

OFFICE BUILDING BY CLASS DEFINITION

Office Definitions

Class A Office:	Buildings with steel frame construction, high end exterior finish, and distinctive lobbies featuring upgraded finishes, amenities including on-site security, state-of-the-art communications and data infrastructure and covered parking. Class A buildings are usually multi story.
Class B Office:	Buildings with steel frame, reinforced concrete or concrete tilt-up construction. Class B buildings contain common bathrooms and hallways, and their lobbies may have granite and hardwood detailing. Class B buildings are often multi-story.
Class C Office:	Buildings of wood frame construction. Class C buildings are often garden-style and are built around court- yards.

The above is just a general guideline of building classifications. No formal international standard exists for classifying a building, but one of the most important things to consider about building classifications is that buildings should be viewed in context and relative to other buildings within the sub-market. For example, a Class A building in one market may not be a Class A building in another.

There is no international standard for classifying office buildings. In fact, BOMA is generally against the publication of a classification rating for individual properties. Was there a more scientific method for classifying buildings though, some of the building characteristics which could be used to compare and rank buildings would be as follows:

- HVAC Capacity
- Elevator quantity and speed
- Backup Power
- Security and life safety infrastructure
- Ceiling heights
- Floor load capacity
- Location
- Access (freeway, public transportation)
- Parking
- Construction, Common Area Improvements
- Nearby and/or on-site amenities (dry cleaning, restaurants, ATM, etc.)

Building Facts

Check out our interesting building facts which feature a wide range of surprising information about famous buildings and skyscrapers from around the world:

- The word skyscraper originally referred to a type of sail on a sailing ship.
- A skyscraper is held together by a steel skeleton of vertical columns, horizontal girder beams and often diagonal beams for extra support. This structure distributes the immense weight in a way that ensures the integrity and safety of the building.
- Restoration work in 1990 and 2001 shifted the **Leaning Tower of Pisa** back to an angle of 4 degrees after it was previously leaning at an angle of 5.5 degrees.
- The roofs of the **Sydney Opera House** are covered in a total of 1,056,006 tiles.
- **The Colosseum** in Rome, Italy, is an elliptical amphitheater that was completed in 80 AD. It held around 50,000 spectators and was used for a variety of events, including gladiator contests, animal hunts and mythology based dramas.
- Around 20,000 workers helped build the **Taj Mahal**, a famous mausoleum and landmark in Agra, India, that attracts millions of visitors every year.
- The world's largest office building by floor size is the **Pentagon** in Virginia, USA, with over half of its 6,500,000 square foot (604,000 square meter) floor area used as offices. The **Empire State Building** in New York was the first building to have over 100 floors and was the tallest building in the world from 1931 until 1972.
- The **Chrysler Building** in New York was built at a time when there was a strong desire to build the world's tallest skyscraper. Before being overtaken by the Empire State Building, the Chrysler Building was the world's tallest for around 11 months. During the construction, floors were being completed at a stunning four per week. Despite the rush, no workers died during its construction.
- The **Petronas Towers** in Kuala Lumpur, Malaysia, are the world's tallest twin buildings, standing at a height of 452 meters (1483 feet).
- The **Burj Khalifa** in Dubai, UAE, is the tallest building in the world. It reaches an amazing 828 meters (2717 feet) in height.
- Tall buildings need fast elevators, recent developments have led to elevators that can travel up to, and sometimes over, 1000 meters a minute (3280 feet a minute).

On January 15, 1943, work was completed on the new headquarters for the **U.S. War Department** (the modern-day Department of Defense) in Arlington, Virginia. The massive complex, commonly known as the Pentagon, was built to house the nearly 30,000 defense

workers tasked with helping America win World War II. With more than 17 miles of corridors, it remains one of the largest office buildings in the world, and has become a symbol—for better and for worse—of military might. Eighty years after its completion, here are nine things you may not know about the Pentagon:



1. It was actually the second complex built for the military during Franklin D., Roosevelt’s presidency.

In the 1930s, a large complex was commissioned and constructed in Washington’s D.C. Foggy Bottom neighborhood to house the ever-growing U.S. War Department, but before it was even completed, the army determined it to be too small for its needs (this building is now home to the U.S. State Department). As the ranks of the War Department continued to swell, they began to branch out across the city, and were eventually being housed in 17 different buildings. In early 1941, Brigadier General Brehorn Somervell, head of the construction branch of the U.S. Army Quartermaster Corps, was tasked with finding a permanent solution to the space problem. On July 17, Somervell met with architect George Bergstrom, giving him just three days to come up with a design that would accommodate 40,000 employees and 10,000 cars.

