

# DESIGN & CONSTRUCTION OF DIAPHRAGM WALL

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## ABSTRACT

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For my project, the design of Diaphragm wall is based on the soil mechanics and the reinforcement concrete structure to design. Diaphragm wall is a reinforced concrete wall constructed in the ground using under slurry techniques and it is an interest method used to prevent the collapse of excavated surface with slurry that is proportional to the amount of excavated soil.

In this project report, I will define what the diaphragm wall is and what the application of diaphragm wall is. Moreover, I will describe the advantages and disadvantages of diaphragm wall. I also will discuss how to design a diaphragm wall used by the Rankine's theory and a simply RC design into my project report and indicate the construction procedure of diaphragm wall.

I will separate my whole project report into two main parts that are design stage and construction stage. All of the calculation, results or theory that are use will be consisting into the design stage. To design diaphragm wall, there are a few variations need to consider, such as the diaphragm depth, support stiffness, steel bar selecting and etc. the construction stage will discuss how to produce the diaphragm wall and it will show out the procedure by a flow chart or a diagram and what are the problems that may be arise during construction.