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Contributing editor/columnist

- Profit Matters column, construction technology content

Forester Media

Contributing editor, Grading & Excavation Contractor

- Content for trade publisher: 2 million+ reach, \$500,000+ ad revenue increase

Modular Mining Systems

Content consultant – sales collateral assets

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Hanley-Wood

Producers face truck specifying trade-offs such as driver comfort, weight distribution, and performance

The trade-offs in truck specifying

When it comes to building a Class 2 vocational truck from the ground up, there's no avoiding customization. Some issues to consider—and how to solve them—make the process quicker and easier.

By Don Talend

Specifying a Class 2 vocational vehicle that will perform as needed is not unlike ordering the right concrete mix—a one-size-fits-all approach doesn't work. It takes an experienced fleet manager and dealer to specify a truck that will fit the producer's unique requirements.

However, technological advances are making truck specifying easier and more predictive of actual performance. Several heavy-truck manufacturers have made the process quicker and easier by offering special software to predict performance (see related article below), especially useful when designing a vocational truck, particularly a mixer. Excessive risky situations are avoided.

Ever-changing variables like state laws, a new plant's design or a new market that affects the driving environment conflict with the desire to buy with a single Class 2 manufacturer. So the producer must change the truck design, and that involves several trade-offs.

What are some of the trade-offs the producer encounters? They often include driver comfort, weight distribution, performance, truck length and truck height.

A visit to Dallas Petroltek, which has sold as many as 300 mixer trucks in a year, may provide a glimpse into the future of heavy-truck sales. As part of Truck Centers of America, one of the largest U.S. dealer networks, the distributor offers everything from sales to frame straightening—even a lounge with leather recliners and a big-screen TV. Drivers can use video training for



Producers can build several types of trucks with a Class 2 chassis, including mixers and dumps, both trailers, to haul concrete and other materials. It's important to weigh design factors to maximize the truck's performance in a given application.

riggers. The dealer also offers computerized specifications.

Leo Gertz, a sales representative and specialist in mixers, says that, with all the available options, manufacturers are moving away from package trucks. "There's nothing wrong with them, but they don't offer any value-added benefits," he says. "You're making the business fit your truck instead of the other way around." Craig Scott, concrete production manager who oversees an eight-location, 200-truck operation for Leitzners Materials of nearby McKinney, agrees. "Package trucks are a precious wreck," Scott says. "Now we can get the right size loaded for what we need to do."

The trade-offs involved in obtaining the right "loaded" vehicle, but aren't limited to, the following.

Driver comfort vs. weight distribution. Reducing truck tare weight is

the producer's most important design priority, isn't it? Scott and Gertz say not in Texas, where competition for qualified drivers is intense. "We looked at how we were thinking our drivers," Scott says. "When they changed the GLS, equipment, all of a sudden we were competing with our own truck freight loaders." With more marketable driving skills, mixer drivers had an alternative, so Leitzners wanted to provide more comfortable cabs, Scott says. "Down here, if one of our drivers wakes up at 2:30 and knows he'll be in a truck he doesn't like on another 1107 day, how's he going to feel about going out for another long day?"

So the purchasing team re-assessed cab designs and added more ergonomics—and sometimes features—components like "smart seats" with several lumbar adjustments, larger cabs and

[Link to The Concrete Producer article](#)

Forester Media

Contractors have many factors to consider when purchasing versatile backhoe loaders

Two Machines in One

Posted By [Don Talend](#) On January 1, 2009 @ 12:00 am In [Construction](#) | [No Comments](#)

Because backhoe loaders are just about the most versatile construction machines you'll find on any job site, the grading and excavation contractor needs to consider a significant number of performance capabilities and design attributes when trying to choose the right backhoe model for the job whether purchasing or renting one. If you think of this workhorse as two machines in one—a combination of a compact front-end loader and a mini-excavator—it only makes sense to devote twice as much time and thought to the specification process.

Several industry experts shared with Grading & Excavation Contractor important concepts to consider in order to make as informed a decision as possible. With so many factors to think about, sophistication is the contractor's ally. Although the contractor must rely heavily upon a dealer's expertise, it's a good idea to keep in mind the various items that the experts list so as to ensure that the machine's capabilities can handle so many wide-ranging demands.

Master everything from OSHA regulations to high-tech safety equipment in this FREE Special Report. [Construction Safety Topics That Can Save Lives](#) ¹¹. Download it now!

