

Speed Zoning Policy

Edition 2 – December 2021



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1 INTRODUCTION

This document provides the policies that apply to the application of speed zoning in Victoria.

Information relating to determining the notional speed limit, undertaking stakeholder engagement, regulations and authority to change speed limits, implementing signage changes and monitoring speed zone change is contained in *Traffic Engineering Manual Volume 3: Part 2.11 Speed Zoning Technical Guidelines*.

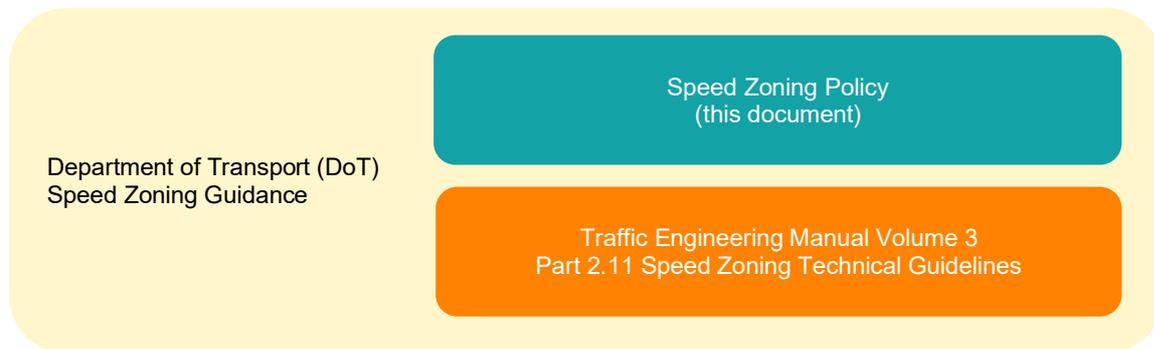


Figure 1: Department of Transport (DoT) speed zoning guidance

2 SPEED ZONING PRINCIPLES

The principles detailed in this section underpin the technical guidance found in this document and *Traffic Engineering Manual Volume 3: Part 2.11 Speed Zoning Technical Guidelines*. These principles form the basis of all decisions made in relation to the setting of speed zones and assist in embedding the Safe System vision.

The Speed Zoning Policy (Section 3 of this document) and Speed Zoning Technical Guidelines will cover most situations, but it is recognised that there will be some situations which fall outside the scope of these documents or where special circumstances apply.

Where it is necessary to deviate from the guidance, the speed zoning principles should be used to make a principle-based decision. The application of the principles and resultant decision must be documented.

The emphasis placed on each of the principles may vary from case to case according to the context in which the speed zone is being set. The Victorian Movement and Place Framework developed by DoT (as detailed in DoT's document *Movement and Place in Victoria*) may be used to assist. For example, transport network efficiency will be a significant consideration on roads with a high movement function but is less relevant for a local residential street.

The speed zoning principles are categorised under the following key themes:

- Road Safety (Safe System approach)
- Transport Network Efficiency
- Road User Expectation
- Community Engagement
- Community Wellbeing

These principles need to be considered in unison in order to make robust principle-based decisions.

2.1 Road safety (Safe System approach)

Where vehicle speeds would result in impact forces exceeding the human tolerances of vehicle occupants and/or vulnerable road users, then speeds should be managed to minimise the risk of fatal and serious injury.

This principle requires consideration of both the impact forces for vehicle occupants and/or vulnerable road users and the likelihood of a crash. The setting of speed limits must take into consideration the standard of the infrastructure and the degree to which road users are exposed to potential serious and life-threatening risks.

For vehicle occupants engineering of the road and roadside environment should be undertaken to manage impact forces where this can be practically achieved. Where this is not practical or cost-effective due to other constraints, speed management should be used to manage impact forces. A comprehensive road safety risk assessment using Austroads' Infrastructure Risk Rating (IRR), or a similar tool, must be undertaken to assist with determining an appropriate speed limit on high-speed roads.

