To: Steve James

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From: s 9(2)(a)

Date: 14 June 2019

Job Number: 12_67, NZTA 2018613, TP003

SUBJECT: SH2 (Mt Bruce to Rimutaka Hill) and Out of S Initial Speed Management Assessment (Wellington Region)

1. INTRODUCTION

NZ Transport Agency has asked Gray Matter to provide an initial speed management assessment for SH2 (Mt Bruce to Rimutaka Hill) and Out of S

State Highway 2 , Out Wairarapa (Wellington Region)

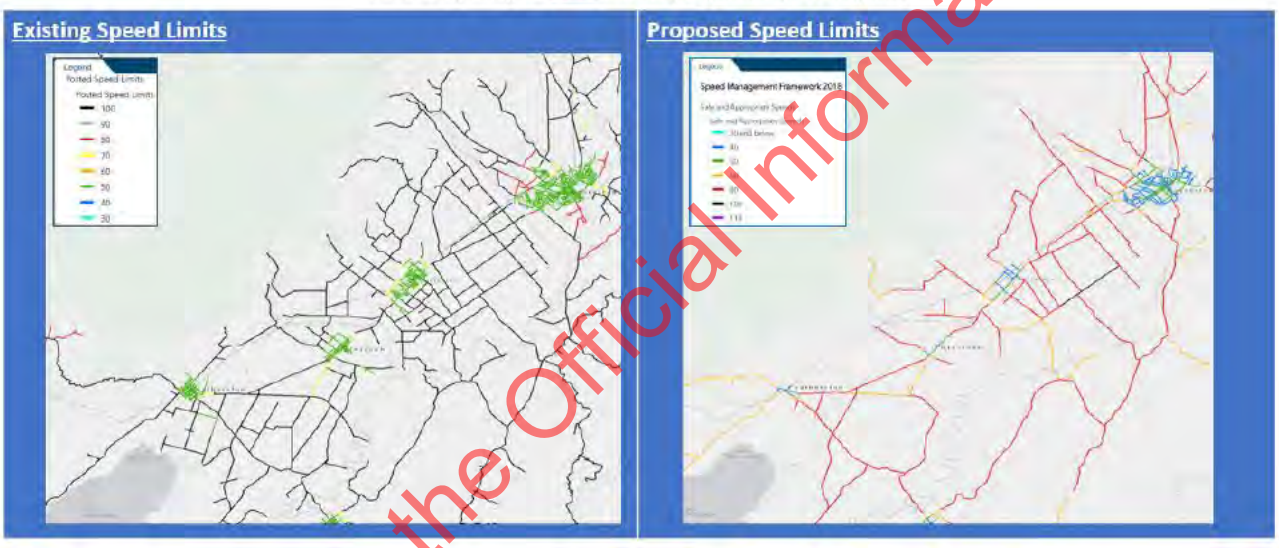


Figure 1: Extent of Assessment

2. INITIAL TECHNICAL ASSESSMENT OUTPUT

2.1. Introduction

Our initial technical assessment is based on Google Streetview, output from MegaMaps and information from Mobileroad.org. We have not completed a drive over. The following tables summarises our assessment with more details, including our changes to the IRR variables at Appendix 1.

2.2. Discussion

Many of the current speed limits are wrong in MegaMaps (generally by a few hundred metres) when compared to Streetview and the NZTA Speed Limit Bylaw. This has not affected our assessment but means that the RP described in this assessment may not match the existing physical thresholds.

We suggest that the speed limit change points are viewed on site to ensure they provide adequate forward visibility for drivers and are located at locations that do not impact on property access.

We understand there is a proposal to develop a retirement village on north of Masterton (Corridor ID 002_10109) which may result in pressure to extend the 50km/h limit further north past this

development. Currently access density is low and the road lacks features typically associated with 50km/h speed limits, e.g. kerb and channel and footpaths. Extending the 50km/h speed limit would require changes to the road environment to support slower travel speeds.

Within Featherstone, two small sections (Access_6564 and Access_8081) have been incorrectly coded as 'access' road but they are actually part of the state highway (ONRC = Regional Strategic). While this has not affected the SAAS in MegaMaps, the IRR calculation is incorrect. We have updated the IRR calculation in the attached spreadsheet. We recommend that the speed limit thresholds within Featherstone are located in positions different to that recommended in MegaMaps.

