

Rehabilitation Subcodes

In a Nutshell

Building codes are essential to guarantee the safety of new buildings. These codes are often applied to the rehabilitation of old buildings, as well, and they are not always a perfect fit. Rehabilitation subcodes, which are also called Smart Codes, were first developed in the late 1990s and aim to establish modern, up-to-date codes that address the repair, alteration, addition, or change of occupancy in existing buildings.

The “How To”

The Need for Rehabilitation Subcodes

Building codes were established to ensure the safety of new buildings. In the 1990s, it became apparent that many existing buildings did not fulfill the requirements of current building and zoning codes. New investment in old buildings and long-term re-use of the structures is deterred if the buildings do not adhere to the legislation in place. For example, hallway width, ceiling height, and door clearance of old buildings are often too small for existing building codes, and modification would be extensive and expensive. Most building codes were written for the design and construction of new buildings. Of the 35 chapters and almost 700 pages of the International Building Code 2000, only one 14-page chapter addresses existing buildings.

Recognizing this problem, the New Jersey Department of Community Affairs created a committee tasked at finding a solution. In January of 1998, the [Rehabilitation Subcode](#) was published in the New Jersey Register as the first comprehensive set of code requirements for existing buildings.

Establishing Rehabilitation Subcodes in Your Community

Establishing rehabilitation subcodes in your municipality would involve the same process by which any codes are adopted. Proper planning, research, writing, and discussion would be necessary before any elected body would enact the plans. Creating new codes can be time consuming, however, and there should be considerations given to the long-term end result of such a code.

If your municipality elects to create its own codes, there are some key areas the code should address. Rehabilitation subcodes should address administration and enforcement of the plan, compliance methods, and classification of work. They should also contain information regarding repairs to the structure, external modifications, internal modifications, occupancy changes, and additions to existing structures. Specific modifications to historic buildings should be addressed, as well as relocating buildings and safety standards and requirements.

While some cities have established their own codes designed at rehabilitation, maintenance, and re-use of old buildings, most municipalities elect to adopt an already-established code. The International Existing Building Code (IEBC) and the Nationally Applicable Recommended Rehabilitation Provisions (NARRP) are two existing rehabilitation codes. The NARRP contain good references but, by and large, most cities elect to adopt the IEBC as a supplement to the other codes published by the International Code Council, which have long been adopted by the municipalities.

Planning & Zoning

National Examples of Rehabilitation Subcodes

After New Jersey implemented its rehabilitation code, two national organizations began developing codes of their own. The US Department of Housing and Urban Development and the International Code Council created codes aimed at the re-use and renovation of existing buildings. Both of these codes are discussed below.

The US Department of Housing and Urban Development (HUD) published a model rehabilitation code shortly after work on the New Jersey code had begun. A study conducted in 1998 by HUD revealed that regulation and design of existing buildings was non-uniform, unpredictable, and arbitrary. In order to combat these issues, the [Nationally Applicable Recommended Rehabilitation Provisions](#) (NARRP) were created. The Provisions define six categories of work that range from small repairs to substantial reconstruction, and each higher level of work requires more extensive safety improvements. The NARRPs also identify hazard scores based on the old and new uses of the building which dictate how much renovation is required. Hazard scores are assessed in each of these four areas: life safety and exits, heights and areas, exposure of exterior walls, and seismic hazards. HUD later published an updated report called [Smartcodes in Your Community](#) that addresses the growing national attention around these types of regulatory approaches and best practices for local government.

The International Code Council (ICC) established the International Existing Building Code (IEBC) in 2003 and updates the code yearly. The IEBC is often used as a supplement to the standard International Building Code and International Residential Code, which are also published and updated by the ICC. Similar to New Jersey's and HUD's codes, the IEBC addresses modification and renovation of existing structures. Unlike the other examples, the IEBC is published by a highly-reputable and very popular codification company and because of this, adoption and implementation of the IEBC is much broader. In the St. Louis metro area, the IEBC has been adopted by Maplewood, St. Charles, St. Louis, St. Louis County, in Missouri, and Collinsville, Columbia, Highland, and O'Fallon in Illinois.

Municipal and State Examples of Rehabilitation Subcodes

Article 13 of the Kansas City Building and Rehabilitation Code deals with existing structures. Kansas City elected to adopt the International Existing Building Code created by the ICC almost entirely and only made small modifications to better fit the code with the city.

The City of Wichita, Kansas Office of Central Inspection has created the Wichita Existing Buildings Rehabilitation and Change of Use Code to guide and direct re-use and redevelopment of existing structures within the city. The City of Wichita elected to create their own code instead of adopting an existing one.

North Carolina enacted the 2009 NC Rehabilitation Code in 2010 in lieu of adopting an existing code to address the rehabilitation and redevelopment of buildings in the state.

In 2010, the Maryland Department of Housing and Community Development adopted the 2009 International Existing Building Code as the Maryland Building Rehabilitation Code.

The Oklahoma Building Commission offers a [model ordinance](#) to municipalities wishing to adopt the IEBC as their rehabilitation subcode.

Dollars & Cents

Saving Money - Stimulating Investment - Raising Property Values

Rehabilitation subcodes are intended to save money while also guaranteeing past development is still being observed and inspected. Owners and developers of existing structures can repurpose those buildings for new economic activity for much less money than constructing new buildings. Often, the costs associated with bringing an existing building into code compliance makes the rehabilitation project more expensive than new construction. Effective rehabilitation codes and subcodes change this dynamic. For cities and counties with older building stocks, rehabilitation subcodes preserve property values and stimulate new investment that may have located elsewhere. The [North Carolina Downtown Development Association](#) offers an example where the redevelopment of an existing structure saved the developer seven dollars per square foot, versus building new construction on an infill site.

