Higher Technical Institute ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

DESIGN OF LLECTRICAL SERVICES OF A

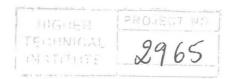
** MULTISTOREY BUILDING

BY
KOUZARAS MICHALIS
E/1168

JUNE 1999

HIGHER TECHNICAL INSTITUTE ELECTRICAL ENGINEERING DEPARTMENT DIPLOMA PROJECT DESIGN OF ELECTRICAL SERVICES OF A MULTISTOREY BUILDING

E. 1168
KOYZAPAS MICHALIS
JUNE 99



DESIGN OF THE ELECTRICAL INSTALLATION OF A MULTISTOREY BUILDING

Project submitted by:

MICHALIS KOYZAPAS

In part satisfaction of the award of DEPLOMA OF TECHNICIAN ENGINEER in ELECTRICAL ENGINEERING OF THE HIGHER TECHNICAL INSTITUTE, CYPRUS

Project Supervisor
Mr. G.Kourtellis
Senior Lecturer H.T.I



ACKNOWLEDGMENTS

I would like to express my sincere gratitude to my project supervisor Mr. George Kourtellis lecturer of H.T.I for his quidance and motivation.

Furthermore I would like to thank the personnel of all companies in the Cyprus market for the technical information's they provided me for this project especially the CYPRUS FORREST INDUSTRIES.

DEDICATED TO MY FAMILY WHO OFFERED ME SO MUCH

GENERAL INTRODUCTION

The design of the electrical services of a multistorey building are represented in this project. The building it consists of a parking area on the underground floor, a big shop in the ground floor and the mezzanine.

In the first and second floor there are two companies (offices). Finally there is a luxury house on the third floor.

The main objective of this project were

- 1. To design the complete electrical installation of a building which includes the following
 - a) power
 - b) lighting
 - c) telephone distribution
 - d) Air conditioning
- 2. To provide lightning protection.
- 3. To provide all necessary diagrams schedule of materials and costing.

Terms and conditions

- 1. Three-phase 41SV rms. SOHz, T.T earthing system.
- 2. Architectural drawing will be provided.
- 3. The illumination design must be in accordance with CFBS code.
- 4. CYTA requirements to be taken into consideration.

CONTENTS

ACKNOWLEDGMENTS SUMMARY INTRODUCTION

CHAPTER 1 -ILLUMINATION DESIGN

INTRODUC	TION
----------	------

- ADVANTAGES OF GOOD ILLUMINATION
- USEFUL DEFINITIONS AND UNITS
- RULES FOR ENERGY EFFICIENT LIGHTING
- ILLUMINATION DESIGN PROCEDURE
- 21 METHODS OF ILLUMINATION CALCULATIONS
- 22 CALCULATION PROCEDURE
- 23 TYPICAL CALCULATIONS
- 24 RESULTS OF ILLUMINATION DESIGN