

CASE STUDY:

PROXIMITY HOTEL

Location:	Green Valley Road Greensboro, NC
Industry:	Hotel
Water Reduction:	30% less than comparable hotels
Energy Reduction:	36% less than comparable hotels
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BACKGROUND:

The Proximity Hotel contains 147 luxury rooms with a design aimed at obtaining Platinum LEED certification. The hotel design and construction was based on the U.S. Green Building Council's Leadership in Energy and Environmental Design Green Building Rating System. Many of the environmentally sustainable efforts put into the building are undetectable to the guests, while others, such as the large windows, fresh air, local art and restored landscapes, will enhance the guests experience at the Proximity.

RESOURCE CONSERVATION AND WASTE REDUCTION ACTIVITIES

Sustainable Site Development

The designer of the hotel, Dennis Quaintance, did not cut corners when he decided to build the Proximity Hotel. He started by restoring the surrounding landscape. This restoration saved 700 linear feet of stream from erosion. Rebuilding banks

lined with buffers containing native plants refurbished the area.

The Proximity's design was environmentally conscience starting with its construction. During construction 1,764 tons of waste were created. The hotel recycled 87 percent of its discarded construction material. This kept 1,535 tons of waste out of landfills.

Water Savings

This hotel uses 30 percent less water than hotels of comparable size. This was achieved through:

- Installing high water efficiency Kohler plumbing fixtures.
- Using native plants in parts of the landscape to reduce the water needed for irrigation.
- Installing refrigerators in the hotel kitchen that use geothermal energy instead of water-cooled systems, providing significant water savings.

Energy Efficiency

The Proximity Hotel has a long list of energy saving technologies. Here are a few:

- The largest energy savings come from the 100 solar panels installed on the roof of the hotel. The energy created from these solar panels will create a 36.5 percent reduction in energy compared to a conventional hotel this size. The energy these solar panels create will be used to heat approximately 60 percent of the water used in the hotel.
- It also installed the first regenerative elevator in the U.S. This type of elevator captures energy while it descends and uses it for the elevator's ascent.
- Energy-efficient oversized windows are found throughout the hotel to use natural lighting.
- The energy savings continue into the hotel's kitchen with variable speed hoods in the restaurant that adjust power based on needs. This allows the hoods to run at around 25 percent normal capacity.

Materials Selection

The hotel was partially built using recycled materials. Materials such as sheetrock were 100 percent recyclable, reinforced steel 90 percent, staircase steel 50 percent, and asphalt 25 percent. The concrete used was made with four percent fly ash that normally ends up in landfills. The paints, adhesives and carpets all are composed of low-emitting volatile organic compounds. Most of the furniture and doors are made from recycled or salvaged wood.

Indoor Environmental Quality

The hotel aims to provide guests with an experience that will connect them to the environment. It provided this through:

- Plenty of natural lighting throughout the hotel.
- Windows that open in the guest rooms.
- Ensuring 90 percent of all guest areas have a line of vision to the outdoors.
- An air quality circulation system was installed allowing outside air into the rooms using an energy efficient technology to adjust the temperature.

Hotel Experience

The Proximity Hotel has lots of opportunities for guests to get involved with the environment:

- They have local artwork in all the guest rooms and throughout the hotel. This practically eliminated the packaging and transportation needed to get the art to the hotel.
- There are plans for a green roof with a large number of vegetables. The hotel restaurant will use these vegetables in many of its dishes. This roof will also reduce heat within the hotel, slow rain runoff and insulate the roof of the hotel.
- The guests will also be able to learn from this green hotel through visiting the Education Center that provides tours and programs teaching sustainable living practices.
- Guests can also participate in greenway bike rides or eat in the restaurant that features some local foods.