Advantages, Disadvantages

The first decision is whether or not the backhoe suits the job to begin with. Scott Cowan, president of Knox Tenn Rental in Knoxville, TN, points out that the most likely substitute for excavation is the mini-excavator, which has seen increased adoption in recent years. "One of the things that people love about the mini-excavator is the stability factor," says Cowan, whose company rents Allmand Brothers and John Deere backhoes. But, he adds, the backhoe provides tremendous mobility and often can be driven from one site to a nearby one without the need for a trailer, maximizing machine utilization. "The one thing that steers contractors toward a backhoe versus a mini-excavator is jobs that have distance between them; that and the ability to haul material in the front bucket."

Tom Gray, president of Industrial Contracting Services, Holland, OH, says the versatility of his company's two Terex 760 backhoes is perfect for the company's most common project: rail grading. "It's the versatility of having the ability to load and excavate," Gray says. "When you work around the tracks, you've got to stone them back in and you can rough grade with the bucket."

Marcello Bargellini, product specialist for Volvo Construction Equipment, adds that backhoes can travel upward of 20 miles per hour. For jobs that do not involve operation in tight spaces or extremely hilly terrain, the backhoe is the right choice and can dig, backfill, grade, crane, load and unload, and perform other functions. Tom Reith, product manager for Terex Construction Americas, adds site preparation, trenching, installing, concrete breakup, posthole digging, and site cleanup to the list.

Starting Points

Once the contractor determines that the backhoe suits a particular project or future projects, the next step is choosing the right model. The primary criterion for rating backhoe models in North America is digging depth, says Bargellini. Digging depth is measured as the maximum distance achievable from the ground line to below grade at the tips of the bucket teeth and typically is expressed as "digging depth 2-foot flat bottom" and "8-foot flat bottom." These expressions refer to a flat-bottom trench that is actually excavated 2 feet deep and 8 feet long. Standard rated digging depths are 14, 15, 16, and 17 feet.

Bargellini reports that the most popular dig-depth segment is 14 feet, the rating of about 80% of all backhoes sold in North America. In the past few years, he adds, the 15-foot dig-depth backhoe has been gaining in popularity and currently accounts for about 15% to 17% of the North American market. Making up most of the remainder of the market, he adds, are "compact backhoes" with dig depths of 8 to 13 feet. Bargellini recommends that the contractor

[Link to Grading & Excavation Contractor article](#)

Hanley-Wood

Tag-along forklifts enable masonry unit producers to add delivery services to their manufacturing core competency

Technology

Delivery optimizers

Tag-along forklifts improve customer service and help producers get the most out of their delivery truck fleets

Just as you can't judge a book by its cover, you definitely shouldn't read too much into two machines the construction world has seldom seen: truck-mounted forklifts, tag-alongs and piggybacks. Unlike the two old devil's activities, these machines do anything but slow down adults.

Called the world's fastest-growing type of wheeled construction equipment by one manufacturer, tag-alongs are turning producers of concrete block and clay brick into true-delivery specialists. Here's why.

At Customer service. "We decided to go with tag-alongs to become more competitive," says Tony Pickett, fleet manager at Best, Ready, Mfg., California, CA, a ready-mixed concrete company that recently bought two for its block-distribution business. "We decided we could give a lot better service and get a lot more sales. Our business has picked up tremendously."

Tag-alongs create a win-win situation, improving productivity for producer and contractor. Producers can use tag-alongs to place product almost anywhere masons want it. That's a big improvement over dropping off pallet loads on a outside with a truck-mounted crane, or worse yet, waiting for masons—who bear major labor shortages—to unload a truck.

John Gregory, sales director for Chemura Manufacturing, Long Beach, Minn., notes that tag-alongs are quickly becoming standard equipment for masonry unit producers. If they don't use tag-alongs, "their customers will buy from someone else. That's what I see every single day," says Gregory, and



CONCRETE MANUFACTURERS are taking advantage of tag-along forklifts to increase their customer service. Here's how they do it.

[Link to The Concrete Producer article](#)

Forester Media

Grapple and shear attachments enable contractors to diversify into complete site preparation work



Business Diversification Tools

By Don Tafend

Grapples and shears allow contractors to enter the business of site preparation and increase machine utilization.

