

Safety upgrades at Roger Vale Drive and the Stuart Highway, Alice Springs

The Department of Infrastructure, Planning and Logistics is undertaking a planning study for safety upgrades around the Roger Vale Drive and Stuart Highway intersection, south of Alice Springs.



The project will look into potential safety upgrades across three key locations:

Area 1 Roger Vale Drive and Stuart Highway Intersection.

Area 2 Motorsports complex off the Stuart Highway. This access attracts a high number of vehicles attending major events including the Finke Desert Race, Red Centre Nats and drag racing events.

Area 3 Welcome to Alice Springs tourist feature. This site provides tourists a photo opportunity of West McDonald Ranges and is surrounded by land earmarked for future development.

Roger Vale Drive and the Stuart Highway intersection upgrades

This busy stretch of the Stuart Highway provides access to the Alice Springs Airport, Santa Teresa, Titjikala and other communities, the nearby motorsports complex and the popular Welcome to Alice Springs tourist feature.

The existing intersection is a high speed unsignalised intersection where the major road (Stuart Highway) has to yield to the minor road's traffic (Roger Vale Drive).

Long queues and risky turning movements at peak times and during major events cause ongoing safety issues that need to be resolved.

The proposed upgrade will realign this intersection to eliminate this traffic conflict. It will support planned future development in the area, particularly commercial development plans as part of the Alice Springs Airport 2020 Master Plan and future land uses plans for Alice Springs south.

The Northern Territory Government has engaged Territory-based engineers at SMEC to plan for safety upgrades around the intersection.

The objectives of the study are to:

- redesign the intersection to allow safer road train access from all directions
- improve capacity and traffic flow into the Alice Springs Airport, Santa Teresa, Titjikala and beyond
- provide provisions for a shared path link to the airport
- provide safer traffic management conditions for major motorsport events including the Finke Desert Race, Red Centre Nats and drag racing events
- provide safer access to the Welcome to Alice Springs tourist feature
- consider street lighting, drainage and other road design features.

Have Your Say

The Department of Infrastructure, Planning and Logistics is seeking community and stakeholder feedback on the draft concept for the intersection upgrade. Your ideas, suggestions and comments will help inform progression of the design.

Consultation is open from 7 June to 5 July 2024.

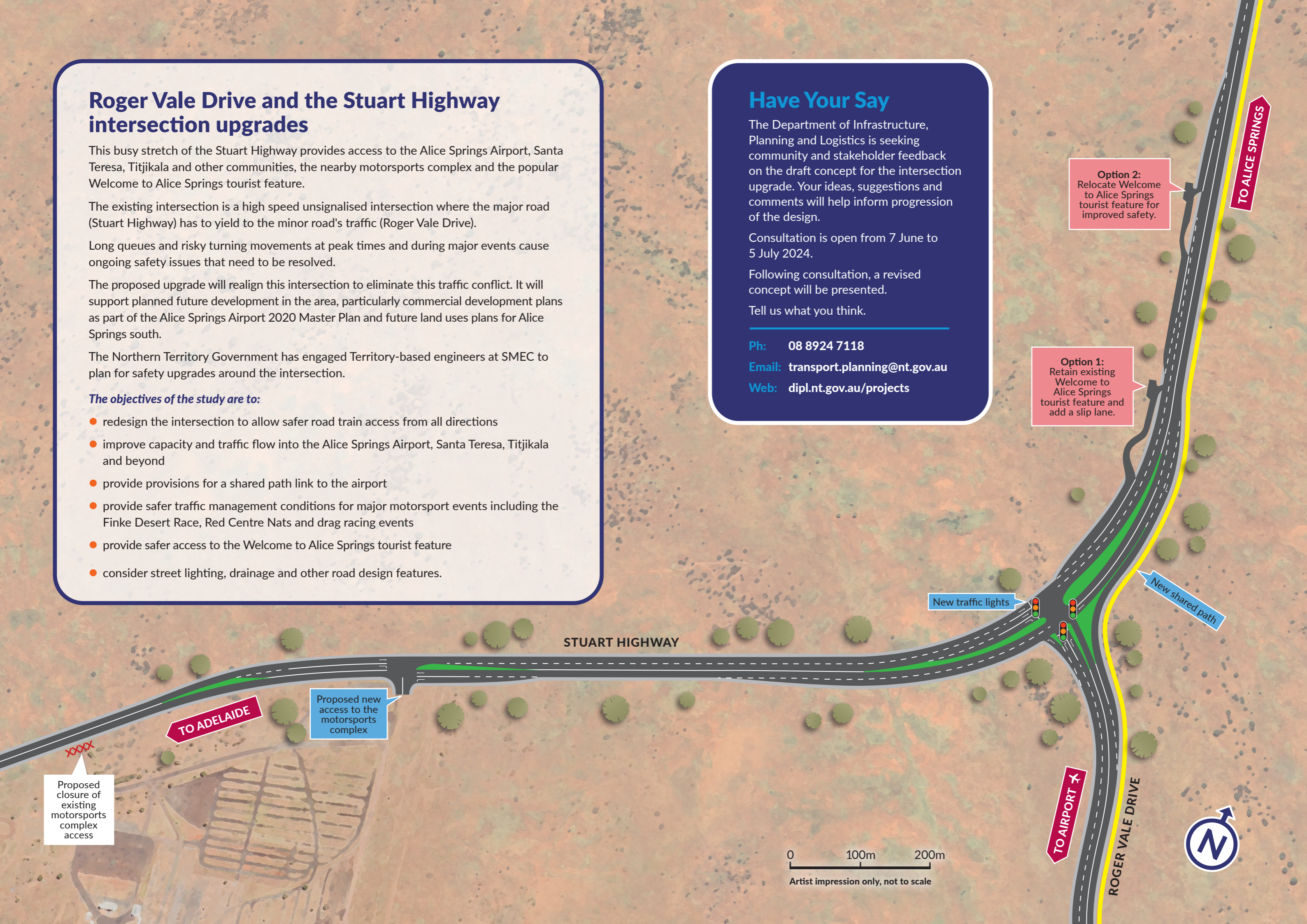
Following consultation, a revised concept will be presented.

