



JOHN W. BAUMGARTEN ARCHITECT, P.C.

NY, NJ, PA, CT, MA, DE, FL

Demystifying Zoning



Zoning regulations can often seem arcane, complex and confusing. To make matters worse, zoning language sometimes reads like “Legalese”. Well there is a logical reason for this... Zoning regulations are in fact land use law. I am getting a little ahead of myself. Any attempt to explain the basic principles of zoning must start at the beginning.

As is well documented, the years between 1890 and 1920 were characterized by wave after wave of immigrants coming to America’s cities to seek a better life. At the same time, the shift from a rural to an industrial economy also contributed to a significant increase in urban population growth.

By 1910, conditions in Manhattan’s lower east side tenement district had grown so crowded and unhealthy; the city fathers had to act. So the driving force behind the country’s first zoning ordinance was to improve the quality of life of its citizens by controlling the size, use and location of buildings. The 1916 New York City Zoning Ordinance was based on two guiding principles which are still the foundation of every zoning code in existence today;

1. Create districts where similar uses would be appropriately located to prevent haphazard development.
2. Control building size (Bulk) to maximize light, air and public space.

The specific number and names of Use districts may vary from one zoning ordinance to another, but there will always be at least three broad district types; residential, commercial and industrial (manufacturing).

Each major district type is further broken down into sub-districts based on the size/intensity of the uses permitted there. At the risk of over-simplifying things, there are multiple low-rise and high-rise sub-districts in both residential and commercial zones. For example, certain residential zones will only permit one, two or three family dwellings, while others may permit six to eight story apartment buildings.

Manufacturing sub-districts are defined as much by the degree of hazard and the potential for excessive noise and odors as by the sheer size of a given building.



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In addition to residential, commercial and manufacturing uses, all zoning codes permit and regulate so called “community facility uses” such as schools, health facilities, and community centers all of which are considered a “public good”, supporting and promoting quality of life and providing essential services within a community. Community facilities are permitted within most residential and commercial zones but their scale is usually controlled to match that of a given district. This approach to “scale management” is often referred to as “contextual zoning” and its primary goal to preserve the character of existing neighborhoods.

City planning in very broad terms, is defining where various zoning districts will be located within a municipality as well as defining public space, transportation routes, utility corridors and a connecting network of arterial and secondary highways and roadways. We cannot cover the complexities and philosophies of city planning in the scope of this article, but we can touch on a few very basic principles.

Low density residential districts are generally located some distance from major highways and arterial roadways. The smaller scale of such neighborhoods matches the scale of the secondary and tertiary street grids which serve them. Lower density residential zones are often served by low rise commercial strips located along wider avenues and connector roads. These strips provide pedestrian access to local retail and service business that support the surrounding communities.

Mid-rise residential zones are usually located along arterial roadways with parallel public transportation systems to serve the increased densities of mid to high-rise buildings. This robust roadway and transportation network also supports the location of higher density commercial zones along these same high-rise residential corridors.



For obvious reasons, no city planner would purposely locate a manufacturing zone directly abutting a low or medium density residential zone. However, it is fairly common to have manufacturing zones separated from high density residential zones by buffers such as highways, above ground rail lines and/or major arterial roadways.



Historically manufacturing zones were logically located “on the edges” of cities near rail lines, highways and waterways to facilitate the movement of raw materials and goods to and from industrial plants.

So, armed with a basic understanding of types and relative locations of zoning districts within a given city, we can now discuss how zoning codes govern the size and scale of buildings on a given parcel of land.



In general, the lower a given zone's density, the more basic the mechanisms which control a building's size and configuration. For example in low density residential zones characterized by one & two family dwellings, bulk is controlled by requiring front, side and rear yard setbacks. These yards vary between 10 and 30 feet and create "light and air zones" between buildings and their property lines. Additional bulk controls include "lot coverage" and "building height".

Lot coverage limits the percentage of a lot that can be covered by a building. For example, on a 10,000 square foot lot with maximum lot coverage of 25% a building's "footprint" cannot exceed 2,500 square feet. Building height restrictions can be stated in "maximum height" in feet, or "maximum number of stories" or both.

Another common mechanism for controlling bulk is "Floor Area Ratio" (FAR). This is a ratio between the size of a plot of land, and the total built square footage proposed. For example, on a 10,000 square foot parcel with an FAR of 3.0, you could build a building with a total area of 30,000 square feet.

Zoning regulations are most often cumulative. For instance, a given parcel of land could be limited by all of the foregoing requirements; yard setbacks, lot coverage, floor area ratio, building height and even parking regulations!

As you might expect, higher density zones permit taller buildings with more floor area and fewer yard setbacks. In these zones density is further controlled by limiting the maximum number of dwelling units within a building and dictating that apartments be a minimum size.

Most zoning codes "encourage" the development of community facility projects by allowing higher FARs and shallower yard setbacks. In some zones, developers are rewarded with "bonus" residential floor area if they include community facility space within a new building.

So far we have been talking about residential, commercial and community facility buildings as "stand alone" entities. However, we all know it is very common to see all three uses within one building. These so called "mixed buildings" require a complex set of zoning calculations that can challenge the skill of even the most experienced architect or developer.

So, zoning has a long history and as with most laws/regulations it is always evolving to keep pace with cultural, technological and environmental changes to insure that our built world promotes the health, safety and welfare of the society it supports.

