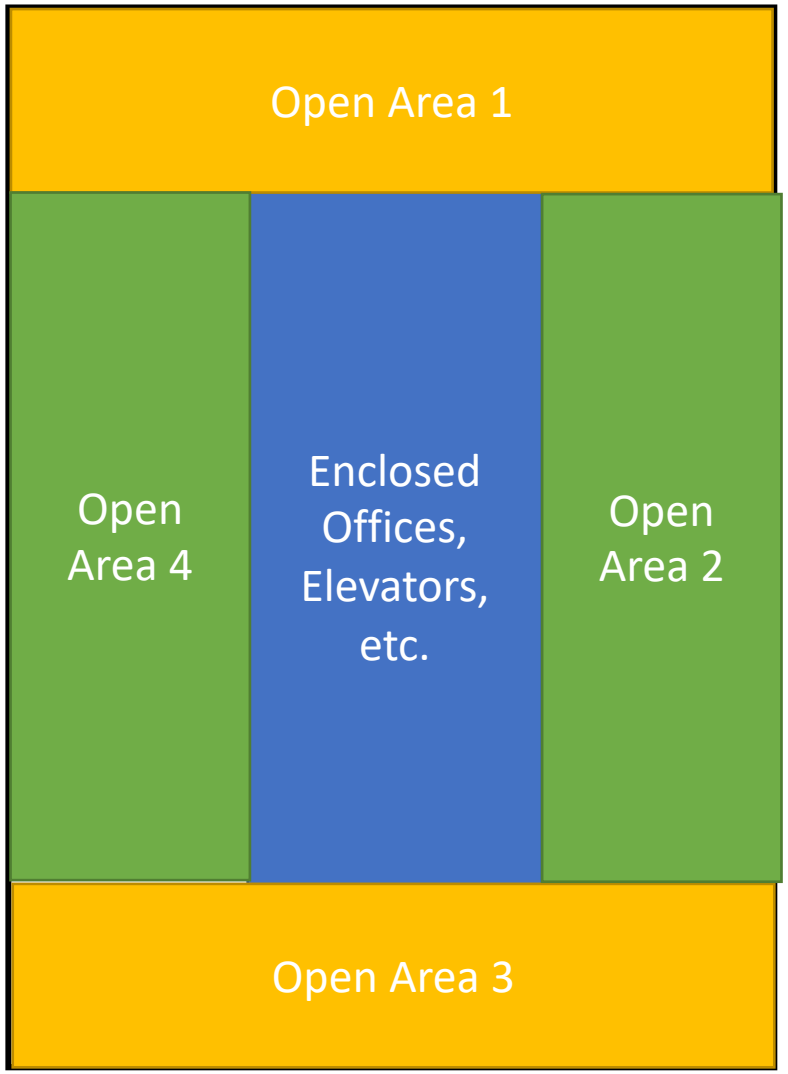
Open Area Selection and Volume Measuring Guidelines