2. It owes its unique shape to a different planned location.

Several sites were considered for the new military complex. The original choice was a sprawling stretch of land just to the east of Arlington Cemetery, on land that once belonged to Confederate General Robert E. Lee. At the time, the tract was managed by the Department of Agriculture, which ran an experimental farm on the land. Arlington Farms was bound by access roads, forming a slightly irregular pentagon shape. The idea of using Arlington Farms was soon

scraped, however, over concerns about the sensitivity of placing a military complex so close to the nation's most hallowed ground and President Roosevelt instead selected a site that had once been home to Hoover Field, the first airport to service the Washington, D.C., area. As it was too late to start a new design process, the pentagon shape remained, though its five sides were straightened and smoothed to the more standard form we know today.

3. There are a few reasons the building is so short.

One of Somervell's first dictates was that the massive building be no taller than five stories (plus two stories below ground). This was due, in part, to concerns over disrupting the scenic views to and from the Virginia site and Washington, D.C. There was also a more practical reason—the steel shortage already underway in a nation girding for war. Instead of steel, the building was built primarily of reinforced concrete, 435,000 cubic yards of it. Much of the filler for this concrete was dredged from the grounds around the Pentagon itself, including the Potomac River. Concrete was also used to build a series of ramps throughout the complex, which eliminated the need for steel-enforced elevators. Additional concessions to the war included the lack of bronze doors, plaques and any other touches that were deemed purely decorative.

4. The Pentagon was built on land occupied by the descendants of former slaves.

During the Civil War, a settlement known as Freedman's Village sprung up on Robert E. Lee's former estate, as escaped slaves made their way to the non-Union held territory. Twenty years after the war, these settlements were uprooted, and several predominately black neighborhoods, including Queen City and the seedier, red-light district of Hell's Bottom, formed nearby in what became known as East Arlington. When the Pentagon's planners realized that the original site selected for the massive complex was not large enough, the government agreed to evict more than 150 families from East Arlington and appropriate their land.

5. The same person oversaw both the Manhattan Project and the Pentagon's construction.

While Somervell was officially in charge of the Pentagon project, it fell to one of his subordinates, the then Major Leslie Groves, to make it a reality. Groves oversaw the day-to-day construction of the site, successfully dealing with a series of strikes and managing the many strong-willed military figures exerting pressure on him to complete the project ahead of time. While still working on the Pentagon, Groves was also put in charge of the Manhattan Project, America's successful effort to develop the world's first atomic bomb. Groves was involved in nearly every aspect of the top-secret project, selecting and constructing clandestine sites for the research facilities and its workers across the country.

6. There are twice as many bathrooms as necessary.

In an America still highly segregated by race, the Pentagon's planners found it necessary to design the building with separate facilities for black and white employees, including "white" and "colored" cafeterias for the construction crews and 284 bathrooms, twice the number needed for the anticipated staff levels. However, in June 1941 President Roosevelt issued Executive Order 8802, which prohibited segregation among federal employees. At first, Virginia authorities, determined to enforce the regulations laid out in its Jim Crow-era Separation of Races law, insisted that the facility be segregated, before finally relenting and ceding control of the Pentagon to the federal government. From its opening, all facilities were open to both black and white employees, making the Pentagon, for a time, the only non-segregated building in Virginia.

7. The building went up in record time.

The groundbreaking ceremony was held on September 11, 1941, and work quickly got underway, with more than 15,000 workers on site around the clock. The demand for office space was so great that the first workers moved in before the complex was fully finished, and many employees found themselves working in offices without walls and travelling around the complex on wooden planks laid across open construction pits. Construction wrapped up on January 15, 1943. It's been estimated that under normal circumstances, construction should have taken four years—the Pentagon went up in just 16 months. This speedy construction was costly, however: The project was initially budgeted at \$35 million, but wound up costing \$63 million, more than \$900 million in today's money.

