

PUSHING AHEAD

Intelligent Machine Control 2.0

Discover how next-generation technology and features increase productivity in new excavators and dozers



intelligent / 2.0
MACHINE CONTROL

A Message from the President



Ronald Zagami



Dear Valued Customer:

We hope your year is off to a good start. Like you, we were pleased to see the end of 2020. With renewed optimism, we look forward to better things in 2021 and beyond. Although there is still a bit of uncertainty in some markets, many experts are forecasting positive results.

There are always questions whenever the term 2.0, 3.0 or any other update is mentioned. Is this new version really an upgrade? Will it improve my operations and make us more productive? When it comes to Komatsu's intelligent Machine Control (iMC), the answer is a resounding, "Yes!" Komatsu was the first to bring integrated GPS grade control to the market, and we are excited to show you how iMC 2.0 dozers and excavators build on the originals. Look inside this issue of your Clairemont Equipment Pushing Ahead magazine to learn more.

The first iMC 2.0 dozers, the D51i-24 and D61i-24, were recently recognized as top products; however, they were not the only Komatsu machines to earn that designation. Several standard and specialty products also made the list. Look for the article that highlights them and how they were designed and manufactured with input from customers like you.

Komatsu is also at the forefront of technology to make your overall operations more efficient. Its innovative Smart Construction suite of solutions helps your business improve operations across all steps of the construction process. They can digitally transform your job site and potentially make you more profitable. Read more about one solution, Smart Construction Remote, inside.

As always, if there's anything we can do for you, please call one of our branch locations.

Sincerely,
Clairemont Equipment Company



Ronald Zagami,
President

**Looking forward to
what's ahead**



PUSHING AHEAD

www.CECPushingAhead.com

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Arturo Estrada, Branch Manager

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Marv Selge / Selge Construction, Inc. / Niles, MI

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New iMC 2.0 excavator delivers greater accuracy, comfort and versatility for increased productivity

What if you could dig basements, footings or utility trenches without worrying about overexcavating? How about using the same machine to accurately excavate slopes and finish grade ponds with limited movement? What if you could do it all with little or no need for a finish dozer, stakes or surveying?

According to Komatsu Senior Product Manager Andrew Earing, Komatsu's new intelligent Machine Control (iMC) 2.0 PC210LCi-11 excavator with integrated GPS lets you do all of those tasks and more. Earing noted that testing showed the latest-generation machine improves production by up to 33% and efficiency as much as 63% compared to conventional excavation and grading methods.

"The new iMC 2.0 PC210LCi-11 has added additional satellite systems improving satellite coverage and ability to work in more challenging areas such as near woods or on urban job sites," said Earing.

Bucket angle hold, new monitor

With iMC 2.0 comes bucket angle hold. When activated, it automatically holds the bucket to the design surface during arm-in operation.

"It's less fatiguing for operators, which makes them more productive throughout a shift," said Earing. "It also produces a better finish-grade surface, so there are multiple benefits."

Additional new features include a smaller, slimmer 10.4-inch monitor with more memory and faster processing speed. It has pinch-to-zoom and swipe functionality similar to a smartphone or tablet.

"Customers told us they wanted a more streamlined monitor," said Earing. "This is intuitive and easier to use, so there's decreased downtime navigating through it and more time producing."

Options up versatility

Earing added that users can boost efficiency further with optional features such as automatic tilt bucket control. Using an add-on inertial measuring unit, it allows machine control to manage the angle movement of a tilt bucket to dig and grade surfaces that are not perpendicular to the machine. Users provide their choice of bucket.

Continued...



Andrew Earing,
Komatsu Senior
Product Manager

A new feature of the latest-generation PC210LCi-11 intelligent Machine Control 2.0 excavator includes bucket angle hold. When activated, it automatically holds the bucket to the design surface during arm-in operation. "It's less fatiguing for operators, which makes them more productive throughout a shift," said Komatsu Senior Product Manager Andrew Earing. "It also produces a better finish-grade surface, so there are multiple benefits."



'Useful on projects with varying contours'

... continued

"While excavating a deep trench, you can slope the sides back without moving the excavator," explained Earing. "It's also useful on projects with varying contours, such as swales and ponds. Operators can sit in a fixed position and shape those transitions. Less movement saves time and wear and tear on the machine and the operator. We believe most contractors will want to take advantage of this.

"Another feature is optional pressure and flow control for plus-one piping," he continued. "This lets you fine-tune hydraulic pressure and flow on attachments such as hammers, vibratory compactors, processors and more for improved control and versatility."

Semi-automatic functions

The iMC 2.0 PC210LCi-11 maintains the main functions of the first-generation iMC excavators, including the ability to switch from manual to semi-automatic modes.

Among a host of standout features is an exclusive control function that goes beyond simple guidance to semi-automatically limit overexcavation and trace a target surface. Once the target elevation is

reached, no matter how hard an operator tries to move the joystick to lower the boom, the excavator won't allow it. This reduces wasted time and the need for expensive fill materials.