As any grading and excavation contractor who's ever operated an excavator or skid steer knows, more than just dirt often needs to be displaced. Typically, trees, rocks, concrete, or steel—or all of the above—must be cleared to make way for a lot or subgrade. These additional materials present an opportunity for greater profitability. Site preparation, which might otherwise be delegated elsewhere, can allow the grading and excavation contractor to earn more revenue on a project and keep expensive equipment operating for longer periods. Two attachments that facilitate entry into the site preparation realm are shears and grapples.

Shears are scissor-like tools that cut through wood, steel, or concrete. Grapples are more versatile, because not only can they rip out many of these materials that are embedded in dirt, but they also handle debris and allow the operator to reblock and even stack it in some cases. Often, grapples will be used to complete work that has been done with shears, or grapples are used for both tear-out and relocation. The heavy-duty ability of grapples also enables separation of mixed material—something that buckets cannot achieve.

Like Diamond Attachments, in Knoxville, TN, provides insight into the versatility of grapples. Grapples for such equipment as skid steers, compact wheel loaders, and compact loaders can tear roots out, shake the dirt out of the roots, and gather them into bundles. The ability to shake the dirt out is critical, the company maintains, because clean roots can then be placed into a log pile or burn pile. Besides handling roots, grapples with the collection of limbs and logs, and they are even used to lay pipe. Grapples have become almost a necessity for contractors who own skid steers, according to Mike Diamond.

When deciding on models of grapples and shears to purchase, contractors should realize that some design decisions exist. Geometry is very important in a grapple, according to Mike Diamond. Grapples that are very upright can be difficult to push into the ground given the angle at which they are deployed. Interlocked top clamps, which are available on Blue Diamond grapples, provide an advantage over other grapples because uniquely shaped loads are not and loads with

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Forester Media

Contractors respond to nighttime work requirements with safe lighting and dependable generators

Bright Ideas

The contractor has more lighting and auxiliary power choices than ever—often in one unit.

By Don Talend

More than ever, margin pressures are necessitating that grading work be completed with as little wasted time as possible, yet as safely and with as little disruption to “job-site neighbors” as possible. An example that is in the public eye more than most construction is highway work, which is increasingly taking place at night and on tight schedules so as to minimize the inconvenience to neighbors (read motorists). Of course, the unstoppable force of progress is running into the dual immovable objects of the need to keep the public safe and to keep crews working productively.

Artificial lighting and auxiliary job-site power are two of the most mission-critical items on a remote nighttime job site. Manufacturers of this equipment would tell you that, despite their importance, contractors spend the least amount of time selecting and maintaining this equipment. That should not be the case, with manufacturers offering more choices in lighting quality and power capacity than ever. In buying and renting decisions, the contractor may opt to focus on lighting or auxiliary power as separate entities, or combine these items in one piece of equipment.

Lighting Coverage, Quality, Portability Stressed

The SHO-HD lighting system from Allmand Bros. is designed to provide increased brightness and whiteness of light for better visibility and greater coverage. The system is now standard on the company’s Maxi-Lite Series and Night-Lite Pro Series portable light towers.



Allmand Bros.

The system utilizes the company’s SHO parallel lamp fixtures and has 1,250-watt lamps and ballasts and produces 150,000 lumens per lamp, a 36% increase over the 110,000-lumen output of standard 1,000-watt lamps. This increase is said to light up to 45% more surface area to one-half footcandle or higher compared with 1,000-watt fixtures.

The system is also designed to increase lighting quality as it utilizes an enhanced color rendering index of 70 CRI and higher Kelvin color temperature of 3,854°K, compared with 65 CRI and 3,700°K for standard 1,000-watt lamps. The result, accord-

[Link to Grading & Excavation Contractor article](#)

Hanley-Wood

Award-winning construction technology column: Mobile asset tracking facilitates preventive truck maintenance

E-CONCRETE



Using Information Byproducts

Web-enabled on-board intelligence reveals just how efficiently a fleet is operating.

When I think about the synergies of “technophobia” and environmental self-awareness the public has long on one side, I’m reminded of Michael Cochran’s The Andersons Story. One of a group of scientists analyzing a mysterious pathogen from space figures out how the world thing grows and rears, “Andersons continues overhauling, wastes cutting.” With those words he might as well have declared our side, which remains excited for fish, dog and wastewater.

Now comes the information counterpart in animal form, just as you know how powerful the ability to track operating data from several components of a concrete delivery truck would be. The data have always existed; the question has been how to capture and put them to good use.