Out of Scope

2.3. Summary

In summary, our assessment broadly matches the SAAS identified in MegaMaps, However, we recommend some changes including:

- Retaining 100km/h north of Masterton (Paierau Road);
- Retaining 100km/h for most of the length between Greytown to Featherston;
- 80km/h west of Featherston where the alignment is curved and 60kmh where alignment is tortuous

Start Description	End Description	Length (km)	MegaMaps Segment ID	Posted Speed Limit (km/h)	SAAS (MegaMaps) (km/h)	Recommended SAAS (km/h)	Outcome of Initial Technical Assessment (more details at Appendix 1)	
North of Hiwitiru Road	Paierau Rd	15.00	002_10109	100	80	100	Change in land use results in lower IRR and SAAS = 100km/h	SAAS = 100km/h
Paierau Rd	Cashmere Oaks Drive	8.79	002_10109	100	80	80	South of intersection with Paierau Rd land use changes to Rural Residential, with higher IRR. Future land use may change with retirement village, but lower limit would require changes to the road environment.	SAAS = 80km/h from south of Paierau Rd or Opaki Kaiparoro Road due to change in land use
Cashmere Oaks Drive	Te Ore Ore Rd	10.00	002_8431	50	50	50	Masterton. No changes to IRR	SAAS = 50km/h
Te Ore Ore Rd	Queen St RAB	1.44	002_10104	50	50	50	No changes to IRR	SAAS = 50km/h
Queen St RAB	Waltons Ave	1.05	002_8434	50	50	50	Presence of flush median reduces shoulder width to <1m. Buildings very close on both sides. Change to commercial strip shopping increases IRR to 2.85, but no change in SAAS.	SAAS = 50km/h
Waltons Ave	East of William Donald Drive	2.19	002_8436	50	50	50	No changes to IRR. Shoulders accommodate on-street parking indicating the shoulders are 2m wide, so IRR might be slightly lower but does no change IRR.	SAAS = 50km/h
East of William Donald Drive	Solstone Drive	0.32	002_8433	70	60	60	No changes to IRR. Flush median and wide shoulders	SAAS = 60km/h
Solstone Drive	North of Waingawa River Bridge	0.62	002_8432	70	60	60	No changes to IRR. Flush median and wide shoulders	SAAS = 60km/h
North of Waingawa River Bridge	Chester Road	7.02	002_8441	100	80	80	Narrow shoulders on bridge. Roadside hazards mostly poles and trees. Few/no roll-over slopes >1m high with intermittent guardrail. If hazards reduced from high to moderate. Results in IRR = 1.18 (just lower than 1.20 to support SAAS =100km/h. Could be considered 'remote rural' land use	SAAS =80km/h. Would be desirable to relocate threshold to southern side of the bridge due to lack of shoulders on the bridge.

