

# 22665VIC Course in Concrete Precast Rectification

Version 1.1

**This course has been accredited under Part 4.4 of the  
*Education and Training Reform Act 2006.***

**Accredited for the period: 1 July 2024 to 30 June 2029**

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## Section A – Copyright and course classification information

|   |  |
|---|--|
| 1. <b>Copyright owner of the course</b> | © State of Victoria (Department of Jobs, Skills, Industry and Regions) 2024  |
| 2. <b>Address</b>                       | <p>Deputy CEO<br/>Victorian Skills Authority<br/>Department of Jobs, Skills, Industry and Regions (DJSIR)<br/>GPO Box 4509<br/>Melbourne Vic 3001</p> <p><b>Organisational Contact:</b><br/>Manager, National Systems Engagement &amp; Reform Unit<br/>Engagement &amp; Reform Branch<br/>Victorian Skills Authority<br/>Department of Jobs, Skills, Industry and Regions (DJSIR)<br/>Email: <a href="mailto:course.enquiry@djsir.vic.gov.au">course.enquiry@djsir.vic.gov.au</a></p> <p><b>Day-to-day contact:</b><br/>Specialist Adviser: Vocational Qualifications and Skills Reform (VQSR)<br/>Natural &amp; Built environment<br/>Melbourne Polytechnic<br/>Email: <a href="mailto:SA@melbournepolytechnic.edu.au">SA@melbournepolytechnic.edu.au</a></p>   |
| 3. <b>Type of submission</b>            | This submission is for re-accreditation of 22497VIC Course in Concrete Precast Rectification   |
| 4. <b>Copyright acknowledgement</b>     | <p>The following units of competency:</p> <ul style="list-style-type: none"> <li>• CPCCCM2012 Work safely at heights</li> <li>• CPCCCM3001 Operate elevated work platforms up to 11 metres</li> <li>• CPCCLSF2001 Licence to erect, alter and dismantle scaffolding basic level</li> <li>• CPCCON2021 Handle concreting materials and components</li> <li>• CPCPRE2004 Caulk prefabricated concrete elements</li> <li>• CPCPRE3001 Patch prefabricated components of concrete elements</li> <li>• CPCSIL3001 Work with products and materials containing crystalline silica</li> <li>• CPCWHS1001 Prepare to work safely in the construction industry</li> <li>• CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry</li> </ul> <p>have been imported from the CPC Construction Plumbing and Services Training Package administered by the Commonwealth of Australia.</p> <p>© Commonwealth of Australia</p> <p>The following unit of competency:</p> |



|                                   |  |
|-----------------------------------|--|
|                                   | <ul style="list-style-type: none"> <li>• TLILIC0005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)</li> </ul> <p>has been imported from the TLI Transport and Logistics Training Package administered by the Commonwealth of Australia.</p> <p>© Commonwealth of Australia.</p>  |
| <b>5. Licensing and franchise</b> | <p>Copyright of this material is reserved to the Crown in the right of the State of Victoria. © State of Victoria (Department of Jobs, Skills, Industry and Regions) 2024.</p> <p>This work is licensed under a Creative Commons Attribution-No Derivatives 4.0 International licence (see <a href="#">Creative Commons</a> for more information).</p> <p>You are free to re-use the work under the licence, on the condition that you credit the State of Victorian (Department of Jobs, Skills, Industry and Regions), provide a link to the licence, indication if changes were made, and comply with all other licence terms. You must not distribute modified material.</p> <p><b>Request for other use should be addressed to:</b></p> <p>Deputy CEO<br/>Victorian Skills Authority<br/>Department of Jobs, Skills, Industry and Regions (DJSIR)<br/>GPO Box 4509<br/>Melbourne Vic 3001<br/>Email: <a href="mailto:course.enquiry@djsir.vic.gov.au">course.enquiry@djsir.vic.gov.au</a></p> |
| <b>6. Course accrediting body</b> | Victorian Registration and Qualifications Authority  |
| <b>7. AVETMISS information</b>    | <p><b>ANZSCO code – 6 digit</b></p> <ul style="list-style-type: none"> <li>• <u><i>Australian and New Zealand Standard Classification of Occupations</i></u><br/>821211 Concreter</li> </ul> <p><b>ASCED Code – 4 digit</b></p> <ul style="list-style-type: none"> <li>• <u>Field of Education</u><br/>0403 Building</li> </ul> <p><b>National course code</b><br/>22665VIC</p>  |
| <b>8. Period of accreditation</b> | <b>1 July 2024 to 30 June 2029</b>   |



