TRAFFIC MANAGEMENT
LEARNER GUIDE

LLN READY

Training support material for:

RIIWHS205E

Control traffic with a stop-slow bat

Produced by:

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Australia Pty Ltd

CONTENTS

INTRODUCTION

What is a traffic controller?

A traffic controller is a person who has the job of controlling traffic at a work site. The traffic controller keeps workers and the travelling public safe by efficiently controlling and managing traffic. Traffic controllers are used when signs and devices on their own do not provide enough protection.

Traffic controllers may be required:

- When roads are being re-surfaced
- When only one lane of a two lane road is operating
- During low-speed operations
- When roads are temporarily or totally closed (e.g blasting works)
- Where plant/equipment need to cross a road
- Where there is a limited sight distance within a work site
- In emergency situations.

What training does a traffic controller need?

Any person that is responsible for preparing and putting in place worksite traffic management must be appropriately qualified in their state or territory. Traffic controllers must be correctly trained and hold a certificate or statement of attainment saying they are competent. All accredited traffic controllers at worksites on roads must comply with regulations.

The traffic controller must present their statement of attainment to any Police officer, Workplace health and safety regulator (e.g WorkSafe Officer), Roads Management Authority (e.g VicRoads, Dept. of Transport), Municipal Council Authorised officer or the person in charge of a worksite or their delegate when requested. Refresher training should be done every three (3) years.

As states and territories can differ you should check exactly what training (including refresher training) is required in your state or territory. Information can be found by contacting the department that regulates traffic control in your state or territory.

State/Territory	Government department	Website
ACT	Territory and Municipal Services	www.tams.act.gov.au
NSW	Roads and Maritime Services	www.rms.nsw.gov.au
QLD	Department of Transport and Main Roads	www.mainroads.qld.gov.au
NT	Department of Transport	www.transport.nt.gov.au
SA	Department of Planning, Transport and Infrastructure	www.dpti.sa.gov.au
TAS	Department of State Growth - Transport	www.transport.tas.gov.au
WA	Main Roads Western Australia	www.mainroads.wa.gov.au
VIC	Vic Roads	www.vicroads.vic.gov.au

What makes a good traffic controller?

It is important that a traffic controller has the correct appearance, behaviour and attitude. This will help motorists and pedestrians to see the traffic controller as a person who has authority and they will be more likely to react in the right way. A traffic controller who does not look interested, or has a messy appearance, will give a bad impression to the public.

A good traffic controller is a person who:

- Can deal with the travelling public in a fair and reasonable way
- Has a good temperament (is not an angry person)
- Will not allow themselves to be provoked (aggravated) by the public
- Can act in a controlled way.

PREPARE TO CONTROL TRAFFIC

Safety requirements

Personal protective equipment (PPE)

Depending on the situation, traffic controllers must wear appropriate high visibility clothing which meets AS/NZS 4602 for class:

- "D" (day)
- "N" (night) or,
- "D/N" (day and night)

Hi-visibility clothing must be worn at all times while working in or next to traffic. This includes traffic at worksites, in quarries and on construction haul roads.

During the day (in well lit conditions), traffic controllers must wear class "D" hi-visibility clothing.

Clothing may include vests, jackets, polo shirts or overalls and must:

- Be either red-orange or yellow in color (Class "F" fluorescent material)
- Comply with AS/NZS4602
- Display the company name
- Be clean and in good condition
- Be correctly worn and done up at all times.

Personal protective equipment (continued)

As a minimum traffic controllers must also wear safety footwear which meets Australian Standards. The work site rules will also tell you any other personal protective equipment which must be worn.

This may include:

Note: Traffic controllers should also consider wearing wide brimmed hats, sunglasses, long sleeved tops and pants when working in the sun. Detachable brims with neck flaps can be used if a hard hat must be worn.

Hazard identification

There are a lot of hazards on construction sites that you need to be aware of. Hazards can cause accidents and injuries. Hazards need to be identified before you can start work so they can be controlled.

Hazards can include things like:

Uneven/unstable ground	Trees	Pits and underground services
		

Using truck mounted attenuators to protect workers

Truck mounted attenuators (TMA) can be used to protect workers on or beside active road sites. Attenuators (also known as crash cushions) are designed to reduce the damage done to structures, vehicles and motorists resulting from a motor vehicle collision.

It is recommended that there be 35 metres between the worksite and the TMA.

TMAs can be used for emergency works for a short time without advance warning signing and delineation so long as approaching vehicles have at least a 200 metre approach site distance to the worksite.

Attenuators are used to protect works on or near high speed roads.

