

# Contractor's Champion

AMBITIOUS PRODUCTION LINE FUELS BIGGER AND BOLDER PURSUITS FOR A MAINSTAY BRAND IN HARDSCAPE UNITS

New Jersey's Cambridge Pavers Inc. is charging into a 25th year of business primed to leverage its largest capital investment to date: A new concrete paving stone and segmental retaining wall plant with unrivaled color blending, unit finishing and packaging capabilities. The operating milestone and wherewithal to shoulder a \$26 million-plus outlay stem from a dogged focus on both automated and labor-intensive quality control measures; distributor-only sales; and, commitment to helping paver and SRW contractors manage and build businesses.

"We have maintained growth at or near double digit rates most years by keeping a sense of urgency for production, shipping, stocking and customer support," affirms Cambridge Pavers founder and CEO Charles H. Gamarekian, Sr. "We are all about quality and consistency. From batch and machine operators to quality control technicians to office staff, our message is: 'We don't pay your salary. You pay it with the product you deliver.'"

Located on 20 acres in South Amboy, about 30 miles down the Interstate 95/New Jersey Turnpike from Lyndhurst headquarters, the new facility can deliver a deep inventory of conventional pavers or larger slabs, along with matching or standalone SRW systems for decorative, structural or tall wall conditions. At the heart of the new line are a Tiger PS-1000 machine with 1,100- 1,400-mm board size and 10-in. unit height capability; a complex storage, weighing and transfer scheme yielding infinite combinations of Type I portland or white cements, four aggregates and six granulated pigments; and, pairs of 0.5-yd. face and 3-yd. base mix mixers.

Coupled with Tiger inline splitters, cubing and packaging devices, the PS-1000 will support this year's addition of 17 wall unit offerings, up from 14 in 2018. The plant is housed in a 50,000 sq. ft. enclosure, built on the footprint of a prior production line running 1990s-era Masa machinery and adjacent to a paver production line running a

Tiger PS-100 installed in 2006. South Amboy serves as a high output satellite to the Lyndhurst flagship, running one Zenith and two Tiger machines on a 30-acre site 10 minutes outside New York City.

The five machines equip Cambridge Pavers to offer eight paving stone collections, including multiple-piece kits; 31 SRW or veneer wall profiles; and, an extensive outdoor living kit or component series through 350-plus dealers or distributors in 23 states. The signature premium brand, ArmorTec, denotes face mix pavers—a category where the producer has been a first mover. Although limited in certain Great Lakes markets, ArmorTec and Cambridge Pavingstones brand distribution is not confined to points east of the Mississippi.

"The fact that we have customers in Colorado who incur freight costs from the East Coast says a lot about our quality, service and product innovation," observes Cambridge Pavers Vice President Charles H. Gamarekian, Jr., who along with Director of Production Jeff Martin has overseen the 2017-2018 South Amboy plant construction and ramp up. "Hardscape unit production is driven by trends and consumer tastes. We overhaul our product catalog every year, and conduct market research and surveys to see what unit colors, styles and sizes dealers, distributors and their customers are looking for. Every building season we renew the paver, wall and outdoor or assembled kit line up."

In a nod to the new production line's material and mixing prowess, he adds, "We have color capability like no other plant in the world, and sell the most face mix product in the Northeast. Our new plant will allow us to achieve in wall units what we have in pavers. Besides keeping up with product demand, we will be able to develop and patent hardscape unit concepts."

*Continued on pages 42-45*



(from left) Cambridge Pavers Vice President Charles H. Gamarekian, Jr. and CEO Charles H. Gamarekian, Sr.; Director of Operations Jeffrey Martin; and, Vice President Christopher Gamarekian.



Shown from wet and dry sides (top and bottom) the new South Amboy plant is a bold statement on how far Cambridge Pavers has come since launching with a multilayer style machine. It operates on a 24/7 schedule and is equipped to minimize or eliminate any cycle disruption in the Tiger PS-1000 machine due to product and pallet handling from kiln transfer to relay of cubes to outdoor storage. Key to production flow are a 2,100-pallet accumulator and three inline splitters.

