


## Attachment One: Ōtaki to north of Levin highway project Tolling Assessment Summary

### GATE ONE – LEGISLATIVE REQUIREMENTS AND PRACTICALITY TEST

The road is new or a significant upgrade	A feasible free alternative route is available	Not less than 10,000 vehicles are likely to travel the road per day	Tolling infrastructure can be installed in a manner that is cost-effective to the project and reasonable; And within time periods required by the LTMA, 2003
Yes	Yes	Yes	Yes
<p>Ōtaki to north of Levin (Ō2NL) is a new 24km four-lane (two lanes in each direction), median divided highway between Taylors Road north of Ōtaki and north of Taitoko/Levin, where it connects back into the existing SH1. It is currently anticipated to open around 2030, and will therefore meet the definition of a new road.</p>	<p>Only the section between Taylors Road interchange and Tararua Road Interchange is proposed to be tolled with a single toll point required (identified below as mainline gantries at C). The proposed toll point results in all communities having access to a free alternative route being the existing SH1/SH57.</p>  <p>This tolling proposal therefore meets the test of a feasible free alternative being available.</p>	<p>An untolled Ō2NL is anticipated to have between 19,700 and 15,200 vehicles per day in 2029 on the southern and northern sections respectively. The vehicle numbers are based on non-risk adjusted, 75th percentile land use assumption flows.</p> <p>This ignores the diversion impacts of potential reduced speeds and other changes to the free route to be made as part of revocation which will likely have the impact of increasing usage of the tolled route.</p>	<p>Ō2NL is not currently anticipated to open until 2030. If tolled, this is ample time to:</p> <ul style="list-style-type: none"> <li>• Deliver the Order in Council prior to road opening;</li> <li>• Establish operational tolling on the road;</li> <li>• Configure the supporting back office system;</li> <li>• Embed appropriate support for customers and staff</li> </ul> <p>Tolling implementation can be added to the Ō2NL contract as a variation. Due to the simplicity of the contractual arrangements, the timelines, and associated forward planning, it is anticipated financial impact to the Project resulting from Tolling will be minimal.</p> <p>Tolling infrastructure is limited to one gantry with the costs for purchase and installation <a href="#">section 9(2)(j)</a><sup>1</sup>.</p>
This is a legislative requirement under Section 46 of the <i>Land Transport Management Act, 2003</i> .	This is a legislative requirement under Section 46 of the <i>Land Transport Management Act, 2003</i> .	This is a test that may be indicative of the likely viability of the toll road, but may be taken into consideration with other criteria.	<p>This is a test to ensure that tolling can physically be installed on the road in way that is:</p> <ul style="list-style-type: none"> <li>• cost effective</li> <li>• not unreasonably onerous to the project in terms of delivery and time</li> <li>• within the time constraints of the requirements of the <i>Land Transport Management Act, 2003</i>.</li> </ul>

<sup>1</sup> Infrastructure includes roadside technology, integration, civils based on two roadside poles or small gantry spanning four lanes.

