



Australian Government

RII40813 Certificate IV in Civil Construction Design

Release 3

RII40813 Certificate IV in Civil Construction Design

Modification History

Release	Comments
1	Replaces RII40809 Certificate IV in Civil Construction Design.
2	Unit titles for MSL975007A and CPPSIS5035A corrected.
3	Corrected modification history.

Qualification Description

This qualification reflects the role of people providing design support for professional Engineers. They perform tasks involving a broad range of varied activities most of which are complex and non-routine, for example, this might include Civil Works drafting. They are responsible for applying the design work instructions and practices to ensure the quantity and quality of the output of others and contribute to the development of technical solutions to non-routine problems.

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

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Requirements for completion of the qualification

The following provides the packaging rules for this qualification, followed by the list of relevant units of competency.

Successful completion of twelve (12) units of competency made up of:

- at least two (2) must be chosen from group A
- at least two (2) must be chosen from group B
- at least two (2) must be chosen from group C
- at least two (2) must be chosen from group D
- up to two (2) units may be chosen from Certificate III, Certificate IV or Diploma level from this, or any other Training Package or accredited course

Units chosen must be relevant to the job function.

There are prerequisites to imported units listed in this qualification. Where a unit is imported as an elective care must be taken to ensure that all prerequisites specified are complied with.

Group A	
<i>Unit code</i>	<i>Unit title</i>
BSBINM401A	Implement workplace information system
BSBINN301A	Promote innovation in a team environment
BSBMGT401A	Show leadership in the workplace
BSBMGT403A	Implement continuous improvement
BSBWOR401A	Establish effective workplace relationships
BSBWOR404B	Develop work priorities
Group B	
<i>Unit code</i>	<i>Unit title</i>
MEM09011B	Apply basic engineering design concepts
MEM30001A	Use computer aided drafting systems to produce basic engineering drawings
MEM30002A	Produce basic engineering graphics
MEM30003A	Produce detailed engineering drawings
MEM30004A	Use CAD to create and display 3D models
Group C	
<i>Unit code</i>	<i>Unit title</i>
RIICWD501D	Prepare detailed design of foundations
RIICWD502D	Prepare detailed design of lighting
RIICWD504D	Prepare detailed design of environmental controls

RIICWD505D	Prepare detailed design of landscaping
RIICWD506D	Prepare detailed design of canals
RIICWD507D	Prepare detailed geotechnical design
RIICWD508D	Prepare detailed design of rural roads
RIICWD511D	Prepare detailed design of sub-divisions
RIICWD513D	Prepare detailed design of rail civil infrastructure
RIICWD514D	Prepare detailed design of dams
RIICWD515D	Prepare detailed design of airfield civil works
RIICWD516D	Prepare detailed design of bicycle ways
RIICWD517D	Prepare detailed design of industrial hardstands
RIICWD518D	Prepare detailed design of open car parks
RIICWD519D	Prepare detailed design of inter modal facilities civil works
RIICWD521D	Prepare detailed design of flexible pavements
RIICWD522D	Prepare stabilised material mix design
RIICWD523D	Prepare asphalt mix design
RIICWD524D	Prepare design of spray seal surfacing
RIICWD525D	Select pavement surfacing
RIICWD527D	Prepare detailed design of traffic signals
RIICWD529D	Prepare detailed design of underground services
RIICWD530D	Prepare detailed design of surface drainage
RIICWD531D	Prepare detailed design of subsurface drainage
RIICWD537D	Prepare detailed design of marine structures civil works
Group D	
<i>Unit code</i>	<i>Unit title</i>
MSL924001A	Process and interpret data
PMLTEST403B	Assist with geotechnical site investigations
MSL974003A	Perform chemical tests and procedures
MSL974005A	Perform physical tests
MSL974010A	Perform mechanical tests
MSL975007A	Supervise sampling, inspections and testing at construction sites <ul style="list-style-type: none"> • Prerequisite unit: MSL954001A Obtain

	<p>representative samples in accordance with sampling plan</p> <ul style="list-style-type: none"> Prerequisite unit: MSL973009A Conduct field-based acceptance tests for construction materials
MSL975016A	<p>Perform complex tests to measure engineering properties of materials</p> <ul style="list-style-type: none"> Prerequisite unit: MSL974012A Perform tests to determine the properties of construction materials Prerequisite unit: MSL973010A Conduct laboratory-based acceptance tests for construction materials OR MSL973001A Perform basic tests
CPPSIS5032A	Capture new spatial data
CPPSIS5035A	Obtain and validate spatial data
CPPSIS5036A	Integrate spatial datasets
CPPSIS3015A	Collect basic spatial data
RIICBS401D	Apply the principles for the asphalt paving and compaction
RIICBS402D	Apply the principles for the application of bituminous sprayed treatment
RIICBS403D	Apply the principles for the application of polymer modified binder
RIICBS404D	Apply the principles for the selection and use of bituminous emulsion
RIICBS405D	Apply the principles for the application of slurry surfacing
RIICBS406D	Apply the principles of pavement profiling using a profiler
RIICBS407D	Apply the principles for the manufacture and delivery of hot mix asphalt
RIICBS408D	Apply the principles for the manufacture of cold mix
RIICBS409D	Apply the principles for the manufacture of polymer modified binders
RIICBS410D	Apply the principles for the manufacture of bituminous emulsion
RIICBS411D	Apply the principles for the manufacture of slurry surfacing
RIICPL401D	Apply the principles for the installation of underground service using open excavation

RIICRC401D	Apply the principles of flexible pavement construction
RIICRC402D	Apply the principles of rigid pavement construction
RIICRC403D	Apply the principles of the stabilisation of materials
RIICRC404D	Inspect and report on pavement condition
RIICRC405D	Carry out pavement condition measurement
RIICSG401D	Apply the principles of civil concrete structures construction
RIICSG402D	Apply the principles of civil steel structures construction
RIICSG403D	Apply the principles of civil timber structures construction
RIICSG404D	Apply the principles of civil masonry, crib and gabion structure construction
RIICTC401D	Apply the principles of tunnel construction
RIICTT401D	Apply the principles for the installation of underground services using trenchless technology
RIICTT402D	Apply the principles for the repair and rehabilitation of underground services using trenchless technology
RIIMEX403D	Apply the principles of canal construction
RIIMPO402D	Apply the principles of earthworks construction
RIISTD202D	Collect routine site samples

Qualification Mapping Information

RII40809 Certificate IV in Civil Construction Design

Links

SkillsDMC RII Companion Volumes - <http://www.skillsdmc.com.au/>