Overview: 2022 New York City Construction Codes

AIA Course #013443
June 29, 2022
12 – 2pm
Credits: 2 LUs | 2 HSWs

Presented By
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NYC Buildings

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QUESTIONS RELATED TO SPECIFIC MATERIALS, METHODS, AND SERVICES WILL BE ADDRESSED AT THE CONCLUSION OF THIS PRESENTATION.

Course Description

On November 7, 2021, Local Law 126 of 2021 was enacted to update the New York City Construction Codes (Administrative, Building, Mechanical, & Fuel Gas Codes) in accordance with more recent editions of the International Code Council's I-Codes, and becomes effective on November 7, 2022. This comprehensive revision to the Code incorporates the latest building technologies and contains major updates and changes intended to improve safety and further protect the health and welfare for New Yorkers. The 2022 Construction Codes will consist of enhancements to emergency response, fire protection, elevator safety, vertical transportation and accessibility, construction site safety, tenant protection, building system construction and inspection, sustainability, and resiliency. Participants in this course will get an overview of the code revision process and learn about several significant changes to the 2014 Construction Codes, including changes to construction documentation, architectural and structural requirements, provisions for building systems and fire protection ratings.

Learning Objectives

1. Participants will be able to describe the new requirements for emergency voice and alarm communication systems that improve health, safety and welfare of building occupants.

2. Participants will discuss several changes made to accessibility requirements in new buildings and alterations to existing buildings, including drinking fountain locations, destination-oriented elevators, and accessible routes.

Learning Objectives

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USE OF THIS PRESENTATION

LEGAL DISCLAIMER:

THIS PRESENTATION AND ANY ASSOCIATED HANDOUT SHOULD NOT BE USED AS SUBSTITUTES FOR CODES AND REGULATIONS. FOR SPECIFIC REQUIREMENTS, PLEASE REFER TO THE RELEVANT LAWS AND CODE PROVISIONS.

AGENDA:

- TIMELINE & EFFECTIVE DATE
- SELECT HIGHLIGHTS FROM:
  - ADMINISTRATIVE CODE
  - Building Code
  - Plumbing Code
  - Mechanical Code
  - Fuel Gas Code

AGENDA:

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Code Revision Timeline

- Committee work began: July 2017
- Committee work completed: December 2020
- Introduction at City Council: April 2021
- City Council Approval: October 2021
- Enactment: November 7, 2021

Effective Date

For all applications for construction document approval filed on or after

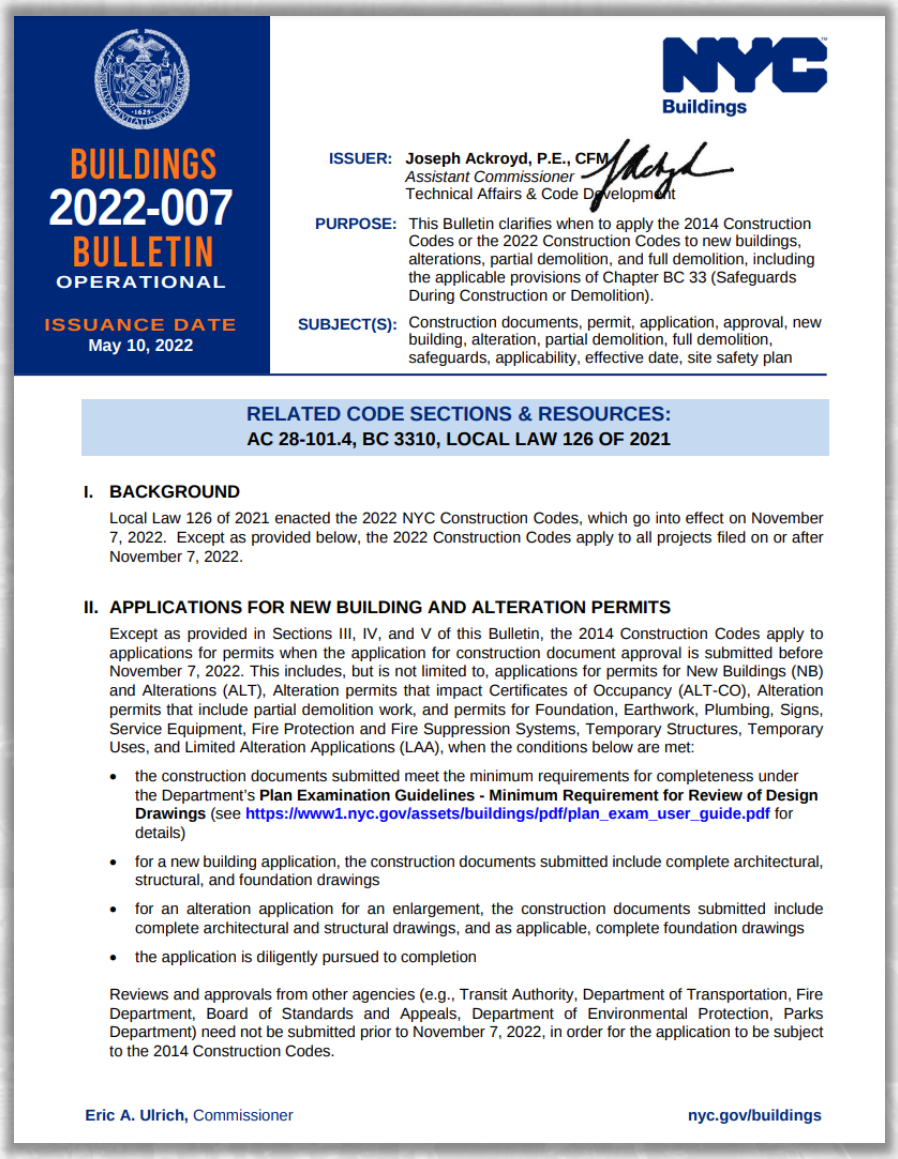
November 7, 2022, *except*:

Amendments to the following sections or articles in the General Administrative Provisions took effect on **January 1, 2022**:

- Section 28-401.11 Term of License
- Article 421 Elevator Agency Director License
- Article 422 Elevator Agency Inspector License
- Article 425 Elevator Agency Technician License
- Article 303 Periodic Boiler Inspections
- Article 304 Elevators and Conveying Systems; and
- Article 323 Periodic Inspection of Parking Structures

Effective Date

- New Buildings
- Alterations
- Construction Safety
- Full Demolition
- Temporary Installations
  - Sidewalk Sheds
  - Fences
  - Scaffolds
  - Cranes
  - Derricks
  - Mast Climbers



BUILDINGS
2022-007
BULLETIN
OPERATIONAL

ISSUANCE DATE
May 10, 2022

NYC Buildings

ISSUER: **Joseph Ackroyd, P.E., CFM**
Assistant Commissioner
Technical Affairs & Code Development

PURPOSE: This Bulletin clarifies when to apply the 2014 Construction Codes or the 2022 Construction Codes to new buildings, alterations, partial demolition, and full demolition, including the applicable provisions of Chapter BC 33 (Safeguards During Construction or Demolition).

SUBJECT(S): Construction documents, permit, application, approval, new building, alteration, partial demolition, full demolition, safeguards, applicability, effective date, site safety plan

RELATED CODE SECTIONS & RESOURCES:
AC 28-101.4, BC 3310, LOCAL LAW 126 OF 2021

I. BACKGROUND

Local Law 126 of 2021 enacted the 2022 NYC Construction Codes, which go into effect on November 7, 2022. Except as provided below, the 2022 Construction Codes apply to all projects filed on or after November 7, 2022.

II. APPLICATIONS FOR NEW BUILDING AND ALTERATION PERMITS

Except as provided in Sections III, IV, and V of this Bulletin, the 2014 Construction Codes apply to applications for permits when the application for construction document approval is submitted before November 7, 2022. This includes, but is not limited to, applications for permits for New Buildings (NB) and Alterations (ALT), Alteration permits that impact Certificates of Occupancy (ALT-CO), Alteration permits that include partial demolition work, and permits for Foundation, Earthwork, Plumbing, Signs, Service Equipment, Fire Protection and Fire Suppression Systems, Temporary Structures, Temporary Uses, and Limited Alteration Applications (LAA), when the conditions below are met:

- the construction documents submitted meet the minimum requirements for completeness under the Department's **Plan Examination Guidelines - Minimum Requirement for Review of Design Drawings** (see **https://www1.nyc.gov/assets/buildings/pdf/plan_exam_user_guide.pdf** for details)
- for a new building application, the construction documents submitted include complete architectural, structural, and foundation drawings
- for an alteration application for an enlargement, the construction documents submitted include complete architectural and structural drawings, and as applicable, complete foundation drawings
- the application is diligently pursued to completion

Reviews and approvals from other agencies (e.g., Transit Authority, Department of Transportation, Fire Department, Board of Standards and Appeals, Department of Environmental Protection, Parks Department) need not be submitted prior to November 7, 2022, in order for the application to be subject to the 2014 Construction Codes.

Eric A. Ulrich, Commissioner

nyc.gov/buildings

AGENDA:

- TIMELINE & EFFECTIVE DATE
- SELECT HIGHLIGHTS FROM:
  - ADMINISTRATIVE CODE
  - Building Code
  - Plumbing Code
  - Mechanical Code
  - Fuel Gas Code

28-101.3	Codes
28-104.2.3	Application Time Limit
28-104.13	Chimney & Vent Alterations
28-105.5.2	Applications for Occupied Buildings
28-116.2.4.2	Final Inspection Prior to LOC
28-118.23	Ext, Alt or Relocation of Chimneys
28-324.1	Periodic Inspection of Dry Floodproofing
28-324.3	Triennial Full-Scale Deployment

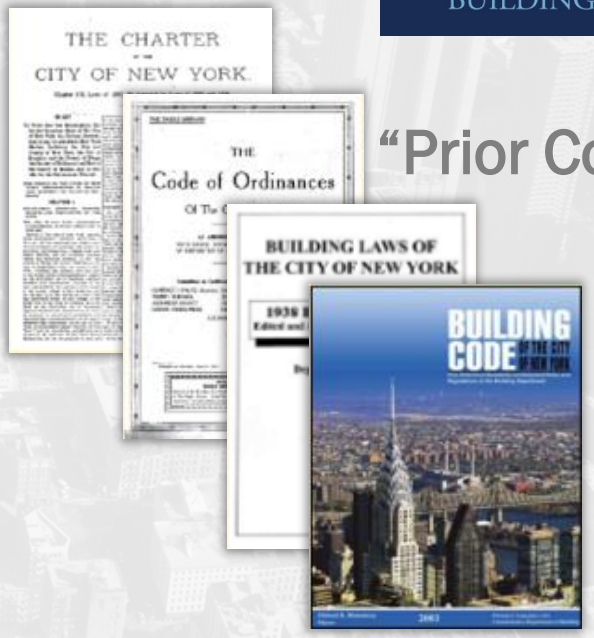
Admin Code: CODES

AC § 28-101.3

Any reference in this title to “this code” or “the code” shall be deemed to be a reference to this title and all of the codes comprising the New York city construction codes unless the context or subject matter requires otherwise. Whenever a section or subsection of this code is cited or referred to, subordinate consecutively numbered sections and subsections of the cited provision are deemed to be included in such reference unless the context or subject matter requires otherwise.

“This Code”

“Prior Code”



Admin Code: APPLICATION TIME LIMIT

AC § 28-104.2.3

An application for approval of construction documents shall be deemed to have been abandoned 12 months after the date of its submission,...

Exception: Where, subsequent to the filing of an application, the department determines that such application is incomplete and the department has notified the applicant that the application is incomplete, the commissioner may deem such application abandoned after 90 days from the date of such notification.

Admin Code: CHIMNEY / VENT ALTERATIONS

AC § 28-104.13

Where an owner of a new or altered taller building is required by section 2113 of the New York city building code, section 801 of the New York city mechanical code or section 501 of the New York city fuel gas code to extend, alter or relocate an existing chimney or vent on an affected building, such work shall be filed under a separate application for the affected building.

Admin Code: APPLICATIONS FOR OCCUPIED BUILDINGS

AC § 28-105.5.2

All applications for permits for work on a building having more than three dwelling units shall state

(i) the total number of units in the building at the time the application is filed,

(ii) the number of units occupied at the time the application is filed, and

(iii) the number of units to be occupied during the course of the work. The work permit application shall be amended prior to occupancy of any units that were not initially counted as being occupied during the course of the work.

Admin Code: FINAL INSPECTION PRIOR TO LOC (LETTER OF COMPLETION)

AC § 28-116.2.4.2

In all cases where the permitted work does not require the issuance of a certificate of occupancy, the final inspection shall be performed by an approved agency on behalf of the owner or by the department as directed by the commissioner.

> **Exception:** Final inspection shall be performed by the department for permitted work in R-2 occupancies if the building is listed on the department of housing preservation and development's website pursuant to paragraph 6 of subdivision m of section 27-2115 of the administrative code. The department shall charge a fee for such inspection.

Admin Code: FINAL INSPECTION PRIOR TO LOC

NYC Buildings

NYC Buildings Department
280 Broadway, New York, NY 10007

Rick D. Chandler, P.E., Commissioner

BUILDINGS BULLETIN 2018-008
Operational

Supersedes: None

Issuer: Gus Sirakis, P.E.
Assistant Commissioner for Technical Affairs and Code Development

Issuance Date: July 11, 2018

Effective Date: August 9, 2018

Purpose: This document mandates final inspection of certain work types by a registered design professional on projects not requiring new or modified certificates of occupancy.

Section(s): AC 28-114 1RCNY 101-07
AC 28-116 Dir. 14-1975
BC 110.5

Subject(s): Final inspection; Progress inspection; Registered design professional; Approved agencies; Alterations; Permit filing; Work types; DOB NOW

Description

This bulletin requires registered design professionals to perform final inspections of certain applications for work that does not require a new or amended certificate of occupancy, including applications associated with a new building application for work including but not limited to support of excavation, structural work, and mechanical work.

Background

In accordance with AC 28-116.1, it is the permit holder's duty to ensure the work remains accessible and exposed for inspection purposes. The permit holder is liable for any expense entailed in removing or replacing any material required to allow inspection. Under the requirements of AC 28-116.2.4.2, the Department allows registered design professionals, acting as approved agencies in accordance with AC 28-114, the option of performing the final inspection of certain types of work as a progress inspection (See BC 110.5). To perform such inspections, the registered design professionals are required to indicate their intent to take responsibility for the final inspections in box 5A of the PW1 Work Application, subject to auditing by NYCDOB, and in section 4A of the TR1 form, or as identified in DOB NOW.

It is common for work performed earlier in the course of construction to become inaccessible prior to final inspection for the entire project. Therefore, a request for the performance of final inspection by the Department at the conclusion of the project may not be sufficient for determining compliance of completed work with contract documents without requiring removal or replacement of newly installed materials to allow for the inspection. A registered design professional's coordination and performance of final inspection allows consideration of project phasing and schedule, and will alleviate the risk of completed work being inaccessible for final inspection.

Final Inspection Requirements:

In accordance with the above referenced code sections, applications filed on or after the effective date of this Bulletin that do not require issuance of a (new or amended) Certificate of Occupancy require final inspections by registered design professionals for the individual work types as listed below. At his or her discretion, the registered design professional may rely upon the completed reports of special inspection agencies in support of this obligation.

BIS Work Type		DOB NOW Work Type*		Final Inspection by	
				Registered Design Professional	Department of Buildings
OT/ANT	**Antenna****	AN	**Antenna**	X	
BL	**Boiler**	BL	**Boiler**		X
OT/BPP	**Builders Pavement Plan*****	BPP	**Builders Pavement Plan**		X
EQ	**Chutes**		**Protection and Mechanical Methods**	X	
EQ	**Cocoons**		**Protection and Mechanical Methods**	X	
EQ	**Construction Hoists (Material Hoists / Personnel Hoists)**		**Protection and Mechanical Methods**	X	
CC	**Curb Cut**	CC	**Curb Cut**		X
	Demolition		**Demolition**		X
FO/ EA	**Earthwork** Excavation Landscape Sitework (grading, septic, backfill, waterproofing) Soil Grouting/Improvement Rock/Soil Anchors		**Earthwork**	X	
	Electrical		**Electrical**		X
ELV	**Elevators**		**Elevators**		X

* **DOB NOW** work types shall be effective upon applicable launch date

** **Antenna** work filings must be filed through DOB NOW. BIS filings no longer accepted.

*** Builders Pavement Plan (**BPP**) applications that are currently filed through BIS are not required to be filed or reviewed under D14 and do not require a final inspection to be indicated or performed by a registered design professional.