Vulnerable road users are much more likely to suffer death or serious injuries at impact speeds above 30 km/h and fatal injuries at speed exceeding 40 km/h due to a lack of protection in the event of a collision. Ideally, facilities should be provided to separate vulnerable road users from traffic, particularly on arterial roads where vehicle volumes and speeds are higher. However, this is not always practical or possible. It is therefore essential that sufficient consideration is given to vulnerable road users when setting speed limits.

Mitigation measures for vehicle occupants will generally involve the control of impact forces through the application of the Safe System approach.

Where there is an increased risk of collisions due to a change in operational and / or environmental conditions, then the speed limit shall be managed to minimise the risk of fatal and serious injury to all road users.

Operational conditions can vary throughout the day which can lead to an increased risk of collisions. These can occur at set times (e.g. school start and finish times) or they can be random (e.g. high levels of congestion outside peak periods).

Environmental conditions can vary significantly and can also lead to an increased risk of collisions (e.g. strong winds, flooding etc).

It is important to manage the speed limit to reduce the risk of collisions to an acceptable level for both operational and/or environmental conditions. Variable speed limits are now commonplace to enhance pedestrian/cyclist safety around schools and in precincts during times of high pedestrian/cyclist activity. At the current time, the use of variable speed limits to manage safety (and traffic flow) during congested periods and incidents is confined to managed freeways. However, this capability is likely to extend to the arterial network in the future.

2.2 Transport network efficiency

When determining a speed limit for a road, it should generally be set in accordance with road function and standard of infrastructure.

Roads have two major functions: to provide for the movement of people and goods (the movement function); and to provide access to and service abutting land uses (the place function). Some roads are predominantly for movement (e.g. freeways) and some have a predominantly place function (e.g. a road within an activity centre). In reality, many roads perform a dual role, where the predominant function may change with time of day, day of week or time of year.

DoT's Movement and Place Framework is based on consideration of the range of roles that roads and streets play and was developed to support integrated transport and land use planning.

When determining speed limits, the objective is to achieve operating speeds that support an efficient network wide outcome.

It is essential that decisions do not just focus on isolated sections of road but are made in the context of the overall route and the adjoining road network. Speed limits should be set to support efficient travel on roads that have a primary movement function and discourage inappropriate use of roads and streets that have a primary access or place function.

Route and network-based speed limit reviews are encouraged so that consistency of speed limits is achieved over an area where issues and the road environment are similar (e.g. within the activity core of a regional city), to ensure that the frequency of speed zone changes is minimised and that network performance objectives are addressed.

Where there is a change in operational conditions, then the speed limit shall be managed to minimise the overall delay to road users.

Operational conditions can vary throughout the day which can lead to increased delays due to significant changes in traffic volumes or road use across the day. These can occur at predictable times (e.g. morning and afternoon peaks) or they can be random (e.g. incidents and roadworks). On traffic routes, where the movement function is a priority, variable speed limits may be used to actively manage traffic flow and reduce delays.

Lane use management systems (LUMS) and active speed management, which both utilise variable speed limit signs, are used on freeways to manage traffic flow during congested periods and incidents in order to maximise throughput and reduce delays. This capability is likely to extend to the arterial network in the future.

2.3 Road user expectation

When determining a speed limit, it should be set so that it is consistent with speed limits on roads in a similar environment with similar road function and characteristics.

Speed limits should be set in a consistent manner. Combinations of similar environments and factors should have the same speed limit, although it is recognised that no two situations will be exactly the same. In this way the driver is encouraged to keep within the speed limit of the road. The average driving speed is likely to be closer to the limit and the limit is often less exceeded if the road geometry informs the driver.

Speed limits should be clear, easily understood, and the number of speed limit changes kept to a minimum.

It is essential that decisions on speed limits do not just focus on isolated sections of a road. Changes in the road standard and / or environment along a route may justify a change in speed limit. However, minimising the number of speed limit changes is a key objective.

Speed zones that are longer than the specified minimum lengths are preferred. In particular, use of minimum lengths for zones of different speed limits that adjoin should be avoided.

2.4 Community engagement

When determining or changing a speed limit, engagement with affected communities and road users shall be undertaken so that expectations and impacts are understood and considered.

