

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

James P. Colgate, RA, Esq.

Assistant Commissioner

Technical Affairs & Code Development

Constadino (Gus) Sirakis, PE

Executive Director, Technical Affairs

2014 Construction Codes

An Overview

**2014 BUILD SAFE | LIVE SAFE
CONFERENCE**

NYC
Buildings

American Institute of Architects Continuing Education System

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.



New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Course Description

This presentation will inform the professional community of the changes made to the NYC Construction Codes as part of the NYC Department of Buildings Code Revision process and by other local laws passed by City council in the wake of Hurricane Sandy, collectively known as the 2014 NYC Construction Codes.

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Learning Objectives

Participants will examine local law amendments to chapter one of Title 28 the New York City Construction Codes and understand how they regulate the design of new buildings and alterations to existing buildings thereby facilitating safe construction.

Participants will analyze recent local law amendments to the New York City Building Code as it pertains to enhanced fire-safety design requirements for high-rise buildings, and updated structural design requirements for wind and seismic design of buildings.

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Learning Objectives Continued

Participants will analyze recent local law amendments to the New York City Building Code Appendix G as it pertains to the most recent flood-resistant design requirements for safe construction in flood zones, including newly-designated flood hazard areas.

Participants will review recent local law amendments to the New York City Mechanical, Plumbing and Fuel Gas Codes as they pertain to the design of building systems for enhanced safety including enhanced wind design requirements for louvers and rooftop equipment to prevent structural failure during high wind events.

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

2014 Codes Training Events

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Buildings at Work: Emergency Response Team

Our latest Buildings at Work video is now live! Click here to meet the Department's Emergency Response Team - a 24/7 operation that provides after-hours response across the five boroughs.

Codes and Reference

2014 NYC Construction Codes - Upcoming Training Events

Organization	Date and Time of Event	Description	Location of Event	Organization Web Link
American Institute of Architects (AIA), Queens Chapter, New York State Society of Professional Engineers, Queens Chapter	April 9, 2014 6:30pm to 8:30pm	2014 Construction Codes Overview	422 Weaver Ave. Fort Totten Bayside, Queens, NY 11364	http://nysspe.org/upcoming-events/ http://www.aiaqueensny.org/
American Institute of Architects (AIA), Brooklyn Chapter	April 21, 2014 6:00pm to 8:00pm	2014 Construction Codes Overview	NYU Polytechnic School of Engineering, Pfizer Auditorium 5 MetroTech Center Brooklyn, NY 11201	http://aiabrooklyn.org/#events
New York	April 30, 2014	2014	Synagogue for the Arts	http://www.nysaroh.com

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Construction Codes Development Cycles

Background:

Outdated Building Code – 1968

September 11th, 2001 – World Trade Center

November 2002 Mayoral Commission

April 2003 Recommendations:

- ICC Codes

- Stakeholder inclusion

- Consensus adoption process

- Periodic revision

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Construction Codes Development Cycles

Benefits:

