



Republic of Kenya

THE NATIONAL BUILDING CODE

2024



State Department
for Public Works



1.0 Introduction

The National Construction Authority is established by the National Construction Authority Act No. 41 of 2011 (hereinafter referred to as the 'Act'), which took effect on 8th June 2012. In exercise of the Cabinet Secretary's powers conferred under Section 42 of the NCA Act, the NCA Regulations were adopted by the National Assembly and took effect on the 6th June 2014 by Notice in the Kenya Gazette.

The object for which the Authority is established is to oversee the construction industry and coordinate its development. Additionally, the Authority aims at facilitating a capacity building culture for the benefit of the industry's stakeholders and to promote best practices of international repute and standard in the local construction industry through its core functions.

In furtherance of its functions under section 5(2)(g) of the Act to promote and ensure quality assurance in the construction industry, the Authority has acquired three mobile construction material testing laboratories.

With the publication of the Building Code 2024, the Authority is expected to enforce the same and ensure the set standards are adhered to. To this end the deployment of the mobile construction material testing laboratories and non-destructive testing equipment will enhance the quality assurance and safety of construction works in the country.

2.0 The National Building Code 2024

2.1 Legal Background

The Authority under Section 5 (2) (ga) is empowered to enforce the prescribed Building Code in the construction industry. This is read together with Section 42(2) (aa) of the Act which provides the Cabinet Secretary, in consultation with the Board of NCA, with the powers to make regulations to give effect to the Act.

Pursuant to the provisions of Section 42 of the NCA Act, the Cabinet Secretary responsible for Public Works in consultation with the Board of the Authority developed the National Building Code 2024. This was published as legal notice No. 47 on 1st March 2024 repealing the "Local Government (Adoptive By-Laws) (Building) Order 1968"

2.2 History

In tandem with the Cabinet decision on the review of the Code, in December 2019, the Ministry through the Principal Secretary of the State Department for Public Works appointed a committee to review and finalize the Draft Building Regulations (Building Code).

The process to develop the Code has been a stakeholder driven one from then to present. Stakeholders included the Ministry under State Department of Public Works, the State Department of Housing & Urban Development, Kenya Bureau of Standards, Engineers Board of Kenya, the Board or Registration of Architects and Quantity Surveyors, Council of Governors, County Governments, Public Health, private sector players including the Architectural Association of Kenya (AAK), Institution of Engineers of Kenya, Institute of Quantity Surveyors, Association of Clerk of Works, Academic Institutions, Kenya Private Sector Alliance and Contractor Associations, the general public among other key players in the construction industry.

The Office of the Attorney General reviewed the draft Building Code and approved it for stakeholder engagement and public participation.

2.2.1 Stakeholder Engagement, Validation and Public Participation

In line with requirements for public participation and stakeholder engagement as prescribed under Article 10 of the Constitution and Section 5 of the Statutory Instruments Act, the Draft Code was subjected to stakeholder engagement and public participation in various parts of the country in 2021.

Pursuant to Article 10 of the Constitution and the requirements of the Statutory Instruments Act 2013, a Regulatory Impact Statement on the Regulations was published vide Kenya Gazette Notice 3650 on 1st April 2022 to assess the impacts (costs and benefits) of the Regulations on the community and businesses.

The stakeholder validation forum for the proposed Code and the Regulatory Impact Statement was held on Friday, 6th May 2022, in Nairobi where it was adopted subject to review of the comments, which were incorporated in the published National Building Code 2024.

2.2.2 Shortcomings of the previous Building Code (1968)

The previous Building Code:

1. Was in application for over 50 years and had not been revised since;
2. Did not adopt any known international building standards;
3. Was material based and recognized only conventional building materials like stones, timber and mortar in its application. This orientation failed to take into account modern building technologies, and;
4. Was designed for implementation and enforcement by local governments (now county governments) as opposed to an independent and well capacitated oversight authority. This led to lack of proper implementation of the Code and therefore compromised the quality of many buildings.

2.2.3 Objectives of the National Building Code 2024

The core objective of the Code is to prescribe improved standards in building design, construction and maintenance that are reflective of best practices in the built environment that promote quality, safety, health and acceptable environmental norms in the sector. The Code also creates a regulatory platform that fosters collaboration and compliance of all stakeholders in the construction industry. The specific outcomes of the Code include:

1. Certainty that qualified professionals are undertaking building design, construction, supervision and inspection of construction works;
2. Durability of buildings that are designed, constructed and are able to be used in ways that promote sustainable development;
3. The minimization of harmful effects on human health resulting from the use of building methods, products, design or building work;
4. Innovation and flexibility in design, building materials, technologies and construction in line with adopted international standards;
5. Providing for fire safety by limiting the extent and effects of the spread of fire;
6. Protecting other property from physical damage resulting from the construction, use and demolition of a building;
7. Ensuring design of buildings to provide for LPG Gas connections
8. Providing for design and adaptation of buildings to digital connectivity
9. Providing for universal access standards to all types of buildings;
10. Preserving buildings of significant cultural, historical or heritage value;
11. Ensuring energy use in buildings is efficient and promoting renewable sources of energy in line with Climate Change commitments;
12. Minimizing and ensuring proper management of construction waste, and;
13. Structural design that provides for multi-hazard resilience.

