

# PRECAST INC.®

A Quarterly Publication of the National Precast Concrete Association | Q4 2022

**Last  
Issue!**

See details on  
page 63



**NPCA'S 57<sup>TH</sup>  
ANNUAL  
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## Leading the Way

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Q4 2022



Photo courtesy of Tindall Infrastructure

# Leading the Way

**34** New NPCA Chair Joel Sheets' career has progressed steadily alongside Tindall's growth.

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As senior vice president of operations for Tindall Infrastructure, Joel Sheets led the design of a new \$30 million facility in Spartanburg, S.C.

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# CHAIR'S INSIGHTS

A Message from NPCA Chair Joel Sheets

## The Most Wonderful Time of the Year



This really is the most wonderful time of the year! Not just because of the holiday season but because these are the months that we get to reunite with our friends and precast family to celebrate this great industry.

The 57th Annual Convention in Amelia Island, Fla., was a smashing success. The sun, sand and beach mixed with more than 400 members in attendance and nearly 100 exhibiting companies. Convention truly is special as we come together to commemorate the successes of the past year, honor those who dedicate so much time and effort toward our shared ideals and set the stage for the year to come.

Now, we are just two months away from The Precast Show in Columbus, Ohio, which is shaping up to be another record-breaking event in terms of attendance and Show floor space. With PCI and ICPI-NCMA both being part of the show, The Precast Show truly is where the manufactured concrete industry comes to get business done.

I am excited for our industry and, as NPCA Chair, I look forward to increasing the visibility and significance of manufactured precast concrete products through every channel we

have. Together with the Board and the NPCA staff, we will continue toward the association's goals of positioning precast concrete as the No. 1 construction material of choice.

As part of that, NPCA will produce regular industry market reports providing members with the facts and figures they need to share with customers. This data will really drive home the message of precast concrete as the No. 1 option for construction.

As you turn through the pages of this magazine, know that this marks the last printing of Precast Inc. The final edition of NPCA's Precast Solutions came out in October as well. I hope you have enjoyed reading these two industry magazines as much as I have. Starting in 2023, NPCA will produce a singular publication called Precast Today that brings topics of interest to Producer members, Associate members and specifiers under one title.

You can read more about Precast Today on page 63.

A handwritten signature in black ink, appearing to read 'Joel Sheets'.



# BADGER PATROL

**Manitowoc MLC300 lifts precast for U. of Wisconsin's Camp Randall Stadium renovation**

When the University of Wisconsin Badgers take the field this fall, fans in the south end zone will enjoy an upgraded experience. Precast concrete construction gets much of the credit for allowing the work to get done in the short time allotted between football seasons.

A Manitowoc MLC300 lattice boom crawler crane from Dawes Rigging & Crane Rental, a member of the ALL Family of Companies, provided the oomph to place a variety of building materials as the south end zone was reimagined with premium seating and amenities.

Tony Rothschild, operations manager for general contractor JP Cullen, says precast played a major role in the project. "Precast is vital when you have a project with such a tight timeline," said Rothschild, noting precast stadium panels and wall panels were used along with structural steel.

The JP Cullen team had to remove 6,000 existing seats then construct 2,300 new seats as well as luxury areas for premium food, indoor and outdoor hospitality clubs, and dedicated restrooms.

The former end zone structure was essentially three stories, with the new construction essentially five stories. Precast had a critical function in the added height, as well.

"The extra height required construction of one more stair tower, two more elevators, and extensions to the existing stair towers and elevator," said Rothschild. "Typically, you might use cast-in-place cores for these, but precast was a much better option for our schedule."

The MLC300 from Dawes performed like a champ, its capacity and long boom allowing the crane to stay in the same position for about 85 percent of the work.

"Cullen was on a tight schedule, having to complete the renovation in the football off-season," said Ryan Harrison, general manager of Dawes Rigging & Crane Rental - Madison. "The MLC300 offers the capacity and the reach needed to get the work done efficiently."

The Badgers football team was still practicing for its post-season bowl game when work began, so half the field had to remain free of equipment for team practices. "For about a month, it was a case of, 'when you're done with kicking practice, we'll get to work,'" said Rothschild.



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# Questions from the Field



Questions from the Field is a selection of questions NPCA Technical Service engineers received from calls, emails and comments on blog posts or magazine articles posted to [Precast.org](https://www.precast.org).

If you have a technical question, contact us by calling (800) 366-7731 or visit [precast.org/plant-resources/technical-services](https://www.precast.org/plant-resources/technical-services).



Carolyn Franks | Dreamstime.com

**Noura asks:**

**When we calculate the truck HL-93 live load at 5.5m fill height, there is overlap in area, so how should we calculate the load from the wheels when there is an overlap?**

**NPCA technical experts answer:**

When there is an overlap, you compute the live load pressure at the overlap area at 5.5m of earth fill and design the structure below for that higher uniform live load. See the diagrams to the right from ASTM C857. Figure 1 shows an overlapping loaded area. Figure 2 shows pictorially the formula for the loaded area for one wheel. Two wheels 1.8m apart would have an overlapping loaded area with 5.5m of earth fill.

Figure 1.

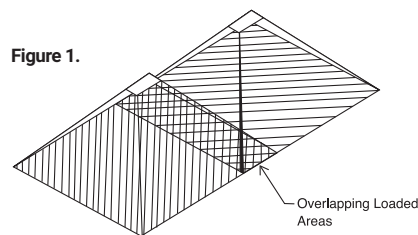
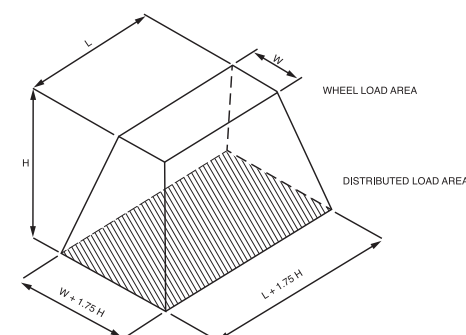


Figure 2.



**Jim asks:**

**We are working on a couple of precast projects in Texas and Arizona. We have a request from the owner to switch from shear walls to precast concrete moment frames. When we performed an initial code review, we were not able to identify the response factor, amplification factor and height limits for a precast concrete moment frame. The code covers shear walls, for sure, and steel moment frames bit silent on PCMF.**

**We are reaching out in hopes that NPCA has testing reports or guidelines to use in this application.**



**We are building upward of 10 buildings using precast, and this change is creating flexibility needed for the owner. Any help is extremely appreciated.**

NPCA technical experts answer:

Below (Figure 3) is the design aid table from the Precast/Prestressed Concrete Institute Design Handbook showing the response factors and height limits for precast moment frame structures. **PI**

Design Aid 4.11.8 Design Coefficients and Factors for Precast Concrete Seismic-Force-Resisting Systems <sup>1, 5, 10</sup>

Basic seismic-force-resisting system	Response modification coefficient $R$	System over-strength factor $\Omega_v$	Deflection amplification factor $C_d$	Structural systems limitations and building height (ft) limitations <sup>a</sup>				
				Seismic design category				
				B	C	D	E	F
<b>Bearing wall systems</b>								
Special reinforced concrete shear walls	5	2½	5	NL	NL	160	160	160
Intermediate precast concrete shear walls	4	2½	4	NL	NL	40 <sup>b</sup>	40 <sup>b</sup>	40 <sup>b</sup>
Ordinary precast concrete shear walls	3	2½	3	NL	NP	NP	NP	NP
<b>Building frame systems</b>								
Special reinforced concrete shear walls	6	2½	5	NL	NL	160	160	160
Intermediate precast concrete shear walls	5	2½	4½	NL	NL	40 <sup>b</sup>	40 <sup>b</sup>	40 <sup>b</sup>
Ordinary precast concrete shear walls	4	2½	4	NL	NP	NP	NP	NP
<b>Moment frame systems</b>								
Special reinforced concrete moment frames	8	3	5½	NL	NL	NP	NL	NL
Intermediate reinforced concrete moment frames	5	3	4½	NL	NL	NP	NP	NP
Ordinary reinforced concrete moment frames	3	3	2½	NL	NP	NP	NP	NP
<b>Dual system with special moment frames capable of resisting at least 25% of prescribed seismic forces</b>								
Special reinforced concrete shear walls	7	2½	5½	NL	NL	NL	NL	NL
Ordinary reinforced concrete shear walls	6	2½	5	NL	NL	NP	NP	NP
<b>Dual system with intermediate moment frames capable of resisting at least 25% of prescribed seismic forces</b>								
Special reinforced concrete shear walls	6½	2½	5	NL	NL	160	100	100
Ordinary reinforced concrete shear frames	5½	2½	4½	NL	NL	NP	NP	NP
<b>Cantilevered column systems</b>								
Special reinforced concrete moment frames	2½	1¼	2½	35	35	35	35	25
Intermediate reinforced concrete moment frames	1½	1¼	1½	35	35	NP	NP	NP
Ordinary concrete moment frames	1	1¼	1	35	NP	NP	NP	NP

a. Heights are measured from the base of the structure.  
 b. Increase in height to 45 ft is permitted for single-story warehouse facilities.  
 Note: NP – not limited; NP – not permitted.

Figure 3.



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# Get the Most Out of Your **FORMWORK**

By Claude Goguen, PE., LEED AP





The precast concrete industry produces a vast array of products. From small, decorative architectural features to massive bridge beams, precast products may differ in materials and manufacturing processes, but they share one common thing: all are manufactured using formwork.

These molds are carefully designed and assembled in order to house concrete's metamorphosis from fresh to hardened state, and they are critical to every structure's function and quality.

Form technology continuously evolves to keep up with precast concrete manufacturing practices and uses. They can be some of the costliest pieces of equipment on the plant floor and for good reason.

That is why it is vital to properly take care of this essential set of equipment to minimize wear and extend use.

## USING FORMS PROPERLY

Formwork used in precast concrete manufacturing can be divided into two major categories:

- **Modular forming systems.** These systems come with panels and hardware and are assembled to pour custom structures. These panels can be aluminum- or steel-framed with structural plywood facing.
- **Permanent formwork.** These forming systems are designed and manufactured to pour a specific type of structure such as manholes, tanks, traffic barriers and beams. These systems also include tables that are used to pour wall panels and slabs.

Forms used in precast manufacturing can range from complex systems with many moving parts to relatively simple ones. In either case, always thoroughly review supplier instructions to implement them properly.

With new forms, invite supplier representatives to demonstrate proper employee usage and record the process to serve as training videos. When lifting, handling, assembling, stripping, cleaning and maintaining forms, employees must be aware of approved processes, materials and tools.

The absence of appropriate guidance and training could result in improper handling, such as an employee grinding or sandblasting a casting surface to the point of significant damage. Worse yet, an individual could lift these heavy pieces without using designated lift points and risk a serious workplace accident.

"If you have a question or issue with your formwork, you need to resolve it the right way," said Derek Von Cannon, Afinitas vice president of sales. "Talk to the manufacturer. They made it and will know the right way to fix it. Good manufacturers will help you."

Whether placing a new form or returning an old form to service, they first need to be properly leveled. A form even slightly off level can result in product quality issues and damage to the formwork itself when it becomes difficult to open or close assemblies. Even minute variations can cause issues.

For example, one-sixteenth of an inch does not sound like much. However, on an 8-foot-tall form, that translates to a quarter-inch out of level and would be out of tolerance in most cases. Smaller forms can be verified with a 4-foot level, and larger ones may require a laser.

## PROPER TOOLS AND SAFETY

Forms are designed with a maximum lateral pressure due to hydrostatic forces exerted by fresh concrete. That pressure depends



Photo courtesy of Afinitas

The better that forms are maintained, the better the product that comes out of them.

on the concrete's density, the height of concrete placed and the concrete's properties.