Update Codes to national standards

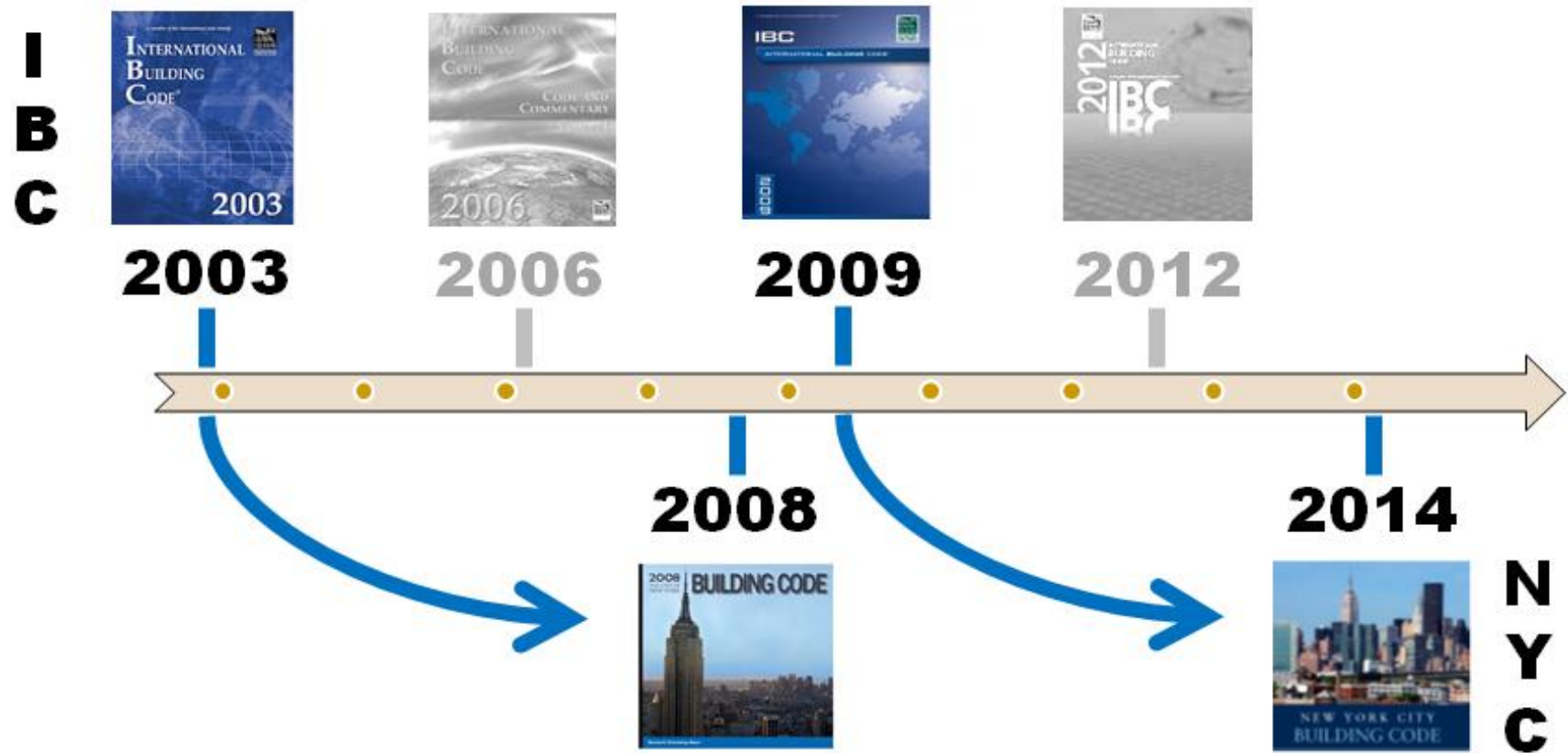
Incorporate latest technologies

Allow new materials and methods of construction

Maintain consistency with other jurisdictions

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Construction Codes Development Cycles



New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

2014 Codes Implementation

9 MONTHS



December 2013
Council approval & Mayoral
signing LL 141 of 2013

**Implementation
&
Training**

October 1, 2014
Effective date

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

2014 Codes Implementation

Operational changes

Forms, service notices, bulletins

Rules

Staff training

Industry outreach

Internet/Intranet/Publication


New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Accessing the 2014 Codes

www.nyc.gov/buildings

Codes & Reference

- Selected Local Laws
 - LL 141/13
 - LL 41/12 (PC)



The screenshot shows the NYC Buildings website interface. At the top left is the NYC Buildings logo. To the right are links for Newsletter Sign-up, Weather Advisories, Owner's Bill of Rights, and Print. A navigation menu on the left lists various categories: Home, About the Buildings Department, Careers, Rebuilding After Sandy, Buildings Information, Development, Safety & Enforcement, Community Partnerships, Homeowners & Tenants, and Sustainability. Below this is a 'Codes & Reference' section with links to 2008 Construction Codes, 1968 Building Code, Brochures, Buildings Bulletins, PPNs, Dir, Exec Order & Memos, Code Revision, Department Statistics, Energy Code Guidelines, MEA Resources, NYS DEC Wetlands, NYC Electrical Code, Presentations, Reports, Rules, and Selected Local Laws. The main content area is titled 'Selected Local Laws' and contains three entries. The second entry, 'Local Law 141 of 2013 (Int. No. 1056-A)', is circled in orange. The text of this law describes amendments to the administrative code of the city of New York, the New York city plumbing code, the New York city building code, the New York city mechanical code, and the New York city fuel gas code. It also mentions the effective date of October 1, 2014, with specific exceptions for construction work.

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Accessing the 2014 Codes

[706.3.6] 707.3.8 [Separation of mixed] Separated occupancies.