## Section B – Course information

|  |  |
|--|--|
| <b>1. Nomenclature</b>   | <b>Standard 4.1 and 5.8 AQTF 2021 Standards for Accredited Courses</b>   |
| <b>1.1 Name of the qualification</b>                                       | Course in Concrete Precast Rectification   |
| <b>1.2 Nominal duration of the course</b>                                  | 231 – 241 nominal hours  |
| <b>2. Vocational or educational outcomes</b>                               | <b>Standard 5.1 AQTF 2021 Standards for Accredited Courses</b>   |
| <b>2.1 Outcome(s) of the course</b>  | <p>The Course in Concrete Precast Rectification is designed to provide participants with the skills and knowledge to patch and repair concrete precast elements.</p> <p>The course outcomes aim to allow participants to:</p> <ul style="list-style-type: none"> <li>• identify hazards and associated risks when working in a concrete precast rectification role</li> <li>• assess and determine appropriate patching and repair methods and material requirements</li> <li>• plan and safely prepare for concrete precast patch and repair tasks</li> <li>• make accurate calculations, measurements and judgments for product mixing and material consistency</li> <li>• employ appropriate curing techniques for cement, grout and epoxy materials</li> <li>• apply a range of finishing techniques to various surface types</li> <li>• modify work processes/repair methods, according to changing circumstances.</li> </ul> |
| <b>2.2 Course description</b>  | <p>The Course in Concrete Precast Rectification is designed to provide participants with the skills and knowledge required to patch and repair concrete precast elements within civil, commercial and residential structures according to National Construction Code (NCC) and Australian Standard compliance requirements.</p> <p>Graduates of the Course in Concrete Precast Rectification will have the potential to undertake the job role of concrete precast rectifier/patcher and repairer.</p>   |
| <b>3. Development of the course</b>  | <b>Standards 4.1, 5.1, 5.2, 5.3 and 5.4 AQTF 2021 Standards for Accredited Courses</b>   |
| <b>3.1 Industry, education, legislative, enterprise or community needs</b> | Construction utilising concrete precast product involves a process of precise positioning, and specialised patching and finishing methods to support building integrity. Building components cast within concrete precast elements during manufacture, such as stitch plates, ferrules, grout tubes and lifting points, require specific treatments upon installation by workers with a particular skill set. If this is not performed correctly, or if the product incurs damage during production, handling,   |

transportation, or installation<sup>1</sup>, rectification is required.

Poor rectification practices have serious consequences. They may compromise the panel joints and engineered integrity of the building, thereby weakening the structure<sup>2</sup>. Incidents of building failure and partial building collapse constructed of concrete precast elements have been reported over time<sup>3</sup>. The evacuation of 169 apartments within Sydney's Opal Tower complex cited, in part, poor rectification works. Timely rectification practices are required to address progressive concrete degradation and mitigate public health risk and financial loss.

Specific training in specialist concrete patch, repair and caulking is required to facilitate rectification of off-site manufactured concrete precast elements. The application of repair knowledge and skill techniques at trade level, as well as critical thinking and problem-solving ability, product and occupational health and safety (OHS)/work health and safety (WHS) knowledge will contribute to improved concrete precast rectification practices. The Course in Concrete Precast Rectification fulfills this industry need.

The target groups for the Course in Concrete Precast Rectification are:

- new entrants to the civil and building and construction industry with limited or no on-site experience
- existing workers in civil or building and construction who wish to formalise their experience
- qualified tradespeople from the building and construction industry wanting to extend their skill base.

Participants are not expected to have knowledge of the building and construction industry prior to enrolling into this course.

TGA records confirm there have been no registered training organisations (RTOs) approved to deliver training and/or assessment for this course since its initial accreditation. The peak industry body, the National Concrete Precast Repair Association (NCPRA) is consulting with providers to determine options for potential delivery partnerships for the course. Course restructure and revised content that emphasises civil construction practices has improved alignment of course outcomes to industry need; this is expected to positively impact course uptake in the short to medium term.

The Victorian Department of Jobs, Skills, Industry and Regions (DJSIR), as copyright holder for the Victorian Crown Copyright accredited course, supports adoption of contemporary concrete precast

<sup>1</sup> National Precast Concrete Association. (2013) *Precast Concrete Architectural Repair Guide*, p.2

<sup>2</sup> <https://lockesolutions.com/common-problems-with-precast/#:~:text=Problems%20can%20arise%20with%20the,sealant%20instructions%20are%20followed%20incorrectly.>

<sup>3</sup> Kaminetzky. D, Kaminetzky. F & Cohen.P.C. Learning from the past. Failures during and after construction. 1981. The Aberdeen Group.



rectification skill and knowledge into industry practice, and has therefore provided funding for course development.

Course developers undertook preliminary desktop research and stakeholder consultation to determine skill and knowledge outcomes of the course and inform training product development. The members of the project steering committee (PSC) met formally on three occasions to consider and confirm the required skill and knowledge outcomes of the course, course structure and final accreditation submission. Stakeholder feedback was incorporated to refine the technical content and assessment requirements of the course submission and enterprise units, as appropriate.

The project for the development of the Course in Concrete Precast Rectification was overseen by a project steering committee comprised of the following industry and RTO representatives:

|                         |  |
|-------------------------|--|
| Corrie Williams (Chair) | Master Builders Association Victoria                                     |
| Mark Chiera             | WorkSafe (Inspections)   |
| Jennifer Mason          | Victorian Building Authority   |
| Wendy Grotaers          | WorkSafe (Silica specialist)   |
| Michael Stambos         | National Concrete Precast Repair Association (NCPRA)                     |
| In attendance:          |  |
| Teresa Signorello       | Curriculum Maintenance Service-Building Industries, Holmesglen Institute |
| Susan Fechner           | Curriculum Maintenance Service-Building Industries, Holmesglen Institute |

This course:

- does not duplicate, by title or coverage, the outcomes of an endorsed training package qualification
- is not a subset of a single training package qualification that could be recognised through one or more statements of attainment or a skill set
- does not include units of competency additional to those in a training package qualification that could be recognised through statements of attainment in addition to the qualification
- does not comprise units that duplicate units of competency of a training package qualification.