Productivity and efficiency features include:

- In semi-automatic mode the boom adjusts the bucket height to trace the target surface and minimizes the chance of digging too deep.
- Auto stop control halts the working equipment when the bucket edge reaches the design surface to reduce design surface damage.
- Minimum distance control regulates the bucket by automatically selecting the point on the bucket closest to the target surface.
- The facing angle compass shows the operator the facing angle in relation to the target surface, allowing the bucket edge to be accurately positioned square to the target surface.

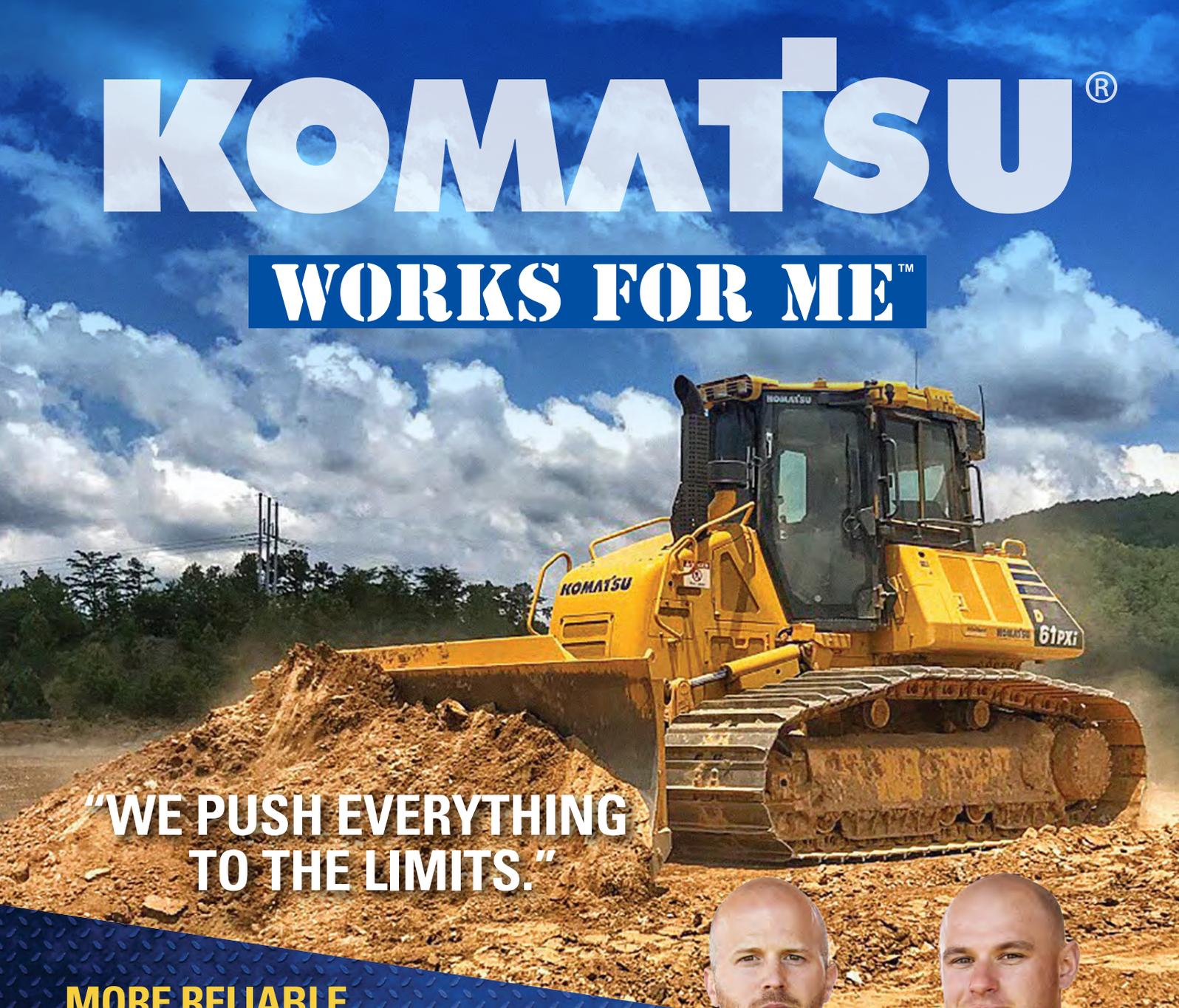
"Existing and new technology in the iMC 2.0 excavators has proven to increase production and efficiency while reducing costs," said Earing. "We encourage anyone looking for those attributes to contact their distributor and test one for themselves." ■

The new intelligent Machine Control (iMC) 2.0 PC210LCi-11 maintains the semi-automatic features of the first-generation iMC excavators, including auto stop control, minimum distance control and a facing angle control to limit overexcavation.



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Construction industry forecasters predict rise in overall starts led by single-family housing, non-building segments

Uncertain? Cautiously optimistic? Upbeat? Construction forecasters are making their best predictions with most seeing positive territory for overall starts in 2021 as well as significant gains for certain market segments.