Where the provisions of Section [508.3.3] 508.4 are applicable, the fire barrier separating mixed occupancies shall have a fire-resistance rating of not less than that indicated in Section [508.3.3] 508.4 based on the occupancies being separated.

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Accessing the 2014 Codes

[903.2.10.4 Steel-plated and vault-like occupancies.

An automatic sprinkler system shall be installed throughout all steel-plated or similarly reinforced or secured vault-like occupancies regardless of area.

...

903.2.12 Other hazards.

Automatic sprinkler protection shall be provided for the hazards indicated in Sections 903.2.12.1 and 903.2.12.2.]

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Accessing the 2014 Codes

903.2.11.11 Steel-plated and vault-like occupancies.

An automatic sprinkler system shall be installed throughout all steel-plated or similarly reinforced or secured vault-like occupancies regardless of area.

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Accessing the 2014 Codes

Other Local Laws becoming effective 10/1/2014:

- LL 79/14: Toilets/faucets to function without electricity
- LL 100/14: Increase flood resiliency
- LL 101/14: Increased wind standards
- LL 108/13: External hookups for I and R occupancies
- LL 110/14: Common area drinking water
- LL 130/14: Parking lots and garages/vehicle charging

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2014 Codes Effective Dates

Type of Work	Trigger	2008 Codes	2014 Codes
NEW BUILDINGS	Construction documents submitted <i>before</i> October 1, 2014 <ul style="list-style-type: none"> Architectural, Structural, & Foundation Drawings Required Subsequent filings may be filed on or after October 1, 2014 	✓	
	Construction documents submitted <i>on or after</i> October 1, 2014		✓

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

2014 Codes Effective Dates

Type of Work	Trigger	2008 Codes	2014 Codes
ALTERATIONS TO EXISTING BUILDINGS	Construction documents submitted <i>before</i> October 1, 2014	✓	
	Construction documents submitted <i>on or after</i> October 1, 2014		✓

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

2014 Codes Effective Dates

Type of Chapter 33 Work	Trigger	2008 Codes (BC 33)	2014 Codes (BC 33)
Non-Site Safety Jobs New Buildings, Alterations and Partial Demolitions	Construction documents submitted <i>before</i> October 1, 2014	✓	
	Construction documents submitted <i>on or after</i> October 1, 2014		✓
Site Safety Jobs New Buildings, Alterations and Partial Demolitions	Site safety plan approved <i>before</i> October 1, 2014	✓	
	Site safety plan approved <i>on or after</i> October 1, 2014		✓

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

2014 Codes Effective Dates

Type of Chapter 33 Work	Trigger	2008 Codes (BC 33)	2014 Codes (BC 33)
Full Demolitions: (Non-Site Safety and Site Safety Jobs)	Demolition permit issued <i>before</i> October 1, 2014	✓	
	Demolition permit issued <i>on or after</i> October 1, 2014		✓

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

2014 Codes Effective Dates

Exceptions:

28-304.6.4 to 28-304.6.6 Elevator Inspections

Effective immediately

BC 403.5.2 Additional Stair/Occupant Evacuation Elevators for nonresidential > 420 feet

Effective June 30, 2015, or upon zoning change,
whichever is later

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Alterations to Existing Buildings

Next project:

NYC Existing Building Code



But until then

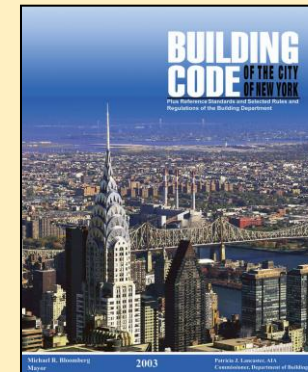
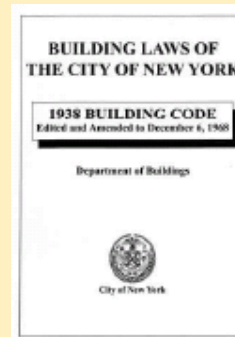
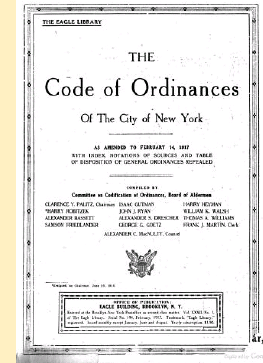
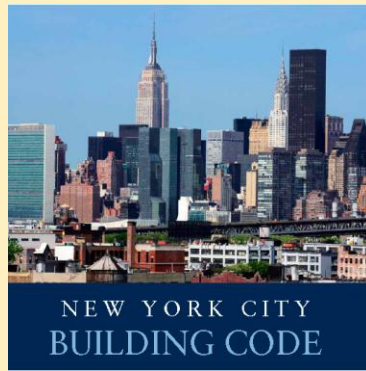
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Alterations to Existing Buildings

