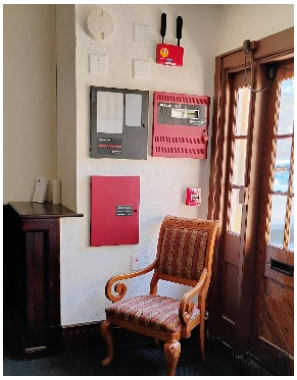
QUICK REFERENCE GUIDE | LIFE SAFETY AND BUILDING CODES





Left: New fire alarm system in Grace Episcopal Church, Newton, MA. Photo by Scott B. Aquilina, AIA.
Center: New fire pump in the fire pump room in the Arch Street Meeting House, Philadelphia, PA. Photo by Sean Connolly, ASMH.
Right: New fire detection system that allows for external monitoring in Lutheran Church of the Reformation, Washington, DC. Photo by Andrew Robb.

LIFE SAFETY AND BUILDING CODES

Building codes are not a recent phenomenon and can be traced back to about 2000 BCE in the Babylonian Empire. The first building codes in the United States were established in 1625 to address fire safety. The first formal building code in the United States was written in 1788 for Old Salem (now Winston-Salem), North Carolina. By the beginning of the nineteenth century, larger cities in the United States began establishing building codes. Most of these early building codes focused on fire safety to prevent catastrophic fires that caused significant loss of life and, in some cases, destroyed cities, as well as on improving housing conditions to prevent the spread of infectious diseases and poor sanitation.

Throughout the twentieth century, regional code organizations developed regional model building codes. In 1973, the American Institute of Architects called for a single building code to be used nationwide, but it was not until the early 1990s that the movement to create a single set of national building codes gained momentum. In 1994, the different regional model code organizations joined to form the International Code Council. They published the first International Building Code (IBC) in 2000. The IBC is updated every three years and serves as the basis for most building codes in the United States.

As part of some of the early regional model building codes, special provisions were developed for historically designated buildings or allowed for building code officials or appointed boards to approve exemptions or variances to the code for historic buildings. In 2003, the International Code Council developed the International Existing Building Code (IEBC) specifically for existing and historic buildings. The IEBC is updated every three years with the IBC and has been adopted in most jurisdictions.

Historic buildings do not always meet current building codes. As long as there are no unsafe conditions in the building, most building codes allow existing, legally constructed, and occupied buildings to remain in operation without complying with current building codes. Most minor maintenance work can also be undertaken on historic and existing buildings without the need to meet current building code requirements. If a historic or existing building undergoes a repair, alteration, or change of occupancy (as classified by code), then the building is typically required to comply with current building codes. Depending on the project, the required code improvements may be limited to the area where work is proposed or may involve other areas of the building. Only in rare instances can new code requirements be retroactively enforced. These are typically limited to requirements deemed critical to public health and safety: for example, the requirement to install smoke detectors in certain residential spaces or to make seismic updates.

When rehabilitating a historic or existing building, it is important to consider the impact that meeting building codes will have on the historic building. Building codes written for new construction can require significant changes to historic materials, features, and spaces, and sometimes make rehabilitating a building impossible. The IEBC was specifically written for existing and historic buildings. It recognizes their construction methodology and building materials, as well as their physical limitations. This code allows for less invasive options that do not damage the historic building while still meeting the minimum building code requirements. It is important to develop sensitive solutions that meet code requirements while preserving the building's historic character. To do this, coordinate with local code officials early in the project planning process.

GENERAL RECOMMENDATIONS

All projects funded by the National Fund for Sacred Places must respect the property's historic character and materials, and must adhere to the Secretary of the Interior's Standards for Rehabilitation. Below are general recommendations for updating historic buildings for life safety and building codes, but they do not cover all the specific recommendations. Reference the resources in the section below for more detailed recommendations.

- **QUALIFIED PROFESSIONALS:** Work with a team of qualified design professionals who have experience working on historic buildings and understand building codes for existing and historic buildings.
- **ADOPTED BUILDING CODE:** Identify the adopted building code and other requirements applicable to the project. Each jurisdiction adopts specific building codes. Most jurisdictions in the United States have adopted portions, if not all, of the International Building Code (IBC), but some jurisdictions have not adopted the most recent edition of the code, may have modified the model code, or adopted a unique ordinance to supplement the model code.
- **EXISTING BUILDING CODE:** Use relevant sections of the existing building code to provide alternative means of code compliance when building code-required work would damage or negatively impact the building's historic character.

- **MINIMIZE IMPACT:** Comply with life-safety code updates in a manner that preserves and minimizes the impact on a historic building's character-defining exterior features, interior spaces, historic materials, finishes, and site features.
- **STAIRS AND ELEVATORS:** When upgrading historic stairways and elevators to meet life-safety code requirements, do not damage or negatively impact the historic features. If new stairways or elevators are needed to meet life-safety code requirements, install them in a manner that preserves adjacent character-defining features and spaces.
- **FIRE-SUPPRESSION SYSTEMS**: Install sensitively designed fire suppression systems (such as sprinklers) so that historic features and finishes are not damaged.
- **SEISMIC:** Install new seismic reinforcement in a way that minimizes its impact on historic materials and character-defining features. New seismic retrofit systems should work with the inherent strengths of the historic structural system. The updates should respect the character and integrity of the historic building, be visually unobtrusive, compatible with the historic design, and not damage the historic features and materials.

RESOURCES

The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings | Life Safety and Building Codes Recommendations are found on Pages 150-152

Preservation Brief # 51: Building Codes for Historic and Existing Buildings: Planning and Maximizing their Application

Preservation Brief # 41: The Seismic Rehabilitation of Historic Buildings

Fire Safety in Historic Buildings by Jack Watts, National Trust for Historic Preservation

An Overview of Codes Relating to Historic Buildings by Marilyn Kaplan and Mike Jackson, National Trust for Historic Preservation's conference PastForward 2022