**** Fire Alarm systems shall be inspected by the Fire Department.

***** Fire Protection Plans (**FPP**) shall not require a final inspection by the Registered Design Professional.

****** General Construction which does not result in a new or amended Certificate of Occupancy.

Admin Code: EXT, ALT OR RELOC OF CHIMNEYS & VENTS

AC § 28-118.23

No certificate of occupancy shall be issued until all chimneys and vents required to be extended, altered or relocated by section 2113 of the New York city building code, section 801 of the New York city mechanical code or section 501 of the New York city fuel gas code have been so modified.

Exceptions:

1. A certificate of occupancy may be issued to the new or altered taller building where access is granted and conditions are observed that result in a determination that chimney or vent alteration is not required and a revised chimney or vent plan is submitted pursuant to section 107.18 of the New York city
2. A certification of occupancy…

Admin Code: EXT, ALT OR RELOC OF CHIMNEYS & VENTS

AC § 28-118.23

Exceptions:

1. A certificate of occupancy....
2. A certificate of occupancy may be issued to the new or altered taller building where one or more of the chimneys or vents requiring alteration has not been altered or proven to comply with the applicable requirements of the New York city fuel gas code or New York city mechanical code as required when the following conditions have been met:
   - 2.1. The owners of the affected buildings have provided their refusal of consent in writing, or the owner of the affected buildings failed to grant consent after the owner of the new or altered taller building has made all the required notifications to the affected building owners; and
   - 2.2. The owner of the new or taller building demonstrates to the department in the form of a written statement from a registered design professional that there is no hazard to the occupancy in whole or in part of the new or altered building from the continued operation of the chimneys or vents in question.

Admin Code: PERIODIC INSP – DRY FLOODPROOFING

AC § 28-324.1

This article shall apply to covered buildings and structures as described in 28-324.1.1 of this code permitted on or after the effective date of the local law that added this article that are required to comply with the dry floodproofing requirements of appendix G of the New York city building code and that require human intervention to activate or implement the dry floodproofing systems prior to a flood event.

§ 28-324.1.1 Covered buildings and structures. Such buildings or structures include:

1. new construction;
2. substantial improvements;
3. such portions of buildings or structures that are horizontal enlargements.

Admin Code: PERIODIC INSP – DRY FLOODPROOFING

AC § 28-324.1.2

Covered… systems include any dry floodproofing system where human intervention is required to implement any measure, including the installation of shields, equipment, temporary stairs and platforms, hardware, signage, fixed flood-resistant glazing systems or similar components…

§ 28-324.2 Annual inspection of covered dry floodproofing system. An annual inspection of the covered dry floodproofing system shall be conducted by a person designated by the building owner.

§ 28-324.2.1 Scope of annual inspection. The annual inspection shall include, at a minimum, visual confirmation that all covered systems are in their stored locations and ready for deployment, and that any gaskets do not appear damaged or brittle.

§ 28-324.2.2 Records. Such inspection shall be documented and such documentation shall be maintained on the premises and provided to the department upon request.

Admin Code: TRIENNIAL FULL-SCALE DEPLOYMENT

AC § 28-324.3

A full-scale deployment inspection initiated by the owner shall be conducted every three years in the presence of a special inspection agency that is qualified to perform flood zone compliance special inspections.

§ 28-324.3.1 Scope of inspection. The special inspector shall observe, inspect and document the components in their deployed state. Any defects shall be noted. The special inspector shall also review all annual inspection documentation for the preceding 3 years to confirm its completeness.

§ 28-324.3.2 Notification. Prior to…inspection, the owner shall notify the department and the fire department… Such notification shall not relieve…the obligation to comply with any…requirement of the New York city department of transportation or the New York state department of transportation.

§ 28-324.3.3 Reports. The owner shall submit a written report…by the special inspection agency…within 60 days… The report shall clearly document the condition of the dry floodproofing system and related egress components…and shall include a record of all defects, including any significant deterioration, unsafe conditions and missing or defective components and outline any corrective action necessary to address such defects. Such report shall be submitted to the dept…

§ 28-324.3.4 Repair. All defects as found in such inspection shall be documented, noted in inspection reports, and corrected… An affirmation of correction shall be filed by the owner within 60 days of the date of correction.

AGENDA:

- EFFECTIVE DATE OF THE CODE
- SELECT HIGHLIGHTS FROM:
  - ADMINISTRATIVE CODE
  - **Building Code**
  - Plumbing Code
  - Mechanical Code
  - Fuel Gas Code

107.18	Construction Documents: Exist. Chimneys
202	Atrium & Assembly Definitions
311.1.1	Accessory Storage
403.4.8.4.3	ARCs Secondary Power Supply
421	Hydrogen Gas Rooms
508.3.3	Fire Separations
713.12.1	Elevator Smoke Venting
903.2.1.6	Assembly on Roofs
905.3.8	Rooftop Gardens
905.4	Location of Hose Connections
907.5.2.2	Emergency Voice
916	Auxiliary Radio Communication Systems
1004.1.1.2	Egress Occupant Load
1028.1.1	Fire Department Exit Access
1029.1.1	Bleachers
1029.7	Travel Distance
1029.9.5	Dead End Aisles
1029.13.3	Aisle Illumination
1029.14	Seat Stability
1101.3.1	Accessible Route
1101.4	Primary Function Area
1106.8.1	Accessible Charging Stations
1108.2.9	Accessible Dining
1109.7.2	Destination-Oriented Elevators
1401	Combustible Exterior Walls
1705.5.6	Special Inspection: Type IV Construction
1705.16	Special Inspection: EIFS
1705.25	Special Inspection: Structural Stability
1705.26	Special Inspection: Tenant Protection
1705.32.1	Special Inspection: Chimneys
3003.3.1	Fire Service Access Elevators
3005	Machine Room-Less Elevators
3202.1.6	Insulation
3202.2.5	Exterior Wall Covering

Building Code: CONST DOCS…EXIST CHIMNEY OR VENT

BC 107.18

Where an owner of a new or altered taller building is required by Section 801 of the New York City Mechanical Code, Section 501 of the New York City Fuel Gas Code, or Section 2113 of this code, to extend, alter or relocate an existing chimney or vent on an affected building, the construction documents for the new or altered taller building shall comply with the requirements of Section 107.18.1 of this code.

107.18.1 Chimney and vent plan. At the time of initial filing for construction, a chimney and vent plan shall be included as part of the construction documents. Such chimney and vent plan shall include the following information for all chimneys and vents within 100 feet (30 480 mm) of construction:

Building Code: CHIMNEY AND VENT PLAN

BC 107.18.1

1. A drawing identifying the location of each existing chimney and vent.

2. A chimney and vent schedule containing the following information for each chimney and vent:

   2.1. The cross-sectional area of the chimney or vent outlet.

   2.2. The horizontal distance measured from the adjacent construction to the outlet.

   2.3. The elevation of the outlet.

   2.4. The appliance, mechanical system, or fireplace to which the chimney or vent is attached, including the flue gas temperature, or a notation that this information is not yet known.

   2.5. If extension, alteration, or relocation is required and describing the expected work.

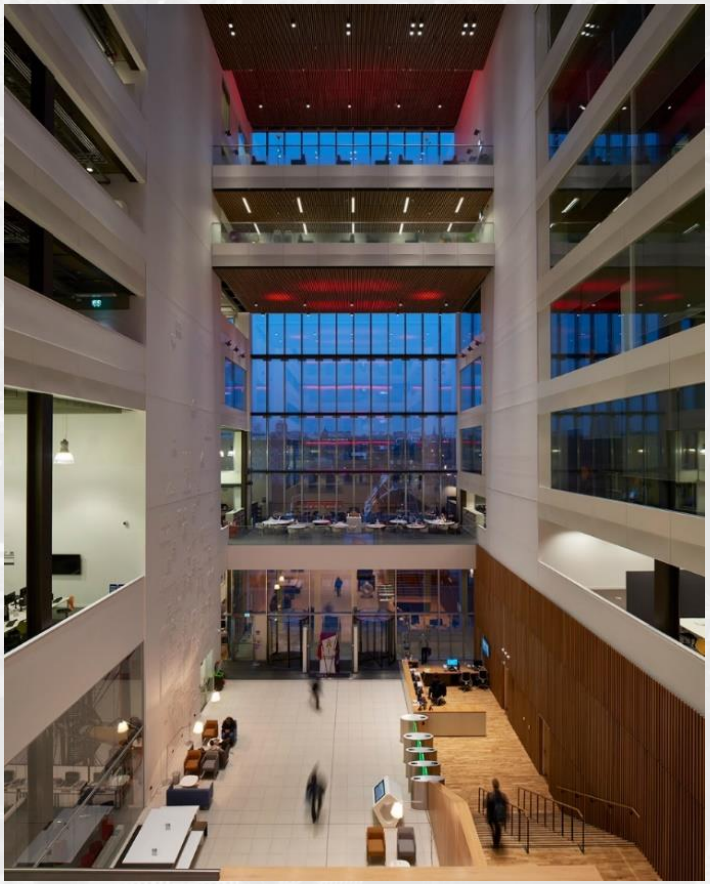
3. Calculations demonstrating which chimneys and vents require no alteration based on the termination requirements... found in Section 503.5.4 of the New York City Fuel Gas Code and Section 801.20 of the New York City Mechanical Code.

Building Code: ATRIUM DEFINITION

BC 202

ATRIUM.

- An opening connecting two or more stories other than enclosed stairways, elevators, hoistways, escalators, plumbing, electrical, air-conditioning or any other vertical openings that are not required to be enclosed by other provisions of this code, which is closed at the top and not defined as a mall. Stories, as used in this definition, do not include balconies within assembly groups or mezzanines that comply with Section 505.



Source: https://www.behance.net/gallery/50769867/City-of-Glasgow-College-Riverside-Campus

Building Code: ASSEMBLY DEFINITIONS

BC 202

ASSEMBLY SPACE.
Any part of a place of assembly, exclusive of the stage, that is occupied by numbers of persons during the major period of occupancy. Every tier of seating shall be considered a separate assembly space.

Source: https://litelab.com/projects/museums/the-shed-hudson-yards

PLACE OF ASSEMBLY.
A building, structure, or portion thereof, excluding a dwelling unit, but including outdoor spaces, used or intended to be used for the gathering of a group of persons for purposes such as civic, social, or religious functions, recreation, food or drink consumption, educational or instructional purposes, awaiting transportation, or similar group activities when such use requires a place of assembly Certificate of Operation pursuant to Section 303.7.

Building Code: ASSEMBLY TERMINOLOGY

BC 1029 - examples

1029.1.2 Place of assembly Certificate of Operation. A certificate of Operation shall be required for a place of assembly in accordance with Section 303.7. It shall be unlawful to occupy any building or space as a place of assembly unless and until a Certificate of Operation therefore has been issued by the department pursuant to the provisions of Chapter 1 of Title 28 of the Administrative Code.

1029.1.3 Posted capacity sign. Signs shall be posted in all assembly spaces, indicating the number of persons who may legally occupy the space. Every room or space in such places of assembly shall have the occupant load of the room or space posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent design in accordance with Section 1029.1.4, and shall be maintained by the owner or the owner's authorized agent.

Building Code: ACCESSORY STORAGE

BC 311.1.1

- A room or space used for storage purposes that is less than 100 square feet (9.3 m2) in area and accessory to another occupancy shall be classified as part of that occupancy. The aggregate area of such rooms or spaces shall not exceed the allowable area limits of Section 508.2.3.
- Aggregate of all such rooms and other accessory spaces must still be 10% or less of floor area of the story on which it's located and must still not exceed area limits for non-sprinklered buildings (BC 508.2.3 and Table 506.2).

SOURCE:
https://commons.wikimedia.org/wiki/File:Archaeology_storage_room,_Heritage_Conservation_Centre,_Singapore_-_20141125-01.jpg

Building Code: ALARM SYSTEMS

BC 4 & 9

- Addition of an allowance for buildings 125 feet or less in height to use batteries as the secondary power supply for emergency voice communications systems and Fire Department in-building Auxiliary Radio Communication systems (ARCs).

SOURCE: https://www.vectorsolutions.com/course-details/basic-emergency-power-systems/aca1f0b9-7c6d-ea11-a9e3-edf83207be0f/

Building Code: ALARM SYSTEMS

BC 403.4.8.4.3

- **Emergency power loads in Group R-2 occupancies 125 feet or less in height.** Group R-2 occupancies in buildings 125 feet (38 100 mm) or less in height shall be required to provide an emergency power system to support the following loads:

  1. Emergency voice communications systems in buildings containing Group R-2 occupancies in accordance with Section 907.5.2.2 of this code, or where otherwise provided. Batteries in accordance with the *New York City Electrical Code* are permitted to serve as the secondary power supply for such systems.

  2. Fire Department in-building Auxiliary Radio Communication systems (ARCs) in buildings containing Group R-2 occupancies in accordance with Section 916.3 of this code, or where otherwise provided. Batteries in accordance with the *New York City Electrical Code* are permitted to serve as the secondary power supply for such systems.

SOURCE: https://www.vectorsolutions.com/course-details/basic-emergency-power-systems/aca1f0b9-7c6d-ea11-a9e3-edf83207be0f/

Building Code: HYDROGREN GAS ROOMS

BC 421

- New provisions specifically designed to discuss hydrogen fuel gas room have been introduced and contain the following content:
  - Storage
  - Location
  - Design and construction
  - Exhaust ventilation
  - Gas detection system
  - Explosion control
  - Emergency power

SOURCE: https://www.thegreenage.co.uk/tech/hydrogen-storage/

Building Code: SEPARATION

BC 508.3.3

- No separation is required between nonseparated occupancies.

  Exceptions:

  1...
  2...
  3. Commercial kitchens shall be separated in accordance with Section 508.1, Exception 5.

- Commercial kitchens classified as Group F-2 need not be separated by fire separations from adjoining dining spaces, provided:

  5.1. The cooking equipment is vented directly to the outdoors;
  5.2. A draft curtain of noncombustible material, at least 24 inches (609 mm) down from the ceiling, is provided to separate the opening between the cooking facilities and the dining spaces; and
  5.3. A fire protection system is installed and located as set forth in Item 5.3.1 or 5.3.2.

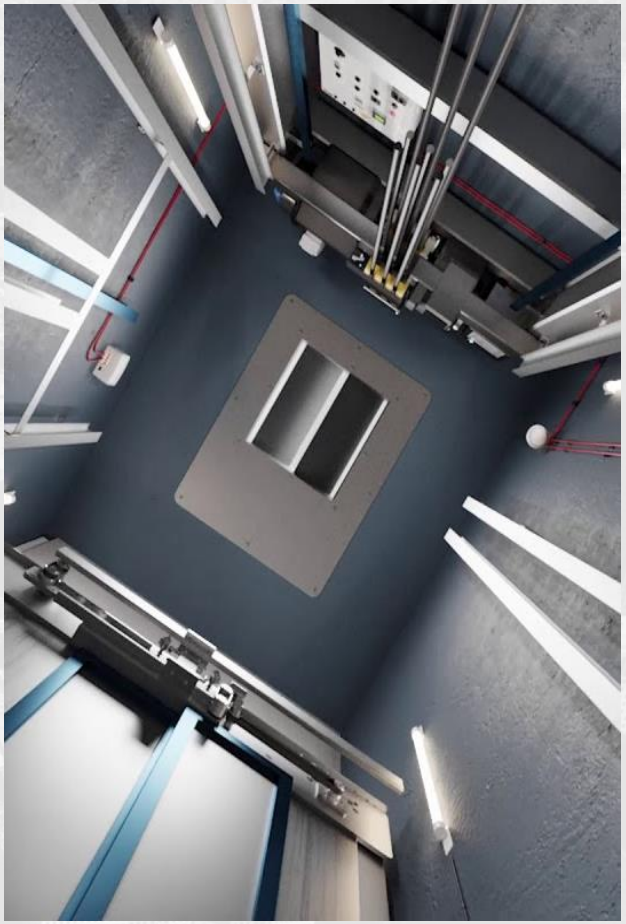
Building Code: ELEVATOR SMOKE VENTING

BC 713.12.1

- **Smoke venting of stair and other closed shafts.** All closed shafts, including vertical exit enclosures, having a floor area exceeding 4 square feet (0.37 m^2) shall be provided with a smoke vent in accordance with Sections 713.12.1.1 through 713.12.1.3. Interior vertical exit shaft enclosures shall also comply with Chapter 10.

