

Hauraki District Council

Interim Speed Management Plan Volume 2 – Technical Assessments

August 2022



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Appendices

Appendix A – 2021 Road Data

1. Purpose of this document

Hauraki District Council is developing a 10-year speed management plan for the district, as is required by the government. The plan includes short-term and long-term road safety goals; speed limit changes for the whole network, and future improvements to roads to support changes in speed limits if and when required.

Changes to speed limits will be on going as development in the district continues and to achieve alignment with the NZ Governments Road to Zero Action Plan with respect to speed management. This initial plan will provide guidance on when, how and why speed should be managed on each of the roads identified.

The intention is for the plan to be reviewed every 3 years in alignment with the Long Term Plan funding cycle to provide alignment with funding opportunities. The plan will also be reviewed when significant changes in development or funding occur necessitating a change to the implementation plan.

This document sets out the technical assessment undertaken on each of the roads identified for review in 2021.

2. 2021 Speed Management Reviews

Those roads considered as part of the development of the inaugural speed management plan for Hauraki District have been identified from the following sources:

- High risk roads – MegaMaps First and Second 10% Intervention locations
- DSI routes – Roads with two or more fatal and/or serious crashes in the previous 10 years.
- Schools/daycares/kindy's/old age care locations
- Peri-urban locations
- Customer complaints/queries
- Existing transport project list

There were 106 roads that were identified for review based on the selection criteria above. A further 56 roads were identified as roads adjacent to those selected for review and are considered to be of a similar environment to support a speed limit change if required.

Each of the roads identified are listed below, with additional information and their assessment.

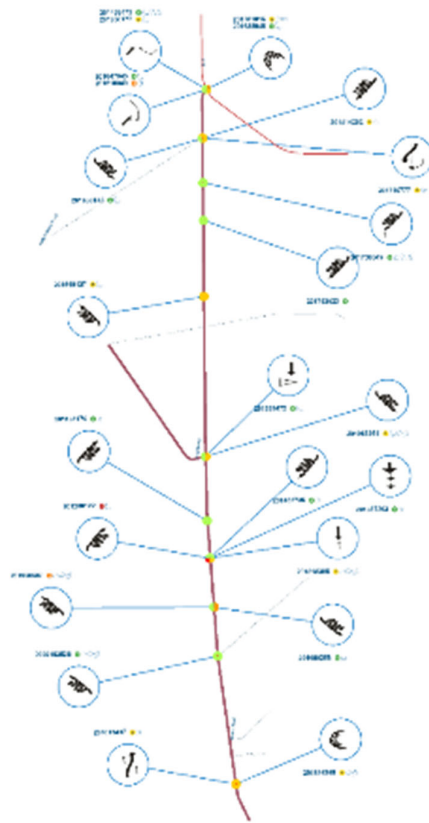
2.1 Awaiti

2.1.1 Awaiti Road

Awaiti Road is a rural road in Awaiti that runs between State Highway 2 and Paeroa-Tahuna Road and is part of an alternative route for vehicles traveling between Netherton and Tirohia and beyond which avoids Paeroa. The road is within two local authority boundaries and the length of the road within the Hauraki District boundary is 8024m.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years.

There have been twenty-four reported crashes on this road in the last 10 years. One fatal, two serious, nine minor and twelve non-injury crashes. The majority of the crashes are loss of control or head on crashes with only 5 crashes intersection related.



The type and factors involved in the fatal and serious crashes all vary with the only commonality being that the vehicles were northbound. The fatal crash occurred in 2012 and involved a drunk driver than was travelling too fast and missed the right hand turn into the property access and rolled a number of times. One of the serious crashes occurred at the intersection with State Highway 2 in 2012 with the vehicle being T boned as they turned right out of Awaiti Road. The other serious crash involved a vehicle that drifted too far left and the driver lost control as they attempted to re-enter the traffic lane.

Overall, the Collective Risk for the road is Low-Medium, while the Personal Risk is Medium.

The majority of crashes are loss of control which indicates that edgeline treatments and the removal or protection of hazards within close proximity of the road would be beneficial.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	93.61 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The recommended safe and appropriate speed from MegaMaps for Awaiti Road is 80/hr with the governing factor being the function of the road.

Due to the high existing mean travel speed of 94km/hr and the straight alignment of the road it is unlikely that this lower speed limit will be complied with creating greater differential between vehicle speeds.

Recommendations

- Lower the speed limit to 80km/hr.
- Install ATP on edgelines along the route.

Any physical works and/or changes to speed limit will need to be coordinated with Matamata-Piako District Council to ensure consistency along the route.

2.2 Hikutaia

2.2.1 Alley Memorial Road

Alley Memorial Road is a sealed no exit road off State Highway 26 in Hikutaia. The full length of the road is 83m and ends at the entry to the Alley Memorial Park and a private property.

This road was identified for review as being of a peri-urban nature on the edge of Hikutaia.

There have been no report crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	70 km/hr
<i>Current mean travel speed</i>	21.6 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The recommended safe and appropriate speed from MegaMaps for this road is 80km/hr which is higher than the existing speed limit. There is no desire to increase the speed limit on Alley Memorial Road.

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Alley Memorial Road should be consistent with that on the adjacent state highway.

2.2.2 Maratoto Road

Maratoto Road is a rural road off State Highway 26 in Hikutaia of which the first 7610m is sealed and the remaining 2131m unsealed.

The unsealed portion of this road from RP7610 was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been two reported crashes on this road in the last 10 years. A non-injury crash in 2015 and a minor crash in 2020 as a result of a driver losing control on the sealed section of the road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	36.79 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would need to be considered as part of a wider strategy for rural roads.

2.3 Kaiaua

2.3.1 East Coast Road

East Coast Road is a sealed road that runs between Waharau and Miranda along the coast of the Firth of Thames and is within two local authority boundaries. The section of road within the Hauraki District boundary is approximately 19km long.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years and from a customer query regarding excessive vehicle speeds at Waharau. The road also passes through areas of peri-urban and a school, Kaiaua.

Due to the long length of road and varying conditions along the route it has been broken into six sections for review.

Section 1 – RP 0 – 8028 Waikato DC Boundary to Kaiaua Township

This section of the road runs between Pukorokoro Stream and the southern edge of Kaiaua and is 8028m long and has no side roads.

There have been seven reported crashes on this section of the road in the last 10 years resulting in one serious, three minor and three non injuries. All crashes were loss of control with the last reported crash in 2018. Three of the crashes involved motorcycles.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	87.79 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of East Coast Road is 80/hr with the governing factor being the function of the road.

Due to the high existing mean travel speed of 87.79km/hr and the straight alignment of the road any attempt to lower the speed limit is likely to result in poor compliance creating a larger differential in vehicle speeds and increased risk to users.

To assist with risk management on the largely rural nature of this section of East Coast Road additional delineation features such as edgelines, with or without ATP, centreline ATP and additional edge marker posts should be considered along the route.

These features will also assist with speed management should a reduction in the speed limit along the route be considered appropriate.

Section 2 – RP 8028 – 9553 Kaiaua Township

This section of the road is the existing 50km/hr speed limited area that runs through Kaiaua and is 1525m long and has four side roads; Kowhai Avenue, Kaiaua Road, Pohutukawa Avenue and Puriri Avenue.

There have been three reported crashes on this section of the road in the last 10 years resulting in one serious, one minor and one non injury. Two of the crashes were loss of control while the serious crash involved a driver turning right into a driveway in front of a motorcyclist.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	57.17 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of East Coast Road is 50km/hr with the primary reason given as “Aligns with framework”. This also matches the existing speed limit.

Due to the high existing mean travel speed of 51.17 km/hr speed management features such as threshold treatments should be installed to reduce the risk to users in this area. Kerb and channel should be installed to provide a more urban environment however additional edgelines could be used as an interim measure to assist with speed management.

Section 3 – RP 9553 - 12313 Kaiaua Township to Whakatiwai

This section of the road is the existing 70km/hr speed limited area that runs from the northern end of the Kaiaua Township to Whakatiwai and is 2760m long and has four side roads; Rua One Place, Mylindas Road, F Lowery Road and Rata Road.

Kaiaua School is located within this section of East Coast Road and Kaiaua Marae is located on the corner of Rata Road and East Coast Road.

There have been six reported crashes on this section of the road in the last 10 years resulting in one serious, three minor and two non injuries. The majority of the crashes were loss of control and occurred prior to 2016, with only two crashes in the last 5 years. The serious crash occurred in 2014 and involved a speeding drunk driver who lost control on a curve.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	70 km/hr
<i>Current mean travel speed</i>	72.18 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of East Coast Road is 50km/hr with the primary reason given as “Function/Feature”. Due to the high existing mean travel speed of 72.18 km/hr any attempt to lower the speed limit is likely to result in poor compliance creating a larger differential in vehicle speeds and increased risk to users.

The largely rural nature of this section of East Coast Road means that speed management features to achieve a 50km/hr speed environment are likely to be unachievable initially, however, additional delineation such as edgelines, with or without ATP, centreline ATP and additional edge marker posts should be considered along the route. Requests have been received to provide a footpath in the area which would assist with the ‘urbanisation’ of the area.

Consideration should be given to lowering the speed limit to 60km/hr in conjunction with engineering improvements.

The use of threshold treatments with or without speed limit signage at the entry to the various settlement areas to enhance a sense of community could be considered to assist with managing vehicle speeds.

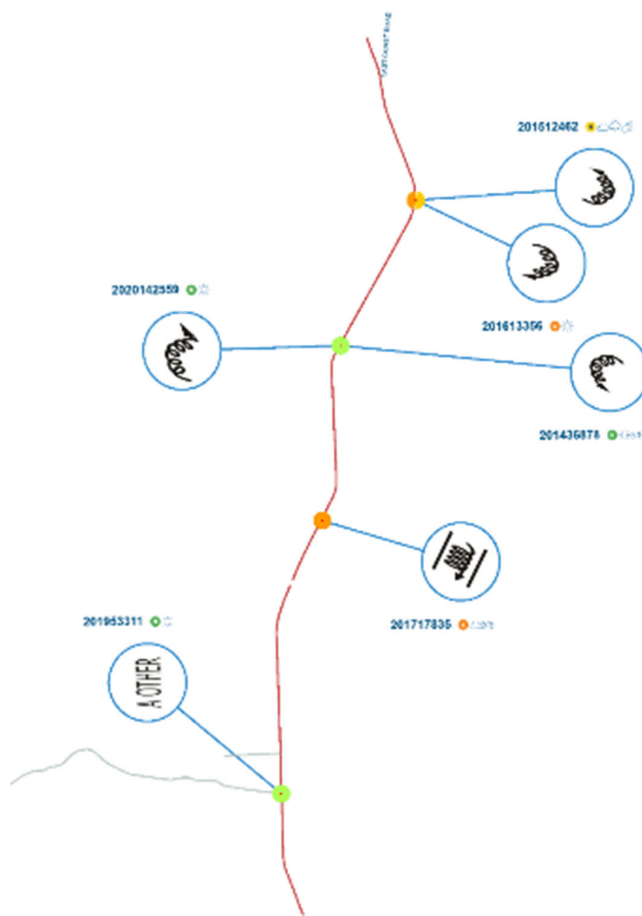
As a result of the presence of Kaiaua School on the western side of the road a 60km/hr speed limit must be installed within the vicinity of the school. This will require the installation of a threshold style treatment at the extents of the speed limit. Due to the low number of movements likely outside of school hours and high numbers of through traffic it is recommended that a variable speed limit be installed rather than a permanent speed limit. The variable speed limit should extend sufficient distance either side of the school to ensure that there is sufficient forward sight distance.

If the speed limit is lowered to 60km/hr then the variable speed limit associated with the school may not be required.

Section 4 – RP 12313 - 16100 Whakatiwai to Waharau

This section of the road runs between Whakatiwai and Waharau and is 3787m long and has no side roads.

There have been six reported crashes on this section of the road in the last 10 years resulting in two serious, one minor and three non injuries. The two serious crashes occurred in 2016 and 2017. The 2016 crash involved a driver traveling through roadworks at greater speed than the temporary speed limit and losing control on the unsealed surface, while the 2017 crash involved a motorcyclist who lost control in a strong gust of wind when riding a farm bike on the road.



Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	80.05 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of East Coast Road is 60/hr with the governing factor being “Road Safety”. This is driven from the two serious crashes however further investigation has shown that these crashes are random occurrences or the result of driver error and changes to the speed limit or environment will not address these crashes.

Due to the high existing mean travel speed of 80.05km/hr any attempt to lower the speed limit below 80km/hr is likely to result in poor compliance creating a larger differential in vehicle speeds and increased risk to users.

Section 5 – RP 16100 - 18678 Waharau Settlement

This section of the road runs through the settlement of Waharau and is 2578m long and has one side road, Pukekereru Lane as well as several accesses into the Waharau Regional Park.

This section has been identified from a customer query regarding excessive speeds in the area and the mix with high numbers of pedestrians and also as being of a peri-urban nature.

There has been one minor injury crash reported on this section of the road in the last 10 years which was a loss of control crash involving a motorcyclist in 2015.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	70 km/hr
<i>Current mean travel speed</i>	72.89 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of East Coast Road is 80/hr which is higher than the existing speed limit in the area. There is no desire to raise the speed limit in this area.

Due to the high existing mean travel speed of 72.89km/hr and concerns raised regarding the high numbers of pedestrians in the area over summer additional features such as the use of threshold treatments with speed limit signage at the entry to the settlement area and repeater signs could be considered to assist with managing vehicle speeds.

Key pedestrian crossing locations should be reviewed for the appropriateness of additional signage and markings to raise drivers' awareness of the presence of pedestrians.

Consider reducing the speed limit to 60km/hr to be consistent with the adjacent section to the north.

Section 6 – RP 18678 - 19067 Waharau Settlement to Auckland Boundary

This section of the road runs from the north of the settlement of Waharau to the boundary with Auckland Council and is 389m long and has no side roads.

There has been one non-injury crash reported on this section of the road in the last 10 years which was a loss of control crash in 2015.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	70 km/hr
<i>Current mean travel speed</i>	56.91 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of East Coast Road is 80/hr which is higher than the existing speed limit in the area. There is no desire to raise the speed limit in this area.

Auckland Transport are proposing to reduce the speed limit on the section of East Coast Road to the north to 60km/hr with an implementation date of 31/05/2022.

As a result, the speed limit on this section should be reduced to provide consistency along the route.

Recommendations

Section 1 – RP 0 – 8028 Waikato DC Boundary to Kaiaua Township

- Lower the speed limit to 80km/hr.
- Consider installing edgelines, with or without ATP, centreline ATP and additional edge marker posts

Section 2 – RP 8028 – 9553 Kaiaua Township

- Install threshold treatments at each end of Kaiaua
- Install edgelines throughout the area
- Consider installing kerb and channel to create a more urban environment.

Section 3 – RP 9553 - 12313 Kaiaua Township to Whakatiwai

- Lower the speed limit to 50km/hr.
- Consider installing edgelines, with or without ATP, centreline ATP and additional edge marker posts
- Install threshold treatments with or without speed signage at each of the settlements
- Apply a 30km/hr variable speed limit in the vicinity of Kaiaua School.
- Install variable school threshold style treatment at the change in speed limit points.

Section 4 – RP 12313 - 16100 Whakatiwai to Waharau

- Lower the speed limit to 60km/hr.

Section 5 – RP 16100 - 18678 Waharau Settlement

- Lower the speed limit to 60km/hr.
- Install threshold treatments with speed signage.
- Install additional repeater speed limit signs.
- Install additional pedestrian warning signage as appropriate.

Section 6 – RP 18678 - 19067 Waharau Settlement to Auckland Boundary

- Lower the speed limit to 60km/hr
- Install threshold treatments with speed signage.

2.3.2 Ebner Place

Ebner Place is a sealed no exit road off Kaiaua Road in Kaiaua that is 336m long. This road was identified for review as being of a peri-urban nature. There have been no report crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	22 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The metrics used for this road were reviewed for appropriateness and altered to better reflect the road which reduced the Infrastructure Risk Rating to Medium and raised the Safe and Appropriate Speed to 80km/hr.

Due to the length of this road and its higher density of dwellings, it can be considered in isolation to the adjacent road, Kaiaua Road.

Recommendations

- Lower the speed limit to 80km/hr in keeping with increased level of development.
- Install speed threshold treatment at intersection with Kaiaua Road.

Consideration should be given to implementing a 60km/hr speed limit if supported by the local community.

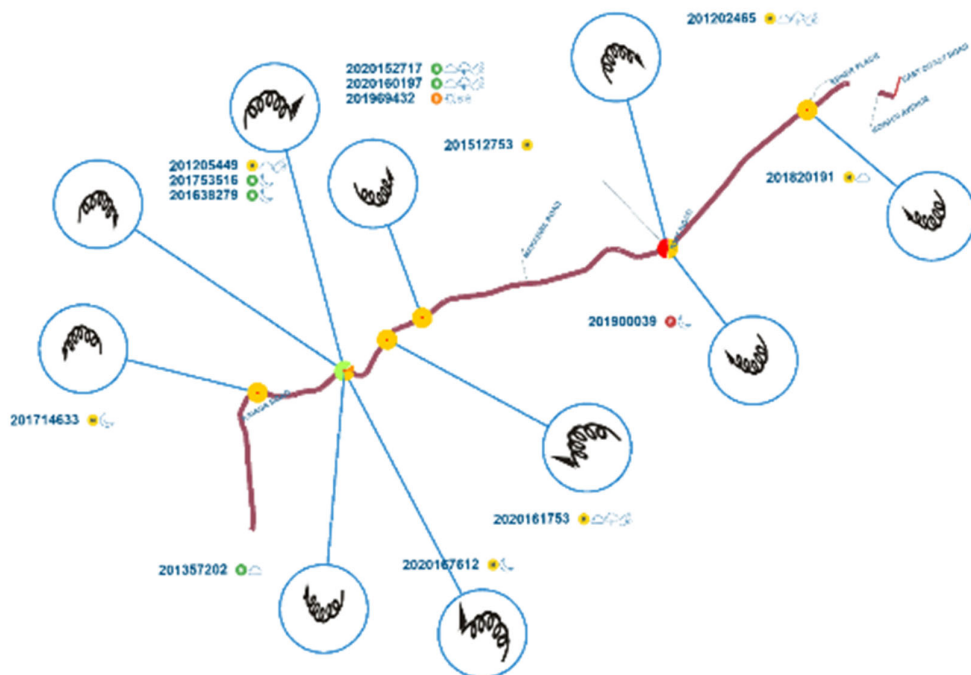
Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Ebner Place to 60km/hr.

2.3.3 Kaiaua Road

Kaiaua Road is a sealed rural road in Kaiaua that runs between Mangatangi to Kaiaua. The road is within two local authority boundaries and the length of the road within the Hauraki District boundary is 5723m.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years.

There have been fifteen reported crashes on this road in the last 10 years with ten in the last 4 years indicating an increasing crash risk. One fatal, one serious, eight minor and five non-injury crashes. All of the crashes are loss of control with no crashes reported within the urban area of Kaiaua.



Overall, the Collective Risk for the road is Low Medium, while the Personal Risk is Medium High.

Nearly all (93%) of the crashes occurred in overcast or dark conditions which would indicate that the night-time delineation is insufficient. Weather has not contributed significantly to crashes with the majority occurring in fine conditions. The primary area of concern is between RP 4210 and 5038 where ten of the fifteen crashes have occurred.

Works have previously been undertaken including the installation of edgeline treatments and additional curve warning signs, however crashes have continued to occur. Further investigation is required to determine what additional works can be implemented to address the continuing crashes.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	77.42 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The recommended safe and appropriate speed from MegaMaps for Kaiaua Road is 60/hr with the governing factor being the Infrastructure Risk Rating.

Due to the high existing mean travel speed of 77 km/hr compliance with a speed limit less than 80km/hr is unlikely creating greater differential between vehicle speeds.

Recommendations

- Lower the speed limit to 60km/hr.
- Install ATP on edgelines along the route.
- Further investigation is required to determine additional treatments required.

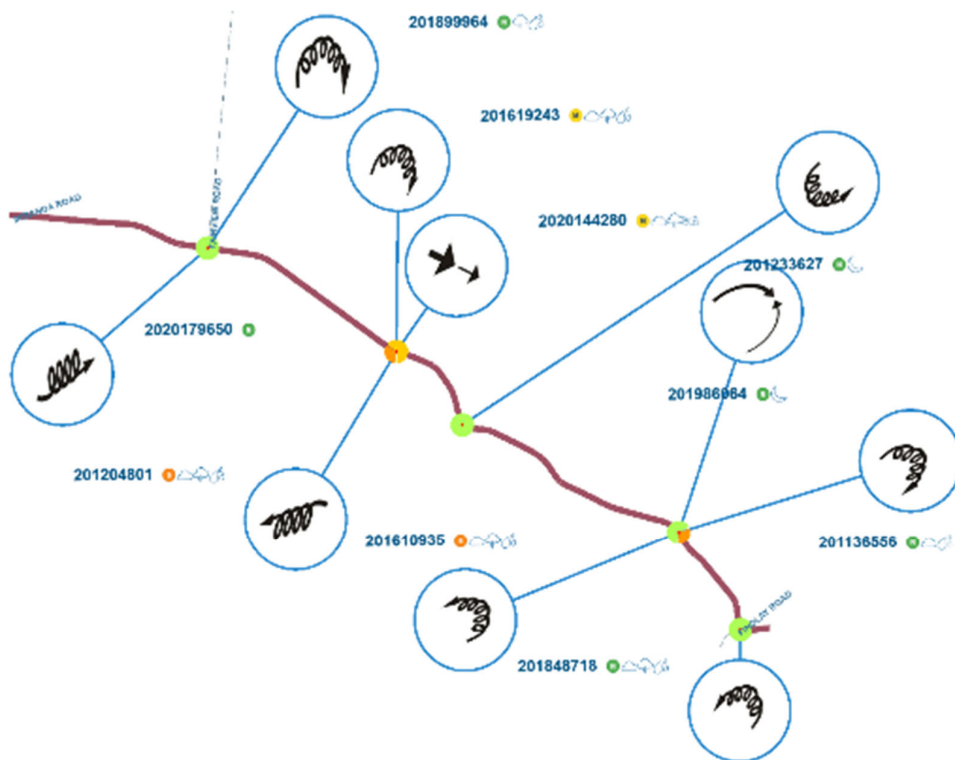
Any physical works and/or changes to speed limit will need to be coordinated with Waikato District Council to ensure consistency along the route.

2.3.4 Miranda Road

Miranda Road is a sealed rural road in Miranda that runs between Mangatangi and East Coast Road. The road is within two local authority boundaries and length of the road within the Hauraki District boundary is 4602m.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years.

There have been two serious, two minor and six non-injury crashes reported on this road in the last 10 years. The majority of crashes have been loss of control, with one head on and one rear end crash also reported.



Overall, the Collective Risk for the road is Low medium, while the Personal Risk is Medium.

All of the crashes occurred in overcast or dark conditions which would indicate that the night-time delineation is insufficient. Weather has contributed to crashes with those occurring in overcast light conditions occurring in wet conditions. The crashes are spread along the route, however they all occur on curves

The predominance of loss of control crashes indicates that edgeline and curve warning treatments and the removal or protection of hazards within close proximity of the road would be beneficial.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	76.07 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Recommendations

- Install ATP on edgelines along the route.
- Install additional edge marker posts and curve warning signage at out of context curves

Any physical works and/or changes to speed limit will need to be coordinated with Waikato District Council to ensure consistency along the route.

2.3.5 Toft Road

Toft Road is an unsealed no exit rural road off Kaiaua Road in Kaiaua that is 2143m long.

This road was identified for review from the MegaMaps as a Second 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”. This road has the appearance of a rural property access.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would require a similar treatment to other similar type roads.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	21.07 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit would need to be considered as part of a wider strategy for rural roads.

2.4 Kaihere

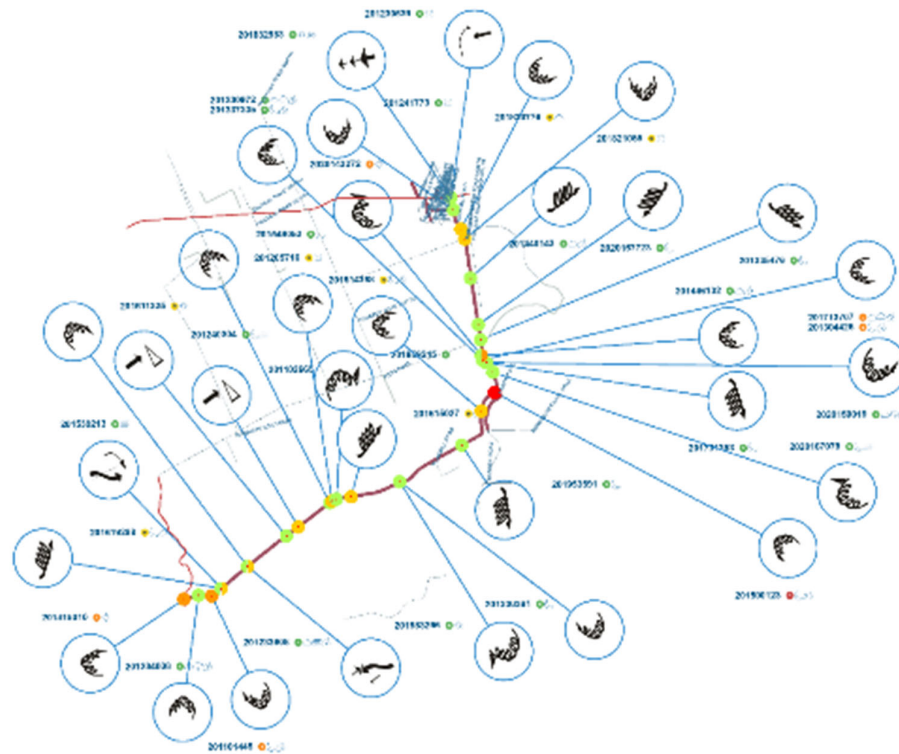
2.4.1 Kaihere Road

Kaihere Road is a sealed rural road that runs between State Highway 2, Ngatea and State Highway 27 in Kaihere and is 15.72km long. The initial section of the road is within the urban area of Ngatea before changing to a rural road. The road has been reviewed in two sections:

- 1) State Highway 2 to Brenner Drive a distance of approximately 450m;
- 2) Brenner Drive to State Highway 27 a distance of 15.27km.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years and a school. The school, Hauraki Plains College, is located within the urban area of Ngatea.

