



safe work australia

Traffic management: Guide for construction work

Guidance material

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1. Introduction

This Guide has been developed to supplement the [General guide for workplace traffic management](#). It provides information on how to manage risks that may arise from traffic movements at a construction site.

For construction work carried out on or near a public road a person conducting a business or undertaking (PCBU) should also contact the relevant road authority for the relevant traffic management requirements and guidelines. Where relevant, this information should be included in a traffic management plan.

Managing traffic at a construction site is an important part of ensuring the workplace is without risks to health and safety. Vehicles, including powered mobile plant, moving in and around a workplace, reversing, loading and unloading are often linked with death and injuries to workers and members of the public.

Traffic includes cars, trucks and powered mobile plant like forklifts, and pedestrians like workers and visitors.

1.1. Work health and safety duties

Person conducting a business or undertaking

A PCBU has a duty to ensure, so far as is reasonably practicable, workers and others are not exposed to health and safety risks arising from the business or undertaking. This duty includes implementing control measures to prevent people being injured by moving vehicles at the workplace.

This duty relevantly requires the PCBU to eliminate health and safety risks arising from traffic at a workplace, so far as is reasonably practicable, and if it is not reasonably practicable to eliminate those risks, to minimise them so far as is reasonably practicable. A workplace is any place where work is carried out for a business or undertaking and includes any place where a worker goes, or is likely to be, while at work.

A PCBU also has a duty to consult, co-operate and co-ordinate activities and to provide the information, training, instruction and supervision necessary to protect people from risks to their health and safety.

A PCBU involved in carrying out high risk construction work has extra duties. These include ensuring a safe work method statement (SWMS) is prepared before work starts and preparing a Work Health and Safety (WHS) management plan for construction work costing \$250 000 or more.

Officers

Officers, such as company directors, have a duty to exercise due diligence to ensure the business or undertaking complies with the Work Health and Safety (WHS) Act and Regulations. This includes taking reasonable steps to ensure the business or undertaking has and uses appropriate resources and processes to eliminate or minimise risks from traffic at the workplace.

Further information on who is an officer and their duties is available in Safe Work Australia's guide: [The health and safety duty of an officer](#).

Workers and others

Other people at the workplace, like visitors, must take reasonable care for their own health and safety and must take care not to adversely affect other people's health and safety. They must comply, so far as they are reasonably able, with reasonable instructions given by the PCBU.

1.2. Information, training, instruction and supervision

PCBUs must provide any information, training, instruction or supervision necessary to protect all persons from risks to their health and safety, so far as is reasonably practicable.

This includes ensuring workers, including contractors, visiting drivers and others are provided with information, training and instruction about the designated safe routes, parking areas, pedestrian exclusion zones and speed limits for the workplace. This could include using an induction process, signage and other written information and verbal instruction provided at entries. Visiting drivers should be aware of restrictions on vehicle sizes or types, entries and exits, and other safety procedures before entering the construction site.

Information, training and instruction given to workers must take into account the nature of the work carried out by the worker, associated risks and measures implemented to control the risks. Training must be easily understood by the worker. This may require providing information and training material in different languages. PCBUs must ensure, so far as is reasonably practicable, workers have the necessary training, qualifications or licenses to operate the vehicles, plant and attachments they use, for example by:

- checking for licensing, qualifications and fitness for work when engaging drivers or operators or when hiring contractors
- managing the activities of visiting drivers, and
- training drivers and operators.

Incidents can also occur when untrained or inexperienced workers drive construction vehicles. Access to vehicles should be managed and workers alerted to potential risks.

Visitors to the workplace should also be aware of the site traffic safety rules and procedures. Visiting drivers should be aware of restrictions on vehicle size or type and where they are to make deliveries before going to the workplace.

Information and instruction for workers involved in work on or near public roads must include the contents of traffic management plans and SWMS. Workers engaged to carry out high risk construction work must always have access to the relevant SWMS at the workplace.

Traffic controllers have a responsibility to carry out traffic control in accordance with the requirements of the relevant road authority. The requirements for training and accreditation of traffic controllers should be confirmed with the relevant authority.

Site-specific health and safety rules must be included in the WHS management plan.

1.3. Consultation

PCBUs must consult your workers and their health and safety representatives (if any) when deciding how to manage the risks of traffic in the workplace, including when making

changes. PCBUs should ensure there are procedures in place and encourage the reporting of safety problems.

PCBUs should ensure that relevant stakeholders are involved in the risk management process. Depending on the traffic risks identified in your workplace, this may include health and safety representatives (HSRs), representatives or operators of powered mobile plant, supervisors and any other group sharing the traffic routes and working areas of the vehicles.

