The Municipal Art Society of New York



THE ACCIDENTAL SKYLINE

2017

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THE ACCIDENTAL SKYLINE



OCTOBER 2017

Letter from MAS

October 2017

Dear fellow New Yorkers:

Welcome to the third in a series of reports on New York City's Accidental Skyline. New Yorkers are remarkably adaptable people. We adjust constantly to changes in the city, and in our neighborhoods; we are hard to surprise. But the latest iteration of our changing skyline is doing just that, triggering surprise, and even disorientation.

The bewilderment so many New Yorkers are feeling is often followed by consternation about how these supertall buildings could be approved, and then anger when we learn that many of the most egregious among them did not go through a public review process at all.

New Yorkers have a right to expect that the Zoning Resolution gives them an understanding of what the city of the future will look like. From its very origins in 1916, the goal of zoning has been to ensure that most development could be built as-of-right (i.e. without public or environmental reviews) if those developments respected the City's rules and delivered individual buildings that created healthy, livable neighborhoods and business districts.

The last major overall of the zoning code was completed in 1961. Half a century later, the once-cutting-edge Zoning Resolution is easily outsmarted. It is no longer able to protect the public interest, and New Yorkers are entitled to better.

If the problems these developments pose aren't addressed, what's at risk is a city that is darker, drearier, and more austere than its denizens deserve; a place where ordinary New Yorkers can't find an affordable apartment while faceless corporations stockpile vacant investment properties.

Much of this responsibility lies with the City itself, but developers also need to come to the table—and communities, too, must recognize the inevitable change in neighborhoods and be willing to consider compromises that provide a fair balance between public and private interest.

We need to act together to make sure the city that gets built is the city we want: a vibrant, bustling metropolis that creates healthy, fair housing opportunities for all of us, with plenty of light and air on our sidewalks, streets, and parks. We must close the loopholes that allow buildings to change the paradigm of the city willynilly. We must demand honest and realistic evaluations of the pros and cons of any particular project and respectful engagement with communities about their wants and needs.

New York does not have to settle for an accidental skyline. What follows is our blueprint for a more intentional city.

Elizabeth Goldstein

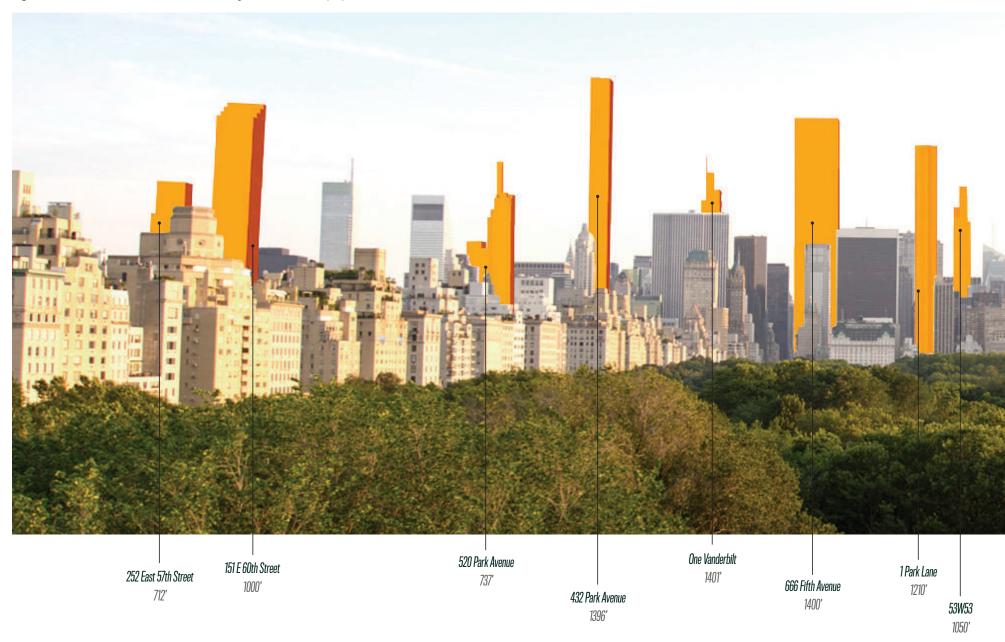
President, The Municipal Art Society of New York

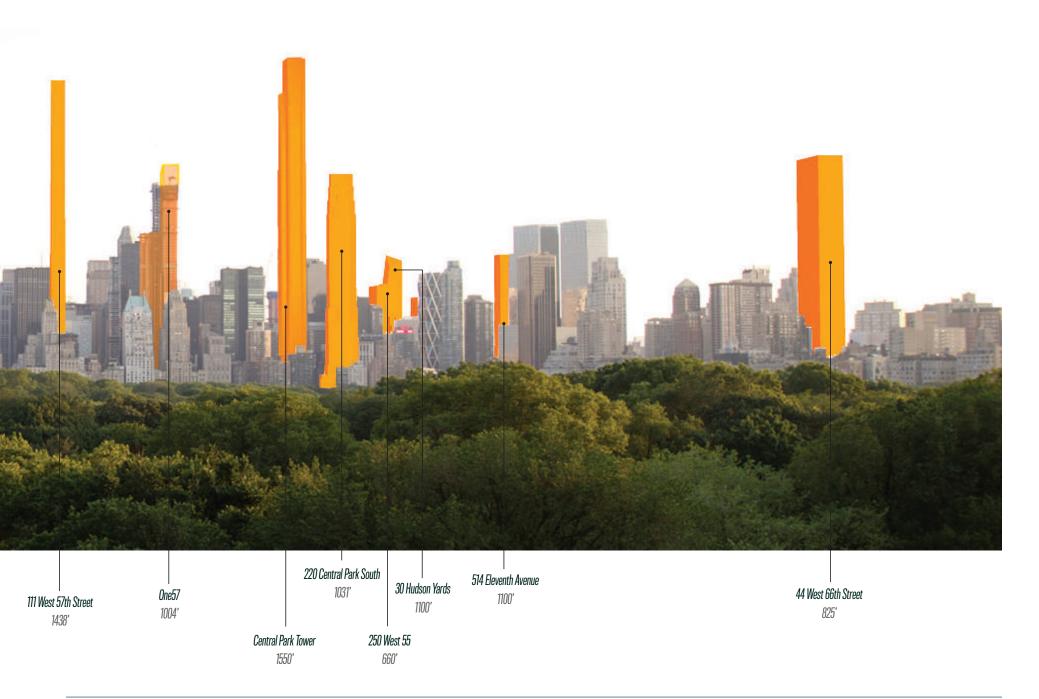




Figures 1 & 2: Views of Lower Manhattan, comparing 2013 (above) and proposed development modeled in orange for 2025 (below)

Figure 3: View south from Central Park, 2012 image modified to show proposed 2025 build out





Executive Summary

Since the release of its Accidental Skyline report in 2013, The Municipal Art Society of New York (MAS) has been raising the alarm about the need for new rules and regulations to protect public assets like light, air, open space, and the character of the city's neighborhoods from supertall towers and out-of-scale development.

Three years ago, MAS released a series of groundbreaking maps that highlighted large pockets of unused development rights across the five boroughs. These new interactive tools enabled us to predict the neighborhoods that would serve as the next frontier in the supertall boom. Indeed, within a few years we've seen towers over 600 feet proposed in Sutton Place, Long Island City, Williamsburg, Downtown Brooklyn,

Lower Manhattan, Lower East Side, Flatiron, and Hudson Yards (see Figures 5 & 6).

MAS has rigorously monitored and reviewed these new developments. We are tracking more than 100 new projects that have recently been completed, are under construction, or have been planned (see Figures 4, 7 & 8).

We urge the City to address the following interrelated issues that have given rise to supertalls and out-of-scale development:

 Loophooles and outdated rules, including provisions for air rights transfers, zoning lot mergers, height factor buildings, structural voids, and floor area bonuses, along with deficient environmental review evaluations and questionable mitigation enforcement;

- Inadequate public input, including significant projects with no public review and resistance to community-based planning initiatives, and:
- Lack of accountability, including an opaque process rife with inaccessible and incomplete information and insufficient building applications.