Form manufacturers usually add additional load capacity as a safety measure. However, if a precaster makes drastic changes to concrete mix properties, it may prove a challenge, especially for older forms. Check with the form supplier or add additional bracing when a concrete mixture is significantly modified, such as going from conventional to SCC. Restrict concrete placement speed to minimize formwork pressure and avoid potential hardened concrete issues.

When using external form vibrators, consult with the form and vibrator suppliers on correct placement. Form vibrators attached directly to a form skin not only can diminish the vibratory efficiency but can lead to fatigue stresses in the area near the vibrator mount. Attach form vibrators to a structural stiffener in locations recommended by the suppliers.

Handling formwork pieces can be challenging. Some components have a center of gravity that is offset because of the form's shape and may swing once lifted. It is important to use the specially designed lift points for this reason. Also, the lift points are reinforced to withstand the stresses of handling.

Train employees on how to properly align, assemble and close the formwork. Forcing clasps shut over time can bend form surfaces. Bob Mills, director of sales and marketing with Hamilton Form noted: “If a form is hard to close or set up, there is a reason. Do not force it. Stop and see what is causing the issue. A simple repair or process change will save a major issue in the future.”

Employees also must use proper tools when stripping formwork. Nothing sends a shudder up a plant manager’s spine like the sound of a hammer hitting formwork. When dynamic forces are required to strip concrete from a form, use manufacturer-designated tools for that task. It is best to use stripping tools provided by the form supplier when available. In the absence of those, employees must know exactly what tools are approved for use.

Never climb formwork using horizontal framing, bracing or latches. It is a safety risk and can damage those components.

## MAINTAINING AND PROTECTING FORMS

Maintenance, like safety and quality, is everyone’s responsibility. An employee who works around formwork should understand the basics of form maintenance.

This includes how to inspect formwork, how to perform daily maintenance and how to assess potential issues.

### Formwork Inspection

Similar to most other equipment in a precast plant, forms should be inspected on a regular basis as defined by the plant-specific quality control manual. Daily checks are performed based on this list.

Relegating form inspections to maintenance staff only can delay attention to issues that intensify with time. Also, training everyone on basic maintenance has the benefit of cross-training, meaning employees add to their skills so they can fill in important duties when needed.

Forms should be inspected daily for surface condition and cleanliness. Any leftover concrete, especially on casting surfaces, needs to be removed. Check the formwork assembly for stability. If it rocks like a table with an uneven leg, the footing needs to be adjusted or shimmed. Check moving parts for any concrete, other debris or damage.



NPCA file photo

Build-up happens quickly on forms that are not maintained regularly.

## EXAMPLES OF FORMWORK INSPECTIONS

### DAILY FORMWORK INSPECTIONS

#### Surface inspection

- ✓ Inspect casting surfaces for cleanliness and defects (blemishes in the skin, pitting and rust).
- ✓ Inspect welds for separation, cracking and bending.
- ✓ Loose or missing nuts and bolts.

#### Latches, hinges and other moving parts

- ✓ Confirm proper operation and range of motion.

#### Form stability

- ✓ Ensure formwork is stable and level.

#### Form dimension

- ✓ Check dimensions of forms.

#### Electrical and hydraulic connections and hoses

- ✓ Check hoses and cords for leaks or wear.

### WEEKLY OR MONTHLY FORMWORK INSPECTIONS

#### Weld inspection

- ✓ Check all weld points for separation, cracking and bending. Tip: Shine a light inside a closed section of formwork and look for escaping light on other side.
- ✓ Check chamfers for positioning and damage.
- ✓ Check all other form components (hinge plates and clamped connections).
- ✓ Check any bolts, nuts for tightness.
- ✓ Check connection of reinforcing structure to form skin.

#### Levelness and Dimensions of Formwork

- ✓ Check with level or laser.
- ✓ Verify inner dimensions of formwork.

#### Under formwork assemblies

- ✓ Inspect anchors and shims under formwork.
- ✓ Look for any signs of rust.

#### Moving parts

- ✓ Thoroughly check all moving parts.
- ✓ Check tightness of all bolts and other hardware.
- ✓ Check tolerances.
- ✓ Hydraulic hoses and electrical connections. Thoroughly check for leaks or wear.

### Formwork Cleaning

In the hustle and bustle of precast operations, cleaning equipment at a shift’s end sometimes lacks due process. Stress that cleaning all equipment, including forms, is part of the production process.

Proper attention to cleaning can be the single best means of prolonging the precast formwork’s life. All form components require thorough cleaning, including form surfaces, locks, pins, hinges, latches, clasps, collapsing devices, pallets and headers. Special attention is needed for joint corners, jacket and core seams.

“We recommend starting the cleaning process during your pour,” Von Cannon said. “If you are careful, there’s way less cleanup work on the backend.”

Preferred cleaning tools include soft brushes, mops, wire brushes, brass wool or other minimally abrasive materials. They also include scrapers (putty knife), air hoses (when applicable) and grease.

Avoid grinding, sand blasting and hammer impacts when cleaning forms unless approved by the form supplier.



“Damage from hammer blows is one of the leading contributors to decreased aluminum panel performance, and even increased labor costs. Even what appears as minor damage can lead to major problems in a short amount of time,” said Jim Aylward, precast director with Western Forms.

There are products available to help clean stubborn concrete buildup. Make sure any tool or material is approved for use on aluminum or plywood surfaces. With wood forms, it is recommended to use a hardwood wedge and a stiff fiber brush for cleaning. Avoid using metal brushes.

### Formwork Maintenance

Suppliers should have lists of scheduled maintenance to be performed on formwork systems. Obviously, this will differ if you are maintaining a self-stressing bed versus a modular panel, but the importance of scheduled maintenance is the same.

Apply grease to all hinges, gears and other designated areas. When adjusting locks and collapsing devices, be careful not to overadjust as this could cause the form to distort and can cause permanent damage. Overadjusting also can break or bend of the working parts of the locks and collapsers.

Welding on formwork should be kept to a minimum, and when it is required, follow supplier instructions. Welding can distort the metal, cause deformations and remove protective oils.

Using magnetic chamfer strips at formed corners can alleviate slight leaking issues and permit easier form removal.

“If a form is hard to close or set up, there is a reason. **Do not force it.** Stop and see what is causing the issue. A simple repair or process change will **save a major issue** in the future.”

– Bob Mills *Director of Sales and Marketing, Hamilton Form*

### PREPARING NEW FORMS

When forms or form accessories arrive at a plant, they typically are coated in some protective material to prevent rust and other damage during transit. The formwork supplier should provide detailed instructions on how to transform this product from transit/storage mode to production mode.

Many times, the protective coating needs to be washed off the form surfaces using brushes, solvents or other means. Some companies do sell products that are specifically designed for cleaning of forms and can effectively remove these corrosion inhibiting coatings.

Once the protective coating is removed, the form may need to be seasoned. This is a process commonly used when using cast-iron and carbon steel cookware. Without proper seasoning, food sticks to a skillet, and it can rust quickly. When it comes to precast formwork, lack of seasoning can result in frustrating issues with stripping and concrete

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quality as well as potentially damaging the form surfaces.

Steel, aluminum and wood form surfaces have an open grain, and seasoning allows a form release agent or seasoning agent to penetrate the surface and fill the grain. The seasoning needs time for full penetration, and once the excess material is removed, the forms are ready for use. Seasoning oxidizes the surface of aluminum forms to help prevent concrete from adhering to the form surface on initial pours. It also helps to reduce the break-in period of new or recently cleaned aluminum forms.

Producers may encounter mill scale, which is a grey flaky surface found on hot rolled steel consisting of mainly iron oxides. This is a byproduct of the hot-rolling process during the manufacture of sheet plate. The presence of mill scale can be detrimental to new molds, causing many problems such as severe sticking and pitting of the surface. It can be difficult to remove using abrasives because of its

hardness, and scouring can be detrimental to forms as this can cause accelerated corrosion.

The proper way to remove mill scale is with a diluted acid such as muriatic acid that dissolves mill scale, similar to how vinegar dissolves lime scale in a kettle. The acid remains on the form for a period of time to react with the mill scale and then washes away, leaving a smooth, scale free surface. Once removed, the form can be seasoned normally.

### EXISTING FORMS BROUGHT IN FROM LONG-TERM STORAGE

It is quite common for precast manufacturers to have formwork stored for a few weeks to more than a year until there is a need for that specific product. Getting that form back to casting condition requires a process similar to the one mentioned for new forms.

The biggest difference is the potential for finding rust and having



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NPCA file photo

A lid form with reinforcing and access blockouts.

to remove it. This must be done carefully. Trying to remove rust from casting surfaces with grinders can damage the surface and cause long-term issues when stripping.

Never sandblast or grind the casting surfaces to remove rust. Signs of rust on non-contact surfaces can be removed by sanding, grinding or sandblasting. Always use a NIOSH-approved respirator when sandblasting.

Be sure to protect all surfaces as rust forms rapidly on unprotected steel surfaces. All moving parts need to be greased.

The next step is to perform a thorough inspection, including measuring the form dimensions to ensure that there was no excessive bowing or bending. Check all the clasps, hinges, locks and levers to make sure they work properly.

## STORING FORMWORK

The big project has wrapped up, and it's time to move the formwork to a storage area. This is a crucial part of form maintenance that can extend the equipment's life.

Start with a thorough inspection of the form. Surfaces where paint is peeling or flaking off should be recoated. Remove any remaining concrete on the form, especially the casting surfaces.

If the formwork is stored for a short amount of time, coating the surfaces with a form release agent may be sufficient. Liberally apply a good quality VOC compliant petroleum solvent-based form release.

If the forms are being stored for a longer period, coat the form with a weatherproof rust inhibitor. Coat parts and moving components with suitable grease or rust inhibitor. If the formwork has hydraulic cylinders, cap ports and fully retract cylinders while in storage.

Choosing an appropriate storage area is important. Pick a location that is the most protected from traffic and elements. Do not store forms or components directly on dirt. Store them on durable dunnage following supplier recommendations. Dunnage should be placed to avoid warping or bending of the forms that can become permanent.

Store forms flat on a level surface and in a way that prevents standing water from collecting on them. Use covers or tarps for moisture and dust protection when possible.

Make sure that maintenance schedules and logs include checking on these stored forms from time to time. Some rust inhibitors must be reapplied periodically and that will depend on local conditions. Signs of rust should be addressed immediately.

## THE ESSENTIAL FUNCTION OF FORMWORK

Formwork quality often reflects on the finished product quality. Avoid having employees dedicating hours every day to fixing form blemishes on finished products by taking better care of the formwork up front.

The most effective way to convey a positive equipment care culture and proper maintenance is training. Every plant should have training devoted to the topic of handling, cleaning, operating, storing and maintaining formwork. Checklists on the plant floor also are helpful.

Forms can be considered as cocoons for the amazing precast structures that will emerge. No other equipment on the precast plant floor shapes and holds structures while they go through the process of setting, gaining strength and reaching those important hardened properties.

Treat forms with the respect and care they deserve to preserve their efficiency and extend their useful lives. **PI**

*Claude Goguen, P.E., LEED AP, is the director of outreach and technical education at NPCA.*

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# When is the Right Time to Purchase a NEW Batch Plant?

By Max Hoene and Charles Watkins



**A** top priority for any manager is to identify ways to make their precast operation more efficient – less waste, less labor, less cost.

A laser focus on efficiency can establish a company as the low-cost, high-quality producer in its market, which positions the organization to become stronger, win new business, grow market share and become more resilient.

Consistency is key to making excellent quality precast concrete products. However, the economy, like so many other variables, is far from consistent. Just look back at the last few years.

When business is hot, operations and activity tend to become reactive with an “all-hands-on-deck” mentality in order to keep up with demand, oftentimes revealing the constraints in a system that limits further success.

