a chance to learn more about the proposal, meet the project team, ask questions and provide feedback.

The table below outlines the communication and engagement activities carried out during our consultation.

Table 1: Summary of communication and stakeholder engagement activity

Engagement activity	Summary
Community notification	<ul style="list-style-type: none">• A community notification (Appendix A) was distributed to 2200 local residents on Monday 22 July 2019 (Appendix B).• A post card (Appendix C) was sent to 8100 local residents on Monday 22 July 2019 (Appendix D).• 2000 community notifications (Appendix A) were used during direct consultation and provided to local members for use in their electorate offices.
Community kiosk	<ul style="list-style-type: none">• Four community kiosks were held to provide residents with an opportunity to speak with the project team face to face. Details for the kiosks can be found in Section 3.3.1.
Project web page	<ul style="list-style-type: none">• A project web page is available on our website at rms.work/Linden.
Social media campaign	<ul style="list-style-type: none">• Four social media posts (Appendix E) were made on the NSW Roads Facebook page between July and August 2019. These were promoted to people in and around Sutherland Shire.
Online Survey	<ul style="list-style-type: none">• An online survey was used to collect and collate community feedback. This was hosted on our website at rms.work/Linden.

Engagement activity	Summary
Key stakeholder briefings	<ul style="list-style-type: none"> • Briefings provided to Lee Evans, State MP for Heathcote from late 2018 onwards. • Briefings provided to Eleni Petinos, State MP for Miranda from late 2018 onwards. • Briefings provided to Sutherland Shire Council staff from late 2018 onwards. • A face to face briefing was provided to both Sutherland Cricket Club and Sutherland NRL club on Monday 22 July 2019. Sutherland Soccer Club was contacted but a meeting was unable to be arranged.
Direct consultation	<ul style="list-style-type: none"> • The project team door knocked residents with properties fronting Linden Street and Galga Street on Monday 22 July 2019. • The project team also door knocked residents where we required access for survey. • The project team were available during business hours to answer the project number 1800 572 114. • Customers were able to make submissions via the project email at g2s@rms.nsw.gov.au. • Direct emails were sent to local businesses and relevant stakeholders.

3.3 Community and stakeholder engagement outcomes

3.3.1 Community kiosks

Four community kiosks were held during the consultation period. Two kiosks were held in Sutherland at Club on East on Thursday 1 August and Saturday 3 August and a further two held at Menai Marketplace on Thursday 8 August and Saturday 10 August. The project team were available to speak with residents from 4pm to 7pm on Thursdays and 10am to 1pm on Saturdays at these locations. These four sessions were attended by an estimated 400 people.

3.3.2 Project web page

Our project web page attracted 1805 visits from Monday 22 July until Monday 19 August. The average time spent on the project page was about seven minutes.

3.3.3 Social media outreach

Four posts were made on the NSW Roads Facebook page during the engagement period, providing an overview of the project, promoting the community kiosks and encouraging participation in the online survey. These four posts reached more than 207,000 Facebook users. Detailed results and links to each post are included in [Appendix F](#) of this report.

3.3.4 Online survey

We hosted an online survey on the project website between Monday 22 July and Monday 19 August 2019 which attracted 511 responses.

All feedback received was sorted into issue and matter raised. This, with our response, is provided in [Table 2](#).

4 Consultation summary

4.1 Overview

During the consultation period we received over 500 pieces of feedback across all communications channels. Key issues included:

- the proposal to ban The Grand Parade eastbound through movement
- congestion and safety issues at Leonay Street
- impacts from possible alternate routes on Oakwood and Tamar streets
- the closure of Galga Street
- the changes to Linden Street (north).

We also received a petition regarding the proposal to ban The Grand Parade eastbound through movement signed by more than 250 people.

About 46 per cent of respondents were in support of the proposal, 15 per cent did not state a preference and 39 per cent opposed some or all aspects of the proposal.

4.2 Sutherland Shire Council resolution

At the Council meeting held on 19 August 2019 Sutherland Shire Council discussed the proposal and made several resolutions. The minutes of the meeting can be found on Sutherland Shire Council's website using the following link: <http://www.sutherlandshire.nsw.gov.au/files/sharedassets/website/document-library/governance/council-meetings/2019-08-19-council-minutes.pdf>.

Council also sent a letter to inform us of the resolution ([Appendix H](#)).

4.3 Community feedback and our response

Community Feedback and our response can be found in [Table 2](#).

Table 2: Community Feedback and our response

Issue	Matters Raised	Our Response
Support	We support the project in its current proposal.	We thank you for your support.
	Overall changes seem like a logical plan.	We are proceeding with the original scope of work as advised in the July 2019 community update.
	Well Overdue.	Nearer to construction starting, the expected start and finish dates will be communicated to residents, local businesses and key stakeholders.
	Obviously much detailed planning has been undertaken on this project.	
	This is all SENSATIONAL well done to everyone concerned.	
	The proposed upgrades are great to hear and are much needed.	
The Grand Parade	I object to The Grand Parade through ban.	The proposal to ban The Grand Parade eastbound through movement is included as it delivers a significant benefit to the heaviest movement through the intersection. If the ban was removed from the proposal, customers will lose nearly half the projected time saving including all the time saved during PM peak.
		When The Grand Parade eastbound through movement has a green light, the heavier movements are stopped. This contributes to significant congestion in the PM peak. Currently about 400 vehicles use The Grand Parade eastbound through movement a day while up to 65,000 vehicles use the corridor. The Grand Parade eastbound through movement is allocated about 12% of the available traffic light time and accounts for less than one per cent of the total traffic.
		Once the ban is implemented, we will change the way the intersection operates to remove a phase. The phase diagram and information on changes to the intersections can be viewed in Appendix G .

Issue	Matters Raised	Our Response
The Grand Parade (continued)	Could a temporary (peak only) through-ban be considered at The Grand Parade instead?	A temporary (peak only) ban was considered for The Grand Parade eastbound through movement, but due to the infrastructure required for this to be done safely it is not feasible.
	Can the through movement be allowed every second cycle of the traffic lights?	The Linden Street traffic lights form part of the Sydney Coordinated Adaptive Traffic System (SCATS). The allocation of green time and phases is determined by the traffic demand and traffic volumes at this and other intersections and is continually updated. It is not possible to alter the lights to allow the through movement every second cycle under this system.
	Given the short amount of time allocated to The Grand Parade through movement how can this change make any difference to the projected time saving?	The allocation of green time is determined by demand for the movement compared to the other movements at the intersection. This is continually updated and occurs at most intersections on the Sydney road network by the Sydney Coordinated Adaptive Traffic System (SCATS).
	The traffic lights at The Grand Parade are poorly timed. It takes several cycles when it is busy before I can cross the intersection when I am heading away from the sporting fields. Why are the lights green for such a short amount of time?	<p>When The Grand Parade eastbound through movement has a green light, the heavier movements are stopped. This contributes to significant congestion in the PM peak. Currently about 400 vehicles use The Grand Parade eastbound through movement a day while up to 65,000 vehicles use the corridor. The Grand Parade eastbound through movement is allocated about 12% of the available traffic light time and accounts for less than one per cent of the total traffic.</p> <p>The phase diagram and information on changes to the intersections can be viewed in Appendix G.</p>
	Is it possible to add in a left turn arrow or a left turn after stopping sign for traffic turning from the Grand Parade onto Linden Street?	The traffic signals at this location will have a left turn arrow on both sides of The Grand Parade which will control all left turn movements onto Linden Street. A left turn on red or left turn after stopping will conflict with the signalised pedestrian crossing so is not included as part of the proposal.

