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## MAGAZINE



# California Custom

**Universal Precast is Bringing Custom Precast Concrete to the Masses**

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RFID Tags

Welding Rebar

State of the Industry

Understanding AASHTO





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## COVER STORY

# California Custom

By Kirk Stelsel

Universal Precast Concrete in Redding, Calif., has established itself as a premier provider of custom precast concrete products for a wide range of customers. From custom signs and site amenities to designed-from-scratch shapes and figures such as the precast owl featured on the cover, no project is too complex for the Universal Precast team.

*Photos by Universal Precast and Kirk Stelsel*

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NPCA is a trade association representing the manufacturers of plant-produced concrete products and the suppliers to the industry around the world.



## Universal Precast is Bringing Custom Precast Concrete to the Masses.

BY KIRK STELSEL

If something seems too good to be true, it probably is. It's a common cautionary lesson, yet it's often ignored in the face of great promise.

Such was the case with last decade's red-hot U.S. economy, fueled by a real estate market soaring higher than it could possibly sustain. The potential pitfalls were ignored and in late 2007 the bubble burst, triggering a downward spiral that's still hampering our economy more than three years later.

When the freefall began, business owners in the construction industry were left on unsure footing as new opportunities ground to a halt and planned projects were suspended indefinitely. In northern California, though, Paul D'Amico and Gary McCall, owners of Universal Precast, had a plan. "When it started, we decided that we were not going to participate in the recession," D'Amico said. "How could we say we were not going to participate? Well, we



PAUL D'AMICO AND GARY McCALL, OWNERS OF UNIVERSAL PRECAST.

Photo by Kirk Stelsel

decided we were not going to let it get us down mentally, and we were going to make the necessary changes to our business to continue our growth."

### A strong foundation

D'Amico had recognized an unfulfilled market for custom precast prior to starting Universal Precast, but was working for a company that was unwilling to try new product lines. After partnering on a project

with McCall, who owned a trio

of businesses and had the manufacturing skills needed to create custom forms, the two discussed the opportunity in the custom market and launched Universal Precast to fill that niche.

When the business began, the initial setup included only the two of them, a single-line conveyor, a hopper and an old Mack mixer. But they had big ambitions and knew they could achieve them if they never stopped innovating, always satisfied their



customers, and did everything in an efficient manner. These practices, which remain instrumental in the company today, have made it perfectly suited for survival in the toughest of times.

## Custom without the cost

Since that time, Universal Precast has become known for its ability to create nearly any precast product, no matter the size, shape or details. The way the employees see it, there's no reason to limit what concrete can be used for just because it's never been done before. As McCall said, "Concrete doesn't care where it flows. All you have to do is just contain it in any shape or way that you want,"

What has truly set Universal precast apart from the competition, though, is its ability to generate the adoption of its custom precast products by dramatically reducing the price point and turnaround time. This has been achieved through the development of a direct-to-mold system that revolutionized the way the company operates. The molding techniques the company created allow it to take an order in the morning and, if needed, be casting it that afternoon – a custom order, not an existing mold. With the process and technology Universal Precast has in place, it can quickly turn around what would generally be a one- to two-week process. This has gained it the respect of customers and, in turn, increased sales.

Whether it's an elaborately planned project or nothing more than an idea or a sketch on a napkin, the Universal Precast team – including two designers and an engineer on site, and two off-site designers – can make it a reality. The team enjoys an environment built on trust and a culture that fosters innovation. As one designer said, "Mistakes come hand-in-hand with innovation, so there is no fear of making them. Any honest mistake is forgiven in the spirit of creativity and innovation."

This proprietary technology and forward-thinking philosophy has

# CUSTOM SIGNS

One of the first product lines Universal Precast started producing was precast concrete signs, but the signs are anything but typical. They take on many different sizes, shapes and textures, depending on the customer's preference and the needed aesthetics. The only common thread is no two projects are alike.

To reduce the time and money contractors must spend installing the signs, the team developed a design that includes a finished base that doubles as a footing. The result is a free-standing sign that eliminates the need for a poured-in-place footing on site. Contractors love the design because a crane can come in and set it quickly, and all they have to do is backfill and put plants in the ground.

Using this design, the company started working with high-volume customers. "We've done thousands of signs – we probably do a sign every day," D'Amico said. "Gary and I went to a city and set 39 signs in one day. We rented a boom truck and dropped off signs in three staging areas and were able to set a sign about every 15 minutes.

Once we did that we started doing sign contracts with a lot of cities."

From there, the signs kept getting more elaborate. For the cities of Oakland and San Leandro, Universal Precast produced two monument signs that mark the joining of the two cities. The signs were cast in separate pieces and include inset city names, multiple colors, inset lighting on all four corners and exterior lights.



THESE DOUBLE-SIDED SIGNS, PRODUCED BY UNIVERSAL PRECAST, MARK THE JOINING OF OAKLAND AND SAN LEANDRO.

