



A Survey of Unenclosed Spaces in New York City Buildings

Department of City Planning

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I. Introduction

This report looks generally at the uses of unenclosed spaces in buildings in medium- and high-density districts in New York City. While defying precise definition, the term encompasses a diverse array of outdoor spaces, structural elements, and design features that serve a range of practical and aesthetic functions. Examples include recessed balconies and terraces, loggias and arcades, cantilevers, stilts and open volumes, windbreaks, and others. The common denominator is that all are spaces covered by portions of a building but lacking walls or other structures that would render them “enclosed” under the New York City Zoning Resolution. Because they are unenclosed, these spaces do not count against a building’s maximum permitted floor area.

This report will explore the concepts of “enclosed” and “unenclosed” at greater length below.

Brief Overview: The Various Functions of Unenclosed Spaces

The list of spaces addressed in this report is not intended to be exhaustive, though it touches on the major categories of unenclosed spaces identified by the Department of City Planning:

Balconies and terraces. In some instances, unenclosed spaces serve private amenity and recreation functions for the residents of a building. This is the case with floor-through terraces observed in a handful of residential buildings in recent years.

More typical are recessed or projecting balconies and terraces that serve a similar purpose, either for residents of particular units or as a common amenity and recreation space for the building as a whole.

Loggias and Arcades. When on a ground floor, unenclosed spaces may serve as loggias or arcades that provide passageways for pedestrian circulation or covered space for street furniture, bike parking, subway entrances, and a range of formal and informal activities. These spaces are most common in high-density commercial settings, though there are limited examples in residential and other contexts as well.

Cantilevers. Perhaps the most varied category of unenclosed spaces, cantilevers are portions of buildings that project outward and are unsupported structurally from below. Often cantilevers are used to solve practical problems, like achieving workable apartment layouts in buildings with a limited footprint, building above an existing structure without demolishing or altering it, or utilizing a given amount of development rights at a lower height than would be possible without the cantilever. Also prevalent are cantilevers intended to make a design statement, either for a particular building or as a signature element across a range of projects.

Stilts and Open Volumes. While less common than the architectural features above, a few prominent New York City buildings are constructed on stilts that dramatically elevate entire buildings above structures below or contain open volumes that extend horizontally through the length of a building.

Windbreaks. Engineering advances in recent decades have enabled taller and skinnier buildings than would have been possible during New York City's earlier skyscraper booms. In conjunction with massed damper systems, windbreaks – or unenclosed spaces that wind can pass through unimpeded – reduce the extent to which these buildings sway in potentially dangerous wind conditions.

The Purpose of This Report

In 2019, several New York City elected officials and community groups expressed concerns about proposed uses of unenclosed spaces, in particular mid-building stilts intended to elevate the upper portions of a building above the surrounding built context. While no such buildings yet exist, zoning diagrams and permit applications for a proposed building at 249 East 62nd Street showed plans for stilts approximately 150 feet high in the middle of the building (the development site was sold to a new owner and the plan has been withdrawn.)

In response to these concerns, the Department of City Planning (the Department) committed to study unenclosed spaces in residential buildings, exploring potential outcomes not intended by the Zoning Resolution while also considering the desirable and functional uses of these unenclosed spaces. This report is the product of that commitment. The Department believes that this report can serve as an important source of information and analysis to guide discussion about the future of these spaces in New York City development.

In what follows, this report will consider how unenclosed spaces are regulated in New York City today and address each category above in greater depth with pictures, diagrams, and examples. The report will also look briefly at how these spaces are treated by the zoning resolutions and other relevant law in other cities in North America. These examples are limited but may be instructive. Finally, the report will offer a brief summary of findings and recommend a path for the discussion ahead.

In general, the report underscores the utility and architectural expressivity of the range of spaces that fall under the heading of unenclosed spaces, as well as the difficulty in trying to distinguish through regulation between “good” unenclosed spaces and “bad” ones. Any attempt at tighter regulation of unenclosed spaces would have to be undertaken with extreme care to minimize adverse effects on

the design and function of buildings. Given this difficulty, and the absence of any extant examples of outright abuse, this report recommends no immediate regulatory action. This recommendation is underscored by the current public health, economic, and budgetary crisis, which has highlighted the importance of access to outdoor areas. At this time, the resources of this Department, and City government generally, are better devoted to pandemic recovery and measures responsive to the issues of racial inequity so profoundly emphasized by the killing of George Floyd and subsequent protests.

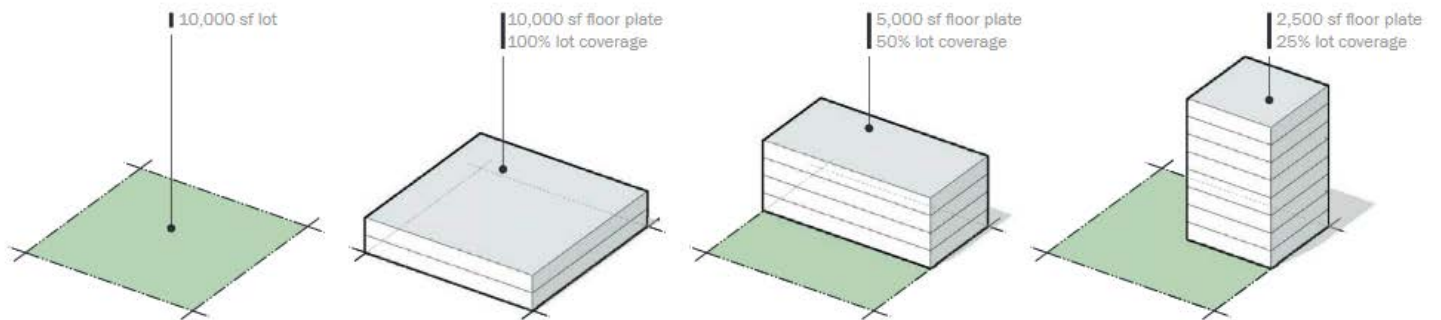
The Department, with other concerned stakeholders, should continue to monitor the use and potential for abuse of unenclosed spaces, always retaining the possibility of future action if further events warrant.

