

THE CENTRAL MEDIAN SAFETY BARRIER

SMART INFO

February 2015



Replacing the three kilometres of central median safety barrier is the most complex, the longest and most disruptive part of the Ngauranga to Aotea Quay project.

Reducing congestion and improving safety by increasing capacity on the busiest section of Wellington's urban motorway are the project's main objectives. And creating another northbound lane from the Aotea on-ramp to the State Highway 1/State Highway 2 split is an important part of achieving those objectives.

The existing median barrier doesn't meet modern standards and has relatively high maintenance costs so was due to be replaced soon anyway.

THE CHALLENGES OF REMOVING AND REPLACING THE MEDIAN BARRIER

Work on the central median barrier is the trickiest, most time consuming part of the whole project. Challenges include:

- Maintaining adequate road drainage**
 The structure housing the existing barrier includes a drain to remove rain water. Excess water on the road could be hazardous to traffic, so temporary drainage needs to be in place during construction.
- Access to the work area**
 Because it's in the middle of the road, closest to the 'fast' traffic lane, access to and from the work area is high-risk. Access to and from the site for workers and vehicles will be carefully controlled from the non-peak traffic direction.

- The extruding machine itself**
 Travelling at approximately one metre every three minutes, the concrete barrier extruding machine will construct about 50-60 metres of barrier each shift. Because it can be distracting for drivers, it'll only work over night. The extruder will be set up and stripped down for each shift.
- Concrete quality and volume**
 Each shift will require approximately 30 cubic metres, or six trucks of concrete. Concrete truck movements will be carefully managed. The concrete used in median barriers is a special formulation and each batch must be tested and its quality assured before it's approved for use.

REMOVING AND REPLACING THE BARRIER

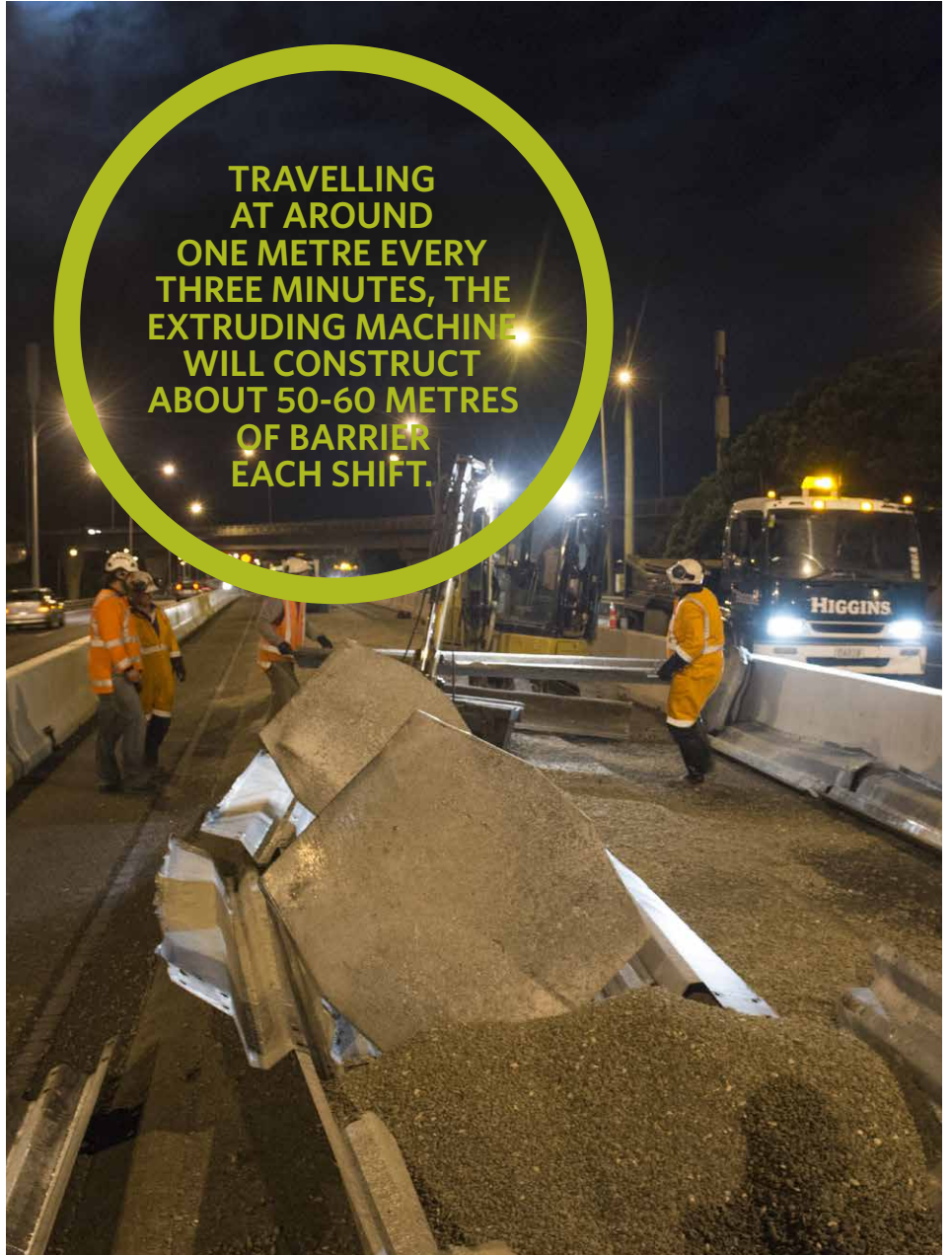
Removing the existing barrier and replacing it is a complex job. It'll be done in 300-400 metre sections, starting at the northern end and then move south. The process will take 15 months; it's due to reach Aotea Quay in March 2016.

Here's how the process will be carried out:

1. The road shoulder is narrowed and the lanes are repainted to create three, slightly narrower lanes (from 3.5m to 3.2m).
2. Traffic is moved away from the central barrier to run on the outside lanes.
3. A temporary concrete barrier is installed closing off one lane on each side of the existing central median barrier. This provides the space for the work to take place.
4. The existing central median barrier is removed and the new concrete barrier is extruded on site.
5. The temporary barrier is removed and moved to the southern end of the site, moving the work towards Aotea Quay.

BARRIER REPLACEMENT BEGINS AT THE SH2 END

From January to mid-March 2015, the work will be carried out overnight only. This is because the area doesn't have enough space to maintain the existing two lanes of traffic while providing a safe work space. One southbound lane will be closed between 7pm and 5am from Sundays to Thursdays each week to provide space for the work and to keep road workers and users safe.



CONTACT

Email us and/or sign up for our newsletter at ntaq@nzta.govt.nz

Find out more at nzta.govt.nz/smartmotorway

Transport for Wellington tfw.govt.nz

Sign up for Twitter updates @[nztawgtm](https://twitter.com/nztawgtm)

Slower today

Better tomorrow