

# POOL & SPA NEWS







# Edge of Today

Experts discuss several applications of vanishing-edge technology

You can say that vanishing edges are no longer the rarity they once were, but when you talk to a builder who has created his or her first one, you'd never know it. And homeowners who have received their first one wouldn't share such a blasé attitude.

While vanishing edges may have become more common, they are rarely, if ever, commonplace. Their effects can differ based on placement, chosen materials and the local environs.

They defy the cookie cutter, but instead should take the form of whatever works best for the property.

"When we're retained in a design, we don't necessarily talk initially about a vanishing edge," says Skip Phillips, co-founder of Genesis and president of Questar Pools and Spas in Escondido, Calif. "You don't go to a project assuming that you're going to put a vanishing edge on it. You go into the conversation looking at all the details. In some cases the vanishing-edge or water-in-transit application is a design solution. But it's just a tool — it's not the goal."

Here, pool designers discuss an application that seems to be gaining momentum — the combination of vanishing edge

with perimeter overflow details — along with a sky-high idea and an oft-overlooked use of this design effect.

## Winning combination

Two things of beauty are almost always better than one.

That's why many pool designers these days are combining traditional vanishing edge and perimeter-overflow systems. In many cases, one side will have the traditional spillover wall, with a slot overflow outlining the rest of the perimeter.

It's a clean look that offers the best of both features: The back wall visually melds the pool with the horizon, while bringing the water to deck level maximizes reflections of the surrounding landscape.

"I love the look, because it so simplifies everything — you've got no abrupt changes in elevation," says David Penton, CEO of Fluid Dynamics Pool and Spa Inc., in Fullerton, Calif.

He likes to preserve that sleekness by using glass fencing. "So as your eye is traveling across the yard, you're not reading the glass fence, but you're seeing the decking material ... and then your eye just continues right across the plane of the pool

By Rebecca Robledo





Dual effect: More homeowners are opting for a combination rim-overflow and traditional vanishing edge to gain maximum reflection while creating the optical illusion that the pool blends with the view beyond. Project designed by Skip Phillips, Questar Pools, Escondido, Calif., and built by Valley Pool & Spa, in Kelowna, B.C., Canada.

and that water surface level is at that same elevation. So you don't have any disruption of your view plans."

The combination of vanishing-edge and perimeter-overflow systems does pose some challenges, however. One is joining the various edges where they terminate, typically on each side of the vanishing edge. All elevations must be just right, and the materials should meet up gracefully so they don't create an eyesore.

To pull this off, Penton advises, make sure all veneering materials are chosen before shotcrete application and/or concrete pouring. In order for elevations to be done correctly, the team must know the thickness of each material.

"It's always nice to know as early as possible, so that we don't end up having to jackhammer or float or do anything really dramatic in those areas," Penton says.

Then expect to hold meetings with all

affected subcontractors, so they know what to do. As an example, on one recent project of Penton's, three materials — wood from the deck, stone from the perimeter-overflow coping, and tile from the weir — had to meet up in a 3-square-inch area.

"We had multiple meetings with everyone — the carpenter, the stone installer, the tile guy and myself, just making sure everyone's on the same page," he says.

Correct elevations almost ensure a graceful joining of materials. "Then it kind of just simplifies itself," Penton says.

Of course, it always helps if each subcontractor has detailed drawings showing the measurements and elevations to be followed.