Engagement is important to be able to gauge the level of support that the community and road users have for speed limit changes. A high level of support and awareness will result in better outcomes for the community through better acceptance of, and compliance with, speed limits.

The extent of community engagement will depend on the circumstance. For example, if a speed limit change is proposed for a local access road, then it is likely that only the affected residents would be consulted. However, if a significant change is proposed on an arterial road, then consultation needs to be expanded to include affected road users, businesses and others who may be impacted by a change in the speed limit. Additionally, where there is a larger gap between current travel speeds and the proposed speed limit higher levels of community engagement may be required to ensure successful implementation and compliance.

It is recognised that there will be circumstances where the road authority will have to intervene urgently or in response to specific speed zoning requirements: (e.g. School Speed Zone, Traffic Signals on 100km/h road). In such situations, the road authority may be required to change the speed limit and advise the community the reasons for the change as soon as practicable.

2.5 Community wellbeing

Speed limits should be set at a level that supports active transport modes and minimises impacts on amenity.

Fundamental to the Movement and Place philosophy is recognising that streets perform multiple functions. Transport links not only move people from A to B, they also serve as key places and destinations in their own right.

Local streets that do not provide a through traffic function generally have low volumes of traffic. In these instances, speed limits should be set at a level to enhance amenity and encourage an increased use of active transport modes.

Similarly, speed limits should be set to support active transport on and across arterial roads, where appropriate, in accordance with their designated function and mode share profile.

3 SPEED ZONING POLICY

3.1 Speed limit setting approach

The Victorian Road Safety Strategy 2021-2030 commits to the ambitious target of eliminating death from our roads by 2050, with the first step of halving road deaths by 2030. The appropriate management of speed is an integral part of this strategy, as setting appropriate speed limits on our roads is a key contributor to help reduce death and serious injuries.

The management of speed is a key element of the Safe System approach which ensures that our roads are safe for all road users. The Safe System approach recognises that humans make mistakes, and roads should be designed in a way that people are not penalised with death or serious injury when they do.

3.2 Road geometry and infrastructure to complement speed zoning

To encourage drivers to travel at safe speeds, road geometry and infrastructure treatments should be used to influence drivers' expectation of the appropriate driver behaviour. The concept of 'self-explaining roads' involves designing a road system in which the driver's expectations created by the road environment are implicitly in line with the safe, appropriate behaviour for the road. This allows motorists to receive consistent speed information from the roadway, speed limit signs and the environment. It is important to combine speed zoning with road infrastructure solutions to achieve safer speeds, safer road systems and safer driver behaviours.

3.3 Allotted speed limits

Only the following numerical speed limits may be applied in Victoria; 10 km/h, 20 km/h, 40 km/h, 50 km/h, 60 km/h, 80 km/h, 100 km/h and 110 km/h.

In exceptional circumstances, the speed limits of 30 km/h, 70 km/h and 90 km/h may be applied. For further information regarding DoT's position on the use of exceptional speed limits, refer to Section 3.8.

3.4 Default speed limits

Default speed limits are imposed by Rule 25 of the *Road Safety Road Rules 2017* (RSRR (2017)) and provide a legal speed limit when speed limit signage is not present. The default speed limit for built-up areas is 50 km/h and the default speed limit outside built-up areas is 100 km/h.

In Victoria, 100 km/h speed limits on rural roads and 50 km/h speed limits on local streets in built-up areas are the most common speed limits in use.

The main purpose of the default speed limit is to minimise the need to sign the thousands of minor roads that exist across the state. A default speed limit should only be applied to a road where it is considered safe and appropriate.

3.4.1 Default speed limits on State managed roads

Default speed limits are not applied to State managed roads. State managed roads are freeways, arterial roads and non-arterial state roads. These carry most of the vehicular traffic across the state.

All 100 km/h and 50 km/h speed zones on State managed roads are signposted.

3.5 Speed limit rationalisation

It is essential that decisions on speed limits do not just focus on isolated sections of a road. Changes in the road standard and / or environment along a route may justify a change in speed limit. However, minimising the number of speed limit changes is a key objective.