Conversely, in a down economy, businesses find themselves unprepared to run lean and efficient in order to “survive the storm,” let alone improve processes or grow their market share.

The past two years showed a series of unprecedented global events with many companies experiencing both of these opposing scenarios.

Similar to the long service life common to a variety of precast concrete industry products, producers must maintain a long-term mindset for businesses to thrive. It is easy to live in the day-to-day production world that involves constant monitoring and adjustments of mix designs, repetitive processes, wasted movement and too many products that go to the boneyard rather than a flatbed trailer. Successful precast producers, however, make time to focus on what they can influence and improve by balancing and assessing context of current operations with taking action to achieve future goals which includes investing in the future.

This way, a precaster intentionally positions the company to reach its facility’s full potential.

Growing market share and increased sales are critical to a producer’s success. Doing so boils down to qualities such as increased output at competitive pricing, improved quality and adding value for customers, which points directly to the production equipment used in making concrete products.

Capital equipment improvement must have a return on investment (ROI). It is a big decision, and making the wrong one could result in pain and inefficiencies for many years. However, making the right decision pays dividends for years, even decades.

So when determining the right time to purchase a new batch plant, remember that the investment pays off over time – the return is rooted in reducing waste, labor and production cost.

## IDENTIFYING THE ISSUES

Common catalysts for producers inquiring about a new plant include the need to:

- Diversify the product line (different mix designs, concrete types, production process).
- Improve concrete quality and consistency.
- Implement effective moisture control.
- Increase production volume.
- Maximize automation and efficiency (reduce labor requirements).
- Decrease plant down time.



Photo courtesy of Advanced Concrete Technologies

These initial discussions often include three big questions:

1. Is now the right time to make an investment in modernizing plant equipment?
2. Where does investment achieve the greatest return?
3. How to relieve the pressure on unit cost that is eroding profits?

A batch plant assessment, whether with the help of an industry expert or beginning with an internal self-evaluation, is a great starting point. The goal is to identify issues and constraints, then find the best solutions, generally developed with the expertise of the equipment supplier, that fits within a given budget and timeline.

For plants with serious bottlenecks, it may be worth assessing whether relocating the entire precast plant would provide the best path toward enhanced productivity and efficient workflow. In other cases, it may only require replacing one critical component, such as a mixer or a control system, to update and modernize the plant.

Any management decision needs to analyze the benefit of eliminating production constraints, reducing labor cost, increasing plant output capability or potentially developing profitable value-added offerings for a given market.

Project the efficiencies and benefits through cost savings and increased net profit. If these exceed the investment in an acceptable time, the answer is a clear yes.

## REAP THE BENEFITS FOR YEARS TO COME

Today’s batch plants enable precasters to run operations with an unattended control room while still reliably delivering consistent superior-quality concrete without constraint. This is a notable example of a time and labor efficiency upgrade.

Another example resulting from a new plant is the increased concrete output, via faster batch cycles, delivering fresh concrete to the production process at a rate that meets or exceeds demand. How much would a mixer that exceeds your production demand and provides fresher concrete faster help your production and profitability?

A new batch plant also may allow many facilities to produce newer, more complex types of concrete such as self-consolidating concrete (SCC) or ultra-high performance concrete (UHPC) for the first time because of the precise control of the mix designs.

An underrated example is the look and feel of a new plant. This includes space-saving within the production facility, leading to optimized floorspace and creating an efficient



Photo courtesy of Advanced Concrete Technologies

## Plant Assessment Questions

Here are example topics and questions as part of a plant assessment. Any affirmative answer begs for a deeper look. This is a sign that a batch plant is restricting the company's growth and it may be time to update:

- Is the concrete plant a bottleneck?
- Are workers waiting around for concrete?
- Could more be sold if the plant produces more?
- Are additional shifts or overtime necessary to meet current production goals?
- Could inventory cost and lead time be reduced with increased productivity?
- Is production limited because of a labor shortage to run manual operations that could be automated?
- Does quality suffer from inconsistent concrete output?
- Is there a higher-than-normal scrap/disposal cost?
- Are there higher labor costs because of slowed production with patching and re-work?
- Does the concrete plant have a high cost of ownership? In other words, are maintenance costs high with downtime causing low plant utilization?
- Are labor costs high because of obsolete equipment?
- Is the plant keeping pace with safety and environmental standards?
- Is material usage optimized, or is the plant overconsuming because of poor handling and utilization?
- Is the plant environment dusty, dirty and outdated, resulting in low worker morale and high turnover?
- Is in-plant concrete distribution inefficient, adding to production costs?
- Is there a more efficient way to get concrete from the mixer to the forms?
- Are information systems inadequate?
- Is management getting the hard data needed to make continuous real-time improvement decisions?
- Is plant productivity information sufficient for management to see a clear picture of the operation and maintain accountability.
- Is the plant losing market share and missing out on opportunities because of plant equipment constraints?
- Does management want to differentiate the company from a competitor through better quality, more value and faster turnaround but can't?
- Are production costs too high? Is the plant unable to bid on some jobs and make reasonable profit, thus losing business to competitors?
- Are profitability Key Performance Indicators below industry benchmarks?

**A batch plant upgrade can be a solution to any of these issues.**

production environment. New equipment also boosts worker morale who perform better in a clean, modern plant environment. Worker retention, which is an ongoing challenge today, is improved.

Bottom line: A new batch plant can make it possible for a producer to establish their company as the low cost, high quality precast producer in their market via:

- Lower plant production costs, improving productivity with less labor and less waste.
- Achieve higher production goals.
- Bring quality to the forefront.
- Increase profitability.
- Boost overall competitiveness.

Consult a batch plant supplier for more ideas, best practices and better solutions for a precast factory. The end result often is enhanced process efficiency and more consistent high-quality products that lead to satisfied customers, repeat business and the ability to remain agile in order to capitalize on ever-changing market shifts. **PI**

*Max Hoene is a senior advisor at Advanced Concrete Technologies. Charles Watkins is the ACT sales and engineering manager at Advanced Concrete Technologies.*

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What to Expect When  
**YOU ARE  
INSPECTED**

By Chris Frederick



**N**PCA certification identifies plants that are dedicated to producing quality precast concrete products and helping specifiers obtain those products. For nearly 35 years, NPCA has helped businesses monitor, manage and improve product quality to reach this high bar.

For facilities new to the process, many weeks and even months go into preparing for that first audit. Sure, there can be some anxiety as inspection day approaches, but the pride that comes with the NPCA stamp of approval is waiting on the other side.

To help facilities prepare, NPCA has developed a road map that makes life easier on inspection day.

### STEP 1

#### PREPARE FOR AUDITOR ARRIVAL

Remember, the first NPCA Plant Certification audit is always announced in advance, so there is no reason to be caught unaware. Everyone from the owner to the leadership team to the line workers should be aware of what is happening that day.

Like with any visitor, be a gracious host and set aside some space for the auditor to store belongings and set up any equipment that might be needed, such as a laptop. Have a fresh pot of coffee and some snacks available.

“It is important to be a good host to the auditor and provide them a place to collect information and have conversations with production personnel,” Glacier Precast President Erik Powell said.

Powell’s facility has been certified for more than 10 years, and he has found that having a space set aside beforehand relieves any early stress and allows an auditor to get right to work.

### STEP 2

#### AUDITOR ARRIVAL

Once the auditor is on site and ready to begin, he or she will sit down with plant management to discuss the day’s expectations. Bring any prepared questions about the audit or the day in general. Don’t be shy. Auditors are well-versed in the program and know that a plant’s first inspection can be a little nerve-racking.

While leadership has this initial discussion with the auditor, designate

someone outside of that team to walk the facility and let others know that the auditor has arrived and that there will be people observing them today.

“When these audits take place, understand that it is going to consume a good portion of your day,” Powell said.

### STEP 3

#### AUDITOR WALKTHROUGH

Once the initial discussion is complete, the auditor begins a facility walkthrough, primarily to get his or her bearings. It is each facility’s choice whether to accompany the



NPCA file photo

Initial audits always are announced ahead of time so be sure to plan out your day in order to be ready.

An advertisement for Gensco equipment. On the left is a photograph of a blue industrial machine. On the right is a graphic with a white background and red horizontal bars. At the top left is the logo for 'THE PRECAST SHOW EXHIBITOR | BOOTH 527'. To the right of that is the 'GENSCO' logo in a red rounded rectangle. Below the logo are four red bars, each with a white icon and text: 'PNEUMATIC WIRE MESH CUTTERS' (with a wire mesh cutter icon), 'REBAR BENDERS' (with a rebar bender icon), 'ELECTRIC &amp; BATTERY TOOLS' (with a power tool icon), and 'REBAR SHEARS' (with a rebar shear icon). At the bottom, it says 'SERVING INDUSTRY SINCE 1919', 'WWW.GENSCOEQUIP.COM', '800.268.6797', and social media icons for Facebook, Twitter, and LinkedIn.

auditor or not. The auditor is not making any formal notes during this time.

There is no set time for the walk-through's length. Variables include the size of the facility and the auditor's pace.

#### STEP 4

### PLANT-SPECIFIC QUALITY CONTROL MANUAL

Once the walkthrough is complete, it is time for the auditor to look at the plant-specific quality control manual. The auditor will review this with plant management or designated liaisons. Expect questions, so have the right people in the room.

It is important that the plant representatives are well-versed with the manual and can thoroughly answer any questions. If you do not have one, NPCA can provide an example of a plant-specific quality control manual that facilities can adapt to their processes.

#### STEP 5

### AUDIT PROCESS

Initial discussions are over. The auditor understands the plant-specific manual. It is now time for the auditor to begin observing processes.

The auditor will observe an entire day's production process and make evaluations based on observations in accordance with the latest edition of NPCA's Quality Control Manual for Precast Concrete Plants.

Expect dialogue between the auditor and production personnel groups or individuals. It is important for all personnel to perform normal daily activities as they would during a normal production day.

#### STEP 6

### PRELIMINARY REPORT AND WRAP-UP

Audit day is almost over. The auditor has observed the processes and gathered information. At this point, the auditor will

produce a preliminary report.

The preliminary report provides the basic framework for the exit meeting, which is the facility personnel's opportunity to discuss any concerns about the audit.

This report will include items of concerns and suggestions on ways to address them. Expect some critical feedback. Nobody is perfect, and remember, this is your first inspection.

After a few weeks, the auditor will send the final report along with the Plant Certification certificate for facilities that pass the audit.

Take a deep breath. The day is over. All that time preparing and using the available resources through the NPCA has paid off.

You are now an NPCA Certified Plant. **PI**

*Chris Frederick is the senior director of membership and regulatory services at NPCA.*

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# Fraud Protection

More than 42% of all businesses experience fraud. Are you one of them?

By Brad Kanter





**B**usiness is booming. Customers and staff seem happy. The company has negotiated good pricing from vendors and is pricing services accordingly. There is even proper adjustment for inflation.

But for some reason, profits are falling and cashflow is reduced – or worse.

How could this happen? Something is not right.

So, what are the next steps?

A deep dive into the accounting system and a review of the books sometimes are not as easy as it sounds. Bookkeepers are there for a purpose, and insecurity can arise when you realize you may not know your way around financial information as well as you should.

Remember, things are going rather well in the plant, and nobody knows this business better. But regardless of success, it is time to be more attentive to financial operational results.

During a mini review, it becomes apparent that something does not look right.

For example: “How on earth are we spending so much money on shop supplies?”

Further down the spreadsheet, office supplies expenses are through the roof relative to prior year. How could this be?

The accountant sends a detailed report of each category. The further it goes, the tighter that stomach knot gets.

“Why are we buying double the amount of all these items? And why did no one discuss this with me?”

After reviewing hundreds of transactions spanning the last two years, more than \$150,000 of unauthorized purchases are found. What are the next steps?

