Home to thirty-three thousand people and over twelve thousand households, Orange, New Jersey is a bustling city where Northern Hills Redevelopment chose to build their newest project. Conveniently set in a township on the rise, surrounded by lifestyle, luxury and access to all major roads, the NHR residential lofts are an investment in distinction and change. Seventeen to twenty foot soaring ceilings and elegant modern flooring throughout, as well as polished travertine countertops in the bathrooms and kitchens finishes the spacious and serene feeling this building emits to its residents and visitors.

These exquisite and eco-friendly residential apartment buildings, utilizing green roof technology were designed by John E. Alford and engineered by Babs Engineering. Quad-Lock’s local representative, Rich DeVito of Innovative Building Products, worked closely with the design team and developer, Keith Miles to maximize the efficiency and effectiveness of the product during planning and construction.

After having used other ICF systems in the past, Northern Hills chose Quad-Lock specifically for its ease of use and the incorporation of the Quad-Deck Green Roof application. The two buildings, totaling over twelve thousand square feet of living area have walls thirty-five feet high finished with stucco exterior. Quad-Lock ICFs were also used for the interior firewalls. The creation of this superior building envelope allows for even greater energy efficiency and lower long term maintenance & operating costs. The increased safety of the building shell allowed the insurance company to offer better rates to the residents of this green building.

The Green Roof application has many benefits; it has no susceptibility to water damage, lower storm water runoff, doubles
the service life of the roof, reduces the buildings CO₂ production, increases oxygen to the atmosphere and lastly, enhances the urban setting of the building.

When asked, developer Keith Miles explained that, "Using the Quad-Lock and Quad-Deck ICF system instead of the traditional ‘stick-built’ construction allowed us to find efficiencies and sharpen our pencils to come up with a better bottom line".

The developer’s only comment when asked what he would do differently next time was, "Change the interior floors from stick-built to the Quad-Deck flooring system".

This project was a high profile development and has been recognized as the “technology of the future” when promoting sustainability and “green” building. The ability to provide additional green space with the inclusion of Green Roofs on new buildings is a paramount benefit in communities that no longer have the green space available to their residents. The developer acknowledges that utilizing ICFs and Green Roofs gives him much more to promote in the end. The entire development is now considered to be the standard for new building in the city of Orange.

Proof once again that using the Quad-Lock and Quad-Deck building envelope system is not only a Sustainable building solution but an economically sound decision as well.

### Interesting Facts
- Residential condos/lofts with 12,000 sqft living space over 2 buildings
- 2400 sqft of Green Roofs on both buildings utilizing Quad-Deck
- The Quad-Deck Green Roofs support 100,000lbs of topsoil
- Firewalls separating units using Quad-Lock
- ICF Installation Time = 90 days with an overal Project Construction Time of 240 days
- The project received extensive publicity in the trade media, including a story in the New York Times

### Project Partners
- Owner/Developer - Northern Hills Redevelopment, LLC - Keith Miles
- Architect - John E. Alford
- Engineer - Babs Engineering, PC
- GC/ICF Installer - Northern Hills Redevelopment, LLC
- Quad-Lock Dealer - Rich DeVito - Innovative Building Products