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An Outlook



CLOCS-A Champions

Steering Group



Supporting Partners



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1 Introduction

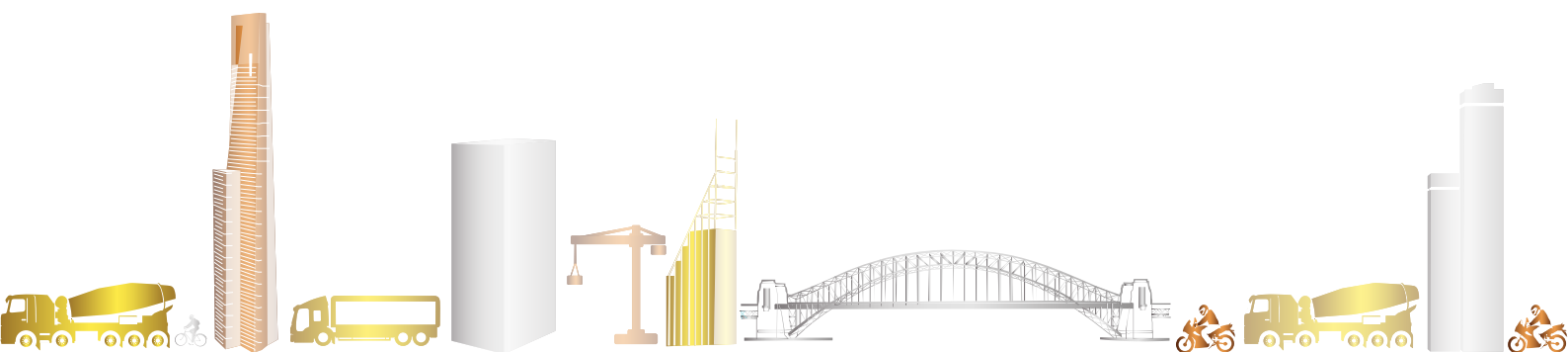
Australian governments are committed to an expected \$290 billion in public infrastructure investment over the next 10 years — including an approximate doubling of investment over the next three years. This will mean a wave of construction projects mostly relating to transport, utilities and social infrastructure. Many of these projects will be in cities, towns and urban areas.

As a direct result of this increase in construction activity, the number of construction related heavy vehicle movements related to and in those project locations will also increase significantly.

Recognising that the movement of these construction vehicles in populated areas can present hazards for the public — particularly Vulnerable Road Users — both State and Commonwealth governments seek to prioritise and promote the use of safer heavy vehicles, improved driver standards, more effective logistics planning and greater engagement with the community on road safety initiatives.

Construction Logistics and Community Safety — Australia (“CLOCS-A”) is a national voluntary Standard developed with the primary aim of better managing the potential hazards created by the road transport and logistics activities associated with large construction projects.

Through the wider adoption of the CLOCS-A Standard across Australian construction projects and supply chains, it is expected that the risk of road trauma involving construction vehicles will be reduced and the efficiency of construction project logistics improved.



2 Overview

The primary aims of the CLOCS-A Standard is to help protect the public from harm and to improve the quality of construction logistics planning. It seeks to do so by:

- Establishing a set of minimum standards for heavy vehicles
- Establishing minimum heavy vehicle driver education and training standards
- Establishing higher standards for haulage route assessment and logistics, and
- Improving communication and levels of understanding around heavy vehicle safety with the public

Mission

The mission of CLOCS-A is simple:

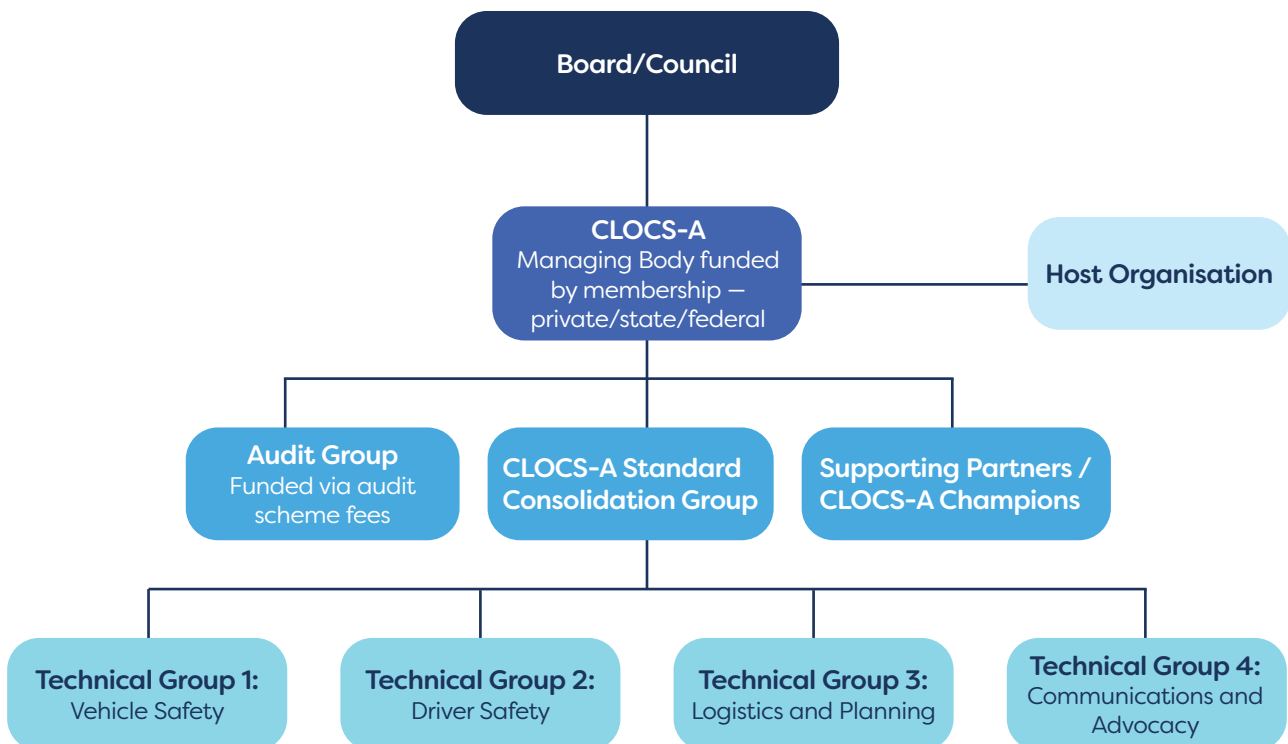
To ensure the safest, leanest, and greenest construction vehicle journeys.

Goals

The primary goals of CLOCS-A are:

- Zero incidents including and collisions between construction vehicles and the community
- Increased productivity and efficiency
- Fewer heavy vehicle journeys
- Better planning of construction logistics
- Improved air quality and reduced emissions
- Reduced reputational risk

Governance Structure



3 Why CLOCS-A?

CLOCS-A Standard – The Big Picture

The benefits of implementing a national standard for construction logistics safety are:

- Manage construction transport risks and reduce road trauma
- Reduce public complaints and build community and stakeholder trust
- Improve construction delivery efficiencies
- Single and consistent contract requirement
- Investment confidence to industry

Regulatory Advice from the NHVR ¹

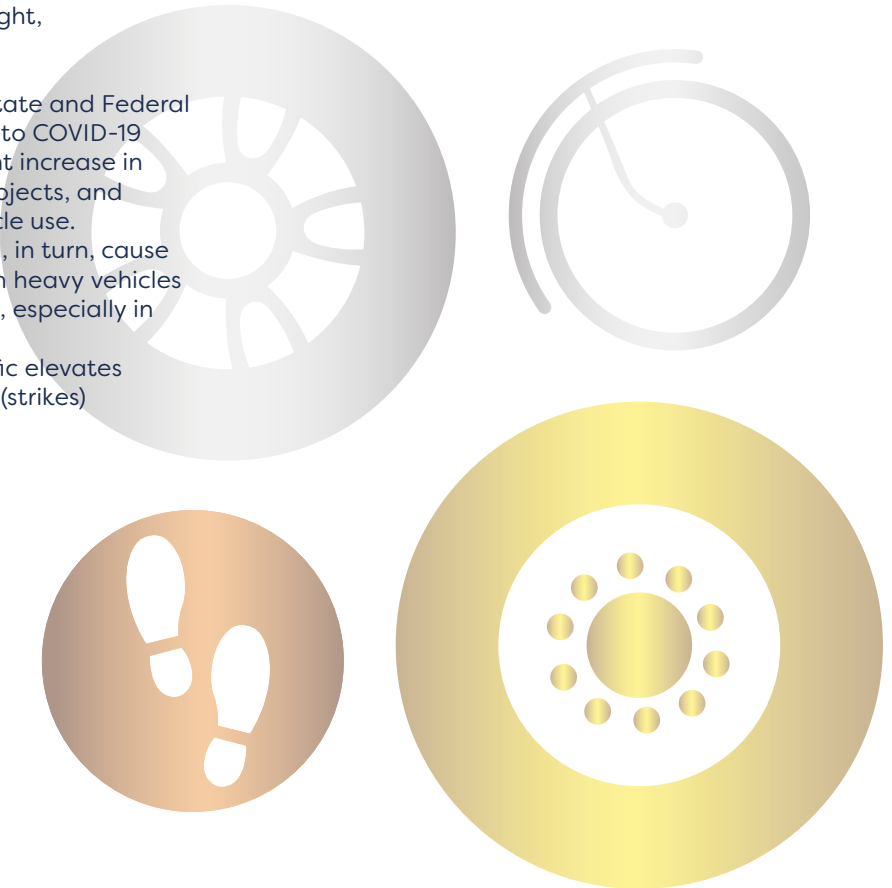
A pattern of non-compliance:

- Heavy vehicles commonly used by the construction industry have an observed pattern of non-compliance (2021 National Road worthiness Survey)
- The survey identified mechanical safety as an issue for heavy rigid truck and trailer combinations, a vehicle type used extensively in construction projects.
- Despite ongoing regulatory oversight, the issue persists.
- Increasing construction projects
- Economic recovery initiatives by State and Federal Government agencies in response to COVID-19 are expected to cause a significant increase in infrastructure and construction projects, and associated increase in heavy vehicle use.
- Increased heavy vehicle traffic will, in turn, cause an increase in interaction between heavy vehicles and light vehicles and pedestrians, especially in congested urban areas.
- The increase in heavy vehicle traffic elevates the risk of crashes and pedestrian (strikes) deaths and injuries.

Cyclist Fatalities Involving a Truck ²

In Australia, the participation of trucks in cyclist deaths has increased in the past 15 years. A truck was involved in 29% of cyclist deaths in 2022. Globally, measures are being put in place to reduce fatalities like these. This includes improving indirect vision through mirrors, cameras and sensors, as well as side-underrun protection devices.

For example the European Union, safety features such as warnings to prevent collisions with pedestrians and cyclists were made mandatory in July 2022.



1: Regulatory Advice for heavy vehicle transport activities in the construction industry (2022)

2: Cyclist deaths in which trucks were involved, Amy Gillett Foundation (2023)

