

# ABOUT HUDSON YARDS

# HUDSON YARDS™ NEW YORK



Hudson Yards, Manhattan's first-ever LEED GOLD Neighborhood Development, is the center of New York City's rapidly changing West Side. At the nexus of Chelsea and Hell's Kitchen, Hudson Yards has been transformed into a thriving destination for foodies, fashionistas, art lovers, park goers and tourists—not to mention home to the world's most innovative businesses and trendiest urban dwellers.

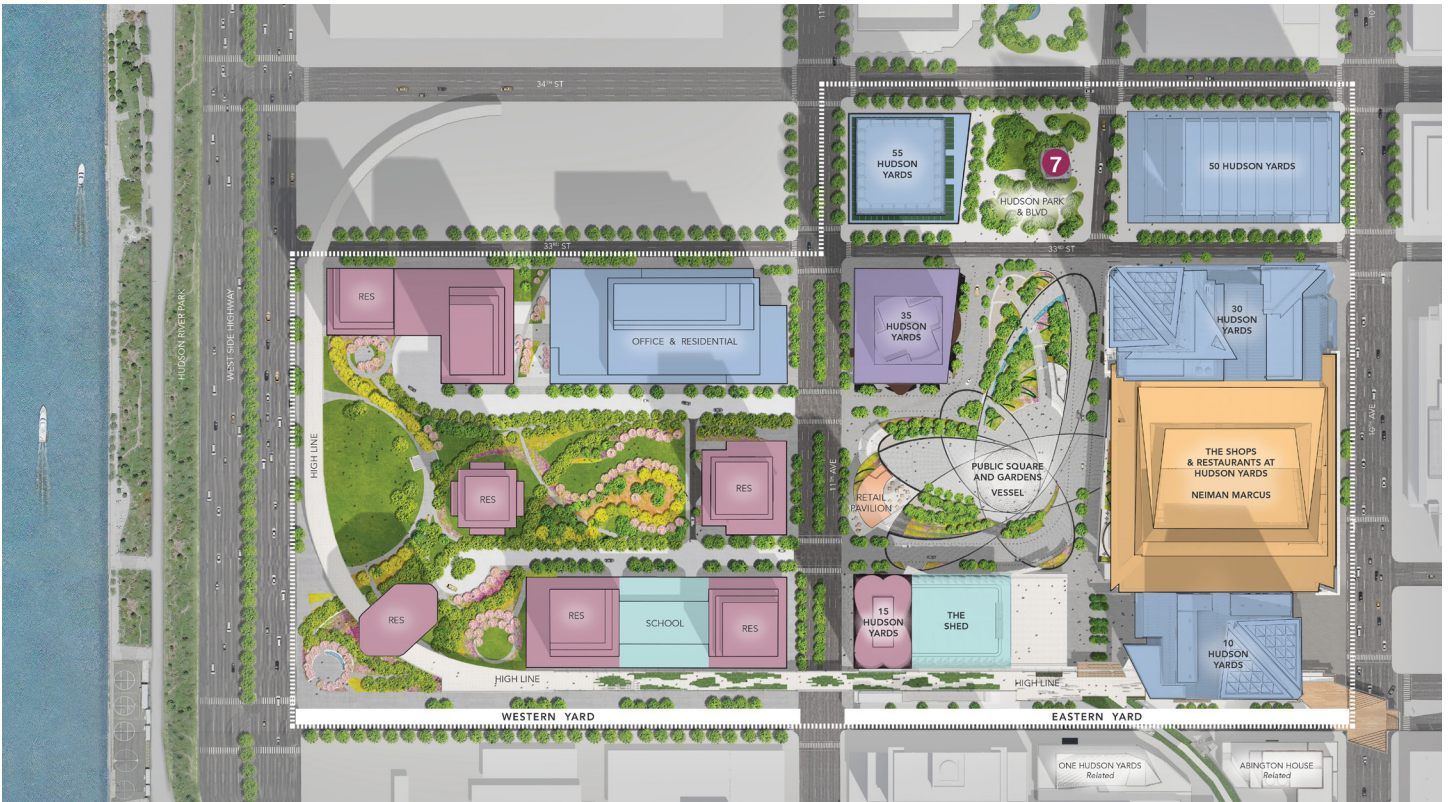
Hudson Yards is home to more than 100 restaurants and one-of-a-kind shopping experiences; The Shed, a unique cultural center; the first Equinox Hotel®, world-class medical facilities and lush gardens; and Vessel, New York's newest landmark; a climable, interactive public monument unlike any in the world. All of this is in addition to state-of-the-art office space, and the finest in luxury residences and affordable rental apartments.

When Hudson Yards is completed, an estimated 125,000 people daily are expected to live, work, dine, shop, study, stroll or sightsee at this 28-acre neighborhood, which will include 18 million square feet of commercial and residential space, 14 acres of public open space, a public school and Edge, the Western Hemisphere's highest outdoor observation deck.

The largest private real estate development in New York since Rockefeller Center, Hudson Yards is co-developed by Related Companies and Oxford Properties Group. After the second half of the project is built between 11th and 12th Avenues, Hudson Yards is expected to contribute nearly \$19 billion annually to New York City's Gross Domestic Product (GDP), and is just one piece of the overall economic impact the redevelopment of the Hudson Yards district will have on the city, state and region.

# THE NEIGHBORHOOD

# HUDSON YARDS™ NEW YORK



Hudson Yards will include more than 18 million square feet of commercial and residential space, along with more than 100 shops, a collection of restaurants, approximately 4,000 residences, affordable housing, The Shed, 14 acres of public open space, a 750-seat public school, the inaugural Equinox Hotel® with 212 rooms, and a first-of-its-kind microgrid and co-gen plant. Hudson Yards was designated Manhattan's first-ever LEED® GOLD Neighborhood Development and has already achieved WiredScore certification.

### EASTERN YARD

10 Hudson Yards	1,800,000
30 Hudson Yards	2,600,000
50 Hudson Yards	2,900,000
55 Hudson Yards	1,300,000
The Shops & Restaurants*	1,000,000
Retail Pavilion	50,000
Equinox Hotel®	220,000
Residential	1,870,000
The Shed	200,000

**11,940,000 GSF**

### WESTERN YARD

Office	2,000,000
Residential	4,000,000
Retail	100,000
School	120,000

**6,220,000 GSF**

\*720,000 Leasable SF

■ OFFICE ■ RETAIL ■ RESIDENTIAL ■ HOTEL

OPEN SPACE: 14 ACRES

TOTAL: 18,160,000 GSF; 28 ACRES

# LIVING AT HUDSON YARDS

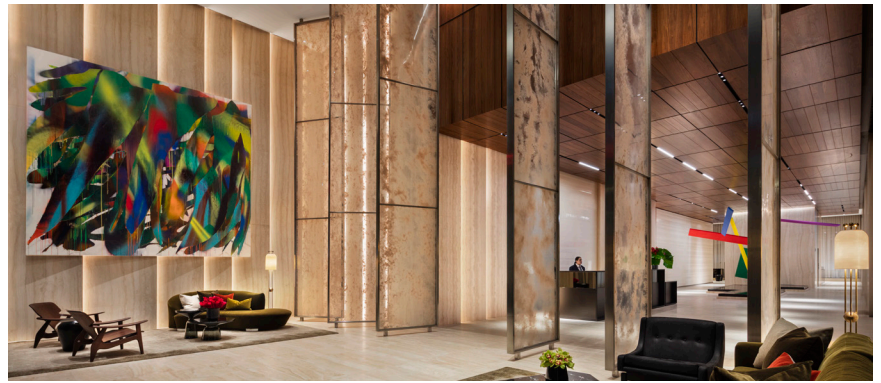
# HUDSON YARDS™

NEW YORK



The first two residential towers at Hudson Yards represent the epitome of urban living—from spectacular design to hand selected materials, from world-class amenities to hospitality service.

Two of the tallest residential towers in the city, both 15 Hudson Yards and 35 Hudson Yards feature stunning panoramic views and high ceilings, while each boast its own distinct architectural profile. And because a neighborhood is more than what's inside each home, these buildings also feature public art that inspires, shared spaces that welcome, and exclusive access to a variety of only-at-Hudson Yards amenities, including a comprehensive on-site healthcare center catering to all Hudson Yards residents and their families.



Located at the northeast corner of 30th Street and 11th Avenue, 15 Hudson Yards is the first residential building to open at Hudson Yards. Adjacent to the High Line, the steel-and-glass tower offers one-of-a-kind outlooks of the Hudson River and city skyline through a distinctive silhouette, which gradually transforms into a cloverleaf shape that takes advantage of never-before-seen views below of the Public Square and Gardens and Vessel, its landmark centerpiece by Thomas Heatherwick and Heatherwick Studio. At ground level, the building connects to The Shed, a new arts center that commissions work across the full spectrum of performing and visual arts.

Residences feature high ceilings and custom interiors, along with a range of state-of-the-art features, from filtered fresh-air ducts to Lutron home automation. Residents also have access to many exclusive amenities, including fitness and aquatic centers, private spa and beauty bar, 24/7 concierge-attended lobby, screening room, golf club lounge, wine storage and pet services.

And atop it all sits the highest outdoor residential space in the city: Skytop—an open-air, tree-lined terrace adjacent to a pair of indoor event spaces—one a lounge, the other a private 18-seat dining room with a full catering kitchen and bar.