If there is more than one business or undertaking involved at your workplace, the PCBU must consult them to find out who is doing what and work together so risks are eliminated or minimised, so far as is reasonably practicable. This may involve discussing site-specific requirements including entering and exiting the site, vehicle parking, delivery areas and scheduling suitable times for loading and unloading.

Consulting with workers on traffic management plans is ideal, however it is not always practical as the plans are usually prepared during the project design phase and submitted for approval to the relevant traffic management authority before the majority of workers are engaged on site. In these situations, consultation with workers may involve providing information about the plan as well as the procedure that will be implemented for monitoring and reviewing it over the course of the project. Workers should be encouraged to provide feedback on health and safety issues relating to the implementation of the plan and to report traffic hazards immediately so that risks can be managed before an injury occurs.

Authorisation for the erection of certain traffic control devices and to manage traffic on public roads is required from the relevant road authority prior to traffic control plans being implemented.

Further information on consultation requirements is in the [Code of Practice: Work health and safety consultation, co-operation and co-ordination](#).

2. Ways to control traffic risks

PCBUs must do all that is reasonably practicable to eliminate risks. Where reasonably practicable, a PCBU must eliminate traffic hazards from the construction site, for example by removing powered mobile plant and other vehicles. Where this is not possible, traffic risks must be minimised so far as is reasonably practicable. For example, consider:

- substituting the hazard for something safer, for example replacing forklifts with other load shifting equipment
- isolating the hazard from people, for example, using barriers to physically separate traffic controllers from vehicles, and
- using engineering controls such as speed limiters on mobile plant, presence sensing devices or interlocked gates.

If risk still remains, consider the following controls in the order below to minimise the risk, so far as is reasonably practicable:

- use of administrative controls such as warning signs or schedule delivery times to avoid or reduce the need for pedestrians and vehicles to interact, and
- use of personal protective equipment (PPE), such as high visibility clothing.

A combination of the controls set out above may be used if a single control is not enough to minimise the risks.

Key issues to consider for managing traffic at construction workplaces include:

- keeping pedestrians and vehicles apart, including on site and when vehicles enter and exit the workplace
- minimising vehicle movements
- eliminating reversing vehicles or minimising the related risks
- ensuring vehicles and pedestrians are visible to each other
- using traffic signs, and
- developing and implementing a traffic management plan.

2.1. Keeping people and vehicles apart

The best way to protect people is to make sure people and vehicles cannot interact. Where powered mobile plant is used at a workplace, a PCBU must ensure it does not collide with people or other powered mobile plant.

This can be achieved by not allowing vehicles in pedestrian spaces or not allowing pedestrians in vehicle operating areas, for example by using overhead walkways.

Consider implementing the following control measures to keep people and vehicles apart at the construction workplace and when vehicles enter or exit the workplace:

- Providing separate traffic routes for pedestrians and vehicles.
- Providing separate clearly marked pedestrian walkways that take a direct route.
- Creating vehicle exclusion zones for pedestrian-only areas, for example around tearooms, amenities and pedestrian entrances.
- Installing barriers, traffic control barricades, chains, tape or bollards to create exclusion zones for pedestrians.

- Ensuring a competent person with the necessary training or qualifications directs powered mobile plant when it operates near workers or other plant.
- Designating specific parking areas for workers' and visitors' vehicles outside the construction area.
- Providing clearly signed and lit crossing points where walkways cross roadways, so drivers and people can see each other clearly.
- Using traffic controllers, mirrors, stop signs or warning devices at site exits to make sure drivers can see or are aware of people before driving out onto public roads.
- Avoiding blocking walkways so people do not have to step onto the vehicle route.
- Scheduling work so vehicles, powered mobile plant and pedestrians are not in the same area at the same time.

Any remaining risk must be minimised using PPE, e.g. high visibility clothing. A combination of the controls set out above may be used if a single control is not enough to minimise the risks.

2.2. Minimising vehicle movements

Planning can help minimise vehicle movement around a workplace.

To control vehicle interaction and limit the number of vehicles at a workplace consider:

- planning storage areas so delivery vehicles do not have to cross the site
- providing vehicle parking for workers and visitors away from the work area
- controlling entry to the work area e.g. by using boom gates, and
- scheduling work to minimise the number of vehicles operating in the same area at the same time.

2.3. Reversing vehicles

Where possible, avoid the need for vehicles to reverse as this is a major cause of fatal incidents.