Is every staff member a suspect?

Can the accountant take care of this?

Who can I trust enough to discuss this with?

Few business owners and not all outside accountants are trained in fraud examination. So what is the answer?

Unfortunately, this scenario is all too common. In fact, according to the Association of Certified Fraud Examiners (ACFE), private companies and small businesses rank 42% higher in occupational fraud compared to large corporations. That means 1 in every 2.5 businesses are experiencing fraud now.

According to the ACFE report, private companies and small business experience a median loss of \$164,000 due to fraud.

It is shocking to realize fraud is occurring at a company. It is important to know what steps to take.

## WHAT IS FRAUD?

Fraud is any activity that relies on deception in order to achieve a gain. Fraud becomes a crime when it is a “knowing misrepresentation of the truth or concealment of a material fact to induce another to act to his or her detriment,” according to Black’s Law Dictionary.

In other words, if someone lies in order to deprive a person or organization of their money or property, it is fraud.

## WHY DO PEOPLE COMMIT FRAUD?

The most widely accepted explanation for why some people commit fraud is known as the Fraud Triangle, which was developed by Dr. Donald Cressey, a criminologist whose research on embezzlers produced the term “trust violators.”



The three sides of the Fraud Triangle include:

- ▶ **FINANCIAL PRESSURE (MOTIVATION).** Someone feels the need to commit fraud, such as the need for money.
- ▶ **OPPORTUNITY.** The situation that allows the fraud to occur.
- ▶ **RATIONALIZATION.** Justification for the deceptive act by the one committing the fraud.

Based on the story above, here is an example of the fraud triangle.

- ▶ **MOTIVATION.** The employee needs money. He was expecting his first child and felt financial pressure.
- ▶ **OPPORTUNITY.** Nobody ever looks at the office or shop supply purchases. He is the only person who makes the orders. Since many of the shop supplies and small tools are easy to sell online, he over-ordered

once, and it went unnoticed. Then he did it repeatedly escalating his purchase volume over time.

- ▶ **RATIONALIZATION.** The employee felt underappreciated and began to resent the owner. This resentment created a self-serving feeling that he deserved the money. Other rationalizations are the employee believes he will pay it back and it is merely a loan or the owner makes more than enough money.

The study showed that the largest contributing factor to fraud being committed is the lack of internal controls. Ironically, these controls are easy to implement and minimize the opportunity for fraud.

## AN OUNCE OF PROTECTION

Business owners are responsible for every aspect of the business. From the start, they personally perform many of the tasks themselves.

As businesses grow, they more often rely on others to manage the larger operation. Owners promote people they like and trust to manage many of the business functions, often times with little oversight or direct management, in order to move forward with growing the business.

Sound familiar?

The primary method of preventing fraud is implementing proper internal controls.

Internal controls are the mechanisms, rules and procedures implemented by a company to ensure the integrity of financial and accounting information, promote accountability and prevent fraud. Here are common controls that can go in place right away:

### • Segregation Of Duties

Segregation of duties is a critical internal control designed to reduce the incidence of mistakes or fraud by assuring that no single employee has the potential to both perpetrate and hide errors or fraud in the course of activities. Assigning one person to write checks and another staff member to authorize the payments is an example of segregation of duties.

### • Pre-Employment Screening

Pre-employment screening is a procedure where employers check candidates’ backgrounds, screen them for drugs, check references and assess their conduct. It is used in the recruiting process to screen out

undesirable candidates before investing in the onboarding process.

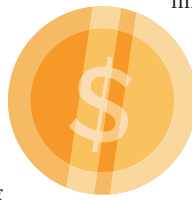
• **Reconciliations And Financial Reporting**

Reconciliations are performed to verify financial reporting among various sources. For example, comparing – or reconciling – a bank statement to a company’s internal records is one form of reconciliation.

Financial reporting documents the company’s revenues, spending, cash flow and financial health. It allows executives and investors to make informed judgments on performance and opportunities for improvement. Unusual or unexpected figures in financial reporting and financial statements help detect inadvertent errors and inappropriate actions.

• **Physical Inventory Counts**

Physical inventory counts are performed periodically to assure actual inventories match what is recorded in business systems



and financial statements. Physical inventory values directly affect the balance sheet, so it’s imperative they are reflected accurately.

Inventory discrepancy investigations can reveal system issues, inadvertent errors and theft.

Business owners ultimately are responsible for creating the control environment in a business.

• **Control Environment**

A control environment is the set of standards, processes and structures that provide the basis for carrying out internal control across the organization. A business owner and senior management establish the tone at the top regarding the importance of internal control including expected standards of conduct.

**HEARD OF ENRON?**

In 2001, Houston-based Enron went from trading at \$80 per share to \$1 per share following a series of fraud abuses that resulted in executives being arrested and

jailed. The unethical tone set from the top literally brought down the largest company in America at the time.

Owners and executives set the tone for themselves, employees and customers. Intentions may not start out as illegal or even nefarious, but when motivation, opportunity and rationalization mix, temptation typically follows.

There are a number of steps owners should take to insulate themselves and their business. Fraud prevention is a necessary state of mind and to be effective must be a regular part of a company’s routine.

The byproduct of doing things the right way goes further than preventing fraud. It improves operations and security deriving, allowing for peace of mind. And who does not want more of that? **PI**

*Brad Kanter, CPA/CGMA/CFF, CFE, CVA/MAFF, EA, M.A.C., is the president of Kanter Consulting Group CPAs and Advisors and Kanter Financial. He has worked with hundreds of businesses, minimizing their risk of fraud and increasing profitability for more than 20 years.*



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# GOING YARD

Detailed planning, thoughtful strategy and ongoing training are key to promoting precast concrete yard safety.

By Mason Nichols

In a precast concrete plant yard, where significant foot traffic and product movement take place every day, safety is the linchpin that holds everything together. And it is paramount in helping to prevent accidents.

One of the simplest steps to take toward yard safety is ensuring everyone who moves through the area is wearing proper personal protective equipment (PPE). Workers and visitors should be fitted with hard hats, safety glasses, appropriate footwear and high-visibility clothing at all times.

The same level of dedication to safety designated for plant operations must be present in the yard.

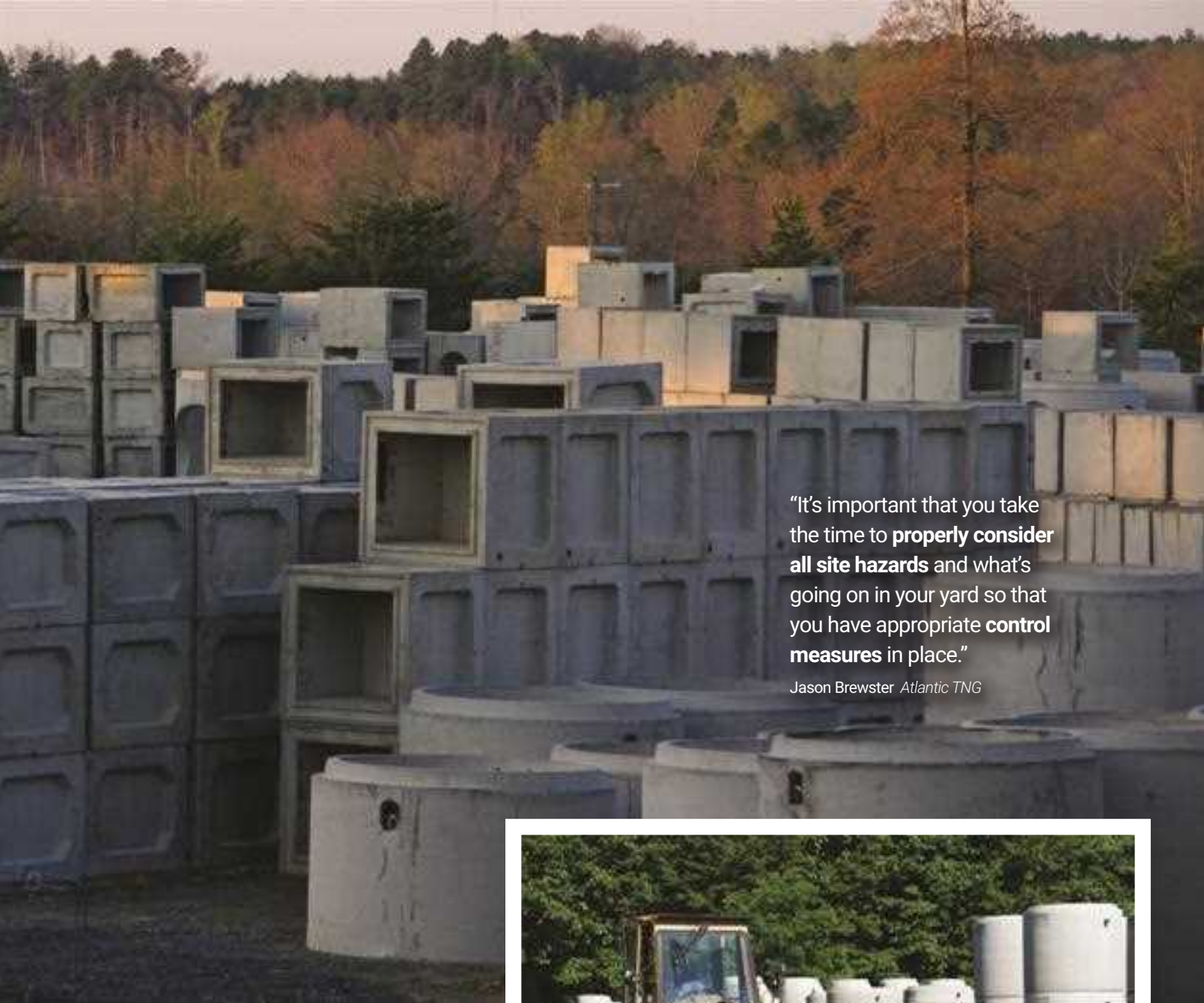
“Office and yard safety sometimes get pushed to the backburner because that’s not where the perceived risk is,” said Jason Brewster, safety and compliance manager for Atlantic TNG in Sarasota, Fla. “It’s important that you take the time to properly consider all site hazards and what’s going on in your yard so that you have appropriate control measures in place.”

Equally important is basic housekeeping. Establishing locations for products and placing them only in designated areas is a simple way to ensure that there are no obstructions for operators. Clear paths not only expedite material movement throughout the yard but also significantly reduce the risk of slips, trips, falls and other accidents involving equipment.

At Jensen Precast in Fontana, Calif., Environmental, Health and Safety Manager Ruben Gallegos helps make this possible through the inclusion of a “clean as you go” program. Every Jensen Precast team member is required to clean and organize the department and work area under the instruction of a supervisor. Then, to help guarantee tidy work environments, Jensen also deploys a dedicated housekeeping team throughout the facility.

Properly stacking products also is key. Gallegos said that, in general, dunnage should be placed at a product’s pick points and in vertical alignment. Doing so helps prevent potential tipping, protecting products from being damaged and people from becoming injured.





“It’s important that you take the time to **properly consider all site hazards** and what’s going on in your yard so that you have appropriate **control measures in place.**”

Jason Brewster *Atlantic TNG*

NPCA file photo

Brewster emphasized the importance of keeping stacked products at a safe height. For Atlantic TNG, this typically is less than 6 feet, but the limit can stretch to 8 feet with some stock pieces, such as manhole risers. A stacking plan may vary based on what is manufactured. Custom pieces often require different considerations, but, in all cases, products must be stacked neatly and at a safe height.

## ON THE MOVE

A wide variety of equipment moves around a precast yard at any given moment – forklifts, batching trucks, delivery trucks, cranes and more. As such, it is imperative to develop a logistics plan for the yard that identifies entry and exit points, safe pathways for travel, speed limits, stop sign locations and more.

