

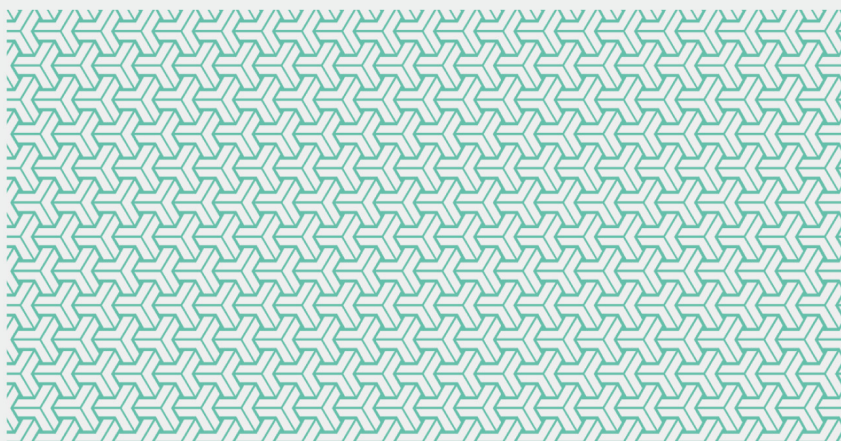
# 건축물 면적·높이 산정기준 운영체계 개선 방안 연구

A Study on Improvement of Building Area and Height Calculation Criteria

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## 1. Overview of Research

As the standard of living of the people and social demands for buildings increase, building laws are steadily being revised, and civil petitions related to building standards are also diversifying. Among them, complaints of "area and height calculation standards" are notable because there is much room for arbitrary interpretation by officials depending on external conditions, even though this standard is a significant factor that directly affects buildings' size. It means that there are differences in the interpretation of laws between architects or central and local government officials on the same basis. Consequently, it leads to conflicts of interest, disputes, and further legal proceedings in implementing administrative tasks such as building permits.

The purpose of this study was to prepare detailed standards and operation methods for solving structural problems of the relevant standards, starting with the cause of complaints related to the calculation of building area and height. An amendment to the operation regulations was proposed to reinforce the commentary on ambiguous criteria and facilitate rapid and efficient architectural administration tasks. It shows the direction of improvement on the calculation criteria for the area and height on the civil petition issue. To this end, this study looked at the current status, limitations, and significant civil complaints of domestic building area and height calculation standards, derived implications of Japanese and U.S. cases, and proposed improvement plans for building size and height calculation standards based on this review.

## 2. Key Results

The criteria for calculating the area and height of buildings in Korea are defined as 'ground area,' 'building area,' 'floor area,' 'land area,' 'land area,' 'floor area,' 'rise height,' 'half-height,' 'water level,' and 'ground level' through Article 119 of the Building Act. Each item consists of general calculation criteria and proviso conditions, where clues are practical criteria that mitigate available standards for public purposes, support for industrial activities, and policy needs.

Meanwhile, considering that more than 30 enforcement ordinance regulations have been enacted and amended since 1962, it is difficult to immediately respond to changes in the market environment and construction technology. In addition to the operation, the problem of the content delivery method is also raised. It gives various mitigation clues to the frequent revision of regulations. The details of the items are very complex and challenging. The current standard for

calculating area and height can be a statement describing the architectural plan and design method. The present descriptive design standards are highly likely to cause controversy and misunderstanding over interpretation at a time when various institutional conditions required for local districts, such as the shape and structure of the land, and surrounding roads, are diversified.

Meanwhile, there are two main points related to the calculation of building area and height of building civil petitions received through national newspapers over the past five years. The first one is the ambiguity of definitions as a start to all applications of building standards. For example, 'ground' is included in More specific conditions, such as purpose and shape, to calculate the area and height of the building. The definition of "building" also has limitations to cover changing building types and material characteristics. The lack of explanation of external spaces and parts added to buildings, the roadbed, and the piloti has also contributed to the ongoing controversy over area and height calculation and complaints.

Second, there is a lack of capacity for issues that need to be changed or added depending on new design technologies, construction methods, materials, building uses, etc. It is a matter of how to apply the mitigation criteria for solar buildings, insulation systems, mechanical parking lots, lifts for the disabled, warehouses, factories, etc., as well as general standards for calculating building area and height. It is also possible to apply analytical anomalies in the way buildings are used and the conditions required. As a result, it can lead to the distortion of the architects, arbitrary interpretation of the public officials, and, after the approval is completed, to cause another civil complaint and dispute in the course of use.

Unlike Korea, the U.S. presents the standards in different chapters of the IBC (International Building Code), which are largely divided into the terms "Define" and "Application Regulations" related to area and height. The definition is limited to ensuring the safety of buildings and the surrounding environment, i.e., the minimal conceptual explanation required for the primary IBC operational purposes and is not vaguely mixed with the calculation methods. In the calculation method, different standards for area and height calculation by building use and size are presented considering the correlation between fire fighting, evacuation safety, and surrounding buildings.

Japan stipulates the criteria in the Building Standards Act and is quite similar to domestic standards. It has something to do with the history of Korea's construction law. According to history, before the Construction Act was enacted, Gyeongmu Provincial Government passed the city building rules by the

Joseon Dynasty were enforced from 1913 to 1934. After that, The Government enacted the Joseon Urban Planning Ordinance from June 1934 to January 20, 1962. On January 20, 1962, the Building Act and the Urban Planning Act were enacted simultaneously by dividing the Joseon Urban Planning Ordinance into the Architectural and Urban Planning sectors.

Japan's standards are also focused on setting standards for various external conditions such as dense urban conditions, land size, and roads. However, the terms of mitigation are more straightforward than domestic standards. The private and government are providing detailed explanatory materials to increase the acceptance and utilization of the site.

This study proposed measures to improve the calculation criteria for building area and height of buildings in two respects.

First, changing the standard operating system that can flexibly respond to changes in the architectural environment. In other words, the current standard, which is operated in the form of the Enforcement Decree of the Building Act, is reorganized into the Building Act – the Enforcement Decree of the Building Act – the Delegated Administrative Rules (based on the Ministry of Land, Infrastructure and Transport Notice). The Act provides a specific description of how administrative rules and specifying the Enforcement Decree details. This operating system can imply what level this standard should be applied and managed in the fiBuilding Actfi system. It is meant to improve its effectiveness because it is easier to accept and respond to external changes.

Second, it gives improvements to the detailed criteria for calculating the area and height of buildings. We further explained terms with insufficient or missing definitions, simplified redundant detailed criteria, and added diagrams to complement the explanation.

Through these amendments, the government intends to increase the current standards for calculating the area and height of buildings and increasing work efficiency. However, this study excluded several architectural elements, such as attic and balcony, and their correlation with other regulations specified in the Building Act. A separate in-depth analysis of this is needed in the future.

**Keywords :**

Building Code, Building Civil Petitions, Building Area, Building Height, Calculation Criteria