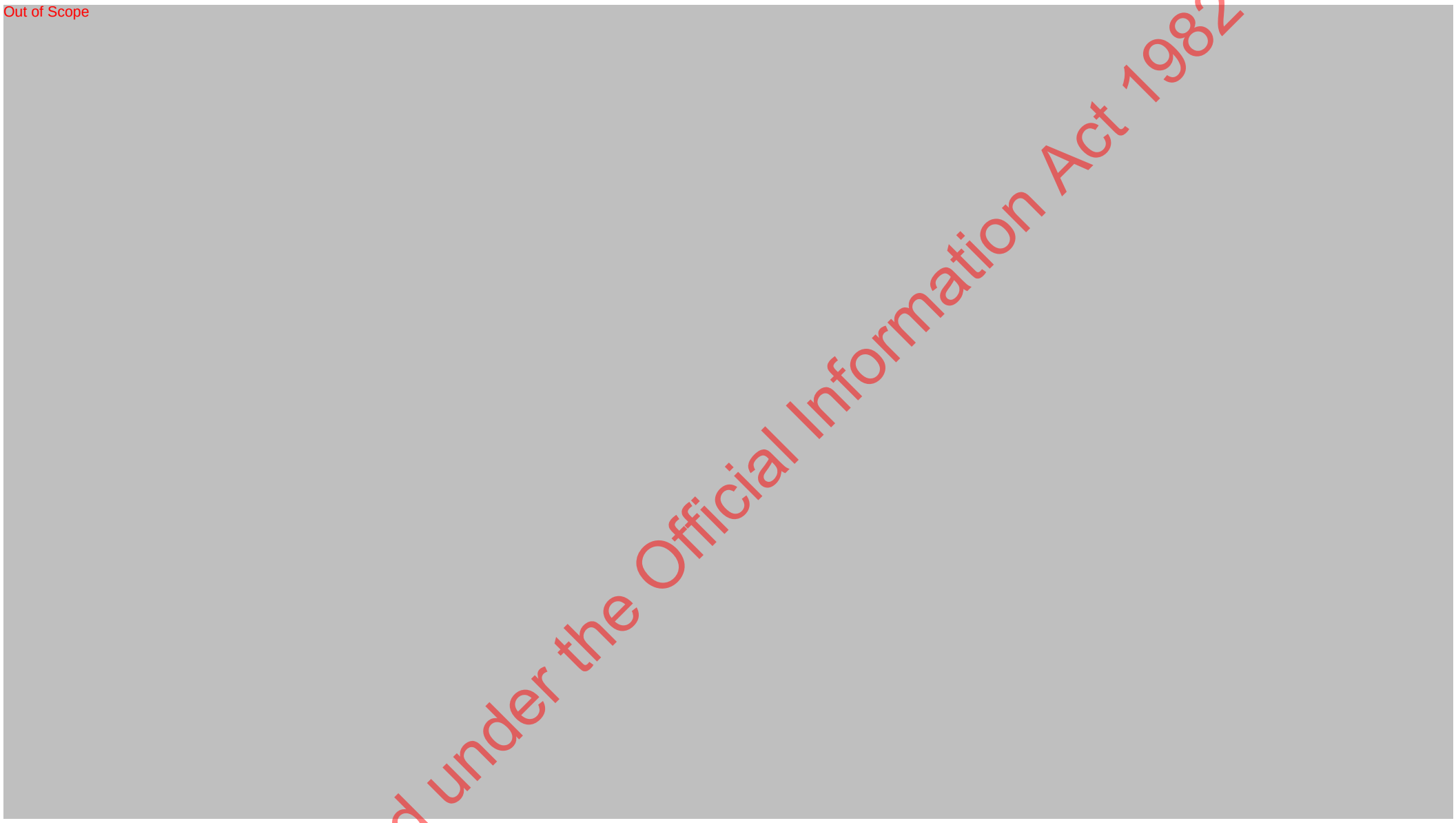
Start Description	End Description	Length (km)	MegaMaps Segment ID	Posted Speed Limit (km/h)	SAAS (MegaMaps) (km/h)	Recommended SAAS (km/h)	Outcome of Initial Technical Assessment (more details at Appendix 1)	
Chester Road	South of Somerset Rd	1.23	002_8441	100	80	80	Minor changes to access and intersection density do not change IRR band.	SAAS = 80km/h
South of Somerset Rd	North of Plimsoll St	0.55	002_8440	70	60	60	Rural residential better matches the land use. No change to SAAS	SAAS = 60km/h. Segment only just meets the minimum length (500m), consider relocating threshold(s) to increase length of speed limit.
North of Plimsoll St	Park St	1.39	002_8438	50	50	50	No changes to IRR. Flush median and wide shoulders enable parking. Noting that IRR close to threshold (2.0) for SAAS=60km/h.	SAAS = 50km/h
Park St	Pembroke St	0.34	002_10105	50	40	40	Carterton. Has appearance of main street shopping.	SAAS = 40km/h, noting that minimum length of 500m not meet. Need to consider threshold location in more detail.
Pembroke St	Seddon St	0.32	002_10105	50	40	50	South of Pembroke St land use changes to big box, access density reduces.	SAAS = 50km/h. Need to consider threshold location in more detail.
Seddon St	Dalefield St	2.58	002_8439	50	50	50	Minor changes to IRR do no change IRR band	SAAS = 50km/h
Dalefield St	South of Portland Rd	0.29	002_8437	50	60	50	Segment length does not match existing speed limit threshold (100m south of Dalefield Road). South of Dalefield Rd/ Portland Rd land use better described as Rural Residential. With Rural Residential, IRR = Medium and SAAS = 60km/h.	Retaining current 50km/h for this short section appears to provide a more consistent message for drivers travelling along SH2. Also provides for lower speeds at the staggered-T intersection.
South of Portland Rd	North of Hupenui Rd	4.64	002_10110	100	80	80	Roadside drains and roll-over slopes along much of route. Section includes SB passing lane at Carterton. Increasing shoulder width to 1-2m does not change IRR band.	SAAS = 80km/h

Start Description	End Description	Length (km)	MegaMaps Segment ID	Posted Speed Limit (km/h)	SAAS (MegaMaps) (km/h)	Recommended SAAS (km/h)	Outcome of Initial Technical Assessment (more details at Appendix 1)	
North of Hupenui Rd	Hupenui Rd	0.64	002_8448	70	80	80	Flush median. Development density increased compared to section to north. Change to Rural Residential does not change SAAS. Current 50/70km/h threshold is located 40m north of the intersection with North St	SAAS = 80km/h, consider relocating threshold to approx. 200m north of intersection with North St
Hupenui Rd	Jellicoe St	0.81	002_8445	50	50	50	No changes to IRR	SAAS = 50km/h
Jellicoe St	Church St	0.61	002_8443	50	40	40	Greytown. No changes to IRR. Level of parking occupancy and active shopping frontage supports 40km/h	SAAS = 40km/h
Church St	Bidwell's Cutting Road	1.10	002_8446	50	50	50	Cross-section changes south of Papawai Road to include flush medina. Shoulders remain wide enough for parking (>2m), so no change to IRR score.	SAAS = 50km/h
Bidwell's Cutting Road	Greens Road	9.27	002_8450	100	80	100	Reduced hazard rating as there are few poles close to the road. Includes short (500-600m long) NB and SB passing lanes, likely to make 80km/h challenging. Increasing shoulder to 1-2m changes IRR and would support 100km/h. Current operating speed means achieving compliance with 80km/h based on current road environment will be challenging.	SAAS = 100km/h with minor engineering improvements. We recommend a more detailed review of the route to identify where localised safety improvements (e.g. signs, markings and barriers) would address hazards and better support 100km/h.
Greens Road	Boundary Road	0.88	002_8449	100	80	80	Posted speed limit in MegaMaps incorrect. This section is still 100km/h (not 70km/h). No property access or intersections on this section. Land use not Rural Town	SAAS = 80km/h
Boundary Road	Waite St	0.44	002_8447	70	50	50	Posted speed limit in MegaMaps incorrect. This section is 70km/h (not 50km/h). South side of road is urban residential with more rural residential on north. Similarly, wider shoulders on south side.	SAAS = 50km/h
Waite St	Fox St (east)	0.32	002_8442	50	40	40	Featherstone. This section is not strip shopping and potentially not self-explaining at 40km/hr. Consider threshold east of Hickson St intersection (approx. RP. 905/15.16)	SAAS = 40km/h and 50km/h. Recommend that 40/50km/h threshold is located east of Hickson St (RP905/15.16) to better match change in land use.