8. It's pretty difficult to understand just how big the Pentagon is.

In fact, the U.S. Capitol could fit into just one of the building's five sides, and with 5,100,000 square feet, it has twice the office space of the Empire State Building. When Dwight Eisenhower took up his position as army chief of staff after World War II ended, he got lost in the vast complex while on a walk and was forced to ask a group of stenographers for directions back to his own office. And while it is possible to get from the furthest points in under 10 minutes, that requires taking a shortcut through the open courtyard at the center of the complex (known as Ground Zero), and walking very fast. For those unable to physically walk the corridors on their own, the Department of Defense provides a fleet of scooters, or self-propelled vehicles (SPVs), that are allowed to zip around at up to 3 mph.

9. The 9/11 attacks occurred on the 60th anniversary of the groundbreaking.

On September 11, 2001, the Pentagon was nearing the end of its first full-scale renovations when American Airlines Flight 77 smashed into the building's east side, which was unoccupied due to the construction. Nearly 200 people lost their lives in the attack, though the recently installed security improvements that were part of the renovation project, including reinforcing the building's concrete and installing blast-proof windows and walls, undoubtedly saved hundreds of lives. Plans were soon underway for an extensive reconstruction program, dubbed the Phoenix Project, which was completed in February 2003 at a cost of \$5 billion—five times the cost of the original building.

INTERESTING OFFICE BUILDINGS AROUND THE WORLD

There is a curvaceous, luminous, 10 story office building in Kaunas, Lithuania that was designed in the form of a Lithuania 1,000 Litu 1924 banknote.



Longaberger Company's massive basket building in Newark, Ohio:



SECTION EIGHT: CASE STUDY THE OFFICE BUILDING

This second Case Study is for a small Office Building. The first part of the Section introduces the student to important lender concerns when reviewing an Office Building loan request. The second part of the Section includes a sample Executive Loan Summary for a loan request on an Office Building. This example gives the student guidelines to use when presenting this type of loan request. The third part of the Section is a Narrative Case Study providing enough information to present a formal loan request. A blank Executive Loan Summary is included, which must be completed with the loan amount, detailed cash flow analysis, positive and negative aspects of the credit and recommendations.

Besides collateral, cash flow, and credit of the bone lender has several specific concerns when reviewing this type of loan request. These primary concerns are:

1. Vacancy Rates of Office Buildings in the area.
2. The tenants of the building.
3. The type and terms of the leases including rental concessions.
4. Location and class of the building.

Each of these is addressed separately in more detail before proceeding to the actual Case Study.

Vacancy Rates: The tremendous amount of construction of all types of new office space in the last several years is creating excess office space in most geographical areas. This overbuilding leads to a very competitive market for tenants among office building owners and leasing agents.

Statistics vary throughout different geographical regions. However, most Vacancy rates far exceed the 5% used by most borrowers (and appraisers) on their income projections. It is very important for credit professionals to be aware of the Vacancy rates in the local office markets in their area.

A knowledgeable lender often uses a figure much different than the borrower uses. For example a borrower may project a 5% Vacancy factor based on past history of the building. The lender may be aware of more competition from other newer office complexes in the area which will affect the borrowers Vacancy and Rental Rates in the future, especially when the current leases expire. The lending institution may use a projected 10%-15% (or more) Vacancy Factor in calculating the amount of loan available to the borrower.

The Tenants: The lender must obtain financial information and credit histories of all the tenants in the building. This is to establish the type and class of tenant.

For example, just as buildings are ranked by Class, for example Class A or B type buildings, tenants are ranked in the same way. A Class A tenant may have a substantial business history and credit background making it a sound and solid tenant.

Other tenants may be smaller newer businesses, especially in the service industry. They may not have the background or financial stability to be considered solid reliable tenants.

The cash flow of the building and payment of the loan are directly related to the quality of the tenants. The types of tenants are very important to the credit decision on a loan request of this type.

Type and Terms of The Lease: This is the most important of the items when reviewing the actual cash flow and tenants of the building. The terms of the leases are vitally important and each lease is reviewed for any special terms or considerations affecting the future ability of the building to service debt.

