

Executive Summary

This report examines the existing conditions for the Margaret M. Alkek Building for Biomedical Research in Houston, TX. Groundbreaking for this building took place on September 15, 2005 and is well short of being completed. Due to this complete utility rates were not available nor was an operating history for the building.

Baylor College of Medicine as an experienced owner had an extensive design narrative put together for engineers on the project to follow. These narratives listed requirements for all different systems involved in the building. The building was to be located on campus and utilized the existing campus chilled water and steam loops. The building also was to be built with a low first cost and a system that was easy to maintain, meaning the building had to have a simple system or a system similar to other buildings on campus. This report discusses what criteria put forth by the owner.

The final part of this report looks at the four major systems in the building; steam, heating hot water, chilled water and air side. Each system is described in brief, including how it operates. A simplified schematic is included for each system as well as schedules for key equipment in the building. The report concludes with a critique of the existing systems.