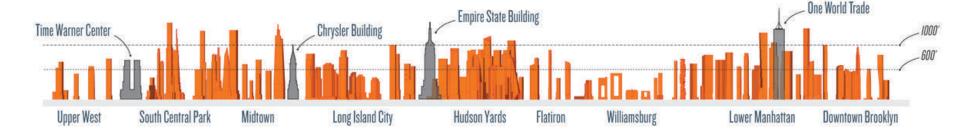
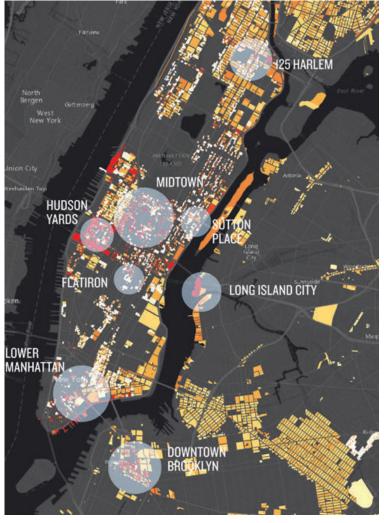
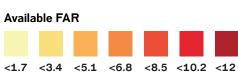


Figure 4: Elevation showing new development compared with iconic New York City buildings

Figures 5 & 6: Available development rights and hot spots as of 2014 (left) and projects completed, under construction, or proposed as of 2017 (right)





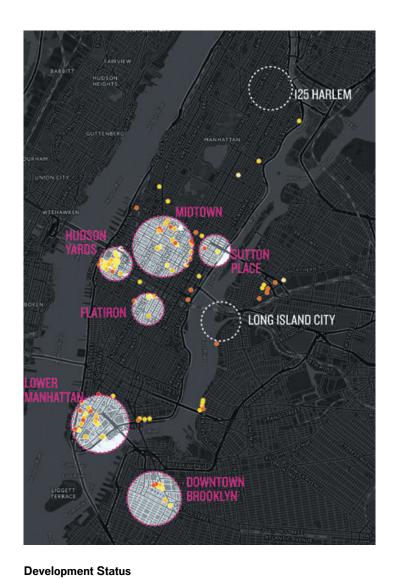






Figure 7: Proposed new development in Manhattan, Brooklyn, and Queens in 2025, from the west



Figure 8: Proposed new development in Manhattan, Brooklyn, and Queens in 2025, from the south

What is the Issue?

The latest generation of slender, hyper-tall buildings we see dominating the New York City skyline are the result of antiquated zoning regulations that, when coupled with an extremely competitive real estate market and advanced construction technology, have fostered a frenzy of speculative development. Since the framers of the 1961 Zoning Resolution never predicted buildings of this size and scope, most supertalls escape the City's public Uniform Land Use Review Procedure (ULURP) and City Environmental Quality Review (CEQR) process. They are built instead through a process called "as-of-right."

As a result, many residents are stunned to discover that a new supertall has broken ground in their neighborhood. Even after plans are made public, significant post-approval amendments can make buildings even taller, well after any window for public input or legal challenge has passed.

For the 10 percent of projects that do undergo public review, inherent deficiencies and flaws with these processes persist. Despite community input, the finished product often ends up being out of context with the surrounding neighborhood, casting it in shadow, blocking critical view corridors, and irreparably spoiling both streetscape and skyline.





Development Status

Under
Construction

Proposed

Figures 9 & 10: Views of incremental shadows from proposed developments between December 2014 (above) and December 2025 (below)

LOOPHOLES & OUTDATED RULES

More than a century ago, New York City adopted the country's first comprehensive zoning policies in response to out-of-scale development. The city's new subway system had fostered a huge speculative development boom along its route and new buildings were soaring bigger and taller. When the Equitable Building opened in 1915, the 40-story tower was truly a feat of engineering. But rising hundreds of feet straight up from the lot line, it was also monstrously out of context, a hulking façade that blocked ventilation, dumped thousands of pedestrians onto narrow sidewalks, and cast a noon shadow six times its own size on the neighborhood below. Many nearby businesses had to relocate to other areas of the city.

The following year, the City adopted the 1916 Zoning Resolution, which introduced the idea of separating manufacturing, commercial, and residential space, regulated the size and shape of buildings, and incorporated setback requirements to allow more light and air.

In the ensuing decades, the Zoning Resolution was continuously amended to adapt with changing times and trends. By the late 1950s it resembled an

irresolute patchwork of contradicting regulations, reflecting decades of significant technological, social, and physical change. Finally, in 1961, the Zoning Resolution was overhauled, and introduced the concept of floor area ratio (FAR) as a tool to control building bulk and density. It also included incentive zoning, which granted property owners additional floor area in exchange for public benefits, typically in the form of accessible open space such as plazas and arcades.

Over the next few decades, advances in construction techniques combined with a robust real estate market pushed buildings higher than was imagined in 1961. Meanwhile, developers devised clever strategies to flout bulk regulations, such as using largely empty floors ostensibly to accommodate mechanical equipment or incorporating open voids, to reach greater heights without using additional floor area.

The 1961 Zoning Resolution, like its predecessor, has been continuously amended since its adoption. Over the years, academics and practitioners alike have recognized its primary deficiency: it leaves ample room for interpretation, fueling speculative development.

In 1999, the City itself recognized that reform was necessary. At the time, then-Chair of the City Planning Commission (CPC) Joseph B. Rose, described the Zoning Resolution as "unwieldy, confusing, anachronistic, and often containing contradictory rules."

Air Rights Transfers & Zoning Lot Mergers

Air rights transfers and zoning lot mergers are two of the primary mechanisms by which developers build significantly larger buildings and avoid the scrutiny of the City's public review processes. In our 1999 report Zoned Out, MAS challenged the use of development rights transfers in the construction of the monolithic Trump World Tower on the east side of Manhattan. At almost 900 feet, it was the tallest residential building in the city at the time. The practice of transferring development rights continues to be used, and with significant advancements in modern construction techniques and materials, buildings are now reaching previously unforeseen heights.

For years, planning practitioners have grappled with ways to determine thresholds that would restrict the amount of off-site floor area used in a given development. The time is ripe for the adoption of a citywide policy that would limit the maximum percentage of floor area gained through development rights transfers to protect neighborhoods and inherently regulate speculative real estate markets.





Figures 11 & 12: South view of Central Park comparing 2014 (above) with proposed new development in 2020 (below)

217 West 57th Street (Nordstrom Tower)

The supertalls being constructed near 57th Street are of particular concern because of their potential to cast significant shadows on Central Park. The 88-story, 1,550-foot tall tower at **217 West 57th** Street is a primary example of the problems posed by out-of-scale development in this area (see Figures 11 & 12). Slated to become the tallest residential building in the country, the tower's proposed height and bulk was made possible through lot mergers and the purchase of unused development rights from adjacent sites. At 1.14 million gross square feet (gsf), upon completion, the development will be approximately 32 percent larger than what would be permitted without the transfer of air rights.

Figures 13 & 14: North view of the Empire State Building from Fifth Avenue and East 27th Street in 2011 (left) and 2020 (right)







Bas

Mechanical Deduction

First Transfer



Second Transfer

262 Fifth Avenue (NoMad Tower)

Views from Madison Square Park facing the landmark Empire State Building will be dramatically obscured by the 1,000-foot tall residential tower at **262 Fifth Avenue** (Figures 13 & 14). The assemblage involves five parcels, including the transaction of over 21,000 square feet (sf) of development rights through a zoning lot development and easement agreement, and the demolition of two buildings. City records show that the investments required for this assemblage exceed \$100 million, with the majority having been spent on the acquisition of a lot with no development rights, in order to procure adjacent sites.

80 South Street

Southwest views of Lower Manhattan will be irreparably altered in the upcoming years with the construction of a new supertall at **80 South Street** (Figure 15). At a proposed height of 1,436 feet, the development would be the second tallest building in the city with a predominant residential use. In 2015, the developer acquired two adjacent parcels and more than 426,000 sf of air rights, comprising almost half of the total developable floor area under the current proposal. The 80 South Street development and the adjacent 670-foot tower at One Seaport will block views of the landmark 40 Wall Street, originally known as the Bank of Manhattan Trust Building, which was ironically the world's tallest skyscraper at one time.

Height Factor Buildings & Structural Voids

It's no surprise that the market induces developers to seek ways to maximize investment by creating larger and taller buildings. Indeed, the Zoning Resolution's often contradictory rules and loose definitions are ripe for exploitation. These deficiencies pose ample opportunity for developers to exercise creative interpretations that facilitate the types of supertalls emerging throughout the city.

The 1961 Zoning Resolution introduced "height factor buildings" to the planning vernacular. Height factor regulations were designed to promote the construction of tall buildings with accompanying open space in certain residential zoning districts. The amount of open space required in these developments is determined through a range of height factors, floor area ratios, and a formula called "open space ratio," which is expressed as a percentage of the total floor area on a zoning lot.

