

Breadth Topics

Architecture

The construction of the facility has included a large glass main entrance. This could potentially have a large impact on the mechanical loads of the building. A possible alternative would be to include a phase changing material to increase which would essentially act like an increase in thermal mass without the added mass. Other aspects of the architecture would include the interior where a CHP system may need to be located. This could change room orientation and should be taken into account.

Construction Management

To reduce the total time and cost of construction, a construction management breadth will be explored. Time is a large factor when it comes to construction which in turn relates to the cost. With a shorter construction period, there will be less labor charges as well as a sooner move in time both of which will reduce overall cost. Because this is used for athletic events and is an existing building, the schedule should take into account the seasons of the respected sports.