



SHARED VALUE



BUSINESS CASE STUDY: Blue Sea Development

Company Overview

Sector: Real Estate / Construction

Total Number of Employees: 20

Headquarters: New York City, NY

Background

Blue Sea Development Company has developed approximately 4,000 units of affordable and market rate housing units over the past 30 years, including the first affordable Energy Star (2002), LEED Silver (2007), and LEED Platinum (2009) affordable housing developments in New York State. Blue Sea Development is also a leader in the implementation of Active Design strategies in affordable housing.

Vision & Goals

Through sustainable housing development, Blue Sea Development aimed to address several drivers of health in the South Bronx as part of Mayor Michael Bloomberg’s New Housing Marketplace Plan (NHMP), a multibillion dollar initiative to finance 165,000 units of affordable housing for half a million New Yorkers between 2013-14. While the national prevalence of childhood asthma is 9.1%, New York City public housing faces a 21.8% prevalence. As a response to this and the Mayor’s initiative, in 2013 Blue Sea Development constructed Arbor House, a low-income rental building in the South Bronx using healthy design principles to target disproportionately high rates of asthma in the community.

Using Active Design to Create Shared Value in Affordable Housing

Arbor house is a 120,000 square foot mixed market-rate and low-income housing development. It has 124 units of affordable housing for families earning below 60% of the area median income; New York City Housing Authority residents and those on its waitlist are given preference for 25% of the units. Arbor House incorporates several Active Design strategies to address residents’ health risks and promote health:

Design Component	How It Promotes Health
Fitness Areas	Fitness areas are available indoors and outdoors for residents of all ages. They include an indoor gym with a climbing wall and various types of outdoor play equipment for children.
Stairways	Stairways are directly visible from the building’s main entrance, and include glass entry doors that allow for increased lighting and visibility. The interior walls of the stairway are decorated with artwork and music, and the exterior walls have motivational stair prompt signage encouraging residents to take the stairs.
Rooftop Farm	A 10,000 square foot hydroponic farm is located on the roof and it functions as a community supported agriculture (CSA) arrangement, where Arbor House residents can purchase food produced by the farm.
Air Quality	The building has a smoke-free policy and low VOC paints and materials were used during its construction. The lobby has a living green wall installation to help circulate fresh air, and has biophilic benefits. These features, along with the rooftop farm, may have an effect on reducing resident asthma rates.
Sustainable Materials	Building construction primarily used local and recycled products and 95% of construction waste was recycled and diverted from landfills.

Community Choice Drivers

The site location was determined as part of a request for proposals issued by the City of New York to produce affordable housing on underutilized City land. Most of Blue Sea Development’s affordable housing developments have been built on land that was formerly owned by a municipality.

Assessing Community Risk & Disease Burden

- **Chronic Diseases:** Asthma and obesity continue to be two of the most frequently occurring chronic diseases among lower income families, which are frequently the target population for Blue Sea Development’s constructions.

- Health and Socioeconomic status:** Blue Sea Development draws on its own experience as well as external data to understand how health and economic issues are directly connected and interchangeable as cause and effect. A physically healthier family is also an economically healthier family, and affordable housing using healthy design addresses this relationship.

