

SPECIAL COLLECTION
LIBRARY USE ONLY



National University of Science and Technology

Think in Other Terms



FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF CIVIL

AND

WATER ENGINEERING

FINAL YEAR PROJECT

STRUCTURAL DESIGN OF A MULTISTOREY COMMUNICATIONS

CENTRE

BY

NOREEN DUBE (N005 1005F)

SUPERVISED BY ENG.V.V DESAI

SUBMITTED JUNE 2010

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY	
PO BOX 432 SECT-8 GATE NO. 14 ISLAMABAD	
DATE	20/04/12
	11/287
	TA340 D4B

Final year project submitted in partial fulfillment of the BEng (Hons) Civil and Water Engineering Degree.



ABSTRACT

Telecel is a network provider which is one of the leading network providers in the country. The telecommunications industry has experienced a boom in the past months as a result of introduction of a multicurrency system which has brought about an increase in customer base as the general public can now afford a mobile phone sim card and a mobile phone. This has thus prompted the need for network companies to upgrade their infrastructure to service their customers this includes buildings. Currently the firm uses rented property in the city centre. It can be noted that Telecel Bulawayo does not have adequate space to service their ever increasing clientele. This project is done as an idea of a modern telecommunications centre that will suit the needs of the company to the greatest degree.

A ten storey building is to be designed. The proposed structure has a single basement parking floor and nine office space floors. All structural elements are designed to BS8110 and other relevant British standards listed in the design. The proposed structure is of a modern design that is not only outstanding but also matches and exceeds competition.

The project involves carrying out structural analysis and design of the building and its elements. This involves design of roofs, slabs, beams, retaining walls, columns, bases for columns and staircases. The design also involves producing working or engineering drawings showing all the details and reinforcement drawings as well as bending schedules.

Structural design involves the feasibility study of a project, mathematical calculations production of reinforcement detail drawings and serves as the basis of the preparation of bulk quantities of structural projects.