

# Case Study Summary: 3-Bedroom Residential Home in Kabati, Murang'a

## Project Overview

This project involved the **construction of a modern 3-bedroom residential home** in Kabati, Murang'a County. The development was designed to provide a **comfortable, functional, and durable family residence** that meets modern housing standards while maintaining cost-effective construction.

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## Project Location

- **Location:** Kabati, Murang'a County, Kenya
  - **Setting:** A fast-growing residential area with increasing demand for modern housing developments
  - **Accessibility:** Convenient access to the **Thika–Murang'a Road**, providing connectivity to nearby towns and Nairobi
  - **Infrastructure:** Availability of electricity, water supply, and essential social amenities including schools, markets, and health facilities.
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## Project Scope

The project involved the construction of a **single-storey 3-bedroom residential house** consisting of:

- **Master bedroom (ensuite)**
- Two additional bedrooms
- **Spacious living room and dining area**
- Modern kitchen with storage space
- Shared bathroom and sanitary facilities
- Front veranda

The scope of works included:

- Site clearing and building setting out
- Excavation and foundation construction
- Reinforced concrete structural works
- Masonry wall construction using machine-cut stones
- Installation of lintels and ring beam
- Roofing structure and roofing installation
- Internal and external plastering

- Floor screeding and finishing works
  - Installation of doors and windows
  - Plumbing and electrical installations
  - Internal and external painting works
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## Design Considerations

The design of the residential unit incorporated the following key considerations:

- **Efficient space planning** for comfortable family living
  - **Structural strength and durability** using reinforced concrete elements
  - **Adequate natural lighting and ventilation**
  - **Aesthetic appeal** with simple modern architectural design
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## Construction Approach

The project was executed in phases to ensure quality control and timely delivery:

1. Site preparation and foundation works
  2. Structural and masonry construction
  3. Roofing installation and external works
  4. Internal finishing works including plastering and screeding
  5. Installation of plumbing, electrical services, and painting works
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## Project Outcome

The project successfully delivered a **well-designed and structurally sound 3-bedroom residential home** that meets the client's expectations in terms of functionality, comfort, and durability.

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## Conclusion

The 3-bedroom home in **Kabati, Murang'a** demonstrates effective residential construction practices, combining **modern design, quality workmanship, and cost-efficient construction methods** to deliver a comfortable and long-lasting family home.