There have been thirty-four reported crashes on this road in the last 10 years. One fatal, five serious, eight minor and twenty non-injury crashes. The majority of crashes, thirty, are loss of control with two intersection and two hitting objects.



Nearly all (79%) of the crashes occurred in overcast or dark conditions which would indicate that the night-time delineation is insufficient. Weather has not contributed significantly to crashes

with the majority occurring in fine conditions. The primary area of concern is between RP 3730 and 5860 where the fatal crash and three of the serious crashes have occurred.

The predominance of loss of control crashes indicates that edgeline treatments and the removal or protection of hazards within close proximity of the road would be beneficial. The clustering of crashes in the vicinity of the out of context curves indicates that additional and consistent delineation is required along the route.

Safety and speed information from MegaMaps is on two section and shows the following.

Section 1 – State Highway 2 to Brenner Drive

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	52.09 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Section 2 – Brenner Drive to State Highway 27

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	86.73 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Due to the high existing mean travel speed on the rural section Kaihere Road of 86 km/hr and the predominantly straight alignment of the road it is unlikely that a lower speed limit will be complied with creating greater differential between vehicle speeds.

The presence of Hauraki Plains College on the western side of the road requires a 30km/hr speed limit to be installed within the vicinity of the school. This will require the installation of a threshold style treatment at the extents of the speed limit and due to the already high mean travel speed in this area is likely to require the installation of speed management features such as raised platforms.

Recommendations

- Lower the speed limit to 30km/hr on Kaihere Road from State Highway 2 to Hayward Street.
- Install school threshold style treatments at the change in speed limit locations
- Install slow street treatments within the vicinity of the school. Consider the use of raised platforms to manage vehicle speeds.
- Lower the speed limit to 80km/hr between Brenner Drive and State Highway 27.
- Install edgelines along the rural section of the road especially at out of context curves:
 - RP 3800 – 6600
 - RP10700 – 11000
 - RP14500 - 15500
- Install additional edge marker posts and curve warning signage at out of context curves.

Consideration should be given to implementing a 40km/hr speed limit in the urban area of Ngatea if supported by the local community. However physical works will be required to support the existing or lower speed limit along the full length of the road.

2.4.2 Ohinewai Road

Ohinewai Road is a no exit rural road off State Highway 27 in Kaihere. The full length of the road is 6140m with the first 743m sealed and the remaining 5397m unsealed. This road

continues across the Waikato District Council boundary, however it changes name to Matahuru Road.

This road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”. This is incorrect as the first section of the road is sealed.



There have been two reported crashes on this road in the last 10 years with both crashes as a result of drivers losing control and resulting in no injuries.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	39.28 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit or works proposed.

Any physical works and/or changes to speed limit will need to be considered as part of a wider strategy for rural roads and coordinated with Waikato District Council to ensure consistency along the route.

2.5 Karangahake

2.5.1 School Road (Karangahake)

School Road is a sealed no exit road in Karangahake off State Highway 2 that is approximately 306m long and accesses a small number of properties and a school.

This road was identified for review as having a school, Karangahake, on its southern side.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	33 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Karangahake School a 30km/hr speed limit must be installed on both roads within the vicinity of the school. Due to the narrow road and low traffic volumes it is recommended that a permanently reduced speed limit apply to the full length of the road.

Recommendations

- Install a 30km/hr speed limit for the full length of the road.
- Install threshold treatment at the change in speed limit location.

2.6 Kerepehi

2.6.1 Dagger Road

Dagger Road is a no exit unsealed rural road that runs off Ferry Road, Kerepehi that is approximately 1540m long.

This road was identified for review from the MegaMaps as a Second 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would require a similar treatment to other similar type roads.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	37.29 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit proposed.

Any changes to the speed limit on Dagger Road would need to be considered as part of a wider strategy for unsealed rural roads.

2.6.2 Kerepehi Town Road

Kerepehi Town Road is a sealed road that runs between State Highway 2 and Ferry Road and provides connection and access into the residential and industrial areas of Kerepehi and the rural area beyond. The total length of the road is approximately 2000m and it has three distinct sections:

- 1) State Highway 2 to Reta Crescent provides access into industrial area,
- 2) Reta Crescent to Thompson Road is within the Kerepehi township and
- 3) Thompson Road to Ferry Road provides connection to the rural areas beyond.

This road was identified for review from a list of sites previously identified as potentially requiring speed management due to the high numbers of pedestrians in the area.

There have been four non-injury crashes reported in the last 10 years with the last crash reported in 2018.

Safety and speed information from MegaMaps is in three sections and shows the following.

Section 1 – State Highway 2 to Reta Crescent

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	44 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

Section 2 – Reta Crescent to Thompson Road

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	50.91 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

Section 3 – Thompson Road to Ferry Road

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	60.07 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The current mean travel speed through Kerepehi township is higher than desirable at 50.91km/hr. Traffic calming measures should be considered to lower the mean travel speed and assist with improving safety of pedestrians and cyclists in the area.

To distinguish between the differing uses of the various sections of road a targeted approach should be taken to both the speed limit and use and location of threshold treatments and other speed management features.

Recommendations

- Lower the speed limit to 60km/hr from State Highway 2 to 40m east of Ponui Avenue
- Retain the 50km/hr speed limit from 40m east of Ponui Avenue to 100m west of Fernleigh Street
- Lower the speed limit to 80km/hr from 100m west of Fernleigh Street to Awaiti Canal Road
- Install threshold style treatments at the change in speed limit locations.
- Consider putting the existing zebra crossings onto raised platforms.

Consideration should be given to implementing a 40km/hr speed limit through the township and across the wider residential area if supported by the local community. This will require the speed limit to be reduced on Ponui Avenue, Rakino Drive, Pakatoa Street, Kaikahu Road, Matai Street, Miro Street, Rimu Street, Rata Street, McGowan Avenue, Stanley Street, Thompson Road, Pah Road and Wharf Road.

2.6.3 McGowan Avenue

McGowan Avenue is a sealed no exit street in Kerepehi that runs off Kerepehi Town Road and provides access to a mix of residential and rural properties, a school, a childcare and Kerepehi Marae. The road is approximately 536m long with sporadic development along the road.

This road was identified for review as there is Kerepehi school, and a childcare centre, Te Kohanga Reo o Kerepehi and the Kerepehi Marae on this road.

There has been one non-injury crash reported in the last 10 years which occurred in 2013 and involved a manoeuvring vehicle.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	29.72 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Kerepehi School on the western side of the road a 30km/hr speed limit must be installed within the vicinity of the school. This will require the installation of a threshold style treatment at the extents of the speed limit. Due to the low traffic volumes it is recommended that a permanently reduced speed limit apply to the section of the road within the vicinity of the school.

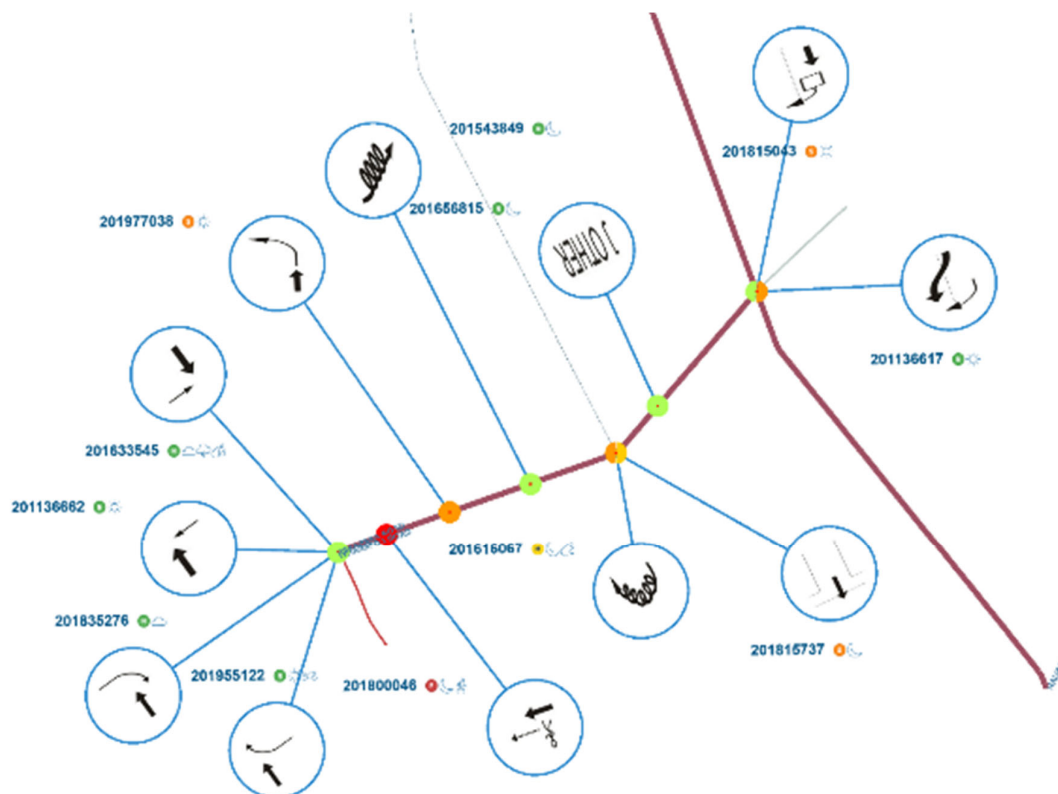
Recommendations

- Lower the speed limit to 30km/hr within the vicinity of the school frontage.
- Install threshold style treatments at the change in speed limit locations.

2.6.4 Wharepoa Road West

Wharepoa Road west is a sealed rural road in Kerepehi that runs between State Highway 2 and Hauraki Road with one side road, Hamilton Road, and is approximately 3398m long.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years.



The fatal crash involved a drunk driver that hit a pedestrian while the majority of all the other crashes including the serious crashes are primarily intersection type crashes.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	63.67 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The primary reason given for the recommended safe and appropriate speed in MegaMaps is “Road Safety Metric” due to a high personal risk.

Due to the difficulty in widening the road due to geotechnical issues further investigation is required to determine what improvement works can be undertaken, to address the number of rear end and crashes involving turning vehicles by allowing following vehicles to safely undertake those waiting to turn.

RIAWS treatments should also be considered at the intersection with Hauraki Road as part of improvement works on Hauraki Road to reduce the risk to turning vehicles.

Recommendations

- Undertake further investigation on feasible treatment options.

Any changes to the speed limit on this road would require a similar change to other roads in the area to provide consistency to road users.

2.7 Komata

2.7.1 Komata Reefs Road

Komata Reefs Road is a rural road off State Highway 26 in Komata of which the first 1130m to Bradshaw Road is sealed and the remaining 5238m unsealed.

The section of the unsealed portion of this road between Bradshaw Road and Goble Road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been three reported crashes on this road in the last 10 years with the last crash occurring in 2017. There were no commonalities between the crashes, with the serious crash in 2014 the result of a driver attempting to U turn at the intersection with State Highway 26 and being hit by a through vehicle.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	36.63 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Any changes to this road would require a similar treatment to Bradshaw Road and Goble Road to provide consistency to road users.

Recommendations

- No change to speed limit proposed.

Any changes to the speed limit on this road would need to be considered as part of a wider strategy for rural roads.

2.7.2 Strange Road

Strange Road is a no exit rural road off State Highway 26 in Komata. The full length of the road is 2160m with the first 430m and last 1472m sealed and the centre 258m unsealed.

Only the last portion of this road was identified for review from the MegaMaps as a Second 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”. This is incorrect as this section of the road is sealed.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would require a similar treatment to other similar type roads.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	34 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would need to be considered as part of a wider strategy for rural roads.

2.8 Mackaytown

2.8.1 Rahu Road

Rahu Road is a no exit rural road off State Highway 2 in Karangahake. The full length of the road is 3440m with the first 1445m sealed and the remaining 1995m unsealed.

This road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this section of the road in the last 10 years.

The adjacent section of Rahu Road has a 70km/hr speed limit.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	34.28 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- Lower speed limit to 70km/hr to be consistent with the remaining section of Rahu Road.
- Install repeater speed signs.

2.9 Mangatarata

2.9.1 Church Road

Church Road is a no exit sealed rural road in Mangatarata that runs off North Road and provides access into a number of residential properties and a café and church. The full length of the road is 159m.

This road was identified for review as being of a peri-urban nature with a small settlement of houses and from a resident request regarding the risk to pedestrians.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	42 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

Due to the high number of parked vehicles and pedestrian movements associated with the café and church a lower speed limit is considered to be appropriate.

Recommendations

- Lower the speed limit to 60km/hr in keeping with increased level of development.

This road is accessed off North Road which also has increased vehicle and pedestrian movements between State Highway 27 and Church Road and a lower speed limit should be installed on this section of North Road for consistency and to reduce the risk to all users in the area.

2.9.2 Coxhead Road

Coxhead Road is an unsealed rural road that runs between State Highway 25 and State Highway 2 in Mangatarata. The full length of the road is 1795m with the majority of the road unsealed 1520m and the remaining 275m sealed.

This road was identified for review from the MegaMaps as a Second 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years with four crashes occurring at the intersection with State Highway. Any changes to this road would require a similar treatment to other similar type roads.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	37 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit proposed.

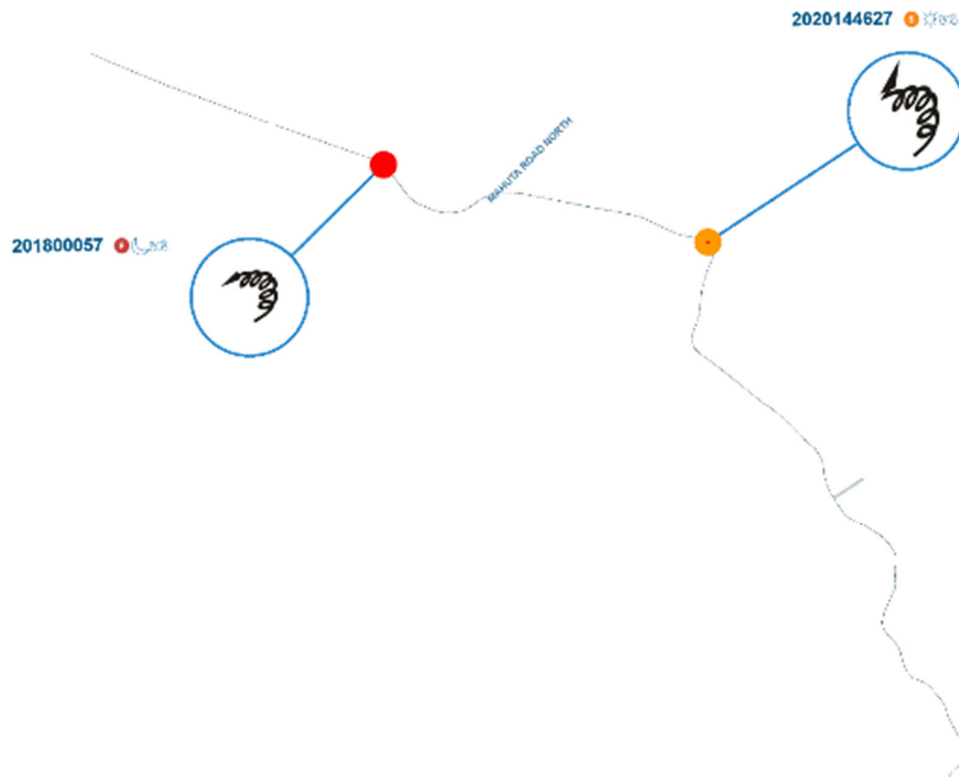
Any changes to the speed limit on this road would need to be considered as part of a wider strategy for unsealed rural roads.

2.9.3 Mahuta Road North

Mahuta Road north is a sealed rural road in Mangatarata that runs between State Highway 25 and State Highway 2 and is approximately 4820m long.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years.

There have been one fatal and one serious crash reported on this road in the last 10 years, both of which involved motorcyclists losing control on a curve.



Overall, the Collective Risk for the road is Low, while the Personal Risk is Medium.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	59.93 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would need to be considered as part of a wider strategy for rural roads.

2.9.4 North Road

North Road is a no exit rural road off State Highway 27 in Mangatarata. The full length of the road is 4307m with the first 897m sealed and the remainder unsealed.

This road was identified for review from a customer query.

There has been one non-injury crash reported on this road in the last 10 years. The crash was a head-on as a result of a driver losing control on the gravel surface.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	27.61 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is 60km/hr and Megamaps has assumed that the full length of the road is unsealed, which is incorrect.

The initial section of the road between State Highway 27 and North Road is subject to high numbers of pedestrians and manoeuvring vehicles due to the presence of a café.

Recommendations

- Reduce the speed limit to 60km/hr on the section of North Road from State Highway 27 to RP120.
- Install threshold style treatments at the change in speed limit locations.

Any changes to the speed limit on the rest of the road would need to be considered as part of a wider strategy for unsealed rural roads.

2.9.5 South Road

South Road is a no exit rural road off State Highway 27 in Mangatarata. The full length of the road is 3963m with the first 688m sealed and the remainder unsealed.

This road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	36.84 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is 60km/hr.

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would need to be considered as part of a wider strategy for unsealed rural roads.

2.10 Netherton

2.10.1 School Road (Netherton)

School Road is a sealed rural road in Netherton that runs between State Highway 2 and Fisher Road and is approximately 2065m long.

This road was identified for review as having a school, Netherton, at the intersection with State Highway 2.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	84.82 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

As a result of the presence of Netherton School on the corner of State Highway 2 and School Road a 60km/hr speed limit must be installed on both roads within the vicinity of the school. This will require the installation of a threshold style treatment at the ends of the treatment and coordination with Waka Kotahi for the installation of the speed reduction on State Highway 2. Due to the low number of movements likely outside of school hours it is recommended that a variable speed limit be installed rather than a permanent speed limit. The variable speed limit should extend to RP 230 to ensure that there is sufficient stopping distance to the school entrance.

Recommendations

- Apply a variable speed of 60km/hr on the first 230m of School Road.
- Install variable sign and threshold style treatment at the change in speed limit point.

The installation of the variable speed limit will need to be coordinated with Waka Kotahi to ensure consistency of treatment within the vicinity of Netherton School.

Any changes to the speed limit on the remainder of this road would need to be considered as part of a wider strategy for rural roads.

2.11 Ngatea

2.11.1 Darlington Street

Darlington Street is a sealed residential street in Ngatea that runs between State Highway 2 and Benner Drive and provides access and connection into a wider residential neighbourhood. The road is approximately 910m long with seven side roads, Brattie Place, Walton Place, Hayward Road, Madgwick Place, Parfitt Place, Harris Place and Benner Drive. The layout of the road changes significantly south of Madgwick Place with the presence of a central median, roundabout and other traffic calming measures.

This street was identified for review from a customer query regarding the excessive vehicle speeds, primarily on the section between State Highway 2 and Hayward Road. This indicates that compliance, not the speed limit is the issue for this road. There is also a childcare centre located on the corner of Darlington Street and Hayward Road.

There have been two reported crashes in the last 10 years, with a non-injury crash in 2015 and a minor injury crash in 2012.

Safety and speed information from MegaMaps is on two section and shows the following.

Section 1 – State Highway 2 to Brattie Place

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	36 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Section 2 – Brattie Place to end

<i>Infrastructure Risk Rating</i>	Low	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.46 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- Install slow street treatments between State Highway 2 and Hayward Road to match the environment of the rest of the road.
- Install a mini roundabout at the Hayward Road intersection.

Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.

Any changes to the speed limit on this road will require a similar reduction on the side roads of Bratlie Place, Walton Place, Hayward Road, Madgwick Place, Parfitt Place, Harris Place and Benner Drive.

2.11.2 Hayward Road

Hayward Road is a sealed residential street in Ngatea that runs between Kaihere Road and Darlington Street that provides access to residential properties. The road is approximately 700m long with two side road, McMillan Street and Miller Place.

This street was identified for review as having a childcare centre located on the corner of Darlington Street and Hayward Road and also from a customer query regarding the excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road. Hauraki Plains College also backs on to Hayward Road with a pedestrian path to the main school building and access to the sports grounds.

There has been one reported crash in the last 10 years, with a non-injury crash in 2012.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.46 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Hauraki Plains College on the northern side of the road a 30km/hr speed limit should be installed within the vicinity of the school frontage on Hayward Road. This will require the installation of a threshold style treatment at the extents of the speed limit. As the area is predominantly residential and there is likely to be high numbers of pedestrians and cyclists at the school even outside of school hours it is recommended that a permanent speed limit be installed rather than a variable speed limit. Any speed limit reduction on this road will need to be consistent with the speed limit on Kaihere Road and Darlington Street.

Recommendations

- Lower the speed limit to 30km/hr on Hayward Street in conjunction with the school zone on Kaihere Road.
- Install school threshold style treatments at the change in speed limit locations
- Install a mini roundabout at the Darlington Street intersection

Any changes to the speed limit on this road will require a similar reduction in speed limit on the side roads of McMillan Street and Miller Place and will need to be consistent with Kaihere Road and Darlington Street.

Consideration should be given to implementing a 40km/hr speed limit in the area if supported by the local community. However physical works will be required to support the existing or lower speed limit along the full length of the road.

2.11.3 McDuff Lane

McDuff Lane is a sealed no exit commercial street in Ngatea off State Highway 2 that provides access to a number of commercial properties and the exit from the local supermarket. The road is approximately 60m long and is very wide to accommodate the heavy commercial vehicles accessing the site.

This road was identified for review from a customer query regarding excessive vehicle speeds and conflicts between vehicles and pedestrians. This indicates that vehicle speeds are considered to be incompatible with the environment.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Due to the high number of pedestrians and turning vehicles in this area additional roadmarking, in a long-life product, should be considered to better manage the flow of traffic in the area.

Recommendations

- Considering installing additional roadmarking in the area in a long-life product.

Any changes to the speed limit on McDuff Lane would be the result of changes to other adjacent roads in the area to provide consistency to road users.

2.11.4 McMillan Street

McMillan Street is a sealed no exit residential street in Ngatea that runs off Hayward Road and is 112m long.

This road was identified for review as there is a childcare centre located on the street.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.46 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on McMillan Street would be the result of changes to other adjacent roads in the area to provide consistency to road users.

2.11.5 Puhunga Island Road North

Puhunga Island Road North is a no exit rural road off Kaihere Road in Ngatea. The full length of the road is 3034m with the first 1620m sealed and the last 1414m unsealed.

Only the last portion of this road was identified for review from the MegaMaps as a Second 10% Interventions – self explaining. The rational for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would require a similar treatment to other similar type roads.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	37 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would need to be considered as part of a wider strategy for rural roads.

2.11.6 River Road

River Road is a sealed road in Ngatea that runs from State Highway 2 to Rawerawe Road East and provides access to a number of residential and rural properties. The full length of the road is 3520m while the section of road under review is from State Highway 2 to Leonard Street and is 530m long. This section has three side roads: Hammond Lane, Factory Lane and Leonard Street and has single sided development as it runs parallel to the Piako River.

This road was identified for review as there is a childcare centre located at Number 27 on the western side of the road and from a customer query regarding the excessive vehicle speeds in the urban section of the road. This indicates that compliance, not the speed limit is the issue for this road.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.03 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would require a similar change to other roads in the area to provide consistency to road users.

2.12 Paeroa

2.12.1 Ainslie Road

Ainslie Road is a sealed residential street in Paeroa that runs between Aorangi Road and Logan Road and provides access into a wider residential neighbourhood. The full length of the road is 440m with one side road, Porritt Street.

This road was identified for review as there is a childcare centre located on the eastern side of the road between Porritt Street and Raroa Road.

There have been no reported crashes on this road since 2017 after which speed humps were installed in two locations to manage vehicle speeds.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	33.69 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Ainslie Road would require a similar change to other roads in the area to provide consistency to road users.

2.12.2 Alpha Road

Alpha Road is a sealed no exit road off State Highway 26 in Paeroa. The full length of the road is 310m with one side road, Colin Drive.

This road was identified for review as being of a peri-urban nature on the northern edge of Paeroa.

There have been no report crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	28.14 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

The recommended safe and appropriate speed from MegaMaps for this road is 50km/hr which matches the existing speed limit.

