



Waihī to Ōmokoroa

Proposed flexible median barrier and roundabout options



Community consultation on median barrier and roundabouts

Consultation on median barrier began in March 2021 with community feedback captured on how we might shape a median barrier option on a 14.2km section of State Highway 2 (SH2) between Tetley Road and Esdaile Road.

This is part of the SH2 Waihi to Ōmokoroa safety improvements project which began in 2018 and is due for completion in 2024.


At this time, we do not have a time frame for median barrier to be installed. Funding is yet to be confirmed for design and construction. However, we will continue to engage with our partners and the community on any progress.

Flexible median safety barriers are life savers

When flexible safety barriers are fitted along the side and centre of the road, they can reduce the number of people killed or seriously injured in crashes by 75 percent. Barriers catch you before you hit something harder like a pole, tree or oncoming car. If you hit a flexible barrier, the steel cables flex, slowing down your vehicle and keeping it upright. They absorb the impact so you and the people with you, don't.

People make mistakes. This shouldn't cost a life.

We all make mistakes, but there are changes we can make so simple mistakes don't result in someone being killed or seriously injured on our roads. Waka Kotahi is installing proven safety interventions on New Zealand's highest risk roads as part of the Road to Zero road safety strategy.



Roadside and median flexible safety barriers are highly effective in preventing deaths and injuries for all road users, including motorcyclists.

Motorcyclists and flexible safety barrier

Motorcyclists are more likely to survive an impact with a flexible safety barrier than an impact with a tree, pole or oncoming vehicle, which the barriers may prevent them from striking in a crash.

NZ motorcycle-barrier crash data from January 2001 to July 2013* shows of 20 motorcycle fatalities sustained as a result of riders hitting a roadside or median barrier, three involved flexible safety barriers, while 13 involved traditional steel barriers and other barrier types. Over the same time period there were 97 motorcyclist fatalities from collisions with posts or poles, 70 from hitting traffic signs and 93 from crashing into unprotected trees.

Is there enough room for emergency services to get past in an emergency?

The minimum 6.25 metre space between the guardrail at the edge of the road and the flexible safety barrier in the centre allows room for emergency services to get past in an emergency.

Emergency services would expect motorists to adopt common courtesy, ensuring they slow down and move their vehicle as far to the side of the road as safely possible. In the event of a crash, flexible safety barriers can also be pulled out of the road quickly and easily to allow access for emergency service vehicles and clean-up operations.

Will the roundabout sizes allow for large trucks?

The minimalist approach of a single lane roundabout with a 36m outside diameter will be the minimum to enable the turning of a high productivity motor vehicle (HPMV) 25m truck-trailer unit.

Does having a median barrier mean I have to travel further?

To achieve the greatest safety benefit for the flexible median safety barriers, we need to have as few gaps as possible.

Waka Kotahi has a vision where no one is killed or seriously injured on our roads. To achieve this, we must put the safety of people first, before efficiency and travel time.

This does mean those entering the highway from a private access or side road may only be able to turn left, unless a safe turnaround area has been provided.

What is the distance between turnaround areas where flexible median safety barrier is installed?

Spacing between turnaround areas, likely roundabouts, is planned for every three to five kilometres.

We are discussing the plans with those living along the corridor to find out how they use this section of road and enable us to make the best decision regarding placement.





* (NZ Transport Agency/Ministry of Transport report, (July 2016), Flexible Barriers - Why we install wire-rope barriers on New Zealand roads)

