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PRESENTATION DESCRIPTION

This presentation will provide highlights of the upcoming 2022 NYC Building Code revisions related to Chapter 33 - Safeguards During Construction or Demolition. Specific sections of Chapter 33 will be discussed including:

- Soil and Foundation Work (BC 3304)
- Demolition (BC 3306)
- Sidewalk Sheds/ Protection of Pedestrians (BC 3307)
- Scaffolding (BC 3314)
- Site Safety (BC 3301, BC 3310).



2022 NYC CONSTRUCTION CODES

- The NYC Construction Codes were amended by Local Law 126 of 2021.
- The 2022 Construction Codes are effective November 7, 2022
- Local Law 149 of 2021 made significant changes to the Construction Superintendents (CS) designation.
- Some changes of Local Law 149 go into effect before the 2022 Codes, other changes will go into effect at the same time as the 2022 Codes.



BUILDINGS BULLETIN 2022-007 2014 & 2022 CONSTRUCTION CODE APPLICABILITY





TABLES OF 2014 & 2022 CONSTRUCTION CODES APPLICABILITY

Table 1: APPLICATIONS FOR CONSTRUCTION, ALTERATION, OR DEMOLITION WORK
(EXCEPT BC CHAPTER 33 WORK & PERMITS FOR TEMPORARY CONSTRUCTION INSTALLATIONS, CRANES,
DEPORTS AND MAST CHAPTER STATEMENT OF TEMPORARY CONSTRUCTION INSTALLATIONS, CRANES,
DEPORTS AND MAST CHAPTER STATEMENT.

WORK TYPE	TRIGGER	DATE	2014 Code	2022 Code
New Buildings	Application for construction document approval submitted	Before November 7, 2022 ^{s, b}	~	
		On or after November 7, 2022		✓
Alterations to	Application for construction	Before November 7, 2022 ^{b, d}	·	
Existing Buildings (incl. Partial Demolitions) ^c	document approval submitted	On or after November 7, 2022		1
Full Demolitions -	Submittal documents submitted; or if submittal	Before November 7, 2022 ^b	1	
Site Safety Plan Filing Not Required ^o	documents not required, pre- demolition inspection package submitted	On or after November 7, 2022		1
Full Demolitions -		Before November 7, 2022b.1	·	
Site Safety Plan Filing Required*	Site safety plan approved	On or after November 7, 2022		1

Table 2: APPLICABILITY OF BC CHAPTER 33 TO THE WORK

(EXCEPT PERMITS FOR TEMPORARY CONSTRUCTION INSTALLATIONS, CRANES, DERRICKS, AND MAST CLIMBERS)

WORK TYPE	TRIGGER DATE		2014 Code BC 33	2022 Code BC 33
New Buildings & Alterations to Existing Buildings (incl.	Site safety plan approved	Before November 7, 2022 ^{b, g}	✓	
Partial Demolitions) Site Safety Plan Filing Required*		On or after November 7, 2022		✓
Full Demolitions - Site Safety Plan Filing <u>Required</u> ^e	Site safety plan approved	Before November 7, 2022 ^{b, f}	~	
		On or after November 7, 2022		✓
New Buildings & Alterations to Existing Buildings (incl. Partial Demolitions) - Site Safety Plan Filing Not Required*	Application for construction document approval submitted	Before November 7, 2022*, b	~	
		On or after November 7, 2022		✓
Full Demolitions - Site Safety Plan Filing <u>Not Required</u> ®	Application for approval submitted	Before November 7, 2022 ^b	~	
		On or after November 7, 2022		✓

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- Chapter 33 applicability, where a SSP is required to be filed (NB, Alt, DM applications) with DOB the plan must be approved prior to 11/7/2022.
- Chapter 33 applicability, where a SSP is not required to be filed (NB, Alt, DM applications) underlying applications must be submitted for approval prior to 11/7/2022.
- Temporary construction installations (sidewalk sheds, scaffolds, etc.), cranes, derricks, and mast climber applications must be submitted for approval prior to 11/7/2022.



BC 3301 & BC 3310: GENERAL SITE SAFETY & MAJOR BUILDINGS



BC 3301.3 & BC 3301.13.3: CONSTRUCTION SUPERINTENDENT DESIGNATION AND EXCEPTION

CS under BC 2014

3301.13.3 Designation of primary construction superintendent...

Exceptions: Notwithstanding the above, a construction superintendent is not required for:

- Work listed in Section 3310.1, for which a site safety manager or coordinator must be designated.
- Work which solely involves the construction of a new 1-, 2-, or 3-family building.

CS under BC 2022

3301.13.3 Designation of primary construction superintendent...

Exception: A construction superintendent is not required for work that solely involves a 1-, 2-, or 3-family building, or an accessory use to such building, provided the permit holder for such work is registered as a general contractor in accordance with Article 418 of Chapter 4 of Title 28 of the Administrative Code.

3301.3 Site safety managers, coordinators and [superintendent of construction] construction superintendents. A site safety manager or site safety coordinator must be designated and present at the construction or demolition of a major building in accordance with Section 3310. A [superintendent of construction] construction superintendent is required for the construction or demolition of [such other] buildings as identified in Section 3301.13.3.

3301.13.3 Designation of primary construction superintendent. The permit holder shall designate a primary construction superintendent who shall carry out all duties and responsibilities assigned to the construction superintendent by this chapter and rules promulgated by the commissioner, and notify the department of such designation, prior to the commencement of work, for the following types of jobs:

- 1. The construction of a new building;
- 2. The full demolition of an existing building;
- 3. An alteration to an existing building that involves one or more of the following:
 - 3.1 A vertical enlargement;
 - 3.2 A horizontal enlargement;
 - 3.3 The alteration or demolition of more than 50 percent of the gross floor area of the building during the course of work over any 12-month period;
 - 3.4 The removal of one or more floors during the course of work over any 12-month period;
 - 3.5 Work that requires a special inspection for underpinning; or
 - 3.6 Work that requires a special inspection for the protection of sides of excavations; or
- Other jobs that pose an enhanced risk to the public and property, as determined by the commissioner.

Exception: A construction superintendent is not required for work that solely involves a 1-, 2-, or 3-family building, or an accessory use to such building, provided the permit holder for such work is registered as a general contractor in accordance with Article 418 of Chapter 4 of Title 28 of the *Administrative Code*.



BC 3301.3 & BC 3301.13.3: CONSTRUCTION SUPERINTENDENT DESIGNATION AND EXCEPTION

Summary

- 1. Exemption for 1, 2, 3 family projects expanded from **new building (NB)** to **all** work provided the permit holder is registered as a General Contractor (GC).
 - If the permit holder has any other status, a CS would have to be designated if the work is subject to BC 3301.13.3.
 - Effective for 1, 2, 3 family projects whose application for construction document approval submitted is on or after November 7, 2022.
 - 1-2-3 Family **2014 Code projects** subject to the provisions of BC 3301.13.3 must maintain CS until signed off or released regardless of November 7, 2022, effective date.



BC 3301.3 & BC 3301.13.3: CONSTRUCTION SUPERINTENDENT DESIGNATION AND EXCEPTION

Summary (continued)

2. Exemption for major buildings removed from the 2022 Code.

EFFECTIVE for major building projects subject to the provisions of BC 3301.13.3 (i.e., NBs, enlargements, etc.), whose site safety plan is approved on or after November 7, 2022.

Major building projects subject to the provisions of the 2022 code BC 3301.13.3 must designate a Construction Superintendent in addition to designating a Site Safety Manager/Coordinator.



BC 3301.13.6 LIMITATIONS ON THE DESIGNATION OF PRIMARY OR ALTERNATE CONSTRUCTION SUPERINTENDENT

3301.13.6 Limitations on the designation of primary or alternate construction superintendents. An individual may only be designated as a primary or alternate construction superintendent for that number of jobs for which he or she can adequately perform all required duties. No individual may be designated as the primary construction superintendent on more than ten jobs.

Exceptions:

- J. If one of the jobs for which the construction superintendent is designated as a primary construction superintendent is on a building that meets the definition of a major building, the individual may only be designated as the primary construction superintendent for that job and may not serve as the primary construction superintendent for any other job.
- Notwithstanding exception 1, beginning on June 1, 2022, no individual may be designated as the primary construction superintendent for more than five jobs.
- Notwithstanding exception 1, beginning on January 1, 2024 or a later date established by the department, provided that such date is not later than January 1, 2025, no individual may be designated as the primary construction superintendent for more than three jobs.
- 4. Notwithstanding exception 1, beginning on January 1, 2026 or a later date established by the department, provided that such date is not later than January 1, 2027, no individual may be designated as the primary construction superintendent for more than one job.
- 5. A construction superintendent designated as the primary construction superintendent at a job site may serve as a non-primary construction superintendent at another job site, provided there is no work requiring the presence of such individual occurring at the job site for which the individual has been designated as the primary construction superintendent.
- Subject to the approval of the commissioner, a construction superintendent may serve as the primary construction superintendent for multiple non-major building jobs located on the same lot or on contiguous lots.

EXCEPTIONS:

- 1. If one of the jobs for which the construction superintendent is designated as a primary construction superintendent is on a building that meets the definition of a major building, the individual may only be designated as the primary construction superintendent for that job and may not serve as the primary construction superintendent for any other job.
- 2. Notwithstanding Exception 1, **beginning June 1, 2022**, no individual may be designated as the primary construction superintendent for **more than five jobs**.
- 3. Notwithstanding exception 1, **beginning January 1, 2024**, or a later date established by the department, provided that such date is not later than January 1, 2025, no individual may be designated as the primary construction superintendent for **more than three jobs**.
- 4. Notwithstanding exception 1, **beginning January 1, 2026**, or a later date established by the department, provided that such date is not later than January 1, 2027, no individual may be designated as the primary construction superintendent for **more than one job**.



