



Australian Government

RIICFW301D Construct underpinning

Release: 2

RIICFW301D Construct underpinning

Modification History

Release	Comment
1	This unit replaces RIICFW301A Construct underpinning
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 construct underpinning in Civil Construction.

This unit is appropriate for those working in operational roles.

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.

Unit Sector

Civil construction

Elements and Performance Criteria

1. Plan and prepare	1.1 Access, interpret and apply construct underpinning documentation and ensure the work activity is compliant 1.2 Obtain, interpret, clarify and confirm work instructions before proceeding 1.3 Confirm and apply environmental protection and safety requirements 1.4 Obtain, interpret and implement traffic management signage requirements 1.5 Select and check for faults tools and equipment to carry out tasks 1.6 Select and wear correct personal protective equipment appropriate for work activities
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	1.7 Identify, address and report hazards, risks and environmental issues 1.8 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency
2. Set out and prepare sections	2.1 Confirm and apply setout requirements 2.2 Identify and record underpinning requirements for adjoining properties and roadways 2.3 Identify and implement sections and sequence of excavations 2.4 Check existing shoring system for soundness 2.5 Set out sections for excavation 2.6 Identify and protect areas for excavation and surrounding working space requirements 2.7 Erect barricades and signage 2.8 Position plant and equipment for excavations
3. Excavate sections	3.1 Excavate designated sections to the designed depth of footings 3.2 Install trench and excavation support
4. Construct underpinning	4.1 Construct underpinning 4.2 Backfill excavated sections 4.3 Underpin alternate sections in sequence
5. Clean up	5.1 Clear work area and dispose of or recycle materials 5.2 Clean, check, maintain and store plant, tools and equipment

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.

Unit Mapping Information

RIICFW301A Construct underpinning

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 RIICFW301D Construct underpinning

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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 applicable legislation, documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of underpinning construction including:
 - using correct drilling and excavation techniques
- works effectively with others to undertake and complete the construction of underpinnings that meets all of the required outcomes including:
 - communicating clearly and concisely with others to receive and clarify work instructions
 - using a range of communication technique and systems such as signage to advise others of work activity and exclusion zones
- demonstrates completion of underpinning construction that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - identifying and record in writing underpinning requirements for adjoin properties and roadways from site drawing and survey of the surrounding construction
 - excavating and backfilling the designated sections
 - conducting construction of underpinning for a minimum of two (2) projects:
 - one (1) using drilling techniques and;
 - one (1) using excavation techniques to the required job specifications

Knowledge Evidence

The candidate must demonstrate knowledge of construction underpinning through:

- applying legislative, organisational and site requirements and procedures for:
 - site and equipment safety requirements
 - foundation work
 - civil construction terminology
 - underpinning techniques
 - water erosion
- using construction principles
- interpreting engineering drawings
- identifying soil, sand, rock, clay, shale, gravel and silt types and characteristics
- identifying equipment types, characteristics, technical capabilities and limitations
- applying site isolation and traffic control responsibilities and authorities
- interpreting and complying with safety data sheets and materials handling methods
- monitoring project quality requirements
- preparing and/or implementing JSA/JSEA/safe work method statements

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- 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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