

1. When does a space require more than one exit?

First Rule of Thumb: Tenant Space < 2,300 to 2,400 SF, usually only 1 exit is required.

Second Rule of Thumb: Tenant Space > 3,000 SF, always require two exits and maybe more.

The way the building department determines whether or not two exits will be required is not based on square feet but by **OCCUPANT LOADS**. Occupant Loads are determined by **USE** and calculated as the number of occupants that would normally occupy a room or space. The building code has a table from which occupant loads are determined (See Table 10-A). Once you've calculated all of the occupant loads up and added them together you now know the **TOTAL OCCUPANT LOAD** for the space.

For office space the **OCCUPANT LOAD FACTOR** is 100. This means that for every 100 SF of office space the occupant load would be 1 **OCCUPANT**. Calculating occupant load would seem as a simple task. Most often times however, tenant spaces often times have other uses that are calculated differently (See Table 10-A). This is the case when there are conference rooms, training rooms and other **ASSEMBLY**-type spaces. In the case of a conference room, the occupant load factor is 15 which means a 225 SF conference room would have a total of 15 occupants.

In the above example, it is very possible that a tenant space in the 2,300-2,400 SF range that includes one 225 SF conference room could easily have more than 30 **OCCUPANTS**, thereby triggering a 2nd exit!

One other important requirement about exits, and one that is often overlooked, is that they cannot go through storage areas, warehouses, kitchens, restrooms, loading docks or other similar type spaces where there may be a possibility that the **EXIT PATH** will be blocked.

2. When a space needs two exits, how far apart do they need to be?

When more than one exit is required, the code is very specific as to how far apart they need to be.

This rule is called the "**One Half the Diagonal Rule**".

This is easy to accomplish in new buildings as the architect is responsible for making sure he/she positions the exits in the correct places but becomes more difficult in existing buildings or where you may be trying to divide a space into two or three separate tenant spaces. By the way, this rule applies not only to the overall tenant space but also to each space within the tenant space.

To determine if the exits are far enough apart you first need to find the **MAXIMUM DIAGONAL DISTANCE** of the space (See Case Study #1). This is usually measured in a straight line from one corner of a space to the opposite corner of the occupied area. Sometimes you need to measure both diagonals to make sure you've identified the longest diagonal distance.

Once you've verified this, you now need to measure the **DISTANCE BETWEEN EXITS**. In some cases this may be between two or three existing doors or if you're dividing up a space it could be to a proposed new door location leading to a corridor or to the outside of the building. Again, you should measure in a straight line – from centerline of the doorway to centerline of the other doorway. There is an exception to this however. If a **ONE-HOUR RATED CORRIDOR** connects

the exits then you may measure the distance along the path of travel inside the corridor between the two exit doors.

Once you've calculated both measurements (these should be measured in feet and inches by the way) now you compare them to make sure that the **DISTANCE BETWEEN EXITS** is a minimum of **TWO TIMES** the **MAXIMUM DIAGONAL DISTANCE**.

If you've met these criteria, then the **EXITS** are deemed far enough apart. If not, then you need to find an alternate way to comply with this requirement. This may mean moving a door or in some cases adding another door for exiting purposes only.

In some cases you may be confronted with exit doors leading into stairways and the doors are not far enough apart – this is more typical in high-rises or older buildings. This may require building a **ONE-HOUR RATED CORRIDOR EXTENSION** (See Case Study #1). In most cases, where “hardship” can be claimed, building officials will “grandfather” an existing condition like this without making you rebuild or move an entire stairway.

3. How can a change of use create exiting or occupancy problems?

Any change in the **USE** or **OCCUPANCY TYPE** of a building or part of a building can have a significant impact on the viability of a potential lease. The building code has some very specific requirements that can cause difficulties when attempting to re-classify the use in an existing building (See Table 3-A).

Here are a few examples to be aware of:

- Tenant spaces with **high occupancy requirements** (such as training rooms, auditoriums, large lunch rooms or other meeting areas) can trigger multiple exits as well as occupancy separation walls between these uses and the rest of a space. One important thing to remember is that in assembly occupancies, “Group A” as they are referred to in the building code, **at least one exit needs to exit to the exterior, a rated corridor or stairway**.
- In the case noted above, **all exit doors must open out** – in the direction of travel – out of the building.
- **Expansion of the restroom facilities** may be required (i.e. more toilets and sinks) especially when higher occupant loads are involved.
- **Fire sprinkler and fire alarm retrofits** can also be triggered if there is a change in use. This can be significant if there is no fire sprinkler or alarm system in the building to begin with.

