



PROJECT SPECIFIC GUIDELINES – Variable Messaging Sings (VMS)

The Department of Justice conducted a review of road safety issues relating to portable Variable Message Sign (VMS) use. Based on the findings of the review, guidelines have been developed to assist applicants of the TAC's Community Road Safety Grant Program to use VMS safely and effectively.

Within the TAC Community Grant Program there is a preference that VMS have minimum radar capabilities, to obtain speed related data. This data helps both the applicant and TAC to better understand speed patterns and behavior, and consequently help inform future initiatives aimed at addressing speed within local communities.

Deployment and Messaging Plan

All applicants applying for a TAC Community Road Safety Grant will need to work with the TAC to ensure a coordinated approach to messaging and deployment, and will be required to upload a messaging and deployment plan with their application.

It is understood that plans may be subject to change, however it is important that an initial schedule is provided to demonstrate intended messaging and movement of the VMS.

Data Collection and Sharing

VMS Radar Signs are one method of collecting data, that assist the TAC to better understanding speed activity across the Victorian Network.

As per the funding agreement terms and conditions, the TAC holds the right to obtain data captured through funded projects. With final reporting, we encourage applicants to share any data captured, to help the TAC better understand speed management activity and inform future work.

It would be favourable, when you submit your application, if you can provide a break-down of the type of data you plan to collect, along with the parameters of these data variables. Below we have provided examples of useful data you may like to consider collecting for your project. While this type of information would assist TAC in looking into driver speed choice, rates of speeding and how VMS messaging may reduce travel speeds, the specific data listed is not essential, and your application for funding will be considered regardless.

Examples of data collection;

- Site Number (and specific location, i.e. latitude and longitude or pin drop on Google maps which displays the side of the road the site is placed on)
- Road Name
- Location
- Locality
- Speed Limit
- Pre- and post-deployment traffic counts (AADT) with dates
- Number and % of vehicle speeding pre- and post- (please provide clear definitions, e.g., 51+km/hr in a 50km/hr zone)
- VMS deployment dates (and times of day i.e. 6am-6pm?)
- Comments – anything relevant to this line of data collection? (Post-deployment)

Quotes/costing

When applying for a TAC Community Road Safety Grant applicants are advised to provide quotes obtained for the purchase of a VMS, or outline where quotes and costings will be sourced.

Successful Applicants will need to follow the below guidelines, in addition to any requirements from VicRoads, when placing their VMS:

Safe placement

- **VMS need to be placed far enough from the road so that they are not a hazard to vehicles that may run off the road.** Depending on the speed zone, there are different VicRoads requirements for how far from the road edge line a VMS should be placed. On 100 km/h rural roads this is 9 meters. Check with the local VicRoads office for the requirement on the roads where you intend to place VMS.
- **VMS should never be placed on the beginning or end of a curve where there is a heightened risk of a run off road incident.**
- **Choose a location where the sign can be installed and removed safely.** For example, not so close after a visual blockage or a bend such that oncoming traffic does not have time to react safely to a slow moving delivery/pickup vehicle.
- **Avoid placing the VMS at a location where it might distract drivers from a potential road hazard.** For example do not place opposite a driveway or bridge etc., where particular driver attention is required.

Site selection

- A VMS is most effective at a site where a significant proportion of the traffic exceeds the limit. In effect, they act to draw down average vehicle speeds to below the set limit. Applicants should primarily choose locations with a history of speeding. Local police will most likely be able to direct you to such sites.
- Generally choose sites where the VMS can be seen from a good distance. However, care should be taken to avoid situations where local residences are inconvenienced, given that VMS can be quite bright, especially at night.

Rotation

- The impact on local drivers may wear off over time. As such **it is recommended that at least three to four locations be selected** and that the VMS be rotated through these locations on a two week schedule. This is separate to locating the VMS at identified unique events such as roads works or festivals when circumstances suggest heightened risk for certain periods.
- **Using the VMS together with police enforcement** will give added effect if the displayed message is appropriate (see message section below).

Messages

In general **messages should be short and clear**. This is particularly important in higher speed zones as drivers have less time to read messages. For maximum distance sight, Applicants should aim to use 8 characters per line and no more than three lines per screen. The maximum characters per line should be no more than 10. Rotating screens can assist in displaying longer messages if required.

For example, a suggested speed reduction message in a rural 100 km/h zone displayed over two screens with a two second rotation between screens is:

HIGH
RISK
AREA

OBSERVE
SPEED
LIMIT

If a VMS is used in areas where police or mobile camera enforcement occurs, applicants might consider using the following message displayed over two screens with a two second rotation:

HIGH
RISK
AREA

POLICE
ENFORCING
SPEED

The aim of the above two speed message suggestions is to clearly link a higher risk location with a desired behaviour change, specifically a reduction in speeding. A similar logic should be applied to other identified risk areas such as bends or locations with blind spots. It is important to justify to drivers the request you are making.

If the message is a speed feedback (typically used in lower speed urban environments such as school zones) **configure the VMS to only display speeds up to 7 to 10 km/h over the limit**, at which point a simple message such as "TOO FAST" displays. This discourages attempts to set "records" etc.

Try to place the VMS close to a permanent speed limit sign to emphasise the speeding detected. It is best not to use speed feedback modes in higher speed zones (80 km/h and higher) as they often don't operate in time to adequately alert drivers. Applicants should refer to VicRoads requirements when placing VMS near a permanent speed limit sign.

Following these guidelines will assist applicants to promote safer road behaviour in their community and encourage the best possible community-based road safety outcomes. Applicants can also access;

1. The State Government planning policy (particularly relating to demographic changes and impacts on road safety).
2. ABS Census data to help identify 'at risk' cohorts in your area.

Other factors that can speed up the process and encourage positive results

- A clearly nominated project manager with authority to keep plans on track.
- Plans which combine long term 'aspirational' goals (to inspire and mobilise communities) with 'functional' goals (practical, measurable and achievable within a specified period).
- Ensuring the road safety strategy is included in 'whole of Council' planning e.g. Council Plan, City Plan, Community Safety Plan, Community Wellbeing Plan.
- A comprehensive evaluation plan which includes:
 - Clear road safety strategy deliverables and deadlines (KPIs).
 - Crash stats from VicRoads/data review to measure change in accident numbers/casualties.
 - Annual household/attitude surveys to measure impact of the Strategy.
 - Monitoring attendances at road safety related activities and events.
 - Satisfaction surveys administered at road safety activities and events.
 - Road safety audits including pre/post-tests to chart behaviour change