

Planning Regulations: A Brief Introduction

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Abstract

This paper aims to provide a brief overview of the applicable regulations in planning. It briefly reviews the different regulation elements such as zoning of land use, zoning of height, and zoning of density with their legal tools such as development plans, development control regulations, building bye laws and other such regulations. This paper also provides information on how these regulation elements control the planning and development of cities through the zoning powers of the authorities responsible for the planned growth of cities. While explaining the regulating elements, each element is briefed with suitable examples from the policy documents, planning documents, and filed regulations, which provide real-time examples.

Keywords: Regulations, Urban Planning and Development, Zoning, Land use, Density, Height

1. Introduction to Planning Regulations

Planning regulations, also called as planning law or zoning law, consist of a comprehensive set of rules and principles that dictate the planned development and land use within a planning area. The main objective of these regulations is to ensure that land development aligns with the requirements of citizens, considering the four goals of town planning, i.e., beauty, city environment, public health, and people's safety (Rangwala, 1980). These regulations aim to strike a balance between individual property rights and societal interests. A key aspect of this process is the opportunity for public feedback, which can lead to modifications in the plans to better align with the law or address community concerns. The process of obtaining development clearance typically involves submitting detailed plans to the local planning authority, which evaluates the plans in light of these guidelines. Official planning documentation, planning offices, or websites of local governments & planning authorities are reliable sources for precise information on planning regulations. Due to their impact on the environment, community, and economy, changes to planning rules often involve public engagement and may be the subject of political debate.

2. Enforcement of Regulations

States in India have their own state-town and country-planning acts. Under the provisions of these acts, states have their own state regional and town planning departments and boards to advise the state government regarding the planning and development of their respective states. Apart from this provision, states also have authorities at the level of metropolitan areas, regions, and local areas called metropolitan, regional development authorities, town planning authorities, and urban development authorities. The main functions of these authorities are the preparation of development plans/master plans for cities, towns, and future villages following the completion of the relevant physical and socioeconomic studies. Once these

plans are ready, the authorities must obtain government permission under the applicable acts. This involves a thorough review process to ensure they comply with the law and serve the community's best interests.

These statutory authorities enforce planning regulations through various tools, such as a land use and development control plan (master plan), Zoning regulations (Development control regulations), and Building bye-laws (urban design regulations). Adherence to these regulations is crucial for anyone seeking to develop land or modify the purpose of a building structure or land use. Noncompliance may lead to enforcement measures, such as monetary penalties, the obligation to undo completed tasks, or potentially criminal prosecution in severe instances. The role of these local authorities is pivotal in ensuring that urban development aligns with the law and serves the community's best interests.

3. Zoning Powers

To ensure compliance with the laws and regulations outlined in the development plan, it is necessary to grant the local authorities the essential power. These powers may encompass the ability to obtain privately owned lands, approve blueprints for planned constructions, oversee the actions of structure inhabitants, and restrict unwanted land usage, among other things. Importantly, these powers are used to enhance the community's overall health, welfare, and convenience, ensuring the safety and security of the residents. In India, certain local authorities have limited powers to enforce zoning regulations. However, to achieve improved outcomes from zoning, it is necessary to continuously update and enhance these authorities on a significant scale, thereby fostering a culture of continuous improvement and progress.

4. Regulating Aspects and Legal Tools

The table below provides significant aspects and tools connected to the planning regulations.

**Table 1 Aspects and tools are connected to the planning regulations
(Source: Prepared by author)**

Regulating Element	Legal Tool
Zoning of Land Use	Land Use & Development Control Plan / Master Plan / Development Plan
Zoning of Density	Zoning regulations / Development control regulations
Zoning of Height	City-level building byelaws / Urban design regulations
Zoning of Special Areas (Hazardous and protected areas, Traffic safety regulations, Parking regulations, etc.)	Special purpose plans / strategic plans / Thematic plans / sectoral plans

5. Zoning of land use

This, which determines the purposes for which different city areas will be allocated, is the most significant part of zoning. Regulations establish boundaries between different types of locations, such as residential, commercial, industrial, public & semipublic, park & open spaces, and agricultural zones, and specify the kind of buildings and activities permitted in each zone. The tool for regulating urban land use patterns is the Master Plan / Land Use & Development Control Plan. There are some essential steps for implementing these plans:

- Preparation of Existing land use maps (ELU maps)
- Preparation of Proposed land use maps (PLU maps)
- Enforcement of Development plans or Master plans
- Prepare and enforce comprehensive strategies for revitalisation or expansion as delineated in the plans.

The table below presents the typical distribution of zones in various towns, as per the URDPFI guidelines.