**ARCHITECT:** DILLER SCOFIDIO + RENFRO AND ROCKWELL GROUP

**SIZE:** 960,000 GROSS SQ. FT. • 910 FT. TALL

**SUSTAINABILITY:** LEED GOLD

**UNITS:** 285 ONE- TO FOUR-BEDROOM, FOR-SALE HOMES; 107 AFFORDABLE RENTALS

**OPEN:** 2019



This glass-and-limestone tower, located at the southeast corner of 33rd Street and 11th Avenue, is more than the tallest residential building at Hudson Yards. It is home to the largest Equinox® fitness club and spa, SoulCycle®, and three spectacular culinary experiences including The Tavern by WS and WSNY, a private membership club (37 Hudson Yards) and the world's-first Equinox Hotel® (33 Hudson Yards).

The 212-room Equinox Hotel® is a crucial differentiator, allowing 35 Hudson Yards to combine the intimacy of private-home living with an array of elevated in-building lifestyle services just a short elevator ride away. A dedicated Director of Residences liaises with the hotel to handle in-residence dining and other bookings, valet and laundry services, as well as arrangements for private car and ground transportation. All of this along with an exclusive membership to the Equinox® fitness club and spa.

The residences, which begin on the 53rd floor, offer their own suite of luxurious features and amenities: sweeping, panoramic views, interiors by famed designer Tony Ingrao, priority reservations at the in-building restaurant, Electric Lemon, by Stephen Starr (with round-the-clock in-residence dining services), residents-only private fitness center and meditation room, billiard lounge, golf simulator lounge with minibar, boardroom and private office suites, screening room, library, private dining room, children's playroom and an event space that can seat more than 50 guests.

**ARCHITECT:** DAVID M. CHILDS/SKIDMORE, OWINGS & MERRILL

**SIZE:** 1.1M GROSS SQ. FT. • 1,000 FT. TALL

**SUSTAINABILITY:** LEED GOLD

**UNITS:** 143 TWO- TO SIX-BEDROOM, FOR-SALE HOMES

**OPEN:** 2019

# WORKING AT HUDSON YARDS

# HUDSON YARDS™ NEW YORK



To have a job at Hudson Yards today is to see the future of office life everywhere tomorrow.

From wide open floor plans that encourage collaboration to floor-to-ceiling windows that maximize natural light; from on-site power-generators that ensure business continuity to hospitality-inspired building services; from state-of-the-art technology that optimizes data speed and communications to environmentally responsible infrastructure that shrinks tenants' "carbon footprint"; from outdoor spaces that bring rejuvenation closer than ever to indoor bike storage that makes fit-commuting easier than ever; from access to only-at Hudson Yards amenities, such as a medical clinic run by Mt. Sinai, to participation in only-at-Hudson Yards programs and offerings.

For these and many other reasons, Hudson Yards is the new model for the 21st-century workplace experience. This new neighborhood is at the center of a seismic urban shift, as leading companies of all sizes and across all industries relocate to Manhattan's far West Side.

Welcome to Hudson Yards, the future of work.



The first building to open at Hudson Yards boasts a tenant roster of world-class fashion, technology, consulting and beauty brands. Tapestry (Coach, Kate Spade and Stuart Weitzman), L'Oréal USA and SAP were the corporate pioneers at Hudson Yards, but it wasn't long before the building was fully committed.

Located at the northwest corner of 30th Street and 10th Avenue, 10 Hudson Yards features panoramic floor-to-ceiling windows and column-free interiors designed to accommodate the modern, high-density workplace. Multiple lobbies house unique artistic touches, including original pieces by the American artist Jonathan Borofsky. The steel-and-glass tower also offers a direct connection to The Shops & Restaurants at Hudson Yards, part of an architectural triptych conceived by KPF founding partner Bill Pedersen that also includes 30 Hudson Yards to the north.

10 Hudson Yards is also the only Class A New York City office building with a direct connection to the celebrated High Line; the tower bridges the famed elevated park, creating a dramatic 60-foot public passageway through the building. Down below sits Sweetgreen and Mercado Little Spain—by renowned Spanish chefs José Andrés and the Adrià brothers—along with direct access to more than 100+ shops and restaurants that offer a range of shopping and dining options for tenants and visitors alike.

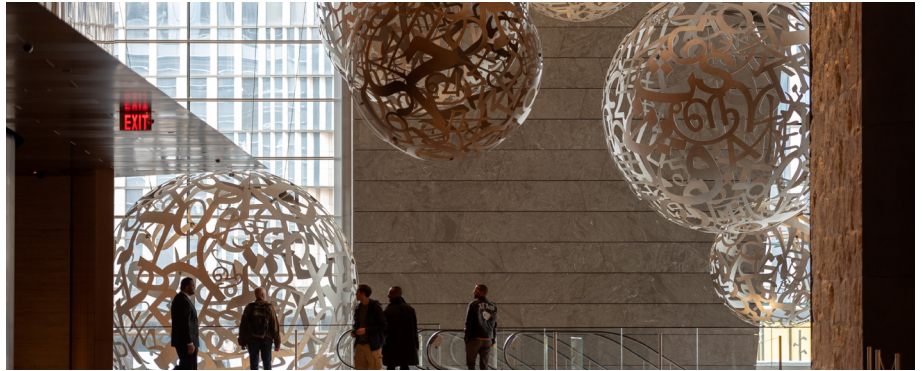
**ARCHITECT:** KOHN PEDERSEN FOX ASSOCIATES

**SIZE:** 1.8M GROSS SQ. FT. • 895 FT. TALL

**SUSTAINABILITY:** LEED PLATINUM

**TENANTS:** BCG BOSTON CONSULTING GROUP, BCG Digital Ventures, Guardian, Intercept, Intersection, L'ORÉAL, SAP, SIDE WALK LABS, tapestry, VAYNERMEDIA

**OPEN:** 2016



When KPF founding partner Bill Pedersen first imagined the anchor structures of Hudson Yards, he sketched two buildings that play off each other, in what could be described as a dance of sleek giants. 30 Hudson Yards is the concluding half of that vision, joining 10 Hudson Yards to the south and linked gracefully by The Shops & Restaurants at Hudson Yards.

Accessible via an underground connection to the No. 7 Subway station, 30 Hudson Yards welcomes tenants and visitors with a dramatic triple-height lobby featuring an original hanging installation by the Spanish artist Jaume Plensa. Among those tenants is WarnerMedia, parent company of CNN, HBO and many other global media brands, which moved some 5,000 employees into 1.5 million square feet of office space, consolidating its New York headquarters under one roof for the first time. They are joined by Facebook, KKR, Wells Fargo Securities, DNB Bank, and Related Companies.

Located at the southwest corner of 33rd Street and 10th Avenue, the steel-and-glass tower is one of the tallest office buildings in New York City. Fittingly, it is also home to the Western Hemisphere's highest outdoor observation deck, Edge. In a neighborhood with some of the most spectacular panoramic views in the Northeast, the outdoor observation deck at over 1,100 feet in the air with nothing but open sky above might be best of all. 30 Hudson Yards is also home to Peak, the restaurant, bar, café and event space operated by London-based *rhubarb hospitality group*.

**ARCHITECT:** KOHN PEDERSEN FOX ASSOCIATES

**SIZE:** 2.6M GROSS SQ. FT. • 1,296 FT. TALL

**SUSTAINABILITY:** LEED GOLD

**TENANTS:** CNN DNB FACEBOOK HBO KKR RELATED **turner** WarnerMedia WB WELLS FARGO

**OPEN:** 2019





Spanning an entire city block, 50 Hudson Yards will be New York City's fourth-largest commercial office tower by square footage. More importantly, it will set a new standard for office life by any measure. The white stone-and-glass will offer large floorplates throughout—including some block-length open views—with interiors designed to house large trading floors and other collaborative work arrangements. 50 Hudson Yards, located at the northwest corner of 33rd Street and 10th Avenue, will be one of the few buildings on Manhattan's West Side able to accommodate more than 500 employees per floor.

Features in this amenities-driven building include executive valet parking in a private porte-cochère, dedicated ground level lobbies highlighted by two abstract sculptural installations by Frank Stella that can be viewed from the No. 7 Subway station as visitors enter the neighborhood, and communal sky lobbies and outdoor terraces. There will also be direct access to the No. 7 Subway station from a variety of entrances.

The world's leading investment management firm, BlackRock, will locate its corporate headquarters here, occupying 850,000 square feet across 15 floors. Facebook will occupy 1.2 million square feet in the building.