Competitive pressure is forcing many owners to offer rental concessions and other accommodations to attract tenants, which affect the actual rent and cash flow of the lease. For example the lease may take effect at a certain date but there may be agreements disclosed in the lease indicating several months of free rent. This free rent can be in terms of no rent due for several months, skipped rent, or no rent on anniversary dates. There may also be consideration given for renewing the lease, such as free rent for a period of time.

It is for the lender to know what rental concessions are offered in order to determine the “Actual rent” rather than the “Economic Rent” projected by the borrower. This is especially true when reviewing the terms of the leases.

Prominently displayed in any loan presentation should be the terms of the leases, when they expire, who they are with, and the credit and background of the tenant and any special considerations found in the lease review.

Calculating the costs of Rental Concessions: Rental Concessions are a function of office space availability in the local real estate market. In areas where there is a balance of rental space available, then rental concessions are not as prevalent and are not considered when calculating Gross Income of an Income Property. When there is an excess of available rental space, landlords are sometimes forced to advertise free rent or a discount in order to attract tenants.

Rental concessions greatly affect the Gross Income and the Net Operating Income of the property. The cost of these concessions should be subtracted from the Projected Income of the property. Each lender has their own internal guidelines for considering the impact of rental concessions on a property's income. This is why it is so important for lending personnel to be aware of the commercial real estate market in all their lending areas.

This Workbook will present two simple illustrations to show the effect of rental concessions on the income of a property. Since each commercial real estate market is unique and lender guidelines vary, this Workbook will not require the computing of the costs of rental concessions in any of the Case Studies.

The advanced Workbook will present Case Studies where rental concessions are offered and the costs must be calculated in all the Executive Loan Summaries.

Figuring the effect of rental concessions on Income Property is not a difficult calculation. The problem the lender has is determining the actual rental concessions offered in each lease. The tenant turnover in the building and how to annualize this cost.

Example-#1; A small office complex in a very competitive real estate market is having difficulty attracting tenants. The owner begins offering rental concessions to attract tenants. For each year of the lease, the landlord offers one full month of free rent on the anniversary date of the lease.

If a tenant signs a three year lease for a monthly rental of \$1,500/\$18,000 annually, which is the gross, but the Actual is \$16,500 annually(\$18,000- \$1,500.). On an office complex of 40,000 Sq. Ft., the following illustration shows the impact of this rental concession on the building's cash flow.

Assume \$12.00 a Sq. Ft. Economic rent and one month's free rent for each year of lease. The borrower's projections do not include any consideration of the cost of rental concessions. However, the lender must take into consideration the cost of rental concessions and its impact on the Gross Income of the property.

	BORROWER'S PROJECTIONS	LENDER'S PROJECTIONS
<i>Gross Potential Income:</i>	\$480,000	\$480,000
<i>(Less) Vacancy Loss:</i>	(24,000) (5%)	(48,000)(10%)
<i>Costs of Rental Concessions:</i>	0	(\$40,000)
	\$456,000	\$392,000

To continue with this same example, if expenses for the building are 30% of Gross Income, then what difference will the Net Operating Income be in the two different Projections. The lender will project the same dollar amount of expenses on the building as the borrower does. The costs to maintain the building will remain the same no matter what the occupancy level of the building is.

	BORROWER'S PROJECTIONS	LENDER'S PROJECTIONS
<i>Gross Income:</i>	\$456,000	\$392,000
<i>Expenses:</i>	(\$136,800) (30%)	(\$136,800)(34.9%)
<i>Net Operating Income:</i>	\$319,200	\$255,200

If the commercial real estate market indicates a 10% capitalization rate is used in determining value of this type of Income Property, what will the final determination of value for the two different Projected Incomes?

	BORROWER'S PROJECTIONS	LENDER'S PROJECTIONS
<i>Net Operating Income:</i>	\$319,200	\$255,200
<i>Capitalization Rate:</i>	10%	10%
<i>Determined Value:</i>	\$3,192,000	\$2,552,000

If the lender uses an 80% Loan to Value Ratio to determine the loan amount on this type of Income Property. What are the two different loan amounts? _____

	BORROWER'S PROJECTIONS	LENDER'S PROJECTIONS
<i>Determined Value:</i>	\$3,192,000	\$2,552,000
<i>80% Loan to Value Ratio:</i>	80%	80%
<i>Lendable Amount:</i>	\$2,553,600	\$2,041,600

This example should illustrate the impact calculating the costs of rental concessions makes on the Gross and Net Operating Income of the property and the amount of loan available on the property

In a competitive commercial real estate market, understanding the financial impact of rental concessions is very important. A key factor in determining the effect of rental concessions on the income of the property is tenant turnover in the building; the higher the turnover, the greater the impact of rental concessions on cash flow. The impact is the greatest in buildings with short term leases and month to month rental. One more example, this time using an apartment complex, will illustrate the effect of rental concessions on Gross and Net Operating Income.

