MARIETTA HILL lives in a luxurious studio in one of Manhattan’s newest rental high-rises.

The building has a top-of-the-line fitness center and a lap pool in a pristine white-tiled atrium, and a yoga room with bamboo floors. The children have a playroom, and so do the adults — a sleek lounge. A media room is outfitted with a 110-inch screen and plush white leather chairs. The apartments have high-end finishes in the kitchens and bathrooms, and two things every renter covets: ample closet space and a washer/dryer.

Ms. Hill, an orthodontic assistant, pays about $500 a month, even though the starting market-rate rent for a studio in her building is $2,950.

For her, luxury housing is also affordable housing.

In the past, when a developer of market-rate residential buildings included affordable housing in exchange for tax incentives, the affordable units were often put in another complex or even in another borough altogether.

In 2008, however, a change in city regulations made it almost impossible for developers to sequester the affordable units away from luxury digs. And as apartment buildings become ever more extravagant, the diversity within the walls of a single structure can be striking.

Ms. Hill’s building, the Emerald Green, at 320 West 38th Street, is one of dozens to go up under a program known as 80/20 in the last few years, in which people from both extremes of the income scale live across the hall from one another. These projects include Tribeca Green downtown, MiMA and Silver Towers on West 42nd Street, and the Legacy on the Upper East Side.

Ingrid Gould Ellen, a director of the Furman Center for Real Estate and Urban Policy at New York University, said that although it was unusual to have someone making $30,000 a year next door to a person making $500,000, it reflected a significant change in thinking about how to approach affordable housing. “Over the past two decades,” she said, “there has been a movement around the country to have more income mix within neighborhoods.”

And in Manhattan, it is not just neighborhoods that are mixed, but the buildings themselves. In order to qualify for the program, developers must spread the affordable units throughout the
building so as not to segregate low-income renters. To help ensure that the affordable units blend in, regulations cover everything from appliance sizes and access to common space, to an equitable distribution of views.

Gary Jacob, an executive vice president of Glenwood Management, the developer behind Emerald Green and one of the largest builders in Manhattan, says the effect is to make it difficult to tell who is paying market rate and who is not.

“We find that there is a very good social and economic mix,” he said. “If you are standing in the lobby watching people come in and out, I would challenge you to tell who is who. The affordable tenants are wonderful. To them, they have won the lottery.”

But that does not mean developers leave anything to chance.

In addition to meeting very strict financial criteria, which usually means making about $20,000 to $40,000 a year, applicants often have to provide references and credit histories; they are even subject to home visits.

The screening is often far more rigorous than the market-rate tenants undergo, and competition is fierce, with as many as 10,000 applications pouring in for every 100 available apartments, according to city officials. Some 60 percent of those applicants fail to qualify from the outset. Information about upcoming affordable-housing lotteries can be found on the Web site of the New York City Department of Housing Preservation and Development.

Ms. Hill said that after the developers accepted her application in June 2010, they immediately scheduled a home interview. At the time, she was living with her aunt and sleeping on the couch.

“They asked everything,” she recalled. “Where do you work? What do you do? Why are you leaving your family?”

In the seven years she had lived in New York since moving from the Dominican Republic, she had bounced between the apartments of friends and relatives and had all but given up hope of finding an affordable home.

“When you don’t make a lot of money and you get a chance to live in a place like this you feel so blessed,” she said. “Programs like this, for people of low income, you give people energy to live.”

At Emerald Green, market-rate tenants are charged $350 a year to use the amenities. Those in affordable housing pay about half that.

Emerald Green was built under the auspices of 80/20 — through which 80 percent of the apartments are rented for market-rate prices and then are subject to rent stabilization guidelines, and 20 percent are reserved for those making less than 50 percent of the area's median income,
which varies by location and family size, but is in the ballpark of $80,000. More than 20,000 rental apartments have been built under this program over the years, 4,200 of them reserved for affordable housing.

A dozen city, state and federal programs subsidize housing, and the 80/20 program accounts for only a fraction of all affordable housing. The Bloomberg administration set a goal of creating 165,000 affordable units across the city and so far has created about 125,000.

However, in Manhattan, the 80/20 program plays a significant role in the overall rental market since developers say that without the incentives it affords, it would be all but impossible to build new large-scale rental buildings.

