

HIGHER TECHNICAL INSTITUTE

CIVIL ENGINEERING COURSE

DIPLOMA PROJECT

SEISMICITY OF CYPRUS

C/858

ELENA TANTELE

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By

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DEDICATION

I would like to dedicate my project to my family and especially to my sister Maria.

E. Tande

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1.1 INTRODUCTION

The earthquake, considered as the independent natural phenomenon of vibration of the ground, in very few cases poses a threat to humans, as for example when it causes major landslides or tidal waves (tsunamis). The earthquake becomes a dangerous phenomenon when it is considered in relation with structures. Of course, the problem is the structure under seismic excitation and not the earthquake itself. This is because the structural system is designed basically for gravity loads and not for horizontal inertia loads that are generated due to ground accelerations during an earthquake.

Although destructive earthquakes are confined to certain geographical areas, the seismic zones, the large-scale damage that they caused in densely populated areas and the number of deaths are such that they have an impact on the whole world.

Our country has the unfortunate privilege of belonging in one of these zones. This zone represents the 15% of the universal seismic activity.

In this paper there is a general description of earthquakes. Then after this brief general reference we concentrate to our primary aim, the seismicity of Cyprus.