



ANALYSIS 2: Excavation/Foundation Investigation (BREADTH)

The goal of this analysis is to help get the building up out of the ground faster. I will do this by analyzing the excavation schedule/design, the excavation support system and the type of foundation used to support the building. I hope to find alternative means for these areas to help the building get out of the ground faster helping to expedite the construction schedule.

The following steps will be taken to complete this analysis:

- Consult with structural option faculty members to design a mat foundation to support the building.
- Analyze a new excavation plan to best help work with mat foundation system.
- Complete an estimate of the new mat foundation system compared to current caisson system.
- Calculate the schedule reduction for the new mat foundation system.
- Complete an analysis of the cost comparison of the two foundation systems and the money the owner can make by opening the hotel sooner due to the schedule reduction.

The benefit of the new system would be seen in the schedule reduction allowing the owner to take the building over sooner helping to bring in revenue earlier.