

Old Cooma Road Duplication Stage 2

Project Information & Response to Consultation



21 June 2018

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Project Information

The 4.4km duplication of Old Cooma Road will provide increased traffic capacity to match the growing traffic demands generated from the new Googong Township Development. This project, known as Old Cooma Road Duplication - Stage 2, will duplicate the existing road from the intersection of Edwin Land Parkway to the intersection of Googong Road.

Staged Development of the Queanbeyan to Googong Transport Corridor

The Queanbeyan to Googong transport corridor has been, and will continue to be upgraded to match the increasing traffic demands generated from development in the Googong region.

Stage 1 of this work was completed in 2014 and involved the realignment of the 'Quarry Bends' from Wickerslack Lane to Talpa Rd. This saw the construction of two southbound lanes and one northbound lane. To finish the duplication for this section, Stage 2 will add an additional northbound lane.

Stage 3 is expected to be completed by 2031 and will involve continuing the duplication from Edwin Land Parkway to Southbar Rd as well as upgrading the intersections with Barracks Flat Drive and Southbar Rd.

The Googong Township Developers will also be responsible for upgrading the Queanbeyan to Googong transport corridor from Googong Road to the southern end of the development. By the end of the year it's expected that they will have completed the upgrade to the Googong Road intersection. The following year it's expected that they will be continuing the duplication south to what will be the main entrance into the Googong Township, Wellsvale Drive.

Project Cost & Funding

Council has received 100% funding for the project from the NSW State Government as part of the \$70 million (exclusive of GST) Monaro Palerang Program.

The funding program includes the sealing and upgrade of Nerriga Rd from Braidwood to Nerriga, the duplication of Old Cooma Road - Stage 2, and the upgrade of the Molonglo Street and Malbon Street (Kings Highway) intersection in Bungendore to a roundabout.

The project budget for the duplication of Old Cooma Road is \$31 million (exclusive of GST). This value includes design, construction, project management, and land acquisitions.

Key Features of the Duplication

The key features of the duplication include;

- Two lanes in each direction separated by a 6 metre wide central median.
- Stabilisation of the failing rock cutting on the western side of the Stage 1 upgrade
- Shared off-road cyclist and pedestrian pathway linking Queanbeyan to Googong
- Provisions for on-road cyclists
- An 80km/h speed limit from Edwin Land Parkway to Googong Road
- Upgraded intersections at Wickerslack Lane, Tempe Crescent/Heights Road, and Talpa Road
- A Fauna underpass in the Gale area

- Noise mitigation measures
- The new road will have a similar appearance to the Stage 1 work.

Timeframe

The design of the road is currently underway and construction is expected to start in September 2018 with the new road to be open to traffic by the end of 2019/ early 2020

The construction period is estimated at up to 70 weeks including allowances for wet weather.

Why is it needed?

Capacity:

Old Cooma Rd is the main access from the new Googong Township to Queanbeyan, and then onto the ACT. The development is currently underway and by its expected completion in 2031 the township will have over 5000 households.

Modelling undertaken to determine the effects of this development on the road network indicates that by 2031 there will be 25,800 vehicles traveling on Old Cooma Rd per day.

Prior to the development of Googong there was 4,000 vehicles per day on Old Cooma Rd.

As of April 2018 there was 11,270 vehicles per day on Old Cooma Rd.

The modelling indicates that by 2022 Old Cooma Rd will have 16,037 vehicles per day. This volume of traffic will deteriorate Old Cooma Rd to a level of service of 'E' in the peak hours if not upgraded.

