

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.

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

NORTH RIVER TUNNELS
EMPIRE LINE TUNNEL
FUTURE GATEWAY TUNNELS

“PODIUM” STRUCTURE: UPPER TRUSSES

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

30 HUDSON YARDS

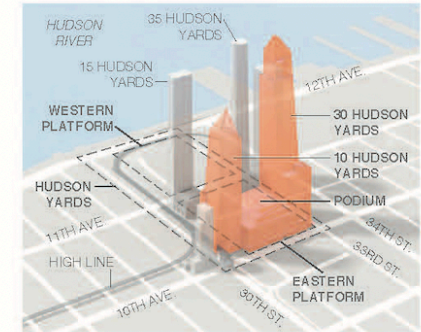
Columns and other support structures land between the rail lines—and were placed to avoid underground utilities—while trusses supporting the tower’s south face span the tracks.

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 funnel 445 trains and more than 600,000 riders daily.

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

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NEW YORK

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