

Fingerboards Mineral Sands Project Submission to the EES Project Inquiry and Advisory Committee

Supplementary Submission by the Department of Transport

27 May 2021

Introduction

1. The Department of Transport (**the Department**) made a submission to the Fingerboards Mineral Sands (**the Project**) Inquiry and Advisory Committee (**IAC**) at the hearing on 19 May 2021.
2. The following submissions are provided in response to the IAC Questions on Notice to the Department.

Submissions

Question 1: Has DoT had similar experience of scale in relation to the relocation of an arterial road?

3. The Department is not aware of a similar project that has required the temporary relocation of a declared arterial road within Victoria, particularly at the scale proposed as part of the Fingerboards Mineral Sands Project.
4. The Department has received requests to permanently deviate sections of declared arterial road associated with external projects.
5. In the Gippsland region, this has included sections of the Strzelecki Highway and Hyland Highway (declared arterial roads) that were permanently deviated to allow for the expansion of mining activities for the Hazelwood and Loy Lang open cut mines respectively.
6. The associated land tenure for the deviation of these sections of arterial road where resolved by the proponent, where the mines owned the land which was subsequently vested as road to the Department of Transport.
7. As stated in the Departments submission on 19 May 2021, although it is considered feasible to divert a road alignment and reinstate it back to its original alignment (post mining operation), there are a number of geotechnical and other factors that will need to be considered to ensure the integrity of the asset.

Question 2: How do the Department assess opportunities for stock crossing on its network? Is there a minimum width for a road used as a stock crossings?

8. The Department currently has 'Manual for Traffic Control at Stock Crossing' (June 2015) to assist with identifying appropriate locations and treatments for stock crossings on public roads (Attachment A).
9. Key factors with the consideration of stock crossings include the:
 - 9.1. frequency of the use of the stock crossing (number of days within a year),
 - 9.2. the traffic volumes (vehicles per day) at the stock crossing; and

- 9.3. site conditions (sight lines and vehicle operating speeds).
- 10. The introduction of any new stock crossing will require the consent of the relevant road authority, which in the case of Dargo Road, is the Department.
- 11. There are no specific details relating to the required width of a road reserve as part of an assessment for a stock crossing.

Question 3: Kalbar has proposed amendments to the Special Controls Overlay. Does the DoT have a view on the proposed changes?

- 12. The Department has reviewed the new mining licence area in tabled documents:
 - 12.1. Tabled document 344, entitled '344- Kalbar Mining Licence Application area - Survey Plan – 19288 Mining licence application plan' and
 - 12.2. Tabled document 345 entitled 345 Kalbar – Mining Licence Application area - Plan by ERR from survey plan - MIN007636 -Map- Application
- 13. The proposed mining area still contains a large section of Bairnsdale Dargo Road which is a declared arterial road (state owned).
- 14. The concerns and issued raised in the submission on 19 May 2021 remain current and relevant.
- 15. The additional information and change to the mining area does not alleviate any of the issues raised within the Departments submission.

