



Raised Safety Platforms

A launch pad to success



**Hamilton
City Council**
Te kaunihera o Kirikiriroa

Hamilton's Accidental History

- Using similar profiles back in 2012-14 in 40 km/h Safer Speed Areas
- Found that they resulted in both lower speeds and fewer noise/vibration complaints



Hamilton's Accidental Hist

- Using similar profiles back in 2012-14 in 40 km/h Safer Speed Area
- Found th in h

HOLD
National Speed Limit Rule Review



Ideas Collide

- **June 2017** - Hamilton City Council adopt a Vision Zero Aspiration
- **Late 2017** - Crashes started to rise at the Thomas/Gordonton Intersection, design work begins on Roundabout because signals not considered Safe System.
- **2018** - Waka Kotahi's Fabian Marsh presents Raised Traffic Signal Intersections to Safer Intersections Working Group.
- **Mid 2018** - Roundabout dismissed, Raised Traffic Signals pursued.
- **April 2019** - Thomas/Gordonton Traffic Signals with RSP's go live.

Thomas/Gordonton



Thomas/Gordonton



Thomas/Gordonton - Crashes

Crash History (2014 – 2023)

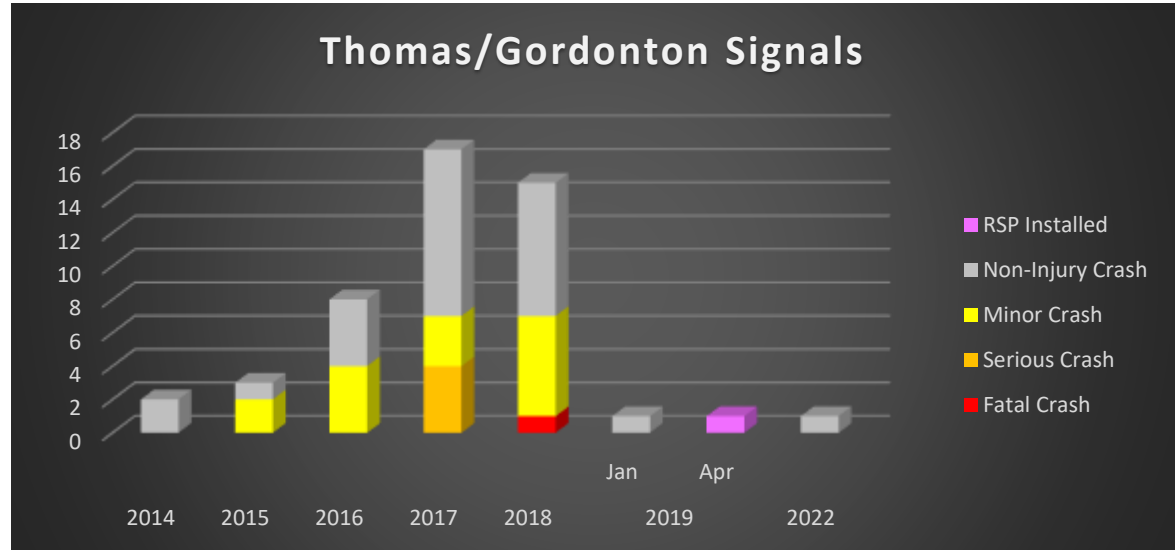
Before (2014 – Jan 2019)

46 Crashes

1 Fatal
4 Serious
15 Minor
26 Non-injury

After (10 Apr 2019 – 1 May 2023)

1 Non-injury Crash



Bryce/Anglesea



Bryce/Anglesea



Bryce/Anglesea – Crashes

Crash History (2014 – 2023)

Before (2014 – Jan 2020)

29 Crashes

2 Serious

6 Minor

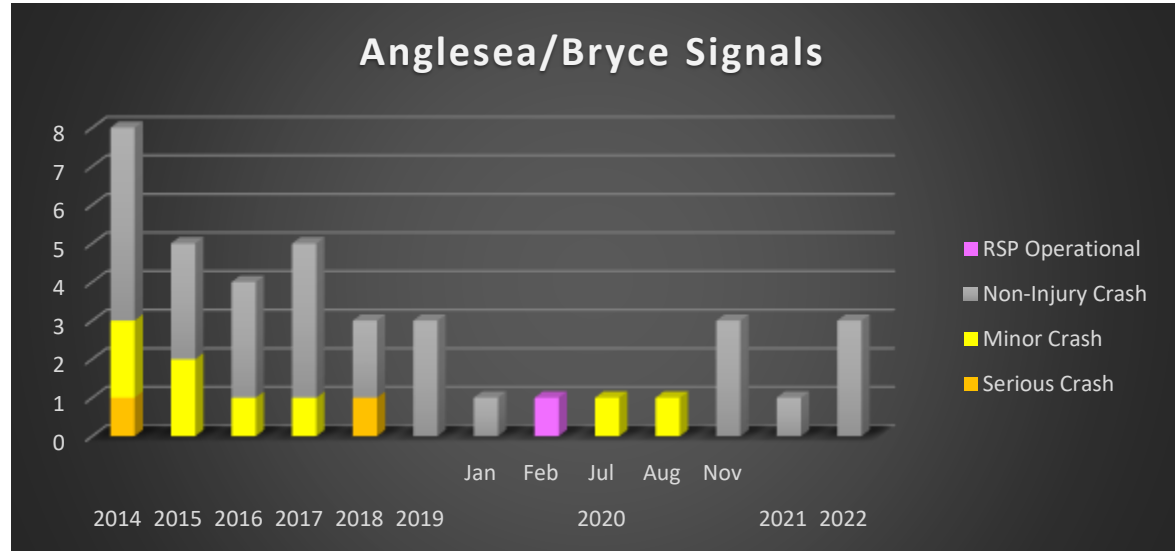
21 Non-injury

After (Feb 2020 – 1 May 2023)