II. Existing Regulations

In following sections, this report will touch briefly on the ways that each of the various categories of unenclosed spaces – balconies and terraces, loggias and arcades, cantilevers, stilts and open volumes, windbreaks, and others – is subject to the Zoning Resolution’s existing bulk regulations. This section attempts to provide a basic familiarity with the types of bulk regulations that touch upon unenclosed spaces.

New York City enacted its current Zoning Resolution in 1961. Among its many innovations, the resolution introduced Floor Area Ratio, or FAR, as the fundamental bulk control on every zoning lot in the city. Prior to 1961, lots were subject to height limits, setback regulations, and open space requirements that defined the volume within which buildings could be constructed, but placed no explicit limits on the amount floor space that could be stuffed within that volume. (Floor to ceiling heights sometimes suffered.) The post-1961 FAR regime retains height, setback, and open space regulations and also limits each zoning lot to a maximum amount of “floor area”, denominated in square feet, based on the size of the zoning lot and the applicable zoning district.¹ Buildings may contain up to a zoning lot’s maximum allotted floor area, but no more.

Floor Area Ratio



¹ For instance:

- A 5,000 square foot zoning lot in a zoning district with an FAR of 1 (a relatively low-density district) is allotted 5,000sf x 1 FAR = 5,000sf of floor area
- A 5,000 square foot zoning lot in a zoning district with an FAR of 10 (a relatively high-density district) is allotted 5,000sf x 10 FAR = 50,000sf of floor area

Together, height, setback, and floor area regulations are the most important “bulk regulations” that the Zoning Resolution uses to regulate the size and shape of buildings.

While it may seem straightforward to calculate the amount of floor area in a given building, the definition of “floor area” is in fact the longest and among the most complicated in the Zoning Resolution. After a straightforward start – “Floor area is the sum of the gross areas of the several floors of a building...measured from the exterior faces of exterior walls” – the definition goes on to enumerate dozens of categories of floor space that either do or do not count as floor area. These categories provide clarity in cases of potential ambiguity, facilitate enforcement and minimize abuse, and, in certain instances, reflect policy judgments that aim to accommodate or discourage certain design features or other elements.

For instance, “floor space that is or becomes unused or inaccessible within a building” counts as floor area. Among other reasons, this prevents developers from using temporary interior walls to get certificates of occupancy and then knocking them down to increase the floor area of a building above the maximum FAR. On the other hand, “wall thickness” added to exterior walls is excluded from floor area as long as it has an R-value (thermal resistance value) of at least 1.5 per inch. This is to ensure that building owners are not penalized in terms of floor area for making their buildings more energy efficient.

Of particular importance to the definition of floor area is the distinction between enclosed and unenclosed space. Under the basic definition quoted above, floor area is measured from the exterior faces of the exterior wall at each floor. In the case of certain liminal spaces like balconies, terraces, roofed bridges, breezeways, porches, and the like, the question comes down to the degree to which these features are “enclosed” or “unenclosed”. That is, are they within the building or not?

Under the definition of floor area dating back to 1961, parapets and railings below certain height and openness thresholds do not constitute enclosure, while parapets or railings that exceed these thresholds do. Take a typical projecting balcony edged on three sides by a parapet or railing. If the parapet or railing exceeds the thresholds above, the balcony will be considered enclosed – that is, within the building – and it will count as floor area. If the parapet or railing is within the thresholds above, the balcony is unenclosed – that is, not within the building – and will not count as floor area. If the balcony is subsequently enclosed to create an extra room, as sometimes happens, it would then count as floor area.

This logic carries through the definition of floor area and the Zoning Resolution more generally: In order for a given area to count as floor area, a threshold question is whether it is within a building or not. The conceptual reasons for this may be plain, but this rule also heads off significant practical difficulties that would arise if ambiguous, hard-to-delimit, and often unusable areas outside of buildings factored into generally straightforward floor area calculations. As such, in the medium- and high-density districts that are the subject of this report, there are no instances where the Zoning Resolution counts unenclosed areas – that is, areas outside of buildings – as floor area.

In the following sections, this report touches briefly on the ways bulk regulations – that is, height, setback, and floor area regulations – affect each of the various categories of unenclosed spaces – balconies and terraces, loggias and arcades, cantilevers, stilts, windbreaks, and others. The report will also consider the implications of calls to regulate unenclosed spaces more stringently through changes to the basic regulatory tools that were touched upon in this section.

III. Unenclosed Spaces

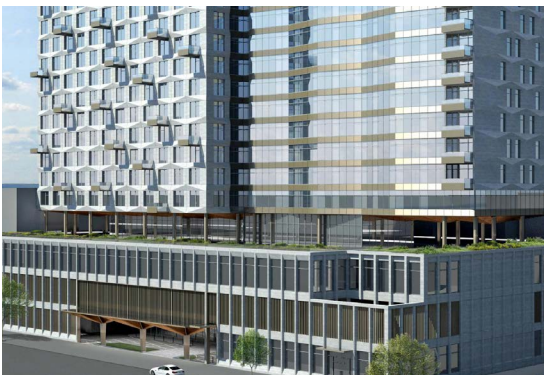
This section takes a closer look at the variety of spaces that can be considered “unenclosed spaces” and the ways that each is regulated today. Together, they serve a wide range of practical and aesthetic functions, from spaces people use (like loggias or balconies), to elements that solve problems (like windbreaks), to design features that simply look nice (cantilevers on the Met Breuer, for instance). Note that these spaces may not be mutually distinct, and a single space may fall into multiple categories – a cantilevered balcony, say, or a windbreak that also serves as a floor-through terrace. Given their diversity, a common attribute of unenclosed spaces is that they can be hard to define and categorize, especially at the margins.



