Competency Standards for Caribbean Vocational Qualifications (CVQ)

CCBCG20402 Level II in Brick/Block-laying, Rendering

Unit Number	Unit Title	Mandatory /Elective	Hours
BCGCOR0001A	Carry out interactive workplace communication	Mandatory	20
BCGCOR0011A	Carry out OH&S requirements	Mandatory	40
BCGCOR0021A	Plan and organise work	Mandatory	20
BCGCOR0031A	Draw and interpret simple drawings	Mandatory	20
BCGCOR0041A	Carry out measurements and calculations	Mandatory	20
BCGCOR0051A	Use hand and power tools	Mandatory	20
BCGCOR0061A	Use small plant and equipment	Mandatory	40
BCGCOR0071A	Erect and dismantle restricted height scaffolding	Mandatory	40
BCGCOR0081A	Use simple levelling devices	Mandatory	10
BCGMAS0101A	Carry out concreting to simple forms	Mandatory	20
BCGCOR0111A	Handle construction materials and safely dispose of waste	Mandatory	10
BCGMAS0131A	Prepare for solid plastering	Mandatory	40
BCGMAS0151A	Prepare for construction process (brick/block laying)	Mandatory	40
BCGMAS0181A	Mix cementitous materials (mortar and concrete)	Mandatory	10
BCGCOR0212A	Prepare surfaces	Mandatory	40
BCGCOR0242A	Carry out levelling	Mandatory	20
BCGMAS0892A	Finish concrete	Mandatory	20
BCGMAS0922A	Cure concrete	Mandatory	20
BCGMAS1242A	Apply solid render	Mandatory	40
BCGMAS1252A	Restore and renovate solid plasterwork	Mandatory	100
BCGMAS1422A	Lay bricks/blocks (wall and corner)	Mandatory	80
BCGMAS1432A	Lay multi-thickness walls and piers	Mandatory	40
BCGMAS1462A	Construct straight masonry block-work	Mandatory	60
BCGMAS0091A	Carry out excavation and install support	Elective	20
BCGTIL0121A	Prepare for wall and floor tiling	Elective	40
BCGMAS0141A	Prepare for dry wall plastering	Elective	40
BCGCAR0161A	Prepare for carpentry construction	Elective	40
BCGCOR0171A	Prepare for demolition process	Elective	40
BCGPAD0191A	Prepare for painting and decorating	Elective	40
ITICOR0011A	Carry out data entry and retrieval procedures	Elective	40
BCGCOR0232A	Carry out general demolition	Elective	30
BCGCAR0252A	Erect and strip formwork for concrete work	Elective	20
BCGSTW0262A	Carry out steel-fixing	Elective	40
BCGMAS0292A	Carry out concrete work	Elective	40
BSBSBM0012A	Craft personal entrepreneurial strategy	Elective	50

CCBCG20402 Level II in Brick/Block-laying, Rendering (Cont'd.)

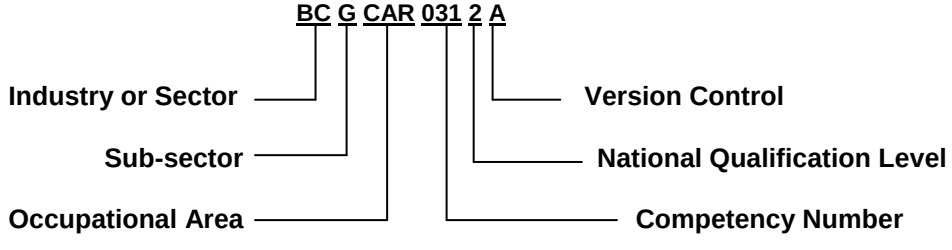
Unit Number	Unit Title	Mandatory /Elective	Hours
BCGCAR0312A	Use static machines	Elective	30
BCGCAR0322A	Make set-outs	Elective	20
BCGCAR0532A	Install door and window frames	Elective	10
BCGMAS0912A	Place concrete	Elective	20
BCGMAS1472A	Lay segmental/unit paving	Elective	40
BCGCOR0433A	Carry out basic setting out	Elective	20
BCGMAS0803A	Install glass block work	Elective	20
BCGMAS0943A	Carry out special finishes to concrete	Elective	20
BCGMAS1003A	Construct battered masonry surfaces	Elective	40
BCGMAS1013A	Construct fireplace and chimney	Elective	60
BCGCAR1183A	Install pre-cast decorative mouldings	Elective	80
BCGMAS1213A	Install cast plaster blockwork	Elective	20
BCGMAS1263A	Construct plaster mouldings	Elective	40
BCGMAS1273A	Carry out conite construction	Elective	80
BCGMAS1383A	Install pre-cast cladding	Elective	40
BCGMAS1393A	Carry out veneer construction	Elective	40
BCGMAS1413A	Construct masonry steps and stairs	Elective	40
BCGMAS1443A	Construct masonry arch-semi-circular and segmental	Elective	60
BCGMAS1453A	Construct curved wall	Elective	40
BCGCOR1583A	Read and interpret plans	Elective	20

To be awarded this Caribbean Vocational Qualification (CVQ) all Mandatory competency standards must be achieved. Electives achieved with the qualification will be awarded unit statement of competency.

The nominal training hours are a guide for planning the delivery of Training Programmes.

Legend to Unit Code

Example: BCGCAR0312A



KEY: **Man – Mandatory; MAS – Masonry; TIL – Tiling; CAR – Carpentry; STW – Steelwork; PAD – Painting & Decorating SBM – Small Business Management; BSB – Business Services (Business); ITI - Information & Communication (Industry Technology); BCG – Building Construction (General)**

BCGCOR0001A: Carry out interactive workplace communication

Competency Descriptor: This unit deals with the skills and knowledge required to effectively perform interactive communication at the workplace, and applies to all individuals working in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA	
1. Receive and convey information	1.1	Verbal/written instructions received and responded to with correct actions.
	1.2	Instructions conveyed and work signage responded to, with correct action.
	1.3	Information conveyed in basic English so that messages are understood.
2. Carry out face-to-face routine communication	2.1	Routine instructions, messages and schedules are given or followed.
	2.2	Workplace procedures are carried out according to procedures laid down by the company or supervisor.
	2.3	Relevant information is assessed and analysed from a range of sources.
	2.4	Information is selected and sequenced correctly.
3. Work with others	3.1	Suggestions and information are provided relevant to the planning/conduct of the activities.
	3.2	Communication carried out clearly, concisely and effectively so those messages are understood.
4. Participation in simple on-site meeting processes	4.1	Participation in on-site meetings is in accordance to predetermined procedures.
	4.2	Interaction carried out to achieve constructive outcome.

RANGE STATEMENT

This unit applies to all communication requirements, associated with working with other persons at a site location and carrying out tasks under supervision.

Verbal/written instructions include directions or instructions related to a simple job/task.

Signage may include but are not limited to:

- on-site direction signs
- common site warning signs
- facility or location signs
- traffic signs

Range of information sources may include:

- instructions: oral/memos
- signage
- work schedules/work bulletins
- charts and maps

On-site meeting process may take the form of formal or informal meetings and may include:

- notification (time, place, purpose)
- item discussion
- negotiation outcome

EVIDENCE GUIDE

Competency is to be demonstrated by the effective use of methods of communication relating to instructions, information sources and meeting procedures listed within the range statement relative to the work orientation.

(1) Critical Aspects and Evidence

It is essential that competence be observed in the following aspects:

- communications to include Occupational Health and Safety regulations applicable to work place operations, and organisational policies and procedures
- demonstrate appropriate communications processes prior to and during construction activities

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
knowledge of:

- workplace safety requirements
- types of onsite meetings and their procedures
- how work schedules, charts, work bulletins and memos are used
- how instructions are conveyed in the workplace

Skills
The ability to:

- follow instructions for working safely
- convey information in basic English to invoke correct actions

(4) Resource Implications

The following resources should be made available:

- Suitable work area appropriate to the construction process
- Appropriate communication documentation relative to the task

(5) Method of Assessment

Competence should be assessed through direct observation and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon project work.

Competency shall be assessed while work is being done under general guidance, checking at various stages of the process and at the completion of the activity, against the performance criteria and specifications.

(6) Context of Assessment

Competency shall be assessed in the normal or simulated workplace environment and in accordance with safe work procedures.

Assessment shall include those aspects that are consistent with the work environment of this unit.

Competency shall be assessed while work is undertaken autonomously, within a team environment.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of the process.

Guidelines will be in line with statutory requirements, the specific policies, procedures and codes of practice of the enterprise.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 2	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills

BCGCOR0011A: Carry out OH&S requirements

Competency Descriptor: This unit deals with the skills and knowledge required to effectively perform work activities to conform to Occupational Health and Safety requirements, and applies to all individuals working in the construction industry

Competency Field: General and Civil Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan and prepare for safe work practices	1.1	Quality assurance requirements associated with company's safety operations recognised and adhered to.
		1.2	Appropriate personal protective equipment selected, correctly fitted and/or made ready for use.
		1.3	Tools and equipment selected consistent with safe work practice requirements of job, checked for serviceability and any faults reported to supervisor.
		1.4	Appropriate barricades, hoardings and signage erected, where applicable, at required job location.
2	Use safe work practices to carry out work	2.1	Work carried out safely and in accordance with Statutory regulations for OH&S requirements and company policy.
		2.2	Safety hazards and workplace accidents/incidents identified in course of work and reported in accordance with company policy.
		2.3	Industry/site safety responsibilities known and applied.
		2.4	Fire fighting equipment selected and operated correctly according to type of fire.
		2.5	Current site emergency and first aid procedures known and followed.
		2.6	Signals/sirens for blasting operations recognised and adhered to.

3	Assume responsibility for safety of self and others	3.1	Appropriate protective equipment correctly selected fitted and used.
		3.2	Safe manual handling techniques used and guidelines for lifting and placing followed.
		3.3	All safety signs, symbols and alarms adhered to.
		3.4	Safety procedures for pre-use check and operation of specified power tools/plant, machinery and equipment followed.
		3.5	Recommended safe practices in handling chemical and potentially hazardous materials followed.
4	Work from ladder and work platforms	4.1	Ladder and work platforms safely erected in planned location.
		4.2	Care taken to avoid overhead power lines and other obstructions.
		4.3	Head and base of ladder or work platform support secured against accidental movement.
		4.4	Work safely performed from ladder and work platform.
		4.5	Appropriate fall arrest equipment utilised in accordance with current OH&S guidelines.
5	Use electrical power supply safely	5.1	Position of power pole/box identified for safe placement of leads.
		5.2	Framework support positioned to keep leads at correct height and prevent hazards.
		5.3	Power board visually checked for damage, water entry and stability. Area surrounding board checked for potential hazards.
		5.4	Leads checked for tags and visual damage. Earth leakage protection checked for serviceability.
		5.5	Work safely performed using electrical power supply.

6	Adhere to emergency procedures	6.1	Emergency equipment able to be located and used as required.
		6.2	Current worksite emergency/evacuation procedures adhered to.
7	Carry out general housekeeping	7.1	Waste material disposed of safely in accordance with requirements of site and regulatory legislation.
		7.2	Unused equipment and materials safely and correctly cleaned, maintained and stored.
		7.3	Requirements of site, regulatory bodies and Occupational Health and Safety requirements observed.

RANGE STATEMENT

Quality Assurance requirements may include:

- working environment
- adverse weather conditions
- protection of work personnel
- protection of public

Personal protective equipment may include but is not limited to:

- overalls, safety glasses/goggles, hard hat cap
- dust masks/respirator, safety boots
- ear plugs/muffs
- gloves

Regulatory legislation may include:

- OH&S, Dangerous goods

Manual handling techniques used in accordance with current Occupational Health and Safety.

Emergency equipment and procedures include:

- fire fighting
- medical and first aid
- evacuation

Power connections include:

- isolation transformer
- power pole
- switch board area

Ladders and work platforms include:

- extension ladders
- step ladders
- trestle ladders
- simple work platforms

Safety responsibilities apply to:

- personal protection
- safe interactive work practices (duty of care)
- protection of public and environment

Reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by safely and effectively carrying out safe work practices within the range of variables statement relevant to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- demonstrate application of organisational policies and procedures including Quality Assurance requirements where applicable
- carry out correct procedures prior to and during construction process
- safe and effective operational use of tools, plant and equipment
- carry out appropriate applications in accordance with regulatory and legislative requirements

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- materials
- Factory's Act
- other relevant acts, regulations and codes of practice
- company policy

Skills
The ability to:

- work safely to instructions
- use power and hand tools
- select material to requirements
- communicate effectively
- handle material

(4) Resource Implications

The following resources should be made available:

- Suitable work area appropriate to the construction process
- Appropriate equipment, materials and documentation to comply with OH&S legislation and/or company policies
- Hand and power tools, plant and equipment appropriate to the construction process

(5) Method of Assessment

Competency shall be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based upon integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0021A: Plan and organise work

Competency Descriptor: This unit deals with the skills and knowledge required to effectively plan and organise work assignments, and applies to all individuals working in the construction industry.

Construction Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Identify work requirements	1.1	Instructions for work schedule and performance and quality assurance requirements received, understood and clarified where necessary.
2	Plan process to complete work	2.1	Work identified, prioritised and sequenced to achieve effective completion of work. Major construction process/sequence identified.
3	Select tools, equipment and materials	3.1	Personal protective equipment correctly identified and selected to suit job requirements.
		3.2	Tools, equipment and materials selected to suit job requirements.
		3.3	Key functions of major construction plant and equipment identified.
4	Demonstrate safe and efficient sequence of work	4.1	Work performed safely and in a logical and efficient sequence.
		4.2	Worksite kept clean and clear of debris.
		4.3	Tools and equipment safely located when not in immediate use.
5	Modify plan	5.1	Workplace modified to overcome unforeseen developments that occur as work progresses.
		5.2	Modifications to work plan, based on experience, are identified and incorporated into successive work activities.
6	Report outcomes	6.1	Verbal report provided on completed activities.

7	Clean up	7.1	Unused materials safely stacked for removal.
		7.2	Debris and waste material removed from job location.
		7.3	Worksite left clean, safe and secure on completion.
		7.4	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

Work organisation sequence may range from receiving instructions, to carrying out task, to cleaning up task.

Work plan may be either written or verbal and may include the following:

- preparation of work area
- selections of tools, equipment and materials
- handling of materials, tools and equipment
- housekeeping requirements

Work schedule may be carried out in a singular application or in a team situation.

Work schedule and performance may have to adhere to Quality Assurance policy and procedures.

EVIDENCE GUIDE

Competency is to be demonstrated by safe and effective preparation using any of the range of work sequences listed within the range of variables statement relative to the work environment.

(1) Critical Aspects and Evidence

It is essential that competence is observed in the following aspects:

- indicate compliance with Occupational Health and Safety regulations applicable to workplace operations including relevant statutory regulations and legislation
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during the application of construction process
- communicate to enable efficient individual/organisational planning of work

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- portable power tools
- hand tools and equipment
- materials appropriate to the task
- materials handling
- quality Assurance

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools
- handle material
- select material
- apply Quality Assurance

(4) Resource Implications

The following resources should be made available:

- general construction materials appropriate to the particular construction process
- hand and power tools appropriate to the construction process
- suitable work area appropriate to the construction process

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based upon integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0031A: Draw and interpret simple drawings

Competency Descriptor: This unit deals with the skills and knowledge required to effectively draw and interpret simple layout drawings and sketches, and applies to individuals working in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Prepare for drawing	1.1	Drawing instruments and supplies are correctly identified and selected.
		1.2	Alphabet of lines is identified and applied with all lines distinct, easily read and of the appropriate line weight and type.
		1.3	Measurements are performed using appropriate scales.
		1.4	Lettering is constructed distinctly and is easily read.
2	Draw geometric constructions	2.1	The completed drawing illustrates a series of geometric shapes and activities.
		2.2	The finished drawing is neat and clear of smudges.
3	Construct multi-view (orthographic 2-D) drawing	3.1	The drawing illustrates three views of specified object with correct line representation.
		3.2	The finished multi-view drawing is constructed correctly.
4.	Develop a pictorial (3D) drawing	4.1	The drawing has a correct view orientation (isometric).
		4.2	The complete pictorial (3D) drawing is correctly developed with hidden features.
5	Construct and dimension drawings	5.1	All major features on the drawing are appropriately dimensioned to correct specification.
		5.2	All necessary details and information are shown.
6	Apply notes and leaders	6.1	The finished drawing is neatly and appropriately labelled.

		6.2	Completed drawing illustrates correct application of notes and leaders.
7	Prepare freehand sketch	7.1	Sketch correctly drawn with appropriate views where applicable.
		7.2	Necessary dimensions are shown and instructions and/or information conveyed by appropriate use of notes.
8	Interpret details from sketches and drawings	8.1	Components, assemblies or objects correctly identified.
		8.2	Commonly used symbols and abbreviations are recognised.
		8.3	Dimensions and instructions are identified and followed as required.
		8.4	Material requirements are correctly identified as required.

RANGE STATEMENTS

This unit applies to the preparation and interpretation of simple working drawings and sketches of building components or structures

Drawing instruments and supplies:

- drafting kit
- CAD workstation
- drafting paper
- drawings/modules/photographs

Alphabet of line:

- object line
- hidden line
- centre line
- section line
- dimension
- extension line
- cutting line
- short break line
- phantom line

Measurement systems:

- metres/centimetres
- metric(SI) system

Types of scale:

- architectural
- metric
- engineering
- civil

Geometric construction to include:

- circles
- regular polygons with four, six and eight sides
- pentagon inscribed within measured circle
- ellipse
- triangles with specified angles
- arcs thru three points; tangent to two circles

Multi-view (orthographic 2-D) drawings:

- full scale (1:1) orthographic 3-view drawing using third angle projection with top, front and right side view – show all hidden features and centrelines

Pictorial (3-D) drawing to include:

- isometric corner with left and right side lines each 30 degrees up from horizontal and third line at a vertical, with all three lines joining in a common intersection
- full scale (1:1) basic isometric drawing

Dimension drawings:

- dimensioning styles and methods: co-ordinate, linear/datum
- dimensioning 2-D drawing
- dimensioning complex shapes: spheres, cylinders, tapers, pyramids

EVIDENCE GUIDE

Competency is to be demonstrated by developing and effectively reading and interpreting simple drawings and sketches to locate or identify specified features or specifications in accordance with the performance criteria and the range listed within the range statement.

(1) Critical Aspects and Evidence

It is essential that competence is observed in the following aspects:

- identify and understand various types of drawings
- identify alphabet of lines, scales, lettering, dimensions, symbols, abbreviations and key features
- identify title panel and reference date of drawings

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- types and use of drawing instruments and supplies
- identification of alphabet of lines, line type variation, order of usage and application on drawings
- types of scale and proportion and how they are used for measurement
- symbols, dimensions and terminology
- types of drawings and their applications

Skills
The ability to:

- make simple freehand sketches
- prepare technical drawings with drawing instruments and with Auto CAD
- read and interpret sketches and working drawings
- measure accurately
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- drawing instruments/CAD
- drawing supplies
- objects for drawing

(5) Method of Assessment

Competency may be assessed in a training institution under direct supervision with regular checks by the instructor.

Competency in this unit would be determined by an individual working alone or based upon integrated project work.

Assessment would be continuous by checking at the various stages of the job application in accordance with the performance criteria.

The candidate will have access to drawing instrument, equipment, materials and documentation required

(6) Context of Assessment

Competency should be assessed in a classroom environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0041A: Carry out measurements and calculations

Competency Descriptor: This unit deals with the skills and knowledge required to effectively carry out measurements and calculation of work to required tolerance, and applies to individuals working in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA	
1. Obtain measurements	1.1	Accurate measurements obtained to job instruction using rule, tape and/or square.
	1.2	Quality Assurance requirements associated with company's construction operations recognised and adhered to.
2. Perform simple calculations	2.1	Simple calculations involving length, perimeter, mass and volume using four basic operations (+,-, x, /), are carried out.
3 Estimate approximate quantities	3.1	Measurements or quantities estimated (approximately) on site or from job instruction.
	3.2	Information obtained correctly from job instruction.
	3.3	Measurements correctly identified/recorded without error.
	3.4	Quantities of materials suitable for work undertaken are calculated and recorded to job instructions.
	3.5	Costs for a simple project estimated to be within + or – 10%.

RANGE STATEMENT

This unit applies to simple projects applicable to:

- timber frames
- structural steelwork
- concrete
- brick/block work
- joinery
- tiling
- sheeting/panelling
- plastering
- final finishes
- fences
- formwork
- excavation work

Materials include all materials utilised in construction of commercial, industrial/domestic and civil construction projects, including hardware items.

Calculations to include:

- area
- perimeter
- volume
- mass
- scales
- ratios (ingredients/elements and triangulation)
- proportion

Job instruction may involve:

- verbal direction/instruction
- written instruction
- provision of job drawing and details

EVIDENCE GUIDE

Competency is to be demonstrated by the effective calculation of measurements and calculations of materials in accordance with the range listed in the range statement, relevant to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- communicate effectively to enable accurate calculations and measurements
- demonstrate effective use of measuring devices
- accurate measurements taken and recorded
- perform simple calculations to specifications
- estimate quantities and costs to requirements

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- drawings and specifications
- materials relevant to the construction process
- basic operations in simple geometry, measurement and calculations
- costing relative to the construction process

Skills
The ability to:

- read and interpret drawings
- measure and calculate manually
- record measurements
- operate electronic calculating devices
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- information on construction materials appropriate to the relevant construction process
- suitable work area appropriate to the activity
- suitable site plans/drawings and/or specifications
- measuring and calculating devices

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based upon integrated project work.

Assessment may be intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0051A: Use hand and power tools

Competency Descriptor: This unit deals with skills and knowledge required to competently select and use appropriate hand and power tools of construction trades, and applies to individuals in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Identify hand and power tools	1.1	Regular power tool applications in workshop operations recognised.
		1.2	Types of hand and power tools and their functions identified.
		1.3	Sources of power supply recognised.
2	Select hand tools	2.1	OH&S requirements for using hand tools recognised and adhered to.
		2.2	Appropriate personal protective equipment selected, correctly fitted and used.
		2.3	Hand tools selected consistent with needs of job.
		2.4	Tools checked for serviceability and safety and any faults reported to supervisor.
		2.5	Equipment selected to hold or support material for power tools application where applicable.
3	Use hand tools	3.1	Material located and held in position for hand tool application.
		3.2	Hand tools safely and effectively used according to their intended use.
		3.3	Hand tools safely located when not in immediate use.
4	Select power tools	4.1	Occupational Health and Safety (OH&S) requirements for using power tools recognised and adhered to.
		4.2	Appropriate personal protective equipment selected, correctly fitted and used.

		4.3	Power tools and leads/hoses selected consistent with needs of job in accordance with conventional work practice.
		4.4	Power tools and leads/hoses visually checked for serviceability/safety in accordance with OH&S requirements and any faults reported to supervisor.
		4.5	Equipment selected to hold or support materials for power tool application where applicable.
5	Establish power supply to work location	5.1	Route identified for safe placement of leads/hoses clear of hazards.
		5.2	Electric power leads run out to power supply and supported overhead clear of traffic or covered if presenting possible trip hazard.
		5.3	Electric power leads connected to supply and power board or direct to power tool.
		5.4	Air hoses run out to compressed air supply and covered if presenting possible trip hazard.
		5.5	Hose connected to power tool and air supply.
6	Use power tools	6.1	Material located and held in position for power tool application where applicable.
		6.2	Power tools safely and effectively used in application processes.
		6.3	Power tools safely located when not in use.
7	Clean up	7.1	Power tools cleaned, maintained and stored.
		7.2	Power leads/hoses cleaned, visually checked and stored.
		7.3	Equipment cleaned, maintained and stored.
		7.4	Work area cleared and waste removed.

RANGE STATEMENT

Hand tools include, but are not limited to:

- adjustable spanners
- bars (crow and pinch)
- bolt cutters
- brooms
- chisels
- hacksaws
- handsaws
- hammers
- measuring tapes
- nips
- picks/mattocks
- pliers
- sealant gun
- shovel/spades
- sledge hammers
- spanners and wrenches
- spirit level, straight edge
- string lines
- trowels and floats
- wire cutters
- paint brushes/rollers
- spatula/putty knives

Power supply to include but not limited to:

- electricity
- compressed air

Power tools include:

- drills
- nail guns
- staplers
- screwdrivers
- sanders
- angle grinders
- pneumatic wrenches
- circular saw
- jig saws
- planers
- routers

Personal protective equipment may include:

- overalls
- boots
- hard hat/cap
- safety glasses/goggles
- gloves
- ear plugs/muffs
- face masks/respirators

OH&S requirements may include:

- workshop/worksite safe working practices
- use of tools and equipment
- use of power tools
- safe handling and storage of materials

Reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective operation of particular power and hand tools listed within the range of variables statement relevant to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- adopt and carry out correct procedures prior to and during use of hand tools and power tools
- demonstrate safe and effective operational use of tools and equipment
- interactively communicate with others to ensure safe and effective operations

(2) Pre-requisite Relationship of Units

Competency in this unit may be determined concurrently based upon integrated project work using the following units:

• BCGCOR0011A	Carry out OH&S requirements
• BCGCOR0061A	Use plant and equipment
• BCGCOR0041A	Carry out measurements and calculations
• BCGCOR0111A	Handle construction materials and safe disposal of waste
• BCGMAS0121A-BCGPAD0191A	Prepare for the construction process (relative to work orientation)

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements and OH&S legislation
- portable power tools
- hand tools and equipment
- materials
- materials handling whilst operating tools

Skills
The ability to:

- work safely to instructions
- apply appropriate hand-eye co-ordination in the use of tools
- handle/hold materials during operation of tools
- select appropriate tools for material usage
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- general construction materials
- hand and power tools appropriate to the construction process
- plant and equipment appropriate to the construction process
- suitable work area appropriate to the construction process
- appropriate OH&S safety resources

(5) Method of Assessment

Competency shall be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 2	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0061A: Use small plant and equipment

Competency Descriptor: This unit deals with the skills and knowledge required to safely and efficiently operate small construction plant and equipment, and applies to individuals working with ancillary equipment operation/masonry in the construction industry

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Identify plant and equipment, their operations and safety requirements	1.1 Types and function of plant/equipment used in construction process identified.
	1.2 Method of operation of plant/equipment identified and understood, relative to manufacturer's recommendations.
	1.3 Occupational Health and Safety (OH&S) requirements for guarding and cut off switches identified.
	1.4 OH&S requirements for personal protective equipment associated with using machines identified.
2. Select plant and equipment	2.1 OH&S requirements for operating and using plant and equipment recognised and adhered to.
	2.2 Appropriate personal protective equipment selected, correctly fitted and used.
	2.3 Plant and equipment selected consistent with needs of job.
	2.4 Plant and equipment checked for serviceability/safety and faults reported to supervisor.
3. Use plant and equipment	3.1 Plant and equipment safely and effectively used.
	3.2 Site hazards identified in use of plant and equipment and correct procedures used to eliminate or minimise risk.
	3.3 Plant and equipment safely located when not in immediate use.

4.	Clean up	4.1	Plant and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to all small plant and equipment used in construction work

Plant and equipment includes but is not limited to:

- air compressor and hoses
- concrete mixer
- industrial wet and dry vacuum cleaner
- pallet trolley
- rollers
- compactors
- pumps and hoses
- brick/masonry saw
- terrazzo grinders
- ladders
- trestles and planks
- wheelbarrows

Personal protective equipment may include:

- overalls
- boots
- hard hat/cap
- safety glasses/goggles
- gloves
- ear plugs/muffs
- face masks/respirators

OH&S requirements are to be in accordance with relevant Statutory regulations, which may include:

- workshop/worksite safety practices
- control of noise and dust
- use of ladders and working platforms
- control of exhaust emission
- isolation of work areas

Reporting of faults may be written or verbal.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective operation of particular plant and equipment listed within the range of variables statement relevant to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of processes
- demonstrate safe and effective operational use of tools, plant and equipment
- demonstrate and show understanding of manufacturer's specifications and recommendations
- interactively communicate with others to ensure safe and effective workplace operations

(2) Pre-Requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- portable power tools applicable to the construction process
- hand tools and a range of plant and equipment
- materials handling relevant to plant and equipment use
- workplace communication processes

Skills
The ability to:

- work safely to instructions
- use power tools, hand tools, plant and equipment applicable to the construction process
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- hand and power tools appropriate to the construction process
- plant and equipment appropriate to the construction process
- suitable work area appropriate to the construction process
- appropriate OH&S safety resources

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0071A: Erect and dismantle restricted height scaffolding

Competency Descriptor: This unit deals with the skills and knowledge required to effectively and safely erect and dismantle scaffolding at specified height (not exceeding 4 meters), and applies to individuals working at elevated positions in the building and construction industry

Competency Field: General construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Occupational Health and Safety (OH&S) requirements for tasks and workplace environment recognised and adhered to.
		1.2	Location and scope of scaffolding/equipment determined from job drawings or supervisor's instructions.
		1.3	Appropriate personal protective equipment selected, correctly fitted and used.
		1.4	Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.
		1.5	Scaffolding/equipment components selected consistent with requirements of job.
2.	Erect safety barriers	2.1	Safety barriers erected, where applicable, to isolate site work area.
		2.2	Relevant signage installed where required to OH&S requirements.
3.	Erect scaffolding	3.1	All work undertaken safely and to supervisor's prescribed procedures.
		3.2	Erection site prepared to meet job requirements.
		3.3	Necessary signage prepared to meet job requirements.
		3.4	Scaffolding/equipment erected to plan in accordance with safe work practices, OH&S and manufacturers requirements.

4.	Dismantle scaffolding	4.1	Work undertaken safely and according to reverse procedures for erecting.
		4.2	Scaffolding/equipment dismantled in accordance with site procedures and critical structural safety requirements.
5.	Clean up	5.1	Site cleaned and cleared of all tools, excess material and waste and left in safe condition.
		5.2	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to the erection of scaffolding up to 4m in height, which must be constructed in accordance with:

- Guidelines for Scaffolding, and
- General requirements for erecting scaffolding

Personal protective equipment may include:

- overalls
- jacket
- boots
- hard hat
- safety glasses
- gloves
- ear plugs/muffs
- dust masks

Tools and equipment may include:

- spanners
- shovels
- hammers
- picks
- crow bars
- ladders

The range of scaffolding equipment associated with this unit includes:

- standing prefabricated tower scaffolds
- tube and fitting scaffolds to 4 metres height
- fall protection devices
- catch platforms
- bracket scaffolds

Work is to be undertaken in accordance with statutory regulatory and legislative requirements for Occupational Health and Safety. Work must be supervised and undertaken in a team situation.

