



Australian Government

RIICWM505E Prepare civil works schedule of rates

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 prepare a civil works schedule of rates in civil construction. It includes preparing, detailing and issuing quotations for resource requirements, assessing quotations and preparing and reviewing application of schedules of rates.

It applies to those working in managerial or technical specialist roles. They generally apply a broad range of technical and managerial skills and are responsible for the delivery of outputs that meet site requirements.

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 to prepare civil works schedule of rates	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to prepare civil works schedule of rates and confirm work activity is compliant 1.3 Identify and list types of on-site labour that may be employed in the areas of civil works to be undertaken 1.4 Identify and list of materials that may be required 1.5 Identify and list on-site sub-contractor services that may be employed 1.6 Gain agreement on lists of on-site labour, materials, and on-site sub-contractors' services that may be employed or required

ELEMENT	PERFORMANCE CRITERIA
2. Prepare and document details of materials and sub-contractor services requirements	2.1 Develop and document details and specifications of listed materials 2.2 Develop and document details of listed sub-contractor services 2.3 Gain agreement on details and specifications of materials, and on-site sub-contractors' services
3. Invite quotations from materials suppliers and sub-contract service providers	3.1 Prepare invitations to quote on supply of materials and sub-contractor services 3.2 Gain approval of invitations to quote 3.3 Issue invitation to quote for the supply of materials and sub-contractor services
4. Assess quotations and prepare schedules of rates for materials and sub-contractor services	4.1 Assess submitted materials and sub-contractor services quotation documents against details and specifications set out in the invitations to quote 4.2 List selected suppliers and use quoted prices to calculate scheduled rates for listed materials and sub-contractor services 4.3 Gain agreement on schedules of rates for listed materials and on-site sub-contractor services
5. Prepare the schedule of rates for on-site labour	5.1 Develop and document factors to be applied to hourly labour costs in determining the schedule of rates of on-site labour 5.2 Apply factors to hourly labour costs of various types of on-site labour and determine the schedule of rates of on-site labour 5.3 Gain approval of on-site labour schedule of rates
6. Support and review the application of and maintain the schedule of rates	6.1 Provide clarification and advice to those applying the schedule of rates 6.2 Complete and submit civil works schedule of rates 6.3 Gain approval for civil works schedule of rates 6.4 Confirm required filing of civil works schedule of rates 6.5 Review application of schedule of rates and recommend improvements to of civil works schedule of rates preparation processes 6.6 Monitor costs of required labour, materials and sub-contractor services and maintain the currency of the schedules of rate

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 to calculate materials requirements and schedule of rates
Oral communication	Presents workplace procedures and technical instructions to a group using sector-specific vocabulary

Unit Mapping Information

Supersedes and is equivalent to RIICWM505D Prepare civil works schedule of rates.

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 RIICWM505E Prepare civil works schedule of rates

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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 civil works schedule of rates on at least two occasions, including:
 - identifying relevant information and scope of the work required
 - identifying viable options and selecting civil works bill of quantities
 - consulting with internal and external clients and relevant authorities
 - conducting a risk assessment of existing and potential hazards
 - obtaining further site data, including:
 - known and potential hazards, constraints and conditions
 - cultural and heritage data
 - geological data
 - geotechnical data
 - hydrological data
 - survey data
 - metrological data.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures
- implement procedures and techniques for the preparation of civil works schedule of rates, including accessing, interpreting and applying:
 - plans and drawings
 - specifications
 - materials and sub-contractor services quotation documents
 - computer based analysis and database technology
 - client feedback techniques
- work with others to prepare civil works schedule of rates that meets required outcomes, including:

- providing instruction and supervision using communication techniques and equipment
- preparing for and conducting briefings, toolbox and site meetings
- completing written records and reporting systems
- 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 civil works schedule of rates
- policies, procedures and documentation required to prepare civil works schedule of rates, including those relating to:
 - risk assessment and management
 - statutory compliance
 - work health and safety
 - emergency response
 - quality management
 - communication techniques and equipment
 - schedule of rates review
 - documentation requirements
 - reporting
 - schedule of rates records filing
 - schedule of rates approval
 - issuing invitations to quote on supply of materials and sub-contractor services
- principles and techniques for preparing civil works schedule of rates, including those relating to:
 - civil works, including:
 - land clearing
 - bulk earthworks
 - surface drainage
 - water storage and tailings dams
 - topsoil management
 - rehabilitation
 - road works preparation
 - pavement construction
 - underground services construction
 - tunnelling
 - dredging
 - types of on-site labour employed in civil works
 - types of materials used in civil works

- types of on-site sub-contractor services employed in civil works
- document details and specifications of civil works materials
- document details of civil works sub-contractor services
- labour, materials and sub-contractor services cost analysis factors to be applied to hourly labour costs in determining the schedule of rates of on-site labour
- providing clarification and advice
- computer based analysis and database technology
- types, characteristics, technical capabilities and limitations of materials, plant and equipment required for preparing civil works schedule of rates.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - equipment required to prepare civil works schedule of rates
- 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 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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