



Michael Alacha, PE
Assistant Commissioner
Engineering and Safety Operations

Commissioner's Forum 2015

- Chapter 33 Key Revisions
- SSM Rule Highlights

NYC
Buildings

Effective Date Chapter 33: Site Safety Sites vs Non-Site Safety Sites

Type of Chapter 33 Work	Trigger	2008 Code (BC 33)	2014 Code (BC 33)
Non-Site Safety Jobs: New Buildings, Alterations, and Partial Demolitions	Construction docs submitted <i>before</i> Dec 31, 2014	✓	
	Construction docs submitted <i>on or after</i> Dec 31, 2014		✓
Site Safety Jobs: New Buildings, Alterations, and Partial Demolitions	Site safety plan approved <i>before</i> Dec 31, 2014	✓	
	Site safety plan approved <i>on or after</i> Dec 31, 2014		✓
Full Demolitions: (Non-Site Safety and Site Safety Jobs)	Demolition permit issued <i>before</i> December 31, 2014	✓	
	Demolition permit issued <i>on or after</i> Dec 31, 2014		✓

BC 3303.10: Occupant and Tenant Protection

- **3303.10 Operations in occupied buildings.** When construction or demolition activity occurs in an occupied building, barricades, signs, drop cloths, and other protective means shall be installed and maintained as necessary to provide reasonable protection for the occupants against hazard and nuisance. Such protective means shall be indicated on an occupant protection plan, or where a tenant protection plan is required by Section 3303.10.1, on a tenant protection plan.
- **3303.10.1 Tenant protection plan.** In buildings containing occupied dwelling units, including newly constructed buildings that are partially occupied where work is still ongoing within the building, all construction or demolition work shall be performed in accordance with a tenant protection plan as required by Chapter 1 of Title 28 of the *Administrative Code*.

BC 3301.1.3: Manufacturer's Specifications

- **3301.1.3 Manufacturer specifications.** All equipment shall be used in accordance with the specifications of the manufacturer, where such specifications exist, and the requirements of this code. Where there is a discrepancy, the stricter requirement shall apply.

BC 3302.1: Definition of Accident

- **3302.1 Definitions.** The following words and terms shall, for the purposes of this chapter, have the following meanings.
- **ACCIDENT.** An occurrence directly caused by construction or demolition activity or site conditions that result in one or more of the following:
 1. A fatality to a member of the public, or
 2. Any type of injury to a member of the public; or
 3. A fatality to a worker; or
 4. **An injury to a worker that requires transport by emergency medical services or requires immediate emergency care at a hospital or offsite medical clinic; or**
 5. Any complete or partial structural collapse or material failure; or
 6. Any complete or partial collapse or failure of pedestrian protection, scaffolding, hoisting equipment, or material handling equipment; or
 7. Any material fall exterior to the building or structure.

BC 3301.8.1: Accidents--Tampering Prohibited

- **3301.8.1 Use and tampering prohibited.** Following an accident, no person shall permit any of the following without the permission of the commissioner, or without a lawful order from the New York City Police or Fire Department:
 - Use or operation of any equipment or structure damaged or involved in the accident; or
 - Removal or alteration of any equipment, structure, material, or evidence related to the accident.
 - **Exception:** Immediate emergency procedures taken to secure structures, temporary construction, operations, or equipment that pose a continued imminent danger or to facilitate assistance for persons who are trapped or who have sustained bodily injury.

BC 3303.3: Watch Person

- **3303.3 Watchperson.** Where an individual building being constructed or demolished has a footprint of between 5,000 square feet (1524 m²) and 40,000 square feet (12 192 m²), a competent watchperson shall be on duty at the site during all hours when operations are not in progress, from the time when the foundation is poured to when all work has concluded and the certificate of occupancy or temporary certificate of occupancy has been issued. Where the building has a footprint of more than 40,000 square feet (12 192 m²), at least one additional watchperson shall be on duty for each additional 40,000 square feet (12 192 m²) of building footprint, or fraction thereof. The watchperson shall be familiar with emergency notification procedures to the Fire Department, shall possess a valid security guard registration with the State of New York, shall hold a valid fire guard certificate from the Fire Department, and for a major building shall have completed the training required by Section 3310.10.