Select tools and equipment

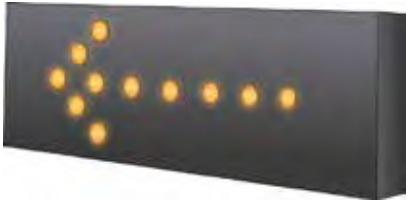
Before starting the job you must select all the tools and equipment you will need.

Check the TMP to see what is needed or speak to a supervisor or workmate if you are unsure. Tools and equipment must be the correct ones for the task being done.

Examples of common tools and equipment used by traffic controllers are:

Stop-slow bat	Illuminated (bright) wand
	

Select tools and equipment (continued)

Personal protective equipment 	Radios and telephones 	Traffic cones and bollards 
Signs 	Warning lights/beacons 	Arrow boards/variable message signs 

Check tools and equipment for serviceability

Tools and equipment selected for the job must be checked before they are used. All tools and equipment must be in **good** working order and safe for use. Using faulty or damaged tools and equipment can cause accidents and effect the quality of work.

Stop-slow bat and signs

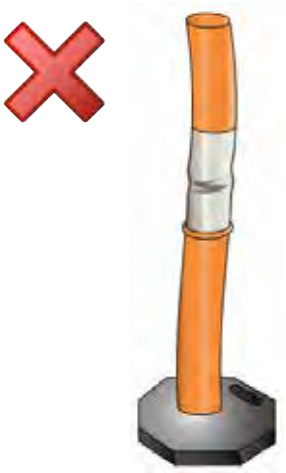
- Clean
- Not damaged or defaced
- Meet specifications
- Readable
- Correct type for the job.

Personal protective equipment

- Clean
- Not damaged or defaced
- Meet standards
- Correctly fitted and worn.

Cones and bollards

- Clean
- Not damaged or defaced
- Meet specifications
- Solid stable base.



Check tools and equipment for serviceability (continued)

Illuminated wand

- Batteries charged/working
- Not damaged or defaced
- Turns on and off
- Handle has grip

Radios

- Batteries charged/working
- Not damaged or defaced
- Turns on and off
- Buttons/controls working
- Test

Lights, beacons, arrow/message boards

- Clean
- Not damaged or defaced
- Lenses/globes in good condition
- In working order
- Battery charged/working (if applicable)
- Mountings are secure
- Tagged and tested (if applicable)

