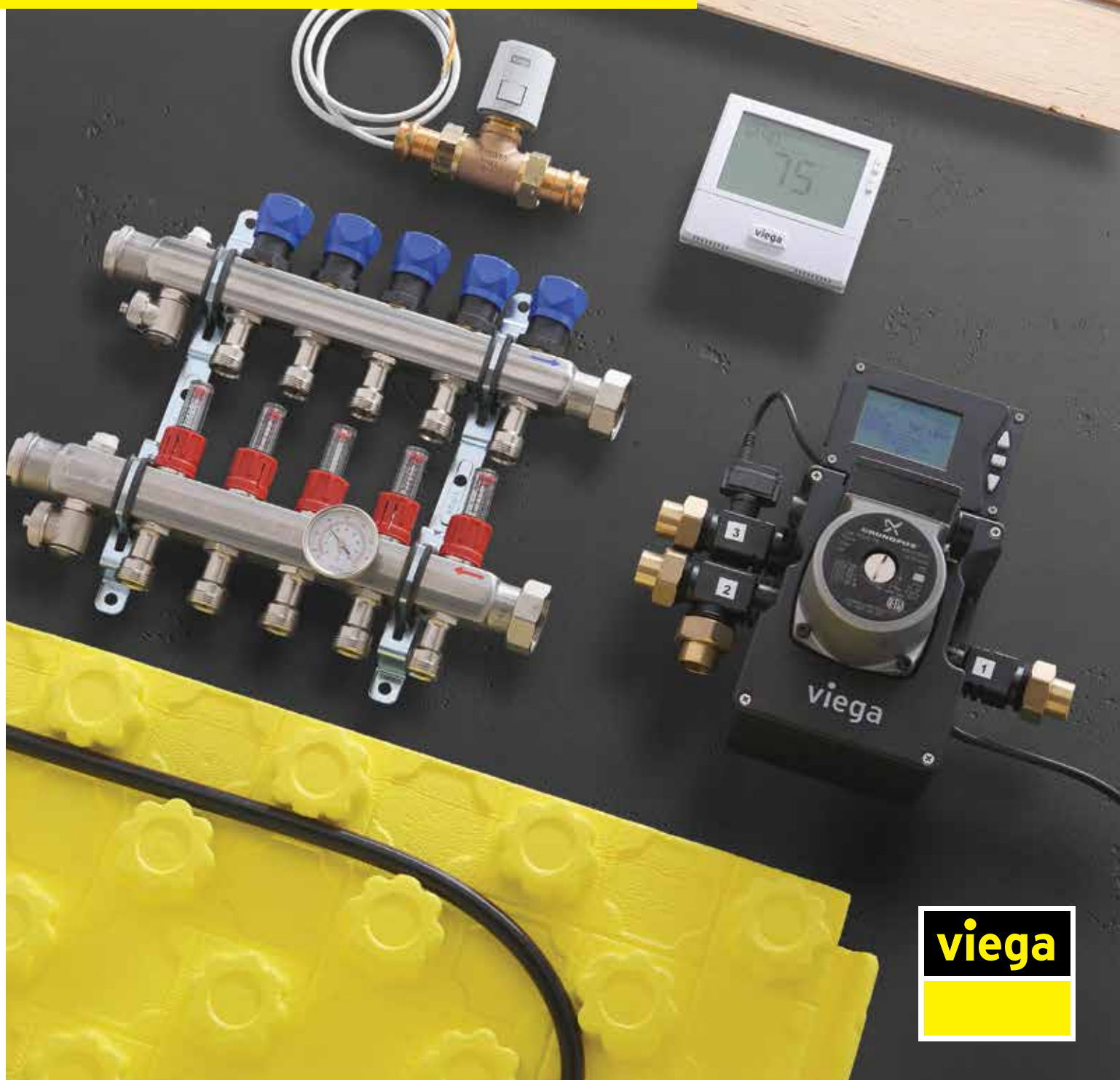


Viega ProRadiant

Heating and Cooling Systems



viega

Viega ProRadiant

INNOVATIVE AND EFFICIENT RADIANT CLIMATE CONTROL



Viega is an innovative leader in the world of plumbing, heating and pipe joining systems, specializing in hydronic solutions for the commercial and residential markets. From our revolutionary press pipe fitting systems, Viega ProPress and Viega MegaPress, to our full line of ViegaPEX tubing, Viega is changing the way professionals install piping systems. With so many examples of industry-leading innovation, more

engineers are starting to look at Viega ProRadiant for their heating and cooling solutions.

