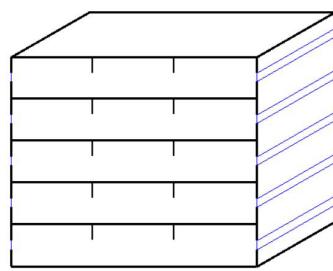


MARCH

JUNE

SEPTEMBER

DECEMBER



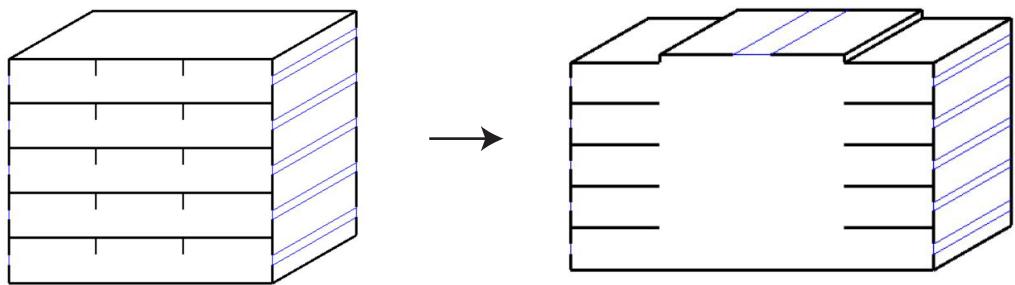
Meyerson Hall Performance

The graphs above show ventilation studies for four seasons of the year. The studies were done on the existing form of Meyerson in Philadelphia. The flow diagrams show June and September to be more comfortable. The direction of ventilation changes throughout the day, each set of diagrams show 3 different times of the day. The northern side of the building seems to have higher levels of discomfort.