Conclusion

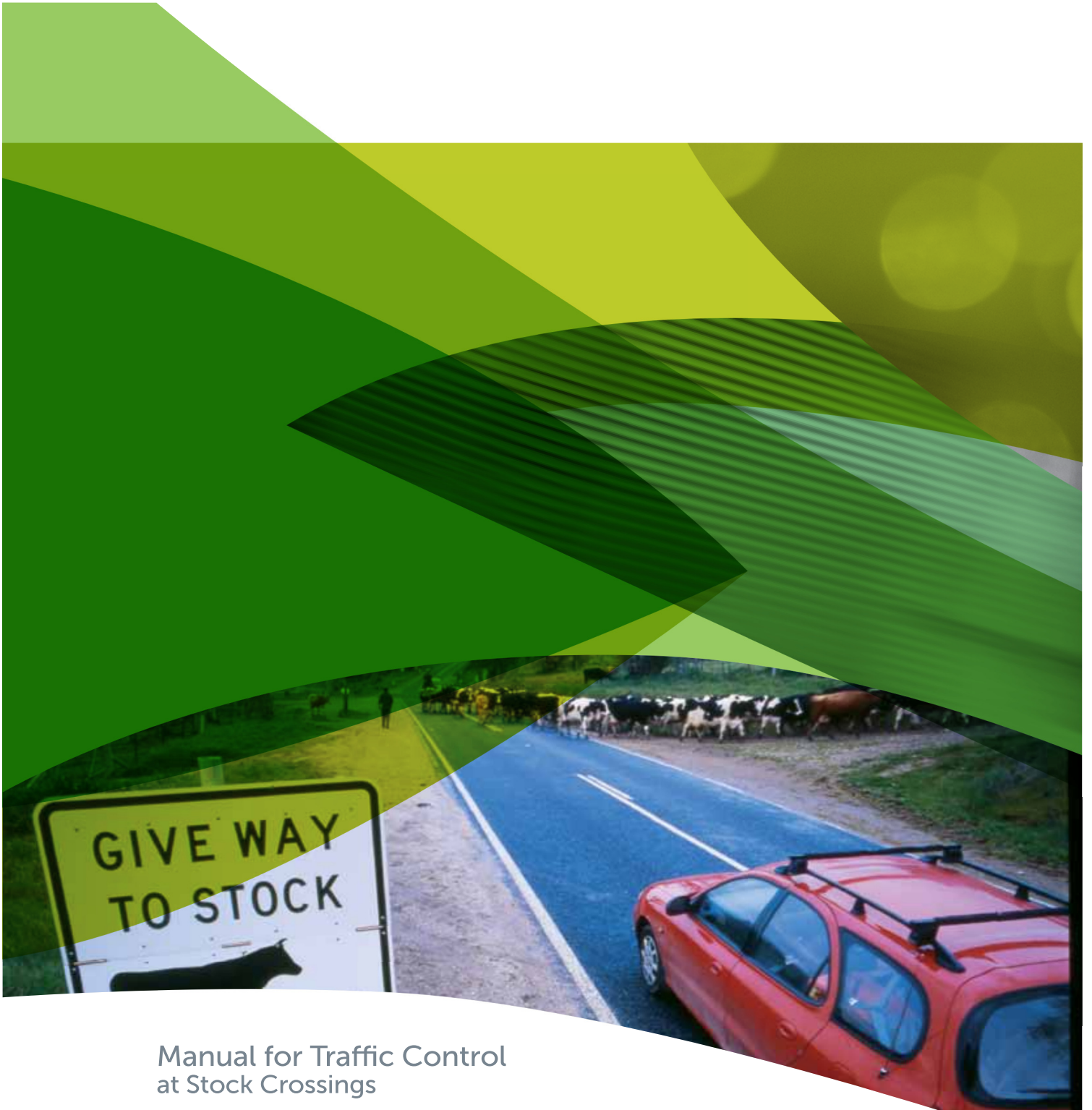
- 16. If additional information or explanation is required, the Department would be happy to provide this further assistance to the IAC.
- 17. This completes the Supplementary submission by the Department.

Kate Stapleton

**Director Planning Practice
Department of Transport
27 May 2021**



Attachment A – Manual for Traffic Control at Stock Crossing – June 2015



Manual for Traffic Control at Stock Crossings

June 2015

Introduction

This Manual is to be used by farmers, drivers and other people who have a stock crossing permit from a coordinating road authority (VicRoads or municipal Council) - or who are exempted by a local law from the need to have a permit – to have stock on roads or road reserves in Victoria. The Manual gives specific instructions for the selection of stock crossing sites, how they should be signed, and also for sign placement in situations where stock graze or are driven along roads. The Manual has 5 major sections:

- installation of crossings (page 1),
- high use stock crossing sites (page 1),
- low use stock crossing sites (page 7),
- droving of stock (page 9), and
- stock grazing on the road reserve (page 9).

Compliance with this Manual is a requirement of the regulations under the Road Safety (Traffic Management) Regulations 2009 and complements local laws providing approval to have stock on roads.

Installation of Crossings

Enquiries should be made initially with the relevant coordinating road authority. The relevant coordinating road authority will determine the most appropriate signing arrangement following a site inspection and will assist with the installation of signs and lights (at the stock owner's expense) for high use stock crossing sites. In Victoria, VicRoads is the coordinating road authority for all declared arterial roads and freeways, and the relevant municipal Council is the coordinating road authority and responsible for municipal roads.

The installation or display of signs and lights is the responsibility of the person accompanying, or responsible for, the stock. All costs associated with the planning, installation and ongoing maintenance of low use or high use stock crossings are the responsibility of the stock owner.

High Use Stock Crossing Sites

High use stock crossings are generally for dairy cattle and are generally used twice a day. If a site is used 52 times or more in any twelve month period, the location is considered a high use stock crossing site. For example, crossings used by dairy cattle for the summer months only could be regarded as high use crossings while in use. Permanent signs should be taken down, or closed if folding signs are installed, when such crossings are not used for significant periods.

Stock must be penned on the owners property prior to crossing, and taken across the road as a group, so as to minimise the time they are on the road.

The requirements for High use Stock Crossings are shown in Figure 1.