Table 2 Structure of Land Use for Developable Area in Urban Cores
Source: URDPFI guidelines

Sl no	Category of land use	Percentage of Developed Area			
		Small	Medium	Large Cities	Metropolitan Cities & Metropolis
1	Residential	45-50	43-48	36-39	36-38
2	Commercial	2-3	4-6	5-6	5-6
3	Industrial	8-10	7-9	7-8	7-8
4	Public and semi-public	6-8	6-8	10-12	10-12
5	Recreational	12-14	12-14	14-16	14-16
6	Transport and Communication	10-12	10-12	12-14	12-14
7	Agriculture, Water bodies and Special areas	Balance	Balance	Balance	Balance
Total Developed Area		100	100	100	100

To establish use zoning, a schedule is created that lists the names of zones and the specific names of structures that could potentially be allowed in each zone. Land use is regulated by a particular set of rules or guidelines that vary depending on the different types of subdivisions needed within each category of land use. The 'Code' can include letters, numbers, or a combination. A land use map represents each land use type with a distinct colour. The extract of the proposed land use map of the Revised master plan 2015 of Bengaluru Development Authority is presented below to better understand the demarcation of land uses with different colours.

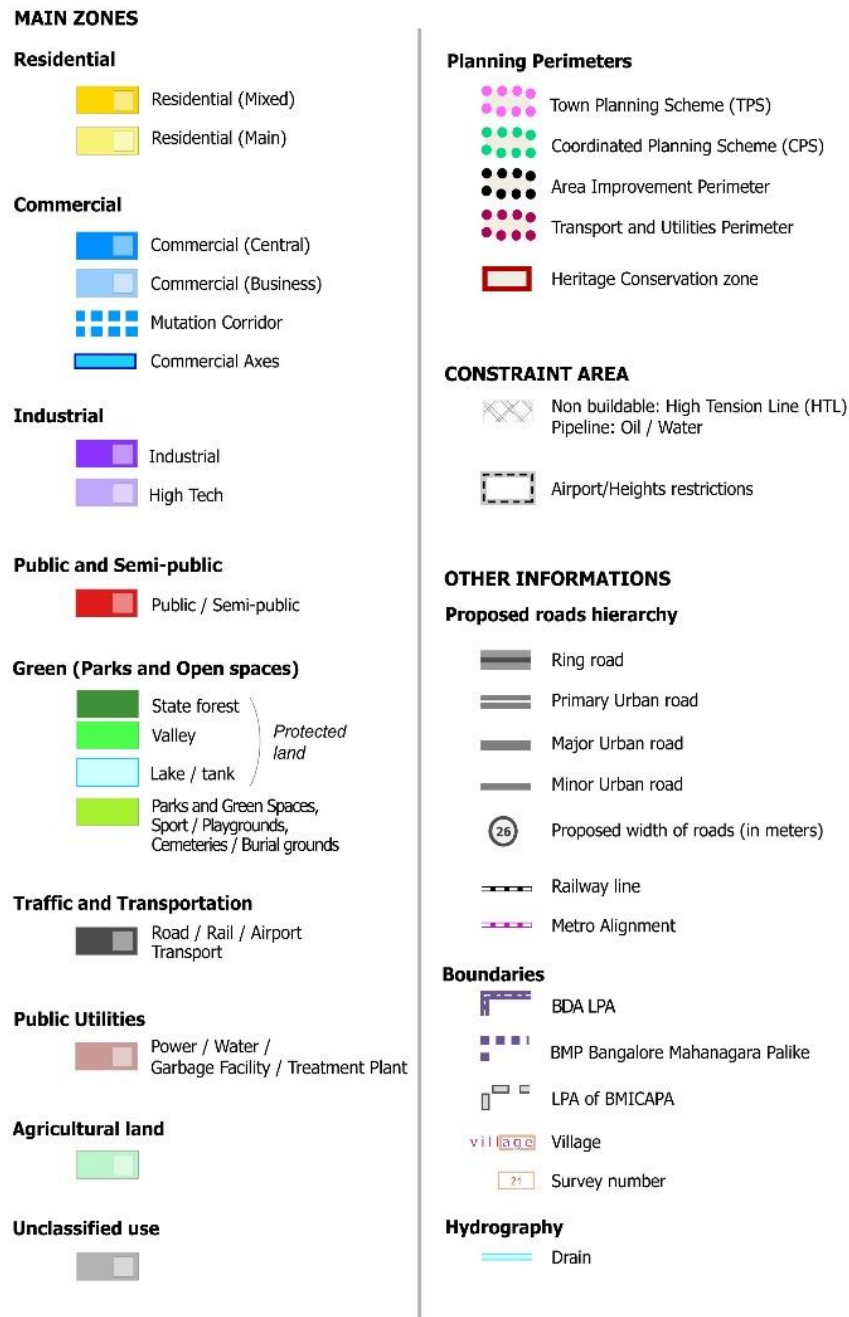


Figure 1 Zoning Classification
(Source: Revised Master Plan 2015, BDA)