Implementation Cost to Local Government

Adopting new code language is the main impact to local government. Other than staff time, the costs associated should be minimal. If the city or county wants to adopt IEBC or similar, standardized codes, they should simply work with their building and housing inspections departments and map out an implementation plan. As with any new legislation or regulation, it should be analyzed for pitfalls and challenges. If the local government wants to develop their own customized subcodes, more similar to the New Jersey model, there will be additional cost, albeit still minor.

The city or county may want to hire a code-writing consultant to evaluate the local community. Such tools as an existing building stock inventory, a general condition and quality report, and other factors to better understand how municipal building codes are impacting market-based investment decisions in your existing building stock will help feed the writing of new code language. It will likely be important to incorporate legal advice into drafting your own customized code. Finally, an inspections, building, or city planning department may want to consider developing and hosting trainings for the local builders and developers on the new codes. Further, city officials can attend existing commercial districts' merchant association meetings and other chamber of commerce functions to promote the new code and encourage rehab investment.

Measuring Success

Successful Implementation of Rehabilitation Subcodes

Measuring success for local governments can be rather simple. If a city decides to address the need for

rehabilitation subcodes, simply passing new codes or adopting established examples is an accomplishment in itself.

Beyond adoption of the codes, a city might choose to develop a system to monitor and track permits issued for rehabilitation projects. Such a system will allow the city to quantify how many projects were established because of the adoption of the code. The system can be as simple as placing a checkmark in a certain box on the permit application that indicates the project will be adhering to the rehabilitation codes.

Additionally, the city can contact builders, developers, and rehabbers to discuss their projects. A website, newsletter, article, or other media can showcase projects that would not have otherwise occurred if it weren't for the adoption of the rehabilitation codes.

For example, the 1998 New Jersey Department of Community Affairs "Construction Reporter" publication indicated that rehabilitation work in Jersey City grew by 83.5 percent between 1997 and 1998; the New Jersey Rehab Codes were first published in January of 1998. In Newark, rehabilitation work grew by almost 60 percent, and in Trenton, it grew by 40 percent. In addition, in 1999, the state reported that work on existing buildings also grew noticeably. In New Jersey's sixteen largest cities, money spent on existing buildings totalled \$363 million in 1997, \$511 million in 1998, and \$590 million in 1999; a two-year increase of almost 63 percent.

Success Felt by Property Owners

A successful rehabilitation code scenario for individuals is a little different than for cities. Developers, builders, and rehabbers try to spend their money in the most efficient manner in order to maximize the profits. Success of a rehab code, then, for them involves money, not widespread use. If a rehabber or developer can renovate or rehabilitate an old building using the rehab codes for much less money than the traditional building codes would require, the work is more likely to be completed.

For example, in 2012, The Trentonian newspaper from Trenton, New Jersey published an article detailing one man's ability to renovate and lease two apartments above his downtown business. The space was previously unused due to the cost projected in bringing the building up to current building codes. With the rehabilitation subcodes, however, his renovation cost was much more affordable.

Although one report published by The Brookings Institution claims that the cost of rehabilitation can be cut by as much as half due to rehabilitation codes, a different [report](#) estimates this amount is closer to 20 percent. Whether the actual savings are closer to 20 or 50 percent matters less than the fact that substantial savings can be accumulated due to the adoption of rehabilitation subcodes.

Discover More

More information about [New Jersey's rehab subcode](#).

The report titled "[Smart Codes in Your Community: A Guide to Building Rehabilitation Codes](#)" examines the history of rehabilitation codes and explains how they work.

Adrian L. Seward of the University of Pennsylvania wrote an extensive [article](#) detailing and discussing different rehabilitation codes and the effects of said codes.

The National Main Street Center published an article titled, "[Smart Codes: How to Make Building Codes and Zoning Work for Smart Growth](#)" that provides a history of the necessity of rehabilitation subcodes and discusses implementation of such codes, particularly in Maryland.

Case Studies

City of Maplewood, MO - IEBC Adopted

Contact

Marty Corcoran
City Manager
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marty@ci.maplewood.mo.us

Address

7601 Manchester Road - Maplewood, MO 63143

Description

In February 2010 the Maplewood City Council adopted the International Existing Building Code (IEBC) to govern building rehab projects. The 2009 edition of the IEBC was adopted by the city. The City of Maplewood works closely with St. Louis County in shaping its municipal codes and the county also adopted the IEBC around the same time.

[Maplewood Code of Ordinances](#) Sec. 12-94.

[2012 Update to the International Existing Building Code \(IEBC\)](#)

Cost \$0

Lessons Learned

While the City of Maplewood hasn't seen a major uptick in the number of buildings being rehabbed, for those who are reusing existing buildings, the process of doing so has definitely been easier and more flexible for them.

City of O'Fallon, Illinois - IEBC Adopted

Contact

Ted Shekell
Director of Community Development Department

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Address

255 South Lincoln - O'Fallon, IL 62269

Description

The City of O'Fallon, Illinois in suburban St. Clair County has adopted the [International Existing Building Code](#) (2006). Their [Building & Inspections Division](#) can provide resources on their implementation of the code.

Kansas City, Missouri - Kansas City Building and Rehabilitation Code (KCBRC)

Contact

Robert Langenkamp, AICP
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Address

414 E. 12th St. - 15th Floor - Kansas City, MO 64106

Description

The City of Kansas City, Missouri adopted existing building codes, later adopted IEBC, and integrated these policy changes into their [municipal building codes](#).

New Jersey Rehab Subcode

Contact

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Address

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