“Existing” Building

“Prior Code” Building

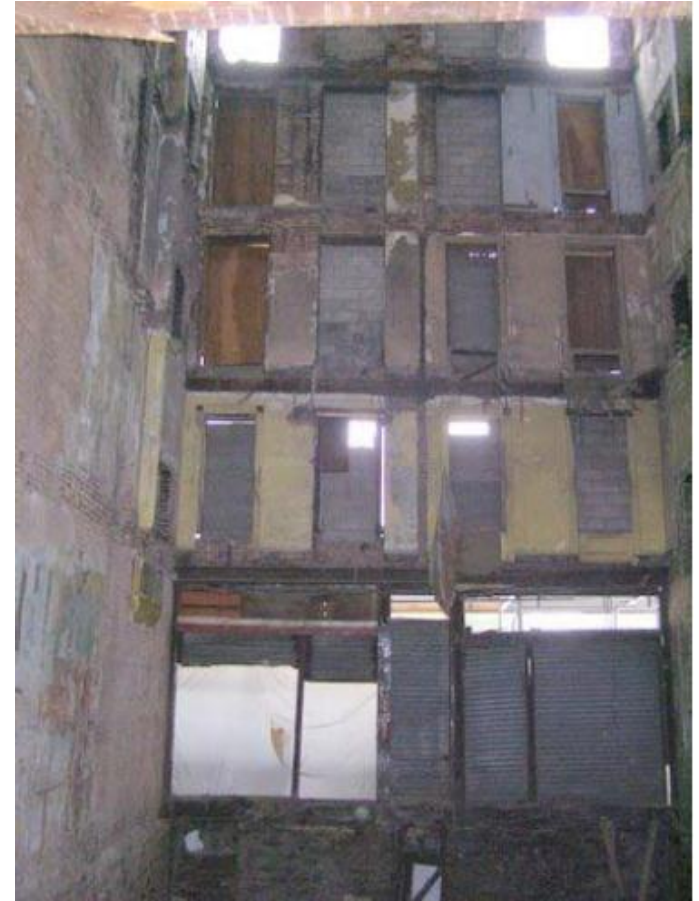
“This Code”



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Alterations to Existing Buildings

**“BIG” Alterations (28-101.4.5)
Must follow 2014 Code**



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Alterations to Existing Buildings


NEW YORK CITY

DEPARTMENT OF BUILDINGS

DEPARTMENT OF BUILDINGS
EXECUTIVE OFFICES
280 BROADWAY, NEW YORK, NY 10007
Patricia J. Lancaster, AIA, Commissioner
(212) 566-5000, TTY: (212) 566-4769
Website: NYC.gov/buildings

Issuance #618

**TECHNICAL
POLICY & PROCEDURE NOTICE #1/02**

TO: Distribution


FROM: Ronny A. Livian,  PE
Deputy Commissioner

DATE: July 24, 2002

SUBJECT: Application Type Required for Work Involving Alterations and Demolition in a Building

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Alterations to Existing Buildings

NEW YORK CITY

DEPARTMENT OF BUILDINGS

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Patricia J. Lancaster, AIA, Commissioner
(212) 566-5000, TTY: (212) 566-4769
Website: NYC.gov/buildings