Minimum lengths for speed limits are specified. However, the use of multiple speed zones over short distances should be minimised. In order to rationalise multiple speed zones at such locations, a speed zone providing the highest safety benefit may be extended to include adjacent sections that may otherwise meet the minimum speed zone length requirements for higher speeds.

This approach ensures that drivers are not faced with excessive and/or confusing speed limit changes along a stretch of road.

3.6 Variable speed limits

Variable speed limits (VSL) may be used:

- Where the imposition of a lower than normal speed limit at certain times of the day or at certain times of the year is warranted because of elevated crash risk (e.g. icy or windy conditions, seasonal holiday resorts, high pedestrian traffic zones such as strip shopping centres and schools); or
- To improve road safety for congested roads (e.g. freeways during congested periods, road works sites and traffic incidents such as vehicle breakdown, loss of loads or crashes).
- To reduce crash risk for vehicles entering from side roads on high-speed routes (e.g. through Side Road Activated Speed limits (SRAS) or at certain high-risk times)

On many freeways (particularly urban freeways), traffic is actively managed with the objective of optimising throughput and maximising travel safety. VSLs are being increasingly used, in conjunction with other tools such as coordinated ramp signalling, to manage traffic flow in order to minimise the formation of traffic queuing and protect traffic approaching queued conditions on the freeway. Lane use management systems (LUMS), which incorporate VSL functionality, are utilised to make better use of available road space and maintain safety in response to changing conditions resulting from incidents, congestion or adverse weather.

3.7 The use of 40 km/h speed limits

The link between impact speed and the risk of death or serious injury when a pedestrian or cyclist is involved in a crash is well established.

40 km/h speed limits are used in areas of high pedestrian and cyclist activity to manage the risk to pedestrians and cyclists crossing the road. This can be through time-based limits so that the 40 km/h speed limit matches times of the highest pedestrian and cyclist risk. Where the pedestrian/cyclist risk is significant during day and night, weekdays and weekends, then a permanent speed limit is set along the stretch of road.

A 40 km/h speed limit may also be used to enhance residential amenity in local streets as per the Movement and Place objectives where this is an objective of the controlling Local Government Area (LGA). These are defined by *Movement and Place in Victoria* as streets that provide quiet, safe and desirable residential access for all ages and abilities that foster community spirit and local pride.

A 2008 evaluation of the pilot program of 40 km/h speed limits in shopping strips by the Monash University Accident Research Centre showed that pedestrian casualties were reduced by an average of 17%.

3.8 The use of special purpose speed limits

In exceptional circumstances, the speed limits of 30 km/h, 70 km/h and 90 km/h may be applied with special approval.

30 km/h speed limits are not commonly used on Victorian roads. DoT may permit 30 km/h speed limit trials on local streets on a case-by-case basis and will consider evidence from the evaluation of these trials, community sentiment and other factors to inform future guidance on appropriate usage.

New 70 km/h and 90 km/h speed limits have not commonly been introduced following the 2011-2012 Speed Limit Review, whereby VicRoads (now part of DoT) introduced a simplified speed zoning system to address community concerns about the frequent number of speed limit changes on the Victorian road network.

New 70 km/h and 90 km/h speed limits are only used in Victoria in exceptional circumstances. Existing 70 km/h and 90 km/h speed limits will remain where community support exists.

3.9 School speed zones

The purpose of a school speed zone is to assist with the safe movement of pedestrians across a road.

Every school (primary and secondary) is entitled to a school speed zone on the road abutting an access gate to the school as this is the location most likely to generate pedestrian movements across a road.

Where there is pedestrian movement across a road outside of a school, the main infrastructure treatment to assist pedestrians safely crossing the road is a formal pedestrian crossing (e.g. flagged school crossing or signalised crossing). A supporting school speed zone is also implemented to assist safe pedestrian movements across the road.

In locations outside of a school where a pedestrian crossing is not provided due to factors such as safe pick-up locations on school grounds or abutting land use limits the need for pedestrians to cross the road, a higher school speed zone limit is used. If such a situation changes outside of a school, the primary consideration is given to a formal pedestrian crossing with a supporting measure of a lower school speed zone speed limit.