Issue	Matters Raised	Our Response
The Grand Parade (continued)	What happens in the event of an emergency? E.g. a bushfire. The proposal limits West Sutherland to just one exit point (Leonay Street).	In the event of a major emergency, like a bush fire, Emergency Services coordinate with the Traffic Management Centre to take over the intersection and suspend normal operation of the traffic signals. Customers will need to follow the directions of Emergency Services in major emergency events. Customers can still turn left or right from The Grand Parade to access Linden Street.
	Will road users still be able to travel through the intersection from The Grand Parade towards the sporting fields?	Yes, customers will still be able to travel through the intersection from The Grand Parade towards the sporting fields. The phase diagram and information on changes to the intersections can be viewed in Appendix G .
Leonay Street	Leonay Street is already congested. It is particularly bad on the railway side in the PM peak. Can you please consider upgrading this intersection to allow dual right turns out of Leonay Street onto Linden Street heading towards Menai?	We are proposing to upgrade the Linden and Leonay street intersection to have a diamond layout. This will provide right turning arrows for customers turning from Leonay Street onto Linden Street in both directions. This layout will be able to accommodate the additional right turning vehicles, while making it safer and easier for customers to turn as they will have a dedicated movement. Header 3
	Can you please widen Leonay Street (east) to allow for dual right turns?	
	Please make Linden Street (northbound) turning onto Leonay Street a no right turn during the AM peak.	We considered this ban in an early phase of the proposal; however this was excluded as it provided little benefit.

Issue	Matters Raised	Our Response
Leonay Street (continued)	Won't the proposed changes at The Grand Parade force more people to turn right at Leonay Street and shift the pinch point to this intersection?	The proposal to ban The Grand Parade eastbound through movement is included as this movement makes up less than one per cent of the total traffic at this intersection but is allocated about 12 per cent of the total available traffic light time. While some weekend traffic volumes may be higher, traffic data collected between June 2018 and June 2019 shows on average about 400 vehicles a day could have to use an alternative route.
	The proposed changes at the Grand Parade will move the delays to local roads.	<p>We acknowledge the proposal could disrupt the way customers move around their suburb. We try to minimise impacts on local communities wherever possible while also balancing the project benefits and improvement to the overall road network. The proposal will address congestion and safety issues as well as improve travel times for up to 65,000 vehicles using this corridor a day.</p> <p>In addition to the suggested alternate route via Oakwood and Leonay streets, customers can still exit West Sutherland via The Grand Parade by turning either left or right at the traffic lights to access Linden Street.</p> <p>We are proposing to upgrade the Linden and Leonay street intersection to have a diamond layout. This will provide right turning arrows for customers turning from Leonay Street onto Linden Street in both directions. This layout will be able to accommodate any additional right turning vehicles, while making it safer and easier for customers to turn as they will have a dedicated movement.</p>
	Can you please add road markings to Leonay Street (railway side) to better identify what each lane does?	<p>We are proposing to upgrade the Linden and Leonay street intersection to have a diamond layout. This will provide right turning arrows for customers turning from Leonay Street onto Linden Street in both directions. We will also provide lane markings for both right turn lanes on Leonay Street.</p> <p>Both kerbside lanes will be a shared left and through lane and does not need line marking.</p>

Issue	Matters Raised	Our Response
Leonay Street (continued)	Please bring in no stopping on Leonay Street (railway side) to allow easier turns onto Linden Street.	Parking restrictions at this location is outside the scope of the proposal; however, we will pass this comment to Sutherland Shire Council for their consideration.
	Turning right from both sides of Leonay Street onto Linden Street is unsafe in the current road environment. If you add more traffic to this intersection it will get even worse.	<p>We reviewed recent crash data which identified eight crashes reported at the intersection between 2013 and 2018; only one of these involved right turning vehicles from Leonay Street. However, in response to community feedback the current road alignment of Leonay Street (east) is being investigated as part of the design development.</p> <p>We are proposing to upgrade the Linden and Leonay street intersection to have a diamond layout. This will provide right turning arrows for customers turning from Leonay Street onto Linden Street in both directions. This layout will be able to accommodate the additional right turning vehicles, while making it safer and easier for customers to turn as they will have a dedicated movement.</p>
Oakwood Street and Tamar Street	The suggested alternate route will significantly increase noise in Oakwood and Tamar Streets.	<p>We have engaged a specialist noise consultant to complete a noise assessment to establish the current level of noise within the project area and the predicted level of road traffic noise as a result of the proposal. The scope of the noise assessment will include Oakwood and Tamar Streets. If any noise mitigation treatments need to be considered under our <i>Noise Mitigation Guidelines</i> impacted property owners will be notified.</p> <p>For more information on our noise management policies and procedures, please refer to reducing noise website: https://www.rms.nsw.gov.au/about/environment/reducing-noise/index.html.</p> <p>Another noise assessment can be carried out if required after the project is finished to ensure any increase in noise is below acceptable levels.</p>

Issue	Matters Raised	Our Response
Oakwood Street and Tamar Street (continued)	<p>The suggested alternate route down Oakwood or Tamar is a bad idea because thousands of motorists use the Sutherland ovals for weekend sport. When this happens cars parked on either side of the road turn these streets into one way roads. Forcing extra traffic onto these local roads will cause safety issues for residents and road users.</p>	<p>The proposal to ban The Grand Parade eastbound through movement is included as this movement makes up less than one per cent of the total traffic at this intersection but is allocated about 12 per cent of the total available traffic light time. While some weekend traffic volumes may be higher, traffic data collected between June 2018 and June 2019 shows on average about 400 vehicles a day could have to use an alternative route.</p> <p>The alternate routes in the July 2019 update are suggestions only. Customers will need to find the best alternate route for their journey depending on start and end locations. Left and right turns from The Grand Parade onto Linden Street will still be available.</p>
	<p>The suggested alternate route down Oakwood or Tamar is a bad idea because lots of motorists park in these streets to access Sutherland Train Station. Forcing extra traffic onto these local roads will cause safety issues for residents and road users.</p>	<p>We acknowledge the proposal could disrupt the way customers move around their suburb. We try to minimise impacts on local communities wherever possible while also balancing the project benefits and improvement to the overall road network. The proposal will address congestion and safety issues as well as improve travel times for up to 65,000 vehicles using this corridor a day.</p>
	<p>The suggested alternate route will significantly increase traffic heading down Oakwood Street and Tamar Street.</p>	<p>Safety concerns, including this matter, are identified as part of a Road Safety Audit. Road Safety Audits are carried out at key stages of the project and inform the scope of work.</p>
	<p>There should be timed parking on Oakwood Street and Tamar Street to cope with the extra traffic from weekend sports.</p>	<p>Parking restrictions on Oakwood Street and Tamar Street will be discussed with Sutherland Shire Council for their consideration.</p>

Issue	Matters Raised	Our Response
Oakwood Street and Tamar Street (continued)	The proposal will make it unsafe for residents to enter and exit their driveways on Oakwood and Tamar Streets.	<p>Safety concerns, including this matter, are identified as part of the Road Safety Audit. Road Safety Audits are carried out at key stages of the project and inform the scope of work.</p> <p>We do not believe the proposal will change the ability for local residents to access their properties.</p>
	Increased traffic on Oakwood Street could cause additional hazards for cyclists who use this road to access the existing cycleway.	<p>Cyclists using Oakwood Street have an off road shared path provided. It is not expected any traffic increases as a result of the proposal will create additional hazards for cyclists who use this shared path.</p> <p>Information for cyclists can be found at https://www.rms.nsw.gov.au/maps/cycleway_finder.</p>
	The proposed changes will devalue my home.	<p>We understand our projects may cause some inconvenience for residents and visitors.</p> <p>The proposal does not change the land use, land size or development capacity of any private property. We will complete a Review of Environmental Factors which will include a full assessment of the potential impacts of the proposal, including but not limited to noise, landscaping and visual impacts.</p> <p>Every effort will be made to minimise the impact on properties next to the project through design, landscaping and other mitigations and treatments.</p>
Galga Street	Don't close Galga Street because I use it as a convenient way to access the cycleway running along Oakwood Street.	<p>Access for pedestrians at Galga Street will be maintained.</p> <p>The proposal does not impact existing cycling facilities. Cyclists can use two alternate routes via cycle paths on Leonay Street and The Grand Parade as per the cycleway finder at: https://www.rms.nsw.gov.au/maps/cycleway_finder.</p>
	Can you please keep Galga Street open so it can be accessed by pedestrians, cyclists and emergency vehicles?	<p>Emergency vehicles will be able to access Galga Street from Leonay Street.</p>