Example 2: A 120 Unit Apartment Complex has an average rent per unit of \$500. The owner of the building presents a cash flow projection using a 5% Vacancy and Collection Loss percentage and a 30% Expense to Gross Income ratio. However the lender knows the area has an excess amount of apartment units available and Vacancy is at a much higher 10-15%.

Additionally the area is so competitive the apartment owners offer various incentives to tenants to move in, including rent concessions. The average rent concession in the area is one month's free rent for each year's lease. The following calculations illustrate the effect these concessions have on the apartment complex's Net Operating Income.

When the lender reviews the Rent Rolls on the Apartment Complex, it is determined. With this figure the lender can calculate the effects of rental concessions on the income of the apartments.

120 Units @ 40% Turnover=48 Units per year, with new tenants.

48 Units @ \$500 for 1 month of free rent/year=\$24,000. Cost per year:

	BORROWER PROJECTIONS	LENDER PROJECTIONS
<i>Gross Potential Income:</i>	\$600,000	\$600,000
<i>Less Vacancy & Collection:</i>	(30,000) (5%)	(90,000) (15%)
<i>Less Rental Concessions:</i>	0	(24,000)
<i>Effective Gross Income:</i>	\$570,000	\$486,000
 <i>Expenses:</i>	 \$171,000 (30%)	 \$171,000 (35%)

Example: An Office Complex leases its space for \$10 per square foot annually. A rental survey of similar buildings shows a Market Rent of \$12 per square foot annually. The Economic Rent in this example is below Market Rent. When Economic Rent is below Market Rent this may be an indication the landlord gave some type of rent concessions in order to fully lease the building or the leases are older and have not been increased to reflect the market.

Consumer Price Index: Most leases contain some provisions allowing the landlord to pass on some of the increases due to inflation in costs to maintain the building. The most popular index used to make adjustments is the Consumer Price Index (abbreviated CPI). The adjustments are usually made on an annual basis.

Example: A tenant negotiates a lease on a 1,000 Sq. Ft. office space for \$12 per square foot annually. The total rent the first year is \$12,000. The lease allows for an increase in the rents annually tied to the increase in the Consumer Price Index (CPI). If the CPI increases 4% during the year, the next years rent is increased to \$12,480 (4% of \$12,000.).

Since payments on the requested loan are dependent on the cash flow generated from the leases, a careful review of the terms of each lease is a requirement of all lenders. Any special terms or provisions must be considered when projecting cash flow on the building. Besides the terms of the leases, the type of tenants in the building must be considered, including the length of time in business, their credit rating and financial condition.

Reviewing the Rent Rolls will also indicate the turnover in tenants of the building. A high turnover in tenants is of great concern to a lender. It could be an indication of problems with the management of the building, a competitive rental market, or economic problems in the area. Any building with a high turnover in tenants must be closely examined, and the turn over must be justified to any lender considering the loan request.

Location and Class of Building: The concern for location is of course the basis of all of real estate. In commercial real estate a building is often classified by type and rated for its location, size, types of tenants and amenities. These classifications vary from region to region but rating a building by type is helpful to the lender.

For example a building of 100,000 sq. ft. with major tenants, and physical amenities which make the building very attractive to tenants is generally a Class A. The tenants in this type of building are generally well known firms, who feel the prestigious location and amenities of the building enhance the image they wish to project to the business community. The terms of the leases are generally long term leases of 3-10 years with renewable options. With the major tenants occupying large amounts of space, this class of building would have the most expensive rates among office space, with only the more established credit worthy tenants able to afford the cost of leasing this space.