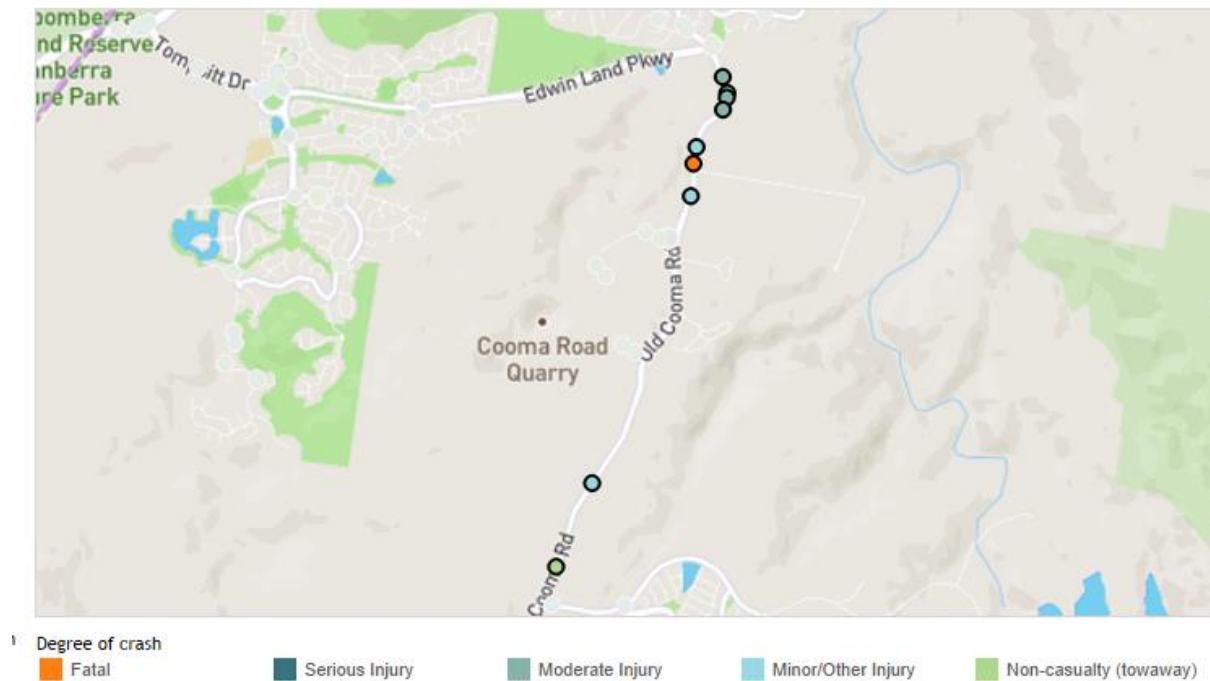
Level of service 'E' is defined as: Unstable flow, operating at capacity. Flow becomes irregular and speed varies rapidly because there are virtually no usable gaps to manoeuvre in the traffic stream and speeds rarely reach the posted limit. Any disruption to traffic flow, such as merging ramp traffic or lane changes, will create a shock wave affecting traffic upstream. Any incident will create serious delays. Drivers' level of comfort is poor.

Safety:

In the five years from January 2012 to December 2016 there have been nine crashes on Old Cooma Rd between Edwin Land Parkway and Googong Rd. These included:

- One fatal crash, resulting in one fatality
- Three moderate injury crashes, resulting in four moderate injuries
- Three minor/other injury crashes, resulting in three minor injuries
- Two non-casualty crashes

Five of the nine reported crashes were run off road, hit object type crashes. The fatal crash, which was reported in 2013, was a head on crash. A map showing the crash locations is shown below.



The proposed upgrade will have the following safety benefits:

- A six metre wide central median with wire rope fencing will greatly reduce the risk of head on collisions
- Improved road alignment with larger radius corners and wide shoulders will reduce the risk of vehicles running off the road
- A full width clear zone free of hazards such as trees and deep gullies will greatly reduce the severity of crashes when vehicles leave the road
- Improved sight distances will reduce the risk of intersection and driveway collisions
- Sealed shoulders will provide for safer on road cycling. Currently areas of Old Cooma Road have no shoulders.
- An off road shared path will provide a safe option for pedestrians and cyclists who don't wish to ride on the road.

How we got to the proposed solution

The Googong and Tralee Traffic Study 2031 analysed a number of network improvements in 2010 throughout the then Queanbeyan City Council LGA. It concluded that the level of congestion along Old Cooma Rd as a result of the Googong development required duplication in order to maintain a suitable level of service during peak periods. No alternative road project reduced flow along the two lane Old Cooma Rd alignment sufficiently to maintain a suitable level of service.

An updated traffic study was undertaken in 2014, which incorporated a number of changes throughout Queanbeyan LGA including the Stage 1 works on Old Cooma Rd. This study identified that Old Cooma Rd would reach a level of service E by 2022.

There are no feasible alternatives to the proposal to upgrade the road transport corridor between Googong and Queanbeyan. Alternative direct routes between Googong and Queanbeyan do not exist, and any new routes would likely involve similar or greater scopes of work and potential for greater environmental impacts. Not undertaking the proposal would

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significantly limit the future growth of the Googong development and result in a substantial loss of growth potential in the Queanbeyan area. The scope for considering development options is therefore limited to the broad road corridor of the existing Old Cooma Rd.