In addition to the Tiger machinery, Pathfinder Systems delivered a CureTec Allcure Accelerated Concrete Curing System with Rotho racks. The Allcure is engineered to serve an expansive kiln with two heating units and maintain a uniform curing regime in each chamber. The new kiln at the South Amboy plant has 6,048-pallet capacity in 24 chambers, each with 14 tiers bearing pallets 18 deep. The dual finger car operates with first in first out mode.



PHOTOS: Cambridge Pavers



## AGGREGATES, CEMENT, ADMIXTURES



PHOTOS: Concrete Products; Teka North America

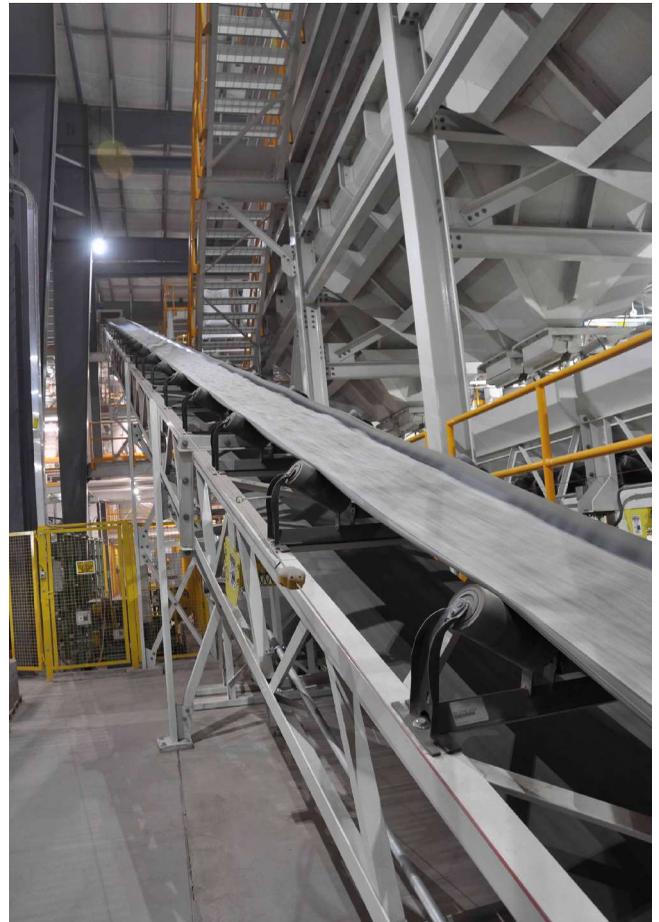


The new South Amboy production line's material handling, storage and transfer equipment and devices are bathed in energy efficient LED lighting and very accessible for inspection and maintenance. Standley Batch Systems, Sika Corp., Teka North America and Venator Corp. tailored aggregate, cement, admixture and pigment storage and transfer, along with base and face mix production and transfer, on an optimized footprint at the rear of the facility.

Cambridge Pavers uses all washed and manufactured aggregates engineered in house to meet its base and ArmorTec face mix design needs. To contend with property line limitations and a village easement, Standley Batch configured a ramp for wheel loaders feeding two 25-ton bunkers, 12- x 14- x 8-ft. with top grating. The vessels transfer coarse and fine aggregates to the main indoor bin via a 60-ft. Flexwall conveyor, operating a 55-degree incline and rated at 250 tons/hour. The 48-in. Flexwall belt transfers aggregate to shuttle and reversing cross conveyors charging the main bin, whose 12 compartments each measure 12- x 14- x 21-ft. for 198 tons, or nearly 2,400 tons of total indoor aggregate storage.



Each bin compartment has two air operated clam gates feeding one of two dual weigh belts (top), 36-in. x 93-ft. long and bearing on compression style load cells. They load two 36- x 22- ft. long transfer belts that charge two pivoting stacker conveyors that serve twin Teka THT 3000 base mix mixers by way of 5.3-ton skip hoists. An outer weigh belt (right) loads white sand on a long incline conveyor charging two 0.9-ton skip hoists serving twin Teka THT 500 face mix mixers. Standley Batch positioned three 148-ton silos on the perimeter wall elevation opposite the main aggregate bin, while admixture tanks are at the base of the lowest of three mezzanines in the batch plant scheme.