One-way road systems and turning circles can minimise risks, especially in storage areas. Where this is not possible other control measures should be considered, including:

- using mirrors, reversing warning alarms, sensors and cameras
- ensuring a signal person wearing high visibility clothing assists the driver who cannot see clearly behind their vehicle—the driver should always be able to see the signaller
- ensuring workers and other people are familiar with reversing areas and these areas are clearly marked, and
- ensuring plant operators are aware of workers who may be in the vicinity of the swing radius, articulation points and overhead load movement of their vehicle.

2.4. Signs, warning devices and visibility

Signs should be used to alert workers and pedestrians to potential hazards from vehicles entering and exiting the construction workplace and other requirements like pedestrian exclusion zones.

Traffic routes should be clearly signed to indicate restricted parking, visitor parking, headroom, speed limits, vehicle movement, key site areas and other route hazards. Standard road signs should be used where possible and speed limits should be implemented and enforced.

If there is a possibility of powered mobile plant colliding with pedestrians or other powered mobile plant, the person with management or control of the plant must ensure the plant has a device to warn people at risk from the movement of the plant.

PCBUs must also ensure, so far as is reasonably practicable, lighting is provided to allow workers to carry out their work without risk to health and safety. Bad weather, shadows from plant and blind spots can reduce visibility.

The following control measures should be considered to manage risks:

- installing mirrors, reversing cameras, sensors and alarms to help drivers see or be aware of movement around the vehicle
- installing visual warning devices like flashing lights and high-visibility markings for powered mobile plant
- implementing safe systems of work to stop loads being carried forward where they impair clear vision
- appointing a trained person to control manoeuvres
- ensuring high-visibility or reflective clothing is worn by workers, plant operators and pedestrians at the workplace
- using communication methods like:
 - radio—however ensure a back-up communication process is in place if it fails, and
 - line of sight communication e.g. hand signals or cap lamp light signals. The person receiving the message should acknowledge the message has been received and understood.

Refer to the relevant road authority for any specific requirements relating to the dimensions, standards, use and positioning of signs, barriers and other traffic control devices on a public road.

2.5. Speed management

Temporary speed zones may be implemented where the consequence of speed through a work zone is not apparent to drivers and operators of plant and, therefore, they are unlikely to reduce speed to a safer level.

The speed limit selected for the work zone depends on several factors, such as the degree of vehicle and pedestrian conflict, the type and extent of the work, the characteristics of the road, and the separation between workers and the passing traffic lanes.

To be effective, work zone speed limits should:

- not be used alone or in place of more effective means of traffic control, rather they should be used in combination with such controls
- be used in conjunction with other signs or devices required by the site conditions, and
- only be used while work is being undertaken or temporary road conditions exist that are hazardous to safety.

Approval from the relevant road authority is required when changing speed limits on a public road.

2.6. Traffic management plans

A traffic management plan documents and helps explain how risks will be managed at the construction workplace. In preparing the traffic management plan, a map or sketch of the workplace and traffic area layout can help a PCBU, site designers and other authorised workers identify hazards and risks. This may include details of:

- designated travel paths for vehicles including entry and exit points, haul routes for debris or plant and materials, or traffic crossing other streams of traffic
- pedestrian and traffic routes
- designated delivery and loading and unloading areas
- travel paths on routes remote from the workplace including places to turn around, dump material, access ramps and side roads
- how often and where vehicles and pedestrians interact
- traffic control measures for each expected interaction including drawings of the layout of barriers, walkways, signs and general arrangements to warn and guide traffic around, past or through the workplace or temporary hazard
- on a public road, detail of the layout of signs and devices including temporary speed zones and the location, spacing, length and location of tapers. Consider pedestrian and cyclist routes to ensure the protection of the public
- requirements for special vehicles like large vehicles and mobile cranes, and
- requirements for loading from the side of road onto the site.

A traffic management plan could also set out:

- the responsibilities of people managing traffic at the workplace
- the responsibilities of people expected to interact with traffic at the workplace
- instructions or procedures for controlling traffic including in an emergency, and
- how to implement and monitor the effectiveness of a traffic management plan.

The traffic management plan should be monitored and reviewed regularly including after an incident to ensure it is effective and takes into account changes at the workplace.

Workers must be aware of and understand the traffic management plan. PCBUs must ensure workers are given suitable information, instruction, training and supervision on the application of the traffic management plan, in a manner that is easily understood.

2.7. Further information

More information about how to manage traffic at a workplace is in the [General guide for workplace traffic management](#).

Further guidance on the risk management process is in the [Code of Practice: How to manage work health and safety risks](#) and the [Code of Practice: Construction work](#).

Codes of practice, guidance material and other resources are available on the [Safe Work Australia](#) website (www.swa.gov.au).