  Exceptions:

  1. Elevator and dumbwaiter shafts in accordance with Chapter 30.
  2. Interior exit stairways and ramps constructed as smokeproof enclosures in accordance with Section 1023.11.



SOURCE: https://www.youtube.com/watch?v=tNjU5aworX4

Building Code: ASSEMBLY OCCUPANCIES ON ROOFS

BC 903.2.1.6

- Where an occupied roof has an assembly occupancy with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies, all floors between the occupied roof and the level of exit discharge shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
- **Exception:** Open parking garages of Type I or Type II construction.

SOURCE: https://www.metmuseum.org

Building Code: ROOFTOP GARDENS..AND GREEN ROOFS

BC 905.3.8

- Buildings with a rooftop garden, landscaped roof, green roof, or roof used for any purpose other than weather protection or maintenance that are equipped with a standpipe system shall extend the standpipe system to the roof level on which the rooftop garden, landscaped roof, green roof, or roof used for any purpose other than weather protection or maintenance is located.

SOURCE: https://www.nycgovparks.org/greening/sustainable-parks/green-roofs

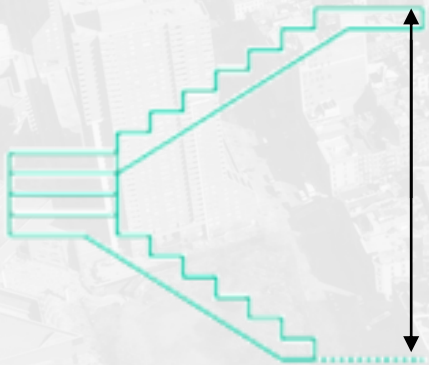
Building Code: LOCATION OF… HOSE CONNECTIONS

BC 905.4

- Class I standpipe hose connections shall be provided in all of the following locations:

  …

  7. In any staircase where the change in elevation between floor landings is more than 25 feet (7620 mm), in addition to the hose connections required by Item 1, a hose connection shall be installed at the first intermediate stair landing below the higher floor level.



Source: dimensions.com

elevation between floors > 25 feet (7620 mm)

SOURCE: https://www.nfpa.org

Building Code: ALARM SYSTEMS

BC 9

- Expand the universe of buildings that require emergency voice communication systems:
  - Group R-2 occupancies (residential buildings with more than two dwelling units) 75 feet in height.
  - Group E occupancies with occupant loads greater than 100
- Addition of an allowance for Group R-2 occupancies in buildings 125 feet or less in height to use batteries as the secondary power supply for emergency voice communications systems and Fire Department in-building Auxiliary Radio Communication systems (ARCs). This change requires the coordinated changes made to the provisions of BC 907.5.2.2, BC 916.3 and Section 760.41(B) of the NYC Electrical Code. (403.4.8.4)

SOURCE: https://www.csemag.com/articles/fire-alarm-and-ecs-voice-amplifiers/

Building Code: EMERGENCY VOICE/ALARM SYSTEMS

BC 907.5.2.2

- Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. ..

Exceptions:

1. **Group I-1 and I-2 occupancies.**

[~~3.~~] 2. **Group R-2 occupancies greater than [~~125 feet~~] 75 feet (22 860 mm) in height.** In Group R-2 occupied buildings greater than [~~125 feet (33 100 mm)~~] 75 feet (22 860 mm) in height above the lowest level of Fire Department vehicle access, ...An emergency voice/alarm communication system shall not be required. However, a one-way voice communication shall be provided between the fire command center for use by Fire Department personnel and the following terminal areas:

[~~3.1.~~] 2.1. Within dwelling units...

[~~3.2.~~] 2.2. Within required exit stairs...

SOURCE: https://www.csemag.com/articles/fire-alarm-and-ecs-voice-amplifiers/

Building Code: ALARM SYSTEMS

BC 916

- Increase safety by promoting the use of the Fire Department endorsed Auxiliary Radio Communication System (ARCS). ARCS is a wireless, two-way building communication system for Fire Department use only. This system only receives and transmits Fire Department radio frequencies within buildings where it is installed.

SOURCE: https://asmintegrators.com/arcs-system-nyc/

Building Code: ALARM SYSTEMS

BC 916

- **916.1 General.** This section covers the design, installation and performance criteria of Fire Department In-Building Auxiliary Radio Communication System (ARCS)…
  - **916.1.1 Construction documents.**
- **916.2 Instructions.**
- **916.3 Where required.** ARCS, which shall be in accordance with this section, shall be required in the following:
  1. High-rise buildings constructed in accordance with Section 403.
  2. Underground buildings constructed in accordance with Section 405.
  3. Buildings having a total gross area exceeding 250,000 square feet (23 225.8 m^2).

     Exceptions:

     1. Group R-2 buildings
        a. The highest occupied floor is less than 125 feet; The building has no more than 1 story below grade; and area of the building does not exceed 250,000 square feet.

SOURCE: https://asmintegrators.com/arcs-system-nyc/

Building Code: EGRESS OCCUPANT LOAD

BC 1004.1.1.2

- **Cumulative occupant loads in Group R-2 occupancies.** Rooms, areas or spaces that are accessory to a Group R-2 occupancy and that comply with the conditions below may have occupant loads calculated individually per room, area, or space, and be classified as Occupancy Group R-2.
  - **1004.1.1.2.1 Maximum occupant load per room.** The occupant load in each individual room, area and space…shall not exceed 74 persons.
  - **1004.1.1.2.2 Separated rooms.** Each individual room, area and space shall be separated from others by minimum 1-hour fire-resistance-rated fire barriers…
  - **1004.1.1.2.3 Group R-2 accessory spaces as primary function on a story.**

Building Code: EGRESS OCCUPANT LOAD

BC 1004.1.1.2

- 1004.1.1.2.3 Group R-2 accessory spaces as primary function on a story. Where the aggregate Group R-2 occupancy accessory area of all rooms, areas or spaces ...exceed 50 percent of the building area of the story in which they are located, and the total number of occupants on such story exceeds 150 persons, the following conditions shall apply:
  - 1. ...interior corridors... shall be...in accordance with Table 1020.1.2 with 1-hour fire-resistance-rated fire barriers, and 2-hour fire-resistance-rated fire barriers where a dead-end corridor exceeds 40 feet in length;
  - 2. Access to the corridors shall be limited to those necessary for exit access through the corridor from normally occupied spaces. Direct openings from the mechanical, electrical and other storage spaces shall not be permitted, except...through a vestibule constructed with fire barriers...
  - 3. Corridors or portions thereof serving such accessory spaces shall be sufficient to accommodate a total occupant load on the basis of 3 square feet per person;
  - 4. The minimum dimension of such corridors shall be sufficient to accommodate the total occupant load discharging into such corridors...; and

Building Code: EGRESS OCCUPANT LOAD

BC 1004.1.1.2

- 1004.1.1.2.3 Group R-2 accessory spaces as primary function on a story.
- 5. In addition to Conditions 1 through 4 above, one of the following conditions shall be met:
  - 5.1 Each of the interior exit stairways and ramps serving such story shall be protected by a smokeproof enclosure in accordance with Section 909.20;
  - 5.2 The corridor or portions of the corridor serving the rooms, areas or spaces that are accessory to the Group R-2 occupancy shall be pressurized in accordance with requirements that are applicable to interior exit stairways. Connecting interior exit stairways need not be pressurized unless otherwise required by this code;
  - 5.3 All passenger elevators serving the rooms, areas, or spaces that are accessory to the Group R-2 occupancy shall comply with occupant self-evacuation elevator requirements in Section 3008.1 through 3008.11; or
  - 5.4 One additional exit stairway meeting the requirements of Sections 1009 and 1023 shall be provided in addition to the minimum number of exits required by Section 1006. The total width of any combination of remaining exit stairways... shall not be less than the total width required by Section 1005.3.

Building Code: FIRE DEPARTMENT EXIT ACCESS

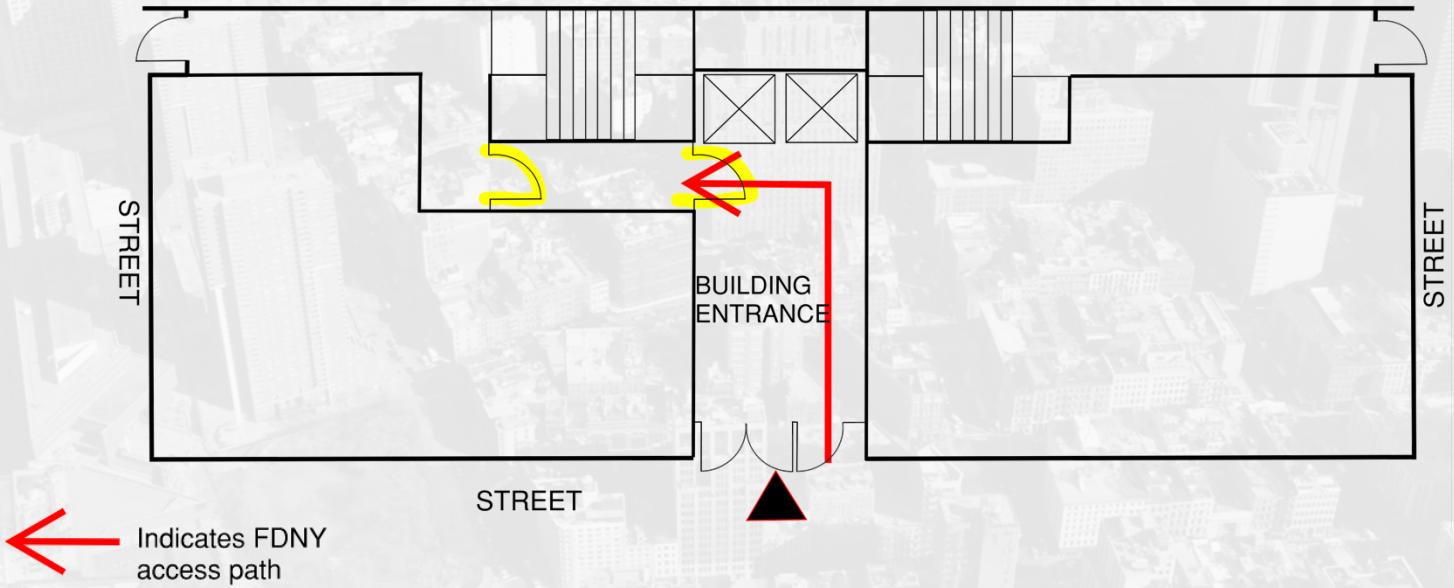
BC 1028.1.1

- **Fire Department access.** Where Exception 1 or 2 to Section 1028.1 is not applied, not less than one exit that discharges directly to the exterior shall be accessible to the Fire Department:
  - 1. Through an exit access door directly from the building entrance. Such exit access door shall only be used by the Fire Department and shall not be used as an exit. Signage indicating "No Exit. FDNY Access Only" shall be posted on both sides of the exit access door; or
  - 2. Within a maximum of 100 feet (30 480 mm) from the building entrance. Such distance shall be measured along a natural and unobstructed path between the nearest points of the exit doors.

Building Code: FIRE DEPARTMENT EXIT ACCESS

BC 1028.1.1

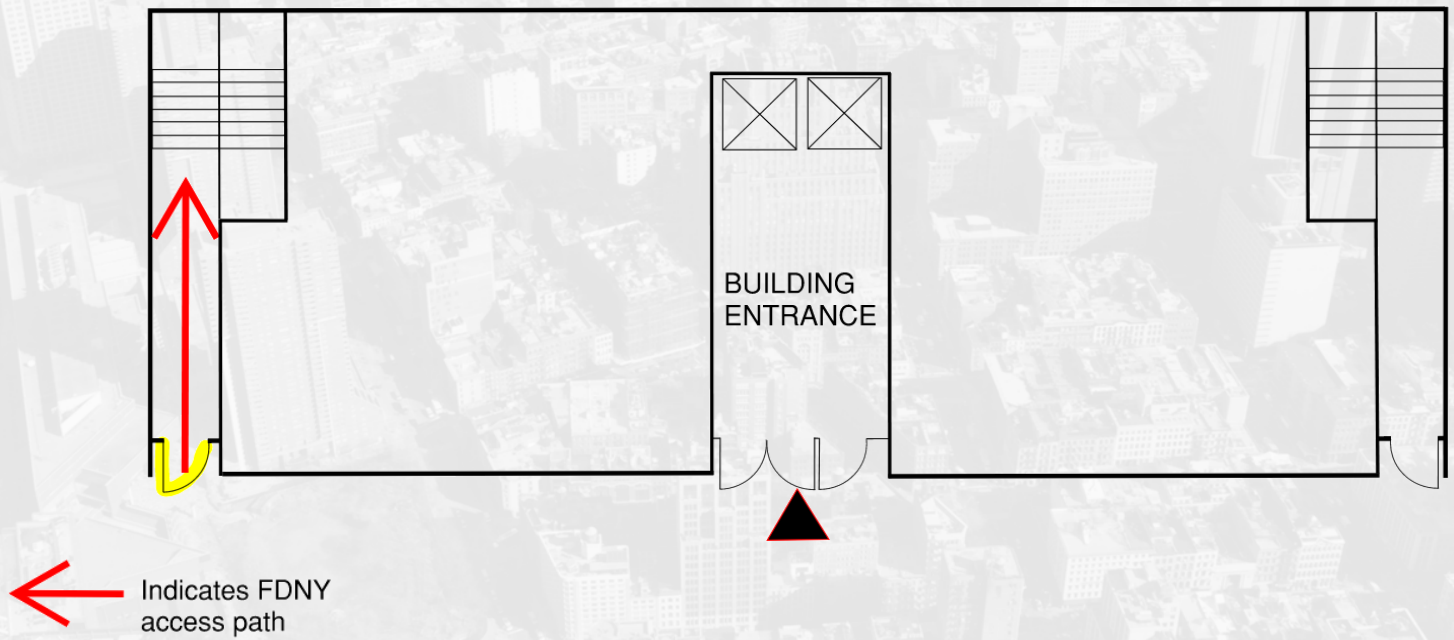
- Fire Department Access – Option 1
  - Through an exit access door at the building entrance. Such exit access door shall only be used by the Fire Department and shall not be used as an exit. Signage indicating "No Exit. FDNY Access Only" shall be posted on both sides of the exit access door



Building Code: FIRE DEPARTMENT EXIT ACCESS

BC 1028.1.1

- Fire Department Access – Option 2
  - Within a maximum of 100 feet from the building entrance. Such distance shall be measured along a natural and unobstructed path between the nearest points of the exit doors.



Building Code: FIRE DEPARTMENT EXIT ACCESS

BC 1028.1.1

- Fire Department access. Where Exception 1 or 2 to Section 1028.1 is not applied…

- **1028.1 General.** Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide a direct path of egress travel to grade. The exit discharge shall not reenter a building. The combined use of Exceptions 1 and 2 below shall not exceed 50 percent of the number and minimum width or required capacity of the required exits.

1. Not more than 50 percent of the number and minimum width or required capacity of interior exit stairways and ramps is permitted to egress through protected areas on the level of discharge provided all of the following conditions are met…
   1.1 Such protected…
   1.4 Where a required interior exit stairway or ramp and an exit access stairway or ramp serve the same floor level and terminate at the same level of exit discharge, the termination of the exit access stairway or ramp and the exit discharge door of the interior exit stairway or ramp shall be separated by a distance of not less than 30 feet (9144 mm) or not less than one-fourth the length of the maximum overall diagonal dimension of the building, whichever is less. The distance shall be measured in a straight line between the exit discharge door from the interior exit stairway or ramp and the last tread of the exit access stairway or termination of slope of the exit access ramp.

2. Not more than 50 percent of the number and minimum width or required capacity of the interior exit stairways and ramps is permitted to egress through a vestibule provided all of the following conditions are met…
   2.1 The entire area…
   2.3 The area is separated from the remainder of the level of exit discharge by a fire partition constructed in accordance with Section 708.
   Exception: The maximum transmitted temperature rise is not required.