Recommendations

- No change to speed limit proposed. Existing speed limit is appropriate.

2.12.3 Aorangi Road

Aorangi Road is a sealed no exit residential street in Paeroa that runs off State Highway 26 and provides access and connection into a wider residential neighbourhood. The full length of the road is 1149m with two side roads; Shaw Avenue and Ainslie Road.

This road was identified for review as there is a playcentre located at 58 Aorangi Road and from a customer query regarding excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

There have been four non-injury crashes reported in the last 10 years. Three of the crashes were the result of driver inattention and one was a loss of control crash. Only one crash has occurred in the section of road with the playcentre.

Safety and speed information from MegaMaps is on two section and shows the following.

Section 1 – State Highway 26 to Ainslie Road

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	37 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Section 2 – Ainslie Road to end

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	33.69 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

Possible works to be undertaken:

- Install slow street treatments at multiple locations. Due to the alignment of the road consider the use of side islands to narrow the road and one way sections to manage vehicle speeds.

Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.

Any changes to the speed limit on Aorangi Road will require a similar treatment to Shaw Avenue and Ainslie Road.

2.12.4 Colin Drive

Colin Drive is a sealed no exit road off Alpha Road in Paeroa that is 161m long.

This road was identified for review as being of a peri-urban nature due to the lot sizes and its location on the northern edge of Paeroa.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	39.13 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The safe and appropriate speed for this road is 60km/hr which is higher than the existing speed limit. There is no desire to increase the speed limit on Colin Drive.

Recommendations

- No change to speed limit proposed. Existing speed limit is appropriate.

2.12.5 Corbett Street

Corbett Street is a sealed residential street in Paeroa that runs between State Highway 2 and King Street and provides access and connection into a wider residential neighbourhood. The total length of the road is approximately 340m long while the section of road under review is between Willoughby Street and King Street and is approximately 232m long.

This road was identified for review from a customer query regarding excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

There has been one minor injury crash in the last 10 years in the section of Corbett Road under review. The crash involved a drunk disqualified driver hitting multiple parked vehicles.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	28.45 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Corbett Street would be the result of changes to other adjacent roads in the area to provide consistency to road users.

2.12.6 Coronation Street

Coronation Street is a sealed no exit street in Paeroa that runs off Brenan Street and provides access to a mix of industrial and residential properties, a school and the Paeroa Saleyards. The road is approximately 688m long with three side roads, Meyers Street, Stewart Street and Opukeko Road. The road has development primarily on only the western side of the road with farm land on the eastern side of the road.

This road was identified for review as there is a school, Paeroa Christian, located between Stewart Street and Opukeko Road.

There have been two non-injury crashes reported in the last 10 years and occurred in 2013 and 2017. One involved a speeding vehicle that lost control, while the most recent crash involved a driver hitting a parked car.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	33.88 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Paeroa Christian School on the western side of the road a 30km/hr speed limit must be installed within the vicinity of the school. This will require the installation of a threshold style treatment at the extents of the speed limit. Due to the amount of through traffic in the area it is recommended that a permanently reduced speed limit apply in the vicinity of the school.

Recommendations

- Lower the speed limit to 30km/hr within the vicinity of the Paeroa Christian School frontage.
- Install school threshold style treatments at the change in speed limit locations.

2.12.7 Junction Road

Junction Road is a predominantly sealed no exit road in Paeroa that runs off Railway Street and provides access to a number of residential and rural properties. The total length of the road is approximately 1483m long, while the section of road under review between Railway Road and Menzies Place is approximately 405m long with two side roads, Opatito Road and Menzie Place.

This road was identified for review from a customer query regarding excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

There have been five crashes reported in the last 10 years on this road with one serious crash in 2017 involving an intoxicated driver hitting a pedestrian and four non-injury crashes. Three of the five crashes have noted inappropriate speed as a contributing factor.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	37 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- Install slow street treatments at multiple locations between Railway Street and Menzie Place. Due to the straight alignment of the road consider the use of side islands to narrow the road and one way sections to manage vehicle speeds.
- Install mini roundabout at the intersection with Opatito Road.

Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.

Any changes to the speed limit on Junction Road will require a similar reduction in the speed limit to Menzie Place, and Opatito Road.

2.12.8 Keepa Avenue

Keepa Avenue is a sealed no exit residential street in Paeroa that runs off Shaw Avenue and is part of a contained residential neighbourhood. The full length of the road is 295m.

This street was identified for review as having an aged care facility at it end.

There has been one reported crash on this road in the last 10 years which was a non-injury crash at the intersection with Shaw Avenue in 2020.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	33.92 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. Due to the short length of road physical works are unlikely to be required to support a lower speed limit.

Any changes to the speed limit on this road will be as a result of changes to Shaw Avenue.

2.12.9 Miller Avenue

Miller Avenue is a sealed no exit residential street in Paeroa that runs off Tower Street and provides access to a number of residential properties and Miller Avenue School. The road is approximately 310m long with a crossroad intersection with Kennedy Street midway and Miller Avenue School located at the end of the road.

This road was identified for review as there is school, Miller Avenue, located on the northern side of the road.

There have been two reported crashes on this road in the last 10 years, both of which were non-injury crashes that occurred at the intersection with Towers Street. The last crash occurred in 2018 which involved an unaccompanied learner driver traveling too fast for the conditions and losing control on the curve.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	26.8 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Miller Avenue School on the northern side of the road a 30km/hr speed limit must be installed within the vicinity of the school. This will require the installation of a threshold style treatments at the extent of the reduced speed limit. Due to the predominantly residential area, low traffic volumes and no exit nature of the street in the vicinity of the school it is recommended that a permanent 30km/hr speed limit be installed from Kennedy Street to the end of the road.

Recommendations

- Lower the speed limit to 30km/hr on Miller Avenue from Kennedy Street to the end.
- Install threshold style treatments at the change in speed limit location.

2.12.10 Norwood Road

Norwood Road is a sealed residential street in Paeroa that runs between State Highway 26 and Station Road and provides access into a largely undeveloped residential area and a school. The full length of the road is 1176m long while the section of road under review is between McDonald Place and Station Road and is approximately 661m long.

This road was identified for review as there is a school, Goldfields, located on the western side of the road, in addition there is a rear pedestrian access to Miller Avenue School off the same section of road.

There have been no crashes reported in this section of Norwood Road in the last 10 years and two crashes reported to the east of McDonald Place.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	48.55 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Goldfields School and Miller Avenue School on the western side of the road a 30km/hr speed limit must be installed within the vicinity of both of the school frontages. It is recommended that a lower permanent speed limit be applied in this area to provide certainty to drivers and avoid confusion. This will require the installation of a threshold style treatment at the extents of the speed limit and due to the already high mean travel speed in this area is likely to require the installation of speed management features such as raised platforms.

Recommendations

- Lower the speed limit to 30km/hr within the vicinity of the school frontage.
- Install school threshold style treatments at the change in speed limit locations.
- Consider replacing the existing kea crossing with a patrolled zebra crossing on a raised platform.

2.12.11 Nowra Crescent

Nowra Crescent is a sealed residential street in Paeroa, that creates a loop off Shoalhaven Street and is 204m long.

This road was identified for review as there is a childcare centre located on the street.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Norwa Crescent would be the result of changes to other adjacent roads in the area (Shoalhaven Street) to provide consistency to road users.

2.12.12 Papaturoa Road

Papaturoa Road is a sealed no exit road off State Highway 26 on the southern side of Paeroa. The road is approximately 171m long.

This road was identified for review as being of a peri-urban nature due to the number of dwellings along the length of the road. The marae is located on the southern side of the road.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The posted speed limit on Papaturoa Road has been entered as 50km/hr into MegaMaps which is incorrect as it is 80km/hr from the speed limit bylaw maps.

Due to the very short length of road the speed limit should be the same as the adjacent section of road to provide consistency to drivers.

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Papaturoa Road would be the result of changes to State Highway 26 to provide consistency to road users.

2.12.13 Railway Street

Railway Street is a sealed residential street in Paeroa that runs between State Highway 2 and William Street and provides access and connection into a wider residential neighbourhood. The road is approximately 498m long with four side roads; Dearle Street, George Street, Junction Road and Lee Avenue. The road has development on the western side only as it runs parallel to Paeroa Park which has three pedestrian access points from Railway Road.

This road was identified for review from a customer query regarding excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

There have been six crashes reported in the last 10 years. Three of the crashes were loss of control crashes, two were manoeuvring crashes and the last crash involved a vehicle hitting a parked car. The loss of control crashes all occurred on the curve north of Dearle Street.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	32.7 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Any changes to this road would require a similar treatment to the other roads in the area.

Recommendations

- Install slow street treatments at multiple locations. Consider realigning the pedestrian access points to enable raised platforms to be installed.

Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.

Any changes to the speed limit on Railway Street will require a similar reduction on the speed limit to Opatito Road, Dearle Street, George Street, Junction Road and Lee Avenue.

2.12.14 Rotokohu Road

Rotokohu Road is a no exit rural road off State Highway 26 in Paeroa, the first 6420m of the road is sealed with two side roads: Te Moananui Flats Road and Thorp Road, the remaining 1300m of the road is unsealed.

This road was identified for review as being of a peri-urban nature.

There have been five crashes reported on this road in the last 10 years, two minor and three non-injury. Three of the crashes were loss of control and two involved vehicles turning into driveways being hit trailing vehicles.

Safety and speed information from MegaMaps for the two sections of Rotokohu Road shows the following.

NOTE: The first 200m of the road has a 50km/hr speed limit and there is no desire to change this speed limit.

RP200 to RP6420

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	61.78 km/hr 55.04 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

RP6420 to end of road

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	46 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is 60km/hr.

The Hauraki Rail Trail runs the length of Rotokohu Road between State Highway 26 and Te Moananui Flats Road, where it crosses Rotokohu Road and continues along Te Moananui Flats Road.

If changes are made to this road then similar changes will be required on Te Moananui Flats Road and Thorp Road for consistency.

Recommendations

- Lower the speed limit to 80km/hr in keeping with increased level of development, narrow carriageway and presence of cyclists along the road.
- Install threshold treatment and repeater signs.

Any changes to the speed limit on Rotokohu Road will require a similar reduction in speed limit to the side roads of Te Moananui Flats Road and Thorp Road.

2.12.15 Shaw Avenue

Shaw Avenue is a sealed no exit residential street in Paeroa that runs off Aorangi Road and is part of a contained residential neighbourhood with the following side roads: Kinsella Place, Keepa Avenue and Sarjant Place. The full length of the road is 700m.

This street was identified for review from a customer query regarding the excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

There have been three reported crashes on this road in the last 10 years all of which have been non-injury crashes. Two of the crashes were loss of control and one was an intersection crash. This supports the concerns regarding inappropriate speed in the area.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	33.92 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- Install slow street treatments at multiple locations. Due to the alignment of the road consider the use of side islands to narrow the road and one way sections to manage vehicle speeds.

Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.

Any changes to the speed limit on this road will require a similar reduction in the speed limit to the side roads of.

2.12.16 Te Moananui Flats Road

Te Moananui Flats Road is a sealed no exit rural road off Rotokohu Road in Paeroa that is 989m long.

This road was identified for review as being of a peri-urban nature with a small settlement of houses and the Ngahutoitoi marae at the end of the road. The rail trail also crosses the road near the intersection with Rotokohu Road.

There has been one non-injury crash reported on this road in the last 10 years, which occurred in 2019 and involved a driver losing control on a curve in wet weather.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	43.7 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

This road has a higher level of development than other roads off Rotokohu Road and therefore can be considered in isolation.

Recommendations

- Lower speed limit to 80km/hr in keeping with increased level of development.
- Install speed signs.

Consideration should be given to implementing a 60km/hr speed limit if supported by the local community.

2.12.17 Waimarei Avenue

Waimarei Avenue is a sealed residential street in Paeroa that runs off Norwood Road and provides access to a small residential neighbourhood. The road is approximately 400m long and has one side road, Taniwha Street.

This road was identified for review as there is an aged care facility located at the end of the street.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	29.74 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

The road is wide with limited side friction which is likely to result in compliance issues. Any changes to this road would require a similar treatment to other similar type roads.

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would require a similar change to other roads in the area to provide consistency to road users.

2.12.18 Wood Street

Wood Street is a sealed no exit residential street in Paeroa that runs off State Highway 26 and provides connection and access into a wider residential neighbourhood. The full length of the road is 684m while the section of road under review is between Victoria Street and Thorp Street and is approximately 180m long.

This road was identified for review as there is school, Paeroa Central, located on the northern side of the road.

There has been one reported non-injury crash on this road in the last 10 years which occurred in 2016 and involved a driver hitting at parked car.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	30.64 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Paeroa Central School on the corner of Wood Street and Thorp Street a 30km/hr speed limit must be installed on both streets within the vicinity of the school. This will require the installation of a threshold style treatment at the ends of the treatment. Due to the predominantly residential area and likely high numbers of pedestrians and cyclists at the school even outside of school hours it is recommended that a permanent speed limit be installed rather than a variable speed limit.

Recommendations

- Lower the speed limit to 30km/hr on the section of Wood Street and Thorp Street adjacent to the school.
- Install threshold style treatments at the change in speed limit points.

2.13 Patetonga

2.13.1 Mangawhero Road

Mangawhero Road is a rural road off State Highway 27 in Patetonga of which the first 3161m is sealed and the remaining 3204m unsealed.

The unsealed portion of this road from RP3616 was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years with the only crash in the area occurring at the intersection with State Highway 27.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	37 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would need to be considered as part of a wider strategy for rural roads.

2.14 Pipiroa

2.14.1 Arawa Street

Arawa Street is a sealed no exit rural road off State Highway 25 in Pipiroa. The road is approximately 4.2m wide and 685m long.

This road was identified for review as being of a peri-urban nature.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	42 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

Due to the length of this road and its higher density of dwellings, it can be considered in isolation to the adjacent road, State Highway 25.

Recommendations

- Lower the speed limit to 80km/hr in keeping with increased level of development and narrow carriageway.
- Install speed threshold at intersection with State Highway 25.

Consideration should be given to implementing a 60km/hr speed limit if supported by the local community.

2.14.2 Buchanan Road

Buchanan Road is a sealed no exit rural road off State Highway 25 in Pipiroa. The road is approximately 2018m long and has a single side road of Moehau Street. The road is used as part of the Kaiaua to Thames section of the Hauraki Rail Trail.

This road was identified for review as being of a peri-urban nature with a small settlement of houses in the first 400m of the road.

The only crash reported on this road in the last 10 years occurred at the intersection with State Highway 25.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	31.73 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Recommendations

- Lower speed limit to 80km/hr in keeping with increased level of development, narrow carriageway and presence of cyclists along the road.
- Install threshold signage at intersection with State Highway 25 and repeater signage along the route.

Any changes to the speed limit on Buchanan Road will require a similar treatment to the side roads of Moehu Street and Scott Street for consistency.

2.14.3 Bush Road

Bush Road is a sealed rural road in Pipiroa that runs between State Highway 25 and Orchard East Road and is a parallel route to Hauraki Road. The road is approximately 6259m long with four side roads, of which three are no exit, Horahia Road, Opuia Road, and Shellbank Road, while Piako Road provides connection between Hauraki Road and Bush Road.

This road was identified for review as having a school, Kopuarahi, at the intersection with State Highway 25 and being the subject of a request for speed management through the curves at the northern end of the road.

There have been eighteen reported crashes on this road in the last 10 years. One serious, three minor and fourteen non-injury crashes. The majority of the crashes are loss of control crashes with only three crashes intersection related.

The serious crash involved a motorcyclist hitting the rear of a vehicle slowed to turn into a driveway in 2018. Overall, the Collective Risk for the road is Low, while the Personal Risk is Low-Medium.

The majority of crashes are loss of control which indicates that edgeline treatments and the removal or protection of hazards within close proximity of the road would be beneficial. There are also crashes at each of the curves indicating that signage should be reviewed for consistency.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	84.82 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

As a result of the presence of Kopuarahi School on the corner of State Highway 25 and Bush Road a 60km/hr speed limit must be installed on both roads within the vicinity the school. This will require the installation of a threshold style treatments at the ends of the reduced speed limit area and coordination with Waka Kotahi for the installation of the speed reduction on State Highway 25. Due to the low number of movements likely outside of school hours and coordination with the likely treatment on State Highway 25 it is recommended that a variable speed limit be installed rather than a permanent speed limit. The variable speed limit should extend to RP 230 to include the curves and ensure that there is sufficient forward sight distance.

Recommendations

- Apply a variable speed limit of 60km/hr within the vicinity of Kopuarahi School extending for 230m along Bush Road.
- Install variable sign and threshold style treatment at the change in speed limit point.
- Install ATP on edgelines along the route.
- Review curve warning signage and install new signs as required.

The change to the speed limit will need to be coordinated with Waka Kotahi to ensure consistency of treatment within the vicinity of Kopuarahi School.

2.14.4 Moehau Street

Moehau Street is a sealed no exit rural road in Pipiroa that runs off Buchanan Road and is approximately 1030m long with a single side road of Scott Street.

This road was identified for review as being of a peri-urban nature with a small settlement of houses in the first 150m of the road and a collection of rural properties along the rest of the road.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	38.11 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Recommendations

- Lower the speed limit to 80km/hr in keeping with changes proposed on Buchanan Road.
- Install repeater speed signage.

Any changes to the speed limit on Moehau Steet will be driven by changes on Buchanan Road and require a similar treatment to the side road of Scott Street.

2.14.5 Pipiroa Road

Pipiroa Road is a sealed primarily rural road that runs between State Highway 25 and State Highway 2 in Ngatea. The full length of the road is 6749m with the section under review from RP5490 to Mahana Road being 800m which has a 70km/hr speed limit.

This road was identified for review from a customer query regarding the excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

There have been three reported crashes on this section of Pipiroa Road in the last 10 years all of which have all been minor injury crashes. One of the crashes was a loss of control and two were intersection crashes at Mahana Road. Speed was not a factor in any of the crashes.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	70 km/hr
<i>Current mean travel speed</i>	62.24 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

The current mean speed is 62km/hr which will require the installation of speed management features to support any reduction in the speed limit.

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on this section of Pipiroa Road would be the result of changes to the adjacent roads in the area to provide consistency to road users.

Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Pipiroa Road from 70km/hr to 50km/hr on the section from RP5490 to Mahana Road.

2.15 Turua

2.15.1 Hauraki Road

Hauraki Road is a sealed road in Turua that runs between State Highway 25 and Orchard East Road and is a parallel route to Bush Road. Full length of the road is approximately 14km.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years and from a customer query regarding excessive vehicle speeds within Turua. The road also has a school, Turua Primary, and childcare centre within the settlement of Turua. The rural sections of the road have also been identified from the MegaMaps as a First 10% Interventions and Second 10% Interventions.

Due to the roading environment being divided by the settlement of Turua it has been broken into three sections for review.

Section 1 – RP 0 – 4160 State Highway 25 to Turua

This section of the road runs between State Highway 25 and the northern edge of Turua and is 4160m long and has two side roads, Old Ferry Road and Ngataipua Road.

This road was identified for review from the MegaMaps as a Second 10% Interventions – Challenging Conversation and a Top 10% DSI Saving Network Work Section. The rationale for the categorisation is “Infrastructure Risk Rating”.



Excluding the sixteen crashes at the State Highway 25 intersection there have been fourteen crashes reported on this section of the road in the last 10 years resulting in six minor and eight non-injuries. There are a range of crash types on this section with seven loss of control, four rear-end, one hitting an object, one intersection and one manoeuvring.

The treatment of the State Highway 25 / Hauraki Road intersection is outside of the control of Hauraki District Council and will require discussions with Waka Kotahi.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	89.39 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of Hauraki Road is 80/hr with the governing factor being the Infrastructure Risk Rating (IRR) is medium.

Overall, the Collective Risk for this section of the road is Low Medium, while the Personal Risk is Low Medium.

Due to the high existing mean travel speed of 89.93km/hr and the straight alignment of the road any attempt to lower the speed limit is likely to result in poor compliance creating a larger differential in vehicle speeds and increased risk to users.

To assist with risk management on this largely rural nature of this section of Hauraki Road additional delineation features such as edgelines, with or without ATP, centreline ATP and additional edge marker posts should be considered along the route.

Section 2 – RP 4160 – 5425 Turua Township

This section of the road is the existing 50km/hr speed limited area that runs through Turua and is 1265m long and has seven side roads; Rata Street, Bagnall Square, Piako Road, Matai Street, Awa Street, Waihou Street and Raratuna Road.

This section was identified for review as having a childcare centre located at 437 Hauraki Road and also from a customer query regarding the excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road. Turua Primary School also fronts Hauraki Road in this section of the road.

There have been ten reported crashes on this section of the road in the last 10 years resulting in one serious, two minor and eight non injuries. There are a range of crash types on this section with three loss of control, four hitting an object, two intersection and one rear-end.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	60.92 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of Hauraki Road is 60km/hr with the primary reason given as “Aligns with framework”. This is higher than the existing speed limit and there is no desire to raise the speed limit in this area.

Due to the high existing mean travel speed of 60.92 km/hr speed management features such as threshold treatments should be installed to reduce the risk to users in this area. Consideration should be given to installing a roundabout at the intersection with Piako Road to assist with slowing vehicle speeds in the area.

Due to the presence of Turua Primary School on the corner of Raratuna Road and Hauraki Road a 30km/hr speed limit must be installed within the vicinity of both of the school frontages. It is recommended that a lower permanent speed limit be applied in this area to provide certainty to drivers and avoid confusion. This will require the installation of a threshold style treatment at the extents of the speed limit. Due to the already high mean travel speed in this area consideration should be given to replacing the existing kea crossing with a patrolled zebra crossing on a raised platform. This will improve safety for pedestrians and assist with speed management in the area.

Section 3 – RP 5425 - 14135 Turua to State Highway 2

This section of the road runs between southern edge of Turua and State Highway 2 and is 8710m long and has four side roads, Huirua Road, Orchard East Road, Wharepoa Road West, and Captain Cook Road.

This road was identified for review from the MegaMaps as a First 10% Interventions – Engineer Up. The rationale for the categorisation is “Infrastructure Risk Rating”.

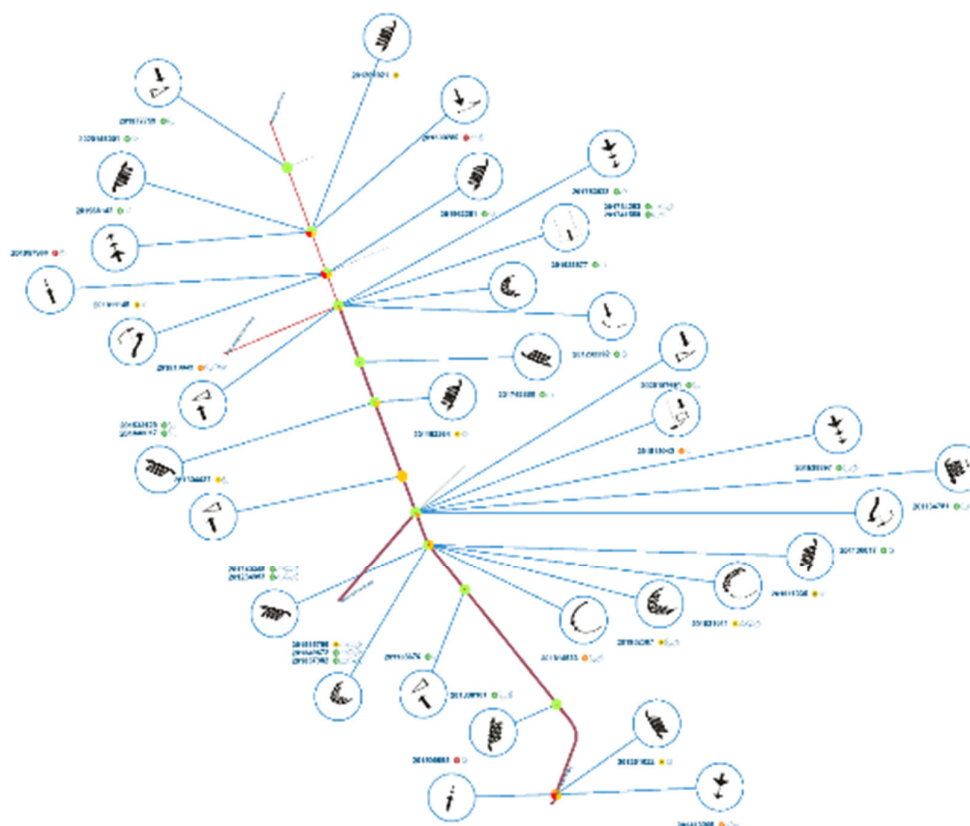


Excluding the three crashes at the State Highway 2 intersection there have been thirty-eight crashes reported on this section of the road in the last 10 years resulting in three fatal, four serious, nine minor and twenty-two non injuries.

The number of crashes and their severity have been increasing as shown below.

Year	Fatal	Serious	Minor	Non-injury	Total
2011			1	3	4
2012			2	2	4
2013			1	1	2
2014		1			1
2015	1		1	2	4
2016	1			1	2
2017				5	5
2018		3	1	3	7

Year	Fatal	Serious	Minor	Non-injury	Total
2019	1		3	3	7
2020				2	2



There are a range of crash types on this section with twenty-one loss of control, of which twelve were on a straight, five rear-end, five hitting an object, three head on, three intersection and one pedestrian. Speed was only identified as a factor in four crashes with poor observation and poor handling the most common contributing factors.

