

## Planning and Building Regulations as the Urban and Architectural Form Determinant : The Issues and the Improvement Measures

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This study reviews existing planning and building regulations and proposes possible improvements on them. Planning and building regulations range from laws, including the Act on Planning and Use of National Territory, the Landscape Act and the Building Act, their accompanying statutory planning, to non-statutory planning such as local governments' initiative in order to upgrade urban design. Among them, this study focuses on general regulations on building form prescribed in the Act on Planning and Use of National Territory and Building Act, aside from regulations for particular area such as district unit planning.

Building form control is generally viewed as minimum guidelines set up by the public authorities in order to prevent a building from posing negative impact on the surrounding area and urban environment. Looking at the origins and historical changes of it, however, building form control is no less than a future vision of society for sound buildings and urban environment. Since real estate developers try to create as large space in a building as possible within the boundary of regulations in order to maximize its economic use, planning and building regulation determines the shape of buildings as well as the quality of urban environment in large scale. Therefore, this study puts forward desirable future direction for planning and building regulations, discusses existing regulations and their effects on building and urban environment, and draws possible improvements on them.

Chapter two proposes general direction for regulations improvement based on the analysis of recent paradigm changes in architecture, architectural policy directions

in domestic and foreign countries, and changes in rules and regulations relevant to the issue. The analysis of paradigm shift and recent policy directions finds that architecture is increasingly viewed as an element of urban space rather than a separate unit, that local governments have been putting much emphasis on architectural design as a means of enhancing their competitiveness, and that social demand for creative and experimental architectural design has been increasing as a result of changes in building conditions and technological developments. It is often said that rules and regulations need to be changed so that they can reflect increasing demand for expressing local identity and diversity through their architecture and contribute to enhancing the quality of living environment. In these aspects, this study suggests that improvements on building form control need to aim for enhancing the "quality" of architecture as prescribed in the Framework Act on Building, and proposes its three key elements of relationship, identity and rationality.

Chapter three analyzes existing rules and regulations on building shape and draws their characteristics. First, planning and building regulations are generally reviewed, and their importance is discussed as they determine general urban environment. Then provisions related to planning and building regulation in the Act on Planning and Use of National Territory and the Building Act are analyzed in terms of the intent of their creation and revision.

Chapter four points out problems of existing building form control. It includes a research on architectural forms and urban environment, its problems and statutory causes of them. A survey of experts and officers in architecture and urban design was also conducted to draw lessons both for problems of and vision for building form control. Implications from the research and the survey mentioned above can be summarized to three points. First, the existing system of zoning poses uniform standards on all buildings in an area regardless of different characteristics of streets and district, thus forming a monolithic urban landscape. Second, quantitative standards consisting of maximum or minimum numbers allowed fall short of guaranteeing the quality of buildings. Third, existing standards approach acts of building as occurring in a single tissue of land, and has little consideration of their wider context and collective form.

Chapter five analyzes planning and building regulations of Tokyo, New York City, Paris and Miami. It is found that recent changes in building form control are headed towards flexible, regulations concerning changes in urban environment, collective control rather than viewing a building as a separate unit, and localized regulation reflecting local characteristics.

Chapter six puts forward possible improvements on existing planning and building regulation based on implications from above analyses of problems and changes regarding the issue. Directions of planning and building regulation need to shift from uniform zoning to form-based codes reflecting local traits, from quantitative to qualitative standards, and from restricting specific acts of building in a separate tissue of land to regulating wider view of collective buildings and how they are connected to one another. These can be done by taking improvement ways, including the following :

- a) subdividing zoning categories reflecting local characteristics;
- b) making improvements on district unit planning and the management of special architectural districts;
- c) setting up local government-initiated, integrated regulation system on land use;
- d) rationalizing the process of determining space area, height and the number of floors of a building;
- e) setting standards on physical design such as location and building envelope;
- f) making adjustments to urban design guidelines for better streetscape;
- h) providing more incentives to quality improvements;
- i) replacing form regulation with performance control and;
- j) allowing exceptions of regulation.

The ways above are related to changes in the system, principles and methods of regulation, and each has different level of importance and hierarchy in building form control. So this study suggests a road map for efficient implementation of the ways, and reviewed both the potential and limits of short-term ways through simulation modelling. It finds that allowing exceptions, in case there is a consensus

on an issue between owners of two adjoining lots of land, is effective in minimizing negative impacts from rigid building form regulation and improving building and urban environment. This approach, based on efforts to create a better mode of connection for buildings in terms of architectural design, is distinguished from the top-down approach of urban planning by a public authority.

Planning and building regulation determines not only the form of a building but also urban environment in large scale. With the growing social demand for quality enhancement of buildings and urban environment, it is required that we move away from making superficial improvements such as changing signs and urban facilities, and instead focus on fundamentally enhancing the quality of physical environment by reconsidering existing building form control. This study will hopefully contribute to setting directions for making improvements on planning and building regulation.

**Key Words : planning and building regulations, building form control, Act on Planning and Use of National Territory, Building Act, zoning, form-based codes**