Supervision instruction may involve:

- verbal direction/instruction
- written instruction
- provision of sketch/drawing and details

Reports of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective erection and dismantling of different types of restricted height scaffolding listed within the range of variables statement relevant to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of construction process
- demonstrate safe and effective operational use of scaffolding tools and equipment
- erect scaffolding plumb and brace for stability
- interactively communicate with others to ensure safe and effective erection and dismantling operations

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- scaffolding and basic working platforms
- hand tools
- materials
- materials handling
- vertical and horizontal triangular concepts

Skills
The ability to:

- work safely to instructions
- use hand tools
- handle material
- select material
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- construction materials appropriate for scaffolding
- hand tools and equipment appropriate to the construction process
- suitable work area appropriate to the construction process
- information on OH&S requirements

(5) Method of Assessment

Competency shall be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of the process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpins effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0081A: Use simple levelling devices

Competency Descriptor: This unit deals with the skills and knowledge required to competently select and use levelling devices, and applies to individuals working in the building and Construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan and prepare work	1.1	Occupational Health and Safety (OH&S) requirements recognised and adhered to in accordance with application tasks and workplace environment.
		1.2	Requirements of job identified from drawings or instructions.
		1.3	Appropriate personal protective equipment selected, correctly fitted and used.
		1.4	Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.
		1.5	Quality Assurance requirements recognised and adhered to in accordance with company's construction operations.
2	Set up and use levelling device	2.1	Heights to be transferred identified from given instructions or drawings.
		2.2	Device assembled and filled with water to required level with air bubbles removed.
		2.3	Height transferred to required locations to a tolerance of + or - 5mm over 3 metres.
3	Transfer heights with straight edge and spirit level	3.1	Heights to be transferred identified from given instructions/drawings or given marked level.
		3.2	Height transferred to required location to + or - 5mm over 3 metres.
4	Maintain given level or specified slope with boning rods	4.1	Heights of each end of line to be boned established to given levels.

		4.2	End of boning rods securely fixed to required heights.
		4.3	Heights of intermediate points sighted and marked with boning rods to a tolerance of + 10mm.
5	Clean-up	5.1	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to using simple levelling devices to carry out basic exercises in transferring levels and/or maintaining a line of a slope.

Levelling and lining devices include:

- water level
- spirit level
- boning rods
- line level

Heights or levels may be given by:

- drawing/sketch indicating mark
- verbal or written instruction indicating level or mark
- datum/survey peg fixed into ground
- chalk or nail mark on paved/concrete surface
- mark on vertical surface

Associated tools and equipment include:

- string line
- wooden/steel pegs
- straight edge
- hammer
- chalk line

Personal protective equipment may include:

- overalls
- boots
- hard hat/cap
- safety glasses
- dust jacket
- masks/respirators

Work may be carried out under supervision and in a team situation or individually.

Reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the effective application of the different types of levelling devices listed within the range statement relative to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of levelling and boning processes
- demonstrate safe and effective handling and operational use of levelling device
- indicate care in accurately transferring levels to other locations
- interactive communication with others to ensure safe and effective levelling operations.

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- hand tools
- measurement and calculation
- Quality Assurance
- range of levelling devices
- horizontal/vertical concepts

Skills
The ability to:

- work safely to instructions
- measure accurately
- use hand tools
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- general construction materials appropriate to levelling
- hand tools appropriate to levelling and lining
- equipment appropriate to the activity processes
- suitable work area appropriate to the activities
- suitable plans/drawings and specification

(5) Method of Assessment

Competency should be assessed while work is being done, under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit should be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0101A: Carry out concreting to simple forms

Competency Descriptor: This unit deals with the skills and knowledge required to effectively and safely carry out concreting to simple formwork, and applies to all individuals working in the preparation and placing of formwork and concrete.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Select tools and equipment	1.1 Quality Assurance requirements recognised and adhered to in accordance with company's construction operations.
	1.2 Occupational Health and Safety (OH&S) requirements recognised and adhered to in accordance with application tasks and workplace environment.
	1.3 Appropriate personal protective equipment selected, correctly fitted and used.
	1.4 Tools and equipment selected to instructions consistent with job requirements checked for serviceability and any faults reported to supervisor.
2. Erect and strip simple formwork	2.1 Design of formwork identified from drawings/supervisors instructions.
	2.2 Formwork safely erected on commencement and stripped on completion under direction of supervisor.
	2.3 Stripping agent applied to erected formwork, where appropriate.
	2.4 Timber components denailed following stripping of formwork.
	2.5 All components cleaned, stacked and stored for re-use or bundled for removal.
3. Place and tie reinforcement	3.1 Reinforcing components safely handled and carried to required position.
	3.2 Reinforcing bars, rods, stirrups and mesh positioned under supervisor's directions.
	3.3 Bar chairs and spacers located in place, checking minimum edge cover under the direction of supervisor.

4.	Place concrete	4.1 Formwork/excavation cleaned of excess material and debris prior to concrete placement.
		4.2 Concrete correctly proportioned and mixed and/or safely transported by wheelbarrow and placed under direction.
		4.3 Pump line/chute controlled and concrete placed as directed.
		4.4 Concrete spread as directed to specified levels.
		4.5 Concrete consolidated under direction and screeded to finished levels as directed.
		4.6 Surface of concrete finished as directed to specified finish.
5.	Clean up	5.1 Formwork components removed from site.
		5.2 Pour site and surrounds cleared of concrete spills and other debris and surface left in safe condition.
		5.3 Worksite cleared of debris and unused materials.
		5.4 Tools and equipment cleaned, maintained and stored.

RANGE OF STATEMENT

This unit applies to placing concrete to simple forms and excavations which includes:

- post holes
- trench foundations
- pad foundations
- slabs
- pathways
- simple concrete aprons
- channels
- garden edges

Formwork in this unit applies to edging forms where structural components would include:

- edge boards
- pegs
- struts
- bracing

Personal protective equipment may include:

- overalls
- boots
- hard hat/cap
- safety glasses/goggles
- gum boots
- face masks
- waterproof pants and jacket

Concrete finishes include:

- wood floated
- steel floated
- broom brushed

Excess material and debris includes:

- excavated loose soil
- off cut timber
- paper
- rags
- sticks
- nails

Concrete placement methods include:

- shovel
- wheelbarrow
- chute
- pump line

Work is to be undertaken in a team situation or individually under supervision.

Reporting of faults may be verbal or written.

OH&S requirements are in accordance with Statutory requirements.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe installation of formwork, reinforcement and concrete using any two of the simple forms listed within the range statement relevant to the work orientation.

(1) Critical Aspects and Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during construction processes
- demonstrate safe and effective operational use of tools, plant and equipment
- interactively communicate with others to ensure safe and effective operations

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- hand tools and equipment
- concrete and formwork materials
- materials handling
- measurement and proportion
- transporting and placing concrete
- levelling equipment
- simple formwork and reinforcement components
- select and handle materials appropriate to concreting processes

Skills
The ability to:

- work safely to instructions
- measure relative to the concreting process
- use power tools and hand tools
- mix concrete by hand
- use simple levelling equipment
- communicate effectively
- select and handle materials appropriate to concreting processes

(4) Resource Implications

The following resources should be made available:

- general construction materials relevant to forming, reinforcing and placement of concrete
- hand tools and power tools appropriate to construction process
- tools and equipment appropriate to construction process
- suitable work area appropriate to concreting process
- information relevant to OH&S requirements

(5) Method of Assessment

Competency shall be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0111A: Handle construction materials and safely dispose of waste

Competency Descriptor: This unit deals with the skills and knowledge required to effectively and safely handle construction materials, and to dispose of waste in a safe and environment friendly manner. It applies to individuals working in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan and prepare work	1.1	Occupational Health and Safety (OH&S) requirements associated with application tasks and workplace environment recognised and adhered to.
		1.2	Appropriate personal protective equipment selected, correctly fitted and used.
		1.3	Quality Assurance requirements associated with company's construction operations recognised and adhered to.
		1.4	Tools and equipment for handling materials/goods, non-toxic waste, selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.
2	Correctly manual handle, sort and stack construction material	2.1	Common construction materials recognised and selected for sorting and stacking/stockpiling to supervisor's instructions and/or specifications.
		2.2	Handling characteristics of materials identified and appropriate handling techniques applied.
		2.3	Specific handling requirements for hazardous materials applied.
		2.4	Materials stored, stacked/stockpiled and protected, clear of traffic ways, so they are easily identified, retrieved and not damaged.
		2.5	Appropriate signage and barricades erected where applicable to isolate stored materials from workplace traffic or access.
		2.6	Correct manual handling techniques used.

3	Prepare for mechanical handling of materials	3.1	Materials stacked/banded for mechanical handling in accordance with type of material and plant/equipment to be used.
		3.2	Dogman/rigger assisted with loading, unloading, moving, locating and/or installing materials.
		3.3	Materials safely handled with assistance of pallet trolley, forklift or hoist.
4	Handle and remove waste safely	4.1	Waste materials handled correctly and safely according to MSDS and requirements of regulatory authorities.
		4.2	Hazardous material identified for separate handling.
		4.3	Non-toxic materials removed using correct procedures.
		4.4	Dust suppression procedures used to minimise health risk to work personnel and others.
5	Clean up	5.1	Tools and equipment cleaned, maintained, and stored.
		5.2	Unused materials safely stacked/stockpiled stored.
		5.3	Waste materials disposed of safely.
		5.4	Site cleaned and cleared of debris and unwanted material.

RANGE STATEMENT

Tools and equipment includes but is not limited to:

- brooms
- hoses
- shovels
- rakes
- wet and dry industrial vacuum cleaners
- wheelbarrows
- pallet trolley
- materials hoists
- forklifts

Construction materials include but are not limited to:

- bricks and concrete masonry
- mortar components – cement, coarse aggregate, sand
- timber
- structural steel sections/components
- concrete
- scaffolding components, pipe sections
- plywood and particle board
- metal sheeting
- steel reinforcement
- insulation
- glass
- paints and sealants
- plaster sheeting

Protection of stacked/stored materials may include:

- covering
- tying or banding
- barricades
- signs
- locked away (hazardous materials)

Dust suppression procedures may include:

- spraying with water
- covering
- use of vacuum cleaner

Waste material and debris include but are not limited to:

- banding straps
- packing pieces
- broken or damaged goods
- cardboard
- plastic
- paper
- loose material

Removal of materials to include processes of recycling and salvage where applicable.

OH&S requirements to be in accordance with (Statutory/Territory) legislation and regulations.

Work to be undertaken as part of a team or individually under supervision of appropriately certificated persons where applicable.

Reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the effective handling and storing/stacking of appropriate construction materials listed within the range of variables statement, relevant to the work orientation.

(1) Critical Aspects and Evidence

It is essential that competence is observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations and State/Territory legislation applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of materials handling processes
- demonstrate safe and effective operational use of tools and equipment
- demonstrate safe application in the process of cleaning up
- interactively communicate with others to ensure safe and effective operations

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including relevant codes and regulation
- hand tools and equipment
- materials
- materials handling
- Quality Assurance
- range of communication mediums (verbal and non-verbal)

Skills
The ability to:

- work safely to instructions
- use hand tools
- handle materials
- select material
- measure
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- general construction materials relative to construction processes
- plant and equipment appropriate to handling processes
- hand tools appropriate to handling processes
- suitable work area appropriate to construction process
- MSDS information

(5) Method of Assessment

Competency shall be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0131A: Prepare for solid plastering

Competency Descriptor: This unit deals with the skills and knowledge required to effectively prepare the process for carrying out solid plastering work, and applies to individuals working in masonry in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan for construction process	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Preparation and planning requirements identified from drawings/work location and/or supervisor's instructions.
		1.3	OH&S requirements identified and adhered to in accordance with application tasks and workplace environment.
		1.4	Safety hazards identified and correct procedures adopted to minimise risk to self and others.
		1.5	Materials selected according to supervisor's instructions safely handled and stored/located ready for application.
		1.6	Appropriate personal protective equipment selected, correctly fitted and used.
		1.7	Tools and equipment selected consistent with the job requirements, checked for serviceability and any faults reported to supervisor.
		1.8	Fixing/fasteners selected consistent with the job requirements where applicable and checked for serviceability.
2.	Prepare materials selected for construction process	2.1	Activities for material preparation identified from specifications or supervisor's instructions.
		2.2	Material preparation carried out to satisfy requirements of application process.
3.	Prepare work area suitable for construction process	3.1	Activities to be carried out in work area identified from surface to be covered, method of application and access to surface.

		3.2 Work area prepared for construction process according to supervisor's instructions.
4.	Use tools, plant and equipment appropriate for construction process	4.1 Regular hand and power tools suitable for application process identified to job requirements.
		4.2 Hand and power tools used safely and effectively to carry out processes where applicable.
5.	Prepare background of brick, concrete or blockwork for solid plastering	5.1 Structure identified and surface prepared. Depressions patched with suitable material to supervisor's instructions.
		5.2 Concrete surface where appropriate is roughened or adhesive applied.
		5.3 Materials for scratch coat proportioned and mixed to instructions ready for application to wet surface.
6.	Clean up	6.1 Materials stacked/stored for re-use or disposed of.
		6.2 Work area cleared.
		6.3 Tools and equipment cleaned, maintained and stored.

RANGE OF VARIABLES

This unit applies to the preparation and construction processes carried out in preparing for the application of solid plastering to surfaces.

Background surfaces for application of solid plastering include but not limited to:

- concrete
- concrete block work
- brickwork
- stonework
- polystyrene
- expanded metal or bird wire

Construction process includes:

- application of solid plaster
- preparation of surfaces
- finish of surfaces
- workplace preparation

Material preparation may include:

- locating loose materials for mixing
- preparing brackets for fixing to steelwork
- cutting expanded metal or bird-wire for placement

Tools and equipment may include but are not limited to:

- measuring tape/rule
- brushes
- broom
- screed boards
- scaffolding
- spirit level
- straight edges
- concrete mixer
- shovels
- wheelbarrows
- power leads
- hoses
- masonry hammer

Patching materials include but are not limited to:

- sand and cement
- plaster
- cornice adhesive
- caulking compounds

Work area preparation may include:

- cleaning of area
- erecting restricted height scaffolding
- setting up concrete mixer
- establishing temporary water and power supply

Personal protective equipment may include:

- overalls
- waterproof pants and jacket
- boots
- water (rubber) boots
- gloves
- dust masks/respirators
- hard hat/cap
- safety goggles

Work is to be undertaken either as part of a team or individually, under supervision with instruction being as part of the supervisor's directions either verbal or written.

Reporting of faults may be verbal or written.

OH&S requirements to be in accordance with the Statutory regulations.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the safe and effective preparation for solid plastering applications in accordance with performance criteria using any of the range of materials and processes listed within the range of variables statement.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of construction processes
- demonstrate safe and effective operational use of tools, plant and equipment
- interactively communicate with others to ensure safe and effective workplace operations

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment
- BCGCOR0071A Erect and dismantle restricted height scaffolding

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- drawings and specifications
- portable power tools
- hand tools and equipment
- materials relative to solid plastering
- materials handling
- measurement relative to solid plastering
- fixing and fasteners consistent with solid plastering requirements
- workplace communications

Skills
The ability to:

- work safely to instructions
- use power and hand tools
- handle material
- select material
- communicate effectively
- measure relative to process

(4) Resource Implications

The following resources should be made available:

- general construction materials relevant to solid plastering
- hand and power tools appropriate to solid plastering process
- plant and equipment appropriate to solid plastering process
- suitable work area appropriate to solid plastering activities

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0151A: Prepare for construction process (Brick/Block laying)

Competency Descriptor: This unit deals with the skills and knowledge required to effectively prepare the construction process for laying concrete blocks/bricks, and applies to individuals working in masonry/concrete trades in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan for construction process	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Job requirements identified from drawings and supervisor's instructions.
		1.3	Occupational Health and Safety (OH&S) requirements identified and adhered to according to application tasks and workplace environment.
		1.4	Safety hazards identified and correct procedures adopted to minimise risk to self and others.
		1.5	Materials selected to supervisor's instructions, safely handled and stored/located and ready for application.
		1.6	Appropriate personal protective equipment selected, correctly fitted and used.
		1.7	Tools and equipment selected are consistent with job requirements, checked for serviceability and any faults reported to supervisor.
2.	Prepare materials selected for construction process	2.1	Activities for material preparation identified from specifications or supervisor's instructions.
		2.2	Material preparation carried out to satisfy requirements of construction process.
		2.3	Correct manual handling techniques used to remove materials to location of placement.
		2.4	Components distributed and stacked to suit job location and construction sequence.

3.	Prepare work area suitable for construction process	3.1	Activities to be carried out in work area identified from type of brick/block, planned layout of construction and access location.
		3.2	Work area prepared for construction process according to supervisor's instructions.
4.	Use tools, plant and equipment appropriate for construction process	4.1	Regular hand and power tools suitable for application process identified to job requirements.
		4.2	Hand and power tools used safely and effectively to carry out processes.
5.	Mix mortar/concrete by hand	5.1	Materials for mortar/concrete selected to instruction.
		5.2	Additives for mortar/concrete selected to mix requirements.
		5.3	Specified proportions of materials for mortar/concrete mixture prepared accurately in accordance with instruction.
		5.4	Mortar/concrete materials mixed to a workable consistency.
6.	Assist with brick/block works	6.1	Bricks/blocks selected, visually checked to ensure that specifications are met including colour matching surrounding area and distributed to location.
		6.2	Surface brushed/scraped/washed and clean.
7.	Clean-up	7.1	Materials stacked/stored for re-use or removal.
		7.2	Work area cleared.
		7.3	Tools and equipment cleaned, maintained and stored.
		7.4	Waste disposed of using appropriate method according to EPA requirements.

RANGE STATEMENT

This unit applies to the preparation processes carried out to support the laying of brickwork or block work.

Construction processes includes:

- worksite preparation
- preparation for brick/block laying
- finish brickwork/block work face

Tools and equipment include but are not limited to:

- hammer
- bolster
- shovel
- measuring tape/rule
- concrete mixer
- angle grinder
- masonry saw
- power leads
- hoses
- brushes and brooms
- wheelbarrows
- mortar boards
- bucket

Materials in addition to bricks/blocks include:

- cement and sand
- gravel
- adhesive
- brick/block reinforcement
- steel lintels
- mortar additives (workability and damp proofing)

Specifications for bricks/blocks should be part of Quality Assurance requirements and include:

- size
- shape
- sharp arises (where applicable)
- colour
- strength

Masonry units may include:

- wire cut bricks
- pressed bricks
- solid concrete blocks
- hollow concrete blocks

Materials preparation may include:

- cutting concrete blocks
- locating lintels ready for placement
- distributing vents
- cutting and distributing reinforcement
- preparing materials for batching for mortar and concrete

Work area preparation may include:

- cleaning strip footings or slab
- setting up concrete mixer
- locating mortar boards
- establishing temporary water and power supply
- preparing access for supply of mortar/concrete

Work is to be undertaken as part of a team under supervision with instructions being part of supervisor's directions, either verbal or written.

OH&S requirements to be in accordance with Statutory Legislation and regulations.

Reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the safe and effective preparation for the laying of bricks/blocks in accordance with the performance criteria using any of the listed range of variables with either brickwork or block work.

(1) Critical Aspects of Evidence

It is essential that competence is observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of construction processes
- demonstrate safe and effective operational use of tools, plant and equipment
- adopt and use correct procedures to handle and place materials
- interactively communicate with others to ensure safe and effective worksite operations

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment
- BCGCOR0111A Handle construction material

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- drawings and specifications
- portable power tools
- hand tools and equipment
- materials handling
- mortar and concrete constituents and ratio of mix
- measurement relative to brick/block work
- accessories associated with brickwork/block work construction
- workplace communications

Skills
The ability to:

- work safely to instructions
- read drawings
- use power tools and hand tools
- handle material
- select material
- measure relative to the construction process
- mix mortar and concrete manually and with mixer
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- construction materials relevant to brick/block work
- hand and power tools appropriate to brick/block work processes
- plant and equipment appropriate to brick/block work processes
- suitable work area appropriate to construction process

(5) Method of Assessment

Competency shall be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0181A: Mix cementitous materials (mortar and concrete)

Competency Descriptor: This unit deals with the skills and knowledge required to quantify and mix cementitous materials, and applies to individuals working in masonry trades.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Occupational Health and Safety (OH&S) requirements for workplace environment and for mixing concrete/mortar identified and adhered to.
		1.3	Appropriate personal protective equipment selected, correctly fitted and used.
		1.4	Tools and equipment selected are consistent with requirements for batching and mixing concrete or mortar, are checked for serviceability and any faults identified reported to supervisor.
		1.5	Where required, surface for hand mixing concrete or mortar is prepared according to work instruction
2.	Select and batch materials for mixing	2.1	The correct type and quality materials are identified and selected as instructed.
		2.2	Materials transported and handled in a manner to prevent wastage/cause health and safety hazards
		2.3	Materials are batched for mixing according to instruction given for quantity and ratio of mix.
		2.4	Materials for manual mixing are spread out on mixing bed according to type of mix required (concrete or mortar).
		2.5	Materials for machine mixing are placed in machine in accordance with recommended procedure –water in first.
		2.6	Sand for mortar mix is sifted with specified grade sieve wire

		2.7	Where required, additives are selected according to mix requirements or as instructed.
3.	Mix concrete	3.1	The cement is uniformly mixed with aggregates and evenly distributed.
		3.2	The concrete meets specified slump test and workability.
		3.3	Wastage of materials is prevented or minimised during hand mixing process.
4.	Mix mortar	4.1	The mortar is uniformly mixed, has appropriate consistency, plasticity and is workable
		4.2	Mixing techniques applied prevented or minimised wastage of materials.
5.	Clean up	5.1	Area cleared and waste material disposed of safely.
		5.2	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit covers the mixing of both concrete and mortar for application to form masonry structures using both cement mixers and manual operations.

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to work specifications
- specification of concrete mix
- specification of mortar mix

Materials:

- sand
- coarse aggregate
- Portland cement
- Additives
- Colouring (where appropriate)

OH&S requirements to be in accordance with Statutory Legislation and regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding
- safety hazards

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- dust masks/respirators
- hard hat
- overalls

Tools and equipment may include but are not limited to:

- wheel barrow
- shovel
- measuring box
- water hose
- motorised transporting machine

Types of mix:

- concrete
- mortar for block laying
- rough cast mortar
- rendering mortar
- pebble-dash mortar

EVIDENCE GUIDE

Competency is to be demonstrated by the batching and mixing of concrete and mortar by hand and machine.

(1) Critical Aspects of Evidence

Competence is to be observed in the following critical aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to worksite operations
- select and use appropriate tools and equipment for mixing cementitous materials
- apply organisational quality procedures and process within context of preparing concrete and mortar.
- Interpret work instructions with respect to proportion and ratio of mix
- identify typical faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work procedures
- complete the mixing of concrete and mortar to work specifications

(2) Pre-requisite Relationship of Units

- BCGCOR0001A Carry out interactive communication
- BCGCOR0041A Carry out measurements and calculations
- BCGCOR0051A Use hand and power tools
- BCGMAS0061A Use small plant and equipment

This unit may concurrently be assessed with:

- BCGCOR0051A Use hand and power tools
- BCGMAS0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including regulations, codes and standards
- hand tools and equipment for preparing concrete and mortar
- materials handling
- measurement and calculation relative to batching of materials
- mortar mix composition
- concrete constituents and ratio of mix
- range of mortar additives including plasticisers and their application
- workplace communications

Skills
The ability to:

- work safely
- read and interpret work instructions
- use tools and equipment
- select materials
- measure and calculate ratio and proportion
- communicate effectively
- organise work
- batch concrete and mortar
- mix concrete and mortar by hand
- mix concrete and mortar using machine

(4) Resource Implications

The following resources should be provided:

- workplace location
- tools, plant and equipment appropriate for mixing concrete and mortar
- materials for mixing concrete and mortar

(5) Method of Assessment

Competency should be assessed through direct observation of practical application and questions related to underpinning knowledge.

Competency should be assessed under general guidance checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level -	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills

BCGCOR0212A: Prepare surfaces

Competency Descriptor: This unit deals with the skills and knowledge required to effectively prepare the range of surfaces for various finishing applications, and applies to individuals working in the preparatory phase of surface finishing in the construction industry

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2 Preparation requirements identified from drawings, work area and instructions/specifications extract.
	1.3 OH&S requirements recognised and adhered to in accordance with the application tasks and workplace environment.
	1.4 Appropriate personal protective equipment selected, correctly fitted and used.
	1.5 Tools and equipment selected to carry out processes consistent with requirements of job are checked for serviceability and any faults reported to supervisor.
	1.6 Safety hazards identified and correct procedures used to minimise risk to self and others in accordance with OH&S workplace operations.
	1.7 Materials appropriate to job application selected, safely handled and stored/located ready for application.
2. Prepare work area for application processes	2.1 Hazards and attachments safely removed where applicable or arranged for removal from area.
	2.2 Work area prepared for application processes in accordance with finishing material and manufacturer's specifications.
3. Prepare surface by sanding/grinding	3.1 Correct abrasive disc/sheet or wheel selected in accordance with surface condition and work to be undertaken and fitted to sander/grinder.

		3.2 Sander/grinder used and applied safely to surface in accordance with manufacturer's specifications and relevant OH&S requirements.
		3.3 All loose or protruding material removed by sander /grinder and brushing so that surface is prepared to specification.
4.	Patch holes	4.1 Method of patching hole determined from type of material surface, size of hole, compatibility of materials and planned specified finish.
		4.2 Patching materials selected to suit material surface and, where applicable, mixed to requirements of manufacturer's specifications.
		4.3 Colour patching materials checked to ensure that colour matches surrounding area, where applicable.
		4.4 Material applied to job and material according manufacturer's specifications using appropriate application method.
		4.5 Where applicable to type of patching material, patched areas must be sanded to provide flush and flat finish to surface.
		4.6 Surface brushed/scraped/washed clean of surplus material in accordance with type of patching material and material surface
		4.7 Patched areas sealed by application of prime or sealing coat, where applicable, to suit requirements of specified finishes.
5.	Stop and fill surface	5.1 Correct stopping material selected for specified surface, where applicable.
		5.2 Imperfections prepared and material applied to a flush and even finish, where applicable, to proposed additional surface application processes.
		5.3 Excess filler removed without damaging or marking surface.
		5.4 Surface fine-sanded and cleaned free of dust, where applicable for proposed applied finishes.

6. Clean-up	6.1 Area cleaned free of debris.
	6.2 Waste and unwanted material disposed of safely using appropriate method according to National Environment Protection Act (NEPA) requirements.
	6.3 Unused materials stored.
	6.4 Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to the preparation of different material surfaces for the application of applied surface finishes or the abutting or attaching of a construction to that surface.

Surface preparation will vary in accordance with the types of materials to be applied to finish or seal surface and the type of construction, which is to abut or be attached to the surface.

Material surfaces include:

- timber
- plasterboard/plaster-glass
- masonry
- brick
- metal (ferrous and non-ferrous)
- concrete
- solid plaster
- plastic

Surface preparation for application finishes includes the preparation for:

- wall and floor tiling
- terrazzo
- segmental paving
- pre-cast cladding
- waterproofing/damp-roofing
- painting
- solid plastering
- wall papering
- clear timber finishes
- stone veneer
- sheet plastering or lining material

Surface preparation for construction applications of abutting or attaching to surfaces includes the preparation for:

- curtain walling fixing
- brick or block laying
- timber partition walls
- light steel partition walls
- formwork construction
- stair installation
- attachment of steel brackets or fabricated units
- aluminium framework fixing
- roof tiling and slating

Surfaces may be new or established material surfaces including both painted and unpainted surfaces.

Personal protective equipment may include:

- overalls
- waterproof pants and jacket
- boots
- gumboots
- gloves
- hard hat/cap
- safety goggles
- ear plugs/muffs
- dust masks/respirators

Tools include but are not limited to:

- scrapers
- paint brushes
- wire brushes
- brooms
- sponges
- sanding blocks
- shovels
- power sanders
- power grinders
- filling blades
- chisels
- hammers

Equipment includes but is not limited to:

- electrical leads
- elevated work platforms
- trestles
- planks
- ladders
- buckets
- sanders
- hose and water spray

OH&S requirements to be in accordance with Statutory legislation and regulations and may include:

- workplace environment
- protective clothing and equipment
- working platforms
- use of tools and equipment
- control of hazardous substances
- hazard control

Work area preparation may include:

- clearing area
- setting up equipment for operation
- erecting scaffolding
- disconnecting and removing attachments from or against walls

Patching materials include but are not limited to:

- cellulose/plaster proprietary fillers
- plaster
- sand and cement
- cornice adhesive
- putty
- plastic wood
- fibreglass
- caulking compounds
- sheet material

Waste and debris may include:

- spilt patching material
- cleared or scraped old paint
- discarded abrasive discs/sheets
- cardboard
- paper
- dirt and dust
- disused containers

Work is to be undertaken either as part of a team or individually under indirect supervision with instructions being verbal or written as part of supervisor's directions.

