

SUPPORT BUILDING SAFETY!

For more information about building codes and local requirements, contact your local building department below:

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11-016



Careers in Code Enforcement





Code officials, inspectors and plan reviewers play a major role in keeping the public safe by ensuring that all commercial, residential, public assembly, and other buildings are constructed in accordance with the provisions of the governing building code. Building code provisions address structural stability, fire safety, exits, sanitation, safe wiring, and more. It is the code official's responsibility to protect the public health, safety, and welfare through effective code enforcement.

Code Enforcement Process

The code enforcement process is initiated with an application for a permit to construct or remodel a building which the code official is responsible for processing. Construction plans are then reviewed for compliance with the building code. Once construction has begun, the code official makes inspections to determine that construction is proceeding according to the reviewed plan. If a building or a component does not comply, the code official issues orders to correct the problems.

Code Officials

The executive official in charge of the Building Department is known as the code official. The code official maintains official records pertaining to permit applications, permits, fees collected, inspections, notices, and orders issued. This documentation provides a valuable resource for information if questions arise during and after the construction process. The code official also assists designers and builders by interpreting a code's application to particular situations; by explaining minimum requirements and answering questions; and by investigating and resolving complaints involving existing buildings and sites.

In small communities and rural areas, a single code official may be responsible for building inspections, plumbing inspections, fire prevention inspections, mechanical and electrical inspections, building and zoning administration, and the like. In larger metropolitan areas, each of these tasks may be performed by a different specialized staff member.

Inspectors

Inspectors usually specialize in one type of construction work: building; public works; electrical; mechanical; plumbing; housing; or fire prevention. Federal, state and local governments employ various types of inspectors to ensure projects conform to applicable codes. Architectural and engineering firms hire inspectors to ensure workers complete the projects in accordance with codes and specifications. Inspectors may also work for private inspection agencies that assist jurisdictions and design firms as consultants.

All inspectors apply the principles and methods of construction to judge the work and decide whether it complies with applicable standards or codes. They make preliminary inspections during the first stages of the project, examine materials to be sure they meet the specifications called for, and perform follow-up inspections throughout construction to ensure compliance with regulations. For some projects, various inspectors work together throughout the construction process to ensure that the project meets code requirements.

Employment opportunities are available in both the private business sector and governmental agencies. Many states, county townships, or local communities have fully staffed offices, which conduct plan reviews for all buildings and structures intended to be constructed in that jurisdiction.

Large architectural and engineering firms also have plan review departments to evaluate a proposed project from the conceptual phase through the final ready-for-construction documents. Code-consulting businesses provide plan review services for organizations that do not have reviewers on staff.



Types of Inspectors

- ▶ **Building inspectors** review drawings and specifications for planned projects, and they visit building sites being considered for development to check drainage, elevation, and placement of buildings on the plot. These inspectors examine and approve floor framing, wall framing, roofs and ceilings, chimneys, and all other items that are part of the building structure. As each building phase is completed, inspections are required before the work can progress. When projects are fully completed, a comprehensive inspection is performed and a certificate of occupancy is issued by the building inspector.
- ▶ **Public works inspectors** are responsible for checking government projects such as airports, highways, water and sewer systems, streets, bridges, and dams. They inspect digging and fill operations, as well as the placement of forms for concrete. They also observe the concrete mixing and pouring, asphalt paving and grading operations and keep records of all work performed and the materials used. Public works inspectors may be specialists in one kind of operation such as reinforced concrete, dredging, or ditches.
- ▶ **Electrical inspectors** check the quality of materials, installation work, and safeguards in electrical systems. They make sure electrical systems meet city, state or national codes, and electrical codes and standards. Electrical inspectors look closely at new wiring and fixtures in businesses, public buildings, and homes.
- ▶ **Mechanical inspectors** focus on heating, ventilating, and air-conditioning concerns. This includes inspections of: mechanical appliances and equipment; air distribution systems; kitchen exhaust equipment; boilers and water heaters; hydronic piping; gas piping systems; flammable and combustible liquid storage and piping systems; fireplaces, chimneys, and vents; refrigeration systems; and incinerators and crematories. The mechanical inspector also checks for air quality and energy conservation measures.
- ▶ **Plumbing inspectors** check for proper design and installation of plumbing systems, including sanitary and storm drainage systems, sanitary facilities, water supplies, and storm water and sewage disposal in buildings.
- ▶ **Fire inspectors** check nonresidential buildings annually to ensure that appropriate fire safety practices are being followed. Inspections for fire prevention are usually performed by the local fire department or fire prevention bureau.
- ▶ **Property maintenance or housing inspectors** inspect existing buildings to check for health or safety violations and the condition of the exterior property.

Plan Reviewer

- ▶ The plan reviewer, or examiner, usually begins the evaluation process by examining the construction documents used to describe a project including architectural, structural, site plan, mechanical, plumbing, electrical, and fire protection drawings, as well as the corresponding specifications, structural design calculations, and soil reports. As these items are examined for code compliance, deficiencies are cited and can be resolved by revising the construction documents. After revising the documents, a permit to begin construction can be issued.

A plan reviewer must have working knowledge of construction code requirements, and must be familiar with all construction documents produced by the designer of the project. Expertise is required in reading drawings and plans for basic construction techniques, along with an understanding of engineering and architectural definitions and symbols. A background in architecture or engineering is beneficial to conduct plan reviews.



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CAREERS IN CODE ENFORCEMENT

Working Conditions and Hours

On construction sites, inspectors may work out of a field office where they read blueprints, review correspondence, write reports, or schedule inspections. The rest of their time is spent inspecting construction sites, which may be dirty and cluttered with tools, materials, vehicles or debris. Inspectors typically work a 40 hour week, but overtime may also be required seasonally, or to meet a deadline.

Earnings in the construction industry are higher than those of most other industries. Construction workers in and around large cities typically make higher wages than workers in rural areas. Inspectors earn a yearly salary based on experience, education, location, and actual job requirements ranging from \$25,850 to \$97,000. Benefits include paid vacations and holidays, sick leave, medical and life insurance, and some form of retirement or pension program.

Education and Certification

A high-school diploma or the equivalent is the minimum requirement. Many employers require inspectors to have worked in the construction trades, completed an apprenticeship program, studied engineering or architecture for at least two years, or have an Associate's degree from a community college with courses in construction technology, blueprint reading, mathematics, building inspection, or public administration.



Many jurisdictions now require a Bachelor's or Master's degree in addition to on-site experience. Bachelor's degrees are available in construction, fire protection management, engineering, architecture, and related fields. Many jurisdictions require additional certification and continuing education for their building officials and inspectors. Certification for building official, and plan review and inspection disciplines are available through the International Code Council®. Code officials must also possess strong leadership, management, and communication skills necessary to interact effectively with both the public and the media.

Opportunities for Advancement

Certification enhances the chances for higher paying, more responsible jobs. From there, inspectors may progress to management work. Those entering this field with an Associate's or Bachelor's degree can advance by furthering their education in related fields such as public administration.

For More Information

To learn more about careers in code enforcement you may wish to contact city, county, state or federal government agencies; any state or federal Department of Labor; or libraries for more specific information on job opportunities and employment requirements in the code enforcement field. You may also contact local colleges and/or universities to inquire about degree programs related to code enforcement.

