

1 Belfast to Pegasus Motorway and Woodend Bypass



State Highway 1 (SH1) from Belfast to Pegasus is the key freight route to the north of Christchurch, and is critical to Christchurch City, Christchurch International Airport, Lyttelton Port and the major health, education, commercial and industrial services in this area.

Woodend, Pegasus and Ravenswood are experiencing significant growth, far above what was anticipated when the project was designated in 2015. This growth is increasing delays and creating travel time reliability issues for the road network.

With traffic volumes expected to increase by up to 28,000 vehicles per day by 2048, the Canterbury region needs this project to support economic growth and get people and freight where they're needed quickly and safely.

The SH1 Belfast to Pegasus motorway and Woodend Bypass (B2P) includes a 10km extension on SH1 north of Christchurch from the SH1/SH71 Lineside Road interchange, to just north of the Pegasus roundabout and includes a 6km bypass of Woodend.

This project has been prioritised for delivery as one of the Government's Roads of National Significance.

Project outcomes

- » **Economic benefits:** improved travel times and reliability, boosting economic growth in the region.
- » **Traffic reduction:** reduced congestion in Woodend, improving access and community connections.
- » **Safety improvements:** a safer state highway corridor with reduced crash risks at local intersections.
- » **Connectivity improvements:** reduced delays on side roads, better connections to Pegasus, Ravenswood and Woodend.
- » **Local development:** less traffic in Woodend creates an opportunity to develop a more vibrant town centre.
- » **Enhanced accessibility:** reduced traffic on local roads will make access safer and easier for the local community.

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A safer, more efficient SH1

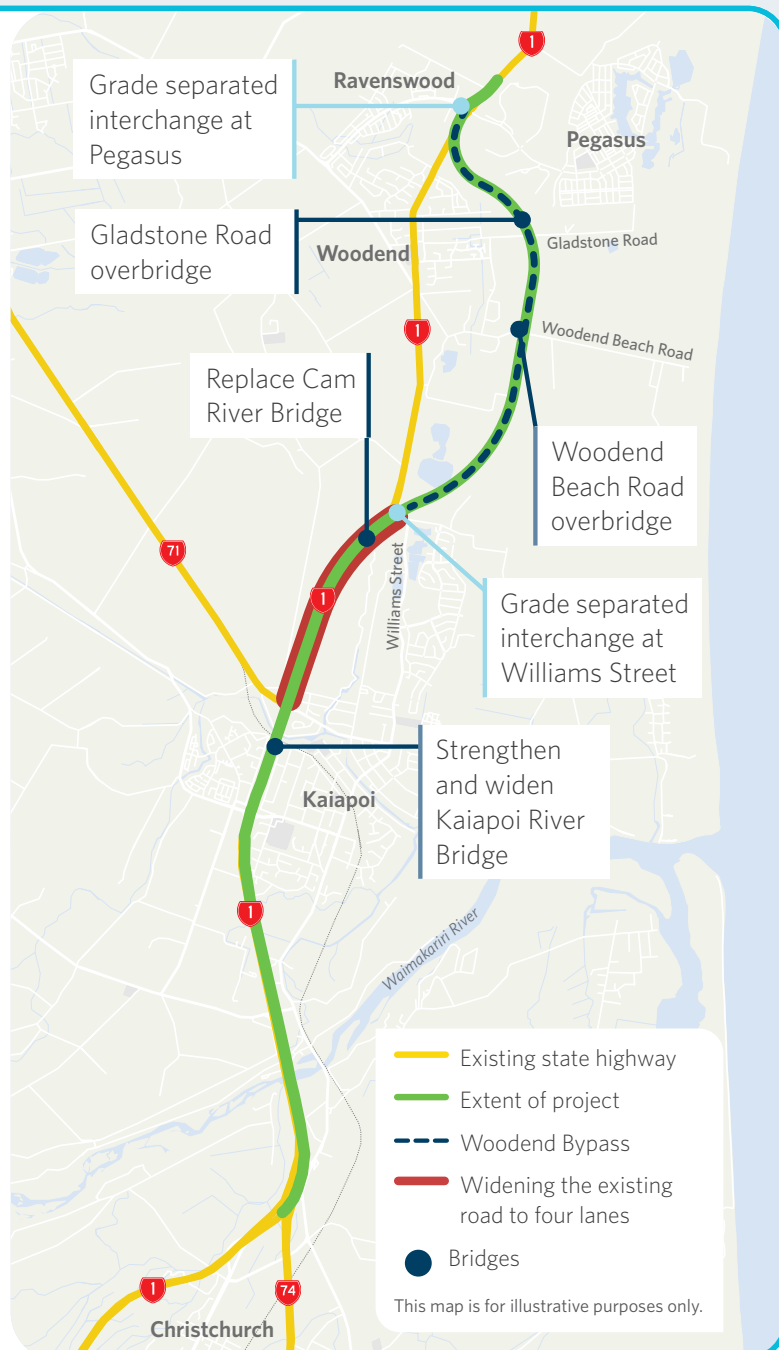
We're committed to delivering state highways so people and freight can move quickly and safely. This motorway will have safety features that greatly reduce the risk of death or serious injury in a crash, like two lanes in each direction, flexible median barrier between opposing lanes and a smooth alignment that offers good forward visibility for drivers.

