How sustainable new construction withstood a superstorm

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One year after the worst natural disaster to hit the northeast coast in recent memory, "Bright 'n Green," a wholly sustainable mixed-use project that we are developing at 67 Brighton First Ln. in Brighton Beach, is in its final stages of construction. In a parable worthy of Noah's Ark, the building, which had just been enclosed and framed out at the time of the storm, literally held tight against 90-mile winds and cresting Atlantic Ocean waters less than two blocks away. We were lucky that there was relatively minor damage at the time, with no breakage or extreme damage.

But more than luck, our plans followed and even exceeded sustainable guidelines. Bright 'n Green is built four inches above the 100-year flood elevations mandated by FEMA. As a result, the interiors of this net zero energy development remained dry, with the exception of some flooding in the cellar.

That was certainly not the case with properties in the surrounding area. In addition, mounds of sand severely obstructed main traffic arteries, pounding winds knocked down telephone wires, electricity was cut off and our construction temporarily shuttered. So while waiting to restart, the development team and construction crew reached out to the rest of the community and assisted other property owners by offering our generator and manpower to help in the clean up.

Even off the grid, Bright 'n Green was able to resume generating electricity and lighting through the building's 133 solar panels once the sun returned. The site had lighting long before rest of the block, which helped keep the adjacent buildings safer, too.

One year later, with the interiors fully-framed and floor systems composed of recycled wood installed in each of the six units, we are nearing completion of what we anticipate will be a successful project on many counts. We see it as a prototype for future sustainable development in a variety of asset classes, ranging from residential and mixed-use to hospitality.

Since the storm, more than 150 feet of 10-inch Geotube has been laid below the building to pre-cool the air in the summer and preheat it in the winter. Bright 'n Green's superior air-tightness not only helped it prevail against the storm, it has enabled it to achieve a thermal resistance level of R70, far above the current R30 industry baseline.

In preliminary design and construction stages, Bright 'n Green earned EPA and OER certifications and has since received the prestigious Green Site Award from the Mayor's Office of Environmental Remediation. Once completed, it will qualify for an EPA Air Sense Certification, ENERGY STAR, LEED Platinum, Fit NYC Center for Active Design Recognition, Green Globes Certification, EPA WaterSense Certification, NAHB Emerald Status, NYSERDA Low Energy Multi-family Certification, NYC Brownfield Partnership Green, and Living Building Challenge Certification. It is also a candidate for European and American Passive House certifications. With completion anticipated before the end of the year, we are hoping that Bright 'n Green becomes a paradigm for achievable sustainable development in New York City.

Although there was no way to predict a storm as massive as Sandy could ever hit the northeast

coast, many of us in the environmental community recognized how climate change would necessitate evolving building standards and in turn, new approaches to design and construction. More than that, I hope that what transpired at Bright 'n Green last October accelerates the dialogue tenfold.

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