### 3.2 Review for re-

An evaluation of the accredited course was undertaken as part of the



**accreditation**

reaccreditation process to determine the relevance and currency of its outcomes to industry since initial accreditation in 2019. Despite the lack of uptake in recent years, industry continues to affirm the course's need. The course structure was the focus of the review to ensure alignment of course outcomes to current and future industry needs. Significant changes to the course included the:

- revision of course rules to better reflect the vocation outcomes
- updating all enterprise units to reflect the revised Standards for Accredited Courses unit template
- inclusion of newly imported units of competency that reflect current safety requirements of the vocational outcomes
- inclusion of current versions of endorsed units of competency where they have been updated
- deletion of units considered not appropriate or aligned to the course outcome.

**Transition arrangements**

The course 22665VIC Course in Concrete Precast Rectification supersedes and is not equivalent to 22497VIC Course in Concrete Precast Rectification. The following table identifies the relationship between the current and previous units.

| <b>Current Code and Title</b>                                     | <b>Superseded Code and Title</b>                                       | <b>Relationship<br/>Eg: Equivalent/Not Equivalent/No change/New unit/Newly imported unit/Deleted</b> |
|---|--|--|
| CPCWHS1001<br>Prepare to work safely in the construction industry | CPCCWHS1001<br>Prepare to work safely in the construction industry     | Equivalent   |
| CPCCCM2012 Work safely at heights                                 | CPCCCM2010B<br>Work safely at heights                                  | Equivalent   |
| CPCCON2021<br>Handle concreting materials and components          | CPCCCO2021A<br>Handle concreting materials                             | Equivalent   |
| CPCCCM3001<br>Operate elevated work platforms up to 11 metres     | CPCCCM3001<br>Operate elevated work platforms up to 11 metres          | No change  |
| CPCCWHS2001<br>Apply WHS requirements, policies and               | CPCCOHS2001A<br>Apply OHS requirements, policies and procedures in the | Equivalent   |



|   |   |                     |
|---|---|---------------------|
| procedures in the construction industry   | construction industry   |                     |
| VU23666 Assess safety of work area in close proximity to a confined space                         | VU22665 Assess safety of work area in close proximity to a confined space                         | Equivalent          |
| CPCSIL3001 Work with products and materials containing crystalline silica                         |   | Newly imported unit |
|   | VU22666 Patch and repair concrete precast components  | Deleted             |
| CPCPRE3001 Patch prefabricated components of concrete elements                                    |   | Newly imported unit |
| VU23667 Apply surface finishes to patched concrete precast components                             | VU22667 Apply surface finishes to patched concrete precast components                             | Equivalent          |
|   | VU22668 Caulk concrete precast elements   | Deleted             |
| CPCPRE2004 Caulk prefabricated concrete elements  |   | Newly imported unit |
| CPCCLSF2001 Licence to erect, alter and dismantle scaffolding basic level                         | CPCCLSF2001A Licence to erect, alter and dismantle scaffolding basic level                        | Equivalent          |
| TLILIC0005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more) | TLILIC0005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more) | No change           |

| 4. Course outcomes                                    | Standards 5.5, 5.6 and 5.7 AQTF 2021 Standards for Accredited Courses  |
|---|--|
| 4.1 Qualification level                               | This course meets an identified industry need, but does not have the breadth, depth or volume of learning of a qualification.  |
| 4.2 Foundation skills                                 | Foundation skills applicable to the outcomes of this course are identified in the performance criteria or within the Foundation Skills section of the units of competency where not explicit in the performance criteria.  |
| 4.3 Recognition given to the course (if applicable)   | Not Applicable   |
| 4.4 Licensing/regulatory requirements (if applicable) | <p>There are no licensing or regulatory requirements for this course, however completion of the general construction induction training program is required by anyone carrying out construction work on a construction site. Achievement of the unit <i>CPCWHS1001 Prepare to work safely in the construction industry</i>, meets this requirement and is a core unit within this course.</p> <p>Competency in the following high risk work licence units will result in the attainment of the licence from WorkSafe through an application process:</p> <ul style="list-style-type: none"> <li>• CPCCLSF2001 Licence to erect, alter and dismantle scaffolding basic level</li> <li>• TLILIC0005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more).</li> </ul> |

| 5. Course rules             | Standards 5.8 and 5.9 AQTF 2021 Standards for Accredited Courses   |
|-----------------------------|--|
| <b>5.1 Course structure</b> | <p>To achieve the award of 22665VIC Course in Concrete Precast Rectification the learner must successfully complete a total of ten (10) units comprising:</p> <p>nine (9) core units<br/>one (1) elective unit from the elective list below.</p> <p>Where the full course is not completed, a VET Statement of Attainment will be issued for each unit successfully completed.</p> |

