

Auckland-Hamilton-Tauranga Case Study

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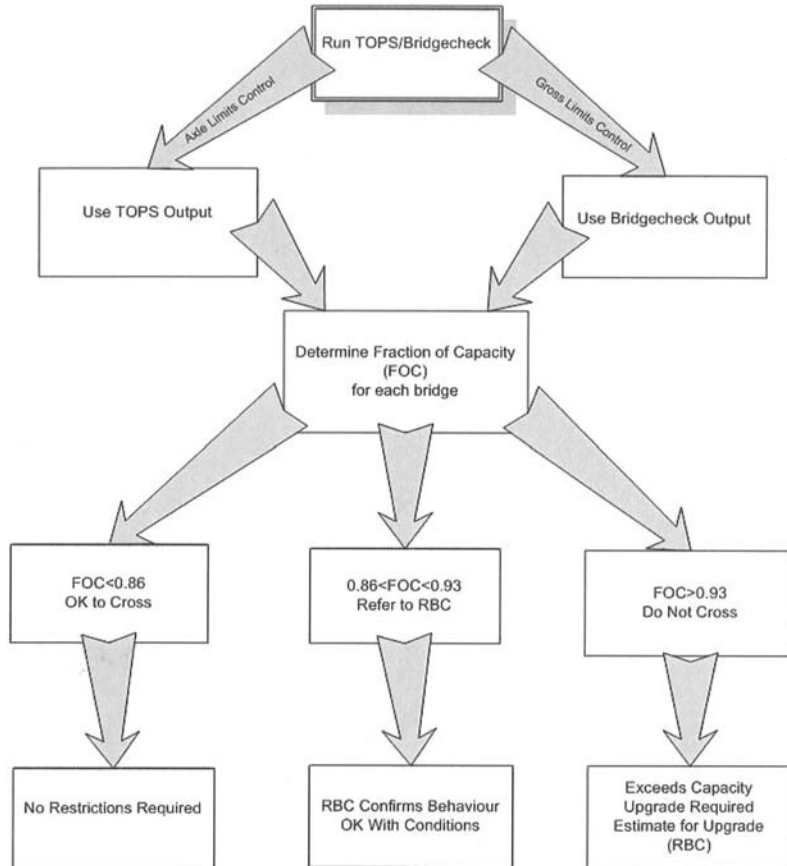
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NZ TRANSPORT AGENCY
WAKA KOTAHI

New Zealand Government

Assessment Flowchart



HPMV's differ from overweights:

- More frequent
- No restrictions on speed or lane position allowed

Different assessment process to overweights

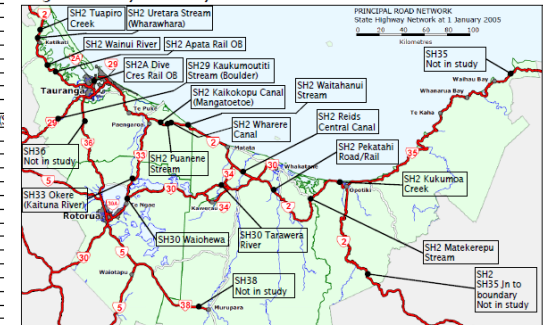
Initial SH Network Study



State Highway Bridges – Likely Impact of Land Transport Rule: Vehicle Dimensions and Mass Amendment [(No 2) 2009]