Start Description	End Description	Length (km)	MegaMaps Segment ID	Posted Speed Limit (km/h)	SAAS (MegaMaps) (km/h)	Recommended SAAS (km/h)	Outcome of Initial Technical Assessment (more details at Appendix 1)	
Fox St (east)	*Fox St (west)*	*0.03*	*Access_6564*	50	40	40	Small section incorrectly coded as 'Access' road, but forms part of the SH. IRR adjusted to match 002_10106.	SAAS = 40km/h
Fox St (west)	Revans St (SH53)	0.64	002_10106	50	40	40	On-street parking accommodated in wide shoulders. Lanes appear narrower than 3.5m but has not been adjusted in IRR calculation.	SAAS = 40km/h, noting that engineering measures may be required to support 40km/h. Consider locating the threshold slightly further north near Wakefield St or SH53 (Revans St) (approx. RP921/0)
Revans St (SH53)	Lodlam St	0.29	002_10106	50	40	50	Change in land use and reduce access and intersection density.	SAAS = 50km/h
Lodlam St	*Moore St*	*0.01*	*Access_8081*	50	40	50	Very short section. IRR adjust to match section to the north (002_10106)	SAAS = 50km/h, does not self-explain at 40km/h. Threshold for 40km/h better located near Wakefield St
Moore St	400m west of Moore St	0.39	002_8451	70	60	60	Minor changes to IRR do no change IRR band. Segment length does not meet minimum length (500m). Short section of 60km/h may cause driver confusion. Changing land use to urban residential or rural town does not change IRR band.	SAAS = 50km/h, noting this may require an improved threshold and other works to change the road environment.
400m south of Moore St	2.5km west of Moore St	2.10	002_8452	100	60	80	IRR score very close to threshold for 80km/h (IRR = 1.60). There are relatively long sections with guardrail which would reduce hazard rating. If land use considered remote rural, IRR = 1.45 and SAAS = 80km/h.	SAAS = 80km/h
2.5km west of Moore St	3.7km west of Moore St	1.20	002_10108	100	60	80	Recommend that 80km/h speed limit extended to include existing passing lane as alignment becomes more tortuous west of the passing lane.	SAAS = 80km/h
3.7km west of Moore St	South east of Marchant Road	10.93	002_10108	100	60	60	IRR close to threshold for 80km/h (2.0), but travel speeds and alignment support SAAS = 60km/h. Recommend additional speed data is collected to support public engagement.	SAAS = 60km/h

Table 1: Summary of Technical Assessment – SH2 Mt Bruce to Rimutaka Hill

Out of Scope



Appendix 1: Technical Assessment for SH2 (Mt Bruce to Rimutaka Hill) and Out of Scope