Such uses of otherwise wasted information byproducts must have inspired the developers of Tracenet Corp.’s Intelligent Mobile Asset Tracking (IMAT) platform. I got a glimpse of the information recording issue at the company’s World of Concrete booth in Las Vegas last March.

Unique to the system is a Mobile Data Unit (MDU) equipped with a Global Positioning System (GPS) receiver and a wireless Internet Protocol (IP) module. The MDU can interface with up to about 18 truck components, such as the engine or a mixer truck or finished truck or a truck-mounted

main. This system provides two-way text messaging as well as automatic vehicle location (AVL) without driver intervention like several others, but the manufacturer said there. A traditional limitation of AVL systems is their inability to pinpoint truck waiting time, since GPS can’t provide real-time status by itself. This system overcomes the limitation by processing operating data. The large computer can integrate the system with an existing network, and the small computer can use the Internet to send data through Tracenet’s servers.

The MDU uses three algorithms to sense whether a truck is changing or discharging, and it sends the data back to the dispatch computer via modem. The “begin pour” time means a discharge is made enough, “final pour” is a little trickier to determine when the contractor wants low levels of concrete here and more over there. In that case, the driver can be alerted to report several begin-pour and end-pour readings per truck.

The dispatcher can draw appropriate location “hot zones” on the computer screen with a mouse or by entering a street address. The driver can report “leave job” and “back at plant” time stamps automatically by entering time intervals again.



The Intelligent Mobile Asset Tracking (IMAT) platform converts operational data from truck components—as engine or truck-mounted mixer, for example—in useful dispatching and maintenance information.

[Link to The Concrete Producer article](#)

Hanley-Wood

Producers protect themselves and the driving public by installing collision-avoidance systems in their trucks

E-CONCRETE



A Second Set of EYES

The saying "If they could just a man on the moon ..." comes to mind when you consider that construction the road with trucks. I have a hard enough time staying alert when I drive the road with Chicago-area car drivers who tailgate at 80 mph while yapping on cell phones. Add trucks and

ice changes, and oil-spill collisions that occur while backing up.

Last fall, Indianapolis-based Transportation Safety Technologies (TST) responded by launching a new obstacle-detection system called "LightEye." It uses ultrasonic sensors and a dash-board-mounted Driver Alert Module to constantly wave-detect that stationary or moving objects loomed ahead, to the left, or behind as in a danger zone. The module also provides a digital readout showing the object's distance from the truck.

The system uses ultrasonics to calculate how long it takes the sound waves to return to the originating point. If the sensors detect an object either to the side or behind within a danger zone, an audible warning alerts the driver. This is particularly useful when a trucker wants to change lanes and another vehicle is located

in a blind spot, or when a worker or equipment is behind the truck on the job site. The producer can install up to seven sensors at various locations around a truck.

Another manufacturer, Cleveland-based Inverness Corp.'s Vision Guard, offers its EVT-300 Collision Warning System (CWS), which has Doppler radar sensors and driver displays for both the front and side of the truck for on-highway driving. Doppler radar, by definition, detects the frequency of an object's reflected electromagnetic radiation to determine whether the object is moving toward or away from the measuring point. The system also offers wide-beam forward coverage for obstacle avoidance on roads.

Conversely, it appears that the TST manufacturer suits on-highway driving and Vision Guard—an option on all North American straight trucks and 300000s—but suits no highway driving. TST, recognizing the roughly 20-foot range limitation of ultrasonics, is developing non-Doppler forward radar for release in the next 12 months.

I think that on drivers who get too many tickets should be made to use these kinds of sensors, which could be adapted to warn them when they're tailgating or when cell phones get too close to their machines.

—DICK TALBOT

For more information about collision-avoidance systems, circle the reader-service numbers on the reader service card. Vision Guard: 4 Transportation Safety Technologies: 2

Collision-avoidance systems protect the producer and the public.

the stress level studies.

I think that highway trucks should have two or three lanes for cars and two or three more for trucks—in each direction. Naturally, the additional lanes would be paved with concrete. OK, so this means more uses such as dollars and the shipment of millions of people and businesses. But it sure would do wonders for our job accounts.

Because such a substantial investment is so speculative, a couple of manufacturers are offering technologies designed to meet the regulatory demand for greater commercial trucking safety.

