



# Tackling unsafe speeds: options for a programme of work

Received  
11 MAY 2018  
Office of Hon Phil Twyford

<b>Reason for this briefing</b>	In the Output Plan for February to June 2018 we committed to provide you with a briefing outlining options for a programme of work to tackle unsafe speeds.
<b>Action required</b>	Agree to discuss the proposed approach outlined in this briefing with officials, and to forward this briefing to the Minister of Police.
<b>Deadline</b>	N/A
<b>Reason for deadline</b>	N/A

**Contact for telephone discussion (if required)**

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**MINISTER'S COMMENTS:**

<b>Date:</b>	11/05/2018	<b>Briefing number:</b>	OC180255
<b>Attention:</b>	Hon Julie Anne Genter (Associate Minister of Transport)	<b>Security level:</b>	In-Confidence

**Minister of Transport's office actions**

- Noted*
- Seen*
- Approved*
- Needs change*
- Referred to*
- Withdrawn*
- Not seen by Minister*
- Overtaken by events*

## **Purpose of briefing**

1. This briefing outlines options for a programme of work aimed at tackling unsafe speeds, in order to reduce deaths and serious injuries on New Zealand's roads. This briefing was prepared jointly with the NZ Transport Agency and NZ Police.

## **Executive summary**

2. In 2016, travelling too fast for the conditions was the second highest contributing factor to the cause of fatal and serious injury crashes. Additionally, in the event of a crash, regardless of its cause, the speed of impact (crash force) is the most important determinant of the severity of injuries sustained and the probability of death.
3. There is a range of work underway to tackle unsafe speeds – including implementation of a new rule for setting speed limits which came into force in 2017, installation of infrastructure to engineer roads up to current speed limits, and a continued focus on public advertising and NZ Police enforcement.
4. Despite the ongoing focus on speed, it remains a key issue which needs to be addressed to improve road safety. The Ministry of Transport, the NZ Transport Agency and NZ Police have identified a range of options for further interventions to reduce speed-related deaths and serious injuries.
5. We have considered each option against a range of criteria, in particular having a strong evidence base, ensuring it targets the greatest road safety risks, timeframe and efficiency of implementation, and credibility with the public.
6. Based on these considerations, we propose that officials progress a programme of work that includes:

### *Short-term: 6-12 months*

- 6.1. NZ Transport Agency continues working with Road Controlling Authorities (RCAs) to address the 10 percent of the network that presents the highest safety risk to road users.
- 6.2. Undertake minor rule changes to remove bylaw making requirements and introduce speed limit trials in certain circumstances.
- 6.3. Implement trials of point-to-point safe speed cameras.
- 6.4. Return police presence to 2015 service levels, and target enforcement activity to the highest risk parts of the network.

### *Medium-term: 12-18 months*

- 6.5. Collaborate with RCAs and the Automobile Association (AA) to develop rule changes to set speed limits in line with NZ Transport Agency's speed mapping tool, including in urban areas around schools. RCAs continue to propose changes to speed limits to the NZ Transport Agency on an ongoing basis.
- 6.6. Review speed offences and penalties, including their impact on the justice sector pipeline and the potential for the use of alternative resolutions.
- 6.7. Assess opportunities for further safe speed cameras, including considering nationwide roll-out of point-to-point cameras, additional mobile cameras and red light cameras, erecting signage for safe speed cameras, and use of advisory signs.

- 6.8. Develop an indicative business case to replace the NZ Police infringement processing system.
7. We would welcome a discussion with you on the suite of options we have considered for inclusion in the programme, and to answer any questions you may have.

## Why does speed matter?

8. Tackling unsafe speeds<sup>1</sup> is a critical part of improving road safety. It is one of the four pillars of the safe system approach under the *Safer Journeys* road safety strategy. In 2016, travelling too fast for the conditions was the second highest contributing factor to causes of fatal and serious injury crashes. In the event of a crash, regardless of its cause, the speed of impact (crash force) is the most important determinant in the severity of injuries sustained and the probability of death. It is well proven that a decrease in the mean travel speed on a road is associated with a decrease in the number of crashes, as well as the severity.<sup>2</sup>
9. The attached A3 (**Annex One**) summarises some key statistics about the impact of speed in crashes in New Zealand. It also outlines the impact that some speed management interventions have had on reducing deaths and serious injuries in other countries.
10. Like all areas of road safety, a system-based approach is needed to reduce the road safety risk associated with speed. Interventions that encourage motorists to drive at the appropriate speed for a road need to complement one another and be reinforcing. To be effective, road design should be self-explaining, reflecting the speed limits and guiding road users to choose the right speed. Safe and appropriate speed limits should be supported by offences and penalties that align with the risks of the offence and adequate levels of enforcement.
11. Tackling unsafe speed is a difficult and often highly controversial issue. There is often a highly emotive reaction from the public to moves from government or enforcement authorities to reduce speed on the roads. Any interventions that seek to address speed need to be approached carefully and thoughtfully to ensure that they are credible to the public and achieve 'buy-in'. Often this requires strong public engagement and communication of the need for change.

## What is currently happening?

12. There is significant work underway across the road safety system to tackle unsafe speeds.

### *Speed management*

13. The framework for setting speed limits is outlined in the Land Transport Rule: Setting of Speed Limits 2017 (the Rule). The Rule came into effect in 2017. It provides for default speed limits of 50 km/h for roads within a designated urban area and 100 km/h on rural or open roads. The Rule also allows RCAs to change speed limits where it is safe and appropriate using a bylaw. The NZ Transport Agency is the responsible RCA for state highways, and local councils are responsible for local roads.<sup>3</sup>

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<sup>1</sup> An unsafe speed does not just relate to whether or not an individual is within the currently set speed limit on a particular road. An unsafe speed is where an individual road user is travelling too fast for the conditions.

<sup>2</sup> <https://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf>

<sup>3</sup> There are also other RCAs responsible for small components of the network, such as supermarkets and airports.

14. The Rule is relatively new and represents a different approach to speed management and setting speed limits. It incorporates a strengthened risk based approach to reviewing speed limits, including taking into account the One Network Road Classification and data to assess on-road risk. It supports the implementation of a new Speed Management Guide (the Guide) that was developed by the NZ Transport Agency. The Guide is backed up with a geospatial mapping tool, which the NZ Transport Agency uses to calculate safe and appropriate travel speeds for all New Zealand roads<sup>4</sup>. The Rule requires the NZ Transport Agency to provide that information to RCAs to support them to undertake speed management projects within their area.
15. It has long been recognised that there is widespread misalignment with speed limits on the road network and associated safe and appropriate travel speeds. The majority of the current misalignment between speed limits and safe and appropriate travel speeds is on rural roads without median protection that are not safe at 100 km/h, and urban residential streets that are not safe at 50 km/h. The default 100 km/h limit also applies to large sections of unsealed roads, which includes beaches where the road surface can change with the tide.
16. This is not to say that all rural roads without median barriers should have speed limits reduced. Speed management does not just relate to lowering speed limits, it is about matching the speed limit to the design, use, form and function of the road, and the risk posed to the road user. Roads can be engineered up where there is a strong case for investment to bring the corridor up to the required standard to support existing or higher travel speeds. Engineering changes can also be made to slow road users in certain environments, with or without speed limit changes. Attached as **Annex Two** is an extract from the NZ Transport Agency's speed management toolkit, which outlines examples of different road types and the appropriate speed limits.
17. Some RCAs have been demonstrating a new way of setting speed limits that aligns with the Guide for some time. In 2011-12, Hamilton City Council was the first to introduce 40 km/h Safer Speed Areas. Since their initial introduction, the 40 km/h Safer Speed Areas have been extended to significant residential areas across the city. This has resulted in tangible road safety benefits for these areas, as mean speeds have dropped. In the first year after the 40 km/h speed limit was implemented, there was a 35 percent reduction in crashes. Hamilton City also now has 40 km/h speed limits outside all schools.
18. The Guide was developed in close consultation with the AA and local government, both of which have noted that more resource is required to support the implementation of the Guide. This includes additional resource direct to local government, particularly smaller councils through increased funding assistance rates, and also resourcing the NZ Transport Agency to more effectively support implementation. In addition, local government has raised concerns with the administrative effort and problems with the bylaw making that duplicates consultation requirements to implement the Guide.