#### Inner workings

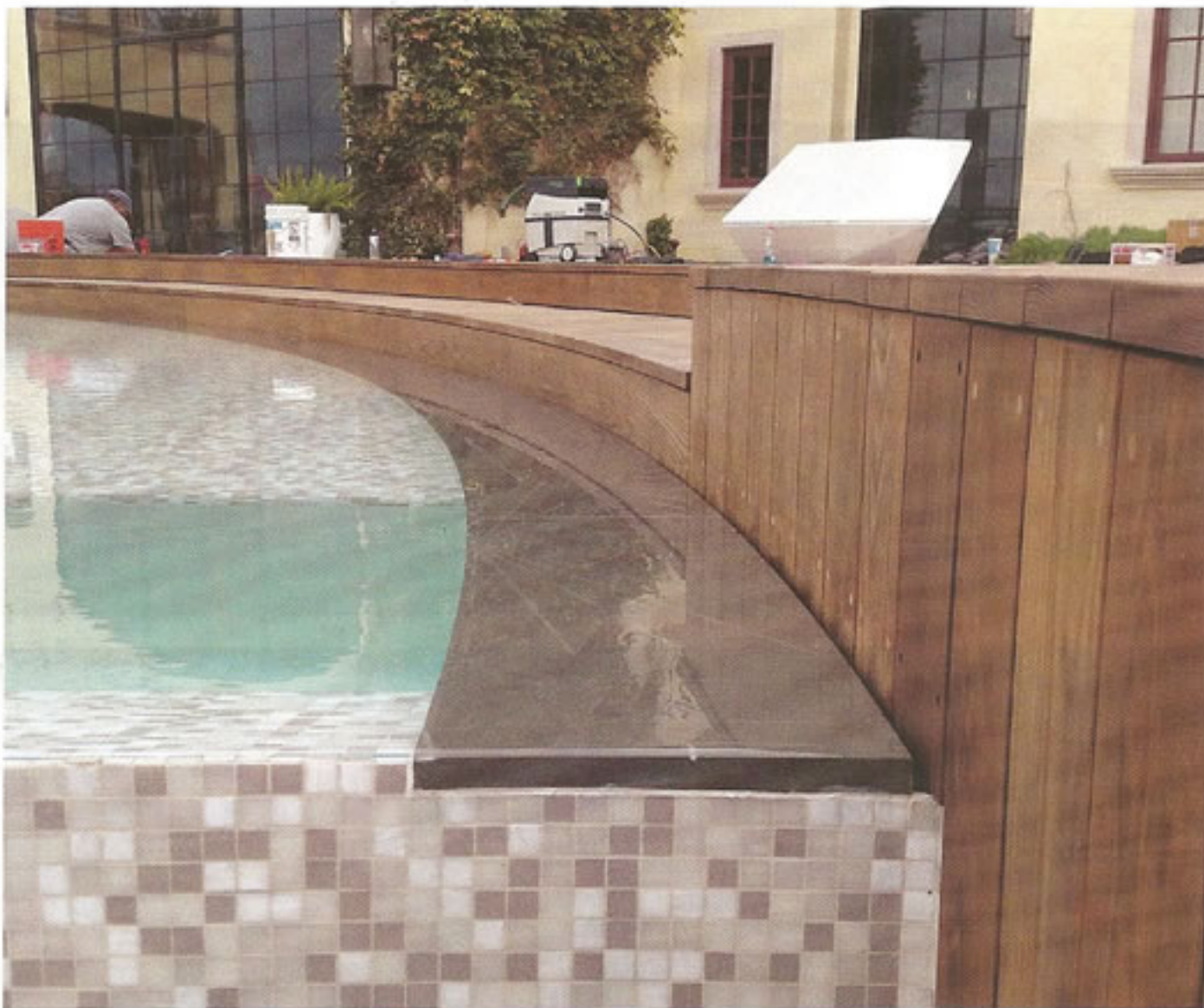
As far as hydraulics, these projects can range from very simple to more difficult. The perimeter-overflow system actually can be much more simplified by having

the traditional vanishing-edge catch basin: The water can just flow into the basin rather than a remote holding tank. Penton often directs the flow to the catch pool. In these cases, he installs plumbing lines on the sidewalls of the basin, close to the floor. This serves a few purposes: It obscures the inlets as much as possible by submerging them, keeps noise to a minimum, and accounts for the fact that the water level in the catch basin is always fluctuating.

"So no matter how low the water gets inside there, we're always feeding water down lower," Penton says.

Just don't plan on placing drain covers over these penetrations. In the past, Penton has tried this to help obscure the openings. But it caused more problems than solutions. "If you put a cover on top of it, debris tends to get caught on the backside of the cover, and it ends up being a maintenance nightmare," he says.





Eye for detail: Meeting a vanishing-edge weir with rim-flow coping requires meticulous planning.

Of course, when choosing this method, the catch basin must be sized to accommodate the water from both systems, minus the water that will remain in the gutters.

Another challenge for meeting perimeter-overflow details with traditional vanishing edge is managing the different flow rates of each. The vanishing-edge weir most likely will call for a higher flow rate over it than the perimeter overflow edge. If this is the case, then designers most likely will need to manipulate the edge elevations to control flow rates. "Since the water's level, the only way to compensate for that is elevation differential between those edge details," Phillips says.

To get a thicker sheet of water over the vanishing-edge wall, for instance, the weir will probably need to sit a little lower than the slot edge around the rest of the pool.