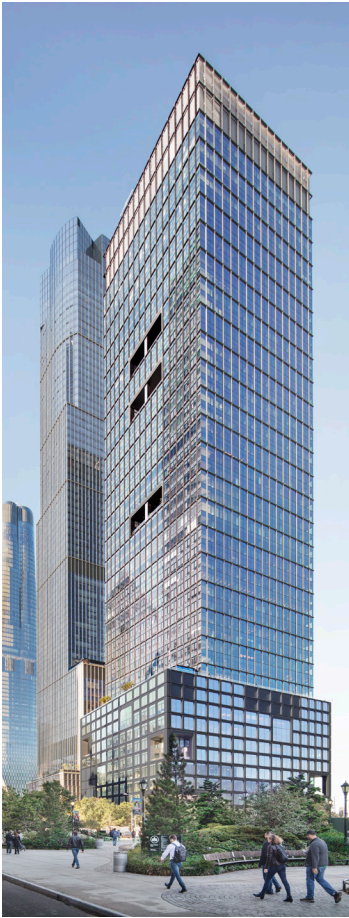
**ARCHITECT:** FOSTER + PARTNERS

**SIZE:** 2.9M GROSS SQ. FT • 985 FT. TALL

**SUSTAINABILITY:** LEED GOLD-DESIGNED

**TENANTS:** BlackRock FACEBOOK

**OPEN:** 2022



As the southwestern anchor of the new Hudson Park & Boulevard, 55 Hudson Yards is a rare New York office building with a lobby that opens directly onto a park. To maximize the appeal of such placement, KPF, led by founding partner A. Eugene Kohn, designed dramatic outdoor terraces that overlook the park, the neighborhood and the city.

In addition to its proximity to Hudson Park & Boulevard, 55 Hudson Yards sits at the intersection of Hudson Yards and the High Line, adjacent to the No. 7 Subway station. Its cast-iron façade takes its inspiration from the iconic elevated park, as well as from Soho's industrial past; and the matte metal and stepped articulation of the window frames present a solidity that is as modern as it is uniquely New York in character. The building's exterior references classic architecture, and its interiors offer a decidedly modern touch, with expansive floor-to-ceiling windows meant to leverage the unique views and natural light.

**ARCHITECT:** KOHN PEDERSEN FOX ASSOCIATES

**SIZE:** 1.3M GROSS SQ. FT. • 780 FT. TALL

**SUSTAINABILITY:** LEED GOLD

**TENANTS:** BSF, CENTIVA CAPITAL, Cognizant, Cooley, ENGINEERS GATE, FACEBOOK, HealthCor, THE HEALTH CENTER, Market Axess, Milbank, NUT TREE CAPITAL MANAGEMENT, Point 72, SILVERLAKE, STONEPEAK, THRED UP, V

**OPEN:** 2019

# WHAT TO SEE AND DO AT HUDSON YARDS

# HUDSON YARDS™

NEW YORK



From Chelsea to Hell's Kitchen, from Midtown West to the Hudson River, Manhattan's West Side has become one of the city's most dynamic districts, with trendy art galleries, chic boutiques, award-winning restaurants, popular bars and clubs, and, of course, one of the world's most innovative parks, the High Line.

Hudson Yards is unlike anything ever built before—a new kind of neighborhood that champions first-to-New York experiences. Climb Vessel, the interactive centerpiece of Hudson Yards; visit The Shed, a new center for art and inspiration; or take in the scene from thrilling new heights at Edge, the highest outdoor sky deck in the western hemisphere.

The opening of Hudson Yards, along the High Line's northernmost portion, raises the area's energy to the next level. In a single location easily reachable by all modes of transportation, residents, tenants and visitors can choose from an unmatched cornucopia of activities and attractions, each more alluring than the next: a diverse and vast restaurant collection co-curated by a world-renowned culinary master and a Spanish-style food hall overseen by three others; seven levels of the finest shopping topped by the New York City debut of a department store legend; and visit the grand five-acre outdoor public square with lush gardens and climbable monument and more.

WHAT TO SEE AND DO AT HUDSON YARDS  
**THE SHOPS AT HUDSON YARDS**

**HUDSON YARDS™**  
NEW YORK



The Shops & Restaurants at Hudson Yards—located on 10th Avenue between 30th and 33rd Streets—redefines shopping and dining in New York City. The captivating interior space offers ever-changing programming and is currently punctuated by HYxOffTheWall, an ongoing exhibit of work by local artists.

The Shops, anchored by New York City's first Neiman Marcus on the 5th, 6th and 7th floors, comprise more than a mile of shopping and feature over 100 shops and restaurants. Many of these locations are the first-of-their-kind and encompass a wide range of unique offerings, from New York's first Forty Five Ten boutique to the physical manifestation of digitally native brands to diverse culinary delights. Visitors will have direct access to the High Line and an underground connection to the No. 7 Subway, making the Hudson Yards retail center one of the most connected shopping destinations in the city.

The retail collection features leading brands in every category from luxury to fast fashion, many debuting new services and store designs. An array of experiential and online retailers are moving beyond the screen for the first time at Hudson Yards, including: Mack Weldon's first-ever store, Rhone's first-ever store and M. Gemi's first permanent store in New York City. Hudson Yards will also be home to next-generation retail concepts and brands not found anywhere else in New York City, including: The Conservatory, an inventory-less luxury boutique; Heidi Klein's first U.S. store; MUJI's experiential retail store featuring a coffee bar; 3DEN, a pay-as-you-go rejuvenating lounge; and more. The Shops also are home to two-story presentations from Zara and H&M.

**LEVEL 7:** Neiman Marcus

**LEVEL 6:** Neiman Marcus

**LEVEL 5:** Forty Five Ten; Neiman Marcus (including Chanel and Louis Vuitton stores-within-a-store)

**LEVEL 4:** 3DEN, Beyond the Edge, The Body Shop, H&M, PiQ, Zara

**LEVEL 3:** Aritzia, Athleta, Banana Republic, Carmen Sol, H&M, Jo Malone London, Kiehl's, Lululemon, MAC Cosmetics, Origins, Pandora, Sephora, Sundays, Verizon Wireless, Zara

**LEVEL 2:** AG Jeans by Adriano Goldschmied, Atelier Cologne,

B8TA, Camp, Faherty, Frankie CoLAB, Heidi Klein, Lovepop, M. Gemi, Mack Weldon, Madewell, Milk & Honey Babies, Muji, Naadam, Ray-Ban, Rhone, Stance, Studs, Suit Supply, Uniqlo

**LEVEL 1:** Avant Gallery, Brooks Brothers, Cartier, Coach, The Conservatory, Cremieux, Dior, Dunhill, Fendi, Kate Spade, Kenzo, Marli, Molton Brown, Neuhaus Chocolate, Panerai (**coming soon**), Patek Philippe, Piaget, Rolex, Rudsak, Sally Hershberger, Scanlan Theodore, Stuart Weitzman, Theory, Tiffany & Co., Tod's, Tory Burch, Tumi, Van Cleef & Arpels, Vilebrequin, Vitra Eyewear, Watches of Switzerland

**ARCHITECT:** ELKUS MANFREDI ARCHITECTS/KOHN PEDERSEN FOX ASSOCIATES

**SIZE:** 720K LEASABLE SQ. FT. • 7 LEVELS

**SUSTAINABILITY:** LEED GOLD

**OPEN:** 2019

WHAT TO SEE AND DO AT HUDSON YARDS  
**THE RESTAURANTS AT  
HUDSON YARDS**

**HUDSON YARDS™**  
NEW YORK



The Restaurants at Hudson Yards offer a delectable and diverse collection of food options including cafés, fast casual choices and elegant eateries. Culinary creatives that have earned a spot in the enviable lineup include David Chang of the Momofuku empire (Kawi, Peach Mart), Michael Lomonaco (Hudson Yards Grill), Costas Spiliadis (Estiatorio Milos), Anya Fernald (Belcampo), Stephen Starr (Electric Lemon) and Chef Thomas Keller (TAK Room).

Hungers and hankerings can be sated elsewhere on campus as well. A restaurant from Stephen Starr and a soaring event space from London-based *rhubarb hospitality group* are on the way, and an international-style food experience is here right now. Mercado Little Spain is a 35,000-square-foot flavorful love letter to Spain, from three of that country's top chefs: José Andrés and the Adrià brothers, Ferran and Albert.

**AT THE SHOPS & RESTAURANTS**

**LEVEL 7:** Zodiac Room (in Neiman Marcus)

**LEVEL 6:** Estiatorio Milos, TAK Room, Bar Stanley (in Neiman Marcus)

**LEVEL 5:** Bouchon Bakery, Kawi, Peach Mart, Peak Lounge, Peak, Santorini Wine Bar by Milos, TAK Room Bar & Lounge, Wild Ink, Cook & Merchants (in Neiman Marcus)

**LEVEL 4:** Belcampo, Dylan's Candy Bar, Hudson Yards Grill, Jack's Stir Brew Coffee, Li-Lac Chocolates, Queensyard, Shake Shack

**LEVEL 3:** Bluestone Lane, Van Leeuwen Ice Cream, William Greenberg

**LEVEL 2:** Blue Bottle Coffee, Citarella, Citarella Wine & Spirits, Fuku

**LEVEL 1:** Neuhaus Chocolate, Teak (In The Conservatory)

**AT 10 HUDSON YARDS:** Mercado Little Spain (Lena, Mar, Spanish Diner)

**AT 30 HUDSON YARDS:** Bluestone Lane

**AT 35 HUDSON YARDS:** Electric Lemon, The Tavern by WS

**AT 55 HUDSON YARDS:** Maison Kayser

**AT PUBLIC SQUARE AND GARDENS:** seasonal Bosque café

**ARCHITECT:** ELKUS MANFREDI ARCHITECTS/KOHN PEDERSEN FOX ASSOCIATES

**SIZE:** 720K LEASABLE SQ. FT. • 7 LEVELS

**SUSTAINABILITY:** LEED GOLD

**OPEN:** 2019

## HUDSON YARDS

# THE FUTURE OF NEW YORK SHOPPING IN 7 STORIES

In 2019, we welcome the world to New York's newest neighborhood. The Shops & Restaurants at Hudson Yards promise a vibrant retail experience—a fully integrated lifestyle destination for sophisticated digital natives.