GATE TWO – A: VALUE FOR MONEY TESTS AND INVESTMENT RATIONALE TESTS																																							
The toll rate is reasonable and does not result in a traffic volume change that unduly impact the wider network	Tolling infrastructure costs no more than 20% of anticipated revenue	Estimated tolling revenue will result in a meaningful contribution	Tolling delivers value for money and public good to New Zealanders and the Transport Agency																																				
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<p><u>Toll rate</u></p> <p>A single gantry is recommended to be placed between Taylors Road Interchange and Tararua Interchange (tolled section, C above).</p> <p>The toll prices modelled and proposed are \$2.50 for light vehicles and \$5.00 for heavy vehicles (\$2022) and would be the same rates 24-hours a day. Consultation would be based on toll rates in 2024 dollars: \$2.70 and \$5.40 respectively.</p> <p><u>Network impacts.</u></p> <p>The proposed tolling strategy diverts a proportion of traffic from Ō2NL back to the existing SH1 and SH57 as compared to the no toll scenario. Without changes to the network for revocation, the forecast traffic volumes for a tolled and untolled scenario are as follows:</p> <table><tr><th>YEAR 2039 VOLUMES</th><th>SH1 SOUTH OF LEVIN</th><th>Ō2NL SOUTH OF LEVIN</th></tr><tr><td>Do Minimum</td><td>27,500</td><td>N/A</td></tr><tr><td>Untolled</td><td>6,400</td><td>24,300</td></tr><tr><td>Tolled</td><td>15,500</td><td>13,600</td></tr></table> <p>The proposed toll prices were identified by comparing a range of gantry options and toll prices to find the tolling scheme that optimises the trade-off between revenue and acceptable levels of diversion.</p> <p>The introduction of the proposed toll scheme is not predicted to unduly impact the wider network with a high proportion of the benefits of an untolled scheme being retained. For example, forecast travel times on Ō2NL and on the existing SH1 for the AM peak hour in the northbound direction are expected to stay at 2029 levels, with or without the toll.</p>	YEAR 2039 VOLUMES	SH1 SOUTH OF LEVIN	Ō2NL SOUTH OF LEVIN	Do Minimum	27,500	N/A	Untolled	6,400	24,300	Tolled	15,500	13,600	<p>The single toll point is estimated at <a href="#">section 9(2)(j)</a> and the proportion of tolling infrastructure is less than 20% of anticipated toll revenue (NPV).</p> <p>The revenue calculation was based on a 35-year tolling period. It is anticipated to take 3 years to pay off the cost of the gantry using the payback method of calculation.</p> <table><tr><th>REVENUE SCENARIO</th><th>ESTIMATED NET REVENUE (NPV - \$2022)</th><th>% INFRASTRUCTURE</th></tr><tr><td colspan="3"><a href="#">section 9(2)(j)</a></td></tr></table>	REVENUE SCENARIO	ESTIMATED NET REVENUE (NPV - \$2022)	% INFRASTRUCTURE	<a href="#">section 9(2)(j)</a>			<p>Construction and associated activities of Ō2NL is Crown funded as part of a programme with a fixed funding envelop. The cost of revocation (PBC estimated cost of \$36m-\$50m excluding bridges), operations and maintenance are to be funded from the NLTF. Between <a href="#">section 9(2)(j)</a> could be borrowed against capital expenditure which could make a meaningful contribution to some of these components.</p> <table><tr><th>REVENUE SCENARIO</th><th>TOTAL NET REVENUE (35-YEARS)</th><th>NPV</th></tr><tr><td>P(50) - NPV calc at 6% discount rate (\$2022)</td><td>\$620m</td><td><a href="#">section 9(2)(j)</a></td></tr></table>	REVENUE SCENARIO	TOTAL NET REVENUE (35-YEARS)	NPV	P(50) - NPV calc at 6% discount rate (\$2022)	\$620m	<a href="#">section 9(2)(j)</a>	<p><u>Application of toll revenue</u></p> <p>The net revenue would make a meaningful contribution towards the costs of ongoing maintenance and operations as well as pre-implementation and construction costs.</p> <p><u>Social cost shift</u></p> <p>The Do minimum crash cost is calculated to be 12.5 Deaths and Serious injury (DSI’s) or \$14.9M of crash costs in 2039. An untolled Ō2NL with the SIP improvements is anticipated to result in a DSI of 7.5 per annum with a crash cost of \$7.7m (in 2039). The introduction of tolls is anticipated to result in 9.1 DSI’s per annum, corresponding a crash cost of \$10.0m per annum in 2039.</p> <p><u>Value for Money</u></p> <p>The table below summarises the trip charges and revenue collection per trip at the proposed toll prices, in 2024 dollars.</p> <table><tr><th>TRIP TOLL RATE (\$2024)</th><th>GST</th><th>TRANSACTION COST</th><th>TRIP TOLL REVENUE</th></tr><tr><td>\$2.70</td><td>\$0.35</td><td>\$0.80</td><td>\$1.55</td></tr><tr><td>\$5.40</td><td>\$0.70</td><td>\$0.80</td><td>\$3.90</td></tr></table>	TRIP TOLL RATE (\$2024)	GST	TRANSACTION COST	TRIP TOLL REVENUE	\$2.70	\$0.35	\$0.80	\$1.55	\$5.40	\$0.70	\$0.80	\$3.90
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This is a test to identify any potential negative impacts caused by the diversion rate associated with charging a toll. There are mitigations that may reduce the diversion rate, however these are not considered within this test.	This is a test to ensure the investment of tolling infrastructure is proportional to the anticipated revenue.	This is a test to ensure that the investment into tolling infrastructure will result in a positive return, and that this return will result in a contribution towards the road costs that is considered ‘meaningful’: where ‘meaningful’ is considered to be in-line with other toll roads in New Zealand.	This is a test to ensure that the public and the Transport Agency will be receiving value for money in terms of: <ul style="list-style-type: none"><li>Social costs shift in terms of safety;</li><li>Clarifying how the money will be applied (and how much money would be available for re-allocation);</li><li>The proportion of toll revenue collected in comparison to operating costs</li></ul>																																				