Issuance #618

~~TECHNICAL
POLICY & PROCEDURAL NOTICE #1/02~~

TO: Distribution

FROM: Ronny A. L...
Deputy Commissioner *R. L...* PE

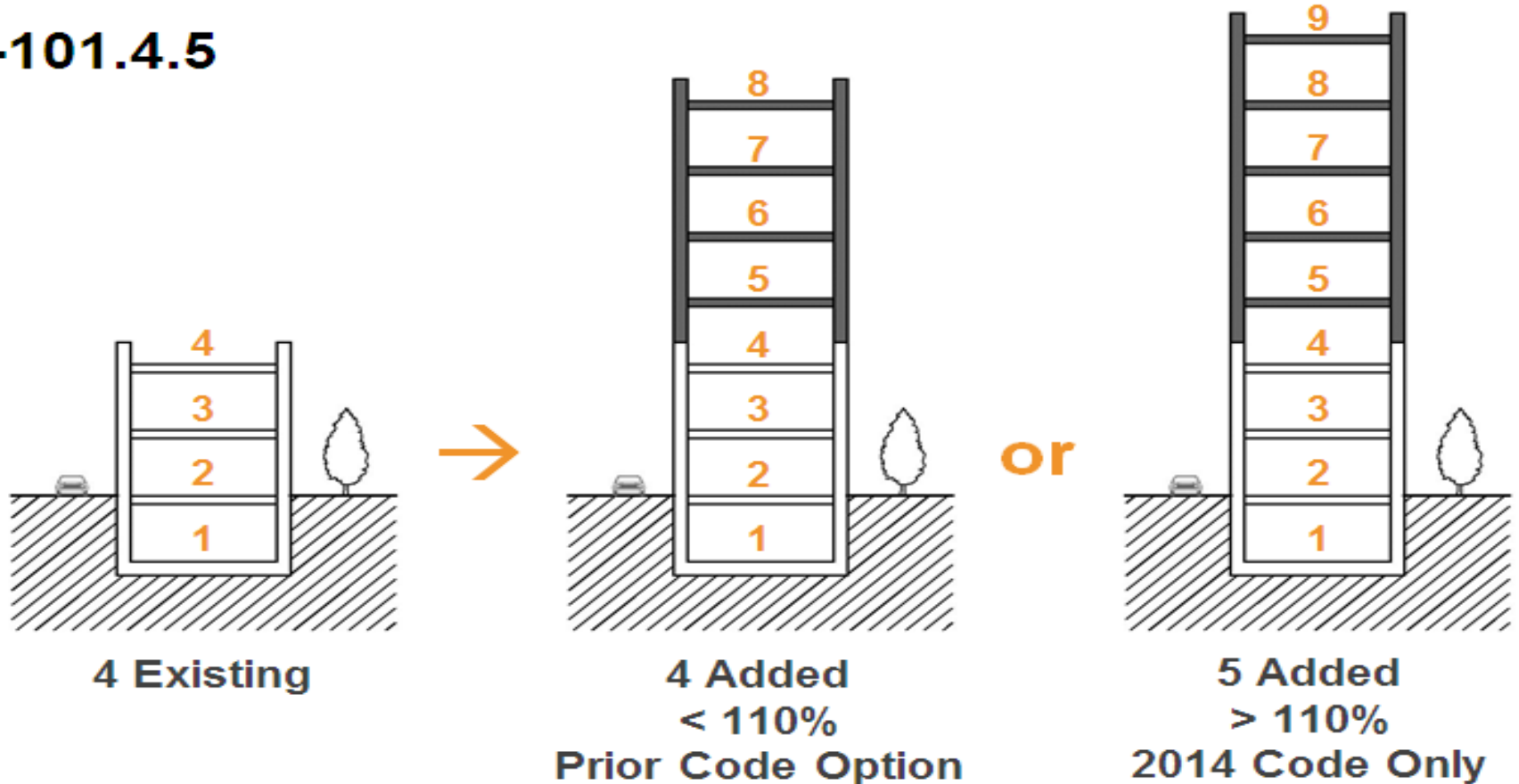
DATE: July 24, 2002

SUBJECT: Application Type Required for Work Involving Alterations and Demolition in a Building

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Alterations to Existing Buildings