Two of the fatal crashes were head-on on a straight while there are no common factors between the four serious crashes.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	92.56 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of Hauraki Road is 80/hr with the governing factor being the IRR is medium.

Overall, the Collective Risk for this section of the road is Medium, while the Personal Risk is Medium High.

Due to the high existing mean travel speed of 92.56km/hr and the straight alignment of the road any attempt to lower the speed limit is likely to result in poor compliance creating a larger differential in vehicle speeds and increased risk to users.

As indicated by the MegaMaps data the most appropriate treatment for this road is to engineer up the road. Due to the difficulty in widening the road due to geotechnical issues further investigation is required to determine what improvement works can be undertaken, especially at the intersections, to address the number of rear end and crashes involving turning vehicles by allowing following vehicles to safely undertake those waiting to turn.

To assist with risk management in the short term on this section of Hauraki Road additional delineation features such as ATP on the edgelines and centreline and additional edge marker posts should be considered along the route.

RIAWS treatments should also be considered at the intersections with Orchard East Road and Wharepoa Road West to reduce the risk to turning vehicles.

Recommendations

Section 1 – RP 0 – 4160 State Highway 25 to Turua

- Lower the speed limit to 80km/hr.
- Consider installing edgelines, with or without ATP, centreline ATP and additional edge marker posts

Section 2 – RP 4160 – 5425 Turua Township

- Apply a 30km/hr variable speed limit in the vicinity of Turua Primary School.
- Install variable school threshold style treatment at the change in speed limit points.
- Consider replacing the existing kea crossing with a patrolled zebra crossing on a raised platform.

Section 3 – RP 5425 - 14135 Turua to State Highway 2

- Lower the speed limit to 80km/hr.
- Consider installing edgeline and centreline ATP and additional edge marker posts
- Undertake further investigation on feasible treatment options for this section of Hauraki Road.
- Install intersection treatment such as RIAWS at the intersections with Orchard East Road and Wharepoa Road West.

2.15.2 Huirau Road

Huirau Road is a sealed no exit rural road off Hauraki Road in Turua that is approximately 3726m long with a single side road, Guntown Road.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years. Further investigation of the crashes shows two crashes occurred at the intersection with Hauraki Road with only one crash midblock.

The only crash on Huirau Road was a serious crash that occurred in 2012 as the result of a drunk driver losing control of their vehicle. The crashes at the intersection were the result of the actions of drivers on Hauraki Road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	57.17 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Huirau Road would be the result of changes to other adjacent roads in the area to provide consistency to road users

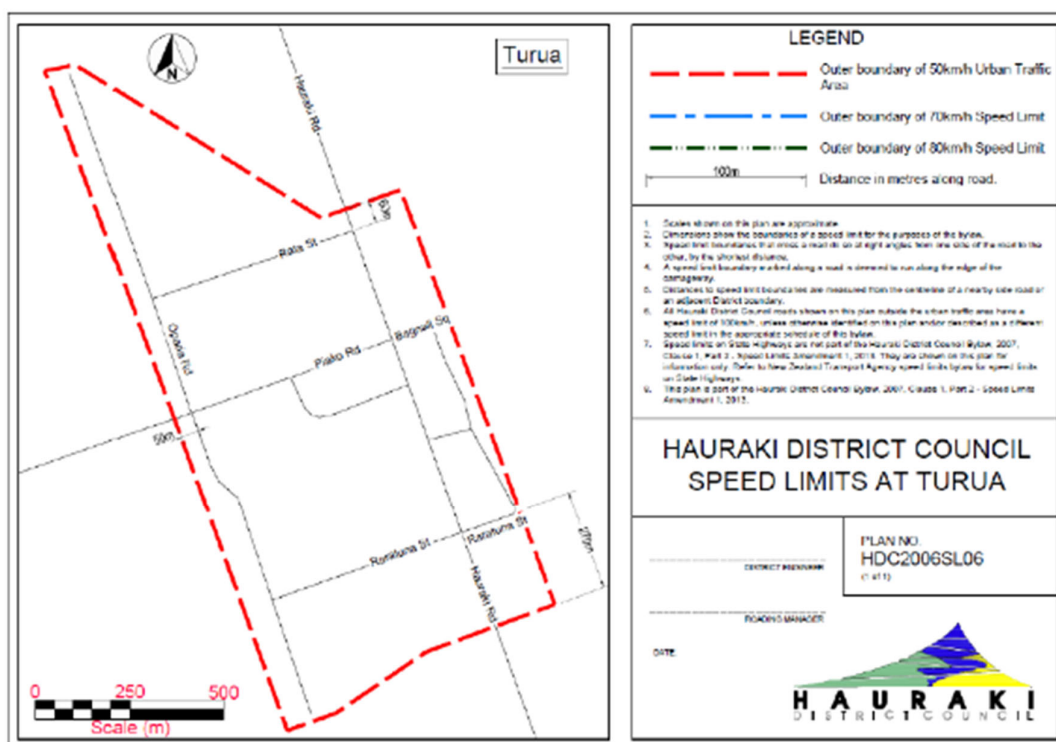
2.15.3 Oparia Road

Oparia Road is a mix of sealed and unsealed road that runs parallel to Hauraki Road in Turua. The road is 1329m long and has three side roads, Raratuna Street, Piako Road and Rata Street. The road is sealed to the south of Piako Road and unsealed to the north.

This road was identified for review as being of a peri-urban nature due to its location on the western edge of Turua and ability to subdivide the area.

There have been no reported crashes on this road in the last 10 years.

The posted speed limit on Oparia Road has been entered as 50km/hr into MegaMaps which is correct from the speed limit bylaw maps as shown below.



The speed limit signage in the area does not reflect the above and as a result the area has been operating with a 100km/hr speed limit.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.06 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

This error results in MegaMaps calculating an inappropriately low SAAS of 40km/hr in the largely undeveloped area.

Recommendations

- Change the speed limit to 80km/hr to reflect the rural nature of the area.

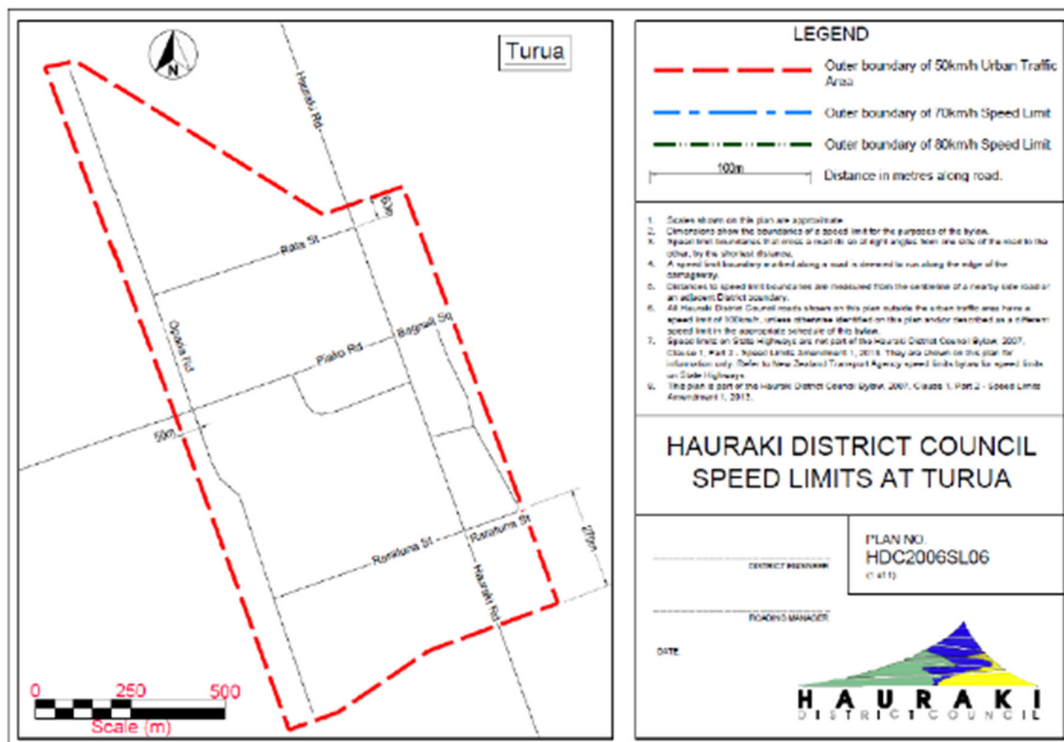
2.15.4 Piako Road

Piako Road is a sealed road that runs between Hauraki Road and Bush Road. The full length of the road is approximately 4701m long with the section under review between Hauraki Road and Oparia Road and 567m long. This section has two side roads, Raupoiti Street and Oparia Road.

This road was identified for review from a customer query regarding the appropriate placement of the speed limit signs.

There have been two reported crashes on this section of road in the last 10 years, both of the crashes occurred at the intersection with Hauraki Road.

The posted speed limit on this section is 50km/hr as shown in the speed limit bylaw map below.



The speed limit signage in the area does not reflect the actual development of the area and as a result compliance with the speed limit is low.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	49.62 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

The recommended safe and appropriate speed from MegaMaps for this section of Piako Road is 50km/hr with the primary reason given as "Aligns with framework".

To enable better speed management of the area the speed limit on Piako Road should be changed to match the level of development and enable threshold treatments to be installed. A buffer zone could also be created to align with the speed limit on Oparia Road.

Recommendations

- Retain the 50km/hr speed limit to RP330.
- Change the speed limit to 80km/hr between RP 330 and RP 620.
- Install threshold treatments at both speed limit change locations.

2.15.5 Raratuna Street

Raratuna Street is a sealed road that runs between Oparia Road and Waihou Street with a mix of residential and rural properties in Turua. The road is 673m long, with the section of Oparia Road to RP250 rural on both sides of the road, RP250 to Hauraki Road has dwellings primarily on the southern side of the road, and the section from Hauraki Road to Waihou Street has the school on the southern side.

This road was identified for review as there is a childcare and school, Turua Primary, on this road and it has been the subject of a customer query regarding the excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

The posted speed limit for the full length of Raratuna Street has been entered as 50km/hr into MegaMaps which is correct from the speed limit bylaw maps.



The speed limit signage in the area does not reflect the above with the 100/50 signs located at RP 200.

This error results in MegaMaps calculating an inappropriately low SAAS of 40km/hr in the largely undeveloped area.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	30.2 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Turua Primary School on the southern side of the road a 30km/hr speed limit must be installed within the vicinity of the school. This will require the installation of

a threshold style treatments at the extent of the reduced speed limit. Due to the predominantly residential area, low traffic volumes it is recommended that a permanent 30km/hr speed limit be installed between Hauraki Road and Waihou Street. This lower speed limit will need to be consistent with that on Hauraki Road.

Recommendations

- Lower the speed limit to 30km/hr on Raratuna Street from Hauraki Road to Waihou Street.
- Change the speed limit to 80km/hr from Oparia Road to RP250 to reflect the rural nature of this section of the road.
- Install threshold style treatments at the change in speed limit locations.

Any changes to the speed limit on this road would require a similar change to Oparia Road to provide consistency to road users.

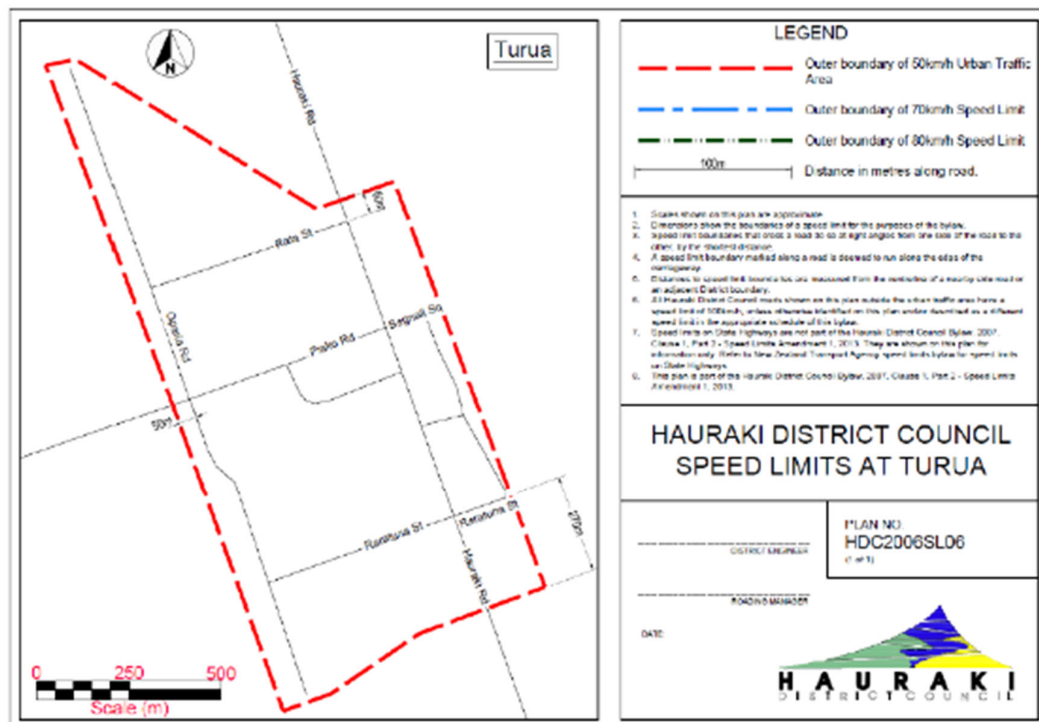
2.15.6 Rata Street

Rata Street is a mix of sealed and unsealed road that runs between Hauraki Road and Oparia Road in Turua. The road is 561m long and is sealed for the first 90m with the remainder unsealed.

This road was identified for review as being of a peri-urban nature.

There have been no reported crashes on this road in the last 10 years.

The posted speed limit on Rata Street has been entered as 50km/hr into MegaMaps which is correct from the speed limit bylaw maps as shown below.



This results in MegaMaps calculating an inappropriately low SAAS of 40km/hr in the largely undeveloped area.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	25.84 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- Install an 80km/hr speed limit to reflect the rural nature of the area.
- Install speed signs.

2.15.7 Raupoiti Street

Raupoiti Street is a sealed residential street in Turua that runs between Piako Road and Matai Street and provides access to a number of residential properties and is approximately 119m long.

This road was identified for review as there is a childcare centre located at the Domain on the western side of the road.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	37.42 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on this road would require a similar change to other roads in the area to provide consistency to road users.

2.16 Waihi

2.16.1 Amaranth Street

Amaranth Street is a sealed residential street in Waihi that runs between State Highway 2 and Silverton Road and provides access and connection into a wider residential neighbourhood. The full length of the road is 286m with a cross road intersection at Montrose Road.

This road was identified for review as there is a childcare centre located on the corner of Amaranth Street and Montrose Road.

There has been one non-injury crash reported which occurred in 2018 at the Amaranth Street / Montrose Road intersection when a driver on Amaranth Street failed to give way to a vehicle on Montrose Road

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	32.28 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Amaranth Street would require a similar change to other roads in the area to provide consistency to road users.

2.16.2 Baber Street

Baber Street is a sealed residential street in Waihi that runs between State Highway 2 and Station Road and provides access and connection into a wider residential neighbourhood. The road is approximately 489m long with crossroad intersections at Kenny Street and Consols Street.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years. Further investigation of the crashes shows only one crash that was not at the State Highway 2 intersection. The treatment of the State Highway 2/Baber Street intersection is outside of the control of Hauraki District Council and will require discussions with Waka Kotahi.

The only crash on Barber Street was a serious crash that occurred at the intersection with Kenny Street in 2014 as the result of a motorcyclist approaching the intersection at speed and failing to give way to a through vehicle.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	29.62 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Baber Street would be the result of changes to other adjacent roads in the area to provide consistency to road users

2.16.3 Bradford Street

Bradford Street is a sealed no exit residential street in Waihi that runs off Roberts Street and provides access and connection into a number of residential properties. The road is approximately 1156m long between Roberts Street and its end with a crossroad intersection at Victoria Street and side roads, Robin Street, Colesburg Lane and Grenadier Lane. The road has development primarily on only one side of the road.

This road was identified for review from a customer query regarding excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

There has only been one crash report, which was in 2013 and the result of driver being distracted by their cellphone and losing control.

Safety and speed information from MegaMaps is on two section and shows the following.

Section 1 – Roberts Street to Victoria Street

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	34.45 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Section 2 – Victoria Street to end

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.17 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Bradford Street would be the result of changes to other adjacent roads in the area to provide consistency to road users.

2.16.4 Clarke Street

Clarke Street is a sealed no exit residential street in Waihi that provides access and connection from State Highway 25 into a number of residential properties. The road is approximately 779m long with three side roads, Union Street, Baker Street and George Street. The road has development primarily on only one side of the road with Morgan Park on the northern side and access to the Ngatikoi Reserve.

This road was identified for review from a list of sites previously identified as potentially requiring speed management due to the high numbers of pedestrians and cyclists associated with the adjacent parks and cycle paths.

There have been two reported crashes in the last 10 years, both were non injury intersection crashes and occurred in 2011 and 2016.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	30.09 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Clarke Street would be the result of changes to other adjacent roads in the area to provide consistency to road users.

2.16.5 Consols Street

Consols Street is a sealed residential street in Waihi that runs between State Highway 2 and Cornwall Street and provides access and connection into a wider residential neighbourhood. The total length of the road is approximately 1330m long while the section of road under review is between Baber Street and Victoria Street and is approximately 235m long.

This road was identified for review as there is a childcare centre located on the corner of Victoria Street and Consols Street.

There have been six crashes reported in the last 10 years all of which occurred at the Victoria Street / Consols Street intersection. All were intersection movements and resulted in one serious, one minor and four non-injury crashes. There have been no crashes since 2017.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	38.77 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Consols Street would require a similar change to other roads in the area to provide consistency to road users.

2.16.6 Donnelly Street

Donnelley Street is a sealed residential street in Waihi that runs between Gladstone Road and Smith Street that provides access to a small group of residential properties and a school. The road is approximately 234m long with one no exit side road, Kitchener Street.

This road was identified for review as there is a school, Waihi East, located on the southern side of the road.

There have been no crashes reported in the last 10 years on this road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.12 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Waihi East School on the southern side of the road a 30km/hr speed limit must be installed within the vicinity of the school. This will require the installation of a threshold style treatment at the extents of the speed limit. As the area is predominantly residential and likely high numbers of pedestrians and cyclists at the school even outside of school hours it is recommended that a permanent speed limit be installed rather than a variable speed limit. The presence of a childcare centre on the corner of Gladstone Road and Donnelly Street means that the extents of the speed reduction should include this intersection as well.

Recommendations

- Lower the speed limit to 30km/hr on Donnelly Street and on Gladstone Road for approximately 150m either side of the Donnelly Street intersection.
- Install school threshold style treatments at the change in speed limit locations

Any changes to the speed limit on this road will require a similar treatment to the side road of Kitchener Street.

Consideration should be given to implementing a 40km/hr speed limit in the area bounded by State Highway 25 and Mataura Road if supported by the local community. Physical works will be required to support the lower speed limit on Gladstone Road and Smith Street.

2.16.7 Galbraith Street

Galbraith Street is a sealed residential street in Waihi that runs between Kenny Street and Cornwall Street and provides access and connection into a wider residential neighbourhood. The total length of the road is approximately 721m long while the section of road under review is between Margaret Street and Wrigley Street and is approximately 150m long.

This road was identified for review as there is a childcare centre located on the southern side of the road in the section between Margaret Street and Wrigley Street.

There have been five crashes reported in the last 10 years, with one at the Margaret Street intersection and four at the Wrigley Street intersection. All were intersection crossing movements and resulted in three minor and two non-injury crashes. There have been no reported crashes since 2017.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.17 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- Install mini roundabouts at the intersection with Wrigley Street
- Consider the use of side islands and central refuges to create a slower speed environment while supporting pedestrian usage in the area.

Any changes to the speed limit on this section of road would require a similar change to the remaining length of the road and other roads in the area to provide consistency to road users.

2.16.8 Gilmour Street

Gilmour Street is a sealed residential street in Waihi that runs between Seddon Street and State Highway 2 and provides access into a number of residential properties. The total length of the road is approximately 848m long while the section of road under review is between State Highway 25 and State Highway 2 and is approximately 669m long. This section of the road has four side roads, Johnston Street, Union Street, Wilson Street and George Street.

This road was identified for review as potentially requiring speed management due to the high numbers of pedestrians and cyclists associated with the adjacent park. The street currently has a heavy vehicle ban in place between the hours of 10pm and 6am.

There have been twenty-five reported crashes in the last 10 years, however further investigation of the crashes shows only five crashes were not at the intersections with State Highway. The treatment of the State Highway 25/Gilmour Street and State Highway 2/Gilmour Street intersections is outside of the control of Hauraki District Council and will require discussions with Waka Kotahi.

There were four crashes within the review section, with one involving a parked car and the other three were turning/intersection crashes, resulting in one minor and three non-injuries. Speed was not identified as a factor in any of the crashes.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	42.97 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

The current mean travel speed is higher than the recognised Safe and Appropriate Speed (SAAS) of 40km/hr which will require significant investment in traffic calming measures to lower the mean travel speed. Any treatment on Gilmour Street will require similar works to be undertaken on Clarke Street, Mueller Street and Haszard Street to avoid the issue transferring to an adjacent road.

Recommendations

- Install a mini roundabout at the intersection with Johnston Street
- Consider the installation of a raised safety platform in the vicinity of the access to the Gilmour Reserve to slow vehicles and provide a safe crossing point for pedestrians.
- Consider the use of side islands and central refuges to create a slower speed environment while supporting pedestrian usage in the area.

Changes to the speed limit on Gilmour Street will require changes to other adjacent roads in the area to provide consistency to road users.

Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Gilmour Street to 40km/hr.

2.16.9 Gladstone Road

Gladstone Road is a sealed residential street in Waihi that runs between Barry Road and State Highway 25 and provides access to a number of residential properties that back onto State Highway 25. The total length of the road is approximately 1000m long while the section of road under review is between Mataura Road and Somerset Street and is approximately 455m long with a side road of Donnelly Street.

This road was identified for review as a childcare centre is located south of the intersection with Donnelly Street.

There have been four crashes reported in the last 10 years on this road with only two in the section under review. Both crashes involved vehicles failing to give way at the intersection of Mataura Road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.12 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Waihi East School on Donnelly Street a 30km/hr speed limit must be installed within the vicinity of the school. The presence of a childcare centre on the corner of Gladstone Road and Donnelly Street means that the extents of the speed reduction should include this intersection as well.

Recommendations

- Lower the speed limit to 30km/hr on Gladstone Road for approximately 150m either side of the Donnelly Street intersection.
- Install school threshold style treatments at the change in speed limit locations.

Consideration should be given to implementing a 40km/hr speed limit in the area bounded by State Highway 25 and Mataura Road if supported by the local community. Physical works will be required to support the lower speed limit on Gladstone Road and Smith Street.

2.16.10 Heard Road

Heard Road is a no exit sealed rural road off Trig Road North in Waihi. The road is approximately 2278m long and 6.0m wide with two no exit side roads, Poets Corner Road and Orokawa Heights.

This road was identified for review as being of a peri-urban nature due to the lot sizes and from a customer query regarding the excessive vehicle speeds. As the road is a no exit this indicates that compliance, not the speed limit is the issue for this road.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	55.32 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Recommendations

- Lower the speed limit to 80km/hr in keeping with increased level of development and narrow carriageway.

Any changes to the speed limit on Heard Road would require a similar reduction in speed limit to the side roads of Poets Corner Road and Orokawa Heights and to others in the area to provide consistency to road users.

2.16.11 Heath Road

Heath Road is a sealed no exit rural road off State Highway 2 in Waihi. The road is approximately 5.8m wide and 450m long.

This road was identified for review as being of a peri-urban nature.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

Due to the length of this road and its higher density of dwellings, it can be considered in isolation to the adjacent road, State Highway 2.

Recommendations

- Lower the speed limit to 80km/hr in keeping with increased level of development and narrow carriageway.