Zoning defines open space as "accessible and usable by all persons occupying a dwelling unit or rooming unit on the zoning lot." However, creative interpretations by developers and loose enforcement by the Department of Buildings (DOB) have led to a substantial decline in the quality of accepted open space utilized in building

permit applications. DOB interpretations of the Zoning Resolution include concepts completely absent from the written regulations and have, in effect, usurped some of the legislative authority of the City Council.

Another strategy some developers use to flout zoning regulations is the insertion of oversized "structural voids." Disguised as accessory mechanical space, these empty spaces boost occupiable height and with it, property values. In some cases, structural voids have added 100 feet or more to building heights.

Zoning does not regulate floor-to-floor height, and accessory mechanical space is exempt from FAR. Thus, there is no regulatory limit to the amount of space that can be dedicated to accessory building mechanicals. Zoning should be amended to limit the amount of accessory mechanical space and other non-contributing uses, such as structural or wind shear components, used in proposed developments.

432 Park Avenue

Completed in 2015, 432 Park Avenue is currently the tallest residential building in the country, reaching 1,396 feet. The tower boasts 19 full floors of mechanical and structural voids, 10 of which are used



Figure 16: 432 Park Avenue showing transferred development rights, deductions, and plaza bonus



for vortex shedding or other aerodynamic design purposes. With an average floor-to-floor height of 16 feet, these voids add more than 313 linear feet to the tower's height, accounting for 19 percent of the building's gross floor area. These uses are exempt from zoning floor area calculations.

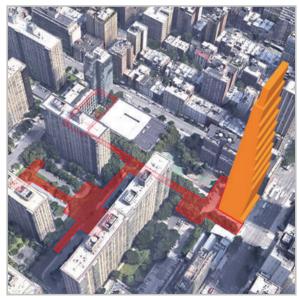


Figure 17: 200 Amsterdam Avenue showing gerrymandered zoning lot in red

200 Amsterdam Avenue

The proposal for **200 Amsterdam Avenue** on the Upper West Side is a particularly noteworthy affront to the intention of zoning. As shown in Figure 17, the 55-story, 423,000-gsf development would reach a height of 668 feet. Most of the proposed zoning floor area would be generated through the site's exceptionally large and irregular zoning lot, created through a series of zoning lot mergers resembling a gerrymandered electoral district. This creative but obscure tactic increased the size of the zoning lot from 7,042 sf to more than 110,000 sf.

The building requires a substantial amount of open space because the site is restricted by height factor regulations. However, almost half of the proposed open space of the manipulated assemblage consists of parking lots that are accessory to another development and will not be accessible to the residents of 200 Amsterdam Avenue. As such, the proposal falls substantially short of meeting the minimum open space requirement.

15 East 30th Street

In the building permit application for the 756-foot tall residential development at 15 East 30th Street in Manhattan, the developer proposed the construction of three mechanical floors, with a combined height of 132 feet. As a result, 23 percent the volume of the proposed building would be used for accessory mechanicals (Figure 18). These spaces were described by the applicant as a "structural void" necessary to accommodate mechanical equipment. However, these uses are not proportional to the size of the space. Several other developments currently under construction have exploited the use of structural voids. For example, 350 feet of 217 West 57th Street (Nordstrom Tower) is composed of structural voids, nearly a quarter of the building's total height.



Figure 18: 15 East 30th Street with the purported structural voids shown in blue

The Committee for Environmentally Sound
Development, which represents residents of the
Lincoln Towers community and the surrounding
area, submitted a zoning challenge to the DOB
that identified many inconsistencies in the 200
Amsterdam Avenue application. On September 20,
2017, the Board of Standards and Appeals (BSA)
voted unanimously against the appeal on the grounds
that the Zoning Resolution gives no instruction
regarding the verticality or volume of mechanical
spaces. Nor does it generally define uses in volume
and height. In its determination, the BSA expressed
the need for the City Planning Commission (CPC) to
examine the use of structural voids in building permit
applications.

Floor Area Bonuses

Under incentive zoning, the City allows property owners floor area bonuses in exchange for public benefits, such as subway improvements, affordable housing, privately owned public space (POPS), performance or visual art space, theater preservation, and full-line neighborhood grocery stores.

The recently approved Greater East Midtown Rezoning, for example, allows certain properties additional floor area based on the completion of specific improvements to area subway stations. Under the City's FRESH Program, property owners of mixed residential and commercial buildings can increase floor area by up to 20,000 sf in exchange for allocating a certain amount of retail space for healthy foods in underserved neighborhoods. The Theatre Subdistrict of Manhattan's Special Midtown District allows a floor area bonus by special permit for the rehabilitation of qualifying theaters. In the case of POPS, additional floor area allotted to applicable property owners is theoretically balanced by the provision of public space, typically in the form of plazas and arcades.

However, public amenities achieved through bonuses are vulnerable. To protect valuable public assets, a public review process should be established to assess public amenities and provide a thorough quantitative and economic analysis, including the private financial benefits accrued over time, for each type of bonus.

45 Broad Street

The 1,115-foot tall development at **45 Broad Street** will be the first residential supertall in Lower

Manhattan (see Figure 19). By transferring 11,270

sf of air rights from an adjoining parcel and utilizing
a Subway Improvement Bonus that would provide
an additional 71,000 sf, the developers were able to
increase the size of the project by almost 300,000

sf.

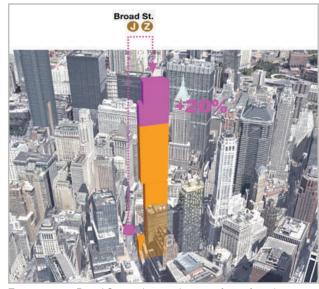


Figure 19: 45 Broad Street showing the area of transferred development rights and transit bonus in pink

Domino Sugar

Initial plans for the development of the former **Domino Sugar** site in Williamsburg, Brooklyn, called for a new park, a school, and 2,200 apartments. The property was later purchased by a new developer, who subsequently overhauled the original plans and reduced the number of affordable units from 660 to 440. After negotiating with the City, the developer agreed to keep the original promise of 660 affordable units, with the stipulation that the building height would increase to 535 feet and floor area expand by 200,000 gsf beyond what was approved in the 2010 rezoning (Figure 20).

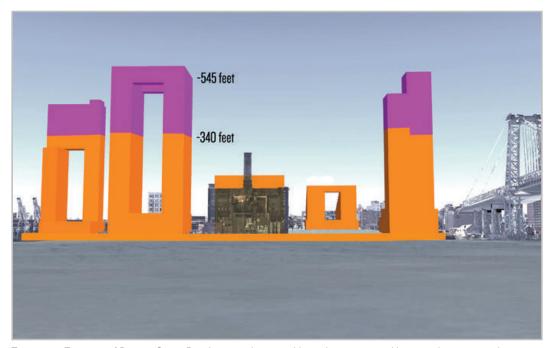
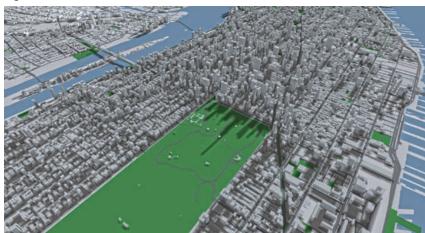


Figure 20: East view of Domino Sugar Development showing additional area garnered by special permit in pink.

Shadow Impacts

Throughout its history, MAS has maintained that access to light, air, and open space is critical to the well-being of New Yorkers and the economic health of New York City. The shadow studies produced by MAS in 2013 demonstrated that existing zoning and environmental review regulations do not sufficiently protect Central Park from the impact of nearby supertalls. The updated studies released along with this report not only confirm the prevalence of adverse shadow impacts but also show how access to light and air will be significantly reduced in other neighborhoods across the city (see Figures 21 & 22).

Figure 21: Shadows on Central Park, December 2014





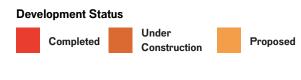


Figure 22: Projected shadows on Central Park, December 2025

Deficient Environmental Review Process

Of course, not all supertalls are built as-of-right. Some are the result of rezonings and other discretionary land use actions. These projects are subject to evaluation under the CEQR process. Environmental review documents produced under CEQR are designed to inform the public about potential impacts of discretionary land use actions such as rezonings and help City officials make informed decisions.

Unfortunately, these evaluations frequently underestimate the scale of developments and fail to effectively evaluate their fullest impact. As a result, effective mitigation measures are often not considered, leaving neighborhoods to deal with the consequences of diminished sunlight, traffic congestion, limited open space, crowded schools, noise, poor air quality, and other negative consequences.

