

The BOMA Design Constraint

By William B. Tracy, AIA, MBA, NCARB

The Building Owners and Managers Association R/U Ratio is an important constraint in the design of commercial office buildings, in addition to floor area ratios, height limits, bulk planes and other zoning and building code constraints. Designers who recognize and respond to this design constraint can produce office buildings that are more likely to achieve the financial goals of their clients as well as the goals of sustainable design. Building Information Modeling is a valuable tool for meeting these goals.

The BOMA Standard is a common method for measuring floor areas for leasing in commercial office buildings. It defines two basic classes of space: rentable area and usable area. The ratio between the rentable area and the usable area on each floor of a building, or R/U Ratio, is an important value in the leasing of office space. There are maximum generally acceptable R/U Ratios for each class of office space in each local real estate market. A building or floor that has an R/U Ratio that exceeds prevailing R/U Ratios has a leasing impediment. That is, tenants will be financially motivated to locate in other buildings where their rent will buy them more usable space.

To compete for tenants, owners of buildings with excessively high R/U Ratios may reduce their rent rate or use an arbitrarily low R/U Ratio. Both alternatives result in lost revenue and the latter one negatively impacts the appraised value of investment property. Therefore, designers of commercial office buildings should strive to create buildings with R/U Ratios that do not exceed those that are acceptable for the class of office space in its local real estate market.

Because this constrains the amount of building common amenity space, such as public lobbies and atriums, which a designer can incorporate in a building, it arguably impacts its attractiveness to tenants. While the ability to incorporate more expansive public spaces no doubt makes it easier for designers to create a building that will attract tenants, this has to be balanced by their impact on the R/U Ratio as well as the construction cost of the project.

Sustainability is a principle that includes recycling of buildings as a key strategy to reduce waste. A design that efficiently accommodates alternative uses is more likely to be reused and less likely to end up sooner in a landfill. A big issue in recycling office buildings that were designed for single owner-occupants is often the large amount of space dedicated to common amenity areas. These areas can take a huge bite out of the space available for potential tenant office space and create sky high R/U ratios. A designer that reasonably constrains the amount of space that could not be leased to potential tenants (using reasonable R/U Ratios) creates more value for an owner/occupant client because the building will be better suited for recycling as a spec office building. Of course, this constraint must be balanced with the value of amenity space in terms of making the building a place where people will want to be. However, to ignore the constraint altogether is to put the building at a disadvantage with respect to re-use and thereby ignores an important sustainability principle.

The biggest deterrent to evaluating the BOMA R/U Ratio early in the design process has been the amount of time and expense required to produce BOMA area calculations. In the past designers have waited until a building is at least 50% complete in the design

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development stage before performing BOMA area calculations. This is too late to allow this information to provide significant feedback to the designer. BIM incorporates the ability to generate statistical reports on floor areas early in the design process. BOMA Rentable and Usable areas, and R/U Ratios should be computed early in schematic design to enable a designer to make appropriate design choices using R/U Ratios as one of many criteria.

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