

Qualification Title: Level 2 NVQ Diploma in Sub-structure Work Occupations (Construction)

- Pathway 1:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Underpinning Operations – Excavated Underpinning)
- Pathway 2:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Underpinning Operations – Mini Piling)
- Pathway 3:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Chemical Grouting)
- Pathway 4:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Preformed Piles)
- Pathway 5:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Retaining Structures)
- Pathway 6:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Dewatering – Well Points)
- Pathway 7:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Dewatering – Deep Wells)
- Pathway 8:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Dewatering – Ejectors)
- Pathway 9:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Ground Anchors – Driven)
- Pathway 10:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Ground Anchors – Open Hole)
- Pathway 11:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Box Beam Post Tensioning)
- Pathway 12:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Resin and Grout Injection Operations)
- Pathway 13:** Level 2 NVQ Diploma in Sub-structure Work Occupations (Installation of Gas Membranes)

Credit value (pathway 1):	61
Credit value (pathway 2):	59
Credit value (pathway 3):	56
Credit value (pathway 4):	62
Credit value (pathway 5):	64
Credit value (pathway 6):	40
Credit value (pathway 7):	42
Credit value (pathway 8):	42
Credit Value (pathway 9):	47
Credit Value (pathway 10):	50
Credit Value (pathway 11):	50
Credit Value (pathway 12):	51
Credit Value (pathway 13):	41

Minimum credit to be achieved at, or above, the level of the qualification: 38

*CITB unit ref for internal use only

Mandatory units for all pathways (credit value: 10)

*CITB unit ref	Title	Credits	Level	RITS
641	Conforming to general health, safety and welfare in the workplace	2	1	A/503/1170
642	Conforming to productive working practices in the workplace	3	2	J/503/1169
643	Moving, handling and storing resources in the workplace	5	2	F/503/1171

Mandatory unit for pathway 1 (Underpinning Operations – Excavated Underpinning) (credit value: 11)

*CITB unit ref	Title	Credits	Level	RITS
167	Setting out for basic underpinning in the workplace	11	2	A/600/8109

Optional units for pathway 1 (credit value: 40) THREE Units

*CITB unit ref	Title	Credits	Level	RITS
161	Erecting and striking formwork for excavated underpinning in the workplace	18	2	M/600/8107
164	Installing reinforcement steel in the workplace	16	2	T/600/8108
168	Excavating for underpinning in the workplace	13	2	M/600/8110
169	Installing drypacking in the workplace	14	2	A/600/8112
225	Placing and compacting concrete in the workplace	13	2	Y/600/8165

Mandatory units for pathway 2 (Underpinning Operations – Mini Piling) (credit value: 49)

*CITB unit ref	Title	Credits	Level	RITS
167	Setting out for basic underpinning in the workplace	11	2	A/600/8109
170	Installing mini-piles in the workplace	30	2	J/600/8114
299	Carrying out checks and/or basic maintenance on plant or machinery in the workplace	8	2	J/600/7111

Mandatory units for pathway 3 (credit value: 46)
(Chemical Grouting)

*CITB unit ref	Title	Credits	Level	RITS
360v2	Establishing work area protection and safety in the workplace	10	2	T/503/9560
520	Preparing for chemical grouting and soil injection in the workplace	18	2	F/600/8225
521	Carrying out chemical grouting and soil injection in the workplace	18	2	J/600/8226

Mandatory units for pathway 4 (credit value: 52)
(Preformed Piles)

*CITB unit ref	Title	Credits	Level	RITS
360v2	Establishing work area protection and safety in the workplace	10	2	T/503/9560
522	Preparing to install preformed piles in the workplace	18	2	L/600/8227
523	Installing preformed piles in the workplace	24	2	Y/600/8229

Mandatory units for pathway 5 (credit value: 24)
(Retaining Structures)

*CITB unit ref	Title	Credits	Level	RITS
360v2	Establishing work area protection and safety in the workplace	10	2	T/503/9560
400v2	Preparing and operating powered units, tools or pedestrian plant, machinery or equipment in the workplace	7	2	F/506/4672
401v2	Setting out secondary dimensional work control in the workplace	7	2	J/506/4673

Optional units for pathway 5 (credit value: 30) ONE Unit

*CITB unit ref	Title	Credits	Level	RITS
563	Installing mass gravity retaining structures in the workplace	30	2	L/600/8230
564	Installing precast concrete retaining structures in the workplace	30	2	Y/600/8232
565	Installing reinforced soil retaining structures and slopes in the workplace	30	2	K/600/8235
566	Stabilising steep cutting slopes in the workplace	30	2	T/600/8237

Mandatory units for pathway 6 (credit value: 30)
(Dewatering – Well Points)