Building Code: BLEACHERS

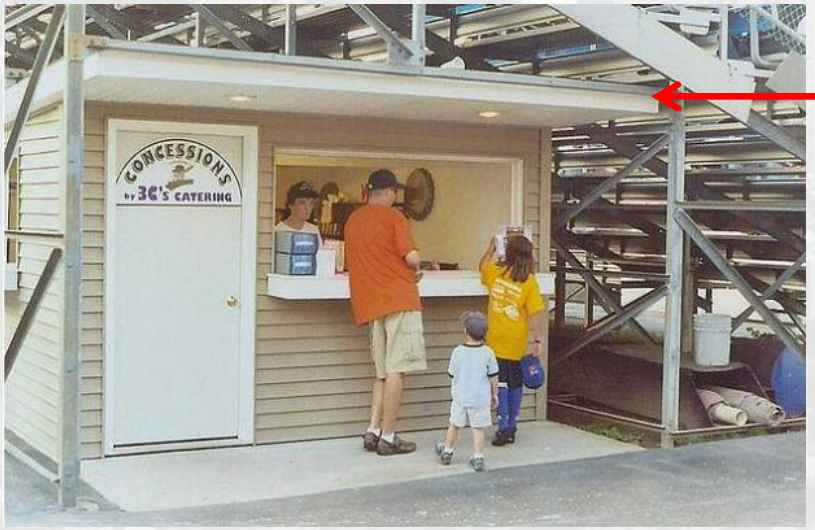
BC 1029.1.1

- Bleachers. Bleachers, grandstands and folding and telescopic seating, that are not building elements, shall comply with ICC 300. Bleachers, folding and telescopic seating, and grandstands shall be permitted to be constructed of combustible or noncombustible materials in accordance with Section 302 of ICC 300 and the following:
  1. Where the number of seats... exceeds 300, the dedicated structural system supporting the bleachers, folding and telescopic seating, or grandstands shall be constructed of noncombustible materials.
  2. Where the space beneath the... seating is used for placement of portable equipment... the decking on such bleachers, grandstands, or folding and telescopic seating shall be constructed of fire-retardant-treated wood complying with Section 2303.2 or other Class A materials.
  3. Where the number of seats... exceeds 1,500, the dedicated structural system supporting the bleachers, grandstands, or folding and telescopic seating, and the decking on such bleachers, grandstands, or folding and telescopic seating, shall be constructed of noncombustible materials.

Building Code: BLEACHERS

BC 1029.1.1.1

- **Spaces under grandstands and bleachers.** Where spaces under grandstands or bleachers are used for purposes other than ticket booths less than 100 square feet (9.29 m2); toilet rooms; or means of egress, such spaces shall be separated by fire barriers complying with Section 707 and horizontal assemblies complying with Section 711, with not less than 1-hour fire-resistance-rated construction. An automatic smoke detection system shall be installed in such separated spaces. The system shall be activated in accordance with Section 907.5.



Concessions roof must comply with BC Section 711 as a rated horizontal assembly

SOURCE: https://blog.sportsystemscanada.com/blog/optimizing-space-with-i-beam-grandstand-bleachers

Building Code: TRAVEL DISTANCE

BC 1029.7

- Exits and aisles shall be so located such that the travel distance to an exit door shall be provided in accordance with Table 1029.7… Where aisles are provided for seating, the distance shall be measured along the aisles and aisle accessway without travel over or on the seats.
- **Exceptions:** For the purposes of this section, travel distances may be measured in accordance with the following exceptions:
  - 1. Smoke-protected assembly seating… The secondary travel distance shall be permitted to be measured from each such seat or standee space to an alternate entrance to the vomitory or concourse, and shall not exceed 300 ft..
  - 2. Open-air seating served by exit access stairways and ramps… primary travel distance…measured from each seat or standee space to the closest riser of an exit access stairway… outside the assembly space. The secondary travel distance…measured to the closest riser of an alternate exit access stairway…
  - 3. Assembly with safe areas: Where an assembly space is provided with an exit access doorway that opens directly to a safe area….the primary distance…measured to such an exit access doorway…secondary measured to an alternate exit access doorway that opens directly to a safe area.
  - 4. Assembly with open exterior spaces: Where an assembly space is provided with an exit that opens directly to an open exterior space… the primary and secondary travel distances shall be measured to such an exit.

Building Code: DEAD END AISLES

BC 1029.9.5

- Each end of an aisle shall be continuous to a cross aisle, foyer, doorway, vomitory, [or] concourse or stairway in accordance with Section 1029.9.7 having access to an exit. Travel through dead-end aisles shall be subject to Section 1029.8. Dead-end aisles shall be not greater than 20 feet (6096 mm) in length.

  Exceptions:

  1. A dead-end aisle of up to 16 rows shall be permitted to exceed 20 feet (6096 mm) in length where seats served by the dead-end aisle are not more than 24 seats from another aisle, measured along a row of seats having a clear width of not less than 12 inches (304.8 mm) plus 0.6 inches (15.2 mm) for each additional seat over a total of 7 in the row.
  2. For smoke-protected assembly seating, dead end aisles of up to 21 rows may be permitted to exceed 20 feet (6096 mm) in length provided seats served by the dead-end aisle are not more than 40 seats from another aisle, measured along a row of seats having a clear width of not less than 12 inches (304.8 mm) plus 0.3 inches (7.6 mm) for each additional seat over a total of 7 in the row.

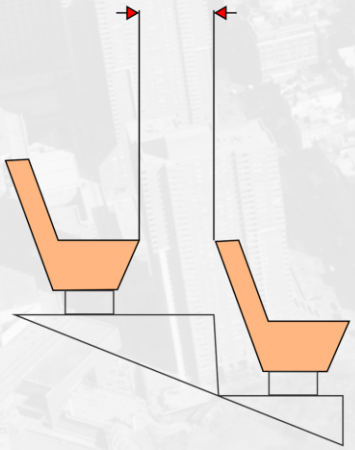
SOURCE: https://www.carnegiehall.org/Explore/Articles/2022/04/04/Where-is-the-best-seat-at-Carnegie-Hall#&gid=9&pid=2

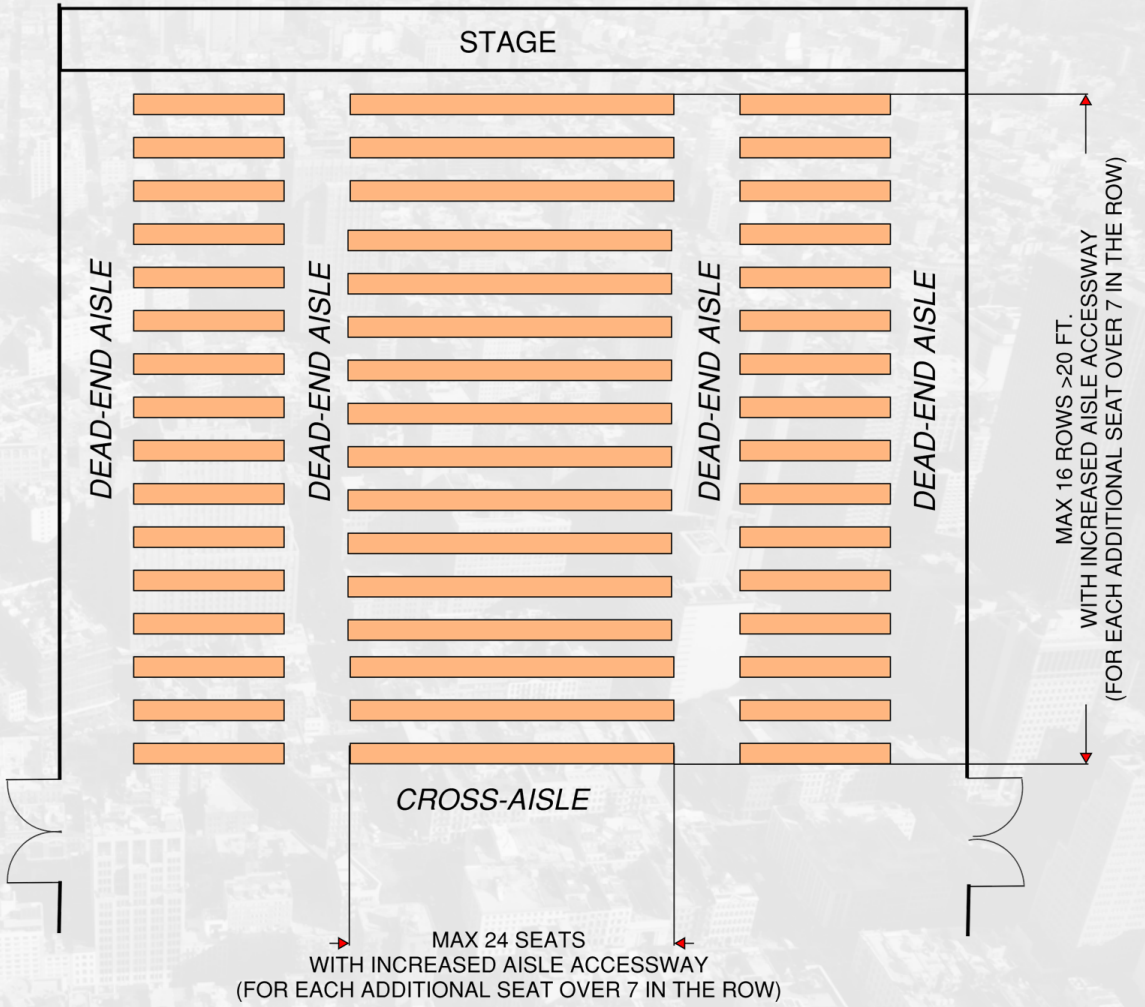
Building Code: DEAD END AISLES

BC 1029.9.5

Exception 1

12 IN. MIN. + 0.6 IN. FOR EACH SEAT OVER 7 IN ROW



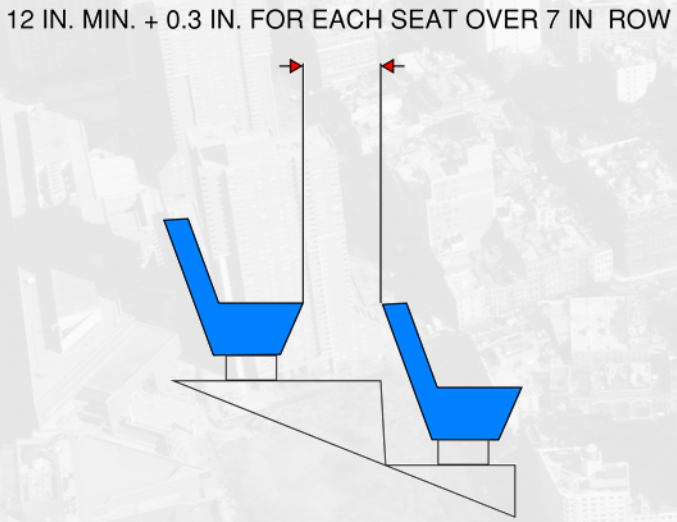


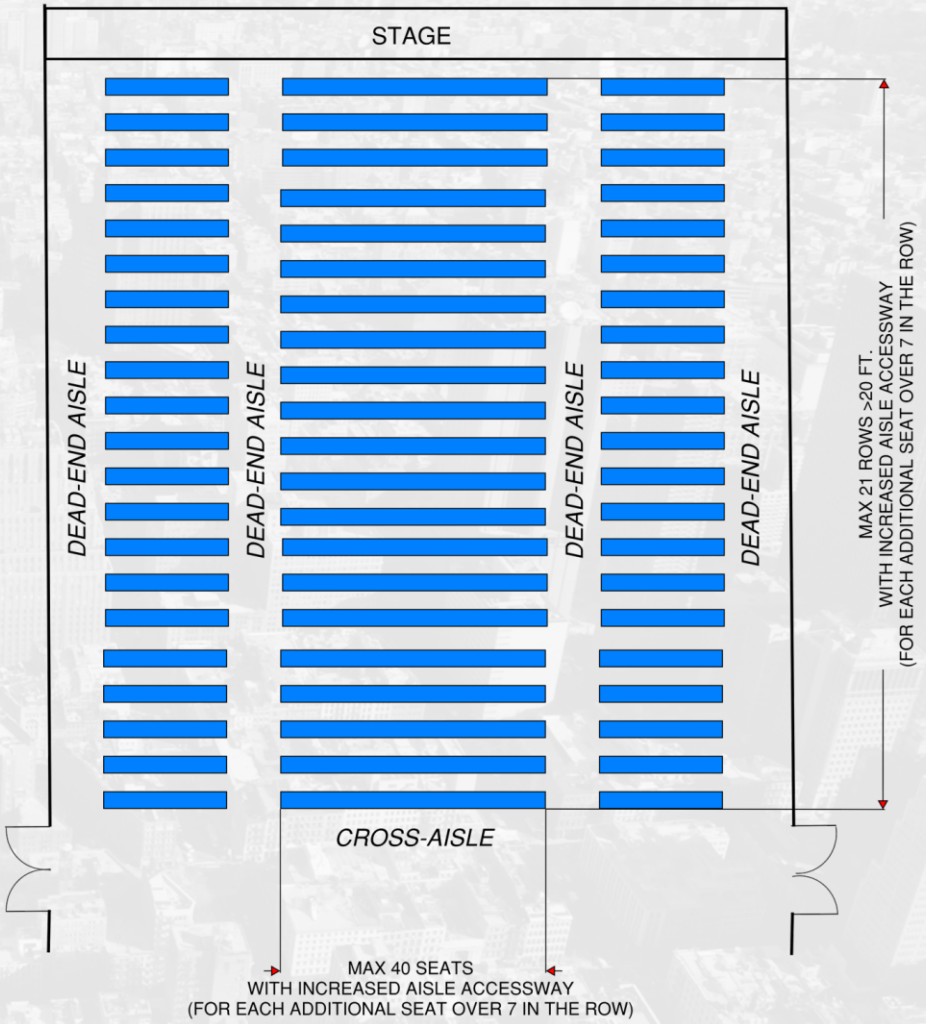
Source: Sketches by Mitchell Kurtz

Building Code: DEAD END AISLES

BC 1029.9.5

Exception 2





Source: Sketches by Mitchell Kurtz

Building Code: AISLE ILLUMINATION

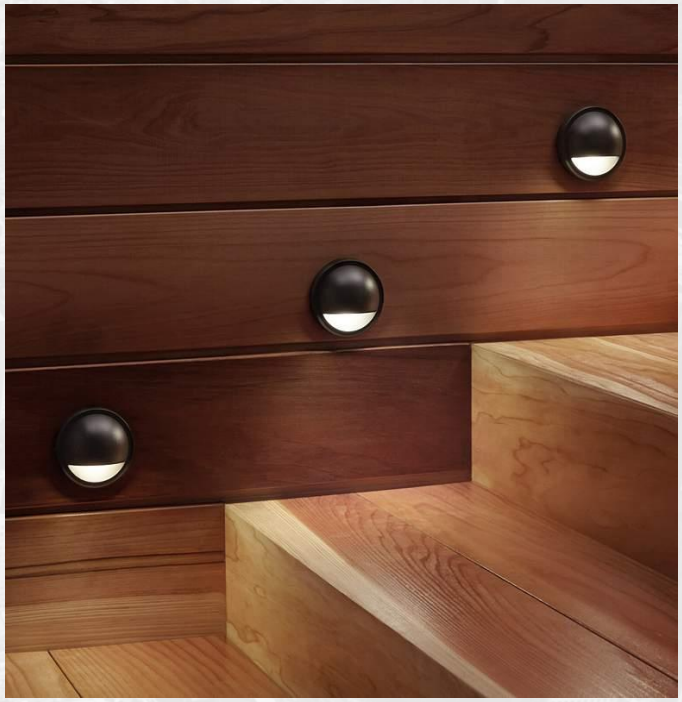
BC 1029.13.3

- Aisles, cross aisles and stepped aisles shall be illuminated in accordance with Section 1008.2.1.

- 1008.2.1 Illumination level under normal power. The means of egress illumination level shall be not less than 1 footcandle 11 lux) at the walking surface.