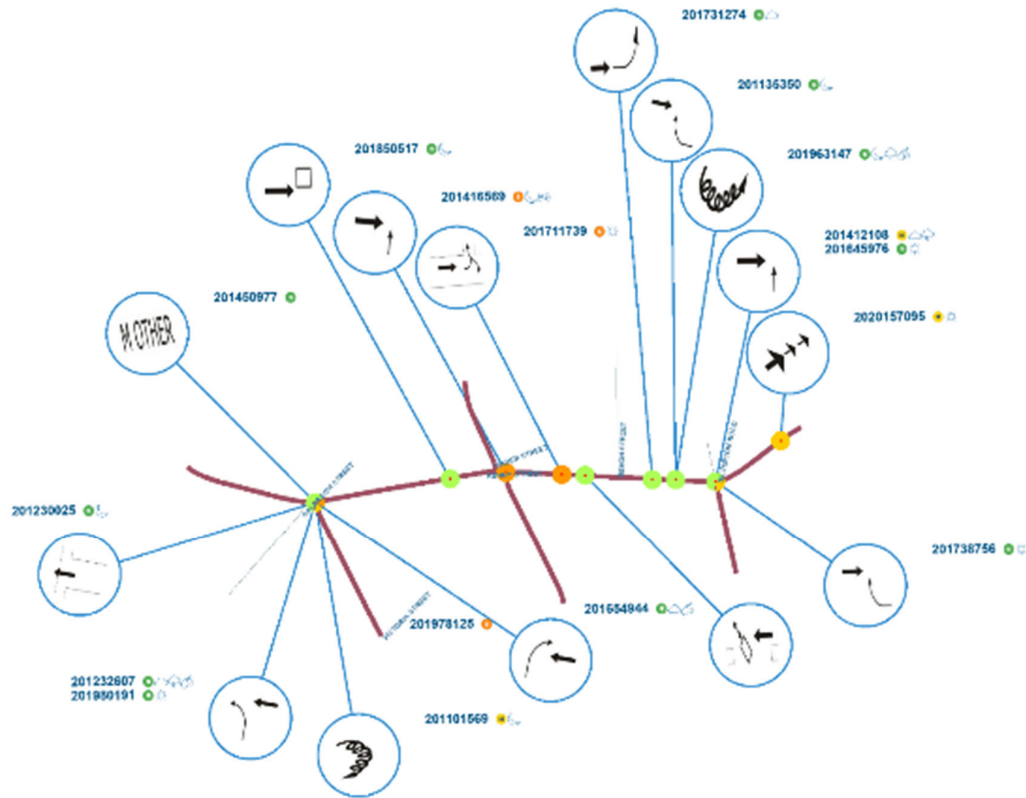
Consideration should be given to implementing a 60km/hr speed limit if supported by the local community.

2.16.12 Kenny Street

Kenny Street is a sealed road in Waihi that runs between State Highway 2 providing an alternative route to the State Highway and access into a wider residential neighbourhood to the west and commercial/industrial premises to the east. The road is approximately 839m long with five side roads of Galbraith Street, Victoria Street, Barber Street, Devon Street and Silverton Road.

This street was identified for review from a customer query regarding the speed of existing vehicles as well as having two or more fatal and/or serious crashes in the last 10 years.

The customer query indicates that compliance, not the speed limit is the issue for this road. Two of the three serious crashes occurred at intersections, while the third occurred to the west of Devon Street.



The crash at Kenny Street involved a vehicle speeding on Kenny Street hitting a vehicle pulling out of Victoria Street while the Barber Street crash resulted from a motorcyclist approaching the intersection on Barber Street at speed and failing to give way to a through vehicle. The third crash involved a truck reversing off a site being hit by a through vehicle when a driver had sunstrike and failed to observe the truck.

Safety and speed information from MegaMaps is on two section and shows the following.

Section 1 – State Highway 2 to Barber Street

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	47.84 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

Section 2 – Barber Street to State Highway 2

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	49.05 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

The recommended safe and appropriate speed from MegaMaps for Kenny Street is 50km/hr with the primary reason given as “Aligns with framework”.

There are a high number of vehicles that use this route to avoid the centre of Waihi when traveling to and from Tauranga. Due to the high number of residential accesses to the west and commercial activities to the east resulting in high turning movements the high volume of through traffic is considered an inappropriate / incompatible use of the road. Installation of features to

slow traffic speeds to reduce the risk to turning vehicles will also assist in discouraging through traffic.

Recommendations

- Install a raised safety platform to the south of State Highway 2 to support the cycle path and manage vehicle speeds.

Consider installing additional raised safety platforms in conjunction with pedestrian desire lines.

2.16.13 Kensington Road

Kensington Road is a sealed no exit residential street in Waihi that runs off State Highway 2 and provides access and connection to a large residential area and a school. The full length of the road is 1055m long while the section of road under review is between Rata Street and Hobson Street and is approximately 328m long.

This road was identified for review as there is a school, Waihi College, located on the western side of the road between Rata Street and the end of the road.

There have been one serious and two non-injury crashes reported in the last 10 years. The serious crash involved a drugged driver who was lost and drove off the road into a tree in 2016. There have been no crashes since 2017.

Safety and speed information from MegaMaps is in two section and shows the following.

Section 1 – Rata Street to Morseby Avenue

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.57 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Section 2 – Morseby Avenue to End

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Waihi College on the western side of the road a 30km/hr speed limit must be installed within the vicinity of the school. This will require the installation of a threshold style treatment at the extents of the speed limit. Due to the low traffic volumes, it is recommended that a lower permanent speed limit be applied in this area.

As Waihi College backs onto Rata Street the 40km/hr speed limit will need to be extended to cover this frontage.

Recommendations

- Lower the speed limit to 30km/hr within the vicinity of the school frontage and on Rata Street.
- Install school threshold style treatments at the change in speed limit locations.

Consideration should be given to implementing a 40km/hr speed limit across the wider residential area if supported by the local community. However due to the straight alignment of Kensington Road physical works will be required outside of the vicinity of the school to support the existing or lower speed limit.

2.16.14 Lawrence Road

Lawrence Road is a no exit residential street in Waihi off Cornwall Street that provides access to a number of residential properties. The road is approximately 714m long and has development primarily on only one side of the road with the railway line on the northern side of the road.

This road was identified for review from a customer query regarding excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road. Concern was raised about the street requiring speed management due to the high numbers of cyclists associated with the Hauraki Rail Trail which uses Lawrence Road to access between the off-road section of the trail and the railway station.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.17 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Due to the high number of cyclists using this road is used as part of the Hauraki Rail Trail, consideration should be given to using features such as sharrows to highlight the presence of cyclists in the area.

Recommendations

- Considering installing sharrows and/or other cycle friendly features on the road.

Any changes to the speed limit on Lawrence Road would be the result of changes to other adjacent roads in the area to provide consistency to road users.

2.16.15 Matura Road

Matura Road is a sealed no exit residential street in Waihi that runs off State Highway 25 and provides access and connection into a wider residential neighbourhood. The full length of the road is 924m while the section of road under review is between Gladstone Road and Banks Road and is approximately 100m long.

This road was identified for review as there is a childcare centre located within the property at number 8 Matura Road.

There have been three crashes reported in the last 10 years on this road with only two in the section under review. Both crashes involved vehicles failing to give way at the intersection of Matura Road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low - Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.12 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on this road would require a similar change to other roads in the area to provide consistency to road users.

2.16.16 Moresby Avenue

Morseby Avenue is a sealed residential street in Waihi that runs from State Highway 2 to Kensington Road and provides access and connection to a large residential area and a school. The full length of the road is 969m while the section under review is between Seddon Street (State Highway 2) and Savage Road and is approximately 510m long.

This road was identified for review as there is a school, Waihi Central, located on the western side of the road and as having had two or more fatal and/or serious crashes in the last 10 years.

Further investigation of the crash data showed that the serious crashes were at the intersection with State Highway 2. The treatment of the State Highway 2/Morseby Avenue intersection is outside of the control of Hauraki District Council and will require discussions with Waka Kotahi. There were two minor and four non-injury crashes reported in this section of Moresby Avenue in the last 10 years. There are no commonalities between the crashes indicating that they are random crashes.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	46.51 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Waihi Central School on the western side of the road a 30km/hr speed limit must be installed within the vicinity of the school. It is recommended that a lower permanent speed limit be applied in this area to provide certainty to drivers and avoid confusion. This will require the installation of a threshold style treatment at the extents of the speed limit and due to the already high mean travel speed in this area is likely to require the installation of supporting speed management features such as raised platforms.

The northern end of Moresby Avenue will also be incorporated within the school zone for Waihi College.

Recommendations

- Lower the speed limit to 30km/hr within the vicinity of the school frontage.
- Install threshold style treatments at the change in speed limit locations.
- Install speed management features in the vicinity of the school

2.16.17 Mueller Street

Mueller Street is a sealed residential street in Waihi that runs between Seddon Street and State Highway 2 and provides connection and access into a number of residential properties. The total length of the road is approximately 695m long while the section of road under review is between State Highway 25 and State Highway 2 and is approximately 527m long. This section of the road has three side roads, Johnston Street, Union Street, and Wilson Street all of which are cross road intersections.

This road was identified for review as there is a school, St Joseph's, located on the western side of the road between Johnston Street and Union Street. The street currently has a heavy vehicle ban in place to stop the road being used as a shortcut.

There has been one reported crash in the last 10 years, which occurred at the intersection with State Highway 2.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	32.88 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Any treatment on Mueller Street will require similar works to be undertaken on Gilmour Street, Clarke Street, and Haszard Street to avoid the issue transferring to an adjacent road.

As a result of the presence of St Joseph's School on the western side of the road a 30km/hr speed limit must be installed within the vicinity of the school. It is recommended that a lower permanent speed limit be applied in this area to provide certainty to drivers and avoid confusion. This will require the installation of a threshold style treatment at the extents of the speed limit.

To improve safety for pedestrians and assist with speed management in the area consideration should be given to replacing the existing crossing point with a patrolled zebra crossing on a raised platform.

Recommendations

- Lower the speed limit to 30km/hr within the vicinity of the school frontage.
- Install threshold style treatments at the change in speed limit locations.
- Consider installing mini roundabouts at the intersections with Johnston Street and Union Street
- Consider the installation of a raised safety platform in the vicinity of the existing crossing location outside the school to slow vehicles and provide a safe crossing point for pedestrians.

Any changes to the speed limit on Mueller Steet beyond the school frontage will require changes to other adjacent roads in the area to provide consistency to road users.

2.16.18 Ngatitangata Road

Ngatitangata Road is an unsealed rural road off Golden Valley Road in Waihi which is 2649m long.

This road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rational for the categorisation is "Road stereotype is Unsealed".



There have been no reported crashes on this road in the last 10 years with three crashes occurring at the intersection with Golden Valley Road all of which were non-injury.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	37 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit or works proposed.

Any changes to the speed limit on this road would need to be considered as part of a wider strategy for rural roads.

2.16.19 Orokawa Heights Road

Orokawa Heights is a sealed no exit rural road off Heard Road in Waihi. The road is approximately 183m long.

This road was identified for review as being of a peri-urban nature.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	27.4 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The posted speed limit on Orokawa Heights Road has been entered as 50km/hr into MegaMaps which is incorrect from the speed limit bylaw maps.

Recommendations

- Lower the speed limit to 80km/hr in keeping with adjacent road (Heard Road).
- Install speed signs.

Any changes to the speed limit on Orokawa Heights Road would be the result of changes to other adjacent roads in the area to provide consistency to road users.

2.16.20 Poets Corner Road

Poets Corner Road is a sealed no exit rural road off Heard Road in Waihi that is approximately 294m long.

This road was identified for review as being of a peri-urban nature.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The posted speed limit on Poets Corner Road has been entered as 50km/hr into MegaMaps which is incorrect from the speed limit bylaw maps.

Recommendations

- Lower the speed limit to 80km/hr in keeping with adjacent road (Heard Road).
- Install speed signs.

Any changes to the speed limit on Poets Corner Road would be the result of changes to Heard Road to provide consistency to road users.

2.16.21 Reservoir Road

Reservoir Road is a sealed no exit residential street in Waihi that runs off Walmsley Road and provides access to a residential and rural neighbourhood with the two side roads: Wharry Road and Kent Crescent. The full length of the road is 1036m with the section under review from Kent Crescent to the end 490m long.

This street was identified for review from a customer query regarding the excessive vehicle speeds. This indicates that compliance, not the speed limit is the issue for this road.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	31.46 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

The section of Reservoir Road from Walmsley Road to Kent Crescent has a higher level of development and a 50km/hr speed limit.

Recommendations

- Lower the speed limit to 60km/hr to reflect the rural residential nature of the area.
- Install speed signs.

The speed limit on Wharry Road should also be lowered to 50km/hr to be consistent with the adjacent section of Reservoir Road.

2.16.22 Russell Street

Russell Street is a sealed residential street in Waihi that runs between Kensington Road and Walker Street and provides access to a number of residential properties. The road is 418m long and has one side road; Pickett Place.

This road was identified for review as there is a childcare centre located at Number 4 Russell Street which is on the southern side of the road.

There have been three non-injury crashes reported on this road in the last 10 years. Two were loss of control and the third involved a vehicle reversing out of a driveway and hitting a parked car.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.57 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on this road would be as a result of changes to other roads in the area to provide consistency to road users.

2.16.23 Seddon Street

Seddon Street is a sealed street in Waihi that runs between State Highway 2 (Morseby Avenue) to Gilmour Street and provides access to primarily commercial properties. The road is divided into two sections,

- 1) Morseby Avenue to Mueller Street is 265m long and median divided,
- 2) Mueller Street to Gilmour Street is 300m long with no median.

Section 1 is the section of road under review.

This road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Land use is Commercial Strip Shopping”.



There have been nine reported crashes on this section of the road in the last 10 years, one serious, two minor and six non-injury. Four of crashes involved manoeuvring vehicles, three of the crashes were loss of control and two involved parked vehicles.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	21.83 km/hr	<i>Safe and Appropriate Speed</i>	30 km/hr

Recommendations

- Consider installing a 30km/hr speed limit for the full length of Seddon Street.
- Install threshold treatments.

Any changes to the speed limit on this road will require a similar treatment to the side roads of Haszard Street, Walker Street and Mueller Avenue.

2.16.24 Somerset Street

Somerset Street is a sealed residential street in Waihi that runs between State Highway 2 and Smith Street and provides access and connection into a wider residential neighbourhood. The full length of the road is 292m while the section of road under review is between State Highway 2 and Gladstone Road and is approximately 100m long.

This road was identified for review as there is a childcare centre located within the property on the corner of State Highway 2 and Somerset Street. Access to the site is from Somerset Street.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low - Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.12 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on this road would be the result of change to other roads in the area to provide consistency to road users.

2.16.25 Thorn Road

Thorn Road is an unsealed no exit rural road off Waitete Road in Waihi that is 1339m long.

Only the last portion of this road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would need to be consistent with the treatment of Waitete Road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	22.64 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

As both sections of the road are unsealed it would be inappropriate to lower the speed limit on one section only as this would result in drivers traveling from 50km/hr into 100km/hr before being required to slow to 60km/hr for the last 665m of the road.

Recommendations

- Lower speed limit to 60km/hr for the full length of Thorn Road in conjunction with Waitete Road Nth.
- Install speed signs

Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Thorn Road from 100km/hr to 50km/hr..

2.16.26 Toomey Street

Toomey Street is a sealed residential street in Waihi that runs between Kensington Road and Waitete Road and provides connection and access into a wider residential neighbourhood. The road is approximately 360m long with three midblock intersections providing access to other residential streets and the aged care facility, Waihi Lifecare.

This road was identified for review as there is an aged care facility located on the southern side of the road.

There has been one reported non-injury crash on this road in the last 10 years which occurred in 2018 and involved a driver losing control at the intersection with Kensington Road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.57 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Due to the function of the road in the roading network as a connector type road, vehicles speeds are likely to be an issue. The lack of kerb and channel and large grassed berms creates a wide open corridor for drivers which is contrary to the desired slow speed environment.

Due to drainage constraints in the area further investigation is required to determine the feasible options for improving the urban environment of the street.

Recommendations

- Investigate options to improve the urban environment of the street.

Further physical works will need to consider the function of this road within the roading network and support the current or a lower speed limit of 40km/hr if desired at a later date.

Any changes to the speed limit on this road would require a similar change to other roads in the area to provide consistency to road users.

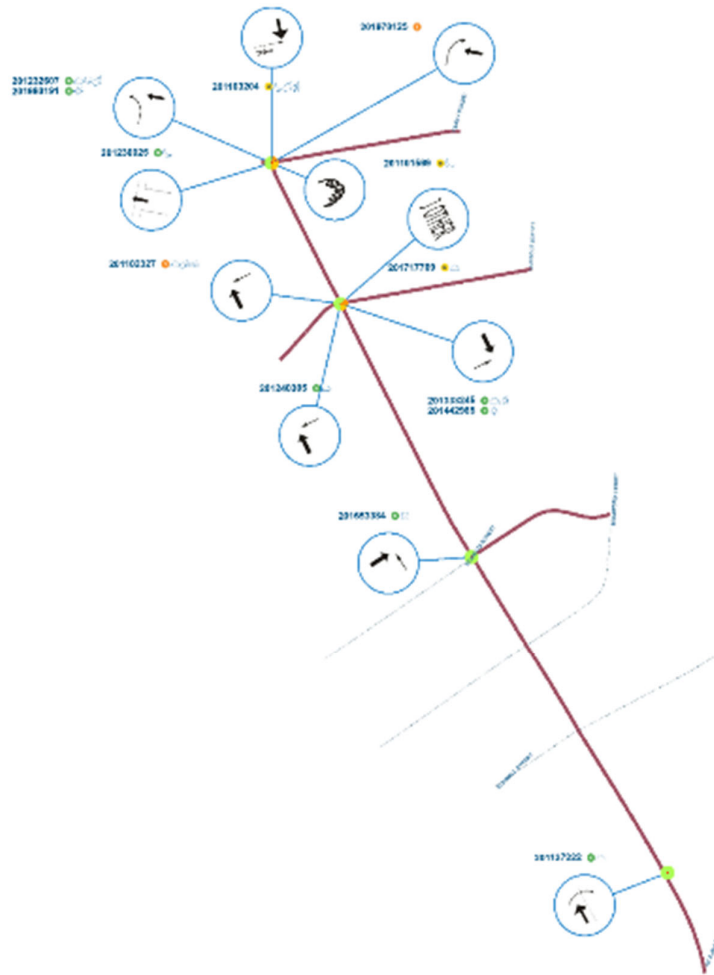
2.16.27 Victoria Street

Victoria Street is a sealed residential street in Waihi that runs between Kenny Road to Frankton Road and provides connection to and access into a wider residential neighbourhood to the west and commercial/industrial premises to the east. The road is approximately 1120m long.

This street was identified for review from a customer query regarding the speed of existing vehicles as well as having two or more fatal and/or serious crashes in the last 10 years.

The customer query indicates that compliance, not the speed limit is the issue for this road.

The two serious crashes both occurred at intersections. The crash at Consols Street involved a driver failing to observe a motorcycle on the through road and pulling out in front of them. The crash at Kenny Street involved a vehicle speeding on Kenny Street hitting a vehicle pulling out of Victoria Street. Neither of these crashes involved speed on Victoria Street.



Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	53.57 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

The lack of kerb and channel and large grassed berms creates a wide open corridor for drivers which is contrary to the desired urban speed environment. Due to drainage constraints in the area further investigation is required to determine the feasible options for improving the urban environment of the street.

The recommended safe and appropriate speed from MegaMaps for Victoria Street is 50km/hr with the primary reason given as “Aligns with framework”.

Recommendations

- Investigate options to improve the urban environment of the street.
- Install repeater speed limit signs on Victoria Street to remind drivers of the speed limit.
- Install threshold treatment at the change of speed limit at Frankton Road

2.16.28 Waitete Road

Waitete Road is a sealed residential street in Waihi that runs between Orchard Road and Thorn Road and provides connection to and access into a wider residential neighbourhood. The road is 855m long and has eight side roads: Orchard Road, Silverstream Place, Toomey Street, Colebrook Road, Albert Street, Kimberley Road, Regent Street and Rata Street.

This street was identified for review from a customer query regarding the speed of existing vehicles. This indicates that compliance, not the speed limit is the issue for this road.

There has been one reported crash on this road in the last 10 years. The crash was non-injury and occurred in 2016.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.57 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- Install edge treatments for the full length to improve the urban environment of the street.
- Install slow street treatments required at multiple locations. Due to the straight alignment of the road consider the use of raised safety platforms or central islands to manage vehicle speeds and support use by pedestrians and cyclists.

Any physical works will need to consider the function of this road within the roading network and support the current or a lower speed limit of 40km/hr if desired at a later date.

2.16.29 Waitete Road North

Waitete Road North is an unsealed no exit rural road off Thorn Road in Waihi that is 631m long.

This road in conjunction with Thorn Road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would need to be consistent with the treatment of Thorn Road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	22.64 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

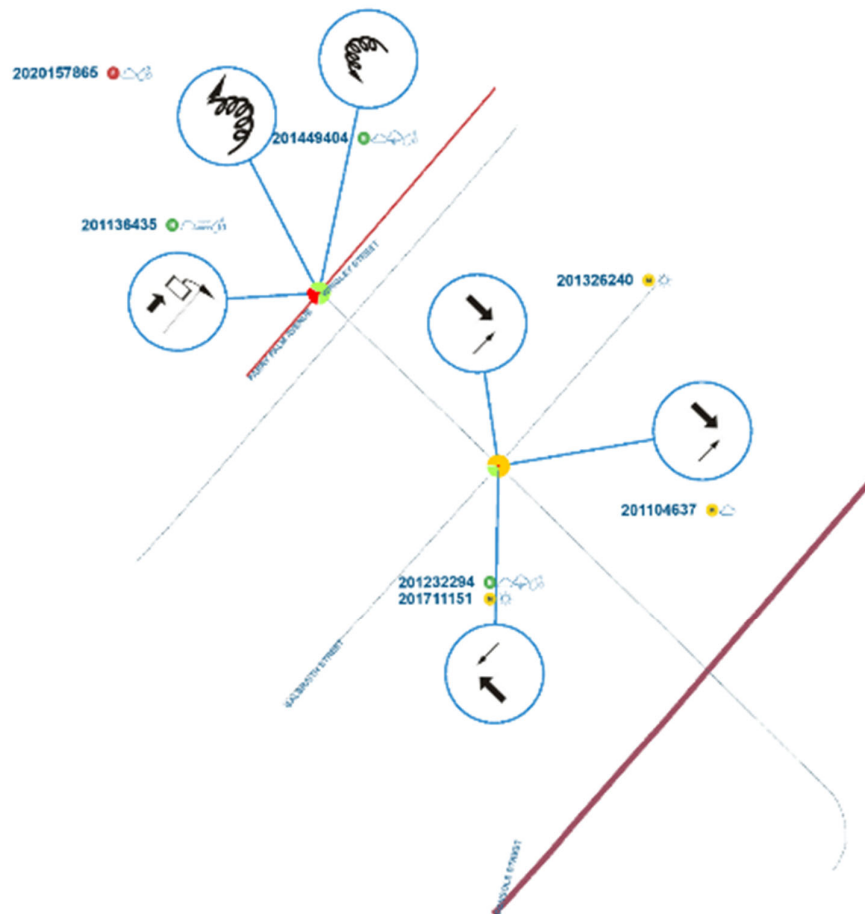
- Lower speed limit to 60km/hr for the full length of Waitete Road North in conjunction with Thorn Road.
- Instal speed limit signs.

Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Waitete Road North from 100km/hr to 50km/hr.

2.16.30 Wrigley Street

Wrigley Street is a sealed no exit residential street in Waihi that runs off State Highway 2 and provides connection and access into a wider residential neighbourhood and ends at the Waihi Railway Station. The full length of the road is approximately 490m and has three cross road intersections with Parry Palm Avenue Slip Road, Galbraith Street and Consols Street.

This street was identified for review as two or more fatal and/or serious crashes in the last 10 years and the high number of cyclists. The road provides access to the Waihi Railway Station and the Hauraki Rail Trail.



Further investigation of the crashes shows that the fatal crash was at the State Highway 2 intersection. The treatment of the State Highway 2/Wrigley Street intersection is outside of the control of Hauraki District Council and will require discussions with Waka Kotahi.

The crashes on Wrigley Street all occurred at the intersection with Galbraith Street and resulted in three minor and one non-injury crash. All crashes were the result of drivers failing to give way to a through vehicle.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	31.17 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Due to the cross road nature of all of the intersections and the higher numbers of cyclists likely to be using the road intersection treatments should be installed to manage traffic speed and improve network operations.

Recommendations

- Install mini roundabouts at the intersection with Galbraith Street and Consols Street.
- Consider the use of side islands and central refuges to create a slower speed environment while supporting pedestrian usage in the area.

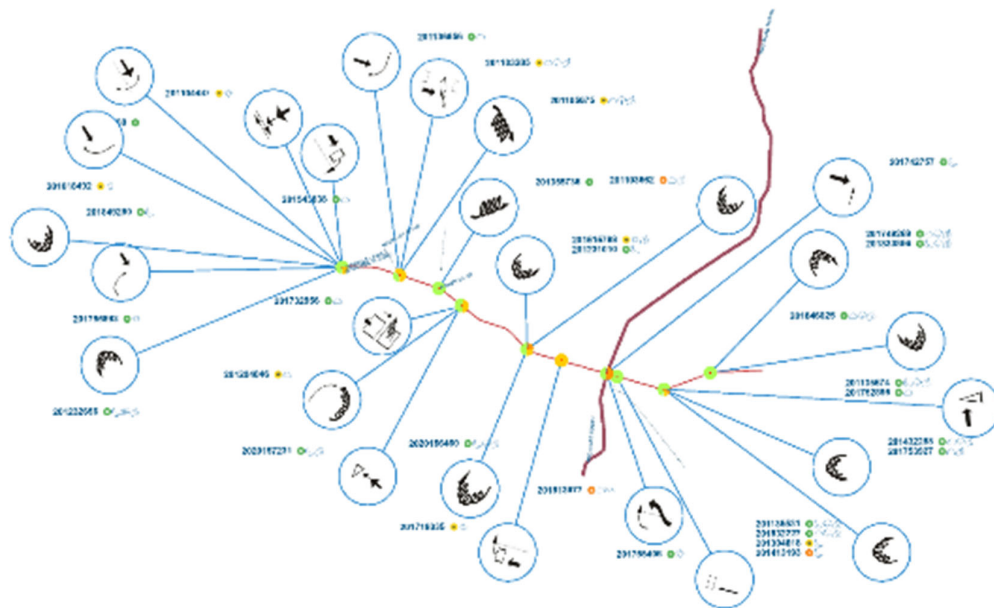
Any changes to the speed limit on this road would require a similar change to other roads in the area to provide consistency to road users.