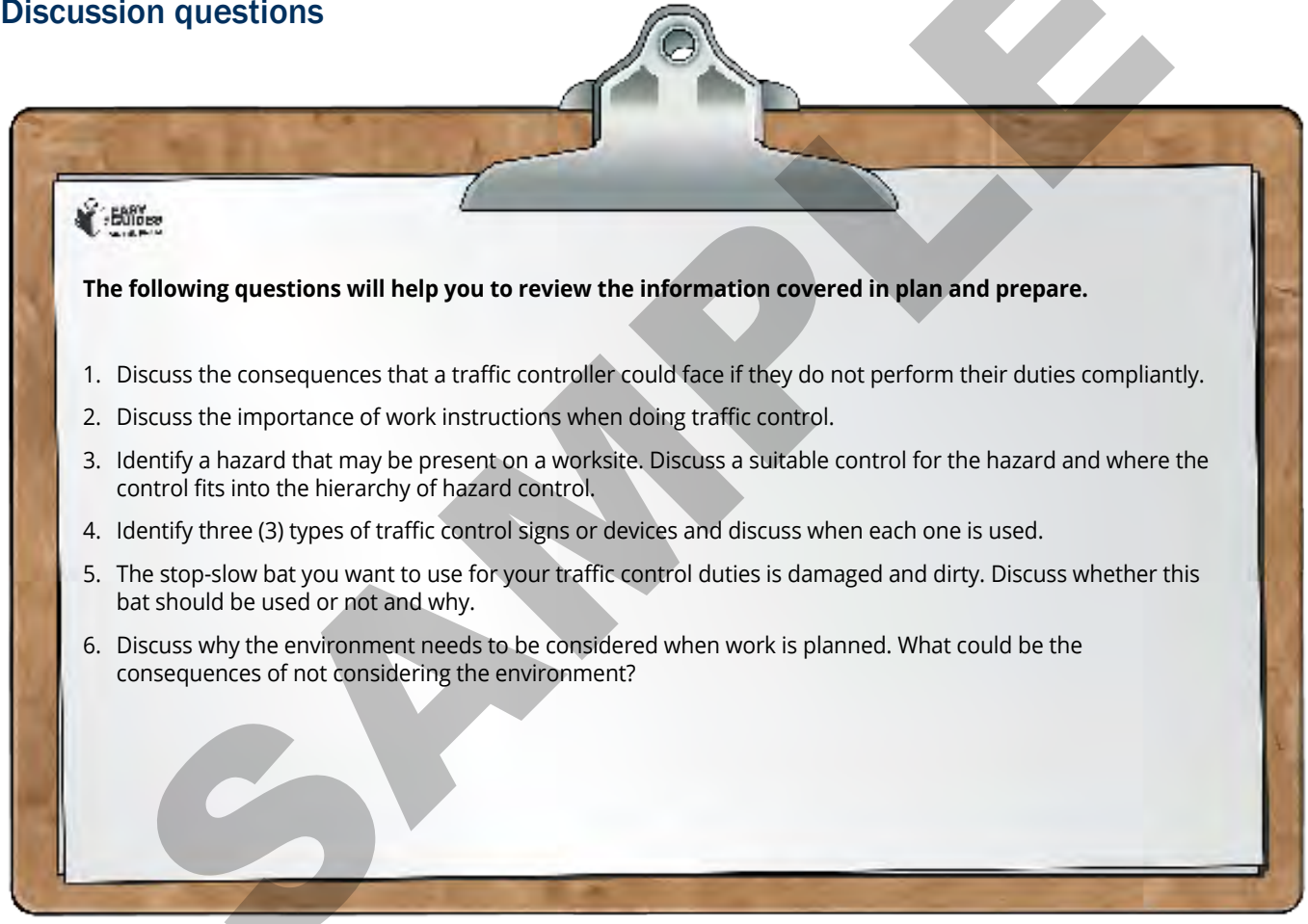
Fix or report faults

Company/site procedures should be followed when you find tools or equipment that are damaged or faulty.

The general rules are:

Stop using the tool or piece of equipment immediately 	Find the problem and fix it if possible 	If the problem cannot be fixed – Separate the damaged tools/equipment from the good tools/equipment or dispose of them. Check with supervisor before disposing of equipment/tools. 
Tag tool or equipment not to be used 	Report the damage to your supervisor 	**Do not** use tool or equipment again until it has been repaired. 

Discussion questions



The following questions will help you to review the information covered in plan and prepare.

1. Discuss the consequences that a traffic controller could face if they do not perform their duties compliantly.
2. Discuss the importance of work instructions when doing traffic control.
3. Identify a hazard that may be present on a worksite. Discuss a suitable control for the hazard and where the control fits into the hierarchy of hazard control.
4. Identify three (3) types of traffic control signs or devices and discuss when each one is used.
5. The stop-slow bat you want to use for your traffic control duties is damaged and dirty. Discuss whether this bat should be used or not and why.
6. Discuss why the environment needs to be considered when work is planned. What could be the consequences of not considering the environment?

CONTROL TRAFFIC AND OPERATE COMMUNICATION DEVICES

Signs and devices

Signs and traffic control devices are put in place to:

- Warn, guide and instruct road users
- Bring attention to the work area, personnel and equipment
- Control the speed or direction of traffic within and next to the work area
- To indicate the direction and width of the available travel path
- To stop access to the whole or part of the work area
- To provide physical protection for the work area and the people working in it.

Temporary warning signs and hazard markers

Most temporary warning signs are used when works on roads and footpaths are being done. They are used to warn road users of temporary hazardous conditions which could endanger them or the workers engaged in work on the road.

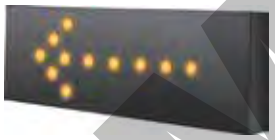
They also indicate the path through, around or past work sites which should be followed, this helps provide protection of partially completed works from damage. Temporary signs are quick and easy to put in place and remove:

Signs and devices (continued)

Flashing lights and signs

Flashing yellow lights may be used at work sites to highlight signs which warn of roadwork ahead. For example they may be used with a "roadwork ahead" or a "bridgework ahead" sign in an area where there is no road lighting or lighting is poor.

A flashing arrow sign or a variable message sign (VMS) can be used to give advance warning of a temporary detour. These may me mounted to a trailer or a vehicle.



Vehicles

Vehicles such as patrol trucks should be fitted with a pair of rotating flashing yellow lights for use on vehicles when working on sites with traffic volumes up to 1500 vehicles per day (VPD). The lights must be positioned on the vehicle so that at least one light is visible from any direction.

Vehicles which are not usually used for roadwork's or those operating in an emergency situation should have a single rotating flashing light.

Inspection vehicles and plant operating in a static work area should also have a single rotating flashing light.

Signs and devices (continued)

Regulatory signs

Regulatory signs tell you what you can and can't do. It is illegal to disobey these signs.

For example:

Warning signs

Warning signs tell you there could be danger ahead. They are not giving you instructions you have to follow but are warning you to slow down or stop in case there is danger ahead.