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<sup>4</sup> Calculating the appropriate speed and determining the appropriate speed management approach for the road takes into account a range of factors, including the design, use, form, function, and road safety risk of the road. This may mean investing in the road to bring it up to a safe standard for the current speed limit, or it may mean reducing the speed limit.

### *The 'Boost Programme'*

19. As part of the Boost Programme that you announced in December last year, the NZ Transport Agency is investigating rural intersection activated warning signs (RIAWS) at 10 high-risk intersections on state highways around the country. RIAWS are electronic signs that reduce the speed limit on the state highway (usually from 100 km/h to 60 km/hr or 70 km/h) if a vehicle is turning into or out of a side road. RIAWS signs are already being successfully used at 13 locations on state highways around the country to improve intersection safety with minimal delays for road users.

### *Speed limits around schools*

20. The Ministry of Education and the NZ Transport Agency have previously developed the *Safer Journeys for Schools* guidelines to help reduce road safety risks outside out schools. The guidelines take a safe system approach and consider school design, engineering improvements, speed limits and community engagement and consultation. These are still relatively new in their implementation and there has not been an evaluation covering uptake and impact.
21. At present there is no "default" limit for roads around schools, as no school is the same. Risks outside schools are primarily before and after school hours, and can vary from risk to pedestrians and cyclists outside urban schools, to turning traffic risks outside rural schools. Since 2000, 40 km/h variable speed limits have been available for RCAs to implement outside schools on busy arterial routes, and more recently 60 km/h variable speed limits have been successfully applied outside rural schools with turning traffic risk.
22. The new Guide also recommends that RCAs set a 40km/h speed limit on residential streets, which supports safety not just outside the school but in the surrounding urban areas to support a safer journey along the whole route to school. This has been demonstrated in Hamilton City, with its Safer Speed Areas in residential streets.
23. School safety is a key focus for NZ Police. NZ Police operates with a 4 km/h speed enforcement threshold year-round in school zones and mobile safe speed cameras are routinely deployed to school zones during school start and finish periods. School community officers work with school students of all ages to engage in education and to identify and set up road safety interventions.

### *Enforcement and safe speed cameras*

24. Appropriate enforcement is also a key component of ensuring safe speeds on the network. It provides a deterrent to driving at unsafe speeds.
25. At present, speed comprises a significant portion of enforcement activity for Police, with around one in four notices issued being for a speed offence. NZ Police takes a risk based approach to speed enforcement and officers are expected to apply their judgement as to when to issue a speeding infringement notice. Safe speed cameras need to have a set threshold at which to operate. At present, the threshold is generally 10 km/h, except during certain holiday periods or, as noted above, outside schools during school hours where it is 4 km/h.
26. NZ Police is currently completing a significant static camera expansion programme. In 2013, when the programme commenced, there were only 12 safe speed cameras in New Zealand. The programme is expected to be completed by 3 June 2018, by which time 56 static safe speed cameras will have been installed across 48 sites, at a cost of \$10 million. This will add to an existing 43 mobile safe speed cameras.

27. NZ Police, the NZ Transport Agency and the Ministry are currently reviewing the funding model for road policing to ensure the funding and operating model is able to make the most effective contribution to road safety outcomes. These agencies have also formed a new road safety partnership which is committed to undertaking this work and supporting a more coordinated approach to delivering joined up road safety interventions, such as tackling unsafe speeds.

**What more could be done to tackle unsafe speeds?**

28. The Ministry, the NZ Transport Agency and NZ Police have identified a range of further interventions that could be undertaken to reduce speed-related deaths and serious injuries. Attached in **Annex Three** is a list of the range of potential interventions.

29. We have considered these interventions against the following factors to develop a programme of work to tackle unsafe speeds:

29.1. interventions have a proven evidence base and target the greatest safety risks

29.2. interventions take a system based approach and reinforce each other

29.3. the timeframe for implementation

29.4. administrative efficiency and ability to implement

29.5. credibility of proposed interventions with the public.

30. Based on these factors, we propose a programme of work to tackle unsafe speeds over the short- to medium-term, as outlined in the table below:

	<b>Short-term: 6-12 months</b>	<b>Medium-term: 12-18 months</b>
<b>Accelerate the implementation of the Speed Management Guide</b>	<ul style="list-style-type: none"> <li>NZ Transport Agency continues to work with RCAs to address the 10 percent of the network that presents the highest safety risks.</li> <li>Undertake minor rule changes to remove bylaw making requirements and introduce speed limit trials while an RCA is consulting on a speed limit change.</li> </ul>	<ul style="list-style-type: none"> <li>Collaborate with RCAs and the AA to develop rule changes to set speed limits in line with the Speed Management Guide, including urban areas around schools. RCAs continue to propose changes to speed limits to the NZ Transport Agency on an ongoing basis.</li> </ul>
<b>Behavioural change, enforcement and technology</b>	<ul style="list-style-type: none"> <li>Implement enforced trials of point-to-point cameras.</li> <li>Return police resourcing to 2015 service levels, and target enforcement activity to the highest risk parts of the network.</li> </ul>	<ul style="list-style-type: none"> <li>Review speed offences and penalties, including their impact on the justice sector pipeline and the potential for use of alternative resolutions.</li> <li>Assess future opportunities for further safety cameras, including considering nationwide roll-out of point-to-point cameras, additional mobile cameras and red light cameras, erecting signage for safe speed cameras, and use of advisory signs.</li> <li>Develop an indicative business case that will set out the need to replace the NZ Police infringement processing system.</li> </ul>

***Accelerating the implementation of the Speed Management Guide through amending the Rule to set speed limits in line with the Guide***

31. The draft Government Policy Statement on Land Transport 2018 (draft GPS) sets a direction for the NZ Transport Agency and other RCAs to accelerate the implementation of the new Guide. It outlines an expectation that RCAs address the top 10 percent of the network which will result in the greatest reduction in deaths and serious injuries as quickly as possible. This goal is ambitious and it aims to deliver substantial road safety gains. The NZ Transport Agency has modelled a preliminary estimate of a reduction in deaths and serious injuries of 193-223 per year from addressing this part of the network.
32. Meeting the expectations in the draft GPS will require increased funding for the NZ Transport Agency and local councils, both to undertake project planning, and to implement engineering improvements and speed limit changes. It also requires resource to support communication and engagement with the public, both at the national and local level. These were key issues raised at the Local Government Road Safety Summit in April 2018. As you know, the NZ Transport Agency is considering what levers it can use to support local councils on safety projects, including funding assistance rates. It is awaiting the final GPS and consultation on the draft Investment Analysis Framework before taking decisions.
33. The NZ Transport Agency is developing a proposal to increase its own internal resourcing to address high-risk state highways, and to support local councils to implement speed management changes on local roads. The NZ Transport Agency is also proposing funding for national and local engagement on speed. It is allocating resource to work with local councils in Auckland, Waikato and Canterbury, and to support other RCAs where requested.
34. All of these changes represent a significant shift in focus towards the importance of speed management. However, under the current regulatory settings, accelerating the implementation of the Guide, even to address the highest risk parts of the network, is likely to be very difficult and is unlikely to occur in the near term due to the issues outlined in paragraph 18 above.