Radiant heating and cooling is, by far, the most efficient means to climate control. Instead of allowing air to circulate in a room, as in a traditional setup, a hydronic radiant system controls floor and wall temperatures which keep the temperature of the room consistent. This results

in greater comfort for a room's occupants, and can be created in a residential or commercial setting.

Zone control options allow great flexibility for controlling the temperature in several areas within a building and, with a highly efficient operating parameters, a radiant heating/cooling system can ultimately reduce energy consumption by at least 30%.

Comprehensive support from start to finish

Viega offers design services for every floor plan. Our team members are ready to help you identify what systems will work best for your project and provide you with the tools, components and support you need. Whether you are a small contractor or a large mechanical contractor, we'll be by your side every step of the way.

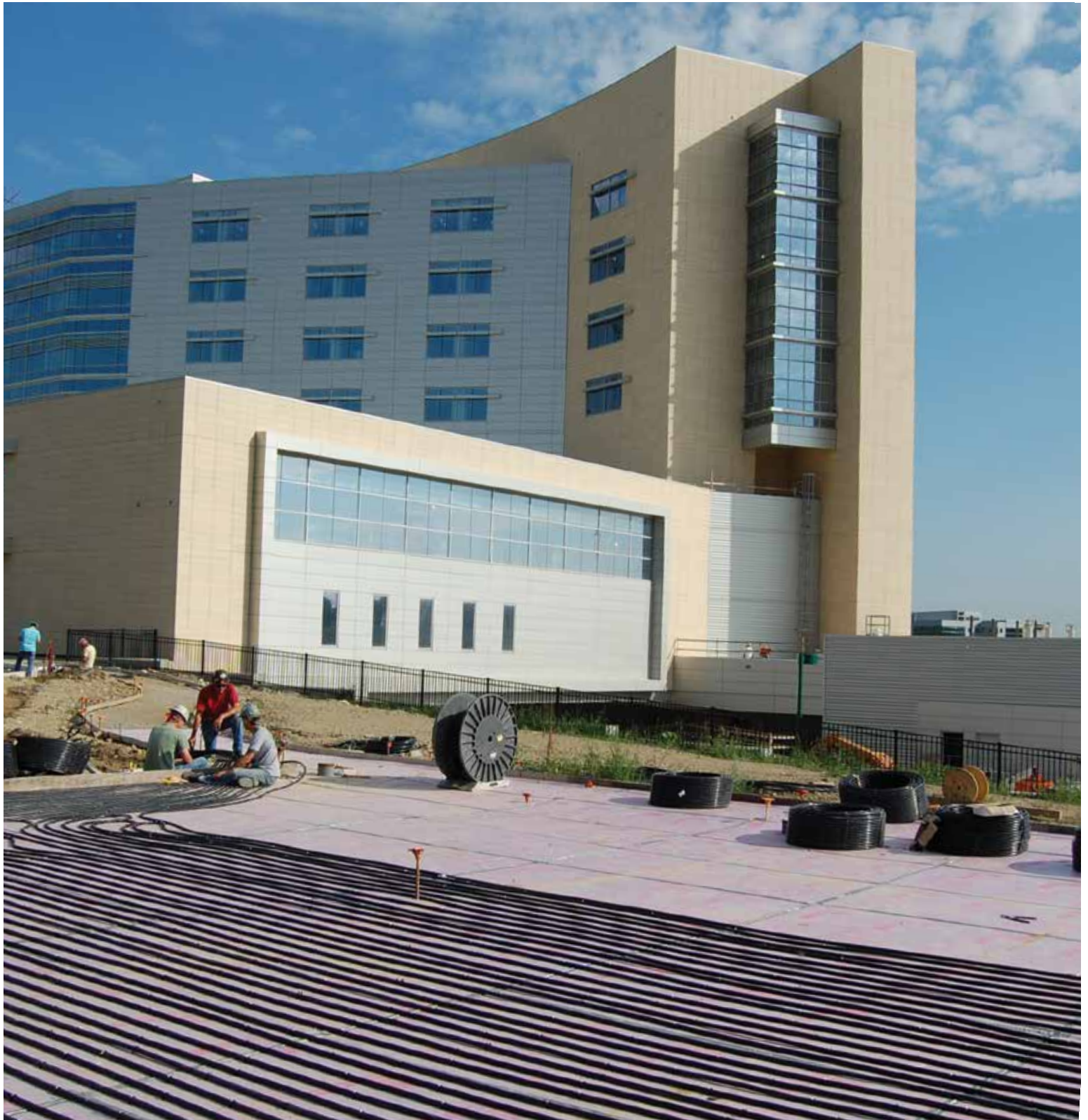
Beyond design services, Viega offers training courses that will provide you with the information you need to make the best decisions for your business. Viega training isn't just about Viega products either. At Viega, we want our business partners to understand all their options, through comprehensive courses and hands-on education. Once you've been through Viega's training, you'll find yourself believing that Viega is the best in the business.

