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Regulatory Notice
Supported Scaffold & Sidewalk Shed Requirements

Introduction

Recent incidents involving supported scaffolds and sidewalk sheds have indicated that appropriate caution has not been taken with respect to installation and engineering. This notice is to serve as a reminder for what the City of New York requires regarding the design and construction of all supported scaffolds and sidewalk sheds. Noncompliance with the regulations below will result in immediate Stop Work Orders, penalties up to $2,000 and criminal court summonses. Failure to comply with a Stop Work Order may result in the imposition of fines up to $10,000.

When a Permit is Required:

A permit is required prior to erecting a sidewalk shed or supported scaffold over 40 feet in height. If a scaffold is on top of a sidewalk shed, the height of the scaffold must include the height of the shed and be taken from the top of the sidewalk. If the supported scaffold is located on a setback or roof of a building, and if the outer leg of the scaffold is located a distance less than half the height of the scaffold (from the top of roof or floor slab), the height of the scaffold for permitting purposes shall include the height of the building below.

NYC Building Code Design Requirements for Temporary Equipment & Constructions:

§27-1011(b): Temporary equipment and constructions shall be designed so that the allowable stress values prescribed in subchapter 10 are not exceeded.

§27-594: Provides load combinations which include dead, live, wind, and snow.

- Loads subscribed in subchapter 9 must be used for design, including wind
- Uplift forces from wind must be considered in design calculations
- Snow and ice loads must be included in design calculations during winter months
- Tieback design must include wind factors created when netting is used, as wind load can be significantly increased with netting and screens

  Note: Wind forces are reversible and can impose a “suction” load away from the structure as well as towards the structure

§27-591: Minimum factor of safety for overturning and sliding is 1.5.

- Free-standing scaffolds and sidewalk sheds must meet code requirements for overturning and sliding

§27-1015: Design shall be executed by or under the supervision of a licensed engineer or an architect who shall sign and seal the drawings and specifications.

- If the scaffold is supported on a sidewalk shed or roof structure, you must verify that the base structure can support the concentrated loads imposed by the scaffold legs

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- At points of anchorage, you must check the base building elements for local failure

§27-1042(b)(1): All scaffold members shall be designed to be capable of withstanding, without collapse, 4 times the maximum loads.

§27-1042(b)(3): Standard Scaffold Designations and Design Live Loads

a. Light duty scaffold – To be used for loads up to 25psf and is intended for use by carpenters, painters and other similar trades.

b. Medium duty scaffold – To be used for loads up to 50psf and is intended for use by bricklayers and plasters.

c. Heavy duty scaffold – To be used for loads up to 75psf and is intended for use by stone masons.

§27-1021(b)(1): Sidewalk sheds for buildings 100ft or more in height shall be designed for a live load of 300psf. For buildings under 100ft in height, the minimum sidewalk design live load is 150 psf and no storage is permitted.

- If the BSA approved sidewalk shed design is utilized, you must verify that the shed is within the scope of the design by ensuring that:
  - Height does not exceed maximum height
  - Width does not exceed maximum width
  - Parapet does not exceed the height limit
  - Details/connections are in full compliance
- If a scaffold is sitting on a sidewalk shed, the BSA design does not apply
- Sheds must be designed for live loads in addition to imposed loads from the scaffold

Federal Code Design Requirements for Scaffolding:

OSHA Subpart L §1926.452(d): A large area scaffold (common platform) shall be designed for a minimum of 50psf.

Supported Scaffold Submitted Drawing Requirements:

§27-1042: Scaffolds over 40ft in height require a permit from the Department of Buildings. Submitted drawings for approval must include the following:

- Design loads including maximum live load capacity in accordance with §27-1042(b)(3)
- Intended use of scaffold
- Number of simultaneously planked levels
- Number of levels to be utilized simultaneously
- Details for tie-back to the building or structure
- Maximum spacing of ties both vertically and horizontally
- Specifications for equipment to be used
  - Make and model of scaffold frames
  - Type and minimum strengths of timber
- If scaffold is sitting atop a structure, the layout of the legs imposed on the existing structure below. (This is applicable to both buildings and sidewalk sheds.)

NYC Building Code Requirements for Sidewalk Shed Construction:

Sidewalk Sheds must be erected and utilized in accordance with §27-1021 of the NYC Building Code. §27-1021(a) provides when a sidewalk shed must be constructed. A shed is required when:

- New construction is over 40ft and the distance from the face of the building to the inner edge of the walkway is less than half the height of the new building
- The demolished structure is over 25ft and the distance from the face of the building to the inner edge of the walkway is less than half the height of the new building
- Material or debris is to be moved over a sidewalk by a crane or hoist
- A portion of a façade over 40ft from the sidewalk is being altered or repaired and the distance from the portion of the building being altered or repaired to the inner edge of the walkway is less than half the height of the building.

§27-1021(b)(10) gives the requirements for the lighting under a sidewalk shed.

- A permit for the lighting must be obtained by a licensed electrician

NYC Building Code Supported Scaffold Construction Requirements:

Supported scaffolds must be erected and utilized in accordance with Article 8 of Subchapter 19 of the New York City Building Code. Requirements include, but are not limited to:

§27-1042: Any supported scaffold over 40ft in height must have a permit

§26-204.1: Any person erecting, maintaining or modifying or dismantling a supported scaffold shall have a Certificate of Completion from an approved training course

§26-204.1: Any person using a support scaffold shall have a User's Certificate from an approved training course.

§27-1042(a)(4): The footing and anchorage for every scaffold shall be sound, rigid and secure against movement in any direction

§27-1042(b): Scaffolds must not be loaded in excess of the design loads

§27-1042(b): Loads must not be concentrated on a scaffold so as not to cause overstress

§27-1042(g): Guardrails must be provided on the open sides and ends of scaffolds

§27-1043: Free-standing scaffolds must have a minimum height to minimum base dimension ratio of 4 to 1

Federal Supported Scaffold Construction Requirements:

Supported scaffolds must be erected and utilized in accordance with OSHA §1926.451/452. Requirements include, but are not limited to:

§1926.451(c)(1): Ties must be installed at locations where horizontal members support both inner and outer legs

§1926.451(c)(3): Frames must be joined together vertically by coupling or stacking pins

§1926.451(c)(4): Where uplift can occur, frames must be locked together by pins or equivalent means