BC 3301.13.12 COMPETENT PERSON

3301.13.12 Competent person. The construction superintendent must designate a competent person for each job site for which the construction superintendent is responsible and ensure such competent person is present at the designated job site at all times active work occurs when the construction superintendent is not at the site. The designation of a competent person does not alter or diminish any obligation imposed upon the construction superintendent. The competent person must carry out orders issued by the construction superintendent; be able to identify unsanitary, hazardous or dangerous conditions; take prompt corrective measures to eliminate such conditions; immediately report to the construction superintendent incidents at the job site or any damage to adjoining property caused by construction or demolition activity at the job site; and be able to effectively communicate workplace instructions and safety directions to all workers at the site.

Exception: Beginning January 1, 2026 or a later date established by the department, provided that such date is not later than January 1, 2027, where Section 3301.13.6 requires the construction superintendent to be dedicated to one job, the designation of a competent person is not authorized. In the event the primary construction superintendent cannot be present at the job site while active work is occurring, an alternate construction superintendent shall act on behalf of the primary construction superintendent in accordance with Section 3301.13.5.

Summary

The Competent Person allowance will end on January 1, 2026. (or later as established by the Department, but no later than January 1, 2027).

When the Competent Person allowance ends, a CS will only be allowed to be designated to one site (this will be the case for both major and non-major buildings).

When the Competent Person allowance ends, the CS must be at the site full-time while work is occurring. If the CS leaves while work is ongoing, another CS will have to sign in and serve in his/her place as per BC 3301.13.5.



BC 3301.13.7 DUTIES OF CONSTRUCTION SUPERINTENDENTS

No major changes regarding the duties of a Construction Superintendent.

3301.13.7 Duties of construction superintendents. The duties of a construction superintendent shall include:

- Acting in a reasonable and responsible manner to maintain a safe job site and ensure compliance with this chapter and any rules promulgated thereunder at each job site for which the construction superintendent is responsible;
- To the extent that a registered design professional or special inspection agency is not responsible, the construction superintendent must ensure compliance with the approved documents at each job site for which the construction superintendent is responsible;
- Fulfilling the duties of a superintendent of construction assigned by Chapter 1 of Title 28
 of the Administrative Code at each job site for which the construction superintendent is
 responsible; and
- 4. Visiting each job site for which the construction superintendent is responsible each day when active work is occurring[.]; or, beginning January 1, 2026 or a later date established by the department, provided that such date is not later than January 1, 2027, where Section 3301.13.6 requires the construction superintendent to be dedicated to one job, being present at the job site for which the construction superintendent is responsible during all times when active work is occurring.

Exception: The construction superintendent is not required to be present at the site during the following activities, provided no other work is in progress:

- 1. Surveying that does not involve the disturbance of material, structure, or earth;
- Use of a hoist to transport personnel only;
- 3. Use of a material hoist that is fully enclosed within the perimeter of the building;
- 4. Finish trowelling of concrete floors;
- 5. When personnel are provided for temporary heat, light, or water; [or]
- Truck deliveries to the site where the sidewalk is closed and the entrance gate is within that closed sidewalk area;

Painting; or

 Landscaping that does not that does not involve the disturbance of material, structure, or earth.



BC 3301.13.8 INSPECTION BY THE CONSTRUCTION SUPERINTENDENT

3301.13.8 Inspection by the construction superintendent. Each time the construction superintendent visits a job site for which he or she is responsible, the construction superintendent must inspect all areas and floors where construction or demolition work, and ancillary activity, is occurring, and:

- Verify work is being conducted in accordance with sound construction/demolition practices;
- 2. Verify compliance with the approved documents; and
- Verify compliance with this chapter and any rules promulgated thereunder.

Exception: Where a site safety manager or coordinator has been designated for the job in accordance with Section 3310, the construction superintendent does not need to perform the inspections required by this section. Site safety inspections shall be performed by the site safety manager or coordinator in accordance with Section 3310.

NOTE: the major building exception does not relieve the CS of their duties. It only notes the CS does not personally have to perform the inspections. They still need to verify that the site is safe and compliant, etc.



1 RCNY 104-08 & 1 RCNY 3301-02 AMENDMENT

In order to **register qualified individuals as a construction superintendent**, the department is creating a temporary window:

- 1. Removes the prohibition on a Site Safety Manager (SSM) or Site Safety Coordinator (SSC) also holding a Construction Superintendent (CS) Registration. Only **one** license is allowed to be **used** at a time.
- 2. Allows SSM, SSC, PEs, RAs, Certified Safety Professional (CSP) and Construction Health and Safety Technician (CHST) to automatically register as a CS provided minimum qualifications are met. Valid SST Supervisor Card, 10 or 30 hour OSHA card, and 40 hour site safety course (and obtain a SST supervisor card by the time they serve as a construction superintendent).
- 3. Effective August 15th, 2022. 2022 Code provisions effective November 7th, 2022. The window will be open only from August 15th to November 6th.
- 4. Separately, individuals can (and will continue) to register as a construction superintendent based upon having obtained prerequisite construction supervision experience. See the DOB licensing website for further info.



SITE SAFETY OVERSIGHT: 2022 CODE CHANGES

Duties of the Construction Superintendent (CS), Site Safety Manager (SSM) or Site Safety Coordinator (SSC) at Major Buildings

- The 2022 Code has revised the inspection, reporting, logging, and other duties of the CS and SSM/SSC.
- The Department has an in-depth presentation regarding these revisions.
 We encourage all to review this presentation:
 - https://www1.nyc.gov/assets/buildings/pdf/presentations/bsls22-chapter33_code_updates.pdf



BC 3304 SOIL & FOUNDATION WORK



BC 3304.1 SCOPE, BC 3304.1.2 SAFETY OF THE PUBLIC & PROPERTY, BC 3304.2 PERMIT

SECTION BC 3304 SOIL AND FOUNDATION WORK

3304.1 Scope. The provisions of this section shall apply to all soil and foundation work, including but not limited to <u>drilling or</u> excavations made for the purposes of taking earth, sand, gravel, <u>rock</u>, or other material, as well as to soil and foundation work related to accessory uses such as garages, pools, and decks, and also to the underpinning or bracing of buildings or structures, in order to safeguard the public and property from such work. <u>In addition to the requirements of this section</u>, the applicable sections of Chapter 18 shall also apply to soil and foundation work.

<u>as necessary</u>, supported, in a manner to prevent injury to the public, damage to property, or collapse, subsidence, or uncontrolled loss of earth or rock.

<u>3304.2 Permit.</u> A permit shall be obtained prior to the commencement of soil or foundation work when required by Chapter 1 of Title 28 of the *Administrative Code*.

- Reference to the applicable sections of Chapter 18 Soils and Foundations.
- General statement to perform work to safeguard public and property
- Permit required
- Codifying previous requirements in BC 3304



BC 3304.3.1 NOTIFICATION OF THE DEPARTMENT & BC 3304.3.7 CALL BEFORE YOU DIG

3304.3.1 Notification of the department. No soil or foundation work within the property line shall commence unless the permit holder, or where there is no permit holder the person causing the soil or foundation work to be made, notifies the department, via phone or electronically, at least 24 hours, but no more than 48 hours prior to the commencement of such work. The notification shall state the date that such soil or foundation work is to commence and include a "Call before you dig" confirmation number verifying compliance with the notification requirements of Section 3304.3.7. Should the notification date fall on a weekend or official holiday, the permit holder, or where there is no permit holder the person causing the soil or foundation work to be made, shall notify the department on the last business day before the commencement date.

3304.3.7 Call before you dig notification. "Call before you dig" notification shall be provided in accordance with the requirements of 16 NYCRR Part 753. The notification must address all street frontages associated with the soil and foundation work.



Earthwork Notification: 811 (Call Before You Dig)
One Call Ticket Number Requirement

Beginning May 1, 2017, the Department of Buildings requires Earthwork Contractors to provide the 811 (Call Before You Dig) One Call ticket number when making normal notification of the commencement of earthwork. The required ticket number can be obtained through the 811 One Call phone number or online at www.newyork-811.com.

Notification is not complete unless the 811 ticket number is provided to the Department. Once the Department receives the required ticket number, the information will be recorded in the Department's notification database. All documents related to the notification **must** be kept on-site and available upon request.

NOTE: The 811 ticket number must address all street frontages associated with the excavation.

To complete the Department's Earthwork Notification, please call (212) 393-2550. For questions or additional information, please email Elnquiry@buildings.nyc.gov.

- Codifying previous Earthwork Notification requirements.
- The 811 ticket number must address all street frontages.



BC 3304.4.1 SUPPORT OF EXCAVATION CONSTRUCTION DOCUMENTS

3304.4.1 Support of excavation construction documents. Means of supporting excavations, including related or resulting embankments, rock faces, and soil slopes, shall be indicated on construction documents. Such means of supporting excavations shall be installed and maintained in accordance with the construction documents. The construction documents shall be prepared by a registered design professional who has demonstrated knowledge or experience in the design of retaining structures or bracing systems for the support of excavation. Where the excavation exceeds 20 feet (6096 mm) in depth, the registered design professional shall be a New York State licensed professional engineer.