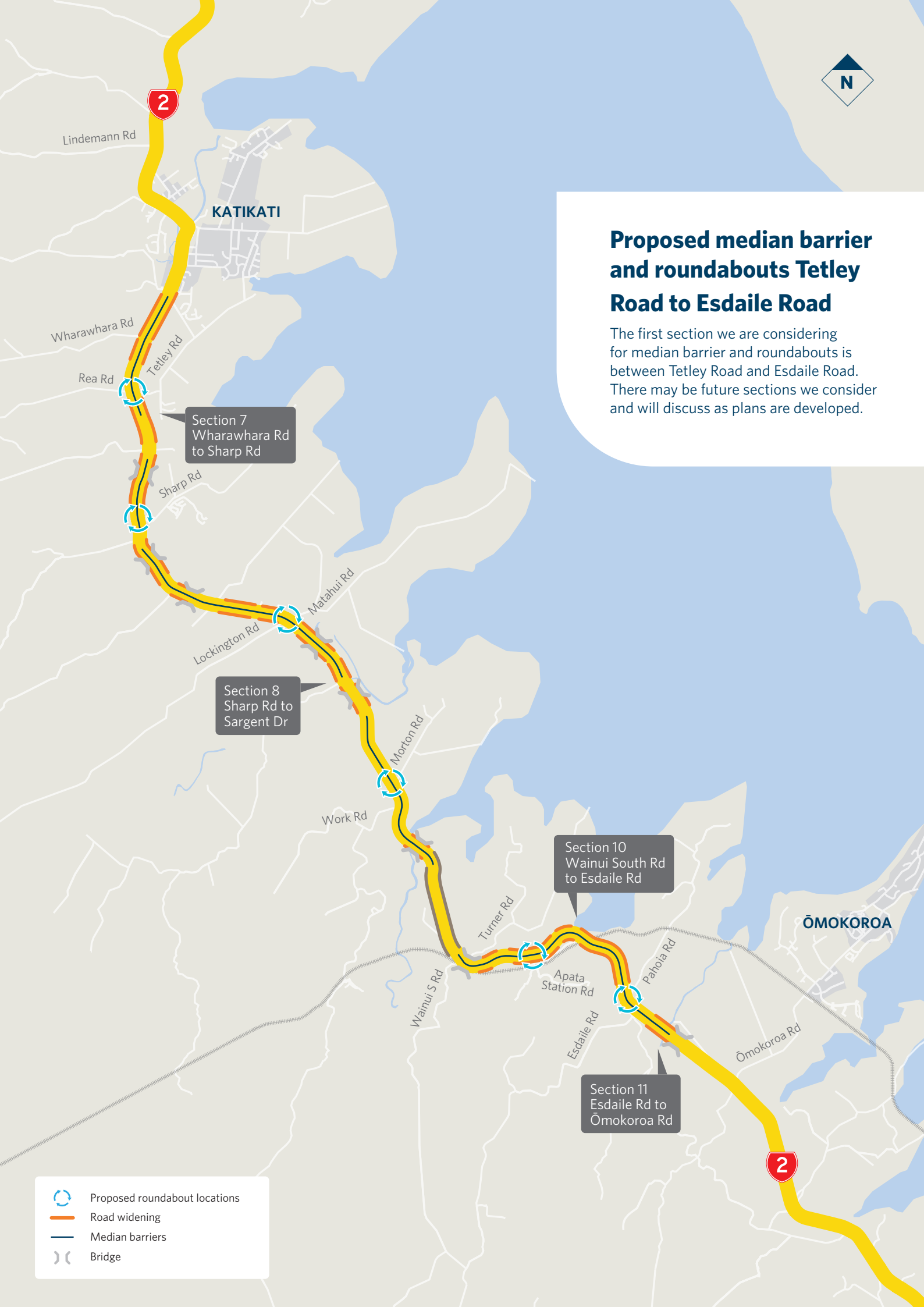




Proposed median barrier and roundabouts Tetley Road to Esdaile Road

The first section we are considering for median barrier and roundabouts is between Tetley Road and Esdaile Road. There may be future sections we consider and will discuss as plans are developed.

-  Proposed roundabout locations
-  Road widening
-  Median barriers
-  Bridge





Rea Road/Tetley Road

During the development of the initial road safety improvements currently being delivered, safety issues were identified with the Rea Road/Tetley Road intersection that required an improvement.

After careful consideration of alternatives, including closing Tetley Road or restricting to a left-in, left-out, a roundabout was identified as the preferred option.

It is proposed to construct a centrally located 38m single lane roundabout on SH2, at the existing Tetley Road/Rea Road intersection. The roundabout will have slow exit passing bays.



-  Proposed roundabout locations
-  Bridge

Sharp Road

After careful consideration of alternative intersections to locate a roundabout, Sharp Road is the proposed option. Sharp Road is located 1.9km from the proposed next northern roundabout at Rea Road/Tetley Road and 3.1km from the proposed next southern roundabout at Lockington Road/Matahui Road.

It is proposed to construct a centrally located 36m single lane roundabout, with slow exit passing bays. This option requires some land purchase which is key to construction commencing in this location. The alternative location is Lund Road.



Lockington Road/Matahui Road

After careful consideration of alternative intersections to locate a roundabout, Lockington Road/Matahui Road is proposed. This intersection is located 3.1km from the proposed next northern roundabout at Sharp Road and 2.9km from the proposed next southern roundabout at Morton Road.

Several options were considered, with the proposal to locate a 50m roundabout, with dual lanes for both northbound and southbound SH2 traffic. This option requires some land purchase and significant relocation of services.



- Proposed roundabout locations
- Bridge

Morton Road

After careful consideration of alternative intersections to locate a roundabout, Morton Road is proposed. This intersection is located 2.9km from the proposed next northern roundabout at Lockington Road/Matahui Road, and 3.8km from the proposed next southern roundabout at Apata Station Road. Prior to deciding on Morton Road, a roundabout was considered at Work Road, however this location presented multiple constraints.

This proposed roundabout can be accommodated within the existing road corridor without impacting on the existing recreational reserve (tennis courts) but will require some land purchase to maintain a corridor for power and fibre utilities.



Apata Station Road

After careful consideration of alternative intersections to locate a roundabout, Apata Station Road is proposed. This intersection is located 3.8km from the proposed next northern roundabout at Morton Road and 2.5km from the proposed next southern roundabout at Pahoia Road/Esdaile Road.

This proposed roundabout will significantly improve the ability of trucks to exit the Apata packhouse and coolstore. This design can be accommodated within the proposed layout by including slow passing lanes on the SH2 exits. Apata Station Road will connect to SH2 at right angles, to help the heavy vehicles make the right turn towards Tauranga. This option presents several stormwater challenges which may impact significantly on time and cost of delivery.



Esdaile Road/Pahoia Road

After careful consideration of alternative intersections to locate a roundabout, Esdaile Road and Pahoia Road is proposed. This intersection is located 2.5km from the proposed next northern roundabout at Apata Station Road and 1.6km from the proposed next significant southern intersection at Ōmokoroa Road. This proposed roundabout will significantly improve the ability of vehicles entering and exiting Pahoia School and improve upon the existing "back to back" right turn lane layout.

Designing and constructing a roundabout in this location presents several design, property, and construction challenges, including the relocation of significant services.

The technical challenge considers challenges trucks would face stopping and starting on the uphill grade. The recommendation is to construct a 50m external diameter dual lane roundabout that provides a slow-moving, "crawler" lane for trucks, separated from the other traffic.

This recommended option is significantly more expensive than other roundabouts recommended for the corridor and will require the purchase of land, the construction of retaining walls, and the relocation of power services.