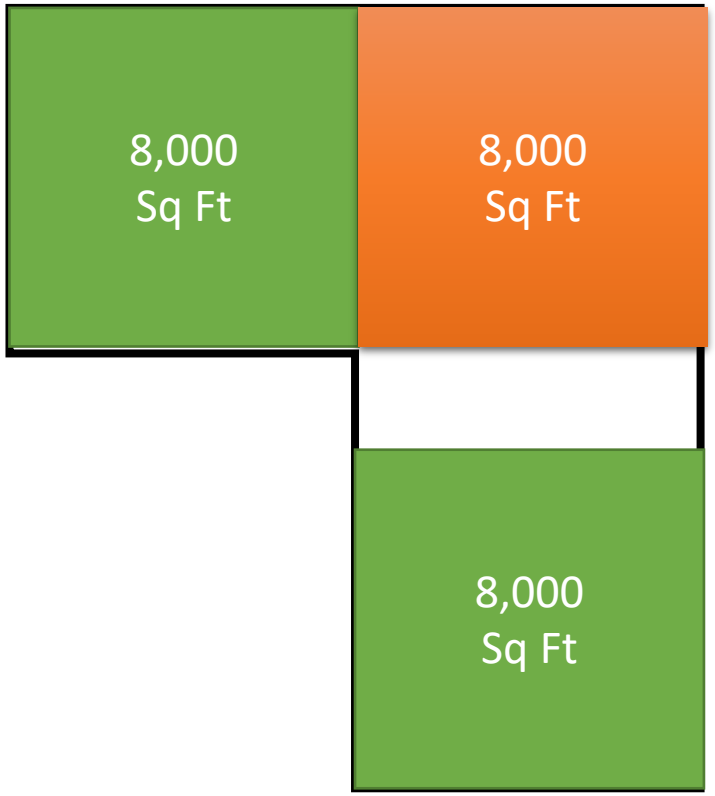
Open Area Considerations

- Open areas are:
  - Continuous areas without walls between them
  - Have similar HVAC system across the entire area
- Sometimes Open areas wrap around floors with enclosed areas in the center of floors.
  - A reasonable approach is to define multiple open areas for instance, one on each side and each end even if they are theoretically connected
  - For large floors (>10,000 sq ft) it is better to assign a reasonable number smaller areas (2-5) within a floor as individual High-Density Areas than to assign the entire floor as a single High-Density Area.



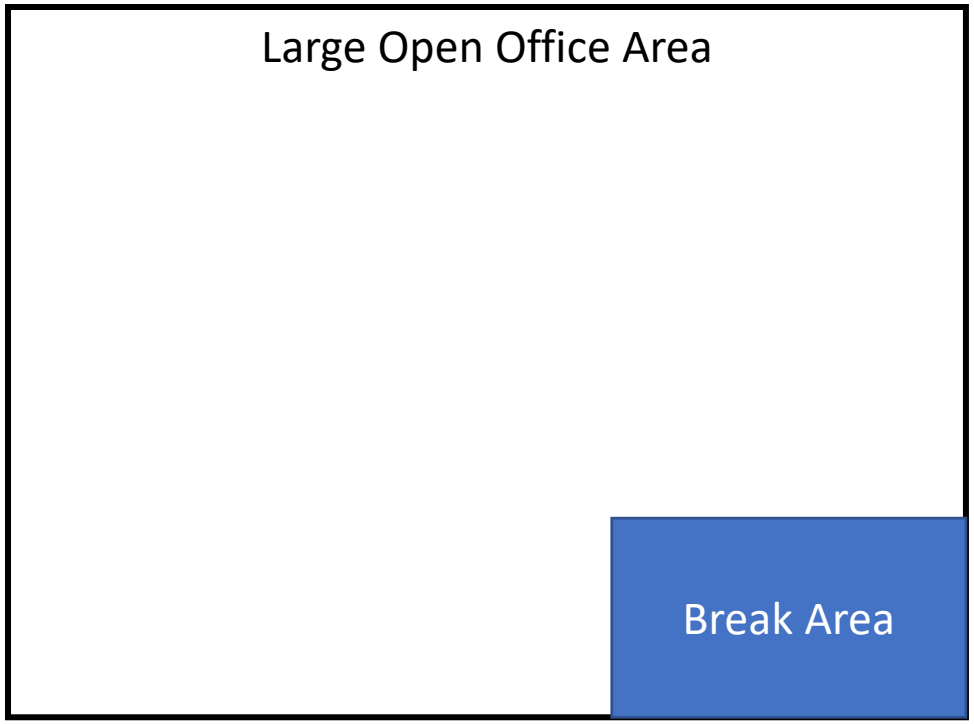
Open Areas >8,000 sq ft

- ~30,000 sq ft total area “L” shaped example
- Select a portion which measures ~8,000 sq ft with as many sides constrained as possible
  - Green locations are acceptable because the areas are bounded by 3 walls. Pick one of the two suggested.
  - Orange is not acceptable because it is bounded by only 2 walls



Overlapping Areas

- If an area defined in the pre-test planning (Break Area) is found to actually be a part of a larger area (Large Open Office Area), it is OK to combine the areas and test as one.
  - You will need to remove all similar areas (Break Areas) from the High-Density Area list
  - You will also need to abandon the tests for any such areas (Break Areas) and reduce the total number of tests performed on the building



Odd Shape Areas

- The objective is to obtain a decent estimate of the volume of the room (+/- 10%)
- It is OK to ignore small areas (orange) which contribute <10% to the overall area.
- It is OK to estimate the area using a rectangle (green) if the error is <10% of the overall area.

Ceiling Height

- The objective is to obtain a decent estimate of the volume of the room (+/- 10%)
- Estimate average Ceiling Height
- If there are gaps in in the drop ceiling going up into the next floor. Estimate approx. 1’ above the nearest ceiling. It is not necessary to estimate the height to the next floor above