Despite the use of "passive measures" (seat belts, air bags, crash mats, etc.) for accident and injury prevention since the 1960s, the National Highway Traffic Safety Administration (NHTSA) estimates that vehicle accidents still cause 60,000 deaths, 7 million injuries, and about \$30 billion in financial losses every year. From 1965-1987, NHTSA shifted the emphasis toward accident prevention by conducting an Automotive Collision Avoidance System (ACAS) study. It recommended the development of a 360-degree collision-avoidance system that would reduce the most common types of backing accidents: rear-end, side collisions that occur during



In recent years, the federal government's emphasis on commercial trucking safety has shifted toward the development of collision-avoidance systems such as the LightEye from Transportation Safety Technologies (TST).

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Paving contractor keeps fast-track JFK Airport runway resurfacing project on schedule with GPS-guided milling



[Link to ForConstructionPros.com article](https://www.forconstructionpros.com)

Topcon Positioning Systems

Grading contractor builds passive water treatment system for acid-mine remediation project



[Link to Industrial WaterWorld article](#)

Topcon Positioning Systems

Contractor precisely constructs Arizona flood-control canal's steep slopes with automated grade control



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Topcon Positioning Systems

Contractor uses high-speed scanning to verify location of truck-mounted cranes and overpass girders



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Topcon Positioning Systems

Contractor meets tight elevation and cross-slope tolerances on fast-track highway project



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ForConstructionPros.com and Equipment Today

Profit Matters column: Capturing financial and project management software for more profitable bids

Project Management Software Makes Sierra Construction's Bidding More Profitable

Infrastructure contractor only gets the margin-targeting value of bidding software after integrating it with a project management system's detailed cost records

JULY 7, 2017

The screenshot displays a software window titled '1/2" Material Use for VCS Construction and Service'. It features a menu bar (File, Edit, Records, View, Options, Tools, Windows, Help) and a toolbar. The main area is divided into several sections: 'Job Cost Total: 200.00', 'Material Detail' with fields for Action, Job Type, Location, Material, Job, Phase, and CT; 'Standard: 1/2" 1.75000 0', 'On-hand: 0.000', 'Available: 0.000', and 'Unit Price: 1.75000'; and 'Description: 1/2" Rigid Drain Pipe', 'Name: Cost of Sales Material', and 'Total Cost: 175.00'. A 'VIEW GALLERY' button is visible at the bottom right.

Sierra Infrastructure, Woodstock, Ontario, uses estimating software that allows inputs of comprehensive unit costs by input category. Also, the project management software it adopted in 2015 makes it easier to capture the true costs of project inputs.

By Don Talend, Contributing Editor

Adopting estimating software allowed Sierra Construction to target specific profit margins on jobs and tasks, but the real boost to company's bottom line didn't come until they integrated project management with the estimating system.

[Link to post](#)

ForConstructionPros.com and Equipment Today

Profit Matters column: Contractors boost data-processing power with cloud-based project management software

How Project Data in the Cloud Makes Three Contractors Leaner and Meaner

Cloud-based systems give contractors and their stakeholders robust computing power and project data accessible from most connected computers without major cap-ex investment

BY DON TALEND — JULY 21, 2017



Web-connected tablets and other mobile devices on construction project sites can access cloud software and data, facilitating real-time data gathering and collaboration among all project stakeholders. Accelerating decisions and preventing errors improves project speed and accuracy.

Contractors can enjoy major project collaboration benefits at very low cost using cloud-based project management information systems. Cloud software and users' data reside on the software provider's servers. Customers access it via the internet with almost any type of connected computer.

Here's how three construction contractors are making quantum leaps in operational efficiency and IT infrastructure savings using cloud software. Real-time project data that all stakeholders

[Link to post](#)

Hanley-Wood

Ready-mix producer designs special mix for historic St. Paul, Minn. bridge repair and prevents cracking

GGBF slag in concrete helps hold up some history

Bridge pier work in St. Paul, Minn., reveals the benefit of the material's production of a lower heat of hydration



Replacing the nearly 100-year-old Wabasha Street Bridge in St. Paul, Minn., in the early 1990s was a project not to be taken lightly. After all, four structures built there since 1859 provided a link across the Mississippi River and aided the city's growth from a fur-trading center to a

cosmopolitan state capital. The fourth bridge, a steel truss structure, even made the National Register of Historic Places, although it had a sufficiency rating of only 2 on a scale of 100.

So the weight of history, not just a new bridge, would bear upon piers for a new cast-in-place concrete segmental

Cemstone Products Co. convinced MnDOT officials to increase the allowable per-yard slag content for pier concrete on the Wabasha Street Bridge in St. Paul, Minn. A mix using a 70% slag replacement by weight of cement easily met thermal-gradient and strength specifications.