Instructions and reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective preparation of at least three separate types of material surfaces from those listed within the range of variables statement relevant to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- show compliance with organisational policies and procedures including Quality Assurance requirements
- adopt and carry out correct procedures prior to and during application of preparation processes
- demonstrate that finished patching of holes is flush and straight with surface within tolerances applicable to work orientation
- demonstrate safe and effective operational use of tools, plant and equipment
- interactively communicate with others to ensure safe and effective workplace operations
- prepare surface to specification or instruction requirements

(2) Pre-requisite Relationship of Units

Prerequisites for this unit are:

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment
- BCGCOR0071A Erect and dismantle restricted height scaffolding

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- portable power tools
- hand tools and equipment
- materials relevant to patching and preparation of surfaces
- materials handling
- measurement and calculation
- drawings and written instructions workplace communication

Skills
The ability to:

- work safely to instructions
- interpret drawing and instructions
- use power tools and hand tools
- handle material
- select material
- measure relative to the process
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- general construction and patching materials relevant to surface preparation
- hand tools and power tools appropriate to application processes
- plant and equipment appropriate to application processes
- suitable work area appropriate to surface preparation process

(5) Method of Assessment

Competency shall be assessed while work is being done under indirect supervision with regular checks, but may include some autonomy when working as part of a team.

Competency should be assessed through direct observation of application to tasks and questioning related to underpinning knowledge.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0242A: Carry out levelling

Competency Descriptor: This unit deals with the skills and knowledge required to effectively establish and transfer level from one reference point to another within given tolerance, and applies to individuals working in the construction industry.

Competency Field: General/Civil Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA	
1. Plan and prepare work	1.1	Occupational Health and Safety (OH&S) requirements associated with application tasks and worksite environment recognised and adhered to.
	1.2	Requirements of job identified from drawings and/or instructions.
	1.3	Relevant reduced levels obtained from given drawings/sketches and/or instruction.
	1.4	Appropriate personal protective equipment selected, correctly fitted and used.
	1.5	Levelling equipment and tools selected consistent with needs of job, checked for serviceability and any faults reported to supervisor.
2. Maintain given level or specified slope with boning rods	2.1	Heights of each end of line to be boned are established to levels from given drawings and/or instructions.
	2.2	End boning rods securely fixed to required heights.
	2.3	Heights of intermediate points sighted with boning rods and marked where applicable, to 10mm.
3. Set up and use levelling devices	3.1	Heights to be transferred/established are identified from given drawings/sketches and/or instructions.
	3.2	Level correctly set up for use in accordance to recommendations from manufacturer's operating manual.
	3.3	Levels shot and heights marked and/or recorded to job requirements to +/- 1mm over 10m.

4.	Clean up	4.1 All equipment and tools cleaned, maintained and returned to store.
		4.2 Levelling equipment placed and secured in manufacturer's provided container.

RANGE STATEMENT

This unit applies to the use of levelling equipment to read and record levels in accordance with a given level, and to the use of boning rods to maintain or mark a set slope or level line.

Work is to be undertaken working with a partner under limited supervision.

Work applications are simple levelling tasks such as:

- shooting levels for concrete slabs
- recording ground levels at respective corners of a set-out
- recording slab or pad levels for placement of steel columns
- recording or checking levels in shallow drainage excavation
- boning for alignment on ground or in drainage excavation

Levelling equipment or devices include but are not limited to:

- dumpy level
- automatic level
- tilting level
- rotating laser level
- boning rods

OH&S requirements to be in accordance with Statutory Legislation and Regulations which may include:

- worksite environment and safety
- use of tools and equipment
- use of laser equipment
- protective clothing and equipment

Heights or levels may be given by:

- drawing/sketch indicating mark
- verbal or written instruction indicating level or mark
- datum/survey peg fixed into ground
- chalk or nail mark on paved/concrete surface

Personal protective equipment may include:

- overalls
- boots
- jacket
- hard hat
- safety glasses/goggles
- dust masks
- gloves

Associated equipment and tools may include but are not limited to:

- staff
- measuring tape/rule
- string line
- wooden/steel pegs
- laser target and staff
- hammer

Instructions reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out safe and effective nominated levelling and boning exercises using any two of the types of levels listed within the range of variables statement related to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- show compliance with organisational policies and procedures including Quality Assurance requirements
- adopt and carry out correct procedures prior to and during levelling and boning processes
- demonstrate safe and effective operational use of tools, plant and equipment
- indicate particular attention to accurately reading and recording staff readings
- show particular care of equipment in handling, setting up and storing on completion
- interactively communicate with others to ensure safe and effective site operations

(2) Pre-requisite Relationship of Units

Competency in this unit may be determined concurrently with other work orientation units based upon integrated project work.

- BCGCOR0001A Carry out interactive workplace communication
- BCGCOR0041A Carry out measurements and calculations
- BCGCOR0081A Use simple levelling devices

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- hand tools
- levelling equipment
- use of levelling devices
- measurement and calculation
- drawings, sketches and instructions
- workplace communications

Skills
The ability to:

- work safely to instructions
- use levelling equipment
- communicate effectively
- read and record measurements
- measure accurately

(4) Resource Implications

The following resources should be made available:

- levelling equipment appropriate to levelling processes
- appropriate tools and associated equipment to support levelling processes
- suitable work area appropriate to levelling activities
- suitable plans/drawing and specifications/instructions

(5) Method of Assessment

Competency shall be assessed while work is being done under supervision with regular checks, but may include some autonomy when working as part of a team.

Assessment should be by direct observation of tasks and questioning related to underpinning knowledge.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0892A: Finish concrete

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and finish concrete surfaces, and applies to individuals working in masonry and other concrete related skills in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Define type of surface finish	1.1	Quality Assurance requirements of company's concreting operations recognised and adhered to.
		1.2	Occupational Health and Safety (OH&S) requirements for placing and finishing concrete and workplace environment recognised and adhered to.
		1.3	Quality/pattern/type of concrete surface finish defined from job plans and specifications.
2	Select tools and equipment	2.1	Concrete finishing tools and equipment selected to carry out processes consistent with job requirements, checked for serviceability and any faults reported to supervisor.
		2.2	Appropriate personal protective equipment selected, correctly fitted and used.
3	Finish concrete	3.1	Concrete place and compacted to required standards.
		3.2	Screeded concrete surface wood floated or given initial trowel application using mechanical trowelling machine.
		3.3	Control/structural joints defined and edges trowelled to specified location according to the appropriate drawings and specifications.
		3.4	Concrete surface given final trowel/finish to architects design engineers specifications.
4	Clean up	4.1	Area cleared and waste material removed.
		4.2	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to the finishing of surfaces of placed concrete.

Finishes to concrete surfaces include:

- steel trowelled
- wood floated
- broomed
- brushed to expose aggregate

Finishing of concrete to be in accordance with specifications and Building Codes.

Quality Assurance requirements may include:

- workplace operations and procedures
- application procedures for finishing concrete
- protection to finished surfaces
- use and maintenance of equipment
- attention to specifications of work

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms

Personal protective equipment may include:

- boots
- safety glasses/goggles
- ear plugs/muffs
- gloves

Tools, plant and equipment may include but are not limited to:

- power trowel
- wood float
- steel float
- brooms
- hoses
- edging tools

Reporting of faults should be in accordance with company's worksite procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by finishing concrete in at least three of the types of finishes listed within the range statement.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with occupational health and safety regulations applicable to workplace and concrete placing operations
- indicate compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment
- apply organisational quality procedures and processes within the context of placing and finishing concrete
- finish concrete surface in accordance with specifications
- take measures to protect concrete surface from either pedestrian, vehicular traffic, and the weather
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work procedures

(2) Pre-requisite Relationship of Units

- BCGCOR0001A Carry out interactive workplace communication
- BCGCOR0061A Use small plant and equipment
- BCGMAS0101A Carry out concrete work to simple forms
- BCGMAS0292A Carry out concrete work

This competency may be assessed concurrently with:

- BCGMAS0912A Place concrete
- BCGMAS0923A Cure concrete

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including relevant statutory regulations, codes and standards
- work organisation factors affecting concrete setting time
- concrete finishing techniques
- specifications
- tools and equipment

Skills
The ability to:

- work safely
- organise work
- use tools and equipment
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- freshly screeded concrete
- tools, plant and equipment appropriate to the finishing processes
- specifications for concrete finish

(5) Method of Assessment

Competency should be assessed through direct observation and questions related to underpinning knowledge.

Competency should be assessed under general guidance checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 2	
Work with others and in team	Level 2	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills

BCGMAS0922A: Cure concrete

Competency Descriptor: This unit deals with the skills and knowledge required to carry out concrete curing process, and applies to individuals working with concrete in particular the construction industry.

Competency field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Select curing method	1.1	Quality Assurance requirements of company's concreting operations recognised and adhered to.
		1.2	OH&S requirements for workplace environment and curing concrete recognised and adhered to.
		1.3	Concrete curing method selected in accordance with engineer's specification and Concrete Structures.
2	Select curing and personal protective equipment	2.1	Curing equipment selected consistent with curing requirements and checked for sound and safe working order.
		2.2	Appropriate personal protective equipment selected, correctly fitted and used.
3	Cure concrete	3.1	Concrete cured to engineer's approval and in accordance with the National Building Codes and standard practice inc Concrete on Building.
		3.2	Curing agent/method maintained on concrete surface to specifications and, where applicable, in accordance with standards for Liquid Membrane Forming Curing Compounds for Concrete.
		3.3	Protection provided to concrete during curing process by isolating and/or barricading area.
4	Clean-up	4.1	Area of concrete cure cleared and waste material removed.
		4.2	Curing equipment cleaned, maintained to manufacturer's specifications and stored.

RANGE STATEMENT

This unit applies to the curing of concrete in an on-site environment.

Curing methods may include:

- hosing
- sprinklers
- ponding
- applied chemical curing agent
- plastic film

Quality Assurance requirements may include:

- workplace operations and procedures
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding
- hazardous materials

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators/masks

Tools/equipment may include:

- hoses and sprinklers
- tarpaulins/covers
- rollers
- spray applicators

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the initial curing process to a nominated poured concrete section.

(1) Critical Aspects of Evidence

It is essential that competence be demonstrated in the critical aspects of:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and concrete pouring operations
- indicate compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment
- apply organisational quality procedures and processes within the context of placing and curing of concrete
- apply concrete curing method safely and effectively to designed application
- interactive communicate with others to ensure safe and effective curing operations

(2) Pre-requisite Relationship of Units

- BCGCOR0061A Use plant and equipment
- BCGMAS0101A Carry out concrete work to simple forms
- BCGMAS0292A Carry out concrete work

This competency may be assessed concurrently with:

- BCGMAS0892A Finish concrete

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including relevant statutory regulations and codes
- influence of curing process on strength of concrete
- methods of curing concrete
- safe handling of curing chemicals
- plant and equipment
- specifications

Skills
The ability to:

- work safely
- organise work
- use plant and equipment
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- freshly poured concrete location.
- tools, plant and equipment, appropriate to curing processes.
- specifications for curing application.

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency should be assessed under general guidance checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 1	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 1	In completing scheduled tasks
Use mathematical ideas and techniques	Level -	As an aid to measure and schedule tasks
Solve problems	Level-1	As an aid to self-development
Use technology	Level 1	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1242A: Apply solid render

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and apply cement mortar to render masonry structures, and applies to individuals working in masonry in the building construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	OH&S requirements for the workplace environment and preparing for and applying solid render recognised and adhered to.
		1.3	Area to receive solid render determined from job drawings.
		1.4	Correct mix for solid render determined from job specifications.
		1.5	Materials and required quantities calculated from job drawings and specifications.
		1.6	Appropriate personal protective equipment selected, correctly fitted and used.
		1.7	Tools and equipment selected consistent with requirements for applying solid render to flat surfaces, checked for serviceability and any faults reported to supervisor.
2	Prepare surface area	2.1	Scaffolding erected in accordance with job requirements and OH&S regulations.
		2.2	Surface area to be rendered prepared in accordance with job specifications.
		2.3	Dash coat mixed and applied liberally to wetted surface.
3	Mix materials for solid/render	3.1	Mortar for render mixed to designed proportion and consistency in accordance with the job specifications.

		3.2	Render coat dotted and lined (screeded) to plumb or level tolerance of +/- 2mm over 2.4 metres.
4	Apply render	4.1	Render applied to dried splash, dotted and lined surface and screeded to correct thickness in accordance with job drawings and specifications.
		4.2	Screeded solid render trowelled to specify surface according to job finishes schedule.
		4.3	Surface finished plumb/level and to an alignment tolerance of +/-2mm over 3 metres.
5	Cure applied surface	5.1	Finished surface cured using curing method in accordance with the job requirements and architect's specifications.
6	Clean up	6.1	Work area cleared.
		6.2	Waste materials removed from job area and placed into job waste bins or rubbish stockpile.
		6.3	Unused materials stored.
		6.4	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to the application of one or two-coat cement mortar render to masonry or concrete surfaces.

Render mix to be in accordance with specification.

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- fall safe protection
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Application may be to horizontal or vertical surfaces.

Background surfaces for application include:

- concrete
- concrete block-work
- brickwork
- stonework
- timber or metal lathing

Cleaning of surfaces may involve:

- wire brushing
- grinding
- chipping
- washing down

Dash coat may be applied using:

- trowel
- brush
- nozzle spray

Personal protective equipment may include:

- boots
- safety glasses/goggles
- ear plugs/muffs
- dust masks/respirators
- gloves
- cap

Tools and equipment may include but are not limited to:

- measuring tape/rule
- trowels
- brushes
- screed boards
- scaffolding
- straight edges
- grinder
- concrete mixer
- mortar boards and stands
- shovel
- wheelbarrows
- hawks
- joint rules
- small tools
- plumb bob
- masons square
- buckets
- sieve
- power leads

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by applying solid render to either brick, block or concrete background surfaces.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and solid plastering operations
- display compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment
- apply organisational quality procedures and processes within context of applying solid plastering
- locate surfaces and inspect for bonding requirements prior to application of splash coat or render or set coat
- prepare render mix to architect's specification and
- finish reveals and returns square to surface
- employ safe and efficient techniques in the use of tools and equipment
- identify faults and problems that occur and necessary action taken to rectify
- finish surface plumb/level to tolerance of +/-2mm over 2.4 metres
- interactively communicate with others to ensure safe and effective work procedures

(2) Pre-requisite Relationship of Units

- BCGCOR0051A Use hand and power tools
- BCGCOR0081A Use simple levelling devices
- BCGCOR0212A Prepare surfaces
- BCGCOR0242A Carry out levelling

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- drawings and specifications
- mix composition
- render and rough cast
- additives including plasticisers, colour and waterproofing agents
- Building Code of Jamaica and relevant Standard
- materials
- tools and equipment
- calculation of material quantities

Skills
The ability to:

- work safely
- select and handle material safely
- organise work
- interpret drawings and specifications
- interpret documentation from a wide range of sources
- set out work
- use tools and equipment
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- workplace location
- tools, plant and equipment suitable for applying cement rendering coats to flat surface
- scaffolding
- appropriate materials

(5) Method of Assessment

Competency should be assessed through direct observation of the application process and questions related to underpinning knowledge.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 2	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 2	
Use technology	Level 2	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1252A: Restore and renovate solid plasterwork

Competency Descriptor: This unit deals with the skills and knowledge required top prepared, restore and renovate damaged cement surfaces, and applies to individuals working in masonry work in the construction industry.

Competency Field: General Construction and Building Restoration

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2 OH&S requirements for workplace environment and in restoring and renovating solid plasterwork recognised and adhered to.
	1.3 Appropriate personal protective equipment selected, correctly fitted and used.
	1.4 Tools and equipment selected consistent with requirements of restoring and renovating solid plasterwork, checked for serviceability and any faults reported to supervisor.
	1.5 Safety hazards identified and correct procedures used to eliminate hazards and minimise risks to self and others according to OH&S legislation and company policy.
2. Identify damaged plasterwork	2.1 Scaffolding erected, where required, to OH&S regulations.
	2.2 Extent and type of restoration required identified by examination and from location indicated in job drawings and specifications.
	2.3 Drawing and/or template of damaged area prepared accurately to profile/moulding shape.
3. Restore plastered surfaces	3.1 Damaged plasterwork restored to original conditions or specifications.
	3.2 Sand/cement mortar and gypsum plaster setting applied as required.
	3.3 Materials applied and finished to match original surfaces, details and alignment.
4. Renovate lettering where applicable	4.1 Surface prepared for renovation to architect's specifications.
	4.2 Monograms and lettering panels constructed in sand and cement mortar to match detail for restorations.

		4.3 Materials applied to fine finish, with sharp arises, square returns and plumb/level to the requirements of job drawings.
5.	Clean up	5.1 Area cleaned to specification.
		5.2 Waste and unwanted material disposed of safely.
		5.3 Unused materials stored/stacked.
		5.4 Tools and equipment cleaned, maintained and stored.

RANGE STATEMENTS

This unit covers all restoration and renovation to damaged surface with cement render, hard plaster and concrete.

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- fall safe protection
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Application may be to solid plaster or cement render surface and may include but is not limited to:

- walls – straight, curved
- ceilings
- chimneys
- archways
- columns - fluted
- centre panels
- cornices
- other decorative features

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

Personal protective equipment may include:

- boots
- safety glasses/goggles
- dust masks/respirators
- gloves
- cap
- hard hat
-

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit level
- squares
- trowels
- floats
- brushes
- screed boards
- scaffolding
- concrete mixer
- mortar boards and stands
- shovel
- wheelbarrows
- hawks
- joint rules
- small tools
- plumb bob
- masons square
- buckets
- sieve
- power leads

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competence is to be demonstrated by restoring damage to all types of cement rendered, hard plastered and concrete surfaces.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- display compliance with organisational policies and quality procedures and processes within context of restoring and renovating solid plasterwork
- identify location and details of proposed solid plaster work restorations/renovations
- select and use appropriate processes, tools and equipment
- use safe and efficient procedures to apply and finish plaster to designed specification
- identify typical faults and problems that occur and necessary action taken to rectify
- ensure restoration materials conform to National Building Standard – Internal Plastering on Solid Backgrounds
- complete restoration/renovation of damaged walls and decorative components to specification
- demonstrate interactive communication with others to ensure safe and effective work procedures

(2) Pre-requisite Relationship of Units

- BCGCOR0061A Use small plant and equipment
- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGMAS0131A Prepare for construction process (solid plastering)
- BCGMAS1232A Apply float and set coats for hard plaster – flat surfaces
- BCGMAS1242A Apply solid render
- BCGMAS1263A Construct plaster mouldings

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- working drawings and specifications
- solid plaster techniques
- material selection and identification
- tools and equipment
- scaffolding
- substrate preparation

Skills
The ability to:

- work safely
- read and interpret drawings
- organise work
- use tools and equipment
- erect restricted height scaffolding
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- work area suitable for solid plastering
- tools, plant and equipment suitable for application of solid plaster
- materials suitable to the process of solid plastering
- scaffolding
- drawings and/or specifications relevant to tasks

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon integrated project work.

Assessment may be by intermittent checking at various stages of each tasks application or at the completion of each task in accordance with the performance criteria.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	
Communicate ideas and information	Level 3	
Plan and organise activities	Level 2	
Work with others and in team	Level 3	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1422A: Lay bricks/blocks (wall and corner)

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and lay bricks and blocks to form walls and corners, and applies to individual working in masonry in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	OH&S requirements for workplace environment and laying bricks and blocks identified and adhered to.
		1.3	Job materials and equipment requirements determined from drawings, site location and specifications.
		1.4	All work to comply with Standards for Building Bricks/blocks, Damp Proof Courses and Flashings, Wall Ties on Masonry Construction and Concrete Masonry.
		1.5	Appropriate personal protective equipment selected correctly fitted and used.
		1.6	Safety hazards identified and correct procedures used to minimise risk to self and others.
		1.7	Tools and equipment selected to carry out processes consistent with any job requirements, checked for serviceability and faults reported to supervisor.
2.	Select bricks/blocks and mortar materials	2.1	Bricks/blocks selected according to quality requirements and specifications.
		2.2	Materials for mortar selected to requirements of specification.
3.	Prepare location and materials	3.1	Location of block-work/brickwork set out on reinforced concrete footing slab in accordance with dimensions and details from job drawings.
		3.2	Mortar mixed in accordance with the job specifications and relevant Building Standard Code.
		3.3	Brickwork/block-work gauge determined and set out rod prepared to gauge dimensions.
4.	Lay bricks/blocks	4.1	Mortar applied evenly to job and set out location.
		4.2	Bricks/blocks laid to line, level and plumb with perpend (vertical) joints consistent in size to specifications.

	4.3	Bricks/blocks laid maintaining stretcher bond throughout construction, according to specifications.
	4.4	Bricks/blocks cut neatly and accurately to work bond.
	4.5	Corners formed maintaining bond and perpendicular intersection of both surfaces.
	4.6	Reinforcement placed and laid to bed joints to specifications, where applicable.
	4.7	Block-work/brickwork laid and completed to job drawings and specifications.
	4.8	Scaffolding erected as required in accordance with job requirements and OH&S regulations.
	4.9	Joints of laid brickwork/block-work raked or ruled to correct profile and depth to job specifications.
	4.10	Brickwork/block-work brushed down prior to drying to remove unwanted mortar.
5. Clean-up	5.1	Area cleared to specification.
	5.2	Waste and unwanted materials removed and placed into job waste bins or rubbish stockpile.
	5.3	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit covers all concrete block and brick masonry units.

Quality Assurance requirements may include:

- workplace operations and procedures
- colour and quality of bricks or blocks
- control of handling procedures
- specification of mix
- attention to work specifications
- specified finish

Masonry units may include:

- wire cut bricks
- pressed bricks
- concrete blocks
- hollow concrete blocks

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- working platforms and scaffolding
- safety hazards
- use of tools and equipment

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- bolster
- shovels
- wheelbarrows
- spirit level
- trowels
- jointing tools
- mortar boards
- scaffolding
- straight edges
- profiles
- line blocks
- builders line
- masonry saw

Construction may include reinforcement which may involve:

- wire strands
- welded wire fabric

Reporting of faults to be in accordance with organisation's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by constructing a masonry wall and corners in two separate projects, one with bricks and the other using blocks.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to worksite operations
- select and use appropriate processes, tools and equipment to carry out tasks
- apply organisational quality procedures and processes within context of laying brickwork or blockwork
- select masonry units and mortar materials in accordance with specifications and job requirements
- accurately set out dimensions and alignment of work
- proportion and mix mortar materials to specification
- identify, minimise and eliminate safety hazards
- erect scaffold in accordance with OH&S regulations
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others, where applicable, to ensure safe and effective work operations
- complete wall construction to specifications

(2) Pre-requisite Relationship of Units

- BCGCOR0031A Draw and interpret simple drawings
- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGCOR0081A Use simple levelling devices
- BCGMAS0151A Prepare for construction process (brick/block-work)
- BCGCOR0242A Carry out levelling

Part of this competency may be assessed concurrently with:

- BCGMAS1393A Carry out brick veneer construction

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including regulations, codes and standards
- working drawings and specifications
- bricks and blocks and material characteristics
- laying of bricks or blocks
- mortar mix composition
- range of mortar additives including plasticisers and their application
- Relevant Building Code and Standards
- materials
- tools and equipment
- measuring and levelling
- quantities
- scaffolding

Skills
The ability to:

- work safely
- read and interpret drawings
- interpret documentation from a wide range of sources
- organise work
- use tools and equipment
- set out work
- lay bricks or blocks
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- workplace location
- tools, plant and equipment appropriate to construction processes
- scaffolding required for activity
- material relevant to the proposed activity
- drawings and specifications relevant to the tasks

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency should be assessed under general guidance, checking at various stages of the process and at completion of the activity against performance criteria and specifications.

Competency should be assessed while tasks are undertaken.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 3	
Work with others and in team	Level 2	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 2	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1432A: Lay multi-thickness walls and piers

Competency Descriptor: This unit deals with the skills and knowledge required to prepare multi-thickness brick-work/block-work walls and piers, and applies to individuals working in masonry in the construction industry.

Competency Field: General Construction, Building Restoration

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	OH&S requirements for workplace environment and constructing brick walls and piers recognised and adhered to.
		1.3	Material and quantity requirements identified from job drawings and specifications.
		1.4	All work to comply with Standards for: Building Bricks/Blocks, Damp Proof Courses and Flashings, Wall Ties on Masonry Construction and Concrete Masonry.
		1.5	Appropriate personal protective equipment selected, correctly fitted and used.
		1.6	Tools and equipment selected consistent with requirements of multi-thickness wall and pier construction, checked for serviceability and any faults reported to supervisor.
2.	Set out brick/block work	2.1	Location and structural details of brick/block work determined from drawings and specifications.
		2.2	Location and relative level of prepared footing checked from job drawings and specifications.
		2.3	Brick/block work set out to location to dimensions from drawings and specifications.
3.	Construct walls and attached piers	3.1	Mortar mixed to requirements and bricks/blocks laid to set out for specified bond.
		3.2	Multi-thickness wall constructed maintaining bond and completed to job specifications.
		3.3	Attached piers, where required, bonded to wall according to job specifications.
		3.4	Walls to be straight and true in plumb line and level within tolerance set out.
		3.5	Where required, damp proof courses built to specifications and Standard requirements.

		3.6	Scaffolding erected as required in accordance with job requirements and OH&S regulations.
		3.7	Openings constructed and lintels installed to job specifications and Standard requirements.
		3.8	Tie downs for ceiling/roof structure built into walls in accordance with Standard requirements.
4.	Construct isolated piers	4.1	Bricks/block laid to set out and specified bond, or blocks to required specifications.
		4.2	Piers constructed to line, level and plumb according to job specifications.
5.	Rake/rule brickwork joints	5.1	Joints to laid face brickwork raked or ruled to correct profile and depth in accordance with job specifications.
		5.2	Brick/block work brushed down prior to drying to remove unwanted mortar.
6.	Clean up	6.1	Area cleared to specification.
		6.2	Waste and unwanted materials removed and placed in job waste bins or rubbish stockpile.
		6.3	Tools and equipment cleaned, maintained and stored.
		6.4	Unused materials stored/stacked.

RANGE STATEMENT

This unit applies to multi-thickness brick or block work construction incorporating laying of bricks or blocks to specified specifications to provide a designed structural stability and/or designed brick/block featured face.

This unit covers all straight, square and plumb multi-thickness block-work/brickwork constructions including walls, columns, attached piers and incorporating wall ties and reinforcement.

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work
- colour and shape of bricks/blocks
- specification of mix
- specified finish

OH&S requirements to be in accordance with Statutory Legislation and regulations may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- dust masks/respirators
- hard hat
- overalls

Bond types for brickwork may include:

- English
- Flemish
- stretcher

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit levels
- dumpy level
- concrete mixer
- bolsters
- wheelbarrows
- shovels
- masonry saw
- trowels
- straight edges
- jointing tools
- string line
- line pins
- line blocks
- profiles
- scaffolding
- mortar boards
- buckets
- mason's square
- angle grinder
- plumb rule

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the performance of laying bricks or blocks to construct a triple thickness wall with a corner and a multi-thickness isolated pier. The nominated projects are to be constructed maintaining given specification.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and bricklaying operations
- display compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment for laying multi-thickness walls and piers
- apply organisational quality procedures and processes within context of constructing multi-thickness brick or block walls and piers
- select bricks or blocks and mortar consistent with specification of laying multi-thickness walls and piers
- correctly locate and set out walls and piers
- lay bricks or blocks to line and gauge with bond maintained
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work procedures
- complete construction of multi-thickness wall and isolated pier to specification

(2) Pre-requisite Relationship of Units

- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGMAS0151A Prepare for construction process (brick/block-work)
- BCGCOR0242A Carry out levelling
- BCGMAS1422A Lay bricks and/or blocks (wall and corner)
- BCGMAS1403A Carry out solid brickwork construction

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including regulations, codes and standards
- working drawings and specifications
- mortar mix composition
- range of mortar additives including plasticisers and their application
- relevant Building Code and Standards
- multi-thickness wall construction
- brick bond patterns
- materials
- tools and equipment
- quantities
- scaffolding

Skills
The ability to:

- work safely
- read and interpret drawings
- interpret documentation from a wide range of sources
- organise work
- set out work
- erect restricted height scaffolding
- use tools and equipment
- lay bricks
- communicate effectively
- calculate quantities

(4) Resource Implications

The following resources should be provided:

- workplace location
- tools, plant and equipment appropriate for construction processes
- scaffolding
- appropriate materials for construction activity
- drawings and specifications relative to tasks

(5) Method of Assessment

Competency should be assessed through direct observation of practical application and questions related to underpinning knowledge.

Competency should be assessed under general guidance, checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 2	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 3	
Use technology	Level 2	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1462A: Construct straight masonry block-work

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and construct concrete block masonry work, and applies to individuals working in masonry trades in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Occupational Health and Safety (OH&S) requirements for workplace environment and constructing masonry block-work identified and adhered to.
		1.3	Material and quantity requirements determined from job drawings and specifications.
		1.4	All work to comply with relevant Building Code for Masonry.
		1.5	Appropriate personal protective equipment selected, correctly fitted and used.
		1.6	Tools and equipment selected consistent with the requirements of constructing concrete masonry block-work, checked for serviceability and any faults reported to supervisor.
		1.7	Safe working area established and isolated, where applicable.
2	Set out block-work	2.1	Location and structural details of block-work determined from job drawings and specifications.
		2.2	Block-work set out to location to dimensions from job drawings and specifications.
3	Construct masonry block-work	3.1	Concrete blocks laid using mortar to job specifications and the relevant Building Codes for building block-work.
		3.2	First course of block-work laid to set out line and level.

		3.3	Door and window openings located in block-work according to job specifications.
		3.4	Remaining courses of block-work laid straight and plumb to job specifications
4	Place reinforcement and concrete	4.1	Horizontal reinforcing steel-bars placed according to job specifications.
		4.2	Vertical reinforcing steel-bars placed according to job specifications with jointing/splicing made to engineer's specifications.
		4.3	Concrete mixed to specifications, placed and compacted in hollow block-work in line according to specifications.
		4.4	Openings constructed and lintels formed.
		4.5	Walls are straight and true in plumb, line and level within tolerances set out.
		4.6	Vents, expansion joints and weep-holes installed, where required, to job specifications.
		4.7	Perpendicular joints are laid to vertical line.
		4.8	Scaffolding erected as required in accordance with job requirements and OH&S regulations.
		4.9	Block-work raked/ruled/struck to job specifications.
5	Install belt beam/lintel	5.1	Details of belt beam and reinforcement identified in accordance with job design and specifications.
		5.2	False work constructed to job requirements to support lintel formwork over opening.
		5.3	Mortar fins of bond blocks where used removed carefully to manufacturer's requirements.
		5.4	Reinforcement placed into belt beam/formwork formwork and supported, providing correct cover in accordance with job specifications.

