

CONSTRUCTABILITY IMPROVEMENT DURING FIELD OPERATIONS

**A PROJECT REPORT PRESENTED IN PARTIAL FULFILLMENT OF
REQUIREMENTS FOR THE ADVANCED DIPLOMA IN CIVIL ENGINEERING
OF MARA INSTITUTE OF TECHNOLOGY**

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ABSTRACT

Constructability can be define as the optimum use of construction knowledge and experience in planning, design, procurement and field operations to achieve overall project objectives. Constructability issues still exist during field operations. Once in the field, constructors can still achieve constructability benefits from their action alone.

Field operations constructability is not a packaging of the basics of construction management, control of cost, quality and safety, schedule and the management of materials and manpower. Rather, the focus is on the development and effective utilisation of innovative field construction methods that simplify construction effort and reduce project costs.

The employed research method was an iterative process of issue identification, literature search, site interviews and analysis.

Innovative construction methods may involve innovations related to field tasks, temporary construction materials/system, handtools, construction equipment, constructor-optional preassembly, temporary facilities, directly supportive of field methods or post-bid constructor preferences.

CHAPTER 1

1.0 INTRODUCTION

1.1 What Is Constructability ?

Constructability simply means better projects - lower cost, better productivity, early project completions and earlier start-ups.

Constructability is the optimum use of construction knowledge and experience in planning, design, procurement and field operations to achieve overall project objectives.

Maximum benefit occur when people with construction knowledge and experience become involved at the very beginning of a project. Constructability is not just :

- a. determining more efficient methods of construction after mobilisation of field forces.
- b. allowing construction to review engineering documents periodically during the design phase.
- c. assigning construction personnel to engineering office during design.
- d. a modularisation or preassembly program.

Although the above activities are part of constructability, they are not that, a part. Only through