2.17 Waihi Beach

2.17.1 Waihi Beach Road

Waihi Beach Road is a sealed rural road in Waihi that provides connection from State Highway 2 to the settlement of Waihi Beach and is within two local authority boundaries. The section of road within the Hauraki District boundary is approximately 4320m long.

This road was identified for review from MegaMaps as a Second 10% Interventions – engineer up as well as having two or more fatal and/or serious crashes in the last 10 years.



The majority of crashes are loss of control which indicates that edgeline treatments and the removal or protection of hazards such as large shelterbelt trees within close proximity of the road would be beneficial.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	78.21 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The recommended safe and appropriate speed from MegaMaps for Waihi Beach Road is 80/hr with the primary reason given for the categorisation of Engineer up as “Infrastructure Risk Rating”.

The introduction of an 80km/hr speed limit on Waihi Beach Road would also require changes on Kingsley Road and Fisher Road which are no exit side roads off Waihi Beach Road. The speed limit on Trig Road North and South would also need to be reviewed to ensure consistency of treatment across the area.

Recommendations

- Lower speed limit to 80km/hr for the full length of Waihi Beach Road and Kingsley Road and Fisher Road.
- Install threshold treatment at change in speed limit locations and install repeater signs as required.
- Review the speed limit on Trig Road North and South for consistency and install signage as required.
- Install ATP on edgelines along the route.

Any physical works and/or changes to speed limit will need to be coordinated with Western Bay of Plenty District Council to ensure consistency along the route.

2.18 Waikino

2.18.1 Abbott Road

Abbott Road is a sealed residential street in Waikino that runs between Old Waitekauri Road and Princes Street and provides access to Waikino School and a small number of residential properties. The full length of the road is 410m and it is less than 5.0m wide with no road markings.

This road was identified for review as the Waikino school is located on the western side of the road.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	39.3 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

As a result of the presence of Waikino School on the western side of the road a 30km/hr speed limit should be installed within the vicinity of the school. Due to the predominantly residential area, narrow roads and low traffic volumes it is recommended that the school be included in a permanent 40km/hr speed limit area rather than install an isolated section of reduced speed limit. Threshold style treatments at the extent of the reduced speed limit will need to be installed.

Recommendations

- Lower the speed limit to 40km/hr on the surrounding network including Abbott Road, Queen Street, Poland Street, and sections of Princes Street and Old Waitekauri Road.
- Install threshold style treatments at the change in speed limit locations on Old Waitekauri Road.
- Install additional school signage on Abbotts Road in the vicinity of Waikino School.

Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Abbott Road to 30km/hr.

2.18.2 Farrelly Road

Farrelly Road is a narrow unsealed no exit rural road off Old Waitekauri Road in Waikino that is approximately 1126m long.

This road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rational for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would require a similar treatment to other similar type roads.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- No change to speed limit proposed.

Any changes to the speed limit on Farrelly Road would need to be considered as part of a wider strategy for unsealed rural roads.

2.18.3 Larsen Road

Larsen Road is a sealed no exit rural road that off Old Waitekauri Road, Waikino that is approximately 184m long.

This road was identified for review from the MegaMaps as a Second 10% Interventions – self explaining.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would require a similar treatment to other similar type roads.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	70 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Recommendations

- Lower the speed limit to 40km/hr in keeping with the proposed changes to Old Waitekauri Road.

Any changes to the speed limit on Larsen Road need to be consistent with changes to Old Waitekauri Road.

2.18.4 Old Waitekauri Road

Old Waitekauri Road is a sealed road in Waikino that runs between State Highway 2 and Waitekauri Road and provides access and connection into a number of residential and rural properties. The full length of the road is approximately 1908m long with the section under review between State Highway 2 and Victoria Street and 940m long. This section has four side roads: Banks Road, Abbott Road, Poland Street and Victoria Street.

This road was identified for review from a list of sites previously identified as potentially requiring speed management due to the narrow road and poor alignment with limited forward sight distance.

There have been three reported crashes in the last 10 years in the section of road under review. Two were loss of control and one was an intersection crash at State Highway 2.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	39.30 km/hr	<i>Safe and Appropriate Speed</i>	40 km/hr

Due to the constrained topography of the section of road between State Highway 2 and Larsen Road consideration should be given to reducing the speed limit to 40km/hr for the township of Waikino. This will also support the lower speed limit in the vicinity of Waikino School.

Recommendations

- Lower the speed limit to 40km/hr between State Highway 2 and Larsen Road.
- Install threshold style treatments at the change in speed limit locations

Any changes to the speed limit on this road will result in the need for the speed limit to be reduced on Banks Road, Abbott Road, Poland Street, Victoria Street, Larsen Road, Queen Street, Princes Street, Wood, Melody Lane, Penny Lane, Seddon Street, Edward Street, Cadman Street, Bush Street and a section of Waitekauri Road.

2.19 Waitakaruru

2.19.1 Canal West Road

Canal West Road is a sealed rural road that runs between State Highway 25 and State Highway 2 in Waitakaruru. The full length of the road is 7209m and the section of road under review is from State Highway 25 for a distance of approximately 270m.

This road was identified for review as being of a peri-urban nature and as having a school, Waitakaruru, located at the intersection with State Highway 25.

There have been four reported crashes on this section of the road in the last 10 years. All crashes have occurred at or within 50m of the intersection with State Highway 25.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	70 km/hr
<i>Current mean travel speed</i>	57 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

The safe and appropriate speed for this road is 80km/hr which is higher than the existing speed limit. There is no desire to increase the speed limit on Canal West Road.

As a result of the presence of Waitakaruru School on the corner of State Highway 25 and Canal West Road a 60km/hr speed limit must be installed on both roads within the vicinity of the school. This will require the installation of a threshold style treatments at the ends of the reduced speed limit area and coordination with Waka Kotahi for the installation of the speed reduction on State Highway 25. Due to the low number of movements likely outside of school hours and coordination with the likely treatment on State Highway 25 it is recommended that a variable speed limit be installed rather than a permanent speed limit.

Recommendations

- Apply a variable speed limit of 60km/hr within the vicinity of Waitakaruru School.
- Install variable sign and threshold style treatment at the change in speed limit point.

Any further changes to the speed limit on this road needs to be considered in conjunction with the treatment of State Highway 25 and the rest of Waitakaruru for consistency.

2.19.2 Penrhys Close

Penrhys Close is a sealed no exit road off Back Miranda Road in Waitakaruru. The road is approximately 184m long.

This road was identified for review as being of a peri-urban nature.

There have been no reported crashes on this road in the last 10 years.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Due to the very short length of road the speed limit should be the same as the adjacent section of road to provide consistency to drivers.

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

Any changes to the speed limit on Penrhys Close would be the result of changes to Back Miranda Road to provide consistency to road users.

2.20 Waitawheta

2.20.1 Ford Road

Ford Road is a sealed rural road that runs between State Highway 2 and Old Tauranga Road in Waitawheta. The road is approximately 3123m long and 5.4m wide.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years and as being of a peri-urban nature.

There have been two serious crashes reported in the last 10 years. There were no commonalities between the two crashes with one involving a pedestrian wearing dark coloured clothing being hit at night and the second, a learner motorcyclist losing control of their vehicle and crashed into the drain with a pillion passenger in damp conditions.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	59.72 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Recommendations

- No change to speed limit proposed. Changes will be driven by other roads.

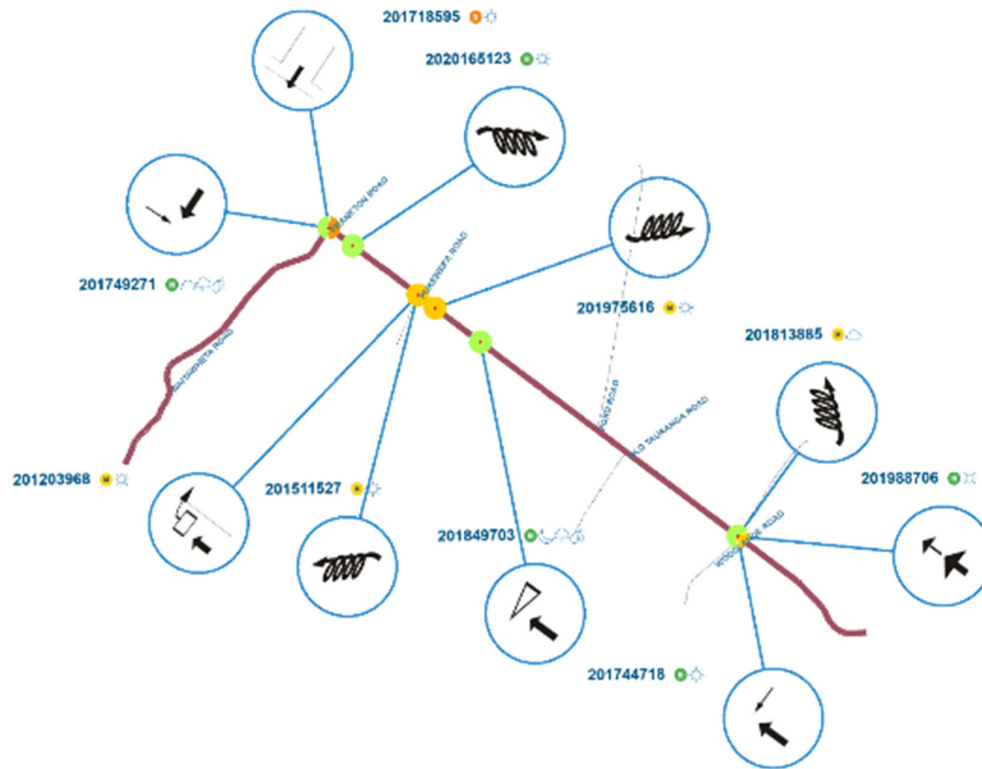
Any changes to the speed limit on Ford Road would be the result of changes to other adjacent roads in the area to provide consistency to road users.

2.20.2 Old Tauranga Road

Old Tauranga Road is a sealed rural road that runs between Waitawheta Road and State Highway 2 and is part of an alternative route for vehicles traveling between Paeroa and Tauranga and avoids Waihi. The route is approximately 6275m long and has three side roads: Pukerewa Road, Ford Road and Woodlands Road.

This road was identified for review from community concerns.

There have been ten reported crashes on this road in the last 10 years with eight of the crashes occurring the last five years (2016-2020) resulting in one serious, four minor and five non-injuries.



Overall, the Collective Risk for the road is Low medium, while the Personal Risk is Medium.

There are a range of crash types and contributing factors with two of the loss of control crashes the result of drivers avoiding approaching vehicles in their lane. The majority of the crashes occurred in bright and dry conditions with only one crash occurring at night in wet conditions.

The predominance of crashes involving two vehicles or as the result of drivers avoiding other vehicles indicates that poor decision making is a common factor in these crashes.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	90.86 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Due to the high existing mean travel speed of 90.86km/hr and the straight alignment of the road any attempt to lower the speed limit is likely to result in poor compliance creating a larger differential in vehicle speeds and increased risk to users.

Further investigation is required to determine what works can be feasibility undertaken to assist with speed management. In the short term the installation of edgelines and ATP would assist with managing traffic and vehicle speeds.

Recommendations

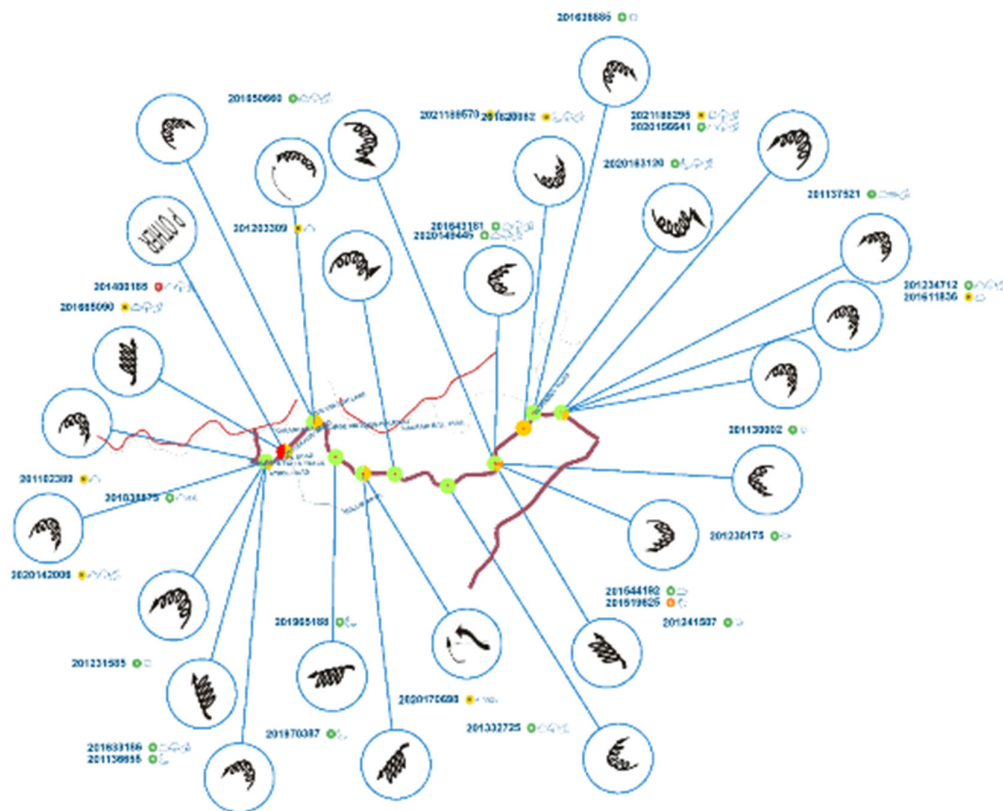
- Lower the speed limit to 80km/hr.
- Install edgelines with or without ATP and centreline ATP.
- Undertake further investigation for feasible improvement works including RIAWS at Woodlands Road intersection.

2.20.3 Pukekauri Road

Pukekauri Road is a sealed rural road that loops between Waitawheta Road is part of an alternative route for vehicles traveling between Paeroa and Tauranga and avoids Waihi. The route is approximately 6725m long.

This road was identified for review as having two or more fatal and/or serious crashes in the last 10 years.

There have been thirty reported crashes on this road in the last 10 years. One fatal, one serious, seven minor and twenty-one non-injury crashes. The majority of crashes have been loss of control (27), with one overtaking, one intersection and one crash involving a pedestrian also reported.



Overall, the Collective Risk for the road is Low medium, while the Personal Risk is High. The fatal and serious crashes occurred in 2014 and 2015 respectively.

The majority of the crashes occurred in overcast or dark conditions which would indicate that the night-time delineation is insufficient. Weather was not a significant contributor with 50% of crashes occurring in wet conditions. The crashes are spread along the route, however they predominantly occur on curves.

In response to concerns raised regarding safety in the section from Waitawheta Road to RP 1925 a study was commissioned by HDC which developed a number of recommendations for treatment of this area to provide better route consistency.

The predominance of loss of control crashes indicates that edgeline and curve warning treatments and the removal or protection of hazards within close proximity of the road would be beneficial.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Medium High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	70.22 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

The recommended safe and appropriate speed from MegaMaps for Pukekauri Road is 60/hr with the governing factor being the function of the road.

Due to the high existing mean travel speed of 70.22m/hr it is unlikely that this lower speed limit will be complied with creating greater differential between vehicle speeds and increasing the risk to users.

There is a small section of road from Waitawheta Road that has a more tortuous alignment and a number of accesses where the lower speed limit of 60km/hr would be appropriate. The remainder of the route should be consistent with Waitawheta Road to reduce the desire for drivers to use this route as a shortcut.

Recommendations

- Lower the speed limit to 60km/hr from Waitawheta Road to 400m east of Waitawheta Road
- Lower the speed limit to 80km/hr from 400m east of Waitawheta Road to the intersection with Franklin Road.
- Install speed threshold treatments at speed limit change locations.

Any changes to the speed limit on this road will result in the need for the speed limit to be reduced on Athol Road, Hollis Road and McKinney Road.

Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Pukekauri Road from Waitawheta Road to east of Hollis Road to 60km/hr and from east of Hollis Road to Franklin Road to 80km/hr.

2.20.4 Pukewera Road

Pukewera Road is a rural road that runs between Old Tauranga Road and Taieri Road in Waitawheta. The full length of the road is 4317m with the first 510m sealed and the remaining 3807m unsealed. There is a short section (370m) that is sealed in the vicinity of some houses.

This road was identified for review from the MegaMaps as a Second 10% Interventions – self explaining. The rational for the categorisation is “Road stereotype is Unsealed”.



There has been one crash reported on this road in the last 10 years, which was a non-injury loss of control crash in 2020.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	36.78 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Any changes to this road would require a similar treatment to Taieri Road to provide consistency to road users.

Recommendations

- Lower speed limit to 80km/hr in conjunction with Taieri Road.
- Install speed threshold treatments and repeater signs

Any changes would need to be considered as part of a wider strategy for the rural roads adjacent to Waitawheta Road.

2.20.5 Swetman Road

Swetman Road is an unsealed no exit rural road off Waitawheta Road in Waitawheta that is 1065m long.

This road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rationale for the categorisation is “Road stereotype is Unsealed”.



There has been one non-injury crash on this road in the last 10 years. This crash was in 2019 and occurred at the intersection with Waitawheta Road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	20 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- Lower speed limit to 80km/hr in conjunction with Waitawheta Road.
- Install speed signs.

Any changes to the speed limit would need to be considered as part of a wider strategy for the rural roads adjacent to Waitawheta Road.

2.20.6 Taieri Road

Taireri Road is a rural road off Waitawheta Road in Waitawheta that also connects to Pukewera Road. The full length of the road is 3464m with the first 831m sealed and the remaining 2633m unsealed.

The unsealed portion of this road was identified for review from the MegaMaps as a First 10% Interventions – self explaining. The rational for the categorisation is “Road stereotype is Unsealed”.



There have been no reported crashes on this road in the last 10 years. Any changes to this road would require a similar treatment to Pukewera Road and Waitawheta Road to provide consistency to road users.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	High	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	40.68 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

It should be noted that the safe and appropriate speed on all unsealed roads is set at 60km/hr.

Recommendations

- Lower speed limit to 80km/hr in conjunction with Waitawheta Road and Pukewera Road
- Instal speed signs.

Any changes would need to be considered as part of a wider strategy for the rural roads adjacent to Waitawheta Road.

2.20.7 Waitawheta Road

Waitawheta Road is a sealed rural road in Waitawheta that runs between State Highway 2 to Old Tauranga Road and is part of an alternative route for vehicles traveling between Paeroa and Tauranga and avoids Waihi. The full length of the road is 8644m. The section between State Highway 2 and Pukekauri Road has a higher level of development and also pedestrian and cyclist use. The Hauraki Rail trail crosses the road south of the one lane bridge on the

approach to State Highway 2. The speed limit on State Highway 2 in the vicinity of Waitawheta Road is 80km/hr which encourages drivers to take the alternative route with an open road speed limit.

This road was identified for review from a customer query regarding the speed of existing vehicles on the section of Waitawheta Road between State Highway 2 and Pukekauri Road and a request for a lower speed limit due to the high number of pedestrians and cyclists in the area.

There have been twenty reported crashes on this road in the last 10 years with the majority of them being non-injury crashes. The crashes between State Highway 2 and Pukekauri Road primarily are intersection crashes while those between Pukekauri Road and Old Tauranga Road are loss of control or head on crashes.

In response to concerns raised regarding safety in the section between State Highway 2 and Pukekauri Road a study was commissioned by HDC which developed a number of recommendations for treatment of this area.

The section of road between Pukekauri Road and Old Tauranga Road has a number of side roads that are no exit with the majority also being unsealed including, Swetman Road, Kennedy Road, Dickey Flats Road, Dean Road, Franklin Road, Spence Road, McLean Road, Bellamys Road and Taieri Road.

The majority of crashes in this section of the road are loss of control which indicates that edgeline treatments such as the installation of ATP on edgelines and/or centreline would be beneficial.

Safety and speed information from MegaMaps for the two section of Waitawheta Road shows the following.

State Highway 2 - Pukekauri

<i>Infrastructure Risk Rating</i>	Medium high	<i>Posted speed limit</i>	80 km/hr
<i>Current mean travel speed</i>	50.38 km/hr	<i>Safe and Appropriate Speed</i>	60 km/hr

Pukekauri – Old Tauranga Road

<i>Infrastructure Risk Rating</i>	Medium	<i>Posted speed limit</i>	100 km/hr
<i>Current mean travel speed</i>	71.75 km/hr	<i>Safe and Appropriate Speed</i>	80 km/hr

Any changes to this road would require a similar change on the side roads to provide consistency to road users. Changes are also required on Pukekauri Road, Old Tauranga Road and Frankton Road to discourage the use of this area as a shortcut and provide consistency of messaging.

Recommendations

- Lower the speed limit to 40km/hr between State Highway 2 and Pukekauri Road
- Lower speed limit to 80km/hr between Pukekauri Road and Old Tauranga Road.
- Lower the speed limit to 80km/hr on the adjacent side roads of Swetman Road, Kennedy Road, Dickey Flats Road, Dean Road, Franklin Road, Spence Road, Hume Road, McLean Road, Bellamys Road and Taieri Road to ensure consistency with speed limits.
- Review the speed limit on Pukekauri Road, Old Tauranga Road and Frankton Road and consider lowering to 80km/hr.
- Install threshold treatments at the extents of the speed limit changes and repeater signs as required.

2.21 Whiritoa

2.21.1 Whiritoa Beach Road

Whiritoa Beach Road is a sealed residential road in Whiritoa that runs between State Highway 25 to Kon Tiki Road and provides connection and access into a wider residential neighbourhood of Whiritoa. The road is approximately 627m long and has two side roads, Pohutukawa Road and Tavern Lane.

This street was identified for review from a customer query regarding the speed of existing vehicles. This indicates that compliance, not the speed limit is the issue for this road which is supported by the mean speed recorded on the road.

There have been two reported crashes on this road in the last 10 years both of which were intersection crashes. The 2016 crash occurred at Tavern Lane and resulted in minor injuries, while there were no injuries in the 2018 crash at Pohutukawa Road.

Safety and speed information from MegaMaps shows the following.

<i>Infrastructure Risk Rating</i>	Low Medium	<i>Posted speed limit</i>	50 km/hr
<i>Current mean travel speed</i>	44.41 km/hr	<i>Safe and Appropriate Speed</i>	50 km/hr

The primary reason given for the recommended safe and appropriate speed in MegaMaps is “Aligns with framework”.

Recommendations

- Install repeater speed limit signs on Whiritoa Beach Road to remind drivers of the speed limit.
- Consider the use of side islands and central refuges to create a slower speed environment while supporting pedestrian usage in the area.

Any changes to the speed limit on this road will require a similar treatment to the side roads of Pohutukawa Drive and Tavern Lane.

Consideration should be given to implementing a 40km/hr speed limit if supported by the local community.

3. Summary

A summary of the recommendations for each road or section of road identified in Section 2 is tabled below.