Exceptions: Construction documents indicating the means of supporting the excavation are not required if:

- 1. The excavation meets the conditions specified in Items 1.1 through 1.4:
 - 1.1. Is less than 5 feet (1524 mm) in depth:
 - 1.2. Occurs above the level of the water table;
 - 1.3. Occurs more than 5 feet (1524 mm) from all streets, sidewalks, tunnels, railroad tracks, public right of ways, and retaining walls; and
 - 1.4. Occurs either:
 - 1.4.1. More than 5 feet (1524 mm) from all footings and foundations; or
 - 1.4.2. When within 5 feet (1524 mm) or less from a footing or foundation, does not extend below the level of the footing or foundation.
- 2. The excavation meets the conditions specified in Items 2.1 through 2.3:
 - 2.1. Occurs more than 5 feet (1524 mm) from all footings, foundations, streets, sidewalks, tunnels, railroad tracks, public right of ways, and retaining walls;
 - 2.2. Does not exceed 20 feet (6096 mm) in depth; and

- Revised and moved from BC 3304.2, 2014 Code (Support of Excavation Drawings).
- Modified to include additional requirements (i.e., water table, depth restriction, etc.)
- When an excavation exceeds 20 feet in depth the RDP is required to be a PE



BC 3304.4.1 SUPPORT OF EXCAVATION CONSTRUCTION DOCUMENTS

2.3. Either:

- 2.3.1. The slope of the excavation does not exceed 1.5 horizontal to 1 vertical (34 degrees measured from the horizontal), with no benching allowed; or
- 2.3.2. A registered design professional determines the soil type, and the excavation is properly sloped or benched for the soil type in accordance with the requirements of Section 3304.4.2. Determination of the soil type shall be based upon a site specific evaluation, and documentation of the determination, signed and sealed by the registered design professional, shall be kept at the site.
- A trench box is utilized in accordance with the manufacturer's specifications, provided a physical copy of the manufacturer specifications are available onsite.
- 4. It is a trench that complies with Table 3304.4.1, including all notes to the table.
- 5. The excavation is performed in conjunction with the installation or removal of an exterior in-ground pool, provided such pool is an accessory to a one-or two-family home, is limited to 400 square feet (121.92 square meters) in area, and further provided that the distance from the edge of the pool to any building, structure, or lot line is greater than the depth of the deepest portion of the pool.
- 6. Where demolition drawings are required by Section 3306.5, separate support of excavation construction documents for the removal of the foundation are not required, provided the details required for a support of excavation drawing are instead shown on the demolition drawings.

(continued)

- 2.3.1: Modified to include additional requirements and options for sloped and benched excavations.
- 2.3.2: RDP can determine appropriate slope or bench requirements based on the site-specific soil type. Not to exceed 45 degrees. RDP documentation must be kept on site
- Better in line with OSHA regulations.



BC 3304.4.1 SUPPORT OF EXCAVATION CONSTRUCTION DOCUMENTS

TABLE 3304.4.1

MINIMUM SIZES OF TIMBER BRACING AND TIMBER SHEET PILING FOR TRENCHES NOT EXCEEDING 10 FEET (3048 MM) IN DEPTH AND 15 FEET (4572 MM) IN WIDTH

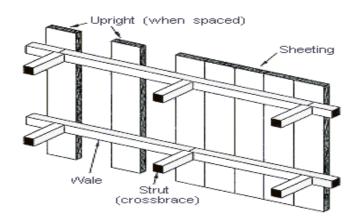
Depth of trench	Width of trench	Nominal size of cross bracing at 6 feet (1829 mm) horizontal spacing	Shoring
<u>Up to 10 ft (3048 mm)</u>	<u>Up to 9 ft (2743 mm)</u>	6 in x 8in (152 mm x 203 mm)	Sheet Piling, 2 ft x 6 ft (610 mm x 1829 mm), spaced tight,
	<u>Up to 15 ft (4572 mm)</u>	8in x 8in (203 mm x 203 mm)	and Wales, 12 in x 12 in (305 mm x 305 mm), with 5 ft (1524 mm) maximum vertical spacing

Notes to Table 3304.4.1:

- 1. All timber or equivalent substitute to have bending strength of 850 psi or above.
- The depth of the trench shall be considered the depth from top of grade, not top of shoring structure should a portion of the support of
 excavation be by benching or sloping methods.
- 3. Table shall not be utilized if any of the following are met:
 - a. Trench exceeds the specified dimensions.
 - b. Stored material or structures are present within a distance equal to the depth of the trench.

(continued)

- Addition of Table 3304.4.1 for trench support (Exception #4).
- Table 3304.4.1 provides minimum sizes and limitations for trench support not exceeding 10 feet deep by 15 feet in width





BC 3304.4.1.1 CONTENT OF SUPPORT OF EXCAVATION CONSTRUCTION DOCUMENTS

3304.4.1.1 Content of support of excavation construction documents. Support of excavation construction documents shall, at a minimum:

- 1. Be specific to the site;
- Be fully dimensioned;
- 3. Account for the entire scope of work;
- 4. Indicate all items required by Section 107.8;
- 5. Indicate soil or rock type and bearing capacity;
- 6. Indicate the water table elevation;
- 7. Indicate if dewatering is needed, and if a dewatering plan is required by Section 3303.14.5, note that a dewatering plan is required and the depth at which the dewatering plan must be put into effect. Further, where a dewatering plan is required by Section 3303.14.5, note the depth at which work must stop if a dewatering plan has not been provided; such depth must be equal to or shallower than the depth specified for the dewatering plan to be put into effect;
- Indicate the support of excavation, including but not limited to sloping, benching, sheeting, shoring, and bracing;
- 9. For an excavation in rock, any supplemental support of the rock face;
- 10. Indicate all structures, utilities, infrastructure, and subsurface structures impacted by the soil or foundation work;

- Addition of minimum content requirements for SOE Construction Documents.
- 16 specific items indicated.
- Documenting and compiling items that were previously required into one coordinated list to be included in the SOE construction documents.
- Dewatering included and reference to that plan is required including when to begin, end, or halt, etc.



BC 3304.4.1.1 CONTENT OF SUPPORT OF EXCAVATION CONSTRUCTION DOCUMENTS

- 11. Indicate the design load imposed for temporary construction installations, material, and equipment, including but limited to sidewalk sheds, scaffolds, runback structures, cranes, excavators, and stored or piled material, and note that all temporary construction installations or equipment that will impose a load on the support of excavation in excess of the design load imposed must be reviewed for acceptability by the designer of the support of excavation;
- 12. Indicate the sequence of the excavation operation and the installation and removal of the support of excavation, including all relevant phasing, and including the depth at which support of excavation must be installed;
- 13. Account for the provisions of Section 3304.4.5;
- 14. Reference the monitoring plan, where a monitoring plan is required;
- 15. Specify required inspections and inspection intervals for the support of excavation, including special inspections; and
- 16. Where slurry is utilized to support the excavation, the information required by Section 3304.12 shall also be indicated.

(continued)

- Addition of design capacity for temporary loads imposed on the SOE system (i.e., surcharge pressures due to equipment, material storage, sidewalk sheds, hoists, cranes, etc.)
- Any temporary loads exceeding the design load capacity and locations indicated must be reviewed and approved by the designer of the SOE system (i.e., loads imposed).
- Specific sequence of excavation including phasing, support installation/ removal and relevant depths added.
- Reference to the monitoring plan
- Inspection requirements as well as inspection intervals to be specified and included



BC 3304.4.1.2 GEOTECHNICAL ANALYSIS & BC 3309.4.3 PRECONSTRUCTION SURVEY

3304.4.1.2 Geotechnical analysis and relevant reports. The support of excavation construction documents shall be developed based upon site specific testing and analysis performed by a registered design professional who has demonstrated knowledge or experience in geotechnical evaluation. The support of excavation construction documents must incorporate all the conditions and findings identified in the geotechnical report required by Section 1803.6, the evaluation analysis required by Section 1817, and the preconstruction survey required by Section 3309.4.3.

1817.3 Evaluation of adjacent buildings for suitable method of support. At the time of foundation plan approval, an engineer shall submit an evaluation report to the department assessing the condition of the existing building and the subsurface conditions of the construction site and adjacent property. The report shall also identify acceptable method(s) of support, including underpinning or alternate methods of support, for the building. This evaluation shall be performed in accordance with the requirements of Section 1817.3.1 through 1817.3.6.

3309.4.3 Preconstruction survey. No excavation work to a depth of 5 feet to 10 feet (1524 mm to 3048 mm) within 10 feet (3048 mm) of an adjacent building, or an excavation over 10 feet (3048 mm) anywhere on the site shall commence until the person causing an excavation to be made has documented the existing conditions of all adjacent buildings in a preconstruction survey. In addition to the preconstruction survey, a geotechnical report in accordance with Section 1803.6, and an evaluation analysis in accordance with Section 1817, shall be prepared when required by Chapter 18.

- Sections tie together the new requirements of Chapter 18.
- Evaluation analysis of adjacent buildings as required per BC1817.3
- Specific requirements are outlined and are to be included in the evaluation investigation including all existing conditions.
- The SOE drawings are to incorporate all conditions and findings that are identified (i.e., Geotechnical report, evaluation analysis, preconstruction survey, etc.)



BC 3304.4.4 GUARDRAIL SYSTEM

3304.4.4 Guardrail system. All open edges of an excavation that are 6 feet (1829 mm) or greater in depth shall be protected by a guardrail system meeting the requirements of Sections 3308.7.1 through 3308.7.5, or by a solid enclosure at least 3 feet 6 inches (1067 mm) high. For the purpose of a guardrail system installed in accordance with this section to protect the open edge of an excavation, the term "floor" in Sections 3308.7.1 through 3308.7.5 shall mean "ground."

Exceptions:

- 4. In lieu of a guardrail system, wells, pits, excavation shafts, or similar excavations may be protected by an adequate cover capable of supporting, without failure, at least twice the weight of persons, equipment, and materials that may be imposed on the cover at any one time, or where located in roadways and vehicular aisles, at least twice the maximum axle load of the largest vehicle expected to cross over the cover. The cover shall be secured when installed so as to prevent accidental displacement by the wind, equipment, or persons, and shall be color coded or marked with the word "HOLE" or "COVER" to provide warning of the hazard.
- 5. The edges of ramps shall be protected in accordance with Section 3315.



- New exception option for covers over openings/ holes in lieu of guardrails.
- Cover must be designed or have sufficient capacity to support at least twice the intended load without failure.
- If over vehicular path the cover must account for twice the maximum axle load imposed.
- Covers must be secured and clearly labeled.

