

# EFFECTIVE USE OF THE IBC/CBC

Distilling the code review process down to a methodical, sequential list of considerations is generally problematic. In many cases, related provisions from various chapters of the code must be considered simultaneously, or reconsidered later in the process to arrive at the correct classification or determination. Any number of acceptable alternatives may exist for construction of the building and its specific features. Each choice provided by the code must be evaluated for its specific impact on other aspects of the building's analysis. With a basic understanding of the interrelationship of the various chapters, the practiced code user will make an initial assessment of the building as a first step of the code review process. The following outline may be helpful as a guide for the effective use of the IBC/CBC, with the understanding that final resolution of each step is often dependant on subsequent steps.

The following process is divided into two distinct areas of analysis, the nonstructural provisions of the IBC/CBC and the structural provisions.

## Nonstructural Provisions

**1. Identify the distinct and varied uses of the building.** The uses that will occur within the building must be identified, evaluated and classified into one or more of the distinct occupancy classifications established in the IBC/CBC. Some buildings will be classified as single occupancy, where there is only one applicable occupancy classification. Others will be considered as mixed occupancy due to the presence of two or more uses that are classified into different occupancy groups.

*(California) Chapter 1—Application of California Building Standards: Determine whether the use or occupancy is regulated by a state agency. Review California Chapter 1 to determine (1) which agencies regulate the use or occupancy, and (2) which authority is responsible for enforcement of building standards.*

*Matrix Adoption Tables—Scope of California Building Standards: Review the matrix adoption tables to identify the chapters and sections of model code that are adopted, amended or superseded by the California Building Standards. (See "How to Distinguish Model Code Language from California Amendments.")*

**Sec. 302.1 Classify the building into one or more occupancy groups.** Although there are 10 general occupancy groups, many of the groups are subdivided into subgroups to allow for a more exacting analysis of the building under consideration.

Sec. 303	Group A
Sec. 304	Group B
Sec. 305	Group E
Sec. 306	Group F
Sec. 307	Group H
Sec. 308	Group I
Sec. 309	Group M
Sec. 310	Group R
Sec. 311	Group S
Sec. 312	Group U

**2. Determine if the building is to be fully sprinklered.** Many of the code provisions vary based upon the presence of an automatic sprinkler system throughout the building.

**Sec. 903.2 Determine if the building requires a fire sprinkler system.** Many of the mandates for the installation of a sprinkler system are based upon the occupancy or occupancies that occur within the building. The provisions will often require some degree of occupant load determination. Other conditions may also trigger a required sprinkler installation, such as building height or the lack of exterior openings.

**If a sprinkler system is not required, review for potential code modifications if a sprinkler system is installed.** There are a significant number of benefits provided by the code if a sprinkler system is installed. An initial analysis of the building will typically allow for an early determination of the value of such sprinkler benefits.

Sec. 504.2	Story and height increase
Sec. 506.3	Allowable area increase
Sec. 1017.1	Elimination of corridor fire-resistance rating
Sec. 507	Unlimited area buildings