"Often we'll set the slot overflow portion 1/8-inch higher than the vanishing edge, because more often than not we'll target as much as 3 gallons per minute per

PHOTO: DAVID PENTON



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foot on the vanishing-edge side, but only 1 gpm/ft. on the slot side," Phillips says. "So the water level didn't change, but the elevation of the edge did.

"So you can image: If two-thirds of the pool is a slot overflow and one-third is a vanishing edge, you've cut two-thirds of your flow rate off two-thirds of the pool."

### On the roof

Sometimes a vanishing edge stands out simply because of where it's placed.

Take an in-progress pool, which designer Paolo Benedetti will place on the roof of a three-story house. (It can't be shown because of a non-disclosure agreement.)

To free up the most deck space and maximize the effect of the pool melding into the horizon, Benedetti wanted to push the weir wall as close as possible to the edge of the roof. But that rules out the traditional catch basin, which generally should measure approximately 3 feet in width. "We can't cantilever off the building 3 feet," says

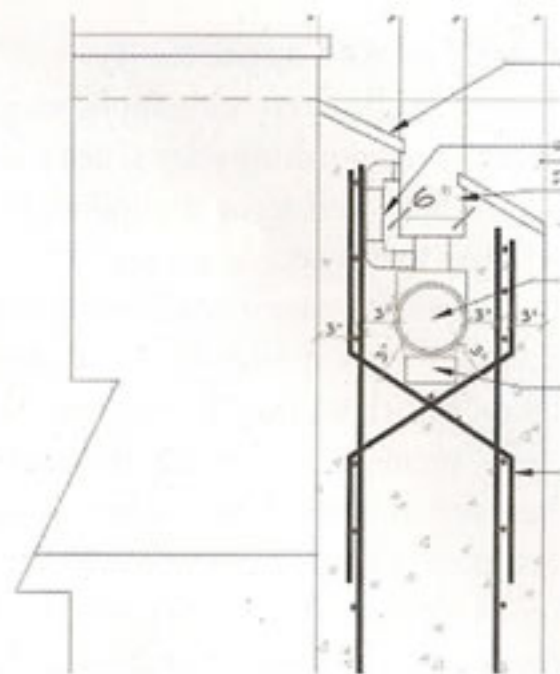
Benedetti, president of Aquatic Technology Pool & Spa in Morgan Hill, Calif.

Instead, he's placing the weir about 1 foot from the roof's edge and substituting the catch basin with an 8-inch-wide gutter and remote surge tank. Water only drops about 8 inches down the weir.

As another benefit, this removes the need for safety measures, such as handrails, to prevent users from hurting themselves in a catch basin. "By putting a gutter, it just works a lot easier," Benedetti says.

But tailoring a vanishing edge to its surroundings requires extra thought. Here, Benedetti had to tweak the detail slightly to prevent water from shooting beyond the gutter and over the side of the house. He's addressing this when placing the pieces of flat stone around the slot opening: He'll tilt the outer piece up a bit so it would act almost like a backsplash, catching mild splashout and directing it into the slot.

This wouldn't necessarily work for all rooftop applications. Some minor spray



Sky-high illusion: This gutter detail allowed designer Paolo Benedetti to push a pool weir as close as possible to the edge of a roof. But careful strategy was needed to minimize splashout.

could be possible. But because of the way this particular pool is designed, it's unlikely: People would jump in at the far end of the pool so, by the time waves of displacement reach the edge, they will have substantially subsided.

DETAIL COURTESY PAOLO BENEDETTI

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**Classic missed opportunity**

One of Phillips' favorite applications for a traditional vanishing edge is not a new one — but he would argue it's underused.

Too many people assume that vanishing edges are meant solely for lots with a sky-high view, preferably of an ocean or lake. "But that's not the premise," he says. "The premise is blurring the distinction between the water and what's around it, and providing a highly reflective surface."

A lot doesn't necessary need to sit hundreds of feet in the air or show a dramatic vista for this application to work. Of the times he has used vanishing edges on level lots, Phillips says, "They made sense because we wanted to open the water up to bring in the reflection of the landscaping."

One should never jump to conclusions when it comes to vanishing-edge pool design. "I think that one-size-fits-all [attitude] is part of the problem," Phillips says. "There has to be a broader conversation when these sorts of details are pursued."



STUDIO CARRÉ PHOTOGRAPHIE

On grade: Flat-lot vanishing-edge pool designed by Skip Phillips, built by Mission Pools, Escondido, Calif.

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