For the CEQR process to foster meaningful and comprehensive evaluations, improved oversight mechanisms need to be put in place. For example, CEQR guidelines should be amended to require the evaluation of an alternative development scenario that factors in potential air right transfers, bonuses, and special permits that could be utilized to expand the size of the projected and potential developments evaluated.

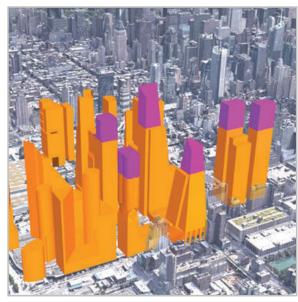


Figure 23: Hudson Yards Development, with estimated bulk not evaluated in 2005 EIS shown in pink

Hudson Yards Development

The 2005 Hudson Yards Rezoning facilitated the development of 40 million sf of mixed-use space on Manhattan's West Side. Cited as the nation's largest development, the full build-out of the project is expected to be completed by 2025.

Although the project was subject to environmental review, the 2005 Environmental Impact Statement (EIS) did not reflect the full amount of development that is currently under construction. For example, the Manhattan West project at 401 West 31st Street was evaluated as a 3.6 million-sf development in the EIS, but will actually be 4.7 million sf when complete (see Figure 23). In addition, the development of Hudson Yards Towers 10, 15, 30, and 35 was evaluated in the EIS as a total of 5 million sf. However, what will actually be built is 6.8 million sf.

In both examples, dozens of separate land use applications have been approved since the initial rezoning, some of which were subject to separate environmental review and have resulted in bulk waivers or floor area increases. The result is a combined underestimation of the Hudson Yards Development by nearly three Chrysler Buildings!

Downtown Brooklyn Development

Similarly, the EIS for the 2004 Downtown Brooklyn Development Plan did not accurately evaluate the maximum projected and potential floor area that would actually be developed. For example, the 556,164-gsf development at 340 Flatbush Avenue, which will be the tallest building in Brooklyn upon completion, was not evaluated at all in the EIS (see Figure 24).

Furthermore, two other developments will have exceeded the development projection evaluated in the project EIS. These include 388 Bridge Street, completed in 2015, which exceeds the EIS estimates by 300,000 sf, and 100 Willoughby Street, which exceeds what was evaluated in the EIS by 129,000 sf.

All told, almost one million sf of development was not evaluated in the original 2004 EIS, the equivalent of the Flatiron and Woolworth Buildings combined.



Figure 24: North view of Downtown Brooklyn Development with estimated bulk not evaluated in 2004 EIS shown in pink

Mitigation Enforcement

In addition to evaluating a project's potential environmental effects, CEQR regulations also require the identification of mitigation measures to offset adverse impacts. Despite these requirements, there are no mechanisms in place to confirm that mitigation measures have been implemented, let alone tested to prove their efficacy once a project is constructed.

CEQR regulations need to be overhauled to ensure that effective mitigation measures are implemented and tested. This could be done by imposing a third-party review or by requiring a follow-up technical memorandum that evaluates the efficacy of mitigation measures.

Hudson Yards Development

The EIS for the 2005 Hudson Yards Rezoning evaluated the potential impacts of the project and identified mitigation measures to offset adverse impacts. The EIS visual resources evaluation indicated that 30 Hudson Yards would block views of the Empire State Building from certain points in the rezoning area (see Figures 25 & 26). The EIS proposed new publicly accessible open space with "enhanced views" as mitigation. However, the "enhanced views" of the Empire State Building identified in the EIS appear to be blocked by the developments at 50 Hudson Yards and 55 Hudson Yards.

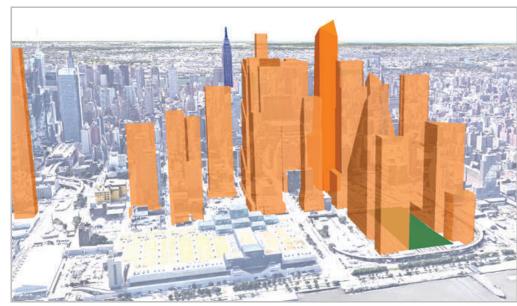


Figure 25: Proposed Hudson Yards development in context of the Empire State Building

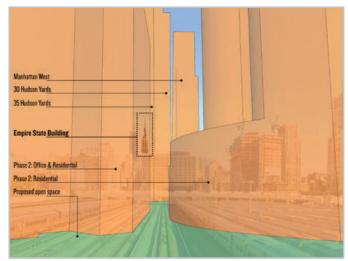


Figure 26: East view of proposed Hudson Yards development showing obstructed view of Empire State Building

East Midtown

The Greater East Midtown Rezoning was approved by the City in the summer of 2017. The project's EIS evaluated shadow impacts on sunlight-sensitive resources, including Greenacre Park, one of only three vest-pocket parks in the city. The EIS showed that incremental shadows of certain developments would at times completely cast the park in darkness (see Figure 27).

Despite this finding, the EIS concluded that impacts would not be adverse and thus no mitigation was proposed. As a concession in the project approval, the City has committed to notifying the owners of Greenacre when applications are filed for development that could affect the park, but the implementation of any substantive mitigation measures such as height and bulk limitations were not addressed.

The Greenacre Foundation commissioned an independent shadow study to contest the determinations made in the EIS for the Greater East Midtown Rezoning. MAS and New Yorkers for Parks have advocated on behalf of Greenacre Park regarding the potential shadow impacts.

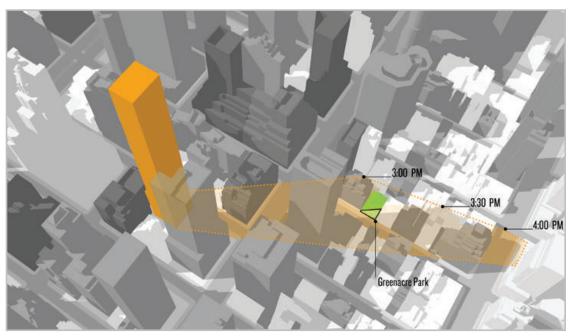


Figure 27: Aerial view of East Midtown showing projected shadow of 138 East 50th Street on Greenacre Park, June 2018

INADEQUATE PUBLIC INPUT

Ninety percent of construction in New York City occurs as-of-right, without public review. In many instances, current regulations appropriately control the bulk of buildings. However, loopholes such as structural voids and lot mergers also allow projects that defy the intention of zoning. Without oversight, the true impact of new development is not evaluated and developers are not required to perform any additional environmental studies to determine if any negative consequences might arise.

In some cases, projects that are otherwise subject to environmental review are not reviewed under ULURP. As such, even if a project has the potential for significant adverse impacts, without the benefit of a public land use review, elected officials and their constituents are virtually helpless to improve development and reduce detrimental results. Recent proposed developments in Manhattan's Lower East Side have sparked a heated debate regarding the level of review needed to approve certain significant land use actions.



Figure 28: Manhattan Borough President Gale Brewer, Council Member Margaret Chin, and Public Advocate Leticia James at a public announcement regarding the Two Bridges Large Scale Residential Development

Manhattan Borough President Gale Brewer and Council Member Margaret Chin have urged the Department of City Planning (DCP) to require that the Two Bridges Large Scale Residential Development project be reviewed under ULURP. In August of 2017, they issued a joint statement stipulating that if the City approves the application they will initiate legal action against it. Similar reaction has been expressed by the Urban Justice Center and GOLES (Good Old Lower East Side), among other organizations. MAS formally submitted comments to the City outlining the tremendous environmental impacts of the proposal.

Significant Actions with No Public Review

Many neighborhoods are still governed by regulations established by decades old Urban Renewal Area (URA) and Large Scale Residential Development (LSRD) plans. Recently, these regulations have been manipulated to facilitate substantial new development that is likely to result in significant adverse environmental impacts. Although major alterations to Urban Renewal Plans are subject to ULURP, occasionally the City has classified these actions as "minor modifications," which summarily exempts them from public review.

The City should require public review for land use actions such as substantial air rights transfers, zoning lot mergers, significant amendments to LSRD plans, and large developments on publicly owned land (e.g., infill on public housing estates). These types of decisions should also incorporate claw-back provisions to reverse any approvals if a certain number of unforeseen environmental impacts occur.

Two Bridges LSRD

In the fall of 2016, the CPC classified proposed changes to the Two Bridges LSRD plan as "minor modifications." This designation exempted the project from ULURP, even though it would result in the development of over 2.5 million gsf of residential space, including four towers ranging in height from 724 feet to 1,008 feet (see Figure 29).