321 Wythe Avenue

Balconies and Terraces

Unenclosed spaces can serve as partially sheltered outdoor spaces that provide private amenity and recreation space for the residents of a building. In recent years, a few residential buildings have provided floor-through terraces, either mid-building or at the transition from the bulkier, lower-level base to the building’s slimmer upper-level portion on stilts.



123 Linden Boulevard

More typical are projecting or recessed balconies for residents of particular units or as a common amenity and recreation space for the residents of the building as a whole.

Recent examples of floor-through terraces include 123 Linden Boulevard in Prospect Lefferts Gardens, Brooklyn, and 321 Wythe Avenue in Williamsburg, Brooklyn.

For each of those buildings, the transition from the base to the building’s upper portion is marked by an unenclosed terrace of modest height – perhaps 12 or 15 feet – with the building above supported by stilts.



130 William

Much more typical are projecting or recessed balconies and terraces, which have been incorporated into residential buildings for a much longer period of time. Interesting recent examples are the recessed terraces at 130 William, designed by Sir David Adjaye, perhaps best known as the architect of the National Museum of African American History and Culture in Washington, DC. In sequence, the recessed terraces on the upper stories give the impression of loggias in the sky, though these linear features are divided into private passive outdoor space and serve no circulation function.

How Balconies and Terraces Are Regulated Today. Balconies and terraces are explicitly permitted in all districts that allow residential uses, subject to various limitations. In the medium- and high-density districts that are the focus of this report, balconies are generally allowed to project a limited distance and for a limited area into required yards and other required open space. In the language of zoning, balconies and terraces are “permitted obstructions” in specified types of required open space. See Section 23-13 of the Zoning Resolution for more.

Balconies and terraces do not count as floor area so long as they are not enclosed along more than 67 percent of their perimeter.² Parapets up to 3 feet 8 inches

² Maximum perimeter enclosure was increased from 50 percent to 67 percent in 1993 to encourage more recessed balconies and fewer projecting balconies: “Since recessed balconies are often more attractive and useful than projecting balconies, the regulations should be changed to allow balconies enclosed up to 67% to be excluded from floor area and lot coverage.” See N 930073 ZRY.

do not count as enclosure, nor do railings up to 4 feet 6 inches high that are at least 50 percent open. In most circumstances, developers would try to ensure that any balconies in their buildings are not enclosed beyond these limits. This prevents the balconies from counting as floor area but is also necessary to qualify as a “permitted obstruction” under the regulations discussed above. Conceptually speaking, whether a balcony or terrace constitutes floor area and whether a balcony or terrace may project into a required open space depend on whether it is within the building – i.e., “enclosed” – or outside of it – i.e., “unenclosed”.

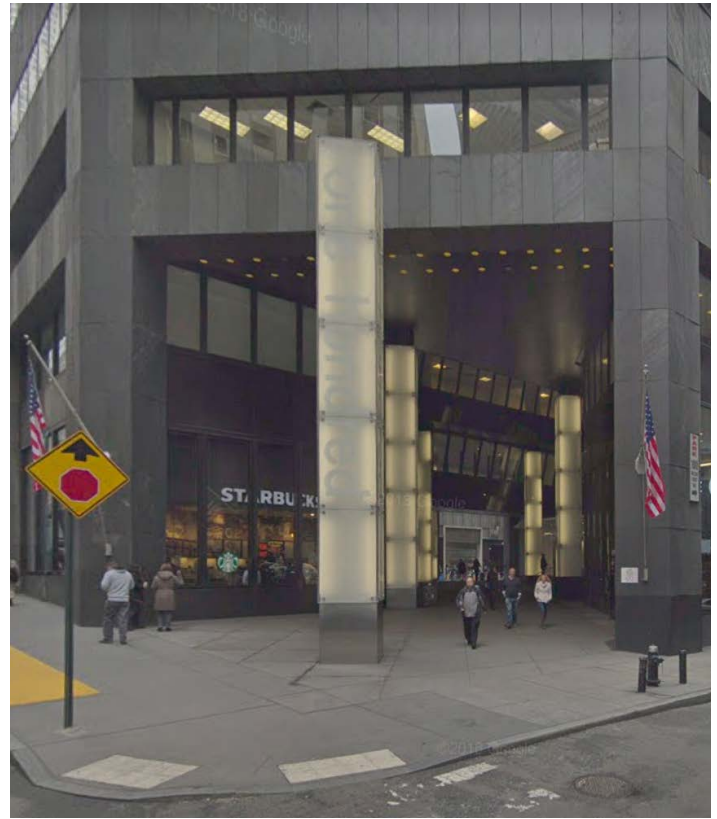
Loggias and Arcades

Loggias and arcades are a species of unenclosed space typically located at street-level that provide passageways for pedestrian circulation or covered space for street furniture, bike parking, subway entrances, and a range of formal and informal activities. They are most common in central business districts where applicable zoning regulations encourage or (in a few instances) require them in order to accommodate the higher pedestrian volumes there. Loggias and arcades can serve as inviting spaces that attract foot traffic to restaurants, retail, and other establishments that sometimes line them. Though there are examples, such as 10 Barclay below, loggias and arcades are less common in residential buildings, largely because their pedestrian-circulation benefits and implied invitation to the public are less necessary and desirable on private residential property.

The most successful loggias and arcades are well proportioned, highly functional spaces that serve as core design elements at what is often the most public part of a building – its ground level. Among the favorites is the loggia in the southern wing of the Municipal Building at 1 Centre Street, an individual landmark designed by McKim, Mead, and White in the early 1900s, with its extremely generous proportions and Gustavino Tile ceiling. (A similar loggia in the northern wing was in-filled.) Today, the space includes fully covered entrances to the subway, ample bicycle parking, and more than enough room for pedestrian circulation.



1 Centre Street. [Photo by marc.cappelletti.](#)



100 William Street

100 William Street – Financial District, Manhattan. More recent but no less functional is the retail-lined arcade at 100 William Street in the Financial District, above, which provides a diagonal, through-block shortcut between William and John streets in the Financial District. This space received a special permit bonus for a through-block arcade.

