Code Requirements for Altering Existing Buildings

Steve Orlowski
Director, Codes and Standards
BOMA International

Chris Chwedyk,
AIA Codes & Standards Committee

Outcomes

• Explain the differences between the Prescriptive, Work Area and Performance compliance methods.
• Clarify when additions, alterations and change of occupancies must comply with the provisions for new construction.
• Discuss the guiding principles used to develop the existing building code requirements.
• Learn how to apply the existing building code to future building improvements.
IEBC History

- New construction codes and building standards continue to focus on historical events to improve the built environment and increase safety of occupants.
- In the late 60’s, communities found that applying new construction requirements to existing buildings were creating impediments and barriers that often prevented many buildings from being rehabilitated.
- 30 years later, architects, planners and others began pressing for regulations that would provide the basic safety considerations from the building codes to apply to rehab projects.

IEBC Guiding Principle

The existing building code is established on the following guiding principles:

- Encourage the continued use and reuse of existing buildings.
- Protect public health, safety and welfare from existing unsafe conditions.
- Apply provisions for new construction in a manner that improves existing conditions under going alterations, without discouraging building improvements.
Scoping Changes to the I-Codes

2015 International Building Code

- **Existing buildings.** The provisions of the *International Existing Building Code* shall apply to matters governing the repair, alteration, change of occupancy, addition to and relocation of existing buildings.

2015 International Existing Building Code

- **Scope.** The provisions of the *International Existing Building Code* shall apply to the repair, alteration, change of occupancy, addition to and relocation of existing buildings.

IEBC Terminology

- Existing Buildings
- Change of Occupancy
- Addition
- Alteration
- Repair
**Existing Building**

- Existing Buildings - Consist of any building, structure or facility which has been constructed prior to the adoption of the appropriate code or one for which a legal building permit has been issued.

**Change of Occupancy**

Change of Occupancy - The change in the use of the building or a portion of a building.

- A change in occupancy normally results in a change of use within a occupancy group or occupancy reclassification.
- Post Office to a Bank (Business to Business)
- Vehicle Showroom to a Department Store (Business to Mercantile)
- Change in occupancy often results in a change in the activity level of the building or space, which may increase or decrease the level of life safety risks.
Addition

Addition- An extension or increase in floor area, number of stories, or height of a building or structure.

- Adding one or story onto an existing building.
- Construction of a new wing or extension of an existing building component.
- Areas of the existing building directly associated with the addition must be brought into compliance for new construction.
- Some areas of the existing building maybe affected by other codes (IE the International Fire Code).

Alterations

Alteration- Any construction or renovation to an existing structure other than a repair or addition.

- Removal of a building feature or component
- Rearrangement of an area, space or system
- Replacement of a building component, system or physical feature
# Repairs

- Repair-The reconstruction or renewal of any part of an existing building for the purpose of its maintenance or to correct damage.
- Existing materials
- New or replacement materials
- Maintaining level of protection for the existing condition

## The IEBC Compliance Methods

<table>
<thead>
<tr>
<th>Prescriptive Compliance Method</th>
<th>Work Area Compliance Method</th>
<th>Performance Compliance Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Simplifies the application of the IEBC by outlining the minimum provisions required for any type of work in an existing building.</td>
<td>This concept was intended to provide more flexibility to encourage the reuse and continued use of existing buildings. More specifically, the provisions allow different levels of compliance based upon the level of work occurring and triggers requiring upgrades to the building or building systems.</td>
<td>This section provides a scoring method to determine the overall level of safety of a building. The objective of this section is to provide an alternative compliance option that enables improvements to be made that will raise the score to a minimum level without strict compliance with the provisions of the IBC.</td>
</tr>
<tr>
<td>• Subject to the code official, the existing code at the time of construction can be used for repairs and alterations.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Prescriptive Compliance Method

- It addresses additions, alterations, repairs, change of occupancy and accessibility in existing buildings.
- The requirements are fairly general with a strong emphasis on structural evaluation.
- Least flexible of the three options, but provides straightforward requirements for bringing existing buildings into compliance with the baseline requirements.

Work Area Compliance Method

The various types and levels of work include the following:

- Repairs (Chapter 6)
- Alteration Level 1 (Chapter 7)
- Alteration Level 2 (Chapter 8)
- Alteration Level 3 (Chapter 9)
- Change of occupancy (Chapter 10)
- Additions (Chapter 11)
- Historic buildings (Chapter 12)
- Relocated or moved buildings (Chapter 13)
The various types and levels of work include the following:

- Repairs (Chapter 6)
- Alteration Level 1 (Chapter 7)
- Alteration Level 2 (Chapter 8)
- Alteration Level 3 (Chapter 9)
- Change of occupancy (Chapter 10)
- Additions (Chapter 11)
- Historic buildings (Chapter 12)
- Relocated or moved buildings (Chapter 13)

This section provides a scoring method to determine the overall level of safety of a building.

- The main focus is on fire and life safety provisions, but base structural and accessibility requirements are also addressed.
- The objective of this section is to provide an alternative compliance option that enables improvements to be made that will raise the score to a minimum level without strict compliance with the provisions of the IBC.
Choosing a method

- Outline the scope of repairs, renovations or alterations
- Assess the building's current compliance with the model code for new construction, such as:
  Number of exits, exit widths, fire protection systems, accessibility, structural components, energy efficiency

Questions?
Thank You

Grazie

Danke

Ευχαριστιές

Köszönöm

Dank

Gracias

Merci

Natick

Dalú

Obrigado

See

ありがとうございます

謝谢

감사합니다