An efficient and reliable state highway connection between Belfast and Pegasus will support economic growth in Woodend, Pegasus and Ravenswood.

Reducing the amount of traffic on Main North Road through Woodend will make this small community feel more connected, help lower crash risks at local intersections and make it easier for people to visit the local shops, pick up and drop off children at school, and get in and out of side roads.

To move traffic more safely and efficiently, a new interchange will be built where the Pegasus roundabout is now. An overpass will allow for continuous movement of state highway traffic over this busy intersection, with traffic signals on the local roads underneath to make it safer and easier for people to get between Pegasus, Ravenswood and Woodend.

A motorway overpass will also be built at the intersection of SH1 and Williams Street at Pineacres.



Local and motorway traffic

By 2048, the state highway through Woodend is expected to carry up to 28,000 vehicles per day (up to 3,000 of which are trucks).

When the new motorway bypass opens the existing SH1 will become a local road with traffic volumes expected to reduce to below 10,000 vehicles per day (untolled).

Williams Street interchange

The new motorway will extend over Williams Street to provide an uninterrupted journey for state highway traffic to beyond Pegasus. Northbound traffic will be able to access Woodend from an off ramp at Williams Street with corresponding access for southbound journeys to Christchurch.

Pegasus interchange

Where the Pegasus roundabout is now, an overbridge will carry SH1 traffic over a new Pegasus/Ravenswood interchange. Traffic signals below will control state highway on and off ramp access to and from Pegasus Boulevard and Bob Robertson Drive. These signals will also provide safer crossing points for pedestrians and cyclists connecting between Pegasus and Ravenswood.

Local road bridges over SH1 at Woodend Beach Road and Gladstone Road will keep these connections in place for the local community but will not give access onto the new motorway.

A project with a long history

Following several studies in the early 2000's to look at ways of addressing traffic growth and safety, and how to better connect the Woodend community, the need for a bypass for Woodend was identified.

Between 2011 and 2014, we asked the community for feedback on two possible state highway options for Woodend to address expected traffic growth over the next two decades. The two options were selected based on earlier feasibility studies and consultation.

The aim of the Woodend Corridor investigation was to select a route and safeguard any land needed for improvements from development. Although there was no plan to progress beyond this stage, selecting and protecting a route would give the community some certainty about the future. A bypass to the east of Woodend township was identified as the best option.

The corridor investigation developed the best route and layout for both possible SH1 routes between Pineacres and the Pegasus area. We consulted the community on their views and considered the pros and cons of the two routes:

- » SH1 through Woodend with widening of the existing state highway to four lanes
- » a new route to the east of Woodend between Pineacres and Pegasus, named the Short Eastern Alignment (SEA).

We worked with the community and the Waimakariri District Council to integrate this project with other community plans including Kaiapoi North, Woodend east, Ravenswood and Pegasus outline development plans. On completion of the study, the SEA was protected by a designation in the Waimakariri District Plan in 2015.