Issue	Matters Raised	Our Response
Galga Street (continued)	Please don't close off Galga Street.	Retaining access to Galga Street from Linden Street was considered, but due to property acquisition required for this to be done it is not feasible.
	If you close off Galga Street I will no longer be able to go through the intersection at River Road/Linden Street (from Bonnet Bay) and will have to turn right further down the corridor at The Grand Parade.	We try to minimise the property acquisition and impacts where possible to reduce the impact of our work.
	Closing off Galga Street will funnel more traffic onto Oakwood, Leonay and Tamar Streets.	
	If you close Galga Street I will have to drive to Menai Road to loop back around and travel towards Sutherland.	The traffic signals at Leonay Street will provide sufficient breaks in traffic to allow gaps for people exiting driveways to access the right turn lane to Linden Street (north).
Linden Street (north)	It is hard in the existing road environment to turn left onto Linden Street (southbound) heading towards Sutherland from Bonnet Bay because right turning traffic blocks the left turn lane.	The aim of this project is to improve travel times along the Linden Street Corridor and limit the impact to the local road network.
		<p>It is noted there are current delays on Linden Street (north) to access the Linden Street Corridor at River Road. Changing Linden Street (north) to allow dual right turns for traffic heading towards Woronora Bridge should also provide more capacity for customers waiting to turn left.</p> <p>Almost 80 per cent of traffic at this intersection turns right towards the Woronora Bridge. By changing the left turn kerbside lane to a shared left and right turn lane, it is expected this intersection will clear faster, reducing queue lengths and wait times for customers.</p>

Issue	Matters Raised	Our Response
Linden Street (north) (continued)	Can you please extend the existing left turn bay for traffic heading southbound from Bonnet Bay towards Sutherland?	Extending the left turn lane is outside the scope of the proposal; however, we will pass this comment to Sutherland Shire Council for their consideration.
	Can you please consider installing no parking / no stopping in the AM peak period between Linden Street and Sunbury Street?	
Linden Street (south)	The proposed changes don't help address existing traffic issues for road users travelling from Loftus.	It is expected the additional through lane on Linden Street (south) will help traffic from Loftus. Some of the time saved from the proposal to ban The Grand Parade eastbound through movement will be reallocated towards supporting traffic heading north on Linden Street.
	Can you please install a do not queue across the intersection at Oxford Street?	It is illegal to queue across intersections, providing road marking does not change this.
	Ban the right turn into and out of Oxford Street.	We considered this ban in an early phase of the proposal; however this was excluded as it provided little benefit.
Linden Street bus stop (Stop ID: 2232130)	Will removing the indented bus bay mean motorists will have to swerve around buses? Isn't this less safe than what is already in place?	<p>Safety concerns, including this matter, are identified as part of the Road Safety Audit. Road Safety Audits are carried out at key stages of the project and inform the scope of work.</p> <p>We are investigating the bus stop arrangements in the next stage of the design process.</p>

Issue	Matters Raised	Our Response
Community consultation	I think there was limited avenues to provide comment to the project team.	<p>We carried out consultation with the community which included the distribution of the community notification and postcard to more than 10,000 local residents and businesses, as well as an email to key stakeholders.</p> <p>Our Facebook page featured four posts in July and August 2019, reaching an audience of more than 207,000 users.</p> <p>The consultation featured in <i>The Leader</i> and a media release was issued by the local Member of Parliament.</p> <p>The project webpage included a copy of the community notification, project overview video and frequently asked questions and was visited by over 1800 users during the consultation period.</p> <p>Four community information sessions (two in Menai and two in Sutherland) were held in August and were attended by an estimated 400 people.</p> <p>For information about our consultation process please visit our community engagement page: rms.nsw.gov.au/about/what-we-do/community-engagement.</p>
	The map alignment sent out to residents is wrong.	These errors were not picked up as part of the review process. Thank you for bringing it to our attention, we will ensure future material does not contain these errors.
	The spelling of Tamar Street is wrong in the material sent out to residents.	
	The artist impression doesn't allow enough space for vehicles to turn.	This drawing is an artist's impression of what the finished project could look like based on the current proposal. It is a stylised representation and is not a road design drawing.

Issue	Matters Raised	Our Response
Community consultation (continued)	I appreciated the chance to talk with the project team in person and thought the community updates were informative.	<p>We consulted with the community and key stakeholders on the proposal to:</p> <ul style="list-style-type: none"> • seek comment, feedback, ideas and suggestions for us to consider when making a decision • build a database of community members interested in the project who we will continue to engage with during the proposal's development and delivery • provide an opportunity for the community to meet with the project team, ask questions, and provide feedback on the proposal. • <p>Consultation on the proposed improvements was carried out from Monday 22 July to Monday 19 August 2019. Key engagement activities are summarised in Section 4 of this report.</p>
	I hope you value community feedback and this whole process isn't just a sham.	
Construction impacts	How long are the traffic delays around the project area expected to take when the work is happening?	<p>To minimise disruptions to customers during the day when the traffic volumes are highest the majority of the work will be carried out during the night. Night work is also often required on our projects to provide safe access to the road corridor during construction.</p> <p>Information about construction will be managed by the successful contractor, who will have a community engagement officer available to answer resident enquiries. The project website at rms.work/Linden will continue to have the latest updates about the work and community members are encouraged to join our mailing list.</p> <p>For the latest traffic updates, you can also call 132 701, visit livetraffic.com or download the Live Traffic NSW App.</p>
	When the work is being carried out what is the best way for me to find out information about changes to the road network?	

Issue	Matters Raised	Our Response
Construction impacts (continued)	<p>What will happen to the Linden Street bus stop (Stop ID: 2232130) during construction?</p>	<p>Based on the current proposal, this bus stop may need to be temporarily relocated or closed during construction to carry out work in this location. Any temporary bus stop relocation or closure will be carried out in consultation with the bus operators. Bus customers will be informed in advance of this occurring so they can plan their journey accordingly.</p> <p>Information about construction will be managed by the contractor engaged to carry out any work, who will have a community engagement officer available to answer resident enquiries. The project website at rms.work/Linden will continue to have the latest updates about the work and community members are encouraged to join our mailing list.</p>
	<p>I object to night work.</p>	<p>Night work is often required on our projects to provide safe access to the road corridor during construction and to minimise disruptions to customers during the day when the traffic volumes are highest.</p> <p>A Review of Environmental Factors (REF) is being prepared to assess the environmental impacts of the proposal and to outline the measures to manage and mitigate these impacts. The REF will include consideration of construction noise impacts to surrounding properties and identify suitable mitigation measures to minimise noise impacts from construction activities. These mitigation measures would be based on best practice and <i>our Construction Noise and Vibration Guidelines</i>.</p> <p>Our work may be noisy at times but we will do everything we can to minimise its impact, including completing the noisier tasks such as jackhammering and saw cutting before midnight, using non-tonal reversing alarms on heavy vehicles and switching off plant equipment when not in use. As part of the construction planning, the contractor would be required to prepare a Construction Noise and Vibration Management Plan to ensure construction noise impacts are minimised and managed effectively.</p>

Issue	Matters Raised	Our Response
Construction impacts (continued)	I am concerned about sediment and dust impacts during construction.	<p>A Review of Environmental Factors (REF) is being prepared to assess the environmental impacts of the proposal and to outline measures to manage and mitigate these impacts. The REF will include consideration of potential sediment and dust impacts from construction on surrounding properties and identify suitable mitigation measures to minimise sediment and dust impacts from construction activities.</p> <p>During construction the contractor engaged to carry out the work will be required to prepare erosion and sediment control plan to ensure sediment and dust impacts are minimised and managed effectively.</p>
	Can you please provide more information about the construction schedule?	Nearer to construction starting, the anticipated start and finish dates will be communicated to residents, local businesses and key stakeholders.
Environment	Please consider removing the large gum tree near the lights at River Road and Linden Street for safety reasons.	<p>We are not proposing to remove the large gum tree near the traffic lights at River Road and Linden Street. Based on the current proposal, no work is proposed in Linden Street (north) other than line marking.</p> <p>Tree removal at this location is outside the scope of the proposal; however, we will pass your comment to Sutherland Shire Council for their consideration.</p>
	Please don't remove the large gum tree near the lights at River Road and Linden Street.	
	Please use species native to the Shire in any replanting.	<p>The proposed landscaping design will take into account species native to the Shire. Further investigations will be done in the project design phase to determine the nature and extent of landscaping work required to replace any vegetation or trees to be removed as a result of the proposal. This work would be done in consultation with impacted property owners, utility providers and Sutherland Shire Council.</p> <p>Due to potential road safety, maintenance, utility locations and operational standards, some trees impacted by the proposal may not be able to be replaced. We will consult with Sutherland Shire Council on these matters.</p>