Guide signs

Guide signs give you information.

For example, the distance to the next town, road names or directions. These signs are there for information only, they do not have to be followed.

Signs and devices (continued)

Traffic cones

Traffic cones (commonly called witches hats) are used to mark out a pathway.

Traffic cones must be fluorescent red or fluorescent orange in colour. They need to be made of a material which can bend and spring back into shape and will not cause damage to vehicles when hit at low speed. For night time use, cones must be fitted with a white horizontal retroreflective band.

Standard size cones
(700 mm high or greater)

Used on roads where traffic exceeds 70 km/h. Can also be used on lower speed roads.

Small cones
(450 mm - 500 mm in height)

Used in built up areas including footpaths and bicycle paths where speeds do not exceed 70 km/h.

Bollards

Bollards can be used for delineating and showing a path that must be followed:

- Vertical tube 100 mm in diameter
- Heavy base
- Fluorescent orange or red in colour
- At least 750 mm in height
- For night time use bollards must be fitted with a white horizontal retroreflective band.

Barriers

Barrier boards, water filled barriers or concrete barriers can be used to block traffic from going into an area or to prevent collisions.

Position temporary traffic signs and barriers

Traffic signs and barriers must be placed in accordance with the Traffic Management Plan (TMP). The TMP must be developed in a way that is compliant with the relevant legislation for the state or territory where the work is being done.

Prepare to stop

- Gives advance warning that there is a traffic controller ahead
- The sign must be used together with the symbolic traffic controller sign where traffic may be required to stop
- It is the responsibility of the traffic controller to ensure this sign is in place while controlling traffic and is removed immediately after traffic control has finished
- The positioning of the sign depends on the speed of the approaching traffic and must be compliant with the TMP
- The sign must be in place facing approaching traffic while traffic control is underway
- For multi-lane roads with heavy traffic there must be a sign placed on both sides of the road
- The "prepare to stop" sign must be white writing on a red background, the sign must be class 1 Retroreflective.

Symbolic traffic controller

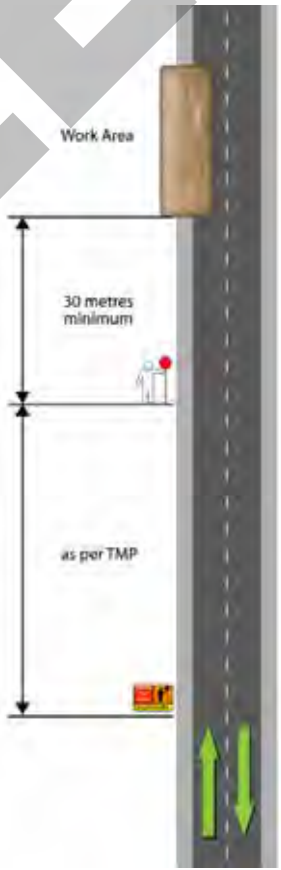
- Gives advance warning that there is a traffic controller ahead
- Must be used together with the "prepare to stop" sign if traffic could be required to stop at the traffic controller position
- It is the responsibility of the traffic controller to ensure this sign is in place while controlling traffic and is removed immediately after traffic control has finished
- The positioning of the sign depends on the speed of the approaching traffic and must be compliant with the TMP
- The sign must be in place facing approaching traffic while traffic control is underway
- For multi-lane roads with heavy traffic there must be a sign placed on both sides of the road
- The symbolic traffic controller sign must be a black symbol on a fluorescent orange background. The sign must be class 1 Retroreflective.

Position temporary traffic signs and barriers (continued)

Combined prepare to stop and symbolic traffic controller

- Symbolic traffic controller sign and prepare to stop sign being used together
- The signs must be displayed this way if there is a possibility that traffic will have to stop at the traffic controller position.

Sign placement for advance warning of a traffic controller



Position temporary traffic signs and barriers (continued)

Curves and crests

When a traffic controller is positioned around a corner or over the crest of a hill it can be hard for approaching traffic to stop in time when they arrive at the end of the traffic queue. This is because they might not see the warning signs or traffic controller early enough.

The traffic controller should be positioned so they can see both ends of the work area. Approaching vehicles must be visible for a distance (in metres) of at least one and a half times the speed limit (also known as 1.5D).

For example: if the speed limit is 80 km/h the traffic controller must be able to see at least 120 metres ahead.

40 km/h = 60 m
60 km/h = 90 m

If it is not possible for the traffic controller to see both ends of the work area because of curved roads or crests it may be neccessary to:

- Lower the speed limit
- Use a second traffic controller at the end of the queue
- Put additional advance warning signs in place.