| Unit of competency code | Unit of competency title   | Field of Education code (six-digit) | Pre-requisite             | Nominal hours |
|-------------------------|--|-------------------------------------|---------------------------|---------------|
| <b>Core units</b>       |  |                                     |                           |               |
| CPCWHS1001              | Prepare to work safely in the construction industry                          | 061301                              | Nil                       | 6             |
| VU23666                 | Assess safety of work area in close proximity to a confined space            | 061301                              | Nil                       | 8             |
| CPCPRE3001              | Patch prefabricated components of concrete elements                          | 040399                              | CPCCWHS2001<br>CPCCCM2012 | 50            |
| VU23667                 | Apply surface finishes to patched concrete precast components                | 040399                              | Nil                       | 40            |
| CPCPRE2004              | Caulk prefabricated concrete elements  | 040399                              | CPCCWHS2001<br>CPCCCM2012 | 20            |
| CPCSIL3001              | Work with products and materials containing crystalline silica               | 061301                              | CPCCWHS2001               | 25            |
| CPCCON2021              | Handle concreting materials and components                                   | 040399                              | CPCCWHS2001               | 24            |
| CPCCWHS2001             | Apply WHS requirements, policies and procedures in the construction industry | 061301                              | Nil                       | 20            |
| CPCCCM2012              | Work safely at heights   | 061301                              | CPCCWHS2001               | 8             |
| <b>Electives</b>        |  |                                     |                           |               |
| CPCCCM3001              | Operate elevated work platforms up to 11 metres                              | 030717                              | Nil                       | 32            |
| CPCCLSF2001             | Licence to erect, alter and dismantle scaffolding basic level                | 040329                              | Nil                       | 40            |



|                            |  |        |     |         |
|----------------------------|--|--------|-----|---------|
| TLILIC0005                 | Licence to operate a boom-type elevating work platform (boom length 11 metres or more) | 030717 | Nil | 30      |
| <b>Total nominal hours</b> |  |        |     | 231-241 |

### Standard 5.11 AQTF 2021 Standards for Accredited Courses

#### 5.2 Entry requirements

There are no entry requirements for the 22665VIC Course in Concrete Precast Rectification.

Learners are best equipped to achieve the outcomes of the Course in Concrete Precast Rectification, if they have minimum language, literacy and numeracy skills that are equivalent to level 2 of the Australian Core Skills Framework (ACSF). ACSF detail may be accessed from [here](#).

Learners with language, literacy and numeracy skills at lower levels than those suggested may require additional support to successfully undertake the course.

### 6. Assessment

#### Standard 5.12 and 5.14 AQTF 2021 Standards for Accredited Courses

#### 6.1 Assessment strategy

All assessment, including Recognition of Prior Learning (RPL), must be compliant with the requirements of:

- Standard 1 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guidelines 4.1 and 4.2 of the VRQA Guidelines for VET Providers,

or

- the Standards for Registered Training Organisations 2015 (SRTOs),

or

- the relevant standards and Guidelines for RTOs at the time of assessment.

The nature of work undertaken in the civil and general construction industry is hands-on and practical and therefore, the assessment strategies should reflect this. It is recommended that assessment be a holistic process that integrates a number of units in practical tasks or projects.

Assessment strategies should reflect a range of conditions, the underpinning skills and knowledge and the assessment requirements specified in each unit. Assessment strategies should be designed to:

- cover a range of skills and knowledge required to demonstrate the intended course outcomes
- be appropriate to the skills, knowledge, methods of delivery and needs/characteristics of learners
- assist assessors to interpret evidence consistently
- recognise prior learning
- be equitable to all groups of learners
- be valid, reliable, flexible and fair



|   |  |
|---|--|
|   | <ul style="list-style-type: none"> <li>• inform learners of the context and purpose of the assessment and the assessment process</li> <li>• provide feedback to learners about the outcomes of the assessment process and guidance given for future options</li> <li>• allow reasonable time to complete a task which specifically reflects the industry context in which the task takes place.</li> </ul> <p>Assessment strategies for the imported units from training packages should be consistent with the Assessment Requirements for the relevant training packages.</p> <p>Where not mandated in the units of competency, a range of appropriate assessment methods may be used to determine competency.</p> <p>The following methods are appropriate for the units of competency in the respective courses.</p> <ul style="list-style-type: none"> <li>• written and/or oral questioning to assess required knowledge</li> <li>• direct observation</li> <li>• simulated activities</li> <li>• problem solving activities.</li> </ul> |
| <p><b>6.2 Assessor competencies</b></p> | <p>Assessment must be undertaken by a person or persons in accordance with:</p> <ul style="list-style-type: none"> <li>• Standard 1.4 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guidelines 3 of the VRQA Guidelines for VET Providers,</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>• the Standards for Registered Training Organisations 2015 (SRTOs),</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>• the relevant standards and Guidelines for RTOs at the time of assessment.</li> </ul> <p>Units of competency imported from training packages must reflect the requirements for assessors specified in that training package.</p>   |
| <p><b>7. Delivery</b></p>               | <p><b>Standards 5.12, 5.13 and 5.14 AQTF 2021 Standards for Accredited Courses</b></p>   |
| <p><b>7.1 Delivery modes</b></p>        | <p>The Course in Concrete Precast Rectification may be delivered either on a full time or part time basis using a combination of delivery modes, including:</p> <ul style="list-style-type: none"> <li>• face-to-face, classroom-based delivery</li> <li>• practical demonstration</li> <li>• blended or flexible (e-learning) delivery</li> <li>• delivery in a simulated workplace.</li> </ul> <p>Delivery strategies should recognise the nature of the units and the learning styles of the participants. Some units may address common content, therefore integration or unit clustering may be appropriate.</p> <p>The objective of this course is to develop practical competencies within an industry context. Practical demonstrations in the form of realistic,</p>  |