		5.5	Belt beam formwork checked for placement and alignment in accordance with job drawings and engineer's specifications.
		5.6	Concrete mixed, placed into belt beam/lintel formwork and consolidated to engineer's specifications.
6	Clean up	6.1	Block-work face cleaned free of unwanted mortar and concrete.
		6.2	Formwork for belt beam safely removed when the design strength of concrete has been achieved.
		6.3	Supports within openings removed safely once the lintel design strength has been achieved.
		6.4	Area cleared and waste material disposed of safely.
		6.5	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit covers all hollow block masonry units manufactured of lightweight materials or concrete, which incorporate infilling of hollows to provide bonding strength to construction.

Reinforcement of structure can be either or both vertical or horizontal reinforcing.

This unit covers all straight, square and plumb block-work construction, which includes:

- walls
- columns
- attached piers
- belt beams and lintel
- incorporation of wall ties and reinforcement

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to work specifications
- shape and quality of masonry blocks
- specification of mortar mix
- specified joint finish

OH&S requirements to be in accordance with Statutory Legislation and regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding
- safety hazards

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- dust masks/respirators
- hard hat
- overalls

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit level
- dumpy level
- concrete mixer
- wheelbarrows
- shovels
- masonry saw
- angle grinder
- trowels
- straight edges
- plumb rule
- jointing tools
- string line
- line pins
- line blocks
- scaffolding
- mortar boards
- buckets
- mason's square
- adjustable steel props
- timber beam bearers
- hand saw
- claw hammer

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the construction of a straight masonry block-work wall, including return corners and belt beam or lintel.

(1) Critical Aspects of Evidence

Competence is to be observed in the following critical aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to worksite and masonry block laying operations
- select and use appropriate processes, tools and equipment for masonry block laying
- apply organisational quality procedures and process within context of masonry block construction
- set out wall to the requirements of job drawings
- select blocks and mortar consistent within specifications for job
- erect scaffolding in accordance with OH&S regulations
- identify typical faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work procedures
- complete construction of masonry block-work wall to job drawings and specifications
- placement of reinforcement

(2) Pre-requisite Relationship of Units

- BCGCOR0031A Draw and interpret simple drawings
- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGCOR0081A Use simple levelling devices
- BCGMAS0101A Carry out concrete work to simple forms
- BCGMAS0151A Prepare for construction process (brick/block-Laying)
- BCGCOR0242A Carry out levelling

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including regulations, codes and standards'
- block expansion
- control and articulation joints
- mortar mix composition
- range of mortar additives including plasticisers and their application
- Building Code and Standard for Masonry Work
- materials for constructing masonry block-work walls
- tools and equipment suitable for masonry block-work construction
- measuring and levelling

Skills
The ability to:

- work safely
- read and interpret drawings
- interpret documentation from a wide range of sources
- use tools and equipment
- set out work
- communicate effectively
- organise work
- lay masonry block-work
- erect restricted height scaffolding

(4) Resource Implications

The following resources should be provided:

- workplace location
- tools, plant and equipment appropriate for constructing masonry block-work walls
- scaffolding
- materials appropriate for masonry block-work construction
- drawings and specification relevant to tasks
- appropriate size belt beam lintel reinforcement cage

(5) Method of Assessment

Competency should be assessed through direct observation of practical application and questions related to underpinning knowledge.

Competency should be assessed under general guidance checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 2	
Work with others and in team	Level 2	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 2	
Use technology	Level 2	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0091A: Carry out excavation and install support

Competency Descriptor: This unit deals with the skills and knowledge required to effectively carry out excavation work and to install support for excavation, and applies to individuals working in trenching and foundation work in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Occupational Health and Safety (OH&S) requirements recognised and adhered to in accordance with application tasks and workplace environment.
		1.3	Appropriate personal protective equipment selected, correctly fitted and used.
		1.4	Tools and equipment requirements identified to supervisor's instructions, consistent with the needs of the job.
2.	Locate excavation and erect safety equipment	2.1	Excavation located from instruction.
		2.2	Site pegs installed, service markers identified and excavation limits marked.
		2.3	Safety barricades, signs and lights erected in positions as required by OH&S requirements.
3.	Select tools and equipment	3.1	OH&S requirements associated with use of tools and equipment recognised and adhered to.
		3.2	Personal protective equipment items selected in accordance with excavation method and conditions correctly fitted and used.
		3.3	Hand tools and equipment selected consistent with the needs of the job, checked for serviceability and any faults reported to supervisor.

4.	Dig excavations by hand	4.1 Where appropriate temporary drainage system established to divert surface and subsurface water to storm water drainage system.
		4.2 Excavations safely dug with hand tools under direction.
		4.3 Service markers or taped areas identified.
		4.4 Damage or interference with underground services (power, water, gas, telephone) avoided during excavation process.
		4.5 Excavations cleaned out with hand tools, free from loose material.
5.	Assist machine excavation operations	5.1 Machine operator assisted with excavation by verbal and trimming support, ensuring it is to line and depth.
		5.2 Excavation cleaned out by hand according to job requirements and instructions.
6.	Install excavation support	6.1 Excavation works carried out in accordance with regulatory authority's requirements.
		6.2 Trench/excavation support installed to instruction according to OH&S regulations.
7.	Clean up	7.1 Site cleaned and cleared of unwanted excavated material.
		7.2 Tools cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to excavations carried out by hand and assisting excavator operators with their operation.

This unit applies to trench/excavation depth not exceeding 1.5m excavation and includes but is not limited to:

- post holes
- pits
- pad excavations
- trenches
- levelling of work area

Regulatory authorities are those under the Statutory Legislation governing:

- water
- sewerage
- gas
- electricity
- telephone

OH&S requirements are to be in accordance with the Statutory Legislation and regulations.

Work is to be undertaken in a team situation or individually under supervision.

Reporting of faults may be written or verbal.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the safe and effective excavation and/or support of at least two different types of excavations from those listed within the range of variables statement, relevant to the work orientation.

(1) Critical Aspects and Evidence

It is essential that competence is observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during excavation processes
- identify and understand instruction relevant to the location of excavation
- demonstrate safe and effective operational use of tools and equipment
- interactively communicate with others to ensure safe and effective operations.

(2) Pre-requisite Relationship of Units

- BCGCOR0001A Carry out interactive workplace communication
- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- hand tools and equipment
- materials handling
- measurement and calculations
- workplace communications
- regulatory authority's requirement for excavation/support
- range of “in ground” services and relevant markers/identifiers
- types pf soil

Skills
The ability to:

- work safely to instructions
- use hand tools and equipment
- handle material
- measure relevant to excavation process
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- general construction materials for excavation support
- hand tools appropriate to excavation processes
- work area appropriate for the excavation activities
- appropriate OH&S safety resources to suit excavation location

(5) Method of Assessment

Competency shall be assessed while work is being done, under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work. Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of the process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGTIL0121A: Prepare for wall and floor tiling

Competency Descriptor: This unit deals with the skills and knowledge required to effectively carry out work in preparing the process for laying wall and floor tiles, and applies to all individuals involve in tiling.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan for the construction process	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Preparation and planning requirements identified from drawings/work location and/or supervisor's instructions.
		1.3	OH&S requirements identified and adhered to in accordance with application tasks and workplace environment.
		1.4	Safety hazards identified and correct procedures adopted to minimise risk to self and others.
		1.5	Materials selected to supervisor's instructions and safely handled and stored/located ready for application.
		1.6	Appropriate personal protective equipment selected, correctly fitted and used.
		1.7	Tools and equipment selected consistent with the job requirements, checked for serviceability and any faults reported to supervisor.
		1.8	Fixing/fasteners selected consistent with job requirements, where applicable, and checked for serviceability.
2	Prepare materials selected for construction process	2.1	Activities for material preparation identified from specifications or supervisor's instructions.
		2.2	Material preparation carried out to satisfy requirements of application process.
3	Prepare work area suitable for construction process	3.1	Activities to be carried out in work area identified from type of tile, surface to be covered, method of application and access to surface.

		3.2	Work area prepared for the application process to specifications or supervisor's instructions.
4	Use tools, plant and equipment appropriate for construction process	4.1	Regular hand and power tools suitable for application process identified to job requirements.
		4.2	Hand and power tools used safely and effectively to carry out processes.
5	Prepare underlay/sheeting for floor and walls	5.1	Assistance with underlay preparation provided under instructions and supervision.
		5.2	Surface finished flat/level with joints flush and sealed.
6	Prepare background of brick, concrete or blockwork for solid plastering	6.1	Structure identified and surface wire and brushed to remove loose material and holes. Depressions and gaps filled with suitable patching material to supervisor's instructions.
		6.2	Materials for splash coat proportioned and mixed to instructions ready for application to wet surface.
7	Prepare for render surface for tiling	7.1	Horizontal/vertical surrounds prepared for tiling process in accordance with type of tile and specified finish, where applicable.
		7.2	Materials for render coat proportioned and mixed to instructions ready for application.
		7.3	Rendered surface scratched and dried to instructions in accordance with specifications.
8	Clean up	8.1	Materials stacked/stored for re-use or disposal.
		8.2	Work area cleared.
		8.3	Tools and equipment cleaned, maintained and stored.
		8.4	Waste disposed of using appropriate method to NEPA requirements.

RANGE STATEMENT

This unit applies to the preparation and construction processes carried out in preparing for the tiling of wall and floor surfaces.

Types of tiles include:

- ceramic
- marble
- stone
- granite
- terra cotta

Construction processes include:

- use of underlay material
- rendering to provide flat surface
- preparing of surfaces
- workplace preparation

Tools and equipment include but are not limited to:

- hammers
- saws
- measuring ruler/tape
- power saw
- power drills and screwdriver
- cement sheet cutters
- spirit levels
- concrete mixers
- shovels
- wheelbarrows
- wire brushes
- brooms
- power sander

Underlay materials include:

- plasterboard
- fibro cement

Fixing and fasteners include but are not limited to:

- plasterboard nails
- clouts
- soft sheet nails
- self tapping screws
- wall board adhesive

Surrounds for tiling include:

- extruded metal sections
- timber moulding

Patching materials include but are not limited to:

- plaster
- sand and cement
- cornice adhesive
- fillers (pre-mixed and mix)
- caulking compounds

Work is to be done under supervision with instructions being as part of supervisor's directions, consistent with job specifications.

Reporting of faults may be verbal or written.

OH&S requirements to be in accordance with Statutory Legislative regulations.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the safe and effective preparation for tiling applications in accordance with the performance criteria using any of the processes and range of materials listed within the range of variables statement.

(1) Critical Aspects of Evidence

It is essential that competence is observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of construction processes
- demonstrate safe and effective operational use of tools and equipment
- give particular attention to specified finish of surfaces ready for tiling
- interactively communicate with others to ensure safe and effective workplace operations

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- drawings and specifications
- portable power tools
- hand tools and equipment
- materials relative to wall and floor tiling
- fixing and fasteners consistent with wall and floor tiling requirements
- workplace communications
- materials handling
- measurement relative to wall and floor tiling

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools
- handle material
- select material
- measure relative to the process
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- general construction materials relevant to wall and floor tiling preparation activities
- hand and power tools appropriate to wall and floor tiling processes
- plant and equipment appropriate to wall and floor tiling processes
- suitable work area appropriate to wall and floor tiling activities

(5) Method of Assessment

Competency shall be assessed while work is undertaken under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0141A: Prepare for dry wall plastering

Competency Descriptor: This unit deals with the skills and knowledge required to effectively carry out the preparation process of dry wall plastering, and applies to individuals erecting dry wall plastering in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan for construction process	1.1 Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2 Preparation and planning requirements identified from drawings/work location and/or supervisor's instructions.
	1.3 OH&S requirements identified and adhered to in accordance with application tasks and workplace environment.
	1.4 Safety hazards identified and correct procedures adopted in order to minimise risk to self and others.
	1.5 Materials selected to supervisor's instructions, safely handled and stored/located until ready for application.
	1.6 Appropriate personal protective equipment selected, correctly fitted and used.
	1.7 Tools and equipment selected consistent with the job requirements, checked for serviceability and any faults reported to supervisor.
	1.8 Fixtures/fasteners selected consistent with job requirements and checked for serviceability.
2. Prepare materials selected for construction process	2.1 Activities for material preparation identified from specifications or supervisor's instructions.
	2.2 Fasteners/fixing prepared for installation according to instruction.
	2.3 Material preparation carried out to satisfy the requirements of the construction process.

3.	Prepare work area suitable for construction process	3.1	Activities to be carried out in work area identified from surfaces to be lined and height to be accessed.
		3.2	Work area prepared for construction process to supervisor's instructions.
4.	Use tools, plant and equipment appropriate for construction process	4.1	Regular hand and power tools suitable for application process identified to job requirements.
		4.2	Hand and power tools used safely and effectively to carry out processes.
5.	Assist with sheet material installation	5.1	Sheet materials identified from stack and safely distributed to required location.
		5.2	Assistance provided with cutting sheets to job requirements.
		5.3	Assistance provided with placing and fixing sheets to job requirements.
6.	Clean-up	6.1	Materials stacked/stored for re-use or removal.
		6.2	Work area cleared of debris.
		6.3	Tools and equipment cleaned, maintained and stored.
		6.4	Waste disposed of using appropriate method according to the National Environmental Protection Act (NEPA) requirements.

RANGE STATEMENT

This unit applies to the preparation processes carried out to support the installing of plaster sheeting and cornicing to walls and ceilings which includes:

- plasterboard
- water resistant plasterboard

Background support of plaster sheeting includes:

- timber framework
- light steel framework
- metal furring channels
- timber battens

Work area preparation may include:

- clearing area
- preparing saw stools and planks
- work platform

Fixing and fasteners include but are not limited to:

- nails
- plasterboard nails
- clouts head nail
- self tapping screws
- wallboard adhesive
- cornice adhesive

Construction process includes:

- fixing of battens/furring channels
- worksite preparation
- fixing of sheeting
- fixing of cornice
- finish of surface

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammer
- saws
- power drills and screwdrivers
- adhesive gun
- cutting knife
- scrapers
- saw stools and planks
- steel floats
- power leads

Material preparation may include:

- cutting corner bead to length
- identifying and marking sheets for location
- fixing material and fasteners located ready for use

Work is to be undertaken as part of a team under supervision, with instructions from supervisor and can either verbal or written.

Reporting of faults may be verbal or written.

OH&S requirements to be in accordance with statutory regulations.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the safe and effective preparation for dry wall plastering application in accordance with the performance criteria using any of the range of materials and processes listed within the range of variables statement.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of construction process
- demonstrate safe and effective operational use of tools, plant and equipment
- adopt and use correct procedures in handling plaster sheets
- interactively communicate with others to ensure safe and effective installation processes

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- drawings and specifications
- portable power tools
- hand tools and equipment
- materials relative to dry wall plastering
- materials handling
- measurement relative to dry wall plastering
- fixing and fasteners consistent with dry wall plastering requirements
- workplace communication

Skills
The ability to:

- work safely to instructions
- use hand and power tools
- handle material
- select material
- communicate effectively
- measure relative to the process

(4) Resource Implications

The following resources should be made available:

- construction materials relevant to dry wall plastering
- hand and power tools appropriate to dry wall plastering process
- equipment appropriate to dry wall plastering process
- suitable work area appropriate to dry wall plastering activities

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCAR0161A: Prepare for carpentry construction

Competency Descriptor: This unit deals with the skills and knowledge required to effectively prepare the process for carrying out construction work in carpentry, and applies to individuals working in the occupation.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan for construction process	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Preparation and planning requirements identified from drawings and/or supervisor's instructions.
		1.3	Occupational Health and Safety (OH&S) requirements identified and adhered to in accordance with application tasks and workplace environment.
		1.4	Safety hazards identified and correct procedures adopted to minimise risk to self and others.
		1.5	Materials selected to supervisor's instructions, safely handled, stored/located and ready for application.
		1.6	Appropriate personal protective equipment selected, correctly fitted and used.
		1.7	Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.
		1.8	Fixing/fastenings selected to instructions consistent with job requirements.
2.	Prepare materials selected for construction process	2.1	Activities for material preparation identified from specifications or supervisor's instructions.
		2.2	Material preparation carried out to satisfy requirements of construction process.

3.	Prepare work area suitable for construction process	3.1	Activities to be carried out in work area identified from drawing details of proposed construction and supervisor's instructions.
		3.2	Work area prepared for construction of temporary security fence and site structures, building layout and workstation according to supervisor's instruction.
4.	Use tools and equipment appropriate for construction process	4.1	Regular hand and power tools suitable for application process identified to job requirements.
		4.2	Hand and power tools used safely and effectively according to instruction to carry out construction processes.
5.	Select materials and cut components	5.1	Material obtained from stack to instruction.
		5.2	Correct manual handling techniques used to move and place materials.
		5.3	Materials safely moved to work area.
		5.4	Docking/drop saw used to accurately cut one or multiple components to same length according to given instruction.
6.	Distribute components	6.1	Cut components distributed and stacked to suit job location and sequence.
7.	Erect temporary fencing	7.1	Posts are appropriately placed, aligned and firmly fixed.
		7.2	Stiles and cladding materials (metal/board) are firmly fixed.
		7.3	Entrance is of specified size and gate opens, swings and shuts without difficulty.
8.	Clean-up	8.1	Unused material stacked/stored for re-use.
		8.2	Work area cleared.
		8.3	Tools and equipment cleaned, maintained and stored.
		8.4	Waste disposed of using appropriate method according to the Environmental Protection Agency (NEPA) requirements.

RANGE STATEMENT

This unit applies to the preparation processes associated with carpentry construction work based on the construction of timber partition framing.

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammer
- docking saw
- jigs/stops
- saw stools
- work bench
- clamps
- squares

Personal protective equipment may include but not limited to:

- overalls
- jacket
- boots
- gloves
- safety goggles/glasses
- ear plugs/muffs
- dust masks/respirators
- hard hat/cap

Safety hazards may include but are not limited to:

- restricted access
- location of power leads
- dust
- off cut material
- lighting
- limited storage space

Construction processes includes:

- workplace preparation
- materials preparation
- assembling of partitions
- erecting and fixing of partitions

Material preparation may include:

- stacking of material
- measuring and marking
- cutting and distributing

Work area preparation may include:

- cleaning of area
- setting up for docking saw
- material storage

Fixing/fasteners may include:

- nails
- screws
- bolts
- masonry anchors
- drive/masonry nails

Work is to be undertaken as part of a team under supervision with instruction being part of a supervisor's directions, either verbal or written.

OH&S requirements are to be in accordance with Statutory Legislation and Regulations.

Reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the safe and effective preparation of materials and work area for the installation of partition framing in accordance with the listed range of variables.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- correct procedures carried out prior to and during application of construction process
- demonstrate safe and effective operational use of tools, plant and equipment
- interactively communicate with others to ensure safe and effective workplace operations

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- portable power tools
- hand tools and equipment
- materials relevant to construction process
- materials handling
- measurement relative to construction process
- drawings and specifications
- fixing and fasteners consistent with construction requirements
- workplace communication
- Quality Assurance

Skills
The ability to:

- work safely to instructions
- interpret drawings
- use power tools and hand tools
- handle material
- select material
- measure relative to processes
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- construction materials relevant to proposed construction
- hand and power tools appropriate to construction processes
- plant and equipment appropriate to construction processes
- suitable work area appropriate to proposed activity

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit should be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0171A: Prepare for demolition process

Competency Descriptor: This unit deals with the skills and knowledge required to effectively prepare construction process for demolition, and applies to all individuals carrying out initial demolition work in the construction industry.

Competency Field: General and Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan for demolition process	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Job requirements identified from drawings/supervisor's instructions.
		1.3	OH&S requirements for demolition tasks and workplace environment recognised and adhered to.
		1.4	Safety hazards identified and correct procedures adopted to minimise risk to self and others.
		1.5	Protection of public and environment identified from demolition plan/instructions.
		1.6	Appropriate personal protective equipment selected according to job requirements, and correctly fitted and used.
		1.7	Tools and equipment selected to instructions consistent with the job requirements, checked for serviceability and any faults reported to supervisor.
		1.8	Protective equipment and materials selected to instructions, consistent with job requirements.
2.	Prepare materials for demolition process	2.1	Materials for protection of others, public and environment selected to instructions.
		2.2	Material preparation carried out to satisfy requirements of protective barriers and construction.
3.	Prepare work area for demolition process	3.1	Activities to be carried out in work area identified from supervisor's instructions.
		3.2	Protective barriers to be erected/constructed identified from drawing details and/or instructions.

		3.3	Barriers, dust blankets and/or safety fencing erected/installed to instructions.
4.	Use tools and equipment for construction processes	4.1	Regular hand and power tools suitable for application processes identified from demolition plan/supervisor's instructions.
		4.2	Hand and power tools used safely and effectively in construction processes.
5.	Set up plant and equipment for demolition processes	5.1	Position for locating plant and equipment identified in accordance with job instructions.
		5.2	Plant and equipment located and established in position ready for operation.
6.	Clean up	6.1	Unused materials stacked/stored.
		6.2	Work area cleared.
		6.3	Waste disposed of using appropriate method to NEPA requirements.
		6.4	Tools and equipment cleaned, maintained and stored.

RANGE OF VARIABLES

This unit applies to the preparation processes carried out prior to and during the demolition of a building.

Construction processes include:

- preparation for protective barriers
- erection of safety fences
- erection of solid panelled fencing/hoarding
- installation of dust blankets
- worksite preparation

Demolition sites include:

- buildings on part of a block
- buildings occupying all of a block
- interiors of buildings

Personal protective equipment may include:

- overalls
- jacket
- waterproof pants and jacket
- boots
- gum boots
- hard hat
- safety goggles/glasses
- ear plugs/muffs
- gloves
- dust masks/respirators

Material item may include:

- timber
- blanket sheeting
- plywood
- steel fencing

Tools may include but are not limited to:

- hammers
- hand and power saws
- shovels
- fencing bars
- staplers
- chisels
- picks
- brooms
- cutting knife

Plant and equipment may include but are not limited to:

- air compressor and hoses
- pneumatic picks, rock-breakers
- wheelbarrows
- ladders

Work is to be undertaken as part of a team under supervision with instructions being part of supervisor's directions, either verbal or written.

OH&S requirements to be in accordance with Statutory Legislation and regulations.

Reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out safe and efficient preparation and construction processes in preparing for the demolition of a building using any of the listed range of variables.

(1) Critical Aspects of Evidence

It is essential that competence is observed in the following aspects:

- demonstrate compliance with OH&S regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during construction and demolition processes
- demonstrate safe and effective operational use of tools, plant and equipment
- interactively communicate with others to ensure safe and effective workplace operations

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- portable power tools
- hand tools and equipment
- materials
- materials handling
- use of plant and equipment
- drawings and written instructions
- workplace communication

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools
- handle material
- select material
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- demolition site
- hand and power tools appropriate to construction process
- plant and equipment appropriate to construction and demolition processes
- appropriate materials for construction activities

(5) Method of Assessment

Competency should be assessed while work is undertaken under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGPAD0191A: Prepare for painting and decorating

Competency Descriptor: This unit deals with the skills and knowledge required for effectively carrying out construction activities in preparation for painting and decoration process, and applies to individuals working in painting and decorating trades in the building and construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan for construction process	1.1	Quality Assurance requirements of company's painting and decorating operations recognised and adhered to.
		1.2	Preparation and planning requirements identified from drawings and/or plans.
		1.3	Occupational Health and Safety (OH&S) requirements determined and adhered to in accordance with application tasks and workplace environment.
		1.4	Safety hazards identified and correct procedures adopted to minimise risk to self and others.
		1.5	Materials selected according to supervisor's instructions, safely handled and stored/located and ready for application.
		1.6	Appropriate personal protective equipment selected, correctly fitted and used.
		1.7	Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.
		1.8	Fixing/fasteners selected consistent with job requirements and checked for serviceability.
2	Prepare materials selected for construction process	2.1	Activities for material preparation identified from specifications or supervisor's instructions.
		2.2	Fasteners/fixing prepared for installation to instruction.
		2.3	Material preparation carried out to satisfy requirements of construction process.

3	Prepare work area suitable for construction process	3.1	Activities to be carried out in work area identified from surfaces to be finished and height to be accessed.
		3.2	Work area prepared for construction process to supervisors instructions.
4	Use tools, plant and equipment appropriate for construction process	4.1	Regular hand and power tools suitable for application process identified with job requirements.
		4.2	Hand and power tools used safely and effectively to carry out processes.
5	Assist with initial preparation of surfaces for painting and decorating	5.1	Sound surfaces prepared by either sanding or washing down using solvents or detergent.
		5.2	Unsound surfaces prepared by scraping and/or sanding
6	Assist with preparing surfaces for final finish	6.1	Stopping/filling material applied to a flush and even finish.
		6.2	Surface sanded by hand.
		6.3	Primer/sealer/undercoats applied to surface by brush and/or roller.
7	Clean up	7.1	Materials stacked /stored for re-use or disposal.
		7.2	Work area cleared.
		7.3	Tools and equipment cleaned and stored in a cool place.
		7.4	Waste disposed of using appropriate method according to National Environmental Protection Agency (NEPA) requirements.

RANGE STATEMENT

This unit applies to the work undertaken in a team environment for the preparation and subsequent coating of general building surfaces.

Construction process includes:

- worksite preparation
- surface preparation
- application of prime and intermediate coatings

Tools and equipment may include but not limited to:

- scrapers
- filling
- knives/blades
- putty knives
- duster brushes
- hand sanders
- mechanical sanders
- paint stirrers
- drop sheets
- wire brushes
- hammer
- nail punches
- paint pans/buckets
- brush-ware accessories
- roller frames
- covers
- roller accessories
- ladders
- trestles
- planks
- hop-ups
- aluminium mobile scaffolding

Materials may include:

- preparatory products
- paints – solvent-borne (alkyd, urethane, urethane/alkyd, urethane oil or modified alkyd resins) and latex (PVA, PVA/acrylic, acrylic and styrene acrylic)

Surfaces to be painted may include common profiles encompassing:

- ply
- building boards (including MDF and particle board)
- fibre cement products, iron and steel
- zinc coated and zinc alloy coated steel products
- masonry products
- clay bricks
- concrete blocks
- in-situ-concrete
- cement render
- set plaster
- plaster glass products
- paper-faced gypsum plaster board
- previously coated/treated surfaces

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective preparation of materials using the processes listed within the range of variables statement.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of construction process
- use tools, plant and equipment safely and effectively
- Processes comply with preparation of surfaces for final finish – painting and decorating

(2) Pre-requisite Relationship of Units

- BCG0011A Carry out OH&S requirements
- BCG0051A Use hand and power tools
- BCG0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- portable power tools
- hand tools and equipment
- materials relevant to painting and decorating
- materials handling
- measurement and calculation
- interpreting plans
- fixing and fasteners consistent with painting and decorating requirements
- workplace communication requirements

Skills
The ability to:

- work safely to instructions
- use power and hand tools
- handle material
- select material
- communicate effectively
- measure relative to the process

(4) Resource Implications

The following resources should be made available:

- general construction materials relevant to painting and decorating
- hand and power tools appropriate to painting and decorating process
- plant and equipment appropriate to painting and decorating process
- suitable work area appropriate to painting and decorating process

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based on integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of the process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

ITICOR0011A: Carry out data entry and retrieval procedures

Competency Descriptor: This unit deals with the skills and knowledge required to operate computer to enter, manipulate and retrieve data and to access information and communicate via the Internet.

Competency Field: Information Technology and Communications - Operations

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Initiate computer system	1.1	Equipment and work environment are correctly checked for readiness to perform scheduled tasks.
		1.2	The hardware components of the computer and their functions are correctly identified.
		1.3	Equipment is powered up correctly.
		1.4	Access codes are correctly applied.
		1.5	Appropriate software is selected or loaded from the menu.
2.	Enter data	2.1	Types of data for entry correctly identified and collected.
		2.2	Input devices selected and used are appropriate for the intended operations.
		2.3	Manipulative procedures of Input device conform to established practices.
		2.4	Keyboard/mouse is operated within the designated speed and accuracy requirements.
		2.5	Computer files are correctly located or new files are created, named and saved.
		2.6	Data is accurately entered in the appropriate files using specified procedure and format.
		2.7	Data entered is validated in accordance with specified procedures.
		2.8	Anomalous results are corrected or reported in accordance with specified procedures.
		2.9	Back-up made in accordance with operating procedures.

3.	Retrieve data	3.1	The identity and source of information is established.
		3.2	Authority to access data is obtained where required.
		3.3	Files and data are correctly located and accessed.
		3.4	Integrity and confidentiality of data are maintained.
		3.5	The relevant reports or information retrieved using approved procedure.
		3.6	Formats to retrieved report or information conform to that required.
		3.7	Copy of the data is printed where required.
4.	Amend data	4.1	Source of data/information for amendment is established.
		4.2	Data to be amended is correctly located within the file.
		4.3	The correct data/Information is entered, changed or deleted using appropriate input device and approved procedures.
		4.4	The Integrity of data is maintained.
5.	Use document layout and data format facilities	5.1	Requirements for document are verified where necessary.
		5.2	The given format and layout are appropriately applied.
		5.3	Facilities to achieve the desired format and layout are correctly identified, accessed and used.
		5.4	Data manipulating facilities are used correctly.
		5.5	Format reflects accuracy and completeness.
6.	Monitor the operation of equipment	6.1	The system is monitored to ensure correct operation of tasks.
		6.2	Routine system messages are promptly and correctly dealt with.
		6.3	Non-routine messages are promptly referred in accordance with operating requirements.

		6.4	Error conditions within level of authority are dealt with promptly, and uncorrected errors are promptly reported.
		6.5	Output devices and materials are monitored for quality.
7.	Access and transmit information via the Internet	7.1	Access to the Internet is gained in accordance with the provider's operating procedures.
		7.2	Evidence of the ability to negotiate web sites to locate and access specified information and other services is efficiently demonstrated.
		7.3	E-Mail is sent and retrieved competently.
8.	Close down computer system	8.1	The correct shut down sequence is followed.
		8.2	Problem with shutting down computer is reported promptly.
		8.3	All safety and protective procedures are observed.
		8.4	The system integrity and security are preserved.
9.	Maintain computer equipment	9.1	Cleaning materials and/or solutions used meet specified recommendation.
		9.2	The equipment is cleaned as directed.
		9.3	Wear and faults identified are promptly reported to the appropriate personnel.

