

## **Executive Summary**

This document is a technical analysis on the University Medical Center of Princeton. Background information on the building is provided along with information about the owner, local conditions, building systems, structural estimate, and general conditions estimate. The building itself is a \$321 million overall project in Plainsboro, NJ. The University Medical Center of Princeton has four different building being constructed or renovated at once. The main focus of this thesis and of all of the analytical topics is in affect of the Bed Tower.

There are four analyses all with a main focus on sustainability. The first analytical topic is a more efficient curtain wall system by changing the windows for a better U-value. The second analytical topic is implementing a greywater system and looking at the benefits of recycling greywater. Third analytical topic is looking at the comparison between using a cast in place concrete foundation wall system that is already in place as opposed to using a pre-cast foundation wall system. The last analytical topic was looking at green roofs and the benefits of implementing a green roof on the project.