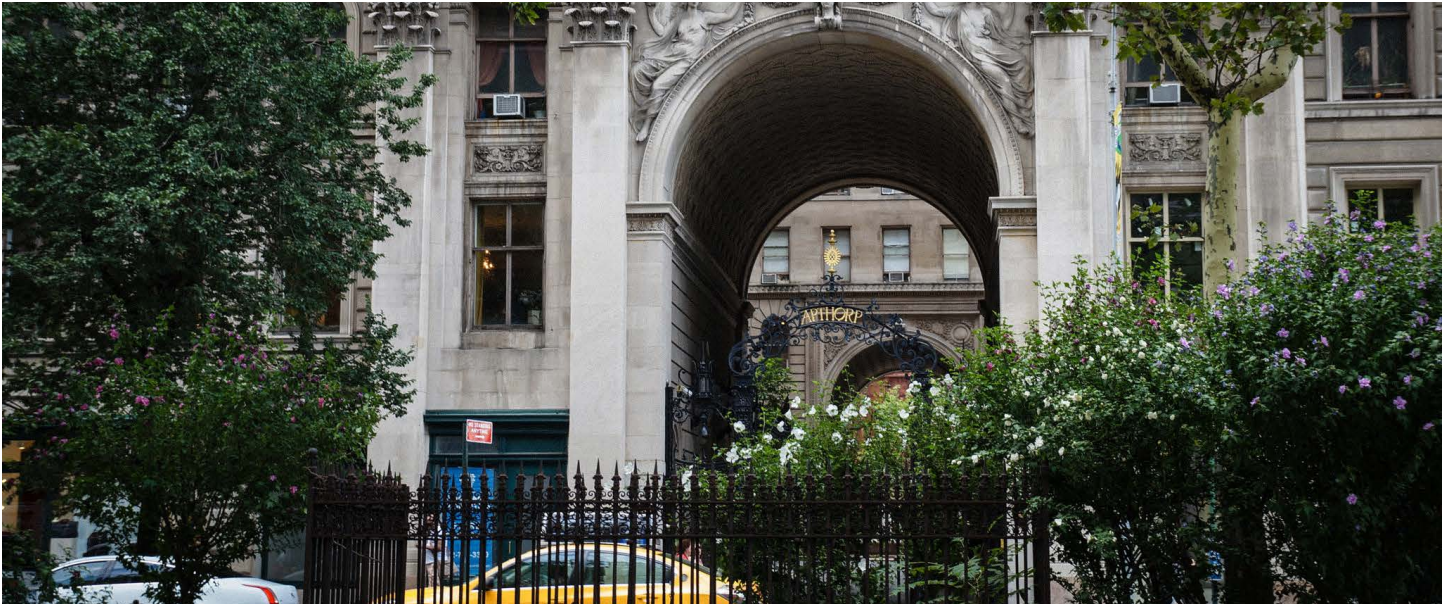


10 Barclay Street – Financial District, Manhattan.

Built in 2006, this 58-story apartment building is one of a few examples of arcades in residential buildings, demonstrating that these features can be functional and desirable outside of their usual civic and commercial context.

10 Barclay Street.

[Photo by Dan Deluca.](#)



The Apthorp. [Photo by Jeffrey Zeldman](#)

The Apthorp – Upper West Side, Manhattan. Another prominent example of an arcade-like space in a residential building is the signature passageway from the street to an interior courtyard at the Apthorp on the Upper West Side.

How Loggias and Arcades are Regulated Today. Dating back to the 1961 Zoning Resolution, arcades meeting applicable design criteria have generated floor area bonuses for predominantly non-residential buildings in many high-density districts. The applicability of the various arcade bonuses has expanded and contracted over the years but has been used overwhelmingly by commercial buildings in central business districts, with a few residential examples as well.

Arcades also play a prominent role in several Special Districts, such as Special Midtown, Special Lower Manhattan, and Battery Park City, as a means of providing required pedestrian circulation space. In the right context, arcades are a type of unenclosed space that is not only permitted, but actively encouraged as a public benefit.

While relatively rare, non-bonused, non-required arcades and loggias may be provided where permitted by the applicable bulk regulations. In many districts, provisions regulating street walls, among other regulations, would make this impossible in the event that a land owner wanted to provide one. Because arcades are by definition outside of buildings, they do not count as floor area, whether bonused or not.

Cantilevers

Cantilevers are portions of buildings that project outward from the side of a building and are unsupported from below, leaving an “unenclosed space” beneath. Cantilevers can be used to solve practical problems, such as building above an adjacent building or other obstruction on a merged zoning lot or, relatedly, utilizing a given amount of development rights at a lower height than would be possible without the cantilever.

In some instances, zoning lot mergers and cantilevers facilitate preservation of modest-sized older building that might otherwise be demolished in order to clear a development assemblage or facilitate housing development that would not otherwise happen. Because cantilevers enable floorplates that are larger than a building’s ground-floor footprint, they can also help to achieve workable apartment layouts (or better views) on constrained development sites.



160 East 22nd Street – Gramercy Park, Manhattan.

Here, a cantilever allows a new building to utilize development rights on a merged zoning lot while leaving older, shorter buildings in place and staying within overall contextual height limits. Note the example of the fire separation distance below the cantilever required by the New York City Fire Department. This is discussed further below.