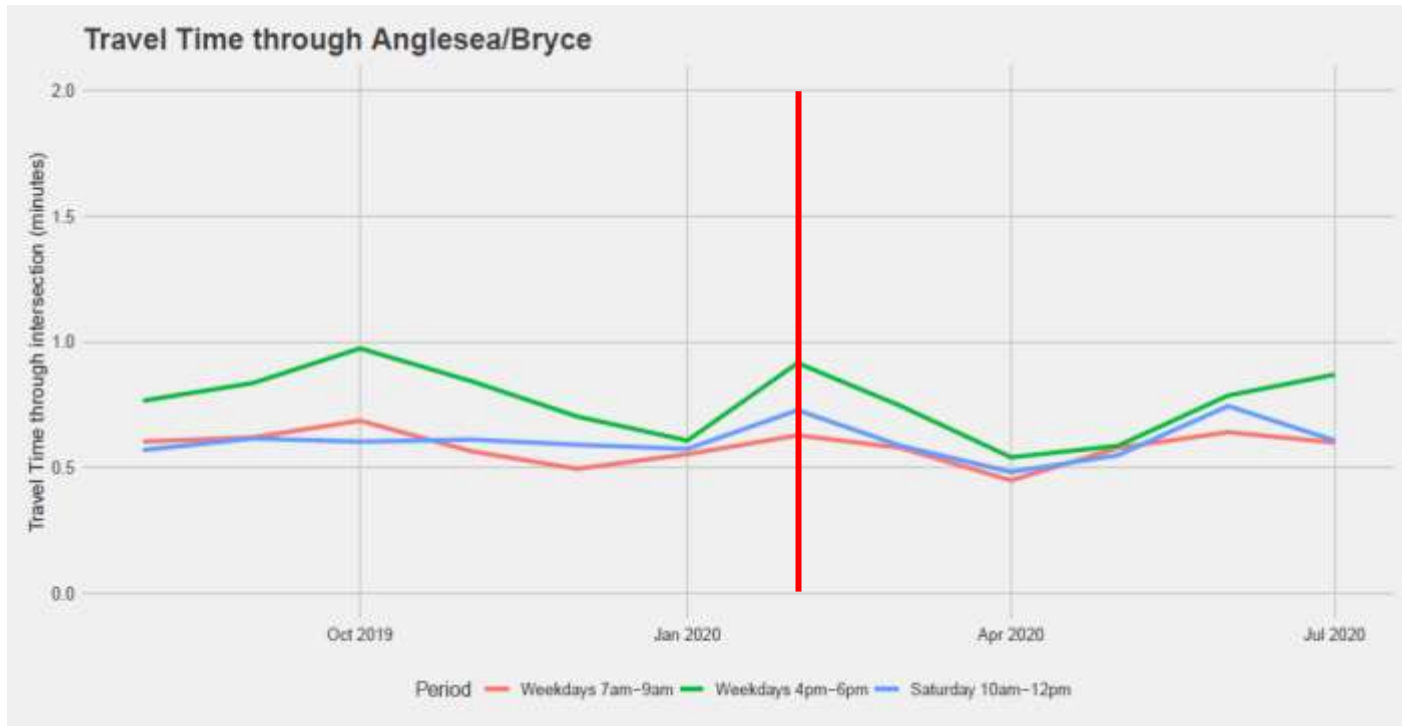
9 Crashes

2 Minor

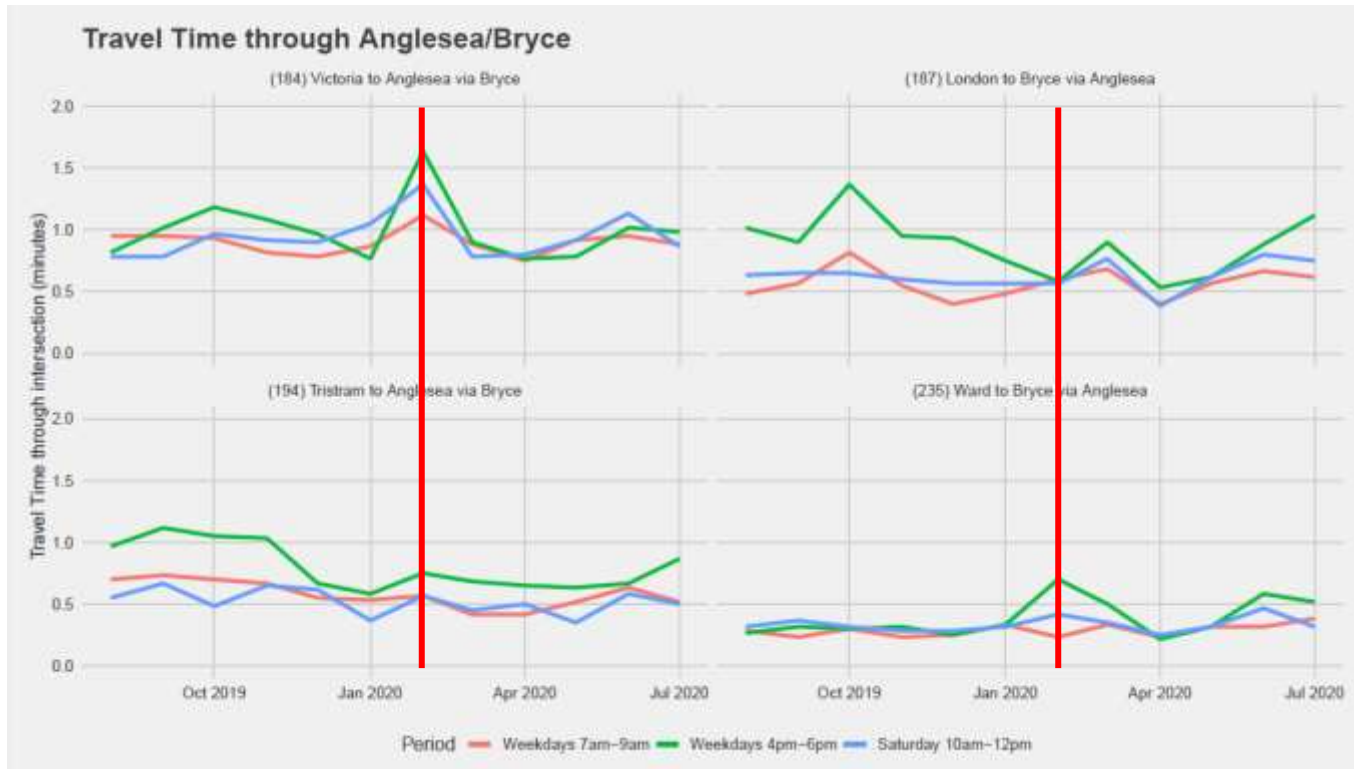
7 Non-injury



Bryce/Anglesea – Average Travel Time



Bryce/Anglesea – Approach Travel Time



Grey/Te Aroha



Grey/Te Aroha



Grey/Te Aroha - Crashes

Crash History (2014 – 2023)