A logistics plan also should consider how pieces move from



NPCA file photo

production to the yard and where products are placed once ready to store. At Jensen Precast, workers know pieces are ready to be transported once they are stenciled with the National Precast Concrete Association logo. From there, every product has a designated storage location.

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Properly stacked products are a key step toward yard safety.

**“We constantly monitor the yard for those who might be speeding or driving irresponsibly. But really, everyone is responsible for keeping an eye out in the yard. We ask our team members to address any issues if they see them.”**

Ruben Gallegos *Jensen Precast*

service should be inspected according to OSHA 1910.178. If the inspection reveals “any condition adversely affecting the safety of the vehicle,” it must not be used that day, and the issue must be fixed before the equipment is used again.

In general, anyone moving around the yard should exercise caution, making sure to identify potential hazards and moving equipment while traversing the area. Vehicle operators must obey all posted signage, including speed limits.

As Gallegos said, workers may occasionally push the limit on posted signage and rules as they work to meet deadlines or expedite efficiency. Train against this. Safety is the priority, and rushing what should be routine is a primary cause for incidents.

“We constantly monitor the yard for those who might be speeding or driving irresponsibly,” he said. “But really, everyone is responsible for keeping an eye out in the yard. We ask our team members to address any issues if they see them.”

Lift operators and others driving vehicles around the yard must maintain a lookout for pedestrians, who always have the right of way. Operators also must be aware of any roadway obstructions.

Sudden, inclement weather can sometimes result in flooding, high



winds that can topple or unbalance stacks or other potential shifts in safety.

“We call these seasonal hazards, and they result in places where a forklift could slip or possibly overturn,” Brewster said. “Whenever these areas present an issue, we mark them off with a yellow plastic chain to make it obvious for operators to avoid the area.”

Another environmental hazard during the summer months is high temperatures, especially for those who spend extended time outside in the yard. All workers should be able to identify the different types of heat-related illnesses and how to respond. Staying hydrated and taking breaks are both effective measures for counteracting heat.

## TRAINING AND CULTURE

Instilling a positive plant safety culture goes a long way to achieving goals – in the yard, the production area, office and beyond.

“While it may not seem like it to some workers, having strong safety policies and procedures in place actually ends up increasing productivity,” Brewster said. “You’ll have fewer injuries, fewer damaged products and equipment, and you’ll avoid the issues that arise when you lose team members to injury.”

Strong training programs are critical. New employees must learn the basics of yard safety, typically during the onboarding experience. Jensen Precast takes a holistic approach by stressing the idea that safety is part of a mindset and approach to be applied every day, not a separate issue.



NPCA file photo

Always be sure that structures are secure on the ground and not hovering above it via a crane before stepping onto the surface.

The company spends a significant portion of time during orientation discussing the flow of traffic and signage. These ideas are reinforced throughout the year via toolbox talks.

Atlantic TNG follows a similar approach. Brewster said the company engages team members on yard safety during orientation and uses on-the-job training to cover site-specific hazards. Operators scope out areas that they are unfamiliar with beforehand so they know exactly

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NPCA file photo

Trucks and other moving equipment must follow speed limits and set travel paths to maintain proper yard safety.

what to expect, including how any overhead hazards could impact their work.

Atlantic TNG employees are encouraged to earn vehicle certifications. Spill prevention, control and countermeasure (SPCC) training also are crucial since workers commonly encounter materials in the yard that could spill and lead to accidents.

“Operators in the yard deal with hazardous materials consistently,

and as such, we want them to know as much about what they are working with and where it should go as possible,” Brewster said. “Also, since they are running internal combustion motors with their equipment, understanding fire prevention and how to contain, absorb and dispose is also important.”

Atlantic TNG workers operate on a buddy system, meaning everyone is responsible for looking out for at least one other person. Jensen Precast operates with the same mentality, instructing workers to focus on taking care of one another and immediately report a safety violation or potential concern.

### A CRITICAL ASSET

Developing sound logistics plans, implementing strategies for transportation and movement, and providing ongoing training opportunities for your team are all critical when it comes to yard safety. As Gallegos said, when done right, the rewards bring value.

“Your employees are the most important asset you have,” he said. “Having a healthy workforce that is knowledgeable, experienced and responsible allows you to meet the needs of your customers while also establishing and maintaining a safety culture you and your entire team can be proud of.” ■

*Mason Nichols is a Grand Rapids, Mich.-based writer and editor who has covered the precast concrete industry for nearly a decade.*

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A photograph of three men standing in front of a concrete block wall at a construction site. The man on the left is wearing a light blue polo shirt and khaki pants. The man in the middle is wearing a blue and white checkered button-down shirt and khaki pants. The man on the right is wearing a light blue button-down shirt and khaki pants. They are all smiling and looking towards the camera.

# LEADING THE WAY

New NPCA Chair Joel Sheets' career has progressed steadily alongside Tindall's growth.

By Joe Frollo / Photos Courtesy of Tindall Infrastructure

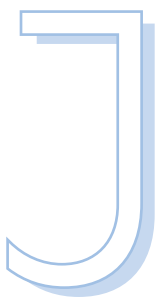




Meet the Tindall Infrastructure leadership team (from left): Production Planning Manager Brent Israel, Customer Service Manager Jason Traxler, Senior Vice President of Operations Joel Sheets, Operations Manager Keath Roberts, Sales Manager Barry Phillips and Estimating Manager Brad Cox.



Barry Phillips (standing) and his sales team know that Tindall Infrastructure can handle anything they bring it.



Joel Sheets knows what it means to stay calm under pressure while rising to meet the toughest challenges.

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His current career path has led him to a perfect setting where these mannerisms combined with his sharp mind and strong work ethic

and dedication to self-improvement to elevate him to be a leader recognized and appreciated throughout the Tindall organization.

As senior vice president of operations for Tindall Infrastructure, Sheets has built a team and a process where 150 individuals move forward every day with a single vision. He has earned the trust of both those he reports to and those who report to him.

He also has the confidence of the entire precast concrete industry. In November, Sheets was elected and installed as NPCA Chair of the Board.

## FAMILY OWNED, FAMILY VALUES

Founded in 1932, Tindall operated for more than 30 years before the Lowndes family purchased the company in 1963. From an operation of a half dozen employees with a foothold in the concrete utility pipe market, the company steadily grew and expanded, eventually reaching six precast manufacturing facilities in five states with projects throughout United States and Canada and internationally.

Throughout it all, Tindall leadership prides itself on remaining true to its core values of integrity, humility, family, can-do attitude and

positive growth. These five ideals keep everyone focused – from CEO to frontline worker – and informs both everyday decisions and long-term strategy.

“Our core values are a big key to how we go about what we do,” Sheets said. “As a company of 1,500 people, we strive to do it right every time, and we will stand behind what we do. And our customers really appreciate that.”

For most of those years, Tindall’s major operations sat on a 26-acre lot in Spartanburg, S.C. The Utility Division, the South Carolina Division, the corporate offices and trucking – as they were known at the time – all operated from there.

“There wasn’t a postage stamp of space that wasn’t accounted for,” Sheets said. “We had two distinct operations working with the batch plant, steel shop, maintenance and anything that was a shared operation.”

In 2020, Sheets took on the challenge of leading the design of a new home for the Utility Division, now known as Tindall Infrastructure. In June 2021, Tindall opened a brand new, \$30 million facility with Sheets overseeing operations. The infrastructure side had never even had its own batch plant before, instead ordering concrete from the prestress division.

All of that changed with the biggest investment in company history, and Tindall executives knew they had the right person in charge. Sheets and the entire group moved into the facility, allowing them the space to be successful, continue to grow and flex their business muscles.

“I’ve had the very good pleasure of knowing Joel for 20 years and consider him to be one of the most capable business people with



whom I've worked," Tindall President and CEO Greg Force said. "They are reaping significant fruit from the recently completed state-of-the-art facility that Joel and his team effectively designed."

## GROWING WITH THE COMPANY

While studying civil engineering at Clemson University, Sheets could not have imagined being where he is now.

"Design really wasn't what lit me up," Sheets said. "I did not envision doing concrete design or steel design for the rest of my life.

"What I eventually learned about civil engineering is that it is very broad. You can go into a lot of different areas. Project controls. Estimating. Project management. Scheduling. I like things like that."



"Our core values are a big key to how we go about what we do. As a company of 1,500 people, we strive to do it right every time, and we will stand behind what we do. And our customers really appreciate that."

Joel Sheets Tindall Infrastructure



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We would like to congratulate the new chairman of the NPCA, Joel Sheets. We appreciate Tindall's partnership and the opportunity to provide the resources and support necessary for such a great level of success.



Sheets also liked competing, and he was heavily involved in Clemson’s concrete canoe team, helping the Tigers win national titles in his sophomore and junior years. While preparing for the international competition his senior year, Clemson’s team lost one of its major sponsors.

In stepped Tindall.

“Through concrete canoe, I got to meet the vice president of human resources at Tindall and some of their project managers,” Sheets said. “I had not finalized a decision for after graduation. I figured I’d end up at one of the big general contractors, and I’d even interviewed with a few. I really wasn’t enthused about the travel and being just a face in a crowd of thousands.

“Then I got talking to the people at Tindall, and they asked if I was interested in being a subcontractor. The more I thought about it,

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More than 150 men and women work at Tindall Infrastructure in Spartanburg, S.C., constructing precast concrete products for projects throughout North America and around the world.

the more it lined up with my interests.”

Sheets started as a project manager in Tindall’s prestress division. He handled parking decks, wall panels and similar jobs. Before long, Sheets was promoted to senior project manager.

He then became a customer service manager and operations manager. In 2008, he was appointed general manager for the Utility Division.

“Joel has the ability to see both problems and challenges clearly and identify appropriate plans of action,” Force said. “This makes him well-suited to thrive within an industry that rewards creative solutions derived from applied engineering coupled with a keen understanding of all facets of precast operations.”

Then, in early 2022, Tindall restructured with Sheets named senior vice president of operations of the Infrastructure Group, managing Tindall’s entire precast infrastructure sector.



“I’ve had the very good pleasure of knowing Joel for 20 years and consider him to be one of the most capable business people with whom I’ve worked.”

**Greg Force** President and CEO of Tindall Infrastructure

GAR-BRO Manufacturing Company, proud vendor of Tindall Corporation, wishes to congratulate Mr. Joel Sheets on his new role as NPCA Chairman of the Board.

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This new facility has meant much more than just increasing our capacity,” Sheets said. “It has given us the flexibility we need to create better, more innovative products for years to come. Every square inch of this facility is purpose-built for innovation, efficiency and teamwork. It’s a major step forward for our team, and I’ve been excited to see where it is taking us.”

## A TEAM EFFORT

Sheets strives to bring Tindall’s five virtues to his leadership style, and the people who report to him appreciate it.



Customer Service Manager Jason Traxler (right) oversees projects and makes sure quality products are delivered to construction sites.

“We work really well together, and Joel is a big part of that,” said Keath Roberts, the operations manager for Tindall Infrastructure who has been with the company for 26 years.

“We communicate well whether we are face-to-face or not, and we are a group driven by success. We will try anything job-wise that a customer wants. Joel has reinforced the importance of looking for solutions instead of focusing on problems.”

The determination and dedication that Sheets shows on a daily basis is a driving force behind Tindall Infrastructure’s success, Sales Manager Barry Phillips said.

“There is a culture of teamwork,” Phillips said. “We rise and fall together. And we don’t fall very often. We work through any struggles because we trust and care for each other. That’s important to us. We call out each other’s success, and we work hard to help each other through anything difficult.”

Phillips said that Sheets insists on a work-life balance for the entire team. Whether it is making time for someone to attend a child’s band concert, stay with a loved one who is ill or simply not extend work demands into what are supposed to be off hours, managers plan to accommodate needs when they arise.