3.9.1 Times

The times of 8:00–9:30am and 2.30–4:00pm on school days shall be the only school speed zone times in Victoria. They have been chosen to reflect peak pedestrian periods at the start and end of a typical school day.

It is acknowledged that a small number of schools may have different start and end times. However, as these times of operation are well understood by the Victorian community, and in general are observed to lead to a high level of compliance, it is important that these times are not modified. This approach is consistent with the Road User Expectation Principle which states that speed limits should be set in a consistent manner and that combinations of similar environments and factors should have the same speed limit.

In 2012, VicRoads (now part of DoT) reviewed the times of operation of school speed zones. The review confirmed that the start and finish times of schools varies considerably across Victoria. The implementation of the morning school speed zones (8:00–9:30am) means that 99% of Victorian students are entering school gates at the time when the reduced speed limit is in place. Similarly, the application of afternoon school speed zones (2.30–4:00pm) ensures that the reduced speed limits are in place at the time that 95% of Victorian students are leaving the school gates. The review concluded that the operating times are appropriate to ensure safety for the majority of students while maintaining consistency for road users across the state.

3.9.2 Days

The days of operation are determined by the term dates for Government schools, which are gazetted annually. DoT understands that this means that there will be times when the operation of the reduced speed limit does not match the days when some schools are open. DoT also recognises that there will be days when students are arriving or leaving the school when the school speed zone is not in operation. However, DoT's approach is to provide consistent school speed zone times across the state in order to simplify communication with road users and to assist with road user compliance.

3.9.3 Public holidays in non-metropolitan areas

The Victorian non-metropolitan municipalities that declare an alternative public holiday(s) (in accordance with the Public Holidays Act 1993) will have their electronic school speed zone signs switched on for both Melbourne Cup Day and the alternative public holiday(s).

DoT acknowledges that this means a small number of electronic school speed zone signs will be active when schools are not open on these days, however this approach ensures the safest outcome for the community by minimising confusion to drivers.

3.9.4 Remote school crossings

It is acknowledged that high concentrations of pedestrian activity can also occur away from schools in some situations.

Typically, concentrations will diffuse the further the distance from the school. As such, a remote school crossing speed zone (i.e. a school speed zone located away from the school front) may be installed following an assessment.

To assist pedestrian activity across a road, such assessments should consider other infrastructure such as signalised pedestrian crossings.

3.10 Speed limit transitions

The provision of Speed Limit AHEAD signs is the preferred method of transitioning from one speed zone to another where:

- The transition is into an activity centre; or
- the difference in speed between the two speed zones is 30 km/h or greater.

The use of Speed Limit AHEAD signs provides drivers with adequate opportunity to slow down at a safe and comfortable rate.

Transitional regulatory speed limits, often referred to as 'buffer zones' (e.g. an interim 80 km/h speed zone between a transition from a 100 km/h speed zone to a 60 km/h speed zone), are no longer used in Victoria.

3.11 Railway level crossings in rural areas

At railway level crossings on rural roads, the maximum speed limit in the vicinity of the railway level crossing is 80 km/h. This position was adopted as part of the Victorian Government response to the recommendations of the 2008 Parliamentary Road Safety Committee inquiry into improving safety at level crossings.

3.12 Traffic signals in high-speed environments

Where traffic signals exist, the maximum speed limit through the site shall be 80 km/h.

This maximum speed limit has been adopted to ensure that drivers in high-speed environments have enough time to react to the traffic signals and are able to safely come to a complete stop.

It should be noted that this does not apply to managed motorways.

3.13 Unsealed roads

Default speed limits are commonly applied to unsealed roads. Notwithstanding this, a default speed limit should only be applied to an unsealed road if it is considered safe and appropriate.

Where the default speed limit is not considered safe and appropriate on an unsealed road, a safe and appropriate signed speed limit may be applied.