*CITB unit ref	Title	Credits	Level	RITS
486	Preparing to install well point dewatering systems in the workplace	12	2	M/600/8169
487	Installing well point dewatering systems in the workplace	18	2	R/600/8178

Mandatory units for pathway 7 (credit value: 32)
(Dewatering – Deep Wells)

*CITB unit ref	Title	Credits	Level	RITS
488	Preparing to install deep wells or ejectors as dewatering systems in the workplace	14	2	L/600/8180
489	Installing deep well dewatering systems in the workplace	18	2	Y/600/8182

Mandatory units for pathway 8 (credit value: 32)
(Dewatering – Ejectors)

*CITB unit ref	Title	Credits	Level	RITS
488	Preparing to install deep wells or ejectors as dewatering systems in the workplace	14	2	L/600/8180
490	Installing ejector dewatering systems in the workplace	18	2	M/600/8186

Mandatory units for pathway 9 (credit value: 37)
(Ground Anchors – Driven)

*CITB unit ref	Title	Credits	Level	RITS
360v2	Establishing work area protection and safety in the workplace	10	2	T/503/9560
513	Preparing to install ground anchors in the workplace	10	2	K/600/8204
514	Installing mechanical ground anchors in the workplace	17	2	A/600/8207

Mandatory units for pathway 10 (credit value: 40)
(Ground Anchors – Open Hole)

*CITB unit ref	Title	Credits	Level	RITS
360v2	Establishing work area protection and safety in the workplace	10	2	T/503/9560
513	Preparing to install ground anchors in the workplace	10	2	K/600/8204
515	Installing open hole ground anchors in the workplace	20	2	A/600/8210

Mandatory units for pathway 11 (credit value: 40)
(Box Beam Post Tensioning)

*CITB unit ref	Title	Credits	Level	RITS
360v2	Establishing work area protection and safety in the workplace	10	2	T/503/9560
518	Preparing to install post tensioning system as sub-structural repair in the workplace	14	2	M/600/8219
519	Installing post tensioning system as sub-structural repair in the workplace	16	2	T/600/8223

Mandatory units for pathway 12 (credit value: 41)
(Resin and Grout Injection Operations)

*CITB unit ref	Title	Credits	Level	RITS
360v2	Establishing work area protection and safety in the workplace	10	2	T/503/9560
610	Preparing for resin and grout injection operations in the workplace	13	2	H/601/6561
611	Carrying out resin and grout injection operations in the workplace	18	2	J/601/6570

Mandatory units for pathway 13 (credit value: 31)
(Installation of Gas Membranes)

*CITB unit ref	Title	Credits	Level	RITS
612	Preparing to install gas membranes in the workplace	13	2	R/601/6653
613	Installing gas membranes in the workplace	18	2	L/601/6666

Additional units (not compulsory) (credit value: n/a)

Pathways 1 and 2:

*CITB unit ref	Title	Credits	Level	RITS
171	Repairing substructure after underpinning in the workplace	15	2	Y/600/8117
173	Providing temporary support to deep underpinning in the workplace	15	2	F/600/8161
387Hv2	Preparing and operating rough terrain masted forklifts to lift and transfer loads in the workplace	18	2	F/506/4607
387Jv2	Preparing and operating industrial forklift trucks to lift and transfer loads in the workplace	16	2	J/506/4608

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Pathways 1 and 2 Additional Units Continued:

*CITB unit ref	Title	Credits	Level	RITS
387Kv2	Preparing and operating sideloader forklifts to lift and transfer loads in the workplace	16	2	L/506/4609
387Lv2	Preparing and operating telescopic handlers to lift and transfer loads in the workplace	25	2	F/506/4610
387Mv2	Preparing and operating reach trucks to lift and transfer loads in the workplace	16	2	J/506/4611
387Qv2	Preparing and operating lorry loaders or knuckle booms to lift and transfer loads in the workplace	30	2	R/506/4613
387Rv2	Preparing and operating skip handlers to lift and transfer loads in the workplace	18	2	Y/506/4614
388Bv3	Preparing and operating 180 degree excavators to extract and excavate ground and loose materials in the workplace	80	2	T/506/4619
388Cv3	Preparing and operating wheeled loading shovels to extract loose materials in the workplace	26	2	M/506/4621
388Dv3	Preparing and operating tracked loading shovels to extract ground and loose materials in the workplace	80	2	A/506/4623
388Ev3	Preparing and operating skid steer loaders to extract loose materials in the workplace	20	2	F/506/4624
388Fv3	Preparing and operating motorised scrapers to extract, transport and distribute materials in the workplace	80	2	J/506/4625
388Jv3	Preparing and operating 360 degree excavators to extract ground, face and/or loose materials in the workplace	80	2	D/506/4629
389Cv3	Preparing and operating 360 degree excavators to excavate ground in the workplace	80	2	H/506/4728
389Dv3	Preparing and operating trenchers to excavate ground in the workplace	50	2	D/506/4632
391Av3	Preparing and operating truck-mounted boom concrete pumps to receive, pump and discharge materials in the workplace	70	2	F/506/4641
391Bv3	Preparing and operating forward tipping dumpers to receive, transport and discharge materials in the workplace	16	2	J/506/4642
391Cv3	Preparing and operating rear tipping dump trucks to receive, transport and discharge materials in the workplace	30	2	L/506/4643
391Dv3	Preparing and operating tractors with towed equipment for non-agricultural activities in the workplace	20	2	R/506/4644
391Ev3	Preparing and operating trailer-mounted concrete pumps to receive, pump and discharge materials in the workplace	18	2	M/506/5087