RANGE STATEMENT

This unit applies to activities associated with essential operations linked to using and maintaining basic computer equipment.

Equipment:

- install supplied computer
- install supplied peripherals

Work environment:

- equipment
- furniture
- cabling
- power supply

Input devices:

- keyboard
- mouse
- scanner
- microphone
- camera

Software systems to include for:

- word processing
- spread sheet
- internet access

Files save on:

- network
- magnetic media
- personal PC

Data:

- textual
- numerical
- graphical

File operations:

Naming, updating, archiving, traversing field and records in database, use of search, sort, print

Maintenance:

- cleaning: enclosures, screen, input devices, output devices
- checking cables, etc

EVIDENCE GUIDE

Competency is to be demonstrated by the ability to accurately carry out basic data entry and retrieval operations on a computer system in accordance with the performance criteria and the range listed within the range of variables statement.

(1) Critical Aspects and Evidence

It is essential that competence be observed in the following aspects:

- Initiate the use on the equipment.
- Use document layout and data format facilities.
- Locate and access data.
- Use file operations.
- Manipulate input devices.
- Key-in and format reports.
- Access to the internet.

(2) Pre-requisite Relationship of Units

The pre-requisite for this unit is:

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
knowledge of:

- safety for working with and around computers
- computer hardware and software systems
- procedure for initiating and closing down computer
- the operation of the data entry management system
- methods of locating files
- organisation's standards applicable to accessing files
- files operations and their applications
- file operation in database setting
- creating, locating and saving files
- using input devices
- using data checking devices
- formatting functions of software
- layout function of software
- graphic productions and manipulation
- regard for accuracy and security of information
- functions on the internet

Skills
The ability to:

- identify computer hardware
- manipulate data input devices
- access data
- use file operations
- key-in and format reports and letters
- retrieve data
- amend data
- print data
- save data
- search and receive data from the internet
- send and receive E-Mail

(4) Resource Implications

Files saved on network, magnetic media, personal Computer

Input devices: Keyboard, mouse, other selection devices

(5) Method of Assessment

Competency shall be assessed while work is undertaken under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competencies in this unit may be determined concurrently. Assessment must be in accordance with the performance criteria.

(6) Context of Assessment

This unit may be assessed on or off the job. Assessment should include practical demonstration either in the workplace or through a simulation. A range of methods to assess underpinning knowledge should support this

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level -	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level -	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0232A: Carry out general demolition

Competency Descriptor: This unit deals with the skills and knowledge required to effectively carry out demolition work of general nature, and applies to individuals working in the demolition of buildings and structures in the building industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Occupational Health and Safety (OH&S) requirements recognised and adhered to in accordance with demolition tasks and workplace environment.
	1.2 Site plan/work plan/sketch accurately interpreted and job requirements identified.
	1.3 Appropriate personal protective equipment selected in accordance with job requirements, correctly fitted and used.
	1.4 Tools, plant and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.
	1.5 Appropriate barricades, hoardings and signage erected where applicable for the protection of public and isolation and identification of site.
	1.6 Disconnection of all previously existing utility services confirmed through supervisor and regulatory authorities.
	1.7 Scaffolding erected to OH&S regulations, where required.
	1.8 Body harness safely used and correctly anchored/secured while working at heights.
2. Demolish building /structure	2.1 Designated area safely and sequentially demolished under instruction in a team situation.
	2.2 Demolition procedures carried out with safe processes of dismantling/demolishing and removing materials from location.
	2.3 Materials safely handled using appropriate handling techniques in accordance with type of material and OH&S requirements.

		2.4	Safety measures introduced to reduce dangerous situations of fire risk, dust and created hazards.
		2.5	Materials for salvaging identified, safely handled and stacked ready for use.
3.	Clean-up	3.1	Site cleared free from all waste and debris.
		3.2	Equipment and tools cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to the demolition of buildings and structures using hand tools and equipment. Work is undertaken in a team situation under supervision where instruction is part of supervisor's direction, either verbal or written.

Types of buildings and structures include:

- single and two storey commercial buildings
- single and two storey residential buildings
- partition walling
- small buildings
- retaining walls and fences

Types of construction include:

- brickwork
- block-work
- brick veneer
- timber framed
- light steel framed

Personal protective equipment may include but is not limited to:

- overalls
- jacket
- boots
- hard hat
- safety glasses/goggles
- gloves
- dust masks/respirators
- ear plugs/muffs
- body harness

OH&S requirements to be in accordance with statutory legislation and regulations and may include:

- operation of demolition sites
- safety of public
- protective clothing
- protective equipment
- safety hazards and hazard control
- working from scaffolding
- use of tools and equipment

Waste and debris separate from main demolished materials may include but are not limited to:

- loose material
- small material items
- empty containers
- cardboard
- paper

Previous existing services may include:

- electricity
- water
- gas
- telephone
- TV cable

Tools, plant and equipment may include but is not limited to:

- pinch bars
- crow bars
- picks
- shovels
- sledge hammers
- wheelbarrows
- scaffolding and ladder
- brooms
- pneumatic picks, rock breakers
- air compressors
- power saws and leads

Reporting of faults may be verbal or written.

Safety measures to reduce dangerous situations may include but are not limited to:

- removal of combustible material
- use of dust suppression blankets
- spraying water
- maintaining clearways for traffic
- removal of demolished material before serious build up
- hazardous materials removed singularly

EVIDENCE GUIDE

Competency is to be demonstrated by working with a team and carrying out the demolition of at least one of the types of buildings listed within the range of variables statement.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to demolition and workplace operations
- show compliance with organisational policies and procedures within the context of demolition work
- adopt and carry out correct procedures prior to and during demolition process
- demonstrate safe and effective operational use of tools, plant and equipment
- indicate careful attention given to maintaining safety and carrying out measures to minimise risks
- display correct and safe handling techniques when handling materials
- communicate interactively with others and supervisor to ensure safe and effective demolition operations

(2) Pre-requisite Relationship of Units

- Nil

Competency in this unit may be determined concurrently, based upon integrated project work using these units of competence.

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- demolition operations
- protection of public and environment
- hand and power tools
- plant and equipment
- materials relevant to demolition work
- materials handling
- measurement
- drawings, sketches and instructions
- workplace communications
- Statutory Regulatory authority requirements for general demolition
- scaffolding

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools
- use plant and equipment
- handle material
- measure
- demonstrate application of Statutory regulatory authority requirements for general demolition
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- demolition site or simulated site situation
- construction materials relevant to support work for demolition
- hand tools and power tools appropriate to general demolition process
- plant and equipment appropriate to general demolition process
- appropriate protective clothing and equipment

(5) Method of Assessment

Competency should be assessed while work is carried out under direct supervision with regular checks, but may include some autonomy when working as part of a team, in order to achieve outcomes within time constraints.

Assessment should be by direct observation of application to tasks and questioning on underpinning knowledge.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCAR0252A: Erect and strip formwork for concrete work

Competency Descriptor: This unit deals with the skills and knowledgerequired to effectively erect, strip and store formwork, and applies to individuals working in the casting of concrete to form concrete structures.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2 Occupational Health and Safety (OH&S) requirements associated with application tasks and workplace environment recognised and adhered to.
	1.3 Location(s) of required formwork established from drawings and instructions.
	1.4 Formwork components/materials selected to instructions consistent with job requirements.
	1.5 Appropriate personal protective equipment selected, correctly fitted and used.
	1.6 Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.
	1.7 Fixing/fasteners selected to instruction and used consistent with construction requirements of job.
2. Assist with the erection of formwork	2.1 Work area cleared and surface prepared to instruction for safe erection of formwork.
	2.2 Assistance provided with setout of formwork to requirements of drawings and specifications.
	2.3 Assistance provided with assembling and erection of formwork to specifications.
	2.4 Block outs and cast in-services installed to specified locations.

		2.5 Debris, sawdust and other waste material safely removed from completed formwork.
		2.6 Release agent applied to formwork face to manufacturer's specifications.
3.	Strip formwork	3.1 Edge boxing and bracing/strutting support removed carefully, safely and sequentially.
		3.2 Timber components safely de-nailed, cleaned and stored/stacked for re-use or removal from site.
		3.3 Steel components cleaned, oiled and stored/stacked to manufacturer's recommendations for maintenance.
		3.4 Damaged formwork components salvaged or discarded after stripping.
4.	Clean up	4.1 Loose debris and waste material removed and disposed of safely.
		4.2 Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to assisting with the construction, erection or modification of formwork for concrete work in an on-site environment.

Work is undertaken as part of a team under supervision where instructions would be part of supervisor's directions, either verbal or written.

Formwork type to include:

- slab on ground
- retaining walls

Formwork systems may include:

- timber
- steel
- composite construction

Quality Assurance requirements may include:

- work procedures
- safety requirements
- control of handling
- use of plant and equipment
- specifications of concrete work

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- protective clothing and equipment
- worksite environment and safety
- use of tools and equipment
- emergency procedures

Tools and equipment may include but are not limited to:

- tool belts
- hammer
- power saw
- builders' line
- form oil applicator
- mop
- spanners
- measuring tape
- impact gun
- pinch bars
- hand saws
- cutting knife
- brooms
- shovels

Personal protective equipment may include:

- overalls
- jacket
- hard hat
- safety goggles
- safety boots
- gloves
- ear muffs

Assisting with assembling and erecting may involve but is not limited to:

- cutting material
- holding material for fixing
- fixing material
- lifting form into place
- assembling system components
- tightening connections
- holding of block outs or cast-in services for securing

FIXING AND FASTENERS MAY INCLUDE:

- nails
- screws
- self tapping screws
- bolts
- patented clips
- brackets

Assisting with setting out may involve:

- measuring with a tape
- making marks
- marking material square

Debris and other waste may include:

- half cut material
- cardboard
- paper

Reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective erection and dismantling of at least two separate types of material systems, from those listed within the range statement, appropriate to the work orientation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during construction process
- demonstrate safe and effective operational use of tools and equipment
- provide effective assistance to setting out and assembling and erecting formwork
- demonstrate particular attention and care in stripping formwork
- interactively communicate with others to ensure safe and effective workplace operations

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGMAS0101A Carry out concrete work to simple forms

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- formwork for concrete
- portable power tools
- hand tools and equipment
- materials related to formwork construction
- materials handling
- measurement and calculation
- drawings/specifications
- levelling equipment
- fixing and fasteners

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools
- handle formwork materials
- select materials appropriate to construction of formwork
- measure relative to construction of formwork
- fix material
- communicate effectively
- use simple levelling equipment

(4) Resource Implications

The following resources should be made available:

- construction materials relevant to construction of formwork
- hand tools and power tools appropriate to construction and stripping processes
- plant and equipment appropriate to construction processes
- suitable work area appropriate to concreting process

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Assessment should be by direct observation of tasks and questioning related to underpinning knowledge.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGSTW0262A: Carry out steel-fixing

Competency Descriptor: This unit deals with the skills and knowledge required to effectively fabricate and place concrete reinforcement to formworks and footings, and applies to individuals carrying out steel-fixing work in building and construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	OH&S requirements for application tasks and workplace environment recognised and adhered to.
		1.3	Reinforcement, type of fixing and locations identified from instructions/reinforcement schedule, job drawings and specifications.
		1.4	Formwork/excavation checked for completion and conformity to receive reinforcement.
		1.5	Appropriate personal protective equipment selected, correctly fitted and used.
		1.6	Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.
		1.7	Delivered reinforcement checked for correct size type and quantities against reinforcement schedule/details shown in job detail drawings.
2	Prepare for reinforcement placement	2.1	Reinforcement bars cut and bent to required set-out and drawing details.
		2.2	Bars tied to designed configuration from drawings.
		2.3	Reinforcement sheets cut to required sizes, where applicable.
		2.4	Stiffening rods attached to panels to instructions as required to facilitate handling processes.

		2.5	Bar chairs/spacers located to requirements of reinforcement schedule and job drawings.
3	Place and fix reinforcement	3.1	Fabric reinforcement sheets positioned correctly in accordance with approved drawings and schedule.
		3.2	Reinforcement bars located according to specification and positioned in accordance with approved drawings and schedule.
		3.3	Reinforcement correctly placed using bar chairs, ligatures and spacers according to specification and schedule.
		3.4	Reinforcement fabric and/or bars tied and/or welded in correct placement in accordance with approved drawings/job specification and AS1554.3.
		3.5	Cast-in items secured to reinforcement to specifications.
		3.6	Ends of protruding reinforcement covered and protected in accordance with specifications.
4	Inspect reinforcement prior to concrete pour	4.1	Location and position of ties and/or welded fabric/bar reinforcement checked for accuracy and spacing before concrete placement.
5	Clean up	5.1	Area cleared to specification.
		5.2	Waste material removed and placed in job waste bins or rubbish stockpiles.
		5.3	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to the fabrication and placement of steel reinforcing to concrete forms and excavations for footings on site.

Forms for concrete structural members and footing excavations may include:

- beam footings
- beams
- slab on ground
- suspended slabs
- columns
- stairs
- pads
- walls

Reinforcing may include:

- deformed bars
- plain rods
- mesh sheets of plain bars
- mesh sheets of deformed bars

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators
- hard hat

Tools and equipment may include but are not limited to:

- bolt cutters
- hacksaw
- wire nippers
- tie wire spool
- welding equipment
- measuring tape/rule
- reinforcement benders
- mesh guillotine
- range of general hand and power tools

Quality Assurance requirements may include:

- preparation of reinforcing
- placement and support
- concrete coverage
- control of handling

OH&S requirements to be in accordance with Statutory Legislation and regulations and may include:

- protective clothing and equipment
- cutting and handling of material
- working from scaffolding
- using tools and equipment
- worksite environment and safety
- handling of materials

Welding of reinforcement fabric and/or bars to be in accordance with:

- AS1554.3 – 1983 Welding of Reinforcing Steel

Instructions and reporting of faults may be verbal or written, with instructions being part of a supervisor's directions.

Work is to be undertaken in a team situation under supervision.

EVIDENCE GUIDE

Competence is to be demonstrated by the safe and effective placement of reinforcing to at least three (3) of the separate types of structures/members/footings listed within the range of variables.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- show compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment
- apply organisational quality procedures and processes within the context of fixing steel reinforcing
- check materials for conformity with specifications and job requirements
- Identify and follow assembly location and placement sequence
- demonstrate safe and effective use of tools and equipment and handling of materials
- place and tie/weld reinforcement to specification
- interactively communicate with others to ensure safe and effective operations in fixing the reinforcing

(2) Pre-requisite Relationship of Units

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- formwork for concrete
- portable power tools, hand tools
- plant and equipment
- materials relevant to steel-fixing
- materials handling
- measurement and calculation
- drawings and specifications
- reinforcement schedule
- appropriate steel-fixing procedures and legislative requirements

Skills
The ability to**:**

- work safely to instructions
- interpret drawings and specifications/instructions
- use power tools and hand tools
- handle materials
- select materials
- measure relative to the process
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- reinforcement materials appropriate to construction process
- hand tools and power tools appropriate to steel fixing process
- plant and equipment appropriate to steel fixing process
- suitable formwork or excavation appropriate to construction process

(5) Method of Assessment

Competence should be assessed through direct observation of tasks and questions related to underpinning knowledge.

Competence should be assessed under general guidance checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualification Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 2	
Work with others and in team	Level 2	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0292A: Carry out concrete work

Competency Descriptor: This unit deals with the skills and knowledge required to effectively handle, place and compact concrete, and applies to individuals working in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements for company's concrete operations recognised and adhered to.
	1.2 OH&S requirements with application tasks and workplace environment recognised and adhered to, including identification of hazardous material.
	1.3 Appropriate personal protective equipment selected, correctly fitted and used.
	1.4 Tools and equipment selected, to carry out processes consistent with job requirements, checked for serviceability and any faults reported to supervisor.
	1.5 Procedures and the individual's role are identified through the supervisor in team operation to place concrete.
2. Carry out concrete placement	2.1 Assistance provided with the undertaking of relevant concrete tests.
	2.2 Concrete transported correctly and safely with wheelbarrow and discharged into formwork using correct manual handling techniques.
	2.3 Concrete placed to instruction, minimising spillage.
	2.4 Concrete compacted to specification and instruction using immersion vibrator or other specified method.
	2.5 Concrete screeded to specified levels/grades as per instructions.
	2.6 Concrete finished to instruction to specified surface finish.
	2.7 Curing process identified and applied to instruction.

		2.8	Concrete surface adequately covered with appropriate material to support curing process and protect it from damage.
3.	Clean up site	3.1	Site cleaned free of debris.
		3.2	Waste and unwanted material disposed of safely.
		3.3	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to manual handling and placing of concrete.

Work is undertaken as part of a team under supervision.

Quality Assurance requirements may include:

- workplace operations and work procedures
- quality of material
- control of placement, compaction and finish of concrete
- use and maintenance of tools, plant and equipment
- specifications of work

Tools and equipment may include:

- shovels and rakes
- wooden floats
- steel floats
- bull floats
- immersion vibrator or vibrating table
- tarpaulins/covers
- curing agent applicator
- steam generator
- wheelbarrow
- tamping rods
- screed boards
- edging tool
- brooms

Concrete work includes placement of concrete onto:

- foundation
- slab on
- simple retaining walls

Concrete may be cured by:

- atmospheric conditions
- applied moisture
- applied agents

Waste material and debris may include:

- concrete spillage
- excess concrete
- pieces of timber
- empty containers
- cardboard and paper

Personal protective equipment may include:

- safety goggles/glasses
- respirators
- ear muffs and safety boots
- boots
- water proof pants and jacket

Concrete may be transported to formwork and placed by the following methods:

- directly from pre-mix truck
- wheelbarrow
- buckets
- manually

Concrete may be finished by:

- steel float
- bull floats
- wood float
- broom

Instructions would be part of supervisor's directions. Instructions and reporting of faults may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and effective placement and finish of concrete using any of the conditions and types of structures listed within the range of variables statement, relevant to the work orientation.

(1) Critical Aspects and Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to concrete work and workplace operations
- show compliance with organisational policies and procedures including Quality Assurance requirements
- carry out correct procedures prior to and during application of concreting process
- demonstrate safe and effective operational use of tools, plant and equipment
- interactively communicate to support team and ensure safe and effective workplace operations
- give particular attention to placement and compaction processes

(2) Pre-requisite Relationship of Units

Competency in this unit may be determined concurrently, based upon integrated project work using the following units of competence:

- BCGCAR0252A Erect and strip formwork for concrete work
- BCGSTW0262A Carry out steel-fixing

Pre-requisites for this unit in addition to BCGCAR0252A and BCGSTW0262A are:

- BCGCOR0011A Carry out OH&S requirements
- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment
- BCGMAS0101A Carry out concrete work to simple forms

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- concrete construction
- hand tools and equipment
- materials relating to the concreting process
- materials handling
- measurement relevant to concrete work
- drawings/specifications
- transporting, placing concrete
- levelling equipment
- simple formwork and reinforcement component

Skills
The ability to:

- work safely to instructions
- use power tools and hand tools
- handle materials
- select equipment appropriate to concreting process
- measure relative to concreting process
- communicate effectively
- use simple levelling equipment

(4) Resource Implications

The following resources should be made available:

- hand tools and power tools appropriate to concreting process
- plant and equipment appropriate to concreting process
- suitable formwork with placed reinforcement appropriate to concreting process
- concrete testing equipment

(5) Method of Assessment

Competency shall be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team, in order to achieve outcomes within time constraints.

Assessment should be by direct observation of tasks and questioning related to underpinning knowledge.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of the process.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BSBSBM0012A: Craft personal entrepreneurial strategy

Competency Descriptor: This unit deals with the skills and knowledge required to craft an entrepreneurial strategy that fits with the attitudes, behaviours, management competencies and experience necessary for entrepreneurs to meet the requirements and demands of a specific opportunity.

Competency Field: Small Business Operations

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Demonstrate knowledge of the nature of entrepreneurship	1.1 Concepts associated with entrepreneurship are clearly defined.
	1.2 Factors which influence entrepreneurship in and outside of Jamaica are correctly identified and explained.
	1.3 The importance of entrepreneurship to economic development and employment is explained clearly.
	1.4 The findings of research conducted on entrepreneurial ventures and successes in the Caribbean region are clearly presented in an appropriate format.
	1.5 Differences between wage employment and entrepreneurial ventures are correctly stated.
2. Identify and assess entrepreneurial characteristics	2.1 Relevant research is carried out and required entrepreneurial characteristics identified.
	2.2 Entrepreneurial characteristics identified are assessed and ranked.
	2.3 An understanding of the process and discipline that enable an individual to evaluate and shape choices and to initiate effective action is correctly demonstrated.
	2.4 Factors that will help an entrepreneur to manage the risk and uncertainties of the future, while maintaining a future orientated frame of mind, are identified.

3.	Develop self-assessment profile	3.1	Self-assessment tools/methods to identify personal entrepreneurial potential are identified and properly used.
		3.2	The ability to apply creativity, problem-solving techniques and principles to solve business related problems are demonstrated.
		3.3	Feedback from others for the purpose of becoming aware of blind spots and for reinforcing or changing existing perceptions of strengths/ weaknesses is appropriately obtained.
4.	Craft an entrepreneurial strategy	4.1	A profile of the past that includes accomplishments and preferences in terms of life and work styles, coupled with a look into the future and an identification of what one would like to do is developed.
		4.2	Commitment, determination and perseverance; orientation towards goals; taking initiative and accepting personal responsibility; recognizing management competencies and identifying areas for development are determined.
		4.3	Written guidelines to obtain feedback that is solicited, honest, straightforward, and helpful but not all positive or negative are developed to facilitate reviews.
		4.4	Framework and process for setting goals which demand time, self-discipline, commitment, dedication and practice are developed.
		4.5	Goals established are specific and concrete, measurable, relate to time, realistic and attainable.
		4.6	Priorities, including identifying conflicts and trade-offs and how these may be resolved are established.
		4.7	Potential problems, obstacles and risks in meeting goals are identified.
		4.8	Specified action steps that are to be performed in order to accomplish goals are identified.
		4.9	The method by which results will be measured is indicated.

4.10 Milestones for reviewing progress and tying these to specific dates on a calendar are established.

4.11 Sources of help to obtain resources are identified.

4.12 Evidence of the ability to review process and periodically revise goals is demonstrated.

RANGE STATEMENT

At this stage of the entrepreneurial process the entrepreneur must be able to conduct a self-assessment profile, examine the frame work for self assessment, develop a personal entrepreneurial strategy, identify data to be collected in the self-assessment process and learn about receiving feedback and setting goals.

Concepts associated to include:

- risk
- entrepreneurship
- macro-screening
- micro-screening
- competition
- wage employment

Influencing factors to include:

- market conditions
- markets – demand/supply
- global trends
- level of economic activities
- funding
- economic stability
- social stability
- resources availability

The entrepreneur must be able to:

- understand the extreme complexity in predicting or aligning him/herself to specific careers in an environment of constant change
- determine the kind of entrepreneur he or she wants to become based on attitudes, behaviours, competencies, experience and how these fit with the requirements and demands for a specific opportunity
- evaluate thoroughly his or her attraction to entrepreneurship
- effectively develop personal plan
- utilize available information that will enhance his or her ability to achieve success

The entrepreneur may encounter setbacks if the planning process is not effectively pursued.

Pitfalls may include:

- proceeding without effective planning which may result in commitment to uncertainty
- commitment to a premature path with the desirability of flexibility can lead to disaster
- personal plans fail for the same reasons as business plans including frustration if the plan appears not to be working immediately and the challenges of changing behaviour from an activity-oriented routine to one that is goal oriented
- developing plans that fail to anticipate obstacles, and those that lack progress milestones and reviews

EVIDENCE GUIDE

Competency is to be demonstrated when the entrepreneur is able to undertake a personal entrepreneurial assessment exercise to determine if he or she possesses the necessary credentials to be a successful entrepreneur. This stage of the entrepreneurial process is critical since experience has shown that the founder is one of the deciding forces if the venture is to succeed and prosper.

(1) Critical Aspects of Evidence

The entrepreneur will be assessed by his/her action in developing an orchestrated plan in order to effectively pursue the business concept.

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- personal entrepreneurial profile systems
- effective management systems: marketing, operations/productions, finance, administration, law
- how to measure feedback
- the method of developing a personal plan
  and a business plan
- understanding the difference between entrepreneurial culture and management culture

Skills
The ability to:

- determine barriers to entrepreneurship
- minimize exposure to risk
- exploit any available resource pool
- tailor reward systems to meet a particular situation
- effectively plan and execute activities
- use computer technology to undertake assessments

(4) Resource Implications

The following resources should be made available:

Personal computer with access to the internet and appropriate software that will enable one to conduct the necessary analysis using the internet

(5) Method of Assessment

A useful method of assessment is to determine if the venture can stand up to the test of critical evaluation.

(6) Context of Assessment

This stage of the entrepreneurial process is assessed when comparisons are made between actual outcomes and plans/projections.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 1	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCAR0312A: Use static machines

Competency Descriptor: This unit deals with the skills and knowledge required to effectively prepare and use various types of static machines, and applies to individuals working with carpentry/joinery/masonry/ancillary equipment in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Identify static machines, their operation and safety requirements	1.1	Types and functions of static machines used in offsite production identified.
		1.2	Method of operation for `machines identified and understood.
		1.3	Occupational Health and Safety (OH&S) requirements for guarding and switches identified.
		1.4	Occupational Health and Safety (OH&S) requirements for personal protective equipment associated with using machines identified.
		1.5	Quality Assurance requirements of company's machining operations recognised and adhered to.
2.	Prepare machine for use	2.1	OH&S requirements for preparing and using static machines recognised and adhered to.
		2.2	Appropriate personal protective equipment selected, correctly fitted and used.
		2.3	Machine set up to required operating process and setting with fences/guides locked in position.
		2.4	Safety guards/shields checked and adjusted where required according to the National OH&S standards.

3.	Operate machine	3.1	Machine start up procedure is carried out to manufacturer's recommendations.
		3.2	Material fed to machine, where applicable, in accordance with manufacturer's recommendations and safe handling procedures.
		3.3	Material set up and fixed in place, where applicable for mobile machine in moving table operations, in accordance with manufacturer's recommendations.
		3.4	Machine operated in accordance with designed capacity and purpose, and to manufacturer's specifications and OH&S requirements.
		3.5	Machine shut down procedure carried out to manufacturer's recommendations.
4.	Maintain machine and attachments	4.1	Machines maintained through regular servicing to manufacturer's operating manual.
		4.2	Faults identified and reported to responsible supervisor.
		4.3	Minor faults identified and corrected where applicable.
		4.4	Cutters/blades and attachments fitted and secured to manufacturer's specifications.
5.	Clean up	5.1	Machine cleaned and waste material disposed of safely.
		5.2	Cutters, blades and attachments cleaned, checked and stored.

RANGE STATEMENT

This unit applies to the use of static machines, which are those affixed to a set location for their operation.

OH&S requirements to be in accordance with Statutory and Regulations and may include:

Static machines include but are not limited to:

- rip saws
- band saws
- docking saws
- vertical and horizontal drills
- dimensional saws
- thicknessers
- buzzers
- spindle moulders
- morticers
- multi borers
- table sanders
- grinders
- polishers
- multi functional cutter/grinder/polisher
- shapers
- diamond saws
- travelling beam saws
- multi bladed saws

Quality assurance requirements may include:

- workplace operations and procedures
- quality of materials used in machining operations
- control of handling procedures
- use and maintenance of machines
- attention to specifications of work
- workplace environment and safety
- protective clothing and equipment
- safety switches on machinery
- maintenance of machines
- use of tools and equipment
- handling and feeding of materials
- guarding on machinery
- safe use of machines

Personal protective equipment may include:

- boots
- safety glasses/goggles
- ear plugs/muffs
- dust masks/respirators
- gloves
- cap

Tools and equipment for maintenance and setting up may include but are not limited to:

- oil cans
- grease guns
- spanners
- feeler gauges
- packers
- wedges
- screwdrivers
- measuring tape/rule
- hammer
- spirit level
- squares

Reporting of faults should be in accordance with organisation's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and efficient setting up and operating of at least three (3) separate types of machines from those listed in the range of variables statement.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and machine operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements within the context of carrying out machining operations
- identify and appropriately apply manufacturer's recommendations in use of machine
- identify and correctly apply machine guard in operating machine
- carry out correct setting up procedures prior to use in accordance with carrying out machine operations
- carry out correct start up procedures
- demonstrate safe and effective operational use of machine
- carry out correct shut down/switch off procedures
- give attention to procedures for cleaning and maintaining of machine to requirements
- use of safe and correct procedures to place or remove cutters and blades

(2) Prerequisite Relationship of Units

- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use small plant and equipment

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including relevant statutory regulations
- types of machines and their operation
- safety considerations for operating of machinery
- maintenance of machines
- cutter, blades and associated accessories
- tools and equipment
- materials
- materials handling

Skills
The ability to:

- work safely to instructions
- set up for machine operation
- operate machine
- use hand tools and equipment
- handle material
- stack material
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- workshop location
- access to a range of static machines
- materials appropriate to work orientation machinery

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision.

Assessment may involve:

- observation of application work
- questioning related to underpinning knowledge

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of each task associated with setting up and using machine.