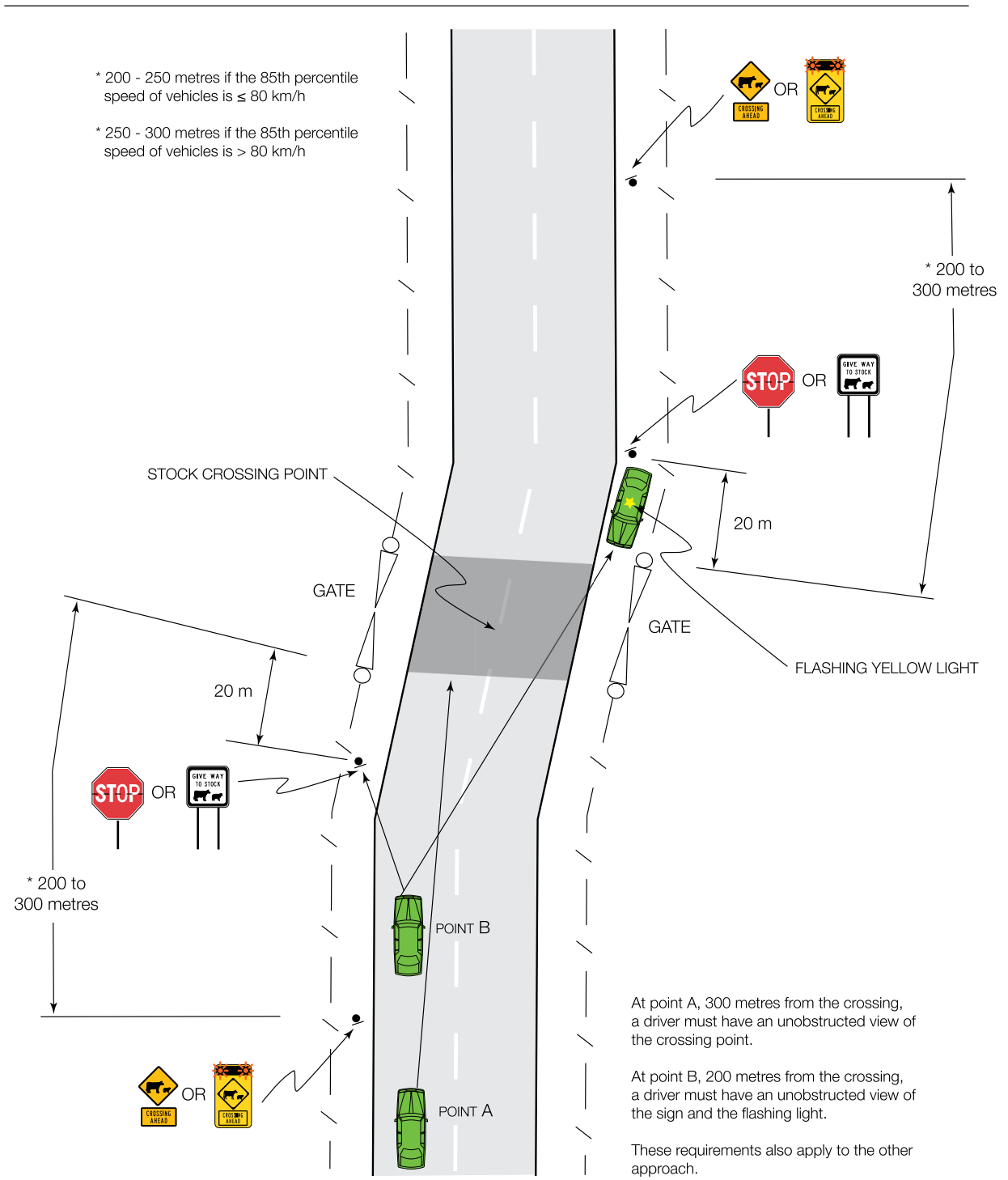


Figure 1: requirements for High Use Stock Crossing Sites

Site Selection

If the traffic volume exceeds 2,500 vehicles a day or the location conditions detailed below are not met, the relevant coordinating road authority can advise on alternative options, such as overpasses, underpasses, or traffic signal installations that might be more suitable than a stock crossing with signs as detailed in this Manual.

A location should be selected so that:

- approaching drivers can see the crossing point from a minimum of 300 metres away (see point A in Figure 1),
- the regulatory sign, GIVE WAY TO STOCK or STOP (see Figures 2 & 3) and flashing yellow light associated with the stock crossing are visible to approaching drivers from at least 200 metres from the stock crossing (see point B in Figure 1), and the distance the stock have to travel to cross the road is kept to a minimum.

Signs

Each site will require either

- a. two GIVE WAY TO STOCK signs complying with Figure 2 (R1-V6: Type 2 non-folding, or Type 1 folding; Type 1 sign folded when the stock crossing is not used for extended periods) or
- b. in exceptional circumstances, as determined by the coordinating road authority on a site-by-site basis, two STOP signs complying with Figure 3 (R1-V1 folding), designed so that when not in use the top half of the sign can be folded down so that the wording is not visible to motorists.