### 1. THE CENTER OF IT ALL

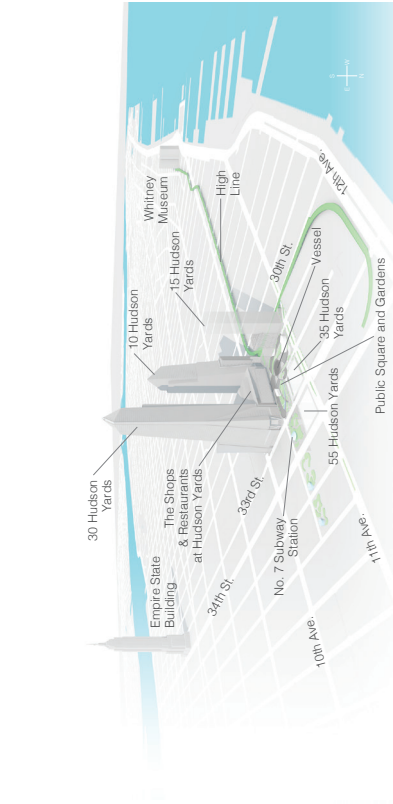
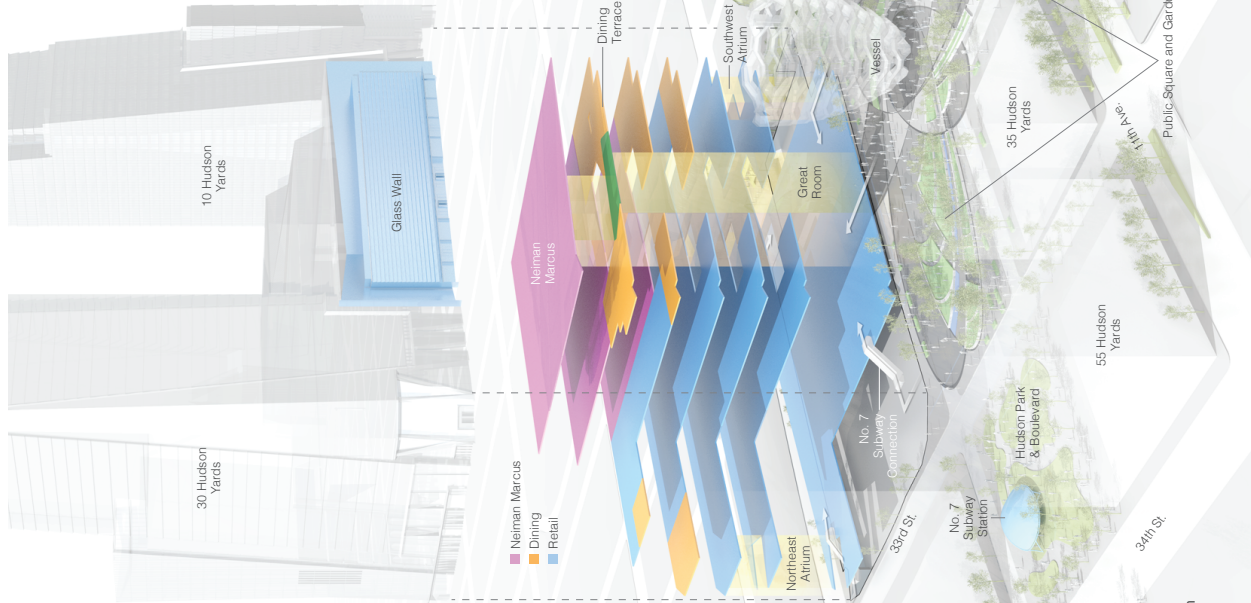
With the High Line landing at its doorstep and the 7 train terminating there, all paths lead to the retail at Hudson Yards, the hub of New York's next great neighborhood—itsself a nexus of culture, commerce and activity. One path even runs through it: an interior boulevard that continues rather than interrupts the city grid.

### 2. OUTSIDE IN

A James Carpenter-designed glass wall fronting the soaring 65-foot-high Great Room is a block-long lens onto the lush Public Square and Gardens beyond the main entrance. Landscaped rooftop terraces (by Thomas Wolitz, creator of the public spaces) and variable lighting that mimics the setting sun further blur the line between inside and out.

### 3. MILE OF MERCHANDISE

Non-linear pedestrian circulation and distinct shopping "districts" make each visit to this collection of 100-plus stores (720,000 leasable sq. ft. all told) like a stroll of discovery. Think Soho and Madison Avenue, only climate controlled and weather proofed. And all of it, anchored (from the top) by Neiman Marcus in the penthouse.



### 4. AN EXTENSION OF CHELSEA

The design aesthetic honors the industrial past of the lower West Side. Specifically, steel and dark wood are featured prominently to reference the railyards that once dominated the area and High Line. Natural stone floors and exposed support structures contribute to the rough-hewn, urban elegance of this vertical neighborhood.

### 5. GAMUT OF GRAZING

Celebrity chefs—including Thomas Keller, Costas Spiliadis and Jose Andrés—will present new fine-dining concepts and outdoor terraces. (Hudson River views come at no extra cost.) Elsewhere, casual bites will abound, including a European-style food hall and assorted pop-up "streetside" cafes and wine bars throughout the marketplace.

### 6. STAYING POWER

A cogeneration plant will provide energy not only to the building but to the Hudson Yards campus too. If the city's grid goes down, this neighborhood keeps operating. Similarly, waste heat will generate hot and chilled water, guaranteeing a maximally efficient and sustainable development.

### 7. SETTING SIGHTS HIGH

Thomas Heatherwick's monumental and climbable urban landmark—Vessel—is steps away, and the building offers direct access to Edge, the observation deck at 30 Hudson Yards—the tallest outdoor viewing platform in the western hemisphere. Changing how people see the city, The Shops & Restaurants at Hudson Yards will change what people see too.

**HUDSON YARDS**  
NEW YORK

HudsonYardsNewYork.com



WHAT TO SEE AND DO AT HUDSON YARDS

# THE PUBLIC SQUARE AND GARDENS

HUDSON YARDS™

NEW YORK



The eastern portion of Hudson Yards includes five acres of gardens and public plazas. Designed by Nelson Byrd Woltz Landscape Architects with Heatherwick Studio, the Public Square and Gardens at Hudson Yards is a new gathering place for Manhattan's West Side. An immersive and varied horticultural experience, the Public Square and Gardens features more than 28,000 plants of varying color, scale and texture. The landscape also includes more than 200 mature trees, woodland plants and perennial gardens. Visitors entering from the north will be greeted by a seasonally expressive entry garden, while the southern edge will feature a pavilion grove filled with a dense canopy of native trees, creating the perfect place for lunchtime gatherings or evening meals. At 10th Avenue and 30th Street, visitors will find a birch grove and a new entrance to the High Line.

The large trees, expansive native perennial gardens and patches of wildflowers will be home to pollinators, and New Yorkers will find pedestrian paths lined with nearly a mile of garden seating walls designed for sitting, relaxing and respite.

Beyond hardscape and planting design, the landscape platform itself is a technical innovation. Serving as a ventilating cover over the working rail yards, the platform is engineered to support the expansive large-scale plantings and serve as a reservoir for site storm-water management and reuse.

**ARCHITECT:** THOMAS WOLTZ OF NELSON BYRD WOLTZ LANDSCAPE ARCHITECTS

**SIZE:** 5 ACRES

**OPEN:** 2019



WHAT TO SEE AND DO AT HUDSON YARDS  
NEW YORK'S STAIRCASE (VESSEL)

HUDSON YARDS™  
NEW YORK



At the epicenter of the square sits Vessel, a new kind of public landmark: social, engaging and interactive, meant to be entered and explored. Designed by Thomas Heatherwick and Heatherwick Studio, Vessel is comprised of 154 intricately interconnecting flights of stairs—2,500 individual steps—and 80 landings.

The dramatic design of Vessel creates a kind of stage set for New Yorkers and visitors from around the world. Standing 150 feet in the air, Vessel was fabricated in Monfalcone, Italy and arrived on Manhattan's West Side after 15 days at sea, a brief stay at Port Newark and a five-hour barge trip across the Hudson River. Vessel was constructed from a steel frame that was covered by a copper-colored steel cladding.

It was designed to lift the public up and offer a mile's worth of pathways and a nearly infinite number of ways for visitors to engage with and experience New York, Hudson Yards and each other.

**ARCHITECT:** THOMAS HEATHERWICK AND HEATHERWICK STUDIO

**SIZE:** 150 FT. TALL

**OPEN:** 2019



Rising over 1,100 feet in the air from the heart of Hudson Yards, Edge is designed to take visitors out of their comfort zone to experience New York like never before. Edge is the highest outdoor sky deck in the Western Hemisphere extending out 80 feet from the 100th floor of 30 Hudson Yards.