Before (2014 – Aug 2019)

29 Crashes

1 Serious

10 Minor

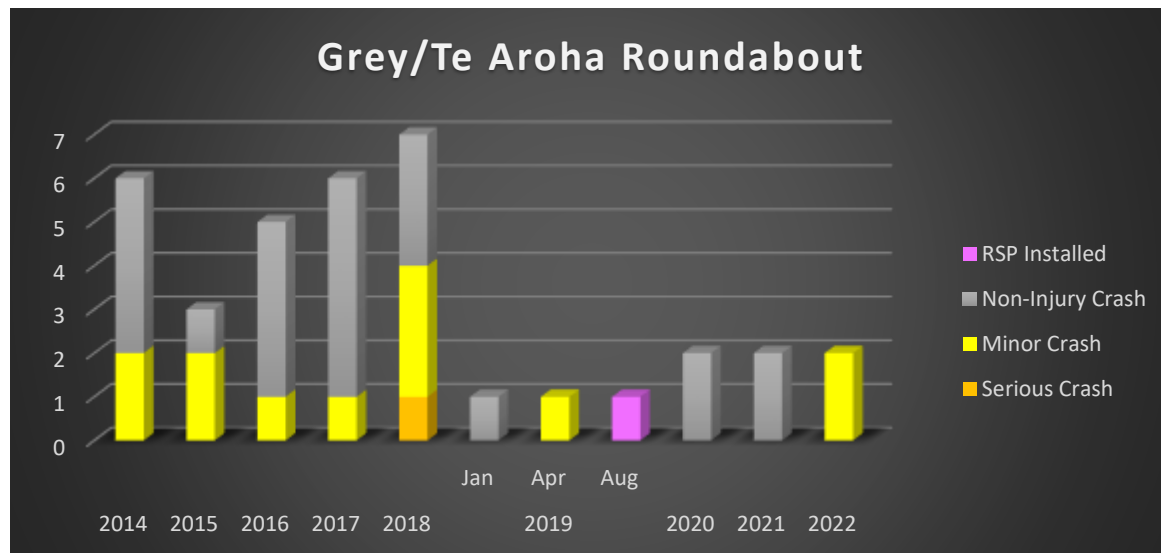
18 Non-injury

After (Sept 2019 – 1 May 2023)