GIVE WAY TO STOCK or STOP signs must be placed 20 metres from the stock crossing point, facing approaching vehicles on both approaches (see Figure 1). The GIVE WAY TO STOCK or STOP signs shall be visible to approaching drivers from at least 180 m (see Figure 1).

A condition of the erection of STOP signs is that the top of the STOP sign must be folded down so that the word STOP is not visible when stock are not crossing. Violation of this condition will mean that the signs are removed, and replaced with GIVE WAY TO STOCK signs, again at the stock owner's cost. The reason for this is that the STOP sign will create a requirement for vehicles to stop even if no stock are on the road, and it is important that vehicles are not required to stop when there is no reason to do so. STOP signs must only be used for crossings directly across a road. Before approving STOP signs, consideration should be given to relocating the crossing, approving only a grade separated crossing or refusing the application.



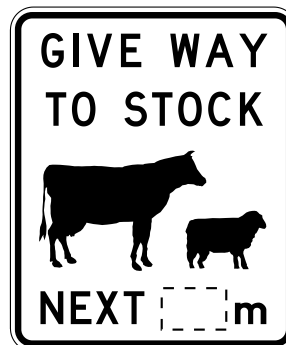
R1-V6
Type 2: Non-
Folding shown
900 x 900 mm

Figure 2



R1-V1
"B" Size
750 x 750 mm

Figure 3



R1-V5-1
750 x 900 mm

Figure 4

Where practicable, crossings should be directly across a road. Where this is not possible, the GIVE WAY TO STOCK sign must be used for staggered crossings involving movement along the road of up to 300 metres. This includes situations where stock travel along roads for up to 300 metres and re-enter land adjoining the road on the same side from which they entered it. Where stock travel along a road for more than 300 metres, a GIVE WAY TO STOCK NEXT x m sign complying with Figure 4 (R1-V5-1) should be used showing the number of metres involved.

In addition, stock (symbolic) warning signs with CROSSING AHEAD supplementary plates complying with Figure 5 (W5-38 with W8-22), must be erected in advance on each approach. These must be installed on the left side of the road, 200 to 300 metres from the stock crossing point, depending on site characteristics (see Figure 1).

Signs - Daytime (restricted sight distance and/or fog)

For daytime use, if sight distance to the stock crossing point is restricted, or if the area is subject to regular fog, or there is a need to improve driver awareness of the hazard, signs complying with Figure 6 (W5-V131) are to be installed as advance warning signs in place of the sign shown in Figure 5 (see Figure 1). These incorporate flashing lights which must be switched on when the stock crossing is in use and switched off immediately after the stock have crossed.

Yellow Flashing Warning Light

One flashing yellow light that may be mounted on a vehicle (or by other means), is required at the stock crossing point for all high use stock crossings while the stock crossing is in use (see Figure 1). If the light is on a vehicle, the vehicle should be parked on the edge of the roadway, clear of passing traffic and not obstructing oncoming drivers' view of the signs. The light must be in a position where it can be seen by drivers on both approaches at a distance of 200m from the stock crossing (see Figure 1). The warning light is to be mounted high enough to be seen above the stock. The agreement of the relevant coordinating road authority must be obtained for the type of flashing light to be used. With the approval of the road authority, some other conspicuous device may be used instead of a flashing yellow light at the stock crossing point. An example would be a vehicle-mounted double-sided illuminated sign, flashing alternately the words CATTLE and CROSSING.

Signs and Lighting - Night-time

For night-time use of a high use stock crossing site, flashing lights on the advance warning signs complying with Figure 6 (W5-V131) are required.

Where the road reserve is less than 30 metres wide, a single floodlight is required as shown in Figure 7.

Where the road reserve is more than 30 metres wide, a floodlight on each side of the road is required as shown in Figure 8.