holistic projects that provide participants with a sense of 'real-work' experience are considered most suitable to achieving this aim. Delivery methods of units of competency may involve:

- practical exercises
- work-based projects
- case study / scenario analysis
- group discussion
- individual assignments.

Delivery of units of competency imported from training packages should be contextualised to the concrete precast environment, whilst ensuring that the delivery guidelines are adhered to.

## 7.2 Resources

Participants must have access to:

- an appropriate workplace or an environment that reproduces normal work conditions in a civil or general construction industry environment
  - industry materials, tools, digital devices and equipment, including personal protective and safety equipment
  - relevant job information, including job specifications, safe work method statement (SWMS) and job safety analysis (JSAs)
- relevant workplace policies and procedures which cover concrete precast rectification policies, guidelines and industry standards.

Training must be undertaken by a person or persons in accordance with:

- Standard 1.4 of the AQTF: Essential Conditions and Standards for Initial/Continuing Registration and Guideline 3 of the VRQA Guidelines for VET Providers,

OR

- the Standards for Registered Training Organisations 2015 (SRTOs),

OR

- the relevant standards and Guidelines for RTOs at the time of assessment.

The units of competency imported from training packages must reflect the requirements for resources/trainers specified in that training package.

## 8. Pathways and articulation

### Standard 5.10 AQTF 2021 Standards for Accredited Courses

The Course in Concrete precast Rectification comprises of nationally endorsed units of competency from the following training packages:

- CPC Construction, Plumbing and Services



- TLI Transport and Logistics

Completion of those units provide credit transfers into any qualifications or courses containing those units.

There are no formal articulation arrangements are in place at the time of accreditation.

## 9. Ongoing monitoring and evaluation

### Standard 5.15 AQTF 2021 Standards for Accredited Courses

The CMM – Building Industries is responsible for the ongoing monitoring and evaluation of the Course in Concrete Precast Rectification.

Formal course evaluations will be undertaken halfway through the accreditation period and will be based on student and teacher evaluation surveys and industry stakeholder surveys/consultations.

The Victorian Registration and Qualification Authority (VRQA) will be notified of any changes to the course.

## Section C – Units of competency

Following is the list of units of competency imported from training packages, which can be downloaded from the National Register ([here](#)):

- CPCCCM2012 Work safely at heights
- CPCCCM3001 Operate elevated work platforms up to 11 metres
- CPCCLSF2001 Licence to erect, alter and dismantle scaffolding basic level
- CPCCON2021 Handle concreting materials and components
- CPCPRE2004 Caulk prefabricated concrete elements
- CPCPRE3001 Patch prefabricated components of concrete elements
- CPCSIL3001 Work with products and materials containing crystalline silica
- CPCWHS1001 Prepare to work safely in the construction industry
- CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry
- TLILIC0005 Licence to operate a boom-type elevating work platform (boom length 11 metres or more)

Following is the list of units of competency developed for the course, which comply with the [AQTF 2021 Standards for Accredited Courses - Unit of Competency Template](#) and is detailed in this section of the course document:

- VU23666 Assess safety of work area in close proximity to a confined space
- VU23667 Apply surface finishes to patched concrete precast components

|   |   |     |   |
|---|---|-----|---|
| <b>Unit code</b>  | <b>VU23666</b>  |     |   |
| <b>Unit title</b>   | Assess safety of work area in close proximity to a confined space   |     |   |
| <b>Application</b>  | <p>This unit describes the performance outcomes, skills and knowledge required to assess the safety of a work area, which is in close proximity to a confined space.</p> <p>It requires the ability to identify a confined space, identify and assess associated hazards and risks, and determine the safety of the work area for work to commence. This unit does not address entering or working within a confined space.</p> <p>This unit applies to trades or trade assistants working in the building or civil construction industries.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p> <p>Completion of the general induction training program specified by the National Code of Practice for Induction Training for Construction Work (ASCC 2007) is required before entering a construction work site. Achievement of unit, CPCWHS1001 Prepare to work safely in the construction industry, meets this requirement.</p> |     |   |
| <b>Pre-requisite Unit(s)</b>                                      | N/A   |     |   |
| <b>Element</b>  | <b>Performance Criteria</b>   |     |   |
| Elements describe the essential outcomes of a unit of competency. | Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the assessment requirements.  |     |   |
| 1   | Determine existence of a confined space   | 1.1 | Review the nature and characteristics of the work area and compare to safe work method statement (SWMS).  |
|   |   | 1.2 | Identify, assess and confirm the existence of a confined space, according to confined space criteria described within occupational health and safety (OHS)/work health and safety (WHS) regulations |
|   |   | 1.3 | Record the outcome of the confined space assessment using appropriate workplace safety documentation  |
| 2   | Assess safety of work area around confined space  | 2.1 | Identify hazards and assess risks associated with confined spaces that may impact the safety of the immediate work area using appropriate OHS/WHS codes of practice                                 |
|   |   | 2.2 | Report the safety of the work area around the confined space to the supervisor and proceed, according to established workplace procedures   |