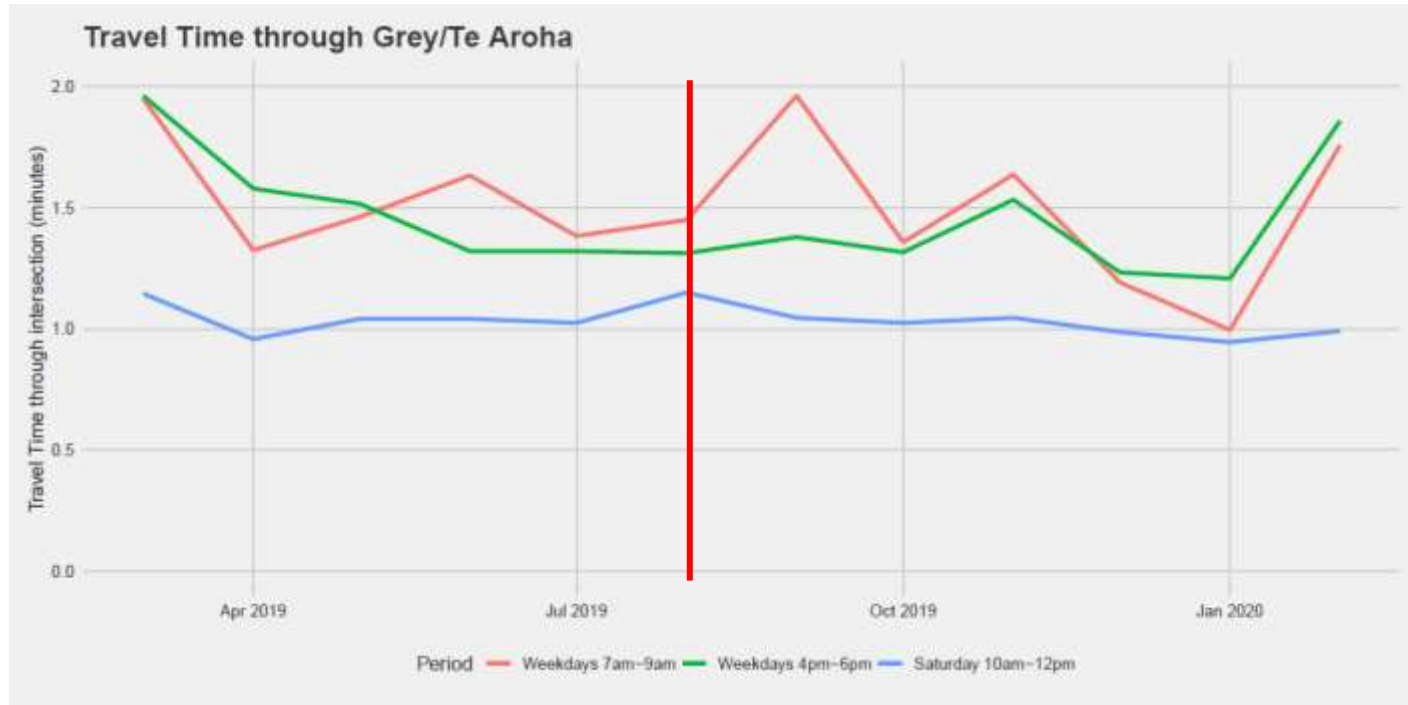
6 Crashes

2 Minor

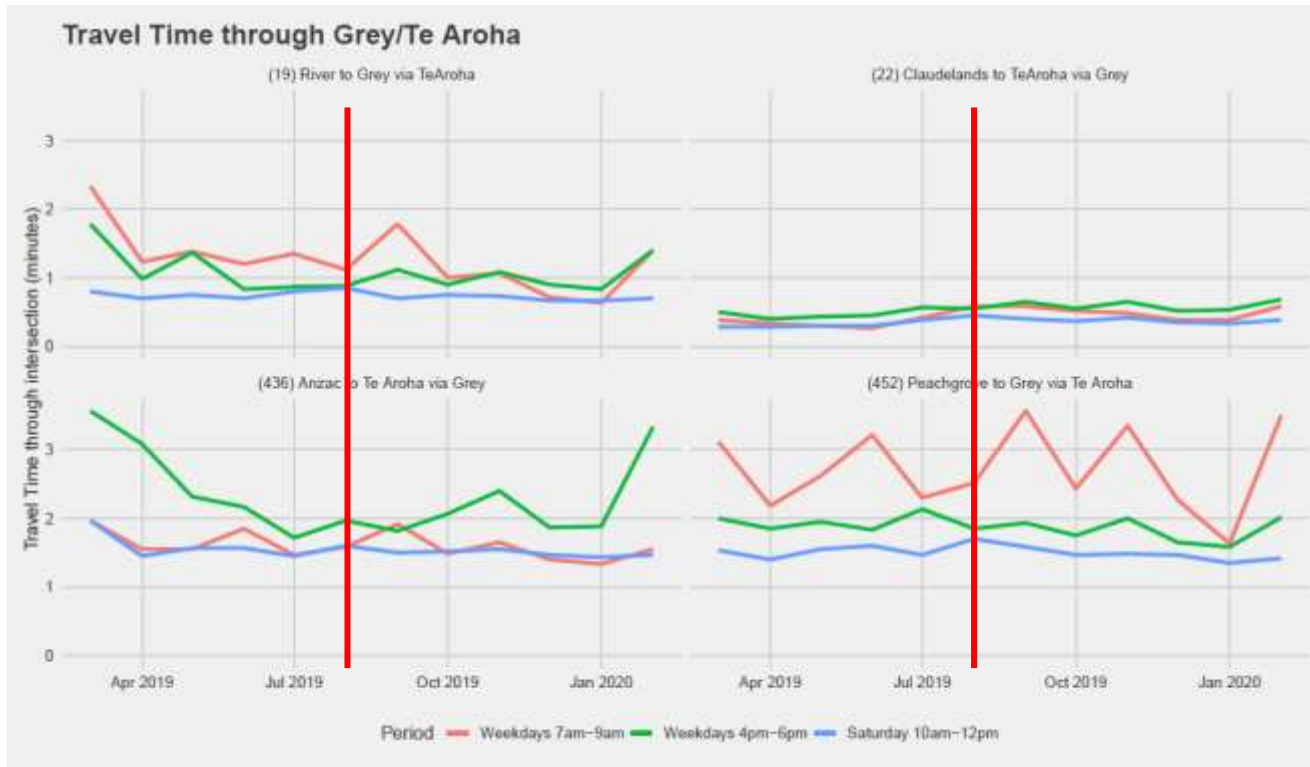
4 Non-injury



Grey/Te Aroha – Average Travel Time



Grey/Te Aroha – Approach Travel Time





Bankwood/Comries



Bankwood/Comries

Bankwood/Comries - Crashes

Crash History (2014 – 2023)

Before (2014 – Aug 2019)

