

**STUDY OF STONE COLUMN IN EXPANSIVE AND
NON-EXPANSIVE CLAY**

M. Tech Dissertation

by
UDAY CHAUDHARI

180305215001

Under the supervision of

Asst. Prof. PRINCE RATHOD

Asst. Prof. VANSHIKA MUCHHARA



APRIL 2020

**DEPARTMENT OF CIVIL ENGINEERING
PARUL INSTITUTE OF TECHNOLOGY
FACULTY OF ENGINEERING & TECHNOLOGY
PARUL UNIVERSITY
P.O. LIMDA – 391 760, GUJARAT, INDIA**

ABSTRACT

Stone column driving is a cost effective, environment friendly and easy ground improvement technique. Introduction of stone columns in soil generally increase the unit weight of soil and by doing so ultimately it improves the bearing capacity of soil. It also densify the surrounding soil during process of its driving. Population explosion, which cause scarcity of land having sufficient bearing capacity for the construction of building to provide shelter and services. The installation or driving of stone column in non-expansive clay and expansive clay improve bearing capacity and reduce settlement of clay, which provide suitable condition for the construction of foundation of structure. In this research work the main concern of study is to compare effect of stone column in non-expansive clay and expansive clay. Further comparison between strength of full length stone column in both the soil is studied in this research work.