Coolalinga Road Safety Upgrades

Frequently Asked Questions

Australian Government

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NORTHERN TERRITORY GOVERNMENT

NOTES

Key features of this final concept design include:

1. Two new traffic lights will be coordinated with the existing traffic light at the Stuart Highway/Henning Road intersection
2. Extension of service roads on both sides of the Stuart Highway
3. Extension of an existing road behind Coolalinga Central to the new traffic light via Stow Road
4. Extension of Henning Road through to Virginia Road
5. New road link between the Stuart Highway and Henning Road

*Artist impression only
*Not to scale
*Refer to engineering drawings on dipl.nt.gov.au for finer details

LEGEND

New Road/Lanes

Traffic Lights

Contents

The Department of Infrastructure, Planning and Logistics has released a new easier to follow graphic showing the final concept design for the Coolalinga Road Safety Upgrades. This Frequently Asked Questions paper compiles the most commonly asked questions during various stages of the consultation and to explain the final concept.

Context

What are the project objectives of the Coolalinga Road Safety Upgrades?

The objectives of the project are to:

- Improve road safety for all road users, including pedestrians and cyclists by incorporating signalised pedestrian crossings at popular crossing points, and inclusion of footpaths.
- Improve accessibility to and from both sides of the Stuart Highway by creating two new intersections which facilitate signalised access in all directions.
- Support future planning and growth by ensuring that future roads and developments can easily connect to the road network.

What problems are you trying to fix with this design?

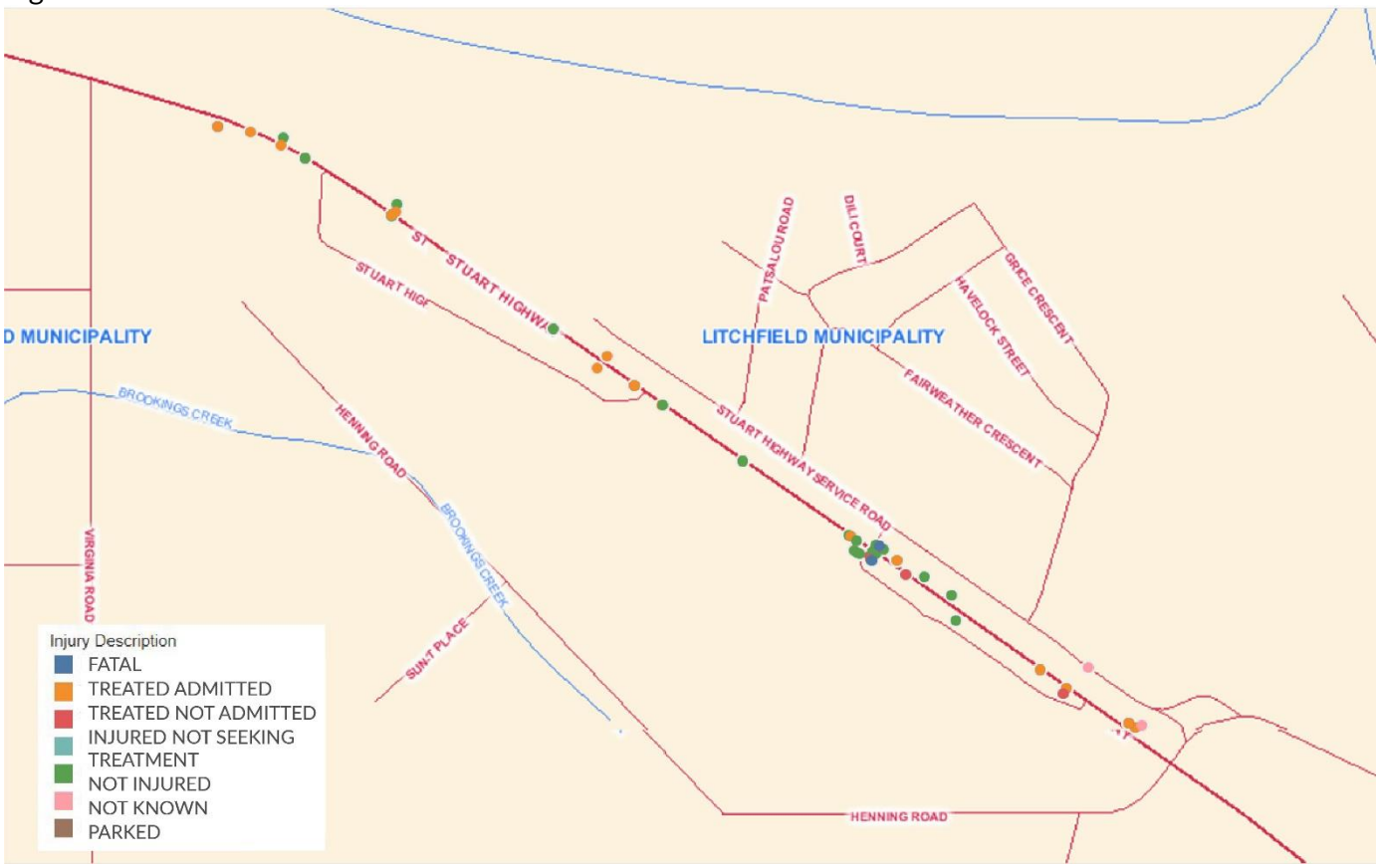
Crash data for the Stuart Highway passing through Coolalinga tells us that safety improvements are required. Road safety is one of the Government's highest priorities, as outlined in the Towards Zero Action Plan (2018-22).