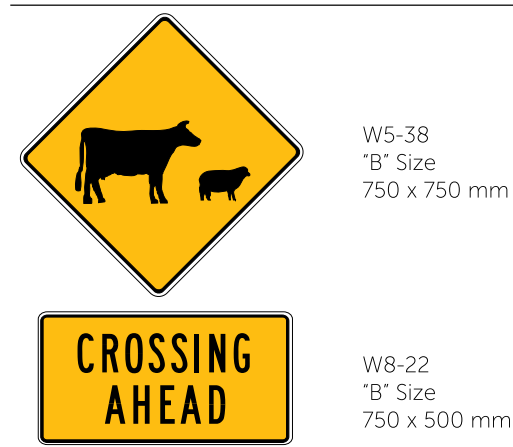


Figure 5

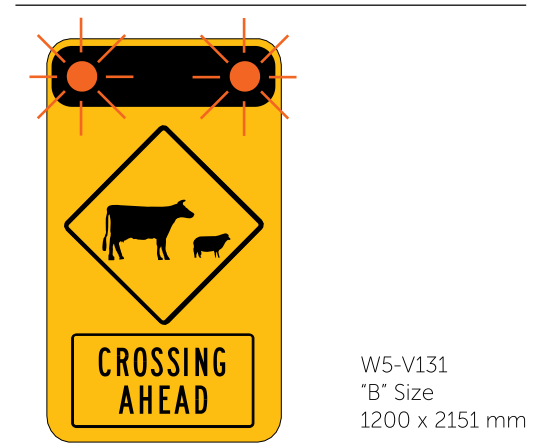


Figure 6

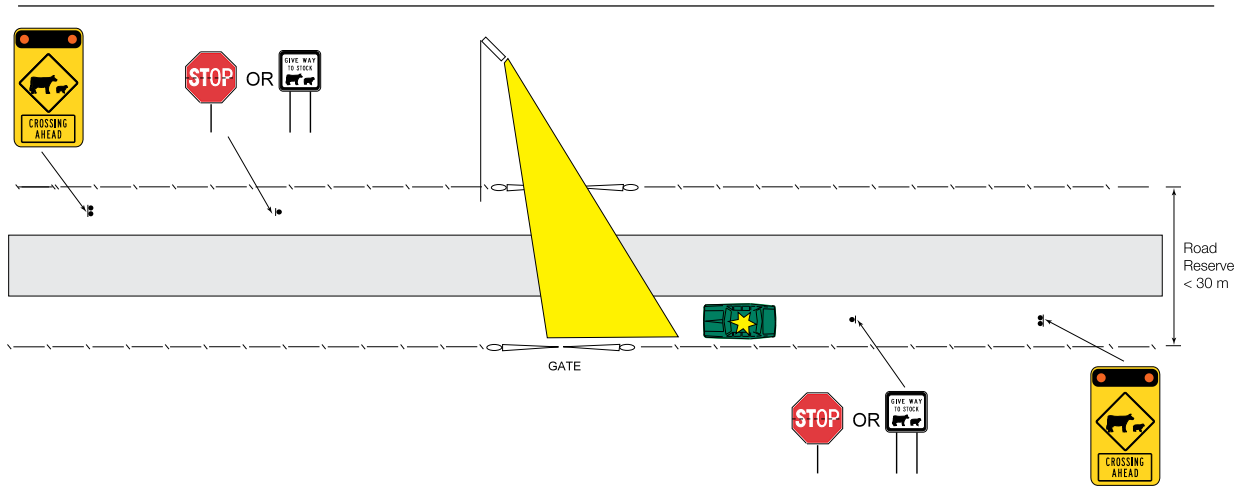


Figure 7: layout for night operation - road reserve < 30 m

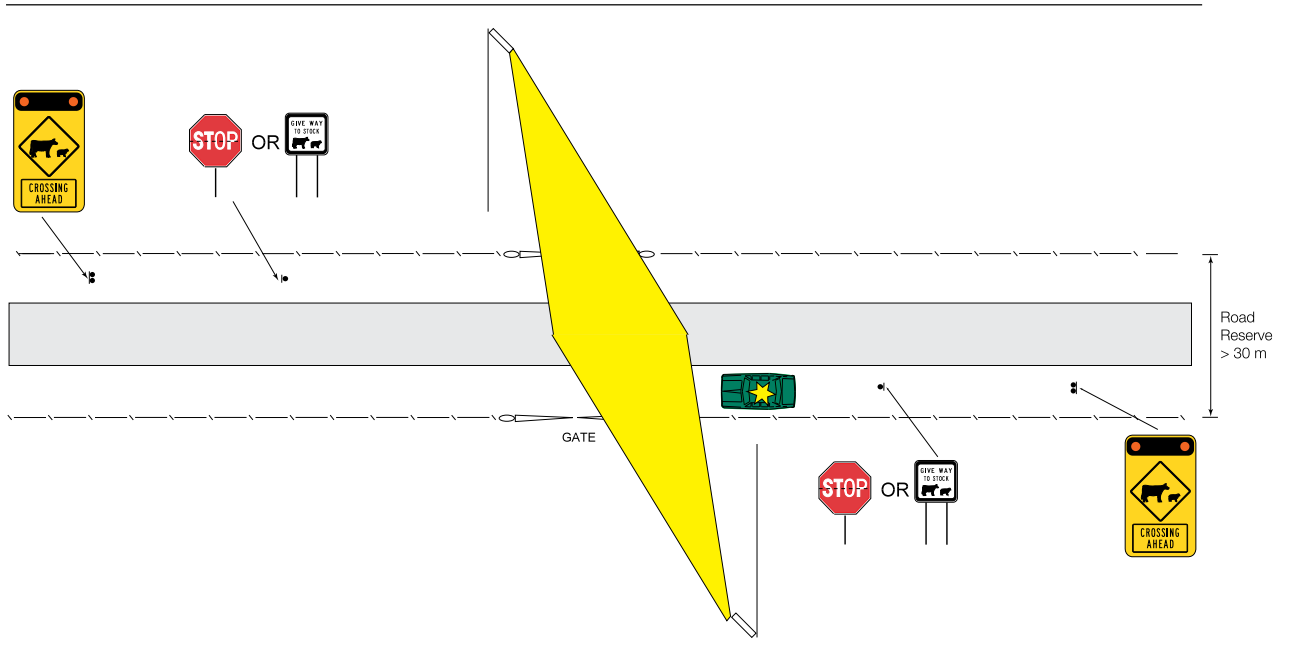


Figure 8: layout for night operation - road reserve > 30 m

Low Use Stock Crossing Sites

A low use stock crossing site is one that is used less than 52 times in any twelve month period.

The requirements for Low Use Stock Crossings are shown in Figure 9.

Site Selection

If a low use stock crossing site is required at a location where the traffic volume is less than 2,500 vehicles a day, its location should be selected so that:

- drivers of approaching vehicles can see the stock crossing point from a minimum of 200 metres away, and preferably at least 300 metres away, and
- the GIVE WAY TO STOCK signs are visible to approaching drivers at a distance of at least 200 m from the stock crossing, and
- the distance the stock have to travel to cross the road is kept to a minimum.
- If a location with a sight distance of 300 m is not available, a location with less sight distance than this (but not less than 200 m) may be used but, in such cases, an appropriate traffic management plan is required to be implemented which provides oncoming drivers with adequate warning. The traffic management plan should be reviewed by the relevant coordinating road authority prior to use.

High Traffic Volumes

If the traffic volume exceeds 2,500 vehicles a day at the location of the proposed stock crossing, the provision of a low use stock crossing is unlikely to be appropriate. Discussions with the relevant coordinating road authority need to investigate other options such as:

- overpasses;
- underpasses; or
- traffic signal installations that may be more suitable than a stock crossing with signs.

For locations infrequently used for stock crossings, other alternatives may exist, such as:

- moving the stock by truck; or
- engaging qualified persons to control traffic in accordance with the Road Management Act 2004,