Apart from the land uses, the specific objectives for which buildings or structures are to be built or prohibited are clearly outlined in the different sections of the zoning regulations. Critics of land use zoning contend that city municipalities often face challenges in accommodating evolving requirements due to the rigid nature of zoning restrictions. For instance, in the case of a city facing a scarcity of housing, it can prove not easy to expedite the process of rezoning specific districts to accommodate additional residential construction. Stringent zoning regulations, especially those that impose restrictions on the construction of high-density housing, can increase housing expenses. Zoning has faced criticism for perpetuating injustice.

6. Zoning of Density

Density zoning refers to laws implemented in urban planning to restrict the level of development in a specific area, particularly the maximum number of units that can be constructed on a given plot of land. These rules govern the density of population and the intensity of buildings, which can impact the nature of a community, the environment, and the local economy. Limiting the number of individuals occupying a residential unit is not feasible. Therefore, the subsequent alternative methods are adopted to establish efficient density zoning:

- Setbacks from the plot boundaries are specified.
- There is a stated maximum height for the building.
- The minimum allocation size for each house is given.
- Cap on the number of dwelling units per unit area.
- Floor area ratio / Floor space index and Building coverage are specified.

Zoning regulations/development control regulations are the tools for regulating density. The table below illustrates the restrictions that Road width, Plot size, FAR, and coverage have on building density.

**Table 3 FAR and Ground Coverage in Residential (Main) Zone
Source: Zoning regulations, Revised Master Plan 2015, Bengaluru**

Sl no	Plot Size (sq.m)	Ground Coverage (Max)	FAR	Road width (m)
1	Up to 360	Up to 75%	1.75	Up to 12.0
2	Above 360 up to 1000	Up to 65%	2.25	Above 12.0 up to 18.0
3	Above 1000 up to 2000	Up to 60%	2.5	Above 18.0 up to 24.0
4	Above 2000 up to 4000	Up to 55%	3	Above 24.0 up to 30.0
5	Above 4000 up to 20000	Up to 50%	3.25	Above 30.0

Gross density or net density can describe the population density per unit area. The gross density is the average population density per unit area of the entire residential zone. The average population density per unit of the housing area, including local roads only and excluding open spaces, public buildings, shopping centres, etc., is known as the net density (Bandyopadhyay, 2011). Critics of density zoning contend that it can result in elevated housing costs by constraining the availability of dwelling units. This might challenge people with lower and moderate incomes to buy homes in specific regions. Additionally, a high demand for housing can expand metropolitan areas, known as urban sprawl, when growth extends away from the central metropolis. The following image better explains how the scale of density regulates the development of buildings.

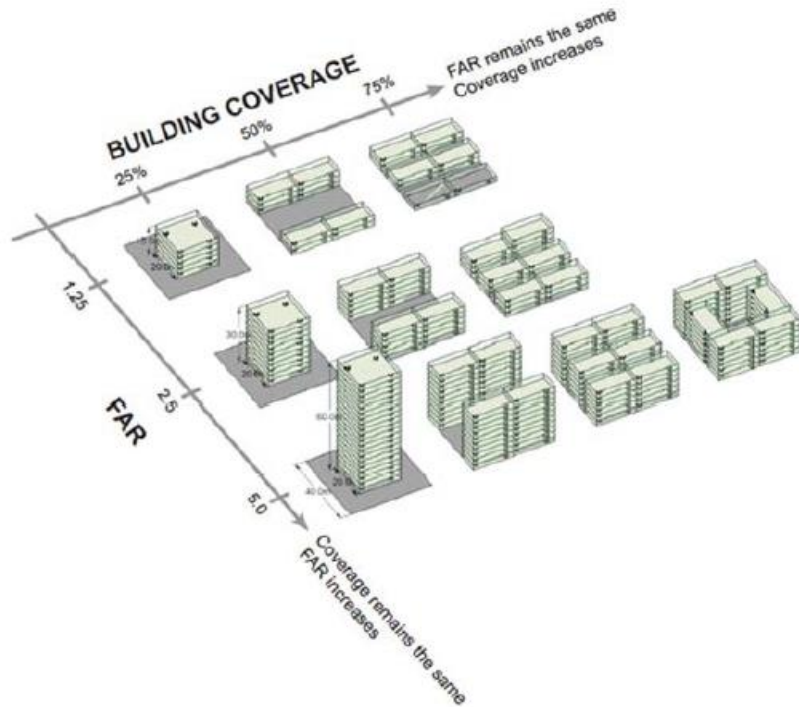


Figure 2 Scale of Density

(Source: Lecture notes on Planning Legislation and Governance Biswas, A. 2023)