Report No.	Road Name	Recommendations
2.1.1	Awaiti Road	<p>Lower the speed limit to 80km/hr.</p> <p>Install ATP on edgelines along the route.</p> <p>Any physical works and/or changes to speed limit will need to be coordinated with Matamata-Piako District Council to ensure consistency along the route.</p>
2.2.1	Alley Memorial Road	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Alley Memorial Road should be consistent with that on the adjacent state highway.</p>
2.2.2	Maratoto Road	No change to speed limit or works proposed.
2.3.1	East Coast Road Section 1 – RP 0 – 8028	<p>Lower the speed limit to 80km/hr.</p> <p>Consider installing edgelines, with or without ATP, centreline ATP and additional edge marker posts</p>
2.3.1	East Coast Road Section 2 – RP 8028 – 9553	<p>Install threshold treatments at each end of Kaiaua</p> <p>Install edgelines throughout the area</p> <p>Consider installing kerb and channel to create a more urban environment.</p>

Report No.	Road Name	Recommendations
2.3.1	East Coast Road Section 3 – RP 9553 - 12313	<p>Lower the speed limit to 50km/hr.</p> <p>Consider installing edgelines, with or without ATP, centreline ATP and additional edge marker posts</p> <p>Install threshold treatments with or without speed signage at each of the settlements</p> <p>Apply a 30km/hr variable speed limit in the vicinity of Kaiaua School.</p> <p>Install variable school threshold style treatment at the change in speed limit points.</p>
2.3.1	East Coast Road Section 4 – RP 12313 - 16100	Lower the speed limit to 60km/hr.
2.3.1	East Coast Road Section 5 – RP 16100 - 18678	<p>Lower the speed limit to 60km/hr.</p> <p>Install threshold treatments with speed signage.</p> <p>Install additional repeater speed limit signs.</p> <p>Install additional pedestrian warning signage as appropriate.</p>
2.3.1	East Coast Road Section 6 – RP 18678 - 19067	<p>Lower the speed limit to 60km/hr</p> <p>Install threshold treatments with speed signage.</p>
2.3.1	Ebner Place	<p>Lower the speed limit to 80km/hr in keeping with increased level of development.</p> <p>Install speed threshold treatment at intersection with Kaiaua Road.</p> <p><i>Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Ebner Place to 60km/hr.</i></p>

Report No.	Road Name	Recommendations
2.3.2	Kaiaua Road	<p>Lower the speed limit to 60km/hr.</p> <p>Install ATP on edgelines along the route.</p> <p>Further investigation is required to determine additional treatments required.</p> <p>Any physical works and/or changes to speed limit will need to be coordinated with Waikato District Council to ensure consistency along the route.</p>
2.3.3	Miranda Road	<p>Install ATP on edgelines along the route.</p> <p>Install additional edge marker posts and curve warning signage at out of context curves</p> <p>Any physical works and/or changes to speed limit will need to be coordinated with Waikato District Council to ensure consistency along the route.</p>
2.3.4	Toft Road	No change to speed limit or works proposed.
2.4.1	Kaihere Road	<p>Lower the speed limit to 30km/hr on Kaihere Road from State Highway 2 to Hayward Street.</p> <p>Install school threshold style treatments at the change in speed limit locations</p> <p>Install slow street treatments within the vicinity of the school. Consider the use of raised platforms to manage vehicle speeds.</p> <p>Consideration should be given to implementing a 40km/hr speed limit in the urban area of Ngatea if supported by the local community. However physical works will be required to support the existing or lower speed limit along the full length of the road.</p> <p>Lower the speed limit to 80km/hr between Brenner Drive and State Highway 27.</p> <p>Install edgelines along the rural section of the road especially at out of context curves:</p> <p>RP 3800 – 6600, RP10700 – 11000, RP14500 - 15500</p> <p>Install additional edge marker posts and curve warning signage at out of context curves.</p>

Report No.	Road Name	Recommendations
2.4.2	Ohinewai Road	No change to speed limit or works proposed. Any physical works and/or changes to speed limit will need to be considered as part of a wider strategy for rural roads and coordinated with Waikato District Council to ensure consistency along the route.
2.5.1	School Road (Karangahake)	Install a 30km/hr speed limit for the full length of the road. Install threshold treatment at the change in speed limit location.
2.6.1	Dagger Road	No change to speed limit proposed.
2.6.2	Kerepehi Town Road	Lower the speed limit to 60km/hr from State Highway 2 to 40m east of Ponui Avenue Retain the 50km/hr speed limit from 40m east of Ponui Avenue to 100m west of Fernleigh Street Lower the speed limit to 80km/hr from 100m west of Fernleigh Street to Awaiti Canal Road Install threshold style treatments at the change in speed limit locations. Consider putting the existing zebra crossings onto raised platforms. Consideration should be given to implementing a 40km/hr speed limit through the township and across the wider residential area if supported by the local community. This will require the speed limit to be reduced on Ponui Avenue, Rakino Drive, Pakatoa Street, Kaikahu Road, Matai Street, Miro Street, Rimu Street, Rata Street, McGowan Avenue, Stanley Street, Thompsn Road, Pah Road and Wharf Road.
2.6.3	McGowan Avenue	Lower the speed limit to 30km/hr within the vicinity of the school frontage. Install threshold style treatments at the change in speed limit locations.
2.6.4	Wharepoa Road West	Undertake further investigation on feasible treatment options.
2.7.1	Komata Reefs Road	No change to speed limit proposed.

Report No.	Road Name	Recommendations
2.7.2	Strange Road	No change to speed limit or works proposed.
2.8.1	Rahu Road	Lower speed limit to 70km/hr to be consistent with the remaining section of Rahu Road. Install repeater speed signs.
2.9.1	Church Road	Lower the speed limit to 60km/hr in keeping with increased level of development. This road is accessed off North Road which also has increased vehicle and pedestrian movements between State Highway 27 and Church Road and a lower speed limit should be installed on this section of North Road for consistency and to reduce the risk to all users in the area.
2.9.2	Coxhead Road	No change to speed limit proposed.
2.9.3	Mahuta Road North	No change to speed limit or works proposed.
2.9.4	North Road	Reduce the speed limit to 60km/hr on the section of North Road from State Highway 27 to RP120. Install threshold style treatments at the change in speed limit locations.
2.9.5	South Road	No change to speed limit or works proposed.
2.10.1	School Road (Netherton)	Apply a variable speed of 60km/hr on the first 230m of School Road. Install variable sign and threshold style treatment at the change in speed limit point. The installation of the variable speed limit will need to be coordinated with Waka Kotahi to ensure consistency of treatment within the vicinity of Netherton School.

Report No.	Road Name	Recommendations
2.11.1	Darlington Street	<p>Install slow street treatments between State Highway 2 and Hayward Road to match the environment of the rest of the road.</p> <p>Install a mini roundabout at the Hayward Road intersection.</p> <p>Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.</p> <p>Any changes to the speed limit on this road will require a similar reduction on the side roads of Bratlie Place, Walton Place, Hayward Road, Madgwick Place, Parfitt Place, Harris Place and Benner Drive.</p>
2.11.2	Hayward Road	<p>Lower the speed limit to 30km/hr on Hayward Street in conjunction with the school zone on Kaihere Road.</p> <p>Install school threshold style treatments at the change in speed limit locations</p> <p>Install a mini roundabout at the Darlington Street intersection</p> <p>Any changes to the speed limit on this road will require a similar reduction in speed limit on the side roads of McMillan Street and Miller Place and will need to be consistent with Kaihere Road and Darlington Street.</p> <p>Consideration should be given to implementing a 40km/hr speed limit in the area if supported by the local community. However physical works will be required to support the existing or lower speed limit along the full length of the road.</p>
2.11.3	McDuff Lane	<p>Considering installing additional roadmarking in the area in a long-life product.</p> <p>Any changes to the speed limit on McDuff Lane would be the result of changes to other adjacent roads in the area to provide consistency to road users.</p>
2.11.4	McMillan Street	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on McMillan Street would be the result of changes to other adjacent roads in the area to provide consistency to road users.</p>

Report No.	Road Name	Recommendations
2.11.5	Puhunga Island Road North	No change to speed limit or works proposed.
2.11.6	River Road	No change to speed limit or works proposed.
2.12.1	Ainslie Road	No change to speed limit proposed. Changes will be driven by other roads. Any changes to the speed limit on Ainslie Road would require a similar change to other roads in the area to provide consistency to road users.
2.12.2	Alpha Road	No change to speed limit proposed. Existing speed limit is appropriate.
2.12.3	Aorangi Road	Install slow street treatments at multiple locations. Due to the alignment of the road consider the use of side islands to narrow the road and one way sections to manage vehicle speeds. Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit. Any changes to the speed limit on Aorangi Road will require a similar treatment to Shaw Avenue and Ainslie Road.
2.12.4	Colin Drive	No change to speed limit proposed. Existing speed limit is appropriate.
2.12.5	Corbett Street	No change to speed limit proposed. Changes will be driven by other roads. Any changes to the speed limit on Corbett Street would be the result of changes to other adjacent roads in the area to provide consistency to road users.
2.12.6	Coronation Street	Lower the speed limit to 30km/hr within the vicinity of the Paeroa Christian School frontage Install school threshold style treatments at the change in speed limit locations

Report No.	Road Name	Recommendations
2.12.7	Junction Road	<p>Install slow street treatments at multiple locations between Railway Street and Menzie Place. Due to the straight alignment of the road consider the use of side islands to narrow the road and one way sections to manage vehicle speeds.</p> <p>Install mini roundabout at the intersection with Opatito Road.</p> <p>Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.</p> <p>Any changes to the speed limit on Junction Road will require a similar reduction in the speed limit to Menzie Place, and Opatito Road.</p>
2.12.8	Keepa Avenue	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. Due to the short length of road physical works are unlikely to be required to support a lower speed limit.</p> <p>Any changes to the speed limit on this road will be as a result of changes to Shaw Avenue.</p>
2.12.9	Miller Avenue	<p>Lower the speed limit to 30km/hr on Miller Avenue from Kennedy Street to the end.</p> <p>Install threshold style treatments at the change in speed limit location.</p>
2.12.10	Norwood Road	<p>Lower the speed limit to 30km/hr within the vicinity of the school frontage.</p> <p>Install school threshold style treatments at the change in speed limit locations.</p> <p>Consider replacing the existing kea crossing with a patrolled zebra crossing on a raised platform.</p>
2.12.11	Nowra Crescent	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Norwa Crescent would be the result of changes to other adjacent roads in the area (Shoalhaven Street) to provide consistency to road users.</p>

Report No.	Road Name	Recommendations
2.12.12	Papaturua Road	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Papaturua Road would be the result of changes to State Highway 26 to provide consistency to road users.</p>
2.12.13	Railway Street	<p>Install slow street treatments at multiple locations. Consider realigning the pedestrian access points to enable raised platforms to be installed.</p> <p>Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.</p> <p>Any changes to the speed limit on Railway Street will require a similar reduction on the speed limit to Opatito Road, Dearle Street, George Street, Junction Road and Lee Avenue.</p>
2.12.14	Rotokohu Road	<p>Lower the speed limit to 80km/hr in keeping with increased level of development, narrow carriageway and presence of cyclists along the road.</p> <p>Install threshold treatment and repeater signs.</p> <p>Any changes to the speed limit on Rotokohu Road will require a similar reduction in speed limit to the side roads of Te Moananui Flats Road and Thorp Road.</p>
2.12.15	Shaw Avenue	<p>Install slow street treatments at multiple locations. Due to the alignment of the road consider the use of side islands to narrow the road and one way sections to manage vehicle speeds.</p> <p>Consideration should be given to implementing a 40km/hr speed limit if supported by the local community. However physical works will be required to support the existing or lower speed limit.</p> <p>Any changes to the speed limit on this road will require a similar reduction in the speed limit to the side roads of.</p>

Report No.	Road Name	Recommendations
2.12.16	Te Moananui Flats Road	<p>Lower speed limit to 80km/hr in keeping with increased level of development.</p> <p>Install speed signs.</p> <p>Consideration should be given to implementing a 60km/hr speed limit if supported by the local community.</p>
2.12.17	Waimarei Avenue	No change to speed limit or works proposed.
2.12.18	Wood Street	<p>Lower the speed limit to 30km/hr on the section of Wood Street and Thorp Street adjacent to the school.</p> <p>Install threshold style treatments at the change in speed limit points.</p>
2.13.1	Mangawhero Road	No change to speed limit or works proposed.
2.14.1	Arawa Street	<p>Lower the speed limit to 80km/hr in keeping with increased level of development and narrow carriageway.</p> <p>Install speed threshold at intersection with State Highway 25.</p> <p>Consideration should be given to implementing a 60km/hr speed limit if supported by the local community.</p>
2.14.2	Buchanan Road	<p>Lower speed limit to 80km/hr in keeping with increased level of development, narrow carriageway and presence of cyclists along the road.</p> <p>Install threshold signage at intersection with State Highway 25 and repeater signage along the route.</p> <p>Any changes to the speed limit on Buchanan Road will require a similar treatment to the side roads of Moehu Street and Scott Street for consistency.</p>

Report No.	Road Name	Recommendations
2.14.3	Bush Road	<p>Apply a variable speed limit of 60km/hr within the vicinity of Kopuarahi School extending for 230m along Bush Road.</p> <p>Install variable sign and threshold style treatment at the change in speed limit point.</p> <p>Install ATP on edgelines along the route.</p> <p>Review curve warning signage and install new signs as required.</p> <p>The change to the speed limit will need to be coordinated with Waka Kotahi to ensure consistency of treatment within the vicinity of Kopuarahi School.</p>
2.14.4	Moehau Street	<p>Lower the speed limit to 80km/hr in keeping with changes proposed on Buchanan Road.</p> <p>Install repeater speed signage.</p> <p>Any changes to the speed limit on Moehau Steet will be driven by changes on Buchanan Road and require a similar treatment to the side road of Scott Street.</p>
2.14.5	Pipiroa Road	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p><i>Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Pipiroa Road from 70km/hr to 50km/hr on the section from RP5490 to Mahana Road.</i></p>
2.15.1	Hauraki Road Section 1 – RP 0 – 4160	<p>Lower the speed limit to 80km/hr.</p> <p>Consider installing edgelines, with or without ATP, centreline ATP and additional edge marker posts</p>
2.15.1	Hauraki Road Section 2 – RP 4160 – 5425	<p>Apply a 30km/hr variable speed limit in the vicinity of Turua Primary School</p> <p>Install variable school threshold style treatment at the change in speed limit points.</p> <p>Consider replacing the existing kea crossing with a patrolled zebra crossing on a raised platform.</p>

Report No.	Road Name	Recommendations
2.15.1	Hauraki Road Section 3 – RP 5425 - 14135	<p>Lower the speed limit to 80km/hr.</p> <p>Consider installing edgeline and centreline ATP and additional edge marker posts</p> <p>Undertake further investigation on feasible treatment options for this section of Hauraki Road.</p> <p>Install intersection treatment such as RIAWS at the intersections with Orchard East Road and Wharepoa Road West.</p>
2.15.2	Huirau Road	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Huirau Road would be the result of changes to other adjacent roads in the area to provide consistency to road users</p>
2.15.3	Oparia Road	Change the speed limit to 80km/hr to reflect the rural nature of the area.
2.15.4	Piako Road	<p>Retain the 50km/hr speed limit to RP330</p> <p>Change the speed limit to 80km/hr between RP 330 and RP 620</p> <p>Install threshold treatments at both speed limit change locations.</p>
2.15.5	Raratuna Street	<p>Lower the speed limit to 30km/hr on Raratuna Street from Hauraki Road to Waihou Street.</p> <p>Change the speed limit to 80km/hr from Oparia Road to RP250 to reflect the rural nature of this section of the road.</p> <p>Install threshold style treatments at the change in speed limit locations.</p>
2.15.6	Rata Street	<p>Install an 80km/hr speed limit to reflect the rural nature of the area.</p> <p>Install speed signs.</p>
2.15.7	Raupoiti Street	No change to speed limit proposed. Changes will be driven by other roads.

Report No.	Road Name	Recommendations
2.16.1	Amaranth Street	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Amaranth Street would require a similar change to other roads in the area to provide consistency to road users.</p>
2.16.2	Baber Street	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Baber Street would be the result of changes to other adjacent roads in the area to provide consistency to road users</p>
2.16.3	Bradford Street	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Bradford Street would be the result of changes to other adjacent roads in the area to provide consistency to road users.</p>
2.16.4	Clarke Street	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Clarke Street would be the result of changes to other adjacent roads in the area to provide consistency to road users.</p>
2.16.5	Consols Street	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Consols Street would require a similar change to other roads in the area to provide consistency to road users.</p>

Report No.	Road Name	Recommendations
2.16.6	Donnelly Street	<p>Lower the speed limit to 30km/hr on Donnelly Street and on Gladstone Road for approximately 150m either side of the Donnelly Street intersection.</p> <p>Install school threshold style treatments at the change in speed limit locations</p> <p>Any changes to the speed limit on this road will require a similar treatment to the side road of Kitchener Street.</p> <p>Consideration should be given to implementing a 40km/hr speed limit in the area bounded by State Highway 25 and Mataura Road if supported by the local community. Physical works will be required to support the lower speed limit on Gladstone Road and Smith Street.</p>
2.16.7	Galbraith Street	<p>Install mini roundabouts at the intersection with Wrigley Street</p> <p>Consider the use of side islands and central refuges to create a slower speed environment while supporting pedestrian usage in the area.</p>
2.16.8	Gilmour Street	<p>Install a mini roundabout at the intersection with Johnston Street</p> <p>Consider the installation of a raised safety platform in the vicinity of the access to the Gilmour Reserve to slow vehicles and provide a safe crossing point for pedestrians.</p> <p>Consider the use of side islands and central refuges to create a slower speed environment while supporting pedestrian usage in the area.</p> <p>Any changes to the speed limit on Gilmour Street would require changes to other adjacent roads in the area to provide consistency to road users.</p> <p><i>Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Gilmour Street to 40km/hr.</i></p>

Report No.	Road Name	Recommendations
2.16.9	Gladstone Road	<p>Lower the speed limit to 30km/hr on Gladstone Road for approximately 150m either side of the Donnelly Street intersection.</p> <p>Install school threshold style treatments at the change in speed limit locations.</p> <p>Consideration should be given to implementing a 40km/hr speed limit in the area bounded by State Highway 25 and Mataura Road if supported by the local community. Physical works will be required to support the lower speed limit on Gladstone Road and Smith Street.</p>
2.16.10	Heard Road	<p>Lower the speed limit to 80km/hr in keeping with increased level of development and narrow carriageway.</p> <p>Any changes to the speed limit on Heard Road would require a similar reduction in speed limit to the side roads of Poets Corner Road and Orokawa Heights and to others in the area to provide consistency to road users.</p>
2.16.11	Heath Road	<p>Lower the speed limit to 80km/hr in keeping with increased level of development and narrow carriageway.</p> <p>Consideration should be given to implementing a 60km/hr speed limit if supported by the local community.</p>
2.16.12	Kenny Street	<p>Install a raised safety platform to the south of State Highway 2 to support the cycle path and manage vehicle speeds.</p> <p>Consider installing additional raised safety platforms in conjunction with pedestrian desire lines.</p>
2.16.13	Kensington Road	<p>Lower the speed limit to 30km/hr within the vicinity of the school frontage and on Rata Street.</p> <p>Install school threshold style treatments at the change in speed limit locations.</p> <p>Consideration should be given to implementing a 40km/hr speed limit across the wider residential area if supported by the local community. However due to the straight alignment of Kensington Road physical works will be required outside of the vicinity of the school to support the existing or lower speed limit.</p>

Report No.	Road Name	Recommendations
2.16.14	Lawrence Road	<p>Considering installing sharrows and/or other cycle friendly features on the road.</p> <p>Any changes to the speed limit on Lawrence Road would be the result of changes to other adjacent roads in the area to provide consistency to road users.</p>
2.16.15	Mataura Road	No change to speed limit proposed. Changes will be driven by other roads.
2.16.16	Moresby Avenue	<p>Lower the speed limit to 30km/hr within the vicinity of the school frontage.</p> <p>Install threshold style treatments at the change in speed limit locations.</p> <p>Install speed management features in the vicinity of the school</p>
2.16.17	Mueller Street	<p>Lower the speed limit to 30km/hr within the vicinity of the school frontage.</p> <p>Install threshold style treatments at the change in speed limit locations.</p> <p>Consider installing mini roundabouts at the intersections with Johnston Street and Union Street</p> <p>Consider the installation of a raised safety platform in the vicinity of the existing crossing location outside the school to slow vehicles and provide a safe crossing point for pedestrians.</p> <p>Any changes to the speed limit on Mueller Steet beyond the school frontage will require changes to other adjacent roads in the area to provide consistency to road users.</p>
2.16.18	Ngatitangata Road	No change to speed limit or works proposed.
2.16.19	Orokawa Heights Road	<p>Lower the speed limit to 80km/hr in keeping with adjacent road (Heard Road).</p> <p>Install speed signs.</p> <p>Any changes to the speed limit on Orokawa Heights Road would be the result of changes to other adjacent roads in the area to provide consistency to road users.</p>

Report No.	Road Name	Recommendations
2.16.20	Poets Corner Road	<p>Lower the speed limit to 80km/hr in keeping with adjacent road (Heard Road).</p> <p>Install speed signs.</p> <p>Any changes to the speed limit on Poets Corner Road would be the result of changes to Heard Road to provide consistency to road users.</p>
2.16.21	Reservoir Road	<p>Lower the speed limit to 60km/hr to reflect the rural residential nature of the area.</p> <p>Install speed signs.</p> <p>The speed limit on Wharry Road should also be lowered to 50km/hr to be consistent with the adjacent section of Reservoir Road.</p>
2.16.22	Russell Street	No change to speed limit proposed. Changes will be driven by other roads.
2.16.23	Seddon Street	<p>Consider installing a 30km/hr speed limit for the full length of Seddon Street.</p> <p>Install threshold treatments.</p> <p>Any changes to the speed limit on this road will require a similar treatment to the side roads of Haszard Street, Walker Street and Mueller Avenue.</p>
2.16.24	Somerset Street	No change to speed limit proposed. Changes will be driven by other roads.
2.16.25	Thorn Road	<p>Lower speed limit to 60km/hr for the full length of Thorn Road in conjunction with Waitete Road Nth.</p> <p>Install speed signs.</p> <p><i>Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Thorn Road from 100km/hr to 50km/hr.</i></p>

Report No.	Road Name	Recommendations
2.16.26	Toomey Street	<p>Investigate options to improve the urban environment of the street.</p> <p>Further physical works will need to consider the function of this road within the roading network and support the current or a lower speed limit of 40km/hr if desired at a later date.</p>
2.16.27	Victoria Street	<p>Investigate options to improve the urban environment of the street.</p> <p>Install repeater speed limit signs on Victoria Street to remind drivers of the speed limit.</p> <p>Install threshold treatment at the change of speed limit at Frankton Road</p>
2.16.28	Waitete Road	<p>Install edge treatments for the full length to improve the urban environment of the street.</p> <p>Install slow street treatments required at multiple locations. Due to the straight alignment of the road consider the use of raised safety platforms or central islands to manage vehicle speeds and support use by pedestrians and cyclists.</p> <p>Any physical works will need to consider the function of this road within the roading network and support the current or a lower speed limit of 40km/hr if desired at a later date.</p>
2.16.29	Waitete Road North	<p>Lower speed limit to 60km/hr for the full length of Waitete Road North in conjunction with Thorn Road.</p> <p>Install speed limit signs.</p> <p><i>Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Waitete Road North from 100km/hr to 50km/hr.</i></p>
2.16.30	Wrigley Street	<p>Install mini roundabouts at the intersection with Galbraith Street and Consols Street.</p> <p>Consider the use of side islands and central refuges to create a slower speed environment while supporting pedestrian usage in the area.</p>

Report No.	Road Name	Recommendations
2.17.1	Waihi Beach Road	<p>Lower speed limit to 80km/hr for the full length of Waihi Beach Road and Kingsley Road and Fisher Road.</p> <p>Install threshold treatment at change in speed limit locations and install repeater signs as required.</p> <p>Review the speed limit on Trig Road North and South for consistency and install signage as required.</p> <p>Install ATP on edgelines along the route.</p> <p>Any physical works and/or changes to speed limit will need to be coordinated with Western Bay of Plenty District Council to ensure consistency along the route.</p>
2.18.1	Abbott Road	<p>Lower the speed limit to 40km/hr on the surrounding network including Abbott Road, Queen Street, Poland Street, and sections of Princes Street and Old Waitekauri Road.</p> <p>Install threshold style treatments at the change in speed limit locations on Old Waitekauri Road.</p> <p>Install additional school signage on Abbotts Road in the vicinity of Waikino School.</p> <p><i>Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Abbott Road to 30km/hr.</i></p>
2.18.2	Farrelly Road	<p>No change to speed limit proposed.</p> <p>Any changes to the speed limit on Farrelly Road would need to be considered as part of a wider strategy for unsealed rural roads.</p>
2.18.3	Larsen Road	<p>Lower the speed limit to 40km/hr in keeping with the proposed changes to Old Waitekauri Road.</p> <p>Any changes to the speed limit on Larsen Road need to be consistent with changes to Old Waitekauri Road.</p>

Report No.	Road Name	Recommendations
2.18.4	Old Waitekauri Road	<p>Lower the speed limit to 40km/hr between State Highway 2 and Larsen Road.</p> <p>Install threshold style treatments at the change in speed limit locations</p> <p>Any changes to the speed limit on this road will result in the need for the speed limit to be reduced on Banks Road, Abbott Road, Poland Street, Victoria Street, Larsen Road, Queen Street, Princes Street, Wood, Melody Lane, Penny Lane, Seddon Street, Edward Street, Cadman Street, Bush Street and a section of Waitekauri Road.</p>
2.19.1	Canal West Road	<p>Apply a variable speed limit of 60km/hr within the vicinity of Waitakaruru School.</p> <p>Install variable sign and threshold style treatment at the change in speed limit point.</p> <p>Any further changes to the speed limit on this road needs to be considered in conjunction with the treatment of State Highway 25 and the rest of Waitakaruru for consistency.</p>
2.19.2	Penrhys Close	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Penrhys Close would be the result of changes to Back Miranda Road to provide consistency to road users.</p>
2.20.1	Ford Road	<p>No change to speed limit proposed. Changes will be driven by other roads.</p> <p>Any changes to the speed limit on Ford Road would be the result of changes to other adjacent roads in the area to provide consistency to road users.</p>
2.20.2	Old Tauranga Road	<p>Lower the speed limit to 80km/hr.</p> <p>Install edgelines with or without ATP and centreline ATP.</p> <p>Undertake further investigation for feasible improvement works including RIAWS at Woodlands Road intersection.</p>

