

# THE REAL DEAL

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## Building over trains

**Starved for space, city plans developments on platforms**

**By Abby Luby**



A view of the Hudson Yards.

Earlier this century, urban planner Robert Moses did what he thought necessary for New York City's growth, including building highways that displaced homes and ripped apart neighborhoods.

Now, as a space-starved city looks for places to put more housing, a construction concept called "platform building" may be gluing the city back together.

A major part of Mayor Michael Bloomberg's plan to make room for some 1 million new city residents in the next two decades, for example, is to develop air space by building on gigantic platforms constructed over the city's highways and rail yards.

Sites targeted for "decking-over" include the Hudson Yards on the West Side of Manhattan and the Atlantic Yards in downtown Brooklyn. Sunnyside, Queens, and St. George, Staten Island, both areas with rail terminals, are speculated about. The city has even floated plans to build over the BQE, which would reunite Brooklyn's Cobble Hill and Carroll Gardens with Red Hook, which had been separated from them by Moses.

Commuters down below

Platform building is nothing new. "New York City has been building over rail yards for decades," said Chris Jones, vice president for research at the Regional Plan Association, an independent regional planning organization. "Grand Central Terminal and much of the commercial core along Park Avenue was built over active rail yards and train tracks in the early 20th century when there were different engineering considerations, different construction issues and virtually no environmental or safety regulations."

However, it's expensive and presents a number of technical challenges. Fred Harris, senior vice president at AvalonBay Communities, a national homebuilding company that has built apartment buildings on the Lower East Side and in Long Island City, says the cost of building over train tracks while keeping the trains running is very different from the cost of building on raw acreage.

"The proposition is simple; the answer is very difficult," Harris said.

"It's such a gigantic undertaking and costs a huge amount of money upfront for the developer," said Robert Von Ancken, executive managing director at Grubb & Ellis. "It could be spent money that may not achieve much."

Von Ancken noted that assessing and financing for buildings over rail yards can get very complicated.

"There are enormous penalties because of timing issues," he said. "You have to let the trains in, you have to be working all the time, you have to have extra employees who watch out for the trains and watch out for the workmen's safety."

The largest site targeted for platform building in Manhattan is the Hudson Yards, the name for the far West Side collective of the John D. Caemmerer Rail Yard, the Eastern Rail Yard and the Western Rail Yard, all owned by the Metropolitan Transit Authority. Mayor Bloomberg's goal for this area, located between 10th and 12th avenues, is for it to become a major business district replete with high-rise office and apartment towers, hotels and parks, as well as an expanded Jacob K. Javits Convention Center.

The scale of the project is massive -- more than 12 million square feet.

The deadline for bids in response to the request for proposals for the development of the yards is the middle of this month, according to MTA spokesman Jeremy Soffin.

Developers vying for the entire site (the Eastern and Western sections of the yards are handled by separate RFPs) are expected to be Vornado Realty Trust, the Related Companies, Brookfield Properties, Tishman Speyer and the Durst Organization.

Only the Eastern Rail Yard was rezoned in 2005; the rest is currently zoned for industrial use.

The RFPs cover both real property and air rights for the yards. Proceeds from the sale or long-term lease of the yards will go to the MTA.

Developers say building the platforms alone for the new construction will cost \$1 billion. And, of course, the work will need to be done while the commuter trains are running.

#### Counting columns

Timothy Delorm, managing principal of EDAW Inc., an international urban planning group, said developers will face numerous hurdles in the actual construction of building platforms.

"Traditional building columns are aligned vertically and go straight from bottom to top," Delorm said. "In building a platform for buildings, you have to offset the loads and use 'transfer beams' to hold up the platform. These beams use an irregular column grid so you won't interfere with rail operations."

The irregular grid of columns must provide a very solid, stable base under the platform to support the buildings and allow for train tracks, train exits and entrances.

Guidelines issued by the Hudson Yards Development Corp. -- which works with the MTA, developers and communities near the rail yards -- mention that bedrock under the rail yards reaches as far down as 30 to 100 feet. HYDC specifies that ceiling clearances for the rail yard below the platform be as high as 22 feet.

So the question facing engineers when constructing the massive platforms is: Just how many of these gigantic columns can they actually sink into the bedrock? Delorm said the number of columns will ultimately determine what the platform's carrying capacity is.

"Depending on those conditions, that [number of columns] may limit what you can do on top of the platform. Developers may have to commit to spending substantial sums of additional financing to increase the capacity of the deck."

Regina Myer, senior vice president of planning and design at HYDC, said that a completed study of the engineering constraints on the site will be available to potential developers. "After the MTA has selected a developer, the developer will determine the appropriate type of applications with City Planning."

#### Parceling out the costs

The MTA has said it is not subsidizing the cost of building the platform. To date, there are no other city, state or federal agencies that are expected to help fund the project.

The MTA's Soffin said the city and the MTA had worked to counter many of the possible risks.

"We've worked very closely with the City Council and the neighborhoods to put together a set of design guidelines that we think will limit risks to developers."

Von Ancken of Grubb & Ellis noted that most developers won't want to do everything at once because they would spend all the money building the platform.

"You do it piecemeal with the most logical locations being developed first," he said.

Other projects on tap

Meanwhile, Forest City Ratner Companies is working on the Atlantic Yards, a \$4 billion project for 8 million square feet in Brooklyn. The entire development, running from the Atlantic Terminal between Flatbush and Fourth avenues to the west and Vanderbilt Avenue to the east, will house a massive sports and entertainment arena, housing, retail, open public space and a hotel.

Another potential site for platform building is the Sunnyside Yards in Long Island City, which runs from Laurel Hill Avenue on the east to Hunters Point Avenue on the west and between Thompson Avenue and 43rd Street. The site, according to a story in the Queens Courier, has been a subject of discussion since the 1930s. A platform could allow for the construction of as many as 30,000 additional apartments. Also, on Staten Island, there is a possibility of development in the St. George neighborhood, over railroad tracks alongside the Staten Island Ferry Terminal.