*There are rule changes that could be made to make it easier to implement speed management changes*

35. There are options to make changes to the Rule to reduce the regulatory barriers to RCAs to implement the Guide. There are minor rule changes that be made to support the current approach outlined in the draft GPS. This would support continued incremental changes across the network in the next six to twelve months. There are also more significant changes that could be made through rules to enable 100 percent of the network to be addressed in the medium term.

*Minor rule changes*

36. Minor rule changes could be made to reduce the administrative burden on RCAs to change speed limits in the next 6-12 months to support implementation of the Guide. These would include:
  - 36.1. removing the requirement for RCAs to make speed limits through bylaws, and instead register speed limit changes with the NZ Transport Agency
  - 36.2. allowing speed limit trials while an RCA is consulting on formally changing a speed limit.



37. Allowing speed trials in advance would enable local government to trial speeds and allow communities to adjust to impacts, and may make it easier to put in permanent speed limits. Auckland Transport has signalled indicative support for speed limit trials. The approach would need to be worked through to minimise any risks, and ensures that RCAs still take into consideration the principles in the Guide. Removing bylaws will provide flexibility and reduce duplication in consultation requirements.
38. The minor rules changes could be done relatively quickly. However, the changes would not address issues raised by local government around their need for greater resources to implement the Guide, and RCAs are still likely to come under significant lobbying around any change. It would also not significantly reduce the time taken to implement the Guide.

*More substantive rule changes*

39. If you would like to be more ambitious, in the medium term we suggest exploring more substantive changes to the Rule to mandate speed limits in line with the Guide. This approach would enable the implementation of safe and appropriate speed limits on 100 percent of the network in a relatively short period. We would recommend this option be developed and implemented in collaboration with local government and the AA.
40. This approach would reduce the ongoing administrative burden on RCAs to review and set speed limits incrementally under the Guide. Speed limits would no longer need to be made through a bylaw making process, as the limits would be set centrally through rule making. RCAs could still have an ongoing role to advise the NZ Transport Agency that a speed limit needs to be changed due to a change in the local circumstances of a road, for example if a road has been engineered up to be safe at a higher speed limit.
41. This approach would also support an effective enforcement approach. It is difficult for NZ Police to enforce safe speeds where the speed limit is higher than the safe speed.
42. If you would like to further explore this approach, our recommendation would be that officials undertake further policy work in partnership with key stakeholders. This work would include:
  - 42.1. reviewing and updating the NZ Transport Agency's speed mapping tool to ensure it could provide for network wide speed management approaches and was appropriate to be used as a regulatory tool
  - 42.2. undertaking a detailed cost benefit analysis, including considering the costs of signage replacement and other costs of implementation
  - 42.3. determining the ongoing role RCAs will have in changing speed limits and implementing speed limit changes
  - 42.4. considering legislative design issues to determine how this approach would be reflected in rules
  - 42.5. developing an appropriate implementation approach that is practical and considers appropriate public engagement (for example, whether the changes would be implemented nationwide by a set date or phased in a particular way).
43. If you agree, we propose to set up a working group of key stakeholders to support this policy work. The work required to finalise this policy is significant and will require technical input as well as stakeholder buy-in to make it successful. Undertaking this work with key stakeholders, such as the AA and key local councils, will support this process. It may also require significant national and local communications to explain the proposed changes and why they are occurring.

44. This approach is likely to result in widespread speed limit changes across the network. It is likely to receive a very mixed reaction from stakeholders and may receive both positive and negative feedback from the public. However, we believe this option is more appropriate than undertaking a blanket reduction in defaults in speed limits. This approach is more credible to the road user as it is based on the form, function and risk of the road.

*Consideration of other options to accelerate speed limit changes*

45. We have also considered other options to accelerate speed limit changes. One of the options considered was reducing default speed limits generally but allowing RCAs the option of raising speed limits on roads where a higher speed limit can be shown to be safe and appropriate. When considering reducing default speed limits, we took into account the International Transport Forum's 2018 report on speed and crash risks.<sup>5</sup>
46. We do not recommend reducing default speed limits in this way. Reducing default speed limits has some benefits, particularly that it may support simplicity from an enforcement perspective in the short term. However, we believe that mandating speed limits that align with the Guide is likely to be a more effective option in the long term. Credibility of speed limits for road users is one of the key factors pointed to in international case studies when considering speed limit changes. A speed limit that matches road users' expectations based on the nature of the road will lead to greater compliance.
47. We are also concerned that this approach would continue to produce a significant administrative burden for RCAs.

*We have also considered changes to speed limits outside schools*

48. We have considered whether there should be changes to speed limits outside schools. We note that the International Transport Forum's report suggests a 30 or 40 km/h speed limit is appropriate in built up areas where there is a mix of vulnerable road users and motor vehicle traffic. The report also notes that most unprotected road users (i.e. cyclists or pedestrians, including children) will survive if hit by a vehicle at up to 30 km/h. Speeds higher than this pose a significant risk to unprotected road users. This would suggest that a 30 km/h speed limit should be recommended (or potentially mandated) for 'at-risk' times on roads outside urban schools.
49. Though there are not a large number of road safety-related incidents around schools<sup>6</sup>, we recognise that the roading environment outside schools can often be complex, vary from school to school, and many children are not equipped to understand and manage the associated risks. We also recognise that reducing speed limits on roads around schools may reduce perception risks of road safety issues to help improve the rates of children walking and cycling to school.

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<sup>5</sup> The report concluded that most unprotected road users survive if hit by a vehicle at up to only 30 km/h, a modern car can protect occupants up to 50 km/h in a side collision, and a safe car can protect occupants up to 70 km/h in a head-on collision. Consequently, the report considered the following speed limits to be reasonable:

- 30-40 km/h in built up areas where there is a mix of vulnerable road users and motor vehicle traffic
- 50 km/h in areas with intersections and high risk of side collisions
- 70-80 km/h on rural roads without median barrier, presenting a risk of head-on collisions

<sup>6</sup> As shown in the attached A3, we have assessed the data between 2007 and 2016 for fatalities, serious and minor injuries for school aged children (5-17 years) within 250 metres of schools (between 6.30am and 9am and 2pm and 4.30pm on weekdays). The proportion of fatalities around schools in this group is less than 2.5 percent of national fatalities. It represents less than 4.5 percent of national serious injuries, and less than 6 percent of minor injuries.