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Pathways 1 and 2 Additional Units Continued:

*CITB unit ref	Title	Credits	Level	RITS
392Av3	Preparing and operating scissor-type mobile elevating work platforms (MEWP) in the workplace	12	2	K/506/4648
392Bv3	Preparing and operating boom-type mobile elevating work platforms (MEWP) in the workplace	14	2	M/506/4649
392Cv3	Preparing and operating mast climber-type mobile elevating work platforms (MEWP) in the workplace	12	2	H/506/4650
393Av3	Preparing and operating soil stabilisers to lay and distribute materials in the workplace	40	2	K/506/4651
394Av3	Preparing and operating ride-on rollers to compact materials in the workplace	16	2	R/506/4661
402Av1	Slinging and hand signalling the movement of suspended loads in the workplace	10	2	R/506/3929

Pathways 9 and 10 Additional Units:

*CITB unit ref	Title	Credits	Level	RITS
516	Installing self-drilling ground anchors in the workplace	23	2	L/600/8213

Unit endorsements for Level 2 NVQ Diploma in Sub-structure Work Occupations (Construction)

*CITB unit ref	Endorsement
161	The following endorsement required (i.e. own area of work): Excavated underpinning
164	The following endorsement required (i.e. own area of work): Excavated underpinning Plus one of the following endorsements required: In-situ Prefabricated Plus one of the following endorsements required: Ground level Below ground level Above ground level
167	One of the following endorsements required: Excavated underpinning and/or Mini piling
225	The following endorsement required (i.e. own area of work): Excavated underpinning
299	The following endorsement required: Mini piling and mini piling rig
360	One of the following endorsements required (i.e. own area of work): Chemical grouting Preformed piles Ground anchors Box beam post tensioning Resin and grout injection
387L	One of the following endorsements required: Telescopic handler industrial telescopic Telescopic handler up to 9 metres Telescopic handler all sizes Telescopic handler all sizes excluding 360° Telescopic handler all sizes including 360°
387Q	One of the following endorsements required: Knuckle boom Lorry loader hook Lorry loader clamshell bucket Lorry loader hydraulic clamp
388B	One of the following endorsements required: Excavator 180° crawler and wheeled below 5 tonne Excavator 180° crawler and wheeled above 5 tonne
388J	One of the following endorsements required: Excavator 360° below 10 tonne tracked Excavator 360° below 10 tonne wheeled Excavator 360° above 10 tonne tracked Excavator 360° above 10 tonne wheeled
391B	One of the following endorsements required: Forward tipping dumper wheeled Forward tipping dumper tracked
391C	One of the following endorsements required: Dump truck – articulated chassis up to 15 tonne Dump truck – articulated chassis all sizes Dump truck – rigid chassis up to 15 tonne Dump truck – rigid chassis up to 50 tonne Dump truck – rigid chassis all sizes wheeled Dump truck – rigid chassis tracked

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*CITB unit ref	Endorsement
392B	One of the following endorsements required: Mobile elevated working platform boom vehicle mounted Mobile elevated working platform boom self-propelled
393A	One of the following endorsements required: Soil stabiliser self-propelled Soil stabiliser towed
400	One of the following endorsements required: Generators Pumps Pedestrian operated plant or machines Mixers Compressors Self-powered tools
401	Three or more of the following endorsements required: Lines Levels Depths Areas Heights Angles
402A	The following endorsement required (i.e. own area of work): Slinger signaller – underpinning operations only
513	One of the following endorsements required: Mechanical Self-drilling Open hole
523	One of the following endorsements required: Bored Driven
563	One of the following endorsements required: Gabions Crib walls Dry laid segmental blocks
565	One of the following endorsements required: Structures Slopes

Note: Where industry requests an Awarding Organisation to further endorse a unit, the Awarding Organisation must first seek approval from CITB (standards.qualifications@citb.co.uk) to ensure the endorsement is appropriate to the unit.