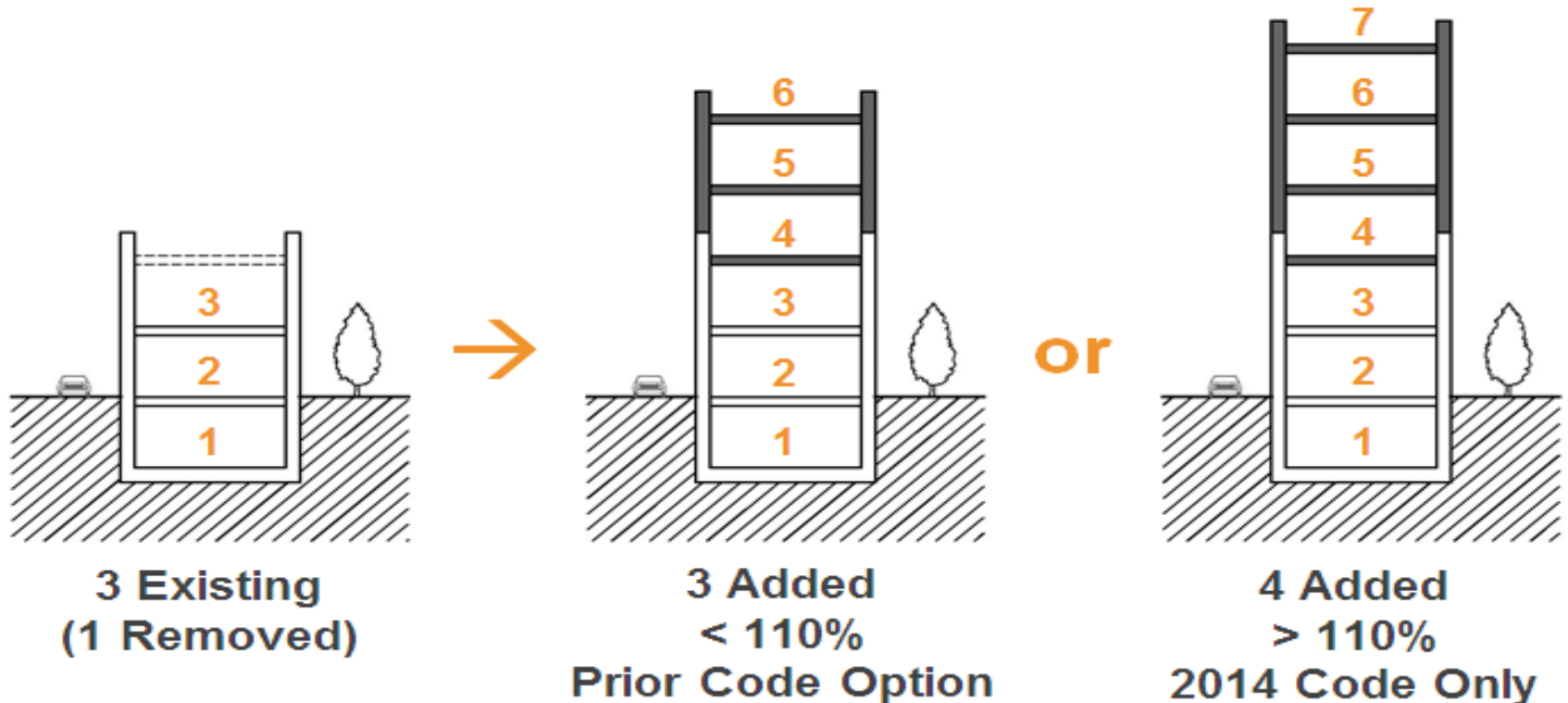
28-101.4.5



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Alterations to Existing Buildings