160 East 22nd Street

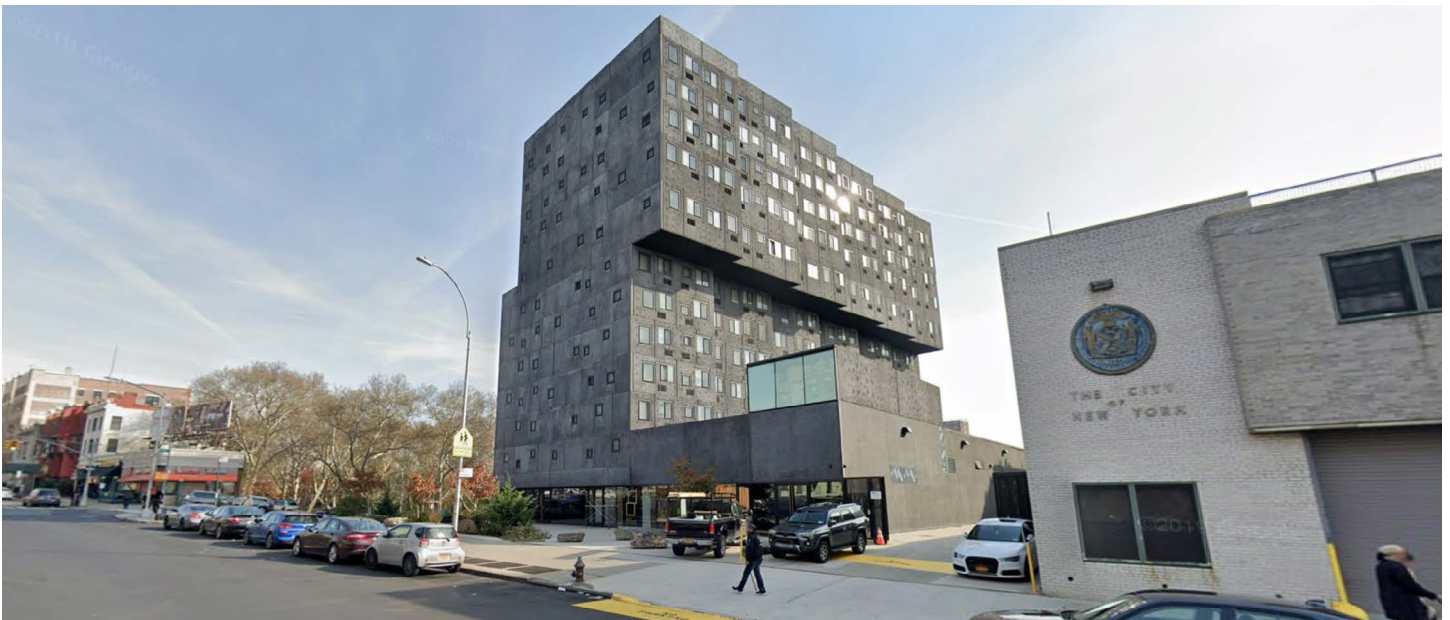


Central Park Tower

Central Park Tower – Midtown Manhattan. The cantilever for Central Park Tower is reported to maximize views of Central Park from apartments that extend into the cantilevered space.

In the instances above, the aesthetic effect of the cantilever may be beside the point. At the other end of the spectrum, as in the examples below, cantilevers serve less to solve practical problems and more to provide an architectural statement.

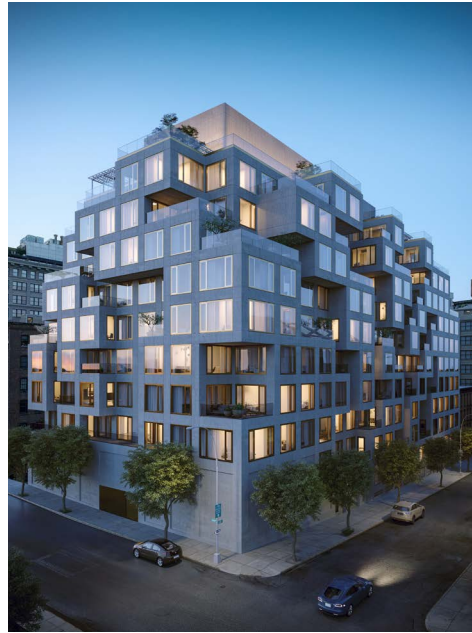
898 Saint Nicholas Avenue – Sugar Hill, Harlem, Manhattan. Another building designed by Sir David Adjaye, 898 Saint Nicholas Avenue contains the Sugar Hill Children’s Museum of Art and Storytelling in its base with 124 units of affordable housing above.



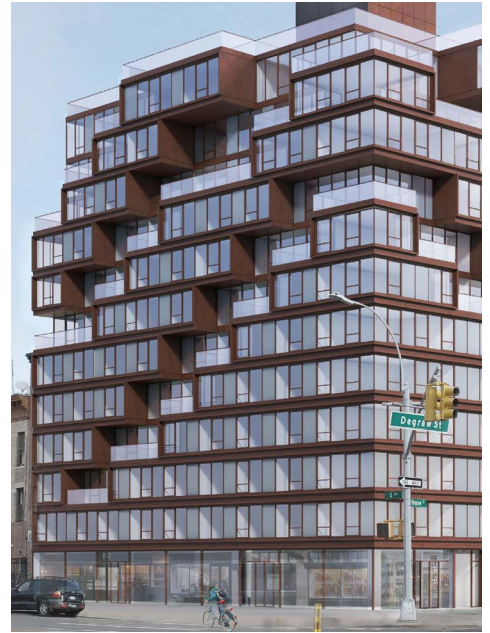
Sugar Hill Children’s Museum of Art and Storytelling



ODA's 100 Norfolk, LES



ODA's 98 Front, DUMBO



ODA's Denizen, Bushwick



Met Breuer

ODA – Selection of projects. At least one prolific New York architectural firm, ODA, turns to cantilevers again and again as a signature element of its design vocabulary across a range of projects.