## Range of Conditions

The use of a 'confined space' within this unit refers to an enclosed or partially enclosed space that is not designed or intended primarily to be occupied by a person, and is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and is, or is likely to be a risk to health and safety from an atmosphere that does not have a safe oxygen level, or contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or harmful concentrations of any airborne contaminants, or engulfment.

## Foundation Skills

**Foundation skills essential to performance and not explicit in the performance criteria must be assessed.**

| Skill                              | Description   |
|------------------------------------|---|
| Reading skills to:                 | <ul style="list-style-type: none"> <li>interpret workplace safety documentation</li> </ul>                  |
| Oral communication skills to:      | <ul style="list-style-type: none"> <li>convey ideas and information of confined space assessment</li> </ul> |
| Planning and organising skills to: | <ul style="list-style-type: none"> <li>sequence work approach in a logical manner</li> </ul>                |
| Digital literacy skills to:        | <ul style="list-style-type: none"> <li>complete standard workplace safety forms</li> </ul>                  |

## Unit Mapping Information

| Code and Title<br>Current Version   | Code and Title<br>Previous Version  | Comments   |
|---|---|------------|
| VU23666 Assess safety of work area in close proximity to a confined space | VU22665 Assess safety of work area in close proximity to a confined space | Equivalent |

## Assessment Requirements

|                                    |   |
|------------------------------------|---|
| <p><b>Title</b></p>                | <p><b>Assessment Requirements for VU23666 Assess safety of work area in close proximity to a confined space</b></p>   |
| <p><b>Performance Evidence</b></p> | <p>The learner must demonstrate the ability to complete tasks outlined in the elements, performance criteria and foundation skills of this unit including evidence of the ability to:</p> <ul style="list-style-type: none"> <li>• identify and assess the safety of two (2) work areas in close proximity to a confined space. Each confined space must present at least one (1) hazard, one(1) of which must be airborne</li> <li>• determine the potential effect a confined space may have on a work area with consideration to changing environmental variables</li> <li>• comply with appropriate workplace procedures to communicate outcomes of safety of work area assessment.</li> </ul>  |
| <p><b>Knowledge Evidence</b></p>   | <p>The learner must be able to apply essential knowledge required to effectively do the task outlined in the elements, performance criteria and foundation skills of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:</p> <ul style="list-style-type: none"> <li>• common construction industry terminology</li> <li>• the definition, and common types of, workplace safety hazards and risks</li> <li>• types of hazards specific to confined spaces including: <ul style="list-style-type: none"> <li>○ harmful airborne contaminants</li> <li>○ fire and explosion</li> <li>○ biological microorganisms</li> <li>○ noise</li> <li>○ vertical openings of confined spaces</li> </ul> </li> <li>• appropriate confined space signage and symbols</li> <li>• basic principles of risk management</li> <li>• workplace procedures for reporting hazard and risk assessments to designated personnel</li> <li>• nature and characteristics of work spaces including: <ul style="list-style-type: none"> <li>○ proximity to other workers</li> <li>○ closed or open air environment</li> <li>○ high rise or ground development</li> <li>○ stage of construction development</li> <li>○ level and type of trade activity</li> <li>○ existence of walk through traffic</li> <li>○ presence of stock items (cable, cement, etc.)</li> <li>○ proximity to explosive power tools</li> <li>○ electric wiring</li> <li>○ water pipes</li> <li>○ exhaust fans</li> </ul> </li> <li>• characteristics and types of confined spaces including: <ul style="list-style-type: none"> <li>○ shafts</li> <li>○ pits</li> <li>○ pipes</li> <li>○ ducts</li> </ul> </li> </ul> |

|                                     |  |
|-------------------------------------|--|
|                                     | <ul style="list-style-type: none"> <li>○ flues</li> <li>○ chimneys</li> <li>○ silos</li> <li>○ containers</li> <li>○ pressure vessels</li> <li>○ wet or dry wells</li> <li>○ tunnels</li> <li>○ trenches</li> <li>○ other enclosed or partially enclosed structures</li> </ul> <ul style="list-style-type: none"> <li>● OHS/WHs hierarchy of control</li> <li>● safe work practices in a construction working environment</li> <li>● rights and responsibilities of workplace parties under OHS/WHs legislation</li> <li>● relevant OHS/WHs regulations, policies and codes of practice e.g. confined spaces.</li> </ul>   |
| <p><b>Assessment Conditions</b></p> | <p>Skills in this unit must be assessed in a workplace or simulated environment that complies with standard and authorised work practices, safety requirements and environmental constraints. This includes access to relevant:</p> <ul style="list-style-type: none"> <li>● materials and equipment relevant to the assessment of a work area in close proximity to a confined space</li> <li>● documentation including SWMS, confined space template code of practice</li> <li>● specifications and documentation</li> <li>● legislation, regulations and standards.</li> </ul> <p>Assessment must be in the form of:</p> <ul style="list-style-type: none"> <li>● direct observation of demonstrated tasks</li> <li>● written and / or oral questioning</li> <li>● assignments based on problem solving scenarios</li> </ul> <p>Both practical skills and knowledge must be assessed.</p> <p><b>Assessor requirements</b></p> <p>No specialist vocational competency requirements for assessors apply to this unit.</p> |