BC 3304.10 DEWATERING

3304.10 Dewatering. [The person causing the soil or foundation work to be performed shall dewater the site, as needed, for the progress of the work. Measures shall be taken to prevent settlement, slope failure, and damage to adjacent buildings, structures, and property affected by dewatering operations.] The requirements of Section 3303.14 shall apply.

3303.14.5 Dewatering. The contractor or other entity performing the soil or foundation work shall dewater the site, as needed, for the progress of the work, and shall take all necessary measures to prevent settlement, slope failure, and damage to buildings, structures, and property affected by the dewatering operations.

3303.14.5.1 Dewatering plan. Where dewatering is performed to drawdown or control the level of the water table, the dewatering operation shall proceed in accordance with a site specific plan developed by a registered design professional. The dewatering plan must incorporate all the conditions and findings identified in the geotechnical report required by Section 1803.6, the evaluation analysis required by Section 1817, and the preconstruction survey required by Section 3309.4.3. At a minimum, the plan shall indicate:

- 1. Height of the water table, including all seasonal fluctuations;
- 2. Anticipated schedule of dewatering operations;
- 3. The location of wells, settlement tanks, observation points, and dewatering equipment:
- 4. Maximum discharge:
- 5. Permissible drawdown outside of the limits of the excavation;
- 6. Thresholds for anticipated settlement;
- 7. Thresholds for anticipated lateral movement; and
- 8. The program to monitor and control water table drawdown and settlement/movement of affected structures, property, and temporary construction installations. Program criteria to be specified shall include, but not be limited to, the monitoring frequency, plan to periodically test the discharge from the pumps to determine if the water being extracted contains unanticipated fine grain soil or sand, plan to account for fluctuations in the water table (due to seasonal conditions, weather, or other factors), reporting requirements for the monitoring program, and procedures to be implemented when thresholds are exceeded.



- Dewatering now refers to the minimum requirements outlined in BC 3303.14.5 for a Dewatering Plan.
- This dewatering plan is required where dewatering and the drawdown of the water table is to be performed.
- The Plan is to include the program to monitor and control the water table drawdown as well as monitoring affected structures.



BC 3306 DEMOLITION



BC 3306.5.1 REQUIRED DOCUMENTS



Minimum Content of Demolition Plan Submissions

Plan formatting and naming shall be in accordance with B-Scan Requirements document published October 2010. Plans must be in accordance with Article 104 (Construction Documents) of the Administrative Code; 3306.5.1, 3306.9 of the Chapter 33 of the BC, and the following:

- 1. A site plan showing the property to be demolished and all adjoining property. Building stories and heights must be provided for both the building being demolished, as well as all adjoining buildings. This site plan must also provide horizontal offset dimensions of all adjacent structures from the property lines of structure being demolished and from the structure itself. All addresses and block & lot numbers must be provided and the property lines must be bold and clear.
- 2. Basic structure of the building being demolished must be provided, including general sizes and types of main structural members. A general structural lateral system must be identified as well. Due diligence on the part of the Applicant of Record is required (both research and field survey) to provide as much information as necessary to produce a thorough representation of the structure.
- 3. A statement must be provided on the cover page of the plans stating that the condition of the existing structure to be demolished has been assessed and whether it has been determined to be weakened or not (per BC 3306.7 demolition of weakened structures) AND whether it requires shoring/bracing or remedial work to be installed prior to demolition
 - NOTE: This condition assessment should be documented by a signed and sealed report available upon DOB request
- 4. All construction fencing/gates, including types, locations and dimensions must be clearly identified. The location of the projects information sign must also be shown. A section detail of the fence must be provided. (All fences require design as per 2014 Code and the design must be available on site or included in the DM filing.)
- 5. The demolition safety zone must be shown and the method of defining that zone (fencing, barriers, etc.) must be provided. The safety zone must be determined by the Applicant of Record based on

Bill de Blasio, Mayor Rick D. Chandler, P.E., Commissioner

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Blnquiry@buildings.nyc.gov

- The Minimum Content of Demolition Plan Submissions is now codified in BC 3306.5.1.
- There are 21 minimum requirements to be included in the demolition submission by the Registered Design Professional.
- Submittal documents shall be signed, sealed and approved by the Department before demolition work begins.



BC 3306.5.1 REQUIRED DOCUMENTS

3306.5.1 Required documents. Submittal documents shall be approved by the department before demolition work begins. Such submittal documents shall be signed, sealed, and submitted by a registered design professional and shall contain, at a minimum, the following:

- Basic structure of the building, or portion thereof, to be demolished, including general sizes
 and types of main structural members and an identification of the general structural lateral
 system;
- A statement that the condition of the existing structure to be demolished has been assessed and a determination regarding whether it is a weakened structure in accordance with Section 3306.7;
- 3. Plans, sections, and details of the building or portion thereof, to be demolished clearly showing the extent and sequence of the demolition [+], including, but not limited to:
 - 3.1. Work involving a full demolition, a demolition performed in conjunction with work that meets the requirements of Article 101.4.5 of Title 28 of the Administrative Code, a demolition that results in the demolition of more than 50 percent of the gross floor area of the building during the course of work over any 12-month period, or a demolition that results in the removal of one or more floors during the course of work over any 12-month period, a clear and detailed demolition sequence provided in narrative and illustrated in the plans shall also be provided. All phases shall be designated by a number or letter to clearly depict the required sequence of the work. Structural stability must be demonstrated through all phases of demolition. A "preparation phase" must be included indicating but not limited to the following: glass removal, sealing of windows, removal of equipment/fixtures, and cutting of services. A note must indicate that any required permits for termination of services will be obtained, including necessary Fire Department and Department of Buildings variances.
 - 3.2. Work involving a full demolition, or for a partial demolition that razes a portion of a building to grade, plan and section views detailing the end-of-demolition conditions, including any remaining foundation elements and means of stabilizing those elements

(continued)

Some of the minimum requirements include:

- 1. Basic structure including sizes and identification of lateral system. Identify what is to be demolished.
- 2. An assessment statement of the existing structure to be demolished and whether it is a weakened structure.
- 3. Plans, sections, and details of the building to be demolished clearly showing extent and sequence or demo work (new requirements were added)
- Bracing, shoring and other stabilization methods required prior to demo work beginning
- 5. Removal of interior walls coordinated with floor and exterior wall removal and capacity.
- 6. Demo operations affecting adjoining structures (attached) with party walls/ foundations, encroachments across property lines for fencing, barriers and safety zones.
- 7. Pedestrian and unenclosed perimeter and adjoining property protections
- Methods of remediating adjoining lot line walls, including weatherproofing, repair, floor to wall anchorage, etc.
- Reference to the monitoring plan when required (BC 3306.12). Monitoring of adjoining structures.



BC 3306.5.4 ASSESSMENT OF STRUCTURE TO BE DEMOLISHED

3306.5.4 Assessment of structure to be demolished. Submittal documents required by Section 3306.5 shall be based upon an assessment of the structure where demolition operations are to occur. The assessment shall be performed by a registered design professional. The assessment shall, at a minimum, consist of an interior and exterior physical inspection of the structure where demolition operations are to occur, in which all areas to be demolished are accessed during the inspection. The results of the assessment shall be documented in an assessment report prepared by the person who performed the assessment. If the assessment was performed by a registered design professional other than the registered design professional who prepares the submittal documents, the report shall be provided to the registered design professional who prepares the submittal documents.

DEMOLITION OF WEAKENED STRUCTURES:

THIS BUILDING IS A WEAKENED STRUCTURE ACCORDING TO THE REPORT, THE STRUCTURE HAS TO BE SHORED INSIDE FROM BASEMENT TO ROOF ACCORDING TO THE PLANS TO ALLOW FOR HAND TOOL DEMOLITION OF PORTION OF THE BUILDING. ONCE HAND TOOL PORTION IS REMOVED A FULL MECHANICAL DEMOLITION WILL BE PERFORMED FOR THE REMAINING PORTION.

DEMOLITION OF WEAKENED STRUCTURES:

THIS BUILDING IS NOT A WEAKENED STRUCTURE, THE STRUCTURAL STABILITY OF THIS BUILDING HAS BEEN EVALUATED, NECESSARY PROBING HAS BEEN PERFORMED AND IT'S SUITABLE FOR WORKERS TO SAFELY WORK INSIDE THE BUILDING.

REFER TO STRUCTURAL STABILITY REPORT ISSUED ON 02-18-2020.





BC 3306.5.5 ASSESSMENT OF ADJOINING STRUCTURES

3306.5.5 Assessment of adjoining structures. Where a bearing masonry or wood framed building shares a party wall or party foundation with a building that is to undergo a full demolition, a demolition performed in conjunction with work that meets the requirements of Section 101.4.5 of Title 28 of the *Administrative Code*, a demolition that results in the demolition of more than 50 percent of the gross floor area of the building during the course of work over any 12-month period, or a demolition that results in the removal of one or more floors during the course of work over any 12-month period, the submittal documents required by Section 3306.5 shall be based upon an assessment of such bearing masonry or wood framed building. The assessment shall be performed by a registered design professional. The assessment shall, at a minimum, consist of an interior and exterior visual inspection of the structure where demolition operations are to occur. The results of the assessment shall be documented in an assessment report prepared by the person who performed the assessment. If the assessment was performed by a registered design professional other than the registered design professional who prepares the

Existing Conditions:

At the time of the inspection, it was observed that the front door of the building was open (see image #7). The stoop stair giving access to the building was in state of disrepair, with its railing missing and stone steps broken (see images #3 and #6). Exposure 1 wall had sings of disrepair, with ornamental brown stone cracked and locally delaminating (see images #3 and #5)

At the interior of the building, it was observed that the building was in state of extreme disrepair and full of debris. No access to the rear of the building was possible and only the 1st floor front building was inspected. At this area, it was observed that the second-floor joists were in a state of severe disrepair (see images #9, #11 and #12). There were visible holes at the 1st floor flooring by the entrance to the building. (see image #8). The interior stair from 1st to 2nd floor was partially collapsed (see image #12). No access to other parts of the building was possible.

