

Historical Geotechnical Study and Evaluation of Project Progress for the Tafila City Center Development Project

Authors : Mohmd Sarireh

Abstract : The geotechnical study can be employed successfully to assess and follow the expected development or delay in the project construction. The development project of city center or downtown was taken as a case study for the investigation of the project conditions that might support progress or cause delay. The project was proposed to build 7447 m² by reinforced concrete mainly to serve and support the services provided to people in Tafila. The project construction had faced challenges and obstacles such as soil collapse because of excavation of the weak soil that found in the project site. In addition, the topography of the project area showed a high slope from South-West to North. The slope through the project footprint reached to 83.3% which is considered very high slope. One year and a half proposed to finish the project construction since the 1st of March 2013 and it was planned to be finished by the 31th of August 2014, but the project needs more than one year and a half as extension according to the consultant engineer. The collecting of data was conducted through the interviews with the engineers and officials, and by analyzing the soil reports and samples taken during design and excavation. The major findings came out to weak and fractured soil and construction waste that were found at project site. Also, soil was considered very fine according to the plasticity index (PI) values, in addition to the high depths required for foundation that contribute to the collapse of soil and the increase of project cost. The current project aims to present how the unseen conditions can delay the project construction and increase the cost of the project that rises to JD8.305 Million.

Keywords : geotechnical, management, progress, risk, soil unseen conditions management

Conference Title : ICCEPRPM 2018 : International Conference on Civil Engineering Projects, Planning and Management

Conference Location : Amsterdam, Netherlands

Conference Dates : May 10-11, 2018