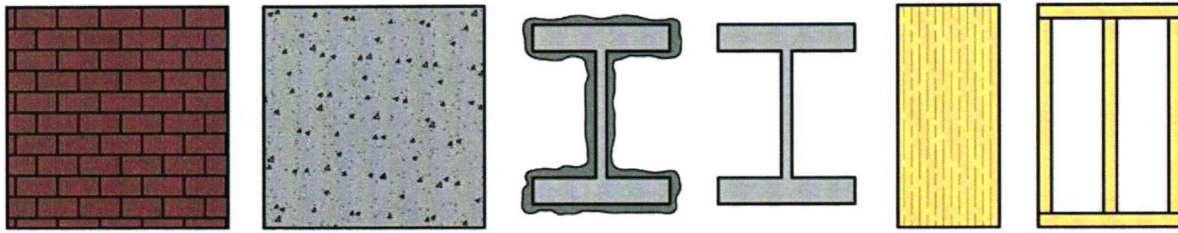


# What are the 5 Types of Construction? | Explained!



**TYPES OF CONSTRUCTION  
CLASSIFICATION**

## What Are the 5 Types of Construction?

The 5 types of construction classifications are: **Type I, Type II, Type III, Type IV, & Type V.**

Every building you see has been classified into one out of five types of construction. Chapter 6 of the International Building Code (IBC) outlines the requirements to correctly classify a building by its type of construction.

## What is the purpose of classifying a building or structure by its type of construction?

It is essential to correctly classify a building by its type of construction to account for the response that a building will have to a fire that occurs within the building as a result of the occupancy it serves.

The building code requires that every building be classified as one out of five possible types of construction.

Type I Construction requires the highest fire-resistance rating whereas Type V Construction requires the least amount of fire-resistance rating.

## Why is it important to classify a buildings type of construction correctly?

The fire resistance rating of a building is determined by the rating of a buildings structural elements. A higher construction type classification provides a higher level of safety to its occupants if a fire was to occur however the cost of building to this level of fire resistance can be much more costly than a lower construction type classification.

If a building is incorrectly classified to a higher category for example, the owner may end up paying a higher construction cost for the building even though it does not need to be classified as such due to its occupancy classification.

On the other hand if a building is incorrectly classified to a lower category, the building will not be constructed in a manner as required for its intended use and will result in a relative risk to the occupants it serves.

A simple example is a small residential garage structure verses a school auditorium.

A garage in general would not require such a high construction type classification and can be built at a lower construction type classification to minimize construction cost.

In comparison, a school auditorium would potentially require a higher construction type classification to provide a higher level of safety to the increased number of occupants the building serves.

Even though Chapter 5 of the International Building Code (IBC) covers how big and tall a building is allowed to be based on its construction type and occupancy classification, this post will just cover what the different types of construction classifications are.

Now that we have a better understanding of why the different types of construction classifications are established, let us look at each Type of Construction individually to better understand what each one means.

## Construction Type Classification

The different construction classifications are found in Section 602 of the International Building Code. All buildings shall be classified in one of the five construction types which are defined in Sections 602.2 through 602.5.

To classify for a specific construction type, the building elements must have a fire-resistance rating not less than that specified in Table 601 and Table 602.

While we are here, it is important to define what Fire-Resistance Rating is. The building code defines it as the following:

***“The period of time a building element, component or assembly maintains the ability to confine a fire, continues to perform a given structural function, or both, as determined by tests or methods based on tests as prescribed in Section 703.”***

Now a building component is a fundamental component of the buildings construction as listed in Table 601. This includes elements such as the exterior walls, roof structure, floor structure, primary structural frame, and so on.

Therefore the type of construction is based on the period of time it takes for each given building element to withstand a fire or to continue performing its structural function.

Now let us take a look at how the building code defines each construction type.

## Type 1 – Type I Construction

### What is Type I Construction?

Type I construction is where the building elements listed in Table 601 are of noncombustible material, except as otherwise listed in Section 603.

For example these would be materials such as concrete, masonry, noncombustible steel.

The term “**noncombustible material**” is defined as a ***material that passes the test procedures for defining combustibility of elementary materials set forth in ASTM E 136.***

While the building elements in a Type I building are to be of noncombustible materials, Section 603 provides a list of where combustible materials can be used in a Type I building.

There is a list of 26 items found in Section 603 which refers you to other sections of the code that allow you to use the materials listed in this section.

While these are combustible materials, they are considered minor in relation to the overall building. For example one of the materials listed is millwork used as door frames or window sashes. Although combustible, they are allowed to be found in a noncombustible buildings given the limitations set in the code.

The term “**combustible material**” is defined as ***any material not defined as noncombustible.***

## Type 2 – Type II Construction

### What is Type II Construction?

Type II construction is the same as Type I construction where the building elements listed in Table 601 are of noncombustible material, except as otherwise listed in Section 603.

# Type 3 – Type III Construction

## What is Type III Construction?

Type III construction is where the exterior walls are of noncombustible materials and the interior building elements are of any material allowed by code. This means the interior building elements can be of combustible or noncombustible material.

There is an exception that allows exterior walls of type III buildings to be built with fire-retardant-treated wood if the wall has a 2 hour rating or less.

# Type 4 – Type IV Construction

## What is Type IV Construction?

Type IV construction is also known as Heavy Timber construction. It is a type of construction where the exterior walls are of noncombustible material and the interior building elements are of solid or laminated wood without concealed spaces.

This can be solid sawn lumber, glue laminated lumber, structural composite lumber, or cross laminated lumber with the minimum dimensions per chapter 6 as required for structures built using Type IV construction.

# Type 5 – Type V Construction

## What is Type V Construction?

Type V construction is where the structural elements, exterior walls and interior walls are of any material allowed by code, combustible or noncombustible.

## Things to Note

While you now have a better understanding of the Type of Construction classifications noted above, it is important to know that they are also further subdivided into two categories that are used to identify differences in the degree of fire resistance required.

These subdivided categories are as follows: **IA and IB, IIA and IIB, IIIA and IIIB, VA and VB.**

For example Type IIIA requires the floor construction to be rated for 1 hour while Type IIIB has a rating of 0 hours for the floor construction.