In late 2013, a Notice of Requirement to designate the land needed for the SEA was lodged. The Waimakariri District Council publicly notified the application in early 2014 to give the public an opportunity to make submissions. A hearing and the decision to designate the SEA route followed.

Fast forward to 2024, the Government Policy Statement on land transport was released, highlighting B2P as a priority project and one of the Government's first Roads of National Significance. In November 2024 the NZTA Board approved funding for the design phase of the project.

Designing with neighbours in mind

The new motorway inevitably means changes in the local environment. We consider noise when making key design decisions. These include the height of the road, interchanges or overpasses and the type of road surface used.

We also consider elements like planted noise bunds, carefully selecting bridge joints and avoiding audible rumble strips near houses. This is especially important for individual houses exposed to higher noise levels, or in densely populated areas where multiple houses will benefit from these measures.

We'll start with initial noise assessments, including field measurements, to guide project design investigations.

The road design will include noise-reducing features that meet the New Zealand standards. Our aim is to allow people to comfortably enjoy the environment and their properties.

Noise reducing features:

- » low noise asphalt will be used
- » avoiding audible rumble strips near houses
- » design of bridge joints to be less noisy
- » installing barriers in some locations to further reduce noise from the road.

Connections for walking and cycling

The motorway interchanges at Williams Street and Pegasus/Ravenswood allow for shared use path connectivity of the local cycling network. While the new motorway will not have cycling facilities, the walking and cycling paths on local road overbridges and under the Pegasus/Ravenswood and Williams Street interchanges will provide for continuity of the Waimakariri District Council walking and cycling network.



Ecology

Ecological assessments look at the value and quality of the environment and certain plants and animals to help us identify and manage them as we design and build the new road.

The new motorway will cross over the Cam River, Ruataniwha, Kaiapoi River, Taranaki Stream and Waihora Creek. We know these waterways support several freshwater fish species and are an important ecological corridor for migratory fish.

We care about the environment and want to do the right thing. To help keep on track with this we will also have consent conditions to follow that outline how we should work in or around rivers, streams and wetlands.

We use methods that make sure any effects on the freshwater environment are avoided or kept to a minimum. During critical times for important freshwater species like salmon and īnanga we'll avoid construction activities within or near waterways if necessary. Plus, all culverts, bridges and stream realignments will be designed to the latest standards for fish passage as set out in the National Environmental Standards for Freshwater 2020. Native fish will also be moved during construction where required to avoid any direct impacts from working in waterways.

We'll be looking after our local lizards and their habitat. Surveys and monitoring help us figure out how many lizards are in the area so we can protect them during construction. We'll get the necessary wildlife permits and develop a Lizard Management Plan for Department of Conservation approval.

Stormwater and flooding

We carry out technical investigations during the planning and design process that consider flooding, erosion, sediment runoff and stormwater management. We take a proactive approach to minimise any negative impacts and to protect the surrounding environment.

Archaeology and cultural heritage

The B2P alignment lies within the traditional rohe of Te Ngāi Tūāhuriri Rūnanga and is of significant importance to Te Ngāi Tūāhuriri Rūnanga and Te Rūnanga o Ngāi Tahu.

There are also pockets of European built heritage within and near the corridor.

The Resource Management Act 1991 and Heritage New Zealand Pouhere Taonga Act 2014 provide strong legislative support for the protection of culture and heritage within New Zealand, which means we give particular consideration to the effects of state highways on cultural and historic heritage values.

We will follow the requirements of this legislation including preparing archaeological and heritage assessments and obtaining archaeological authorities under the Heritage New Zealand Pouhere Taonga Act 2014 to manage the works.

Landscape and urban design

There are a few pockets of vegetation within the project boundary. The rest of the area is mainly farmland, with some areas to the east of Woodend having already developed into housing.

The project will be a noticeable new feature in the landscape. Several houses close to the motorway will see changes to their views. We'll use planting to soften these visual changes, and where necessary, we'll provide physical screening for nearby houses, in consultation with owners.

The bridges will be designed to enhance traffic flow and efficiency and to integrate into the surroundings.

Whenever possible, we'll keep existing vegetation to maintain the areas appearance while new plants grow. Any new planting will be mostly native species.

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