

## C&CI Technical Guides

### Guide to the Safe Use of Portland Cements and Concrete



This 2-page information sheet describes how to manage potential risks involved in handling or working with Portland cement or mixes made using Portland cement. The document is intended to inform users of the risks, provide guidance on how to avoid the effects of unprotected exposure, and outline basic first aid procedures.

### How to make Concrete Bricks and Blocks



The aim of this publication is to provide information needed to set up and run a block yard to manufacture concrete bricks and blocks on a small scale. The small-scale manufacture of concrete bricks and blocks for masonry is well suited to small businesses.

### No-fines Concrete: a Practical Guide



No-fines concrete (NFC) consists of coarse aggregate and cement paste. In the hardened state, aggregate particles are covered by a thin layer of cement paste and are in point-to-point contact with each other. At each contact point the paste forms a small fillet; these fillets hold the particles together and give strength to the concrete.

### The Manufacture of Concrete Paving Blocks



This 4-page technical note covers basic principles for the manufacturing of concrete paving blocks and aims to assist manufacturers, particularly new manufacturers, to produce a durable and consistent product.

### Sand-cement screeds and concrete toppings for floors



The aim of this 4-page publication is to provide information needed by architects, engineers and contractors for specifying and laying floor screeds and toppings of

acceptable quality. Information is provided on monolithic, bonded and unbonded screeds and toppings.

## Claybrick Technical Guides

### Technical Guide: Clay Brick Manufacture - Part 1-7



Modern clay brick making is a capital intensive ceramic process that requires long-term planning sensitive to the cyclical nature of the building and construction industries.

### Cleaning of Clay Paved Surfaces



Clay paving provides a durable, hardwearing surface but, like any surfacing material, this may suffer from time to time from staining, due to general trafficking and contamination from other sources. As for any other surfacing material regular maintenance and good cleaning practice will enhance the overall appearance of the paving.

### Building Contractors Pocket Handbook



This builder's pocket manual which has been designed as a quick handy reference guide to most of the basic principles required for planning, setting out, and constructing new buildings.

## Other Technical Guides

### The SMME Business Toolkit



The toolkit is a 'Step by Step Approach to Starting and Running a Small Business in Southern Africa'. The toolkit hardcopy is A5 size, full colour and contains a cd with tendering information. Available in hard copy only.

This brochure contains a synopsis of industry association publications available on the cidb website.

#### Acknowledgement

The cidb would like to thank the CMA, C&CI and Claybrick for the use of their publications.



Contractor Tips & Advice:  
TECHNICAL GUIDES

## Technical Guides For the Contractor

As a value add service to contractors, the cidb has assembled practice guides available from industry associations - including the **Concrete Manufacturers Association, the Cement, Concrete Institute and the Claybrick Association**. The guides are available on the cidb website: [www.cidb.org.za](http://www.cidb.org.za), and more information is also available from your nearest Construction Contact Centre.

### CMA Technical Guides

#### Concrete Block Paving Book 1 – 5



This series of 5 booklets describes segmented concrete paving, which is a system of individual shaped blocks arranged to form a continuous hardwearing surface overlay. From design to site management and installation using labour-based applications, commercial and industrial applications.

#### Engineered Masonry Walls



This publication covers engineered masonry walls. Engineered masonry walls fall outside the empirical design restrictions and provisions of the National Building Regulations. Where the height, length, shape or load-bearing capacities go beyond the empirical tables a competent engineer must submit a suitable design to the local authority for approval.

#### Build you House Step-by Step



Guidelines for a D.I.Y homeowner. This instruction manual describes one of many ways to construct a house. It follows recommended building procedures as laid down in the National Building Regulations and the NHBRC Home Building Manual. Basic principles are involved in the construction of a simple plastered and painted house of the

order of 35 sq.m to 70 sq.m floor area suitable for the majority of South African regions. Available in hard copy only.

#### Concrete Masonry Manual (8th ed. 2007)



This publication is a comprehensive manual on masonry with specific reference to SABS 0400 and NHBRC Home Building Manual. The manual covers topics on properties of concrete masonry units, performance criteria for walling, modular coordination and design, building regulations, specification and construction details, schedule of site checks and quantities.

#### Prestressed hollow-core concrete slabs



This series consists of 4 information leaflets and introduces the flexible use of prestressed hollow-core concrete slabs and their wide applications for flooring, warehouses, security walls, reservoirs and many other applications.

#### Concrete retaining block walls



This series of booklets describes applications for concrete retaining block walls. From design and code of practice to installation.

#### Precast Concrete Slabs



This technical note covers sound and accepted design and construction principles for masonry walls which support precast concrete slabs used for floors and roofs. As such the publication is aimed at the developer, the building professionals, architects, structural engineers, quantity surveyors and the builder. It is based on SABS standards for the types of materials used and required for construction.

#### Concrete Roof Tiles: the CMA roofing system



The certificate covers the CMA Roofing System TM for use on affordable housing where the roof covering is concrete roof tiles that are produced exclusively by bona fide members of the Roof Tile Division of the Concrete Manufacturers Association (CMA).

#### CMA 30 step-by-step Roofing Guide



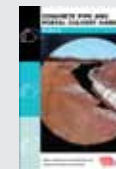
This manual has been compiled by the Concrete Manufacturers Association (CMA) to promote good roofing practice. Good roofing practice necessitates correct design and detailing, the use of good quality materials and proper installation procedures.

#### Concrete pipe and portal culvert Handbook



This handbook is intended to cover all aspects of concrete pipe and portal culvert selection, specification, and testing. As a handbook it does not attempt to replace textbooks or codes, but rather to complement them by providing the information needed for quick site decisions and guidance for designers to ensure that all aspects of product use are considered.

#### Detailing of concrete masonry: volume 1 – 3



The purpose of these booklets is to provide guidelines for the detailing of concrete masonry structures. It should be read in conjunction with the Concrete Manufacturers Association's Masonry Manual, the National Building Regulations, and National Home Builders Registration Council Home Building Manual the relevant South African Bureau of Standards specifications and codes of practice.