(6) Context of Assessment

Competency should be assessed in the normal or simulated workplace environment in accordance with work and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 1	
Plan and organise activities	Level 2	
Work with others and in team	Level -	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 2	
Use technology	Level 2	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCAR0322A: Make set-outs

Competency Descriptor: This unit deals with the skills and knowledge required to effectively perform the tasks of setting out dimensions of work, andapplies to individuals working in marking out standard or basic units of stock material in the production of components for construction.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare for set-out	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Occupational Health and Safety (OH&S) requirements determined and adhered to in accordance with application tasks and workplace environment.
		1.3	Design and dimensions of unit determined from written instructions and drawings.
		1.4	Type of set-out to be undertaken, is determined.
		1.5	Material selected consistent with set-out requirements and prepared for marking.
		1.6	Tools and instruments selected to carry out processes consistent with set-out requirements.
2.	Make set-out for unit	2.1	Overall dimensions of unit and lines representing material thickness accurately marked on set-out.
		2.2	Details of cross-sectional dimensions of integral members accurately marked on set-out, where applicable.
		2.3	Methods of joining marked on set-out where applicable.
		2.4	Set-out of cross-sectional members of profiles cut accurately to form template shapes where applicable.
		2.5	Set-out identified by marking description/code of unit on completed set-out.

3.	Store set-out	3.1	Set-out stored in identifiable and retrievable location.
		3.2	Area cleared and waste removed.
		3.3	Tools and instruments cleaned and stored.

RANGE STATEMENT

This unit applies to the making of set-outs to produce a product in accordance with the relevant work orientation.

Units to be set out are to be standard or basic type units of stock material produced by an organisation in any of the following production areas:

- timber joinery
- aluminium joinery
- fitments
- shop-fronts
- stairs
- stonework
- glasswork
- pre-cast concrete work

Set-outs include:

- full size dimensional illustrations
- full size sectional plans and elevations
- profiles of sections
- machining details
- lettering or decorative features

Quality assurance requirements may include:

- workplace operations and procedures
- attention to specifications of work
- making of set outs and templates

OH&S requirements to be in accordance with Statutory Legislation and regulations and may include:

- workplace environment and safety procedures
- protective clothing and equipment
- use of tools and equipment
- handling of materials

Tools and instruments may include but are not limited to:

- measuring tape/ruler
- squares
- scribers
- dividers/steel wing compasses
- straight edge
- curved templates
- set squares
- T-squares

Written instructions and drawings include:

- elevation and plan drawings
- provided specifications
- isometric drawings
- sketches
- typed or hand written notes
- verbal instructions

Material for set-out include:

- plywood
- particle board
- paper
- cardboard
- zinc sheet
- aluminium sheet
- plastic sheet

Preparation of material for set-out include:

- cutting sheet material to practical size
- taping paper to backing base
- sanding off previous set-out or marks

EVIDENCE GUIDE

Competency is to be demonstrated by making a set -out complete and accurate in detail whereby from which all parts/components of a unit can be produced and marked.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures including Quality Assurance requirements within the context of making set-outs
- indicate understanding of interpreting drawings and instructions
- select and use appropriate processes, tools and instruments for set-out task
- accurately set-out detailed information
- demonstrate correct use of instruments and tools in setting out angles and curves
- demonstrate accurate cutting of set-out shape, where applicable

(2) Prerequisite Relationship of Units

- BCGCOR0031A Draw and interpret simple drawings
- BCGCOR0041A Carry out measurements and calculations

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- working drawings and specifications
- set outs relevant to work orientation
- measuring and marking
- use of drawing/drafting equipment
- organisation's Quality Assurance requirements
- manufacturing processes
- tools and instruments
- set-out materials

Skills
The ability to:

- understand and interpret information from drawings and instructions
- use basic instruments and tools
- prepare for work application
- apply sound measuring and marking techniques
- set-out material
- record or mark identifying information
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- workplace space to carry out processes
- set-out bench and set-out materials
- measuring and marking instruments
- tools and equipment for holding and cutting

(5) Method of Assessment

Competency should be assessed while work is being done under indirect supervision.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria, or may be at the completion of the set-out process.

(6) Context of Assessment

Competency should be assessed in the normal or simulated workplace environment and in accordance with work and safety procedures.

Guidelines will be in line with statutory agreements and specific policies and procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 2	
Work with others and in team	Level -	
Use mathematical ideas and techniques	Level 2	
Solve problems	Level 1	
Use technology	Level -	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCAR0532A: Install door and window frames

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and install door and window frames, and applies to individuals working in the carpentry and masonry trades in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements for company's construction operations recognised and adhered to.
	1.2 Occupational Health and safety (OH&S) requirements for workplace environment and installing door and window frames recognised and adhered to.
	1.3 Requirements for installation of door and window frames identified from drawings and specifications and in accordance with the National Building Code.
	1.4 Doors and windows correctly identified for location and measurement from drawings, specifications and door schedule.
	1.5 Materials for door/window frames correctly selected and checked against drawings and specifications.
	1.6 Appropriate personal protective equipment selected, correctly fitted and used.
	1.7 Tools and equipment selected to carry out processes consistent with job requirements and checked for serviceability.
2. Prepare floor joists for timber door frame	2.1 Door opening in wall frame checked against doorframe size to ensure clearance for installation to plumb and level.
	2.2 Floor joists prepared so that support blocks fixed securely and joist levelled across opening for doorframe.
	2.3 Joists reduced to suit designed level of sill and in line with face of internal lining, where specified.

3	Prepare door frame for floor slab	3.1	Doorframe prepared for connection to concrete slab to specifications, in accordance with installation with or without a sill.
		3.2	Floor slab prepared for doorframe connection, to specifications
4	Install door frame	4.1	Doorframe installed to opening with sill margin above floor level to specified measurement, where applicable.
		4.2	Sill and head checked for level.
		4.3	Suitable packing used to pack between stiles and wall frame for fixing to specifications.
		4.4	Stiles installed with face and edges plumb and straight to +/- 1mm and parallel.
		4.5	Frame secured to specifications, flush with face of internal lining and fixed through packing located as specified.
		4.6	Temporary bracing removed from doorframe without damage to frame, where applicable.
		4.7	Storm/wind moulds fixed firmly to stiles and head to specifications, if applicable.
5	Install window frame	5.1	Framing members are measured and cut within specified tolerances and are free of major defects.
		5.2	All joints conform to specification, are well fitted and securely fixed in position.
		5.3	Framed opening sizes conform to specifications, are plumb, level and corners conform to appropriate angle.
6	Clean-up	6.1	Area around doorframe/window cleaned.
		6.2	Waste and unwanted materials safely disposed of.
		6.3	Tools and equipment cleaned, maintained and stored.

RANGE OF STATEMENT

This unit applies to timber and metal door and window frames installed to timber or metal wall framing.

Doorframes can be fitted to concrete slab with or without sill.

Window frame can be fitted to studs or concrete opening

Floor structure may be of:

- timber sub-floor framing
- steel sub-floor framing
- reinforced concrete slab

Preparation for doorframes may include:

- fix temporary bracing
- fix flashing to sill
- cut sill to suit external lining
- fit steel dowels to base of timber stiles

Preparation of concrete floor slab may include:

- drilling of holes for steel dowels
- silicone or sealant placed for underneath of sill

Securing to wall frame may be by:

- nails or screws to timber framing
- screws to metal framing

Suitable packing material includes:

- plywood
- hardboard
- particle board

Quality Assurance requirements may include:

- quality of door frame
- control of handling procedures
- procedures for fixing
- specified finish

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- safety hazards
- working platforms

Personal protective equipment may include:

- boots
- safety glasses/goggles
- ear plugs/muffs
- dust masks/respirators
- gloves

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammer
- spirit level
- squares
- nail bag
- chisels
- hand saws
- saw stools
- power saws
- power drill including impact drill
- nail gun
- air compressor and hoses
- power leads

EVIDENCE GUIDE

Competency is to be demonstrated by the performance of installing a door/window frame to each of two separate base structures, with one to a timber frame and the other to a concrete slab.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- show compliance with organisational quality procedures and processes within the context of installing window and external door frames
- identify location and details of door and window frames and building structure
- select and use appropriate processes, tools and equipment
- adopt and apply safe and effective procedures in preparing door and window frames and opening for installation
- adopt and apply safe and effective procedures in installing door and window frames to position and finish
- give attention to use of packing material and fixing of frame through packed locations
- identify typical faults and problems that may occur and the necessary action taken to rectify
- complete installation of door/window frame to specification

(2) Pre-requisite Relationship of Units

- BCGCOR0021A Plan and organise work
- BCGCOR0051A Use hand and power tools
- BCGCOR0081A Use simple levelling devices
- BCGCAR0161A Prepare for carpentry process
- BCGCOR0242A Carry out levelling

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- working drawing and specifications
- wall frame construction
- door frame construction
- window frame construction
- materials
- installation procedures
- measuring and levelling
- tools and equipment
- fixing and fasteners

Skills
The ability to:

- work safely
- read and interpret drawings
- organise work
- set out work
- use tools and equipment
- use fixings and fasteners

(4) Resource Implications

The following resources should be provided:

- workplace location with structural frame and opening
- tools and equipment appropriate to installation processes
- door/window frame and allied materials appropriate to installation process
- drawings and specification relevant to proposed activity

(5) Method of Assessment

Competency should be assessed while tasks are undertaken.

Assessment may involve:

- observation of application process
- questioning related to underpinning knowledge
- inspection of installed door frame

Assessment may be by intermittent checking at various stages of each task application or at the completion of each task in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the normal or simulated workplace environment.

Assessment should be while tasks are being done under minimal supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 2	
Work with others and in team	Level 2	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0912A: Place concrete

Competency Descriptor: This unit deals with the skills and knowledge required to place and consolidate concrete, and applies to individuals working in concrete work in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1	Plan and prepare work	1.1	Quality Assurance requirements of company's concreting operations recognised and adhered to.
		1.2	OH&S requirements for workplace environment and preparing for and placing of concrete recognised and adhered to.
		1.3	Method of placement and consolidation identified in accordance with job requirements and engineer's specifications.
		1.4	Appropriate personal protective equipment selected, correctly fitted and used.
		1.5	Plant, tools and equipment selected to carry out processes consistent with job requirements, checked for serviceability and any faults reported to supervisor.
2	Define and prepare work area	2.1	Location of concrete placement defined from drawings and specifications and checked to be free of debris and waste.
		2.2	Safe working area maintained around pour location using barriers and signage consistent with OH&S regulations.
		2.3	Plants, tools and equipment located to designed requirement for planned placement.
3	Place concrete	3.1	Concrete poured in horizontal layers into location to levels as indicated by markers, level pegs or lines.
		3.2	Height of vertical drop minimised to avoid segregation.
		3.3	Poured concrete consolidated during process using approved compaction or vibration method to specifications
		3.4	Finished levels checked against designed levels using appropriate levelling device.

4	Screed/level concrete	4.1	Concrete screeded to correct levels and/or grades using appropriate straight edged tool/formwork mounted screed.
5	Clean up	5.1	Area cleared of waste and equipment.
		5.2	Waste and unwanted material removed and placed into job waste bins or rubbish stockpiles.
		5.3	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to the placing of concrete into forms or foundations

Forms and foundations to include:
- slab on ground
- suspended slab
- columns
- beams
- piers
- strip footings
- pads

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators/masks

Tools and equipment may include but are not limited to:

- shovels
- rakes
- screed boards
- levels
- measuring tape/rule
- compressor
- vibrator
- wheelbarrows
- kibble
- dumper
- chute
- concrete placing boom

Quality Assurance requirements may include:

- method of transporting
- control of handling and spillage
- placement control
- cleaning of equipment

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- protective clothing and equipment
- working platforms
- working from scaffolding
- safety hazards
- use of plant and equipment

Debris and waste may include:

- off-cut material
- loose soil
- empty containers
- paper and cardboard

Reporting of faults should be in accordance with organisations workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by placing concrete into prepared formwork or foundation.

(1) Critical Aspects of Evidence

It is essential that competence is demonstrated in the critical aspects of:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and concrete placing operations
- indicate compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment
- apply organisational quality procedures and processes within the context of concrete placement
- select and use appropriate concrete handling/transportation method
- place concrete ensuring no segregation and adequate compaction
- check formwork and support system periodically during the pour
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective placement of concrete

(2) Pre-requisite Relationship of Units

- BCGCOR0061A Use plant and equipment
- BCGMAS0101A Carry out concrete work to simple forms
- BCGMAS0292A Carry out concrete work

This competency may be assessed concurrently with:

- BCGMAS0903A Transport concrete

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including relevant statutory regulations, codes and standards
- concrete mix specifications
- cause and effect of segregation
- effect of over or under compaction of concrete
- plant and equipment
- reinforcement of concrete

Skills
The ability to:

- work safely
- organise work
- use tools and equipment
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- pour location for concrete placement
- tools, plant and equipment appropriate to placement processes
- concrete relevant to proposed pour

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency should be assessed under general guidance checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment shall be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 1	With members of the work team
Plan and organise activities	Level 3	For self
Work with others and in team	Level 2	In completing scheduled tasks
Use mathematical ideas and techniques	Level 1	As an aid to measure and schedule tasks
Solve problems	Level -	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1472A: Lay segmental/unit paving

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and carry out segmental/unit paving, and applies to individuals working in masonry/concreting work in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Define soil type and determine paving material	1.1 Quality Assurance requirements of company's paving operations recognised and adhered to.
	1.2 Area and location of paving identified from job drawings.
	1.3 Sub-soil and footing type identified and classified according to Standards–Methods of Testing Soils for Engineering Purposes.
	1.4 Base material selected according to type of paver, manufacturer's specifications and identified substrate.
	1.5 Paving material selected to specification in accordance with required finish of surface and paving/stonework pattern.
	1.6 Bedding sand selected free from deleterious material likely to cause efflorescence or reduce skid resistance.
	1.7 Required quantity of materials calculated in details from project drawings/site location and specifications.
2. Prepare to lay paving	2.1 OH&S requirements for workplace environment and processes of preparing base and laying pavers identified and adhered to.
	2.2 Appropriate personal protective equipment selected, correctly fitted and used.
	2.3 Tools and equipment selected to carry out processes consistent with requirements of job and checked for serviceability.
	2.4 Safety hazards identified and correct procedures used to eliminate hazards and reduce risks to self and others.
3. Construct paving	3.1 Location and shape of paving area set out to dimensions from job drawings.
	3.2 Excavation carried out to required depth, allowing for base and thickness of unit and specified finished level.
	3.3 Drainage pipes positioned in sub-soil to local regulations or specification requirements.
	3.4 Mortar for masonry paving mixed to specifications and Standards– Masonry in Buildings, where applicable.

		3.5 Base material spread and compacted to specifications, where applicable.
		3.6 Bedding material spread and screeded to designed level and alignment, where applicable.
		3.7 Edge boards positioned to set out and adhere to specifications, where applicable.
		3.8 Where drainage is necessary, paving surface is graded to fall evenly without ponding to outlets or surface and a run-off system should be provided.
		3.9 Paving units/segments cut and laid to designed pattern and specifications.
		3.10 Initial starting line of laying pavers determined and pavers laid to designed line conforming with specified pattern.
		3.11 Paving units/segments laid with joints according to specifications and surface finish aligned.
		3.12 Finished level maintained across junctions between different finishes.
		3.13 Paving installation completed with joints finished to specifications.
		3.14 Paving surface cleaned on completion to the requirements of specifications.
4.	Clean up	4.1 Area cleared to specification with waste, materials and equipment removed.
		4.2 Waste and unwanted material disposed of safely.
		4.3 Unused materials stored/stacked.
		4.4 Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit covers the laying of all types of segmental paving to both level and inclined surfacing.

Areas for paving may include:

- footpaths
- roads
- cycle and walking tracks
- malls
- podiums
- sports arenas
- platforms
- ramps
- inclined surfaces
- plazas

Paving material may be:

- clay bricks
- clay pavers
- stone segments
- slate (random and regular)
- concrete blocks
- concrete pavers

Pavers may be laid on different substrates which include:

- compacted crushed rock
- concrete

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms

Tools and equipment may include but are not limited to:

- measuring tape/rule
- rakes
- vibrating plate
- concrete mixer
- wheelbarrows
- masonry saws
- trowels
- screed board
- shovels
- mallets
- string lines
- hammers
- spirit level
- power leads

Finishing of joints of pavers may be:

- closed joints
- closed with sand brushed in
- mortar joints

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to work specifications
- finishing of paved surfaces

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators
- knee pads

EVIDENCE GUIDE

Competency is to be demonstrated by laying two separate types of segmental/unit paving from those listed in the range of variables, one to be laid to mortar bedding and the other to sand.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and paving operations
- select and use appropriate processes, tools and equipment to carry out tasks
- apply organisational quality procedures and processes within context of laying segmental/unit paving
- adopt and use safe and effective procedures to prepare substrate and bedding material
- ensure pattern consistent with drawings and specification
- give attention to levels and ensuring no ponding on paved area
- finish paved areas to even surface and to line either level or to specified gradient
- identify typical faults and problems that occur or likely to occur and necessary action taken to rectify

(2) Pre-requisite Relationship of Units

- BCGCOR0051A Use hand and power tools
- BCGCOR0061A Use plant and equipment
- BCGMAS0101A Carry out concrete work to simple forms
- BCGCOR0242A Carry out levelling
- BCGCOR0433A Carry out basic setting out

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- types of pavement units and material characteristics
- methods of laying pavement units
- working drawings and specifications
- mortar mix specification
- range of mortar additives including plasticisers, colours and waterproofing agents
- base preparation and materials
- tools, plant and equipment
- calculation of material requirements
- measuring and levelling

Skills
The ability to:

- work safely
- organise work
- interpret drawings and specifications
- set out area
- operate basic plant and equipment
- use tools and equipment
- communicate effectively
- calculate material quantities

(4) Resource Implications

The following resources should be provided:

- workplace location for proposed activity
- tools and equipment appropriate to installation processes
- materials relevant to proposed installation
- drawings and specifications relevant to activity

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency should be assessed under general guidance, checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 2	With members of the work team
Plan and organise activities	Level 3	For self
Work with others and in team	Level 2	In completing scheduled tasks
Use mathematical ideas and techniques	Level 3	As an aid to measure and schedule tasks
Solve problems	Level 1	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR0433A: Carry out basic setting out

Competency Descriptor: This unit deals with the skills and knowledge required to carry out basic setting out of buildings and structures, andapplies to individuals working in carpentry and masonry trades in the

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements for company's construction operations recognised and adhered to.
		1.2	OH&S requirements for setting out processes on developed/undeveloped sites recognised and adhered to.
		1.3	Building/structure to be set out identified in details from site drawings.
		1.4	Appropriate personal protective equipment selected, correctly fitted and used.
		1.5	Tools and equipment selected to carry out processes consistent with requirements of job and checked for serviceability.
		1.6	Materials for pegs and profile board selected and cut to determined lengths.
2.	Identify and indicate site boundaries	2.1	Survey pegs at corners of site located and identified.
		2.2	String lines set accurately into position to identify boundaries of site in accordance with site plan and survey pegs.
3.	Set out building line	3.1	Measurements of building line from boundary or existing building determined from site drawings.
		3.2	Approximate position and length of line plus 1.5m clearance at each end determined for hurdle location.
		3.3	Pegs and profile board installed so that profile approximately level across and between one another with adequate provision to mark footing and wall width on profile board.

		3.4	Location for line accurately marked with nails on profile board and line set taut into position to true alignment with boundary.
4.	Set out right angled corner	4.1	Corner of building determined on set building line to true measurement from adjacent boundary and marked with peg.
		4.2	Right angle set up to line from corner peg using the 3, 4, and 5, principle.
		4.3	Profile board installed to approximate level of other profile board and line set taut to right angled alignment.
5.	Install other building lines	5.1	Profile board for remaining building lines installed to appropriate locations approximately level with established profile board.
		5.2	Measurement for remaining building lines accurately marked and nailed on profile board to dimensions from site drawings.
		5.3	String lines set taut into position to nailed locations on profile board.
6.	Check for square	6.1	Diagonals of main rectangle checked to ensure square and where discrepancy more than 5mm over minimum diagonal length of 5m, lines adjusted to provide square relationship within 5mm.
7.	Clean up	7.1	Unused materials stored/stacked.
		7.2	Tools and equipment cleaned, maintained and stored.

RANGE OF STATEMENT

This unit applies to the setting out of buildings or structures with straight lines and square corners.

It applies to the set out of regular plan shaped buildings, which may be of the following construction:

- timber framed
- brick veneer
- block veneer
- steel framed
- solid brick
- solid stone

Quality assurance requirements may include:

- workplace operations and procedures
- use and maintenance of equipment
- attention to specifications and measurements

Personal protective equipment may include:

- boots
- hard hat
- safety glasses
- ear plugs/muffs
- dust mask/respirator
- jacket

OH&S requirements to be in accordance with Statutory legislation and regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment

Tools and equipment may include but are not limited to:

- measuring tape/rule
- sledge hammer
- hammers
- power saw
- hand saw
- nail bag
- string lines
- spirit levels
- framing square

Site boundaries may be marked by:

- survey pegs
- fence built on line
- building built on line

Fence built on boundary may need to be checked for:

- true line of boundary
- centre of fence line
- face of fence

EVIDENCE GUIDE

Competency is to be demonstrated by the performance of setting out, and establishing profiles board and building lines for a nominated 'L' shaped building on a building block.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- show compliance with organisational quality procedures and processes within the context of setting out the location of a building
- identify location and details of building and site for set out
- select and use appropriate processes, tools and equipment
- use accurate and effective procedures to establish initial building line
- give attention to accuracy in setting line up square to initial line

Critical Aspects of Evidence (Cont'd).

- apply accurate and appropriate procedures to establish profiles for all building lines
- give attention to ensure profiles approximately level
- identify typical faults and problems that occur and necessary action taken to rectify
- set-out completed to all requirements and accurate measurements
- interactively communicate with working partner to ensure safe and effective work procedures

(2) Pre-requisite Relationship of Units

- BCGCOR0031A Draw and interpret simple drawings
- BCGMAS0151A Prepare for brick/block laying
- BCGCOR0242A Carry out levelling

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- working drawing and specifications
- tools and equipment
- measuring
- levelling
- setting out procedures
- construction of profiles
- knowledge of restricted covenant

Skills
The ability to:

- work safely
- organise work
- read and interpret drawings
- use tools and equipment
- measure accurately
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- building site and appropriate drawings for activity
- tools and equipment appropriate for setting out process
- materials appropriate for setting out processes

(5) Method of Assessment

Competency should be assessed while tasks are undertaken.

Assessment may involve:

- observation of the application process
- inspection of completed set out
- questioning related to underpinning knowledge

Assessment may be by intermittent checking at various stages of each task application or at the completion of each task in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the normal or simulated workplace environment.

Assessment should be while tasks are undertaken either individually or while working with a partner.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 3	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 3	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0803A: Install glass block work

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and install glasswork building blocks, and applies to individuals working in laying building blocks in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements for company's construction operations recognised and adhered to.
	1.2 OH&S requirements for workplace environment and preparing and installing glass block work recognised and adhered to.
	1.3 Materials and quantity requirements determined from job drawings, specifications and manufacturer's recommendations.
	1.4 Appropriate personal protective equipment selected, correctly fitted and used.
	1.5 Tools and equipment selected to carry out processes consistent with job requirements and checked for serviceability.
	1.6 Safety hazards identified and correct procedures used to minimise risk to self and others.
	1.7 Adhesive checked for manufacturer's recommendations and conformity to specifications.
	1.8 Location and dimensions of block work determined from job drawings.
2. Set out and prepare base	2.1 Area correctly located, base and abutting surfaces checked for level/plumb and finished to specification.
	2.2 Surface for block work checked for clean and dry and prepared according to manufacturer's and job specification.
	2.3 Wall or section of block work set out to base details from job drawings.
3. Install glass blocks	3.1 Adhesive applied according to manufacturer's recommendations and job specifications.
	3.2 Spacers and connectors located and positioned in accordance with manufacturer's and job specifications.

		3.3 Glass blocks laid to set out line, plumb, level and to designed pattern according to specifications.
		3.4 Scaffolding erected, where required, in accordance with OH&S regulations.
		3.5 Block work completed to job drawings and specifications.
		3.6 Joints tool finished to achieve specified finish.
4.	Clean-up	4.1 Excess adhesive removed and block work face cleaned with manufacturer's approved cleaning fluid.
		4.2 Area cleared and waste material disposed of safely.
		4.3 Unused materials sealed and stored/stacked.
		4.4 Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to block work constructed using glass blocks with silicone type adhesive or sealant.

Glass block work may also be installed using cement mortar joints.

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding
- use of adhesives

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

Safety hazards may include:

- noise from nearby work
- other work personnel
- obstructions to access
- barricades
- inadequate lighting
- height consideration

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators

Tools and equipment may include but are not limited to:

- measuring tape/rule
- string lines
- trowels
- caulking gun
- knives
- jointing tools
- spirit level
- shovel
- concrete mixer
- rubber mallet
- straight edge
- scaffolding
- wheelbarrow

EVIDENCE GUIDE

Competency is to be demonstrated by laying glass blocks using both cement mortar and flexible sealant/adhesive.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment
- apply organisational quality procedures and processes within the context of installing glass block work
- check installation area for size, plumb, level obstructions, location and safety hazards
- prepare surfaces for the application of jointing materials in accordance with manufacturer's specifications
- maintain bond/pattern of block work consistent with drawings and specifications
- maintain alignment, level of courses and plumb
- identify typical faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work procedures
- complete block work installation to specifications

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- working drawings and specifications
- glass block work construction
- hazards associated with solvents and adhesives used with glass blocks
- expansion joints for walls using clay, concrete or glass bricks/blocks
- mortar mix specification
- materials
- tools and equipment
- calculation of material requirements

Skills
The ability to:

- work safely
- interpret drawings and specifications
- organise work
- use tools and equipment
- communicate effectively
- calculate material quantities

(4) Resource Implications

The following resources should be provided:

- workplace location
- tools and equipment appropriate to installation processes
- scaffolding applicable to installation where required
- glass blocks and associate materials
- drawings and specifications relevant to activity

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency should be assessed under general guidance checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	To measure self-performance
Communicate ideas and information	Level 1	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 1	In completing scheduled tasks
Use mathematical ideas and techniques	Level 2	As an aid to measure and schedule tasks
Solve problems	Level 2	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS0943A: Carry out special finishes to concrete

Competency Descriptor: This unit deals with the skills and knowledge required to carry out special finishes to concrete surface, and applies to individuals working in masonry trades in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA	
1. Plan and prepare work	1.1	Quality Assurance requirements of company's concreting operations recognised and adhered to.
	1.2	OH&S requirements for application to tasks and workplace environment, recognised and adhered to.
	1.3	Job material and equipment requirements determined from drawings and specifications.
	1.4	Safety and protection requirements determined for work personnel, public and environment.
	1.5	Appropriate personal protective equipment selected, correctly fitted and used.
	1.6	Tools and equipment selected to carry out processes consistent with job requirements and checked for serviceability.
2. Carry out false brickwork finish	2.1	Concrete poured, compacted and screeded to specification.
	2.2	Stencil for brickwork finish prepared so that any lapping will maintain alignment and bond.
	2.3	Stencil carefully laid on screeded surface to specifications ensuring alignment, bond and flat.
	2.4	Prepare dry topping mix of colour, stone-dust and cement and sprinkle evenly over surface to specifications.
	2.5	Surface finished with wood or steel float to consistent texture in accordance with specifications.
	2.6	Critical time of lifting stencil carried out at setting time to manufacturer's recommendations.
3. Carry out slate and pattern paving	3.1	Concrete poured, compacted and screeded to specifications.
	3.2	Method of applying pattern determined in accordance with designed finish and specifications.
	3.3	Roller or stamped pattern equipment checked for cleanliness and serviceability.

		3.4	Layout design planned and initial starting point determined to specifications and design.
		3.5	Base colour and topping dust prepared and sprinkled evenly over surface to specifications.
		3.6	Base colour floated into surface to specification.
		3.7	Random colour(s), where applicable, sprinkled onto surface at random locations to create slate type colourings.
		3.8	Release agent prepared and sprinkled evenly over whole surface to specifications.
		3.9	Roller and stamp used prior to initial set to create designed pattern and surface effect to specification.
		3.10	Construction joints cut into roller applied finish after setting, where applicable, to specification.
4.	Carry out exposed aggregate finish	4.1	River gravel aggregate incorporated in concrete mix to specification.
		4.2	Concrete poured, compacted and screeded to specifications.
		4.3	Following set of concrete, strong water jet and stiff brush applied to brush and wash fines from surface to expose aggregate.
		4.4	Exposed aggregate left clean and free to designed effect and specifications.
5.	Cure concrete	5.1	Curing application applied to concrete to specifications following set.
		5.2	Curing maintained to period in accordance with specifications.
6.	Clean up	6.1	Area cleared of waste and equipment.
		6.2	Waste and unwanted material disposed of safely.
		6.3	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to special finishes to concrete surfaces providing a distinct featured face finish.

Special finishes can be obtained on both horizontal and vertical faces, the latter being applied following the stripping of formwork shutter with textured finish provided off form.

Special finishes may include the following:

- false brickwork stencil finish
- false slate or similar patterned paving finish
- exposed aggregate finish
- other special finishes applied with a trowel using concrete as a base material
- off form textured finish
- coloured concrete

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

OH&S requirements to be in accordance with Statutory Legislation and regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators/dust masks
- cap or hat

Tools and equipment may include but are not limited to:

- trowels
- power trowels
- floats
- brooms
- hoses
- rollers
- stencils
- shovels
- wheelbarrows
- concrete mixers

EVIDENCE GUIDE

Competency is demonstrated by finishing concrete in at least three of the types of finishes listed within the range of variables.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment to carry out tasks

Critical Aspects of Evidence (Cont'd)

- apply organisational quality procedures and process within the context of finishing concrete
- accurately align stencil/roller to provide continuity of pattern
- adopt and use safe and effective procedures to spread colour
- finish concrete surface in accordance with design to specifications
- take measures to protect concrete surface from either pedestrian or vehicular traffic and weather
- identify typical faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective workplace operations

(2) Pre-requisites Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace equipment safety requirements including relevant statutory regulations and codes
- concrete and its characteristics
- placing and finishing of concrete
- mortar mix composition
- range of mortar additives including plasticiser/s and/or application
- control and articulation of joints
- Building Standards for Concrete Structures
- concrete finishing techniques
- specifications
- tools and equipment

Skills
The ability to:

- work safely
- organise and set out work
- use tools and equipment
- select materials
- handle materials safely
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- work location appropriate to process of applying special finishes to concrete
- tools and equipment appropriate to finishing processes
- construction materials appropriate to process of special finishes to concrete work
- appropriate communication of documentation relevant to task

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency of this unit may be determined concurrently, based upon project work.