With the introduction of over 6,000 new residents, the development has the potential to significantly transform the neighborhood's socioeconomic conditions and character. As for CEQR, the development requires extensive evaluations in virtually every environmental category. For example, the threshold for triggering an expanded evaluation of a project's impacts on open space is an additional 200 residents. The so-called minor modification to the Two Bridges LSRD exceeds that threshold by a factor of 30!



Figure 29: West view of the Two Bridges Large Scale Residential Development on the Lower East Side

Other expected significant impacts include shadows, urban design and visual resources, natural resources, traffic and parking, water and sewer infrastructure, and solid waste management. The project site is also within the 100-year flood plain. Again, this is all taking place without any public review.

Community-Based Planning Initiatives

While the City has initiated many wide-scale rezonings throughout the five boroughs under its Planning for Livability, Affordability, Community, Economic Opportunity and Sustainability (PLACES) initiative, it has demonstrated an aversion to approving community-driven planning efforts. Although the current administration has improved engagement with communities, rezonings and other land use actions are still driven by the City's agenda, not by community interests.

The City must allow and encourage opportunities for communities to implement long-term planning initiatives for their neighborhoods. In addition, new mechanisms should be created for community-based initiatives to be evaluated and adopted, including those that are not necessarily aligned with the goals of City government.

The Plan for Chinatown and Surrounding Areas

The Plan for Chinatown and Surrounding Areas:
Preserving Affordability and Authenticity included
recommendations for preserving existing affordable
housing. It also established the development of new
affordable rental housing units based on local median
income, anticipated local economic development,



Figure 30: Two Bridges LSRD in context of the rejected Plan for Chinatown and Surrounding Areas

and preserved sites of cultural and historic significance. The proposal also called for limiting density and imposing height limits consistent with the existing scale of the area.

Unfortunately, the plan was rejected by DCP for a number of reasons, among them, claims that it was "too expansive," there wasn't a clear community consensus, the geographic size was too large, and the plan was not sufficiently nuanced on a block-by-block level.

The Chinatown Working Group commissioned the plan in 2013, developed by Pratt Center for Community Development and The Collective for Community, Culture and the Environment. Funding was provided through the Lower Manhattan Development Corporation.

East River Fifties Alliance Rezoning in Sutton Place

In 2017, the East River Fifties Alliance (ERFA), a grassroots group composed of Sutton Place residents, submitted a community-based rezoning proposal to the City in response to the construction of an out-of-scale residential building. The plan called for height limitations, façade articulations, and FAR bonuses for affordable housing.

ERFA gained the support of four elected officials: Manhattan Borough President Gale A. Brewer, Council Members Ben Kallos and Daniel Garodnick, and State Senator Liz Krueger, who became co-applicants in the zoning proposal.

Based on lengthy discussions with the DCP, ERFA reluctantly agreed to amend significant parts of the proposal, abandoning height limitations and an increased affordable housing requirement, to help certify the project for ULURP. As of October 2017, the project was being reviewed under ULURP.



The East River Fifties Alliance (ERFA) developed a rezoning proposal to prevent out-of-scale towers and promote affordable housing in Sutton Place. Several civic organizations have expressed support of the rezoning proposal including MAS, Landmark West!, and Friends of the Upper East Side Historic Districts.

Figure 31: Sutton Place rezoning area and Gamma Development showing original height limitations proposed by ERFA

LACK OF ACCOUNTABILITY

In addition to overhauling its regulatory and review processes, the City must increase the availability of public information for proposed developments. Unlike legislative matters considered by the City, most land development projects are not well-publicized and are only discovered through vigilant scrutiny of the City's online resources. More often than not, websites and online tools do not sufficiently alert the public about real estate transactions and land use actions until the development planning process has been completed.

Supertalls and other large-scale developments can impact neighborhoods for generations. Without the availability of accessible and extensive information, the public is at a great disadvantage in influencing development in their communities.

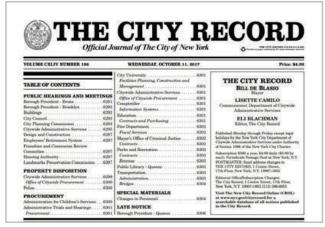


Figure 32: The City Record, Official Journal of The City of New York, October 11, 2017



Figure 33: Public hearing at the New York City Council

Inaccessible & Incomplete Information

The City lacks an online platform that provides clear and comprehensive information about non-discretionary actions, such as zoning lot mergers, transfers of development rights, and other property transactions not subject to CEQR and ULURP. Although some property records and financial documents are posted on the Department of Finance's Automated City Register Information System (ACRIS) website, navigating the unwieldy site can be a frustrating exercise in futility for most users.

For example, ACRIS includes every property transaction conducted in the city, including mortgages and refinancings. As a result, there can be hundreds of documents in the file when only a few are relevant to a given search. The website lacks an option to filter documents relevant to a specific geographic area smaller than the borough level and does not allow users to select multiple development criteria. ACRIS also does not display vital real estate transaction information without forcing the user to open and read complex, cumbersome documents that sometimes number in the hundreds of pages. And once a property record is located, ACRIS does not display the



Figure 34: Screenshot of ACRIS online platform showing date range error message

geographic location of the corresponding property on a map, requiring users to use a separate online resource such as MapPLUTO TM or the City's Zoning and Land Use Map (ZoLa).

In the interest of full transparency, the City should make information pertaining to Zoning Lot Development Agreements (ZLDAs) and other real estate transactions accessible, publicizing these actions and notifying local Community Boards and

elected officials. Because many of these projects have the potential to result in significant long-term consequences, the City has a responsibility to provide its residents with clear and timely documentation.

Insufficient Building Applications

Building applications accepted by the DOB are another area in which the City's documentation lacks uniformity and transparency. The City's ability to collect and provide accurate and detailed information pertaining to proposed development projects is largely dependent on the submission requirements set by the involved City agencies.

For example, approved zoning diagrams posted online contain very limited information about zoning compliance and usually omit essential information on how the project complies with the required regulations. Furthermore, the quality of the materials posted is often inconsistent, with some scanned documents that are blurry and even illegible.

Nowhere was this issue more evident than in the application filed for the proposed tower at 200 Amsterdam Avenue on Manhattan's Upper West Side, which included simplified drawings that failed to capture the complexities of the project or demonstrate compliance for a height-factor building. If the zoning diagram had been better composed, perhaps DOB would have identified inconsistencies and requested alterations that could have produced a more appropriate and compliant development.

It is clear that current methods of documentation in building applications are inadequate for today's needs. As such, the DOB must refine its requirements for building applications to meet advanced technological and design standards, thus increasing transparency. By posting clear, easy to read plans online, the public will be better informed about what will be built and whether it complies with zoning regulations.

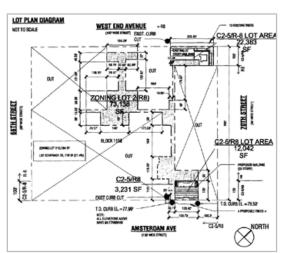


Figure 35: Portion of the confusing Zoning Diagram submitted for the development at 200 Amsterdam Avenue



Figure 36: Aerial image showing proposed tower at 200 Amsterdam Avenue and zoning lot in red

How Do We Fix It?

I. CLOSE LOOPHOLES THAT ALLOW DEVELOPERS TO SKIRT ZONING RULES & ENVIRONMENTAL REGULATIONS

1. Strengthen Regulations That Control Height and Bulk

- Determine maximum floor area and appropriate height for mechanical floors, wind-shear structural elements, architectural stilts, and other noncontributing zoning floor areas used in building permit applications.
- Minimize environmental impacts through performance-based zoning and goaloriented regulations where applicable, (e.g., daylight-evaluation scoring system as incorporated in the Special Midtown District and LEED™ or equivalent standards for reducing greenhouse gas emissions).

2. Clarify Zoning Regulations and Definitions

- Amend regulations for height factor buildings for permitted obstructions of the sky exposure plane and clarify definitions for required open space, its accessibility and use.
- Strengthen zoning districts that encourage height factor buildings (e.g., require more open space and implement open space guidelines).

3. Evaluate Zoning Floor Area Bonuses

- Create a method for evaluating the public benefit of privately owned public spaces (POPS), FRESH program, public transit improvements, and affordable housing to ensure an equitable public-private exchange (e.g., review of violation records, visual inspections, and assessment of the financial gain accrued by the owner).
- Require public review, evaluation of the environmental impacts, and assessment of the financial gain accrued by an owner before any partial or complete removal of a public amenity created through a floor area bonus can be approved.