2.2.4 Role of the National Construction Authority in implementation of the National Building Code 2024

The specific Roles of NCA in the implementation of the Building Code will include:

1. Overall coordination of the implementation of the National Building Code of Kenya;
2. Issuance of guidelines on aspects that relate to construction safety and quality, construction processes, building materials and equipment, among others;
3. Carry out mandatory inspections of all ongoing construction works;
4. Quality assurance to ensure adherence to construction standards and safety;
5. Monitoring to ensure all stakeholders participate adequately in implementation of construction works.

3.0 Mobile Construction Material Testing Laboratories and Non-Destructive Testing Equipment

The Authority is responsible for ensuring quality and safety in the construction industry. Additionally, it is mandated to encourage standardization and improvement of construction materials and techniques. These are geared towards minimizing construction cost and ensuring structural integrity of buildings.

The Authority through the ministry received support from the World Bank under the Horn of Africa Gateway Development Project (HoAGDP) with the aim of strengthening the regulatory framework for the construction industry in Kenya.

Through the support, the Authority has procured three (3) fully kitted mobile material testing laboratory trucks plus 11 sets of portable Non-Destructive Testing (NDT) Equipment. They will be used to support quality assurance activities as well as for investigation of construction failures, illicit construction materials and to provide rapid response in the event of construction failure incidents by performing search, categorization and preliminary characterization of construction failures at the incident site, collect necessary evidence and samples for further laboratory examination.

Each of the three mobile laboratories comprise of a truck mounted with the following equipment fitted and available for use;

1. All-terrain vehicle
2. Non Destructive Testing (NDT) Equipment - Ultrasonic Pulse Velocity Tester; Digital Rebar Pull-Out Force Tester; Dual Mass dynamic cone penetrometer; Concrete test Hammer (Schmidt Hammer); and fully integrated rebar detector and covermeter
3. Testing equipment - Electronic Balance; Concrete Curing tanks; Vibratory sieve

shakers; Benchtop Laboratory Mixer; Core Sampling Equipment; Sand Equivalent test equipment; Concrete Slump Testing Equipment

4. Supporting infrastructure & equipment - Low-capacity jib crane; Laptop Computer; Personal Communicator Device; Compact Scanner/printer/copier; Portable hard disk drive; Digital Camcorder and Furniture & associated works

No.	Equipment Description	Functionality
1.	Schmidt Hammer Unit	It is designed for non-destructive testing of concrete strength
2.	Digital Crack Detector	It helps in detection and identification of cracks in structures
3.	Fero Scan/ Concrete Rebar	It is used for locating rebars in a simple and efficient process
4.	Ultrasonic Pulse Velocity (UPV) Instruments	It is used for testing of fresh concrete and concrete structures
5.	Digital Moisture Measurement Equipment	For use in real-time measurement of moisture with easy-to-use, non-destructive testing
6.	Core extractor	They are used for extracting core samples from pavements or structure.

3.2 Benefits

- i. Enhanced regulatory Capacity
- ii. Ensure that works meet approved construction standards and enhance quality assurance.
- iii. Minimize incidences of structural failure and resultant injuries and fatalities.
- iv. Reduce time spent on quality control and quality assurance of the construction works.
- v. Ensure value for money for construction industry.
- vi. Generate revenue for the Authority.

4.0 Conclusion

The National Building Code 2024 and the mobile construction material testing laboratories are of benefit to the construction industry and will contribute towards its growth and development. The Building Code shall primarily be used by the county governments for purposes of issuing approvals for building projects, by the professionals for preparing designs and for supervision, by contractors and construction workers for implementation, by training institutions for training, by material manufacturers and technologists for design and innovation of new materials and by the National Construction Authority to ensure that all projects undergoing registration have complied with the provisions of the Building Code. The launch of the mobile construction material testing laboratories and Non-Destructive Testing Equipment and their use will promote safety and

compliance with quality of materials in the construction industry.

