

Case Study Summary: 5-Storey Apartment Block in Roysambu, Nairobi

Project Overview

This project involved the **development of a 5-storey residential apartment block** in Roysambu, Nairobi. The project was designed to provide **modern, affordable housing units** within the Nairobi metropolitan area, targeting working professionals, students, and families seeking convenient access to the city.

The development focused on **efficient space utilization, structural strength, and functional apartment layouts** to meet the growing demand for rental housing in Roysambu.

Project Location

- **Location:** Roysambu, Nairobi County, Kenya
 - **Setting:** A rapidly developing residential and commercial area along the **Thika Superhighway**
 - **Accessibility:** Excellent connectivity to Nairobi CBD, Kasarani, and Thika through the Thika Superhighway and public transport routes
 - **Nearby Amenities:** Close proximity to shopping centers, universities, schools, hospitals, and recreational facilities.
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Project Scope

The project involved the construction of a **five-storey reinforced concrete apartment building** consisting of multiple residential units designed for rental occupancy.

Key components included:

- Several **one-bedroom and two-bedroom apartment units**
- Reinforced concrete **columns, beams, and suspended slabs**
- **Shared staircases and access corridors**
- Ground-level **parking and access area**
- Water storage tanks and drainage systems

Construction works undertaken included:

- Site preparation and building setting out
- Excavation and reinforced concrete foundation works
- Structural framework construction (columns, beams, and slabs)

- Masonry wall construction using machine-cut stones
 - Roofing and waterproofing works
 - Internal and external plastering
 - Floor finishing works
 - Plumbing and sanitary installations
 - Electrical wiring and installations
 - Installation of doors, windows, and fixtures
 - Internal and external painting works
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Design Considerations

The design incorporated several key considerations to enhance functionality and durability:

- **Efficient space planning** to maximize the number of residential units
 - **Structural stability** through reinforced concrete construction
 - **Adequate natural lighting and ventilation** for comfortable living spaces
 - **Durable finishing materials** to reduce maintenance costs
 - **Proper circulation areas** including staircases and corridors for easy movement within the building
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Construction Approach

The construction process was implemented in phases to ensure quality and efficiency:

1. Site preparation and foundation works
 2. Reinforced concrete structural framework construction
 3. Masonry wall construction and roofing works
 4. Internal and external plastering and finishing works
 5. Installation of plumbing and electrical systems
 6. Final painting and completion works
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Project Outcome

The project successfully delivered a **modern 5-storey residential apartment building** providing multiple rental units in Roysambu. The development contributed to addressing the **growing demand for urban housing** in the area while maximizing land utilization.

Conclusion

The **5-storey apartment block in Roysambu, Nairobi** demonstrates effective urban residential development through **modern architectural design, durable structural systems, and efficient construction practices**, resulting in quality housing suitable for the dynamic Nairobi rental market.