Some other things to look out for are:

- **Changes in use can impact the parking requirements** creating a situation where additional stalls are required (i.e. from office to retail). These requirements tend to vary greatly from city to city.
- **Changes in use can also affect the allowable area** of an existing building. The building code gets pretty complex at this stage so your best bet is to check with the local building official or a registered architect to make sure the building will not be out of compliance.
- **Zoning regulations often limit the types of uses** in certain areas of a city or district (i.e. medical or medical office, daycare, restaurants). Verification with the planning department on what uses are permitted is mandatory. In some cases, conditional use permits may be granted if the proposed use is not currently allowed.

4. How many square feet per person will a tenant need? Are there any rules of thumb?

Using **SQUARE FEET PER PERSON** is a good way to calculate how much a tenant may require as they move from one space to another.

As a general rule of thumb, **200-250 SF per person is a fairly typical ratio** that is used here in Silicon Valley. This figure has been trending down however and in some large corporations or institutional clients are getting closer to 150 SF per person or lower. This is due to many factors: more tele-commuting and hoteling of offices, reduced workstation sizes, and corporate “right-sizing”. Some professional service firms (i.e. law firms) are closer to 350 SF per person so you need to know what type of company they are, what are their office standards, etc.

Having said this, it is important to identify a tenant’s “real” requirements before determining exactly how much space they will need. Here are some suggestions for how to go about this:

The first step will be to verify the amount of “**people**” space required. This means having them confirm their existing headcounts and any projected headcount growth (or contraction). Most companies can tell you how many people are currently housed in their facilities today but will have less comfort with telling you what to expect in the future. Today, most companies are planning on little or modest growth if any (5% maximum). If they tell you 20% growth or more, it might be real, but in most cases it is based on someone’s false hope. Sometimes, a tenant will neglect to take into account independent contractors, the number of temporary workers or if some of the employees are off-site. These can have a major impact on total space needs.

The next step is to develop a comprehensive list of all of their “**non-people**” spaces (reception areas, training rooms, conference rooms, labs, work rooms, etc.). It is often necessary to speak with someone other than the CFO as they may not have the most current understanding of the space requirements for a specific lab or production area. In most cases, someone has not estimated correctly the amount of space that is really required for a special use. We often are told to “double it” or “triple it”. But what is this based on? Is there a business case or mandate to do this from management or is it someone within the organization trying to create his or her own empire?

Once you have both the “people” and “non-people” pieces of the equation, you should be able to add up the total **NET SF** required. This is not the amount of space that is required however as you’ll need to add approximately 35% to 40% to this total to establish the total **USABLE SF**. This additional percentage is something that is referred to as **CIRCULATION**. This is the leftover or unused portion of the floor such as walkways, hallways between cubicles, walls, or vertical building element.

Once you have the total **USABLE SF** then you can correctly address how much space a tenant truly needs.

5. What should it cost to do a Test Fit Plan? Full Arch. Services?

Test Fit Plans

Most architects will do test-fit plans for between **\$.10 and \$.15 per square foot** depending on the size and complexity of the tenant’s requirements. This is assuming that the tenant or broker has a pretty good assessment of their space needs and build-out requirements.

The good news today is that most, if not all, landlords will pay for this service to increase their odds of leasing the space. Some landlords will want to use their architect and others may not care. In all cases, your tenant should not have to pay for this service unless they are looking for something very unusual or wish to engage an architect at an earlier stage in the process.

If you're looking to test-fit a number of buildings it may be worth hiring one architect to do all of the plans for your tenant. This usually has the benefit of simplifying the process for you and your tenant as well as ensuring that your tenant's needs are being accurately addressed in each of the various buildings.

Full Architectural Services

There are many ways in which architectural fees are priced. As a general rule however, for tenant improvement work, the most popular method seems to be **COST PER SQUARE FOOT**. There are many factors that influence architectural fees...project size, complexity and level of improvements being the most important. Also, the duration of any project can have a significant impact on fees. The longer the project, the more these fees will increase. Architectural costs tend to decrease on a square foot basis as the size of the project gets bigger, while these costs (\$/SF) tend to increase as the size of the project gets smaller.

Cost per Square Foot: Architectural fees can be estimated by multiplying the square footage of the space times a cost per square foot. As a rule of thumb, the architectural fees normally range somewhere between **\$1.50-\$2.50 per square foot for a typical tenant improvement project**. Fees on projects that require very little construction or new improvements are normally in the \$1.00 per square foot range and sometimes less. It is not unusual, however, to see fees in the \$4-\$5 per square foot range for high-end build-outs (i.e. law firms, venture capital firms).

Below you will find two additional methods for calculating architectural fees:

Percentage of Construction: Architectural fees are usually directly linked to the cost of construction. As a general rule of thumb, **architectural fees will typically range from 5% to 10% of the construction cost**. This method of billing works best when the scope of the project is not entirely known but a construction cost target has been established.

Time & Materials: Typical hourly rates for most architectural firms are in the **\$75 - \$125 per hour** range. This method is often used at the earliest stages of the project when scope, schedule and construction costs are unknown.