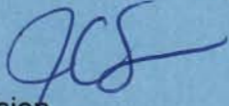




*Los Angeles World Airports*

**Date:** March 3, 2009

**Memo To:** Robin Rollins, Property Manager III  
Real Estate Portfolio Management Division – LA/Ontario Airport

**From:** Jeffrey C. Smith, Chief Airports Engineer  
Engineering and Project Management Division 

**Subject:** Buildings – Passenger Terminal Building Areas Space Assignments  
Los Angeles International, LA/Ontario, Van Nuys, and Palmdale Airports  
Transmittal of Measurement Standards

Pursuant to your request, we have developed a *Passenger Terminal Building Area Measurement Standards* informational sheet and exhibits. This information sheet outlines the measurement standards for Passenger Terminal Buildings in accordance with the LAWA Modified and Simplified Building Owners and Managers Association (BOMA) Standards. These are the standards that have been used to measure leaseholds at LAX (Terminals 1-8 and T.B.I.T.), Palmdale Terminal, and the Van Nuys FlyAway Terminal. These standards will now be used for all future Master Lease Exhibits (MLE) for LA/Ontario Airport as well. This information may be distributed to the tenants at LA/Ontario Airport to help explain the revisions that are being made to the MLE's.

The existing MLE's for LA/Ontario Airport were signed on December 30, 2003 and were based on the original Terminal Master Lease Exhibits prepared by Consultants as part of the Terminal Area Facilities construction project. Currently, my office is in the process of updating these documents as the result of the recent In-Line Baggage construction project. We have discovered that there will be major revisions to the leasehold areas on the first floor of the passenger terminal. These revisions are due to the recent In-Line Baggage construction project and inconsistencies with respect to usable area measurements. The updated documents will reflect the *LAWA Modified and Simplified BOMA Standards*.

In 1996, several LAWA divisions, including Engineering and Properties, adopted measurement standards. These standards were based on the BOMA standards at the time. The American National Standards Institute (ANSI) approved the BOMA standards and published "ANSI/BOMA Z65.1-1996 Standard Method for Measuring Floor Area in Office Buildings." The LAWA committee reviewed this publication and modified it to suit the unique airport environment. In developing the *LAWA Modified and Simplified BOMA Standards* some important modifications were made; in particular, with respect to measurements at exterior walls and windows and the definition of excluded areas.

*LAWA Modified and Simplified BOMA Standards* include the 1996 BOMA provision that original area calculations are deemed accurate if re-measurements give results with a variance of two percent or less. The new LA/Ontario MLE will conform to this standard.

If you have any questions concerning this matter or require additional information, please do not hesitate to contact Mr. Colón Fabre of my staff at (310) 646-5700, ext. 3031.

JCS:CES:kak

Attachments: Passenger Terminal Building Area Measurement Standards Information Sheet and exhibits.