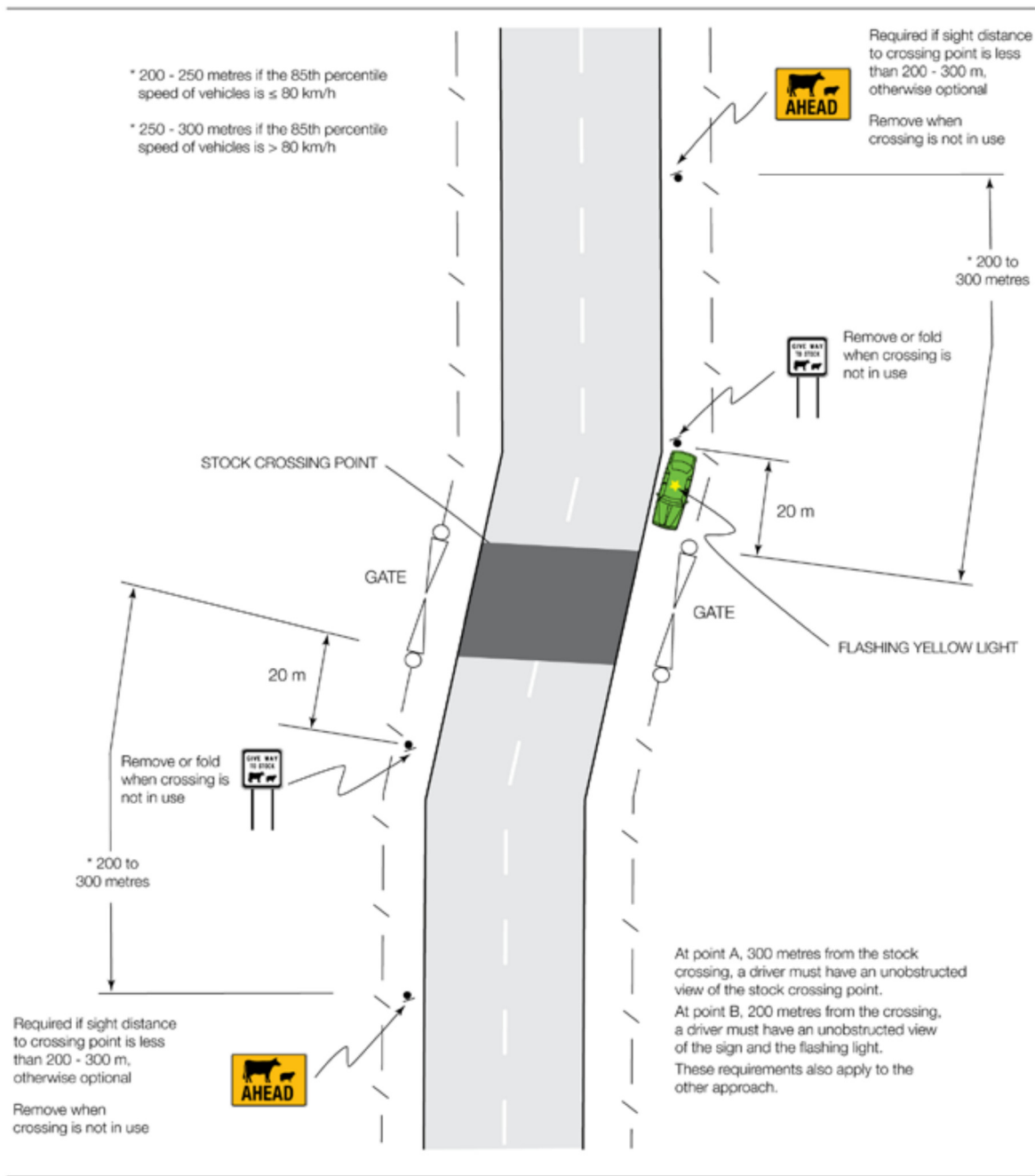


Figure 9: requirements for Low Use Stock Crossing Sites

Signs – Daytime

Low use stock crossings require GIVE WAY TO STOCK signs to be displayed only while the stock crossing is in use. This sign conforming with Figure 2 (R1-V6) may be Type 2 non- folding and temporarily displayed while stock are crossing, or the sign could be the Type 1 folding, be permanently mounted and only unfolded and displayed while stock are crossing.

The signs must be displayed to face oncoming vehicles, and firmly secured so as to prevent them being blown over by wind or passing traffic. If the stock crossing point can be seen by drivers 300 metres away, the GIVE WAY TO STOCK signs should be placed about 20 metres in advance of the stock crossing point on each approach. If the distance from which the stock crossing can be seen is less than 300 metres, the GIVE WAY TO STOCK signs should be placed at the point where they are most easily seen, and provide the best practicable warning to drivers. A traffic management plan may also be required depending on the available sight distance.

The option to use STOP signs is not available for low use stock crossings.

To provide additional warning of low use stock crossings, the display of STOCK (symbolic) AHEAD signs complying with Figure 10 (T1-19) may be used on each approach at least 200 metres in advance of the GIVE WAY TO STOCK signs while the low use stock crossing is being used. These signs must be used where sight distance to the low use stock crossing is restricted ie: between 200 - 300 m.

Yellow Flashing Warning Light

One flashing yellow warning light is required at the stock crossing point for all low use stock crossings (as detailed in the Flashing Yellow Warning Light section for high use crossings).

Signs – Night-time

Low use stock crossings at night time must meet the requirements for temporary daytime operations, but in addition must be floodlit such that drivers have a clear view of the stock on the road. One floodlight is required if the road reserve is less than 30 metres wide as shown in Figure 7. For wider road reserves, one floodlight is to be installed on each side consistent with the lighting arrangement as shown in Figure 8.



T1-19
"A" size
900 x 600 mm

Figure 10

Droving

All relevant local law permits must be obtained prior to droving of stock. GIVE WAY TO STOCK NEXT x km signs complying with Figure 11 (R1-V5-2) must be displayed to face vehicles approaching the stock from either direction. If a vehicle is used, one sign could be mounted on the vehicle ahead of, or following, the stock. Other signs must be placed beside the road (visible to motorists, but away from the travel path of vehicles) so that vehicles travelling towards the stock will see the signs before they come to the stock. The signs must be firmly secured so as to prevent them being blown over by wind or passing traffic. The signs will need to be moved as the stock move. GIVE WAY TO STOCK NEXT x km signs showing the maximum distance over which the stock are likely to be found may be used on side roads to alert drivers entering the road that there is stock on the road. Some Councils require drovers to restrict stock to a certain distance, such as one kilometre. In these cases, the GIVE WAY TO STOCK NEXT x km signs should show the appropriate distance in kilometres.

Additional warning may be provided by the temporary display of STOCK (symbolic) AHEAD signs (Figure 10) (T1-19) in advance of the GIVE WAY TO STOCK NEXT x km signs while droving of stock.

