



Australian Government

RIICBS401D Apply the principles of asphalt paving and compaction

Release: 2

RIICBS401D Apply the principles of asphalt paving and compaction

Modification History

Release	Comment
1	This unit replaces RIICBS401A Apply the principles of asphalt paving and compaction
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to apply the principles of asphalt paving and compaction in Civil construction.

This unit is appropriate for those working in supervisory or technical specialist roles.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Competency Field

Unit Sector

Civil construction

Elements and Performance Criteria

1. Plan and prepare for applying the principles of asphalt paving and compaction	1.1 Access, interpret and apply the principles of asphalt paving and compaction documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Ensure a job plan is available which makes best use of the available resources and meets the task requirements 1.4 Identify the training requirements of team members and
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	develop training plans
2. Ensure appropriate initiation of tasks is carried out	2.1 Confirm that the necessary resources are available 2.2 Ensure clear and timely instructions are communicated to team members and others involved 2.3 Ensure appropriate set out of tasks
3. Oversee the execution of tasks	3.1 Monitor task performance to ensure it achieves the required outcomes 3.2 Initiate adjustments to work practice or job plan and ensure safe execution of work and achievement of required outcomes 3.3 Ensure plant equipment and tools maintenance requirements are carried out and recorded 3.4 Implement training plans
4. Report on the execution of tasks	4.1 Complete and submit reports 4.2 Recommend changes to improve the safety, efficiency and effectiveness of the execution of asphalt paving and compaction tasks

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Range of Conditions

Unit Mapping Information

RIICBS401B Apply the principles of asphalt paving and compaction

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for RIICBS401D Apply the principles of asphalt paving and compaction

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant legislation, documentation, policies and procedures
- implements the procedures and techniques for the safe, effective and efficient application of the principles of asphalt paving and compaction including:
 - interpreting project contract and specification requirements and procedures
 - interpreting project site soil and geological data
 - identifying soil and rock types
 - interpreting meteorological data
 - interpreting material properties and test results, including compaction test results
 - interpreting project engineering
 - ring survey information
 - interpreting project plans and drawings
 - interpreting project specifications
- works effectively with others to plan, prepare and conduct asphalt paving and compaction including:
 - communicating clear and timely instructions to those involved
 - preparing for and conducting briefings, toolbox and site meetings
 - maintaining clear and legible written records and the reports

- demonstrates completion of applying the principles of asphalt paving and compaction that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - preparation of job plan, which includes at least five (5) of the following;
 - human resource requirements
 - plant and machinery requirements
 - construction materials requirements
 - sub-contractor support requirements
 - waste disposal requirements
 - coordination requirements
 - activity scheduling
 - materials delivery scheduling
 - risk assessment and management requirements
 - work health and safety requirements
 - quality management requirements, including testing scheduling requirements
 - traffic management requirements
 - environmental requirements
 - task monitoring requirements
 - task performance monitoring requirements
 - communication requirements
 - reporting requirements
 - assessment of resource requirements including at least two (2) of the following;
 - labour
 - plant, equipment and tools
 - material supply vehicles
 - construction materials, such as emulsion and asphalt
 - sub-contractor services
 - ensuring set out completed to requirements including at least two (2) of the following;
 - control lines
 - cleared width
 - batters
 - off-sets

Knowledge Evidence

The candidate must demonstrate knowledge in applying the principles of asphalt paving and compaction through:

- accessing, interpreting and applying legislative, organisation and site requirements and procedures for:
 - risk assessment and management
 - statutory compliance

- workplace health and safety
- environmental management
- workplace communication
- quality management
- work zone traffic management
- contract management
- job administration
- plant, equipment and tools maintenance
- materials deliveries
- supervising workplace relationships
- straight line and intersection paving and compaction requirements and procedures
- job set out
- plant and equipment capabilities and application
- operational techniques for the execution of operations
- potential operational problems in the execution of operations
- scheduling work activities
- relationship between various areas of resources and infrastructure industries
- monitoring methods
- resource requirements
- conducting activities scheduling
- applying estimating principles
- applying road construction sequencing
- using asphalt placement and compaction and related activities terminology
- road geometry
- pavement drainage requirements
- characteristics, application and requirements and procedures for different types of asphalt
- applying asphalt mix design philosophy and test methods

Assessment Conditions

- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,

- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 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.	

*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 frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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