  Exceptions:

  1. For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the externally illuminated walking surface is permitted to be reduced during performances…
  2. Safe areas in assembly occupancies…
  3. Open exterior spaces used to receive occupants…
  4. In exits in buildings that contain existing photoluminescent exit path markings…



SOURCE: https://www.lampsplus.com/products/kichler-4-inch-high-half-moon-bronze-3000k-led-deck-light__n1699.html/

Building Code: SEAT STABILITY

BC 1029.14

- In a building, room or space used for assembly purposes, the seats shall be securely fastened to the floor.

  Exceptions:

  1. In a building, room or space used for assembly purposes or portions thereof…
  2. In a building, room or space used for assembly purposes or portions thereof…
  3. In a building, room or space…with seating at tables on ramped or tiered floors, the seats shall not be required to be fastened to the floor provided that the seating area has a minimum net floor area of 12 square feet (1.11 m2) per person.

  …

  7. Seats intended for musicians…

  Where a building, room or space used for assembly purposes includes mixed seating arrangements and conditions, the seat stability requirements and allowances shall be applied respectively to each portion of the space containing such seating.

SOURCE: https://www.alleytheatre.org/our-venues/neuhaus-theatre

Building Code: ACCESSIBILE ROUTE

BC 1101.3.1

- Accessible features and construction governed by this chapter shall be provided:

  1. To the entire building, as if the building were hereafter erected, where a change is made in the main use or dominant occupancy of such building.
  2. Throughout a space, including the immediate entrance(s) thereto, where an alteration is made that is considered either: (i) a change in occupancy classification of such space in accordance with this code, or (ii) a change in the zoning use group of such space in accordance with the New York City Zoning Resolution.

     2.1. Where the immediate entrance(s) to such space provides direct access to the sidewalk, such immediate entrance(s) shall be provided with an accessible route to the sidewalk. Where the immediate entrance(s) to such space are only through an adjacent space, such as a building lobby, such space shall be provided with an accessible route, through the adjacent space, to the sidewalk.

     2.2. Where elevator service is provided in the building, an accessible route shall be required to a rooftop, where prior to a change in use or occupancy, such rooftop was not intended for general public or occupant use.

Building Code: PRIMARY FUNCTION AREA

BC 1101.4

- Where an alteration affects the accessibility to, or contains an area of primary function, the route to the primary function area shall be accessible. The costs of providing the accessible route are not required to exceed 20 percent of the value of the alterations affecting the area of primary function. The accessible route to the primary function area shall include toilet facilities and drinking fountains serving the area of primary function.

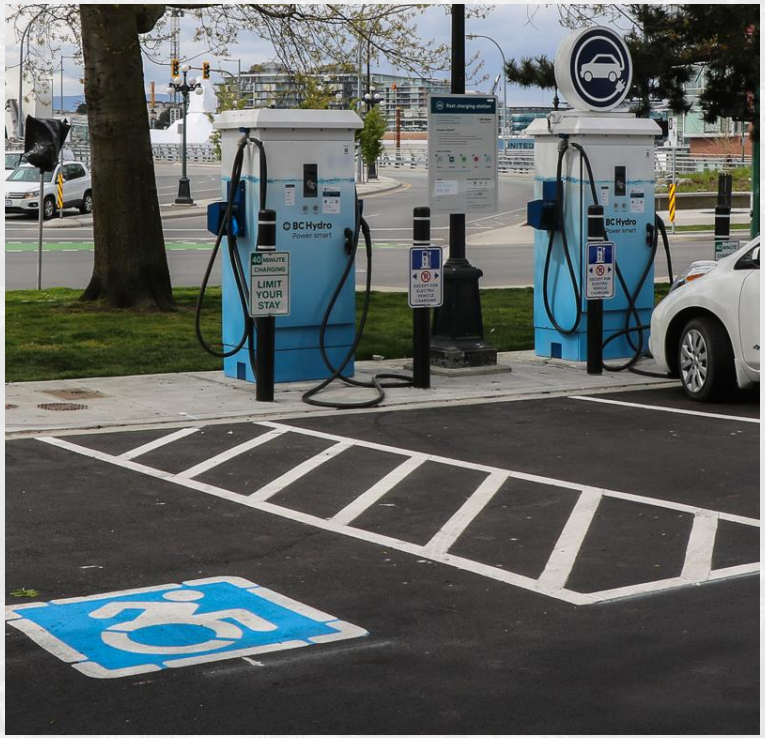
  Exceptions:

  1. This provision does not apply to alterations limited solely to windows, hardware, operating controls, electrical outlets and signs.
  2. This provision does not apply to alterations limited solely to mechanical systems, electrical systems, installation or alteration of fire protection systems and abatement of hazardous materials.
  3. This provision does not apply to alterations undertaken for the primary purpose of increasing the accessibility of a facility.
  4. This provision does not apply to altered areas limited within a Type B or Type B+NYC dwelling unit.

Building Code: ACCESSIBLE CHARGING STATIONS

BC 1106.8.1

- At least five percent of the total number of electrical vehicle charging stations per facility, but not less than one for each type of electric vehicle charging station, shall be accessible. The number of accessible vehicle charging stations are in addition to the required accessible parking spaces.



SOURCE: https://www.victoria.ca/EN/main/news-events/news/news-archives/2021-news/new-electric-vehicle-dc-fast-charging-station-opens-on-store-street.html

Building Code: ACCESSIBLE DINING

BC 1108.2.9

- In dining and drinking areas, all interior and exterior floor areas shall be accessible and be on an accessible route.

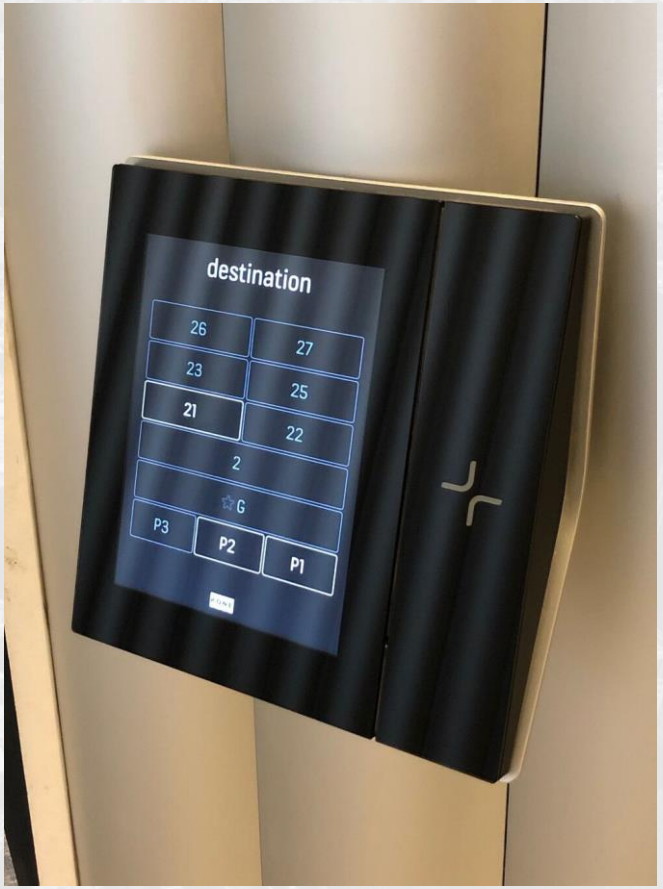
Exceptions:

1. An accessible route between accessible levels and stories above or below is not required where permitted by Section 1104.4 (Multilevel buildings and facilities.), Exception 1.
2. An accessible route to dining and drinking areas in a mezzanine is not required, provided that the mezzanine contains less than 25 percent of the total combined area for dining and drinking and the same services, and decor are provided in the accessible area.
3. In sports facilities, tiered dining areas providing seating required to be accessible shall be required to have accessible routes serving at least 25 percent of the dining area, provided that accessible routes serve accessible seating and where each tier is provided with the same services and similar view.
4. Employee-only work areas shall comply with Sections 1103.2.2 and 1104.3.1.

Building Code: DESTINATION-ORIENTED ELEVATORS

BC 1109.7.2

- 1109.7.2.1 Hall call console number and location
  - 1109.7.2.1.1 Transfer floors, sky lobbies and floors containing building entrances
  - 1109.7.2.1.2 Other floors
- 1109.7.2.2 Required features
  - 1109.7.2.2.1 Accessibility function button
  - 1109.7.2.2.2 Audio output
  - 1109.7.2.2.3 Visible display screen
  - 1109.7.2.2.4 Floor selection controls
  - 1109.7.2.2.5 Tactile discernibility



SOURCE: https://elevation.fandom.com/wiki/Kone_Destination?file=Kone_Destination_Floor_Select.jpeg

Building Code: COMBUSTIBLE EXTERIOR WALLS

BC 14

- All exterior walls made from combustible materials required to undergo testing to industry standards (NFPA 285).
- Filing details and special inspection review for all buildings using exterior walls made from combustible materials.
- All exterior walls made from combustible materials require non-combustible fire blocking installed periodically.
- In existing buildings, 3-foot horizontal band made of non-combustible material (brick) must be installed to separate each floor of combustible material when not protected by full-building sprinkler system.

SOURCE: https://wallsystems.master-builders-solutions.com/en/news-and-updates/nfpa-285-fire-test

SOURCE: https://wallsystems.master-builders-solutions.com/en/news-and-updates/nfpa-285-fire-test

Building Code: SPECIAL INSPECTIONS

BC 1705.5.6

- Added a new section and table with requirements for special inspection of Type IV construction utilizing cross laminated timber or structural composite lumber elements.

TABLE 1705.5.6
REQUIRED SPECIAL INSPECTIONS OF TYPE IV CONSTRUCTION UTILIZING CROSS-LAMINATED TIMBER OR STRUCTURAL COMPOSITE LUMBER

Type	Continuous Special Inspection	Periodic Special Inspection	Referenced Standard	Code References
1. Inspection of anchorage and connections of mass timber construction to timber deep foundation systems	—	X		1705.7, 2308.3, 2304.10
2. Inspect erection of mass timber, including material verification	—	X	PRG-320, ASTM D5456	2303.1.4, 2303.1.10
3. Inspection of connections where installation methods are required to meet design loads	—	—		
3.1. Threaded fasteners	—	—		

Building Code: SPECIAL INSPECTIONS

BC 1705.16

- Expanded the section for EIFS special inspections, requiring MCM, HPL and other combustible material exterior wall coverings to have special inspection.
- Alterations to existing installations must also comply with this section.
- A new requirement to verify that installations comply with the submitted documents and match the NFPA 285 tested assembly.
- The special inspector is now required to confirm the installation of thermal barriers and fireblocking.

Building Code: SPECIAL INSPECTIONS

BC 1705.25

- Added language clarifying requirements for verification of structural systems during construction.
  - Means & methods for structural stability measures must be prepared by an RDP & filed with the department.
  - New requirements for inspection may be triggered by SOE foundations; blasting effects; underpinning; and demolition operations.

Building Code: SPECIAL INSPECTIONS

BC 1705.26

- Added a new special inspection to verify compliance with tenant protection plan requirements.
    - Compliance with tenant protection plans ensures safety of occupants and ensures that contractors are complying with requirements to protect tenants during construction operations

Building Code: SPECIAL INSPECTIONS

BC 1705.32.1

- Text is newly clarified as applicable to new & altered chimneys; replaced appliances; and changes in appliances (ie, oil to gas conversions)

- Added a new special inspection to verify the condition of an existing chimney lining and breaching when a new heating system appliance is installed.

Building Code: FIRE SERVICE ACCESS ELEVATOR

BC 3003.3.1

- **Elevator in readiness for Fire Department emergency access.**
  - ...in buildings five stories in height or more, underground buildings as described in Section 405.1, and high-rise buildings, [~~all floors shall be served by at least one elevator that~~] at least one elevator shall be kept available for immediate use by the Fire Department during all hours of the night and day, including holidays, Saturdays and Sundays. The elevator in readiness shall serve all floors of the building. For buildings where a Fire Service Access Elevator (FSAE) is provided, the FSAE shall serve all floors of the building...

SOURCE: https://rescueair.com/newsletter_archive/FARS%20vs.%20Elevators_%20No%20Contest.htm

Building Code: MACHINE ROOM-LESS ELEVATORS

BC 3005

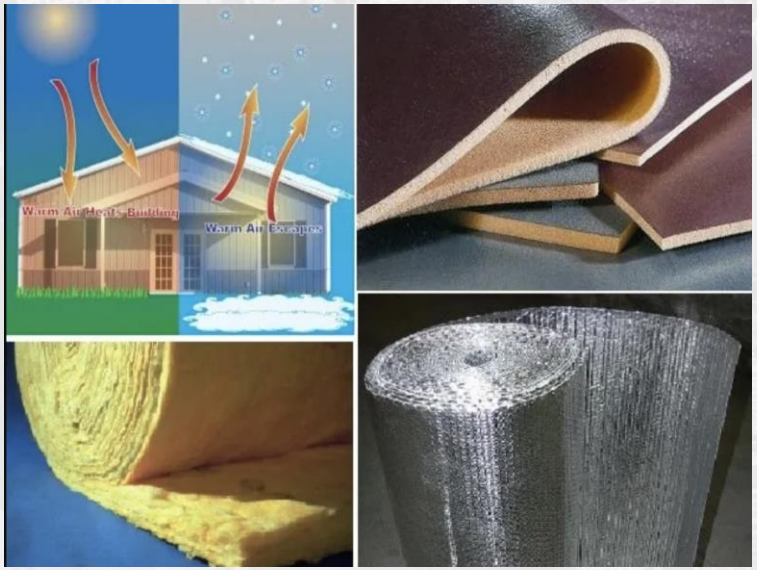
- [~~3006~~] 3005 MACHINERY SPACES, MACHINE ROOMS, CONTROL SPACES AND CONTROL ROOMS
  - [~~3006.1~~] 3005.1 **Access.** An approved means of access shall be provided to elevator machine rooms [~~and overhead machinery~~], control rooms, control spaces and machinery spaces...

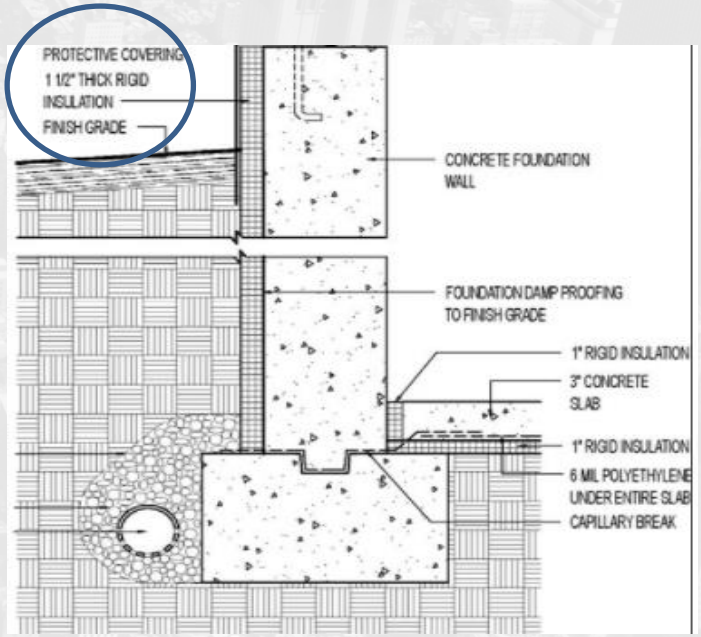
SOURCE: http://www.schumacherelevator.com/elevators/traction-elevators/machine-roomless-mrl-traction-elevators.aspx

Building Code: INSULATION

BC 3202.1.6

- Insulation required to comply with the New York City Energy Conservation Code shall be permitted to encroach into the public right of way not more than 6 inches (152 mm) beyond the face of the structural element being insulated.