Issue 2: 14 June 2019

																			Revised IRR Scoring (adjusted values shaded blue)													
SH	Start Description	End Description		Urban Area	RS Start	RP Start	RS End	RP End	Length (km)	TLA	MegaMaps Segment ID	MegaMaps Segment ID split (Y / N) if Y, quantify in % of km	Top 10% DSI Savings Site (Y / N)	Intervention	Current Posted Speed Limit (km/h)	SAAS (MegaMaps) (km/h)	Recommended SAAS (km/h)	Mean Operating Speed	IRR Band (MegaMaps)	IRR Score (MegaMaps)	Stereotype	AADT	Alignment	Lane Width	Shoulder Width	Road Side Hazards (left)	Road Side Hazards (right)	Land Use	Intersection Density	Access Density	Revised IRR Score	Revised IRR Band	Discussion	Outcome
2	North of Hiwitiru Road	Paierau Rd	From North of Hiwitiru Road to Paierau Rd		858	0.00	873	0.00	15.00	Masterton District Council	002_10109	63%	Y	Challenging Conversation	100	80	100	90-94	Medium	1.24	Two lane undivided	1000-6000	Straight	>3.5m - Wide	0.5m to <1.0m - Narrow	High	Moderate	Remote Rural	<1 per km	2 to <5 per km	1.07	Low-Medium	Change in land use results in lower IRR and SAAS = 100km/h	SAAS = 100km/h
2	Paierau Rd	Cashmere Oaks Drive	From Paierau Rd to Cashmere Oaks Drive		873	0.00	873	8.79	8.79	Masterton District Council	002_10109	27%	Y	Challenging Conversation	100	80	80	90-94	Medium	1.24	Two lane undivided	1000-6000	Straight	>3.5m - Wide	0.5m to <1.0m - Narrow	High	Moderate	Rural Residential	<1 per km	2 to <5 per km	1.24	Medium	South of intersection with Paierau Rd land use changes to Rural Residential with higher IRR. Future land use may change with retirement village but lower limit would require changes to the road environment.	SAAS = 80km/h from south of Paierau Rd or Opaki Kaipararo Road due to change in land use
2	Cashmere Oaks Drive	Te Ore Ore Rd	From Cashmere Oaks Drive to Te Ore Ore Rd	Masterton	873	0.00	883	0.00	10.00	Masterton District Council	002_8431	N	N	N/A	50	50	50	50-54	Medium	2.17	Two lane undivided	1000-6000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Urban Residential	5 to <10 per km	20 per km	2.17	Medium	Masterton. No changes to IRR	SAAS = 50km/h
2	Te Ore Ore Rd	Queen St RAB	From Te Ore Ore Rd to Queen St RAB	Masterton	883	0.00	883	1.44	1.44	Masterton District Council	002_10104	N	N	N/A	50	50	50	40-44	Medium	2.20	Divided - non traversable	6000-12000	Curved	>3.5m - Wide	0.5m to <1.0m - Narrow	Severe	Moderate	Commercial Big Box/Industrial	2 to <3 per km	5 to <10 per km	2.20	Medium	No changes to IRR	SAAS = 50km/h
2	Queen St RAB	Waltons Ave	From Queen St RAB to Waltons Ave	Masterton	883	1.44	883	2.49	1.05	Masterton District Council	002_8434	N	N	N/A	50	50	50	40-44	Medium-High	2.63	Two lane undivided	12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Severe	Commercial Big Box/Industrial	10 per km	5 to <10 per km	2.75	Medium-High	Presence of flush median reduces shoulder width to <1m. Buildings very close on both sides. Change to commercial strip shopping increases IRR to 2.85 but no change in SAAS.	SAAS = 50km/h
2	Waltons Ave	East of Wil iam Donald Drive	From Waltons Ave to East of William Donald Drive	Masterton	883	2.65	883	4.84	2.19	Masterton District Council	002_8436	N	N	N/A	50	50	50	45-49	Medium	2.31	Two lane undivided	12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Urban Residential	5 to <10 per km	20 per km	2.31	Medium	No changes to IRR. Shoulders accommodate on-street parking indicating the shoulders are 2m wide so IRR might be slightly lower but does no change IRR.	SAAS = 50km/h
2	East of W lliam Donald Drive	Solstone Drive	From East of William Donald Drive to Solstone Drive		883	4.84	883	5.16	0.32	Masterton District Council	002_8433	N	Y	Challenging Conversation	70	60	60	55-59	Low-Medium	1.99	Two lane undivided	6000-12000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	Moderate	Urban Residential	5 to <10 per km	10 to <20 per km	1.99	Low-Medium	No changes to IRR. Flush median and wide shoulders	SAAS = 60km/h
2	Solstone Drive	North of Waingawa River Bridge	From Solstone Drive to North of Waingawa River Bridge		883	5.16	883	5.78	0.62	Masterton District Council	002_8432	N	Y	Challenging Conversation	70	60	60	60-64	Low-Medium	1.85	Two lane undivided	6000-12000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	Moderate	Commercial Big Box/Industrial	3 to <5 per km	2 to <5 per km	1.85	Low-Medium	No changes to IRR. Flush median and wide shoulders	SAAS = 60km/h