Annexures

Annex 1 : Construction Material Testing Laboratories

Annex 2 : Equipment inside the Construction Material Testing Laboratories

Annex 1 : Construction Material Testing Laboratories



Annex 2 : Equipment inside the Construction Material Testing Laboratories



1.) Electronic Balance –
32,000g x 1.0g



3.) Digital Rebar Pull-Out
Force Tester



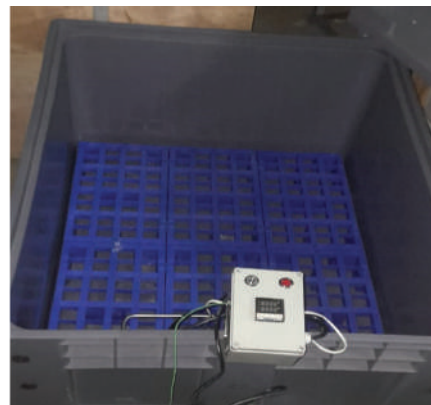
4.) Concrete Test Hammer
(Schmidt Hammer) N type



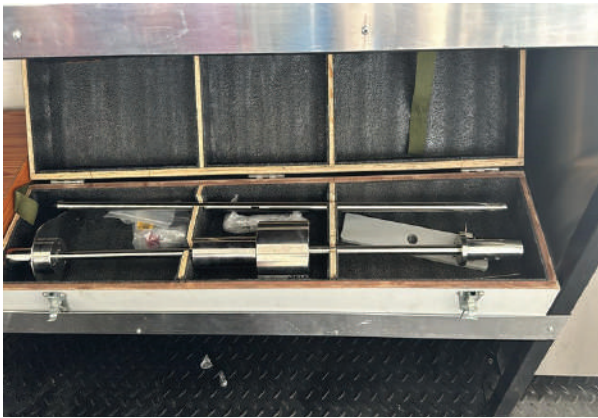
2.) Ultrasonic Pulse Velocity
Tester



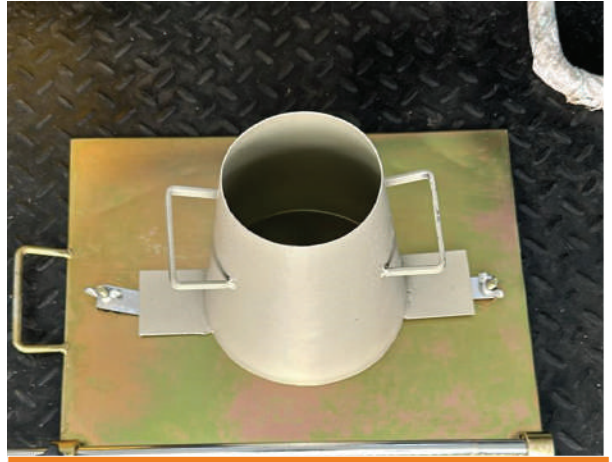
5.) Fully integrated Rebar
Detector and Cover meter



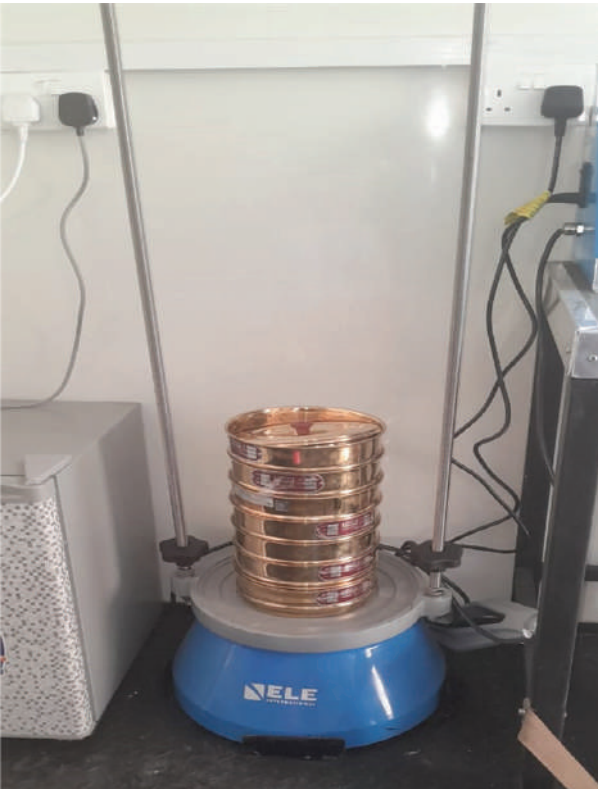
6.) Small Curing Tanks



7.) Dual-Mass Dynamic Cone Penetrometer



8.) Concrete Slump Testing Equipment



9.) Wet/dry 8inch Vibratory Sieve Shakers



10.) Litres Benchtop Laboratory Mixer (230V / 50Hz)



11.) Core sampling Equipment.



12.) Sand equivalent test equipment



13.) Low-capacity jib crane



14.) Laptop



15.) Personal communicator (type 1)



16.) Compact scanner/printer/copier



18.) Digital Camcorder



17.) Radio network for voice communication



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