

Name : Mr.Thada Srounsun
Thesis Title : A Micro Computer Program for Analysis of Braced or
Anchored Sheet Pile Walls by Finite Element Method.
Major Field : Civil Technology
Thesis Advisors : Assoc.Prof.Dr.Nipon Thiensiripipat,
Mr.Panom Chaiyasit
Academic Year : 1993

Abstract

Sheet pile walls have been widely used for many purposes in civil engineering fields such as excavations, beach erosion protection and ground slope stabilization, etc. At the present time, although sheetpiling has been long developed, there are still no exact methods to analyze sheet pile structures. The analysis methods of sheet pile walls may be divided into two groups: classical method and finite element method.

This thesis presents the analysis of lateral forces acting on sheetpiling structures using finite element method. The analysis includes realistic wall and anchor rod flexibility modeling and reasonable interaction between soil and wall. A computer program is also developed for the analysis of sheet pile walls. It is convenient to use as it contains three separate parts : input, processing and numeric and graphic output. Each parts can be accessed through a pull down menu system. The results compared well with results obtained from an authoritative text.