

Domain	BRICKLAYING	Unit ID: 37
Title:	Plan, set out and construct cavity brick/block work	
Level: 4		Credits: 8

Purpose

This unit standard specifies the competencies required to plan, set out and construct cavity brick/block buildings and structures. It includes the planning, preparation, set out and installation of the masonry. 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. The unit requires the laying of bricks/blocks to construct a cavity brick building. Bricklaying and blocklaying tasks include all concrete brick/block (hollow and solid) masonry work.
3. To demonstrate competence, at a minimum, requires evidence of, given the plans and specifications, constructing a section of a cavity brick building including sub-floor walling; ventilation; attached and isolated piers; openings (window and door) and lintels; brick cavity ties and roof tie-downs; and parapet(s) (stepped flashing). Perform these tasks ensuring correct identification of requirement and finishing of the task, correct selection and use of appropriate processes, tools and equipment and completing all work to specification.
4. Assessment evidence may be collected from in a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which bricklaying operations are carried out.
5. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.
6. '*Specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.
7. 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 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 are to include but are not limited to, wheelbarrows, concrete mixers, brooms, buckets, hoses, shovels, measuring tapes/rules, plumb rules, jointing tools, hammers (club, scutch), bolsters, shovels, spirit levels, dumpy levels, trowels, mortar boards, straight edges, profiles, cleaning batten, string lines, line blocks, line pins, builders lines, masonry saws, mason's squares, jig saws, elevators and pointing tools. Tools and equipment may include scaffolds, elevators, material hoists, brick barrows and small petrol/diesel mixers.

Materials are to include but are not limited to bricks, blocks, reinforcing materials, wall ties, steel, aluminium and timber window frames, timber and steel door frames, aggregates, cement and lime. Materials may include waterproofing materials.

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: Set out brickwork

Range

Brick/block cavity construction includes but is not limited to straight, square and plumb brick/block, wall ties and lateral support systems, dampcourse and flashings, openings and reinforcement.

Brickwork may be laid on a suspended floor or a slab.

Performance Criteria

- 2.1 Bricks are identified, selected and checked for conformity with specifications and comply with standards.
- 2.2 Work platform is erected in accordance with regulatory and workplace requirements.
- 2.3 Location and structural details of brickwork identified from job drawings and job specifications.
- 2.4 Base brickwork below floor construction is set out to location, dimensions and specifications in compliance with standards.
- 2.5 Load bearing brickwork, including engaged piers, dwarf walls, isolated piers and corbelling are set out to job drawings and specifications.
- 2.6 Cavity brick wall is set out to requirements of job drawings.

Element 3: Construct base brickwork

Performance Criteria

- 3.1 Mortar mix is prepared and checked for conformity and bricks/blocks are laid to set out to specifications and standards.
- 3.2 Brickwork gauge is determined and set out rod is prepared.
- 3.3 Base brickwork is constructed for cavity construction to requirements of regulations and specifications.

Element 4: Position door and window frames

Performance Criteria

- 4.1 Window frames are located and built in to cavity walls to specification and protected from mortar droppings during construction.
- 4.2 Door frames are located, built in and fixed to cavity walls and single leaf walls to job drawings and specifications.

Element 5: Construct cavity and single brick walls

Performance Criteria

- 5.1 Brick walls are constructed to job specifications and standards.
- 5.2 Damp proof courses and flashings are laid/built in to job specifications.
- 5.3 Ventilation for solid brick construction built to requirements of job specification and regulations.
- 5.4 Walls are to be straight and true in plumb, line and level within standard tolerances.
- 5.5 Wall ties are positioned to comply with standards.
- 5.6 Openings are constructed and flashing is installed to job specifications.
- 5.7 Lintels are installed to job specifications.
- 5.8 Control joints are formed in accordance with locations on job drawings and standards.
- 5.9 Weepholes, brick reinforcing, vermin proofing and wall flashings are located and built in to job specifications.
- 5.10 Gables and parapets are constructed by plans and specifications.
- 5.11 Sill bricks are cut and laid to line in accordance with job specifications.
- 5.12 Tie down and lateral support systems for ceiling/roof structures are installed to walls in accordance with plans, specifications and standards.

Element 6: Rake/rule joints

Performance Criteria

- 6.1 Joints of laid brickwork are raked or ruled to correct depth and profile in accordance with job specifications.
- 6.2 Brickwork is brushed down prior to drying to remove excess mortar.
- 6.3 Excess mortar is removed from brick work surfaces and cavities are cleaned free of mortar and debris in accordance with manufacturers' recommendations, job specification and standard work practices.

Element 7: Clean up

Performance Criteria

- 7.1 Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations and job specifications.

- 7.2 Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturers' recommendations and standard work practices.

Registration Data

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