

**FINAL YEAR PROJECT
BACHELOR OF ENGINEERING (HONS)(CIVIL)
SCHOOL OF CIVIL ENGINEERING
MARA INSTITUTE OF TECHNOLOGY
SHAH ALAM, SELANGOR DARUL EHSAN**

The logo of MARA Institute of Technology is a shield-shaped emblem. It features a yellow diamond at the top, followed by several horizontal lines representing a book or a stack of papers. Below this, there are two crossed white swords or spears. The entire emblem is set against a light purple background.

**THE STRUCTURAL BEHAVIOUR OF PRECAST
PRESTRESSED HOLLOW CORE SLABS
SUBJECTED TO POINT LOAD**

**AZMI B. ABDUL RAJI
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"May Allah Bless Them All"

Azmi Abdul Raji
November '96

ABSTRACT

The main purpose of this project is to study on the behaviour of Precast Prestressed Hollow Core (PHC) slabs subjected to a certain conditions and requirements.

A total number of two specimens of PHC slabs type S6/200 (according to Precast Technology Sdn. Bhd.), will be tested in heavy structural laboratory located at ITM. The research will be focus on the crack propagation, deflection, mode of failure, stress-strain at point load and punching shear surrounding the point load are satisfy under service load condition.

TABLE OF CONTENTS

Title	Page
Acknowledgement	i
Table of Contents	ii - v
List of Tables	vi - vii
List of Figures	viii- ix
List of Plates	x
Abstract	xi
CHAPTER 1	
1.0 INTRODUCTION	1
1.1 Objective of Study	4
1.2 Scope of work	5
1.2.1 Laboratory Testing	5
1.2.2 Calculation for Design Example	6
CHAPTER 2	
2.0 LITERATURE REVIEW	7
2.1 General	7

1.0 INTRODUCTION

Precast Prestressed Hollow Core slab originated from the US in early 1950's when advances in long line stressing techniques and concrete production were greatly advanced. The units are especially advanced with regard to their high quality and low use of materials. The efficiency of the products is due to the prestressing and the low self-weight. This coincided with the development of 7-wire helical strand in 1951 - a form of reinforcement that could be stressed over large distances. The slabs are manufactured using the slip-forming (non-circular voids) or long line extrusion (circular voids) process in which the degree of prestress and depth of unit are the two design parameters. [2]

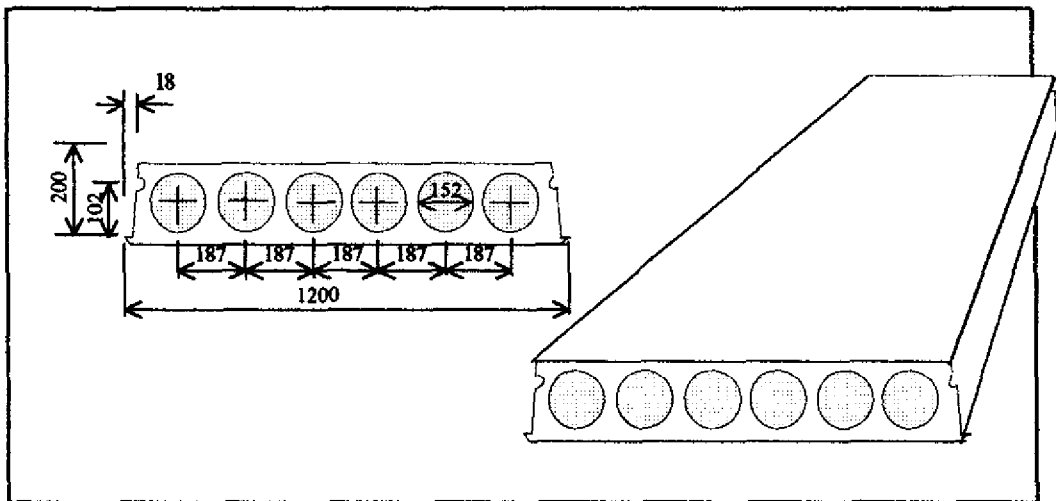


Figure 1.0: Typical hollow core unit