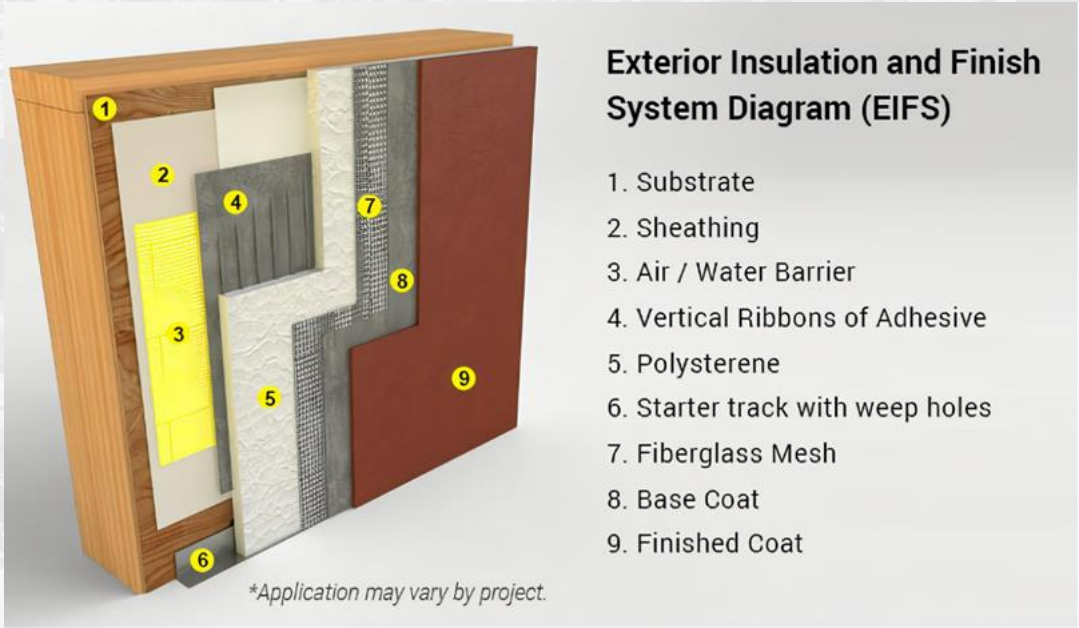




Building Code: EXTERIOR WALL COVERING.. PRIOR CODE

BC 3202.2.5

- For prior code buildings, exterior insulation and associated cladding systems (i.e. rain screens, EIFS, etc.) may be applied to the entire facade of a building provided such exterior wall covering system is needed to comply with the requirements of the New York City Energy Conservation Code and does not project more than 8 inches (203 mm) beyond the street line…



Building Code: EXTERIOR WALL COVERING.. PRIOR CODE

BC 3202.2.5

- ...wall covering system is needed to comply with the requirements of the New York City Energy Conservation Code and does not project more than 8 inches (203 mm) beyond the street line. Exterior wall coverings shall comply with Chapter 14.

  Exceptions:

  1. A veneer may be applied to the entire facade of a building erected before December 6, 1968, provided such veneer does not project more than 4 inches (102 mm) beyond the street line.
  2. Exterior wall covering systems projecting not more than 10 inches (254 mm) beyond the street line shall be permitted to cover the façade of a prior code building provided they are located more than 10 feet (3048 mm) above grade and are necessary to comply,,,
  3. The department may approve exterior wall covering systems projecting not more than 12 inches (305 mm) beyond the street line provided they are necessary to comply with the New York City Energy Conservation Code, are substantiated with engineering calculations demonstrating need and practical difficulty, and provided that the applicant demonstrates to the Department of Transportation's satisfaction that the projection of the wall covering system will not adversely impact the use of the public right of way.

Building Code: TEMPRORARY STORM ENCLOSURES

BC 3202.3.2

- 3202.3.2.1 Temporary storm enclosures for eating and drinking establishments. Provided a minimum clear unobstructed sidewalk width of 5 feet is maintained, temporary storm enclosures for eating and drinking establishments with a projection of not more than 25 square feet (2.32 m2) in area and door maneuvering clearances complying with Chapter 11, and related reference standards, including Section 404 (Doors and Doorways) of ICC A117.1, may be permitted.

- 3202.3.2.2 Temporary storm enclosures for other establishments. Temporary storm enclosures projecting not more than 18 inches (457 mm) beyond the street line may be permitted at other establishments.

AGENDA:

- EFFECTIVE DATE OF THE CODE
- SELECT HIGHLIGHTS FROM:
  - ADMINISTRATIVE CODE
  - Building Code
  - **Plumbing Code**
  - Mechanical Code
  - Fuel Gas Code

403.5	Drinking Fountain Location
1101.5.2	Detention & Retention
1101.5.2.1	Emergency Overflow
1105.2	Roof Drainage Design
1301.1	Nonpotable Systems
1301.2	Water Quality
1301.4	Permits
1302.5	Filtration
1302.12	Tests and Inspections
1401	Subsurface Irrigation

Plumbing Code: DRINKING FOUNTAIN LOCATION

PC 403.5

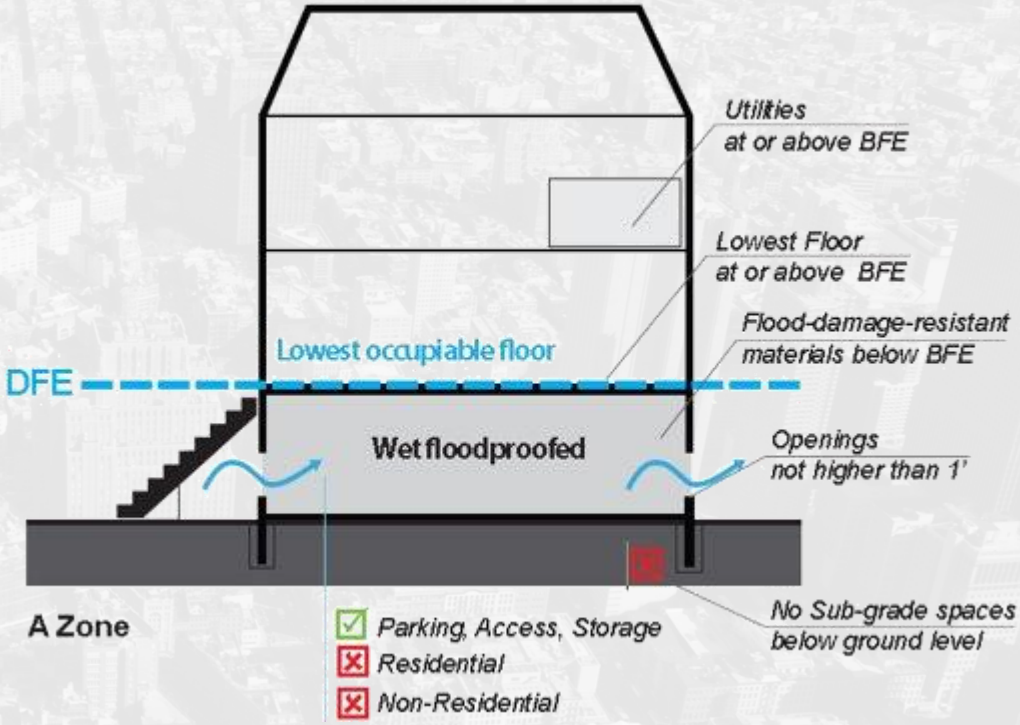
- Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located on each story within a distance of travel of 500 feet (152 m) of the most remote location in the tenant space on such story. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet (91 m). Drinking fountains shall be located on an accessible route.

Source: https://inspectionsada.com/ada-compliance-blog/2021/1/3/drinking-fountains-and-the-ada

Plumbing Code: DETENTION & RETENTION

PC 1101.5.2

- Detention and retention tanks located within buildings in flood hazard areas shall be located above the design flood elevation or shall be designed and constructed to withstand the static pressure conditions the system will experience in the event of a flood condition.

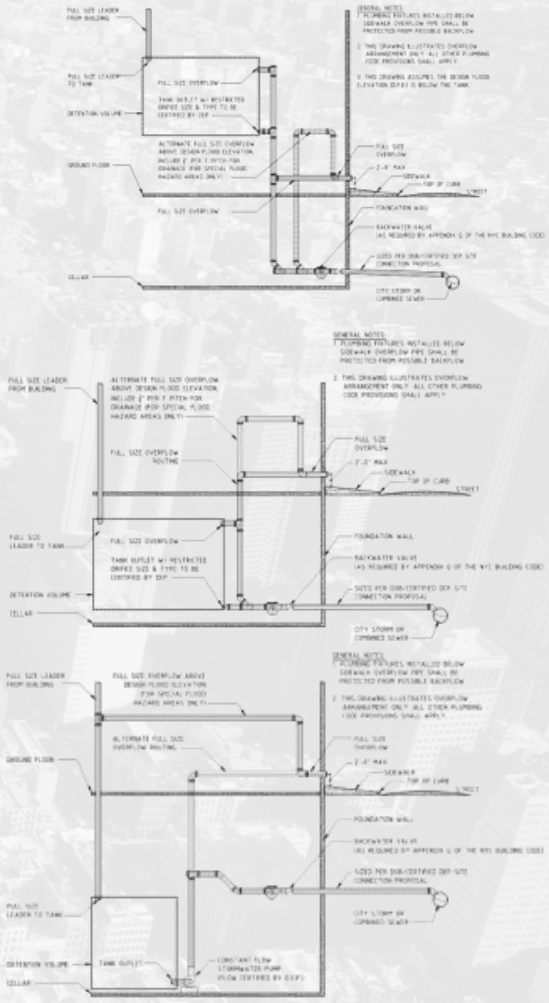


Source: NYC Planning

Plumbing Code: EMERGENCY OVERFLOW

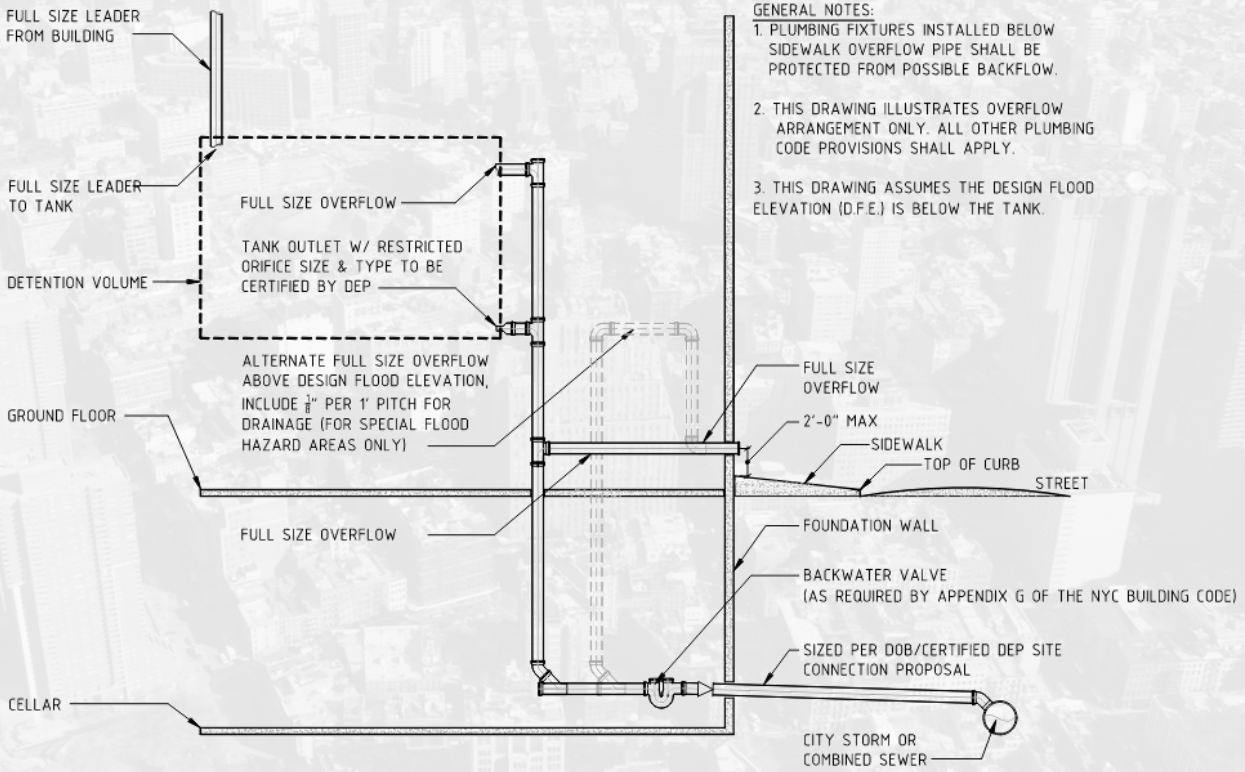
PC 1101.5.2.1

- Emergency overflow piping shall equal the full size of the incoming storm water flow. Emergency overflows and vent terminations for buildings located in flood hazard areas shall be located above the design flood elevation. Such emergency overflow shall discharge the overflow outside of the building into either of the following locations:
  1. The tax lot; or
  2. The public sewer, provided that the overflow piping is provided with a vent, of the same diameter as the overflow piping, that terminates on the front wall of the building facing the street and no more than 2 feet (610 mm) above the sidewalk. See Figures 1101.5.2.1(1), 1101.5.2.1(2) and 1101.5.2.1(3).



Plumbing Code: EMERGENCY OVERFLOW

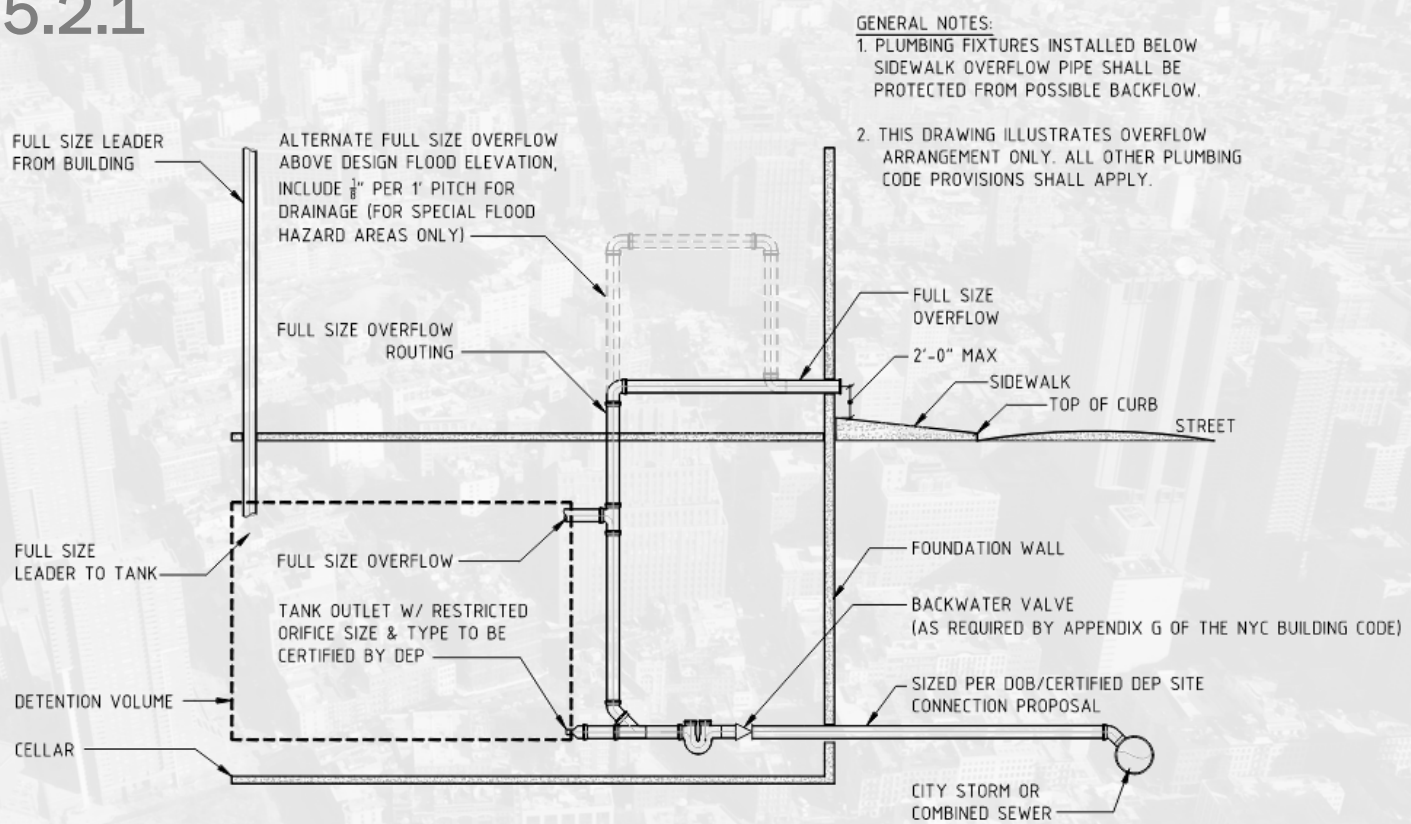
PC 1101.5.2.1



DETENTION VOLUME & TANK ABOVE GRADE
(WITHIN BUILDING)
FIGURE 1101.5(1)