Dodge Data & Analytics (Dodge) looks the most bullish, forecasting an overall 4% increase in starts. The Portland Cement Association (PCA) predicts a 0.6% rise. On the flip side, FMI Corp. estimates an 8.7% decline.

The Northeast region of the country will be the most robust, according to Dodge. Its forecast sees a 14% jump in 2021, followed by the South Atlantic at plus 5% and the South Central at 4%. It believes the Midwest will be flat, while the West will fall 3%.

The industry is coming off a rough year in 2020, particularly the first half when COVID-19 caused a deep drop in construction starts, according to Dodge Chief Economist Richard Branch in a press release announcing the organization's outlook. He said to expect bumps along the way.

"While the recovery is underway, the road to full recovery will be long and fraught with potential potholes," said Branch.

Low rates spur home building, ownership

Single-family housing was one bright market segment last year, increasing by 4% compared

to 2019. It also seems to be one area of broad agreement among forecasters. Dodge's outlook has it rising another 7% to \$254 billion, which would be its highest since 2007.

The National Association of Home Builders (NAHB) appears to concur, forecasting a 3% increase this year, followed by 2% more in 2022. PCA sees a 4% rise in total residential building.

"Overall, homebuilder confidence is at a data series high, as sales have outpaced construction," said Robert Dietz, Senior Vice President and Chief Economist at NAHB in a recent *Engineering News-Record* article. "Housing demand is driven by historically low interest rates, demographic tailwinds and a desire for more space, which, in turn, is leading to construction gains in lower-density markets."

There are opposite indications for multifamily housing starts. Dodge has a positive outlook at plus 7%. However, FMI, which sees a decline for 2021 in single-family, also predicts a 16.7% decrease in multi-family homes, and NAHB sees a 15% drop.

Anirban Basu, Chief Economist of the Associated Builders and Contractors (ABC), wrote in a December 2020 online article for *Construction Executive* that single-family housing has been and will continue to be a bright spot. Similar to others, he sees the ongoing decline in multi-family extending into 2021.

The picture is unclear when it comes to transportation spending, including roads and bridges. Dodge Data & Analytics sees a slight increase. The American Road & Transportation Builders Association, FMI Corp. and the Portland Cement Association predict negatives.





Construction industry forecasters agree that single-family housing will remain strong in 2021 spurred by low mortgage rates. Dodge Data & Analytics sees it increasing by 7% to \$254 billion, which would be its highest since 2007.

“Among the most buoyant segments at present is owner-occupied housing,” said Basu. “With more and more Millennials coming of age, coupled with the high rate of people looking to social distance, take advantage of low mortgage rates and acquire enough space for a home office, housing demand has raced even higher during the pandemic. But that surging demand has crashed into a dearth of available, unsold inventory, resulting in rapidly rising home prices and the highest homebuilder confidence on record.”

Contradictory indications for non-residential, transportation

Conflicting outlooks are also evident in the non-residential sector, which includes offices, lodging and commercial properties, as well as warehouses, educational, healthcare and other institutional buildings. FMI, PCA and the American Institute of Architects (AIA) all see relatively sizable declines, while Dodge expects a 3% overall increase with the warehouse, healthcare and office buildings segments all up more than 5%.

Dodge’s optimism also remains for overall non-building construction with a 7% forecast gain. That market includes highways and bridges, environmental, public works and

electric utilities. It believes the latter category will be especially robust with a 35% increase after falling more than 40% in 2020. Dodge indicated that several natural gas export facilities and a large number of wind farms are expected to break ground this year.

It projects a slight increase for highways and bridges. The American Road & Transportation Builders Association (ARTBA) sees it differently. It estimates that highway construction will fall 4.4% with a decline of almost 2% for bridges. FMI and PCA predict negatives as well.

These sectors could be affected by additional infrastructure funding. The most recent highway bill was set to expire in September 2020; however, Congress provided an additional year of funding as part of a short-term continuing resolution. Biden administration transportation advisor John D. Porcari said it is likely to seek an increase for core federal programs, as well as others such as BUILD grants awarded by the Department of Transportation.

“I think you need to kind of flood the zone with more (dollars) on the formula side, more on the competitive-grant side,” said Porcari during an annual meeting of the American Association of State Highway and Transportation Officials. ■

Successful companies know investing in training and retaining is essential even during the toughest of times



Rachel Burris,
Communications
Manager, NCCER

Historically, training is one of the things companies curtail during tough times. Although halting training may be fiscally understandable, it's short-sighted and hurts your program and the construction industry as a whole in the long run. This is the time to really focus on current projects and ensure people are working at their maximum capacity.

Proactive, successful companies have traditionally managed to maintain training through difficult times. It may not look the same and may be adapted, but progressive companies will not quit training. Why?

3 key reasons

1. The skills shortage won't disappear. Before COVID-19, the construction industry was already facing an estimated shortage of one

million skilled workers by 2023. In August 2019, the Associated General Contractors of America found that 80% of contractors were having difficulty finding qualified craft professionals.