2	North of Waingawa River Bridge	Chester Road	From North of Waingawa River Bridge to Chester Road		883	5.78	883	12.80	7.02	Carterton District Council	002_8441	85%	Y	Engineer Up	100	80	80	85-89	Medium	1.30	Two lane undivided	6000-12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	High	Moderate	Rural Residential	<1 per km	2 to <5 per km	1.30	Medium	Narrow shoulders on bridge. Roadside hazards mostly poles and trees. Few/no roll-over slopes >1m high with intermittent guardrail. If hazards reduced from high to moderate. Results in IRR = 1.18 (just lower than 1.20 to support SAAS =100km/h. Could be considered 'remote rural' land use	SAAS =80km/h. Would be desirable to relocate threshold to southern side of the bridge due to lack of shoulders on the bridge.
2	Chester Road	South of Somerset Rd	From Chester Road to South of Somerset Rd		883	12.80	883	14.03	1.23	Carterton District Council	002_8441	15%	Y	Engineer Up	100	80	80	85-89	Medium	1.30	Two lane undivided	6000-12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	High	Moderate	Rural Residential	1 to <2 per km	10 to <20 per km	1.39	Medium	Minor changes to access and intersection density do not change IRR band.	SAAS = 80km/h
2	South of Somerset Rd	North of Plimsoll St	From South of Somerset Rd to North of Plimso l St		883	14.03	883	14.58	0.55	Carterton District Council	002_8440	N	N	N/A	70	60	60	65-69	Low-Medium	1.81	Two lane undivided	6000-12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Rural Residential	1 to <2 per km	10 to <20 per km	1.44	Medium	Rural residential better matches the land use. No change to SAAS	SAAS = 60km/h. Segment only just meets the minimum length (500m) consider relocating threshold(s) to increase length of speed limit.
2	North of Plimsoll St	Park St	From North of Plimso l St to Park St	Carterton	883	14.03	883	15.42	1.39	Carterton District Council	002_8438	N	N	N/A	50	50	50	50-54	Medium	2.07	Two lane undivided	12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Urban Residential	3 to <5 per km	20 per km	2.07	Medium	No changes to IRR. Flush median and wide shoulders enable parking. Noting that IRR close to threshold (2.0) for SAAS=60km/h.	SAAS = 50km/h
2	Park St	Pembroke St	From Park St to Pembroke St	Carterton	883	15.42	883	15.76	0.34	Carterton District Council	002_10105	N	Y	Challenging Conversation	50	40	40	40-44	Medium-High	2.53	Two lane undivided	12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Commercial Strip Shopping	5 to <10 per km	20 per km	2.53	Medium-High	Carterton. Has appearance of main street shopping.	SAAS = 40km/h noting that minimum length of 500m not meet. Need to consider threshold location in more detail.
2	Pembroke St	Seddon St	From Pembroke St to Seddon St	Carterton	883	15.76	883	16.08	0.32	Carterton District Council	002_10105	N	Y	Challenging Conversation	50	40	50	40-44	Medium-High	2.53	Two lane undivided	12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Commercial Big Box/Industrial	3 to <5 per km	5 to <10 per km	2.10	Medium	South of Pembroke St land use changes to big box access density reduces.	SAAS = 50km/h. Need to consider location of threshold in more detail.
2	Seddon St	Dalefield St	From Seddon St to Dalefield St	Carterton	883	15.76	883	18.34	2.58	Carterton District Council	002_8439	N	N	N/A	50	50	50	50-54	Medium	2.31	Two lane undivided	12000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	High	Urban Residential	5 to <10 per km	20 per km	2.28	Medium	Minor changes to IRR do no change IRR band	SAAS = 50km/h
2	Dalefield St	South of Portland Rd	From Dalefield St to South of Portland Rd		883	18.34	883	18.63	0.29	Carterton District Council	002_8437	N	N	N/A	50	60	60	70-74	Medium	2.16	Two lane undivided	6000-12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Rural Town	3 to <5 per km	1 to <2 per km	1.74	Low-Medium	Segment length does not match existing speed limit threshold (100m south of Dalefield Road). South of Dalefield Rd/ Portland Rd land use better described as Rural Residential. With Rural Residential IRR = Medium and SAAS = 60km/h.	Retaining current 50km/h for this short section appears to provide a more consistent message for drivers travelling along SH2. Also provides for lower speeds at the staggered-T intersection.
2	South of Portland Rd	North of Hupenui Rd	From South of Portland Rd to North of Hupenui Rd		883	18.63	905	1.26	4.64	Carterton DC and South Wairarapa DC	002_10110	N	Y	Engineer Up	100	80	80	85-89	Medium	1.50	Two lane undivided	6000-12000	Straight	>3.5m - Wide	0.5m to <1.0m - Narrow	High	High	Rural Residential	1 to <2 per km	2 to <5 per km	1.59	Medium	Roadside drains and roll-over slopes along much of route. Section includes SB passing lane at Carterton. Increasing shoulder width to 1-2m does not change IRR band.	SAAS = 80km/h