3 Why CLOCS-A?

Serious Casualty Crashes Between Heavy Vehicles and Vulnerable Road Users

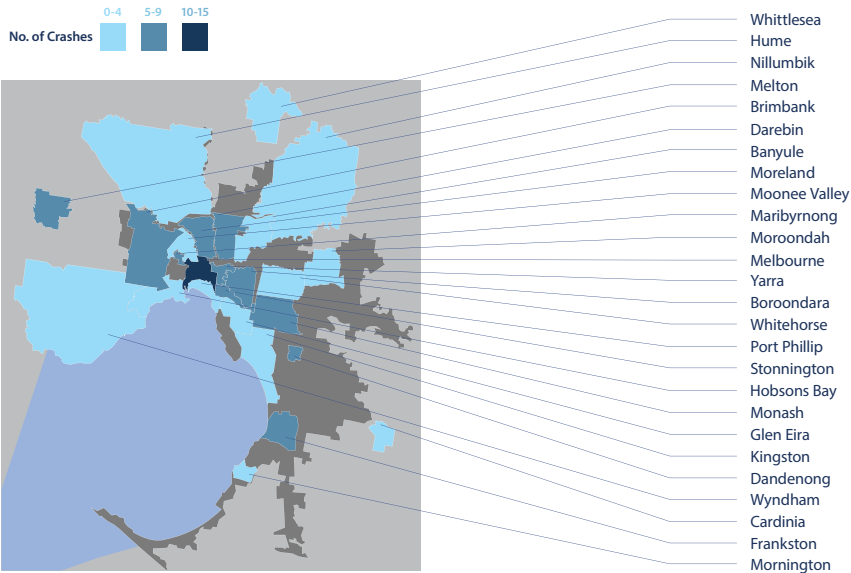
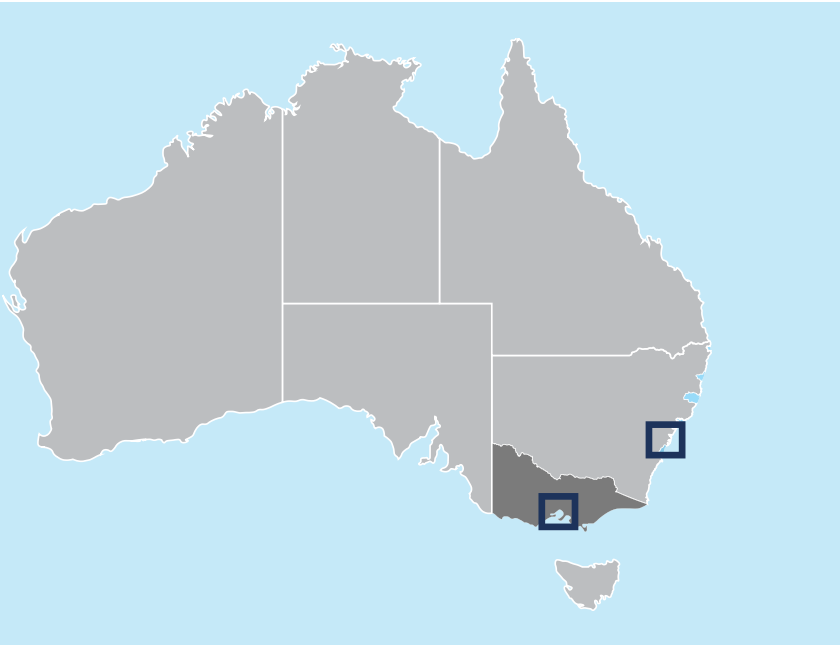
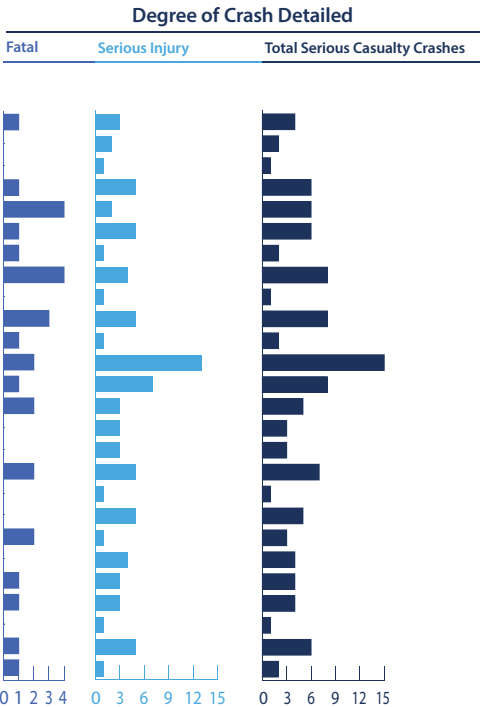