Training and retaining our workforce must remain a priority or we'll be facing an even more extreme shortage after the crisis. ManpowerGroup reports that skilled craft professionals and construction laborers remain in the top 10 most difficult roles to fill.

2. Training increases productivity. Doing targeted, job site specific training helps get workers re-engaged and increases productivity. Concerns about job security and the industry are prevalent across the workforce – training helps combat those feelings of apprehension.

Continued training during this time also builds your sense of community in your workplace culture. The McKinsey Engineering Construction and Building Materials Practice points out that “balancing performance and health is critical at any point – and it's much more important in these turbulent times.”

3. It's strategic. To be an employer of choice in construction is all about training and retaining your workforce. Instead of “turning off the electricity to save on electricity when times get tough,” it an opportunity to be more strategic.

Companies have typically already invested significantly in establishing workforce development programs to recruit. During times when companies are not bringing new people in, trying to maintain the employees who you may have already invested in with a year or two of training is tactically important.

This momentary slump cannot affect the construction industry's vision of the future. As an essential business, the world needs construction. We remain the industry that builds America. ■

Editor's note: Rachel Burris is the Communications Manager at the National Center for Construction Education and Research (NCCER). This article is excerpted from a blog post and reprinted with permission from “Breaking Ground: The NCCER Blog” at blog.nccer.org.



Rachel Burris emphasizes that it's short-sighted to cut training during difficult times. “Proactive, successful companies have historically managed to maintain training through difficult times. It may not look the same and may be adapted, but progressive companies will not quit training,” said Burris, Communications Manager for National Center for Construction Education and Research.

New solution saves time, expense by delivering design changes directly to machines, eliminating travel to job sites

If you manage construction projects, you know design changes come with the territory. You also realize that delays in updating plans could adversely affect production and your profits.

“It’s critical to communicate new information as quickly as possible,” stated Bryce Satterly, Komatsu Smart Construction Solutions Manager. “Technology is making that virtually instantaneous. Our Smart Construction Remote solution is a good example. It allows users to send design data to machines in the field and remotely support operators without traveling to the job site, reducing costly downtime.”

Managers can log into target machines, pinpoint their location, view the machines’ monitors and upload or download files at anytime from anywhere, according to Satterly. He added that updates can be transferred to multiple machines with one click.

Smart Construction Remote’s software is compatible with Komatsu intelligent Machine

Control dozers and excavators as well as with select aftermarket grade control systems. It’s one of several Smart Construction solutions created to help you more efficiently plan, schedule, manage, streamline costs and optimize processes remotely.

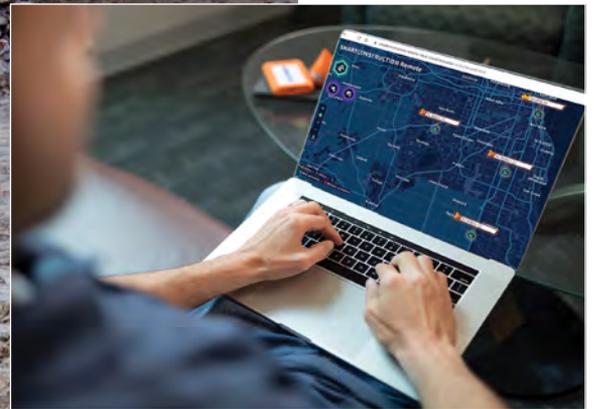
Distant troubleshooting capabilities

In addition to project design file updates, Smart Construction Remote provides distanced troubleshooting capabilities. Offsite personnel can view what operators are seeing in the field, and even operate the machine control monitor, through their connected devices.

“The operator, survey manager and others can communicate remotely in real time, and resolve issues faster,” said Satterly. “Not having to make that trip to either update a machine or troubleshoot it saves time and reduces fuel costs and emissions associated with driving to the site. Those are added benefits.” ■



Bryce Satterly,
Komatsu Smart
Construction
Solutions Manager



Smart Construction Remote lets you log into target machines, pinpoint their location, view the machines’ monitors and upload or download files at anytime from anywhere. Smart Construction Remote also provides distanced troubleshooting capabilities.

Six machines named to magazine's list of best products deliver improvements driven by in-the-field customer conversations

What do new intelligent dozers, two excavators of vastly different sizes, a specialty pipelayer and two mid-to-large-size wheel loaders have in common? For one, they were named among the Top 100 products by *Construction Equipment* magazine. More importantly, they were built with new efficiency and production features driven by customer input.

Among the prominent machines on the list are intelligent Machine Control 2.0 D51i-24 and D61i-24 dozers with integrated GPS technology that is proven to boost production by as much as 60%. They feature proactive dozing control that lets operators cut and strip like an experienced operator from first pass to last. (See related article on page 5 for additional features).

