

FIRE PRECAUTIONS FOR RESIDENTIAL BUILDINGS

Project Report Submitted by

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SUMMARY

This project deals with objectives related to fire precautions for Residential Buildings.

The main objective is to make a detailed study of the methods and means of escape from buildings, Fire resistance and Structural stability of buildings.

The study was based on local and British Codes of Practice. The whole project consists of five chapters, with figures and tables related to the subject.

The first chapter contain the basic guides to the fire precautions for the main kinds of buildings like Offices, Shops, Hotels Boarding houses, Factories and Hospitals.

The second chapter mainly concerned with general precautions for all kind buildings.

Third chapter includes what kind of fire protection equipment and system should be used and at what cases to use them.

In fourth chapter a discussion of the structural safely and of the fire-resistance of different material is done.

Chapter five contains some guidelines of regulations written for Cyprus.

I N D E X

CHAPTER 1: GUIDES TO THE FIRE PRECAUTIONS

- 1.1 Offices and Shops
- 1.2 Hotel and boarding houses
- 1.3 Factories
- 1.4 Hospitals

CHAPTER 2: GENERAL FIRE PRECAUTIONS

- 2.1 Fire lifts
- 2.2 Escalators
- 2.3 Ramps
- 2.4 Wall and floor hatches
- 2.5 Spiral staircases
- 2.6 External vertical ladders
- 2.7 Floor hatches
- 2.8 Fire/Smoke spread
- 2.9 Doors
 - 2.9.1 Escape doors
- 2.10 Basements

CHAPTER 3: FIRE PROTECTION EQUIPMENT AND SYSTEMS

- 3.1 Fire points
- 3.2 Choice of fixed fire extinguishing
 - 3.2.1 For general protection
 - 3.2.1.1 Automatic sprinkler
 - 3.2.2 For special risk
 - 3.2.2.1 Water spray
 - 3.2.2.2 Foam
 - 3.2.2.3 Carbon dioxide
 - 3.2.2.4 Halons
 - 3.2.2.5 Dry powder
 - 3.2.3 Fire fighting aids
 - 3.2.3.1 Hose reels

3.2.3.2 Hydrants

CHAPTER 4: STRUCTURAL SAFETY

- 4.1 Reinforced concrete
- 4.2 Structural steelwork
- 4.3 Aluminium
- 4.4 Timber
- 4.5 Masonry
- 4.6 Fire resisting glazing

CHAPTER 5: LOCAL CODES