3.14 Pavements in poor condition

Temporary lowering of the speed limit may be appropriate when the condition of the road pavement becomes hazardous to an extent that is unable to be managed by regular routine maintenance. On roads managed by DoT, signing advice is set out in the 'Guidelines for Signing Roads in Poor Condition'. Signing options available include a range of warning signs and lower speed limits. The guideline could also be applied to local streets and is available to councils on request.

3.15 Speed limits for heavy vehicles

Special speed limits are applicable to certain classes of vehicles. For example, buses with a gross vehicle mass (GVM) of over 5 tonnes and trucks with GVM over 12 tonnes are restricted to a maximum speed of 100 km/h, even if the posted speed limit is higher. This requirement is set out in RSRR (2017), Rule 21 (2) and in other Acts and Regulations. These speed limits are not signposted.

3.16 Higher speed limits on freeways

The highest speed limit in Victoria is 110 km/h, which has only been adopted on a limited number of rural freeways and highways that have a high standard of infrastructure and low risk. While DoT monitors and reviews speed zones to ensure they provide a balance between safety and mobility, there are no plans to raise the 110 km/h speed limit on any freeway in Victoria.

Research has found speed to be a significant factor in the risk and severity of crashes; a 5% increase in travel speed increases the risk of having a serious casualty crash by 15%.

In 1987, Victoria raised the speed limit from 100 km/h to 110 km/h on the rural and outer Melbourne freeway network. An extensive evaluation of the change found that the casualty crash rate increased by 24.6%. When 100 km/h speed limit was reintroduced 12 months later, the casualty crash rate decreased by 19.3%. These results are consistent with national and international experience.

Higher vehicle speeds increase the number of crashes due to drivers having less time to see and react to hazards. Higher vehicle speeds also result in higher severity of crashes due to the greater impact forces when vehicles strike roadside objects or other vehicles.

Increasing speed limits would not only increase the crash risk, it would also add to transport costs through increased fuel consumption and lead to higher levels of emissions into the environment.

Higher travelling speeds on rural highways only slightly reduce travel time. For example, 110 km/h increased to 120 km/h over a 50 km journey would reduce the travel time by only 2 minutes.

3.17 Addressing community concerns

When a community member raises a concern with a speed limit, or requests a review of a speed limit, traffic and road safety engineers at the relevant DoT Regional Office will consider all aspects of the request. Suggestions or comments regarding speed limits can be made by contacting the relevant DoT Regional Office.

Changes to speed limits are considered on a case by case basis, with detailed guidance on the appropriate speed limits for different road environments provided by the *Traffic Engineering Manual Volume 3: Part 2.11 Speed Zoning Technical Guidelines*.

The assessment includes a site-specific investigation, which includes a review of road crash history, the number and types of vehicles using the road, the level of pedestrian activity and the primary function of the road.

Community engagement is also conducted to understand the community's views and explain the reasoning behind speed limit change decisions.

4 DOCUMENT INFORMATION

Title:	Speed Zoning Policy
Edition:	2
Group:	Policy, Precincts and Innovation
Division:	Road Safety Victoria
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Date of Approval:	18 November 2021

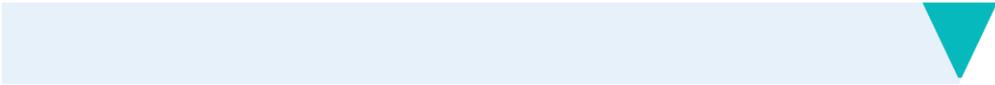
Document Revision History			
Edition / Revision	Pages(s)	Issue Date	Amendment Description
Edition 1	All	June 2017	First Edition – replaces VicRoads Traffic Engineering Manual Volume 1, Chapter 7 – Speed Zoning Guidelines
Edition 2	All	November 2021	Separation of content into Speed Zoning Policy and Speed Zoning Technical Guidelines. No significant changes to Speed Zoning Principles or Speed Zoning Policy

4.1 Document feedback

Thank you for reading this Policy, we value your feedback and suggestions.

For any inquiries or feedback please contact Road Safety Victoria via our feedback form:

[Victorian Speed Zoning Policy Feedback Form](#)



Department of Transport 2021

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