This solution aims to address safety issues for all road users, improve connectivity and access to businesses on both sides of the Stuart Highway. This includes providing a safe connection for both pedestrians and vehicles between business precincts located on either side of the Stuart Highway.

What is the crash data in this area?

Stuart Highway passing through Coolalinga commercial area has experienced 56 crashes in a period ranging from 2010 to 2020. This includes 3 fatalities and 23 causalities where people required hospital admission. Analysis of these crash types show that a large percentage of these crashes involved vehicles turning at uncontrolled intersections.

Figure 1 - Crash locations 2010-2020



What community input was factored into the design?

This preferred solution has evolved from the feedback garnered from over 300 stakeholders during the previous two rounds of consultation. It also includes feedback from several conversations with approximately 15 affected landowners, local businesses and key representative groups.

Why has it taken so long?

Competing expectations from key stakeholders and affected landowners meant that the project had to go through numerous iterations to develop a concept that suitably addressed the concerns raised. The final design involves land acquisition from private land owners and this required time to complete consultations with affected land owners and reach in-principle support.

Finding the right solution is a delicate task in balancing various stakeholders' needs against the objectives of the project. There is no one solution that will appease everybody and it takes time to understand the impacts of all possible options, and to identify the most suitable solution.

Traffic lights

Why are traffic lights a suggested solution in this circumstance?

During recent times, the Coolalinga area located along the Stuart Highway has experienced substantial growth due to new commercial and residential developments. The new developments have caused increased traffic activity within the local corridors of the Stuart Highway.

Until 2018, an uncontrolled central median of Stuart Highway located opposite to United Fuel Station provided a direct link between the two Coolalinga business precincts located on either side of the highway. However, this intersection experienced a fatal crash being an uncontrolled intersection in a high speed environment. As a result in 2018, a short term interim solution which restricted direct access between two business precincts was implemented before a long term traffic solution for Coolalinga was developed.