Stakeholder Engagement & Resource Allocation

Partner	Role
New York City Housing Authority (NYCHA)	Provides affordable housing for low and moderate- income residents throughout the five boroughs. It preserves its aging housing stock through maintenance and modernization and administers a citywide Section 8 Leased Housing Program in rental apartments. NYCHA offers opportunities for residents to participate in community, educational, recreational, and job readiness and training initiatives.
New York City Housing Development Corporation	Provided \$3.9 million in tax exempt bonds and \$8 million in corporate subsidy.
New York City Department of Housing Preservation and Development	Contributed \$7.4 million in City Capital.
Sky Vegetables	Sky Vegetables is an innovative urban agriculture company dedicated to designing, building, and operating sustainable, commercial-scale hydroponic farms on urban rooftops. At Arbor House, it oversees the rooftop hydroponic farm, which functions as a community supported agriculture arrangement, through which residents can purchase shares of food. About 40% of the produce is available to the local community through outreach to nearby schools, hospitals, markets, as well as the building’s CSA.
New York State	The State’s investment includes: \$2.5 million through New York City’s division of housing and community renewal’s Homes for Working Families (HWF) program and \$160,000 provided by the New York State Energy Research and Development Authority (NYSERDA) through its Multifamily Performance Program. Bronx Borough President Ruben Diaz, Jr. and City Council Member Helen Foster jointly contributed nearly \$2 million in Reso A funds, which are discretionary capital funds for borough presidents. The development also received \$12.8 million in Low-Income Housing Tax Credit Equity.
RBC Capital Markets	Tax Credit Syndicator
J.P. Morgan Chase	Tax Credit Investor
*Total Development Cost: \$37.7 million	

Evaluation Framework

Mount Sinai Hospital conducted a qualitative focus group evaluation to assess the impact of Active Design principles on resident health behaviors. Tenants of two LEED Platinum-certified affordable housing buildings constructed by Blue Sea Development, Arbor House and The Eltona (Melrose Commons V)ⁱ, participated in two separate semi-structured focus groups lasting one hour each. Six participants were recruited from 270 residents at Arbor House and five from 140 residents at The Eltona to participate in the evaluation, and were given an incentive of \$30 for participation.

Impact of Active Design on Health

Design Component	Qualitative Focus Group Results
	<i>Consensus among focus group participants suggested active design elements positively influenced healthy behaviors, providing motivation, accessibility, and safety.</i>
Delayed speed and non-prominent location of elevators	All 6 participants in the study noted these features, which prompted many to take the stairs.
Prominent, well-lit stairwell with music and artwork	Participants reported that these factors encouraged stair use by children and adults. Perceived safety was a major predictor of stair use. Brightly lit, wide stairwells with good sight lines to succeeding flights and hallways provided a sense of comfort.
Point of Decision Stair Prompts	Participants believed the prompts were meant to encourage and highlight the benefits of stair use, and “make you think: ‘Maybe I should do a little something more.’” While slogans were easily recited, some tenants habituated to the signage saying, “It just becomes a part of the background.”
On-Site Indoor Gym	Four of the five participants reported gym use intermittently to three times per week, while the remaining participant indicated that asthma prevented her gym use. One regular user stated, “[T]his building has an impact on my health because we have access to a gym for most of the day.”
Secure Outdoor Exercise Circuit	The outdoor fitness circuit was reported to offer physical activity benefits to parents and children. Children reportedly enjoyed the space, and parents were grateful for the safe, enclosed area.

Overcoming Challenges in Cross-Sector Collaboration

- There is a great need for continuing education programming among residents, but more resources and income would be necessary to make it available.
- Blue Sea Development works through its partnerships with organizations like the Center for Active Design, the Partnership for a Healthier America, Mt. Sinai, and other groups to share best practices and collaborate on developments.

Moving Forward: Impact in Development

Moving forward, the company is striving to add more health elements and programming to all of its developments. It recently completed a 200 unit low income senior citizens building that provided raised bed vegetable and fruit gardens, as well as educational programming on gardening and healthier cooking. In total, Blue Sea Development has 700 units currently under construction and in pre-development.

This case study was adopted from a semi-structured qualitative interview and publicly available information. To learn more about the link between workforce and community health and the strategies businesses are implementing to invest in community health, read the Vitality Institute’s report “Beyond the Four Walls: Why Community is Critical to Workforce Health.”

To access the report and additional case studies, visit www.thevitalityinstitute.org/communityhealth or look us up on social media @VitalityInst #Beyond4Walls.

ⁱ Melrose Commons V was also evaluated by Mt. Sinai in a separate study titled *Impact of LEED-Certified Affordable Housing on Asthma in the South Bronx*, which was found to lower asthma symptoms, increase knowledge about asthma risks, and change health behaviors related to asthma risk.