COMMERCIAL REAL ESTATE

In Newark, a Vertical Indoor Farm Helps Anchor an Area's Revival

By C. J. HUGHES APRIL 7, 2015

NEWARK — Schools, sports arenas and apartment buildings have sprouted in recent years in this troubled city as part of efforts to revitalize it. Now, it's kale's turn to take root in a most unusual spot.

A former Grammer, Dempsey and Hudson steel plant in the Ironbound section of Newark is being razed by the RBH Group to make way for a giant custom-built complex for its sole tenant, AeroFarms, a company producing herbs and vegetables in an indoor, vertical environment. Instrumental in reviving parts of Newark, the RBH Group sees the venture as a way to create jobs, clear a shabby block and supply a healthy, locally grown food source.

The complex, a group of metal-block, low-slung buildings, some connected, some not, also has prominent backers. Through its Urban Investment Group, Goldman Sachs is picking up the bulk of the \$39 million cost for development of the AeroFarms Ironbound complex, using equity, debt and bridge financing. Prudential Financial, whose headquarters are now in Newark, is also an investor. The project has been awarded \$9 million in city and state money, in tax credits and grants.

The new 69,000-square-foot complex will also contain labs, offices and a cafe and is expected to be finished next year.

Unlike urban vegetable gardens of the past that took advantage of empty lots or evolved in rooftop greenhouses, AeroFarms employs so-called

aeroponics and stacks its produce vertically, meaning plants are arrayed not in long rows but upward. Because the farming is completely indoors, it relies on LED bulbs, with crops growing in cloth and fed with a nutrient mist.

Critics of vertical farming have complained that taste can suffer when food is cultivated without soil or sun, while proponents say vertical farms are extremely efficient and have a small environmental impact. They take up minimal space, grow round the clock and are near the markets that sell their crops, reducing the need for long truck trips. Vertical farms are also far less susceptible to the vagaries of unpredictable weather like droughts or floods.

"We can deliver anything the plant wants, when it wants it, how it wants it and where it wants it," said David Rosenberg, chief executive of AeroFarms.

The company has housed a smaller, temporary operation in an apparel store downtown.

Scheduled to open this fall inside the new Ironbound site, AeroFarms projects it will reap up to 30 harvests a year, or two million pounds of greens, including kale, arugula and romaine lettuce, Mr. Rosenberg said. At that output, AeroFarms would be among the most productive vertical farms in the country, analysts say.

But in an industry where profitability is elusive, success is hardly guaranteed. Indeed, AeroFarms is still lining up customers, which ideally will include grocery chains, schools and restaurants, company officials said. Not yet profitable, the company, which plans to expand to 70 employees, from 20, is also seeking venture capital funding.

Comparing vertical farms can be tricky. Unlike AeroFarms, some sell whole plants, or by-products like juice and salad dressing. Also, because the height of rooms in vertical farms is often more important than their width, floor measurements can be misleading, some farmers say.

Still, in real estate terms, the Ironbound operation would be among the country's largest. About two-thirds of the complex, or 46,000 square feet, will be dedicated to crops, according to the company, in rooms with lofty 30-foot ceilings.

In contrast, FarmedHere, an Illinois company, grows plants in about

47,000 square feet of a low-slung 93,000-square-foot former box factory near Chicago Midway International Airport. Founded in 2011, FarmedHere sells its produce to nearly 50 Whole Foods markets, plus other grocery stores, said Mark Thomann, the chief executive.

Mr. Thomann said he welcomed company in a small but growing sector. "We all need to collaborate, since we really are competing with traditional farms," which still control 95 percent of the market, he said. "We all need to work together to make this a viable category."

But in a sign of the risks inherent to the industry, other fledgling companies trying to grow crops in small spaces have sputtered and failed. For example, Alterrus Systems, maker of the shelflike VertiCrop system, with a greenhouselike farm on a sun-dappled roof of a parking garage in Vancouver, British Columbia, declared bankruptcy this year.

If the industry is nascent, it can still attract big backers.

Previously, both Goldman and Prudential teamed with RBH on Teachers Village in Newark, a \$160 million project that is creating a mix of schools, apartments and stores from a patchwork of warehouses and parking lots.

But brokers say that Newark, about 10 miles west of New York, also appeals to start-ups because of its dirt-cheap rents, which is especially true in the Ironbound's ragtag industrial section, where warehouses can be had for as little as \$5 a square foot. In comparison, rents for similar space in Brooklyn can be more than \$20.

"Companies are starting to realize that doing business in Newark is significantly cheaper," said Ron Beit, RBH's founding member.

One reason that Newark, and especially the Ironbound section, may be so affordable is its legacy of pollution. Crisscrossed by truck routes and flight paths, the Ironbound also was the home of a federal Superfund site where Agent Orange, the toxic defoliant, was manufactured in the mid-20th century; the site has since been cleaned up.

Similarly, over the years, toxins like lead have been discovered on the long block containing AeroFarms' new farm. In fact, the swimming pool in an athletic center there had to be constructed on an upper floor, over fears that

harmful chemicals could seep into the water, said Drew Curtis, a director of the Ironbound Community Corporation, a local nonprofit that has worked to remediate the area.

But while one parcel may still be a brownfield, most of the contaminated soil has been carted away, Mr. Curtis said. Besides, AeroFarms sits on land that has never been polluted, according to Mr. Beit, who added that its water supply would come from pipes, and not wells, anyway.

And because only four trucks will service the farm daily, AeroFarms is expected to have a light environmental footprint: "Every use at that site would have probably added truck traffic, but this will be far less than other uses," Mr. Curtis said.

The farm's construction is occurring during a flurry of activity in Newark. Besides Teachers Village, a high-rise apartment building with mostly market-rate units is planned for a former Ballantine brewery malt house near the Passaic River.

And Hahne & Company, a Beaux-Arts former department store that had been closed for decades, is now adding apartments, art studios for Rutgers University and a Whole Foods market.

In 2012, a Courtyard Marriott hotel opened by the Prudential Center arena, and the Hotel Indigo, a conversion of a Cass Gilbert-designed bank, officially cut its ribbon last month. A hotel is also planned for the Ironbound, its first.

In addition, Prudential, a major investor in Newark, is putting the finishing touches on a 20-story, \$444 million office tower, and, Panasonic relocated from Secaucus two years ago into one of the first major new office buildings in decades.

Jeff Kolodkin, a managing director with the brokerage firm Newmark Grubb Knight Frank, says that because so many projects are going at once, the city's rebound appears to have staying power. "This is probably the most legitimate chance that Newark has had to turn a corner in decades," he said.

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