

# Recommended Qualification Structure for Specialist Concrete Occupations (Construction) Level 2

This structure has been recommended by employers and stakeholders from the above occupational area for organisations to form the basis of academic capability and competence outcomes. Qualifications with a competence outcome at the above level must have units derived from the following National Occupational Standards (NOS) and consist of the mandatory/optional groups as stated for the individual option route.

## **MANDATORY (all option routes)**

- VR360v4 Install, maintain and remove work area protection and safety equipment
- VR641v2 Conform to general workplace health, safety and welfare
- VR642v1 Conform to productive work practices
- VR643v1 Move, handle or store resources

## **PLUS ONE OF THE FOLLOWING OPTIONAL ROUTES**

### **Concrete Repair Option Route (Total 6)**

#### **Mandatory**

- VR57v3 Survey degraded concrete structures
- VR58v3 Prepare substrate and apply materials to repair concrete

#### **Additional for Concrete Repair option (not compulsory)**

- VR59v2 Apply coatings as structure protection

### **Sprayed Concrete Option Route (Total 6)**

#### **Mandatory**

- VR123v3 Prepare substrate for sprayed concrete
- VR124v4 Apply sprayed concrete

### **Concrete Survey Option Route (Total 5)**

#### **Mandatory**

- VR57v3 Survey degraded concrete structures

### **Install Composite Strengthening Systems Option Route (Total 5)**

#### **Mandatory**

- VR754v1 Install composite strengthening systems

### **Install Corrosion Protection to Concrete Option Route (Total 5)**

#### **Mandatory**

- VR755v1 Apply corrosion protection systems to reinforced concrete

## **Decorative Concrete Option Route (Total 8)**

### **Mandatory**

- VR145v2 Prepare backgrounds prior to laying decorative concrete
- VR146v2 Place concrete and produce a decorative finish
- VR366v3 Install street ironwork (metal, plastic, concrete and composite materials)
- VR401v2 Set out secondary dimensional work control

## **Substrate Preparation and Profiling Option Route (Total 5)**

### **Mandatory**

- VR359v2 Operate plant or machinery to prepare, profile and finish substrates for specified materials

## **Concrete Drilling and Sawing Option Route**

### **Mandatory**

- VR220v2 Reshape using hand sawing techniques

### **Plus one of the following option groups**

#### **Group A: Drilling (Total 6)**

##### **Mandatory**

- VR221v2 Form drill holes or core in the structural fabric (diamond core bits)

#### **Group B: Sawing (Total 6)**

##### **Mandatory**

- VR222v2 Form saw cuts in structural fabric material

#### **Group C: Drilling and Sawing (Total 7)**

##### **Mandatory**

- VR221v2 Form drill holes or core in the structural fabric (diamond core bits)
- VR222v2 Form saw cuts in structural fabric material

### **Additional for Concrete Drilling and Sawing option (not compulsory)**

- VR223v2 Carry out concrete bursting operations
- VR224v2 Carry out concrete crushing and breaking operations
- VR226v2 Carry out wire sawing
- VR250v2 Erect and dismantle access/working platforms
- VR245v1 Apply sealants mechanically

## **In Situ Flooring Option Route**

### **One of the following option groups**

#### **Group A: Screed (Total 6)**

##### **Mandatory**

- VR313v2 Prepare and inspect substrates prior to laying screed floors
- VR314v2 Lay screed floors

#### **Group B: Resin (Total 6)**

##### **Mandatory**

- VR315v2 Lay resin floors
- VR751v1 Repair, prepare and inspect substrates prior to laying resin floors

#### **Group C: Concrete Layer (Total 6)**

##### **Mandatory**

- VR316v2 Prepare areas for concrete flooring
- VR317v2 Placement of in situ concrete flooring