Figure 1: Victoria



3 Why CLOCS-A?

Serious Casualty Crashes Between Heavy Vehicles and Vulnerable Road Users

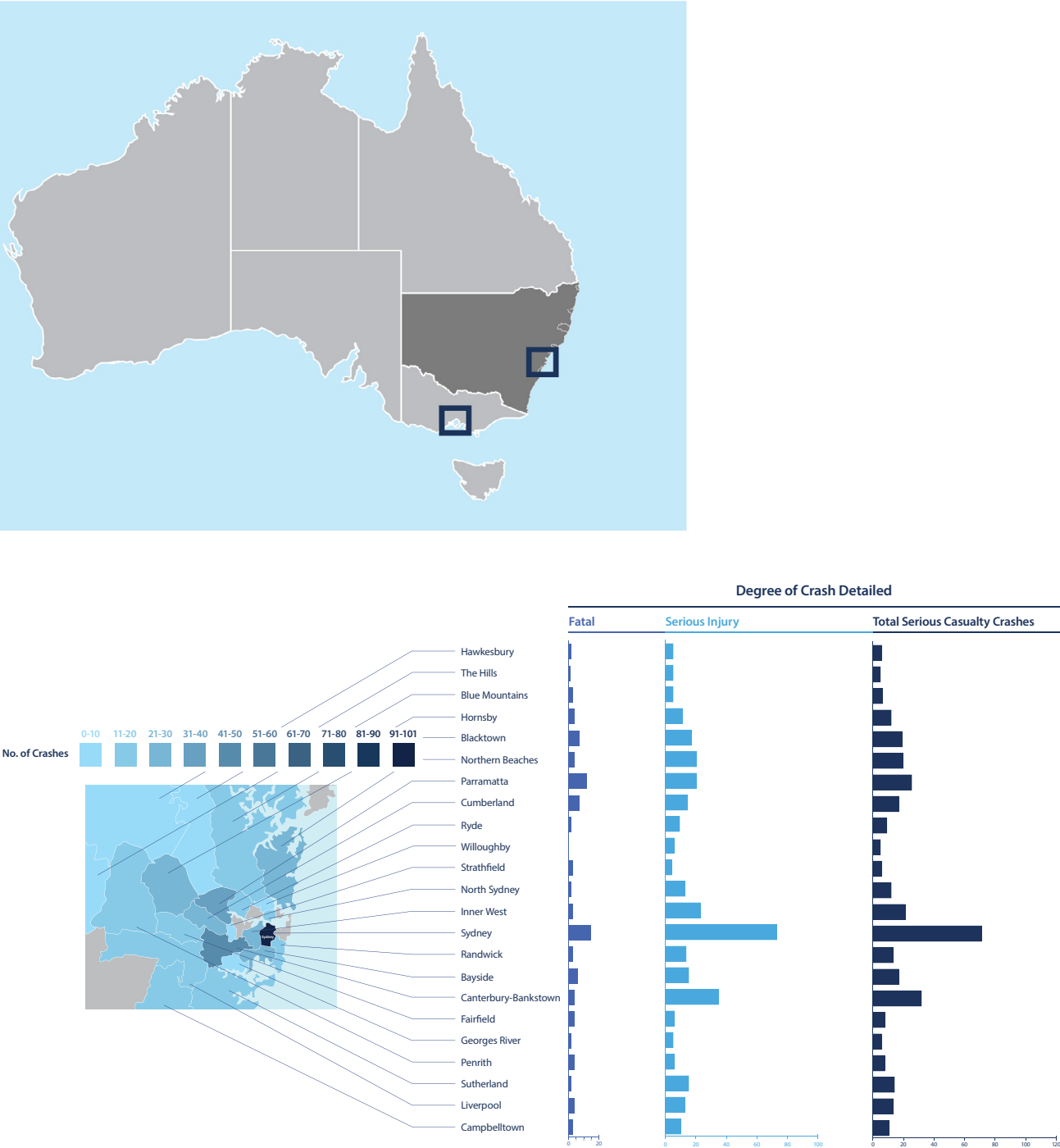


Figure 2: New South Wales

4 Stakeholders

CLOCS-UK Stakeholder Groups



Regulators



**Clients /
Developers**



**Principal
Contractors**



**Vehicle Fleet
Operators**



**Vehicle
Manufacturers**

CLOCS-A Stakeholder Groups

Government + Regulators

State and federal government bodies involved in forming regulations for vehicle and road safety and construction.

Developers + Project Providers

Organisations who fund and manage the development of new infrastructure.

Primary Contractors

Organisations that take on a lead role in the construction and delivery of infrastructure projects.

Vehicle + Transport Operators

Construction companies operating vehicles and transportation companies working on construction sites.

Community + Local Government

Local government and members of the public who have an interest or stake in the safe operation of vehicles operating in the community.

Industry Groups

Groups and organisations representing various sectors of the construction and transport sector.

4 Stakeholders

CLOCS-A Stakeholder Breakdown



Vic Dept. of Transport	NHVR	Aus. Office of Road Safety	Northern Territory Government
Worksafe	Sutherland Shire Council	Transport for NSW	Sydney Metro
Toowoomba Region	NSW Government	Baw Baw Shire Council	Transurban
CCAA	MTIA	Laing O'Rourke	McConnell Dowell
Holcim	Hanson	BINGO Industries	Grasshopper
ARRB	Amy Gillett Foundation	Bicycle Queensland	Sutherland Shire Council
ARTSA-I Institute	Baw Baw Shire Council	Monash University Accident Research Centre	Bicycle NSW
Toowoomba Region	HSE Global	NRSP	Truck Industry Council
CILT-A	ATA (Australian Trucking Association)	CICA (Crane Industry Council of Australia)	

5 Community Engagement/Awareness

Step One: Planning for Disruptions



- The larger the project, the earlier planning begins
- Stakeholders are consulted well in advance of the project's start date
- For smaller projects, affected residents are directly notified (i.e. door knocking)
- A communications plan is drafted outlining traffic management arrangements
- Community is notified through various media outlets such as social media, radio and television
- Local nationalities and languages are identified, involve the community to assist with messaging