[Link to The Concrete Producer article](#)

Hanley-Wood

Sidebar article based on onsite reporting enhanced technical piece

A walk in the park proves our point

Thanks to its location in the low Upper Midwest and its proximity to Lake Michigan, which helps cause temperatures to fluctuate wildly, you'd be hard-pressed to find a harsher freeze/thaw environment for concrete than Chicago. It's such a harsh environment that you'd think precasters would want to air-entrain all exterior concrete, even if it weren't required, just for liability protection.

However, the condition of 70-year-old downtown concrete structures attests to non-air-entrained concrete's durability in non-splash zones. Leo Schlosberg, owner and president of Cary (Ill.) Concrete Products, requested a petrographic analysis of circa 1927 architectural concrete at Grant Park as his company prepared to do some renovation work there in the mid-1990s. The analysis revealed that the non-air-

entrained exposed-aggregate concrete New York producer Benedict Stone used to cast walkway railings and entryway columns has a probable water-cement ratio of 0.40 and about 760 pounds of cement per yard.

Last summer, we took Schlosberg back to Grant Park to visually examine several hundred of the 1920s railing balusters and entryway columns. In the rare cases where balusters are deteriorating, the lower railings invariably reveal cracks from structural stresses, most likely due to settlement. (The park, located on what used to be the bottom of Lake Michigan, now sits on lake fill.) "Once stress cracks the concrete, water gets in and damages it," notes Schlosberg. When we examined the entryway column panels, any cracking we found was limited strict-

ly to corners, again probably due to stresses from settlement. A couple of panels had popouts and a couple of inches of exposed rebar, but the cover was less than 1 inch thick in all cases.

The unblemished surfaces of both the balusters and the entryway columns support the belief that architects need not automatically specify air entrainment for exterior precast concrete.

— Don Talend



Leo Schlosberg, Cary Concrete Products: Rare cases of deterioration at Grant Park did not originate from freeze/thaw damage.

[Link to The Concrete Producer article](#)

Hanley-Wood

After World War II, Frank Principe started a company that supplied concrete to many of New York's iconic structures

By Don Talbot



The Best Pound of CONCRETE

When the war was over, the men and women who had been involved in uniform and in civilian capacities ... immediately began building their lives and the world they wanted. They were mature beyond their years, tempered by what they had been through. ... They stayed true to their values of personal responsibility, duty, honor, and faith.

They were a new kind of army now, moving onto the landscapes of industry, science, art, public policy ... bringing to them the same passions and discipline that had served them so well during the war.

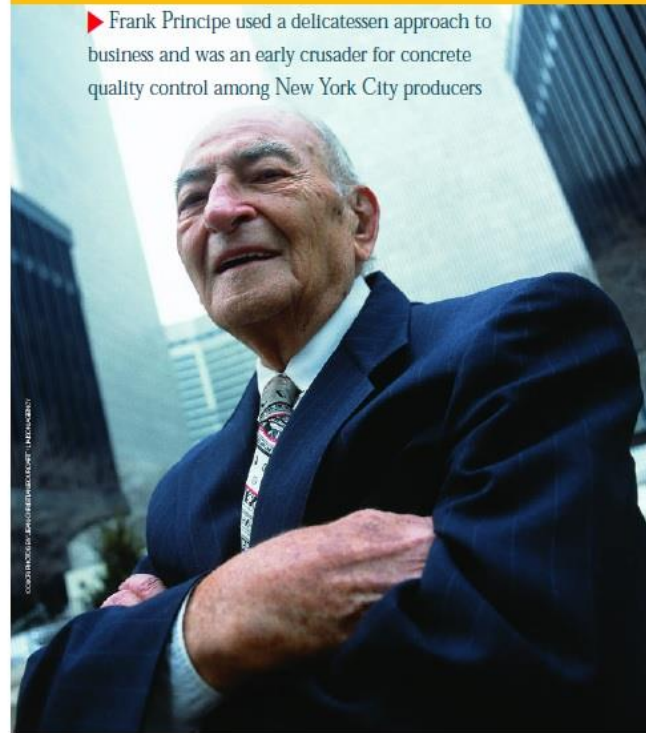
—Tom Brinkley, *The Greatest Generation*

Drop in on a family-owned neighborhood delicatessen in Queens and the apron-clad proprietor approaches you and asks, in passable English, how he can help you. He seems to it that you don't leave until you've got just the right cut of meat. If this isn't the start of a business relationship and he isn't sure he'll see you again, he hasn't done his job. Do that and you'll get an idea of how Francis J. Principe—the quintessential New Yorker, member of the World War II Generation, and American—operated his ready-mixed concrete business for about 40 years.

