



Australian Government

Assessment Requirements for CPCPRE2001 Brace and prop prefabricated concrete elements

Release: 1

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Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 9.0.

Newly created unit.

Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by:

- bracing two prefabricated concrete elements of a height not less than 7 metres and width 3 metres:
 - one of which must be a prefabricated concrete wall panel braced with two braces
 - one of which must include both primary and secondary bracing elements (knee, end and lateral-bracing or double knee-braces)
- propping two prefabricated concrete elements, one of which must end propping only, and the other to be continuously shored.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- compliance requirements of legislation, regulations, codes and Australian Standards relevant to brace and prop of prefabricated concrete elements:
 - AS 3850.1, 2 & 3 Prefabricated concrete elements
 - environmental protection and waste disposal
- work health and safety (WHS) regulations, including:
 - Safe Work Australia 'Guide to managing risk in construction: prefabricated concrete' 2019
 - use of personal protective equipment (PPE)
 - fall protection
 - drop zones
 - hazardous substances
 - safe manual handling techniques
 - safe manual lifting procedures
- risk assessment process for lifting and securing prefabricated elements erection design documentation:

- set-out details
- element mass
- rigging diagrams
- component geometry
- the strength of concrete at the time of lifting and handling from the manufacturers' "birth certificate" contained in the erection documentation
- faulty manufacturing and concrete defects which could compromise the strength of the prefabricated elements and pose a potential safety issue for lifting and handling
- types of drawings and specifications used to interpret concrete installation requirements
- erection documentation
- prefabricated concrete brace and prop specifications, including:
 - erection sequence
 - orientation of prefabricated concrete elements
 - bracing details, including type and angle
 - requirement for erection brace and prop footings
 - levelling shims
 - drawings
- types of bracing, including:
 - single storey (drop-in) panel propping
 - double storey (spin-up) panel propping
 - panel to panel propping
 - beam propping
 - spandrels propping
 - column bracing
 - lateral bracing
 - end bracing
 - main bracing
 - knee bracing
 - deadman bracing
- types of propping, including:
 - single props (Acrow)
 - single frame
 - continuous frame
- types of concrete prefabricated elements, including:
 - dowell bar
 - panels
 - columns
 - beams
 - planks
 - stairs

- barriers
- workplace requirements when working with prefabricated concrete elements:
 - cleaning up the work area
 - maintaining and storing plant, labelling, tools and equipment
 - adhering to manufacturer specifications
 - reporting problems
 - quality
- types of prefabricated concrete elements
- types of support fixings, including:
 - brace footing
 - ferrule bolts
 - brace pins
- fire rating requirements relevant to concrete prefabricated element rectification
- workplace procedures related to communication protocols
- principles of sustainability relevant to material reuse
- logical task sequencing
- types, characteristics and limitations of tools, equipment and materials required for propping and bracing prefabricated concrete elements, including:
 - hammers
 - jacks
 - podgers
 - spanners
 - spirit levels and automatic levels
 - tape measures
 - trolleys
 - wedges
 - wrenches
 - hammer lock
 - theodolite
 - post-installed anchors
 - bolting procedures
 - cast-in-threaded inserts for Class 4.6 bolts
- concrete supporting elements, including:
 - floor slabs
 - piers
 - footings.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to erection design documentation, materials, manufacturer specifications, plant, tools and equipment required to achieve the performance evidence.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>