21 Crashes

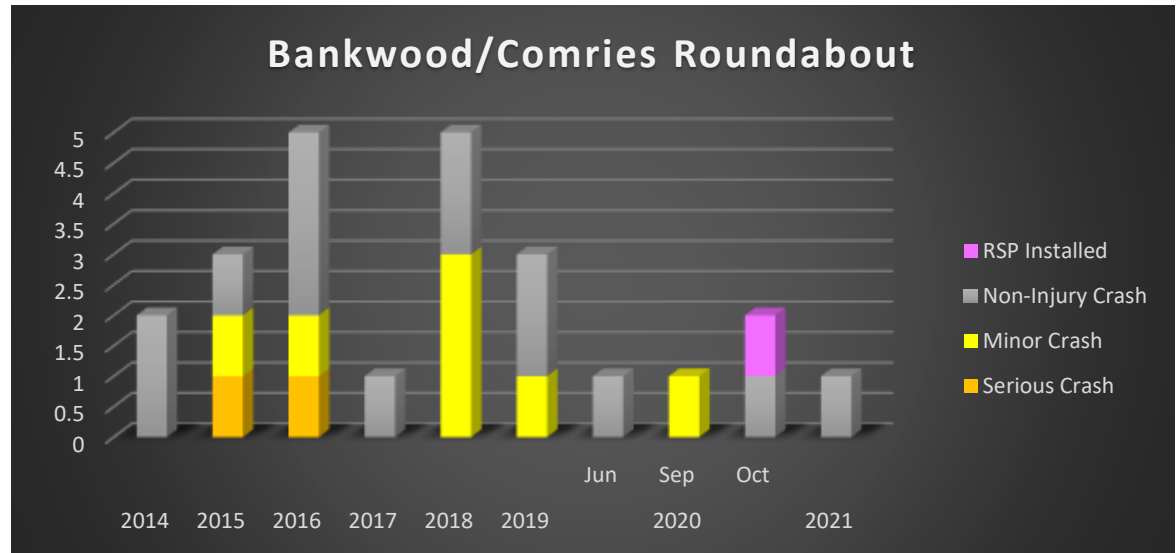
2 Serious

7 Minor

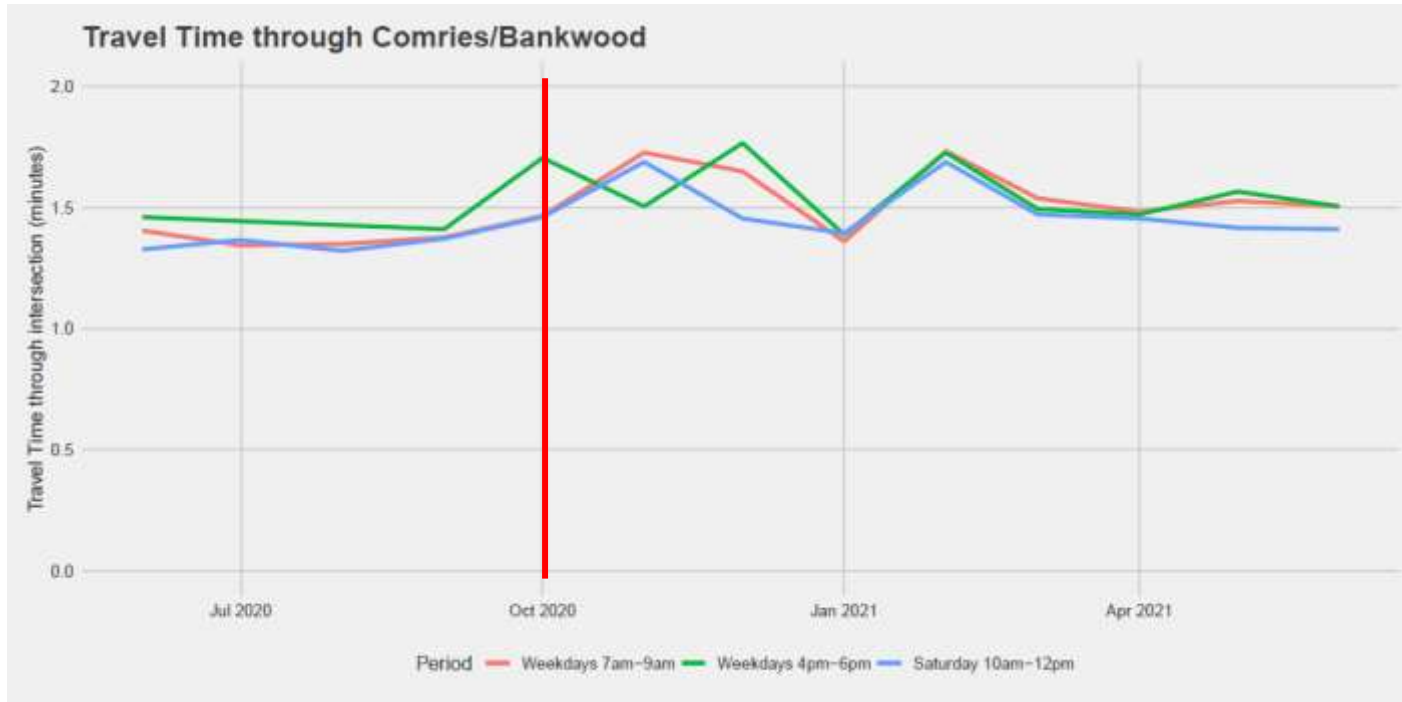
12 Non-injury

After (Oct 2020 – 1 May 2023)

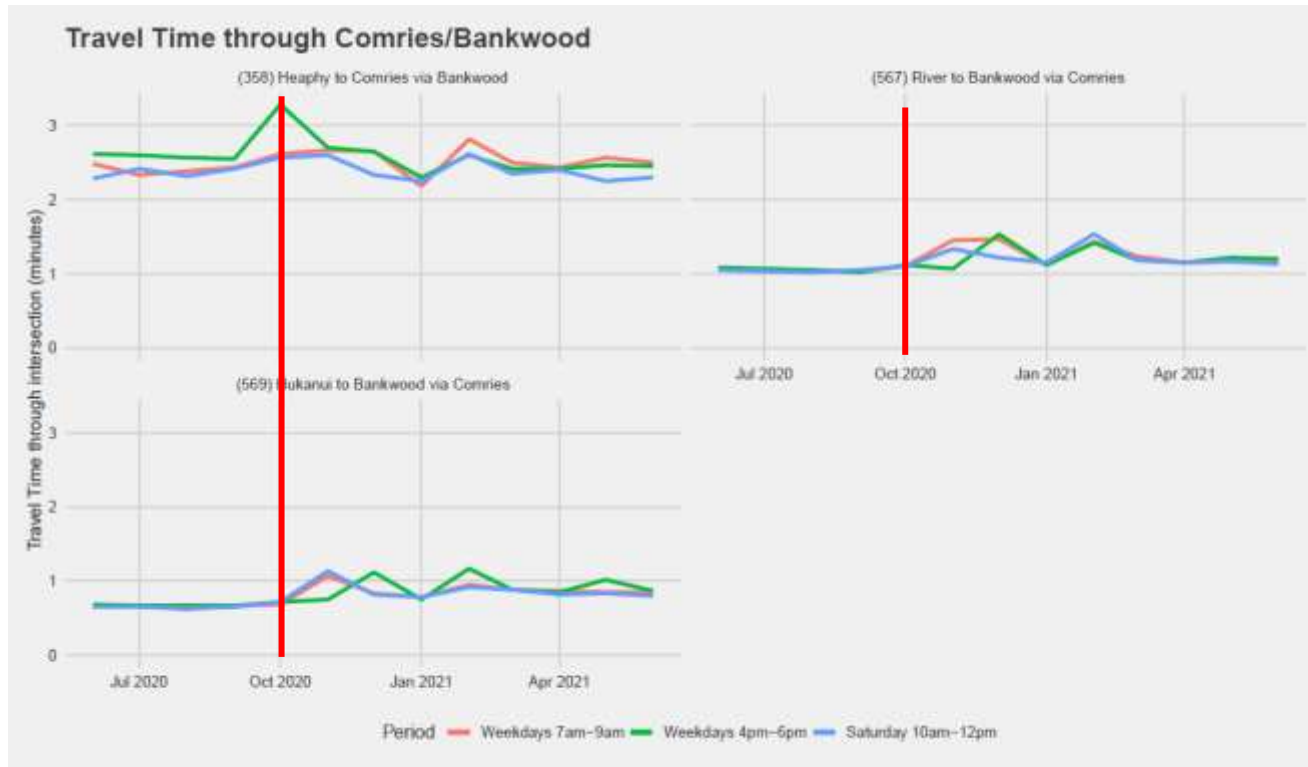
2 Non-injury Crashes



Bankwood/Comries – Average Travel Time



Bankwood/Comries – Approach Travel Time





Wairere/Cobham (SH1c)