Principe, now 91 years young, saw putting the customer first as the only way to survive as partner in Principe-Darwin, founded in a hard-edged industrial area of Queens in 1946. Principe had bucked into the concrete business but was determined to make a go of it. Noting that his company entered the fray against large established companies with no interest in friendly competition, "Everybody said to me, 'You're absolutely crazy. They've got their own tightboats, their own sand pits, their own cement company. How are you going to compete with them?'" says Principe. "I said, 'I don't know, but in this city the A&P and the other big supermarkets operate, and next door you have the little delicatessen. He makes a living, so there's got to be a place for us here. Maybe we can furnish something that the big guy can't furnish.' I wanted to have the reputation for making the best pound—not just yard—of concrete in New York."

He had graduated with a degree in civil engineering from Cornell University in 1931 and worked for his father Louis, an Italian immigrant and Mayor Fiorello LaGuardia's superintendent of public buildings. He continued to work for his father, a commercial contractor who began building single-family homes under the New Deal-spawned Federal Housing Administration in the Maspeth neighborhood of Queens in 1944. Nine houses the family had built sat unoccupied because with so many first-time home buyers drafted, mortgage lenders had pulled back on financing. Principe tried to enlist in the Navy Corps of Engineers as a lieutenant but was instead offered only a warrant officer's commission, so he worked a

▶ Frank Principe used a delicatessen approach to business and was an early crusader for concrete quality control among New York City producers



[Link to The Concrete Producer article](#)

PCI Ascent magazine

Architects can enhance the value of low-rise housing developments with below-grade parking

FEATURE

Precast's aesthetic benefits and ability to merge with parking facilities make it a strong choice for designers of low-rise multifamily projects across the country


Below-Grade Parking Boosts Low-Rise Housing Designs
— Don Talend

Architects who design low-rise multifamily structures such as apartment and condominium buildings have a clear idea of what owners and developers increasingly want — and don't want. In addition to fire confinement and noise control, curb appeal has become a key ingredient. Many designers are turning to precast concrete components to help achieve this desired look, gaining added benefits in the process.

Curb appeal often includes a secure look as a high priority. The building must be welcoming but also make tenants and visitors feel protected. That need is extending to parking provisions, as developers and designers increasingly are looking to blend these needs into the housing units' structure to avoid having residents park in a lot or on the street, which can obscure or detract from the building's appearance. It also can create a security problem between parking and reaching the safety of the residence.

Achieving attractive appearances is easier than ever due to the variety of building systems that are available, but the high costs of some systems can push the building's financial break-even point further into the future. The materials also can push final occupancy further out, which delays owners recouping their investment through rents or purchases.


Structural and architectural precast concrete building components are allowing designers to meet these increasingly demanding requirements. Several recently completed low-rise multifamily residential buildings around the country indicate the design flexibility and satisfaction that designers can deliver via a building system that incorporates



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[Link to brochure](#)

Modular Mining Systems

Shovel guidance system enables operators to mine the correct materials, adhere to surveys, and operate safely



provision SHOVEL. WORK. BETTER. LIVE.

**EVERY
BUCKET
Counts**

The Modular Provision Shovel system gives full machine guidance in all areas of the site. The three-dimensional bucket guidance system, combined with high accuracy GPS, continuously tracks the bucket movement of the shovel bucket in relation to set boundaries, designed bench grades, material layers, or stages. High bandwidth wireless communication bridge topography and geology to the operator, and tight integration with your mine plan enables real-time updates to the field.

With the Provision Shovel system, operators consistently guide the right material, keep the designed bench grade, respect stig lines, and work within the machine's optimal operating specifications.

When it comes to improving operator efficiency, saving costs, and ensuring safety, every bucket counts.

MODULAR

[Link to brochure](#)

Joy Mining Machinery

PR: Integrated belt tailpieces and stability jacks maximize underground feeder-breaker efficiency



[Link to article](#)

More Work Samples

[slideshare.net/DonTalend1](https://www.slideshare.net/DonTalend1)