PC Dqcs 259439v1

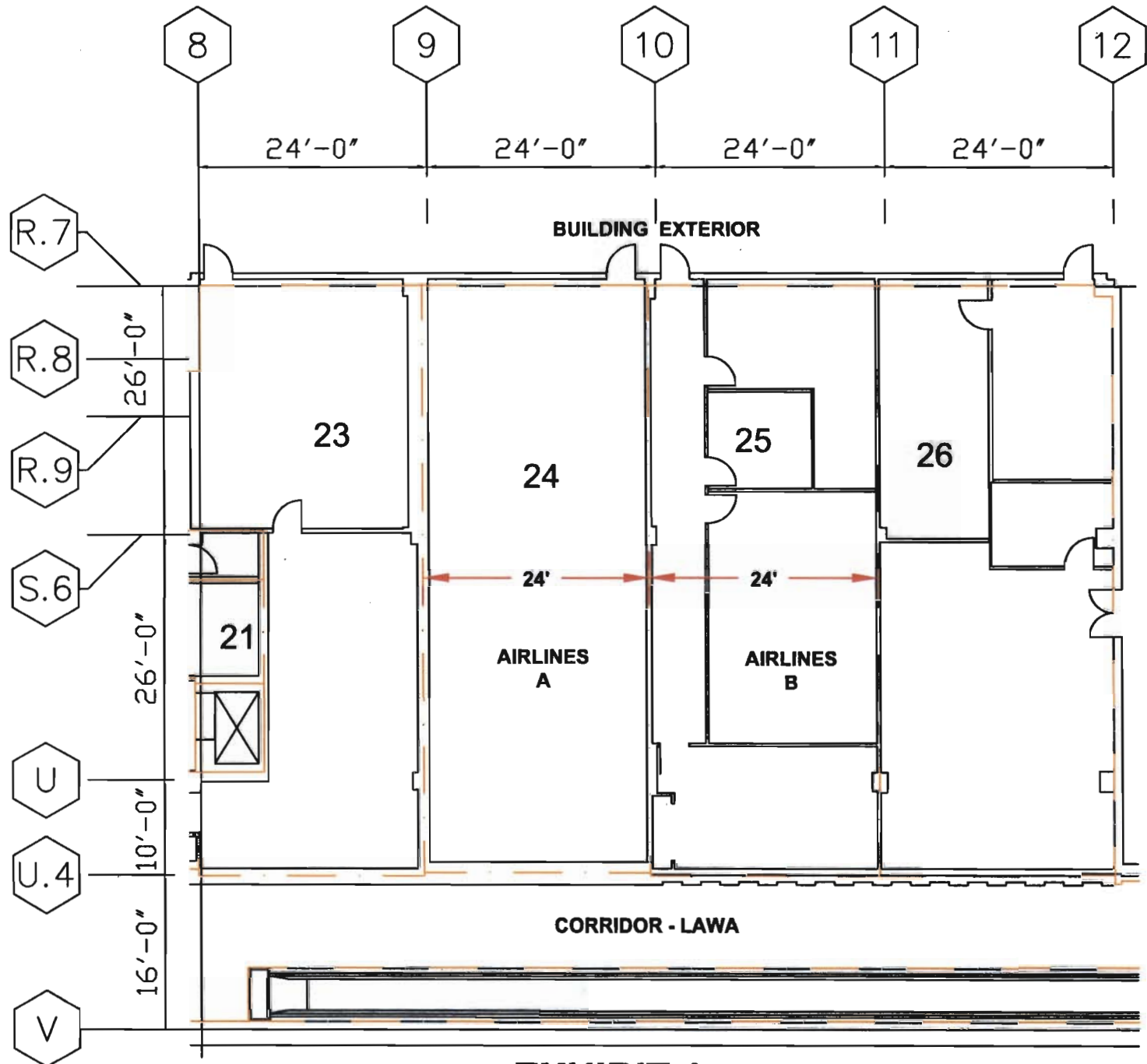
Ms. Robin Rollins  
March 3, 2009  
Page 2

cc: D. Bowers  
J. Romo  
C. Fletes  
J. Rae  
M. Langlois  
D. Jones  
B. Nadler  
V. Howell  
G. Ito  
J. Moore  
P. Burns  
D. Kalanick  
C. Fabre  
E. Bivian