2	North of Hupenui Rd	Hupenui Rd	From North of Hupenui Rd to Hupenui Rd		905	1.26	905	1.90	0.64	South Wairarapa District Council	002_8448	N	N	N/A	70	80	80	70-74	Low-Medium	1.67	Two lane undivided	6000-12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Rural Town	1 to <2 per km	10 to <20 per km	1.67	Low-Medium	Flush median. Development density increased compared to section to north. Change to Rural Residential does not change SAAS. Current 50/70km/h threshold is located 40m north of the intersection with North St	SAAS = 80km/h consider relocating threshold to approx. 200m north of intersection with North St.
2	Hupenui Rd	Jellicoe St	From Hupenui Rd to Jellicoe St	Greytown	905	1.90	905	2.71	0.81	South Wairarapa District Council	002_8445	N	N	N/A	50	50	50	55-59	Low-Medium	1.74	Two lane undivided	6000-12000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	Moderate	Urban Residential	2 to <3 per km	20 per km	1.74	Low-Medium	No changes to IRR	SAAS = 50km/h
2	Jellicoe St	Church St	From Jellicoe St to Church St	Greytown	905	2.71	905	3.32	0.61	South Wairarapa District Council	002_8443	N	Y	Challenging Conversation	50	40	40	45-49	Medium	2.04	Two lane undivided	6000-12000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	Severe	Commercial Strip Shopping	3 to <5 per km	20 per km	2.17	Medium	Greytown. No changes to IRR . Level of parking occupancy and active shopping frontage supports 40km/h	SAAS = 40km/h
2	Church St	Bidwell's Cutting Road	From Church St to Bidwell's Cutting Road	Greytown	905	3.32	905	4.42	1.10	South Wairarapa District Council	002_8446	N	N	N/A	50	50	50	50-54	Low-Medium	1.74	Two lane undivided	6000-12000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	Moderate	Urban Residential	2 to <3 per km	20 per km	1.74	Low-Medium	Cross-section changes south of Papawai Road to include flush medina. Shoulders remain wide enough for parking (>2m) so no change to IRR score.	SAAS = 50km/h
2	Bidwell's Cutting Road	Greens Road	From Bidwell's Cutting Road to Greens Road		905	4.42	905	13.69	9.27	South Wairarapa District Council	002_8450	N	Y	Challenging Conversation	100	80	100	90-94	Medium	1.44	Two lane undivided	6000-12000	Straight	>3.5m - Wide	0.5m to <1.0m - Narrow	Moderate	Moderate	Rural Residential	<1 per km	2 to <5 per km	1.33	Medium	Reduced hazard rating as there are few pole close to the road. Includes short (500-600m long) N8 and S8 passing lanes likely to make 80km/h challenging. Increasing shoulder to 1-2m changes IRR and would support 100km/h. Current operating speed means achieving compliance with 80km/h based on current road environment will be challenging.	SAAS = 100km/h with minor engineering improvements. We recommend a more detailed review of the route to identify where localised safety improvements (e.g. signs markings and barriers) would address hazards and better support 100km/h.
2	Greens Road	Boundary Road	From Greens Road to Boundary Road		905	13.69	905	14.57	0.88	South Wairarapa District Council	002_8449	N	N	N/A	100	80	80	80-84	Low-Medium	1.65	Two lane undivided	6000-12000	Straight	>3.5m - Wide	0.5m to <1.0m - Narrow	Severe	Moderate	Rural Residential	<1 per km	<1 per km	1.29	Medium	Posted speed limit in MegaMaps incorrect. This section is still 100km/h (not 70km/h). No property access or intersections on this section. Land use not Rural Town	SAAS = 80km/h
2	Boundary Road	Waite St	From Boundary Road to Waite St	Featherston	905	14.57	905	15.01	0.44	South Wairarapa District Council	002_8447	N	N	N/A	70	50	50	60-64	Medium	2.07	Two lane undivided	6000-12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Urban Residential	3 to <5 per km	20 per km	1.93	Low-Medium	Posted speed limit in MegaMaps incorrect. This section is 70km/h (not 50km/h). South side of road is urban residential with more rural residential on north. Similarly wider shoulders on south side.	SAAS = 50km/h
2	Waite St	Fox St (east)	From Waite St to Fox St (east)	Featherston	905	15.01	905	15.33	0.32	South Wairarapa District Council	002_8442	N	Y	Challenging Conversation	50	40	40	50-54	Medium	2.39	Two lane undivided	6000-12000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	Moderate	Urban Residential	5 to <10 per km	20 per km	2.06	Medium	Featherstone. This section is not strip shopping and potentially not self-explaining at 40km/hr. Consider threshold east of Hickson St intersection (approx. RP. 905/15.16)	SAAS = 40km/h and 50km/h. Recommend that 40/50km/h threshold is located east of Hickson St (RP905/15.16) to better match change in land use.