|   |  |     |   |
|---|--|-----|---|
| <b>Unit code</b>  | <b>VU23667</b>   |     |   |
| <b>Unit title</b>   | Apply surface finishes to patched concrete precast components  |     |   |
| <b>Application</b>  | <p>This unit describes the performance outcomes, skills and knowledge required to finish concrete surfaces of patched concrete precast components, according to specified finishing requirements.</p> <p>It requires the ability to inspect a patched surface to determine the type and scope of work, prepare materials, tools and equipment, and perform finishing techniques to workplace standards. Dust suppression and work safety related to powdered substances is embedded within work practices.</p> <p>The unit applies to construction workers who apply a range of finishing techniques to concrete surfaces of patched concrete precast components.</p> <p>The work context relates to high rise developments predominantly, within residential and commercial construction environments, however civil construction environments are equally applicable.</p> <p>This unit relates to manual finishing techniques only.</p> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p> <p>Completion of the general induction training program specified by the National Code of Practice for Induction Training for Construction Work (ASCC 2007) is required before entering a construction work site. Achievement of unit, CPCWHS1001 Prepare to work safely in the construction industry, meets this requirement.</p> |     |   |
| <b>Pre-requisite Unit(s)</b>                                      | N/A  |     |   |
| <b>Element</b>  | <b>Performance Criteria</b>  |     |   |
| Elements describe the essential outcomes of a unit of competency. | Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the assessment requirements.   |     |   |
| 1   | Plan for surface finishing   | 1.1 | Obtain job specification/work instructions and identify specifications for finishing coat tasks   |
|   |  | 1.2 | Identify hazards and assess risks associated with surface preparation and finishing that may impact the safety of the immediate work area using appropriate occupational health and safety (OHS)/work health and safety (WHS) codes of practice |
|   |  | 1.3 | Identify relevant codes and standards for finishing coats for concrete precast  |
|   |  | 1.4 | Identify materials and associated quantities/measurements required for surface finishing, according to job specification  |



|   |                                     |     |  |
|---|-------------------------------------|-----|--|
|   |                                     | 1.5 | Locate and interpret safety data sheet (SDS) requirements for materials recorded on the job specification, noting particular safety requirements for respirable crystalline silica (RSC) related to opening packaging containing powdered substances and surface preparation practices |
|   |                                     | 1.6 | Recognise environmental factors that may impact the ability to contain powdered material when in use   |
| 2 | Prepare for surface finishing       | 2.1 | Select and confirm compatible surface coating for patched concrete precast, according to work instructions, manufacturers' specifications and location of patch  |
|   |                                     | 2.2 | Determine surface preparation methods for finishing coat application to achieve the desired finish   |
|   |                                     | 2.3 | Select and dress in appropriate personal protective equipment (PPE) and respiratory protective equipment (RPE) ensuring all items are secure and intact, as per workplace safety regulations   |
|   |                                     | 2.4 | Select and assemble materials, tools and equipment required for surface finishing tasks, according to job specification requirements   |
|   |                                     | 2.5 | Clearly communicate pending work practice involving the disbursement of powdered substances to work colleagues to facilitate risk reduction practices  |
| 3 | Prepare patch for surface finishing | 3.1 | Assess curing of patched concrete precast component to determine strength of concrete and readiness for surface finish application   |
|   |                                     | 3.2 | Prepare patched precast surface, according to the priming requirements of selected finishing coat to be used   |
| 4 | Apply concrete finishing techniques | 4.1 | Mix coating materials to ratio according to manufacturers' specifications  |
|   |                                     | 4.2 | Apply coatings using the appropriate application technique, according to work instructions and manufacturers' specifications   |
|   |                                     | 4.3 | Finish the coating to achieve a consistent appearance with surrounding surface and apply protection measures for finishes, where appropriate   |
|   |                                     | 4.4 | Apply textured surface finishing technique, according to manufacturers' specifications and workplace quality standards, where appropriate  |
|   |                                     | 4.5 | Obtain supervisor inspection of finished patch, where  |



|   |                 |     |   |
|---|-----------------|-----|---|
|   |                 |     | appropriate, to comply with project fire rating and structural integrity requirements   |
| 5 | Clean work area | 5.1 | Contain, label and store powdered material for reuse, or disposed of powdered material, in accordance with environmental requirements, legislation, such as regulations/codes of practice and workplace procedures  |
|   |                 | 5.2 | Clean tools and equipment, checked for serviceability and store, in accordance with manufacturers' recommendations and standard workplace procedures  |
|   |                 | 5.3 | Clean and tidy work area to ensure space is free of powdered substances that may cause potential contamination to self and others, in accordance with workplace procedures and any relevant regulatory requirements |
|   |                 | 5.4 | Remove and dispose of PPE and RPE, according to workplace procedures and any relevant regulatory requirements   |