As part of the Coolalinga long term traffic solution development, a range of options were considered including new traffic lights at various locations, closing existing central median gaps, an underpass for light vehicles/pedestrians, an overpass for pedestrians and roundabout. In addition, various configurations of new local roads were also studied as part of changes to Stuart Highway. All options (or sub-options) were tested against project objectives, road safety standards, site constraints and requirements of local land/business owners. During this process, many options which did not meet future planning needs or failed to gain support from the affected land owners or local businesses had to be discarded. For example:

- Virginia Road traffic light option –this option addressed current safety issues at this location, however, it did not meet future land development plans north of the Stuart Highway. This bookend solution with two traffic lights did not provide a direct link between two shopping centres. This option would have required local traffic travelling from one shopping centre to the other to take an indirect route via the service roads and local roads connected via distanced traffic lights.
- Closing existing Stuart Highway central medians –closing the existing central median opposite to United Fuel Station addressed the issue of high number of local crashes, however, this was not acceptable to local businesses who would lose direct access to their businesses. Also, this option did not provide any direct connection between two Shopping Centres – a key project objective.
- Underpass for light vehicles/pedestrians - this option had high construction cost as it required significant construction works across the Stuart Highway including raising the Highway. In addition, this option also required potential land acquisition from commercial developments.
- Pedestrian overpass was not viable due to site constraints and the extent of land acquisition required.
- A roundabout on the national network in this location was not considered in the design due to the unsuitable nature of the site and road use for this type of treatment. The size requirement for a roundabout in this location was not possible without substantial land acquisition and disruption to existing commercial developments.

Traffic lights, therefore, were assessed to be the most suitable treatment when taking into account safety, traffic flows, vehicle composition and site conditions. The benefits of lights in this location area:

- Reduce traffic conflicts by assigning right of way to vehicles and promote orderly traffic movement
- Provide direct access/egress to/from commercial precincts on either side of the Highway (new mid-block traffic light)

- Are appropriate type of intersections for given traffic composition including heavy vehicles (road trains)
- Prohibit dangerous and risky traffic movements that are associated with an uncontrolled median opening.
- Provide safe crossing facilities for pedestrians and cyclists at desired locations
- Provide greater control to manage changing demand
- Can be coordinated to reduce delays for through traffic during peak hours
- Support future transport connection to Stow Road extension and also future land use plans (new traffic light opposite Section 4871).
- Help in addressing current Virginia Road intersection safety issues by providing alternate controlled and safer right turn options for local traffic
- Together with proposed local road network extension, two new traffic lights offer alternate access and egress options for local traffic on either side of the Stuart Highway. This in turn will make local area road network efficient, robust and safer.

What was the reason for the location of the proposed mid-block traffic lights (between Coolalinga Central and Coolalinga Shopping Centre?)

The primary reason for the mid-block traffic light is to maintain access to and from both sides of the Stuart Highway, as requested by the directly affected land owners and businesses.

It is also optimally located roughly half way between the existing lights at Henning Road and the new proposed traffic light opposite Section 4871 which helps to coordinate closely spaced traffic lights.

This location also proved to be the desired crossing line for pedestrians. This was determined through observation and feedback received during consultation. Most of the people who crossed at this location were young people traveling between the bus stops, fast food venues and/or nearby sporting fields which involved crossing the Stuart Highway in the vicinity of the proposed traffic lights.

This location also proved to be the best option to facilitate vehicle access to the businesses precincts located on opposite sides of the Stuart Highway. Site constraints such as available road reserve, the nearby truck parking bay and prevalence of utilities and services ruled out other options.

By not providing this mid-block traffic light, local traffic travelling from one shopping centre to the other would have required to take an indirect route via the service roads and local roads connected via distanced traffic lights.

How the spacing between two new traffic lights was decided?

The location of the two new traffic lights has been selected strategically considering land use plans, future transport corridors, existing site constraints, need for land acquisition, crash history and feedback from affected local land/business owners.

For example, the site for the mid-block traffic light was selected to;

- retain existing access/egress to/from the Stuart Highway to side businesses

- address high crash history of this site
- align with desired location for pedestrian crossing
- avoid conflict with existing truck parking bay.