Large, small excavators

Earthmoving companies of all sizes appreciate a basic digging machine that's easily transported from job to job. They like it even better when the machine offers fast cycle times, deep digging capabilities and high production, such as the new PC130-11, according to Andrew Earing, Komatsu Senior Product Manager.

"Mobility is a real asset with the PC130-11," said Earing of the 28,660-pound excavator

that digs more than 17 feet deep. "When a contractor finishes one job, they can quickly load this excavator and be on the way to the next site. When they get there, it's a matter of minutes to unload and start digging. That increases production time."

He added that the PC130-11 is built with steel castings in the boom foot, boom nose and arm tip for exceptional durability. It is available with plus-one piping as an option, so you can run attachments for a wide range of applications and potentially boost profits.

The much larger 200-ton class PC2000-11 mining excavator is built for high-volume digging and can move up to 17.9 cubic yards of material in a single scoop.

"Customers told us they want better multifunction performance and productivity than the previous model and the competition," said Joe Sollitt, Komatsu Senior Product Manager, Mining Support Equipment. "With more available engine horsepower, we were able to increase pump absorption and re-engineer the engine-pump-control logic. In combination with a more efficient hydraulic system, the PC2000-11 can load out more material per shift."

Sollitt emphasized that Komatsu designed the 1,046-horsepower excavator for greater reliability and durability with thicker, stronger boom plates and castings that are highly resistant to bending and torsional stress. The center and track frame were strengthened, and it has larger diameter carrier rollers for extended service life. He added that a ground-level service center is standard, and the power module that service personnel grew to love was maintained.

Loaders prove more productive

Komatsu incorporated next-generation technology with considerable benefits to make its new WA475-10 wheel loader an ideal fit for quarry, waste, infrastructure, forestry and non-residential applications. Feedback received in the field guided improvements, which made it 30% more fuel efficient than its predecessor, leading to savings that can potentially make you more competitive and profitable.



Earthmoving companies of all sizes appreciate a basic digging machine that's easily transported from job to job. They like it even better when the machine offers fast cycle times, deep digging capabilities and high production, such as the new 28,660-pound PC130-11.

Continued . . .

New iMC 2.0 dozers increase production up to 60% with the ability to use automatics from grass-to-grade



Intelligent Machine Control 2.0 D51i-24 and D61i-24 dozers feature patent-pending proactive dozing control that automatically cuts and strips from existing terrain like an experienced operator – 100% of the time, from grass to grade. The dozers also have improved automation with patent-pending lift layer control, tilt steering control and quick surface creation.

Jon Jennings,
Komatsu Product Marketing Manager

When experienced operators retire, they take with them their knowledge about how to move dirt as productively and efficiently as possible. That could potentially slow down your operations. What if it could be faster for your new or less-experienced operators to become as productive as those who left? It's possible.

One of the key attributes of Komatsu's new intelligent Machine Control (iMC) 2.0 dozers is patent-pending proactive dozing control that automatically cuts and strips from existing terrain like an experienced operator – 100% of the time, from grass to grade. This technology increased production by as much as 60% compared to the first-generation dozers, according to Komatsu Product Marketing Manager Jon Jennings.

"The ability to use automatics from first pass to last, instead of just during the finish grading, significantly reduces the time it takes to reach target elevation," said Jennings. "Proactive dozing control logic decides the appropriate action, such as whether to cut and carry material, spread or fill that material or whether it should finish grade."

The system provides the real-time position of the dozers to the job site to create a highly accurate elevation for it to drive the blade to the precise grade needed. During operation, the dozers measure the terrain as they track and use the track-level data to plan the next pass.

New automation, satellite systems

Improved automation is also part of iMC 2.0, including patent-pending lift layer control, which automatically spreads

fill from existing terrain with the press of a button. Much like proactive dozing control, this feature tracks the terrain and uses the data to plan the next pass, which doubles production and achieves consistent layers for quality compaction.

Additional automation features include tilt steering control that automatically tilts the blade to maintain straight travel during rough dozing, reducing the need for operator steering input by 80%. Quick surface creation produces a temporary design surface with one press of a button without the need for a complex 3D model.

Other upgrades include a second GPS antenna, which Jennings noted will aid in side-slope work. The new machines also gain access to three additional satellite systems.

"The biggest advantage is greater overall accuracy," he said. "More satellite systems increase production through the ability to use GPS in places where it may have been a big challenge before, such as at the edge of a wooded area or close to buildings on an urban project."

In addition to the new D51i-24 and D61i-24 models recently touted by *Construction Equipment* magazine as top products, the D39i-24 and the highly anticipated D71i-24 that was introduced last year at CONEXPO will soon be available.

"We had numerous orders for these machines before they were available because customers realized how much the new dozers will increase their production," said Jennings. "We encourage anyone looking for the same in their business to contact their distributor for a demo, more information or to add one to their fleet." ■

New features improve cycle time

... continued

The WA475-10 has 18% greater horsepower but achieves increased fuel efficiency with its Komatsu hydraulic mechanical transmission. Contributing to better economy and productivity is the independent work equipment control that simplifies operation by separating the accelerator pedal from the speed of the work equipment.