“I do not believe you can build a 100 percent rental building in Manhattan where you do not do an 80/20,” Mr. Jacob said.

To make these projects work, developers say, the market-rate rentals have to command top dollar from the day the doors open. Although 80 percent of the apartments can be priced at the upper limits of what developers think the market will bear, they then automatically come under the rent-stabilization system, limiting how much rents can rise each year afterward.

So even though many New Yorkers shake their heads in bewilderment when they see one-bedroom apartments going for $4,000 a month, the reality is that, over time, those apartments may be considered deals, since the rents will rise very slowly.

These programs took shape during a dark period in the city’s history.

In the depths of a recession in the 1970s, developers were given tax abatements to promote construction under a program known as 421-a. To encourage building in forlorn parts of the city, developers were offered a tax abatement allowing them to pay real estate taxes on the assessed value of the land before construction. For instance, if the property was worth $1 million unbuilt, but the new building increased the value to $10 million, they would pay taxes — for 10 to 25 years, depending on the project — on only the $1 million. Affordable housing did not have to be provided.

But as land in Manhattan between 14th and 96th Streets was extremely valuable even then, it was designated an excluded zone. One of the few ways that developers could get the 421-a tax abatement was to build affordable housing, the most common being 80/20 projects. Where the 421-a program can save millions in taxes for the length it is applied (usually 20 years in Manhattan), the 80/20 program allows developers to borrow money at extremely low rates, similar to those paid by the federal government.

For years, however, developers did not have to build the affordable units in the same building as
the luxury rentals. Instead, they could buy certificates that they could then use to build the affordable housing components elsewhere, often in the outer boroughs.

During the building boom of the last decade, the system came under increasing fire as being too generous to developers. In 2008, the program was revised so that all of Manhattan and parts of the Brooklyn and Queens waterfront became excluded zones, meaning that to get the 421-a tax abatement, developers would have to build affordable housing — 80/20 or some other variant — in parts of the city where it had not been the norm. And since the certificate system was done away with, those affordable units usually had to be built in the same building as the luxury rentals.

Soon after the changes were implemented, however, the market collapsed and development stalled.

This year, development is again picking up and the impact of the rule changes is just beginning to be felt.

Steven Spinola, the president of the Real Estate Board of New York, says at least six 80/20 projects are being planned in Manhattan. They will add some 1,500 affordable and rent-stabilized apartments.

While the 80/20 program has proved successful in prime Manhattan neighborhoods, he said, it remains to be seen if neighborhoods in Queens and Brooklyn can command the kinds of rents that make such development feasible.

Jeffrey Levine, the president of Levine Builders, said that the rule changes were already having an impact in an economy still very unfavorable to financing.

“You can see it in the outer boroughs, where there is little new construction planned,” he said.

While building affordable housing in expensive neighborhoods may have societal benefits, he said, it often does not make economic sense since it can cost three times more and provides fewer apartments than a traditional midrise dedicated to affordable housing.

The heart of the problem, he said, is a system that places too much of the tax burden on new construction in order to keep property taxes on older buildings low. Without the 421-a abatement, he said, it is difficult to turn a profit on new construction.

The subsidizing of 80/20 projects also raises questions about how best to spread government subsidies.

For the lucky few who can score one of these apartments, it is a great deal.

But it best serves extremes of the spectrum — the working poor and the affluent — while leaving
broad swaths of the middle class priced out of the Manhattan apartment market.

“We are building the luxury stuff for wealthy people and we are throwing in low-income housing,” Mr. Spinola said, “but nobody is building for the nurse who is married to a cop.”

The city is trying to address that concern in several ways; one is to require developers who are building on land bought from the city to have a broader array of mixed-income housing.

For instance, the Bloomberg administration recently announced an agreement with a developer to build Studio City, a new 1,238-unit rental building between 44th and 45th Streets along 11th Avenue, that will include units for people in three different categories: those who make 50 percent of the average area income, those who make 135 percent, and those who make 165 percent.

Still, given the cost of construction in Manhattan, said Ms. Ellen of N.Y.U., the challenge is daunting.

“How much are we willing to pay to create diversity?” she said. “When you have a lot of need, should you put all the resources on serving the very neediest? Or should you have a broader approach, one that includes the upper middle class? It is something the city has been trying to balance.”