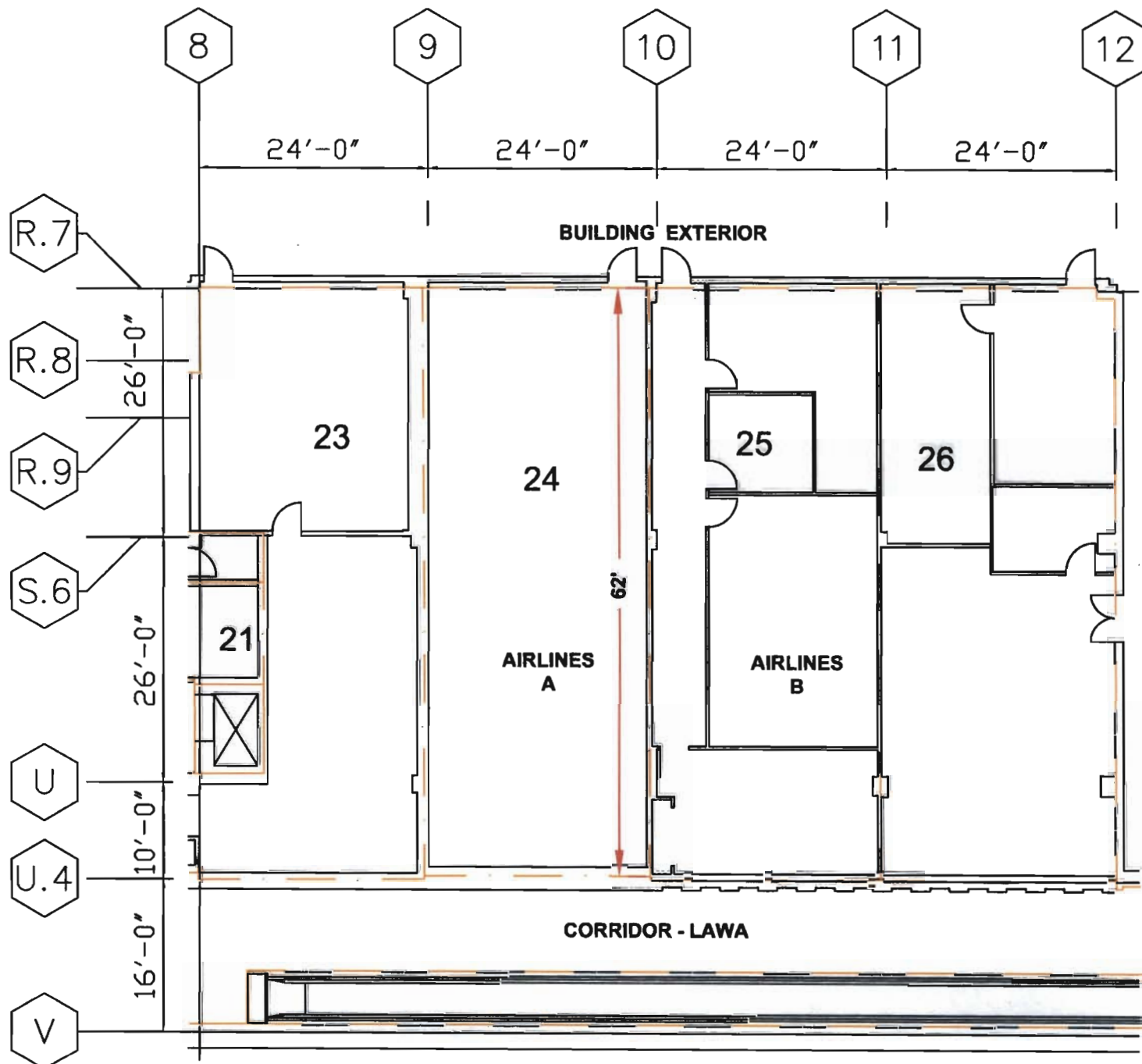


**LAWA Modified and Simplified Building Owners and Managers Association (BOMA) Standards  
Passenger Terminal Building Area Measurement Standards**