Economics of the Project

When considering the whole costs of the project including the costs to the community, the project has a benefit to cost ration of 8.35. So there's \$8.35 of benefit for every \$1 spent on the project over the first 10 years of its life. Some of the benefits include:

1. Savings in travel time - \$234,000,000

From 2022 the project generates over 600,000 hours in time saving per year across the network, or six minutes per vehicle per day (equivalent to over \$20M in travel time value per year).

2. Savings in vehicle operating costs (fuel, maintenance & depreciation) - \$6,200,000
3. Savings in accident costs (property damage, medical & rehabilitation) - \$49,000,000

While these benefits don't directly pay back the capital cost of the project, they are real financial benefits to our region's community and economy.

Environment

The clearing of vegetation and overall impact to the environment has been minimised by following the existing road alignment. Much of the new road will be constructed on already disturbed land and the width of the road through vegetated areas has been minimised.

A Review of Environmental Factors (REF) and Species Impact Statement (SIS) were prepared in 2010 covering both the Stage 1 & 2 upgrade of Old Cooma Rd. These documents were placed on public exhibition with 35 comments being received.

Subsequently a Determination Report was prepared in 2011 based on the REF, SIS, and comments received to assist Council in its consideration of the project under Part 5 of the EP&A Act 1979. Council approved the project in March 2011 including the 30 recommended approval conditions from the determination report.

In November 2011, Council received concurrence from the Office of Environment & Heritage on Council's decision to approve the project. This included 11 additional approval conditions to minimise the impact of the project on the environment.

Design Update

The concept design that was presented for public exhibition was extracted from the old detailed design of the project. This design was completed after the Stage 1 upgrade, however as several changes need to be made to this design, it was labelled as a concept design rather than the final design.

Earlier this year Council engaged a consultant to redesign the project with the following design changes;

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- Update the design to reflect any changes to the design standards and guides.
- Fix any deficiencies or errors in the design.
- Repeat the noise study.
- Design for an 80km/h posted speed limit - the previous design had a 100km/h section from Stage 1 to Googong Rd.
- Relocate the bus stops so pedestrians aren't required to cross the road - the likely solution will be to construct off-road bus stops at Wickerslack Lane, Tempe Crescent/Heights Road, and Talpa Road that can be accessed by buses travelling either direction.
- Ensure continuity of bike lanes - the old design didn't continue bike lanes past the intersections, also some modification to the existing intersections at Quarry Road and Tempe Crescent/Heights Road will be required to allow continuation of the bike lanes.
- Balance earthworks - the old design required a large volume of soil to be trucked in.

Road Noise

Council understands that increased traffic noise is a major concern for residents living along Old Cooma Road. As the road design was being revisited it provided an opportunity to repeat the noise study. Since the first noise study was undertaken in 2010, repeating the noise study has the following benefits;

- Use of new recording equipment and software modelling.
- Implement any updates to the NSW Road Noise Policy.
- Compare the results to the original noise model as the original noise study was undertaken prior to Stage 1 or Googong Township commencing and was based on estimated traffic noise and volumes.
- Check if previously constructed noise walls are performing as expected.

The results of the new noise study will be used to design noise mitigation measures where required to keep noise levels within the limits of the NSW Road Noise Policy. The Road Noise Policy is available on the EPA's website: <https://www.epa.nsw.gov.au/your-environment/noise/transport-noise>

U-turn Facilities

The new road is proposed to have two lanes in each direction separated by a central median. The inclusion of a central median greatly improves safety by reducing the risk of head-on collisions however it does restrict driveway access to left in and left out for some properties with a driveway onto Old Cooma Road.

U-turn facilities will be provided at Wickerslack Lane, Quarry Road, Tempe Crescent/Heights Road, Talpa Road, and the Crown Road 800 metres north of Googong Rd.

Response to Issues Raised During Consultation

Since 7 years have passed from the initial consultation on this project, and the design is being revisited, Council sought comments on the design of the duplication of Old Cooma Rd. This provides an opportunity to consider new comments from the public into the new design, especially from residents who may not have lived in the area in 2011.

35 submissions were received on the concept design with very few of the submissions raising unique issues.

A summary of the questions and comments received on the concept design as well as Council's responses and actions can be found below.

How will delays from the roadworks be minimised?