50. The more substantive rule changes outlined above to mandate speed limits are set in line with the Guide, are likely to go a significant way to addressing any required speed limit changes in localities around schools with the introduction of 40 km/h in many residential areas, and 60 km/h variable speed limits outside rural schools.
51. In addition to this, we suggest further work is done on how to improve children's active travel, especially to and from school. This will be done as part of work we are undertaking on a strategic approach to walking and cycling.

***We also propose further work on other behavioural change interventions, including the use of technology and our enforcement approach***

52. In order to ensure that changes to speed limits are effective in achieving the safety benefits and desired behaviour change, it is important that our enforcement approach is effective and that penalties are set at the appropriate level to support deterrence. Enforcement can be undertaken through a combination of physical presence of police on the roads and through the use of technology and safe speed cameras.

*Safe speed cameras*

53. In the short term, the NZ Police are increasing the level of road policing to return to the number of dedicated road police there were in 2015. This will support general deterrence and improve driver behaviour. NZ Police is also aligning its enforcement approach to the highest risk parts of the network.
54. The NZ Transport Agency and NZ Police are also working together to implement trials of point-to-point cameras. As we have previously advised, point-to-point cameras are proven to be fairer and more effective at reducing road safety risk. At present two sets of cameras are being considered for trials in Auckland in the next six months. These trials would be live trials and infringement tickets would be issued through a third party provider of an infringement processing system.
55. In the medium term, we suggest there are also benefits to the NZ Transport Agency and NZ Police exploring increasing the use of safe speed cameras. This work would include considering roll-out of point-to-point cameras, increasing the number of mobile cameras, the use of red light cameras (which can also measure speeds in urban areas), erecting signage for safe speed camera areas, and use of advisory signs.

*NZ Police infringement processing system*

56. One of the limitations of increasing the use of safe speed cameras immediately is the NZ Police infringement processing system. The current system is no longer fit for purpose due to its age and the resulting frequency of errors that result in processing downtime and because of the volume of notices that it is required to handle as a result of the expansion of the safe speed camera network. The system is also antiquated in technological terms and will not support interventions such as point-to-point cameras and the ability to provide a part payment system that would both benefit lower economic groups and reduce pressure on the fines collection pipeline.
57. The NZ Road Safety Partnership has commenced work on an indicative business case that will set out the need to replace the system. It will investigate cross sector opportunities to expand and improve services (including the ability to process point-to-point cameras), and will provide indicative costings for the replacement programme. Consideration is also being given to whether there should be changes to the agency operating the system. This work is likely to be completed within 12-18 months.

58. In the meantime, any proposals for increased use of safe speed cameras could also consider options to mitigate the impacts on the infringement processing system. For example, safe speed cameras could be moved between sites.

#### *Offences and penalties*

59. In the medium term, we also suggest that there is further work undertaken to review speed offences and penalties. This work would include broader work to consider the use of alternative resolution mechanisms, which may more directly improve road safety and reduce the impact of traffic offending on the justice and corrections sectors. Alternative resolutions could include individuals attending a road safety course, instead of paying an infringement fee.
60. This work would also include infringement fees for speed-related offences, demerit points, including adding demerit points to safe speed camera offences, and the approach to recidivist offenders. Changes could be made to the level of infringement fees through regulations, which can generally be done in approximately six months. Introducing demerit points to camera offences will require amendments to the Land Transport Act 1998 (LTA), which could take approximately a year to bring into force.
61. At present, we do not have a proposed amendment to the LTA on the rules programme until 2019. We suggest that we take this time to take a broader review of our approach to offences and penalties, to ensure any changes are evidenced-based and are likely to make the greatest impact on road safety outcomes.

#### **Next steps**

62. We would welcome a discussion with you to discuss the suite of options we have considered for inclusion in the 'Tackling Unsafe Speeds' programme, and to answer any questions you may.
63. If you agree with the proposed focus areas for the programme, officials will report back to with a timeframe for undertaking this work. We will also develop a communications approach for the programme, working with your office.

**Recommendation**

64. The recommendations are that you:

- |     |  |        |
|-----|--|--------|
| (a) | <b>discuss</b> the proposed approach outlined in this briefing with officials. | Yes/No |
| (b) | <b>agree</b> to forward this briefing to the Minister of Police                | Yes/No |



Brent Johnston  
**Manager, Mobility and Safety**

***MINISTER'S SIGNATURE:***

***DATE:***

# Why does speed matter? What does the evidence say?

## Correlation between speed and crash occurrence and severity

- Speed has a direct influence on crash occurrence and severity. With higher driving speeds, the number of crashes and the crash severity increase disproportionately. A 1% increase in average speed results in approximately a 2% increase in injury crash frequency, a 3% increase in severe crash frequency, and a 4% increase in fatal crash frequency. Thus, reducing speed by a few km/h can greatly reduce the risks of and severity of crashes, particularly the likelihood of fatal crashes on open/rural roads (*International Transport Forum's 2018 report on speed and crash risks*).
- A decrease in the mean travel speed on a road is associated with a decrease in the number of speed-related death and serious injury crashes (*International Transport Forum's 2018 report on speed and crash risks*).
- In 2016, speed was a contributing factor in 79 fatal crashes (resulting in 93 deaths) and 406 serious injury crashes (resulting in 512 serious injuries) (*Ministry of Transport, Speed Crash Factsheet, 2017*).
- Average travel speeds on urban and rural roads have reduced over the last 20 years (10.8% reduction on urban roads, 6.5% reduction on rural roads). However, in 2015, around 46% of surveyed motorists exceeded the speed limit on urban roads, and 23% exceeded the speed limit on rural roads. Excessive speed on rural roads is more likely to result in fatal or serious injury crashes compared to on urban roads, where vehicle travel speeds are typically lower (*Ministry of Transport Annual Speed Survey, 2015*).

## What does international research show?

The information below was sourced from:

- The International Transport Forum's 2018 report on speed and crash risks
- New Zealand's road safety strategy 2010-2020
- United Kingdom Royal Society for the Prevention of Accidents 2017 report

## Case studies with speed limit reductions:

In a number of countries, reducing speed limits on some urban and rural roads has led to a reduction in mean speeds. This has resulted in a significant reduction in the number of deaths on these roads.

Evidence from Sweden suggests that higher speed limits can be safe and appropriate on roads that have been built to a high standard, and have adequate safety infrastructure installed. In 2008, speed limits on some motorways were increased from 110-120 km/h to align with the safety classification of these high standard roads. This led to a 3.4% increase in mean speeds, but no significant change in the number of road fatalities.