Heaphy/Brooklyn



Claudelands/Grey

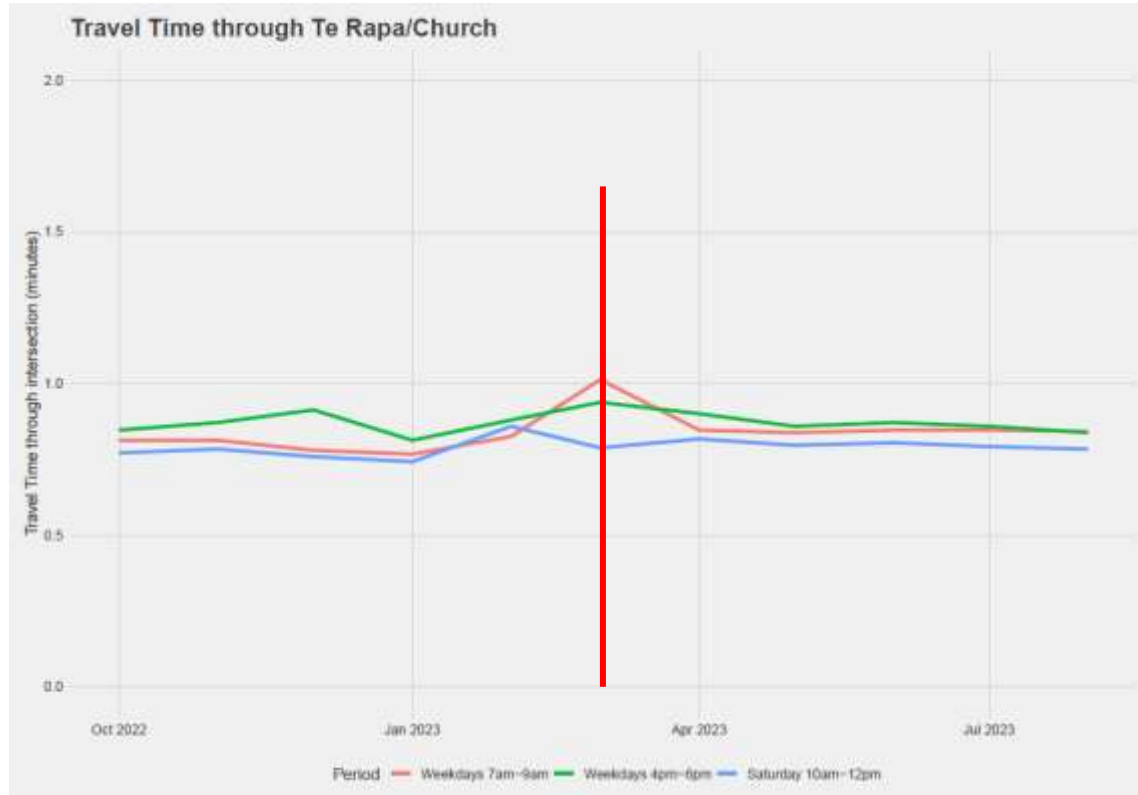


Cobham/Tristram

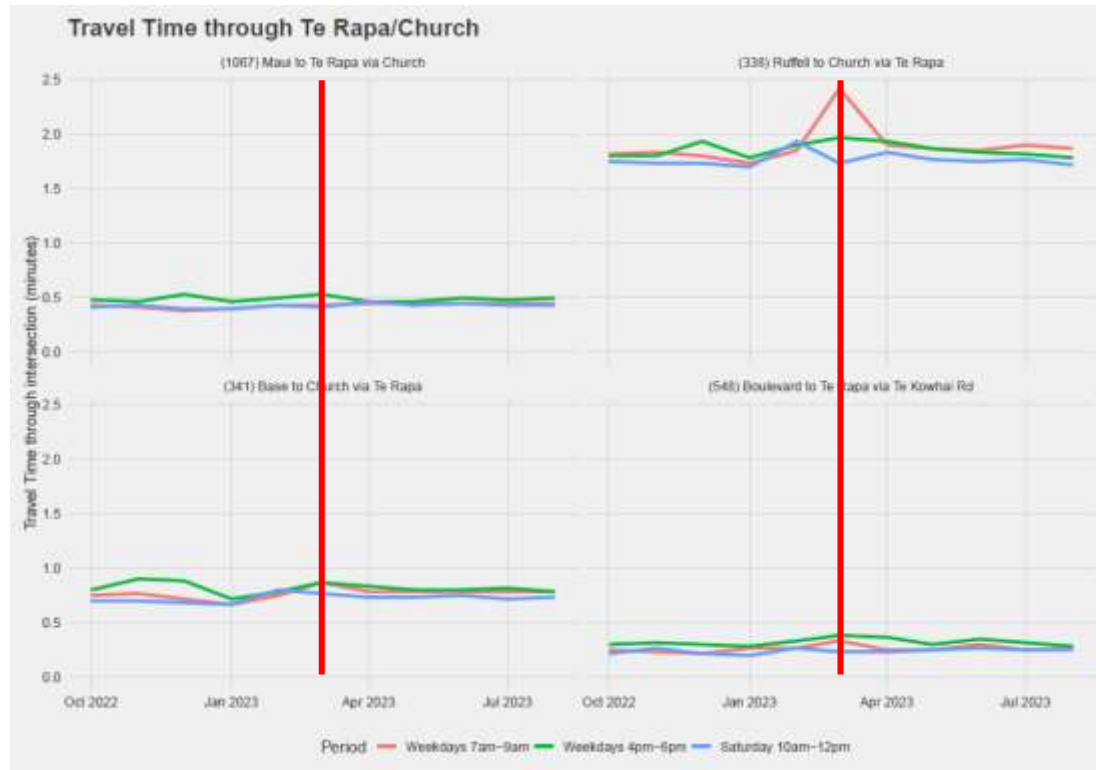


Te Rapa/Church

Te Rapa/Church – Average Travel Time



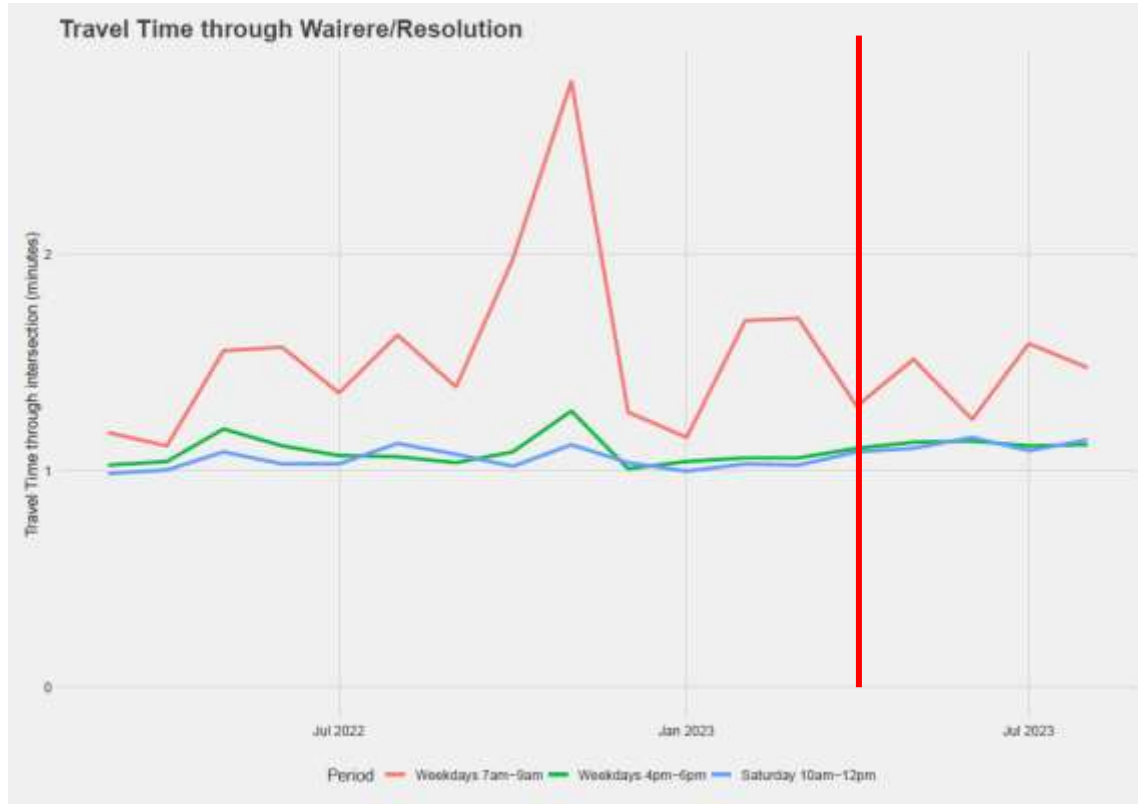
Te Rapa/Church – Approach Travel Time



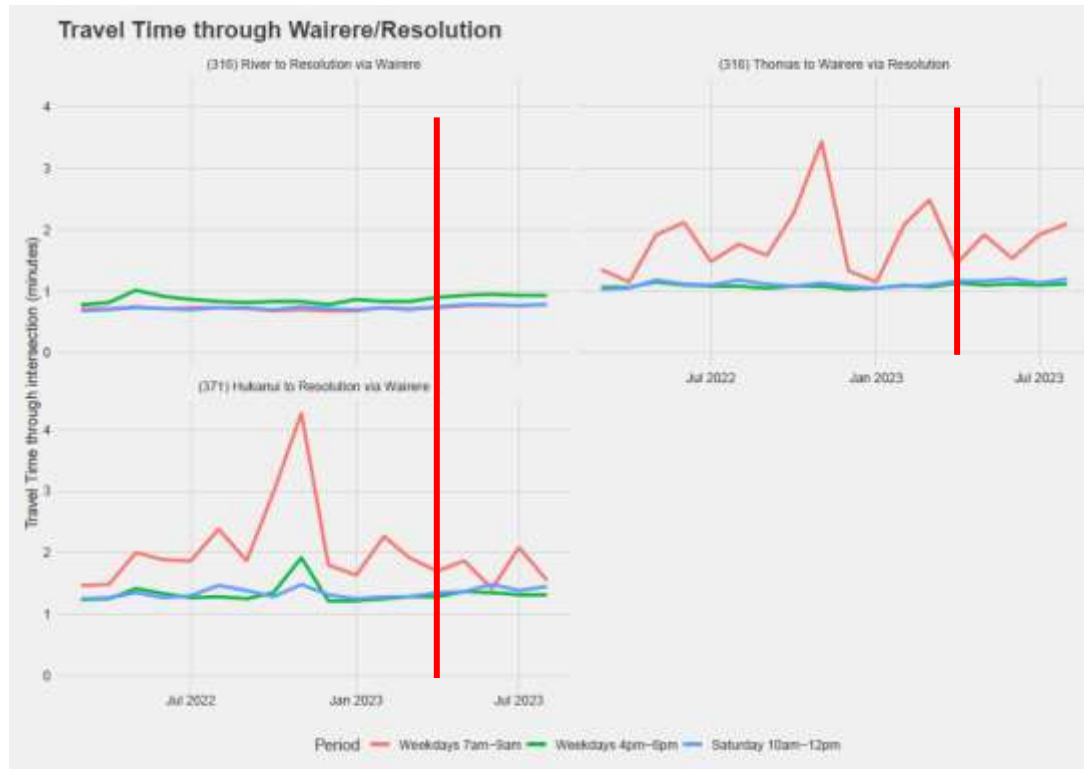
Wairere/Resolution



Wairere/Resolution – Average Travel Time



Wairere/Resolution – Approach Travel Times





Gordonton/Darjon - Compact Roundabout

Mid-block Crossings





Mid-block Crossings

Speed Results

Mid-block

~ 10km/h of Posted Speed Limit

Varies by shape



Intersection

Close to RSP Design Speed

Better driver understanding?