As the construction of the duplication is expected to take 70 weeks including an allowance for wet weather, it's clear that daily users of the road will be significantly affected.

However as the project is a duplication with two separate carriageways constructed alongside each other, much of the construction can be undertaken on the opposite carriageway to where the traffic will be.

That will allow traffic to continue on the existing road, at a reduced speed, while one half of the duplication is being constructed alongside it. Traffic will then be moved to the new road while the old road is being reconstructed.

At times when traffic will have to pass through the work site, the work will be undertaken outside of peak times.

It should be expected that Old Cooma Road will be operating at a reduced speed for the duration of the project, likely 60km/h outside of construction hours and 40km/h when workers are near the road.

Will the whole road have street lights?

It's not typical to have street lights on this style of road outside of an urban area. Lanyon Drive near the speed camera is a good example where the street lights stop once outside the urban area. Street lights will however be installed at the Wickerslack Lane intersection to improve visibility of the intersection and the Tempe Crescent/Heights Road intersection already has streetlights.

What will be the speed limit and will it change?

The speed limit from Edwin Land Parkway to Googong Road will be 80km/h. This speed limit can't be increased as the maximum approach speed to traffic signals is 80km/h. The speed limit of Old Cooma Road will return to 100km/h south of the Googong Township development.

Why is the gas main being removed, will this affect supply?

To allow construction of the new road, the existing gas main on the eastern side of the road between Edwin Land Parkway and Wickerslack Lane is being replaced with a larger capacity main outside of the new road pavement. Supply would likely be interrupted for a few hours

when the new main is connected and affected residents will be notified prior to any supply interruptions.

Will there be bike lanes along the new road?

For cyclist who choose to ride on the road there will be a 2 metre wide bike lane on both sides of the road. The bike lanes will also be continued on the right side of left turn lanes past the intersections, similar to the Edwin Land Parkway and Old Cooma Road intersection.

There will need to be some minor re-work to the Stage 1 section of the road to accommodate the bike lanes. Currently the bike lanes stop at the existing intersections at Quarry Road and Tempe Crescent/Heights Road. These will be upgraded so bike lanes continue through the intersections.

The shared path

The shared path will provide a link between Queanbeyan and Googong for pedestrians and cyclists who don't wish to ride on the road. It will connect to Queanbeyan's existing and future shared path network along Edwin Land Parkway, Ellerton Drive, and Cooma Street. Connection on the Googong end will be completed by the developer as part of the Googong Road intersection upgrade.

The new shared path along the eastern side of Old Cooma Road will be 2.5 metres wide, constructed from asphalt, and match the slope of the road. Like all off-road paths, pedestrians and cyclists will have to give way to vehicles when the path crosses a side road.

How will wildlife be protected from traffic?

A fauna underpass will be constructed north of the Wickerslack Lane intersection for animals to safely cross this section of road between the two heavily vegetated areas on either side. The underpass will be constructed in a natural valley which will provide shelter to the entry and exit of the underpass and help to draw the wildlife to it.

For wildlife that do get onto the road, the improved road alignment will minimise the risk of collisions with wildlife. The straighter and flatter alignment as well as clearing vegetation on the sides of the road will allow drivers to see potential hazards from a much further distance.

The numerous culverts along the road may also be utilised by small and medium animals to cross under the road.

Intersections with Side Roads

The Wickerslack Lane and Talpa Road intersections were initially proposed to be constructed in the same style as the existing Tempe Crescent/Heights Road intersection. That is, dedicated left and right turn lanes into these intersections as well as space for a single car to wait in the median when turning right out of the side road.

However many submissions on the concept design raised the following issues:

- The existing intersections have poor visibility
- It doesn't feel like it's safe or there's enough room to wait in the median
- There's not enough room for trucks and buses to wait in the median

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- There should be an acceleration lane to merge with traffic when turning right

After receiving these comments, Council worked with its road designer to address the concerns.

