

HIGHER TECHNICAL INSTITUTE

CIVIL ENGINEERING DEPARTMENT
DIPLOMA PROJECT

EARTHWORK
EXCAVATIONS

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EARTHWORK **EXCAVATIONS**

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Project Report

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ERTHWORK EXCAVATIONS

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Summary:

In this project, the first objective is to study the geology and how it affects excavation.

The next topic to be studied is the different categories and types of excavations and how they differ.

Finally the last topic to be discussed is what other operations must be done along with the excavation and what is the main machinery used.

Introduction:

Excavations are used widely all over the world and seem to be a very important branch of engineering.

In every road construction, house construction, dam construction and almost every construction someone can think of, excavation is involved.

So what's excavation? A definition is that excavation is the act of removing, moving, and depositing the veneerlike surface of the earth's outermost crust. The material excavated may be in the solid or semi-solid state, i.e. rock; in the weathered state, i.e. a mixture of rock and earth; or in the loose state, i.e. earth.

Excavation may vary with respect to many parameters, such as the size of it, the use of it, or even the method used to excavate. The main types of excavation include excavation for dams, highway construction, quarries and more, which are discussed in this project.

Also excavations have to do with ground water control. The water can be a real hazard in an excavation where people work. In this project a couple of way of controlling the water table are suggested, as well as ways to support the sides of an excavation in order not to become a great peril.