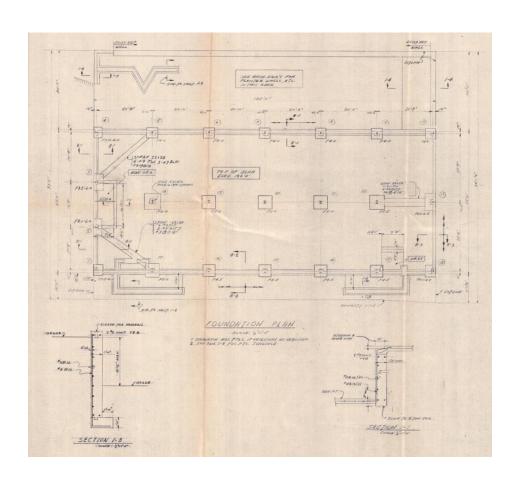
- Adjoining bearing masonry or wood framed building, full demo, 50% removal or more, one or more floors, etc.
- An assessment by an RDP of the adjoining structures is required as well.
- The assessment shall include at minimum a visual inspection of the interior and exterior where demo operations are to occur.



BC 3306.5.6 REVIEW OF PERTINENT PLANS & RECORDS

3306.5.6 Review of pertinent plans and records. Submittal documents required by Section 3306.5 shall be based upon a review of all pertinent plans and records of the structure where demolition operations are to occur. In addition, where a building is to undergo a full demolition, a demolition performed in conjunction with work that meets the requirements of Section 101.4.5 of Title 28 of the *Administrative Code*, a demolition that results in the demolition of more than 50 percent of the gross floor area of the building during the course of work over any 12-month period, or a demolition that results in the removal of one or more floors during the course of work over any 12-month period, the submittal documents shall further be based upon a review of all pertinent plans and records of all adjoining structures. The review shall be performed by the registered design professional who prepares the submittal documents.

- Review of all pertinent plans and records for the building to be demolished as well as all adjoining buildings.
- To be performed by the RDP who prepares the submittal documents.





BC 3306.5.7 INCORPORATE ALL OTHER RELEVANT REPORTS

<u>3306.5.7 Incorporate all other relevant reports.</u> The demolition submittal documents must incorporate all the conditions and findings identified in the geotechnical report when such report is required by Section 1803.6, the evaluation analysis when such analysis is required by Section 1817, the assessment reports required by Section 3306.5.4 and 3306.5.5, and the preconstruction survey when such survey is required by Section 3309.4.3.

PRE-CONSTRUCTION SURVEY OF STREET, BROOKLYN, NY

Date: March 31st, 2022

To: Property Owner of , BROOKLYN, NY

Reference: , BROOKLYN, NY

(Block: , Lot:

Prepared by: PE

Services Corp

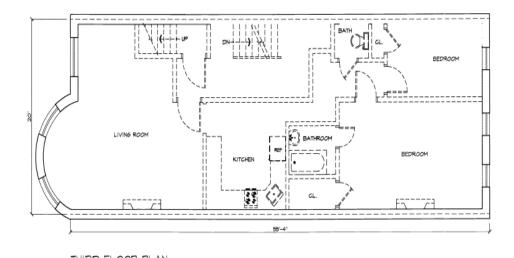
The demolition documents need to include the information obtained from other relevant reports and exploratory work such as:

- Geotechnical report
- Assessment reports of the existing conditions
- Preconstruction survey



BC 3306.9.15 PARTITIONS

3306.9.15 Partitions. Partitions required for the stability of the structure or required for egress, as identified in the submittal documents required by Section 3306.5, shall be clearly marked prior to the commencement of demolition operations. Such partitions shall not be removed until a competent person designated by the permit holder has determined the demolition sequence, as identified in the submittal documents, has reached the point the partitions can be safely removed, and authorizes their removal.



- Partitions required for structural stability or egress must be identified in the demolition drawings.
- Partitions identified must be clearly marked in the field prior to the start of work.
- Partitions must remain until the demolition sequence indicates they can be removed. This can be verified by a competent person designated by the permit holder

EXAMPLES: relieving/stiffening walls at stairs. Walls capable of supporting floor loads based on sequence of demo operations, etc.



BC 3306.9.16 TEMPORARY WEATHER PROTECTION



3306.9.16 Temporary weather protection. Temporary weather protection shall be installed and maintained by the demolition contractor, as necessary, to protect building systems or elements that may be susceptible to exposure to the weather during periods where the permanent weather protection has been breached, diminished, or is not yet in place. Such building systems or elements include, but are not limited to, walls, party walls, roofs, areas of missing brick, loose lain brick, and exposed electrical conduit.

- Temporary weather protection to be installed and maintained by the demolition contractor.
- BC 3309.9 remains for permanent weatherproofing

BC 3306.12 MONITORING OF ADJOINING STRUCTURES DURING DEMOLITION

MONITORING SUMMARY & PROTOCOL						
MONITORING TYPE	DESCRIPTION	ANALYSIS/INSPECTION FREQUENCY	WARNING LIMIT	THRESHOLD LIMIT / REQUIRED ACTION		
DISPLACEMENT OF STRUCTURES ADJACENT TO AND/OR WITHIN THE AREA OF INFLUENCE OF EXCAVATION.	WITH ELECTRONIC TOTAL	ONCE (1) DAILY DURING FACADE DEMOLITION. IF MOVEMENT OCCURS, INCREASE THE FREQUENCY OF THE READINGS AS RECOMMENDED BY BUILDING PROTECTION PLAN OR THE ENGINEER.	TWO (2) CONSECUTIVE READINGS OF TO DISPLACEMENT IN ANY DIRECTION OR ONE (1) READING OF T	IF VERTICAL OR LATERAL BUILDING MOVEMENT REACHES TWO (2) CONSECUTIVE READINGS OF ∯ OR ONE (1) READING OF ∯, IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER, OWNER AND ENGINEER. IF IT REACHES ∯, IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER, OWNER, ENGINEER AND STOP WORK. THE WORK SHALL RESUME UPON APPROVAL BY THE CONSTRUCTION MANAGER, OWNER, ENGINEER OF APPROVED REMEDIAL MEASURES AND/ OR MODIFIED CONSTRUCTION PROCEDURES.		
EXISTING STRUCTURAL CRACK	MANUAL OBSERVATION AND RECORDING OF MEASUREMENT	CRACK MONITORS SHOULD BE READ ONCE (1) DAILY DURING FACADE DEMOLITION.	IN CONJUNCTION WITH VIBRATION AND	IF ANY INDIVIDUAL CRACK GAUGE EXCEEDS 2MM IMMEDIATELY INFORM THE CONSTRUCTION MANAGER, OWNER, ENGINEER AND STOP WORK. THE WORK SHALL RESUME UPON APPROVAL BY THE CONSTRUCTION MANAGER, OWNER ENGINEER OF APPROVED REMEDIAL MEASURES AND/OR MODIFIED CONSTRUCTION PROCEDURES.		

3306.12 Monitoring of adjoining structures during demolition. Where a bearing masonry or wood framed building shares a party wall or party foundation with a building that is to undergo a full demolition, a demolition performed in conjunction with work that meets the requirements of Section 101.4.5 of Title 28 of the Administrative Code, a demolition that results in the demolition of more than 50 percent of the gross floor area of the building during the course of work over any 12-month period, or a demolition that results in the removal of one or more floors during the course of work over any 12-month period, such bearing masonry or wood framed building shall be monitored during the demolition operation. The monitoring shall be in accordance with a monitoring plan prepared or accepted by the registered design professional who prepared the submittal documents in accordance with Section 3306.5. The monitoring plan shall be acceptable to the commissioner and shall include but not be limited to, the monitoring frequency, reporting requirements for the monitoring program, anticipated movement and settlement thresholds, and procedures to be implemented when thresholds are exceeded.

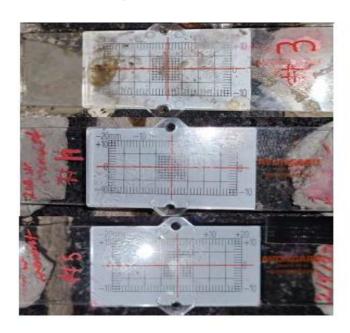
The adjacent attached bearing masonry or wood framed building shall be monitored **during** demolition operations.

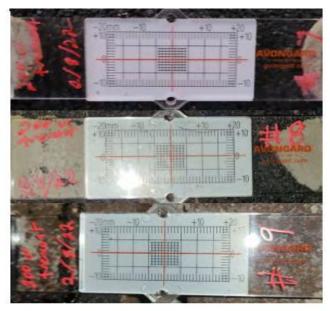
- 1. Full demolition of a building sharing a party wall and/ or a party foundation with an unreinforced masonry/ bearing masonry or wood framed structure.
- 2. Demolition performed in conjunction of an alteration to meet New Building requirements (increasing floor area by 110%).
- 3. Demolition of more than 50 percent of the gross floor area of a building over a 12-month period.
- 4. Demolition that results in the removal of one or more floors during the course of work over a 12-month period.
- 5. Monitoring plan by **or** accepted by the RDP that prepared the submittal documents.



BC 3306.13 ADDITIONAL MONITORING REQUIRED BY THE COMMISSIONER

3306.13 Additional monitoring required by the commissioner. When, in the opinion of the commissioner, a demolition operation poses a potential hazard to an adjacent building, elevations of the building under demolition or the adjacent building, or both, shall be recorded or other monitoring procedures shall be implemented by a registered design professional at intervals of 24 hours or less as determined by the commissioner to ascertain if movement has occurred.





- 1. When a demolition operation poses a potential hazard to an adjacent building, the building under demolition and/ or the adjacent buildings may be ordered to be monitored.
- 2. Monitoring shall be implemented by an RDP in intervals as determined by the Department not to exceed 24 hours.