To further boost productivity, the boom lift force was bolstered by 20% and breakout force increased by 8%. A new bucket design improves pile penetration and better retains material in load-and-carry applications.

“Additional conversations with equipment users also led to an improved operating environment that includes an updated cab with floor-to-ceiling glass, ergonomically designed switch layouts and a fully adjustable five-axis console for enhanced operator comfort,” noted Bruce Boebel, Komatsu Senior Product Manager.

The WA800-8 wheel loader also has a new bucket shape that incorporates an increased radius and floor inclination to make it easier to fill and retain material. The spill guard

was adjusted to give operators improved visibility to the pile, and sweeper wings on either side protect the front tires. In larger quarry, aggregate and mining applications, the 254,700-pound machine is an ideal match for 60- to 100-ton trucks.

The loader features key new automatic and semi-automatic systems that assist operators and contribute to productivity and efficiency. The three features can be used together or separately to automate the work phases when V-cycle loading, including automatic dig to optimize bucket load, actuating the bucket and lifting operations by sensing the pressure applied to the work equipment.

A semi-automatic approach raises the boom automatically when reversing out of the pile. The lift arms elevate until reaching the upper setting of the boom positioner, allowing the operator to focus on the travel path of the loader.

Semi-automatic dump raises the lift arms automatically and dumps the bucket with the push of a button. After dumping, it levels the bucket and returns the lift arms to the lower boom positioner setting; however, the lift arms will not lower until the bucket has cleared the truck.

“We also responded to customer requests by introducing a modulation clutch for optimal tractive effort and throttle lock that improves cycle times by maintaining high work-equipment performance and saving fuel with auto deceleration,” said Komatsu Product Marketing Manager Robert Hussey.

New pipelayer designed for exceptional stability

Komatsu worked closely with pipeline companies to develop its new D155CX-8 pipelayer that has an oval design nine-roller track with 12 feet, 10 inches of track on ground for stability. It also features 32-inch track shoes.

Heavy final drive components are close to the ground, which lowers the center of gravity. The rollers are fixed suspension and don't oscillate like a dozer for greater ground contact.

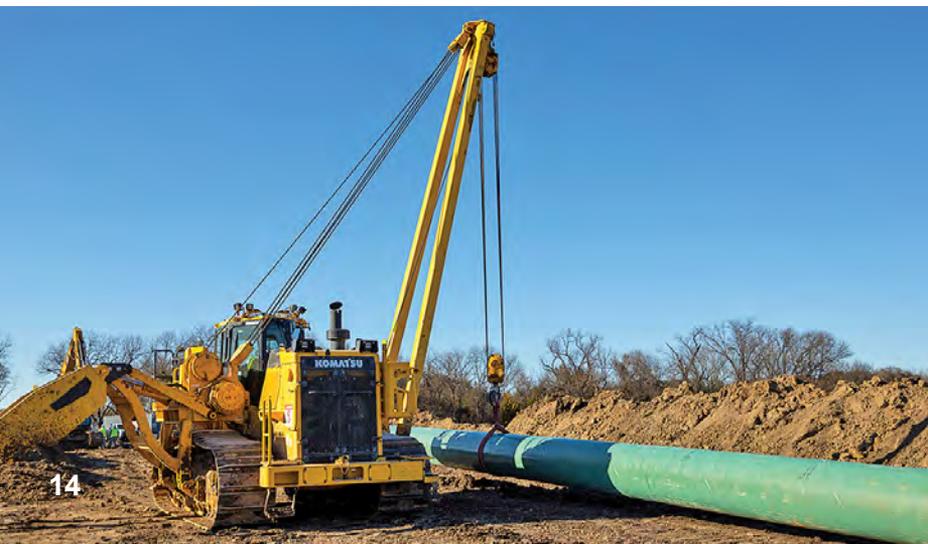
With a 170,000-pound lift capacity, the D155CX-8 can handle up to 36-inch steel pipe. It has a K170 pipelayer package with a standard 24-foot boom length. An optional 28-foot boom is available.

“It's essential that we get feedback from the contractors who will ultimately use a pipelayer like our new D155CX-8,” said Chuck Murawski, Product Manager, Dozers. “One item they recommended was a larger steering motor, so we incorporated one into the machine to give it better displacement and more torque.” ■

Komatsu incorporated next-generation technology with considerable benefits to make its new WA475-10 wheel loader an ideal fit for quarry, waste, infrastructure, forestry and non-residential applications. It's 30% more fuel efficient, has 18% greater horsepower, 20% more boom lift force and a breakout force increase of 8% compared to its predecessor model.



The new D155CX-8 pipelayer has an oval design nine-roller track that features 12 feet, 10 inches of track on ground for stability. With a 170,000-pound lift capacity, the D155CX-8 can handle up to 36-inch steel pipe. It offers a K170 pipelayer package with a standard 24-foot boom length.