## GATE TWO – B: POLICY AND PROJECT ALIGNMENT TESTS

Tolling does not significantly or unduly reduce project outcomes or result in new or additional dis-benefits.

Tolling is not contrary to the GPS priorities

Tolling supports or has minimal impact on project outcomes

Tolling supports or has minimal impact against GPS priorities

### Enhance safety of travel on the state highway network

Overall tolling Ō2NL is expected to deliver \$4.4M to \$4.9M crash cost saving (including benefits of the SIP improvements), in comparison to the Do Minimum scenario.

COMPARED TO THE DO MINIMUM	2029	2039	2049
Ō2NL no toll & SIP – Discounted annual crash costs	-\$7.3m	-\$7.2m	-\$5.9m
Ō2NL toll & SIP – Discounted annual crash costs	-\$4.4m	-\$4.9m	-\$4.6m
Ō2NL no toll & SIP – DSI per annum	-5.2	-5.0	-3.8
Ō2NL toll & SIP – DSI per annum	-3.0	-3.4	-3.0

### Enhance the resilience of the state highway network

Tolling does not impact the resilience benefits of Ō2NL as the order in council would allow for free access to be provided in circumstances where the free route is unavailable due to closures.

### Provide appropriate connections that integrate the state highway and local road network to serve urban areas

Ō2NL proposal will provide appropriate connections that integrate the state highway and local road network to serve urban areas. Tolling will not affect the proposed connections to the road network.

### Enable mode choice for journeys between local communities by providing a walking and cycling facility

Tolling does not affect the provision of a north-south walking and cycling facility and could further support a shift to alternatives to the private car for short journeys.

### Support inter- and intra-regional growth and productivity through improved movement of people and freight on the state highway network

Tolling does not preclude economic activity or planned growth in the area. A high percentage of freight movements which utilise Ō2NL are modelled to continue to utilise the road when tolled. Tolling will not impact or preclude additional transport modes utilising Ō2NL were local/regional PT services to be enhanced as buses would not be tolled.

### Economic Growth and Productivity:

The Ō2NL proposal is expected to provide new roading capacity and induce additional trips. Across a screenline south of Levin across both the new route and existing SH, the total traffic volumes are predicted to increase by approximately 1000vpd in 2029, 1,800vpd in 2039 and 3,600 in 2049, with the proposed toll rates. Therefore, the introduction of tolling is anticipated to enhance corridor productivity and support economic growth. By comparison, induced traffic is around 2,000vph in 2029 with no toll.

### Increased Maintenance and Resilience

The introduction of tolling will have a negligible impact on the standardised maintenance schedule. It does not affect the resilience benefits of Ō2NL as the order in council would allow for free access to be provided in circumstances where the free route is unavailable due to closures.

### Safety:

The Ō2NL link is expected to result in a reduction to DSI's and crash costs as it will be a higher standard, and therefore safer piece of road compared to the existing route. Both tolled and untolled options will result in lower numbers of crashes. With tolling, there will be less traffic using Ō2NL and so the crash benefits are slightly lower when compared to an untolled option.

### Value for Money:

The GPS 2024 places an expectation that the potential for alternative funding and financing options should be explored. Tolling has been specifically identified for consideration to provide part-funding to construct and maintain all new roads. At the recommended toll rates, the Ō2NL net toll revenue will make a positive contribution to the overall costs of the project.

This is a test to identify any impact tolling may have on the original intent of the road project.

This is a test to identify any impact or alignment tolling may have with the current *Government Policy Statement for Land Transport*.