



Australian Government

RIICRC405E Carry out pavement condition measurement

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 carry out pavement condition measurement in civil construction, including preparing team members to carry out tasks and overseeing and reporting on task execution.

It applies to those working in supervisory or technical specialist roles. They generally perform a broad range of operational activities in their area of responsibility and are responsible for monitoring a safe work environment.

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.

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. Plan and prepare to carry out pavement condition measurement	1.1 Obtain, interpret, clarify and confirm work requirements 1.2 Access, interpret and apply documentation required to carry out pavement condition measurement and confirm work activity is compliant 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear personal protective equipment according to site requirements 1.5 Identify, obtain, confirm and implement signage requirements

ELEMENT	PERFORMANCE CRITERIA
	1.6 Select, check all tools and equipment required to carry out tasks and report on faults 1.7 Prepare job plan according to job requirements in coordination with required team members
2. Carry out pavement condition measurement	2.1 Confirm required resources are available to meet job requirements 2.2 Communicate and clarify instructions with team members and other involved personnel according to job requirements 2.3 Measure pavement conditions using required tools and equipment according manufacturer specifications and job and site requirements 2.4 Monitor movements and hazards and identify and communicate changes to work environment
3. Complete post-operational requirements	3.1 Validate reading recorded by pavement condition measurement equipment against job requirements 3.2 Complete and submit reports according to site requirements 3.3 Recommend required changes to confirm task execution meets job requirements
4. Conduct housekeeping activities	4.1 Check and confirm work area is cleared and materials are disposed of, reused, recycled or stored according to site requirements 4.2 Clean, check, maintain and store machinery, tools and equipment according to manufacturer specifications and site requirements

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	Calculates resourcing requirements and performs mathematical calculations
Oral communication	Conveys information and requirements clearly and listens actively
Writing	Prepares information that complies with requirements, using sector-specific vocabulary, grammatical structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIICRC405D Carry out pavement condition measurement.

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 RIICRC405E Carry out pavement condition measurement

Modification History

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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:

- carry out pavement condition measurements on at least two occasions, including:
 - confirming provision of tools, equipment and resources required to carry out tasks
 - overseeing the allocation, progression and completion of tasks
 - measuring pavement conditions using required tools and equipment
 - validating readings recorded by pavement condition measurement equipment
 - providing support to team members where tasks require problem solving
 - checking and confirming equipment and tools maintenance requirements are carried out and recorded
 - supervising clearing of work area and disposing of, reusing, recycling or storing of materials
 - reporting on task execution
 - recommending changes required to meet job requirements, including those relating to safety, efficiency and effectiveness.

During the above, the candidate must:

- locate and apply relevant documentation, policies and procedures and confirm work activity is compliant
- implement the requirements, procedures and techniques for the carrying out of pavement condition measurement including:
 - identifying and applying required specifications to all work activities
 - identify and confirm specific task requirements
 - identifying, addressing and reporting potential hazards and risks
 - identifying, obtaining, confirming and supervising the implementation of signage and barrier requirements

- supervising selection and fault checking for plant, tools and equipment required to carry out tasks
- identifying, addressing and reporting environmental issues
- optimising use of available resources to meet task requirements
- work with others to plan, prepare and carrying out pavement condition measurement to meet all requirements, including:
 - preparing for and organising work activities to meet task requirements
 - communicating with others to allocate work tasks and work instructions and confirming and clarifying work instructions
 - monitoring movements and hazards and identifying and communicating changes to work environment.

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:

- policies, procedures and documentation required to inspect and report on pavement conditions, including those relating to:
 - site requirements
 - manufacturer specifications for required plant and equipment
 - relevant job specifications
 - hazard and risk management
 - environmental protection
 - work activity set up procedures
 - site isolation, signage, erecting barriers and traffic control
 - work health and safety
 - waste management
 - workplace recording and reporting
- types, applications, technical capabilities and limitations of pavements, including:
 - flexible pavements
 - rigid pavements
- types, applications, technical capabilities and limitations of tools and equipment required to carry out pavement condition measurement
- principles and techniques for effective pavement condition measurement, including:
 - techniques selecting, checking and using pavement condition measurement tools and equipment
 - techniques for validating readings recorded by pavement condition measurement equipment
 - resource allocation techniques, including for:
 - labour
 - plant, equipment and tools
 - highway haulage vehicles

- construction materials
- sub-contractor services
- techniques for coordinating and communicating job activities with others, including:
 - briefings
 - handovers
 - work orders
 - toolbox meetings
 - site meetings
- problem solving techniques
- techniques for reporting on task execution and recommending required changes.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to carry out pavement condition measurement
- 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 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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