

# Sustainable design in via verde



Via Verde is a project that has embodied the progress and innovation of green design and healthy living. The positive impact Via Verde has had on the planet and people roots from the sustainable design and practices that were implemented. Green roofs, rainscreens, and the orientation of the building are some of the many innovations that have led to improving the condition of the environment and its residents – simultaneously bringing both nature and people together.

Via Verde used a mix of sustainable design approaches and practices to promote its healthy living mission. The Passive Design was the main strategy used which focuses on the orientation of a building that include solar shading to help with energy efficiency. In a typical residential building, the corner units, as a result of their position, benefit from natural light and breezy conditions on both sides of the unit. However, units found in the middle of building suffer heavily from little to no sunlight or wind. Leveraging the Passive Design strategy, the Via Verde development team chose to position the center units out a few feet to provide more natural light, natural ventilation, and even a better view of the street or gardens (Nyren, 2012). This riser effect also allowed the design team to create terraced roofs in the center of property. Green roofs can be found on every level including fruit trees on the lower areas of the building. The team also used rainscreens which are made of aluminum composite material (ACM) and positioned them in between the steel framing system to promote better circulation and allow moisture to exit easier increasing energy efficiency (Administrator, 2013).

In addition, simple design approaches that boosted physical activity. Efforts were made to enhance every part of the building, as simple as staircases, to

support the Via Verde mission. They converted regular staircases into not only a medium to travel from one level to the next, but as areas to receive natural light encouraging residents to take stairs instead of elevators (Nyren, 2012). Having sustainable design as a mandate from the project's start ensured high level of green strategies would be implemented and therefore, the team exercised the Integrated Design Process. The funders, developers, and the rest of the team had clear goals of creating a sustainable, affordable-housing community from the start and carried it until the end (Nyren, 2012).

Via Verde's design including green roofs, fitness facility, and natural lighting, directly impact the planet and people. Ari Goldstein, senior project manager for Jonathan Rose Companies, believed that giving Via Verde's residents access to greenery and fresh air could help reduce the high asthma rates in the Bronx. Having a fitness facility and pharmacy in the complex gives families easier access to a gym and medical needs. The green roofs, along with horizontally and vertically mounted photovoltaic panels and a rainwater-harvesting system, encourages the integration of nature and a healthy lifestyle as residents have the ability to grow their own crops (Nyren, 2012). The green roofs help manage stormwater by retaining 50%-90% of a typical rainfall on the roof (GreenRoofs, 2018). In a building design aspect, caulking and sealing windows were also paramount to tightening the building envelope to improve overall energy efficiency (Nyren, 2012).

The main goal for the funders and developers was to promote a healthy environment infused into healthy living and through this, they were able to execute a financially-sound project. The NYC Department of Housing

Preservation and Development (HPD) was the lead public agency for Via Verde. HPD sponsored the New Housing New York Legacy Competition and sold the land to the developer for \$1 while providing funds for the affordable housing (Phipps Houses, Jonathan Rose Companies, 2012). The design saves on energy costs by having a recycling system, rainwater recycling system, and solar energy system (Essays, 2018). Also, the use of stairs eliminates elevator usage which reduces the cost of the electric bill. The positioning of the residential units allows more natural light and just like the stairs, reduces the electric bill. Via Verde reduced its construction costs by using affordable materials such as the aluminum for the rainscreens. They also avoided costs by not having a parking lot. Usually, residential development is required to build with parking lot, but the site of Via Verde was not large enough for the amount of residents. To follow the sustainable theme, the development team successfully argued to not build a parking lot because Via Verde is located close to a parking garage and has access to public transportation such as the subway and buses (Essays, 2018). The support of HPD and low energy costs, allows Via Verde to not only continue its success as a home to many but as a business as well.

From the funding to the design strategies, Via Verde has greatly impacted the environment and people's lives. Using design strategies such as the Passive Design strategy, the project team was able to reduce energy costs for the business, promote sustainability, and create affordable spaces for residents to come together with nature in a holistic way. Via Verde is now an example that affordable-housing and sustainable-living are achievable.

## References

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