“That’s how Joel operates, and that’s the culture he has fostered,” Phillips said. “At work, we work hard. We try new things. We bring our best every day. When we leave work, though, we are free to coach our kids’ teams and spend time with family and friends.”

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"There is a culture of teamwork. We rise and fall together. And we don't fall very often. We work through any struggles because we trust and care for each other. That's important to us."

**Barry Phillips** Tindall Infrastructure

Roberts and Phillips are part of a leadership team that also includes Customer Service Manager Jason Traxler, Estimating Manager Brad Cox, Production Planning Manager Brent Isreal and Employee Relations Manager Gloria Alfau.

Traxler – or Trax as he is known throughout the building – gets right to the point.

"He gives a damn about every one of us," Traxler said. "Don't get me wrong. He's smart. He thinks big and plans long term. He's really good at pushing the envelope. But the fact that you know deep down that he cares first and foremost about you as a person brings you along and makes you want to do your best every day."

There is a tradition at the Spartanburg facility where people chip in for people around Christmastime. Roberts said there was no formal announcement to do so at the beginning. It is something Sheets just started doing and others have now followed suit.

"Joel is the type of person where if he sees someone struggling, he's going to help," Roberts said.



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Operations Manager Keith Roberts (top photo, at right) ensures that production on the floor proceeds smoothly every day and that goals are being met.



“It’s storm and sewer. Tindall started in underground construction, and we still do a lot of that today. Underground represents a healthy amount of revenue for the infrastructure group.”

Joel Sheets Tindall Infrastructure



## PROJECTS TO BE PROUD OF

When it comes down to the work Tindall Infrastructure does on a daily basis, Sheets likes to start by going old school.

“It’s storm and sewer,” he said. “Tindall started in underground construction, and we still do a lot of that today. Underground represents a healthy amount of revenue for the infrastructure group.”

But like its physical footprint, Tindall has expanded beyond a focus on manholes, box culverts, catch basins and other traditional precast concrete products. There is a growing history of specialized trench work projects along with a rising number of jobs in the industrial, petrochemical, power and energy segments.

“Those are interesting because you stack them like Legos but they need spaces for ductwork, plumbing and all that,” Sheets said. “So we construct things called ‘plenums’ that are 30-or-so feet long, 5 feet tall and essentially a giant upside-down trench but with an architectural finish on the outside and an insulated wall.”

Other recent projects include:

- Nearly every underground item for the Tryon International Equestrian Center in Mill Spring, N.C., including a 36-foot-





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by-7-foot archculvert at the entrance. Tindall provided the storm drain, sanitary sewer and water infrastructure, designing and manufacturing more than 400 storm drain structures, 75 sewer manholes and 12 grease traps/hair interceptors.

- Tindall provided a large, critical precast box culvert with multiple sizes on the Hitt Hall project at Virginia Tech University. Most of the box culverts were 20 feet by 13 feet but also included 16 by 12, 16 by 9 and 10 by 4.
- Tindall designed, manufactured and delivered 130 precast concrete wall panels with many openings throughout the precast panels for a confidential international industrial client.
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"There's not much out there right now that we don't feel like we can do – and do well. Joel is a big part of that confidence because he is great at putting things together and bring out the best of everyone to meet the challenge."

**Barry Phillips** Tindall Infrastructure



"We will try anything job-wise," Phillips said. "There's not much out there right now that we don't feel like we can do – and do well. Joel is a big part of that confidence because he is great at putting things together and bring out the best of everyone to meet the challenge."

## ROLE OF NPCA CHAIR

Sheets has plenty to keep him busy these days. Beyond his work responsibilities, he is devoted to his wife, Emily, and sons, Bennett and Aiden.

Sheets has been part of the NPCA Board since 2017, and he was installed as Chair of the Board during the 57th Annual Convention in Amelia Island, Fla. He credits previous Chairs Ron Sparks and Mark Weiser for setting a high bar for a position he has grown to know as he advanced along as a board officer.

"Within the association, it's not just a matter of what I want to see or what's my vision, it's a matter of being in alignment and making sure everyone else is in alignment with where we want to go," Sheets said. "We've started a number of good projects the last few years: expanding education, workforce development and the industry marketing initiative to name a few.

"I say with all confidence that there are so many people working so hard for many years to make NPCA the best association there is. The staff, the Board, the committees, the members. It is a very special pocket of people who work well together and achieve results."

The same can be said for the team Sheets has built at Tindall. ■

*Joe Frollo is the director of communications and public affairs at NPCA.*

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# INDUSTRY Influencers

HOWARD WINGERT

*President of Concrete Sealants Inc.*

Industry Influencers is a new series for *Precast Inc.* magazine in which we talk with people who are looked to for guidance and advice by NPCA members across generations.

By Heather Bremer / Photos Courtesy of Howard Wingert



Howard Wingert

**Q:** How you got started in the industry?

**A:** Really simple. I got in the honest way. ... I married the boss' daughter.

No, seriously, when I went to college, I studied to be a teacher. I was a school teacher for several years, and I met my current wife of 42 years. While I was a school teacher, that's when I was introduced to the family business. Her parents started Concrete Sealants in 1970, and Cindy and I met in 1978.

And as a school teacher, I had summers off. So I would work in the factory. At that time, I was probably the eighth or ninth employee because the company was quite small. So I worked in the factory for three years when I was teaching. And then I went to law school. And that was a three-year commitment. So I worked two more years in the factory during the summers when I wasn't in school.

When I graduated from law school, I went to work for the company as a business manager. And obviously my role has evolved since then. Yeah, a little bit.

**Q:** You're now president of Concrete Sealants. What do you do on a day-to-day basis?

**A:** I do whatever needs to be done. Last year, we had some turnover in our office that put a strain on us. And I actually was the shipping clerk for about two months, something I had done 20-plus years before.

My role now is to mentor my son Jesse, who is taking over the business, and work on projects. Right now, we're getting ready to expand our office. So we are working on those kinds of big projects like that. I also handle all of the international sales except South America. Jesse is fluent in Spanish, so he takes care of that, but I do the international so my grandchildren get to see their father a little more than my kids got to see me.

**Q:** From the beginning, family has been an important part of your company. Do you think that is common across the industry?

**A:** Always has been (here). I would agree (it's fairly common across the industry). I also would say in the last 10 to 15 years, there's been a bit of a transition from single ownership, families that sell to larger corporations. It's a trend that was inevitable, but it does put a little strain on the flavor of NPCA, which has always been sort of family friendly. I say this all the time: Our customers are customers, but they're friends as much as they are customers. As big corporations get more involved, it becomes more of a business relationship, which isn't all that bad, but there's a definite change going on.



**Q:** What other changes have you seen in the industry across the years?

**A:** This goes to my experience in traveling internationally. In North America, precasters make more structures out of precast concrete than anywhere else in the world. And when I say that I'm talking about rectangular structures for bolts, steps going into houses, storm shelters protecting against tornadoes and things. Because there's so much wet cast concrete still done in the North American market, you see innovative types of ideas of how to use concrete structures. In a lot of the other parts of the world, it's all about speed and production and efficiency so they try to stick to making certain structures very well, very fast, very efficiently. But with not as much creativity as what I see in North America.

A good example within the last 10 to 15 years is NPCA has started the precast concrete pavement sections. I haven't seen a whole lot of innovation like that other places.

**Q:** What do you think are the challenges ahead for the industry?

**A:** Well, the move to green energy or green buildings and worrying about energy usage. Just the fact that making cement is a high consumption of energy. You have the reduction of the use of coal-fired plants, so fly ash and things like that, which is an integral part of materials going into concrete, are going to be challenged as the sources start to dry up. That's not something that's going to happen next year or maybe even five years but the long-term. Yeah, it's going to be a challenge for the industry as materials change due to trying to make everything to impact climate change.



The Wingert Family, 1996

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**THE PRECAST SHOW**  
EXHIBITOR | BOOTH 901



Howard Wingert and Daryl Cloud

**Q:** Do you see ConSeal adapting to help solve that challenge?

**A:** Yeah, I'd say so in the sense that we have diversified our product offering in the last 15 or so years, where we now have some admixtures that go into concrete to improve durability and waterproofing the concrete from penetration so it has more life.

We have antimicrobial materials that go into sewer systems to prevent deterioration, which is concrete. It's a great material except in a very harsh acidic environment. And sewers seem to have the environments in certain places that deterioration is a concern. So we've – and this is completely outside the realm of where Concrete Sealants has always been traditionally known – we've always been sealant manufacturers that go between panels and between pieces of concrete. Now, we're coming up with materials that go inside concrete itself. And then we also have some coating materials that go on the outside to give additional protection. So trying to improve the lives of the concrete structures themselves.

**Q:** Going back to your beginnings as a teacher, do you utilize any of those skills that you learned as a teacher in training to be a teacher today in your role?

**A:** All the time.

I taught eighth grade American history for three years, and it was a great training ground for learning to deal with employees. Eighth-graders can be less than responsive to instruction. They're burning their legs on whether they can challenge the authority or not. When they're 12, 13, 14 years old, they're starting to



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mature and realize what boundaries are. Learning to deal with that kind of an attitude has proven to be important working with some of our factory workers.

**Q:** You said you're training your son to take over the company. What lessons are you trying to pass along to him about running a business and about the industry?

**A:** He's been with us now full-time since 2010, but he's been around the business all his life. And the biggest thing was just making sure he understands the culture of the company, because that's all I've tried to do is continue on what my mother- and father-in-law built because it was a successful formula. And just trying to get him to understand the principles that this company stands for and the integrity and reputation we want. I'm pleased to say he does understand that. He gets it.

I have every confidence that he will carry the company forward in the same manner that has existed for the last 52 years.



Jesse and Howard Wingert



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**THE PRECAST SHOW**  
EXHIBITOR | BOOTH 1115

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EXHIBITOR | BOOTH 707

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Howard Wingert (left) with Concrete Sealants Engineering Manager Sam Lines.

**Q:** If there was something you could tell the next generation of precasters and companies like yours that aid precasters in producing their products, what would that be?

**A:** To continue to try to find new ways to develop products that that use your product, your type of product. We've expanded our product

line and our product offerings, because you've got to continue to grow. You can't keep doing the same thing year after year after year, because you're going to get passed by. Constantly look at where there's a need, and see what you could do with concrete to fill that need as we grow any business.

**Q:** What value do you think NPCA brings to the industry and its members?

**A:** I've said this many times to precasters, the Producer members. I hope they realize what a great association NPCA is. In a lot of industries, the competition is such that you do not share ideas, you do not let people into your factory. But the precast association is for producers and is a fantastic way to learn how to improve your factory, how to come up with new ideas.

At Concrete Sealants, we have our version of NPCA called the Adhesive and Sealant Council. When we go there, even though we are a producer, we're sort of second-class citizens because the big oil companies and the big rubber companies run things.

So I would just say that I would hope producer members realize just what a gem they have and how really truly blessed they are to be part of the association that can share so many great technical ideas and product ideas. **PI**

*Heather Bremer is the digital media director at NPCA.*

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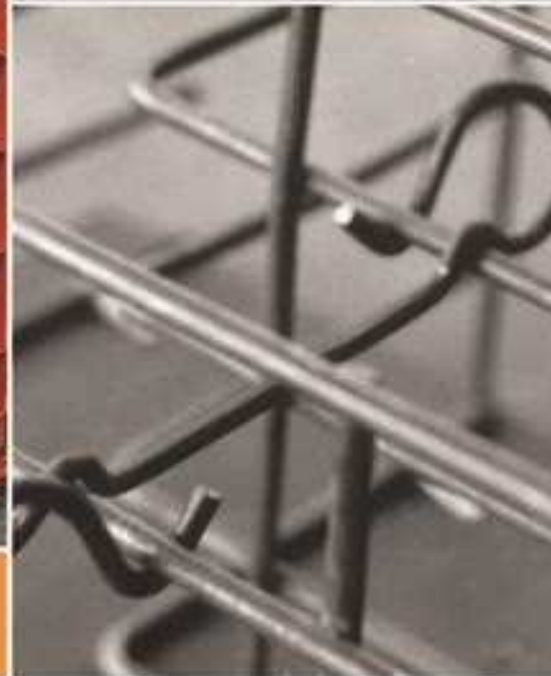


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# NPCA 57<sup>TH</sup> ANNUAL CONVENTION

## at Amelia Island, Fla.



Be sure to check out all of the photos from the 57th Annual Convention at NPCA's Flickr account. Go to [Flicker.com/photos/nationalprecast](https://www.flickr.com/photos/nationalprecast)

NPCA Staff Report / Photos by Heather Bremer/NPCA

The Florida sun shone down on the precast industry Nov. 3-5 as nearly 500 NPCA members gathered on Amelia Island for the 57th Annual Convention.