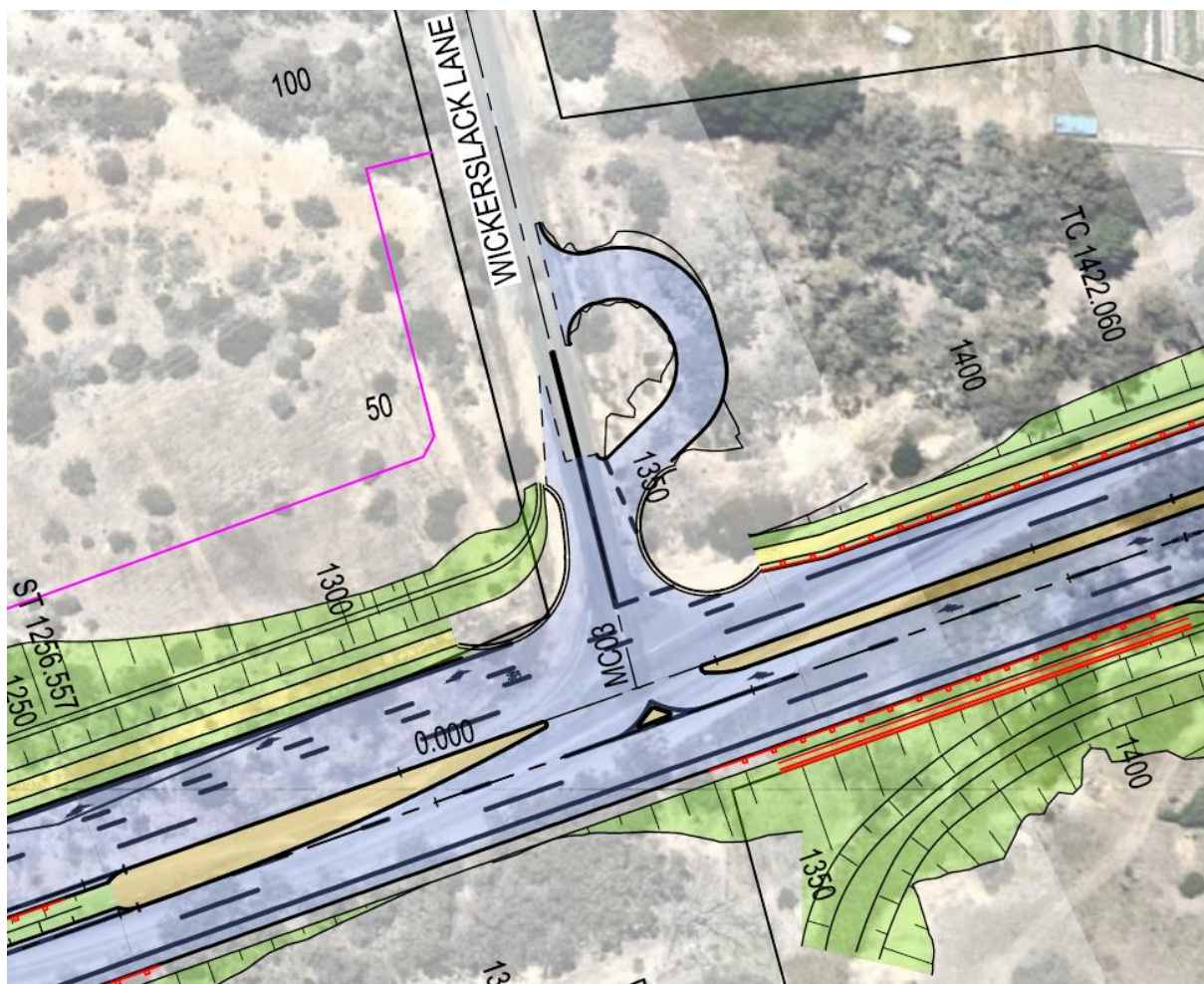
Intersection visibility

As the road alignment will be straightened, crests flattened, and roadside vegetation cleared, the visibility at all intersections and driveways will be significantly improved.

Space & Safety when waiting in the median

The median width for the length of the duplication is proposed to be 6 metres wide which is wide enough to shelter a single car when turning right. However the existing Tempe Crescent/Heights Rd intersection and the other intersections in the concept design don't have any physical separation between through traffic on Old Cooma Rd and the vehicle waiting in the median. This understandably leads to drivers feeling exposed when waiting in the median.

To address the exposed feeling drivers get when waiting in the median, Council proposes to add a concrete island in the centre of the intersection to provide a physical barrier to the opposing traffic as shown below. This will also act as a guide to help position the vehicle in the centre of the median.

