

Domain	BRICKLAYING	Unit ID: 28
Title:	Lay Stone	
Level: 3		Credits: 4

Purpose

This unit standard specifies the competencies required to select, prepare and lay stone to construct stone structures. It incorporates the use of a variety of stone in freestanding walls, load bearing structural walls, veneer facing and garden walls. This unit standard is intended for those who work as bricklayers and plasterers.

Special Notes

1. Entry information

Prerequisite:

- Unit 3 - *Apply safety rules and regulations in bricklaying operations* or demonstrated equivalent knowledge and skills.

2. To demonstrate competence, at a minimum, requires evidence of constructing a high stone fence that is 3m x 1.2m high and includes a return corner of 1m x 1.2m to line, level and plumb, and which incorporates the requirements of elements 3, 4 and 5. Perform these tasks ensuring correct identification of requirements and finishing of the tasks, correct selection and use of appropriate processes, tools and equipment and completing all work to specification.

3. Assessment evidence may be collected from a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which bricklaying operations are carried out.

4. All inspection, operation and maintenance procedures associated with the use of construction tools and equipment shall comply with manufacturers' guidelines and instructions.

5. '*Specifications*' refers to any, or all of the following manufacturers' specifications and recommendations, site and workplace specific requirements.

6. Regulations and legislation relevant to this unit standard include the following:

- Labour Act No 6, 1992
- Occupational Health and Safety Regulations No.18, 1997 and all subsequent amendments.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Plan and prepare for work

Range

Planning and preparation is to include but is not limited to worksite inspection, equipment defect identification, assessment of conditions and hazards and determination of work requirements.

Tools and equipment may include but are not limited to measuring tape/rule, hammer, bolster, shovel, wheelbarrow, spirit level, trowels, jointing tools, screed boards and angle grinder.

Performance Criteria

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied.
- 1.2 Safety requirements are followed in accordance with safety plans and policies.
- 1.3 Sign and barricade requirements are identified and implemented.
- 1.4 Plant, tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.
- 1.5 Material quantity requirements are calculated in accordance with plans and/or specifications.
- 1.6 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.
- 1.7 Environmental protection requirements for the project are identified and applied in line with environmental plans and regulatory obligations.

Element 2: Identify type, size, defects and function of stone

Range

Stone may include, but not be limited to, granite, sandstone, marble, basalt and other natural or manufactured stone material.

Performance Criteria

- 2.1 Common types of stone are identified.
- 2.2 Common terms, instructions and information relating are used to describe stone and work procedures.
- 2.3 Key features and orientation of patterns in stone identified.
- 2.4 Bed and face of stone and association to fretting of stone are identified.

Element 3: Bed stone into mortar

Performance Criteria

- 3.1 Prepared stone selected appropriate to the job.
- 3.2 Mortar prepared to designed mix and spread or screeded to form a bed as required.
- 3.3 Ties, fixtures, reinforcing, etc. placed as required.
- 3.4 Stones laid to line and in a sequence as required by job.
- 3.5 Packers, wedges, mortar consistency, propping, shoring and forming structures used to ensure correct joint size, plumb, level and shape.
- 3.6 Backing materials used in a manner consistent with job requirements.
- 3.7 Cavities maintained as required or specified.

Element 4: Place dry bed stone and grout

Performance Criteria

- 4.1 Prepared stone appropriate to job set in place dry and supported as required by wedges, packers and props.
- 4.2 Joints prepared and grout poured gradually as required to fill voids.

Element 5: Erect dry stone structure

Performance Criteria

- 5.1 Stone prepared or selected in a manner appropriate to job.
- 5.2 Stone laid to achieve maximum stability using chips, flat faces and battered angles, through stones, earth sods and clay etc.
- 5.3 Capping stone laid as required by job.
- 5.4 Walling laid in a manner maximising the force of gravity as a stabilising element in structure.

Element 6: Fix slab stone using metal ties and adhesives

Range

Reinforcement may include wire strand, welded wire fabric, steel rods and mechanical ties and fixtures.

Admixtures may include plasticisers, waterproofers, setting retardants, etc.

Performance Criteria

- 6.1 Prepared stone slabs fixed to metal or masonry surfaces using adhesives, cement mortar or plaster.
- 6.2 Stone sawn in accordance with specifications.
- 6.3 Metal ties and dowels used to secure stone slabs as required.
- 6.4 Dowel cavity filled with grout or slurry as required in job specification.

Element 7: Finish stone surfaces and joints

Performance Criteria

- 7.1 Stone surfaces finished as required by job specifications.
- 7.2 Joints cleaned and/or raked as required to achieve either final appearance or as preparation for pointing.
- 7.3 Pointing mortars or adhesives applied to joints as required by job specifications.

Element 8: Clean up

Performance Criteria

- 8.1 Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations and job specifications.
- 8.2 Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturers' recommendations and standard work practices.

Registration Data

Subfield:	General Construction
Date first registered:	28 September 2006
Date this version registered:	28 September 2006
Anticipated review:	2010
Body responsible for review:	Namibia Training Authority