Issue	Matters Raised	Our Response
Environment (continued)	The consultation materials do not specify how many trees have to be removed. Can you provide an exact number please?	We aim to minimise vegetation removal where possible. Roadside trees and vegetation within the project footprint would be impacted as a result of the proposal. The extent of tree removals within the project footprint cannot be confirmed at this stage and may be subject to change following further investigations.
	Please ensure minimal tree damage /removal as part of the proposal.	A Review of Environmental Factors (REF) is being prepared to assess the environmental impacts of the proposal and to outline measures required to manage and mitigate these impacts. The REF will include consideration of potential impacts of tree removals and recommend suitable mitigation planting strategies to replace any vegetation or trees removed as a result of the proposal.
	I am concerned the proposal will increase noise at or near my home.	We have engaged a specialist noise consultant to complete a noise assessment to establish the current level of noise within the project area and the predicted level of road traffic noise as a result of the proposal. The scope of the noise assessment will include Oakwood and Tamar streets. If any noise mitigation treatments need to be considered under our Noise Mitigation Guidelines impacted property owners will be notified.
	The existing sandstone noise wall isn't good enough for residents living near River/Linden.	
	Houses near Linden Street widening will need double glazing.	
	I am concerned the proposal will increase air pollution at or near my home.	The proposal is not intended to increase traffic capacity. A key objective of the proposal is to ease congestion. An improvement in operational efficiency may contribute to an improvement in local air quality during peak periods.
	Please use recycled materials to construct the road/footpaths e.g. recycled glass etc.	Where possible we allow the use of recycled material during construction, including the use of recycled concrete for sub-base materials. We also try to recycle and reuse any surplus materials.

Issue	Matters Raised	Our Response
Environment (continued)	I am concerned the tree removal will impact local wildlife.	<p>A biodiversity assessment is included in the Review of Environmental Factors (REF) to assess impacts to local wildlife caused by the proposal. The results of this assessment help to inform mitigation measures for the project.</p> <p>We aim to minimise vegetation removal where possible. Replacement planting will be done in consultation with Sutherland Shire Council and will take into account species native to the Sutherland Shire area.</p> <p>Due to potential road safety, maintenance, utility locations and operational standards, some trees impacted by the proposal may not be able to be replaced. We will consult with Sutherland Shire Council on these matters.</p>
	I am concerned the work will create a visual impact near my home.	<p>We are in the process of preparing the Review of Environmental Factors (REF) which will include a full assessment of the potential impacts of the proposal, including but not limited to noise, landscaping and visual impacts.</p> <p>We aim to minimise vegetation removal where possible. Replacement planting will be done in consultation with Sutherland Shire Council and will take into account species native to the Sutherland Shire area.</p> <p>Every effort will be made to minimise any impacts on properties fronting or in the vicinity of the project area through design, landscaping and other mitigation treatments.</p>
Property Access	The proposed widening between River Road and Leonay Street will not leave residents enough space to safely enter and exit their driveways	<p>Where there are any impacts to residential property access we will deal directly with affected residents. Any property accesses impacted by the work will be designed and reinstated in accordance with council standards.</p> <p>We do not believe the proposal will change the ability for local residents to access their properties.</p>
	Will redirecting the footpath at Galga/Oakwood affect access to my property?	

Issue	Matters Raised	Our Response
How does the proposal tie in with the existing road network?	<p>The proposal won't work because both the Bangor Bypass and the Sutherland Rail Bridge only have two lanes. Because both of these bridges only have two lanes, installing an extra lane on Linden Street won't ease congestion.</p>	<p>The proposal aims to address congestion for the heaviest movement in the AM peak (from River Road south onto Linden Street) and the PM peak (from The Grand Parade turning north onto Linden Street) on the Linden Street corridor.</p> <p>During planning for the project we carried out traffic counts, reviewed the traffic flow, and looked at the current corridor layout.</p> <p>In the AM peak, traffic counts on Linden Street show about three quarters of customers continue straight on Linden Street and about one quarter of customers turn onto Leonay Street. Given this break-up, the proposal is to provide a dedicated left turn lane to remove the one quarter of customers making this movement from the two through lanes. This will allow easier access through the intersection and help reduce congestion through the corridor.</p> <p>In the PM peak, for the heaviest movement there are currently two lanes through the Linden Street corridor. It is not feasible for the proposal to widen this entire section (including two bridges) due to cost, confined road boundaries and impacts to nearby residents. We instead looked at slow intersections for the heavy movements and optimising the way they work. The intersection identified as an issue was the intersection of Linden Street and The Grand Parade. In changing the way this intersection operates we can re-allocate about 12 per cent of the cycle time to heavier movements in the intersection and help reduce congestion. The phase diagram and information on changes to the intersections can be viewed in Appendix G.</p>
Pedestrians and cyclists	<p>The proposal ignores the needs of cyclists and pedestrians.</p>	<p>It is not proposed to remove any existing dedicated cycling facilities as part of the proposal. Intersections will retain controlled crossings, including the cycle crossing at Leonay Street, to ensure pedestrians and cyclists needs are provided for.</p>
	<p>How do push bikes come from Woronora River to Sutherland or Bangor?</p>	<p>Please refer to the cycleway finder at: https://www.rms.nsw.gov.au/maps/cycleway_finder</p>

Issue	Matters Raised	Our Response
Pedestrians and cyclists (continued)	Rerouting the pedestrian footpath that runs along River Road (north of intersection 1) down Galga and Oakwood Streets means I'll have to walk longer.	Retaining the footpath along River Road was considered, but due to property acquisition required for this to be done it is not feasible. The diverted footpath will mean customers have to walk about 70 extra metres.
Linden Street traffic lights	<p>For this proposal to work the traffic lights need to be better coordinated.</p> <p>There are too many sets of traffic lights close together on Linden Street.</p> <p>Please provide more green time to the through movement along Linden Street during the AM peak.</p> <p>The project isn't necessary, all you need to do is better coordinate the green time at the traffic lights.</p>	The Linden Street traffic lights form part of the Sydney Coordinated Adaptive Traffic System (SCATS), the allocation of green time and phases is determined by the traffic demand and traffic volumes at this and other intersections and is continually updated.
Requests for further information	<p>I would like to see a copy of the business case.</p> <p>I would like to see a copy of the traffic modelling and counts.</p> <p>I would like to see a copy of the risk assessment.</p>	<p>The Linden Street Upgrades project has been investigated as part of the Gateway to the South Business Case. This document is Cabinet in Confidence and is not available to the public.</p> <p>Traffic modelling and impacts for the final scope of work will be considered in the traffic and transport assessment as part of the REF. Once complete, this will be available for the public to view on request.</p> <p>Potential safety concerns are identified as part of a Road Safety Audit. Road Safety Audits are carried out at key stages of the project and inform the scope of work. The Road Safety Audit is not a public document.</p>