Tell us what you think.

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Option 2:
Relocate Welcome to Alice Springs tourist feature for improved safety.

Option 1:
Retain existing Welcome to Alice Springs tourist feature and add a slip lane.

Proposed closure of existing motorsports complex access

Proposed new access to the motorsports complex

New traffic lights

New shared path

0 100m 200m

Artist impression only, not to scale



Why is this project necessary?

This project will develop a concept design to address the current safety and access issues at the Stuart Highway and Roger Vale Drive intersection, the motorsports complex access and the Welcome to Alice Springs tourist feature.

Future land use plans for Alice Springs including the Airport Master Plan (2020) show substantial residential and commercial developments proposed in the area. These land use plans require supporting land transport infrastructure including this intersection upgrade.

Why does the design require traffic lights?

The Stuart Highway is a national highway. The intersection at Roger Vale Drive services a range of traffic including road trains, tourist vehicles and airport travellers. The intersection is located in a high speed road environment and is currently unsignalised. The current land use plans for Alice Springs show that future traffic is likely to grow at this intersection. Signalising the intersection is essential to meet safety standards and access requirements for all traffic including road trains.

Traffic signals are intelligent traffic control systems which reduce traffic conflicts and coordinate priority movements. Introducing traffic signals at Stuart Highway and Roger Vale Drive intersection will improve safety for all road users and support future land use plans and additional traffic demand.

Why does the design reduce the speed limit?

Under Safe System requirements for road design, intersections should preferably operate in a speed environment less than 80 km/h to avoid serious impacts of collisions. Lowering the speed at signalised intersections is national best practice with significant road safety benefits and usually has minimal impact on travel time.

This design provides for a sign posted speed limit of 80 km/h to allow for safer approaches to the intersection. This is also warranted due to potential traffic growth from future land use plans for the area and to continue to meet road safety standards.

What other alternatives did you consider to avoid installing traffic lights?

Other options such as a roundabout or seagull intersection were considered however they are not feasible for this site. A multi-lane roundabout is likely to require a large area to build and would also have operational issues due to road trains. Road trains traversing through a roundabout are reported to encroach side lanes and create safety issues for other road users. A roundabout at this site will also give right of way to a lower order road (Roger Vale Drive) over Stuart Highway northbound traffic. Roundabouts are reported to have lower operational capacity compared to traffic signals and aren't ideal for areas with projected future traffic growth.

TELL ME MORE

For seagull intersections (unsignalised), right turning traffic from side roads rely on safe gaps between main road traffic. As traffic grows in the area, right turning traffic in and out of a side road would start to experience delays which increase the likelihood of crashes. These issues worsen when road trains also use this type of intersection.

Will this impact travel time getting to and from the airport?

Traffic travelling to the Airport from Alice Springs will use a free flow left turn arrangement at the new intersection similar to existing arrangement. Traffic travelling to Alice Springs from the airport may experience minor delays if they get a red signal. The proposed traffic signal will work based on traffic priority and demand during peak hours.

How can heavy vehicles merge and turn safely?

The intersection will be designed for road train movements to travel in all directions by providing sufficient clearances and green time. It will also ensure safe merging distances on all approaches.

Why does the Welcome to Alice Springs tourist feature area need to be moved?

The draft concept proposes realigning the intersection and adding an additional lane in both directions. This will mean travellers driving in the right hand lane from Roger Vale Drive onto the highway will need to merge into the left lane in a short distance to enter the tourist feature area. Relocating the tourist feature further north along the highway will provide drivers with more space to safely navigate their way into the feature.

The draft concept is considering two options; leaving the tourist feature where it is and adding a slip lane, or moving it further north. The option presented in the final concept will depend on feedback received during consultation.

How will the project consider feedback?

Community feedback is important to understand the best ways to address safety and congestion issues in this area. All feedback will be considered by the project team and help inform progression of the concept design.

What are the next steps after consultation?

The project team will consider all feedback received during consultation. This may mean the concept design is updated to incorporate feedback. Depending on the outcomes of this consultation, the department will either present a final concept or undertake further consultation on a revised version.

When will construction start?

Construction will be scheduled when funding is available after the design is completed.