

# DESIGN UPDATE

Our design vision for the project has emerged after many conversations with the community, iwi and other key stakeholders:

**A connected landscape journey that recognises the unique qualities and characteristics of the Ranges, the River and its people; past, present and future.**

Considerable thought has been put into the ongoing implementation of our design and we will continue to work with our iwi partners and key stakeholders representing community and business interests to identify and address key cultural, environmental, social and economic issues and opportunities across the project.

Some initial concept design ideas are presented on this poster.

All designs are artist impressions and indicative only.



## ECO-VIADUCT

We are looking to design an Eco-Viaduct to avoid an ecologically and culturally significant gully system at the western tip of the Ruahine Ranges. The Eco-Viaduct will help retain the natural watercourses and will allow us to create a unique wetland experience that reconnects people to this valuable place.

## MANAWATŪ RIVER BRIDGE

We are looking at a range of bridge design options, including features such as:

- a curved bridge alignment that is sympathetic with the natural landscape and Parahaki Island;
- elliptical piers to represent the effect of river flow and the 'rounding' effect of water and wind in the wider landscape; visually interesting features underneath the bridge when viewed from the riverbank;
- a platform for views into the Manawatū Gorge.

Artists impression of viewing platform at new Manawatū River bridge



Conceptual roundabout design



## ROUNDBABOUTS

The roundabouts at the east and west 'gateways' to the new road will reflect urban and cultural design principles. Initial design concepts are derived from the wider river landscape, including references to the swirling water, and use natural material sympathetic to the river landscape.

## PUBLIC VIEWING AREAS

We plan to provide up to three safe stopping areas, including one in Te Apiti Windfarm. This will offer views of the windfarm landscape and also provides an opportunity for future recreational access to the Manawatū Gorge Scenic Reserve.

A separate shared path for walking and cycling is included in the project. We will be working with iwi and stakeholders to develop the concept design.



3D model of latest design concepts of the eastern approach



## RURAL CHARACTER

An important aspect of the design is to retain the area's rural character as much as possible. Rural highways are traditionally two lane roads.

However, steep grades at either end of the new road require the inclusion of 'crawler' lanes for trucks on the uphill and downhill sections. This means there will effectively be four lanes for the majority of the new road, allowing cars to safely and easily pass trucks.

Where the road flattens out at the top of the ranges, the crawler lanes are not required. A safety review undertaken as part of the more recent design work highlighted a concern with having four lanes on the flat section. Reducing to one lane each way for a short section reduces the perception that the new road is a motorway, and average speeds are expected to be lower as a result. It will also be more in keeping with a rural look and feel for the road, to better fit in with the character of the landscape. The new design currently proposes the length of road with one lane each way to be around three kilometres, out of a total length of 12.4 km of new road.



## AVOIDING A PROTECTED AREA

The proposed new design has moved slightly northwards to avoid a section of highly valued vegetation that is protected by a QEII covenant. This means that the gradient for the road will be slightly higher than previously thought. We are continuing to work on the design to balance the road steepness (the maximum gradient is now at 10%) with the size of the cutting required at this point of the road.