Issue	Matters Raised	Our Response
Vermont Street	Vermont Street is narrow road, when cars are parked either side it is difficult to drive along. Will the proposed changes increase traffic on Vermont Street?	The aim of this project is to improve travel times along the Linden Street Corridor between the Woronora Bridge and Princes Highway, with minimal impact on the local road network.
	What will be done to stop people rat-running up local roads and along Vermont Street to turn right at River Road?	It is unlikely residents will rat-run through back streets like Vermont Street as the proposal will improve traffic flow and reduce congestion on the State road. This will take demand off other intersections along the corridor and the surrounding side streets like Vermont Street.
	Right turn into Vermont Street from Leonay Street is more difficult now.	It is not expected our work will impact Vermont Street as breaks in traffic will still be available for right turning traffic.
	Can there be parking restrictions on Vermont Street.	Parking restrictions at this location is outside the scope of the proposal; however, we will pass this comment to Sutherland Shire Council for their consideration.
Investigation work	If investigation work started on 12 August doesn't that mean the project is already approved and proceeding to construction?	<p>Investigation work is being carried out along the Linden Street Corridor between River Road and Oxford Street Sutherland to help locate underground utilities to minimise impacts to existing infrastructure and inform design. The investigation work is not the start of work or the beginning of construction.</p> <p>The community will be updated when a decision has been made about the final scope of work. Nearer to any work starting, timeframes for construction, including anticipated start and finish dates will be communicated to residents, local businesses and key stakeholders.</p>
Out of scope	Comments or suggestions to change to the off-road cycleway on Leonay Street.	<p>The purpose of this consultation was to seek feedback on the Linden Street Upgrade proposal.</p> <p>The proposal is not proposing to make any changes to the Leonay Street cycleway. Comments or suggestions relating to this cycleway should be directed to Sutherland Shire Council.</p>

Issue	Matters Raised	Our Response
Out of scope (continued)	Please consider another rail bridge to connect Jannali Avenue with Waratah Street in Sutherland.	The purpose of this consultation was to seek feedback on the Linden Street Upgrade proposal.
	Block access to Linden Street (north) and eliminate the traffic lights where Linden Street becomes River Road.	These comments were noted, but not been specifically addressed as they are outside the scope of the project or are not feasible.
	Please install a pedestrian and cycle bridge at Leonay Street.	
	Remove the traffic signals at The Grand Parade to allow continuous flow along Linden Street corridor.	
	Spend the money on better public transport instead.	
	Open up the access roads to Woronora and Woronora Heights.	
	Add in a bus lane closer to the rock face.	
	Please consider increasing signage on The Grand Parade to indicate how lanes are configured heading towards the sporting fields.	
	Install breakdown areas on River Road.	

Issue	Matters Raised	Our Response
Out of scope (continued)	A lack of train services / public transport in Menai and surrounding suburbs means more people are on the roads.	The purpose of this consultation was to seek feedback on the Linden Street Upgrade proposal.
	Finish one project before you start another.	These comments are noted, but not been specifically addressed as they are outside the scope of the project.
	Extend Grand Parade up to Acacia Road.	
	Comments about other projects in the area e.g. the work happening to upgrade Intersections at Acacia, Oak, Kingsway and President, Kirrawee.	The purpose of this consultation was to seek feedback on the Linden Street Upgrade proposal.
	There is too much development going on in Sutherland.	Any comments relating to other Transport projects were passed onto the relevant project teams. Further information on our projects currently in construction are provided on our website.
	Road users currently break the road rules, ignore the correct lane allocations, cut in front of traffic, speed, run red lights, and perform other illegal or unsafe acts.	Although we have limited input on the approval for development we do consider the impacts of approved developments in traffic modelling calculations.
	Motorists travelling along Linden Street frequently speed, I would like to see a red light speed camera added to the corridor.	The enforcement of traffic laws remains a primary responsibility of the NSW Police Force. This includes customers disobeying road rules and other hazardous behaviour. You can contact Sutherland Local Area Command on (02) 9542 0899 to report customers disobeying road rules and other hazardous behaviour.
		The NSW Centre for Road Safety regularly receives requests from the community to have a speed camera installed in their local area. The Speed Camera strategy now allows NSW residents to nominate locations for a speed camera.
		To nominate a location to have a speed camera installed you can visit the website: saferoadsnsw.com.au/haveyoursayspeedcameras.aspx . The information you provide, together with crash data and other road safety information, will help prioritise future locations for speed cameras in NSW.

5 Decision and next steps

We would like to thank everyone who took the time to consider our proposal and provide feedback.

We have considered all responses to the consultation on the proposed improvements and have decided to proceed with the original proposal. However, in response to community feedback we are working with Sutherland Shire Council on improvements for nearby roads.



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Privacy Transport for NSW ("TfNSW") is subject to the Privacy and Personal Information Protection Act 1998 ("PPIP Act") which requires that we comply with the Information Privacy Principles set out in the PPIP Act. All information in correspondence is collected for the sole purpose of assisting in the delivery this project. The information received, including names and **addresses** of respondents, may be published in subsequent documents unless a clear indication is given in the correspondence that all or part of that information is not to be published. Otherwise we will only disclose your personal information, without your consent, if authorised by the law. Your personal information

Appendices

Appendix A – community notification (July 2019)



Linden Street Upgrade

Save up to eight minutes each day – Have your say

Roads and Maritime Services | July 2019



What Linden Street could look like when work is complete.

Improving our roads so you can do more with your own time – proposed plan for the Linden Street corridor, Sutherland

The Linden Street corridor struggles under the strain of peak hour traffic. People traveling between Menai and Sutherland are left sitting in a queue of traffic.

The NSW Government has a plan to bust congestion on Linden Street by adding an extra lane between River Road and Leonay Street, and making changes to traffic movements. These upgrades will improve safety, traffic flow and journey reliability.

We want to hear what you think about the project, or, just for fun, let us know what you would do with an extra eight minutes each day.

Visit rms.work/Linden to find out more about the project and have your say by **5pm Monday 19 August**

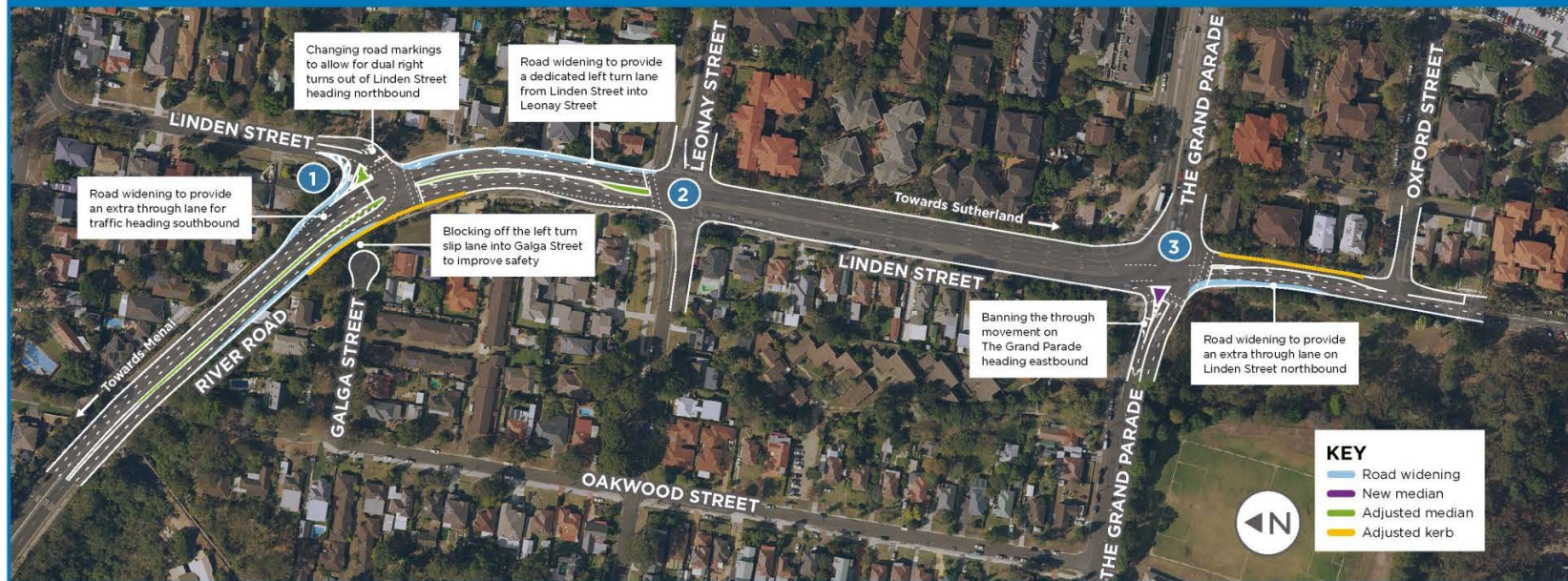
Project benefits

- Saving up to eight minutes on a daily return journey in busy periods between Menai and Sutherland.
- Getting traffic moving on this critical corridor by reducing congestion and improving traffic flow at this pinch point.
- Improving safety for road users.