Country	Year(s)	Road type	Speed limit reduction	Mean speed change (%)	Change in road fatalities (%)
Hull (UK)	1994-2003	Highly pedestrianised urban environments	30 mph (48 km/h) → 20 mph (32 km/h)	Unknown	-90.0 (including serious injuries)
Portsmouth (UK)	2007	Highly pedestrianised urban environments	30 mph (48 km/h) → 20 mph (32 km/h)	-6.6	-21.0 (including serious injuries)
Sweden	2008	Rural	90 → 80 km/h	-3.1	-41.0

## Case study where automated static safe speed cameras were installed:

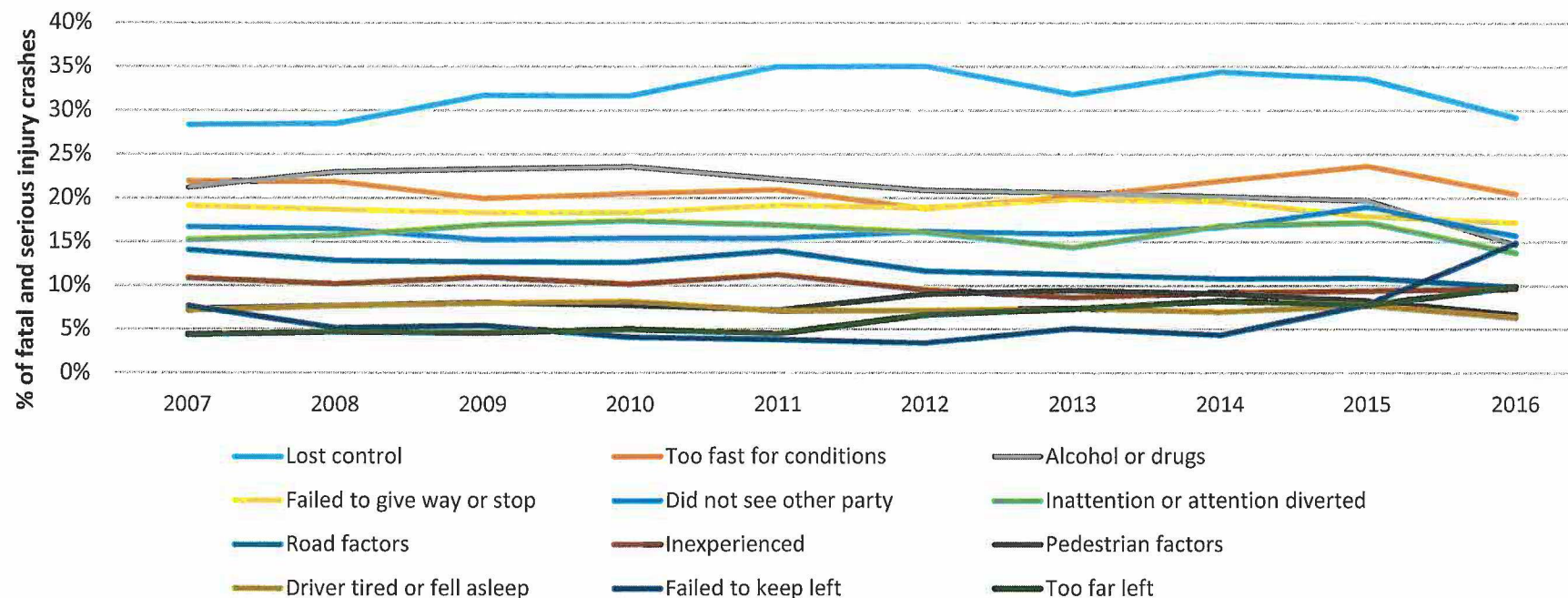
Between 2002 and 2005, France installed over 1,500 fully automated cameras to reduce speed-related fatalities. As shown below, the average mean speed decreased on all roads where cameras were installed, and there was a considerable reduction in road fatalities. It was estimated that 75% of the reduction in road fatalities was credited to the new safe speed cameras.

Country	Years	Road type	Mean speed change (%)	Change in road fatalities (%)
France	2002-2005	Urban roads	-7.7	-14.3
		Urban motorways	-2.7	-37.7
		Rural roads	-7.5	-25.5
		Rural motorways	-5.6	-31.4

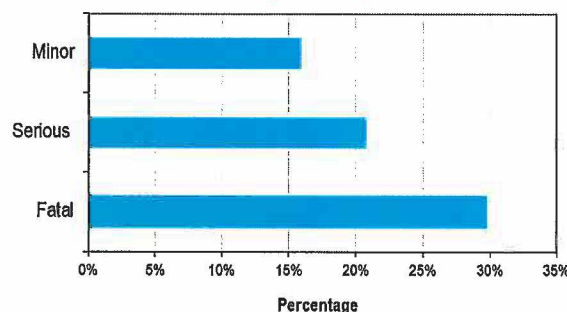
## Case studies where point-to-point cameras were installed:

Country	Year(s)	Road type	Speed limit	Mean speed before	Mean speed after	Mean speed change (%)	Change in road crashes (%)
Italy	2005-2014	Urban motorway	80 km/h	83.4 km/h	75.2 km/h	-10.0	-32.0
Austria	2012	Inter-urban road	100 km/h	101.5 km/h	90.6 km/h	-10.7	-69.0

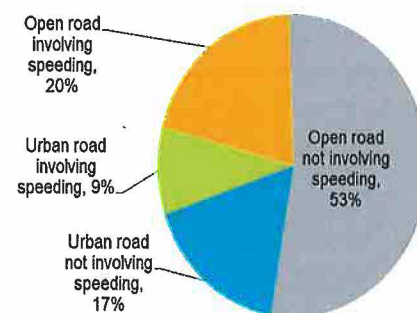
## Top factors contributing to fatal and serious injury crashes (2007-2016)



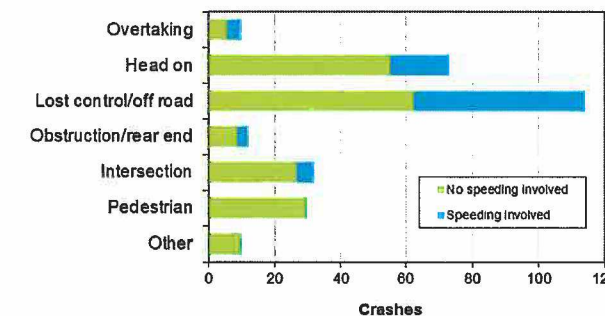
Percentage of crashes with driving too fast for the conditions cited as a contributing factor (2014-2016)



Speeding in fatal crashes by road type (2014-2016)



Types of fatal crashes where speeding was a factor (annual average 2014-2016)





Year	Crashes within 250m of a school which involved school aged children (5-17 years)*			School aged casualties within 250m of a school					
	Fatal crashes	Serious injury crashes	Minor injury crashes	Fatalities		Serious injury		Minor injury	
				5 - 12 years	13 - 17 years	5 - 12 years	13 - 17 years	5 - 12 years	13 - 17 years
2007	2	33	178	1	1	12	18	60	99
2008	1	27	164	0	1	10	14	51	99
2009	0	32	160	0	0	11	17	75	80
2010	0	17	177	0	0	8	7	71	89
2011	1	19	146	1	0	13	5	75	67
2012	1	20	127	1	0	6	12	68	58
2013	2	19	104	0	1	11	7	45	60
2014	0	16	99	0	0	6	10	54	48
2015	0	21	117	0	0	14	8	54	60
2016	1	24	99	0	0	12	11	57	45

\* It includes roads that the school has no frontage on to. Crashes are where at least one school aged child (5-17 years) was involved in a fatal, serious or minor injury crash, regardless of whether it was the child who died or was injured.

## **Annex Two: Good examples of the look and feel of roads at different speed limits**

The following pages show exemplars of what typical roads of different speed limits should look like. The tables below indicate the appropriate range of treatments for each one.