BC 3307 PROTECTION OF PEDESTRIANS



BC 3307.4.7 WORK OR STORAGE ZONES

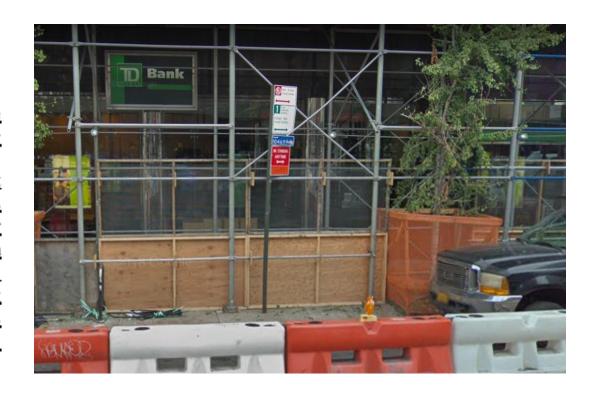
3307.4.7 Work or storage zones. Where work or storage related to the construction or demolition of a building or structure is occurring adjacent to a sidewalk shed or equivalent overhead protection, and such work or storage area is not contained within the enclosed and fenced area of the site as specified in Section 3307.7, fencing, barriers, or netting complying with items 1, 2, or 3 of this section shall be provided to separate the sidewalk, walkway, foot bridge, or pathway from the work or storage area.

- In an area where a material hoist, personnel hoist, hoistway, chute, or hoisting zone is located, a solid opaque fence or barrier shall be provided. Such fence or barrier shall be securely attached to the sidewalk shed or equivalent overhead structure, and shall extend from the level of the ground to the deck of the sidewalk shed or equivalent overhead protection.
- 2. In an area where a special hazard exists, including but not limited to areas of high pile storage or areas where operations that produce sparks or debris are occurring, such as cutting or grinding, a fence or barrier shall be provided. Such fence or barrier shall be securely attached to the sidewalk shed or equivalent overhead structure, and shall extend from the level of the ground to the deck of the sidewalk shed or equivalent overhead protection. Portions of the fence or barrier at a height of 4 feet (1219 mm) or less shall be comprised of solid opaque material. Portions of the fence or barrier above a height of 4 feet (1219 mm) shall be comprised of material sufficient to protect the public from the special hazard and shall be transparent so as to allow a clear view into and from the area protected by the sidewalk shed or equivalent overhead protection, for example, chain link fencing, neatly framed panels consisting of nonfrangible acrylic paneling, or wire screen comprised of not less than number 18 gauge wire mesh, or equivalent synthetic netting that is flame retardant in accordance with NFPA 701, with openings in the wire or synthetic mesh no larger than ½ inch (13 mm) in the vertical or horizontal dimensions and ¾ inch (19 mm) in any other dimension.
- Hoistways, chutes, hoisting zones, a solid not transparent fence or barrier shall be installed full height from grade to the deck of the shed/protection.
- Special hazard areas, high pile storage, hot works, debris locations solid barrier from grade to deck or shed/protection. Lower 48" solid nontransparent material. Above 48" sufficient material to safeguard against the hazard and also transparent (i.e., fence with wire mesh or flame retardant synthetic netting).



BC 3307.4.7 WORK OR STORAGE ZONES

- 3. In all other instances, one of the following shall be provided:
 - 3.1 A chain link fence that is at least 8 feet (2438 mm) high:
 - 3.2 A solid barrier that is at least 32 inches (813 mm) high, topped by a chain link fence extending to a height of at least 8 feet (2438 mm) above the level of the ground; or
 - 3.3 A wire screen comprised of not less than number 18 gauge wire mesh, or equivalent synthetic netting that is flame retardant in accordance with NFPA 701, with openings in the wire or synthetic mesh no larger than ½ inch (13 mm) in the vertical or horizontal dimensions and ¾ inch (19 mm) in any other dimension. Such wire screen or synthetic netting shall extend from the ground to a height of at least 8 feet (2438 mm) above the level of the ground and shall be securely attached to the sidewalk shed or equivalent overhead protection. A solid barrier that is at least 32 inches (813 mm) high may be installed in lieu of bringing the netting fully to the ground, provided the bottom of the netting is also securely attached to the solid barrier.



3. Balance of instances not indicated in #1 or #2 provide fence, barrier, netting as per 3.1, 3.2 or 3.3.



BC 3307.6.2 WHERE REQUIRED (SIDEWALK SHED EXCEPTIONS)

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, as follows:

Exceptions: Except where specifically required by the commissioner to protect the public from unique hazards at the site, sidewalk sheds are not required for:

- 6. Work confined to the roof of an existing building, provided [the] that:
 - 6.1 The edge of the roof is enclosed to a height of 42 inches (1067 mm) with a solid parapet [or vertical safety netting meeting the requirements of Section 3308.5; or];
 - 6.2 Such parapet is of sufficient strength to resist accidental impact during construction;
 - 6.3 The work does not exceed the height of the parapet or is set back from the edge of the roof at a distance that is equal to or greater than half the height of the work; and
 - 6.4 No work occurs on the parapet itself, and no material is placed or stored on the parapet during the course of the work.

- The work is confined to the roof of an existing building.
- A solid roof enclosure/parapet of sufficient strength to resist accidental impact is provided with a height of at least 42 inches.
- The work being performed is to occur below the parapet or be setback at least half the height horizontally.
- No work on the parapet itself and no placement of materials.
- If all the requirements are met a sidewalk shed is not required.
- Exception #6 expands the requirements for not requiring a sidewalk shed for work confined to an existing roof.



BC 3307.6.2 WHERE REQUIRED (SIDEWALK SHED EXCEPTIONS)



- 8. Locations where a cantilevered platform has been installed, provided that:
 - 8.1 The cantilevered platform is approved by the commissioner;
 - 8.2 The cantilevered platform provides overhead protection equivalent to a sidewalk shed; and
 - 8.3 The cantilevered platform is installed below the level of work to be performed, excluding work performed at the first story.

- New exception allowing for the installation of a cantilevered platform in lieu of a standard sidewalk shed.
- The platform must be approved by the commissioner and provide equivalent or better protection.
- The platform must be installed below the level of work excluding work at the first story.



BC 3307.6.2 WHERE REQUIRED (SIDEWALK SHED EXCEPTIONS)

- 9. Areas along an exposure that are located more than 5 feet (1524 mm) beyond those required for compliance with Item 1 of Section 3307.6.2, provided that:
 - 9.1 The work is limited to the alteration, maintenance, or repair of a façade, and does not constitute a façade recladding as defined in rules promulgated by the commissioner; and
 - 9.2 The entire exposure where façade work is to occur is covered by either:
 - 9.2.1 A supported scaffold with netting and guardrails in accordance with Section 3314.8; or
 - 9.2.2. A site specific engineered enclosure system in accordance with Section 3309.17.
- **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, as follows:
 - When such sidewalk, walkway, or pathway is to be located immediately below a scaffold, mast climber, or chute. The sidewalk shed shall be installed prior to the installation of such equipment and shall not be removed until such equipment has been dismantled and/or removed from the area being protected;
- Exception #9 indicates that public walkways, or portions of walkways, that require protection as per Item 1 (below scaffolding or equipment) do not need sidewalk shed protection beyond 5 feet from the exterior face of the equipment provided there is an exterior building enclosure (scaffold or engineered). For façade work only (not including recladding).
- The enclosure must be a site-specific engineered system or a supported scaffold with netting and guardrails as per BC 3314.8.



BC 3307.6.4.1 DESIGN REQUIRED

3307.6.4 Design and construction of sidewalk sheds. Sidewalk sheds shall be designed and constructed in accordance with the requirements of Sections 3307.6.4.1 through 3307.6.4.11.

3307.6.4.1 [Designer] Design required. All sidewalk sheds shall be designed by a registered design professional. The sidewalk shed design shall be detailed on plans developed by the registered design professional. The plans shall be specific to the site and shall, at a minimum, include a plan view and an elevation view, with full dimensions, detailing:

- The site;
- The sidewalk shed;
- 3. Design load of the sidewalk shed (e.g. light duty, heavy duty);
- All obstructions at the site that may interfere with the sidewalk shed, including but not limited to those listed in Section 3307.6.4.9;
- Dunnage, blocking, or other founding material for the sidewalk shed, including details necessary to satisfy the requirements of Item 2.3 of Section 3307.6.4.10;

- 6. Anchorage of the sidewalk shed to the sidewalk or building, if necessary;
- Materials or items to be placed or stored on the sidewalk shed, if authorized, in accordance with the requirements of Section 3307.6.4.2.2;
- 8. Any items connected to or attached to the sidewalk shed;
- Locations, dimensions, and connection details of all signage, including parapet information panels, to be installed on the sidewalk shed; and
- 10. Location of any scaffolds and reference to a related application, if applicable.

[Exception: Sidewalk sheds that conform to a design approved by the commissioner or the Board of Standards and Appeals, provided the shed is installed at the site in accordance with the standard design.]

- BSA exception removed.
- The design must be performed by an RDP incorporating the 10 minimum Code required items identified.