Fun and renewed friendships marked the three days, with members and their families gathering at conference events as well as

poolside, in the ocean and at any one of the Omni Amelia Island Resort restaurants and facilities.

Be sure to check out all of the photos from the 57th Annual Convention at NPCA's Flickr account. Go to [Flicker.com/photos/nationalprecast](https://www.flickr.com/photos/nationalprecast).

Here are some highlights from the seaside setting.

### STATE OF THE INDUSTRY

Incoming Chair Joel Sheets and Outgoing Chair Mark Wieser both expressed their optimism for the near and long-term future of precast concrete.

Sheets took time during the Leadership Awards Luncheon to discuss NPCA initiatives that are both in progress and ready to kick off. The NPCA market research initiative is wrapping up. For the past year, NPCA has been working with an outside consulting company to gauge where member facilities and the entire precast industry are in terms of people, products, influence and size. This data will drive how the association communicates with specifiers, government officials and the media.

“For example, by knowing how many precast producers there are in a given state or U.S. House district and by being able to provide solid numbers on our economic impact, we strengthen our voice within legislative bodies



The 57th Annual Convention marked the end of Mark Wieser's (right) time as NPCA Chair and the start of Joel Sheet's one-year term, symbolized by the passing of the Chair's gavel.



and the departments of transportation who report to them,” Sheets said.

Sheets also discussed the NPCA Onboarding Program, RDAC research, cooperation with PCI and other industry associations and the NPCA Plant Certification Program.

“I’m really excited for the year ahead,” Sheets said. “Business has been strong, and we are working to open more opportunities for precast concrete as the No. 1 choice within the construction industry.”

### MEMBERS VOTE TO UPDATE ARTICLES OF INCORPORATION, BYLAWS

NPCA membership approved changes to both the association’s Articles of Incorporation and Bylaws during the Annual Business Meeting Breakfast.

The updated Articles of Incorporation were approved in full as revised and presented. The updated NPCA Bylaws were approved as revised and presented, with the exception of Article VIII, Section 8.3, which referred to how future updates to the NPCA Bylaws are approved. The NPCA Board of Directors will consider that section for future discussion.

Following an in-depth review, the NPCA Board proposed the revisions to reflect the current laws, governance and structure under which the NPCA must operate.

### NEW BOARD MEMBERS AND OFFICERS

The 57th Annual Convention marked the end of Wieser’s term as NPCA Chair. Wieser joined the NPCA Board of Directors in 2017, and he said he leaves confident in what he sees.

“I’m excited about the direction and focus of our Board of Directors and the NPCA staff and look forward to the positive change they will continue to make for our industry,” Wieser said. “Thank you all for the opportunity to lead this association for the last 12 months. It is an honor to stand here in front of you where my dad and brother both did. I have enjoyed every minute of it. The best part of being done with my term as Chair is knowing that you are in great hands with Joel Sheets as your new Chair.”



Lisa Roache (right) receives the 2022 Robert E. Yoakum Award from 2021 winner Barry Fleck.



NPCA Convention-goers rose at 5:30 a.m. and traveled to GATE Precast in Jacksonville for a facility tour.

## 57<sup>TH</sup> CONVENTION STATS

NEARLY  
**500**

NPCA MEMBERS ATTENDED

**\$25K**

APPROVED FOR FOUNDATION  
SCHOLARSHIPS

**100+**

GOLFERS PARTICIPATED  
IN THE FOUNDATION  
FUNDRAISER

**40+**

MEMBERS  
SPONSORED  
EVENTS

NEARLY  
**250**

MEMBERS TOOK PART IN  
EDUCATION SESSIONS



Andy Hayward addresses the Annual Business Meeting Breakfast audience as the new NPCA Foundation Chair.



Keynote Luncheon Speaker Scott Rasmussen provided insights into how national political polling takes place and shared his expectations for the 2022 midterms.

Sheets was elected Chair with Bill Bundschuh as Chair-elect. Kevin Camp is Secretary/Treasurer.

New Board members are Mitch Rainero, Alan Siebenthaler, Jim Talbott and Steve Wolfe.

### **LEADERSHIP AWARDS LUNCHEON**

Lisa Roache of Gainey's Concrete Products received the Robert E. Yoakum Award, highlighting the Leadership Awards Luncheon. Roache was surrounded by friends and families as 2021 Yoakum winner Barry Fleck and a prerecorded video told the story of how she followed her father as the company leader and built Gainey's into a Louisiana mainstay.

You can watch the video at: [Youtu.be/NhdwtmKSWa8](https://youtu.be/NhdwtmKSWa8)

Andy Wieser of Wieser Concrete Products received the Douglas G. Hoskin Award for recruiting the highest number of new members from the past year.

### **EXHIBITORS**

NPCA Associate members lined the Magnolia Ballroom with tabletop displays on Thursday and Friday of the Convention.

Exhibitors met with longtime customers and opened new opportunities with others while enjoying hors d'oeuvres and a host bar.

More than 40 exhibitors also sponsored a variety of Convention events. For a full list, visit [Precast.org/convention/sponsors](https://Precast.org/convention/sponsors).

### **NPCA FOUNDATION**

The NPCA Foundation Board of Directors approved the 2023 budget, previewed a new look for the Foundation website and elected new officers. Additionally, the Board approved increases to the Foundation scholarship programs.

Undergraduate students pursuing degrees related to the precast concrete



The NPCA 57th Annual Convention on Amelia Island, Fla., closed with a beach party complete with food, beverages, s'mores, hand-rolled cigars and music.





More than 85 exhibitors filled the Magnolia Ballroom for two nights during the NPCA 57th Annual Convention, reuniting with friends and talking about new products and services that will roll out in 2023.

industry are now eligible for up to \$20,000 over four years. The Daneen Barbour graduate scholarship also was increased from \$3,500 to \$5,000.

The Foundation Board heard updates from California State University-Chico and Idaho State University, both of which are recipients of NPCA Foundation grants to create precast-concrete labs for CIM, construction management and engineering students.



The 57th Annual Convention included a wide variety of activities for NPCA members to enjoy, including an interactive learning experience with local species of turtles and an up-close look at some of the treasure that has been discovered along the coast.

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More than 100 golfers took to the Oak Marsh Course for an NPCA Foundation fundraiser that will benefit the next generation of precasters.

Representatives from those schools presented proposals to create precast concrete certificate and associate degree programs that could be offered online to students across North America.

Finally, a new slate of Foundation officers were announced with Andy Hayward as Chair, Greg Stratis as Chair-Elect, Aaron Ausen as Intimidate Past Chair and Jesse Wingert as Secretary/Treasurer.

## NPCA FOUNDATION GOLF FUNDRAISER

The NPCA Foundation once again hosted a golf tournament fundraiser, this time on the 6,580-yard, Pete Dye-designed Oak Marsh Golf Course. More than 100 golfers took part. Winners included:

- **FIRST PLACE:** A.J. Wieser, Andy Wieser, Drew Wieser, Ron Sparks, Tommy Herral
- **SECOND PLACE:** Chuck Babbert, Mark Chew, Kevin Book, Dave Strabala
- **THIRD PLACE:** Adam Wieser, Mark Wieser, Greg Roache, Tony Birrittieri
- **LONGEST DRIVE:** Linda Engleman, Tony Birrittieri
- **CLOSEST TO THE PIN:** Asher Kazmann
- **PUTTING CONTEST:** Mitch Rainero

## OTHER HIGHLIGHTS

- ▶ NPCA members rose well before dawn and traveled to GATE Precast, an 85-acre facility in Jacksonville. Visitors had the opportunity to tour GATE's facility, where they produce a wide variety of products, including structural precast and hollow core.
- ▶ Nearly 250 individuals took part in NPCA Convention education sessions, including offerings on motivating workers, economic change, digital marketing, productivity and going paperless.
- ▶ Optional tours drew dozens of visitors to each event, including Turtle Talk, pirate treasure hunters, a Segway/kayak tour of Amelia Island and a history tour of Fernandina Beach. **PI**



## Little Island, 267 Precise Pilings.

- Project:** Little Island@Pier55, a park on the Hudson River in NYC
- Client:** Coastal Precast Systems
- Photo:** Courtesy of Little Island@Pier5
- Our Role:** Hamilton Form created the forms for the stems of the 267 pods.



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# One Industry. One Magazine. Your Success.



For more than a decade, NPCA has informed and connected the precast concrete community through two quarterly magazines, *Precast Inc.* – focused on people and production, and *Precast Solutions* – focused on precast projects and applications. Beginning in 2023, NPCA is combining these publications to deliver all of the most important industry information within one comprehensive publication: *Precast Today*.  
**Look for *Precast Today* in February 2023!**

#### Editorial highlights:

- New content, including Industry Outlook and Trends, Government and Regulatory Updates, Codes and Standards, Workforce Development.
- In-depth precast concrete case studies.
- Featured precast concrete manufacturers.
- NPCA member news and events.
- And much more.





# Working For You

IN 2022

## Precast Days 2022

More than 30 precast concrete manufacturing facilities across the United States opened their doors during Precast Days 2022. In all, about 1,500 community members, specifying engineers, students and prospective employees got an inside glimpse at how precast concrete is made and met the men and women who bring the building material to life.

Precast Days is an annual NPCA initiative designed to raise awareness of precast manufacturing across the United States. Through these events, facilities educate local communities about career opportunities, precast products and modern manufacturing techniques.

"Precast Days is a unique opportunity for people to meet the men and women who work there, learn what happens inside these facilities that employ their neighbors and see the process that helps build their area's infrastructure," NPCA President and CEO Fred Grubbe said. "Precast concrete is a time-tested, durable and resilient component of construction, and visitors will be able to see first-hand how these products are made."

Thank you to all of the Precast Days sponsors, including the premier sponsor, Afinitas.



Photo courtesy of Locke Solutions

Visitors to the Locke Solutions Precast Days event in Houston got to see how manufactured precast products are made from mix to mold to form.

**To learn more about Precast Days and to see the full list of sponsors, visit [Precast.org/PrecastDays](https://www.precast.org/PrecastDays).**



NPCA photo / Armando Solares

A tour of the Atlantic TNG facility was followed by an opportunity to meet with staff members and enjoy lunch from area food trucks.



Photo courtesy of Precast Pipe and Precast

Precast Days is an opportunity to show off the company's equipment. This young visitor to Precast Pipe and Precast in Ashland, Va., got to sit behind the wheel of a flatbed truck.



