

DESIGN OF FOOTBRIDGE IN STEEL

by

Loizo Loizou

Project Report

Submitted to

the Department of Civil Engineering

of the Higher Technical Institute

Nicosia, Cyprus

in partial fulfilment of the requirements

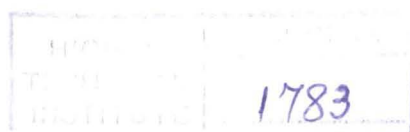
for the diploma of

TECHNICIAN ENGINEER

in

CIVIL ENGINEERING

JUNE 1991



SUMMARY

The purpose of this Project is to design a fly-over pedestrian crossing near Calisperas Building in Steel. It includes the reasoning for proofing the necessity of a Crossing at the Specific location, for deciding which way to use so as to help people crossing and also to decide the Construction material.

Special emphasis is given to the maintenance of traffic flow during the footbridges construction and also to the protection of the columns due to impact loading.

The effect of wind is also checked as it may have an adverse effect on such kind of Construction with free standing columns.

All necessary drawings for the Construction of the footbridge are provided.

CONTENTS

	Page
- SUMMARY	/
- INTRODUCTION	1
- VARIOUS TYPES OF BRIDGES	3
- DESIGN INFORMATION	6
- CALCULATION FOR CHOOSING FLOOR PLATES AND R.H.S	7
- STRUCTURAL ANALYSIS OF THE FOOTBRIDGE	9
- DESIGN OF UNIVERSAL BEAMS	11
- DESIGN OF UNIVERSAL COLUMNS	13
- DESIGN OF CROSS BRACING MEMBERS	14
- DESIGN OF STAIRCASES	15
- DESIGN OF FOOTING	16
- BOLTS AND BOLTING	17
- IMPACT LOADING CONSIDERATION	18
- PROPOSED SOLUTION FOR MAINTENANCE OF TRAFFIC DURING FOOTBRIDGES' CONSTRUCTION	19
- CONSTRUCTION	20
- REFERENCES	/
- APPENDIX	/