



Australian Government

Department of Education, Employment and Workplace Relations

RIICWM505A Prepare civil works schedule of rates

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the preparation of civil works schedule of rates in Civil Construction. It includes: planning for the civil works schedule of rates process, preparing and documenting the details of the required materials and sub-contractor services, inviting quotations from materials suppliers and sub-contract service providers, assessing the quotations and prepares schedules of rates for materials and sub-contractor services, preparing the schedule of rates for on-site labour and supporting and reviewing the application of and maintaining civil works schedules of rates.

Application of the Unit

This unit is appropriate for those working in a management role or as a technical specialist, for the preparation of civil works schedule of rates 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 for the civil works schedule of rates	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Identify and list the types of on-site labour that may be employed in the areas of civil works to be undertaken 1.3. Identify and list the types of materials that may be required 1.4. Identify and list the types of on-site sub-contractor services that may be employed 1.5. Gain agreement on the lists of on-site labour, materials, and on-site sub-contractors services that may be employed or required
2. Prepare and document the details of the materials and sub-contractor services requirements	2.1. Develop and document the details and specifications of the listed materials in consultation with relevant team members 2.2. Develop and document the details of the listed sub-contractor services in consultation with relevant team members 2.3. Gain agreement on the details and specifications of the 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 the invitation to quote for the supply of materials and sub-contractor services
4. Assess quotations and prepares schedules of rates for materials and sub-contractor services	4.1. Assess submitted materials and sub-contractor services quotation documents against the details and specifications set out in the invitations to quote and determine their validity 4.2. List the selected suppliers and use their quoted prices to calculate the scheduled rates for the listed materials and sub-contractor services 4.3. Gain agreement on the schedules of rates for the listed materials and on-site sub-contractor services

5. Prepare the schedule of rates for on-site labour	5.1. Develop and document the factors to be applied to hourly labour costs in determining the schedule of rates of on-site labour, in consultation with relevant team members 5.2. Apply these factors to the hourly labour costs of the various types of on-site labour and determine the schedule of rates of on-site labour 5.3. Gain approval of the 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. Review the application of the schedule of rates and recommend changes for the continuous improvements of civil works schedule of rates preparation processes 6.3. Monitor costs of relevant labour, materials and sub-contractor services and maintain the currency of the schedules of rate

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 in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to prepare a civil works schedule of rates:

- apply legislative, organisation and site requirements and procedures
- interpret plans and drawings
- interpret specifications
- interpret Australian and other appropriate standards
- identify types of on-site labour employed in civil works
- identify types of materials used in civil works
- Identify types of on-site sub-contractor services employed civil works
- develop and document details and specifications of civil works materials
- develop and document details of civil works sub-contractor services
- prepare invitations to quote on supply of materials and sub-contractor services
- issue invitations to quote for the supply of materials and sub-contractor services
- assess materials and sub-contractor services quotation documents
- develop and document factors to be applied to hourly labour costs in determining the schedule of rates of on-site labour
- calculate unit rates for labour, materials and sub-contractor services
- apply computer based analysis and database technology
- maintain cost records
- provide clarification and advice
- apply client feedback techniques
- monitor costs of labour, materials and sub-contractor services

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to prepare a civil works schedule of rates:

- risk assessment and management requirement and procedures
- statutory compliance requirements and procedures
- quality management requirements and procedures
- communication requirements and procedures
- Australian and other relevant standards requirements and procedures
- industry and organisational construction procedures and practice
- current industry best practice in tendering and procurement processes

- current industry best practice in civil works construction
- operational techniques required for the execution of civil works construction tasks
- labour, materials and sub-contractor services cost analysis techniques
- schedule of rates review principles and procedures
- documentation requirements
- reporting requirements and procedures
- schedule of rates approval requirements and procedures
- schedule of rates records filing requirements and procedures

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 the preparation of civil works schedule of rates • implementation of procedures and techniques for the safe, effective and efficient preparation of civil works schedule of rates • the identification of the relevant information and scope of the work required to meet the required outcomes • the identification of viable options and the selection of a civil works schedule of rates that best meet the required outcomes • working with others to undertake and complete the preparation of civil works schedule of rates • consistent successful preparation of civil works schedule of rates
Context of and specific resources for assessment	• 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. • Evidence for assessment is best gathered using the outcomes of products and processes of the workplace. • 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. • Assessment of this competency requires typical resources normally used in a civil works environment. Selection and use of resources for particular worksites may differ due to site circumstances. • 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.
Method of assessment	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 methods: • written and/or oral assessment of the candidate's required knowledge to apply in undertaking of the preparation of civil works schedule of rates • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate procedures and techniques for the safe, effective and efficient achievement of the required outcomes • identification of the relevant information and scope of the work required to meet the required outcomes • identification of viable options and the selection of a civil works schedule of rates that best meet the required outcomes • consistently achieving the required outcomes • first hand testimonial and documentary evidence of the candidate's:

	• working with others to undertake and complete the preparation of civil works schedule of rates • provision of clear and timely required support and advice on the preparation of civil works schedule of rates
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

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.

Relevant compliance documentation may include:	• legislative, organisational and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Civil works may include:	• land clearing • bulk earthworks • surface drainage works • water storage dams construction • tailings dams construction • topsoil management • rehabilitation works • road works preparation (including the sub grade) • pavement construction, including: • flexible pavements, including: • natural pavement materials • manufactured pavement materials • asphalt placement • spray seal application • stabilisation • rigid pavement construction • underground services construction • construction of civil structures • tunnelling • dredging
Relevant teams members may include:	• other members of the organisation's management team • suppliers representatives • sub-contractors representatives

	• supervisors or managers of other organisations who are involved in related tasks • experienced members of the team directly involved in the task
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Unit Sector(s)

Civil Works (Management and Supervision)

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.