



Australian Government

RIICWD539 Prepare traffic management plans and traffic guidance schemes for motorways and freeways

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to perform a preliminary risk assessment of a temporary traffic management site and select, modify and design traffic management plans and traffic guidance schemes on motorways and freeways requiring temporary traffic management.

It applies to those working in management roles. They generally work in teams and have some responsibility for the outcomes of others. This unit applies to temporary traffic management on roads that include the following characteristics:

- any motorway or freeway and associated on-ramp or off-ramp; or
- any grade separated road with:
 - speed limits greater than or equal to 90km/h; and
 - traffic volumes generally greater than 20,000 vehicles per day (Average Annual Daily Traffic (AADT)).

This unit is appropriate for individuals who have completed at least four different temporary traffic management design types within the last 12 months, including at least one of each of the following design types:

- higher speed roads
- lane closures.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

Pre-requisite Unit

RIICWD503E Prepare traffic management plans and traffic guidance schemes

Unit Sector

Civil construction

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish context for traffic management plan	1.1 Determine worksite requirements and document context of traffic management plan, including scope, client objectives and key stakeholders 1.2 Identify characteristics, constraints and hazards that apply to the worksite, including capacity and traffic volume 1.3 Complete risk assessment of proposed worksite and work activities 1.4 Establish and document the scope and objectives of traffic management plan 1.5 Establish and confirm safety and accessibility of all road users affected by proposed worksite and works
2. Prepare and complete traffic management plan	2.1 Monitor and coordinate the progress of personnel involved in the preparation process 2.2 Document traffic management plan communications strategy for internal and external audiences 2.3 Prepare resource requirements for executing traffic management plan as required 2.4 Assemble traffic management plan 2.5 Prepare communication for traffic management control centre 2.6 Document sequencing and staging of traffic management controls 2.7 Gain plan approval from required authorities
3. Select, modify or design traffic guidance scheme	3.1 Determine whether to select, modify or develop required traffic guidance scheme or schemes according to job requirements 3.2 Determine personnel requirements, roles and responsibilities according to job requirements 3.3 Determine traffic control arrangements according to job requirements 3.4 Develop speed management and enforcement plan as required 3.5 Determine traffic guidance scheme modification triggers for emergencies and uncontrolled events 3.6 Determine inspection, monitoring, reporting and quality control measures for on-site traffic control

ELEMENT	PERFORMANCE CRITERIA
4. Finalise traffic management plan preparation process	4.1 Deliver final traffic management plan to stakeholder 4.2 Establish and maintain record and version control according to workplace procedures
5. Support and review traffic management plan implementation	5.1 Provide clarification and advice to personnel implementing traffic management plan as required 5.2 Review traffic management plan implementation and recommend changes as required to meet job requirements 5.3 Contribute to traffic management plan validation process as required to meet job requirements 5.4 Participate in performance review of preparation process

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Numeracy	Applies basic mathematics including addition and multiplication to calculate resourcing requirements, flow rates and levels of service
Oral communication	- Presents information and provides assistance using sector-specific vocabulary - Uses listening and questioning to clarify and confirm understanding

Unit Mapping Information

New unit

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIICWD539 Prepare traffic management plans and traffic guidance schemes for motorways and freeways

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- prepare traffic management plans and traffic guidance schemes for motorways and freeways on at least two occasions, including:
 - identifying and assessing hazards, risks and constraints in the work zone
 - determining traffic control arrangements for:
 - required detours or bypasses
 - traffic paths, lane arrangements and dimensions
 - channelization or delineation arrangements, including tapers
 - access arrangements for worksite traffic
 - key road users, including:
 - public transport
 - police and emergency services
 - over dimension vehicles
 - signage requirements, including type, size and placement
 - protecting traffic control workers during installation, operation and removal of traffic guidance scheme
 - unattended worksites
 - required traffic control illumination
 - escape routes
 - truck mounted attenuators
 - deployment vehicles
 - deployment of traffic management for road workers and road users
 - safety barriers
 - lane use management systems
 - closing an on-ramp or off-ramp

- rolling blockades
- night works
- advance warning through the use of VMS
- mobile works
- emergency vehicles
- special requirements for using traffic controllers
- interpreting and analysing data
- calculating flow rates, level of service, capacities and percentages
- determining traffic management plan capacity requirements
- documenting scope and authorities to modify the plan during implementation
- reviewing and confirming required approvals and permits.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures
- access and interpret required:
 - plans, drawings, specifications and traffic management plan briefs
 - engineering survey information
 - traffic analysis data
- select and apply required traffic management plan implementation techniques
- apply engineering graphical presentation techniques
- work with required personnel to undertake and complete the work zone traffic management plan including:
 - complying with written and verbal reporting requirements and procedures
 - communicating with others to receive and clarify work instructions and coordinate work activities
 - consulting with stakeholders.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- legislation required to prepare traffic management plans and traffic guidance schemes for motorways and freeways
- policies, procedures and documentation required to prepare traffic management plans and traffic guidance schemes for motorways and freeways, including:
 - Austroads Guide to Temporary Traffic Management
 - temporary traffic management
 - risk assessment and management
 - statutory compliance
 - work health and safety

- traffic management plans
- environmental management
- cultural and heritage management
- quality management
- plan approvals and reviews
- performance reviews
- task specific documentation, including plans, drawings, specifications and traffic management plan briefs
- workplace recording and reporting
- principles of road user behaviour, including on:
 - freeways and motorways
 - grade separated roads with speed limits greater than or equal to 90km/h and traffic volumes generally greater than 20,000 vehicles per day (Average Annual Daily Traffic (AADT))
- principles of traffic management plans and traffic guidance schemes, including:
 - design options, including for:
 - motorways and freeways
 - multiple lane closures
 - on-ramps and off-ramps
 - rolling blockades
 - techniques for evaluating and selecting preferred options
 - signs, devices and equipment types,
 - characteristics, technical capabilities and limitations
 - geometrics
 - potential traffic hazards, constraints and conditions
 - techniques to address conflicts between different road user groups
 - factors that determine the time at which works can be undertaken
- techniques for implementing traffic management plans and traffic guidance schemes, including:
 - operational techniques
 - sophisticated public communications strategies
 - industry and workplace design
 - implementation structures and capabilities
 - team leadership techniques
 - problem solving techniques
 - cost estimation techniques
 - engineering graphical presentation techniques
 - accessing and interpreting site specific data, including:
 - engineering survey information
 - hydrological, meteorological, cultural and heritage data

- complex temporary traffic management equipment types, including:
 - truck mounted attenuators
 - electronic signs
 - barriers.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - traffic management plan
 - traffic guidance scheme
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed; and,
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

- **Assessor requirements**

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory regulatory standards as set out in the Standards for Registered Training Organisations (RTOs) 2015/Australian Quality Training Framework mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing the required level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence outlined in this unit of competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 years
Other sectors	Where this unit is being assessed outside of the resources and infrastructure sectors assessor and/or industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no industry standard is specified should comply with any relevant regulation.	

*Guidance on simulated environments has been stipulated in the RII Companion Volume Implementation Guide located on VETNet.

**Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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