

Hudson Yards

BUILDING A NEIGHBORHOOD FROM THE GROUND UP

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INTRODUCTION

For decades, the Far West Side of Manhattan existed not so much as an actual neighborhood, but as an area dedicated to industry, namely the West Side Rail Yard. Development had been hindered because of the vital importance of this rail yard to the daily operations of the MTA and the difficulty in developing over an active railway.

Beginning December 2012, a joint venture of city, state, and MTA authorities, along with The Related Companies and Oxford Properties, oversaw the monumental task of constructing an entire new neighborhood over a previously unusable tract of land. The project, which has an estimated completion date in 2024, will bring 16 new skyscrapers containing more than 12 million square feet of office, residential, and retail space.

Because projects of this scale are rarely seen in Manhattan, the Hudson Yards redevelopment project has granted the city an unprecedented opportunity to design from the ground up a new community.

Of course, the neighborhood is more than Related's and Oxford's development; it is a swath of 48 blocks rezoned in 2005 with great potential for future development. Hudson Yards is a neighborhood in transformation, from an industrial district forgotten to most New Yorkers to a vibrant residential and commercial community. This report will explore the Hudson Yards project and the projects in the contiguous areas in depth, its impact on the greater New York community and the the area's effect on the future of the city.





\$20_B RELATED COMPANIES' HUDSON YARDS COMPLEX

\$3 billion invested by NYC, including \$2.4 billion for the 7 subway extension, and the city expects to raise \$3 billion/year through tax revenue

WHY DEVELOP AT HUDSON YARDS?

The Hudson Yards development project was made possible in 2005 by a large rezoning of 48 blocks of land between 8th and 11th Avenues from West 31st Street to West 43rd Street. This rezoning was propelled by the city's bid to host the 2012 Olympics, which would have required building a stadium over the rail yards. However, this bid ultimately failed, and in response, the city turned its attention away from the lofty goal of attracting international athletes and toward the potential to increase the area's capacity for residential and commercial activity.

The rezoning changed the allowed density of development in the area from the low-density industrial designation that had covered the area previously to some of the highest densities allowed anywhere in Manhattan. Additionally, the city granted developers in the core area of Hudson Yards (between 10th and 11th Avenues) the ability to buy air rights from the Eastern Rail Yard and a District Improvement Bonus, allowing developments to climb even higher.

The cornerstone of the rezoning effort, and perhaps paramount to the Hudson Yards project as a whole, was the plan to build over top of the West Side Yard (specifically, the Eastern Rail Yard portion), a feat with obvious engineering challenges, not the least of which is that the rail yard must remain fully operational during the entire period of construction. This endeavor represents the largest planned development project ever attempted in the United States.

In total, the Hudson Yards rezoning has added capacity for approximately 24,000,000 square feet of office space and 13,500 residential units, in addition to hotel, retail, and community-use space. With a projected 47,000 new residents coming to the city each year, the Hudson Yards rezoning has allowed the city to expand capacity for both housing and commercial space in a planned and methodical way.

HUDSON YARDS DEVELOPMENT TIMELINE

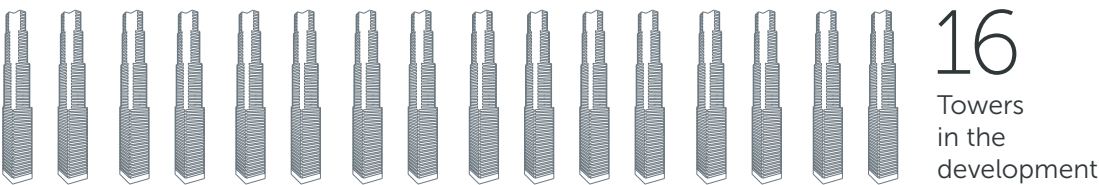
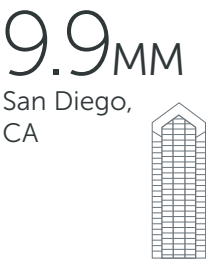
Our focus for the next several pages of this report will be on The Related Companies' and Oxford Properties' development over the MTA's West Side Rail Yard, which has been touted as the single largest development project anywhere in the US. As projects of this scale and complexity are rarely seen in the city, it is beneficial to view the development in the context of the timeline involved. The following is a tentative timeline of the entire development project, from initial planning stages to completion. This timeline is by no means exhaustive, but it includes aspects we deem to be the most noteworthy.