Urban Roads - 30km/h	
<b>Description</b>	<p>30 km/h speed limits are typically used in "CBDs or town centres with high place function and concentration of active users". Engineering treatments are typically required to reduce operating speeds and cater for a number of various modes however the areas are developed to allow for but discourage car use. Pedestrians frequently cross the road and cyclist share the lane with general traffic.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p><i>Wynyard Quarter, Auckland ( Source – <a href="http://www.mapio.net.nz">www.mapio.net.nz</a>)</i></p>  <p><i>Blenheim Town Centre (Source M. Petersen )</i></p> </div> <div style="width: 35%;"> <p><b>Local Road (City)</b></p> <ul style="list-style-type: none"> <li>• vertical deflection devices,</li> <li>• paving</li> <li>• planting</li> </ul>   <p><b>Local Road (small town)</b></p> <ul style="list-style-type: none"> <li>• Entranceway</li> <li>• Paving</li> <li>• Little or no signs and markings (Toolbox RS1)</li> <li>• Vertical deflection devices</li> <li>• planting</li> </ul> </div> </div>
<b>ONRC Application</b>	Class 3 or 4
<b>Point of Difference</b>	<ul style="list-style-type: none"> <li>• Engineering measures are used to make the speed environment self-explaining (Toolbox SE1) and reduce speeds may typically include:</li> <li>• Narrow lanes (2.7-3.2 m),</li> <li>• Little or no signs and markings (Toolbox RS1)</li> <li>• Roads spaced reallocation (Toolbox RS2)</li> <li>• One way direction of traffic on narrow lanes (Toolbox TC10)</li> <li>• Intersections modifications such as change in priority, restriction of movements (Toolbox IN1 and IN2)</li> <li>• Vertical deviation (speed humps, speed tables, speed cushions, crossing platforms),(Toolbox TC1-11 [except TC 2], AR2)</li> <li>• Horizontal deviation (low speed roundabouts, chicanes, kerb build outs, pedestrian islands), (Toolbox TC1-11 [except TC 2], AR2)</li> <li>• Kerbside parking (angle or parallel parking without continuous edge line)</li> <li>• Planting</li> <li>• Sharrows ( Refer to NZTA TCD Manual Part 4 At Intersections)</li> <li>• Cobbled or paving type surfaces</li> </ul>
<b>Not Recommended</b>	<ul style="list-style-type: none"> <li>• Road markings</li> <li>• Curve advisory signs</li> <li>• Speed indicator devices</li> <li>• Flush medians</li> <li>• Wide shoulder/parking lane without buildouts</li> </ul>



**Urban Roads - 40km/h**

**Description**

40 km/h speed limits are typically used when ONRC is class 3 or 4 in residential neighbourhoods or high 'place' value. Engineering treatments are typically required to reduce operating speeds. Pedestrians frequently cross the road but through traffic typically has priority. Cyclists are more likely to share the road with traffic.



*Residential (Source: C Mason)*



*Residential (Source; C Mason)*

Local Road (City)

- No road marking or signs
- Narrow roads
- Planting
- Informal parking

Local Road (City)

- No marking unless needed
- Threshold entry treatments
- Horizontal deflection devices
- Narrow roads
- Planting

**ONRC Application**

Class 3 and 4

**Point of Difference**



Engineering measures are used to make the speed environment self-explaining (Toolbox SE1) and typically include:

- Narrow lanes (2.7-3.2 m) with no or little road markings and except where required for regulatory requirements such as no parking
- Short length one way system
- Little or no signs and markings (Toolbox RS1) AR2, SE1, RS2,
- Vertical deviation (speed humps, speed tables, speed cushions, crossing platforms), Toolbox TC1-11 [except TC 2], AR2)
- Horizontal deviation (low speed roundabouts, chicanes, kerb build outs, pedestrian islands), Toolbox TC1-11 [except TC 2], AR2)
- Kerbside parking (angle or parallel parking without continuous edge line)
- Intersections modifications such as change in priority, restriction of movements (Toolbox IN1 and IN2) with or without splitter islands
- Threshold entrances (Toolbox ES1, TC5)
- Splitter islands at intersections
- Planting
- Cobbled or paving type surfaces (Toolbox TC5)
- Restricted movements for certain modes (i.e. cyclists can access road but vehicles cannot)
- Sharrows

**Not Recommended**

- Active signs (Toolbox RS1, RS3, AS4, AS5, AS7) (unless there is a high risk site within a corridor that needs highlighting) and curve advisory signs.

Urban Roads - 50km/h

<p><b>Description</b></p>	<p>50 km/h speed limits can be applied to all urban road classes depending on risk. Where you apply Engineering treatments and reduce risk then the speed could be increased depending on the traffic volume and function of the road. These roads cater for a range of road users. Specific cycling facilities are desirable on all Class 2 (national and strategic) roads with 50km/h speed limits and should be formalised and/or separated. On lower volume Class 3 and 4 roads wider shoulders are appropriate.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p><i>Regional Commercial Road. (Source C Mason)</i></p> </div> <div style="width: 45%;"> <p><b>Class 2: Regional Road</b></p> <ul style="list-style-type: none"> <li>• Median divided</li> <li>• Marked cycling facilities</li> <li>• No or intermittent parking</li> </ul> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;">  <p><i>Residential Road. (Source: C Mason)</i></p> </div> <div style="width: 45%;"> <p><b>Class 3: Primary Collector Road</b></p> <ul style="list-style-type: none"> <li>• Centreline markings</li> <li>• parking</li> <li>• no specific cycle facilities but wider shoulder</li> </ul> </div> </div>
<p><b>ONRC Application</b></p>	<p>1,2,3,4</p>
<p><b>Point of Difference</b></p>	<p><b>For Class 1 Roads</b></p> <ul style="list-style-type: none"> <li>• Limited access</li> <li>• Median divided</li> <li>• Separated cycling facilities (Toolbox AR1)</li> <li>• Pedestrian crossings formalised or grade separated.</li> <li>• Roundabout or signal controlled intersections</li> </ul> <p><b>For Class 2 Roads</b></p> <ul style="list-style-type: none"> <li>• Edge and centreline treatments             <ul style="list-style-type: none"> <li>- No stopping lines</li> <li>- median divided/flush median</li> </ul> </li> <li>• Separated or formalised cycling facilities (Toolbox AR1)</li> <li>• Pedestrian crossings formalised or areas with protected crossing points such as cut downs through central median (Toolbox AR2 and TC11)</li> <li>• Limited parking</li> <li>• Intersections give way or stop controlled and roundabouts or signal controlled at key intersections</li> </ul> <p><b>For Class 3 and 4 Roads</b></p> <ul style="list-style-type: none"> <li>• Standard Centreline markings</li> <li>• Limited traffic calming measures where traffic volumes are low (i.e. isolated pedestrian refuge islands) (Toolbox TC11)</li> <li>• Cyclists use wide shoulder and parking</li> </ul>
<p><b>Not Recommended</b></p>	<p>The types of treatments that are inappropriate will depend on the road function.</p>

**Urban Roads - 60km/h**

**Description**

60 km/h speed limits are typically used on urban roads where “ONRC is class 1 or 2 with non-commercial adjacent land use”, road use is focused on moving between areas. Pedestrians cross the road less frequently and are typically concentrated at specific crossing facilities, usually at traffic signals or underpasses on multi-lane roads. Specific cycling facilities are required and would desirably be physically separated on strategic cycle routes.