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Dawn Mallard / D.Grimm, Inc. / Conroe, TX

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Tracey Drechsel says new structure delivers better service as regional teams work together to be your one point of contact



Tracey Drechsel,
Komatsu Business Director,
East Region

This is one of a series of articles based on interviews with key people at Komatsu discussing the company's commitment to its customers in the construction and mining industries – and their visions for the future.

Tracey Drechsel's career with Komatsu began right out of college. The 1998 Austin Peay State University graduate started with Komatsu Financial and held various roles in operations, sales and marketing. She spent six years as the Finance Sales Manager, working at Komatsu's Newberry, S.C., plant before returning to the Chicago area. Along the way, she earned a master's degree from North Central College.

"As a kid, I never thought construction equipment would be my life. I wanted to be a marine biologist and swim with dolphins," shared Drechsel. "The gig with Flipper didn't work out, so here I am helping people dig holes and push dirt.

"The best part of the industry, and personally, the most rewarding, is the human interaction," she added. "I get to meet people from different backgrounds and find ways to make a difference in their lives. I have been very fortunate to wake up every day for 22 years and enjoy who I work for and who I work with; and I don't take that for granted."

In 2017, Drechsel was promoted to Director/Sales Marketing for the North Region of Komatsu's construction equipment division. In late 2020, she was named Business Director, East Region, which includes states from Michigan to Maine and down to Florida.

A two-sport athlete in college, basketball and softball, she enjoys staying active today. Drechsel likes to run, workout, boat, walk her dogs and travel. She also may be the only person in Chicago who cheers for both the Cubs and White Sox and dislikes deep-dish pizza.

QUESTION: Komatsu has made some structural changes with personnel taking on new roles, including those of regional business directors. What's the customer benefit?

ANSWER: As always, our focus is on helping customers find solutions by utilizing our dealer network, products, technology and, most importantly, our people who care at all levels. Speed to market and technical resolution is something we really focused on improving with this new structure. We empowered our people to make more decisions in the field to improve our response times to customers and distributors.

With this new concept, all business units within a region – parts, sales, finance, warranty, etc. – are now part of the same channel, whereas before it was more individualized. We've created small, focused regional teams with diverse skills to address the entire life cycle of customer needs. We are packaging our solutions as "Komatsu" and are aligned to act in the best interest of the customer.

QUESTION: How are members of each regional team working together?

ANSWER: Internally, we are leveraging each other's skill sets in more proactive ways to add value to our individual knowledge base as well as to our customer interactions. In the past, our collaboration had a tendency to be more reactive.

Now, we're meeting and talking on a consistent basis about what's happening within our region. Individuals and groups can bounce ideas off of each other; and we can discuss best practices in customer satisfaction as we share success stories and customer feedback.

Ultimately, it's a great opportunity to better serve our markets and moves us toward our goal of creating one point of contact that our customer value chain can trust and rely on.

QUESTION: Last year was certainly different from many perspectives. How did events

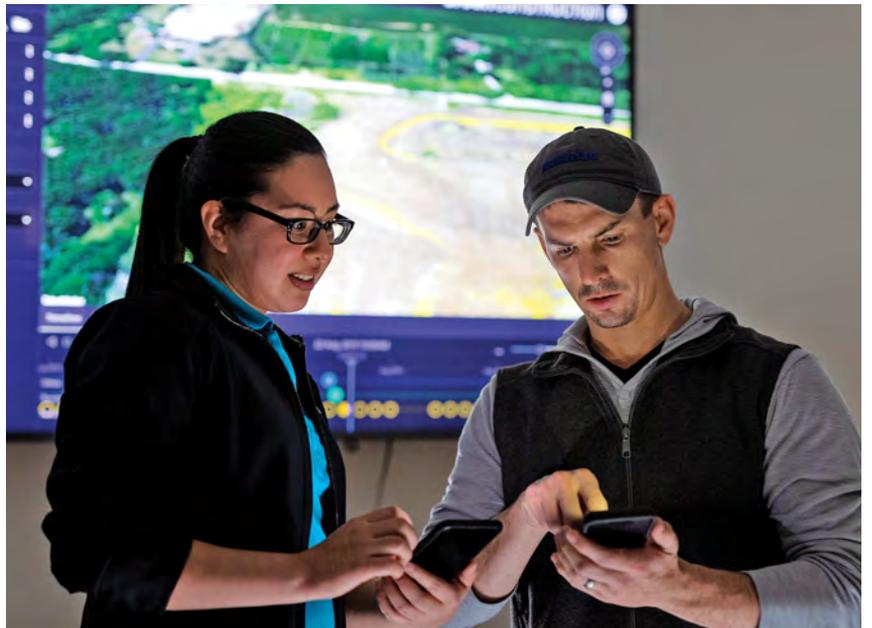


Komatsu's focus is on helping customers find solutions by utilizing its dealer network, products, technology and, most importantly, its people who care at all levels said Tracey Drechsel, Komatsu Business Director, East Region.

affect the construction markets and what do you see looking forward?