Region 4 - Bay of Plenty

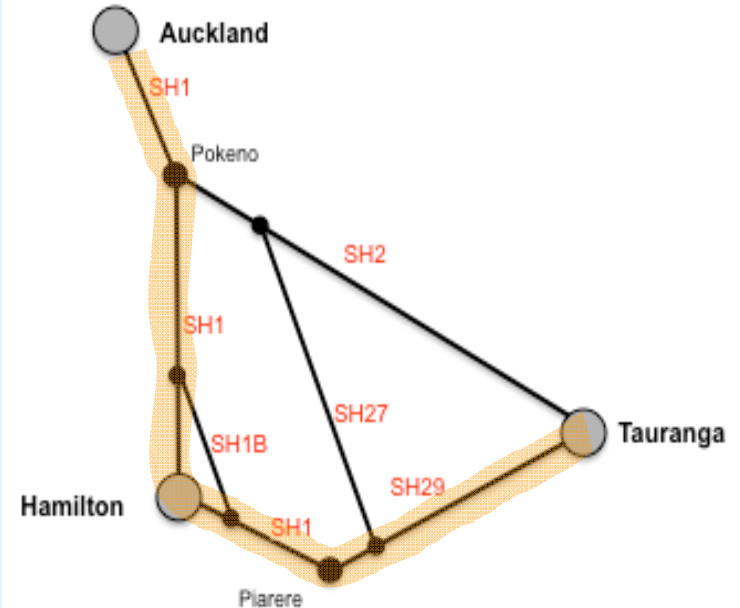


SH	RP	BSN	Name	Cost Est.	Comments
2	100/10.1	1101	Tuapiro Creek Bridge	\$270k	Narrow.
2	116/2.29	1182	Uretara Stream (Wharawhara) Bridge	\$150k	Narrow. Would be affected by Katikati Bypass (in Capital programme).
2	130/0	1300	Waimui River Bridge	\$195k	Narrow.
2	130/4.03	1340	Apata Rail Overbridge	\$180k	Narrow.
2	189/4.62	1936	Kaikokopu Canal (Mangatoetoe) Bridge	\$45k	
2	189/6.81	1958	Puanene Stream Bridge	\$60k	
2	189/7.67	1966	Wharere Canal Bridge	\$60k	
2	189/18.76	2077	Waitahanui Stream Bridge	\$120k	Narrow. Medium term replacement. \$7m. In Capital programme.
2	232/5.5	2373	Reids Central Canal Bridge		Urgent replacement. \$6.5m. In Capital programme.
2	243/10.82	2538	Pekatahi Road/Rail Bridge		Single lane bridge. Block project to upgrade.
2	283/2.33	2852	Matekerepu Stream Bridge	\$115k	Narrow.
2	294/6.48	3005	Kukumu Creek Bridge	\$60k	
2A	0/3.93		Dive Crescent Rail Overbridge	\$525k	
29	21/13.36	343	Kaukumouti Stream Boulder Bridge	\$225k	
30	147/10.25		Waiohewa Bridge	\$150k	
30	194/8.45	2024	Tarawera River Bridge	\$280k	
33	0/7.89	79	Okere Bridge (kaituna River)	\$375k	Narrow.
			17 No. bridges	\$1,785k	Further studies and possible works required.
				Total	\$4,595k

Network Availability

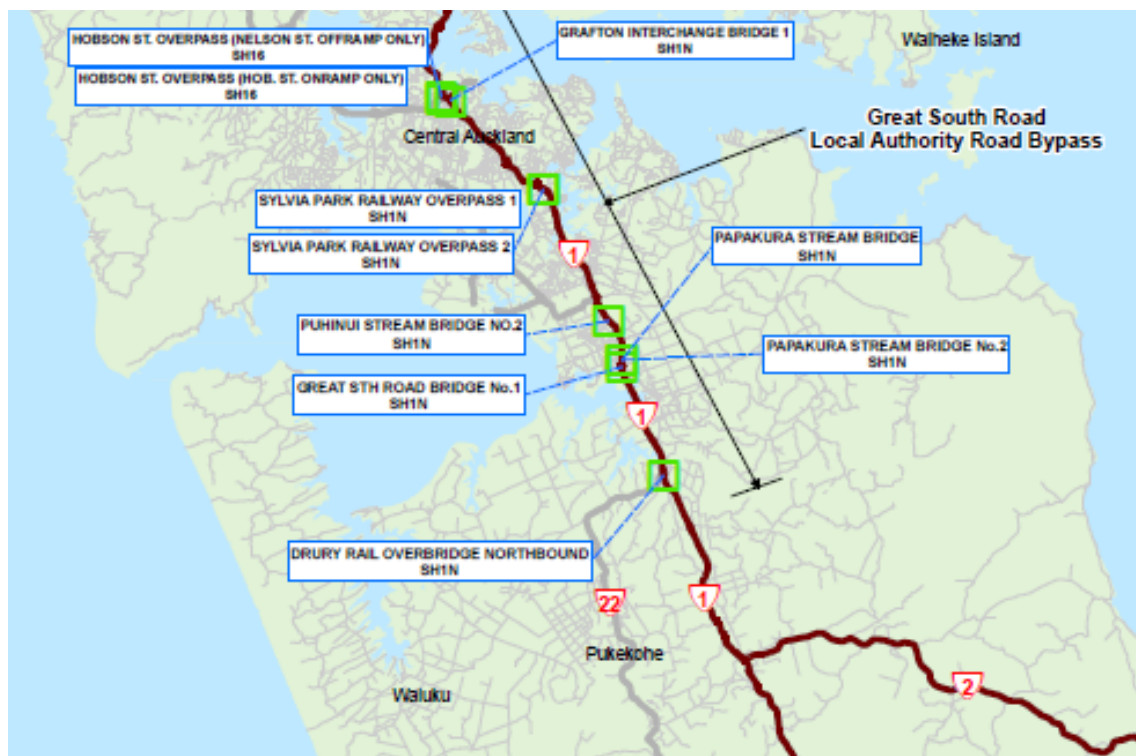


Auckland-Hamilton-Tauranga



First and last
mile?

Preliminary Findings – SH1/29 Capital Costs



- 8 bridges to strengthen
- All on Auckland southern motorway
- Rough order cost \$15m

Preliminary Findings – SH1/29 Maintenance Costs



For pavements:

- 7.4% increase in loading over a 20 year analysis period
- Strong rutting projections on this route as already under heavy load

A final thought

The loads that bridges need to carry have changed beyond recognition



- Traction Engine 1912



- Volvo 2010