## Range of Conditions

N/A

## Foundation Skills

Foundation skills essential to performance and not explicit in the performance criteria must be assessed.

| Skill                              | Description   |
|------------------------------------|---|
| Reading skills to:                 | <ul style="list-style-type: none"> <li>interpret key workplace safety related documents</li> </ul>  |
| Oral communication skills to:      | <ul style="list-style-type: none"> <li>use appropriate surface finishing terminology</li> <li>question and confirm task requirements</li> </ul> |
| Learning skills to:                | <ul style="list-style-type: none"> <li>follow work processes according to defined procedures and regulations</li> </ul>                         |
| Planning and organising skills to: | <ul style="list-style-type: none"> <li>sequence work tasks in a logical manner</li> </ul>   |
| Technology skills to:              | <ul style="list-style-type: none"> <li>use and maintain tools safely</li> <li>apply tool techniques effectively</li> </ul>                      |
| Digital literacy skills to:        | <ul style="list-style-type: none"> <li>access workplace forms and standards checklists</li> </ul>   |

## Unit Mapping Information

| Code and Title Current Version  | Code and Title Previous Version                                       | Comments   |
|---|---|------------|
| VU23667 Apply surface finishes to patched concrete precast components | VU22667 Apply surface finishes to patched concrete precast components | Equivalent |

## Assessment Requirements

### Title

### Assessment Requirements for VU23667 Apply surface finishes to patched concrete precast components

### Performance Evidence

The learner must demonstrate the ability to complete tasks outlined in the elements, performance criteria and foundation skills of this unit including evidence of the ability to:

- clean, prime and finish two (2) wet surfaces requiring:
  - one (1) colour matched concrete finish (from colour chart)
  - one (1) tooled surface finish
- clean and prime three (3) cured (dry) patches for each of the following subsequent surface finishes:
  - one (1) abrasive surface finish
  - one (1) polished surface finish
  - one (1) acid etched surface finish.

In the course of the above the candidate must complete all tasks to workplace quality standards.

### Knowledge Evidence

The learner must be able to demonstrate essential knowledge required to effectively do the task outlined in elements, performance criteria and foundation skills of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:

- terminology used for surface finishing
- types of specifications used for surface finishing tasks
- types and features of common finishing coats
- types of textured finishing techniques, including polished precast, brush-on finishes, acid etched, sandblasted precast, water wash concrete and specific render and texture
- types of concrete precast components
- fire rating requirements relevant to concrete precast component repairs
- location and purpose of relevant workplace documents
- workplace procedures related to communication protocols
- relevant OHS/WHS regulations, policies and codes of practice including drop zones, hazardous substances, personal protective equipment (PPE), respiratory protective equipment (RPE), manual handling techniques, dust suppression
- types and uses of PPE and RPE relevant to surface finishing, including disposable and re-usable devices, selection, use and maintenance of RPE
- types of RPE including:
  - half-face disposable
  - half-face reusable
  - full-face reusable
  - powered air purifying respirators
- factors affecting fit of PPE and RPE e.g. beards and facial hair

- relevant Australian Standards in relation to surface finishing, mortar and grout
- principles of risk management (hierarchy of controls)
- effects of removal of trench or temporary supports and associated risk of structural collapse
- principles of sustainability relevant to material reuse
- logical work planning sequences
- concrete surface finishing tool and equipment types, purpose and functions
- types, characteristics and purposes of surface finishing materials, including powdered substances
- types of concrete surface imperfections and their causes, including blowholes, crazing, dusting, flaking, honeycombing and pop outs
- effects of unsafe use of powdered substances used for surface finishing
- dust control measures
- safe cleaning and housekeeping methods with silica dust, including cleaning and managing wet or dry material on clothing while working and during PPE/RPE removal
- characteristics of surface finishing materials and their effect on, and appropriateness of use with, priming agents
- priming requirements for effective finishing outcomes
- processes for calculating material measurements and quantities
- storage and labelling of materials
- environmental factors that affect surface finishing outcomes including wind, rain, air conditioning and draughty airways
- common patch surface locations including flat/ horizontal, wall/vertical, ceiling, corners.

### Assessment Conditions

Skills in this unit must be assessed in a workplace or simulated environment that complies with standard and authorised work practices, safety requirements and environmental constraints. This includes access to relevant:

- materials and equipment relevant to concrete precast finishing operations
- documentation including job safety analysis (JSA), colour charts, industry standards, SWMS, Building Certification Systems (BCS) specifications and documentation
- legislation, regulations and standards
- realistic tasks or simulated tasks covering the mandatory task requirements.

Assessment must be in the form of:

- direct observation of demonstrated tasks
- written and / or oral questioning
- project activities

Both practical skills and knowledge must be assessed.

### Assessor requirements

No specialist vocational competency requirements for assessors apply to this unit.