4. Strengthen Mitigation Requirements for Environmental Review

- Implement and test mitigation measures identified in EISs and other environmental review documents to determine effectiveness (e.g., reviewed by Public Advocate/Comptroller offices or an independent panel of experts).
- Require lead agencies to provide phased follow-up technical memoranda that evaluate the efficacy of mitigation measures from project construction to operation.

5. Comprehensively Evaluate and Disclose Impacts of Development

- Require EISs to include as part of the alternatives analysis, a development scenario that reflects, to the extent practicable, the highest level of development facilitated by a land use action, including potential air right transfers, lot mergers, and special permits that could affect the projected and potential development sites.
- Require that EISs evaluate an Optimal Sustainable Development Scenario alternative that demonstrates application of sustainable practices and standards to reduce energy use, greenhouse gas emissions, water use, solid waste generation, traffic, factors that contribute to heat island effect, increase efficiency of HVAC systems, improve construction techniques and methods, and demonstrate design changes that reduce shadows and protect view corridors.



Figure 37: Mayor Bill de Blasio signing into law a series of reforms to the Board of Standards and Appeals zoning variance process

II. GIVE NEIGHBORHOODS A SEAT AT THE TABLE

Increase Local Representation and Opportunities for Review of Land Use Actions

- Require any development rights transfer or zoning lot merger that increases a building floor area by a certain determined threshold be subject to ULURP and CEQR.
- Ensure that local Community Board and Council Members are notified when a transfer of development rights takes place or when a development plan utilizes acquired development rights (e.g., zoning lot mergers and development agreements).

2. Increase resources and opportunities for community planning

- Provide Community Boards with sufficient resources to hire a planning practitioner to provide technical assistance and help in creating a Statement of Community District Needs and Community Board Budget Request. Create guidelines to ensure that these documents are up to date, detailed, and accurate.
- Require mandatory analysis of the applicable
 Statement of Community District Needs in the public policy chapter of an EIS evaluation.



Figure 38: Participants from Community Board 4 in Queens at a workshop organized by MAS Livable Neighborhoods Program

III. HOLD THE CITY AND DEVELOPERS ACCOUNTABLE TO THE PUBLIC INTEREST

Improve Development and Land Use Applications

- Require that more detailed information and designs included in building applications, such as floor heights, mechanical space, and open space areas, as well as digital schematic drawings that are accessible to the public.
- Require signs on or adjacent to development projects that include notices of public input opportunities, designs of the completed building in context, and links to websites that provide additional information about the project.

2. Improve Online Resources by Making Data Standardized, Comprehensive, and Accessible

- Improve ACRIS search, filtering, and previewing capabilities, and add a subscription service to allow users to receive digital notifications for specific sites or developments.
- Ensure that ZLDAs include the square footage of development rights transferred between lots, as well as block and lot numbers of the properties involved.
- Amend MapPLUTO[™] datasets to include attribute information and polygons disclosing zoning lot agreements and transferred development rights.

3. Create New Accountability Measures and Strengthen Existing Ones

- Require project mitigation commitments identified in a CEQR Statement of Findings to include specific timetables for mitigation implementation, testing, and evaluation, as well as information on where the follow-up mitigation summary report will be posted online.
- Require a follow-up technical memorandum
 to resolve disputes after the approval of
 an EIS, triggered whenever a determined
 number of resolutions from Community
 Boards, Borough Presidents, and
 CPC commissioners have expressed
 disagreement with EIS conclusions (e.g.,
 review by Public Advocate/Comptroller
 offices or by a panel of experts appointed by
 them).

- Expand and strengthen scope of land use actions covered under the City's commitments law (Local Law 175) to include actions initiated by the City, as well as private applicants.
- Establish and enforce penalties for misrepresentations and inaccurate information in EISs and project applications (including building permits and documentation submitted to the Board of Standards and Appeals).



Figure 39: Screenshot of NYC Open Data portal

This work builds on decades of advocacy by MAS, beginning with our campaign for the nation's first comprehensive zoning code, passed by the Board of Estimate and Apportionment of the City of New York in 1916.

Read more about MAS's 125-year history on our timeline at mas.org.

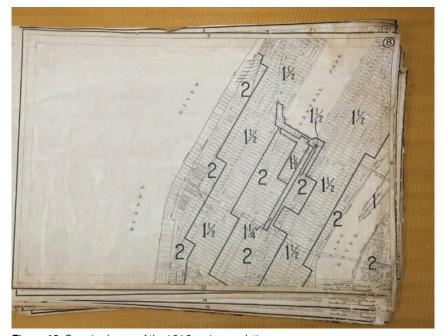


Figure 40: Oversized maps of the 1916 zoning resolution

Appendix A: Active Projects Summary Table

Listed in ascending order of height

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
1	329 Kent Avenue	Site E Domino Sugar Development	Two Trees Management	SHoP Architects	170'	16	Residential	Under Construction	2018
2	314 Kent Avenue	Refinery Building Domino Sugar Development	Two Trees Management	Practice for Architecture and Urbanism	190'	16	Residential	Proposed	2022
3	10 Huron Street	10 Huron Street	Mack Real Estate Group and Palin Enterprises	Ismael Leyva Architects	392'	39	Residential	Under Construction	2018
4	515 West 36th Street	515 West 36th Street	Lalezarian Properties	Ismael Leyva Architects	418'	38	Mixed-Use	Under Construction	2018
5	112 West 25th Street	Renaissance Hotel	Lam Group	Renaissance Hotel	432'	37	Commercial	Under Construction	2018
6	260 Kent Avenue	Site A Domino Sugar Development	Two Trees Management	SHoP Architects	435'	42	Residential & Commercial	Proposed	2022
7	606 West 57th Street	606 W 57th Street	TF Cornerstone	Arquitectonica	440'	42	Residential	Under Construction	2018

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
8	685 First Avenue	685 First Avenue	685 First Avenue	Richard Meier & Partners Architects	459'	42	Residential & Commercial	Under Construction	2018
9	22-44 Jackson Avenue	5 Pointz	G&M Realty	HTO Architect	498'	48	Mixed-Use	Under Construction	2022
10	28-42 Trinity Place	77 Greenwich Street	Trinity Place Holdings	FXFOWLE	500'	40	Residential	Proposed	2019
11	43-25 Hunter Street	The Hayden	Rockrose Development	SLCE Architects	509'	50	Residential	Under Construction	2017
12	701 Seventh Avenue	EDITION Hotel	Witkoff, Ian Schrager Company, Winthrop Realty Trust, and Maefield Development	Platt Byard Dovell White Architects (PBDW Architects)	517'	42	Commercial	Under Construction	2017
13	180 East 88th Street	180 East 88th Street	DDG Partners	Unknown	521'	38	Residential	On Hold	Unknown
14	268 Kent Avenue	Site B Domino Sugar Development	Two Trees Management	SHoP Architects	530'	51	Residential & Commercial	Proposed	2022

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
15	316 Kent Avenue	Site D Domino Sugar Development	Two Trees Management	SHoP Architects	535'	53	Residential	Proposed	2022
16	626 First Avenue	American Copper Building	JDS Development	SHoP Architects	540'	48	Residential	Under Construction	2017
17	821 First Avenue	Turkevi Center	Republic of Turkey	Perkins Eastman	563'	35	Mixed-Use	Proposed	2018
18	520 East 117th Street	520 East 117th Street	Blumenfeld Development Group/ Forest City Ratner	TEN Arquitectos	575'	48	Residential	Proposed	Unknown
19	130 William Street	130 William Street	Lightstone Group	Goldstein, Hill & West Architects	581'	59	Residential & Hotel	Proposed	2019
20	131 East 47th Street	131 East 47th Street	New Empire Real Estate	SLCE Architects	581'	49	Residential	Proposed	Unknown
21	28-10 Jackson Avenue	28-10 Jackson Avenue	Tishman Speyer and H&R Real Estate Investment Trust	Goldstein, Hill & West Architects	590'	53	Mixed-Use	Under Construction	2019
22	100 Willoughby Street	Avalon Willoughby West	AvalonBay	SLCE Architects	595'	56	Residential	Completed	2015
23	115 Nassau Street	Beekman Residences	GFI Development	Gerner Kronick/ Valcarcal	595'	53	Residential & Hotel	Completed	2016