Save up to
8 minutes
travel time

Linden Street Corridor Upgrades



Project features

The Linden Street corridor is a key east-west connection between Bangor Bypass and Princes Highway. It is used by around 6,000 motorists and 500 bus passengers an hour in peak periods and is crucial to keeping people moving around the Sutherland Shire and greater Sydney.

Roads and Maritime Services is upgrading three intersections along the corridor to ease congestion at this pinch point. A more detailed breakdown of work proposed at each intersection is shown in the map above.

What is a pinch point

Pinch points are traffic congestion points, intersections or short lengths of road at which a traffic bottleneck exists slowing down the broader network. They cause a build up of traffic and travel delays at these spots and on the wider road network.

1 Upgrades at River Road and Linden Street

- Road widening to provide an extra through lane for traffic heading south towards Sutherland.
- Moving the existing concrete median and traffic islands to create space for the extra lane.
- Changing the road markings on Linden Street so both lanes can turn right onto River Road to head north towards Menai.
- Removing the left turn from Linden Street into Galga Street to improve safety and reduce the risk of collisions.
- Redirecting the existing footpath running alongside Linden Street through Galga Street and Oakwood Street to allow room for the extra lane.
- Adjusting the traffic light phasing to give more time each green light to the busiest parts of the intersection.
- Tree removal, trimming and landscaping.

2 Upgrades at Linden Street and Leonay Street

- Road widening to create an extra lane for traffic traveling south on Linden Street towards Sutherland.
- Moving the existing concrete median and traffic lights to create space for the extra lane.
- Adding right turn arrows to the Leonay Street traffic signals to allow easier and safer right turns onto Linden Street.
- Tree removal, trimming and landscaping.

3 Upgrades at Linden Street and The Grand Parade

- Road widening to create an extra lane for traffic traveling north on Linden Street towards Menai.
- Installing a traffic island so road users can only turn left and right out of The Grand Parade.
- Adjusting the traffic light phasing, taking the time from the through movement on The Grand Parade and giving it to the busier parts of the intersection.
- Tree removal, trimming and landscaping.



More time with family and friends



Improving traffic flow



Easing congestion



\$40 million in road upgrades for Sutherland



Fixing three pinch points

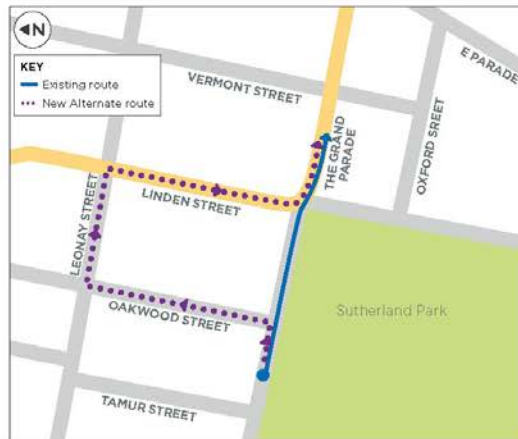


Improving safety

Suggested alternative traffic routes

Due to proposed traffic changes, some road users will need to use different routes to reach their destinations. As part of the project design, we have assessed other options and our proposed alternative routes are outlined below.

Banning the through movement from The Grand Parade heading towards Sutherland



Closing access to Galga Street from Linden Street



Why do we need to ban certain traffic movements?

When considering how to reduce congestion on the State's main roads, we weigh up all the competing demands at an intersection and on the wider corridors we are trying to improve. The upgrades we are proposing give priority to the through traffic movement along Linden Street, a key east-west connection between the Bangor Bypass and the Princes Highway.

We are proposing to ban the through movement on The Grand Parade and remove the left turn into Galga Street. These changes will improve safety and traffic flow on Linden Street for thousands of road users.

To make the changes easier to get used to we have mapped out our suggested alternative routes above. The longest detour will add no more than a couple of extra minutes to your trip.

As both alternate routes use Leonay Street, we are proposing to upgrade the traffic lights at this intersection. By adding in turning arrows it will be easier and safer for road users to turn right onto Linden Street.

Upcoming survey work

Roads and Maritime will be doing investigation work along the Linden Street corridor between River Road and Oxford Street Sutherland. This includes potholing and locating utilities. We will be on site for up to **15 day shifts** and **25 night shifts** between **Monday 12 August** and **late November 2019**, weather permitting. Our night work hours will be between **8pm** and **5am** from **Sunday to Thursday**.

This work may be noisy at times but we will do everything we can to minimise its impact, including completing the noisier activities such as concrete cutting, chainsawing and jack hammering by midnight.

There will be temporary traffic changes during our work hours to ensure the work zone is safe. Lane closures will be in place and may affect travel times. Please keep to speed limits and follow signs and traffic controllers' directions.

For the latest traffic updates, you can call **132 701**, visit **livetraffic.com** or download the Live Traffic NSW App.

Have your say

The proposal for these three intersection upgrades is now open for feedback. We welcome your comments on the proposed upgrades until **5pm Monday 19 August**

You can provide your comments by:

- Calling our Project Manager, Belinda Papps, on **1800 572 114** during business hours
- Emailing g2s@rms.nsw.gov.au
- Writing to Gateway to the South Project Team, Roads and Maritime Services, **PO Box 973, Parramatta, NSW, 2124**
- Attending one of our information kiosks, details below
- Completing our online survey rms.work/Linden

Talk to the project team

Club on East

7 East Parade, Sutherland, NSW, 2232

- 4pm to 7pm Thursday 1 August
- 10am to 1pm Saturday 3 August

Menai Marketplace

152-194 Allison Crescent, Menai, NSW, 2234

- 4pm to 7pm Thursday 8 August
- 10am to 1pm Saturday 10 August

Where are we now and next steps?



Intersection upgrade at River Road and Linden Street, Sutherland



Roads and Maritime Services

Nearby projects

Projects in construction:

- Intersection improvements at Taren Point Road, Captain Cook Drive and The Boulevard began in February 2019. When work is complete we will have widened Taren Point Road to create a new right turn lane into The Boulevard.
- Work to build the Kirrawee Pedestrian Bridge began in March 2019. When the bridge is finished it will improve accessibility for local residents, children and members of the community with mobility requirements.
- Early work for Intersection upgrades for Elouera Road, Cronulla are complete. Major work to create a new right turn lane from Elouera Road onto the Kingsway will start in mid-2019.
- Work is continuing for improvements to the intersection of Princes Highway with Kingsway, Oak Road and Acacia Road, and the intersection of Acacia Road with President Avenue. These upgrades will help improve traffic flow, travel times and safety for all road users.

Finished projects:

- Work on Princes Highway and Port Hacking Road intersection finished in March 2019. The project widened Princes Highway to allow more vehicles through the intersection in busy periods. We also created a new bus bay to ease eastbound congestion on Princes Highway, and installed new pedestrian lights at Madeira Street.
- Three intersections upgrades on Kingsway opened to traffic in 2018 and are now saving road users up to six hours a year in travel time between Caringbah and Cronulla.

Join our mailing list

Keep up to date on the progress of the Linden Street corridor improvements by joining our mailing list. Email G2S@rms.nsw.gov.au or sign up on the project website at rms.work/Linden.



If you need help understanding this information, please contact the Translating and Interpreting Service on 131 450 and ask them to call us on 1800 572 114.