BC 3307.6.4.4 VERTICAL MEMBERS

3307.6.4.4 Vertical members and beams. Vertical members and beams of the sidewalk shed shall conform with the following:

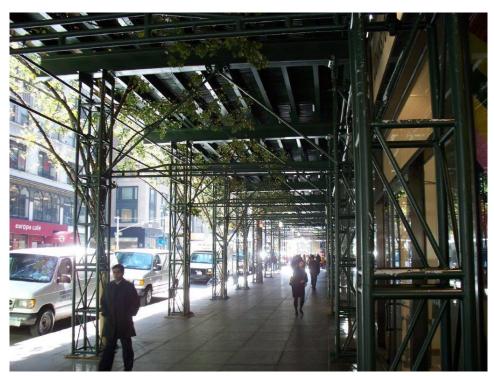
- 6. Vertical members, cross bracing, struts, and similar lateral support shall be placed in such a manner that the sidewalk, walkway, or pathway continues to comply with the requirements of Section 3307.2.6 and avoids interference in accordance with Section 3307.6.4.9.
- 7. Where the sidewalk shed is installed in conjunction with the construction of a new major building, a horizontal span of at least 10 feet (3048 mm), as measured down the length of the sidewalk, walkway, or pathway, shall be provided between all vertical members, except where a shorter span is needed to avoid the curb or obstructions in accordance with Section 3307.6.4.9; and all cross bracing, struts, and similar lateral support between vertical members shall be placed a minimum of 8 feet (2438 mm) above the level of the sidewalk, walkway, or pathway. However, cross bracing, struts, and similar lateral support between vertical members may be placed lower where it is installed to guard against a tripping hazard in accordance with Item 2.5 of Section

3307.6.4.10. Mast sections, box towers, or similar elements used as vertical members shall, for the purposes of this item, be considered to be one vertical member, provided its base does not exceed 24 inches by 24 inches (610 x 610 mm). In the alternative, a sidewalk shed that is of a model whose prototype won a design competition recognized by the city may be installed instead.

- Sidewalk sheds for new Major Buildings require a 10-foot minimum horizontal spacing of vertical elements and an
- 8-foot clear vertical ground to lateral bracing open requirement.



BC 3307.6.4.4 VERTICAL MEMBERS





The Code addresses mast sections, box towers or similar elements used as vertical elements to be considered one vertical member (not to exceed 24"x24" base).

BC 3307.6.4.5 DECK

3307.6.4.5 Deck. The deck of the sidewalk shed shall <u>conform with the following:</u>

- 1. The deck shall consist of 2-inch (51 mm) thick wood plank or equivalent material. [and] or shall consist of light-transmitting plastic material, which shall include an antislip walking surface integral to the material or as an applied coating.
- 2. The deck shall be capable of sustaining the loads required by Section 3307.6.4.2.
- 3. The deck shall be solid, or shall consist of planking or panels laid close and made tight.
- 4. [Where the edge of the sidewalk shed abuts a building or structure, the decking shall be brought tight to the face of the building or structure. Exception: Where it is not possible to bring the deck tightly against the face of the building or structure, the deck shall be brought to within 1 inch (25 mm) of the face of the building or structure, with the resulting gap sealed or covered by material of sufficient manner and strength capable of trapping falling debris.] Where wood plank is used, corrugated metal or equivalent material shall be installed under the deck to catch fine grain material.
- The deck of the sidewalk shed shall be brought tight to the face of any abutting building, structure, or fence, except for permissible gaps in accordance with Section 3307.6.3.



Decking now allows a light-transmitting plastic material as an alternative to wood plank. Design loads (300 psf or 150 psf) still apply.



BC 3307.6.4.6 PARAPET

3307.6.4.6 Parapet. A vertical parapet at least 3 feet 6 inches (1067 mm) high, but no more than 4 feet (1219 mm) high, as measured from the deck of the sidewalk shed, shall be constructed along all edges of the sidewalk shed. Such parapet shall consist of [solid plywood, corrugated metal, a galvanized wire screen consisting of not less than No. 16 steel wire gage with a ½ inch (13 mm) debris mesh, or other equivalent material, and] galvanized wire screen not less than No. 16 steel wire gauge with a ½ inch (13 mm) mesh. Parapets shall be securely attached to the shed with braced uprights. Parapet braces shall be made of metal. Temporary removal of a portion of the parapet is permitted for the handling of material, provided the parapet is immediately restored at the end of the handling operation.

Exceptions:

- A parapet is not required along the edge of the sidewalk shed that abuts a building or structure.
- A parapet is not required along the edge of a sidewalk shed that abuts an area that is closed to the public.
- [3. In lieu of a vertical parapet, angled protection of identical construction to a parapet that inclines outward at an angle of 45 degrees (0.79 rad) may be utilized provided such protection is securely attached to the deck, and provided the angled protection extends to a point that intersects a line drawn 3 feet 6 inches (1067 mm) above the level of the deck.]
- Where the sidewalk shed is installed in conjunction with the full or partial demolition of a building or structure, other than work limited to a façade project, the parapet shall consist of plywood or other equivalent solid material.
- Where a sign, including a parapet information panel, is installed on a sidewalk shed, the parapet backing for the sign may consist of plywood or other equivalent solid material.



- No more solid parapet enclosures. Must be galvanized wire screen. Parapet braces must be metal.
- Exception for full and partial demo work and behind the parapet signage/ information panel.



BC 3314 SCAFFOLDS



BC 3314.2 PERMIT

3314.2 Permit. Prior to the installation and use of a scaffold, the contractor or licensee who is to install the scaffold, or a designated representative of the installer, shall obtain a permit for such scaffold. The permit requirements of this section are independent of the design requirements of Section 3314.3. Sections 3314.3.1 through 3314.3.4 may require a scaffold to be designed even if Section 3314.2 does not require a permit for such scaffold.

- 4. A permit is not required for a supported scaffold, provided <u>Items 4.1 through 4.6 are complied with:</u>
 - [1.1] 4.1 The scaffold is not an outrigger scaffold (thrust out);
 - [1.2] 4.2 No hoisting equipment with a manufacturer's rated capacity greater than 2,000 pounds (907 kg) will be located on the scaffold;
 - [1.3] 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) (e.g. a light duty scaffold, a medium duty scaffold, or a heavy duty scaffold); [and]
 - [1.4] 4.4 The scaffold is less than 40 feet (12 192mm) in height[-]:
 - 4.5 Side-arm or end-arm scaffold brackets are used exclusively for the support of workers; and
 - 4.6 Where the scaffold has a height-to-base ratio (including outriggers supports, if used) of more than four to one (4:1), it is restrained in accordance with Section 3314.9.1.

- Permit and design requirements are independent of each other.
- New supported scaffold exceptions for side/ end brackets and aspect ratio.
- Items 4.1 through 4.6 must be complied with to qualify for no permit including Item 4.4 less than 40 feet.



BC 3314.3 DESIGN

3314.3 Design. Scaffolds shall be designed[, as follows:] in accordance with Sections 3314.3.1 through 3314.3.4. The design requirements of this section are independent of the permit requirements of Section 3314.2. Sections 3314.3.1 through 3314.3.4 may require a scaffold to be designed even if Section 3314.2 does not require a permit for such scaffold.

3314.3.2 Suspended scaffolds. Suspended scaffolds shall be designed by a registered design professional.

Exceptions:

- Design is not required for a single tier nonadjustable suspended scaffold whose platform is 40 square feet [(12 192 mm)) (3720 mm²) or less in size.
- In lieu of a registered design professional, a two-point, single tier, suspended scaffold
 may be designed by a licensed rigger provided <u>Items 2.1 and 2.2 are complied with
 and either Items 2.2.1 or 2.2.2 are complied with:</u>
 - 2.1. The scaffold or scaffold outrigger beam or suspension member support structure is not anchored to the building or structure, other than tiebacks; and
 - 2.2. The scaffold will not be loaded, or designed to be loaded, in excess of 75 pounds per square foot (366.15 kg/m²); and either
 - 2.2.1. The scaffold utilizes c-hooks; or
 - 2.2.2. The distance from floor or roof on which the support structure is located to the top of the outrigger beam or suspension member support structure is less than 15 feet (4572 mm).
- In lieu of a registered design professional or a licensed rigger, a two-point, single tier, suspended scaffold meeting the requirements of Item 2 of these exceptions that is used exclusively for sign hanging work may be designed by a licensed sign hanger.

- Design is independent of the permit requirements. A design may be required even if a permit is not.
- EXAMPLES: C-hook suspended scaffold; suspended scaffold used on active permitted site (NB, Alt, DM). Special rigger may design the system. No equipment permit is required.



BC 3314.3.3 DRAWINGS

3314.3.3 Drawings. Where design is required by this section, the drawings shall <u>be specific to the site and shall</u>, at a minimum, include a plan view and an elevation view, with full dimensions, detailing:

- 1. The scaffold and location of the scaffold;
- 2. The base structure (e.g. roof and parapet, sidewalk shed);
- [2-] 3. Connections and attachments to the base structure, including but not limited to
- [3.] 4. Any temporary or permanent structural modifications required to the base structure;
- [4-] 5. Netting with specific type and manufacturer indicated, overhead protection, or any other equipment attached to the scaffold. The effect of wind on the netting shall be accounted for in the design of the scaffold;
- [5.] 6. Any hoisting equipment located on the scaffold;
- [6-] 7. Platform levels, support centers, and offsets, along with the maximum number of levels to be loaded simultaneously and the maximum loads to be imposed;
- 8. Temporary construction, such as platforms, runback structures, other scaffolds, mast climbers, cranes, derricks, hoists, horizontal netting, cocoon systems, climbing formwork, sidewalk sheds, fences, and barricades that may present interference for the scaffold;
- [7.] 9. For a suspended scaffold, ropes, number of clips, and counterweights, [as well as] outrigger beams, c-hooks, or other support devices, blocking, saddles, or equivalent, and the rated load of the scaffold motor (hoist) as established by the manufacturer;

- Drawings are required when a design is required.
- Drawings must be site specific.
- Base structure is required to be shown, #2.
- The effect of wind on netting cross reference to the design requirement, #5.
- Temporary construction systems that may interfere or overlap with the scaffold are to be shown, #8.