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
24	388 Bridge Street	388 Bridge Street	The Stahl Organization	SLCE Architects	595'	53	Residential	Completed	2015
25	420 Albee Square	420 Albee Square	JEMB Realty	Kohn Pedersen Fox	600'	40	Commercial	Proposed	Unknown
26	20 West 53rd Street	Baccarat Hotel and Residences	Tribeca Associates/ Starwood Capital	Skidmore, Owings & Merrill	606'	50	Residential	Proposed	2015
27	333 Schermerhorn Street	The Hub	Steiner Studios	Dattner Architects	610'	56	Residential & Commercial	Under Construction	2017
28	545 West 37th Street	Hotel-Residential Tower At Hudson Yards	Chetrit Group	CetraRuddy Architecture	622'	46	Mixed-Use	Proposed	Unknown
29	242 West 53rd Street	242 West 53rd Street	Algin Management	CetraRuddy	625'	62	Residential	Under Construction	2018
30	42-12 28th Street	Tower 28	Heatherwood Communities	Goldstein, Hill & West Architectst	647'	58	Residential	Under Construction	2017
31	377 11th Avenue	Hudson Yards West Site B	Related Companies	Unknown	650'	-	Residential	Proposed	Unknown
32	250 West 55th Street	250 West 55	Boston Properties	Skidmore, Owings & Merrill	660'	39	Commercial	Completed	2014

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
33	45 Park Place	45 Park Place	Soho Properties	SOMA Architects	667'	70	Residential	Under Construction	2018
34	200 Amsterdam Avenue	200 Amsterdam Avenue	SJP Properties	Elkus Manfredi	669'	55	Residential	Proposed	Unknown
35	161 Maiden Lane	One Seaport	Fortis Property Group	Goldstein, Hill & West Architects	670'	51	Residential	Under Construction	2017
36	23 Park Row	23 Park Row	L+M Development	COOKFOX	691'	51	Residential & Retail	Under Construction	2020
37	138 Willoughby Street	138 Willoughby Street	Extell	Kohn Pedersen Fox	692'	59	Residential & Commercial	Under Construction	2020
38	451 10th Avenue	451 10th Avenue	Maddd Equities	Unknown	700'	-	Mixed-Use Office, Commercial & Residential	Proposed	Unknown
39	281 Fifth Avenue	281 Fifth Avenue	Victor Group	Rafael Viñoly Architects	708'	55	Residential & Commercial	On Hold	2019
40	610 Lexington Avenue	One Hundred East Fifty Third Street	RFR Realty	Norman Foster	709'	63	Residential	Under Construction	2017
41	603 West 30th Street	Hudson Yards West Site A	Related Companies	Unknown	710'	-	Mixed Residential and School	Proposed	Unknown

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
42	252 East 57th Street	252 East 57th Street	Worldwide Group	Skidmore, Owings & Merrill + SLCE Architects	712'	65	Residential, School & Retail	Completed	2016
43	470 11th Avenue	470 11th Avenue	Black House/ Sirus Development	Archilier Architecture	720'	47	Residential & Hotel	Proposed	2018
44	259 Clinton Street	271 South Street	The Starrett Corporation	Perkins Eastman	724'	62	Mixed-Use	Proposed	Unknown
45	43-30 24th Street	43-30 24th Street	Stawski Partners	Goldstein, Hill & West Architects	731'	66	Residential & Retail	Proposed	Unknown
46	45 East 60th Street	520 Park Avenue	Zeckendorf Realty	Robert A.M. Stern	737'	54	Residential	Under Construction	2018
47	1717 Broadway	Marriot Courtyard - Residence Inn	G Holdings Inc	Nobutaka Ashihara	750'	67	Hotel	Completed	2014
48	23-15 44th Drive	City View Tower	Chris Jiashu Xu	Goldstein, Hill & West Architects	752'	79	Residential	Proposed	2019
49	15 East 30th Street	126 Madison Avenue	J.D. Carlisle	Handel Architects	756'	51	Residential & Commercial	Under Construction	2019
50	118 Fulton Street	19 Dutch	Carmel Partners	SLCE Architects	758'	63	Mixed-Use	Under Construction	2018

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
51	321 East 96th Street	321 East 96th Street	AvalonBay	Unknown	760'	68	Residential	Proposed	2023
52	45 East 22nd Street	45 East 22nd Street	Continuum Company	Kohn Pedersen Fox	777'	65	Residential	Under Construction	2017
53	50 West Street	50 West Street	Time Equities Inc.	Helmut Jahn	778'	64	Residential	Completed	2017
54	55 Hudson Yards	55 Hudson Yards	Related Companies	Kohn Pedersen Fox/ Kevin Roche	778'	51	Commercial	Under Construction	2018
55	137 Centre Street	137 Centre Street	Unknown	Thomas Juul-Hansen	780'	60	Residential	Proposed	Unknown
56	111 Murray Street	111 Murray Street	Fisher Brothers and The Witkoff Group	Kohn Pedersen Fox	792'	58	Residential	Under Construction	2018
57	260 South Street	260 South Street	L+M Development Partners and the CIM Group	Handel Architects	798'	69	Mixed-Use	Proposed	2021
58	138 East 50th Street	138 East 50th Street	Extell	Pelli Clarke Pelli	803'	52	Residential, Hotel, & Retail	Under Construction	2018
59	56 Leonard Street	56 Leonard	Alexico Group and Hines	Herzog and de Meuron	821'	60	Residential	Completed	2016

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
60	36-44 West 66th Street	44 West 66th Street	Extell Development and Megalith Capital Management	SLCE Architects	825'	80	Residential	Proposed	Unknown
61	3 West 29th Street	NoMad Tower	HFZ Capital Group	Moshe Safdie	830'	64	Residential, Commercial, & Hotel	Proposed	Unknown
62	425 Park Avenue	425 Park Avenue	L&L Holding Company	Norman Foster	847'	42	Commercial	Under Construction	2018
63	10 Hudson Yards	10 Hudson Yards (Coach Tower)	Related/ Oxford Properties	Kohn Pedersen Fox	895'	52	Commercial	Completed	2016
64	247 Cherry Street	247 Cherry Street	JDS	SH₀P	900'	77	Residential	Proposed	Unknown
65	15 Hudson Yards	15 Hudson Yards	Related Companies	Diller Scofidio + Renfro and David Rockwell	910'	70	Residential	Under Construction	2018
66	616 West 33rd Street	Hudson Yards West Site C	Related Companies	Unknown	910'	-	Mixed Office & Residential	Proposed	Unknown
67	698 West 33rd Street	15 Hudson Yards	Related Companies	Diller Scofidio + Renfro, Ismael Leyva Architects	910'	88	Residential	Under Construction	2018
68	29-37 41st Avenue	Queens Plaza Park	Property Markets Group/the Hakim Organization	SLCE Architects	915'	70	Residential	Hold	2019

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
69	520 Fifth Avenue	520 Fifth Avenue	Thor Equities	Handel Architects	920'	71	Hotel, Residential & Retail	Proposed	Unknown
70	80 Flatbush Avenue	80 Flatbush Avenue	Alloy Development	Architecture Research Office	920'	74	Mixed-Use	Proposed	2025
71	30 Park Place	30 Park Place	Silverstein Properties	Robert A.M. Stern	937'	67	Residential & Hotel	Completed	2016
72	426 East 58th Street	Sutton Place Development	Gamma Development	Unknown	950'	77	Residential	Proposed	Unknown
73	4 World Trade Center	4 World Trade Center	Port Authority of NY and NJ / Silverstein Properties	Fumihiko Maki	977'	72	Commercial	Completed	2013
74	250 South Street	One Manhattan Square	Extell	Adamson Associates	983'	80	Residential & Commercial	Under Construction	2019
75	50 Hudson Yards	50 Hudson Yards	Related Companies	Kohn Pedersen Fox / David Childs	985'	58	Commercial	Proposed	2020
76	401 West 31st Street	Manhattan West	Brookfield Properties/ Cushman & Wakefield	Skidmore, Owings & Merrill	995	67	Residential & Commercial	Under Construction	2017
77	151 East 60th Street	151 East 60th Street	Kuafu Properties	Kohn Pedersen Fox	1000'	-	Residential	Proposed	Unknown