Because radiant heating and cooling is a relative newcomer to the climate control industry, Viega wants to make sure our partners understand all the benefits available to them. Viega provides nearly everything you need for a radiant heating or cooling solution and for the components we don't manufacture, we'll be there to show you how our products can integrate with third-party systems. Viega provides support through the specification process too, whether your project is healthcare, educational or an office building, either new or remodeled.



Viega ProRadiant

COMPLETE SOLUTIONS FOR COMMERCIAL APPLICATIONS



Designed to reduce labor and frustration on the job site, Viega radiant solutions can be installed faster than traditional radiant systems. Viega has revolutionized radiant heating and cooling installation with solutions like the Viega Climate Mat and Viega Rapid Grid.

Viega Climate Mats arrive on the job in a pre-engineered assembly that only needs to be unrolled and fastened, saving time and labor costs by eliminating guesswork. Pre-pressurized and numbered for accurate placement, this system allows for 20,000 square feet of tubing to be installed in an average workday.

Viega Rapid Grid serves as a fastener, insulation and vapor barrier and can reduce installation time. Viega Rapid Grid connects easily and allows installers to walk in ViegaPEX Barrier tubing or Viega FostaPEX tubing. Both Viega Climate Mats and Viega Rapid Grid are one-of-a-kind.

Being able to finish a radiant heating or cooling installation in hours means better opportunity for you to accomplish more in a day's time. You can start and finish installation without getting in the way of the other tradesmen and move on to your next project, maybe even in the same day.



ViegaPEX Barrier tubing in Viega Rapid Grid



Viega Stainless Steel Manifold



Viega Climate Mat

Viega ProRadiant Commercial Installation

SUCCESS THROUGH TEAMWORK FOR LANDMARK CALIFORNIA PROJECT

When building the Grand Central Station of the future, it's important to have a team of designers, engineers and contractors that will be there from the beginning to the end. Viega played a role in designing and installing radiant cooling and heating in the Anaheim Regional Transportation Intermodal Center (ARTIC). Located in Orange County, CA, ARTIC provides transportation service for three million local residents and 40 million annual visitors.

ARTIC

Location: Anaheim, CA

Contractor: California Comfort Systems

Installed: Radiant heating and cooling system



The ARTIC project in Anaheim, CA, marked California Comfort System's first radiant heating and cooling install with Viega systems.



A LEED® Platinum building, the structure is 67,000 square feet with three levels, connecting people to a variety of transit options as well as entertainment, dining and retail shops, all in one location. ARTIC's architecture includes a large number of windows and a dome-shaped structure, which results in high solar gains but controlling the climate inside the building with a conventional forced-air system would have been practically impossible.

HVAC designers chose to implement a radiant heating and cooling system instead. Radiant cooling allows for the instantaneous removal of heat through

absorption. Installing ViegaPEX Barrier tubing at tightly spaced increments (6" on-center) within two inches of the finished surface floor gives the engineer the ability to remove the solar sensible gain instantaneously. For the ARTIC project, the cooling capacity ranges up to 40 Btu/hr-ft². This provides an energy savings of 34% over ASHRAE 90.1-2007.

The ARTIC project marked California Comfort System's first radiant heating and cooling project with Viega systems. They installed 44,000 feet of in-slab heating and cooling pipe, 18 manifolds and 12 pumps. It was also the first time they worked hand-in-

hand with Viega for the design of a project.

"From start to finish, from inception of the design to the commissioning, Viega was there by our side," said Paul Redgate, Pipe Fitting Superintendent for California Comfort Systems. "Viega's involvement was priceless — they didn't just hand us the package and walk away. To have them out there all the way through to the end of the project was probably the best feature overall. And we still beat the industry average by 25% on the install."