**Group D: Concrete Finisher (Total 6)**

**Mandatory**

VR316v2 Prepare areas for concrete flooring

VR318v2 Apply surface finishes to concrete flooring

**Group E: Concrete Plant Operator (Total 5)**

**Mandatory**

VR393v2 Operate plant or machinery to lay and distribute

**Additional for In Situ Flooring option (not compulsory)**

VR222v2 Form saw cuts in structural fabric material

**Concrete Floating Floor Installation Option Route (Total 6)**

**Mandatory**

VR316v2 Prepare areas for concrete flooring

VR788v1 Jack up floating acoustic floors

**Insulated Concrete Construction Option Route (Total 6)**

**Mandatory**

VR225v2 Place and compact concrete

VR319v2 Erect insulating concrete formwork

**Additional for Insulated Concrete Construction option (not compulsory)**

VR250v2 Erect and dismantle access/working platforms

VR400v2 Operate powered units, tools or pedestrian plant, machinery or equipment

## Unit endorsements for Specialist Concrete Occupations Level 2

Where industry requests; qualifications can be endorsed to show an option route and the type of resources and/or activities that relate to the unit. Listed below are the endorsements that can apply for units derived from the following NOS.

NOS	Endorsement
VR57	Three of the following: Visual Mechanical means Chemical Electro chemical Magnetic
VR58	Five of the following: Preparing substrates and reinforcement Applying primers, bonding agents and repair compounds Replacing steel reinforcement Erecting and dismantling formwork Protect and cure Record and report
VR123	At least seven from: Locate and protect services Break out loose and debonded materials Roughen smooth surfaces Clear and clean Surface profile levels Tie and secure reinforcement bar and/or mesh Fit guide wires Fit depth pins Erect formwork Record and report the work carried out
VR124	At least five from: Pre-wet surfaces Spray concrete to profile Produce samples for testing Cure and protect concrete Record and report on test Record and report on spraying Operate spraying nozzle Operate pump Clean pump Clear lines
VR146	One of the following: Imprinted Exposed aggregate
VR220	Grinder plus one of the following: Power saw Ring saw Chasing machine Chainsaw Plus form saw cuts in one of the following: Concrete Masonry Stone Asphalt
VR221	Two of the following: Hand held diamond core or drill Static drill rig diamond core Trailer rig diamond core Percussive drill
VR222	One of the following: Push along floor saw Self-propelled floor saw Diamond-bladed track saw

NOS	Endorsement
VR224	One of the following: Portable hand crusher Remote/radio control crusher and breaker Umbilical cord control crusher and breaker
VR225	Three of the following: Chute Elephant's trunk Skip Pump Mono-rail Manual
VR250	Own area of work (i.e. Concrete drilling and sawing) Plus two or more of the following: Ladders/crawler boards Step ladders/platform steps Proprietary towers Trestle platforms Mobile scaffold towers Proprietary staging/podiums
VR313	Three from the following: Cementitious substrates Insulated areas Membranes Areas with heating systems Ducted areas
VR314	One from the following: Cementitious screeds Flowable screeds
VR315	One from the following: Resin coatings: Plus two of the following: floor seals, floor coatings or high build floor coatings OR Resin self-smoothing: Plus two of the following: multi-layer flooring, flow applied flooring or heavy duty flowable flooring OR Resin screeds (to include resin screeds and heavy duty screed)
VR316	Three of the following: Substrate preparation Timber formwork erection Proprietary formwork erection Reinforcement installation Membranes installation
VR317	Three of the following: Chute Elephants trunk Skip Pump Mono rail Manual
VR318	Three of the following: Tamped Brushed Hand-float Pedestrian power float Ride-on power float
VR319	One of the following: Basement structures below ground level Single storey structures above ground level Multi storey structures above ground level

NOS	Endorsement
VR359	Four of the following: Grinder Planing machine Sander Polisher Scabblor Tile stripper Captive/enclosed shotblast machine Vacuum machine Filtration systems
VR360	One of the following: Protection and safety notices Safety lighting
VR393	One of the following: Laser screeding machine Toppings spreader machine
VR400	Own area of work (i.e. Insulated concrete construction) plus one of the following: Generators Pumps Pedestrian operated plant or machines Mixers Compressors Self-powered tools
VR401	Own area of work (i.e. Decorative concrete) plus three of the following: Line Level Depth Area Height Angle
754	Two of the following: Carbon fibre wrap Carbon fibre plates Carbon fibre rods Aramid wraps
755	One of the following: Impressed current cathodic protection Galvanic anode cathodic protection Corrosion inhibitors
VR788	One of the following endorsements required: Rubber systems Spring systems

**Note:** Where industry requests an Awarding Organisation to further endorse a unit, the Awarding Organisation must first seek approval from the Standards Setting Body to ensure the endorsement is appropriate to the unit.