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
78	262 Fifth Avenue	262 Fifth Avenue	Boris Kuzinez + Five Points Development	Meganom	1001'	54	Residential	Proposed	Unknown
79	157 West 57th Street	One57	Extell	Atelier Christian de Portzamparc	1004'	77	Residential & Hotel	Completed	2014
80	509 West 34th Street	The Spiral	Tishman Speyer	Bjarke Ingels	1005'	64	Commercial	Proposed	2019
81	35 Hudson Yards	35 Hudson Yards (Tower E/ Equinox Tower)	Related Companies	David Childs/ Skidmore, Owings & Merrill	1009'	71	Residential & Hotel	Under Construction	2019
82	617 West 30th Street	35 Hudson Yards	Related Companies	Skidmore, Owings & Merrill	1009'	71	Residential & Commercial	Under Construction	2019
83	220 Central Park South	220 Central Park South	Roth/Vornado	Robert A.M. Stern	1031'	66	Residential	Under Construction	2018
84	3 Hudson Boulevard	3 Hudson Boulevard	Moinian Group	FXFOWLE	1050'	66	Commercial & Residential	Under Construction	2019
85	53 West 53rd Street	53W53	Hines/Goldman Sachs Real Estate/ Pontiac	Jean Nouvel	1050'	82	Residential & Arts/Culture	Under Construction	2018
86	340 Flatbush Avenue Extension	340 Flatbush Avenue	JDS	SHoP Architects	1066'	73	Residential & Commercial	Proposed	2019

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
87	Three World Trade Center	Three World Trade Center	Silverstein Properties	Rogers Stirk Harbour & Partners	1079'	80	Commercial	Under Construction	2018
88	125 Greenwich Street	125 Greenwich Street	Michael Shvo, Vector Group, New Valley, and Bizzi & Parters Development	Rafael Viñoly Architects	1100'	91	Residential & Commercial	Under Construction	2018
89	45 Broad Street	45 Broad Street	Madison Equities, Pizzarotti-IBC, AMS Acquisition	CetraRuddy	1100'	86	Residential & Commercial	Under Construction	2018
90	520 West 41st Street	514 Eleventh Avenue	Silverstein Properties	Oppenheim Architecture & Design	1100'	106	Residential & Commercial	On hold	Unknown
91	36 Central Park South	1 Park Lane	Steven Witkoff and Macklowe Properties	Rogers Stirk Harbour & Partners	1210'	-	Residential & Hotel	On hold	Unknown
92	15 Penn Plaza	15 Penn Plaza	Vornado	Pelli Clarke Pelli	1216'	68	Residential, Commercial & Hotel	Proposed	Unknown
93	30 Hudson Yards	30 Hudson Yards	Related Companies	Kohn Pedersen Fox	1287'	90	Commercial	Under Construction	2019
94	Two World Trade Center	Two World Trade Center	Silverstein Properties	Bjarke Ingels Group	1340'	79	Commercial	Proposed	2020
95	432 Park Avenue	432 Park Avenue	Macklowe/CIM Group	Rafael Viñoly Architects	1396'	88	Residential	Completed	2015

Project #	Address	Project Title	Owner / Developer	Architect	Height	# of Floors	Use	Status	Completion Year
96	660 Fifth Avenue	666 Fifth Avenue	Kushner Companies / Vornado	Zaha Hadid	1400'	41	Mixed-Use	Proposed	2025
97	One Vanderbilt Avenue	One Vanderbilt	SL Green Realty Corporation	Kohn Pedersen Fox	1401'	58	Commercial & Transportation	Under Construction	2020
98	80 South Street	80 South Street	China Oceanwide Holdings	SHoP	1436'	113	Residential, Commercial & Hotel	Proposed	Unknown
99	111 West 57th Street	111 West 57th Street	JDS Development/ Property Markets Group	SHoP Architects	1438'	82	Residential	Under Construction	2018
100	217 West 57th Street	Central Park Tower (Nordstrom Tower)	Extell	Adrian Smith+Gordon Gill	1550'	130	Residential, Commercial & Hotel	Under Construction	2020
101	One World Trade Center	One World Trade Center	Port Authority of NY and NJ	Skidmore, Owings & Merrill	1776'	104	Commercial	Completed	2014
102	159 West 48th Street	Hard Rock Hotel	Extell Development and Hard Rock International	Unknown	-	-	Commercial	Proposed	Unknown
103	517 West 35th Street	517 West 35th Street	Spitzer Enterprises and Related Companies	Unknown	-	-	Mixed-use	Proposed	Unknown

Appendix B: Methodology

This section describes the steps, geoprocessing tools, software, and data sources utilized for the creation of this report and the accompanying interactive resources found at www.mas.org/accidentalskyline. The Municipal Art Society of New York conducted this work between June 2015 and October 2017.



Figure 41: Map showing available development rights in 2014, based on MapPluto $^{\text{TM}}$

Geospatial Analysis for Development Rights

MAS utilized the City's property tax datasets (MapPLUTO™) to create interactive online maps showing available development rights in all five boroughs of New York City.

MapPLUTO™ contains more than 70 fields derived from data maintained by various City agencies. It is one the most complete datasets for land use information in the city. MapPLUTO™ is updated by DCP at least once a year. The datasets can be downloaded free of charge at the DCP website's Open Data archival page (https://www1.nyc.gov/site/planning/data-maps/open-data.page#pluto).

MapPLUTO™ datasets include three attributes necessary for performing an analysis on development rights: Built Floor Area Ratio (FAR), Maximum Allowable FAR (based on use and zoning), and Property Lot Area. Using geospatial software, MAS subtracted the amount of allowable FAR (buildable area according to zoning) from the built FAR (contributing zoning floor area) to determine the amount of development rights available on any given property. With this alteration, MAS was able to estimate the amount of unused development rights for every property in the city.

The modified MapPLUTO™ datasets were then uploaded to the interactive mapping platform CARTO™. Using the interactive maps created through the datasets, MAS identified where new developments might be proposed and the neighborhoods that would

be affected. By overlaying rezoning boundaries, MAS was able to identify the development that occurred within the rezoned areas.

Disclaimer: MapPLUTO™ does not document development rights that have been transferred between properties through a zoning lot development agreement (ZLDA) or any other type of air rights agreement. As such, even if the dataset suggests that a certain amount of unused development rights exist, they could have been transferred via a ZLDA or an easement agreement. The files discussed in this section are delivered as-is and are intended to be used for general planning purposes only. The Municipal Art Society of New York makes no guarantee about the accuracy of City data.

Documenting New Developments

MAS used the geospatial analysis described above to identify the locations where development would likely occur. Focusing on these hot spot areas, MAS used a variety of sources, included below, to find building permit applications for new supertalls or out-of-scale development.

 The Automated City Register Information System (ACRIS): MAS utilized this platform, managed by the Department of Finance, to confirm properties that had been identified as probable locations where air rights were available through zoning

- lot development agreements or other types of development transfer agreements.
- The Building Information System (BIS): Managed by the DOB, BIS provides zoning diagrams used to estimate the massing of proposed buildings.
- Environmental Impact Statements (EISs):
 Comprehensive disclosure documents used to identify and evaluate environmental effects of discretionary land use actions such as the rezonings for Hudson Yards and Downtown Brooklyn. EISs are available from a number of online sources, most typically DCP.

After obtaining building information from the abovereferenced sources, MAS created a tracking database of buildings that met one or a combination of the following criteria:

- Buildings completed, under construction, or proposed after 2014;
- Buildings with a proposed height of 600 feet or more;
- Buildings that increased floor area by at least 10 percent through zoning lot mergers, transferred air rights, bonuses, and/or special permits; or
- Buildings that are determined to be out-of-scale with the neighborhood context (having three times

the number of floors or more than the median of existing buildings within a 0.25-mile radius)

MAS staff proceeded to geotag the location of the subject development and add attribute information including, but not limited to, height, floor area, architect, developer, and primary use. The map, hosted on CARTOTM, served as the project-tracking database.

Modeling and Shadow Analysis

After the location and main physical features of a proposed supertall were identified, MAS constructed a digital 3D model for each new building using SketchUp™ software. Whenever possible, zoning diagrams and elevation drawings were utilized in the process. Where applicable, MAS reviewed renderings provided by developers in marketing materials. Finally, MAS integrated the 3D model with the compiled attribute information using ArcGIS Pro™ and exported the project as a Multipatch file.

To perform a comparative analysis between the before and after conditions, MAS used a dataset from the Department for Information Technology and Telecommunications (DoiTT) that provides massings for all buildings in the city as of 2014. Both 3D models were then merged and exported as a CityEngine™ file.

Shadow projections were created by uploading the file to Cloudcities™ an online mapping platform for hosting and visualizing 3D city models. As per methodology guidelines in the CEQR Technical Manual, MAS projected shadows for both the autumn equinox (September 21) and winter solstice (December 21) evaluation periods. The comparison of the before and after conditions shows the incremental shadows that would result from new developments from 2014 through 2025.

Disclaimer: The 3D model files discussed in this section are delivered as-is and are intended to be used for general planning purposes only. The Municipal Art Society of New York makes no quarantee about the accuracy of compiled outside data.

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