

PROJECT PROFILE

NVidia Headquarters, Santa Clara, CA

Miraply-H with SeamLOCK™ Technology Gets Early Thumbs Up on High-Profile Project

When NVidia announced construction of new headquarters based in the Silicon Valley, the tech giant's architectural goals were straight-forward. The triangular building – which mimics the fundamental building block of computer graphics – would be efficient and the design would be “thoughtful in its use of space, energy, and environment, and of course, cost,” according to an NVidia press release.

Quality, efficiency and cost were top of mind when Steve McCullers, President of Aqua Proof, Inc., chose to use MiraPLY-H with SeamLOCK™ Technology for waterproofing 300,000 square feet of below-grade slab. The product was applied successfully over lime-treated soil, lagging and concrete.

MiraPLY-H is a 70-mil-thick, self-adhering blindside waterproofing system designed for waterproofing under-slab applications. This new pliable reinforced system was recently introduced by Carlisle Coatings & Waterproofing primarily as an alternative to more rigid HDPE membranes.

NVidia Headquarters at a Glance

Location:

Santa Clara, CA

Size:

300,000 square feet

General Contractor:

Devcon Construction, Inc.

Carlisle Coatings & Waterproofing Contractor:

Aqua Proof, Inc.

Carlisle Coatings & Waterproofing Products:

- MiraPLY™ - H with SeamLOCK™ Technology
- MiraPLY™ - V with SeamLOCK™ Technology
- MiraSEAL®



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The new membrane is made fusing a tough, durable, 45-mil-thick reinforced TPO backing to a 25-mil-thick butyl alloy adhesive coating. The membrane's new SeamLOCK™ Technology takes advantage of a chemical process called auto adhesion, which fuses molecules between the dual membranes and creates the industry's most robust seam.

"MiraPLY-H combines two proven waterproofing technologies to create a dual-laminate membrane that provides a secure bond with the substrate without the need for soil compression," said Joe Greene, MiraPLY-H product manager. "Reinforced TPO has been used successfully in the roofing industry for more than 20 years. Our parent company, Carlisle Construction Materials, has sold over five billion square feet of TPO membrane and is the world's largest TPO manufacturer. Obviously, we have a lot of confidence in its performance."

So does Aqua Proof, Inc. The 30-year-old company, which serves the San Francisco Bay Area, Sacramento and Central Valley of California, has installed MiraPLY products for more than five years. When CCW announced the new reinforced product, McCullers was ready to try it on one of his largest high-profile projects. The NVidia headquarters sits on 36 acres and is the size of three football fields.

Marty Hanson, Aqua Proof foreman, said the lightweight, kick-out rolls provided time and labor savings, reducing overall costs within the project's aggressive timeframe.

"This is a much faster installation than before," said Hanson. "You're able to kick one roll out, kick the next one out beside it, and pull the seam tape. As fast as you can roll it out, you can seam it together. The seams are much easier to work with. They are already factory-covered with release tape. With this new product, you don't have to fold the lap over, prime the face and let it dry. You just pull the seam tape, roll a 70-pound roller over it and move on to the next roll."

McCullers praised the reinforced TPO backing, saying that "the reinforced TPO backing is a blessing because it's stronger than the old white back. It's a lot better than HDPE, especially since we had to pick up a lot of rock on this project. You can't pick up every little stone and the reinforced TPO did not let the little stones protrude through the membrane. This new membrane also lays flatter than the old stuff. It has a lot more spine and doesn't fish-mouth like other products."

An added feature of MiraPLY-H with SeamLOCK™ Technology is that the crew can mark on it.

"You're able to paint on it and the paint stays, which is a great benefit when you have a massive layout with rebar and pipe penetrations as well as other protrusions," said Hanson. "Overall, this product is really easy to work with and the great warranty makes us confident it will perform as expected."

"As an estimator, the cost, quality and warranty put MiraPLY-H with SeamLOCK™ Technology way ahead of competitors," added McCullers. "We were very pleased and will use it again."