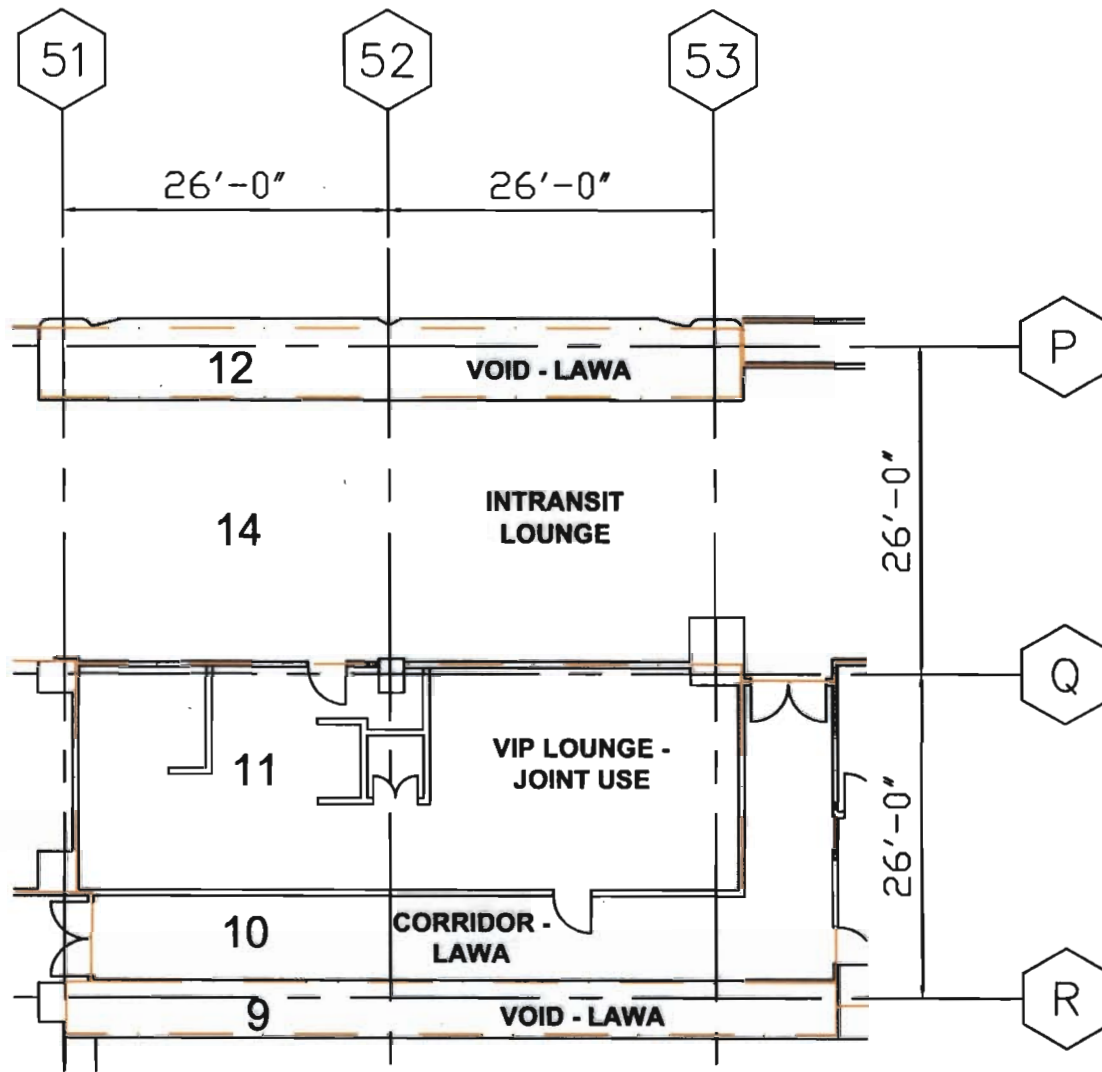
- When two tenant leaseholds share a common wall, the lease line will be placed along the centerline of the demising wall. (Refer to Exhibit 1 as an example of measurements at a common wall.)
- For tenant leaseholds with interior walls, the lease line will be placed on the centerline of the wall. When a tenant leasehold is adjacent to an exterior wall, the lease line will be placed on the inside face of the wall assembly, not at the centerline of the wall nor at the window glazing, if such occurs. (Refer to Exhibit 2 as an example of measurements at an interior and exterior wall.)
- The only areas that are excluded from the calculation of rentable space are those areas that are clearly marked “void” on the Master Lease Exhibits. These areas, may include, for example, but are not limited to: elevator shafts, pipe shafts, or vertical ducts that are not for the private use of the tenant. (Refer to Exhibit 3 as an example of areas clearly marked as “void.”)
- The calculation for an area, resulting from site measurement by LAWA, is deemed accurate if a re-measurement gives results with variance of two percent (2%) or less.



**EXHIBIT 1**



**EXHIBIT 2**



**EXHIBIT 3**

## FOREWORD

A standard's purpose is to permit communication and computation on a clear and understandable basis. Another important purpose is to allow comparison of values on the basis of a generally agreed upon method of measurement.

For more than 75 years, BOMA International has sponsored the *Standard Method for Measuring Floor Area in Office Buildings*. The BOMA Standard has been the one accepted and approved by the American National Standards Institute (ANSI). The result is a method of measurement used by building owners, managers, facilities managers, tenants, appraisers, architects, leasing professionals, lending institutions and others to compute the floor area of an office building.

This *Standard* may be used to measure space in both existing and new office buildings. BOMA International urges all its members and others in the office building industry to use the *Standard* to measure office space. Facilities professionals are also encouraged to use the *Standard* in allocating building expenses to various cost centers or for comparing occupancy.

(This Foreword is not officially a part of the *Standard Method for Measuring Floor Area in Office Buildings, ANSI/BOMA Z65.1-1996*.)

## PREFACE

It is not uncommon for an area calculated from the building plans to differ from the area measured on site. It is also not uncommon for a site measurement and calculation by one party to differ from the same measurement and calculation by another party. The calculation for an area, resulting from site measurement by the building owner or manager, is deemed accurate if a re-measurement gives result with variance of two percent (2%) or less. If the variance is greater than two percent (2%), BOMA International recommends that an unbiased professional third party be sought to assist in resolving the matter.