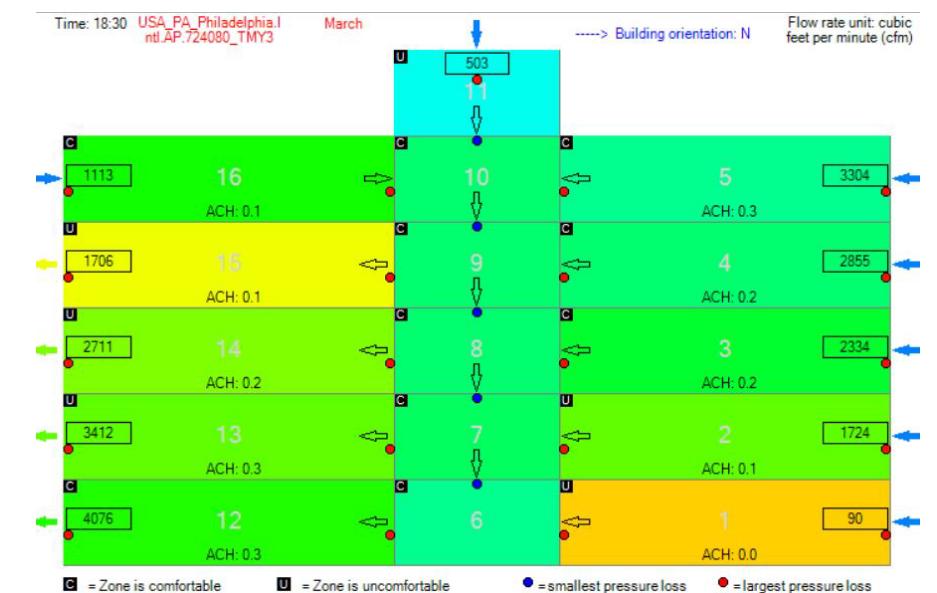
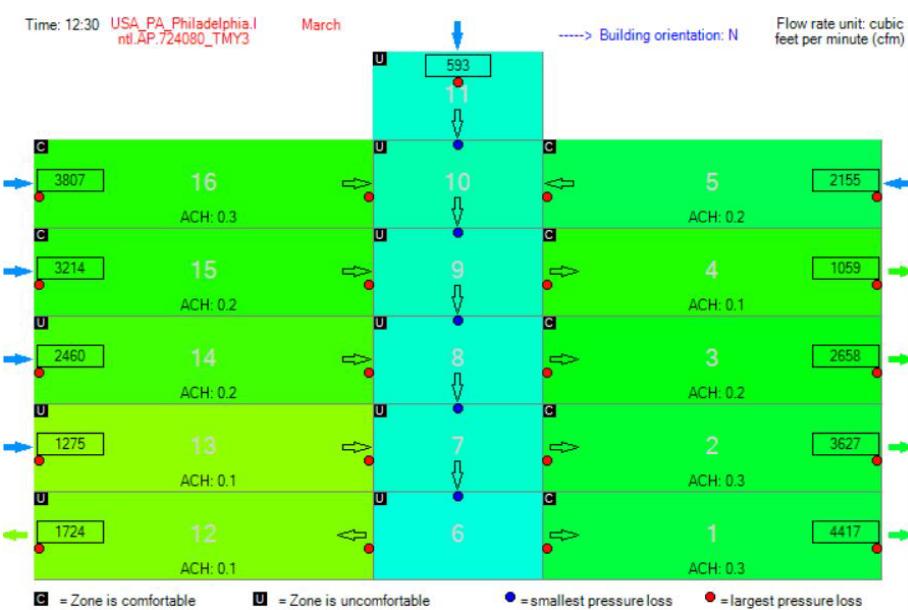
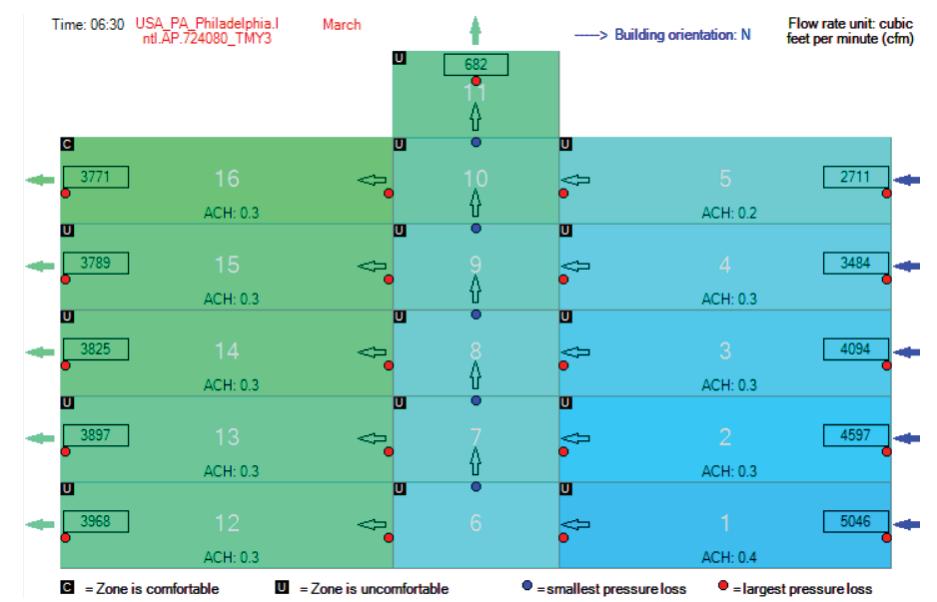
To redesign the form of the building, I chose to work with two extremes where the comfort levels were low. Specifically March and December where the building appears too cold.

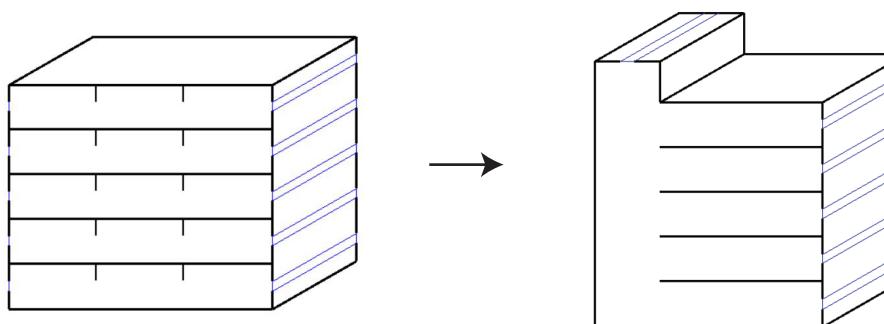


The diagrams above show the comfort levels in March, June, September and December. The March and December diagram show lower levels of comfort.



To increase the levels of comfort and the temperature due to ventilation. I decreased the number of windows on each facade by 30 % and added a central atrium. The comfort levels increased to an average of 60% on one side of the building. Higher temperatures also recorded.





To increase the comfort levels in December, I added a chimney, decreased the number of windows by 30% and added thermal mass of 10 inches. Addition of the chimney allowed for the heat to rise to upper levels and for a more even distribution of air flow. The changes allowed for comfort levels to rise.