Shape is Critical

The ramp top must be parallel to the 'existing' road surface

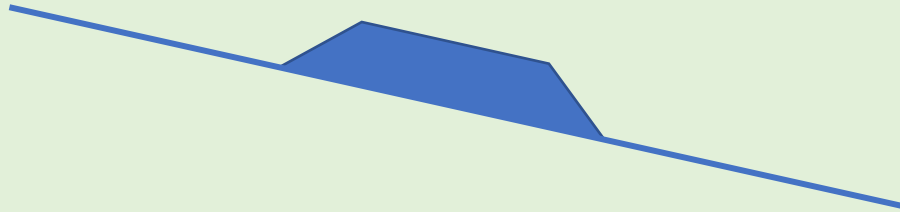
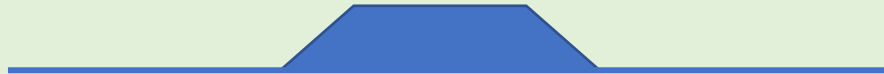


<<<< Pedestrians >>>>

<<<< Pedestrians >>>>



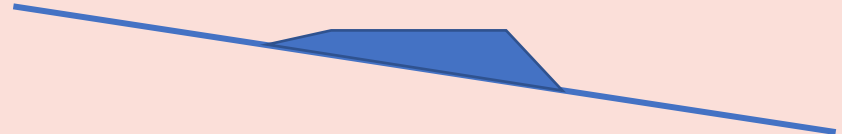
<<<< Vehicles >>>>



<<<< Pedestrians >>>>



<<<< Vehicles >>>>



Other Challenges



In the beginning

- Industry push back

As you gain trust in RSP's

- Bringing the community along on the journey

Bringing the Community Along



Raised safety platforms The little upgrade that's saving lives

Questions about...

The number and severity of crashes in Hamilton has dropped significantly in places where we have installed raised safety platforms.

Number and severity of crashes in the previous 5 years

Intersection			
Thomas/ Gardner	Grey/ Te Anau	Bryce/ Angelsea	Barkwood/ Cassidy
What was installed			
Signs and raised safety platforms on the Gordon Road approach	Raised safety platforms across the individual approaches/departures	Raised the whole intersection	Roundabout with raised safety platforms across the four individual approaches/departures
Date of installation			
April 2019	August 2019	February 2020	October 2020
Inter Number and severity of crashes in the previous 5 years (all sites)			
1 fatal 4 serious 18 minor injury 28 non-injury	1 serious 8 minor injury 14 non-injury	1 serious 2 minor injury 16 non-injury	2 serious 7 minor injury 10 non-injury
Number and severity of crashes since installation			
1 less injury	2 minor injury 4 non-injury	2 minor injury 8 non-injury	2 less injury

Every change we make on Hamilton streets is designed so that you and your loved ones can always get home safely.

How do raised safety platforms save lives?

A raised safety platform is a flat topped speed hump. It's designed to slow vehicle speeds just enough so that when people make mistakes they have time to react and avoid a crash.

If a crash does happen, the human body has much better chance of surviving the impact at a slower speed.

Why does speed matter so much?

The severity of injuries resulting from a crash is directly related to the pre-crash speed of the vehicle whether or not speed caused the crash.

Chances of surviving a car impact

Based on adult pedestrians. Risks are higher for children and elderly.

30 km/h	90%
40 km/h	60%
50 km/h	10%

Chances of surviving a side-on crash

Based on vehicle 1's speed.

30 km/h	90%
40 km/h	60%
50 km/h	20%

How much do they slow me down?

Speed dependent from 10km/h to 30km/h. Slower safety platforms are designed to slow vehicles that are travelling at 30km/h or less. They are also designed to slow vehicles that are travelling at 40km/h or less. They are also designed to slow vehicles that are travelling at 50km/h or less.

But what about congestion?

There is no evidence that raised safety platforms cause congestion. In fact, they can help reduce congestion by slowing down traffic and reducing the number of crashes.

Questions about...

How much do raised safety platforms slow me down?

Raised safety platforms are designed to slow vehicles to a speed that is safe for the situation. This is usually 30km/h when there are pedestrians, or 50km/h when there are no pedestrians. Each platform is carefully designed for its specific location.

It doesn't cost anything to lower your speed for a moment, but every injury has wider costs and flow-on effects for families, employers, communities and our health system.

But what about congestion?

Congestion is the result of more people living and driving in a growing city. We would see current levels of congestion growing with or without raised safety platforms.

Why should I slow down if there's no one on the crossing?

Not every crash involves pedestrians. The raised safety platforms is for your safety too.

The first raised safety platforms were installed in Hamilton in 2019 so we've had plenty of time to measure their effectiveness. We know they work.

<https://hamilton.govt.nz/parking-and-transport/roads/road-safety/raised-safety-platforms/>



Con's

- Drainage
- Noise/vibration concerns
- Public Concerns
 - Perception of vehicle damage/fuel consumption
 - Perception of increased traffic congestion



Pro's

- Excellent Speed Management/reduction
- Improve pedestrian level of service
- Adaptable to desired speed outcome

Learning/Sharing



- Approach Ramp = Speed Management
- Departure Ramp = Noise/vibrations?
- Underlying ground conditions – Relationship to departure ramp?

Where to for help

- VicRoads – RDN 03-07 – Raised Safety Platforms
- Austroads – AP-R642-20 - Effectiveness and implementation of Raised Safety Platforms
- Waka Kotahi - Fabian Marsh
- Hamilton City Council – Me...
- Google “[Raising the standard for intersection safety youtube](#)”



Where to from here?

Still a lot to learn and share and looking for others to join the journey...

...and for you to share your experiences and journey with us.

Thank you

For being there for the first one

- Fabian Marsh – Waka Kotahi
- Robyn Denton – Hamilton City Council
- John Kinghorn – Hamilton City Council
- Hamish Mackie – Mackie Research Ltd
- Mike Meister – WSP, Hamilton
- Letitia Garmonsway – WSP, Hamilton
- Willem Ferreira - Infrastructure Alliance





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-  [HamiltonCityCouncil](https://www.facebook.com/HamiltonCityCouncil)
-  [hamilton-city-council](https://www.linkedin.com/company/hamilton-city-council)

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