Photos by Kirk Stellegel

A sign recognizing the Tish Ting area for the Hoopa Indian Tribe shows how custom the signs can become. The customer wanted to mimic a wood grain look with a rock base, but needed



Photo courtesy of Universal Precast Inc.

TO MIMIC THE LOOK OF WOOD, UNIVERSAL PRECAST CREATED AN INNOVATIVE PROCESS FROM SCRATCH.

a more durable material than wood. To accomplish this, the design team worked through a number of methods, all designed from scratch, until a lifelike wood texture was developed. The sign offers a much longer lifespan and reduced maintenance costs for the customer.



# UPC PARKS

Under its UPC Parks division, Universal Precast manufactures a wide array of high-end, custom projects. The primary component of these pieces is Polyfibercrete™, a proprietary lightweight concrete D'Amico and McCall developed. When lightly sandblasted, tiny surface pores open and provide a soft grip with no abrasion.

The main use of Polyfibercrete™ for the company is its Rocks and Ropes product line, which is designed to be an alternative to the traditional “post and deck” playgrounds. The Rocks and Ropes line is used as a testing ground for pieces that are rolled out to national companies. “It’s the prototyping arm,” D’Amico said. “We may do 20 or 30 installations, and if they like it, it goes to high volume for them.”

In addition to Rocks and Ropes products, Universal Precast has produced hundreds of projects that push the boundaries of what precast can accomplish. A project for a park found the plant creating a 26-ft. (7.9-m) bat that, after installation, was painted to give the product a real, wood-grained appearance.

For the city of Malibu, Calif., Universal Precast designed eight large animal figures to add flair to planned urban green space. The design team created



THIS COYOTE IS ONE OF EIGHT PIECES CREATED FOR MALIBU LEGACY PARK.

forms for each animal and they were cast with footings attached to allow for cost-effective and simple installation. In addition to being lightweight, Polyfibercrete™ can be carved. This allowed a local artist to add a custom “skin” of hand-applied mosaic tiles to the exterior to bring the figures to life. After the unveiling the animals received a significant amount of publicity, including mentions in the Los Angeles Times and the Malibu Times.



ROCKS AND ROPES IS A PRECAST PLAYGROUND LINE BY UNIVERSAL PRECAST.



THIS 26-FT. BASEBALL BAT WELCOMES PEOPLE TO A PARK IN FRESNO, CALIF.



A SNAKE CREATED FOR MALIBU LEGACY PARK.

made Universal Precast a go-to supplier of custom precast for customers across the country and even overseas. “What we’ve been able to do is show people they can do custom precast for a price they can afford,” D’Amico said. In addition, business has grown through ongoing relationship-building with contractors and the creation of innovative new products. However, company growth has been deliberately slow to ensure the focus remains on quality products, customer satisfaction and efficiency.

## Men of their word

Despite the advancements the company has made, attaining customers has never come easy. Changing the mindset of specifiers who are under the impression that custom precast is too costly has taken years of innovation, sales efforts and, most importantly, always delivering on promises. “Customers don’t want to hear about some big corporate structure or why they can’t get their product,” D’Amico said. “They just want it on time, on budget with quality.”

The reputation the company has built by filling needs no other precaster can fill and never letting a customer down is a key factor in its success. All companies face challenges, and Universal Precast is no exception, but no matter the obstacle the team finds a way to deliver. Whether it’s long hours, personally driving long distances to deliver product or any other measure, the company and its employees consistently pull out all the stops when it comes to its customers. “We know that contractors are our bread and butter so you have to take care of them,” McCall said. “If you can help them, and go the extra mile, that goes a long way out there.”

As a result, contractors know Universal Precast will deliver, whether the need is a fast turnaround or a particularly daunting project. They also know the product will be high quality,

All photos courtesy of Universal Precast Inc.



functional and easy to install. "We're the people to come to when you have challenging precast," D'Amico said. "We almost become an extension of their company. That's the relationship we strive for."

## Lean and mean

One look at the amount of custom pieces the plant produces with just 30 employees makes it abundantly clear that efficiency is king at Universal Precast. The company has worked tirelessly to make the plant capable of quickly meeting any customer need.

Examples can be found everywhere, from on-site storage of every additive used to a video system that allows managers and customers to monitor production from a phone or computer. The company also utilizes a computer-monitored coloring system designed by Increte. The system uses pigments stored in 4,000-lb. (1814-kg) vats, a computer and a weighing system sensitive to one-tenth of a pound (45 g) to match any color on the market. It's sensitive enough for small batches, and it self-orders pigment when a vat runs low.

The Universal Precast team strives to provide time and cost savings for its customers as well. With designers who have tackled thousands of projects, they know what to look for and are often able to make suggestions prior to production that enhance the project aesthetically and reduce on-site installation time. This creates major cost savings for customers and repeat business for the company.