A 60 second elevator ride brings visitors to Edge's 7,500 square foot outdoor viewing area revealing new 360-degree vantages of New York City's iconic skyline, Western New Jersey and New York State spanning up to 80 miles. The sky deck includes a thrilling glass floor and nine-foot tall, boldly angled glass walls enabling visitors to lean out over Manhattan.

The 101st floor features Peak, a signature restaurant, bar, café and event space run by renowned London-based *rhubarb hospitality group*, offering a one-of-a-kind culinary destination.

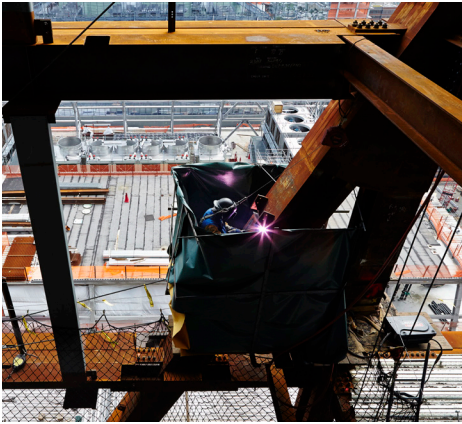
**ARCHITECT:** KOHN PEDERSEN FOX ASSOCIATES AND ROCKWELL GROUP

**SIZE:** 7,500-SQUARE-FOOT OUTDOOR VIEWING AREA

**OPEN:** EARLY 2020

# BUILDING HUDSON YARDS

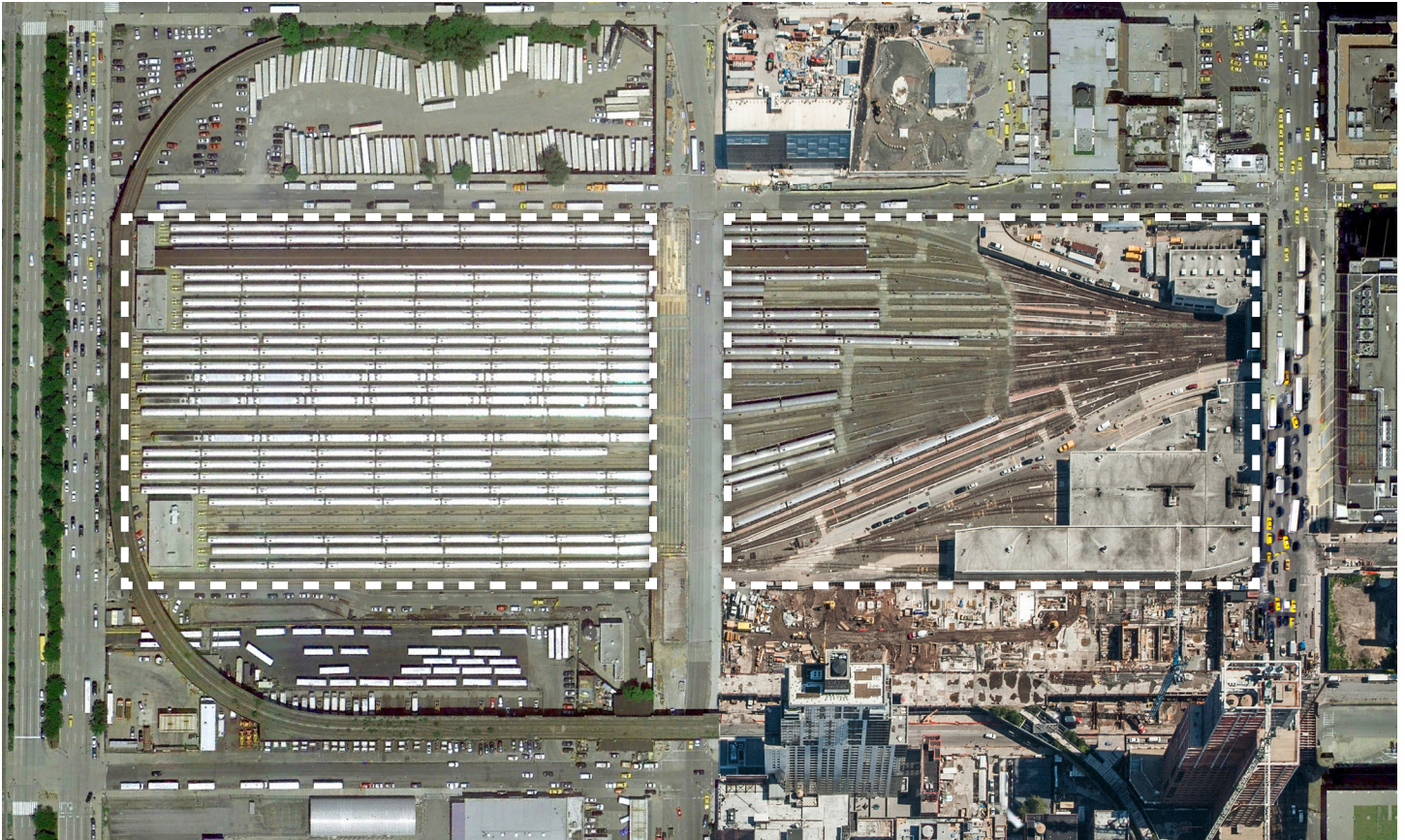
# HUDSON YARDS™ NEW YORK



By the time it is completed, tens of thousands of men and women will have worked on the construction of Hudson Yards—from architect to engineer, from carpenter to crane operator, from lather to welder, from floorer to roofer.

The finished development will include 20 structures: 12 office and residential towers; a cultural center with movable outer shell; seven-level retail center; school; plaza pavilion and open-air monument made from 154 flights of stairs—and, of course, the two platforms upon which most of Hudson Yards sits, constructed atop a 30-track working railyard.

The building of Hudson Yards has required not just visionary design, but also detailed construction sequencing and sophisticated problem-solving. It is one of the most complex feats of urban engineering in history.



To build the first half of Hudson Yards, a “platform” was constructed over the Eastern Rail Yard of the Long Island Rail Road. A similar structure will be built over the Western Rail Yard. When completed, the two platforms will support approximately three quarters of the 28-acre primary development. The foundations of the buildings that sit on the platform extend through and rise above it.

The eastern platform was completed in 2016. It bridges 30 working tracks, as well as three subsurface tunnels used by Amtrak and New Jersey Transit, and a fourth, the Gateway Tunnel, which is not yet in service. The 10-acre platform, which weighs more than 35,000 tons, is supported by 300 caissons—ranging in size from four to five feet in diameter and 20 to 80 feet in depth—that were drilled into the bedrock between existing tracks. In total, 25,000 tons of steel and 14,000 cubic yards of concrete were used in its construction.

Throughout construction, all train lines remained operational.

## BUILDING HUDSON YARDS UNDERSTANDING THE “PLATFORM”

To build the first half of Hudson Yards, a 10-acre “platform” was constructed over the Eastern Rail Yard of the Long Island Rail Road. A similar structure will be built over the Western Rail Yard. When completed, the two platforms will support approximately three quarters of the 28-acre primary development. The foundations of the buildings that sit on the Eastern Rail Yard platform extend through and rise above it, while the platform itself is supported by 300 caissons of varying sizes drilled into bedrock between the tracks.

### ■ “PODIUM” BASE STRUCTURE

The location and construction of the columns supporting this building—which is home to a collection of shops and restaurants—were coordinated with tunnels, tracks, and LIRR facilities that remained active throughout construction.

HIGH LINE ABOVE SITE:  
33,000 SF (0.75 ACRES)

### ■ 10 HUDSON YARDS FOUNDATION SYSTEM: DRILLED CAISSONS

The tower is the only building in the Eastern Rail Yard section of Hudson Yards that is constructed completely on terra firma (and not on the platform).

### ■ UNDERGROUND INFRASTRUCTURE

### ■ “PODIUM” STRUCTURE: UPPER TRUSSES

Tall trusses support hung sections of this building, which connects 10 Hudson Yards and 30 Hudson Yards.

### ■ 30 HUDSON YARDS

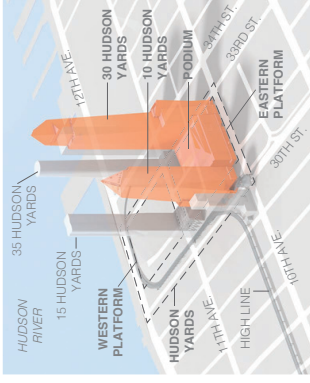
Columns and other support structures land between the rail lines—and were placed to avoid underground utilities—while trusses supporting the tower’s south face span the tracks.

### ■ STRUCTURE OVER THE YARDS

Trusses bridge over this narrow section of the rail yard, where there was no room for caissons.

### ■ BUILDABLE AREAS

The location of tracks, underground tunnels and utilities means only 38% of the site is available to support structures.



## GLOSSARY

**Caisson.** A large-diameter pipe drilled into rock and filled with concrete.

**Eastern Rail Yard Platform.** A 10-acre deck built above 30 LIRR tracks that supports more than five acres of open space, four towers, a cultural center and one million square feet of shops and restaurants.

