



Australian Government

Department of Education, Employment and Workplace Relations

RIICRC305A Conduct road construction paver screeding operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of road construction paver screeding operations in the civil construction industry. It includes planning and preparing, setting up paver screeds, operating paver screeds, and cleaning up. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Application of the Unit

This unit is appropriate for those working in an operational role at worksites within:

- Civil construction

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Obtain and confirm safety requirements from the site safety plan and organisational policies and procedures, and apply to the allotted task 1.3. Identify, obtain and implement signage requirements from the project traffic management plan 1.4. Select plant, tools and equipment to carry out tasks consistent with the requirements of the job, check for serviceability and rectify or report any faults 1.5. Identify environmental protection requirements from the project environmental management plan, and confirm and apply to the allotted task
2. Set up paver screed	2.1. Set equipment to the correct levels to lay material to specifications 2.2. Set electronic equipment to check level 2.3. Set screed controls for correct operation
3. Operate paver screed	3.1. Identify site hazards associated with road construction paver screeding operations and use safe operating techniques to minimise risks 3.2. Adjust screed during operation to ensure work remains within specifications 3.3. Identify faults in the mat and take correct action to rectify faults 3.4. Monitor work of paver attendants and rollers to ensure they keep up with the paver 3.5. Maintain communication with paver operator to monitor progress of the job 3.6. Notify paver operator of problems with the base 3.7. Perform operator maintenance in accordance with manufacturer's instructions or organisation requirements
4. Clean up	4.1. Clean work area and dispose of or recycle

	materials in accordance with the project environmental management plan 4.2. Clean, check, maintain and store plant, tools and equipment
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Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to conduct road construction paver screeding operations:

- apply legislative, organisation and site requirements and procedures for conducting road construction paver screeding operations
- apply legislative, organisation and site requirements and procedures for laying pavers
- organise work activities
- select and use relevant tools and equipment safely
- identify and report on hazards related to the worksite and work activity
- communicate effectively to receive and clarify work instructions

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to conduct road construction paver screeding operations:

- site and equipment safety requirements
- paver screed operations
- aggregate and gravel types and sizes
- longitudinal and transverse joints
- equipment types, characteristics, technical capabilities and limitations
- operational, maintenance and basic diagnostic procedures
- site isolation and traffic control responsibilities and authorities
- processes for the calculation of material uniformity and travel speed
- materials safety data sheets and materials handling methods
- quality requirements
- civil construction terminology
- safe operating techniques in all terrain
- JSAs/safe work method statement

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:

- knowledge of the requirements, procedures and instructions for conducting road construction paver screeding operations
- implementation of requirements, procedures and techniques for the safe, effective and efficient completion of road construction paver screeding operations
- working with others to undertake and complete the conduct of road construction paver screeding operations that meets all of the required outcomes
- consistent timely completion of road construction paver screeding operations that safely, effectively and efficiently meets the required outcomes
- conduct road construction screed paving operations on a minimum of two different material types/surface types and include the mandatory tasks of:
 - three longitudinal joints (of at least 100m) constructed to required thickness, uniformity, line and level, on both matching and unsupported edge in accordance with project specifications and/or work instructions
 - six transverse joints constructed to required thickness, uniformity, line and level, on both matching and unsupported edge in accordance with project specifications and/or work instructions
 - five sections of straight paving (one of at least 100 linear metres) to required thickness, uniformity, line and level, on

	<p>both matching and unsupported edge in accordance with project specifications and/or work instructions, and</p> <ul style="list-style-type: none"> • three intersections to required thickness, uniformity, line and level, on both the matching and unsupported edge in accordance with project specifications and/or work instructions • one of the above tasks to include at least one mode of automatic screed levelling devices
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required
<p>Method of assessment</p>	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment</p>

	<p>methods:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake and complete the conduct of road construction paver screeding operations
<p>Guidance information for assessment</p>	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisational and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Safety requirements may include:</p>	<ul style="list-style-type: none"> • OHS requirements in accordance with state or territory legislation and regulations, organisational safety policies and procedures, and project safety plan, including protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, use of First Aid equipment, hazard control and hazardous materials and substances • safe operating procedures including recognising and preventing hazards associated with high voltage power lines, uneven/unstable terrain, trees, overhead service lines, bridges, surrounding buildings, obstructions, structures, facilities, dangerous materials, recently filled trenches, other machines, personnel, traffic control, working at heights, working in proximity to others, worksite visitors and the public • safe parking practices including ensuring access ways are clear, equipment/machinery is away from overhangs and refuelling sites, safe distances are kept from excavations, and areas secured from unauthorised access or movement • recognising hazards and risks including uneven/unstable terrain, trees, fires, overhead and underground services, bridges, buildings, excavations, traffic, embankments, cuttings, structures and hazardous materials • emergency procedures related to equipment

	operation including emergency shutdown and stopping, extinguishing equipment fires, organisational First Aid requirements and evacuation
Site may include:	<ul style="list-style-type: none"> • formed/prepared roads • pads • highways • freeways • car parks • airport runways • container yards • hard stands • footpaths and bikeways
Task may include:	<ul style="list-style-type: none"> • mixing and spreading granular materials • spreading concrete materials • mixing and spreading stabilised materials • spreading bituminous materials
Traffic may include:	<ul style="list-style-type: none"> • congested urban environments • low traffic rural areas • off-road un-trafficked areas • buildings • parking sites • pedestrian areas
<i>Plant, tools and equipment</i> may include:	<ul style="list-style-type: none"> • shovels • measuring tapes • depth gauges • standard tool kits • string lines • thermometers • straight edges <p><i>automatic screed levelling devices may include:</i></p> <ul style="list-style-type: none"> • grade sensors/averaging sensors • matching shoes • levelling beams • sonic and laser
Environmental protection requirements may include:	<ul style="list-style-type: none"> • organisational/project environmental management plan • waste management • water quality protection • noise • vibration

	<ul style="list-style-type: none"> dust and clean-up management
Materials may include:	<ul style="list-style-type: none"> granular materials aggregates gravel stabilised materials bituminous materials
Set screed controls may include:	<ul style="list-style-type: none"> the use of boards to correct the height for transverse joint construction setting up string lines and sensors to job specifications adjusting machine attachments to string line preparing and setting a screed to achieve a specified level and texture of base
Paver screeding operations may include:	<ul style="list-style-type: none"> ensuring uniform flow of material electronic/manual levelling augering maintaining width of the screed adjustment of the crown transverse and longitudinal joints manual screed level control automatic screed level control

Unit Sector(s)

Road and Pavements Construction and Maintenance (General)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.