

White Paper

Methods of CRE Building Measurement & National Trends

2020

Introduction

It is more important now than ever for commercial real estate landlords to ensure their buildings are properly measured. Savvy landlords are always seeking methods to increase revenue, and as such, measuring spaces to reflect current market conditions can potentially maximize rentable square footage (RSF). With this said, calculating RSF has always been a hot topic of debate, with regional markets taking different approaches. The variation in methods can be problematic for large organizations with portfolios that span multiple geographic locations.

Methods of Building Measurement & National Trends, was written by a group measurement experts on staff at Building Engines Inc. who collectively have decades of experience in the world of building measurement and calculations, and have measured billions of square feet.

In this white paper we will cover:

- ✓ The different methods of measurement for office properties, including BOMA and REBNY
- ✓ Which method certain markets favor or have adopted as standard
- ✓ The importance of maximizing RSF to increase the value in your portfolio

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Part 1:

Methods of Building Measurement

BOMA 1996 vs 2010

The BOMA 2010 Standard is the latest method of measurement to be released by BOMA. Like the BOMA 1996 Standard, the BOMA 2010 Standard measures buildings on a building-wide basis and therefore requires that you measure the entire building to determine RSF. BOMA 2010 also introduces some new concepts and definitions and renames some well-known industry terms. For example, Building Common Area is now referred to as Building Service & Amenity Areas.

The 1996 standard did not include or permit a method for computing rentable areas in multi-story, multi-tenant buildings using a single load factor on all floors. Therefore, the BOMA 2010 measurement method solved this problem by adding an optional measuring method. This method was called Method B, a.k.a. the "Single Load Factor" approach. The previous standard, which did not include this optional Single Load Factor, was then referred to as Method A.

Method A

Method A is very similar to BOMA 1996 in many ways. However, Method A aims to fix what some people deem to be an inherent weakness of BOMA 1996, where the floor service areas are allocated not only to the usable areas, but also the building common areas on a floor. This caused frequent changes to the floor rentable areas as the floor service areas changed. This application has been discontinued in BOMA 2010.

While many terms have changed, the general methodology of Method A is similar to BOMA 1996 with one main exception. The floor/RU ratio to building service areas (formerly known as "building common area" in the predecessor standard) has been discontinued in Method A. This results in slightly different R/U ratios and rentable areas. The end result is that no floor common is applied on building common area anymore.

The end result is a fairer distribution of Building Common Area throughout the building and more stable rentable areas over time.

A major difference with BOMA 2010 is that it provides landlords with the flexibility to choose from two distinct methods of measurement: Method A (Legacy Method) and Method B (Single Load Factor Method).

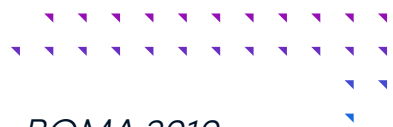
Method B

With Method B, a landlord can choose to apply a single load factor to all the tenants in a building. For this reason, Method B is also referred to as the Single Load Factor Method. A Load Factor can be defined as the ratio between rentable and usable space (R/U). The benefit of this method is that each tenant gets the same portion of floor and/or building common area.


Method B introduces a new class of space, called base building circulation and a revised global summary of areas to re-distribute the rentable area of the building across all floor levels. This results in an identical load factor across all floor levels of the building.

Base building circulation is defined as the minimum path which is assumed to exist in order to provide access to and egress to areas such as occupant areas, stairs, elevators, rest rooms, janitors' closets and building service and amenity areas such as lobbies and building conference rooms.

This method assumes that base building circulation exists on all floor levels regardless of whether they have multiple tenants or a single tenant. Although this method requires meticulous documentation of base building and extended circulation, it offers leasing advantages and more long-term stability in the rentable area of the building.



When using the BOMA 2010 standard, one must choose either Method A or Method B and must apply that method to the entire building. The two methods cannot be mixed within the same building.



External Circulations

External circulations are included in BOMA 2010 calculations. An external circulation is common feature in warm climates like California and Florida, where the primary circulation for the building occurs outside the exterior enclosure.

BOMA 2010 differs from BOMA 1996 in the fact that external circulations can now be counted toward and potentially increase RSF in some buildings. External circulations include open air hallways and colonnades.