**Empire Line.** Amtrak rail line that runs along Manhattan’s west side linking Penn Station to Albany.

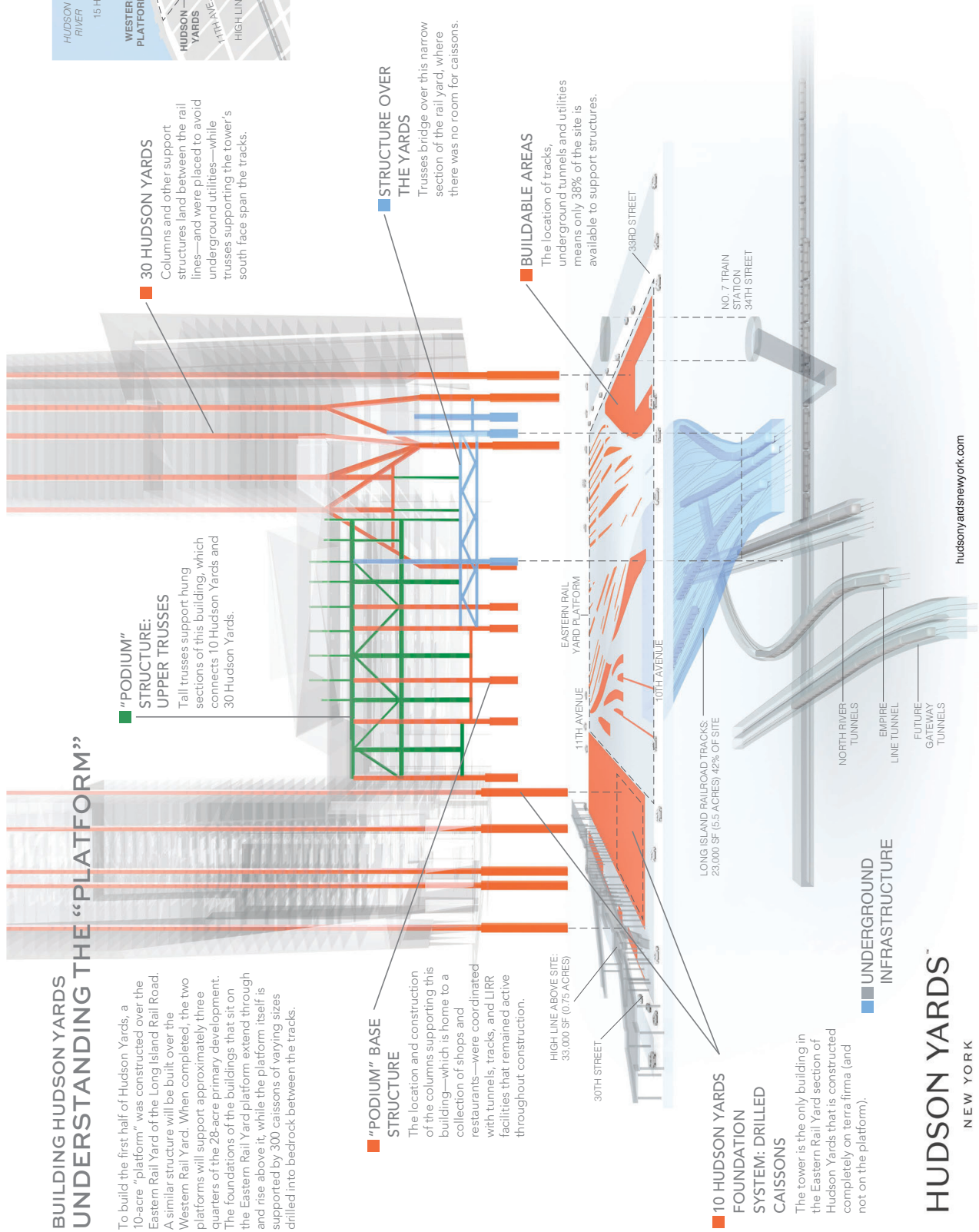
**Gateway Project.** Amtrak’s plan to build two rail tunnels under the Hudson River to connect Penn Station and the northeast corridor. A concrete shell was installed below Hudson Yards to secure a path for these tunnels.

**LIRR.** The Long Island Rail Road, North America’s busiest commuter system, which transports 350,000 riders daily.

**No. 7 Subway Extension.** A 1.5-mile extension to the Flushing (Queens) line, moving its final stop from Times Square to Hudson Yards. The project opened in September 2015 and can accommodate more than 42,000 commuters during peak times.

**North River Tunnels.** Built between 1904 and 1908 as part of the original Pennsylvania Station project, today these two passages tunnel 445 trains and more than 600,000 riders daily.

**Truss.** A structural system of beams, bars or rods that supports a roof or bridge.



hudsonyardsnewyork.com

**HUDSON YARDS**  
NEW YORK

# BUILDING HUDSON YARDS ENGINEERED CITY

Hudson Yards is far more than a collection of towers and open spaces. It is a model for the 21st-century urban experience; an unprecedented integration of buildings, streets, parks, utilities and public spaces that forms a connected, responsive, clean, reliable and efficient neighborhood.

## CONNECTED NEIGHBORHOOD

Communications are supported by a fiber loop, designed to optimize data speed and service continuity for rooftop communications, as well as mobile, cellular and two-way radio communications. This allows continuous access via wired and wireless broadband performance from any device at any on-site location. We're as good as future-proofed.

-  Digital antennae service (DAS) for cellular and two-way radio
-  Rooftop satellite
-  Wireless responders
-  Fiber Loop


## RESPONSIVE NEIGHBORHOOD

Supported by an advanced technology platform, operations managers monitor and react to power demands and temperature changes in order to enhance the employee, resident and visitor experience.

-  Building data-capture sensors (systems, equipment)
-  Electrical and thermal sub-metering
-  Advanced technology platform

## CLEAN + RESPONSIBLE NEIGHBORHOOD

Additionally, nearly 10 million gallons of storm water will be collected each year from building roofs and public plazas, then filtered and reused in mechanical and irrigation systems to conserve potable water for drinking and reducing stress on New York's sewer system.

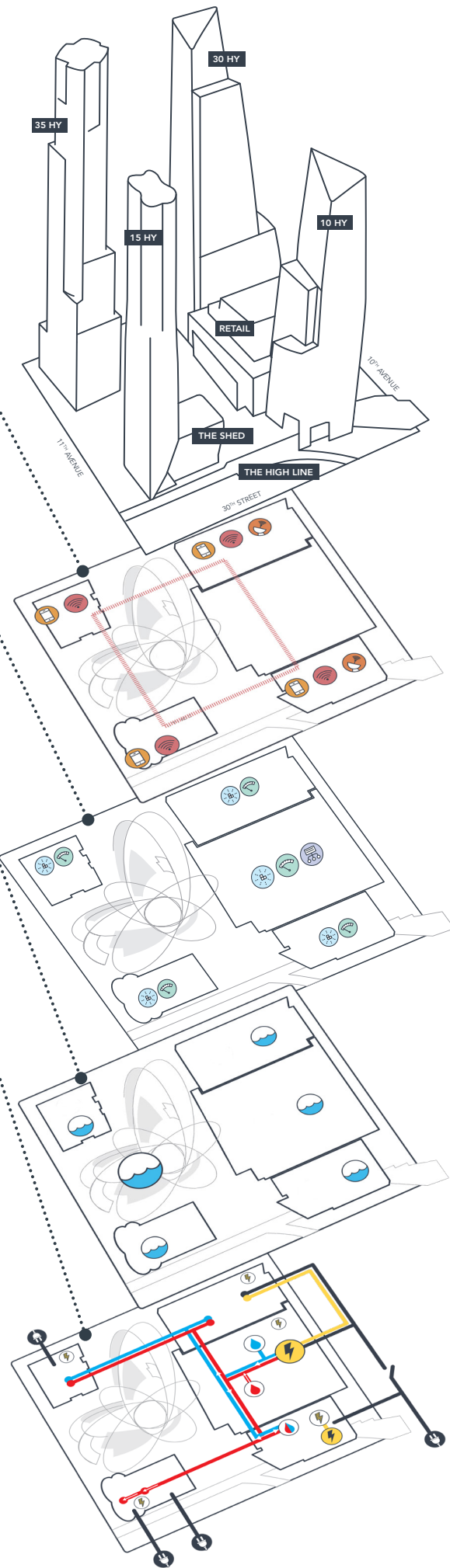
-  Stormwater Tank

## RELIABLE + EFFICIENT NEIGHBORHOOD

Whatever the potential disruption—super storm, brown out—Hudson Yards has the onsite power-generation capacity to keep basic building services, residences and restaurant refrigerators running. It doesn't hurt that being built above a rail yard means our first level is well above the flood plain.

Hudson Yards' first-of-its-kind microgrid and two cogeneration plants will save 24,000 MT of CO<sub>2</sub>e greenhouse gases from being emitted annually (that's equal to the emissions of ~2,200 American homes or 5,100 cars) by generating electricity and hot and chilled water for the neighborhood more than twice as efficiently as conventional sources.

-  14.5 megawatts of cogen
-  18 megawatts of Tier 4 diesel generators
-  Con Ed Utility Grid
-  Microgrid Breaker
-  Hot/Chilled water plant
-  Hot/Chilled water line



# BUILDING HUDSON YARDS THE PUBLIC SQUARE AND GARDENS: THE SMARTEST PARK IN TOWN

New York's newest elevated park grows over a different set of tracks.

