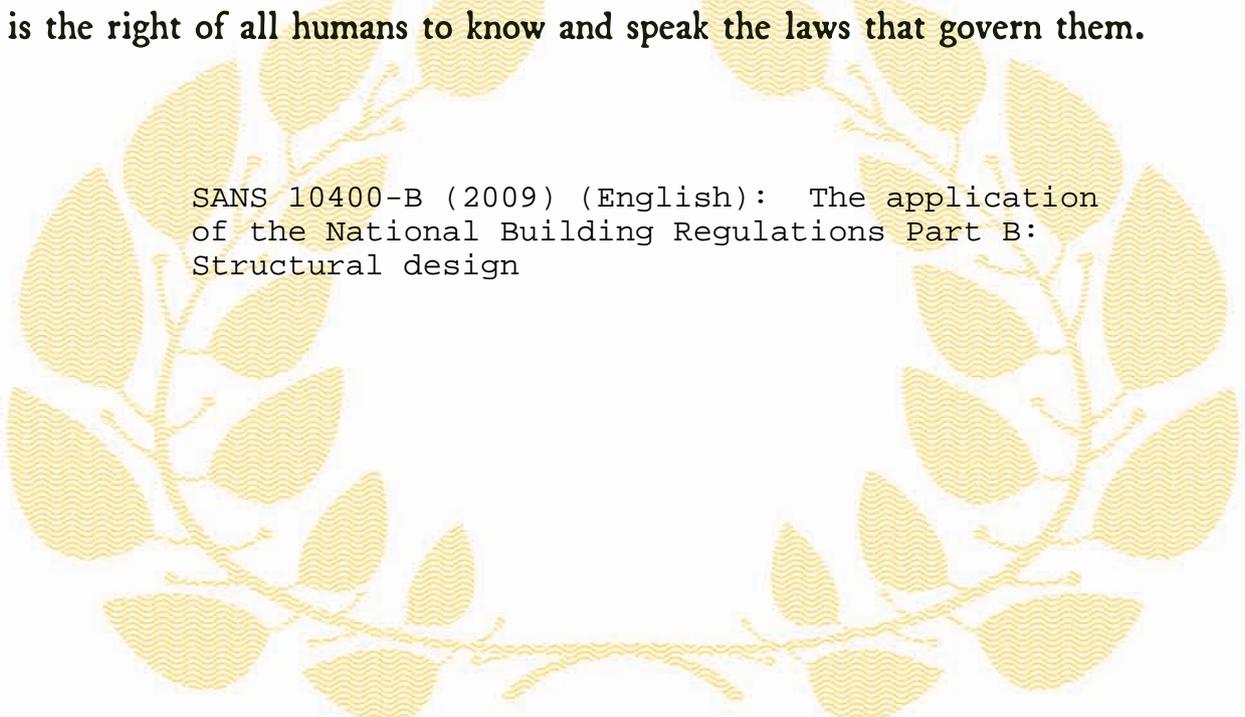




# *Republic of South Africa*

## EDICT OF GOVERNMENT

In order to promote public education and public safety, equal justice for all, a better informed citizenry, the rule of law, world trade and world peace, this legal document is hereby made available on a noncommercial basis, as it is the right of all humans to know and speak the laws that govern them.



SANS 10400-B (2009) (English): The application  
of the National Building Regulations Part B:  
Structural design



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# PART B STRUCTURAL DESIGN

## REGULATIONS

### B1 DESIGN REQUIREMENT

(1) Any building and any structural element or component thereof shall be designed to provide strength, stability, serviceability and durability in accordance with accepted principles of structural design, and so that it will not impair the integrity of any other building or property.

(2) Any such building shall be so designed that in the event of accidental overloading the structural system will not suffer disastrous or progressive collapse which is disproportionate to the original cause.

(3) The requirements of subregulations (1) and (2) shall be deemed to be satisfied where such building is designed in accordance with Part B of section 3 of SABS 0400.

## DEEMED-TO-SATISFY RULES

### BB1

#### GENERAL

The regulation contained in Part B of the National Building Regulations shall be deemed to be satisfied where the structural design of any building complies with deemed-to-satisfy rules contained in the following provisions of this Part.

### BB2

#### STRUCTURAL DESIGN

The design of the structural system of any building shall be carried out in accordance with SABS 0160 (for loads) and in accordance with one or more of the following codes of practice relating to the materials used in such building or in any element or component thereof:

- (a) SABS 0100 (for structural concrete)
- (b) SABS 0104 (for handrails)
- (c) SABS 0137 (for glazing)
- (d) SABS 0161 (for foundations)
- (e) SABS 0162 (for structural steel)
- (f) SABS 0163 (for structural timber)
- (g) SABS 0164 (for structural masonry)

### BB3

#### STRUCTURAL MATERIALS

#### BB3.1

The material used in the construction of any structural element or component thereof shall be that specified or contemplated in —

- (a) the relevant SABS code of practice where such code has been used as a basis for the design;
- (b) rules **HH1**, **JJ1**, **KK1**, **LL1** or **NN1** of SABS 0400, as the case may be; or
- (c) any document, other than a SABS code of practice contemplated in rule **BB2**, which has been used as a basis for the design:

Provided that where the materials specified in such document are not available, other approved materials may be used if they have been shown to be suitable in relation to such document.

**BB3.2** Where any structural material other than one covered by any code of practice contemplated in rule **BB2** is used in any building, the design of such building and the structural elements and components thereof shall be in accordance with a safe method applicable to the structural use of such other material.

**BB4** **RESPONSIBILITY FOR DESIGN AND CONSTRUCTION**

**BB4.1** Any rational design of a structural system shall be done or checked by a professional engineer or other approved competent person, and such person shall certify that such design complies with the requirements contained in regulation **B1**: Provided that nothing shall be construed as precluding the use of rule **HH1**, **JJ1**, **KK1**, **LL1**, or **NN1**, as the case may be, where the use of such rule is appropriate.

**BB4.2** Such person shall, by means of inspections carried out at such intervals as may be necessary in accordance with accepted professional practice, satisfy himself that the structure has been erected in accordance with the approved design and shall furnish to the local authority a certificate to this effect.