*Urban Regional Road. (Source: P.Harrison)*

**Class 2 Regional Road (City)**

- Limited access
- Marked cycling facilities
- No parking
- Grade separated intersections



*National Urban Road (Source; G. Lane )*

**Class 1: National Road (City)**

- Solid Median divided
- Parking
- Marked or separated cycle facilities
- Signalised Intersections and roundabouts
- Rationalised access with Service lanes

**ONRC Application**

1,2

**Point of Difference**

Engineering measures are used to protect vulnerable users from traffic and to delineate travel lanes typically include:

- Some form of access control in high volume
- Median divided (solid or flush)
- More formalised cycling facilities (shared path, kerbside lane, separated lanes) compared to 50km/h
- Some or no parking, (recessed bays, shoulder space, manoeuvre space protected from moving traffic),
- Left in/left out, Roundabouts, Traffic Signals or grade separated intersections
- Planting
- Bus/transit lanes where volumes are high and demand

**Not Recommended**

The following engineering measures are inappropriate for 60 km/h zones:

- Traffic Calming ( except Toolbox TC2, TC9 and TC10 )
- Zebra crossings
- Angle parking

**Urban Roads - 80km/h**

**Description** 80 km/h speed limits in urban areas are typically used on roads where “ONRC is class 1 or 2 with non-commercial adjacent land use”, road use is focused on moving traffic between areas. Pedestrians rarely cross the road except at specific crossing facilities, usually at traffic signals or underpasses on multi-lane roads. Specific cycling facilities are required where cycle access is permitted and should be physically separated.



*Urban Road (Residential) (Source: G Lane)*

- Class 2: Regional (residential)**
- Solid Median
  - No parking
  - Off road shared path
  - Some limited at grade intersections (including roundabouts)
  - No minor access



*Urban Road (Central City) (Source: G Lane)*

- Class 1: National**
- Shoulders
  - No parking
  - Traffic signal or roundabout controlled intersections
  - Access controlled
  - Off road shared path
  - Safe system type intersections



**ONRC Application** 1,2

**Point of Difference** Engineering measures are used to protect vulnerable users from traffic and to delineate travel lanes typically include:



- Separated cycle facilities (shared path, separated (protected) lanes) (Toolbox AR1)
- Controlled access (limited number of accesses, adequate spacing, low volume),
- Wide lanes (3.5 m), single or dual lanes
- Flush or solid median,
- Protection of severe roadside hazards.
- Frangible Planting
- Where traffic volumes are higher the level of traffic control increases i.e. grade separated intersection transform to roundabout or traffic signals

**Not Recommended** The following engineering measures are inappropriate for 80 km/h zones:

- Zebra crossings
- Isolated pedestrian islands (Toolbox TC11)
- On road parking
- Traffic Calming ( Except Toolbox TC 8, TC9, and TC10)

Rural Roads - 60km/h	
<b>Description</b>	<p>A 60km/h located in rural areas is likely to be where there is a small township and can be used on a range of road Class'. Typically where there is limited roadside development and a limited presence of active road users and risk.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p><i>Rural Township (Source: C.Mason)</i></p> </div> <div style="width: 45%;"> <p>Class 3: Collector (rural place)</p> <ul style="list-style-type: none"> <li>• Standard centreline treatments</li> <li>• Wider shoulders for parking and cycling</li> <li>• Hazard warning signs</li> </ul> </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;">  <p><i>Rural Township (Source; G.Lane)</i></p> </div> <div style="width: 45%;"> <p>Class 2: Arterial (rural place)</p> <ul style="list-style-type: none"> <li>• Narrow flush</li> <li>• Wider shoulders for parking and cycling</li> <li>• Bigger, gated or backing boards provided on hazard warning signs</li> </ul> </div> </div>
<b>ONRC Application</b>	1,2,3
<b>Point of Difference</b>	<p>Engineering measures are used to make the speed environment self-explaining and typically include:</p> <ul style="list-style-type: none"> <li>• Limited access including both rural residential and commercial activity within the township, typically include places to stop such as cafes and service stations</li> <li>• Low numbers of pedestrians and cyclists</li> <li>• Standard centreline and edgeline treatments however wider treatments can be used where there are higher volumes of turning and active road users on higher volume roads</li> <li>• Hazard warning signs – various level of application dependant on volume and risk i.e. bigger signs, gated sign and signs with backing boards are alternatives</li> <li>• At grade priority controlled intersections</li> <li>• Roundabouts at major intersections</li> <li>• Threshold treatments at entry/exit points</li> <li>• Variable speed limits for schools</li> </ul>
<b>Not Recommended</b>	<p>The following engineering measures are inappropriate for 60 km/h rural zones:</p> <ul style="list-style-type: none"> <li>• Zebra pedestrian crossings</li> </ul>

**Rural Roads - 80km/h**

<p><b>Description</b></p>	<p>80 km/h speed limits in rural areas can be used on all class of roads where the alignment, roadside protection or level of active road use is not of a suitable standard for a 100 km/h speed limit. Parking is not common and specific facilities for active users are only needed where active road use is high. Engineering treatments are typically required to reduce crash risk, particularly for loss of control crashes where traffic volumes are low, and for head on crashes where traffic volumes are high.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p><i>Rural Road: ( Source www.nzta.govt.nz)</i></p>  <p><i>Rural Road: (Source ww.nzta.govt.nz)</i></p> </div> <div style="width: 35%;"> <p><b>Class 2: Arterial</b></p> <ul style="list-style-type: none"> <li>• Wide centreline</li> <li>• Wide, marked shoulders for higher cyclist use</li> <li>• Hazards set back</li> </ul>   <p><b>Class 3: Primary/Secondary Collector</b></p> <ul style="list-style-type: none"> <li>• Good standard of delineation</li> <li>• Low cycle use</li> <li>• Hazard warning signs</li> <li>• Signs for higher 'other' road user e.g. cycling, horses</li> </ul> </div> </div>
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<p><b>ONRC Application</b></p>	<p>1,2,3 and 4</p>
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<p><b>Point of Difference</b></p>	<p>Engineering measures are used to make the speed environment self-explaining and typically include:</p> <ul style="list-style-type: none"> <li>• Informal passing opportunities.</li> <li>• Centreline Treatments (Toolbox RS3);             <ul style="list-style-type: none"> <li>- Standard road markings</li> <li>- Wide centreline</li> <li>- Narrow flush median</li> </ul> </li> <li>• Edgeline Treatments             <ul style="list-style-type: none"> <li>- Striped shoulders (where shoulder width is greater than 2.5m)</li> <li>- ATP/RRPMS (where high volume and/or risk)</li> </ul> </li> <li>• Sealed shoulders, (1 m+, 2 m+ with high numbers of cyclists or pedestrians),</li> <li>• Good standard of signs for hazards, direction, curve advice</li> <li>• Edge Marker Posts</li> <li>• Protection of severe roadside hazards (water, drops, large infrangible objects),</li> <li>• Few direct accesses, at grade intersections with low volumes, priority controlled</li> <li>• For Class 4 roads, road markings and signs are likely to be limited and edge marker posts used for delineation.</li> </ul>
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<p><b>Not Recommended</b></p>	<p>The following engineering measures are inappropriate for 80 km/h zones:</p> <ul style="list-style-type: none"> <li>• Isolated Median islands (Toolbox TC11)</li> <li>• Traffic Signals</li> <li>• Variable speed limits for schools</li> </ul>
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## Rural Roads - 100km/h