**COLORING AGENTS, FACE MIXES**



PHOTOS: Cambridge Pavers; Concrete Products



To extend its product color spectrum, Cambridge Pavers tasked Venator Corp. with engineering two Granumat automatic dosing assemblies to deliver blends of conventional Granufin pigments—two reds, one yellow, two blacks—plus newly adopted mint green and blue pigments from the series. Standley Batch designed three-chute hoppers (lower right) to hold and dispense colored mixes from the Teka THT 500 mixers. Each hopper has three discharge doors, affording Cambridge Pavers permutations of 18 color blends on short belt sequences. A servo motor driving the belt that transfers face mixes to the Tiger PS-1000 has an infinite range of speeds to maximize blending options.

## QUALITY CONTROL



A pallet bearing Limestone Quarry Blue-colored Sherwood Ledge-stone XL 24x36 smooth slabs with Cambridge ArmorTec face mix undergoes a laser-enabled height check en route to the elevator, which feeds the curing chamber. Cured, Onyx Natural-colored Sherwood Ledge-stone XL 24x36 textured slabs are checked at the lower-ator prior to packaging line relay.



## SEEDING SUCCESS

Cambridge Pavers was founded in 1995 amid the hardscape unit and outdoor living movement that instilled in North America a concrete product category entrenched in European and other overseas markets. The company's impetus grew out of a 1984 visit to a paving stone manufacturing plant in Florida that showed Charles Gamarekian, Sr. how concrete pavers' time had come. When comparing the per capita use or consumption of pavers here versus established markets, he says, "We hadn't scratched surface then and still have a long way to go to realizing the potential of interlocking concrete pavement and segmental retaining wall units."

The paving stone plant tour was at the start of a 1984-1994 tenure with the proprietors of a Sparta, N.J. quarry and real estate business from which Grinnell Concrete Paving Stones was launched. Gamarekian and current production chief Martin built a paver plant in 1985, establishing Grinnell among operators whose production and promotion vision made the Mid-Atlantic and Northeast the nucleus of the North American concrete hardscape business.

During the Grinnell tour of duty, Gamarekian and competitors or peers led a push for the Concrete Paver Institute within the National Concrete Masonry Association. In 1993, they chartered the Interlocking Concrete Pavement Institute, of which he served as inaugural chair. Two years later, Gamarekian founded Cambridge Pavers with one machine and a plant on about half of the present headquarters acreage. The second and third machines in Lyndhurst, along with additional land, were acquired 1997-2002.

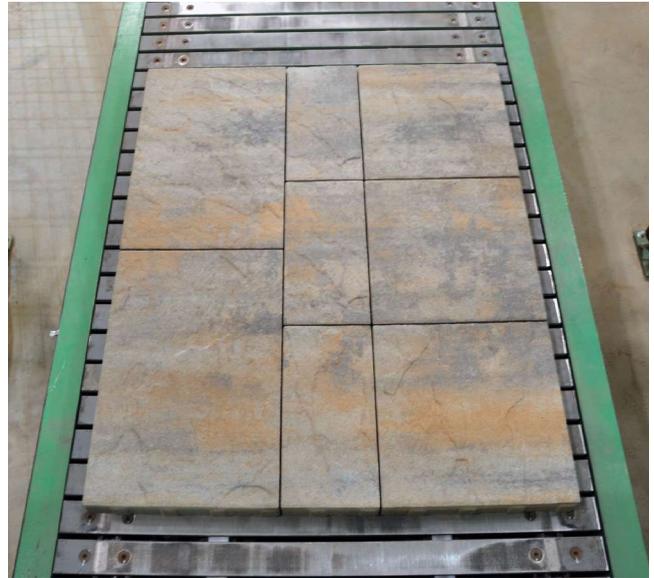
Those investments helped cover paver and wall unit demand to the 2008-2011 market downturn, although Cambridge experienced continued growth each and every year. Mindful of hardscapes' still-low per capita sales factor, Cambridge Pavers doubled down on marketing, promotion and customer training expenditures throughout the recession—returns on which were quickly manifested.

