For this lab you will perform a life safety analysis on an existing building. You can work individually or in a group of up to three people. Only one person per group should submit.

**This lab is completed jointly by Xinyu Liu, Haijing Wen and Tongyuan Zhang.**

Floor plans can be found at: <https://union.okstate.edu/mapsfloor-plans.html>. While there are other parts of the building in real life, you can assume that the building consists of only what is in the plans. In order to scale the drawing, the atrium area on the first floor is 42.5 ft by 75.0 ft. The building is sprinklered and built-in accordance with the IBC. State any assumptions made and show your work.

**For detailed calculations and the plan view, please do take a look at our noted plan view and the excel file. And the corresponding assumptions are listed behind the excel.**

1. What is the approximate occupant load on each floor?
   1. Basement: 805
   2. Floor1 : 1829
   3. Floor2 : 2321
   4. Floor3 : 2121
   5. Floor4 : 1622
2. How many exits are required on each floor?
   1. Basement:3
   2. Floor1 : 4
   3. Floor2 : 4
   4. Floor3 : 4
   5. Floor4 : 4
3. What are the minimum widths of the exits on each floor(ft)?
   1. Basement:5
   2. Floor1 : 20
   3. Floor2 : 14
   4. Floor3 : 13
   5. Floor4 : 10
4. What is the minimum remoteness between exits?
   1. Basement:71.2
   2. Floor1 : 109.8
   3. Floor2 : 10.2
   4. Floor3 : 9.7
   5. Floor4 : 8.5
5. What is the maximum allowable travel distance on each floor(ft)?
   1. Basement:91
   2. Floor1 : 231.2
   3. Floor2 : 155.2
   4. Floor3 : 183
   5. Floor4 : 167