Similarly, the site of the northern traffic light was selected to;

- support future land use plans and connection with proposed extension of Stow Road.
- develop an efficient local area traffic management solution which offers direct and alternate access to residential and commercial developments on either side of the Highway supported by new local roads.
- optimally coordinate with two other traffic lights to support platoons of vehicles to proceed through series of green lights and thus minimise delays.

Will additional traffic lights add to travel time?

It is reasonable to expect that some impact to through travel will occur as a result of traffic lights, however, similar examples across network show that for an overall journey of 20 minutes there may be an average delay up to one minute. This delay time will not be exclusively from the two new traffic lights but also includes delay due to the existing traffic light at Henning Road.

Delays can also be minimised through the construction of additional lanes and coordination of traffic lights along the route.

Traffic lights will also add reliability to the network by removing conflicts at uncontrolled intersections or access points.

Will the traffic lights be coordinated? How does this work?

Yes. The traffic lights will be coordinated to support platoons of vehicles to proceed through series of green lights along Stuart Highway.

Intersection modelling summary report

In 2020, the Department of Infrastructure, Planning and Logistics engaged independent consultant Tonkin to undertake a peer review of the proposed additional signalised intersection (opposite United Fuel Station/Coolalinga Central Shopping Centre) on the Stuart Highway at Coolalinga. The main objective of this review was to test various traffic arrangements for the northern and southern service roads in combination with traffic lights on the Stuart Highway.

Following traffic modelling and consultation with affected land/business owners, Tonkin recommended a design option for this intersection with following features;

- traffic lights at Stuart Highway including a safe pedestrian crossing
- roundabout at northern service road retaining direct access to Coolalinga Central Shopping Centre
- retain direct access to southern service road and adjacent businesses

The recommended option balances the needs for through traffic, local businesses/landowners, pedestrians and future traffic demands. Anyone interested in the traffic modelling results undertaken by Tonkin may contact the Department for this traffic report.

Construction

When will construction take place?

The project will now progress to detailed design which includes site investigations, finalisation of utility service relocation and/or protection and the preparation of construction drawings and contract documentation.

Construction is scheduled to commence by 2022 with priority afforded to works on the Stuart Highway.

- Advertise tender for detailed design: December 2020
- Completion of detailed design: September 2021
- Advertise tender for construction works: October 2021.

How will construction activity impact my business?

The staging of the project will be finalised to minimise impact to the local businesses. Before works are scheduled to commence, community notice will be provided in advance to assist with planning to minimise disruption. A traffic management plan will be prepared which will outline the approach to managing traffic during construction.

By its very nature the Coolalinga road upgrade project will impact upon traffic that passes though the project works to some degree for the duration of the project works.

When the detailed design is completed and the works are tendered by Contractors the construction sequence and staging of works will then be confirmed.

It shall be a requirement of the construction contract that the successful Contract must ensure the disruption of traffic is minimised and to ensure that access is maintained to all current landholders that are impacted by the works. Continued access will likely use alternative arrangements from those currently provided and those provided of by the ultimate design. Again DIPL will endeavour to minimise the disruption associated with any alternative access arrangements.

It is envisaged that the majority of the works will be undertaken during daylight hours Mon to Fri with works also to be carried out on Saturdays in line with Contractor's normal working arrangements. However, there may be a need to undertake works at night and/or on Sundays to take advantage of the reduced traffic volumes that occur at these times. In the event that work are undertaken at these times then they are commonly done in short campaigns with a focus to ensure noise pollution is minimised. Appropriate notification of these works will be provided to all impacted stakeholders.

Other construction related issues such as noise, dust, erosion and sediment control will be managed in strict compliance with DIPL's Standard Specification for Environmental Management.

Traffic Management will be a strong focus for DIPL throughout the project duration.

Have funds been allocated to construct all roadworks?

Yes, funds have been secured to construct full extent of the proposed roadworks along Stuart Highway including the side local roads.