## DEFINITIONS

*FINISHED SURFACE* shall mean a wall, ceiling or floor surface, including glass, as prepared for tenant use, excluding the thickness of any special surfacing materials such as panelling, furring strips and/or carpet.

*DOMINANT PORTION* shall mean the portion of the inside *FINISHED SURFACE* of the permanent outer building wall which is 50% or more of the vertical floor-to-ceiling dimension, at the given point being measured as one moves horizontally along the wall. *DOMINANT PORTION* itself is a vertical measurement between *FINISHED SURFACES* (or a series of vertical measurements), with the number of measurements needed based upon the conditions found along the wall. If, for instance, a window system is 4'-6" (1.372 meters) high and the floor to ceiling dimension is 9'-0" (2.743 meters), the *DOMINANT PORTION* is the inside surface of the glass for the full width of the window system. If, however, the window system is 4'-5" (1.346 meters), the *DOMINANT PORTION* is the inside surface of the wall. In designs of alternating window systems and wall sections, the *DOMINANT PORTION* will move in and out as often as conditions dictate. If no *FINISHED SURFACE* of the permanent outer building wall is 50% or more of the vertical floor-to-ceiling dimension, or if the permanent outer building wall is not vertical, the *DOMINANT PORTION* shall be the inside finished surface of the wall where it intersects the finished floor. In the case of *STORE AREA* with street level frontage, the *DOMINANT PORTION* shall be the building line.

*GROSS BUILDING AREA* shall mean the total constructed area of a building. It is generally not used for leasing purposes.

*GROSS MEASURED AREA* shall mean the total area of a building enclosed by the *DOMINANT PORTION*, excluding parking areas and loading docks (or portions of same) outside the building line. It is generally not used for leasing purposes and is calculated on a floor by floor basis.

*MAJOR VERTICAL PENETRATIONS* shall mean stairs, elevator shafts, flues, pipe shafts, vertical ducts, and the like, and their enclosing walls. Atria, lightwells and similar penetrations above the finished floor are included in this definition. Not included, however, are vertical penetrations built for the private use of a tenant occupying *OFFICE AREAS* on more than one floor. Structural columns, openings for vertical electric cable or telephone distribution, and openings for plumbing lines are not considered to be *MAJOR VERTICAL PENETRATIONS*.

*FLOOR RENTABLE AREA* shall mean the result of subtracting from the *GROSS MEASURED AREA* of a floor the *MAJOR VERTICAL PENETRATIONS* on that same floor. It is generally fixed for the life of the building and is rarely affected by changes in corridor size or configuration.

*USABLE AREA* shall mean the measured area of an *OFFICE AREA*, *STORE AREA*, or *BUILDING COMMON AREA* on a floor. The total of all the *USABLE AREAS* for a floor shall equal *FLOOR USABLE AREA* of that same floor.

*OFFICE AREA* shall mean the area where a tenant normally houses personnel and/or furniture, for which a measurement is to be computed.

*STORE AREA* shall mean the area of an office building suitable for retail occupancy. *STORE AREAS* are included in *FLOOR RENTABLE AREA* and *RENTABLE AREA*.



## **DEFINITIONS**

*BUILDING COMMON AREA* shall mean the areas of the building that provide services to building tenants but which are not included in the *OFFICE AREA* or *STORE AREA* of any specific tenant. These areas may include, but shall not be limited to, main and auxiliary lobbies, atrium spaces at the level of the finished floor, concierge areas or security desks, conference rooms, lounges or vending areas, food service facilities, health or fitness centers, daycare facilities, locker or shower facilities, mail rooms, fire control rooms, fully enclosed courtyards outside the exterior walls, and building core and service areas such as fully enclosed mechanical or equipment rooms. Specifically excluded from *BUILDING COMMON AREA* are *FLOOR COMMON AREAS*, parking space, portions of loading docks outside the building line, and *MAJOR VERTICAL PENETRATIONS*.

*FLOOR USABLE AREA* shall mean the sum of *USABLE AREAS* of *OFFICE AREAS*, *STORE AREAS* and *BUILDING COMMON AREAS* of a floor. The amount of *FLOOR USABLE AREA* can vary over the life of a building as corridors expand and contract and as floors are remodeled.

*FLOOR COMMON AREA* shall mean the areas on a floor such as washrooms, janitorial closets, electrical rooms, telephone rooms, mechanical rooms, elevator lobbies, and public corridors which are available primarily for the use of tenants on that floor.