Competency should be assessed under general guidance, checking at various stages of the process and at the completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 2	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 3	
Solve problems	Level 3	
Use technology	Level 2	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1003A: Construct battered masonry surfaces

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and construct battered masonry surfaces, and applies to individuals working in the masonry trade in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2 OH&S requirements for workplace environment and laying masonry to sloping surfaces recognised and adhered to.
	1.3 Job material and equipment requirements determined from drawings and specifications.
	1.4 Safety and protection requirements determined for work personnel, public and environment.
	1.5 Appropriate personal protective equipment selected, correctly fitted and used.
	1.6 Tools and equipment selected to carry out processes consistent with job requirements and checked for serviceability.
2. Prepare base for masonry or stone	2.1 Battered slope compacted and finished to specification.
	2.2 Rock or stone slope faced with cohesive soil and reinforcing to form flat base or rendered to specification.
	2.3 Crushed rock spread to thickness of 50mm and compacted to form base to specification.
	2.4 Steep slopes and mortar bedded masonry and stone bases finished to flat surface with sprayed concrete over reinforcement sheets.
	2.5 Impervious or permeable membrane laid, where required, in accordance with specifications.
3. Lay masonry or stone to sand bedding	3.1 Bedding sand laid and screeded to specified depth.
	3.2 Layout of masonry or stone determined and set out in accordance with drawings and specifications.

		3.3	First stone or masonry unit laid into place to proposed face and alignment of batter to specifications.
		3.4	Stone or masonry units laid individually into position maintaining pattern or bond and surface alignment to specifications.
		3.5	Joints maintained to tolerance in accordance with specifications.
		3.6	Random shaped stones selected in accordance with abutting stones and maximum specified joints.
4.	Lay masonry or stone to mortar bed	4.1	Mortar materials proportioned and mixed to specifications.
		4.2	Layout of masonry or stone determined and set out in accordance with drawings and specifications.
		4.3	Stone laid into place to pattern/bond and surface alignment to specifications.
		4.4	Mortar joints struck or raked in accordance with specifications.
5.	Clean-up	5.1	Masonry surface cleaned and free of waste.
		5.2	Area cleared and waste material disposed of safely.
		5.3	Unused materials stored/stacked.
		5.4	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to the facing of battered surfaces using masonry units.

Masonry units may include but are not limited to:

- clay bricks/pavers
- concrete blocks
- concrete pavers
- slate
- stone (regular and random)

Joints may be:

- dry
- brush sanded
- mortar

Mortar used should be in accordance with the Building Standards for Masonry cement

Tools and equipment may include but are not limited to:

- measuring tape/rule
- concrete mixer
- wheelbarrows
- masonry saws
- trowels
- mortar boards
- shovels
- straight edge
- spirit level
- hammers
- string lines
- power leads
- buckets

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators/dust masks

EVIDENCE GUIDE

Competency is to be demonstrated by carrying out the safe and effective preparation and laying of at least two separate types of masonry materials to construct battered masonry surfaces, using any of those listed within the range of variables statement.

(1) Critical Aspects of Evidence

Competence should be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment to carry out tasks
- apply organisational quality procedures and process within the context of masonry work
- prepare base to specification requirements
- select masonry units and mortar consistent with specifications of job required
- apply safe and effective procedures to set out and lay masonry units to specifications
- lay bricks/blocks/pavers/stones/ to line and gauge where applicable
- identify typical faults and problems that occur and necessary action taken to rectify

(2) Pre-requisite Relationship of Units

- BCGMAS0151A Prepare for construction process (brick/block laying)
- BCGMAS0292A Carry out concrete work
- BCGCOR0113A Carry out basic setting out
- BCGMAS0433A Lay segmental paving

(2) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- drawings and specifications
- brick expansion and growth
- control and articulation joints
- characteristics of masonry materials
- workplace and equipment safety requirements
- mortar mix composition
- range of mortar additives including plasticiser/s and or their application
- The National Building Code
- laying of masonry
- tools and equipment

Skills
The ability to:

- work safely
- interpret drawings and specifications
- use hand and power tools
- measure and calculate quantities appropriate to task
- select materials appropriate to task
- set out work
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- battened surface appropriate to proposed activity
- tools, plant and equipment appropriate to construction processes
- appropriate communication of documentation relevant to task
- construction materials relevant to tasks

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Assessment may be by intermittent checking at various stages of each task application in accordance with the performance criteria or may be at the completion of the process.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 2	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 2	In completing scheduled tasks
Use mathematical ideas and techniques	Level 3	As an aid to measure and schedule tasks
Solve problems	Level 3	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1013A: Construct fireplace and chimney

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and construct fireplace and chimney, and applies to individuals working in masonry trades in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2 OH&S requirements for workplace environment and for constructing chimney and fireplace adhered to.
	1.3 Materials and quantity requirements determined from job drawings and specifications.
	1.4 Appropriate personal protective equipment selected, correctly fitted and used.
	1.5 Tools and equipment selected are consistent with job requirements and checked for serviceability.
	1.6 Materials and quantities checked for conformity to ordered quantities and specification.
2. Set out and prepare base	2.1 Footing checked for conformity to dimensions and location as per job drawings and specifications and in accordance with building standards for Slabs and Footings.
	2.2 Fireplace base set out to correct measurements and location in association with adjoining wall if applicable, to job drawings.
3. Construct base	3.1 Mortar mixed and bricks/blocks/stone laid to set out for base, to specifications.
	3.2 Bricks/stone laid to line and level and constructed in accordance with Building Standards for Masonry in Buildings.
	3.3 Bricks/stone laid to job drawings and specifications.
4. Construct hearth and firebox	4.1 Damp proof courses built in to specifications and in accordance with Standards for Damp-proof Courses and Flashings

		4.2	Bricks/blocks/stone laid to form hearth to designed shape, pattern and specifications.
		4.3	Brick/stone laid to job drawings and specifications.
5.	Construct fire box and face brickwork	5.1	Specified stone for fire box and face brickwork where different, selected to specifications.
		5.2	Firebox constructed with stone laid to form curvature and shape or rear and side walls to specifications.
		5.3	Face brickwork laid to form shape of openings to designed dimensions and finish of drawings and specifications.
		5.4	Lintel, where applicable, installed to specifications.
		5.5	Face-work laid to bond/pattern/colour finish to wall and aligned to specification.
		5.6	Protrusions and/or mantle piece formed and finished to designed shape and specifications.
		5.7	Plumb and level maintained for straight work.
6.	Form throat and chimney shaft	6.1	Throat formed, rendered and shaped to design and specifications for fire box and chimney.
		6.2	Parging to flue completed to specifications.
		6.3	Brick/stone laid to build outer skin and form chimney shaft to specifications.
		6.4	Baffles built in, where designed, to location and specifications.
7.	Complete chimney	7.1	Chimney constructed to extend minimum 600mm above the highest roof ridge or point.
		7.2	Head of chimney completed to designed finish to drawings and specifications.
		7.3	Scaffolding erected as required in accordance with job requirements and OH&S regulations.
8.	Rake/rule joints	8.1	Joints to laid brickwork/block-work/stonework raked or ruled to designed depth in accordance with the job specifications.
		8.2	Joints to laid brickwork/block-work/stonework raked out for provision of apron and stepped flashing at roof line.
		8.3	Brickwork/block-work/stonework brushed down prior to drying using appropriate brushing tool.

9. Clean-up	9.1 Area cleaned and waste, materials and equipment removed.
	9.2 Unused materials stored/stacked.
	9.3 Waste and unwanted material removed and placed into job waste bins or rubbish stockpile.
	9.4 Tools and equipment cleaned, maintained and stored.

RANGE OF VARIABLES

This unit covers the construction of open fireplaces and chimneys constructed in brick/block veneer and solid brick/block/stone wall structured buildings.

All construction should comply with:

- Building Standards/Codes for Masonry Cement
- Building Standards/Codes for Wall Ties for Masonry Construction
- Building Standards/Codes for Damp–Proof Courses and Flashings
- Building Standards/Codes for Masonry in Buildings

Brick/block types may include:

- clay wire cut bricks
- clay pressed bricks
- fire-rated concrete blocks

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work
- brick/block laying operation and procedures

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- cap
- respirator/dust masks

Stone sections may be:

- regular size
- random size

Tools and equipment may include:

- measuring tape/rule
- concrete mixer
- wheelbarrows
- masonry saws
- trowels
- mortar boards
- shovels
- spirit level
- string lines
- straight edge
- hammers
- pointing and raking tools
- brushes
- hoses

EVIDENCE GUIDE

Competence is to be demonstrated by carrying out the safe and effective construction of a fireplace and chimney using any of the materials listed within the range of variables.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment consistent with requirement of activity
- apply organisational quality procedures and process within the context of constructing masonry fireplaces and chimneys
- demonstrate accurate measuring and setting out techniques
- determine chimney and fireplace location and set out accurately
- select bricks/blocks/stones and mortar consistent with specification or job required
- lay bricks or blocks to line, level and gauge
- apply safe and effective procedures in erecting scaffolding
- give attention to correct forming and size of throat related to fireplace
- identify typical faults that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective construction operations
- complete chimney and fireplace to specifications

(2) Pre-requisite Relationship of Units

Pre-requisites for this unit are:

- BCGMAS0151A Prepare for construction process (brick/block laying)
- BCGCOR0433A Carry out basic setting out
- BCGMAS1393A Carry out veneer construction
- BCGMAS1403A Carry out solid brick construction

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- site drawings and specifications
- brick expansion and growth
- characteristics of masonry materials
- workplace and equipment safety requirements including relevant statutory regulations, codes and standards
- mortar mix composition
- range of mortar additives including plasticiser/s and/or application
- National Building Code and Standards
- use of tools and equipment
- scaffolding
- measuring, levelling and calculations

Skills
The ability to:

- work safely
- interpret drawings and specifications
- organise work
- use tools and equipment
- measure and calculate quantities
- select materials appropriate to the task
- set out work
- lay bricks or blocks or stone
- erect scaffolding
- communicate effectively

(4) Resource Implications

- workplace location
- tools plant and equipment appropriate to construction processes
- materials relevant to activity
- scaffolding
- drawings and specifications relevant to activity

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon integrated project work.

Competency should be assessed under general guidance checking at various stages of the process and at the completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be while tasks are undertaken either individually or as part of a team under supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 2	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 1	In completing scheduled tasks
Use mathematical ideas and techniques	Level 3	As an aid to measure and schedule tasks
Solve problems	Level 3	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCAR1183A: Install pre-cast decorative mouldings

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and install pre-cast decorative mouldings, and applies to individuals working in masonry and trades in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA	
1. Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2	OH&S requirements for workplace environment and installing decorative pre-cast fibrous plaster recognised and adhered to.
	1.3	Delivered materials selected and checked against drawings and specifications for quality and description.
	1.4	Appropriate personal protective equipment selected, correctly fitted and used.
	1.5	Tools and equipment selected consistent with requirements of installing pre-cast decorative mouldings, checked for serviceability and any faults reported to supervisor.
	1.6	Safety hazards identified and correct procedures used to eliminate hazards to self and others according to OH&S legislation and company policy.
2. Fix and stop plasterboard and/or plaster-glass archway	2.1	Plasterboards/glass wall sheets fitted and fixed to position.
	2.2	Archway profile located, set out and cut to architect's drawings and specifications.
	2.3	Timber arch soffit templates cut and fixed to position.
	2.4	Plasterboard strip cut and fixed to arch soffit and reveals of opening.
	2.5	Arch beads cut and fixed to arch soffit.
	2.6	External corner beads cut and fixed to vertical reveals.
	2.7	Archiving jointed to specified finish.
3. Fix and stop plaster panelled ceiling	3.1	Scaffolding erected, where required, to OH&S requirements.
	3.2	Ceiling battens for cornice margins and flush mounted panels correctly positioned and spaced, straight and level to the requirements of job drawings.

	3.3	Panels centrally located on ceiling, flush joints levelled and panel placed members in line, nailed and scrimmed in position to architect's specifications.
	3.4	Suspension rods, clips and top/bottom rails for suspended panels assembled and fixed in position to manufacturer's specifications.
	3.5	Furring channels spaced and fixed according to dimensions of panels.
	3.6	Ceiling panels located and screwed to suspension frame.
	3.7	Jointing applied and finished smooth and level to flush joints.
4. Fix ornamental cornice	4.1	Cornice fixed by clouting or bonding with adhesive, straight and level to architect's specifications.
	4.2	Cornice fixed with accurate butt joints and mitred corners with ornamentation matched and in alignment.
5. Clean up	5.1	Area cleared to specification.
	5.2	Waste and unwanted material disposed of safely.
	5.3	Unused materials stored.
	5.4	Tools and equipment cleaned, maintained and stored.

RANGE OF VARIABLES

This unit applies to the installation of all decorative and ornate plaster features.

All work undertaken in accordance with the Building Standards for the erection and fixing of Glass Fibro Reinforced Gypsum Plaster Products.

Decorative applications include:

- cornices
- panels
- roses
- arches

Installation processes will vary in accordance with the following aspects of a decorative feature:

- shape and size
- volume/weight of sections
- fixed whole or in segments

Fixing methods may include:

- screws
- clouts
- nails
- threaded nails
- adhesive

Fixing applications may include:

- timber and steel framing
- concrete walls and ceilings
- masonry walls

Protruding or recessed features require ceiling structural support.

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit level
- squares
- nail bag
- hand saws
- key hole saw
- mitre box
- broad knives
- plasterer's trowel
- curved trowels
- taping knives
- internal angle finishing tool
- sanding float
- t-square
- jointing cement mixer
- power drills
- electric screw gun
- power leads
- explosive power gun and fasteners
- trestles
- scaffolding
- planks

Materials include:

- plasterboard
- plaster glass
- glass fibro reinforced moulding panels
- corner beads
- adhesives
- perforated plastic tape
- jointing material
- scrim

Personal protective equipment may include:

- safety goggles/glasses
- boots
- ear plugs/muffs
- dust masks/respirators
- cap

Reporting of faults should be in accordance with workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competence is to be demonstrated by installing decorative plaster to at least one of each of the application elements within the competency standard.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- display compliance with organisational quality procedures and processes within context of installing decorative fibrous plaster to archways, ceilings and cornices
- identify location and details of each proposed decorative plastering installation
- select and safely use appropriate processes, tools and equipment
- demonstrate accurate measuring and setting out techniques
- use safe and effective procedures to construct framework for fixing of plaster
- use safe and effective procedures to install and finish plaster to designed specification
- identify typical faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective installation operations
- complete installation of plasterboard arch to specification
- complete installation of panelled ceiling and ornamental cornice to specification

(2) Pre-requisite Relationship of Units

- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGMAS0141A Prepare for construction process (dry-wall plastering)
- BCGCAR1173A Install plasterboard, plasterglass, fibro cement/cornice to wall/ceiling

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- dry wall plastering
- types of decorative mouldings
- methods of installing decorative mouldings
- structural support to decorative mouldings
- working drawings and specifications
- materials/schedules
- Relevant Building Standard
- tools and equipment
- scaffolding
- adhesives and fixings methods

Skills
The ability to:

- work safely
- select and handle material safely
- read and interpret drawings
- organise work
- measure relative to the process
- use tools and equipment
- fix plaster
- communicate effectively
- erect restricted height scaffolding

(4) Resource Implications

The following resources should be provided:

- workplace location
- scaffolding
- tools and equipment appropriate to the installation of pre-cast decorative mouldings
- materials appropriate to proposed installation
- drawings and specifications relevant to proposed installation

(5) Method of Assessment

Competency should be assessed while tasks are undertaken.

Assessment may involve:

- observation of application process
- questioning related to underpinning knowledge

Assessment may be by intermittent checking at various stages of each task application or at the completion of each task in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the normal or simulated workplace environment.

Assessment should be conducted while tasks are undertaken either individually or as part of a team operation.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	To measure self-performance
Communicate ideas and information	Level 3	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 3	In completing scheduled tasks
Use mathematical ideas and techniques	Level 2	As an aid to measure and schedule tasks
Solve problems	Level 1	As an aid to self-development
Use technology	Level 1	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1213A: Install cast plaster blockwork

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and install pre-cast gypsum plaster block work, and applies to individuals working in masonry in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA	
1. Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2	OH&S requirements for workplace environment and installing cast plaster block-work recognised and adhered to.
	1.3	Materials and quantity requirements determined from job drawings and specifications.
	1.4	Appropriate personal protective equipment selected, correctly fitted and used.
	1.5	Tools and equipment selected are consistent with the requirements of installing cast plaster block-work, checked for serviceability and any faults reported to supervisor.
	1.6	Materials checked for conformity to quantity requirements and specifications.
2. Set out and prepare base	2.1	Location of block-work set out to position in accordance with job drawings.
	2.2	Base location is prepared so that surface is dry, horizontal, clean and flat to specifications.
3. Lay plaster block-work	3.1	Plaster adhesive prepared in accordance with practical quantity requirements and block manufacturer's recommendations.
	3.2	Adhesive applied and plaster blocks laid to set out line, level and plumb in accordance with job drawings and specifications.
	3.3	Vertical abutments with other walls adhered/joined to walls plumb and alignment to specification.
	3.4	Block-work laid and completed with surplus adhesive from joints removed to specification requirements.

	3.5	Scaffolding erected, where required, in accordance with job requirements and OH&S regulations.
4. Clean-up	4.1	Area cleared and waste material disposed of safely.
	4.2	Unused materials stored/stacked.
	4.3	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit covers the installation of all pre-cast gypsum plaster block work, which may be single or multi-thickness wall construction.

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammer
- spirit level
- levelling equipment
- trowels
- caulking gun
- shovels
- mortar boards
- builder's lines
- line pins
- brick saw
- scaffolding
- planks
- concrete mixer
- power leads

OH&S requirements to be in accordance with Statutory Legislation and regulations and may include:

- workplace environment and safety
- fall safe protection
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Personal protective equipment may include:

- boots
- safety glasses/goggles
- ear plugs/muffs
- dust masks/respirators
- gloves
- hard hat
- cap

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by laying cast plaster blocks to construct a straight and plumb wall with corners.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects.

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and plaster block-work operations
- select and safely use appropriate processes, tools and equipment
- apply organisational quality procedures and processes within context of installing cast plaster block-work
- check installation area for size, plumb, level obstructions, location and safety hazards
- prepare surfaces for application of jointing materials in accordance with manufacturer's specifications
- check bond/pattern of block-work consistent with drawings and specifications
- identify faults and problems and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work procedures
- complete installation of cast plaster block-work to specification

(2) Pre-requisite Relationship of Units

- BCGCOR0051A Use hand and power tools
- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGMAS0151A Prepare for construction process (brick/block-work)
- BCGCOR0212A Prepare surfaces
- BCGCOR0242A Carry out levelling

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- working drawings and specifications
- Building Code of Jamaica and relevant Materials Standards
- construction requirements of plaster block-work fire rated structures
- materials/schedules
- tools and equipment
- scaffolding

Skills
The ability to:

- work safely
- select and safely handle materials
- interpret drawings and specifications
- measure and set out relative to process
- organise work
- use tools and equipment
- communicate effectively
- erect restricted height scaffolding

(4) Resource Implications

The following resources should be provided:

- workplace location
- scaffolding
- tools and equipment suitable for installation of cast plaster block-work
- appropriate materials to carry out proposed activity
- drawings and specifications relevant to activity

(5) Method of Assessment

Competency should be assessed through direct observation and questions related to underpinning knowledge.

Competency should be assessed under general guidance, checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manage process • Select the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	To measure self-performance
Communicate ideas and information	Level 1	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 1	In completing scheduled tasks
Use mathematical ideas and techniques	Level 2	As an aid to measure and schedule tasks
Solve problems	Level 2	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1263A: Construct plaster mouldings

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and cast plaster mouldings, and applies to individuals working in masonry and/or plastering trades in the construction industry.

Competency Field: General Construction/Building Restoration

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Design/draw mould	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	Profile and extent of mould established correctly from drawings and/or architect's specifications.
		1.3	Sheet steel template cut to specified tolerance of +/- 1mm from drawing.
2.	Select and prepare materials and equipment to construct plaster mouldings	2.1	OH&S requirements in accordance with workplace environment and constructing plaster mouldings recognised and adhered to.
		2.2	Materials selected in accordance with job requirements.
		2.3	Appropriate personal protective equipment selected, correctly fitted and used.
		2.4	Tools and equipment selected are consistent with the requirements of constructing plaster mouldings, checked for serviceability and any faults reported to supervisor.
		2.5	Safety hazards identified and correct procedures used to eliminate hazards and minimise risk to self and others according to OH&S legislation and company policy.
3.	Construct running mould	3.1	Running mould constructed accurately to specified profile.
4.	Construct a length of in-situ moulding in sand/lime	4.1	Surface cleaned and wetted down.
		4.2	Key coat applied and moulding constructed accurately to profile in specified location.
		4.3	Moulding finished to a fine even finish.
5.	Construct arches in sand/cement	5.1	Semi-circular mouldings set out to requirements of drawings and specifications.
		5.2	Semi-circular/segmental arches constructed in sand/cement mortar to job drawings and specifications.
		5.3	Moulding finished to a fine and even finish.

6.	Clean-up	6.1 Area cleared to specification.
		6.2 Waste and unwanted material disposed of safely.
		6.3 Unused materials stored/stacked.
		6.4 Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

Mouldings may be plain`, patterned or ornamental, straight or curved and developed for cornices, panels, roses and arches.

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- fall safe protection
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

Application of plaster may be to horizontal, vertical or inclined surfaces.

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit level
- squares
- trowels
- floats
- brushes
- screed boards
- scaffolding
- concrete mixer
- mortar boards and stands
- shovel
- wheelbarrows
- hawks
- joint rules
- small tools
- plumb bob
- masons square
- buckets
- sieve
- power leads
- trammel
- tin snips
- files

Personal protective equipment may include:

- boots
- safety glasses/goggles
- dust masks/respirators
- gloves
- cap
- hard hat

Background surfaces for application include hard plaster or cement render on:

- brickwork
- blockwork
- concrete
- stonework

Decorative applications include:

- cornices
- panels
- roses
- arches

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competence is to be demonstrated by the safe and effective construction of decorative plaster moulds to at least one of each of the application elements within the competency standard.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- display compliance with organisational policies and procedures and processes within context of installing decorative solid plaster to archways, ceilings and cornices
- identify location and details of each proposed decorative plastering applications
- select and use appropriate processes, tools and equipment
- use safe and effective procedures to install and finish plaster to designed specification
- identify typical faults and problems that occur and necessary action taken to rectify
- complete construction of running mould, length of mouldings in-situ and sand/cement arch

(2) Pre-requisite Relationship of Units

- BCGCOR0061A Use small plant and equipment
- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGMAS0131A Prepare for construction process (solid plastering)
- BCGMAS1232A Apply float and set coats for hard plaster – float surfaces
- BCGMAS1242A Apply solid render

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- solid plastering techniques and applications
- working drawings and specifications
- materials
- tools and equipment
- scaffolding
- base surface preparation

Skills
The ability to:

- work safely
- read and interpret drawings
- organise work
- use tools and equipment
- erect restricted height scaffolding
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- work location for construction applications
- tools, plant and equipment appropriate to application tasks
- materials appropriate to construction processes
- scaffolding
- drawings and specifications relevant to tasks

(5) Method of Assessment

Competency should be assessed through direct observation and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon integrated project work.

Assessment may be by checking at various stages of each task application or at the completion of each task in accordance with the performance criteria.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace environment.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	To measure self-performance
Communicate ideas and information	Level 3	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 3	In completing scheduled tasks
Use mathematical ideas and techniques	Level 2	As an aid to measure and schedule tasks
Solve problems	Level 1	As an aid to self-development
Use technology	Level 1	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1273A: Carry out conite construction

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and carry out conite construction, and applies to individuals engage in application of conite to timber or wall framing or fibre-cement cladding in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2 OH&S requirements for workplace environment and applying conite recognised and adhered to.
	1.3 Delivered materials checked against job drawings and specifications for quantities and description.
	1.4 Appropriate personal protective equipment selected, correctly fitted and used.
	1.5 Tools and equipment selected to carry out processes consistent with requirements of conite construction, checked for serviceability and any faults reported to supervisor.
	1.6 Safety hazards identified and correct procedures used to eliminate hazards and minimise risk to self and others.
2. Prepare surface	2.1 Timber/metal wall framing checked for solidity and security of fixing.
	2.2 Building paper fixed tight to face of framing according to specifications.
	2.3 Specified timber or metal lathing selected fitted and fixed to framing according to job and manufacturer's specifications.
3. Carry out conite application	3.1 Scaffolding erected as required in accordance with job requirements and OH&S regulations.
	3.2 Scratch coat of sand, cement and lime mixed and evenly applied to architect's specifications.
	3.3 Floating coat applied to specifications and allowed to set.
	3.4 Sand finish or other specified finish coat applied to architect's specifications.
	3.5 Surface finished plumb/straight +/- 3mm over any 3 metres length.

4. Clean up	4.1 Area cleared to specification.
	4.2 Waste and unwanted material disposed of safely.
	4.3 Unused materials stored/stacked.
	4.4 Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit concerns sand, cement and lime conite applied to timber or wall framing or fibre-cement cladding.

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work

Lathing may be:

- timber
- expanded metal
- stamped/deformed metal

Lathing fixing may be:

- nails
- staples
- clouts

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- dust masks/respirators
- hard hat
- cap

Building paper fixing may be:

- staples
- galvanized clouts
- adhesive
- fixing buttons

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit level
- squares
- nail bag
- trowels
- floats
- brushes
- screed boards
- scaffolding
- straight edges
- concrete mixer
- mortar boards and stands
- shovels wheelbarrows
- hawks
- plum bob
- buckets
- sieve
- power leads
- pneumatic staple gun
- tin snips
- air compressor and hoses
- scaffolding

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competence is to be demonstrated by the safe and effective conite application to walls and surfaces using each of the materials and substrates listed in the range of variables statement.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- display compliance with organisational policies and procedures
- select and use tools appropriate processes and equipment consistent with requirements applying conite
- apply organisational quality procedures and processes within context applying conite surfaces
- locate and inspect surfaces for bonding requirements prior to application of mortar
- determine surface finish from drawing specification or site inspection
- secure and tautly fix building paper
- securely fix lathing to wall framing
- check render mix conforms to architect's specification and Australian Standards
- finish surface plumb/level and straight to specified tolerance
- finish reveals and returns square to surface
- apply finish coat to achieve texture or finish specified
- interactively communicate with others to ensure safe and effective work practices
- complete conite application to specification

(2) Pre-requisite Relationship of Units

Pre-requisites for this unit are:

- BCGMAS0131A Prepare construction process (solid plastering)
- BCGCOR0212A Prepare surfaces
- BCGMAS1242A Apply solid render

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements
- drawings and specifications
- mix composition
- render and setting coat
- additives including plastercisers colour and dampproofing
- efflorescence and its cause and effect
- Building Code of Australia and Australian Standards
- substrate preparation
- calculation of material quantities

Skills
The ability to:

- work safely
- select and handle material safely
- use hand and power tools
- identify and select material appropriate to task
- interpret drawings and specifications
- calculate quantities

(4) Resource Implications

The following resources should be provided:

- work area suitable to the task
- tools, plant and equipment appropriate for applying conite
- drawings and specifications relative to the task
- scaffolding
- appropriate materials

(5) Method of Assessment

Competency should be assessed through direct observation of the application process and questions related to underpinning knowledge.

Competency should be assessed while work is being done under limited supervision with regular checks, but may include some autonomy when working as part of a team.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 2	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 1	In completing scheduled tasks
Use mathematical ideas and techniques	Level 2	As an aid to measure and schedule tasks
Solve problems	Level 2	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1383A: Install pre-cast cladding

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and erect pre-cast cladding units, and applies to individuals working in masonry in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	OH&S requirements for workplace environment and handling and installing pre-cast cladding, recognised and adhered to.
		1.3	Design of pre-cast cladding and method of fixing identified from site drawings and engineer's structural details.
		1.4	Pre-cast cladding installation planned, consistent with Standard Guide to the installation of Pre-cast Concrete Members.
		1.5	Tools and equipment selected to carry out processes consistent with job requirements, checked for serviceability and any faults reported to supervisor.
		1.6	Appropriate personal protective equipment selected, correctly fitted and used.
		1.7	Safe working area isolated and maintained in accordance with job safety requirements and Standards for Tilt-Up Concrete and Pre-Cast Concrete Elements for use in Buildings - Safety Requirements.
		1.8	Area below construction face cleared and isolated with designed barricade to OH&S and job requirements.
		1.9	Scaffolding erected where required to job requirements and OH&S regulations.
		1.10	Slings, clutches and other pre-determined rigging equipment selected to job requirements and inspected for correct function.
2.	Set out and prepare structure and pre-cast components	2.1	Area of structure to receive pre-cast cladding set out in accordance with job drawings and method of securing to structure.

		2.2	Area of structure to receive pre-cast components prepared consistent with manufacturer's fixing recommendations, detail drawings and specifications.
		2.3	Pre-cast components prepared, lifting locations checked and lifting gear attached in accordance with manufacturer's requirements and relevant Safety Standards.
3.	Lift, install and fix pre-cast cladding	3.1	Pre-cast cladding test lifted at delivery location to ensure crane capacity is adequate.
		3.2	Pre-cast cladding lifted and transferred safely to fixing location at structure in accordance with job safety requirements.
		3.3	Pre-cast cladding levelled, plumbed, aligned to face and temporarily braced in accordance with job set out and engineer's specification.
		3.4	Pre-cast cladding anchored/bolted/welded to structure to engineer's specification.
		3.5	Lifting gear/rigging equipment removed from pre-cast cladding upon engineer's or site authority's approval of fixings.
4.	Caulk/seal/flash pre-cast cladding	4.1	Pre-cast cladding caulked/sealed and/or flashed in accordance with job drawings and engineer's specifications.
5.	Clean up	5.1	Area cleared to specification.
		5.2	Waste materials removed and placed into job waste bins.
		5.3	Tools and equipment cleaned, inspected, maintained and stored.