Increased demand compelled the producer to scout land for a satellite plant to support projected volume requirements and new product development. Lacking a suitable site that could be developed in time to meet customer commitments, Cambridge Pavers acquired the two-machine South Amboy plant and related assets in 2014 from Capitol Ornamental Concrete. Production requirements for existing accounts and new paver or wall unit shipments spurred 2016-2017 planning to retire the older Capitol line and start from the ground up on a successor.

The South Amboy plant overhaul is the latest in a long line of Cambridge Pavers strategies to pace or eclipse the impressive growth curve concrete hardscape interests have fostered over nearly three decades. The trajectory is best indicated in the ICPI 2018 Industry Sales Profile, showing annual U.S. and Canadian industry shipments hovering 750 million square feet of product.

Instead of letting success and sustained volume increases get to their heads, Cambridge Pavers team members—like many ICPI peers and staff—concentrate on building a paver and SRW contractor or installer universe critical to the industry's future. Cambridge Pavers draws 25 to 500 participants to regional contractor and installer schools in February and March. "Our people are all pulling in the right direction," says Jeff Martin. "Motivating, training and learning are what we do."

"We stress best practices for sales, installation, and jobsite efficiency. We underwrite project software development and help train contractors on how to use design programs in their sales efforts," adds Charles Gamarekian, Sr. "Our marketing support includes coop programs for radio, television and social media. If contractors decide to exhibit at home shows, we give them paver and wall units for displays and to use afterwards. Cambridge Pavers' mission is for contractors to grow."



PHOTOS: Concrete Products

The new plant rose in 2017-2018 on the South Amboy site, shown at north and west elevations. While most product is transferred from the plant on shipping pallets, Cambridge Pavers stores and delivers pavers and certain wall units without them. The absence of shipping pallets enables stacking of paver products six high—no small factor for a producer whose yard capacity is designed for the equivalent of 8 million square feet of stones.

## New owner steers Kimble Mixer, Crane Carrier to the future

Crane Carrier Co. has become an independent company comprised of Kimble Mixer Co., plus namesake trucks and vehicles, following the brands' sale by Hines Corp. to Turnspire Capital Partners LLC and the management team. In conjunction with acquiring New Philadelphia, Ohio, headquarters and manufacturing operations, Turnspire and management cite a substantial investment in CCC and will continue to support the business with financial and strategic resources.

Formerly the Hines Specialty Vehicle Group, CCC consists of CyKlone Mixers with Kimble Technology, Crane Carrier Co. (truck chassis) and Crane Carrier Engineered Chassis. "Demand for our products is growing as we continue to attract prominent customers and expand our aftermarket parts and customer service networks," says CCC President Randy Rollins. "Uniting with Turnspire and their record of fostering operational excellence and growth initiatives will allow us to best position Crane Carrier for the future."

"An iconic brand, Crane Carrier is an ideal fit for our strategy of investing in

high-quality businesses in specialty markets," adds Turnspire Capital Managing Partner Ilya Koffman. "We look forward to working with the talented, experienced and dedicated leadership team and valued employees of CCC to support the Company's continued growth through their best-in-class

products and superior customer service."

From its headquarters south of Cleveland, he adds, CCC produces some of the most elite specialty trucks on the road today; its nameplates are longtime fixtures in private and municipal severe-duty fleets across the country.



PHOTO: Concrete Products

A 4700-mounted CyKlone Mixer was on duty throughout World of Concrete 2019 for the Western Star Challenge, staged at the Las Vegas Convention Center Bronze Lot.

### PS - 1000



Capable Of Producing Pavers And Slabs,  
As Well As Full Height Block

Advanced Height Control For Consistency  
Of Any Sized Product

Fully Automatic Mold Change

New & Improved User-Friendly Controls

### MODEL S

Utilizes Most Existing Foundations/Molds

Low Cost Of Maintenance

Fast Mold & Height Change

High Speed Block Machine

User-Friendly Controls



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