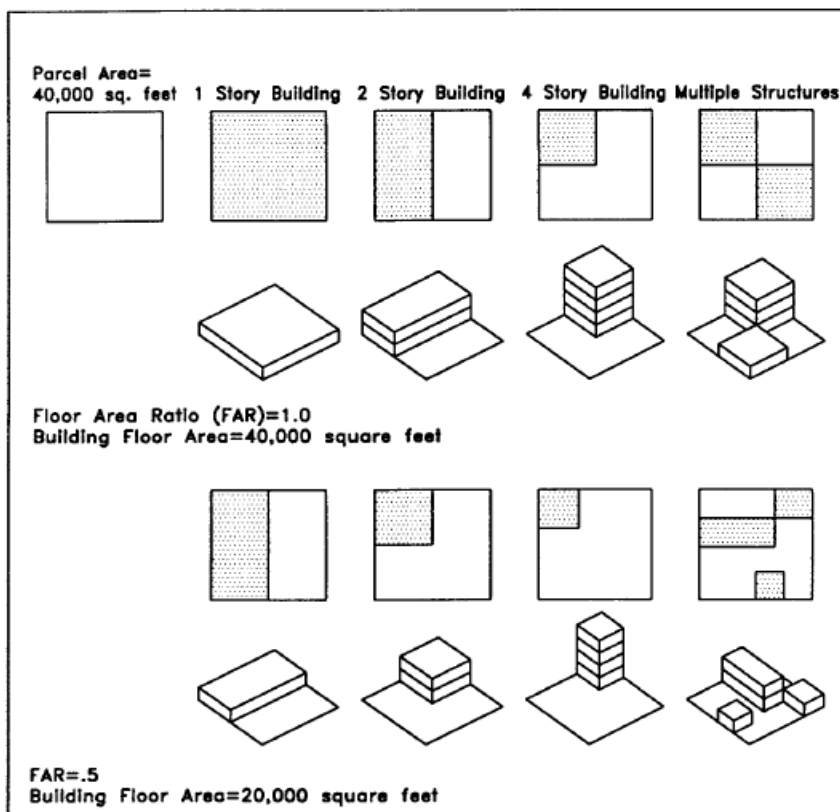


Figure 3 Scale of Density

(Source: Lecture notes on Planning Legislation and Governance Biswas, A. 2023)

From the above images, it is clear that the variations in FAR and coverage that are part of development control regulations/zoning regulations result in varying densities of buildings that can be constructed on the land.

7. Zoning of Height

The purpose of height zoning is to regulate the vertical dimensions of structures, considering two key factors: the overall size or volume of the buildings and the width of the streets and other open spaces, to ensure adequate provision of light and air. The limitation on building height will be contingent upon the characteristics of the building, the zoning classification, and the prevailing climatic circumstances. The tool for regulating height is city-level building by-laws / Urban design regulations. The specification of area and height restrictions for buildings are defined in terms of the Floor Area Ratio (FAR) in these building bye-laws / Urban design regulations. Setbacks also contribute to the limitation of building height to a certain degree.

The table below illustrates the restrictions that setbacks have on the construction height of buildings.

Table 4 Relationship between the height of the building and Building setback around the buildings
Source: Model building bye-laws 2016 by TCPO

Sl no	Height of Building (M)	Exterior open space to be left on all sides of Building (M)
1	10	3
2	15	5
3	18	6
4	21	7
5	24	8
6	27	9
7	30	10
8	35	11
9	40	12
10	45	13
11	50	14
12	55 and Above	16

The primary objectives of height zoning are to provide adequate daylight to structures and facilitate smooth traffic flow. To accomplish these objectives, the town planner has two alternatives: either permitting structures of intermediate heights or preserving greater distances between the buildings. Le Corbusier, the renowned architect, argued for the latter configuration, which would lead to creating a city characterised by towering structures. Both options would be productive in regulating population density. The previous configuration would lead to streets of standard dimensions and buildings of comparatively modest heights. The latter configuration would lead to the formation of tower-like edifices accompanied by spacious thoroughfares. The relevant authorities must take the decision. It's crucial to remember that supporters of height zoning frequently claim that these laws are required to maintain neighbourhood character,

avoid crowding, guarantee safety, and save the environment. Nonetheless, the crux of urban planning discussions is striking a compromise between these conflicting objectives. Critics argue that, especially in places dealing with housing shortages and looking for sustainable growth methods, the downsides of height zoning frequently outweigh the supposed benefits.

8. References

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