

Executive Summary

City Hospital is a multi-phased research facility located in Southeast Pennsylvania. Phase I is an "L" shaped four-story composite building structure which will provide a research facility, an administrative space, a conference space, and a Central Utility Plant (C.U.P.). Phase II is an 8floor steel frame building above grade that will be used for research in medicine, and Phase III is a proposed 22 floor future addition to Phase II. Once the building is completed to its full size, the site will accommodate underground parking, an imaging, and an ambulatory building with outpatient care facility, which will be an improved facility for patients, families and employees. City Hospital is seeking LEED® Silver Certification for New Construction. The project intends to earn 35 LEED® points in order to achieve a silver LEED® certification.

The first research topic is an issue that relates to the construction industry as discussed in the PACE Roundtable in October of 2007. This topic will identify the issue of Building Information Modeling- 3D modeling on the City Hospital Phase 1 project. The next two topics; medium voltage generators and LEED® Gold Certification execution are technical analyses that will also be breadth analyses for my proposal. The alternative methods chosen will be analyzed using different investigation areas such as constructability review, value engineering analysis, and schedule reduction.

This report contains information about the critical issues facing the construction industry; these same issues also face the City Hospital Phase 1 project. Also contained in this report are two breadth analyses that address some of the problems on the project, and a proposal of a solution with theoretical benefits.