January 2005 Hudson Yards Rezoning approved by City Council 2005	March 2008 Tishman Speyer won bid for development	December 2009 The Related Companies wins rights to development	December 2012 Groundbreaking for 10 Hudson Yards & 30 Hudson Yards	January 2015 Construction begins on 55 Hudson Yards
July 2007 City issues RFP for development plans for Hudson Yards	May 2008 Tishman Speyer loses bid due to financial crisis	May 2010 MTA inks 99-year lease for air rights over rail yard	December 2014 Construction begins on 35 Hudson Yards, a mixed-use project consisting of apartments and a hotel	Mid 2015 Groundbreaking for Culture Shed, a 6-story cultural and arts facility

<p>September 2015</p> <p>7 Subway Extension opens to the public</p>	<p>Mid-Late 2016</p> <p>Platform over Eastern and Western rail yards completed</p>	<p>Spring 2018</p> <p>Culture Shed opens</p>	<p>Year 2018</p> <p>30 & 35 Hudson Yards completed</p>	<p>Year 2019</p> <p>Public school opens, serving students K-8</p>	<p>2024</p>
<p>Spring 2016</p> <p>Tenants begin moving into 10 Hudson Yards, including Coach, who is anchoring the building</p>	<p>Early 2018</p> <p>Tenants begin moving into 55 Hudson Yards</p>	<p>Year 2018</p> <p>The Shops and Restaurants at Hudson Yards, which includes the only Neiman Marcus in New York City, opens</p>	<p>Early 2019</p> <p>Time Warner relocates to 30 Hudson Yards</p>	<p>Year 2024</p> <p>Entire Hudson Yards project complete</p>	

HUDSON YARDS BY THE NUMBERS

Square Footage dedicated to office space



4 ACRE
PARK

Located from 10th to 11th
Avenues between
33rd and 39th Streets



21.5k

Jobs
supported by
Hudson Yards

14k 

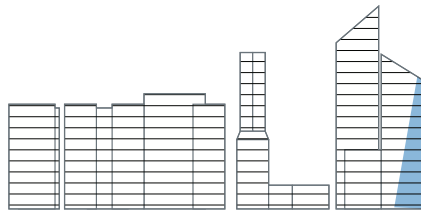
Office & Retail
Jobs

7.5k 

Construction
Jobs

5k

Residential units
will be included
in the development



431

Affordable
units out of
5,000 residential



56k

Commuters will pass
through 7 Station
daily by 2025



HUDSON YARDS' CHANGING OFFICE MARKET

With the anticipation of millions of square feet of new office space coming to the market in the near future, there has been great speculation about the effect of this on the office market.

10 HUDSON YARDS / COMPLETED 2016



VAYNERMEDIA

L'ORÉAL
USA

BCG



30 HUDSON YARDS / ESTIMATED COMPLETION 2019

TimeWarner

OXFORD
AN OMERS COMPANY

RELATED

KKR

55 HUDSON YARDS / ESTIMATED COMPLETION 2018



\$74

Average West Side
Class A Asking Rent
(2% decrease vs. Q1 2016)

9.7%

West Side
Vacancy Rate

With vacancy in the West Side holding steady just under 10%, there is general concern that the 10,000,000 sq. ft. of office coming online at Related's development alone and millions more coming online in the rezoning area cannot be absorbed. It seems, at least initially, that absorption is not proving to be an issue, with 10 Hudson Yards nearly fully leased, anchored by Coach, and 30 Hudson Yards, which is already receiving major commitments from tenants despite its completion not expected until 2019.

SELF-CONTAINED COMMUNITY OF THE FUTURE

With 5,000 new residential units being created at the Hudson Yards development, the neighborhood will see an additional tens of thousands of new residents. However, measures have been taken to address this quick population boom, many of which display the future of urban development.

First, waste management is handled entirely underground, with garbage going through a series of chutes to the sub-platform level. Organic waste is separated out and composted, significantly reducing the landfill production of the buildings compared to communities of similar scale.

Additionally, stormwater is collected from the rooftops of the buildings and stored underground, where it can be used for irrigation and mechanical systems.

