Section Four:

Daylighting Breadth

A daylighting study will be conducted for the Library and Student Gathering atrium. Since the Library incorporates a curtain wall that takes up a majority of the south façade it will be an integral part of the project to determine the amount of daylight entering through this large expanse of glass; which will not only effect the lighting design of the space but HVAC equipment used to cool and heat the area. Similarly, the Student Gathering space (which is itself a four story atrium) has clerestories on the east and west walls which will provide daylight. An analysis of the current design will find the daylight contribution to the various interior surfaces of the space.

Following the analysis of the existing daylighting methods, it will be an integral portion of this breadth to improve the quality of daylight into the Library and Student Gathering. These improvements may include changes to the daylight openings and exterior shading devices; and will have architectural impact on GCC.

It will be a focus of this breadth to integrate the daylight into the electrical lighting design. Automatic dimming and/or switching control of the electric lighting will serve to harvest daylight and limit electrical loads of the two spaces. An annual study will be conducted to find an estimated savings for the year. A combination of AGI 32 and Daysim will be used to find the daylight availability and the possible LEED credits that could be achieved.