



Sustainable and energy efficient

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A sustainable building has a positive impact on both its occupants and the environment. Often, but not always this translates into energy efficiency.

It's easy to create an energy efficient building that is not "sustainable." Keep it compact to reduce surface losses, load it up with insulation, eliminate glazing to reduce heat gain, seal windows for reduced infiltration loss, reduce lighting levels to a minimum and any structure will be "energy efficient" - but probably few would enjoy using it.

The carbon footprint of a building is more than just its energy bills. The environmental costs of creating and transporting the building materials, the greenhouse gases created by the tenants during their commute, the effect of the building on its immediate microclimate all are sustainable issues that should be addressed during any building project.

Conversely an oversized structure that uses low VOC, renewable materials and brings in lot of light and fresh air but is designed without consideration for orientation and heat gain or loss may be labeled as "green" but at best be average in energy consumption or at worse need energy consuming systems to resolve its conflicts with nature.

New York luckily has a large number of essentially sustainable masonry structures of the late 19th and 20th century. We should re-evaluate these structures with high ceilings, thermal mass heat retention, and well-ventilated spaces for the assets they are. Retrofitting with energy efficient windows, insulation, efficient HVAC systems and lighting can result in sustainable structures and at the same time reduce energy consumption.

New construction is another fertile field for sustainable design. Ultimately to save energy a building must work with its environment. Correcting an inefficient envelope by overly sophisticated HVAC systems is in a sense a lapse in design.

Buildings must be energy efficient and sustainable. Green roofs, green walls, nanogel, displacement ventilation, triple glazing, solar shading, and solar energy should become the new norms. This is New York, The design talent is here. Let's use it.

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