RANGE STATEMENT

This unit applies to pre-cast concrete components, which have been cast off-site and delivered via appropriate transport to be erected and installed as cladding to building structures.

Erection and installation work to be in accordance with:

- Standards for Tilt-Up Concrete and Pre-cast Concrete Elements for use in Buildings
- Relevant Safety Requirements
- Guide to the installation of Pre-cast Concrete Members

Does not apply to tilt up form of cladding.

OH&S requirements to be in accordance with statutory legislation and regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding
- working with cranes

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to specifications of work
- crane operations and procedures

Types of securing or fixing methods may include:

- brackets screwed or welded to steelwork
- pins or lugs welded to steelwork
- masonry anchors
- hook bolts
- interlocking joints

Types of structures include:

- structural steel
- in-situ reinforced concrete
- pre-cast concrete

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammer drills
- power drills
- hammers
- spirit levels
- squares
- power leads
- ladders
- screw drivers
- levelling equipment
- spanners
- string lines

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- respirators/masks
- hard hat
- ear plugs/muffs

Preparation to structure for fixing may include:

- drilling holes
- installing masonry anchors
- fixing plate to slab
- welding brackets to columns/beams
- bolting brackets

Support plant and equipment may include:

- compressors, hoses and fittings
- elevating work platforms
- scaffolding
- welding equipment
- lifting gear and equipment

Work is to be undertaken in a team situation working with plant operators.

Plant to be run by operators with appropriate credentials and in accordance with Work Safety Standards for Users and Operators of Industrial Equipment.

Fault reporting to be in accordance with organisation's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by placing and securing pre-cast concrete panels to a nominated project in accordance with drawings and specifications.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace operations
- indicate compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment to carry out tasks
- apply organisational quality procedures and processes within context of erecting pre-cast cladding
- isolate work area in accordance with relevant Standards
- check installation location to determine access requirements, fixings location and potential hazards
- accurately set out and fit fixings to structure
- check pre-cast components for conformity with drawings and specifications
- report non-conforming components to supervisor
- protect panels from damage by slings and chains during lift
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective erecting operations
- install pre-cast cladding and finish to specifications

(2) Pre-requisite Relationship of Units

- BCGCOR0061A Use plant and equipment
- BCGCOR0212A Prepare surfaces
- BCGCOR0242A Carry out levelling

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including relevant statutory regulations, codes and standards
- drawings and specifications
- pre-cast concrete construction and characteristics of panels
- erection and installation of pre-cast concrete cladding
- crane operations
- Building Code of Jamaica and relevant Standards
- licensing/regulatory requirements for dogging
- effective temporary bracing techniques
- plant and equipment
- fixing methods for structures
- basic signalling
- measuring and levelling

Skills
The ability to:

- work safely
- interpret drawings and specifications
- interpret documentation from a wide range of sources
- organise work
- use plant, tools and equipment
- Communicate effectively

(4) Resource Implications

The following resources should be provided:

- workplace location for erection and installation activity
- tools, plant and equipment appropriate to application tasks
- scaffolding required for activity
- pre-cast panels relevant to proposed activity
- drawings and specifications relevant to installation

(5) Method of Assessment

Competency should be assessed through direct observation of application to tasks and questions related to underpinning knowledge.

Competency should be assessed under general guidance, checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the normal workplace or simulated workplace setting. Assessment should be while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 3	To measure self-performance
Communicate ideas and information	Level 3	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 3	In completing scheduled tasks
Use mathematical ideas and techniques	Level 2	As an aid to measure and schedule tasks
Solve problems	Level 2	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1393A: Carry out veneer construction

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and carry out brickwork veneer construction, and applies to individuals working in masonry in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	OH&S requirements for workplace environment and preparing for and laying bricks/blocks for veneer construction identified and adhered to.
		1.3	Material and quantity requirements determined from job drawings and specifications.
		1.4	All work to comply with Standards for: Clay Building Bricks, Damp Proof Courses and Flashings, Wall Ties on Masonry Construction and Concrete Masonry.
		1.5	Appropriate personal protective equipment selected, correctly fitted and used.
		1.6	Tools and equipment selected consistent with requirements of brick and block veneer construction, checked for serviceability and faults reported to supervisor.
2.	Set out brickwork/block-work	2.1	Location and structural details of brickwork/ block-work identified from drawings and job specifications.
		2.2	Brickwork/block-work set out to location and dimensions from drawings and specifications.
3.	Construct base brickwork/ block-work	3.1	Mortar mixed and bricks/blocks laid to set out to specifications.
		3.2	Brickwork/block-work gauge determined and set out rod prepared.
		3.3	Base brickwork/block-work constructed for veneer construction to Standard requirements.
4.	Construct veneer walls	4.1	Timber/steel structural frame checked to ensure completed ready for brick/block veneer with no protrusions into cavity requirements.
		4.2	Brickwork/block-work laid and completed to job drawings and specifications.
		4.3	Damp proof courses laid/built in to job specifications.

		4.4	Ventilation for veneer construction built in to specifications to requirements of as per Standard and Building Code.
		4.5	Wall ties positioned and correctly fixed to timber/steel framework to specification.
		4.6	Openings constructed and flashings installed to job specifications.
		4.7	Cavities kept clear of mortar droppings and bridging.
		4.8	Lintels installed to job specifications.
		4.9	Top brickwork/block work constructed to eaves level to Standard requirements.
		4.10	Scaffolding erected as required in accordance with job requirements and OH&S regulations.
		4.11	Walls built to gauge straight and true in plumb, line and level within tolerances set out in specification.
		4.12	Control joints formed in accordance with locations on job drawings and specifications and standard requirements.
		4.13	Weep holes, brick/block reinforcing, vermin proofing and wall flashing located and built in, where required, to job specifications.
		4.14	Sill bricks cut where required and laid to line in accordance with job specifications.
5.	Rake/rule joints	5.1	Joints of laid brickwork/block work raked or ruled to correct depth and profile in accordance with job specifications.
		5.2	Brickwork/block work brushed down prior to drying to remove unwanted mortar.
6.	Clean up	6.1	Area cleared to specification.
		6.2	Cavities cleaned free of mortar and debris.
		6.3	Waste and unwanted materials removed and placed into job waste bins or rubbish stockpile.
		6.4	Unused materials stored.
		6.5	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit covers all straight, square and plumb brick/block veneer construction incorporating wall ties and reinforcement as specified.

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- use and maintenance of equipment
- attention to work specifications
- colour and shape of bricks/blocks
- mortar mix/composition
- control of handling procedures
- application procedures
- specified finish

OH&S requirements to be in accordance with Statutory legislation and regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding
- safety hazards

Tools and equipment may include:

- measuring tape/rule
- hammers
- spirit level
- dumpy level
- concrete mixer
- bolsters
- wheelbarrows
- shovels
- masonry saw
- trowels
- straight edges
- plumb rule
- jointing tools
- string line
- line pins
- profiles
- scaffolding
- mortar boards
- masons square
- angle grinder
- power leads

Personal protective equipment may include:

- safety goggles/glasses
- overalls
- boots
- gloves
- dust masks/respirators
- cap
- overalls

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by laying brickwork/block-work to provide a veneer construction to a timber or metal stud framed structure.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and brick laying operations
- select and use appropriate processes, tools and equipment for carrying out veneer construction
- apply organisational quality procedures and processes within context of brick/block veneer construction
- select bricks/blocks and mortar consistent with specification of required job
- demonstrate accurate measuring and setting out techniques
- determine wall location and set out accurately
- lay bricks to line level, plumb and gauge
- apply safe and effective procedures in erecting of scaffold
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work operations are carried out
- clean up cavities, wall and work area
- complete base and brick/block veneer construction to specification

(2) Concurrent Assessment and Pre-requisite Relationship of Units

- BCGCOR0061A Use plant and equipment
- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGCOR0081A Use simple levelling devices
- BCGMAS0151A Prepare for construction process (brick/bloc-work)
- BCGCOR0242A Carry out levelling.
- BCGMAS1423A Lay bricks and blocks (wall and corner)

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including regulations, codes and standards
- job drawings and specifications
- brick and block expansion and growth
- control and articulation joints
- mortar mix composition

Skills
The ability to:

- work safely
- read and interpret drawings
- interpret documentation from a wide range of sources
- use tools and equipment suitable for erection of brick/block veneer construction

Underpinning Knowledge and Skills (Cont'd)

Knowledge
Knowledge of:

- range of mortar additives including plasticisers and their application
- Relevant Building Code and Standards of Jamaica
- materials and their characteristics
- tools and equipment
- quantities
- scaffolding

Skills
The ability to:

- height set out work
- lay bricks and blocks
- communicate effectively
- calculate quantities
- erect restricted scaffolding

(4) Resource Implications

The following resources should be provided:

- workplace location
- tools, plant and equipment appropriate to installation of brick/block wall in veneer construction
- scaffolding
- appropriate materials required for activity
- drawings and specifications relevant to task

(5) Method of Assessment

Competency should be assessed through direct observation of practical application and questions related to underpinning knowledge.

Competency should be assessed under general guidance checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 2	With members of the work team
Plan and organise activities	Level 3	For self
Work with others and in team	Level 2	In completing scheduled tasks
Use mathematical ideas and techniques	Level 3	As an aid to measure and schedule tasks
Solve problems	Level 2	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1413A: Construct masonry steps and stairs

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and construct masonry work steps and stairs, and applies to individuals working in masonry in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	OH&S requirements for workplace environment and constructing masonry steps and stairs recognised and adhered to.
		1.3	Materials and quantities checked against job drawings and specifications.
		1.4	Appropriate personal protective equipment selected, correctly fitted and used.
		1.5	Tools and equipment selected consistent with requirements of constructing masonry steps and stairs, checked for serviceability and any faults reported to supervisor.
		1.6	Safety hazards identified and correct procedures used to eliminate hazards to self and others according to OH&S legislation and company policy.
2.	Set out steps	2.1	Location and relative level of prepared footing checked from job drawings and specifications.
		2.2	Rise and going of flight and individual steps calculated to the requirements of the National Building Code.
		2.3	Flight and individual steps set out from calculations and job drawings.
3.	Lay bricks/blocks and form steps	3.1	Mortar mixed to specifications and applied evenly to set out.
		3.2	Bricks/blocks laid to correct line and set out with gauge maintained to specifications.
		3.3	Base brickwork/block-work constructed and built up to requirements of job drawings and specifications.

		3.4	Steps formed square, level, plumb and true and laid to specified bond.
		3.5	Profile of steps constructed to bond and design, aligned and plumb to specifications, where applicable.
		3.6	Jointing carried out to job specifications.
		3.7	Brickwork/block-work laid and completed to job drawings, specification and within the National Building Code.
		3.8	Brick/block faces cleaned free of mortar.
4.	Clean up	4.1	Area cleared to specification.
		4.2	Waste and unwanted material disposed of safely.
		4.3	Unused materials stored/stacked.
		4.4	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to both internal and external construction of steps and stairs in both brickwork and block-work.

Stairs involve straight flights only and may incorporate landings.

Brickwork or block-work to be in accordance with specified Masonry Code.

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to work specifications
- colour and shape of bricks/blocks
- specification of mix
- specified finish

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit level
- dumpy level
- concrete mixer
- bolsters
- wheelbarrows
- shovels
- masonry saw
- straight edge
- plumb rule
- jointing tools
- string line
- line pins
- line blocks
- profiles
- scaffolding
- mortar boards
- buckets
- mason's square
- angle grinder

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- dust masks/respirators
- hard hat
- overalls

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated constructing a straight flight and landing of a nominated brick or block stair.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and bricklaying operations
- display compliance with organisational policies and procedures
- select and use appropriate processes, tools and equipment for laying brick/block steps
- apply organisational quality procedures and processes within context of masonry step and stair construction
- select bricks and mortar consistent with specification and job required
- locate position of stairs and accurately set out
- calculate rise accurately ensure all rises between landings are of equal height
- lay bricks/blocks to line and gauge
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work operations
- complete construction of flight of masonry steps to specifications

(2) Pre-requisite Relationship of Units

- BCGCOR0071A Erect and dismantle restricted height scaffolding
- BCGMAS0151A Prepare for construction process (brick/block-work)
- BCGCOR0242A Carry out levelling
- BCGCOR0433A Carry out basic setting out
- BCGMAS1403A Carry out solid brick construction
- BCGMAS1422A Lay bricks and blocks (wall and corner)

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- workplace and equipment safety requirements including regulations, codes and standards
- working drawings and specifications
- design of masonry steps and stairs
- mortar mix composition
- range of mortar additives including plasticisers and their application
- Relevant Building Code and Standards
- materials and their characteristics
- tools and equipment
- quantities
- scaffolding

Skills
The ability to:

- work safely
- read and interpret drawings
- interpret documentation from a wide range of sources
- use tools and equipment suitable to carrying out masonry step/stair construction
- lay bricks
- set out work
- organise work
- communicate effectively
- calculate quantities
- erect restricted height scaffolding

(4) Resource Implications

The following resources should be provided:

- workplace location ready for stair or steps installation
- tools, plant and equipment appropriate for constructing masonry steps/stairs
- scaffolding
- appropriate materials to carry out proposed construction
- drawings and specifications relevant to the task

(5) Method of Assessment

Competency should be assessed through direct observation of practical application and questions related to underpinning knowledge.
Competency should be assessed under general guidance, checking at various stages of the process and at completion of the activity against performance criteria and specifications.

(5) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.
Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 2	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 1	In completing scheduled tasks
Use mathematical ideas and techniques	Level 2	As an aid to measure and schedule tasks
Solve problems	Level 3	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1443A: Construct masonry arch - semi-circular and segmental

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and construct arches, semi-circular and segmental masonry walls, and applies to individuals working in masonry in the construction industry.

Competency Field: General Construction, Building Restoration

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Plan and prepare work	1.1	Quality Assurance requirements of company's construction operations recognised and adhered to.
		1.2	OH&S requirements for workplace environment and constructing masonry arches recognised and adhered to.
		1.3	Delivered materials selected and checked against job drawings and specifications for quantity and description.
		1.4	Appropriate personal protective equipment selected, correctly fitted and used.
		1.5	Tools and equipment selected consistent with requirements of constructing semi circular and segmental arches, checked for serviceability and any faults reported to supervisor.
		1.6	Safety hazards identified and correct procedures used to eliminate hazards and minimise risk to self and others.
2.	Set out first course	2.1	Location and line of brickwork /block-work wall set out on concrete footing/slab according to job drawings.
		2.2	Span of arch determined from prepared allotted arch centre plus 4mm.
		2.3	Arch span set out to location on concrete footing for first course, to job drawings.
3.	Construct wall to arch level	3.1	Mortar mixed and bricks/blocks laid to form wall to set out.
		3.2	All work carried out to specifications and requirements of the National Building Code for Masonry.
		3.3	Gauge of abutting walls maintained within specified tolerance at each course level.
		3.4	Vertical wall face maintained plumb and in alignment.
		3.5	Bricks cut neatly and accurately.

		3.6	Bricks/blocks laid level and to line over length of wall.
		3.7	Abutment jambs/piers laid vertical up to springing line.
		3.8	Bricks/blocks laid in stretcher bond to springing line of arch with perpendicular joints to be maintained in vertical line.
4.	Set up arch centre	4.1	Height to springing line accurately determined and height to crown of arch to be within tolerance specified.
		4.2	Timber arch centre set up and supported to determined height on toms and wedges or adjustable metal props.
		4.3	Supports adjusted to ensure arch centre level at right angles to wall face and level across springing line.
		4.4	Props, toms, packers and wedges located in order to be easily removed.
		4.5	Position of central key brick/blocks established for gauged arch and tape used to mark gauge.
5.	Cut and lay bricks/blocks to form arch	5.1	Bricks/blocks cut and laid on centre to form arch to specification.
		5.2	All joints maintained to equal size on extrados.
		5.3	Same size wedge shape maintained on face.
		5.4	Centreline of key brick/block wedge maintained through vertical centre line of arch.
		5.5	Even joint thickness maintained around extrados for cut brickwork/block-work.
		5.6	All bricks cut and laid accurately to maintain even joints.
		5.7	All joints, struck evenly to depth and shape to architect's specifications.
6.	Clean-up	6.1	Area cleaned to specification.
		6.2	Waste and unwanted material disposed of safely.
		6.3	Unused materials stored/stacked.
		6.4	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to arches formed within walls and above columns/attached piers.

Construction may be of brick masonry or concrete block units and is to be in accordance with relevant Building Masonry Code.

Arch shapes are related to curves generated by a single radiating point.

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to work specifications
- colour and shape of bricks/blocks
- specification of mix
- specified finish

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding
- safety hazards

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- dust masks/respirators
- hard hat
- overalls

Masonry units may include:

- wire cut bricks
- pressed bricks
- concrete blocks

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit level
- dumpy level
- concrete mixer
- wheelbarrows
- shovels
- masonry saw
- angle grinder
- trowels
- straight edges
- plumb rule
- jointing tools
- string line
- line pins
- line blocks
- scaffolding
- mortar boards
- buckets
- mason's square
- timber and centre
- timber toms, packers and wedges
- adjustable metal props
- sponge

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and accurate construction of arches using specified masonry material of the types listed in the range of variables as the components for the installation.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and bricklaying operations
- display compliance with organisational policies and procedures
- select and use appropriate tools, equipment and processes consistent with requirements of constructing masonry arches
- select bricks and mortar consistent with the specification for constructing masonry
- apply organisational quality procedures within context of constructing arches
- select bricks/blocks and mortar consistent with specification or job requirement
- correctly locate wall and arch and set out with designed bond
- correctly set up arch centre
- lay bricks to line and gauge with bond maintained
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work procedures
- complete wall and archway to specifications

(2) Pre-requisite Relationship of Units

- BCGCOR0242A Carry out levelling
- BCGCOR0433A Carry out basic setting out
- BCGMAS1403A Carry out solid brick construction
- BCGMAS1422A Lay bricks and blocks (wall and corner)
- BCGMAS1432A Lay multi thickness walls and piers

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- working drawings and specifications
- brick expansion and growth
- control and articulation joints
- workplace and equipment safety requirements including regulations, codes and standards
- mortar mix composition
- range of mortar additives including plasticiser/s and/or application
- relevant Building Code and Standard
- materials
- tools and equipment
- quantities
- scaffolding
- drawings and specifications relevant to task

Skills
The ability to:

- work safely
- read and interpret drawings
- use hand and power tools suitable for constructing masonry arches
- measure and calculate quantities appropriate to construction of masonry
- select materials appropriate to construction of masonry arches
- prepare work
- erect scaffolding (restricted height)
- lay bricks/concrete block work

(4) Resource Implications

The following resources should be provided:

- suitable work area appropriate to construction process
- tools, plant and equipment suitable for constructing masonry arches
- suitable materials relevant to constructing masonry arches
- scaffolding

(5) Method of Assessment

Competency should be assessed through direct observation of practical application and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon integrated project work.

Competency shall be assessed while work is being done under limited supervision with regular checks, but may include some autonomy when working as part of a team.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment should be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	To measure self-performance
Communicate ideas and information	Level 2	With members of the work team
Plan and organise activities	Level 2	For self
Work with others and in team	Level 1	In completing scheduled tasks
Use mathematical ideas and techniques	Level 3	As an aid to measure and schedule tasks
Solve problems	Level 3	As an aid to self-development
Use technology	Level 2	To manage scheduling and completion of tasks

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGMAS1453A: Construct curved wall

Competency Descriptor: This unit deals with the skills and knowledge required to prepare and construct brick/concrete block curved wall, and applies to individuals working in masonry in the construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY	PERFORMANCE CRITERIA
1. Plan and prepare work	1.1 Quality Assurance requirements of company's construction operations recognised and adhered to.
	1.2 Occupational Heath & Safety (OH&S) requirements for application tasks and workplace environment recognised and adhered to.
	1.3 Delivered materials selected and checked against job drawings and specifications for quantity and description.
	1.4 Appropriate personal protective equipment selected, correctly fitted and used.
	1.5 Tools and equipment selected consistent with requirements of constructing curved masonry walls, checked for serviceability and any faults reported to supervisor.
	1.6 Safety hazards identified and correct procedures used to minimise risk to self and others.
2. Set out	2.1 Key plan curve points plotted from job drawings and trammel centres established on footing slab.
	2.2 Plan curve of wall drawn to specified location from trammel points and marked on footing slab.
3. Lay first course	3.1 Mortar mixed to specifications and spread evenly to wall location as established.
	3.2 Bricks laid to plan set out for line and specified bond according to job specification.
	3.3 All work carried out to job specifications and the requirements of the relevant Building Code for Masonry.

4.	Lay subsequent courses and complete wall	4.1	Gauge maintained within tolerance specified at every course level.
		4.2	Vertical face maintained in alignment.
		4.3	Neat and accurate cuts made to blocks/bricks.
		4.4	Blocks/bricks laid level over the length of the wall to established plan profile.
		4.5	Blocks/bricks laid to specified bond with perpendicular joints (perpends) maintained in vertical line.
		4.6	Restricted height scaffolding erected as required in accordance with job requirements and OH&S regulations.
		4.7	Construction completed to requirements of job drawings and specifications.
		4.8	Block/Brickwork face brushed down and cleaned free of mortar.
5.	Clean-up	5.1	Area cleared to specification.
		5.2	Waste and unwanted material disposed of safely.
		5.3	Unused materials stored/stacked.
		5.4	Tools and equipment cleaned, maintained and stored.

RANGE STATEMENT

This unit applies to curved walls curved constructed of clay brick or concrete masonry blocks.

All work to be in accordance with the Building Code for Masonry Work

Quality Assurance requirements may include:

- workplace operations and procedures
- quality of materials
- control of handling procedures
- use and maintenance of equipment
- attention to work specifications
- colour, shape and quality of bricks/blocks
- specification of mortar mix
- specified finish

Wall may be constructed of:

- pressed clay bricks
- extruded clay bricks
- concrete masonry blocks

OH&S requirements to be in accordance with Statutory Legislation and Regulations and may include:

- workplace environment and safety
- protective clothing and equipment
- use of tools and equipment
- handling of materials
- working platforms and scaffolding
- safety hazards

Personal protective equipment may include:

- safety goggles/glasses
- boots
- gloves
- dust masks/respirators
- hard hat
- overalls

Tools and equipment may include but are not limited to:

- measuring tape/rule
- hammers
- spirit level
- dumpy level
- concrete mixer
- wheelbarrows
- shovels
- masonry saw
- angle grinder
- trowels
- straight edges
- plumb rule
- jointing tools
- string line
- line pins
- line blocks
- scaffolding
- mortar boards
- buckets
- mason's square

Reporting of faults should be in accordance with company's workplace procedures and may be verbal or written.

EVIDENCE GUIDE

Competency is to be demonstrated by the safe and accurate construction of a specified curved wall using any of the masonry types listed in the range statements.

(1) Critical Aspects of Evidence

It is essential that competence be observed in the following aspects:

- demonstrate compliance with Occupational Health and Safety regulations applicable to workplace and bricklaying operations
- display compliance with organisational policies and procedures
- demonstrate appropriate selection and use of tools and equipment consistent with the requirements of constructing a curved wall
- set out wall to requirements of job drawings
- apply organisational quality procedures and process within context of curved wall construction
- selection of bricks/blocks and mortar consistent with job specification
- lay bricks/blocks to specified curve
- identify faults and problems that occur and necessary action taken to rectify
- interactively communicate with others to ensure safe and effective work procedures
- complete construction of curved masonry wall to specification

(2) Pre-requisite Relationship of Units

- BCGCOR0242A Carry out levelling
- BCGCOR0433A Carry out basic setting out
- BCGMAS1422A Lay bricks and blocks (wall and corner)

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- Brick/block expansion and growth
- control and articulation joints
- workplace and equipment safety requirements
- mortar mix composition
- range of mortar additives including plasticiser/s and/or application
- The Building Code and Standard for Masonry Work
- materials
- tools and equipment
- quantities
- scaffolding

Skills
The ability to:

- work safely
- use hand and power tools
- measure and calculate quantities appropriate to the task
- select materials appropriate to the task
- organise work
- set out work
- lay bricks/blocks
- erected restricted height scaffolding
- communicate effectively

(4) Resource Implications

The following resources should be provided:

- suitable work area appropriate to construction process
- tools, plant and equipment suitable for constructing curved walls
- appropriate communication of documentation relevant to task
- appropriate construction materials relevant to brick/blockslaying process

(5) Method of Assessment

Competency will be assessed through direct observation of practical application and questions related to underpinning knowledge.

Competency in this unit may be determined concurrently, based upon integrated project work.

Competency will be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team, in order to achieve outcomes within time constraints.

(6) Context of Assessment

Competency may be assessed in the workplace or simulated workplace setting.

Assessment will be conducted while tasks are undertaken either individually or as part of a team under limited supervision.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1.	Level 2.	Level 3.
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

Collect, analyse and organise information	Level 2	
Communicate ideas and information	Level 2	
Plan and organise activities	Level 2	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 3	
Solve problems	Level 3	
Use technology	Level 2	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.

BCGCOR1583A: Read and interpret plans

Competency Descriptor: This unit deals with the skills and knowledge required to effectively read and interpret building plans and drawings, and applies to individuals working in the general & civil construction industry.

Competency Field: General Construction

ELEMENT OF COMPETENCY		PERFORMANCE CRITERIA	
1.	Identify types of drawings and their functions	1.1	Main types of plans and drawings used in the construction industry identified.
		1.2	Key functions of each type of drawing identified.
		1.3	Key users of these drawings identified.
2.	Recognise commonly used symbols and abbreviations	2.1	Commonly used terms, symbols, scales and abbreviations recognised.
		2.2	Function of legend understood and explained.
3.	Locate and identify key features on a site plan	3.1	Key features and dimensions of site identified and located.
		3.2	Orientation of site identified.
		3.3	Access from roadways to worksite located and identified.
		3.4	Services identified.
		3.5	Knowledge of construction details and conformity to building regulations demonstrated.
4.	Identify and locate key features from sectional details and elevations	4.1	Specific key features identified correctly from sectional details and elevations.
		4.2	Structural features and horizontal/vertical measurements located.
		4.3	The ability to identify and relate to site survey of conditions of soil, natural damage, existing pits, foundations, drains, trees, etc. demonstrated.

5.	Recognise amendments	5.1	Title panel checked. Verification that drawing used is latest amendment.
6.	Read and interpret specifications	6.1	Purpose of specifications identified.
		6.2	Types of details identified from specifications.
7.	Read and interpret other drawings and plans	7.1	Drainage requirements determined.
		7.2	Existing surface level and finished surface level identified.
		7.3	Evidence of ability to read and interpret basic plans of other occupational areas demonstrated.

RANGE STATEMENT

The Range Statement provides advice to interpret the scope and context of this unit of competency allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment.

The following variables may be present for this particular unit**:**

Types of drawings include:

- site plans
- elevations
- floor plans
- foundation
- roof plan
- sectional plans/elevations
- structural details and specification providing illustrations and dimensions
- sectional plans/elevations
- details and specification providing illustrations and dimensions

Other drawings and plans:

- electrical
- plumbing
- drainage
- roads
- landscape

Key features of site plans may involve:

- shape of site
- proposed building/s
- roads
- easements
- existing buildings/structures
- services
- dimensions

Key features of plans and elevations may involve:

- type of structure – structural members
- shape of building/structure
- type of construction
- layout of rooms
- service requirements
- location of plant or machinery
- vertical and horizontal measurements

Types of construction include but are not limited to:

- structural steel framed
- light steel framed
- timber framed
- reinforced concrete
- pre-cast concrete
- solid brick
- brick veneer

Services may include:

- drainage
- sewerage
- gas
- water
- electricity

Civil construction includes:

- tunnels
- bridges
- culverts
- earthworks and other types of construction

Types of structures include:

- single storey buildings
- double storey buildings
- multi storey buildings
- bridges
- fabricated towers
-

Types of details include but are not limited to:

- structural steelwork
- timber framework
- brickwork
- concrete work
- plastering

Orientation of site includes:

- relationship to 'north'
- location of roads
- relationship to roads and neighbouring sites

EVIDENCE GUIDE

Competency is to be demonstrated by effectively reading and interpreting drawings to locate or identify nominated features or functions in accordance with the performance criteria and the range listed within the range of variables statement.

(1) Critical Aspects and Evidence

It is essential that competence be observed in the following aspects:

- identify and understand various types of drawings
- identify dimensions, symbols, abbreviations and key features
- identify title panel and reference date as to up-to-date copy of drawings
- indicate sound understanding of purpose of specifications in accordance with the work orientation

(2) Pre-requisite Relationship of Units

- Nil

(3) Underpinning Knowledge and Skills

Knowledge
Knowledge of:

- a range of drawings
- materials relative to drawings/specifications
- measurements and calculations
- symbols, dimensions and terminology

Skills
The ability to:

- read and interpret drawings
- measure accurately
- communicate effectively

(4) Resource Implications

The following resources should be made available:

- Suitable range of drawings and specifications

(5) Method of Assessment

Competency should be assessed while work is being done under direct supervision with regular checks, but may include some autonomy when working as part of a team.

Competency in this unit may be determined concurrently, based upon integrated project work.

Assessment may be by intermittent checking at the various stages of the job application in accordance with the performance criteria.

(6) Context of Assessment

Competency should be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.

CRITICAL EMPLOYABILITY SKILLS

Three levels of performance denote level of competency required to perform a task. These levels do not relate to the NCTVET Qualifications Framework. They relate to the seven areas of generic competency that underpin effective workplace practices.

Levels of Competency		
Level 1	Level 2	Level 3
• Carries out established processes • Makes judgement of quality using given criteria	• Manages process • Selects the criteria for the evaluation process	• Establishes principles and procedures • Evaluates and reshapes process • Establishes criteria for evaluation

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Communicate ideas and information	Level 1	
Plan and organise activities	Level 1	
Work with others and in team	Level 1	
Use mathematical ideas and techniques	Level 1	
Solve problems	Level 1	
Use technology	Level 1	

Please refer to the Assessment Guidelines for advice on how to use the Critical Employability Skills.