



**DRAFT TANZANIA STANDARD**

---

**Bases for design of structures - Assessment of existing structures**

DRAFT STANDARD

**TANZANIA BUREAU OF STANDARDS**

---

## BCDC 2(3922) DTZS/ISO 13822:2010

This Finalized Tanzania Standard was published under the authority of the Board of Directors of Tanzania Bureau of Standards on yyy-mm-dd. Tanzania Bureau of Standards (TBS) is the statutory national standards body for Tanzania established under the Standards Act No. 3 of 1975, repealed and replaced by the Standards Act No. 2 of 2009. The Building and Construction Divisional Standards Committee (BCDC), under whose supervision this Tanzania Standard was prepared, consists of representatives from the following organizations:

- \*College of Engineering and Technology, University of Dar es Salaam
- Tanzania Commission for Science and Technology (COSTECH)
- Ministry of Works and Transportation (MoWT)
- National Housing Corporation (NHC)
- Contractors Registration Board (CRB)
- Ardhi University (ARU)
- Jeshi la Kujenga Taifa (JKT)
- \*National Estates and Designing Consultancy Company Ltd (NEDCO)
- Architects and Quantity Surveyors Registration Board (AQRB)
- Institution of Engineers Tanzania (IET)
- \*National Construction Council (NCC)
- Engineers Registration Board (ERB)
- Tanzania Building Agency (TBA)

The organizations marked with an asterisk (\*) in the above list, together with the following were directly represented on the Technical Committee entrusted with the preparation of this draft Tanzania Standard:

- Dar es salaam Institute of Technology (DIT)
- Tanzania National Roads Agency (TANROADS)
- Small Industries Development Organization (SIDO)

Tanzania Bureau of Standards  
P O Box 9524  
Dar es Salaam  
Tel: +255 (22) 2450206/2450949/2450298  
Fax: +255 22 2450298  
E-mail: info@tbs.go.tz  
Website: www.tbs.go.tz

## 0.National foreword

The Tanzania Bureau of standards is the statutory national standards body for Tanzania, established under the act.No.3 of 1975, amended by act.No.2 of 2009

This Finalized Tanzania standard is being prepared by the Masonry Technical Committee, under the supervision of the Building and Construction Divisional Standards Committee (BCDC)

This finalized Tanzania Standard is identical adoption of **ISO 13822:2010 Bases for design of structures - Assessment of existing structures** published by the International Organization for Standardization (ISO). This publication was last reviewed and confirmed in 2021. Therefore, this version remains current.

## Terminologies and conventions

The text of the International standard is hereby being recommended for adoption without deviation for publication as draft Tanzania standard.

Some terminologies and certain conventions are not identical with those used as Tanzania standards; attention is drawn to the following:

The comma has been used as a decimal marker for metric dimensions. In Tanzania, it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words “International Standard” appear, referring to this standard, they should read as “Tanzania Standard”.

## Scope

This International Standard provides general requirements and procedures for the assessment of existing structures (buildings, bridges, industrial structures, etc.) based on the principles of structural reliability and consequences of failure. It is based on ISO 2394.

It is applicable to the assessment of any type of existing structure that was originally designed, analysed and specified based on accepted engineering principles and/or design rules, as well as structures constructed on the basis of good workmanship, historic experience and accepted professional practice. The assessment can be initiated under the following circumstances:

- an anticipated change in use or extension of design working life;
- a reliability check (e.g. for earthquakes, increased traffic actions) as required by authorities, insurance companies, owners, etc.;
- structural deterioration due to time-dependent actions (e.g. corrosion, fatigue);
- Structural damage by accidental actions (see ISO 2394).

This International Standard is also applicable to heritage structures provided additional considerations shown in [Annex I](#) are taken into account.

This International Standard is applicable to existing structures of any material, although specific adaptation can be required depending on the type of material, such as concrete, steel, timber, masonry, etc.

## **BCDC 2(3922) DTZS/ISO 13822:2010**

This International Standard provides principles regarding actions and environmental influences. Further detailed considerations are necessary for accidental actions such as fire and earthquake.

NOTE Fire resistance requires properties different from those for structural safety and integrity. Also fire hazards can be created by change in use. Special requirements are necessary for seismic hazards taking the dynamic action and structural response into account.

This International Standard is intended to serve as a basis for preparing national standards or codes of practice in accordance with current engineering practice and the economic conditions.

DRAFT STANDARD