*FLOOR R/U RATIO* shall mean the conversion factor that, when applied to *USABLE AREA*, gives the *BASIC RENTABLE AREA* of the *OFFICE AREA*, *STORE AREA* or *BUILDING COMMON AREA*.

*BASIC RENTABLE AREA* of an *OFFICE AREA*, *STORE AREA* or *BUILDING COMMON AREA* shall mean the *USABLE AREA* of that *OFFICE AREA*, *STORE AREA* or *BUILDING COMMON AREA* and its share of the *FLOOR COMMON AREAS* on that floor. *BASIC RENTABLE AREA* is determined by multiplying the *USABLE AREA* of that *OFFICE AREA*, *STORE AREA* or *BUILDING COMMON AREA* by the *FLOOR R/U RATIO*. The total *BASIC RENTABLE AREA* of a tenant occupying more than one floor shall be the sum of its *BASIC RENTABLE AREAS* on each floor. The total of all *BASIC RENTABLE AREAS* on a floor shall equal the *FLOOR RENTABLE AREA* of that same floor.

*BUILDING RENTABLE AREA* shall equal the sum of all the *FLOOR RENTABLE AREAS*.

*BUILDING R/U RATIO* shall mean the conversion factor that distributes the *BUILDING COMMON AREA* of a building.

*RENTABLE AREA* shall mean the *USABLE AREA* of an *OFFICE AREA* or *STORE AREA* with its associated share of *FLOOR COMMON AREAS* and *BUILDING COMMON AREAS*. *RENTABLE AREA* is determined by multiplying the *USABLE AREA* of an *OFFICE AREA* or *STORE AREA* by the *R/U RATIO*. The total of all *RENTABLE AREAS* equals the *BUILDING RENTABLE AREA* for the building.

*R/U RATIO* shall mean the conversion factor that, when applied to *USABLE AREA*, gives the *RENTABLE AREA* of the *OFFICE AREA* or *STORE AREA*.

## OVERVIEW OF METHOD

The following steps must be followed to obtain the *RENTABLE AREA* of an *OFFICE AREA* or *STORE AREA*. Please note that an *OFFICE AREA* located in a *STORE AREA* is measured as a *STORE AREA*.

1. Determine, for record keeping, the overall *GROSS BUILDING AREA*.
2. Ascertain the *GROSS MEASURED AREA* of each floor of the building, applying the concepts of *FINISHED SURFACE* and *DOMINANT PORTION*.
3. Establish the *FLOOR RENTABLE AREA* for each floor by deducting from each floor *GROSS MEASURED AREA* the area of its *MAJOR VERTICAL PENETRATIONS*.
4. Measure the *USABLE AREA* of *OFFICE AREAS*, *STORE AREAS* and *BUILDING COMMON AREAS* on each floor to determine each *FLOOR USABLE AREA*.
5. Determine the *FLOOR COMMON AREA* of every floor by subtracting from each *FLOOR RENTABLE AREA* its *FLOOR USABLE AREA*.
6. The *FLOOR COMMON AREA* is allocated to each *USABLE AREA* on that floor by applying that *FLOOR R/U RATIO*. The result is the *BASIC RENTABLE AREA*.
7. The *BUILDING COMMON AREA* is allocated to each *BASIC RENTABLE AREA* by applying the *BUILDING R/U RATIO*. The result is the *RENTABLE AREA*.

Note that the *RENTABLE AREA* can be calculated by applying to the *USABLE AREA* of *OFFICE AREA* and *STORE AREA* the *R/U RATIO* (*BUILDING R/U RATIO* X *FLOOR R/U RATIO*). See chart on pages 26-27 for a summary of the interrelationship of areas.

## RATIOS AND EQUATIONS

$$FLOOR R/U RATIO = FLOOR RENTABLE AREA \div FLOOR USABLE AREA$$

$$BASIC RENTABLE AREA = USABLE AREA \times FLOOR R/U RATIO$$

$$BUILDING R/U RATIO = BUILDING RENTABLE AREA \div (BUILDING RENTABLE AREA - BASIC RENTABLE AREA \text{ of } BUILDING COMMON AREA)$$

$$RENTABLE AREA = BASIC RENTABLE AREA \times BUILDING R/U RATIO$$

$$R/U RATIO = FLOOR R/U RATIO \times BUILDING R/U RATIO$$

$$RENTABLE AREA = USABLE AREA \times R/U RATIO$$