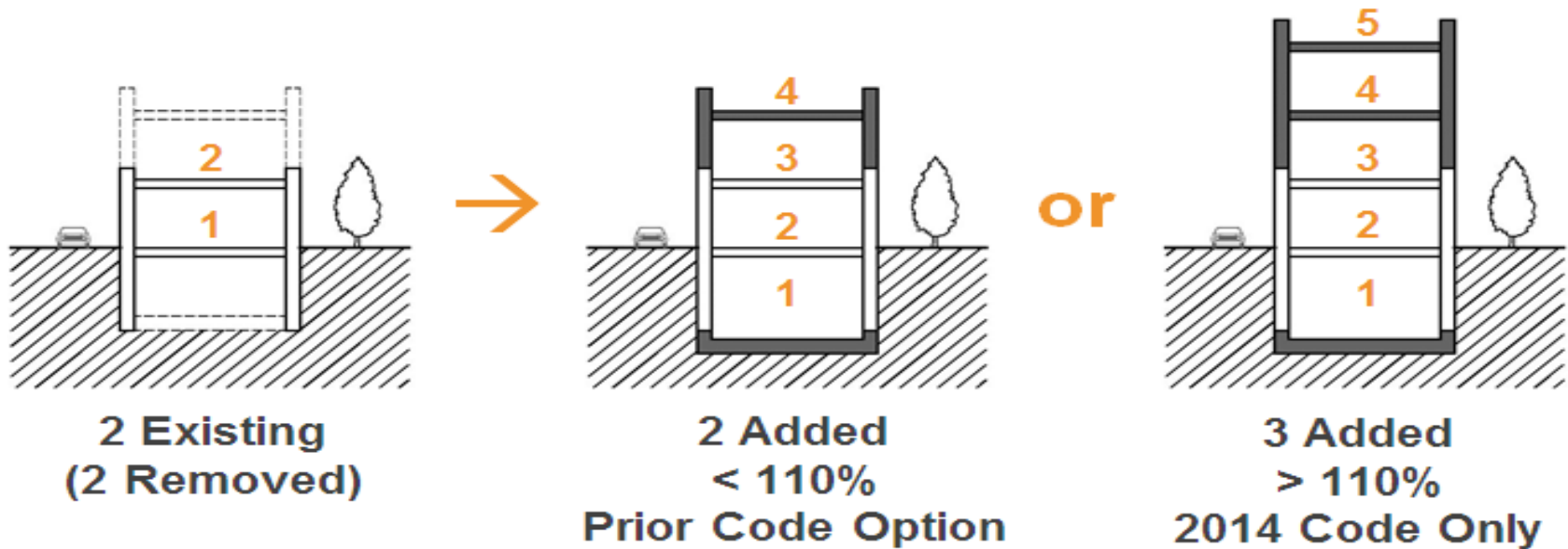
28-101.4.5



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Alterations to Existing Buildings

28-101.4.5



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Alterations to Existing Buildings



New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Alterations to Existing Buildings

28-101.4.3 - Optional use of Prior Codes:

1968 Building Code

1938 Building Code

Subject to 18 exceptions

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: 18 exceptions

1. Fuel gas, plumbing and mechanical work
2. Fire protection systems
3. Elevators, conveyors and amusement rides
4. Safety during construction operations

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Alterations to Existing Buildings Continued

28-101.4.3 – Optional use of 1968 (1938) Codes: 18 exceptions

5. Accessibility
6. Encroachments into the public right of way
7. Administration and enforcement
8. Special Inspections

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Alterations to Existing Buildings Continued

28-101.4.3 – Optional use of 1968 (1938) Codes: 18 exceptions

- 9. Materials
- 10. Security grilles
- 11. Energy efficiency
- 12. Roof coverings and replacements:
 - Re-roofing
 - Cool roofs
 - Green roofs

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Alterations to Existing Buildings Continued

28-101.4.3 – Optional use of 1968 (1938) Codes: 18 exceptions

- 13. Handrails
- 14. Guards
- 15. Areas of special flood hazard
- 16. Structural

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Alterations to Existing Buildings Continued

28-101.4.3 – Optional use of 1968 (1938) Codes: 18 exceptions

17. Emergency and standby power

18. Parking garages and open parking lots (LL 130/2013)

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: 18 exceptions

Most exceptions require new code for certain work.

Example:

4. Safety during construction operations.

Safety of public and property during construction operations including demolition shall be governed by chapter 33 of the New York City Building Code.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: 18 exceptions

Most exceptions require new code for certain work.

Another example:

14. Guards.

Where the alteration or repair of a building involves the addition or replacement of guards, such guards shall comply with sections 1013 and 1607.7 of the New York City Building Code.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes:

These exception refer you to “Special Provisions for Prior Code Buildings”:

Exception 1:	Plumbing	PC	102.4
	Fuel Gas	FGC	102.4
	Mechanical	MC	102.4
Exception 2:	Fire Protection	BC	901
Exception 3:	Elevators	BC	3001
Exception 5:	Accessibility	BC	1101
Exception 16:	Structural	BC	1601

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: Exception 1: Mechanical, Fuel Gas, Plumbing

1. Fuel gas, plumbing and mechanical work.

The installation of and work on all appliances, equipment and systems regulated by the New York city fuel gas code, the New York city plumbing code and the New York city mechanical code shall be governed by applicable provisions of those codes relating to new and existing installations.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: Exception 1: Mechanical, Fuel Gas, Plumbing

“applicable provisions” of those codes:

Mechanical:	MC	102.4
Fuel Gas:	FGC	102.4
Plumbing:	PC	102.4

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

> Example MC 102.4

102.4 Additions, alterations or repairs.

Additions, alterations, renovations or repairs to a mechanical system shall conform to requirements for a new mechanical system without requiring the existing mechanical system to comply with all of the requirements of this code. Additions, alterations or repairs shall not cause an existing mechanical system to become unsafe, hazardous or overloaded.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

> Example MC 102.4

102.4.1 Minor additions, alterations, renovations and repairs.

Minor additions, alterations, renovations and repairs to existing mechanical systems shall meet the provisions for new construction, unless such work is done in the same manner and arrangement as was in the existing system, is not hazardous and is approved.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

> Example MC 102.4

102.4.2 Special provisions for prior code buildings.

In addition to the requirements of Sections 102.4 and 102.4.1, the provisions of Sections 102.4.2.1 through 102.4.2.6 shall apply to prior code buildings.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes:

Exception 1: Mechanical, Fuel Gas, Plumbing

> Example MC 102.4

For prior Code buildings:

MC 102.4.2.1 Fire and smoke dampers

MC 102.4.2.2 Guards and access to roofs and elevated structures

MC 102.4.2.3 Vibration isolation for cooling towers

MC 102.4.2.4 Noncombustible fill for cooling towers

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: Exception 1: Mechanical, Fuel Gas, Plumbing

“applicable provisions” of those codes:

Mechanical:	MC	102.4
Fuel Gas:	FGC	102.4
Plumbing:	PC	102.4

New Effective Date for the 2014 NYC Construction Codes: December 31, 2014

Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: 18 exceptions

Exception 2: Fire Protection	BC	901
Exception 3: Elevators	BC	3001
Exception 5: Accessibility	BC	1101
Exception 16: Structural	BC	1601

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: Exception 2: Fire protection systems

BC 901.9 Special Provisions for Prior Code Buildings

Example:

901.9.3 Sprinkler and fire alarms requirements for enlargements.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: Exception 3: Elevators

BC 3001.11 Special Provisions for Prior Code Buildings

Example:

3001.11.1 New elevators in existing shafts.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: Exception 5: Accessibility

BC 1101.3 Special Provisions for Prior Code Buildings

Example:

1101.3.1 Accessibility requirements for changes of occupancy.

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Alterations to Existing Buildings

28-101.4.3 – Optional use of 1968 (1938) Codes: Exception 16: Structural

BC 1601.2 Special Provisions for Prior Code Buildings

Example:

1601.2 Seismic requirements for alterations.

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Highlights of 2014 Construction Codes

National Institute of Standards and Technology (NIST) WTC Report Recommendations

Exit stairs further apart in buildings > 75 feet

Protected fire service access elevators (FSAE) for buildings > 125 feet

Redundant sprinkler risers > 300 feet

Additional stair or occupant evacuation elevator for nonresidential buildings > 420 feet

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Highlights of 2014 Construction Codes

Wind and snow load requirements for temporary structures (tents, scaffolds, cranes, etc.)

Prohibition on ballasted roofs

Updated seismic requirements to ASCE 7-2010

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Highlights of 2014 Construction Codes

Micropiles, Helical Piles

Updated flood zone requirements for coastal A-zones

Certain mechanical equipment cannot be dry-floodproofed

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Highlights of 2014 Construction Codes

Required concrete formwork observations

Certification required for adhesive anchor installation

Establishes safety requirements for ambulatory surgery facilities

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Highlights of 2014 Construction Codes

Allows reinstallation of cornices in landmark districts without DOT approval

Balcony projections over sidewalk clarified with respect to railings

Marquees explicitly allowed for schools, office buildings

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Highlights of 2014 Construction Codes

Increases safety for high-pressure gas piping installations

Eliminates redundant smoke detector installations in ductwork

Harmonizes Building Code with DEP requirements for external mechanical equipment

Legally required standby power (natural gas) – LL 111/13

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Highlights of 2014 Construction Codes

Cantilevered buildings must have fire analysis

Tweaks to fire rating of structural members:

“Primary Structural Frame”

“Secondary Members”

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Highlights of 2014 Construction Codes

Re-categorize Limited Alteration Applications:

Category 1 – limited to \$35,000/year

Category 2 – no limit

Unused curb cuts must be removed

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Questions?

This concludes the American Institute of Architects Continuing Education Systems Course.

AIA Point of Contact:

Allison Ginsburg

AllisonGo@buildings.nyc.gov

212.393.2167

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