Viega ProRadiant Commercial Installation

LARGE GARAGE SAVES INSTALL TIME

Tasked with building a 30,000 square-foot garage in South Carolina, L B Builders Construction Group knew keeping it warm through the frigid winters would require a state-of-the-art heating system

Based out of Mooreville, NC, L B worked with brothers Robbie and Buddy Hill, President and Vice-President of Hills Service Company of Laurens, SC, to install a radiant heating and cooling system in the garage.

The Hill brothers and their crew installed 48 factory-assembled Climate Mats. Robbie Hill, no stranger to geothermal and radiant innovations, had been aware of Viega's hydronic heating system since the World Scout Jamboree in 1995 when he visited the Netherlands.

"I saw some form of the mat floor then, and it caught my attention more than other things going on," Hill said. "It's not like the flooring that we make here, but it was the same concept."

For years, he kept asking if distributors had the product in stock but until this colossal project, no one did. He got in touch with Mechanical Equipment Sales Inc. in Virginia Beach, who contacted Viega.

Viega Climate Mat allows installers to lay 20,000 square feet of evenly spaced tubing for radiant heating or cooling in an average work day. Installers only need to unroll the pre-engineered mats and pour the concrete slab directly over it. Best suited for rectangular or square slabs, Viega Climate Mat reduces labor costs and ensures proper installation. Viega also provides free custom design support for commercial projects.



L B Builders Construction Group
Location: Mooreville, NC
Contractor: Hills Service Company
Installed: Hydronic heating system





Viega Climate Mat's innovative, engineered design allowed installers to finish the enormous project in less than two days.

"I've been in this industry since 1972," Hill said. "Installing radiant tubing the old way was pretty labor intensive. With four people it would

take 10-to-12 days to install. This new way, all we did was roll it out and tack it down."

Vice-President Buddy Hill played a hands-on role at the garage. Having never worked with Viega's system solutions, he had nothing but positive things to say about it.

"It's a labor saver," he said. "It went in slick and it was appropriate for what we were doing because we had so many square feet to cover. The mats were numbered correctly. Adapting the mats was a breeze too. The whole process was just wonderful."

Viega ProRadiant Snow Melting

ELIMINATE DAILY MAINTENANCE WITH RADIANT SNOW MELTING

In cold climates where winter weather makes getting from point A to point B a tremendous hassle, it's a good idea to have a snow melting system installed. Without a snow melting system, maintenance of parking lots, driveways, sidewalks, helipads and other exterior concrete areas becomes expensive, possibly damaging and even dangerous in some cases.



Complete solution designed for easy integration

Viega radiant snow melting systems are complete and offer the greatest reliability, the easiest installation methods and the best warranty available. With ViegaPEX Barrier tubing, commercial fastening systems like our Rapid Grid, manifolds, controls and all necessary accessories, a Viega radiant snow melting system can improve a project by helping keep its occupants safe and reducing future maintenance costs.

Greater safety for commercial structures

Have you ever had to make your way across an icy-looking sidewalk, stepping carefully from salted patch to salted patch? Imagine having to do the same thing on a hospital helipad while you're trying to get an injured person inside for surgery? For healthcare facilities, hospitals, schools and other buildings where a lot of outside foot traffic is required, a snow melting system offers the reduced chance for slips and falls in the winter months. Radiant snow melting



provides employees and guests to the facility with confidence, trusting that no snow or ice will have accumulated.

Reduced maintenance cost and better facility care

Salts and other chemicals used to reduce snow and ice can cause erosion and depend on the reliability of maintenance. With a Viega snow melting system, you rely on an engineered system that initiates itself when precipitation starts falling and keeps slippery areas free of ice and snow even in the dead of winter.

The benefits of snow melting

- Professional appearance
- Reduces maintenance with no tracked in salt, sand or chemicals
- Versatile installation options in concrete, asphalt or paver applications
- Reduces liability by providing safe walking areas



The Wichita Dwight D. Eisenhower National Airport in Wichita, KS, is the latest addition to the city's aviation presence. The airport is equipped with the latest technology and built with quality products, including Viega ProRadiant and Viega PEX Solutions. ViegaPEX Barrier and Viega FostaPEX tubing were used for a Snow Melting system, Viega ProRadiant heating was used in the behind-the-scenes area of baggage claim, parts of the tarmac, the main entry and the loading dock.