BC 3303.7.1.1: Water Supply—Large Footprint Buildings

- **3303.7.1.1 Large footprint construction.** For a building that has a footprint of 100,000 square feet (30 480 m²) or more, regardless of the height of the building, and the building is substantially enclosed, permanent or temporary fire hydrants available for fire department use shall be provided during the course of construction:
 - Within 50 feet (15 240 mm) of the main entrance; and
 - Along the perimeter of the building, with the hydrants located so that there is at least one hydrant along every 250 feet (76 200 mm) of building perimeter, and with no hydrant more than 50 feet (15 240 mm) from the exterior wall.

BC 3303.8 (3): Construction Standpipe

- **3303.8 Standpipe systems during construction, alteration or demolition.** During construction, alteration or demolition operations, standpipe systems shall comply with the following:
 - 3. When, during the course of the construction of a new building which will have a occupiable space at a depth of 75 feet (22 860 mm) or greater below the level of the ground in a building for which a standpipe system will be required, a permanent or temporary standpipe system meeting the requirements of Section 905 shall be installed and shall be kept in a state of readiness at all times for use by fire-fighting personnel. The standpipe system shall serve all stories below grade and shall be installed as soon as a temporary or permanent stair is installed below grade. No standpipe shall be considered to be in a state of readiness unless it is painted red in accordance with the provisions of Section 905.11 of this code. When freezing conditions may be encountered, the system in whole, or the part of the system subject to freezing conditions, shall be maintained as a dry system.

BC 3303.8.1.4.13: Standpipe Pressure Gauges

- 4.13 Pressure gauges. A system of pressure gauges shall be installed at the compressor and at the most remote points of the system from the compressor.

BC 3303.12.3: Hoist—Deep Excavations

- **3303.12.3 Deep excavations.** Where the proposed lowest level of a building with a footprint of 10,000 square feet (3048 m) or greater is constructed at a depth greater than 75 feet (22 860 mm), a hoist meeting the requirements of Section 3318 shall be available at all times for Fire Department use once such floor has been poured and set . The hoist shall serve the level at grade and all stories below grade.
 - **Exception:** Subject to the approval of the commissioner, alternate means available at all times for Fire Department use, including but not limited to a vehicular ramp, shall be provided.

BC 3309.4.4: Excavation—Movement Monitoring

- **3309.4.4 Monitoring.** During the course of excavation work the following shall be monitored in accordance with Section 3309.16:
 1. Buildings that are within a distance from the edge of the excavation that is equal to or less than the maximum depth of the excavation.
 2. Historic structures that are contiguous to or within a lateral distance of 90 feet (27 432 mm) from the edge of the lot where an excavation is occurring.
 - **Exception:** Monitoring is not required for excavations to a depth of five feet (1523 mm) or less, provided:
 1. The excavation occurs more than 5 feet (1524 mm) from all footings and foundations; or
 2. Where the excavation occurs within five feet (1524 mm) or less from a footing or foundation, such excavation does not occur below the level of the footing or foundation.

BC 3309.16: Excavation—Movement Monitoring Design

- **3309.16 Monitoring plan.** Where monitoring is required by Section 3309, such monitoring shall be in accordance with a monitoring plan developed by a registered design professional and acceptable to the commissioner. The monitoring plan shall be specific to the structures to be monitored and operations to be undertaken, and shall specify the scope and frequency of monitoring, acceptable tolerances, and reporting criteria for when tolerances are exceeded.

BC 3304.12: Excavation—Slurry Operations

- **3304.12 Slurry.** Where slurry is utilized to support an excavation, trench, or drill or bore hole, slurry mix proportions and installation procedures shall be provided by a registered design professional on signed and sealed design and installation procedures. The installation procedures shall account for all imposed loads, including those from the earth, adjacent structures, and adjacent equipment. The use of slurry to support excavations shall be subject to special inspection in accordance with Section 1704.20. Where such construction methods are used to install foundation elements, the new foundation elements installed as part of such operations shall be subject to special inspection as a permanent installation in accordance with the applicable sections of this chapter, including but not limited to special inspection for concrete, and welding.

BC 3305.3.2.1: Form Work—New Design Triggers

- **3305.3.2.1 Design drawings. (New Design Triggers Only)**
 1. For concrete formwork is in a structure classified as a major building; or
 6. Wherever the slab thicknesses or beam heights equal or exceed 10 inches; or
 7. Wherever there are concentrated loads exceeding 2000 lbs. imposed on the formwork; or
 8. Wherever there are loads imposed on existing structures in accordance with Section 3305.3.1.2.1.

BC 3305.3.3.2: Form Work Observation

- **3305.3.3.2 Formwork observation.** In addition to the inspections by the contractor required pursuant to Section 3305.3.3.1, visual observations of the formwork for the general conformance with the design intent shall be performed.....