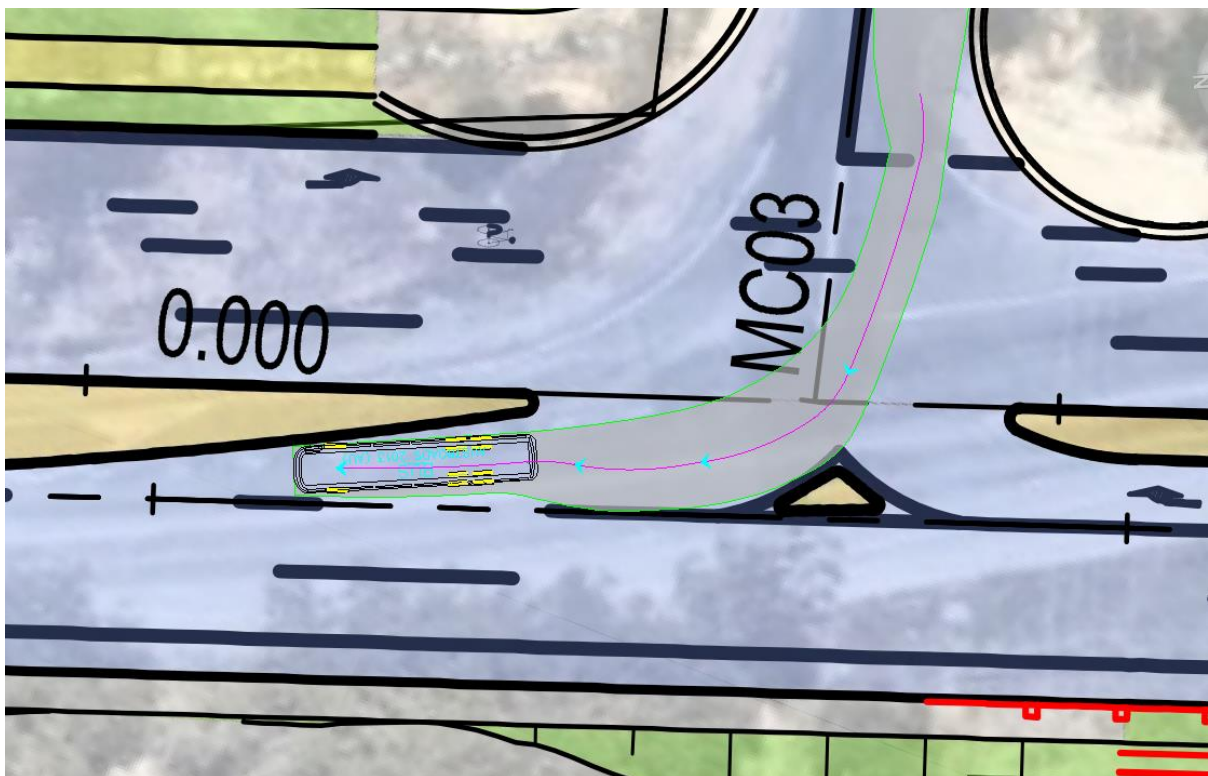


Space for Trucks & Buses to wait in the median

The 6 metre wide median can't be made any wider as our development conditions limit the width of the road in order to reduce the amount of vegetation clearing, also additional property acquisitions would be required.

As buses and rigid trucks are up to 12.5 metres long and semi-trailers up to 19 metres long, the median width would have to significantly increase to accommodate these vehicles in the ideal position, perpendicular to the opposing traffic. However Council has been working with our designer to accommodate trucks and buses up to 12.5 metres long parallel to opposing traffic by lengthening the median gap, as shown below.

This will allow these longer vehicles to wait in the median if they choose to, and it also makes it easier to turn right in one movement as it can be done at a higher speed.



There should be acceleration lanes so the right turn can merge with traffic

Right turn acceleration lanes aren't supported by Council as they only provide a small time saving or convenience benefit to motorists turning at these intersections but add many additional hazards including:

- Lack of space between intersections for full length acceleration lanes means that some vehicles won't be able to match the speed of the adjacent lane.
- Runoff space at the end of the merge can't be provided which means that if the merging vehicle isn't let into the adjacent lane, they would run into the median.
- Drivers in the right hand lane are often travelling at a higher speed as they are overtaking and are less likely to adjust their speed to allow vehicles to merge.
- Some drivers find merging from right to left uncomfortable as it's not a common way to merge.

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Further information & updates

Further information and updates on the project will be available on the Major Projects section of Council's website. Alternatively you can contact the Project Team by email at ocr@qprc.nsw.gov.au.

OCR webpage - <https://www.qprc.nsw.gov.au/Major-Works-Projects/Old-Cooma-Road>