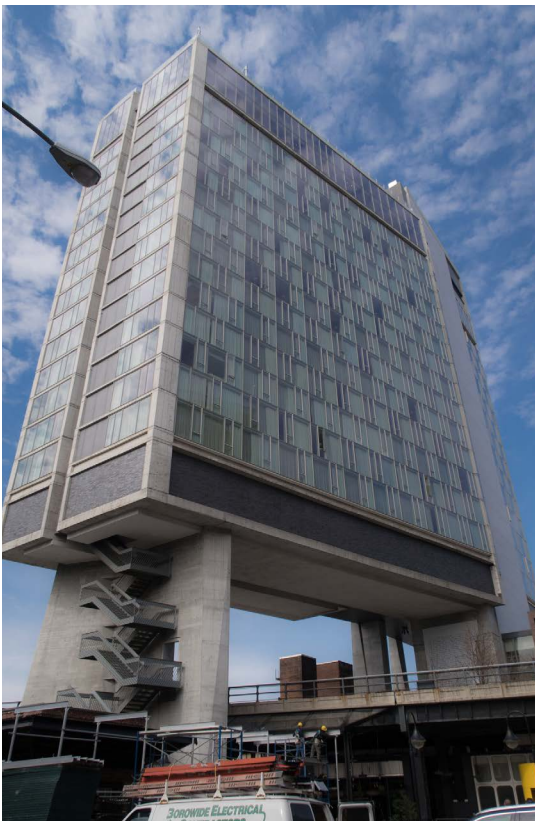
Met Breuer, formerly the Whitney Museum – Upper East Side, Manhattan. Designed by Marcel Breuer, the multilevel cantilever at the Met Breuer, formerly the Whitney Museum, is perhaps the city's most obvious example of cantilever as architectural expression.

How Cantilevers are Regulated Today. While no underlying zoning regulations address cantilevers as such, street wall regulations in many districts effectively limit or prohibit cantilevers on the portion of a building facing the street. Zoning poses less of a challenge for cantilevers on the sides or rear of a building, though in all cases cantilevered portions of a building must be located above that development's zoning lot and, unlike balconies, are not permitted to obstruct any required open spaces. Any building that proposes to cantilever over an existing building or other structure must satisfy review under the Fire Code, which accounts for the vertical fire separation distance observed in many cantilevers used in conjunction with zoning lot mergers. These are often aesthetically unpopular, but they slow the spread of fire and ensure adequate access for firefighters in the event of an emergency.

Generally speaking, the areas below cantilevers are typically unenclosed and thus do not count as floor area, though portions of the building (or entirely separate buildings) may locate below a cantilever and do, of course, count as floor area.

Stilts and Open Volumes

In some ways, the function of stilts is similar to that of the more practical-minded cantilevers discussed above: They elevate a building above obstructions below. But in the limited examples that follow, the effect has been much more dramatic, with the entire functional portion of a building hoisted into the air on massive columns.



The Standard Hotel.

[Photo by Franco Folini.](#)

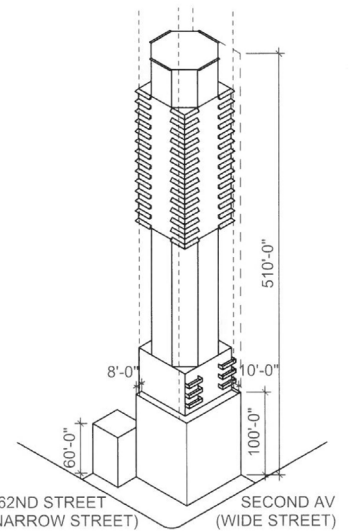
As climate change leads to rising sea levels and increased flood risk, use of stilts is likely to become more common as a resiliency measure. A limited number of low-density residential buildings have already employed stilts to minimize flood risk, and it is conceivable that New York City will see large multifamily buildings on stilts, as in cities like Miami Beach whose struggles with tidal flooding and flood surges may presage our own in decades ahead.

In some instances, “stilts” may consist of portions of the building itself, resulting in an open volume that extends horizontally through the length of a building like a tunnel of light and air. These are striking architectural expressions that can provide multiple exposures for a greater proportion of dwelling units than would be possible in buildings of more conventional design.

The Standard Hotel – West Chelsea, Manhattan. Stilts enable the Standard Hotel to straddle the High Line in West Chelsea, for instance, solving the practical problem of a zoning lot split by an elevated rail line while contributing grandly to the sense of the area as New York’s new showcase for contemporary architecture.



601 Lexington



249 East 62nd Street

601 Lexington – Midtown, Manhattan. New York City’s most storied stilt-building is perhaps 601 Lexington, also known as Citicorp Center, whose stilts enabled the full-block assemblage by lifting it above St. Peter’s Evangelical Lutheran Church, constructed on the corner of 54th and Lexington at the same time. Built in 1976, 601 Lexington is one of New York City’s youngest landmarks.

249 East 62nd Street (Proposed) – Upper East Side, Manhattan. The most controversial example of stilts is 249 East 62nd Street, an unbuilt development whose plans show an unenclosed space of approximately 150 feet with residential units in the upper portion. Unlike the examples above, the stilts (and the unenclosed space) are in the middle of the building rather than ground level. At the time of this writing, the site was sold to a new owner and the plan has been withdrawn.