## A PARK FOR ITS PLACE

The Public Square and Gardens is a park unlike any other in New York, and not just because it boasts state-of-the-art WiFi. Built on a platform sitting above a working railway, it relies on a sophisticated, layered approach to root growth, nutrient delivery, temperature regulation, irrigation and drainage. It is as much a feat of technology as horticulture.

## PLANTS, TREES AND BEES PLACE

Across five acres, visitors will encounter more than 28,000 plants of diverse species and size, including a forest of 200+ mature trees. Wildflowers in the *Echinacea*, *Monarda* and *Rudbeckia* families attract bees, butterflies, hummingbirds and other pollinators.

## DIRTY WORK

The platform's thickness puts a limit soil depth—18 inches for plants, four feet for large trees—but soil beds have been designed to provide room for (mostly horizontal) root growth. Where trees are planted in paving, a "soil sandwich" of sand, gravel and concrete slab protects roots while again allowing them to expand. The sophisticated layering of the system also includes provisions for aeration, irrigation, drainage and ongoing control of nutrients.

## PAMPERED PLANTS PLACE

The heat from the train yard below can reach 150 degrees, too hot for city trees, even in winter. To combat this, a network of tubing is embedded in the platform to circulate cooling liquids.

## AIR SUPPLY PLACE

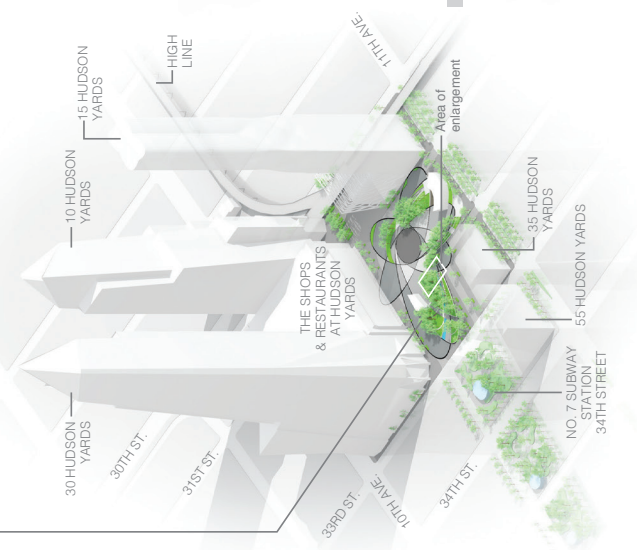
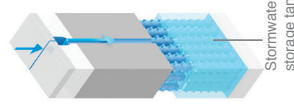
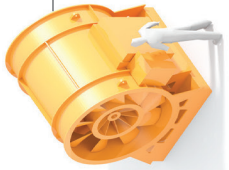
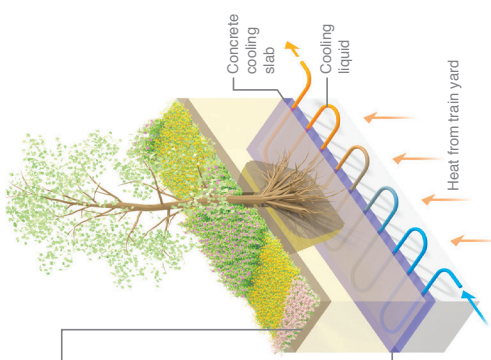
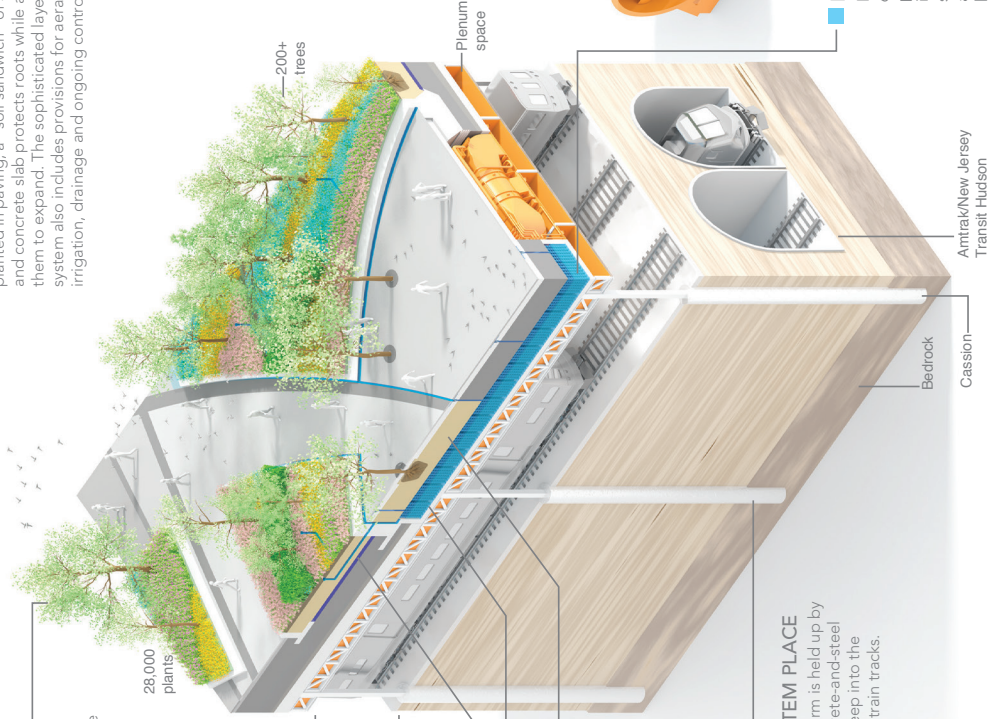
A ventilation system of 15 large fans—the kind usually found in jet engines—helps to remove the heat generated in the rail yards below.

## RAIN, RAIN (DON'T) GO AWAY PLACE

Rainfall at Hudson Yards is collected in a 60,000-gallon tank and used for irrigating our plants and trees. The environmental benefits include easing the pressure on the city's sewer system as well as limiting water usage and the energy (approximately 6.5 megawatt hours) it takes to pump it. The greenhouse gas mitigation is equivalent to the carbon output of four acres of forest.

## SUPPORT SYSTEM PLACE

The 10-acre platform is held up by hundreds of concrete-and-steel caissons drilled deep into the bedrock between train tracks.



## BUILDING HUDSON YARDS

# EVERYTHING YOU NEED TO KNOW (AND MORE) ABOUT WHAT'S HAPPENING AT THE TOP OF 30 HUDSON YARDS

When it opens, Edge, accessible from the 100th floor of the tallest building at Hudson Yards, will be the highest outdoor sky deck in the Western Hemisphere. The view inside is destined to be spectacular too featuring Peak, a restaurant, bar, lounge, café and event space programmed by London-based *rhubarb* hospitality group.

### COMMUNING IN THE CLOUDS

Peak, featuring a restaurant, bar, café and event space from London-based *rhubarb* hospitality group will be housed on the 101st floor of the tower.

### PRACTICE RUN

The deck was fully assembled in Italy before it was broken down again into its constituent sections for the boat trip to New York City.

### HEAVY LIFT

The sections varied in size from 35,000 pounds to 100,000 pounds. Assembled, the deck weighs 765,000 pounds. The weight of the sections and height of the construction required that two cranes be used in tandem to lift each piece into place.

### JIGSAW PUZZLE IN THE SKY

Edge is made up of 15 sections comprised of steel and glass, which were bolted together and anchored to the east and south sides of the building. The result: a 7,500-square-foot outdoor viewing area more than 1,100 feet above the ground.

### BIRD'S-EYE VIEW

A window in the floor provides a breathtaking perspective of the neighborhood below.

### WIDE-ANGLE LENS

An angled glass wall, nine feet tall, encircles the deck, providing unparalleled vistas of the New York skyline—and dramatic sunsets to the west.