Viega ProRadiant

COMPLETE SYSTEM SOLUTIONS FOR RESIDENTIAL APPLICATIONS



Zone Valves



Thermostats

If home really is where the heart is, then it should be a place that you feel comfortable from head to toe. Viega's radiant heating systems can help make that happen with products ideal for new or remodeled homes.

Reduce installation time with radiant systems

Radiant systems are easy to install and can be customized to suit nearly any floor plan. Affordable, available,

reliable, whether your home is new or remodeled, Viega offers a radiant heating system that provides consistent temperature control. You can get the type of panel system that works best for your project, whether it's a panel you lay down or staple up. Whichever one you choose, you'll install a radiant system with the trusted Viega name behind it.



Save time with Viega Climate Panels

Viega Climate Panels can be installed over wood subfloor or concrete and under nearly any type of floor covering.

It provides more efficient heat and uses less energy than traditional forced-air heating systems. Available in several different configurations, Viega Climate Panels can be customized to suit any home.

Rediscover comfort in an existing home

Lightweight and designed for easy installation, Viega Climate Trak can be attached directly to the underside of a home's subflooring. Then install ViegaPEX Barrier tubing into the tracks, which provides an economical and efficient radiant floor heating system for an existing home.

Reduce labor with all-in-one panels

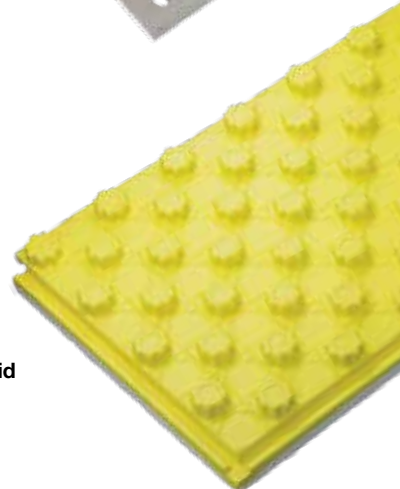
Viega Rapid Grid, which can also be used for commercial installations, is ideal for garages, hobby rooms or basements. This versatile panel system incorporates insulation, vapor barrier and a grid system to secure tubing all in one convenient panel that can cut installation time by 60%.



Viega Climate Panel



Viega Climate Trak



Viega Rapid Grid

Viega ProRadiant Residential Installation

FINDING COMFORT AT HOME



24,000-square-foot mansion

Location: Lexington, MA

Contractor: Heneghan Sons Plumbing

Installed: Heating and snow melting system

We all know how expensive it can be to heat and cool an average-size home, but imagine if your home is 24,000 square feet. You might be less concerned if you knew that every single room—even the closets—had high-efficiency radiant heating systems installed.

Most homeowners think of radiant for melting snow on the driveway, but for efficiency and comfort inside the 24,000-square-foot home, Colin Heneghan, owner of Heneghan Sons Plumbing, installed Viega ProRadiant

heating systems in every room of the custom house in Lexington, MA.

Hired to provide all the mechanical systems for the home, Heneghan discussed the option of radiant with the homeowner. After explaining that a radiant system would provide the house with comfortable temperatures more efficiently than a traditional forced-air system, the homeowner was more than willing to give it a shot.

“I gave the customer the ins-and-outs of radiant heating and then brought

Viega in for the final sell,” Heneghan said. “The biggest reasons for using radiant were the cost, comfort and efficiency it would provide the homeowner.”

A variety of Viega ProRadiant systems were installed throughout the home using ViegaPEX Barrier tubing. Viega Rapid Grid with ½" tubing was used for the home's basement, the remaining floors used Viega Climate Panels with ⅝" tubing, and a snow melt system used Viega Rapid Grid with ⅝" tubing for the driveway. “I've used Viega systems since they

Viega systems
easily integrate
together.



came to the New England area. That's going on 17 years now," Heneghan said. "The quality of the product is perfect. The installation of the Viega systems was very easy, simple and quick."

them up, they made the change, and I had new drawings back in a couple of days. They were really easy to work with."