Step Two: During the Construction Phase



- Arrangements are made for residents who need to temporarily leave their homes (i.e. vouchers for local cafes, movie tickets, a hotel if required)
- Electronic Signage surrounding the project sight to notify the community
- Wayfinding signage to safely reroute people
- Arrange for lollipop person to be around schools for longer time periods



Step Three: Monitoring Community Complaints

- Regular feedback sessions with stakeholders such as local councils, schools, businesses and residents
- Respond to questions left in social media comments
- Signage surrounds the project site directing community members

6 CLOCS-A Standards

What is the CLOCS-A Standard?

CLOCS-A is a national voluntary Standard developed with the primary aim of better managing the potential hazards created by the road transport and logistics activities associated with large construction projects.

This standard is the result of the collective effort of industry champions involved in construction projects and the supply chain.

Through the wider adoption of the CLOCS-A Standard across Australian construction projects and supply chains, it is expected that the risk of road trauma involving construction vehicles will be reduced and the efficiency of construction project logistics improved.

The CLOCS-A Standard shall be applied by stakeholders involved in the procurement and delivery of construction projects that are publicly funded.

Clients shall specify whether the CLOCS-A Standard applies within contracts based on their assessment of risk and in accordance with any local authority requirements.

Queries regarding applicability at specific sites should be directed to, and dealt with, by the client or principal contractor.

Unless otherwise stated it is:

- Applicable to all sites, (projects) that require deliveries, collections or servicing by construction vehicles during construction activities.
- Applicable to all vehicle operations and specifically construction logistics vehicles over 4.5 tonnes gross vehicle mass servicing construction sites. This includes abnormal loads and engineering plant where practicable.

A client may specify within their own contracts if this Standard also applies to vehicles under 4.5 tonnes gross vehicle mass, but this should be clearly articulated and would not be considered in the scope of compliance with the CLOCS-A Standard. In such cases, the transport operator will agree with the client how compliance for this group of vehicles will be demonstrated.

All parties shall comply with the CLOCS-A Standard and maintain compliance to the Standard following receipt of gaining accreditation to the CLOCS-A Standard.

The CLOCS-A Standard does not include all the necessary provisions of a contract. Users are responsible for its correct application.

How is the Standard Certified?

The CLOCS-A Standard is measured against existing models such as:

National Heavy Vehicle Accreditation Scheme

- Accreditation scheme managed by NHVR
- Modular (Maintenance; Mass; BFM; AFM)

Trucksafe Accreditation

- Accreditation Scheme against 7 Standards (HVNL focus)
- Additional Standards such as Animal Welfare

CLOCS (UK)

- Standard not a scheme (Construction Logistics Safety, Environment, Efficiency)
- Champions that implement compliance against the standard
- Self-Assessment – doesn't have an audit process
- Site visits to check standards are being met

FORS (UK)

- Accreditation Scheme; progressive (fleet safety, quality and environmental focus)
- 32 standards for Bronze accreditation, 41 standards for Silver accreditation, 47 standards for Gold accreditation

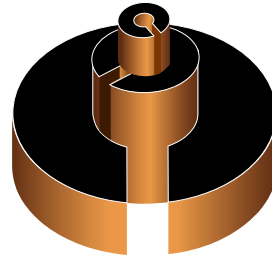
6 CLOCS-A Standards

Heavy Vehicle Standard

Tier Breakdown

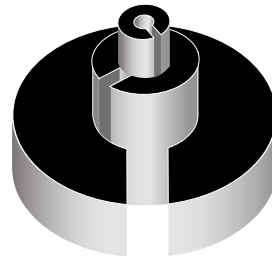
Bronze

The Minimum Mandatory Standard for all heavy vehicles complying with CLOCS-A technical requirements. Measures and technologies that are relatively low cost and easy to implement.



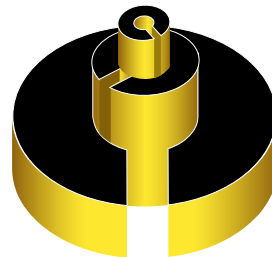
Silver

A higher standard of equipment is preferred for heavy vehicles complying with CLOCS-A technical requirements. Similar to UK CLOCS and broadly aligned to current NSW/Vic government major projects. Accreditation to Silver also requires prior accreditation to Bronze.