## Precast Days 2022 Participating Locations

- Atlantic TNG, Sarasota, Fla.
- Atlas Concrete Products, New Britain, Conn.
- Concrete Pipe and Precast, Ashland, Va.
- EZ-CRETE , Swanzey, N.H.
- Gainey's Concrete Products (Community Day), Holden, La.
- Gainey's Concrete Products (Engineers), Holden, La.
- Garden State Precast, Wall Township, N.J.
- Gillespie Precast, Greenwood, Del.
- IntelliBatch by Egan Company, Virtual
- Jensen Precast, Las Vegas, Nev.
- Jensen Precast, Lockeford, Calif.
- Jensen Precast, Orland, Calif.
- Jensen Precast, Sacramento, Calif.
- Jensen Precast, Sparks, Nev.
- Lee's Precast Concrete , Aberdeen, Miss.
- Locke Solutions, Houston, Texas
- Mack Industries, Bowling Green, Ohio
- Mack Industries, Mount Vernon, Ohio
- Mack Industries, Valley City, Ohio
- Mack Industries, Vienna, Ohio
- Mack Industries , Valley City, Ohio
- Michie Corporation, Henniker, N.H.
- PRETECH Corporation, Kansas City, Kan.
- Shea Concrete Products, Amesbury, Mass.
- Shea Concrete Products, Nottingham, N.H.
- Shea Concrete Products, Rochester, Mass.
- Shea Concrete Products, Wilmington, Mass.
- Smith-Midland , Midland, Va.
- Tindall Corporation, Spartanburg, S.C.
- Wieser Concrete Products, Roxana, Ill.

## NPCA on the Road

NPCA staff members have been Working for You at several industry events throughout the summer and fall. Some of the events include:

### ▶ NASTO ANNUAL CONFERENCE – July 11-13

NPCA's Chris Frederick joined 300 DOT engineers representing most U.S. states at the Northeast Association of Transportation Officials annual conference in Hartford, Conn. As an event sponsor, NPCA was positioned to discuss the importance and benefits of our Certification Program along with resources that are available for DOT specifiers.

### ▶ FOWA CONFERENCE – Aug. 5-6

Director of Outreach and Technical Education Claude Goguen spoke at the Florida Onsite Wastewater Association annual conference in Daytona Beach, Fla., discussing septic tank installation best practices. Along with the presentation, Goguen interacted with exhibitors and NPCA members in attendance. He also initiated discussions with Florida government officials about potential future codes and standards that may be coming.

### ▶ COLORADO EPD WORKSHOP – Aug. 16

Frederick attended this event hosted by the state of Colorado designed to educate and discuss the state's implementation process with industry representatives regarding environmental product declarations.

### ▶ SASHTO 2022 – Aug. 28-31

Frederick was on site for the Southern Association of State Highway and Transportation Officials (SASHTO) annual convention in Biloxi, Miss. This conference provided an opportunity for industry personnel to exchange ideas, discuss challenges, share best practices and participate in technical sessions on highway and transportation matters. Attendance included more than 1,000 engineers, DOT employees and other industry representatives.

**See a complete list of events NPCA staff members attend at the Working for You page on [Precast.org](https://www.precast.org).**

## Precast Project at McNeese State

NPCA Vice President of Education and Workforce Development Marti Harrell joined Director of Outreach and Technical Education Claude Goguen at McNeese State University to present to a group of students.

The sophomore and junior civil engineering students learned all things precast as well as about job opportunities, scholarships and grants from the NPCA Foundation. NPCA Board member Asher Kazmann and Gainey's Concrete Products President Greg Roache presented virtually to the group as well.

McNeese State has entered a team in the NPCA Foundation Student Competition in 2023 and also are competing in the 2023 ASCE Concrete Canoe Competition. McNeese State received a grant from the NPCA Foundation, in conjunction with the PCI Foundation, to fund its precast studio within the engineering department.

Among the projects that Harrell and Goguen walked the students through was testing the use of corn husks as natural fibers within concrete.

## NPCA Board Report

The following is a report on the NPCA Board of Directors' meetings for the third quarter of 2022.

### AUG. 23 – DURING THE ANNUAL BUDGET MEETING IN CARMEL, IND.

- Approved the revised NPCA Board Policies.
- Discussed and approved the revised NPCA Articles of Incorporation and Bylaws to be presented to the membership for a vote at the Nov. 5 Annual Business Breakfast Meeting.
- Reviewed the direction proposed for a new Precast Show logo and branding guidelines.

### SEPT. 20 – VIA TELECONFERENCE

- Approved the August 2022 financial statements and investments.
- Approved the 2023 proposed budget sections addressing dues and plant certification fees.
- Gave consensus on the new Precast Show logo and branding guidelines.

# PEOPLE & PRODUCTS

**People & Products** is a forum where NPCA members and nonprofit organizations can share information on new products, personnel promotions, acquisitions or service announcements concerning the precast concrete industry. Items are printed on a space-available basis.

*For possible inclusion, send your press releases and photos to [jfrollo@precast.org](mailto:jfrollo@precast.org).*

## **EUCLID CHEMICAL INTRODUCES ECO-FRIENDLY MICROFIBER**

Euclid Chemical partnered with Unifi to develop PSI Fiberstrand REPREVE 225, a new synthetic microfiber for concrete reinforcement that offers unique sustainability benefits. This product is a fine denier monofilament synthetic microfiber that is manufactured using resourced polyester material from plastic bottles.

For every pound of PSI Fiberstrand REPREVE 225 that is used to reinforce concrete, nearly 10 plastic bottles are diverted from landfills.

It can be added to a concrete mixture at any time prior to placement and is ideal for a variety of applications, including pavements, slabs-on-grade, overlays and toppings, wall systems, foundations, shotcrete, precast and prestressed structures, composite steel decks and decorative concrete.

## **ABRASIVES INC. EXPANDS TO TEXAS, NEW MEXICO**

Abrasives Incorporated recently acquired the assets of Haller-Phillips Incorporated, a distributor of blasting equipment, parts, consumables and various types of blasting media servicing New Mexico, Texas and Oklahoma.

Abrasives Inc. manufactures Black Magic Coal Slag, used in the abrasive blasting, roofing and seal coat industries. Abrasives Inc. is a distributor of surface preparation equipment, parts, consumables and various types of blasting media within North Dakota and Minnesota.



Dean Frank

## **FRANK TO SUPPORT CARBON EMISSIONS PROGRAMS AT ACI**

The American Concrete Institute (ACI) has hired Dean A. Frank to

develop programs to assist in supporting the use of nonmetallic reinforcement and reducing carbon emissions in the concrete construction industry. Frank primarily will work with NEU, an ACI Center of Excellence for Carbon Neutral Concrete, assisting in the development of assessment, validation and certification programs.

Frank gained a comprehensive working knowledge of resilience and sustainability as an employee at Wiss, Janney, Elstner Associates, NPCA and PCI. He also has experience in working with ISO standards governing the operations of certifying bodies and is a licensed professional engineer in Indiana and Colorado.

## **DENCIA, FBE ASSOCIATES ANNOUNCE PARTNERSHIP**

Idencia and FBE Associates are partnering to integrate MH Pro! with Idencia's data tracking software for precast concrete manufacturers. The integration allows users to track products designed in MH Pro! through the manufacturing process.

MH Pro! allows drawing generation for structures in wastewater and storm runoff systems. Idencia tracks data about

the manufacture, storage, shipment and management of precast concrete products.

## **PROGRESS GROUP PROJECT EARNS BEST OF THE BEST**

A co-production between American Progress Group 3-D Innovation and studiooberhauser earned a Best of the Best Red Dot at an international design competition in Singapore. Out of approximately 4,000 international submissions, 38 were awarded the Red Dot.

The Chair N One design project is a combination of furniture and art created in sculptural design and realized in the 3-D printing process. Dynamism, durability and sustainability confer concrete an unmistakable beauty achieved using the 3-D printing process. The chairs are printed in one piece, which provides structural stability and a continuous surface.



Chair N One

## **MAX USA ADDS MECCA, MOREK**

MAX USA appointed two new members to its leadership team: Stacey Mecca as human resources generalist and Kris Morek as East Midwest sales associate.



Mecca brings more than 10 years of HR experience. She will lead talent acquisition, learning, development, organizational development and effectiveness. Morak brings 12 years of experience in field sales and management. His past work includes fields such as power tools and residential construction.

**TAYLOR MACHINE WORKS ADDS ALABAMA FOOTPRINT**

Taylor Machine Works is now the authorized Rail King dealer for Alabama, extending its market from Texas to Florida. Rail King supports railcar switching operations in several locations and are engineered to maximize safety, efficiency and operator comfort. Rail King railcar movers feature 360-degree operator visibility, easy-to-use controls, and both road and rail wheels for efficient travel on tracks and roadways.



**TINDALL EXPANDS T-SLAB SYSTEM PRODUCTION**

Tindall Corporation has opened a dedicated production line at its Virginia manufacturing plant for its precast concrete floor slab system, Tindall Superior Lightweight All-Purpose Beam (T-SLAB). Tindall now offers the only floor slab system of its kind in the country to the Virginia, Washington, D.C., and other Mid-Atlantic market areas.

T-SLAB capitalizes on arch design principles by using super-lightweight concrete to serve as blocks over which structural concrete is poured, leveraging the arch effect for load distribution while capitalizing on longitudinal prestressing for total span capability. Multiple slab thicknesses enable T-SLAB to achieve optimal spans in the range of 30 feet to 45 feet, supporting typical commercial and residential floor loads.

**V2 UPDATES ITS T-BISCUIT DESIGN**

V2 Composites has unveiled an updated version of its T-Biscuit product, designed to repair failed shear connections in concrete parking structures.

V2's carbon fiber T-Biscuit is fabricated from custom-engineered CFRP



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laminated, accommodating the loads and fatigue increasingly associated with shear connection failure. The new thinner and wider double-tee beam designs meet or exceed precast concrete code requirements published by ACI and PCI.

### EMH G-SERIES CRANE KITS ENHANCE TROLLEY ADJUSTMENT

Engineered Material Handling makes it easier than ever to design, manufacture and install a crane with its new EMH EG Series hoist, which allows users more capability, including enhanced trolley adjustment.

The kit includes all components needed to install EMH ZLW double girder top running cranes, ELV single girder top running cranes, DLV single girder cranes and EDL single girder (low headroom) cranes under running cranes.

### WELLS CONCRETE ADDS STAUDINGER TO LEGAL TEAM

Melissa Staudinger has joined Wells as corporate counsel. Staudinger will focus on contract negotiations, dispute resolution and general legal advice.

Staudinger previously worked for Fabcon Companies, where she was responsible for more than 30 project managers across seven facilities throughout the United States.



Kurt Minten

### MINTEN IS NEW EVP AT SHUTTLELIFT

Kurt Minten has been promoted to executive vice president at Shuttlelift. As the longest tenured employee in

company history, Minten has held positions in both engineering and sales leading up to this promotion.

Minten has devoted 36 years to Shuttlelift along with an additional five years while working as a drafter for a contracted partner company. His roles have taken him to Chile, Brazil, Singapore, Russia, England, Netherlands and Denmark.

### TAYLOR MACHINE WORKS HAS NEW LIFT TRUCK OPERATOR STATION

Taylor Machine Works recently introduced the new CLEAR-VU Operator Station across its X-Series Heavy Duty Lift Truck lineup. This configuration changes how operators view and experience their daily work and surrounding environment.

One feature of the new operator station is the COMFORT STEER mini-wheel, which is mounted on the armrest and controlled with the left hand. It replaces the traditional steering wheel and column, which are completely removed. From inside the cab, the operator's forward field-of-view is open from floor to ceiling. **PI**

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# CALENDAR OF EVENTS



**Feb. 23-25, 2023**

**THE PRECAST SHOW 2023**

Greater Columbus Convention Center  
Columbus, Ohio



**Oct. 12-14, 2023**

**NPCA 58TH ANNUAL CONVENTION**

Omni Oklahoma City Hotel  
Oklahoma City, Okla.



**Feb. 8-10, 2024**

**THE PRECAST SHOW 2024**

Colorado Convention Center  
Denver, Colo.



For the most up-to-date information about NPCA events,  
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