Capped Load Factor

In addition to Method A and Method B, BOMA 2010 allows for a third option in which the landlord can apply their own Capped Load Factor (also known as “Market BOMA Factor”) provided that it does not exceed the Load Factor(s) determined by Method A and/or Method B.

This is a common practice in “inefficient” buildings that have a lot of common space. By capping the load factor and bringing it down to the market standard the building can become more marketable. This is purely a business decision and is the prerogative of the building owner or manager. It can affect not only a building’s marketability, but also its financial performance and value.

BOMA 2017

The major shift that BOMA 2017 brings to the table is the truly international focus. Every edition of the Standards comes with some design changes and further clarity. The 2017 update is no different, with a larger Glossary of Terms, more pictures, a

new, step-by-step format, and a section on Best Practices. There is also an emphasis on the IPMS for Office Buildings compatibility.

How will 2017’s Changes Impact RSF?

BOMA 2017 introduced five major changes. The inclusion of exterior amenities, and inclusion of major vertical penetrations at the lowest level, are two changes that could increase rentable square footage (RSF). Other changes, such as removal of the public pedestrian thoroughfare boundary condition, have the potential to decrease RSF. It is important to partner with an experienced firm like Building Engines to make sure you are maximizing your RSF while staying in compliance with BOMA 2017.

Growing your building with BOMA 2017

Here at Building Engines we specialize in helping commercial landlords navigate BOMA 2017. Building Engines can verify that building calculations are in compliance with the latest standards, and also help take advantage of the potential additional RSF that comes with BOMA 2017. This is a common practice in “inefficient” buildings that have a lot of common space. By capping the load factor and bringing it down to the market standard the building can become more marketable. This is purely a business decision and is the prerogative of the building owner or manager. It can affect not only a building’s marketability, but also its financial performance and value.

Comparison between the 4 most popular BOMA methods:

	BOMA 1996	BOMA 2010 Method A	BOMA 2010 Method B	BOMA 2017
Building-Wide Measurement	✓	✓	✓	✓
Capped Load Factor / Optional Adjustment by Floor		✓	✓	
Base Building Circulation / Single Load Factor			✓	
Capped Load Factor / Optional Adjustment by Floor and/or Tenant				✓
Unenclosed Features (balconies, terraces...)				✓
Major vertical penetrations at the lowest level are included				✓

REBNY: Real Estate Board of New York

The REBNY standard of measurement is far more aggressive than BOMA, as usable space is measured to the outer face of the building exterior wall and the thickness of the corridor walls are included as usable footage. REBNY also allows a loss factor to be applied to usable areas. This number is market driven and varies on both a full floor and multi-tenant basis. Whereas with BOMA the gross building area (GBA) exceeds the rentable area, with REBNY it is the opposite and rentable area is almost always greater. GBA can be defined as the total floor area of the building measuring from the outer surface of exterior walls.

Landlords in New York City use different approaches to calculate the rentable area of their floors. Some examples are listed below

- ✓ **Applying a set full floor loss factor throughout the property.**

It should be noted that full floor loss factors can yield a very high multi-tenant loss factor on inefficient multi-tenanted floors. In this case, most landlords decide to cap the multi-tenant loss factor (usually between 37-38%).

- ✓ **Applying set floor rentable numbers per floor to simplify leasing and marketing efforts.**

This may result in each floor having a different loss factor as per the relationship of the usable to rentable space.

New York City is the only major U.S. market that does not use the BOMA method in calculating rentable areas.

Other Unofficial Methods

Although not officially recognized by BOMA, Modified BOMA has become a commonly used term simply defined as any modification to BOMA Standard. Landlords tend to use this approach to increase RSF throughout the property.

In the 1980's and 90's property owners began to allocate building common spaces, such as day cares and gyms, to the tenants. This practice is a tweak to the 1980 BOMA Standards and was since incorporated in the 1996 BOMA Standard.

Currently, the most prevalent Modified BOMA measurement method is the "single rentable/usable ratio" modification.

Common applications of Modified BOMA include:

- ✓ The use of a more aggressive method to measure useable footage, for example measuring to the outside face of an exterior wall
- ✓ Assigning vertical penetrations and typically un-assignable spaces as building common space. This increases total building common area which directly inflates the RSF of the property.
- ✓ Calculating the usable areas per BOMA and then applying a REBNY loss factor in some tri-state buildings.