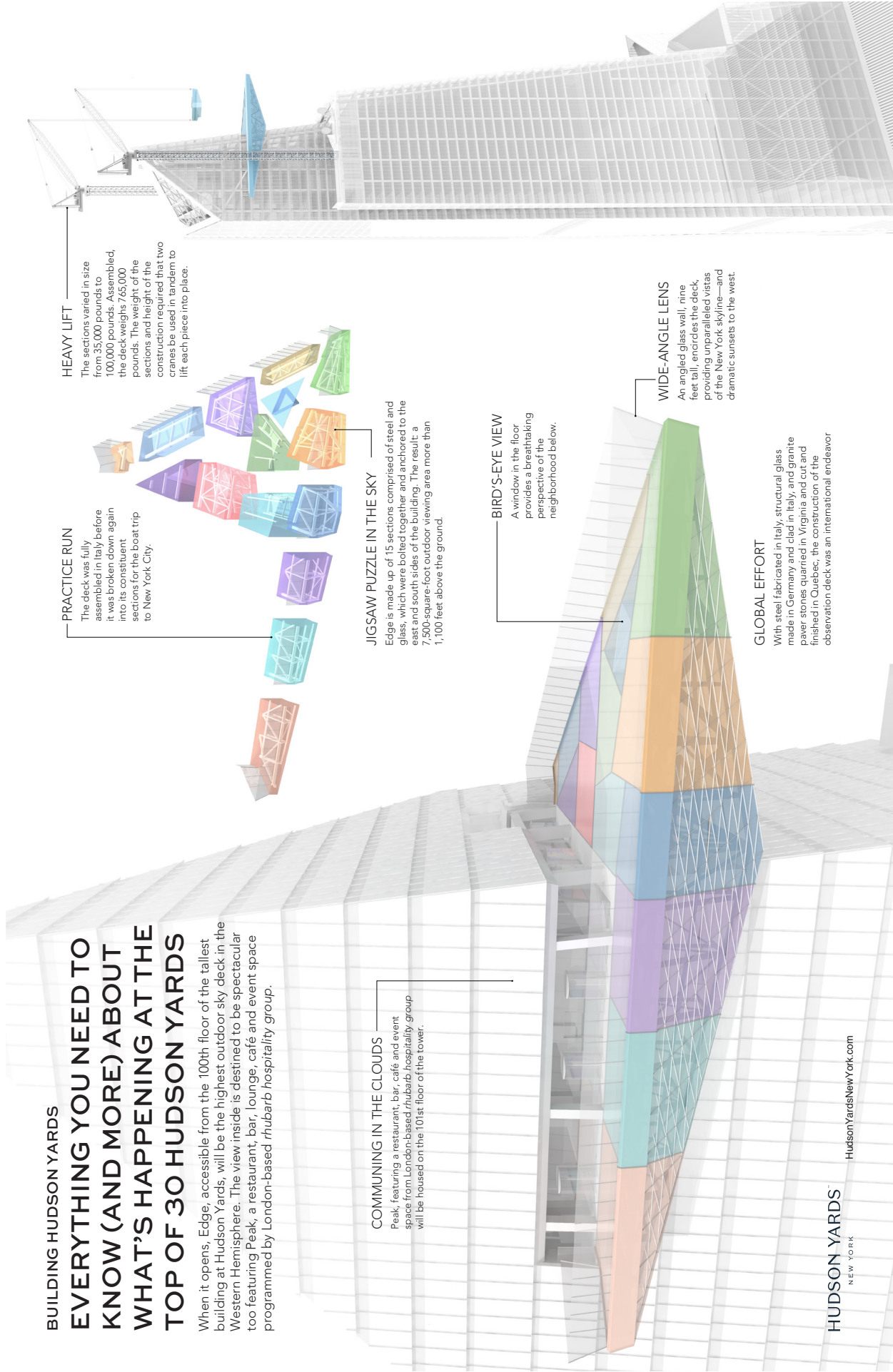
### GLOBAL EFFORT

With steel fabricated in Italy, structural glass made in Germany and clad in Italy, and granite paver stones quarried in Virginia and cut and finished in Quebec, the construction of the observation deck was an international endeavor

HUDSON YARDS

NEW YORK

HudsonYardsNewYork.com





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**DAVID M. CHILDS/SKIDMORE, OWINGS & MERRILL (35 HUDSON YARDS)**

The Chairman Emeritus of Skidmore, Owings & Merrill continues to serve as a consulting designer on selected projects in SOM's New York office. Mr. Childs is the designer of One World Trade Center (formerly named the Freedom Tower). He is also working on the new Moynihan Station. Mr. Childs has juried, often as Chairman, numerous local and national design awards; participated as a visiting critic or studio leader at leading professional schools of architecture; and been a lecturer or panelist at myriad conferences and symposia. His design work has been widely published locally, nationally and internationally.

**DILLER SCOFIDIO + RENFRO (15 HUDSON YARDS)**

This international design firm works at the intersection of architecture, the visual arts, and the performing arts. Founded in 1981, the New York City-based practice established its identity through independent, theoretical, and self-generated projects before reaching international prominence with two important planning initiatives in New York: the transformation of the High Line, a one-and-a-half mile stretch of obsolete industrial infrastructure into a linear park and the redesign of the Lincoln Center for the Performing Arts campus. The partners were named among Time magazine's 100 Most Influential People in the World. Both Wall Street Journal Magazine and Fast Company have also distinguished DS+R as a leading innovative design practice in the profession.

**FOSTER + PARTNERS (50 HUDSON YARDS)**

The global studio for architecture, urbanism and design, rooted in sustainability, was founded over 50 years ago in 1967 by Lord Norman Foster. Since then, he and the team around him have established an international practice with a worldwide reputation for thoughtful and pioneering design, working as a single studio that is both ethnically and culturally diverse. The studio integrates the skills of architecture with engineering, both structural and environmental, urbanism, interior and industrial design, model and film making, aeronautics and many more—the collegiate working environment is similar to a compact university. These diverse skills make the team capable of tackling a wide range of projects, particularly those of considerable complexity and scale.

**ELKUS MANFREDI ARCHITECTS (THE SHOPS & RESTAURANTS AT HUDSON YARDS)**

This internationally acclaimed architecture and urban design firm is responsible for the design of many of the country's most exciting and game-changing mixed-use projects. The firm is known for large-scale urban mixed-use developments, including Chicago's 730 North Michigan Avenue Peninsula Hotel block; Seattle's Pacific Place; The Paramount in San Francisco; The Grove in Los Angeles; Americana in Glendale, California; CityPlace in West Palm Beach; and, most recently, the 27-acre Miami World Center. Characteristic of all these projects is the planning and design of exciting urban retail centers exemplified in The Shops at Columbus Circle at Time Warner Center and the remaking of Boston's famed Faneuil Hall Marketplace. Elkus Manfredi Architects' current international work includes major mixed-use projects on prominent sites in Abu Dhabi, Istanbul, Toronto, Montreal and Mexico. The Shops & Restaurants at Hudson Yards stands as a tribute to the visionary work of the firm's late co-founder, Howard Elkus.

**HEATHERWICK STUDIO (VESSEL)**

Heatherwick Studio is a team of 250 problem solvers dedicated to making the physical world around us better for everyone. Based out of our combined workshop and design studio in Central London, we create buildings, spaces, master-plans, objects and infrastructure. Focusing on large scale projects in cities all over the world, we prioritize those with the greatest positive social impact. Working as practical inventors with no signature style, our motivation is to design soulful and interesting places which embrace and celebrate the complexities of the real world. The approach driving everything is to lead from human experience rather than any fixed design dogma. The studio's multi award-winning completed projects include Zeitz MOCAA, the conversion of a disused grain silo into a new museum for contemporary art in South Africa; a 16-storey landmark for Hudson Yards known as Vessel; the Learning Hub at Singapore's Nanyang Technological University; and the UK Pavilion at the Shanghai World Expo 2010.

The studio is currently working on approximately 30 live projects in ten countries. Projects under construction include a new park and performance space, Pier55, in the Hudson River, New York and a new major headquarters for Google in both King's Cross and Silicon Valley (in collaboration with BIG). For more information on Heatherwick Studio, please visit [www.heatherwick.com](http://www.heatherwick.com)

**KOHN PEDERSEN FOX ASSOCIATES (KPF) (MASTERPLAN, THE SHOPS & RESTAURANTS);**

**A. EUGENE KOHN (55 HUDSON YARDS); BILL PEDERSEN (10 HUDSON YARDS, 30 HUDSON YARDS)**

One of the world's pre-eminent architecture firms provides architecture, interior, programming and master-planning services for clients in the public and private sectors. Operating as one firm with six global offices, KPF is led by 23 Principals and 19 Directors. Its 600+ staff members come from 43 different countries, speak more than 30 languages and include better than 80 LEED-accredited professionals. KPF's diverse portfolio, which includes more than 70 designs that are certified or pursuing green-building certification, and is comprised of corporate, hospitality, residential, academic, civic, transportation and mixed-use projects located in more than 35 countries.

**ROCKWELL GROUP (15 HUDSON YARDS)**

Founded by David Rockwell, FAIA, the firm is an interdisciplinary architecture and design firm that emphasizes innovation and thought leadership in every project. Rockwell uses theater, technology, and finely-wrought craft to create extraordinary experiences and built environments across the globe. Projects include the TED Theater (Vancouver); NeueHouse (New York, Los Angeles, London); the New York EDITION hotel; Nobu restaurants and hotels worldwide; Imagination Playground (Manhattan and Brooklyn); and set designs for more than 20 Broadway productions. Honors include a Tony Award and Drama Desk Award for Best Scenic Design for She Loves Me, the AIANY President's Award, Cooper-Hewitt National Design Award, Presidential Design Award, Fast Company's World's Top 10 Most Innovative Companies, and the Interior Design Hall of Fame.

**THOMAS WOLTZ, NELSON BYRD WOLTZ LANDSCAPE ARCHITECTS (PUBLIC SQUARE AND GARDENS)**

Thomas Woltz is the owner of Nelson Byrd Woltz Landscape Architects (NBW) with offices in New York City, Charlottesville VA, and San Francisco. During the past 20 years, he and his staff have forged a body of work that integrates the beauty and function of built form and craftsmanship with an understanding of complex biological systems and restoration ecology yielding hundreds of acres of reconstructed wetlands, reforested land, native meadows and flourishing wildlife habitat. Currently NBW is entrusted with the design of eight major public parks across the US, Canada and New Zealand. The firm's work has been recognized with over 80 national and international awards and published widely. In 2011, Thomas Woltz was invested into the American Society of Landscape Architects Council of Fellows, among the highest honors achieved in the profession, and in 2013, named Design Innovator of the Year by the Wall Street Journal Magazine.