Grazing

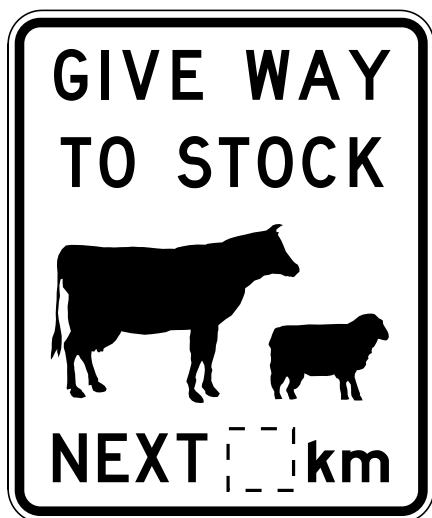
Planning permits or local law permits are required on declared arterial roads for grazing stock on the road reserve. When grazing stock, GIVE WAY TO STOCK NEXT x km signs conforming with Figure 11 must be displayed facing drivers approaching the stock from any direction.

The signs should either be fixed on poles (if practicable) or be secured firmly so as to prevent them being blown over by the wind or passing vehicles. If the Council has limited grazing stock to a certain distance, then the GIVE WAY TO STOCK sign should show the appropriate distance in km.

To provide additional warning of stock grazing, the temporary display of STOCK (symbolic) AHEAD signs (T1-19) complying with Figure 10 may be used on each approach 200 metres in advance of the GIVE WAY TO STOCK NEXT x km signs. These signs may also be used where sight distance to the stock is restricted.

Sign Manufacture and Installation

Signs shall be manufactured in accordance with the VicRoads Specification Section 860 – Manufacture of Road Signs. They must be manufactured using retroreflective sheeting Class 1 material as specified in AS/ NZS 1906.1.



R1-V5-2
"A" size
750 x 900 mm

Figure 11

Signs must be erected so that:

- the mounting height (vertical height measured from the lower edge of the sign to the level of the nearest edge of road) is 1.5 metres; and
- the edge of the sign nearest the road is a minimum of 0.6 m from the outside edge of the shoulder or, where no defined shoulder exists 1.8 metres from the edge of the traffic lane. The edge of the sign nearest the road should be a maximum of 3.0 metres from the edge of the traffic lane. Refer Figure 12.

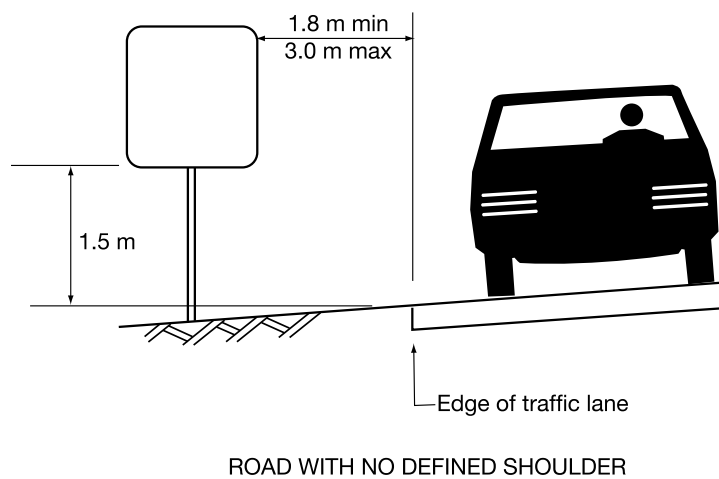
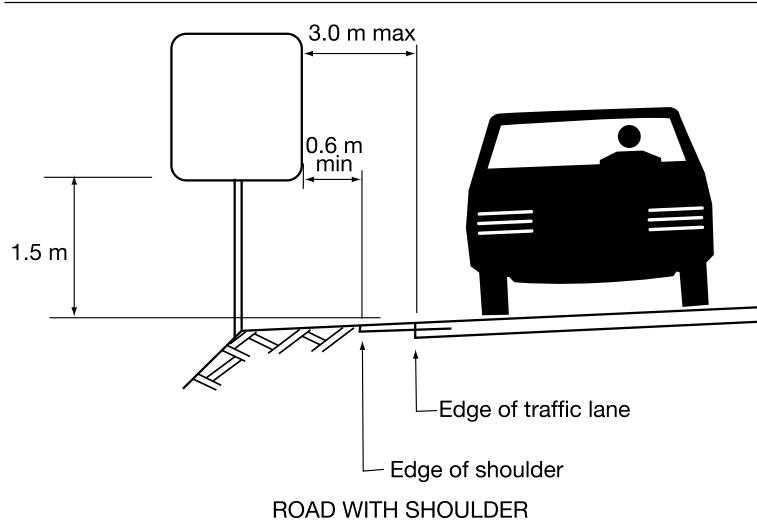


Figure 12: Sign installations