July 2019
RMS 19.1304

Privacy Roads and Maritime Services ("RMS") is subject to the Privacy and Personal Information Protection Act 1998 ("PPIP Act") which requires that we comply with the Information Privacy Principles set out in the PPIP Act. All information in correspondence is collected for the sole purpose of assisting in the delivery of this project. The information received, including names and addresses of respondents, may be published in subsequent documents unless a clear indication is given in the correspondence that all or part of that information is not to be published. Otherwise RMS will only disclose your personal information, without your consent, if authorised by the law. Your personal information will be held by RMS at 27 Argyle Street, Parramatta. You have the right to access and correct the information if you believe that it is incorrect.

Did you know?

Congestion costs Sydney around \$6 billion each year. By 2031, Sydney is forecast to be home to an extra 1.3 million people. This will put extra pressure on the existing road network due to increased demand from motorists, public transport and freight. To tackle this problem the NSW Government has invested over \$825 million to fix 'pinch points' across Sydney's road network, easing congestion on our most travelled corridors.

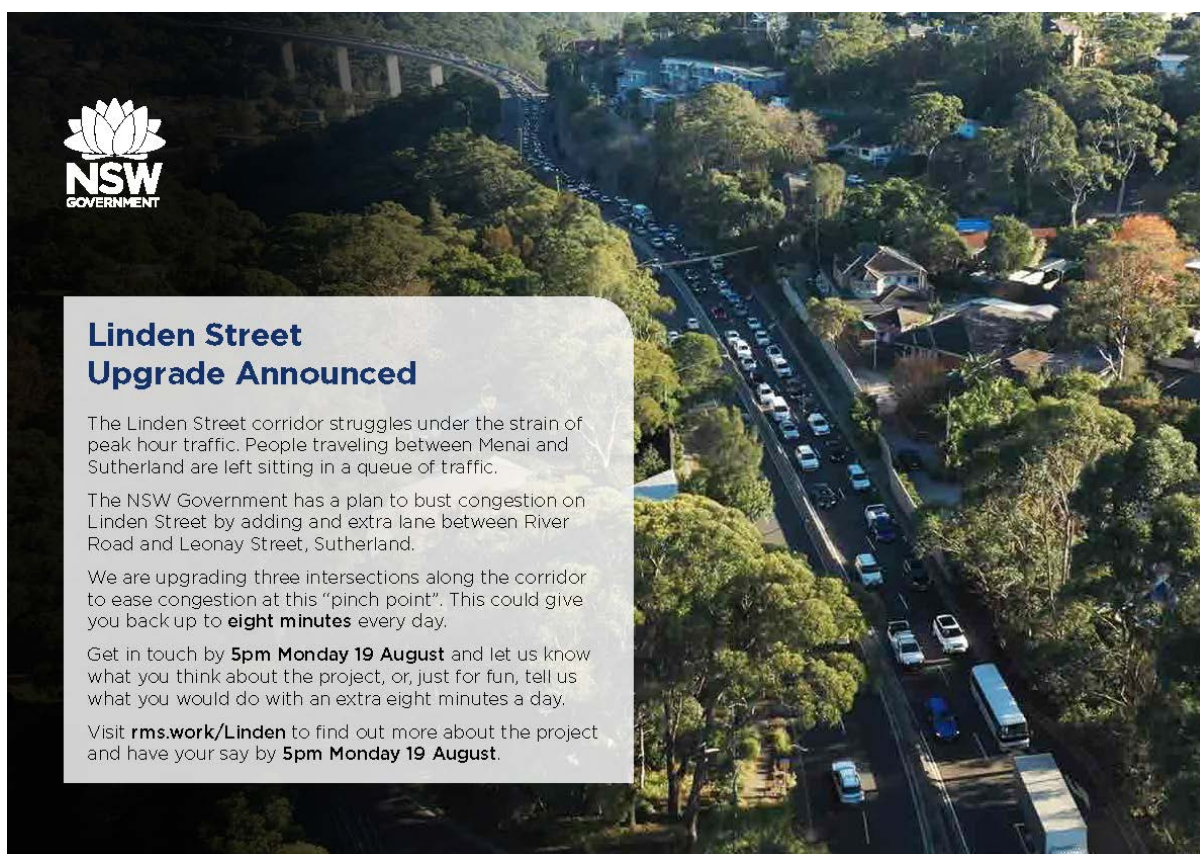


Congestion building up on Linden Street in the AM peak



[illegible]

Appendix C – postcard notification



Linden Street Upgrade Announced

The Linden Street corridor struggles under the strain of peak hour traffic. People traveling between Menai and Sutherland are left sitting in a queue of traffic.

The NSW Government has a plan to bust congestion on Linden Street by adding an extra lane between River Road and Leonay Street, Sutherland.

We are upgrading three intersections along the corridor to ease congestion at this "pinch point". This could give you back up to **eight minutes** every day.

Get in touch by **5pm Monday 19 August** and let us know what you think about the project, or, just for fun, tell us what you would do with an extra eight minutes a day.

Visit rms.work/Linden to find out more about the project and have your say by **5pm Monday 19 August**.

Project benefits

- Saving up to eight minutes on a daily return journey in busy periods between Menai and Sutherland.
- Getting traffic moving on this critical corridor by reducing congestion and improving traffic flow at this pinch point.
- Improving safety for road users at this pinch point.

What is a pinchpoint?

Pinch points are traffic congestion points, intersections or short lengths of road at which a traffic bottleneck exists slowing down the broader network. They cause a build up of traffic and travel delays at these spots and on the wider road network.



Have your say

The proposal for these three intersection upgrades is now open for feedback. We welcome your comments on the proposed upgrades until **5pm Monday 19 August**.

You can provide your comments by:

- Calling our Project Manager, Belinda Papps, on **1800 572 114** during business hours
- Emailing g2s@rms.nsw.gov.au
- Writing to Gateway to the South Project Team, **Roads and Maritime Services, PO Box 973, Parramatta, NSW, 2124**
- Attending one of our information kiosks, details below
- Completing our online survey at rms.work/Linden.

Talk to the project team

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Menai Marketplace

152-194 Allison Crescent, Menai, NSW, 2234

- 4pm to 7pm Thursday 8 August, 2019
- 10am to 1pm Saturday 10 August, 2019


Join our mailing list

Keep up to date on the progress of the Linden Street corridor improvements by joining our mailing list.


Email G2S@rms.nsw.gov.au or sign up on the project website at rms.work/Linden.

The map displays the proposed 808 bus route in Woronora Heights. The route is highlighted in red and green, starting from Heathcote Rd and ending near Loftus Ave. The map includes labels for Heathcote Rd, Fowler Rd, Illawong, Woronora River, Bonnet, Woronora Heights, Bundanon Rd, Loftus Ave, and Loftus. The route is marked with red and green lines and includes several bus stop icons.

Appendix E – social media posts

**NSW Roads**
17 July · 🌐

We're upgrading Linden Street so it's easier to travel between Menai and Sutherland. More information on our plans coming soon.



👍 🤔 ❤️ 306 60 comments 64 shares

👍 Like 💬 Comment ➦ Share 🌐 ▼

**NSW Roads**
22 July · 🌐

The Linden Street corridor struggles under the strain of peak hour traffic. That's why we're improving roads so you have more time doing what you want. More info <https://rms.social/2O9YePm>



👍 ❤️ 🤔 319 77 comments 74 shares

👍 Like 💬 Comment ➦ Share 🌐 ▼



AUG

10

Linden Street Upgrade Info Sessions

Public · Hosted by NSW Roads

★ Interested

...

🕒 4 dates · 1 Aug – 10 Aug
Event ended about 1 month ago

About

Discussion

14 interested

Share this event with your friends

Details

Come meet the project team to learn more and ask us any questions you might have at any of the following locations:

Club on East
7 East Parade, Sutherland, NSW, 2232
4pm to 7pm Thursday 1 August
10am to 1pm Saturday 3 August

Menai Marketplace
152-194 Allison Crescent, Menai, NSW, 2234
4pm to 7pm Thursday 8 August
10am to 1pm Saturday 10 August

See more ▾



NSW Roads

28 July · 🌐



Now is your time to have your say on our Linden Street plan to give you an extra 8 minutes a day.



