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REACH eyes passive house design for multifamily project

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The team at REACH Community Development, an affordable housing developer based in Portland, is ratcheting its focus up a notch from affordable housing to affordable living.

“If we really think through all the things we do, we can really enable our residents to have lower housing costs, lower energy costs and lower transportation costs, which are the biggest bills people deal with,” REACH project manager Jessica Woodruff said.

With that pursuit in mind, REACH is developing a 57-unit affordable housing complex in Hillsboro with passive house design. Craig Kelley, senior project manager for the Housing Development Center, said it is cost-engineering the Orchards at Orenco Station, between \$8.2 million and \$8.4 million, with William Wilson Architects, Walsh Construction, Green Hammer and PAE Consulting Engineers, to optimize energy performance and minimize incremental costs.

Passive house design uses superior insulation and air ventilation systems to dramatically reduce energy consumption, and Dylan Lamar, certified passive house consultant with Portland-based Green Hammer, said the building will be one of the first passive house multifamily buildings in the nation.

“It’s a fabulously innovative project that’s going to reduce total heat loads in the building by about 90 percent from a typical building,” he said.

Lamar participated in the design of one of the first low-income passive houses in the country, a single-family project in Urbana, Ill. He said the size of the Orchards at Orenco Station will present its own unique design challenges, such as the creation of an elaborate ventilation system to continuously cycle air throughout the complex.

The building will use 11-inch-thick walls with several inches of exterior insulation, and triple-paned windows to make the building’s envelope nearly airtight. Lamar said that one advantage of incorporating passive design in a larger building with many rooms is that it does not require 16-inch-thick walls typically needed in single-family homes.

“I think the most exciting part of it is to be able to provide what’s typically a very expensive way to build for a low-income population,” he said.

Passive house can add roughly 10 percent to the front end of construction costs, but Woodruff said it will save money over the life of the project because of lower utility bills, which are expected to climb faster than the rate of inflation. They expect that electricity for one unit could cost as little as \$15 a month.

Woodruff said the Orchards at Orenco Station will be geared toward people who earn 50 percent of the area’s median income - approximately \$25,000 a year.

According to Washington County’s Comprehensive Plan, between 12,000 and 20,000 households in the county are in that income bracket and have affordable housing needs not being met by current supply. In addition, approximately 34 percent of households have extremely low (below 30 percent of the area’s median), low (below 50 percent of the area’s median) or moderate (below 80 percent of the area’s median) incomes. Of

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those with low incomes, 49 percent are likely to spend more than half of their pay on housing.

"It's a wonderful neighborhood; there's just no affordable housing there," Woodruff said. "So we are hoping to sort of round that out and make it a little bit more holistic of a neighborhood."

But getting the financing for that kind of a development in today's economy - in which the majority of projects that pencil out are high-end multifamily - can be difficult.

Woodruff said the Washington County Office of Community Development recently awarded the project a grant of \$750,000 and that Enterprise Community Investment and NeighborWorks America previously awarded grants. REACH also is applying to Oregon Housing and Community Services for a 9 percent housing tax credit.

REACH has a purchase and sale agreement for the entire six-acre, greenfield plot that sits just north of the MAX light-rail line and south of Cherry Drive at Northwest 231st Avenue. The land's owner is Tom Walsh, via Orenco III LLC.

Woodruff said the 57-unit building is planned as the first phase of a three-phase project to develop 140 to 150 units on the site. The group is approximately 75 percent done with its schematic design and hopes to begin construction in fall 2013. Whether those second and third buildings use passive design will depend on the success of the first, Woodruff said.

Kelley said he thinks it will pencil out in the long run.

"It's not something you can necessarily underwrite to, but there's a lot of studies out there that green buildings generally ... tend to have higher resident satisfaction. They tend to lease up faster and they tend to turn over less," he said.

Lamar agrees and hopes the project will attract the attention of other developers.

"It's a more superior living environment, and I suspect they're going to have a much lower turnover rate in their tenancy as a result, which I hope will start to sell the concept with other developers that are more financially driven and not so vision-driven," Lamar said.



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