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# **5-Part Series: How To Think About Building Codes**

This series of presentations is intended to give emerging professionals a basic understanding of building code concepts. It is intended to be a primer on the general use of building codes and how to apply specific code requirements to construction projects. Code knowledge is among the most important reasons for the involvement of licensed professionals throughout the process of design and construction: the protection of public health, safety, and welfare (HSW). The goal is to make concepts easier and clearer for any code user.

Codes are certainly daunting and complex at first glance. In fact, they are a product of years of evolution. Every section of every code has a different author with specific issues in mind and specific agendas they wish to advance. Navigating these codes starts with understanding their origins, terms and intent.

#### Part One CODE BASICS

What Are Codes? Where Do They Come From? The American System of Government and the Structure of Laws and Regulations Federal; State; Local – Why is there no "national building code"?

What Are Building Codes? Where Do They Come From? Catastrophic events (or mistakes) = building failures = lessons learned = model building codes (legacy and current). What are the "family" of codes?

How Are Standards and Rating Systems Different From Codes? Professional associations, government agencies, testing services How so adoptions, references and appendicles work?

What Is the Language of Codes and Standards? Use of Acronyms. Intent vs. Interpretation. Prescriptive vs. Performance.

What Are the Best Ways to Integrate Codes into a Project? Design Process; Permit Process; Construction and Inspection Process



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## Part Two CODE CONCEPTS

Understanding Occupancy Classification and Risk Factors. Occupiable vs.Habitable. Net vs. Gross. New vs. Existing.

Understanding Rules of Egress Terms, Capacity, Number, Width, Length and Distance.

Understanding Construction Types and Building Size Combustible vs. Noncombusible; Protected vs. Unprotected. Size and Area Limits.

Understanding Passive vs. Active Fire Protection Fire Resistance, Assembled Construction and Testing; Fire Detection and Suppression systems; Sprinkler triggers.

Understanding Exterior and Interior Finishes Fire Resistance vs. Flamespread; ASTM / Testing Finishes

## Part Three CODES AND STANDARDS INTEGRATION

What is the Difference between ICC Codes vs. NFPA Standards? I-Codes vs. C3-Codes Comparisons

What is the Life Safety Code and How Does It Work? (LSC) NFPA 101 and 101A. Comparing IBC with NFPA 101 (and NFPA 5000)

What is the Elevator Safety Code? A17.1 as reference vs. Chapter 33

Why Are There So Many Accessibility Codes? ANSI A117.1 vs. ADA vs. ABA vs. Fair Housing Amendments

Why Are There So Many Energy Codes? IECC vs. ASHRAE 90.1 vs. NAHB / ICC 700 vs. PHIUS



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#### Part Four BUILDING CODE INTEGRATION

What is the National Electrical Code? (NEC) NFPA 70. UL vs. CE labeling. Emergency Systems.

What is the Fire Code? How does the Fire Code differ from the Building Code? IFC vs. NFPA 1

What Are the Codes for Existing Buildings? IEBC vs. IPMC. How does the Life Safety Code fit in?

What is the Plumbing Code? IPC vs. UPC – what's the difference? Plumbing Fixture Counts

What is the Mechanical Code? IMC vs. UMC – what's the difference? Ventilation Basics.

## Part Five COMMUNICATING WITH THE CODE OFFICIAL

How to Obtain and Conduct Pre-Review Meetings Preparation, Agenda, Meeting Notes, Follow up

What Are Alternative Means and Methods? Alternative materials, designs, and construction methods: Quality, Strength, Effectiveness, Fire resistance, Durability, Safety; Documentation. ICC-ES Evaluation Reports.

What's the Difference between Construction Drawings vs. Permit Drawings? Documenting Codes and Specifications on Drawings and Omitting Contractor Instruction

How to Deal with Plan Review Comments Know your Plan Examiner. Do's and Don'ts. Responding to or seeking clarification. Written vs. Graphic communication on drawings.

How to Deal with Inspection Comments Know your Inspector. Corrective Action or Change in Scope? (field change vs. minor correction vs. permit revision)