Plumbing Code: EMERGENCY OVERFLOW

PC 1101.5.2.1

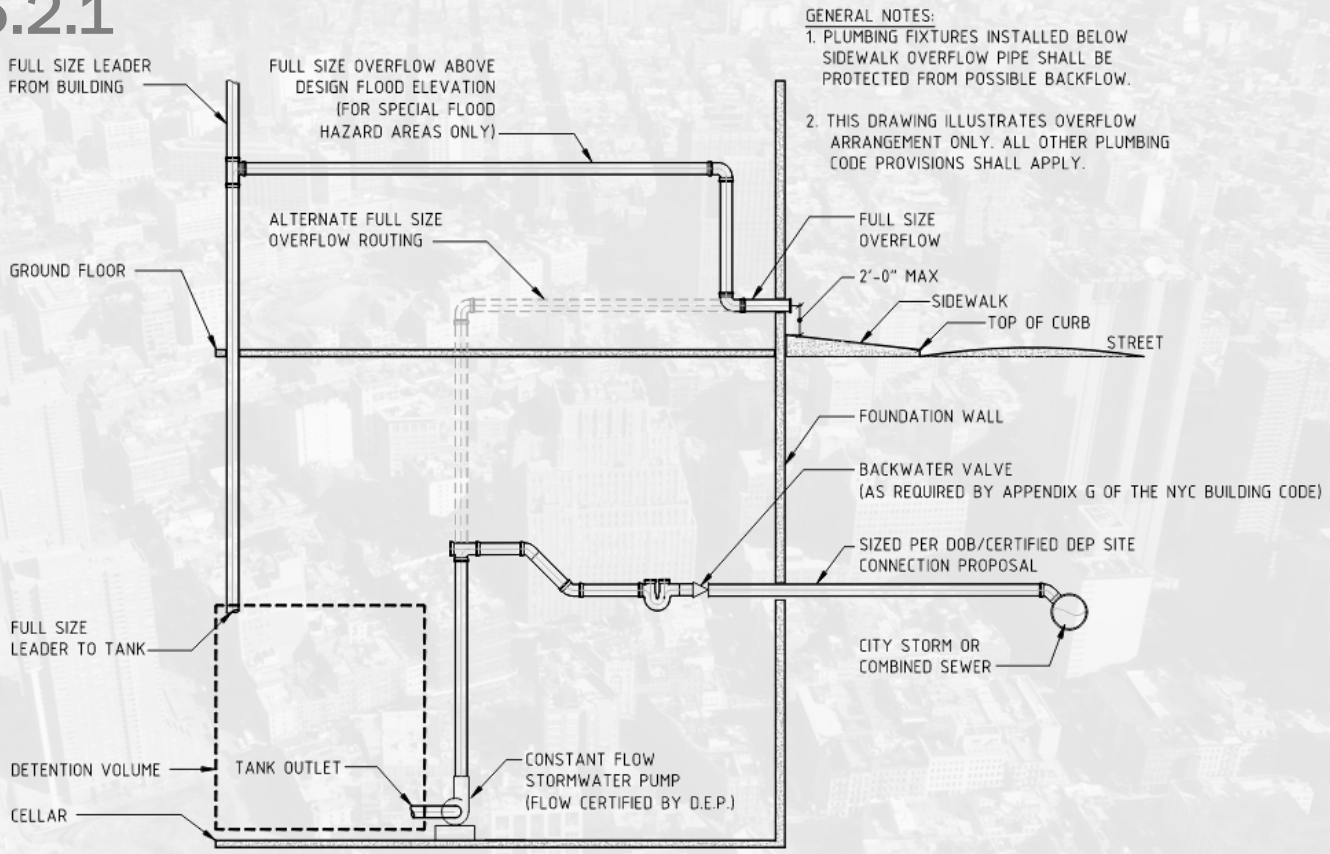


DETENTION VOLUME ABOVE SEWER, TANK BELOW GRADE (WITHIN BUILDING)

FIGURE 1101.5(2)

Plumbing Code: EMERGENCY OVERFLOW

PC 1101.5.2.1



DETENTION VOLUME & TANK BELOW GRADE
(WITHIN BUILDING)
FIGURE 1101.5(3)

Plumbing Code: ROOF DRAINAGE DESIGN

PC 1105.2

- The published roof drain flow rate, based on the head of water above the roof drain, shall be used to size the storm drainage system in accordance with Section 1106. The flow rate used for sizing the storm drainage piping shall be based on the maximum anticipated ponding at the roof drain.

Source: https://www.blucher.com/products/drainage-solutions/roof-drains

Plumbing Code: NONPOTABLE SYSTEMS

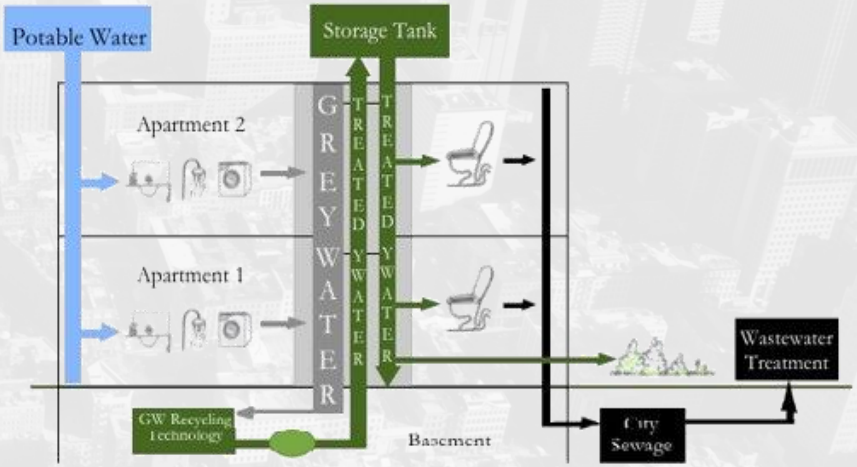
PC 1301.1

- The provisions of Chapter 13 shall govern the materials, design, construction and installation of systems for the collection, storage, treatment and conveyance of nonpotable water. The use and application of nonpotable water shall comply with the New York City Construction Codes, and all applicable laws, and rules, including but not limited to those of the Department of Environmental Protection and the Department of Health and Mental Hygiene. Water from nonpotable systems shall be collected, stored, treated, conveyed and used on the same tax lot unless otherwise approved by the commissioner.

NYC Buildings

NYC Health

NYC Environmental Protection



Source: http://www.shomera.org/on-greywater-recycling/what-is-greywater-recycling/

Plumbing Code: WATER QUALITY

PC 1301.2

- Nonpotable water for each end use application shall meet the minimum water quality and treatment standards and requirements established by the Department of Health and Mental Hygiene.

Source : https://www.water-rightgroup.com/

TABLE C102.1
MINIMUM WATER QUALITY STANDARDS

POLLUTANT	QUANTITY LIMIT
BOD	< 10 mg/l
TSS	< 10 mg/l
Total Coliform	< 100 per 100 ml
E. Coli	< 2.2 colonies per 100 ml
pH	6.5-8.0
Turbidity	< 2.0 NTU[b]

a. Effluent from rainwater and condensate collected in separate tanks or compartments from wastewater shall not be required to meet the BOD limitations indicated above.

b. The wastewater facility effluent must meet the performance standards of < 2.0 NTU for turbidity for 95% of the measurements. At no time can the turbidity result be above 5 NTU. These results shall be recorded and compiled in the annual report.

Plumbing Code: PERMITS

PC 1301.4

- Permits shall be required for the construction, installation, and alteration of nonpotable water systems, and shall be required by the Department of Health and Mental Hygiene for review, commissioning and operation of nonpotable water systems.

  Exception: Work outlined in Article 105.4 of Chapter 1 of Title 28 of the Administrative Code.

Source: https://535plumbing.com/2020/05/01/why-plumbing-inspections-for-new-construction-are-recommended/

Source: https://www.cbc.ca/news/canada/british-columbia/water-restrictions-in-metro-vancouver-limit-sidewalk-cleaning-1.3143766

Plumbing Code: FILTRATION

PC 1302.5

- Untreated water collected for reuse shall be filtered as required for the intended nonpotable end use as established by the Department of Health and Mental Hygiene. Filters shall be accessible for inspection and maintenance. Filters shall utilize a pressure gauge or other approved method to provide indication when a filter requires servicing or replacement. Filters shall be installed with shutoff valves immediately upstream and downstream to allow for isolation during maintenance.

Source: https://www.indiamart.com/proddetail/commercial-water- purification-system-20543780155.html

Plumbing Code: TESTS AND INSPECTIONS

PC 1302.12

- Tests and inspections shall be performed in accordance with Sections 108, 312, and Sections 1302.12.1 through 1302.12.7. Special inspections of the nonpotable water systems shall be conducted in accordance with Chapter 17

  1302.12.6 Water quality test.

  Water quality testing and monitoring shall be conducted in accordance with requirements of the Dept. of Health…

  1302.12.7 Inspection and testing of cross connection control.

  Cross connection control inspection and testing shall be conducted in accordance with the requirements of the Dept. of Health…

Source: https://www.ziprecruiter.com/Career/Plumbing-Inspector/What-Is-How-to-Become

Plumbing Code: SUBSURFACE IRRIGATION

PC 14

- **1401.1 Scope.** The provisions of Chapter 14 shall govern the materials, design, construction and installation of subsurface landscape irrigation systems connected to nonpotable water from on-site water reuse systems.
- **1401.2 Materials.** Above-ground drain, waste and vent piping for subsurface landscape irrigation systems shall conform to one of the standards listed in Table 702.1. Subsurface landscape irrigation, underground building drainage and vent pipe shall conform to one of the standards listed in Table 702.2.
- **1401.3 Tests.** Drain, waste and vent piping for subsurface landscape irrigation systems shall be tested in accordance with Section 312.
- **1401.4 Inspections.** Subsurface landscape irrigation systems shall be inspected in accordance with Section107.

Source: https://brooklyneagle.com/articles/2019/05/29/farming-takes-to-the-rooftops-in-sunset-park

AGENDA:

- EFFECTIVE DATE OF THE CODE
- SELECT HIGHLIGHTS FROM:
  - ADMINISTRATIVE CODE
  - Building Code
  - Plumbing Code
  - **Mechanical Code**
  - Fuel Gas Code

107.8	Construction Documents
401.2	Ventilation Required
401.4	Intake Openings
502.4	Battery Supervision
505.4	Kitchen Exhaust
801.1.1	Existing Chimneys / Vents
801.21	Chimney Terminations
810.1	Chimney Testing
1305.16.1	Tank Room Ventilation
1404.1.1	Solar Systems

Mechanical Code: CONSTRUCTION DOCUMENTS

MC 107.8

- Construction documents for air-conditioning and ventilating systems shall contain plans that include the following data and information:

  ...

  6. The safety group classification of refrigerant utilized, if any.

  7. The refrigerant concentration limit calculations and routing of all refrigerant piping for any air-conditioning system that contains more than 6.6 pounds (3.0 kg) of refrigerant. Refer to Chapter 11 for refrigerant piping requirements.

Source: ttps://www.daikinac.com/content/assets/DOC/White-papers-/TAVRVUSE13-05C-ASHRAE-Standard-15-Article-May-2013.pdf

Mechanical Code: VENTILATION REQUIRED

MC 401.2

- Habitable and occupiable spaces shall be provided with ventilation in accordance with this section.

  1. Every occupiable space shall be:

     1.1 Naturally ventilated in accordance with Section 402 and mechanically exhausted in accordance with Table 403.3.1.1; or

     1.2 Mechanically ventilated in accordance with Section 403.

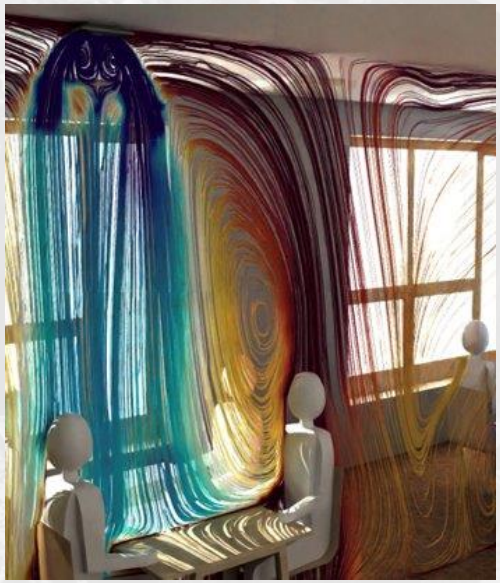
  2. All habitable spaces and occupiable spaces provided with air conditioning shall be mechanically ventilated in accordance with Section 403.

  3. Every habitable space shall be naturally ventilated in accordance with Section 402.

  4. Every habitable space shall be mechanically ventilated if required by Section 403.

Ambulatory care facilities (Group B) and Group I-2 occupancies shall be ventilated by mechanical means in accordance with Section 407.

HABITABLE SPACE. *All rooms and spaces within a dwelling unit in Group R or I-1, including bedrooms, living rooms, studies, recreation rooms, kitchens, dining rooms and other similar spaces.*



Source: https://www.constructionexec.com/article/designing-natural-ventilation-strategies-for-new-and-existing-buildings

Mechanical Code: INTAKE OPENINGS

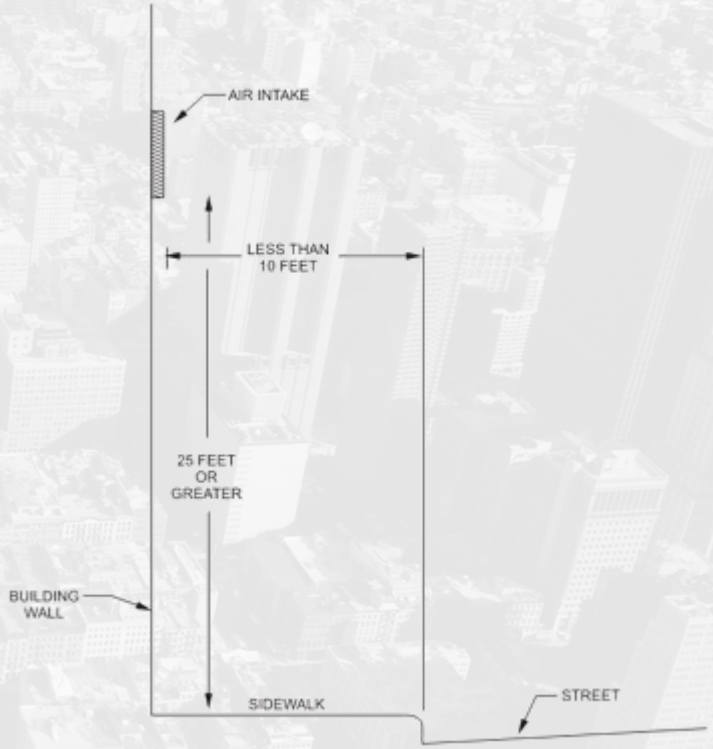
MC 401.4

- Ventilation air intake openings shall comply with all of the following:

...

3. Mechanical and gravity outdoor air intake openings shall be located not less than 10 feet (3048 mm) horizontally from any hazardous or noxious contaminant source, such as vents, exhausts (including but not limited to exhaust from dry cleaning establishments, spray booths, and cooling towers), streets, alleys, parking lots and loading docks, except as specified in Item 3 of Section 501.3.1.

Outdoor air intake openings shall be permitted to be located less than 10 feet (3048 mm) horizontally from streets, alleys, parking lots and loading docks provided that the openings are located not less than 25 feet (7620 mm) vertically above such locations. Where openings front on a street or public way, the distance shall be measured from the closest edge of the street or public way.



