

Executive Summary

This report looks at the load calculations and energy consumption in the Central Shared Use Facility. It also looks at the LEED Rating System and ASHRAE Standard 90.

The CSUF was designed to have a LEED Silver Rating. After going through the checklist of points, I scored the building 13 points. This is well short of the required 33 points for a silver rating. This is due to unknown aspects of the building, such as storm water management, recycled content and low-emitting materials. Even though the building will not be certified right away, it should easily earn a silver rating.

Looking at ASHRAE Standard 90, I had to make a couple assumptions about the lighting load, and insulation found in the building. After making the assumptions, I found that the building did not meet the requirements set by Standard 90. However, since the building could earn a LEED silver rating, I think it is safe to assume that some of my assumptions were incorrect.

Using Carrier's Hourly Analysis Program, I calculated an annual operating cost of \$407,892. This seemed extremely high for such a small building. This was due to a high cooling load which HAP estimated to be 84% of the total cost of the building. Again, there was some information which I did not have, but I should be receiving shortly. That way, I will be able to go through and find my mistake.