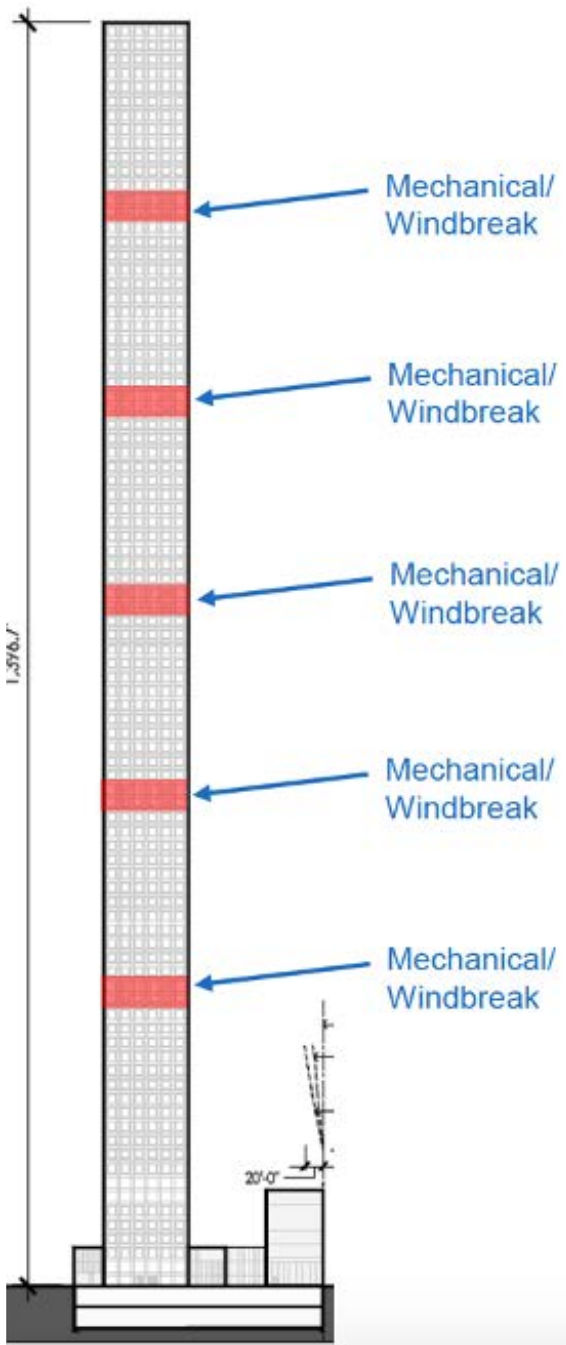


Domino development including One South First/10 Grand and 325 Kent

One South First/10 Grand and 325 Kent – Williamsburg, Brooklyn. These existing buildings, part of the Domino development on the Williamsburg waterfront, are among the most widely acclaimed examples of recent high-rise residential architecture within New York City. Designed by SHoP Architects, these mixed-income buildings incorporate open volumes to create a varied configuration, visual interest, and a multi-layered relationship with the surrounding environment.

How Stilts and Open Volumes are Regulated Today. The Zoning Resolution contains no regulations that directly address stilts or its functional analogs. (The word “stilts” appears nowhere in the Zoning Resolution.) Nevertheless, a cluster of bulk regulations – including street wall requirements, height limits, and others – would generally make it difficult to develop a building with stilts or an open volume without discretionary project approvals or outside of high-density districts with no explicit height limits. Other limiting factors include the significant obstacles pertaining to structural and financial feasibility.

If the spaces enabled by stilts are unenclosed, as in the examples above, they would not count as floor area. The same is true of open volumes.



Windbreaks

Engineering advances in recent decades have enabled taller and skinnier buildings than would have been possible during New York City's earlier skyscraper booms. In conjunction with massed damper systems, windbreaks – or unenclosed spaces that wind can pass through unimpeded – reduce the extent to which these buildings sway in potentially dangerous wind conditions. These are perhaps the most purely functional of the categories of unenclosed spaces.

111 West 57th Street and 432 Park – Midtown, Manhattan. The most prominent examples of windbreaks are in buildings along 57th Street in Midtown Manhattan, whose central business district zoning and desirable location have enabled several supertall residential towers with floorplates much smaller than a typical commercial building. 432 Park, a nearly 1400-foot-tall residential building designed by Rafael Vinoly, has double-height windbreaks every 12 stories. Currently under construction is 111 West 57th, a 1421-foot-tall building designed by SHoP Architects and said to be the skinniest (that is, highest height to width ratio) in the world. It has three 16-foot-tall windbreaks interspersed throughout its 84 stories.

How Windbreaks are Regulated Today. Windbreaks are deemed necessary to the structural integrity of the few buildings that have used them. Generally speaking, if a building of a certain size and shape is permitted, structural and mechanical features that enable that building to be constructed and to function will also be permitted without restriction.

Other

Finally, there are buildings that do not fall cleanly under any of the above categories. Is a building that leans cantilevered? Does a skybridge create an open volume? As underscored by the buildings below – and this report generally – new architecture raises new questions. The Department fully assumes that buildings that have not yet hit the drawing board will continue to raise such questions in the decades ahead. The Department believes that this should be welcome.



American Copper Buildings. [Photo by Shinya Suzuki.](#)

American Copper Buildings – Murray Hill, Manhattan.

This pair of buildings, designed by SHoP Architects, contain elements that might be construed as overlapping with multiple categories described above. It is challenging to isolate and define each. Nevertheless, the buildings are one of the most acclaimed additions to the city's skyline in the past decade, and represent the type of architectural variety for which zoning should seek to preserve a space.

IV: Regulations of Other North American Cities

To determine how New York’s zoning regulations for unenclosed spaces compare to those of other major North American cities, the Department conducted a survey of the zoning ordinances of six North American cities: Chicago, Los Angeles, Miami, San Francisco, Seattle, and Toronto. Each ordinance is unique and varies significantly in structure and detail, but all use “floor area” as a fundamental control on the size of buildings and all have extensive provisions that govern what counts as floor area and what does not.

Based on this survey, New York’s standards are in keeping with current practices amongst other major cities. Almost every city had regulations grappling with enclosure thresholds above which spaces would count as floor area. When percentages of enclosure thresholds were used, they often were in the range of 50 to 75 percent enclosure. Where maximum parapet or railing heights were used, they hovered between 3.5 feet and 4 feet. Like New York, a terrace that exceeded these thresholds – 80% enclosed or 5-foot-tall bounding wall, say – would be considered floor area, but a terrace below these thresholds would not.

Many cities contained variations that respond to localized climates, construction typologies, and building and fire codes. Los Angeles’s new zoning code addresses horizontal and vertical enclosure separately, with two thresholds (66.7 percent and 75 percent, respectively) that must be exceeded to render a space “enclosed” and thus to count as floor area. Seattle distinguishes between outdoor spaces that serve as circulation paths and those that do not. A breezeway connected to an exterior stairwell counts towards floor area, even if below enclosure thresholds, but an unenclosed balcony connected to a dwelling unit would not.