Gold

The highest standard of equipment that is being sought for heavy vehicles complying with CLOCS-A technical requirements. Encourages leading safety technologies and to future-proof vehicles. Accreditation to Gold also requires prior accreditation to Silver.



In addition to the equipment and systems that must be fitted to heavy vehicles for CLOCS-A compliance, the following items cannot be fitted:

- Bug deflectors on bonneted trucks – City and Urban Projects only
- Engine air intake hardware above bonnet level (on bonneted trucks) – City and Urban Projects only
- Large inappropriate bullbars – City and Urban Projects only
- Inappropriate sunvisors
- Overly large decals on windscreens
- Excessive windscreen or window tinting
- Inappropriate fitment of aftermarket accessories in the cab that restrict the driver's field of view



6 CLOCS-A Standards

Project Assessment Tool

One of our remaining tasks, is to develop a simple tool or process designed to assist infrastructure managers determine the most appropriate overall accreditation level that will apply to the project they are working on at the time.

There is a large range in the size and nature of these projects, and any such tool will need to consider the significant variables that may have a material impact on the probable exposure of Vulnerable Road Users (VRUs) and construction workers to safety hazards presented by the movement of heavy vehicles to and from the site.

The 10 factors that indicate VRU exposure to potential road trauma from an infrastructure project are:



1. Project location – A proxy for likely population, traffic density and VRU movements around the site.



2. Total time in weeks for the project to be completed – The longer it runs, the greater probability of an incident.



3. Total truck movements predicted for the project and the average and peak recurrent truck movements per day.



4. Maximum number of preferred routes and site entry points that could be used at any one time.



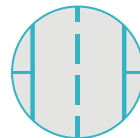
5. Project location – A proxy for likely population, traffic density and VRU movements around the site.



6. Existing heavy vehicle movements including those from any other nearby construction projects.



7. The total length of secondary and minor roads on the preferred route



8. The width or number of lanes for these minor roads and whether they allow car parking.



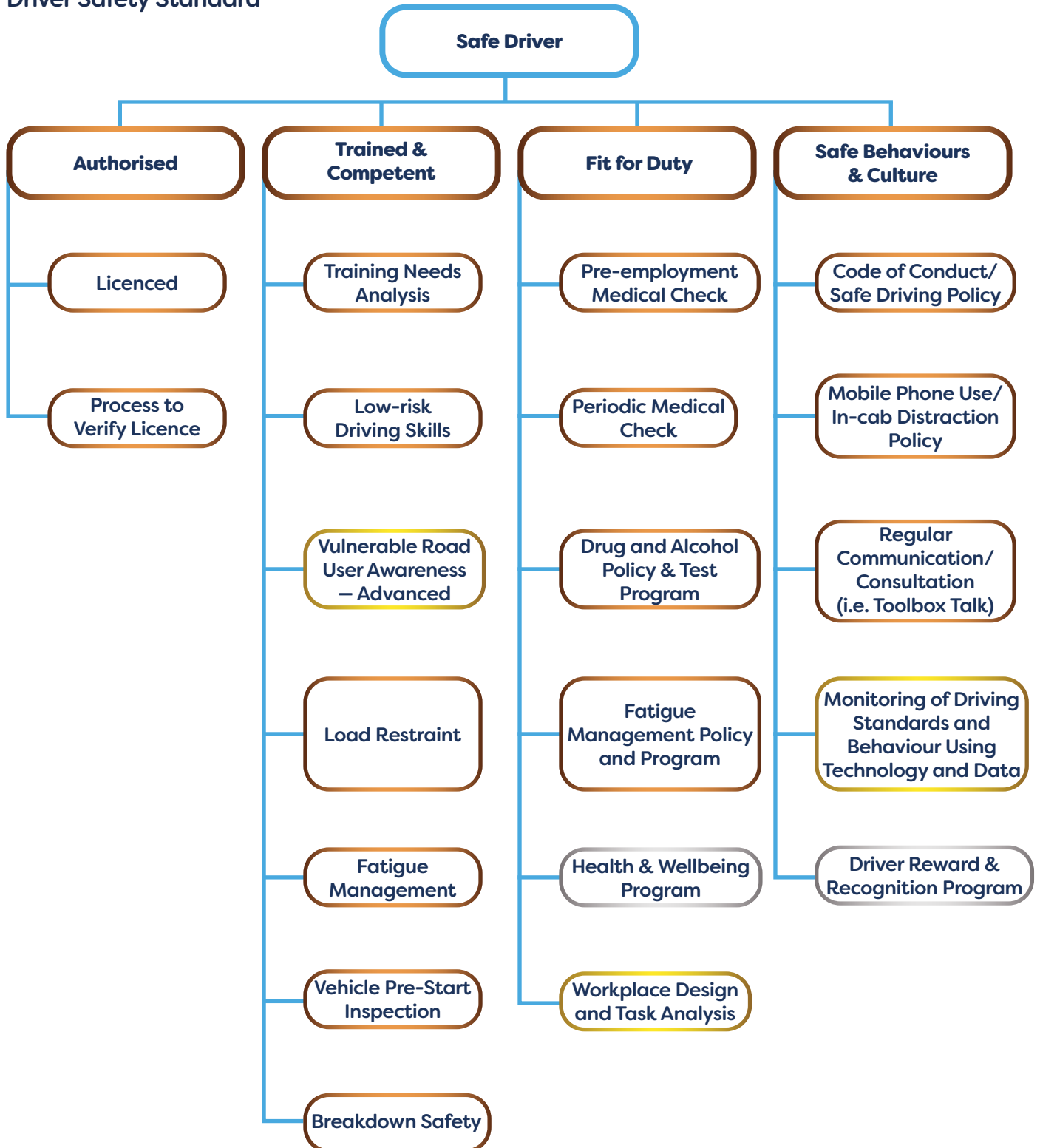
9. The number of intersections.