On top of the environmental processes planned for the development, numerous technical advancements have been implemented to allow the environment to better interact with its residents. In addition to optimized cellular and broadband data connections, the development will use “big data,” in a partnership with Alphabet, to monitor traffic patterns, air quality, power demands, and pedestrian flow all in real time.

Of course, these advancements do not come without caution from some, as monitoring so many aspects of residents’ daily life brings with it some ethical grey areas. Additionally, some have criticized the blend of affordable housing in the development as too low (431 units of the approximately 5,000 total).

In any event, the development of Hudson Yards is providing cues to urban developers around the world, as it integrates technology in an unprecedented way.



BEYOND THE RAIL YARD

While the development at the West Side Rail Yard has captured the most attention lately, the entire Hudson Yards district has been running aplenty with development. Below is an overview of some notable projects coming to the area:



66 Hudson Boulevard
Developer: Tishman Speyer

2.9 million square foot office tower development designed by Bjarke Ingels. Nicknamed "The Spiral," the building features a continuous band of terraces that wrap up the building.

451 10th Avenue

Developer: Spitzer Engineering

This site is still short on specifics, but it could support 830,000 square feet of either office or hotel.



434-444 11th Avenue

Developer: Tishman Speyer

Tishman Speyer is planning a 1.3 million square foot office tower at this site.

515 West 36th Street

Developer: Lalezarian Properties

A 38-story multifamily building is planned, supporting approximately 250 residential units, 50 of which will be affordable.



3 Hudson Boulevard

Developer: Moinian Group

Though plans have yet to be finalized, the building was initially to be a mix of office, retail, and apartments above. Moinian Group, who is developing the project, is still looking for an anchor tenant to help fill the 500,000 square feet of office space.



514 11th Avenue

Developer: Silverstein Properties

Original plans included 1,400 residential units in an 1,100 foot high tower. However, recent details about the project are scarce.



555 West 38th Street

Developer: Rockrose Development

A 1.4 million-square-foot mixed-use tower, which will most likely be divided between office and hotel, though specifics have yet to be released.



509 West 38th Street

Developer: Imperial Companies

A 30-story, 225-unit rental building set to start leasing in early 2017.



450 11th Avenue

Developer: Marx Development Group

A 440-room Aloft Hotel is planned, which will break ground later this year.



555 10th Avenue

Developer: Extell Development

Extell's rental tower will begin leasing summer 2017 and includes 598 apartments.



462-470 11th Avenue

Developer: BlackHouse Development

Although the site is at the center of a legal battle involving Kuafu Properties and Siras Development, the project known as "Hudson Rise" will include 47 residential condos and 109 hotel rooms.

JAVITS CENTER REIMAGINED

As part of the Hudson Yards development project, the Jacob K. Javits Center, one of the busiest convention centers in the United States, is receiving an overhaul.

The convention center was initially planned to be expanded in 2006, but the plans were tabled in order for the city to focus on the Hudson Yards rezoning effort. Then, in 2008, the Javits Center was renovated at a more modest scale than the originally proposed expansion; finished in 2013, the project added a green roof, improved facade, and other improvements to the building.

In 2016, Governor Andrew Cuomo announced a plan to expand the Javits Center by 1.2 million square feet, increasing the size of the building to 3.3 million square feet. The plan would demolish the current "Javits North," which is a semi-permanent structure, and replace it with a permanent structure with meeting rooms and expanded capacity for exhibitions.

The plan will feature a 60,000 square foot ballroom (which would be the largest ballroom in the Northeast), and an additional 500,000 square feet of continuous space. Additionally, the state hopes that the improved Javits Center will reach LEED platinum certification, aided by a 34,000 square foot solar energy array on the roof, the largest on any public building in New York.

A four-level, 480,000 square foot truck garage, which will enable hundreds of tractor trailers to be parked, will be built, ensuring the safety of pedestrians and easing congestion.