In addition, many cities require or encourage outdoor amenity spaces. Seattle requires residential tenants to have access to at least one “unenclosed” amenity space, such as balconies and decks, with minimum size requirements of 250 square feet for common spaces and 60 square feet for private spaces. In 2019, Miami approved a special rule that allows above-grade outdoor spaces to count

toward required open spaces in certain urban center areas. Such outdoor spaces must be “designed to provide elevated views of the surrounding area,” must have a minimum size of 800 square feet, and must be landscaped with local plants or used for urban farming. Toronto also requires outdoor amenity spaces and allows safety or wind protection structures for rooftop amenity spaces to exceed the permitted maximum building height by 3.0 meters (approximately 9 feet), provided that such structures are located beyond 2.0 meters (approximately 6 feet) of the building’s perimeter walls.

None of the zoning ordinances surveyed has regulations that directly restrict or otherwise address cantilevers, stilts, or windbreaks.

V: Summing Up and Next Steps

As the examples in Part Three demonstrate, the range of spaces that fall under the heading of “unenclosed spaces” serves a diverse array of practical and aesthetic functions. In general, existing bulk regulations in the form of height, setback, and floor area regulations, along with some category-specific rules such as balcony and arcade regulations, have ensured that the use of unenclosed spaces has generally proceeded predictably and as intended by the Zoning Resolution. This is not to say that all uses of, say, cantilevers or balconies have been without controversy, of course.

In 2019, several New York City elected officials and community groups expressed concerns about the proposed use of mid-building stilts at 249 East 62nd Street, pictured in an above section, which raised the specter of unenclosed spaces “abuse”. In particular, the use of unenclosed spaces in this instance seemed to echo the abuse of mechanical voids of up to 200 feet in order to elevate the upper portions of a high-end residential buildings above the surrounding built context. The abuse of mechanical voids was the subject of a text amendment sponsored by the Department of City Planning, enacted in 2019, that discourages unnecessarily tall mechanical spaces in residential buildings by counting them as floor area when they extend above 25 feet in height.³ While the plans for 249 East 62nd Street have been withdrawn, the Department understands the concerns of elected officials and community groups regarding the potential for abuse of unenclosed spaces and agrees that, if warranted, additional regulations deserve consideration. In researching and writing this report, the Department has come to several preliminary conclusions that inform its ultimate recommendations regarding immediate next steps.

First, with the withdrawal of the plans for 249 East 62nd Street, the Department is aware of no buildings currently in process that use unenclosed spaces in the way that raised concerns for the 62nd Street case. This is not to say that no other

³ See N 190230 ZRY or ZR 23-16(a)(2).

building could attempt to use unenclosed spaces this way, but it is a useful finding in gauging the magnitude of the issues surrounding unenclosed spaces in the context of other land use and planning issues facing New York City at this time.

Second, in examining the history of floor area regulation since “floor area” was introduced as a fundamental bulk regulation in 1961, the Department does not believe it would be feasible to attempt to regulate unenclosed spaces in the manner that it regulates enclosed mechanical voids. The recent voids text amendment discourages mechanical and other voids of excessive height in residential buildings by counting such spaces as floor area. It does so by adjusting the exemption typically afforded mechanical space under the definition of floor area set forth in the Zoning Resolution. By definition, such spaces are already enclosed floor space that is well within the ability of city agencies to define, measure, and enforce. It would be unprecedented, however, for the Zoning Resolution to attempt to count areas outside a building as floor area debited against the maximum permitted within a building. Such an attempt would present a host of conceptual and practical difficulties that could not be taken lightly and would have to be balanced against the harm that was intended to be addressed.

Third, given the varied nature and functions of unenclosed spaces, conceivable approaches to regulating “bad” unenclosed spaces present a high risk of unintentional consequences for spaces that serve worthy and useful goals, whether practical or aesthetic or some combination thereof. While designing a regulation that prohibits a particular “bad” space is simple, doing so in a way that does not discourage or prevent unobjectionable or even laudable spaces is quite difficult and perhaps not possible. In the case of mechanical voids, there is no “good” use of a 200 foot enclosed void and effectively prohibiting such spaces results in little or no risk of unintended consequences. Prohibiting such an unenclosed space, on the other hand, could prevent the next Standard Hotel or 601 Lexington, two distinctive and widely praised buildings that depend on their unenclosed spaces. Regulations that discourage or prevent “bad”

cantilevers could, for instance, encourage demolition of older, smaller buildings on merged zoning lots or prevent such mergers entirely, blunting an important tool for redevelopment that enables the city to grow and adapt. Nor would the Department want to disincentivize outdoor spaces, such as balconies or floor-through terraces examined above, especially at a time when outdoor space is at a special premium. Last but not least, regulations should allow the type of architectural expression and design experimentation with cantilevers and other categories of unenclosed spaces that have enjoyed an efflorescence in recent years.

Fourth, the Department recognizes that newly subjecting the use of these architectural features to discretionary action and public review would not be a way around the issues identified above, but rather would represent an additional cost in the form of unnecessary impediments to housing production. As the Department outlined during the 2019 Charter Revision Commission, as-of-right development is absolutely crucial to the city's ability to grow and adapt as circumstances warrant it. The perceived benefits of placing additional restrictions on development must always be weighed against the significant costs of restricting that ability to grow and adapt.

In general, the Department believes that this report underscores the utility and expressivity of the range of spaces that fall under the heading of unenclosed spaces, as well as the difficulty in trying to distinguish through regulation between "good" unenclosed spaces and "bad" ones. Any attempt at tighter regulation of unenclosed spaces would have to be undertaken with extreme care to minimize unintended consequences. Given this difficulty, and the absence of any extant examples of abuse, this report recommends no immediate regulatory action.

Along with the City Council, community organizations, and others, the Department should continue to monitor the use and potential for abuse of unenclosed spaces, with the possibility of future action if future events warrant.