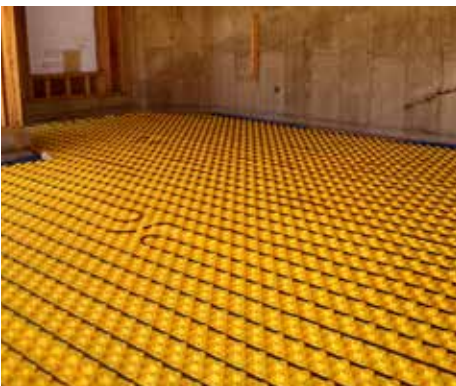
Product quality and customer service are not new compliments to Viega, but it's always wonderful to hear how they helped bring a project together for a contractor. For Heneghan, his money is on Viega.

"No other company out there can provide service and knowledge that is quick and on the money as fast as Viega can," Heneghan said. "Viega is second to none. The service is behind it, the quality is behind it. The efficiency, the cost is all there, but the name behind it says it all."

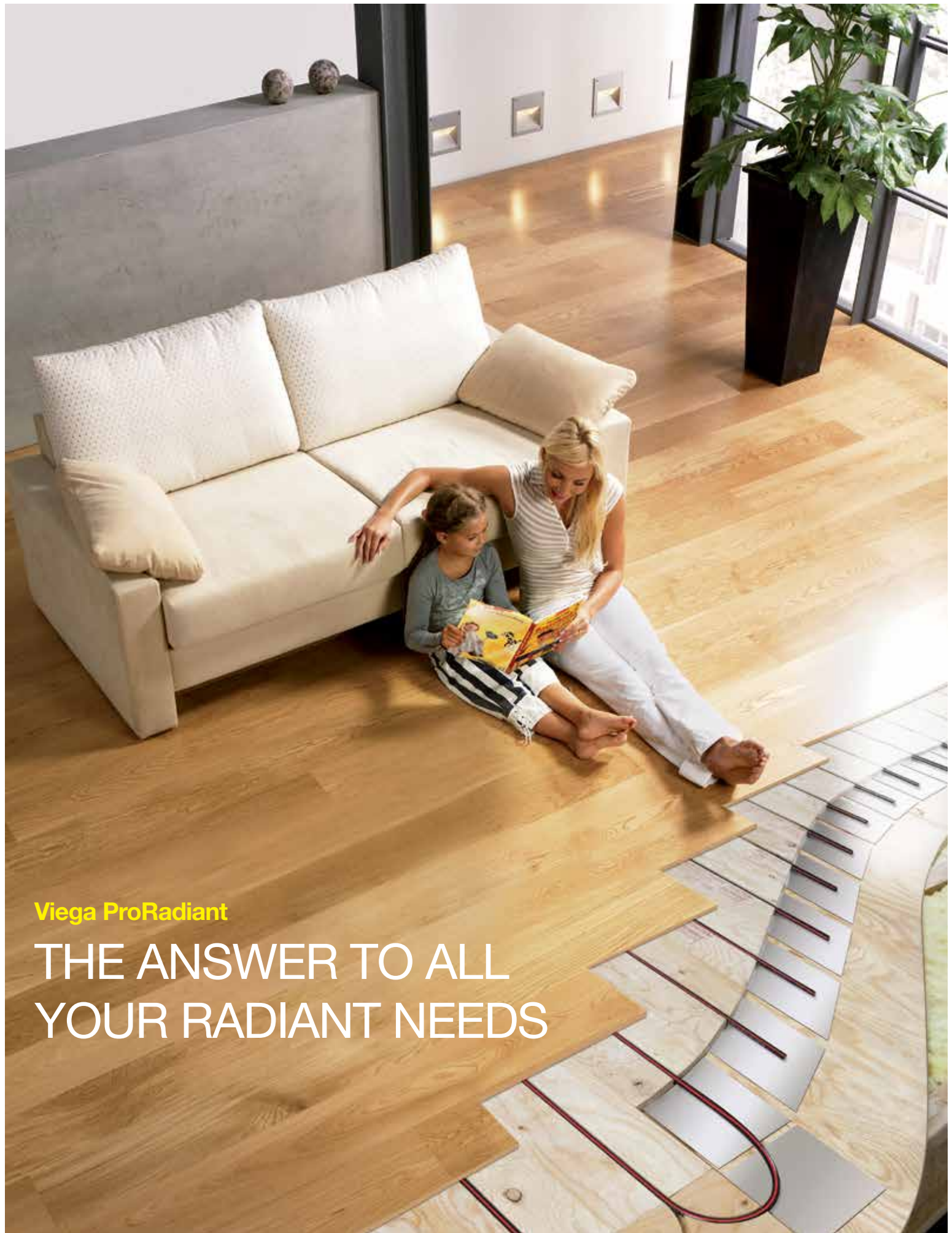


One of the major perks of choosing Viega ProRadiant solutions for an entire home is the design service provided. Given the size of this custom home, knowing exactly what products are needed and how they're positioned saves time and money during installation. For the Lexington home, Viega Design Services provided the design and bill of materials, and all the contractor had to do was submit the CAD drawing of the home.