The improvements of the Javits Center dovetails with the rezoning of the entire Hudson Yards district, as it will enable more capacity and economic activity in the area. The center will host 4,000 full-time, permanent jobs, and 3,100 construction jobs, and promises to draw even more tourists to the area.

$$\begin{array}{ccccccc} 1.2_{\text{MM}} & + & 2.1_{\text{MM}} & = & 3.3_{\text{MM}} \\ \text{Existing Sq. Ft.} & & \text{Proposed Sq. Ft.} & & \text{Sq. Ft.} \end{array}$$

THE PROPOSED BUILDING WOULD INCLUDE:

60K SF

BALLROOM

500K SF

CONTINUOUS EVENT SPACE

34K SF

SOLAR ARRAY

480K SF

TRUCK GARAGE

4,000

FULL-TIME JOBS CREATED

3,100

CONSTRUCTION JOBS

ONSITE
REGISTRATION

ENJOY FREE WIFI

Club Connect
Exhibitors (VIP)
&
Conference
Registration

JAVITS

34 Street-Hudson Yards Subway Station 7



HUDSON YARDS' IMPROVING TRANSPORTATION

Paramount to the success of the Hudson Yards Development initiative are improvements to the area's transportation, specifically the extension of the 7 line and the creation of a new subway station.

Starting in 2007, the construction project began with a budget of approximately \$2.4 billion. The initial goal was to build two new stations: one at 10th Avenue and 41st Street and another at 11th Avenue and 34th Street. However, due to cost overruns, the station at 10th Avenue was scrapped, and the only additional station added was at 11th Avenue.

While Mayor Bloomberg had hoped the subway project would be finished during his tenure—and publicly rode the train to the unfinished station in 2013—the extension was completed in September 2015, more than a year behind schedule.

The extension is estimated to serve over 35,000 daily, and the line will provide much-needed transportation in an area devoid of most other public transportation sources.

Looking forward, a further expansion of service to Secaucus, New Jersey or a connection of the line to Penn Station has been proposed. However, as these initiatives are not even in the early planning stages, it is unlikely that these proposals will materialize any time soon.

35,000
Daily Passengers Served

\$2.4^B
Budget

1.5 Mile
Extension

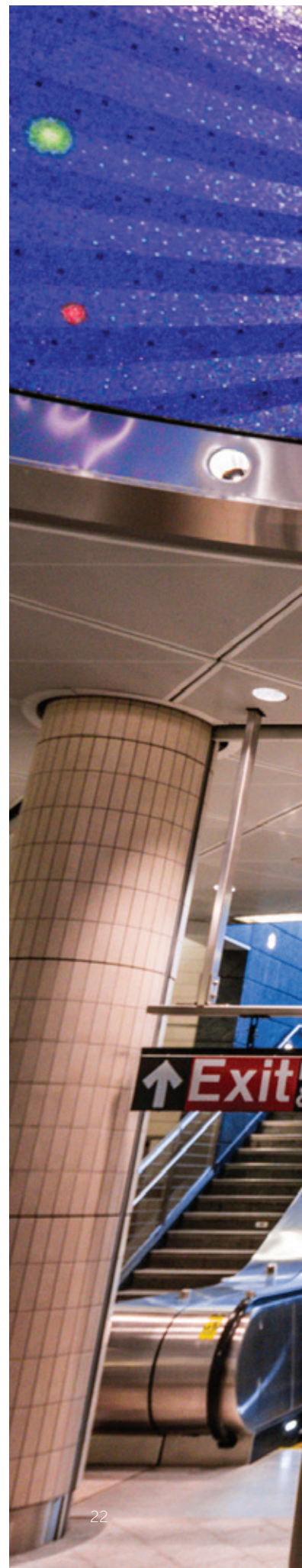
CONCLUSION

Hudson Yards is an initiative that transcends comparison in New York City—it is the dramatic transformation of an entire neighborhood brought about by an ambitious rezoning and a ubiquitous development project by The Related Companies and Oxford Properties.

In Hudson Yards, the city has spurred development by allowing much greater density, transforming the once-industrial district extensively in a matter of a decade. Today, Hudson Yards exists at the frontier of urban development, an intersection of public and private initiatives that have combined to alter the landscape at an incredible pace.

With added capacity for 24 million square feet of office space and an additional 13,500 residential units in the district rezoned in 2005, the area is seeing a dramatic shift in population. Because of this, some criticize the developments for its scale, which will change the skyline of the city, and affordability requirements for residential units. Others fault the pace of development, saying that demand cannot possibly keep up with the added supply.

However, there is no denying the impact of the Hudson Yards project on the rest of the city and other cities of the world. Nowhere else is urban planning being put to the test more than in Hudson Yards, and all eyes will be on New York City to see how this experiment in development will pan out. For the foreseeable future, Hudson Yards will stand as a reminder of the city's dedication to constant evolution.





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