RMSNSW.SYD1.QUALTRICS.COM

Have Your Say Now Open

Linden Street, Sutherland

👍❤️😄 58

35 comments 9 shares

👍 Like

💬 Comment

➦ Share



Appendix F – social media results

Social media post	Reach	URL
Teaser video	207,519	https://www.facebook.com/134071523430526/posts/1197204843783850
Overview video	89,199	https://www.facebook.com/134071523430526/posts/1200922433412091
Community kiosk event	7,990	https://facebook.com/events/2267886086623291/
Have your say open	21,644	https://www.facebook.com/134071523430526/posts/1205571996280468

Appendix G – Linden Street and The Grand Parade phase diagrams, stages of a phase and cycle timing

A phase diagram, shown below for the intersection of Linden Street and The Grand Parade, shows which movements will receive a green signal in each phase of the cycle.

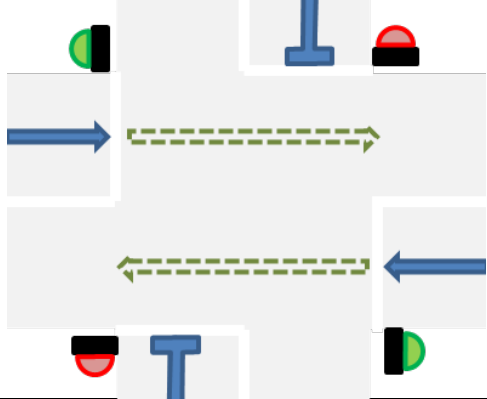
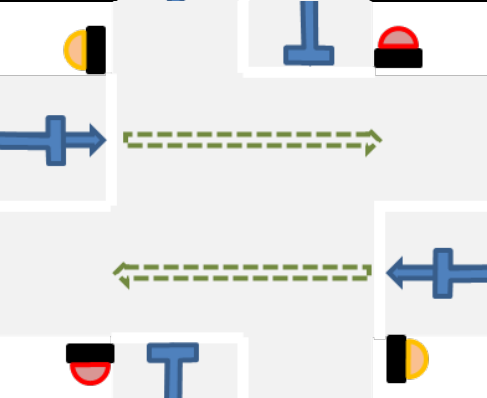
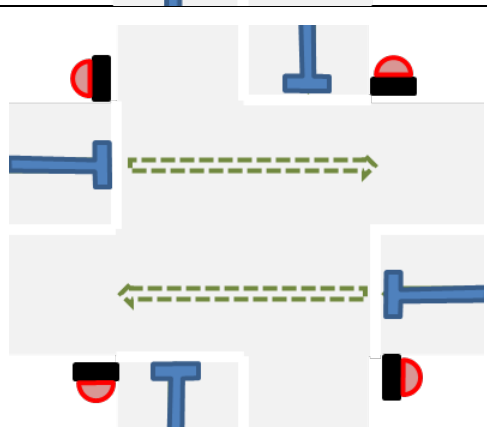
Phase	Current Movements Allowed	Proposed Movements Allowed
A		
D ¹		
	N/A	
E ²		N/A

Phase	Current Movements Allowed	Proposed Movements Allowed
F ¹		

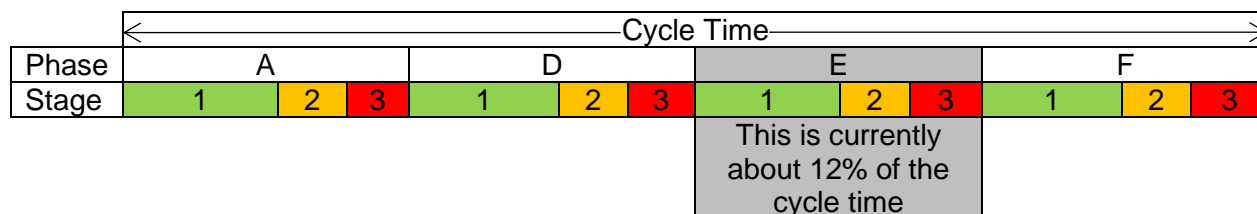
¹ Phases D and F will merge between the movements allowed depending on demand. This is automatically controlled by the Sydney Coordinated Adaptive Traffic System (SCATS).

² Phase E will be removed as part of the proposal. The left and right turns are allowed for in other phases. The through movement cannot be accommodated in other phases.

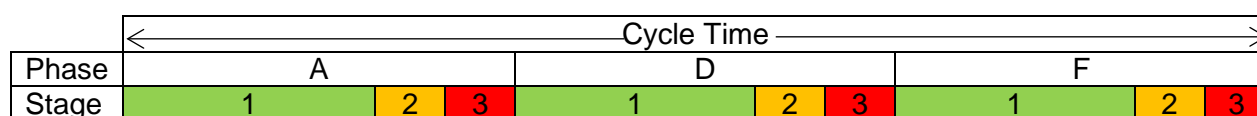
Each phase has three stages. These stages are explained below with a generic intersection:

<p>Stage 1 – Green Light</p> <p>This is the time customers can make the allowed movements in the phase. This is generally determined by the Sydney Coordinated Adaptive Traffic System (SCATS).</p> <p>In the diagram, customers are allowed to move left and right.</p>	
<p>Stage 2 – Amber Light</p> <p>This is the time allowed for customers to safely stop before a red light is shown. This is generally based on variables such as posted speed limit, sight distance to signals, etcetera.</p> <p>In the diagram, customers moving left and right should stop if it is safe to do so, but are still allowed to enter the intersection if unable to stop safely.</p>	
<p>Stage 3 – Red Light / Inter-green time</p> <p>When the red light is shown, an inter-green period starts. This is the time allowed for any customers who entered the intersection during the amber stage to safely exit the intersection before the next phase is given a green light. This is generally based on the posted speed of the road and the length of the intersection.</p> <p>In the diagram, customers moving left and right need to stop at the red signal. If they are already in the intersection they can continue through.</p>	

A cycle is the time it takes for each phase to go through these three stages and return the first phase. For Linden Street and The Grand Parade this currently looks something like this (noting the green time scales in the diagram are not to scale):



The proposal will change the phasing at this intersection to look something like this (noting the stage timings in the diagram are not to scale):



The cycle time saved from the removal of Phase E provides an additional 12 per cent green time to the heaviest movements at the intersection. This also removes an amber and inter-green stage, improving the intersection efficiency due to increased green time.

Appendix H - Sutherland Shire Council letter to advise of resolution



File Ref: 2019/345787

11 September 2019

Mrs Lara Kirchner
Director South East Precinct
Roads & Maritime Services
27-31 Argyle Street
PARRAMATTA NSW 2150

Dear Mrs Kirchner *Lara,*

RE: PROPOSED LINDEN STREET UPGRADE SUTHERLAND

I refer to recent community consultation in relation to the proposed Linden Street Upgrade, Sutherland. As you may already be aware, concerns have been raised by the local community regarding the proposal to prohibit eastbound through movements in Grand Parade across its intersection with Linden Street.

In this regard, at its meeting of 19 August 2019, Council resolved the following:

"That Council write to Service New South Wales and the Local State Member regarding the Linden Street project requesting consideration be given to:

a. Allowing the straight movement for eastbound approach in The Grand Parade at the intersection of Linden Street to continue.

b. That additional traffic counts take place at the above intersection, after all works have been completed along the Old Princes Highway and before any traffic changes take place at The Grand Parade, Sutherland."

Council welcomes ongoing liaison with the Roads and Maritime Services (RMS) project team on all aspects of the proposed upgrade and further awaits completion of a Close of Consultation Project Report by RMS. A more detailed submission from Council pursuant to the provisions of the Infrastructure State Environmental Planning Policy (ISEPP) will be provided in due course, however, your immediate consideration and response to the above resolution would be most appreciated.

Should you require any clarification on this matter, please contact Council's Senior Traffic Engineer, Bruce Powe on 9710 0498

Yours sincerely,

Peter Hazeldine
Director Shire Infrastructure