BC 3306.2.1: Demolition Safety Zone

- **3306.2.1 Safety zone.** A safety zone shall be provided around all demolition areas to prevent persons other than workers from entering such zone. Where demolition occurs on the exterior of a building, such zone shall be approved by the commissioner prior to the commencement of demolition. Where mechanical demolition equipment, other than handheld devices, is to be used for the full demolition of a building, the safety zone shall be equal to or greater than half the height of the building to be demolished; such safety zone may be reduced by the same ratio as the building is being demolished.
 - **Exception:** Approval of the commissioner is not required for a safety zone established for demolition on the exterior of a building, provided the work is a minor alteration or ordinary repair and is accomplished without any mechanical demolition equipment, other than handheld devices.

BC 3306.5: Demolition Submission Documents

- **3306.5 Submittal documents for demolition.** Full and partial demolition operations shall be conducted in accordance with submittal documents. Such submittal documents shall comply with Sections 3306.5.1 through 3306.5.3....

BC 3307.6.2: Sidewalk Sheds—When Required

- **3307.6.2 Where required.** A sidewalk shed shall be installed and maintained to protect all sidewalks, walkways, and pathways within the property line of a site, and all public sidewalks that abut the property....

BC 3307.6.5.2 and 6.5.3: Side Walk Shed--Installation and Maintenance

- **3307.6.5.2 Supervision of installation, adjustment, repair, and removal.** The installation, adjustment, repair, or removal of a sidewalk shed shall be performed under the supervision of a competent person designated by the permit holder for the sidewalk shed.
- **3307.6.5.3 Responsibility for maintenance and use.** Sidewalk sheds shall be maintained and used by the general contractor, or where there is no general contractor, the contractor causing the work to be performed, or where there is no active work, the building owner.

BC 3307.6.5.10: Sidewalk Sheds—Daily Inspections

- **3307.6.5.10 Daily inspection.** Sidewalk sheds shall be visually inspected daily by a person designated by the general contractor, or where there is no general contractor, the contractor causing the work to be performed, or where there is no active work, by the building owner to verify:
 - The lights are functioning;
 - No brace or rail is hanging unattached at one or more ends;
 - No portions of the support structure are disconnected;
 - No section of parapet is missing; and
 - All legs remain on their support and are supported to the ground.
- **Exception:** The inspections for a scaffold suspended or supported above a sidewalk shed shall be in accordance with Section 3314.

BC 3307.6.5.7 and 6.5.8: Periodic Sidewalk Shed Inspection

- **3307.6.5.7 Installation inspection.** Upon completion of the installation of a sidewalk shed, the shed shall be inspected by a qualified person designated by the designer, the permit holder for the shed, or a third party acceptable to both the designer and the permit holder to verify that the sidewalk shed is in a safe condition and has been installed in accordance with drawings and the requirements of this chapter. Following the inspection, the qualified person who inspected the sidewalk shed shall prepare, sign, and date an installation inspection report. A new installation inspection report shall be prepared each time the sidewalk shed is reinstalled at the site.
- **3307.6.5.8 Periodic inspection.** Six months following the initial installation inspection, and every six months thereafter, the sidewalk shed shall be inspected by a qualified person designated by the designer, the permit holder for the shed, or a third party acceptable to both the designer and the permit holder to verify that the sidewalk shed is in a safe condition and is in compliance with drawings and the requirements of this chapter. Following the inspection, the qualified person who inspected the sidewalk shed shall prepare, sign, and date an inspection report.

BC 3307.7.5: Construction Fence Design

- **3307.7.5 Design of fences.** Fence installations shall be designed by a registered design professional. The effect of wind on the fence shall be considered in the design in accordance with Chapter 16.
 - **Exceptions:**
 1. Fences installed in connection with the construction or demolition of a one- two- or three-family building.
 2. Fences that conform to a standard design approved by the commissioner provided the fence is installed at the site in accordance with the standard design.

BC 3309.1.1: Notification To Adjoining Property Owner

- **3309.1.1 Notification.** Where a construction or demolition project will require access to adjoining property in accordance with this section, written notification shall be provided to the adjoining property owner at least 60 calendar days prior to the commencement of work. Such notification shall describe the nature of work, estimated schedule and duration, details of inspections or monitoring to be performed on the adjoining property, protection to be installed on the adjoining property, and contact information for the project. Where no response is received, a second written notification shall be made no more than 45 calendar days, and not less than 30 calendar days, prior to the commencement of work.

