ACKNOWLEDGEMENT

The author expresses her heartfelt gratitude and sincere thanks to her beloved supervisor Dr. H. Jane Helena, Assistant Professor of Civil Engineering, College of Engineering Guindy, Anna University, for her valuable guidance, suggestions, constant support and encouragement throughout the period of this research work.

The author is grateful to Dr. G. M. Samuel Knight, Professor of Civil Engineering, Anna University, Chennai, Dr. K. Muthumani, Chief Scientist, Structural Engineering Research Centre, Chennai and Dr. K. Nagamani, Professor of Civil Engineering, Anna University, Chennai for their expert comments and suggestions.

The author wishes to place on record The Management, The Correspondent and The Principal of B.S.A. Crescent Engineering College, for their permission to carry out this research work. The author is thankful to Dr. R. Srinivasaraghavan, Head of the Civil Engineering Department, B.S.A. Crescent Engineering College, for his critical comments during the research work and permission to use the departmental facilities.

The author thanks Dr. K. Ilamparuthi, Professor and Head, Department of Civil Engineering, Anna University, Chennai and Dr. K. Thanasekaran, Chairman, Faculty of Civil Engineering, Anna University, Chennai.

Special thanks are due to the Post Graduate students and Non-teaching Staff of the Civil Engineering Department of B.S.A Crescent Engineering College for their help. The author is extremely thankful for the encouragement and co-operation received from her parents, husband, son and in-laws without whom this work would not have been possible.

GAJALAKSHMI P