An office building with less square footage, fewer amenities and less prestigious location and tenants, while still desirable for tenants would be considered a Class B building. The tenants of this type of building would be less well known, smaller firms, often with shorter term leases of

2-5 years. The amount of rent paid per square foot would be less than the more expensive Class A Building.

Class C Buildings are small office buildings with a high turnover in tenants and few amenities to attract quality tenants. Frequently, the tenants of Class C Buildings are on very short term leases, either on a month to month basis or annual renewable leases. Usually the businesses are less well established, with a few employees and fewer space and amenity requirements. The tenant turnover among this class and type of buildings is very high, often with high vacancy factors.

Amenities are very important in considering a loan on an Office Building. Besides physical appearances, there are added amenities which may make the building more attractive to tenants and lenders alike. A key concern is location, with easy accessibility, no traffic problems, and nearness to quality restaurants, airport and hotels.

Especially important to tenants is parking. This one aspect can be extremely important to the buildings desirability to tenants. Parking impacts both the tenant's employees and their clients.

The Appraisal: In this Section of the Workbook on *Loan to Value*, a checklist is included, with specific questions to ask when reviewing any Appraisal. Each type of building has certain specific concerns which a lender must address. Some of the items lenders look for in an Office Building Appraisal are:

This section of the appraisal should present factual data on the area in which the office is located. It should contain information on population, demographics and employment in the area. The lender looks for a growing population which places increasing demands on the "service sector". A review of these figures will indicate the employment characteristics in the area. Employment in the area should be increasing, especially in the white collar, service sector. A growth in these figures indicate increased future demand for office space.

Neighborhood Analysis: In reviewing this section of the appraisal, the lender has two critical concerns. The first is the compatibility of the office with the surrounding neighborhood. The second is the amount of competitive office space available in the immediate neighborhood.

The office space should be architecturally harmonious in a neighborhood offering a safe and pleasant work place for employees. The trends in the neighborhood should be reviewed to determine if any future economic or zoning changes will affect the future value of the subject property.

The lender looks at the neighborhood analysis to see if the subject office site is in a neighborhood with numerous competing offices offering the same type of space and amenities. The cash flow and value of an office site is greatly affected if it is located in an area of overbuilding and excess office space. This section of the appraisal should discuss any future planned construction of offices, which the lender needs to know to determine future value.

Site and Improvement Description: A thorough description of the site and improvements indicate to the lender the classification of the office and the type of tenant it attracts. The lender

reviews the amenities and desirable features of the building, including ease of access, number of parking spaces and overall appearance. In this section of the appraisal, the lender looks for any deferred maintenance or any signs of obsolescence.

All lenders know a well maintained office building will attract tenants and hold its value, even in a very competitive commercial real estate environment.

Vacancy Factors: In this Workbook, the effect of Vacancy on the Gross and Net Operating Income was thoroughly discussed. Any change in the Vacancy of an Income Property is the most critical factor in the overall cash flow of the building. The lender must be very cautious when reviewing the Vacancy percentage the appraiser uses in calculating the Gross and Net Operating Income. This important figure must accurately reflect the current commercial real estate market for this type of property.

Gross and Net Operating Income figures: The lender must look closely at the source of all the figures the appraiser uses to determine value of the property. Are the numbers used based on actual operating statements or are they projected figures?

When a value of a property is determined using projected income and expense figures, the lender must closely scrutinize these figures to see if they are realistic. A value determined on actual operating history of a property can give the lender more confidence in the final determination of value. Another important consideration for the lender is the impact of any rental concessions; are concessions taken into consideration when calculating the income of the property?

Overall Capitalization Rates: The lender must look closely at both the Capitalization Rate and Gross Income Multiplier the appraiser uses to determine value. It is the lender's responsibility to check with several different sources to see if these important figures are realistic for today's real estate market.

Lease Summary: Are copies of all the leases with the tenants included in the addenda of the appraisal and the terms thoroughly discussed by the appraiser? Are there any special terms or provisions in any of the leases that will affect the future cash flow of this property?

Summary: There are numerous factors to consider when reviewing and presenting a commercial loan request on an Office Building. Each different type of lender gives more weight to some aspects of the credit and type of building than others. However, all lenders share certain common concerns about the building, its location, terms of leases and types of tenants. When presenting this type of loan request, each of these concerns must be addressed in the loan package.