BC 3314.3.3 DRAWINGS

(continued)

- [8.] 10. For a suspended scaffold [that], the location of the scaffold during out of service periods, and if the scaffold will not be lowered to the street, [or deek of the] sidewalk shed, building setback, equivalent adequate structure, or ground [at the end of the shift] during out of service periods, how the scaffold will be secured while work is not being performed; [and]
- [9-] 11. For a supported scaffold, structural members, as well as the founding of the scaffold, including but not limited to sidewalk sheds, floors, roofs, or ground[-]:
- 12. References to related job numbers (e.g. the sidewalk shed upon which the scaffold rests, the underlying permit for façade or construction work); and
- 13. Where anchors are utilized:
 - 13.1. Type of anchor and manufacturer of anchor;
 - 13.2. Procedures for the installation, maintenance, and use of the anchor as specified by the manufacturer of the anchor; and
 - 13.3. Procedures for the testing and inspection of the anchor as specified by the manufacturer of the anchor, as well as special inspection requirements when special inspection is required by Chapter 17.

- References to related job numbers including the underlying job application, equipment/sidewalk shed job numbers, etc., #12
- Post-installed anchors are to be indicated including type, installation, testing and inspection requirements, #13



BC 3314.3.4 LOADS IMPOSED (SUPPORTED SCAFFOLDS)

3314.3.4 Loads imposed. [Where a supported scaffold sits on a sidewalk shed or other temporary structure, the scaffold drawings shall be accompanied by a loads imposed letter signed, sealed, and dated by a registered design professional. The letter shall detail the loads to be imposed by the scaffold onto the base structure and indicate that the registered design professional has reviewed the adequacy of the base structure to sustain the load imposed.] Where a supported scaffold requiring design in accordance with Section 3314.3.1 imparts a load on a temporary or permanent structure, including but not limited to a sidewalk shed, roof, setback, or vault, the design drawings required by Section 3314.3.3 shall either be:

- 1. Sealed and stamped "reviewed for loads imposed" by the registered design professional responsible for the underlying structure and contain a note signed and sealed by such registered design professional indicating that either no structural modifications are required to the underlying structure, or indicating that structural modifications to the underlying structure have been incorporated into the drawings for the underlying structure;
- 2. Accompanied by a signed and sealed letter from the registered design professional responsible for the underlying structure indicating that he or she has reviewed the scaffold drawings for loads imposed on the underlying structure, with the drawing numbers and drawing dates referenced, and a statement indicating that either no structural modifications are required to the underlying structure, or indicating that structural modifications to the underlying structure have been incorporated into the drawings for the underlying structure; or
- 3. For a project where there is no registered design professional responsible for the underlying structure, a signed and sealed letter from the registered design professional who developed the design drawings required by Section 3314.3.3 indicating that he or she has investigated the underlying structure, and a statement indicating that either no structural modifications are required to the underlying structure, or indicating that structural modifications to the underlying structure have been incorporated into the plans required by Section 3314.3.3.

When a design is required, the loads imposed from the scaffold onto a temporary or permanent structure must be accounted for by the following:

- Base structure RDP review of the scaffold design drawings stamped, "Reviewed for loads imposed" and indicating no structural modifications are required or modifications to the structure have been accounted for in the structural drawings.
- Base structure RDP approval by means of a signed and sealed letter again stating the modifications have been accounted for or indicating they are not required.
- The scaffold RDP can verify compliance when no base structure RDP exists by means of indicating the underlying structure has been investigated and any structural modifications have been incorporated into the scaffold drawings or a statement no modification is required.



BC 3314.3.4 LOADS IMPOSED (SUPPORTED SCAFFOLDS)

City of New York Department of Buildings 280 Broadway New York, NY 10007

Re: Scaffolding Placement @ job site of

Brooklyn, NY

To Whom It May Concern:

As the engineer of record of We have verified the load imposed by the scaffoldings and its attachments onto the structure o as shown on the Scaffolding Plans prepared by drawings number EQ-001

We found the structure of

is sufficient to support the road imposed by the scaffolding.

If we can be of any further assistance to you with regards to this matter, please feel free to call our office.

Sincerely

Principal



- Sample letter from the base structure RDP.
- RDP notes the loads imposed on the underlying structure have been reviewed and is sufficient with no modification.
- Reference to the drawings reviewed noted



BC 3314.4.4 SAFEGUARDS (VARIOUS SAFEGUARDS)

3314.4.4.9 Capacity identification for suspended scaffolds. Suspended scaffold motors shall contain a plate from the manufacturer of the motor indicating the rated load of the motor. Swaged attachments or spliced eyes on wire suspension ropes shall be tagged in accordance with the requirements of Section 3314.11.8. Identification required by this section shall be maintained so as to be legible during the life of the element. Missing or illegible identification shall be replaced by a qualified person in accordance with the requirements of the manufacturer of the component or the testing entity authorized by Section 3314.11.8.

<u>3314.4.4.10 Prohibition on shore or lean-to scaffolds.</u> The use of shore or lean-to scaffolds is prohibited.

3314.4.4.11 Accumulation of debris. Debris shall not be allowed to accumulate on platforms.





- Suspended scaffolds now require capacity identification on the motor. Must be maintained and legible for the life of the motor.
- Shore and lean-to scaffolds are prohibited (consistent with OSHA).
- Debris not allowed to accumulate on platforms.



BC 3314.4.4.12 SAFEGUARDS: POWERLINES

3314.4.4.12 Precautions while working around powerlines. The clearance between scaffolds and power lines shall be as specified in Table 3314.4.4.12. Scaffolds shall not be erected, used, dismantled, altered, or moved such that they or any conductive material handled on them might come closer to exposed and energized power lines than as specified in Table 3314.4.4.12.

Exception: Scaffolds and materials may be closer to power lines than specified in Table 3314.4.4.12 where such clearance is necessary for performance of work, and only after the utility company, or electrical system operator, has been notified of the need to work closer and the utility company, or electrical system operator, has deenergized the lines, relocated the lines, or installed protective coverings to prevent accidental contact with the lines.



TABLE 3314.4.4.12 MINIMUM DISTANCES FROM POWER LINES

Insulated Lines						
Voltage	Minimum distance	Alternatives				
Less than 300 volts	3 feet (914 mm)	Two times the length of the line insulator, but never less than 10 feet (3048 mm).				
300 volts to 50 kilovolts	10 feet (3048 mm)					
More than 50 kilovolts	10 feet (3048 mm) plus 0.4 inches (10 mm) for each 1 kilovolt over 50 kilovolts.					
Uninsulated Lines						
Voltage	Minimum distance	Alternatives				
Less than 50 kilovolts	10 feet (3.1 m)	Two times the length of the line insulator, but never less than 10 feet (3048 mm).				
More than 50 kilovolts	10 feet (3.1 m) plus 0.4 inches (10 mm) for each 1 kilovolt over 50 kilovolts.					

- Minimum clearance requirements for scaffolds located near powerlines have been added.
- OSHA CFR 1926.451 (f)(6).



BC 3314.10.14 SUSPENDED SCAFFOLD STAND-OFF BRACKETS

3314.10.14 Stand-off brackets prohibited. The installation or use of a stand-off bracket is prohibited.



October 2019

SERVICE NOTICE

Prohibiting the Installation or Use of Stand-off Brackets Attached to C-hooks on Suspended Scaffolds

Effective September 25, 2019, it is prohibited to install or use stand-off brackets attached to cornice hooks (C-hook) to provide a suspended scaffold additional outreach from the face of a parapet or wall as stated in Buildings Bulletin 2019-006.

C-hook suspended scaffolds cannot be installed with stand-off brackets. If a C-hook suspended scaffold is installed with a stand-off, the stand-off bracket must be removed.

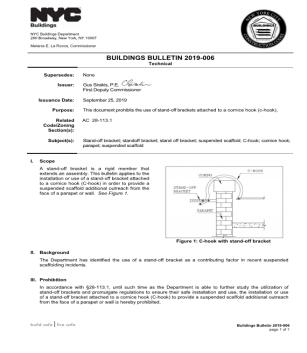
Notification Requirements

- C-hook scaffold remains at site and the stand-off bracket is removed Department notification not required.
- C-hook scaffold is removed from site Department notification required. See <u>Service</u> Notice for information.
- New scaffold is to be installed at the site Department notification required and, if applicable, submission of a <u>Suspended Scaffold Application</u> (CD5 Application).

A new installation or continued use of a stand-off bracket on a C-hook suspended scaffold will result in violations being issued or other enforcement actions being taken by the Department against the individuals responsible for the scaffold, which could include contractors or Licensed Rioders.

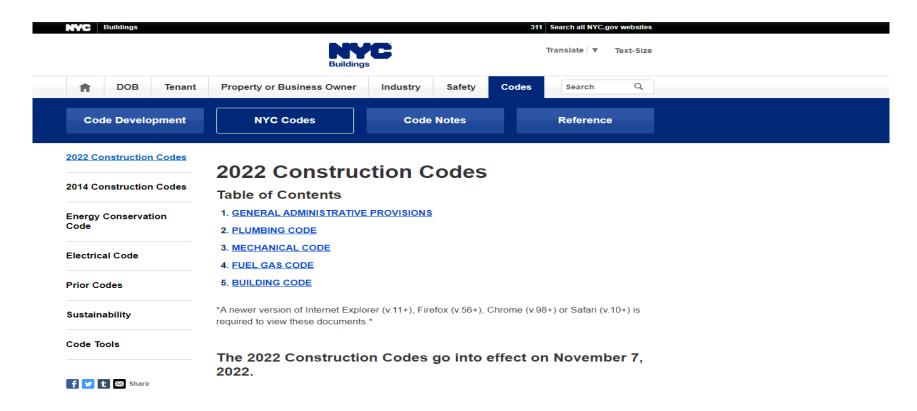
For questions, please contact the Cranes & Derricks Unit at 212-393-2411

POST UNTIL: December 31, 2019



- Codifying the previous prohibition.
- The installation or use of a stand-off bracket is prohibited.

NYC CONSTRUCTION CODES: AVAILABLE ON DOB WEBSITE



https://www1.nyc.gov/site/buildings/codes/2022-construction-codes.page





build safe live safe

