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Section B

Subject Geotechnical Engineering

Submitted To,

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Geotechnical report

Pg # 1

General

In this project we are intended to take line project and carry out necessary soil investigation in Maradan [Pakistan Chowk]

Site investigation

Site investigation or Sub-Surface exploration are done for obtaining the information about Subsurface

Conditions at the Site of proposed
Construction . Site investigation in one
form or the other is generally
required for every big engineering
project . Information about the
Surface and Sub-surface
features is essential for
the design of structures.

Laboratory investigation

Pg #03

⇒ following ~~can~~ tests are conducted on soil samples.

* Determination of Specific gravity

* " of Shrinkage limit

* " " " Swell Index

* " " " plasticity Index

⇒ plastic limit & liquid limit

is also considered.

Conclusion

In the end, Average Specific Gravity of Soil at high temperature

$$G_T = 2.432$$

of

Mardan (Pakistan Chowk) .

Which also conclude that Soil is more saturated

and organic to west of it.

Quiz

Pg#01

Ans The Software which are used in geotechnical engineering are following below.

- 1) SEEP 2D
- 2) STABL
- 3) SVFLUX
- 4) SV Slope
- 5) UTEXAS

SEEP 2D

Seep 2D is a 2D Seepage analysis program written by Dr. Fred Tracy of the United States Army Corps of Engineers. The program is used to analyze water seepage, typically through dams and levees or under sheet piles.

STABLE

It is another vital Software which is used for summarization of sophisticated data. Its behaviours, functionality, specification or API which is considered final for that version. It is highly recommended Software by experts.

SV flux

It is an finite element
Seepage analysis program -
developed by Soil - Vision
System (LTD) . The Software is
designed to analyze both
Saturated and on - saturated
flow through the ground

SV Slope

It is an slope stability analysis

Program developed by Soil

vision (LTD). The software

is designed to analyze

slopes using both the classic

"method of slice" as well

as newer stress - based methods.

UTEXAS Software

The main language of this software is english but

now it has been translated

to my languages due to

high value and need of

it, in the field and

help to analyze the slope

Stability.