10. The number of school zones, retail shops and parks/sporting fields.

6 CLOCS-A Standards

Driver Safety Standard



7 How to Join CLOCS-A

How Do I Put the CLOCS-A Standard in My Contract?

Procurement of Construction Contractors

Ensure contracts awarded to Construction Contractors specify that compliance to the CLOCS-A Standard shall be met by the Construction Contractor party that is appointed Principal Contractor. The Principal Contractor shall be responsible for ensuring that their transport supply chain and those of any other parties procuring transport supply for the project complies with CLOCS-A.

Procurement of Transport Operators

Ensure, where engaging in contracts directly with a Transport Operator, contracts awarded to the Transport Operator specify compliance to the CLOCS-A Standard Level that must be met by the Transport Operator and their supply chain.

Monitoring and Assurance

Verify CLOCS-A accreditation of the Principal Contractor and major transport subcontractors throughout the tender procurement phase and following through to the contract being awarded. Reports on CLOCS-A Accreditation status are required periodically throughout the project.

Incident and Performance Reporting

Principal Contractors are required to report on transport-related incidents and verify that appropriate corrective and preventative actions are taken to prevent such recurrences.

Communications and Engagement

CLOCS-A members will act as champions for the program to those who operate/interact with it. Safety branding will be visible on all site entrances. Primary contact details will be allocated and maintained. CLOCS-A members will engage the community across the life of the project.

Example Procurement clauses:

To ensure that tenderers are aware of your CLOCS-A requirements at the earliest stage, include a preamble. For example:

[ORGANISATION NAME] aims to promote safe and efficient site operations and associated fleet operations within our organisation's supply chain and in vehicle movements relating to our project and servicing our sites. We are committed to CLOCS-A and you are also required to comply with the CLOCS-A Standard as part of your contractual requirements on this project. This includes ensuring that all your own and third-party transport providers used to deliver this contract in all tiers of the supply chain also comply with the CLOCS-A Standard.

Clearly set out what you expect of the candidates/tenderers and the evidence that is required to demonstrate their capability. For example:

Following any substantiated complaint, repeated non-compliances, serious incidents or other circumstances brought to the attention of the CLOCS-A Managing Body, triggered audits can be conducted of [ORGANISATION NAME]. Where triggered audits identify failed compliance with the requirements of their accreditation, [ORGANISATION NAME] will be required to "show cause". Where [ORGANISATION NAME] fail to show cause, their accreditation may be suspended or terminated.

Entry Into the Program

Any organisation can apply to be a member. This will be facilitated through submitting an online membership form to the CLOCS- Managing Body.

Organisations seeking to demonstrate they meet the CLOCS-A Standard will need to apply for accreditation (become a member).

The CLOCS-A Managing Body will collect all necessary details from the application and send an initial self-assessment form for the applicant to complete within one month. CLOCS-A Accreditation shall remain active for a 12 month period.

Accreditation will need to be renewed yearly through either passing the Self-Assessment or a CLOCS-A re-accreditation Audit.