"We know what it takes, so we're trying to anticipate everything that can happen on site to create potential issues, just like if it



UNIVERSAL PRECAST'S COMPUTER-MONITORED COLORING SYSTEM, DESIGNED BY INCRETE, CAN MATCH ANY COLOR ON THE MARKET.

was our project," D'Amico said. "The more difficult the project is in the field, that's where we shine, because that's opportunity for us. We can preserve profit margins and really solve their problems."

## Pressing forward

Expanding when others are contracting is yet another tactic the company has used to weather the economic storm. In the past three years, technical capabilities have been increased by



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# ARCHITECTURAL PRECAST



Photos by Kirk Stabel

ORNATE LAMP COLUMNS, CREATED FOR A PROJECT IN OAKLAND BASED ON 50-TO 60-YEAR-OLD PHOTOGRAPHS, RESTORED A PIER TO ITS ORIGINAL LOOK.

One of the many benefits Universal Precast offers to its customers is the ability to turn what could be a mundane product into something that adds value to the surrounding environment. Seating created for the Morgan Hill Library and the city of Pittsburg, Calif., accomplished exactly that. Custom seating has become a specialty of Universal Precast. For the library project, the team designed benches that look like books, which quickly became a big attraction. In Pittsburg, the design required additional pieces after the mold was poured, including raised bronze world maps and color tile inserts.

For a historic pier in Oakland, the Universal Precast team took on one

of its toughest challenges to date. The pier had once been home to four ornate lamp columns that adorned the corners of the dock, but they had long since been removed. The team was provided with only grainy, 50- to 60-year-old photographs, making it nearly impossible to discern the finite details of the posts and the original scale.

Despite the challenges, the design team went to work re-creating the look with 100% accuracy. Universal Precast's team worked with researchers to determine the historical shapes and the end result was four intricate, historically accurate columns that restored the pier to its original beauty.

acquiring workers with a high level of experience who have been shed by other companies.

The team also began looking at projects that had previously been out of their comfort zone, and that has led to entirely new product lines. As a result, McCall said architects have started to realize that precast concrete is a medium they can design to, which has opened up many different avenues for the company to pursue.

This realization has been paramount to the success it has experienced. Customers have come to them with projects that are traditionally poured-in-place or even produced with entirely different materials. Last year, the plant was approached by the state of California about boat ramps, which have always been poured on site. The traditional process is labor-intensive, and requires ideal weather and low water levels. The design team developed a new, more efficient way to produce the ramps at the plant. Universal Precast poured the ramps in a fraction of the usual time for three projects, installation time was greatly reduced and the quality impressed the state so much that it is specifying precast for several more projects this year.

"This is another perfect example of how we chose not to participate in the recession," D'Amico said. "We had never done boat ramps before, but we looked at it and figured out a way to do it quickly and less expensively. A guy from the state of California said they were the best-looking boat ramps they had ever seen. Just like that, we have a whole other product line."

When the recession hit, D'Amico and McCall also started looking for other pieces of the pie they could provide. As a result, they started Universal Precast Construction Inc., a licensed business that further increases profits. They also purchased delivery equipment and started doing their own transportation and offloading wherever it makes sense.



LEFT: CUSTOM BOOK BENCHES DESIGNED AND PRODUCED BY UNIVERSAL PRECAST FOR A PUBLIC LIBRARY.



RIGHT: THESE CUSTOM SEATS RECEIVED THE ADDITION OF RAISED BRONZE WORLD MAPS AND COLOR TILE INSERTS AFTER POURING.

Photos courtesy of Universal Precast Inc.






Photo by Kirk Stelsel

A UNIVERSAL EMPLOYEE ADDS COLOR TO A PRECAST ROCK WALL.

One of the biggest challenges the company now faces, with the relationships, technology and staff it has in place, is deciding what opportunities to take. Since entering new markets, jobs have come in at a high rate and the company has not had to reduce its workforce or take any days off for 12 years.

By filling a niche many are not able or willing to fill with quality products, keeping the customer first and doing it in a manner that saves them and their customers time and money, D'Amico and McCall have managed to live up to their words. They have thrived in the face of harsh adversity while many businesses have floundered, and they have no plans to slow down. "We want to continue to establish Universal Precast as the premier producer for custom concrete products," D'Amico said. "And along those lines, we are currently evaluating the market and various options for rolling out our quick mold technology processes to other precasters across the nation. We don't ever want to rest on yesterday's successes, because once we stop innovating somebody will come up and take our spot."

True to Universal Precast form, McCall added, "That's not going to happen. We won't let it happen." 

*Kirk Stelsel is NPCA's communication manager.*



Photo by Kirk Stelsel

A BENCH WITH INSET LETTERING ON ITS WAY TO CURING AFTER BEING STRIPPED FROM ITS FORM.

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