Thesis Title Microcomputer Application to Analysis and Design of Partially and Fully Post-Tensioned Flat Slabs

Author Mr. Viruch Tangmunkongvorakul

M. Eng. Civil Engineering

Examining Commitee :

Dr. Apiwat Oralrattanachai		Chairman
Assoc. Dr. Chessada Kasemset		Member
Assist.Prof. Dr. Bancha Suparinayok		Member

Abstract

This research is aimed to apply microcomputer in the analysis and design of Post-Tensioned Flat Slabs. The analysis and design method are based on ACI Building Code (318-89). This VISLAB program is written in Turbo Pascal language and can be run under DOS at least version 3.30 up.

The slab is idealized by the Equivalent Frame concept and analysed by the Direct Stiffness method. This program can analyse and design both fully prestressed and partially prestressed flat slabs.

VISLAB Program is user friendly, flexible, and accurate. Comparisons of the results obtained from this program and the results by Adapt Post Tension program and a work example in PTI manual indicated good correlation.