Mechanical Code: BATTTERY SUPERVISION

MC 502.4

- Stationary storage battery systems, as regulated by Section 608 of the New York City Fire Code, shall be provided with ventilation in accordance with this chapter, Section 502.4.3 and either Section 502.4.1 or 502.4.2. Exception: Lithium-ion batteries shall not require ventilation
- Mechanical ventilation systems…shall be supervised with proof of airflow by a central, proprietary system or remote station service or shall initiate an audible and visual signal at a constantly attended on-site location.

Mechanical Code: KITCHEN EXHAUST

MC 505.4

- All domestic cooking appliances installed in cafeterias and in Group A-1, A-2, A-4, A-5, and M occupancies shall be provided with hoods and exhaust systems... In other than Group R occupancies, domestic appliances may be provided with domestic kitchen exhaust systems ducted to outdoors in accordance with this section provided that the installation complies with all of the following:

1. No more than two domestic cooking appliances are installed in each fire separated room or tenancy in other than Group E occupancies;
2. Each appliance shall have electric or gas connections and nameplate ratings not to exceed 10kW for electric appliances or 75,000 Btu/h for gas appliances. Branch gas connections shall not be larger than ¾ inch (19.1 mm) pipe;
3. The appliances shall not include open top broilers or fryers; and
4. The appliances are used for periodic, non-commercial, non-revenue generating purposes, except for in Group A-3 occupancies, where such appliances may be used a maximum of 8 hours per week to generate revenue

Mechanical Code: EXISTING CHIMNEYS / VENTS

MC 801.1.1

- Whenever a building is erected, enlarged, or increased in height so that any portion of such building, except chimneys or vents, extends higher than the top of any existing chimneys or vents within 100 feet (30 480 mm), the owner of such new or altered building shall have the responsibility of altering such chimneys or vents to make them conform with the requirements of this chapter…
- Applications for a new or altered building shall include a chimney and vent plan submitted pursuant to Section 107.18 of the New York City Building Code…
- (1st) Written notice in a form acceptable to the department shall be provided to the building owner not less than 60 days prior to a request for permit for construction on the new or altered building…
- (2nd) Written notice in a form acceptable to the department shall be provided to the building owner not more than 45 days following commencement of work after a permit has been issued…

Source: https://www.ecogrizzly.com

Mechanical Code: CHIMNEY TERMINATIONS

MC 801.21

- $D = F \times \sqrt{A}$ (Equation 8-1)

- D = Distance, in feet, measured from the center of the chimney, vent or flue outlet to the nearest edge of the construction. If a single chimney is divided into multiple smaller flues or chimneys, measure from the center of the chimney outlet that is closest to the nearest edge of the construction.

- F = Value determined from 801.21.

- A = Free area, in square inches, of chimney flue space outlet. If a single chimney is divided into multiple smaller flues or chimneys, the total aggregate free area of such flue and chimney outlets shall be used to calculate “A”.

Source: https://www.jamesengineering.co.uk/our-services/steel-chimneys-multi-flues

Mechanical Code: CHIMNEY TESTING

MC 810.1

- All new and altered chimneys, and chimneys to which a new appliance has been connected, shall be test run under operating conditions to demonstrate fire safety and the complete exhausting of smoke and the products of combustion to the outer air. The test run shall be conducted by a registered design professional or special inspector responsible for the test, and the results of such test run shall be certified as correct by such professional or special inspector and submitted in writing to the department. Refer to Section 1705.32 of the New York City Building Code for additional requirements.

Source: http://www.homeguide.com

Mechanical Code: TANK ROOM VENTILATION

MC 1305.16.1

- Replacement of tanks in prior code buildings may utilize an existing gravity ventilation system complying with the following:

1. The total net free area of supply and exhaust openings shall be equal to at least 1 percent of the floor area of the room, equally divided between the supply and exhaust; and
2. Independent supply and exhaust openings to the outside; or
3. Independent supply and exhaust ducts to the outside.

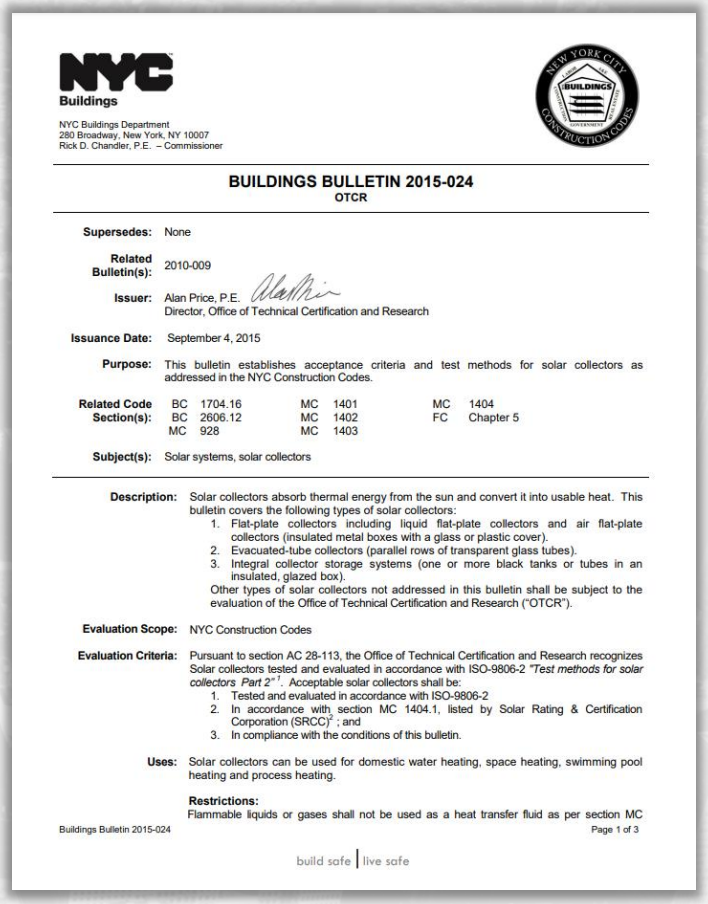
Source: http://www.steeltank.com/Portals/0/Tanks%20Inside%20Buildings_To%20Vent%20or%20Not%20To%20Vent,%20That%20Is%20the%20Question,%20Stookey.pdf

Mechanical Code: SOLAR SYSTEMS

MC 1404.1.1

- The following types of collectors may be installed:

1. Flat-plate collectors.
2. Evacuated-tube collectors.
3. Integral collector storage systems.
4. Alternative collectors as approved by the commissioner in accordance with Section 28-113.2 of the Administrative Code.



NYC Buildings

NYC Buildings Department
280 Broadway, New York, NY 10007
Rick D. Chandler, P.E. – Commissioner

BUILDINGS BULLETIN 2015-024
OTCR

Supersedes: None

Related Bulletin(s): 2010-009

Issuer: Alan Price, P.E.
Director, Office of Technical Certification and Research

Issuance Date: September 4, 2015

Purpose: This bulletin establishes acceptance criteria and test methods for solar collectors as addressed in the NYC Construction Codes.

Related Code Section(s):

BC	1704.16	MC	1401	MC	1404
BC	2606.12	MC	1402	FC	Chapter 5
MC	928	MC	1403		

Subject(s): Solar systems, solar collectors

Description: Solar collectors absorb thermal energy from the sun and convert it into usable heat. This bulletin covers the following types of solar collectors:
1. Flat-plate collectors including liquid flat-plate collectors and air flat-plate collectors (insulated metal boxes with a glass or plastic cover).
2. Evacuated-tube collectors (parallel rows of transparent glass tubes).
3. Integral collector storage systems (one or more black tanks or tubes in an insulated, glazed box).

Other types of solar collectors not addressed in this bulletin shall be subject to the evaluation of the Office of Technical Certification and Research ("OTCR").

Evaluation Scope: NYC Construction Codes

Evaluation Criteria: Pursuant to section AC 28-113, the Office of Technical Certification and Research recognizes Solar collectors tested and evaluated in accordance with ISO-9806-2 *"Test methods for solar collectors Part 2"*[1]. Acceptable solar collectors shall be:
1. Tested and evaluated in accordance with ISO-9806-2
2. In accordance with section MC 1404.1, listed by Solar Rating & Certification Corporation (SRCC)[2] ; and
3. In compliance with the conditions of this bulletin.

Uses: Solar collectors can be used for domestic water heating, space heating, swimming pool heating and process heating.

Restrictions:
Flammable liquids or gases shall not be used as a heat transfer fluid as per section MC

Buildings Bulletin 2015-024 Page 1 of 3

build safe | live safe

301.7.1	Appliance Fuel Conversion
404.3	Piping in Public Corridors
404.9	Gas Metering Devices

AGENDA:

- EFFECTIVE DATE OF THE CODE
- SELECT HIGHLIGHTS FROM:
  - ADMINISTRATIVE CODE
  - Building Code
  - Plumbing Code
  - Mechanical Code
  - **Fuel Gas Code**

Fuel Gas Code: APPLIANCE FUEL CONVERSION

FGC 301.7.1

- Appliances shall not be converted to utilize a different fuel gas except where complete instructions for such conversion are provided by the serving gas supplier, the appliance manufacturer, the burner manufacturer or the boiler manufacturer.
- If a specific listing & labeling is available for the burner/boiler combination, it shall be submitted to DOB.
- If a specific listing for the combination is not available the listing and a letter confirming compatibility shall be submitted by the burner manufacturer.
- The completed installation shall be inspected & tested by a representative of manufacturer and certified by a registered design professional. The certifying registered design professional need not be the engineer of record for the design.

Source: https://igpny.com/boiler-after-conversion/

Fuel Gas Code: PIPING IN PUBLIC CORRIDORS

FGC 404.3

- **5. Public corridor.** Gas piping shall not be installed in public corridors and exit enclosures.

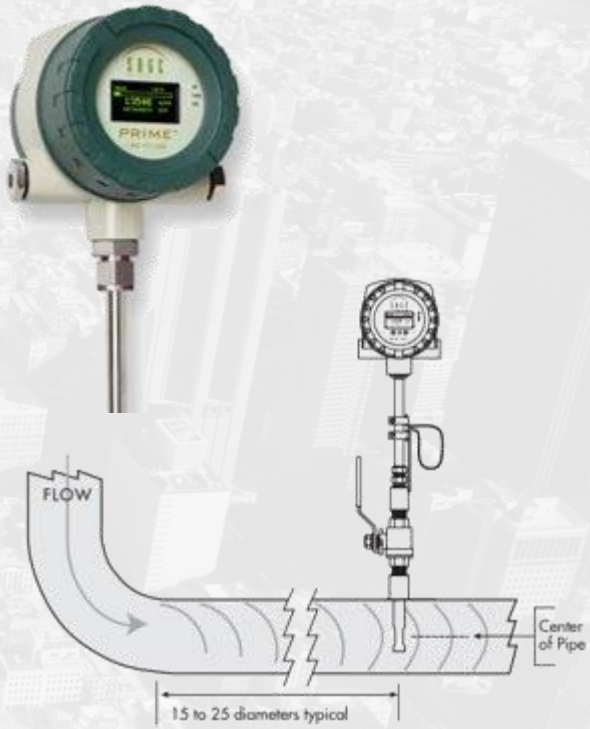
- **Exceptions:**

1. Gas piping may be installed in public corridors or exit enclosures where separated by a fire-resistance-rated assembly meeting the hour rating and, if applicable, the impact resistance rating required for the corridor or exit enclosure. Such assembly shall be rated for exposure to fire from both sides.
2. In residential buildings that do not have floors below grade, or in multi-use buildings that have a residential occupancy, gas piping may be installed in public corridors in accordance with the following:
   - 2.1. Gas piping shall be permitted to be installed within a public corridor at the lowest level of the building or the lowest residential level of the building.
   - 2.2. All gas valves located within the public corridor shall be accessible for maintenance and inspection.
   - 2.3. Gas pressure within the public corridor piping shall not exceed ½ psi (14 in w.c.).
   - 2.4. The public corridor shall be ventilated in accordance with the New York City Mechanical Code. The pipe shall not be installed in a return air plenum.
   - 2.5. Pipes must be welded

Fuel Gas Code: GAS METERING DEVICES

FGC 404.9

- A device shall not be placed inside the piping or fittings that will reduce the cross-sectional area or otherwise obstruct the free flow of gas.
- **Exceptions:**
  1. Approved gas filters.
  2. An approved fitting or device where the gas piping system has been sized to accommodate the pressure drop of the fitting or device.
  3. Approved gas meters for monitoring and analysis of gas usage.



Source: https://sagemetering.com/applications/industrial/natural-gas-sub-metering/

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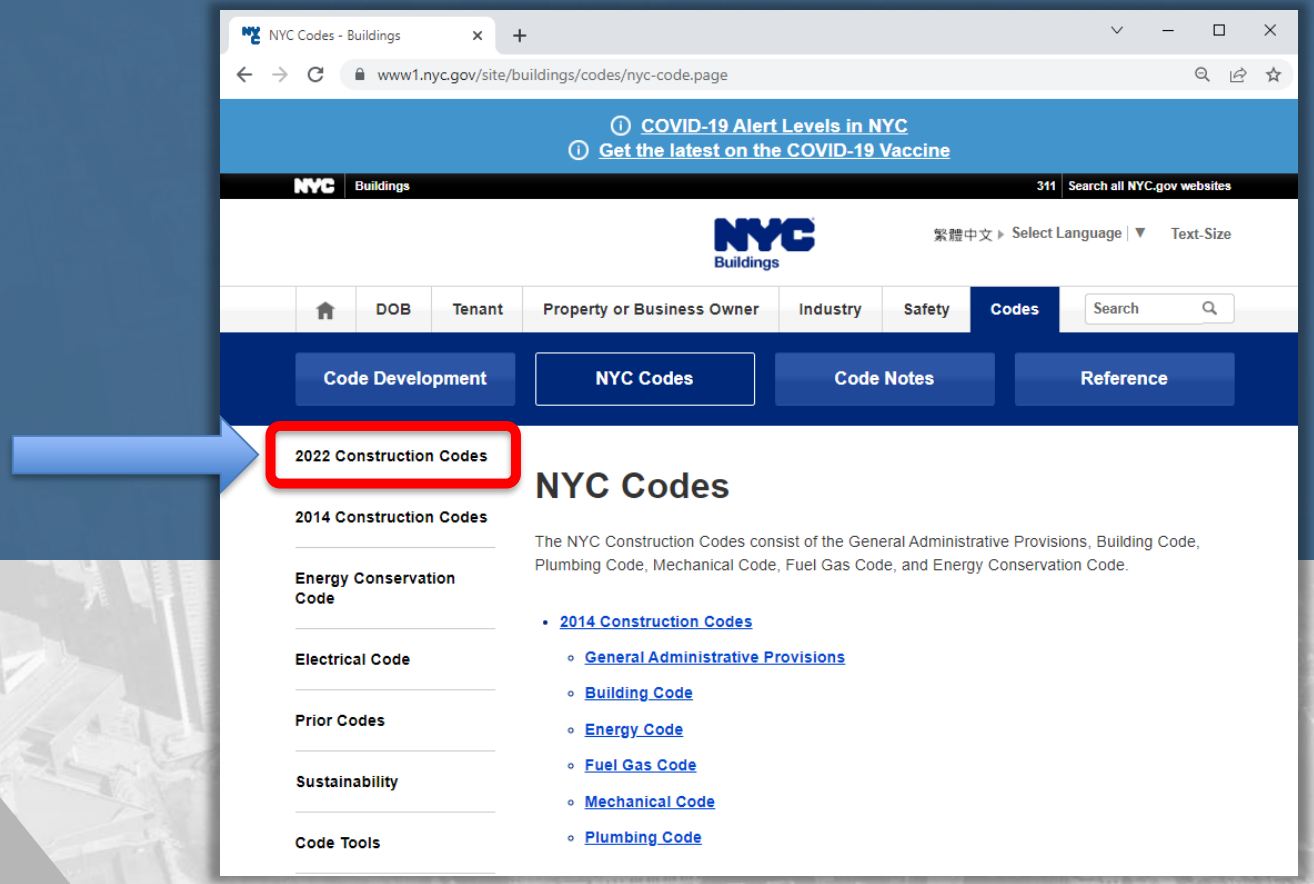

QUESTIONS:

CONSTRUCTIONCODES@BUILDINGS.NYC.GOV