Report No.	Road Name	Recommendations
2.20.3	Pukekauri Road	<p>Lower the speed limit to 60km/hr from Waitawheta Road to 400m east of Waitawheta Road</p> <p>Lower the speed limit to 80km/hr from 400m east of Waitawheta Road to the intersection with Franklin Road.</p> <p>Install speed threshold treatments at speed limit change locations.</p> <p>Any changes to the speed limit on this road will result in the need for the speed limit to be reduced on Athol Road, Hollis Road and McKinney Road.</p> <p><i>Following the Council hearing on the 13th July 2022 it was resolved to lower the speed limit on Pukekauri Road from Waitawheta Road to east of Hollis Road to 60km/hr and from east of Hollis Road to Franklin Road to 80km/hr.</i></p>
2.20.4	Pukewera Road	<p>Lower speed limit to 80km/hr in conjunction with Taieri Road</p> <p>Install speed threshold treatments and repeater signs</p>
2.20.5	Swetman Road	<p>Lower speed limit to 80km/hr in conjunction with Waitawheta Road.</p> <p>Install speed signs.</p>
2.20.6	Taieri Road	<p>Lower speed limit to 80km/hr in conjunction with Waitawheta Road and Pukewera Road</p> <p>Install speed signs.</p>

Report No.	Road Name	Recommendations
2.20.7	Waitawheta Road	<p>Lower the speed limit to 40km/hr between State Highway 2 and Pukekauri Road</p> <p>Lower speed limit to 80km/hr between Pukekauri Road and Old Tauranga Road.</p> <p>Lower the speed limit to 80km/hr on the adjacent side roads of Swetman Road, Kennedy Road, Dickey Flats Road, Dean Road, Franklin Road, Spence Road, McLean Road, Bellamys Road and Taieri Road to ensure consistency with speed limits.</p> <p>Review the speed limit on Pukekauri Road, Old Tauranga Road and Frankton Road and consider lowering to 80km/hr.</p> <p>Install threshold treatments at the extents of the speed limit changes and repeater signs as required.</p>
2.21.1	Whiritoa Beach Road	<p>Install repeater speed limit signs on Whiritoa Beach Road to remind drivers of the speed limit.</p> <p>Consider the use of side islands and central refuges to create a slower speed environment while supporting pedestrian usage in the area.</p> <p>Any changes to the speed limit on this road will require a similar treatment to the side roads of Pohutukawa Drive and Tavern Lane.</p> <p>Consideration should be given to implementing a 40km/hr speed limit if supported by the local community.</p>

Appendices



Appendix A – 2021 Road Data

Sort	Report Section	Road Name	School	DSI	Peri-Urban	Childcare	Aged Care	TPL	CSR	Mega Maps	Start	Start RP	End	End RP	Collective Risk Band	Personal Risk Band	Posted Speed Limit	Free Flow Speed	Reason for Safe and Appropriate	Governing Factor	IRR Band	Safe and Appropriate Speed
116	2.18.1	Abbott Road	Y								Old Waitekauri Road	0	Princes Street	410	Low	Low	50	39.3	ONRC is Class 4	Function / Feature	Medium	40
43	2.12.1	Ainslie Road			Y						Aorangi Road	0	Logan Road	436	Low	Low	50	33.69	ONRC is Class 4	Function / Feature	Medium	40
2	2.2.1	Alley Memorial Road			Y						SH26	0	End	83	Low	Low	70	21.6	Aligns with framework	Aligns with framework	Medium	80
44	2.12.2	Alpha Road			Y						SH26	0	End	310	Low	Low	50	28.14	Aligns with framework	Aligns with framework	Medium	50
79	2.16.1	Amaranth Street				Y					SH2	0	Silverton Road	286	Low	Low	50	32.28	ONRC is Class 4	Function / Feature	Medium	40
45	2.12.3	Aorangi Road									SH26	0	Ainslie Road	390	Low	Low	50	37	ONRC and Land Use	Function / Feature	Medium High	40
46	2.12.3	Aorangi Road				Y		Y	Y		Ainslie Road	390	End	1149	Low	Low	50	33.69	ONRC is Class 4	Function / Feature	Medium	40
65	2.14.1	Arawa Street			Y						SH25	0	End	685	Low	Low	100	42	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
1	2.1.1	Awaiti Road		Y							SH2	0		8024	Low Medium	Medium	100	93.61	ONRC is Class 3 or 4	Function / Feature	Medium	80
80	2.16.2	Baber St		Y							SH2	0	Kenny Street	145	Low	Low	50	32.5	ONRC is Class 4	Function / Feature	Medium	40
81	2.16.2	Baber St		Y							Kenny Street	145	Consols Street	346	Low	Low	50	33.83	ONRC is Class 4	Function / Feature	Medium	40
82	2.16.2	Baber St		Y							Consols Street	346	Station Road	489	Low	Low	50	22.55	ONRC is Class 4	Function / Feature	Medium	40
83	2.16.3	Bradford Street									Roberts Street	0	Victoria Street	215	Low	Low	50	34.45	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	40
84	2.16.3	Bradford Street					Y	Y			Victoria Street	215	End	1151	Low	Medium High	50	31.17	ONRC is Class 4	Function / Feature	Low Medium	40
66	2.14.2	Buchanan Road (Plains)			Y						SH25	0	End	2018	Low	Low	100	31.73	ONRC is Class 3 or 4	Function / Feature	Low Medium	80
67	2.14.3	Bush Road	Y					Y			SH25	0	Orchard Esat Road	6259	Low	Low Medium	100	84.82	ONRC is Class 3 or 4	Function / Feature	Medium	80
120	2.19.1	Canal West Road	Y		Y						SH25	0	RP 270	270	Low	Low	70	57	Aligns with framework	Aligns with framework	Medium	80
30	2.9.1	Church Road						Y			North Road	0	End	159	Low	Low	100	42	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
85	2.16.4	Clarke Street					Y				SH25	0	End	779	Low Medium	Medium High	50	30.09	ONRC is Class 4	Function / Feature	Low Medium	40
47	2.12.4	Colin Drive			Y						Alpha Road	0	End	161	Low	Low	50	39.13	Aligns with framework	Aligns with framework	Medium High	60
86	2.16.5	Consols Street				Y					Baber Street	420	Victoria Street	655	Low	Low	50	38.77	Aligns with framework	Aligns with framework	Low Medium	50
48	2.12.5	Corbett Street					Y	Y			Willoughby Street	108	King Street	340	Low	Medium	50	28.45	ONRC is Class 4	Function / Feature	Medium	40
49	2.12.6	Coronation Street	Y								Brenan Street	0	End	688	Low	Low	50	33.88	ONRC and Land Use	Function / Feature	Medium	40
31	2.9.2	Coxhead Road							Y		SH 25	0	SH2	1795	Low	Low	100	37	Road stereotype is Unsealed	Function / Feature	High	60
18	2.6.1	Dagger Road								Y	Ferry Road	0	End	1540	Low	Low	100	37.29	Road stereotype is Unsealed	Function / Feature	High	60
36	2.11.1	Darlington Street					Y	Y			SH2	0	Bratlie Place	189	Low	Low	50	36	ONRC and Land Use	Function / Feature	Medium	40
37	2.11.1	Darlington Street									Bratlie Place	189	End	910	Low	Low	50	31.46	ONRC is Class 4	Function / Feature	Low	40
87	2.16.6	Donnelly Street	Y								Gladstone Road	0	Smith Street	234	Low	Low	50	31.12	ONRC is Class 4	Function / Feature	Low Medium	40
4	2.3.1	East Coast Road - Sec 1									RP 0	0	RP 8028	8028	Low	Low Medium	100	87.79	ONRC is Class 3 or 4	Function / Feature	Low Medium	80
5	2.3.1	East Coast Road - Sec 2									RP 8028	8028	RP 9553	9553	Low	Low Medium	50	57.12	Aligns with framework	Aligns with framework	Medium	50
6	2.3.1	East Coast Road - Sec 3	Y						Y		RP 9553	9553	RP 12313	12313	Low	Medium	70	72.18	ONRC is Class 3	Function / Feature	Low Medium	50
7	2.3.1	East Coast Road - Sec 4		Y							RP 12313	12313	RP 16100	16100	Low Medium	High	100	80.05	Personal Risk is High	Road Safety Metric	Medium	60
8	2.3.1	East Coast Road - Sec 5			Y				Y		RP 16100	16100	RP 18678	18678	Low Medium	Medium	70	72.89	Aligns with framework	Aligns with framework	Medium	80
9	2.3.1	East Coast Road - Sec 6							Y		RP 18678	18678	Akl Bdy	19067	Low	Low	70	56.91	Aligns with framework	Aligns with framework	Medium	80
10	2.3.2	Ebner Place			Y						Kaiaua Road	0	End	336	Low	Low	100	22	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
117	2.18.2	Farrelly Road								Y	Old Waitekauri Road	0	End	1126	Low	Low	100	20	Road stereotype is Unsealed	Function / Feature	High	60
122	2.20.1	Ford Road		Y	Y						SH2	0	Old Tauranga Road	3123	Low Medium	Medium High	100	59.72	ONRC is Class 3 or 4	Function / Feature	Medium	80
88	2.16.7	Galbraith Street				Y					Margaret Street	153	Wrigley Street	303	Low	Medium High	50	31.17	ONRC is Class 4	Function / Feature	Low Medium	40
89	2.16.8	Gilmour Street							Y		SH25	179	SH2	848	Low	Medium	50	42.97	ONRC and Land Use	Function / Feature	Medium	40
90	2.16.9	Gladstone Road				Y					Mataura Road	350	Somerset Street	805	Low	Low	50	31.12	ONRC is Class 4	Function / Feature	Low Medium	40
70	2.15.1	Hauraki Road - Sec 1		Y				Y	Y	Y	SH25	0	RP 4160	4160	Low Medium	Low Medium	100	89.39	IRR is Medium	Infrastructure Risk Rating	Medium	80
71	2.15.1	Hauraki Road - Sec 2	Y			Y		Y	Y		RP 4160	4160	RP 5425	5425	Low	Low	50	60.92	Aligns with framework	Aligns with framework	Low Medium	60
72	2.15.1	Hauraki Road - Sec 3		Y				Y	Y		RP 5425	5425	SH2	14135	Medium	Medium High	100	92.56	IRR is Medium	Infrastructure Risk Rating	Medium	80
38	2.11.2	Hayward Road				Y			Y		Kaihere Road	0	Darlington Street	707	Low	Low	50	31.46	ONRC is Class 4	Function / Feature	Low	40
91	2.16.10	Heard Road			Y			Y	Y		Trig Road North	0	End	2278	Low	Low	100	55.32	ONRC is Class 3 or 4	Function / Feature	Medium	80
92	2.16.11	Heath Road			Y						SH2	0	End	450	Low	Low	100	20	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
73	2.15.2	Huirau Road		Y							Hauraki Road	0	End	3726	Low	Low	100	57.17	ONRC is Class 3 or 4	Function / Feature	Medium	80
50	2.12.7	Junction Road							Y		Railway Road	0	Menzies Place	405	Low	Low	50	37	ONRC is Class 4	Function / Feature	Medium	40
11	2.3.3	Kaiaua Road		Y							Existing 50/100	280	Bdy with Waikato	5826	Low Medium	Medium High	100	77.42	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
14	2.4.1	Kaihere Road - Sec 1	Y								SH2	0	Benner Drive	450	Low	Low	50	52.09	ONRC and Land Use	Function / Feature	Low Medium	40
15	2.4.1	Kaihere Road - Sec 2		Y							Brenner Drive	450	SH27	15720	Low Medium	Medium High	100	86.73	ONRC is Class 3 or 4	Function / Feature	Medium	80
51	2.12.8	Keepa Ave					Y				Shaw Avenue	0	End	295	Low	Low	50	33.92	ONRC is Class 4	Function / Feature	Medium	40
93	2.16.12	Kenny St		Y				Y			SH2	0	Baber Street	420	Low	Medium	50	47.84	Aligns with framework	Aligns with framework	Low Medium	50
94	2.16.12	Kenny St									Baber Street	420	SH2	839	Low	Medium	50	49.05	Aligns with framework	Aligns with framework	Medium	50
95	2.16.13	Kensington Road	Y								Rata Street	727	Morseby Avenue	876	Low	Low	50	31.57	ONRC is Class 4	Function / Feature	Low Medium	40
96	2.16.13	Kensington Road									Morseby Avenue	876	End	1055	Low Medium	Medium	50	20	ONRC is Class 4	Function / Feature	Medium	40
19	2.6.2	Kerepehi Town Road - Sec 1						Y			SH2	0	Reta Crescent	470	Low	Low	100	44	ONRC is Class 3	Function / Feature	Medium	50
20	2.6.2	Kerepehi Town Road - Sec 2									Reta Crescent	470	Thompson Road	1736	Low	Low	50	50.91	Aligns with framework	Aligns with framework	Medium	50
21	2.6.2	Kerepehi Town Road - Sec 3									Thompson Road	1736	Ferry Road	2006	Low	Low	100	60.07	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60

Sort	Report Section	Road Name	School	DSI	Peri-Urban	Childcare	Aged Care	TPL	CSR	Mega Maps	Start	Start RP	End	End RP	Collective Risk Band	Personal Risk Band	Posted Speed Limit	Free Flow Speed	Reason for Safe and Appropriate Speed	Governing Factor	IRR Band	Safe and Appropriate Speed
24	2.7.1	Komata Reefs Road								Y	SH26	0	Bradshaw Road	1130	Low	Low	100	36.98	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
25	2.7.1	Komata Reefs Road									Bradshaw Road	1130	End	6368	Low	Low	100	36.63	Road stereotype is Unsealed	Function / Feature	High	60
118	2.18.3	Larsen Road								Y	Old Waitekauri Road	0	End	184	Low	Low	70	20	ONRC is Class 4	Function / Feature	Medium High	40
97	2.16.14	Lawrence Road					Y	Y			Cornwall Street	0	End	716	Low	Medium High	50	31.17	ONRC is Class 4	Function / Feature	Low Medium	40
32	2.9.3	Mahuta Road North		Y							SH25	0	SH2	4820	Low	Medium	100	59.93	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
63	2.13.1	Mangawhero Road								Y	SH27	0	RP 3616	3616	Low	Low	100	37	ONRC is Class 3 or 4	Function / Feature	Medium	80
64	2.13.1	Mangawhero Road									RP 3616	3616	End	6820	Low	Low	100	37	Road stereotype is Unsealed	Function / Feature	High	60
3	2.2.2	Maratoto Road								Y	RP 7610	7610	End	9741	Low	Low	100	36.79	Road stereotype is Unsealed	Function / Feature	High	60
98	2.16.15	Mataura Road				Y					Gladstone Road	80	Bank Street	180	Low	Low	50	31.12	ONRC is Class 4	Function / Feature	Low Medium	40
39	2.11.3	McDuff Lane						Y			SH2	0	End	60	Low	Low	50	20	ONRC is Class 4	Function / Feature	Medium	40
22	2.6.3	McGowan Ave	Y			Y					Kerepehi Town Road	0	End	536	Low	Low	50	29.72	ONRC is Class 4	Function / Feature	Low Medium	40
40	2.11.4	McMillan Street				Y					Hayward Road	0	End	112	Low	Low	50	31.46	ONRC is Class 4	Function / Feature	Low	40
52	2.12.9	Miller Avenue	Y								Tower Street	0	End	310	Low	Low	50	26.8	ONRC and Land Use	Function / Feature	Low Medium	40
12	2.3.4	Miranda Road		Y							Findlay Road	0	Waikato DC Bdy	4602	Low Medium	Medium	100	76.07	ONRC is Class 3 or 4	Function / Feature	Medium	80
68	2.14.4	Moehau Street			Y						Buchanan Road	0	End	1030	Low	Low	100	38.11	ONRC is Class 3 or 4	Function / Feature	Medium	80
99	2.16.16	Moresby Avenue	Y	Y							Seddon Street	0	Savage Road	510	Low	Low	50	46.51	ONRC and Land Use	Function / Feature	Medium	40
100	2.16.17	Mueller Street	Y								SH25	168	SH2	695	Low	Low	50	32.88	ONRC is Class 4	Function / Feature	Medium	40
101	2.16.18	Ngatitangata Road								Y	Golden Valley Road	0	End	2649	Low	Low	100	37	Road stereotype is Unsealed	Function / Feature	High	60
33	2.9.4	North Road						Y			SH27	0	End	4307	Low	Low	100	27.61	Road stereotype is Unsealed	Function / Feature	High	60
53	2.12.10	Norwood Road	Y								McDonald Place	517	Station Road	1178	Low	Low	50	48.55	ONRC and Land Use	Function / Feature	Medium	40
54	2.12.11	Nowra Cres				Y					Shoalhaven Street	0	Shoalhaven Street	204	Low	Low	50	20	ONRC is Class 4	Function / Feature	Medium	40
16	2.4.2	Ohinewai Road								Y	SH27	0	Waikato DC Bdy	6140	Low	Low	100	39.28	Road stereotype is Unsealed	Function / Feature	High	60
123	2.20.2	Old Tauranga Road									Waitekauri Road		SH2		Low Medium	Medium	100	90.86	ONRC is Class 3 or 4	Function / Feature	Medium	80
119	2.18.4	Old Waitekauri Rd					Y				SH2	0	Victoria Street	940	Low	Low	50	39.3	ONRC is Class 4	Function / Feature	Medium	40
74	2.15.3	Oparia Road			Y						Sthrn End	0	Nrth end	1329	Low	Low	50	31.06	ONRC is Class 4	Function / Feature	Low Medium	40
102	2.16.19	Orokawa Heights			Y						Heard Road	0	End	183	Low	Low	50	27.4	Aligns with framework	Aligns with framework	Medium High	60
55	2.12.12	Papaturoa Avenue			Y						SH26	0	End	171	Low	Low	50	20	Aligns with framework	Aligns with framework	Medium High	60
121	2.19.2	Penrhys Close			Y						Back Miranda Road	0	End	184	Low	Low	100	20	ONRC is Class 3 or 4	Function / Feature	Medium	80
75	2.15.4	Piako Road						Y			Hauraki Road	0	Oparia Road	567	Low	Low	50	49.62	Aligns with framework	Aligns with framework	Medium	50
69	2.14.5	Pipiroa Rd					Y				RP 5490	5490	Mahana Road	6290	Low	Medium	70	62.24	ONRC and Land Use	Function / Feature	Low Medium	50
103	2.16.20	Poets Corner			Y						Heard Road	0	End	296	Low	Low	50	20	Aligns with framework	Aligns with framework	Medium High	60
41	2.11.5	Puhunga Island Road North								Y	RP 1620	1620	End	3034	Low	Low	100	37	Road stereotype is Unsealed	Function / Feature	High	60
124	2.20.3	Pukekauri Road		Y							Waitawheta Road	0	Franklin Road	6725	Low Medium	High	100	70.22	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
125	2.20.4	Pukewera Road								Y	Old Tauranga Road	0	Taieri Road	4317	Low	Low	100	36.78	Road stereotype is Unsealed	Function / Feature	High	60
29	2.8.1	Rahu Road								Y	End of seal	1445	End	3440	Low	Low	100	34.28	Road stereotype is Unsealed	Function / Feature	High	60
56	2.12.13	Railway Street						Y			SH2	0	End	498	Low	Medium	50	32.7	ONRC and Land Use	Function / Feature	Medium High	40
76	2.15.5	Raratuna Street	Y			Y	Y	Y			Oparia Road	0	Waihou Street	673	Low	Low	50	30.2	ONRC is Class 4	Function / Feature	Low Medium	40
77	2.15.6	Rata Street (Turua)			Y						Hauraki Road	0	Oparia Road	561	Low	Low	50	25.84	ONRC is Class 4	Function / Feature	Medium	40
78	2.15.7	Raupoiti Street				Y					Piako Road	0	Matai Street	119	Low	Low	50	37.42	ONRC is Class 4	Function / Feature	Low Medium	40
104	2.16.21	Reservoir Rd					Y				Kent Crescent	546	End	1036	Low	Low	100	31.46	ONRC is Class 4	Function / Feature	Low Medium	40
42	2.11.6	River Road				Y		Y			SH2	0	Leonard Street	500	Low	Low	50	31.03	ONRC is Class 4	Function / Feature	Low Medium	40
57	2.12.14	Rotokohu Road			Y						RP 200	200	RP 6420	6420	Low	Low	100	55.04	ONRC is Class 3 or 4	Function / Feature	Medium	80
58	2.12.14	Rotokohu Road									RP 6420	6420	End	7720	Low	Low	100	46	Road stereotype is Unsealed	Function / Feature	Medium High	60
105	2.16.22	Russel Street				Y					Kensington Road	0	Walker Street	418	Low	Low	50	31.57	ONRC is Class 4	Function / Feature	Low Medium	40
17	2.5.1	School Road (Karanghake)	Y								SH2	0	End	306	Low	Low	50	33	ONRC is Class 4	Function / Feature	Medium High	40
35	2.10.1	School Road (Netherton)	Y								SH2	0	Fisher Road	2065	Low	Low	100	57.17	ONRC is Class 3 or 4	Function / Feature	Medium	80
106	2.16.23	Seddon St								Y	Morseby Avenue	0	Mueller Street	265	Low	Low Medium	50	21.83	Land use is Commercial Strip Shop	Function / Feature	Medium	30
59	2.12.15	Shaw Avenue					Y	Y			Aorangi Road	0	End	700	Low	Low	50	33.92	ONRC is Class 4	Function / Feature	Medium	40
107	2.16.24	Somerset St				Y					SH2	0	Gladstone Road	100	Low	Low	50	31.12	ONRC is Class 4	Function / Feature	Low Medium	40
34	2.9.5	South Road								Y	SH27	0	End	3963	Low	Low	100	36.84	Road stereotype is Unsealed	Function / Feature	High	60
26	2.7.2	Strange Road								Y	SH26	0	RP 430	430	Low	Low	100	34	IRR ? Medium-High	Infrastructure Risk Rating	High	60
27	2.7.2	Strange Road									RP 430	430	RP 688	688	Low	Low	100	34	Road stereotype is Unsealed	Function / Feature	High	60
28	2.7.2	Strange Road									RP 688	688	End	2160	Low	Low	100	34	Road stereotype is Unsealed	Function / Feature	High	60
126	2.20.5	Swetman Road								Y	Waitawheta Road	0	End	1065	Low	Low	100	20	Road stereotype is Unsealed	Function / Feature	High	60
127	2.20.6	Taieri Road								Y	Waitawheta Road	0	RP 831	831	Low	Low	100	37	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
128	2.20.6	Taieri Road									RP 831	831	End	3464	Low	Low	100	40.68	Road stereotype is Unsealed	Function / Feature	High	60
60	2.12.16	Te Moananui Flats Road			Y						Rotokohu Road	0	End	989	Low	Low	100	43.7	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
108	2.16.25	Thorn Road									Rata Street	0	Waitete Road Nth	674	Low	Low	100	29.74	Road stereotype is Unsealed	Function / Feature	Medium High	60
109	2.16.25	Thorn Road								Y	Waitete Road Nth	674	End	1339	Low	Low	100	22.64	Road stereotype is Unsealed	Function / Feature	High	60

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13	2.3.5	Toft Road								Y	Kaiaua Road	0	End	2143	Low	Low	100	21.07	Road stereotype is Unsealed	Function / Feature	High	60
110	2.16.26	Toomey Street					Y				Kesington Road	0	Waitete Road	363	Low	Low	50	31.57	ONRC is Class 4	Function / Feature	Low Medium	40
111	2.16.27	Victoria St		Y				Y	Y		Kenny Street	0	Frankton Road	1119	Low	Medium	50	53.57	Aligns with framework	Aligns with framework	Medium	50
115	2.17.1	Waihi Beach Road		Y						Y	State Highway 2	0	Bdy with WBOP	4313	Medium	Medium	100	78.21	IRR is Medium	Infrastructure Risk Rating	Medium	80
61	2.12.17	Waimarei Avenue					Y				Norwood Road	0	End	395	Low	Medium	50	29.74	ONRC is Class 4	Function / Feature	Low Medium	40
129	2.20.7	Waitawheta Road						Y	Y		SH2	0	Pukekauri Road	480	Low	Low	80	50.38	IRR ? Medium-High	Infrastructure Risk Rating	Medium High	60
130	2.20.7	Waitawheta Road									Pukekauri Road	480	Old Tauranga Road	9124	Low	Low Medium	100	71.75	ONRC is Class 3 or 4	Function / Feature	Medium	80
112	2.16.28	Waitete Road						Y			Orchard Road	0	Rata Street	885	Low	Low	50	31.57	ONRC is Class 4	Function / Feature	Low Medium	40
113	2.16.29	Waitete Road Nth							Y		Thorn Road	0	End	631	Low	Low	100	22.64	Road stereotype is Unsealed	Function / Feature	High	60
23	2.6.4	Wharepoa Road West		Y							State Highway 2	0	Hauraki Road	3398	Medium	High	100	63.67	Personal Risk is High	Road Safety Metric	Medium	60
131	2.21.1	Whiritoa Beach Road						Y	Y		State Highway 25	0	Kon Tiki Road	627	Low	Medium	50	44.41	Aligns with framework	Aligns with framework	Low Medium	50
62	2.12.18	Wood Street	Y								Victoria Street	185	Thorp Street	362	Low	Medium High	50	30.64	ONRC is Class 4	Function / Feature	Low Medium	40
114	2.16.30	Wrigley St		Y							State Highway 2	0	End	491	Low	Medium High	50	31.17	ONRC is Class 4	Function / Feature	Low Medium	40

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