BC 3309.10: Roof Protection

- **3309.10 Protection of roofs.** Whenever any building is to be constructed or demolished above the roof of an adjoining building, it shall be the duty of the person causing such work to protect from damage at all times during the course of such work and at his or her own expense the roof, skylights, other roof outlets, and equipment located on the roof of the adjoining building , and to use every reasonable means to avoid interference with the use of the adjoining building during the course of such work, provided such person causing such work is afforded a license in accordance with the requirements of Section 3309.2 to enter and inspect the adjoining building and perform such work thereon as may be necessary for such purpose; otherwise, the duty of protecting the roof, skylights, other roof outlets, and equipment on the roof of the adjoining building shall devolve upon the owner of such adjoining building.
- Adjoining roof protection shall be secured to prevent dislodgement by wind. Where construction or demolition work occurs at a height of at least 48 inches (1219 mm) above the level of the adjoining roof, adjoining roof protection shall consist of 2 inches (51 mm) of flame-retardant foam under 2 inches (51 mm) of flame-retardant wood plank laid tight and covered by flame-retardant plywood, or shall consist of equivalent protection acceptable to the commissioner, and shall extend to a distance of at least 20 feet (508 mm) from the edge of the building being constructed or demolished.

BC 3314.4.4.6: Scaffolds—Wind Restrictions

- **3314.4.4.6 Winds.** Where sustained winds or wind gusts at the site exceed **30 miles per hour**, the use and operation of scaffolds located on the roof of a building, exterior to a building or structure, on a working deck, or in an area with an unenclosed perimeter shall cease. If the manufacturer or designer of the scaffold recommends work to cease at a lower wind speed, such recommendation shall instead apply. Wind speed shall be determined based on data from the nearest United States weather bureau reporting station, or an anemometer located at the site, freely exposed to the wind, and calibrated in accordance with ASTM D5096-02.

BC 3314.4.1.5: Suspended Scaffold--Notification

- **3314.4.1.5 Notification of adjustable suspended scaffold installation and removal.** Prior to the initial installation of the adjustable suspended scaffold at a site, and prior to the final removal of the adjustable suspended scaffold at a site, the department shall be notified at least 24 hours, but not more than 48 hours, prior to such installation or removal.

BC 3314.2: Supported Scaffolds—Permit Exceptions

4. A permit is **not** required for a supported scaffold, provided:
 - 4.1. The scaffold is not an outrigger scaffold (thrust out);
 - 4.2. No hoisting equipment with a manufacturer's rated capacity greater than 2,000 pounds (907kg) will be located on the scaffold;
 - 4.3. The scaffold will not be loaded, or designed to be loaded, in excess of 75 pounds per square foot (366.15 kg/m²); and
 - 4.4. The scaffold is less than 40 feet (12 192mm) in height.

SSM Rule Highlights

- Establishes a new table of inspections for façade jobs.
- Prior to the start of a façade job, requires a site safety manager to inspect, to verify compliance with the site safety plan.
- For the full recladding of a façade, requires a site safety manager to be present full time.

SSM Rule Highlights...

- For façade repairs/alteration/maintenance (not full recladding), requires a site safety manager to be present during the following operations:
 - Supported scaffold installation or removal (but not including the relocation of existing deck planking or guardrails to a different level of the scaffold, provided such relocation is designated on the scaffold design documents);
 - Mast climber installation or removal; or
 - As designated by the Commissioner

SSM Rule Highlights...

- For façade repairs/alteration/maintenance (not full recladding), requires a site safety manager or a licensed rigger/foreman to be present during the following operations:
 - Suspended scaffold installation or removal;
 - Suspended scaffold use; or
 - Hoisting machine installation or removal.

SSM Rule Highlights...

- For façade repairs/alteration/maintenance (not full recladding), when the site safety manager is not present, requires a qualified person, designated by the permit holder, for the façade project to be present.
- The qualified person shall perform the site safety inspections and record the results in the site safety log.

SSM Rule Highlights...

- The qualified person can either be a:
 - Licensed rigger;
 - Rigging Forman; or
- Possesses all of the following qualifications:
 - Completed the 40-hour site safety manager course (and every three years thereafter, complete the 7-hour site safety manager refresher course);
 - Completed the supported scaffold user training;
 - Completed the suspended scaffold user training; and
 - Completed the OSHA 30-hour course (and every five years thereafter, complete the OSHA 10-hour course).