### Description

100 km/h speed limits are typically used on class 1, 2, or 3 roads and have good alignment, central and roadside protection and should have a 4 star KiwiRAP rating. Engineering treatments are required to reduce crash risk depending on the traffic volumes and crash types



Rural expressway. (Source [www.nzta.govt.nz](http://www.nzta.govt.nz))



Rural Expressway; (Source; [www.nzta.govt.nz](http://www.nzta.govt.nz))

Class 1: National  
(high volume)

- Median divided
- Wide shoulders
- No parking
- No cycling
- Some roadside protection
- Dual lane

Class 2: Regional

- Narrow shoulders and central median with wire rope barrier
- Passing opportunities at regular intervals

### ONRC Application

1,2,3

### Point of Difference

Engineering measures are used to make the speed environment self-explaining and typically include:



- Passing arrangements (2 + 1, 2 +2) on higher volume roads
- Restricted access
- Side barriers or large clear zone,
- Centreline treatments;
  - barriers or large traversable median,
  - Wide centreline (on lower volume roads with good alignment and roadside protection),
- Edgeline Treatments:
  - Striped shoulders (where shoulder width is greater than 2.5m)
  - ATP/RRPMS
- Wide shoulders (2 m+)
- Grade separated interchanges or roundabouts at busy intersections. Left in/left out at other intersections
- Off road cycling facilities for high use sites

### Not Recommended

The following engineering measures are inappropriate for 100 km/h zones:

- Isolated median islands (Toolbox TC11)
- Traffic signalised intersections
- At grade, priority control intersections with class 1 or 2 roads

**Unsealed Rural Roads - 60km/h**

<p><b>Description</b></p>	<p>Unsealed roads with 60km/h are typically narrower and windy lower volume Class 4 roads than 80km/h unsealed roads; They are largely access type roads to rural communities, links across rural networks or to sites of interest such as logging areas or Department of Conservation facilities.</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;">  <p style="text-align: center;"><i>Rural unsealed Road: (Source; G. Clark)</i></p>  <p style="text-align: center;"><i>Rural unsealed road. (Source G Clark)</i></p> </div> <div style="width: 35%;"> <p>Low volume</p> <ul style="list-style-type: none"> <li>• Narrow roads</li> <li>• No or limited delineation</li> <li>• Overgrown vegetation</li> <li>• Specific hazards identified with warning signs or delineation</li> </ul> <p>Low volume</p> <ul style="list-style-type: none"> <li>• Narrow roads</li> <li>• No or limited delineation</li> <li>• Overgrown vegetation</li> <li>• Specific hazards identified by warning signs or delineation</li> </ul> </div> </div>
<p><b>ONRC Application</b></p>	<p>4</p>
<p><b>Point of Difference</b></p>	<ul style="list-style-type: none"> <li>• Speeds are naturally restricted by unsealed road, curves, overgrown vegetation and presence of roadside hazards</li> <li>• Narrower roads where vehicles may have to slow and pull over to let those travelling in the opposing direction pass</li> <li>• No or little edge delineation or signs. Only necessary where you might have special circumstances where needed such as out of context curves, where there is a crash problem, where particular hazards need identifying, where continuity of the route is required, where there are areas of steam, fog or mist, high proportion of traffic flows at night or high proportions of tourist traffic.</li> </ul>
<p><b>Not Recommended</b></p>	<p>Delineation is not recommended for roads with less than 200 vehicle per day.</p>



**Unsealed Rural Roads - 80km/h**

**Description**

Unsealed roads with 80km/h are typically wider and straighter unsealed lower volume and Class 4 roads; They are largely access type roads to rural communities, links across rural networks or to sites of interest such as logging areas or Department of Conservation facilities.



*Rural unsealed Road (Source:www.bestcarrental.co.nz)*



*Rural unsealed road. (Source: C. Mason)*

Low volume

- Wider roads
- No or limited delineation
- Limited roadside hazards
- straight

Low volume

- Wider roads
- No or limited delineation
- Limited roadside hazards
- Mostly straight with some large radius curves

**ONRC Application**

4

**Point of Difference**

- Speeds are naturally restricted by unsealed road, and presence of roadside hazards
- Roads can accommodate two vehicles in opposing directions and are straighter with more traffic and less roadside risk than the 60km/h roads.
- No or little edge delineation or signs. Only necessary where you might have special circumstances where needed such as out of context curves, where there is a crash problem, where particular hazards need identifying, where continuity of the route is required where there are areas of steam, fog or mist, high proportion of traffic flows at night or there are high proportions of tourist traffic.

**Not Recommended**

Delineation is not recommended for roads with less than 200 vehicle per day.



### **Annex Three: Potential interventions to tackle speed**

The following is a list of interventions we considered for inclusion in the programme:

#### **Accelerating implementation of Speed Management Guide**

- Reduce default speeds limits from 100 km/h to 80 km/h in rural areas and 50 km/h to 40 km/h in urban areas:
  - allowing RCAs to raise speed limits back up, where certain conditions are met
  - develop a road hierarchy for all urban residential areas whereby no one lives further than about 500m from a road with a speed limit of 50 km/h or more.
- Reduce speed limits using the 'defined speed limits' approach – where there are a number of defined default speed categories based on road function, design, and traffic volumes.
- Reducing or changing bylaw requirements on RCAs for setting speed limits:
  - establishing independent commissioners
  - speed limits are set through registration with the NZ Transport Agency
  - criteria on RCA decision making to limit its ability to not set the safe and appropriate speed limit.
- Under the existing Rule:
  - The NZ Transport Agency increase resourcing to support and proactively work with councils to address top 10 percent highest risk roads (current approach in GPS).

#### **Safety and speed limits around schools**

- Encourage RCA trials to implement more variable speed limits.
- Introduce default speed limits around schools (urban and rural) – these could be permanent or variable (in some jurisdictions, where speed limits are 30 km/h outside schools, the speed limit in urban areas is also 30km/h).
- More investment in engineering on roads around schools to encourage 'traffic calming' – where drivers will drive to the way the road feels.
- Increased Police presence round schools when children are going to and leaving school.
- Increased public and community education around schools.
- Advertising/education campaign promoting safer driving around schools.

#### **Improving public engagement**

- Greater emphasis on promoting safe and appropriate speed and educating the public about the risks.
- Safe speed camera signage requirements.
- Hypothecation safe speed camera revenue.

#### **Technology**

- Invest in upgrading Police's infringement processing system.
- Introduce point-to-point cameras (this is dependent on Police's infringement processing system being upgraded).
- Substantially increase use of red light cameras and allow them to measure vehicle's speeds (this is dependent on Police's infringement processing system being upgraded).
- Invest in more static and mobile safe speed cameras.
- Move responsibility for safe speed cameras from Police to the NZ Transport Agency, or to local RCAs.
- Invest in technology that alerts motorists that they are exceeding the speed limit.

#### **Enforcement**

- Increased Police presence on the roads and targeted campaigns.
- Rebalance penalties (infringement fees and demerit points) for traffic offences so they are consistent with other jurisdictions, and to align with the road safety risks of the offence (including compounding penalties for repeat offenders).
- Introduce demerit points for camera offences.