There is no rule that requires owners to conform to either BOMA or REBNY. However, Most landlords across the CRE market adhere to one or the other.

Part 2:

Select Major Markets and Re-Measurement Trends

New York City Metro Area

New York City stands alone as the most aggressive market when it comes to measuring office properties. The REBNY standard yields higher useable and rentable footages than any other major city within the US. Over the past 5 years, most Class A and select Class B and C properties in Manhattan have applied full floor loss factors as high as 27%, and multi-tenant loss factors as high as 38–39 %.

Loss factors outside of Manhattan and in the other four boroughs of New York tend to be lower than those in Manhattan, although rentable footages still tend to be significantly higher than when compared to BOMA.

The REBNY method has also been implemented in some Tri-State Areas outside of New York City. It is difficult to say whether a complete transition to REBNY will occur or not in these areas. A lot depends on current market conditions.

A few markets outside of NYC that have begun to adopt REBNY standards:

- ✓ Jersey City, NJ with loss factors as high as 19–20% on a single floor basis
- ✓ Greenwich, CT with loss factors as high as 24% on a single floor basis
- ✓ Long Island, NY with loss factors as high as 19–20% on a single floor basis
- ✓ Westchester County, NY with loss factors as high as 16–19% on a single floor basis

California, Florida, and Other States with Warm Climates

An advantageous outcome of the BOMA 2010 standard is that owners of buildings that have external circulations may now be able to increase the RSF of their buildings by incorporating these areas as either building or floor common area.

Due Diligence

It is important that landlords are aware of the value of rentable square footage when selling or buying a property. Prior to a disposition, sellers should study existing rentable areas to see if they are able to increase the square footage to maximize the sale price. Likewise a potential buyer should validate the square footage the seller is representing.

Growth Potential

Buildings that are re-measured can grow for a variety of reasons. Perhaps the most common is simply that each new measurement standard that has come out in the last 20 or 30 years has been more and more favorable for the land- lord. For example, we have seen buildings that have been measured according to BOMA 1980 often times grow when re-measured according to BOMA 1996 or 2010. Other factors also come into play such as calculation errors.

Below is a select sample of markets in which we've recently seen growth:

- ✓ New York City – 3-10%
- ✓ Washington, D.C. – 2-5%
- ✓ Florida – 4-5%
- ✓ Other tertiary markets – up to 10%

Building growth after re-measurement can be largely attributed to newer method standards that typically favor the landlord.

Common Mistakes

It is not uncommon for firms to make mistakes when re-measuring. For instance we recently re-measured an office park in New Orleans where we discovered that the original firm that measured the property made serious errors in their calculations. As a result we recaptured an additional 90,000 square feet of BOMA rentable. At a building in DC we also recently discovered that the last firm to measure the building omitted an entire penthouse level. The end result was an additional 5,000 square feet in BOMA rentable. Although these firms may be good at space planning or design, the intricacies of REBNY and BOMA can lead to such calculation errors, which can lead to significant money lost.

Summary

The commercial real estate landscape is continually adapting and adjusting to the economic climate and conditions. Inaccurate measurements are very common within commercial real estate and can lead to reduced revenues. All landlords, brokers and property managers should be aware of the square footages of their properties as well as the potential to grow and meet their properties' maximum values.

Specialized space management and measurement firms within the industry, such as Building Engines Inc., cannot stress enough the importance of re-positioning properties to maximize rentable footages, no matter the market.

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We would like to acknowledge that much of the information in this white paper is an interpretation of material from <http://www.boma.org> as well as from OFFICE BUILDINGS: STANDARD METHODS OF MEASUREMENT - ENGLISH VERSION (ANSI/BOMA Z65.1-2010)

About Building Engines

Building Engines improves net operating income across the world's most successful Commercial Real Estate portfolios. Our customers increase their revenue, deliver the best occupant experience, and reduce their operating costs using our innovative building operations software. Founded in 2000 and headquartered in Boston, with offices in New York City and Scottsdale, Building Engines is developing, acquiring and partnering to address long-standing problems in building operations. Today, more than 850 customers—including Beacon Capital Partners, Cushman & Wakefield and SL Green—rely on Building Engines to manage critical operational needs across more than 2.5 billion square feet and 26,000 properties worldwide.

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