"The design was very helpful for a project of this size," Heneghan said. "We had to change it a couple of times, but it was so simple. We called



Viega Rapid Grid can cut installation time by 60%.



Viega ProRadiant

THE ANSWER TO ALL
YOUR RADIANT NEEDS

Innovative technology from Viega has revolutionized plumbing, heating and pipe joining around the world. But Viega offers more than just a means to connect different types of tubing; they offer everything from the tubing to the mats and panels that make up the entire radiant system.

1. The Viega Climate Mat, available in ½" and ⅝", allows installers to roll out as many as six circuits of tubing simultaneously, which reduces installation time and ensures the tubing is equally spaced.
2. Viega Rapid Grid is an all-in-one insulated vapor barrier and grid system compatible with ViegaPEX Barrier and Viega FostaPEX tubing.
3. Viega Climate Panels are easy to install and can be customized to suit any floor plan. Available for new or remodeled homes and businesses assembled or unassembled, it's your choice.
4. Viega's lightweight tracks and plates work great for retrofitting projects.
5. Viega zone valves are used to control the flow of fluid within a hydronic heating or cooling system and are available in two sizes and three different connection configurations.
6. The hydronic mixing block from Viega is a highly engineered, user friendly, economical solution for controlling a radiant heating system. The first of its kind, the hydronic mixing block combines mixing, control, air elimination and a pump in a single unit.



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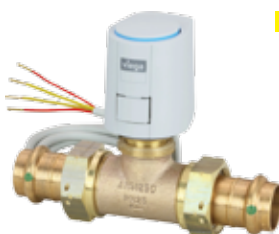
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Viega Design Services and Training

SUPPORT FROM START TO FINISH



Viega Educational Facility, Nashua, NH

Comprehensive training

Viega offers a full range of classes for the radiant heating industry at our Educational Facility in Nashua, NH, but we also employ a dedicated team of radiant experts throughout North America. Viega's Radiant Sales Team is specifically trained to offer the best advice and expertise on design methods, installation techniques, product specifications and industry expectations. Whether you want hands-on experience in a classroom or support on the job site itself, Viega has exactly what you need.

Radiant design services

Viega offers design services for nearly any project, providing customers the information needed to do the job right. Whether the project is a small residential bathroom or a 200,000-square-foot commercial property, Viega has a team that can help.

Heat loss calculations and designs must be completed accurately to ensure a properly functioning system. The Viega Radiant Design Team can provide a system design specific to the project, along with a complete bill of materials.

Relevant training for a changing industry

Viega believes in industry-related education. Training at Viega provides a foundation our customers can build on and not just product-specific instruction. Viega Educational Facility attendees are able to take what they learn in our classes and expand their knowledge base exponentially as they continue throughout their careers.

With experienced instructors, customized class options and innovative training solutions, Viega provides the best training in the industry.

Just a phone call away

The Viega Sales Team spends all of their time in the field supporting customers. Part of that interaction includes job site visits where our sales managers provide on-the-job installation instructions to plumbing, heating and maintenance contractors. Viega retains more than 150 factory-employed sales team members across North America.



This document is subject to updates. For the most current Viega literature please visit www.viega.us.

The term Viega does not apply to a specific company within the various separate and distinct companies comprising the Viega group of companies. The term Viega as used in this publication refers to the Viega brand itself or generally to the Viega group of companies. References to activities in North America specifically refer to activities of Viega LLC.

A green dot on a Viega ProPress, MegaPress and PEX Press polymer fitting indicates the Smart Connect feature with an EPDM sealing element. A yellow dot on a Viega ProPressG and MegaPressG fitting indicates the Smart Connect feature with an HNBR sealing element. A white dot on a Viega ProPress (304 FKM) fitting indicates the Smart Connect feature with a FKM sealing element. For a current list of applications, please visit www.viega.us/applications.

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