2	*Fox St (east)*	*Fox St (west)*	From Fox St (east) to Fox St (west)	Featherston	*905*	*15.33*	*905*	*15.36*	*0.03*	*South Wairarapa Distr ct Council*	*Access_6564*	*N*	*Y*	*Challenging Conversation*	50	40	40	45-49	Medium-High	2.41	Two lane undivided	<1000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	Moderate	Commercial Strip Shopping	5 to <10 per km	20 per km	2.28	Medium	Small section incorrectly coded as 'Access' road but forms part of the SH. IRR adjusted to match 002_10106.	SAAS = 40km/h
2	Fox St (west)	Revans St (SH53)	From Fox St (west) to Revans St (SH53)	Featherston	905	15.36	921	0.00	0.64	South Wairarapa District Council	002_10106	69%	Y	Challenging Conversation	50	40	40	45-49	Medium	2.39	Two lane undivided	6000-12000	Straight	>3.5m - Wide	>2.0m - Very Wide	Severe	Moderate	Commercial Strip Shopping	5 to <10 per km	20 per km	2.28	Medium	On-street parking accommodated in wide shoulders. Lanes appear narrower than 3.5m but has not been adjusted in IRR calculation.	SAAS = 40km/h noting that engineering measures may be required to support 40km/h. Consider locating the threshold slightly further north near Wakefield St or SH53 (Revans St) (approx. RP921/0)
2	Revans St (SH53)	Lodlam St	From Revans St (SH53) to Lodlam St	Featherston	921	0.00	921	0.29	0.29	South Wairarapa District Council	002_10106	31%	Y	Challenging Conversation	50	40	50	45-49	Medium	2.39	Two lane undivided	6000-12000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Commercial Big Box/Industrial	2 to <3 per km	5 to <10 per km	1.89	Low-Medium	Change in land use and reduce access and intersection density.	SAAS = 50km/h
2	*Lodlam St*	*Moore St*	From Lodlam St to Moore St	Featherston	*921*	*0.29*	*921*	*0.31*	*0.01*	*South Wairarapa Distr ct Council*	*Access_8081*	*N*	*Y*	*Challenging Conversation*	50	40	50	45-49	Medium	2.39	Two lane undivided	<1000	Straight	>3.5m - Wide	1.0m to <2.0m - Wide	Severe	Moderate	Commercial Big Box/Industrial	2 to <3 per km	5 to <10 per km	1.89	Low-Medium	Very short section. IRR adjust to match section to the north (002_10106)	SAAS = 50km/h does not self-explain at 40km/h. Threshold for 40km/h better located near Wakefield St
2	Moore St	400m west of Moore St	From Moore St to 400m west of Moore St		921	0.31	921	0.70	0.39	South Wairarapa District Council	002_8451	N	Y	Challenging Conversation	70	60	50	65-69	Low-Medium	1.97	Two lane undivided	6000-12000	Straight	>3.5m - Wide	0.5m to <1.0m - Narrow	High	Moderate	Controlled Access	3 to <5 per km	2 to <5 per km	1.74	Low-Medium	Minor changes to IRR do no change IRR band. Segment length does not meet minimum length (500m). Short section of 60km/h may cause driver confusion. Changing land use to urban residential or rural town does not change RR band.	SAAS = 50km/h noting this may require an improved threshold and other works to change the road environment.
2	400m south of Moore St	2.5km west of Moore St	From 400m south of Moore St to 2.5km west of Moore St		921	0.70	921	2.80	2.10	South Wairarapa District Council	002_8452	N	Y	Challenging Conversation	100	60	80	80-84	Medium-High	1.63	Two lane undivided	1000-6000	Curved	>3.5m - Wide	0m to <0.5m - Very Narrow	High	Moderate	Rural Residential	<1 per km	2 to <5 per km	1.63	Medium-High	IRR score very close to threshold for 80km/h (RR = 1.60). There are relatively long sections with guardrail which would reduce hazard rating. If land use considered remote rural IRR = 1.45 and SAAS = 80km/h.	SAAS = 80km/h
2	2.5km west of Moore St	3.7km west of Moore St	From 2.5km west of Moore St to 3.7km west of Moore St		921	2.80	921	4.00	1.20	South Wairarapa District Council	002_10108	10%	Y	Challenging Conversation	100	60	80	50-54	High	2.05	Two lane undivided	1000-6000	Curved	>3.5m - Wide	0m to <0.5m - Very Narrow	High	High	Remote Rural	<1 per km	<1 per km	1.53	Medium-High	Recommend that 80km/h speed limit extended to include existing passing lane as a ignment becomes more tortuous west of the passing lane.	SAAS = 80km/h
2	3.7km west of Moore St	South east of Marchant Road	From 3.7km west of Moore St to South east of Marchant Road		921	4.00	931	4.93	10.93	South Wairarapa District Council	002_10108	90%	Y	Challenging Conversation	100	60	60	50-54	High	2.05	Two lane undivided	1000-6000	Tortuous	>3.5m - Wide	0m to <0.5m - Very Narrow	High	High	Remote Rural	<1 per km	<1 per km	2.05	High	IRR close to threshold for 80km/h (2.0) but travel speeds and a ignment support SAAS = 60km/h. Recommend additional speed data is collected to support public engagement.	SAAS = 60km/h

Out of Scope

State Highway 2 ,53: Wairarapa (Wellington Region)