ANSWER: COVID-19 accelerated the acknowledgment and need for digital solutions in our industry. The pandemic provided a real-life example of the role technologies, such as online meetings and Smart Construction (the digital transformation of the job site), can play in keeping customers' businesses and projects on track. Those customers who were hesitant or skeptical about adopting GPS systems, intelligent machines and Smart Construction, now see the value in investing in those solutions.

Many are also utilizing our fleet management site, My Komatsu, more often. It enables them to remotely track production, idle time, fuel usage and other data with a tablet, smartphone or desktop computer. It allows them to reference manuals for their fleet, find the needed parts and purchase them quickly and easily. Again, it's actionable information they get without the need to be present at the job site. The complimentary service can save time and improve practices. ■



The use of Smart Construction solutions and My Komatsu for fleet management increased during the past year. "COVID-19 accelerated the acknowledgment and need for digital solutions in our industry," said Tracey Drechsel, Komatsu Business Director, East Region. "The pandemic provided a real-life example of the role technologies, such as online meetings and Smart Construction (the digital transformation of the job site), can play in keeping customers' businesses and projects on track."

Report finds nation's highway system needs greater annual investment to address deteriorating conditions

A report from TRIP, a national transportation research nonprofit, shows that the U.S. interstate highway system faces increasing congestion, unprecedented levels of travel – particularly by large trucks – and insufficient funding to make needed repairs and improvements.

Titled “Restoring the Interstate Highway System: Meeting America’s Transportation Needs with a Reliable, Safe & Well-Maintained National Highway Network,” the organization’s report concluded that the critical transportation link will need to be rebuilt and expanded to meet growing needs. It took into account the interstate system’s use, condition and benefits. It also included the findings of a 2019 report prepared by the Transportation Research Board (TRB), which looked at actions required to restore and upgrade the system. The TRB indicated that investment should be increased approximately two-and-a-half times, from \$23 billion in 2018 to \$57 billion annually in the course of the next 20 years.

Shared commitment needed

“The report released by TRIP confirms what American businesses experience every day – that our interstate highway system, which was once the envy of the world, is in serious need of modernization,” said Ed Mortimer, Vice President of Transportation Infrastructure, U.S. Chamber of Commerce. “Commitment to modernization must be shared by federal, state and local leaders as well as the private sector. The interstate system plays a key national role in the economic success and quality of

life for every American, and we continue to urge bipartisan solutions to address this critical issue.”

As the aging system’s foundations continue to deteriorate, most interstate highways, bridges and interchanges will need to be rebuilt or replaced. According to the TRIP report, pavement on 11% of interstate highways is in poor or mediocre condition. More than one quarter of interstate bridges need repair or replacement.

Based on the findings of the TRB interstate report, TRIP has provided a set of recommendations for restoration, which includes completing foundational reconstruction of interstate highways, bridges and interchanges; prioritizing improvements to roadway safety features; system rightsizing, including upgrading of some roadway corridors to interstate standards; addressing needed additional highway capacity on existing routes; adding more corridors; and modifying some urban segments to maintain connectivity while remediating economic and social disruption.

“The long-term vision that helped establish the current system nearly 65 years ago is needed again today,” said Dave Kearby, TRIP’s Executive Director. “In order to rebuild the nation’s economy, maintain personal and commercial mobility as well as improve quality of life, adequate transportation investment and a sustainable, long-term funding source for the federal surface transportation program must remain a priority.” ■

America’s interstate highway system continues to deteriorate and needs major upgrades. According to a report, pavement on 11% of interstate highways is in poor or mediocre condition. More than one quarter of interstate bridges need repair or replacement.



Komatsu offers a wide range of genuine batteries proven to perform and last in tough conditions

When you turn the key on a machine or a vehicle, you expect it to start. Several systems play a role in whether this does or does not happen, but one of the most important factors is the battery.

“It is essential to use one that’s proven to perform under all circumstances,” emphasized Dimitra Balafoutis, Komatsu Product Manager, Consumables. “We recommend using genuine Komatsu batteries in our machines because they are manufactured to stand up to challenging conditions such as extreme temperatures and high vibrations, which are common on our customers’ job sites. They were designed and built to ensure durability and reduce downtime.”

Balafoutis noted that Komatsu genuine batteries undergo more than 300 quality-control checks throughout the manufacturing process. With proper maintenance, they typically last three years or longer. Komatsu supports all batteries with its standard parts warranty, which is one or two years depending on part number.

“A wide range of 6- and 12-volt sizes are available,” said Balafoutis. “Our distributors stock the most common ones, so they are easily available. If a less common type is needed, you can order it through your

distributor or on the My Komatsu web application (www.komatsuamerica.com/mykomatsu) and have it shipped to the distributor or your location.”

Power your vehicles too

With Komatsu’s all-makes program, customers can also order OEM batteries for their Komatsu equipment and its competitors through their local Komatsu branch, explained Balafoutis. This includes construction, agriculture, mining, forestry and forklift products.

“Those OEM options are available if customers want them; however, Komatsu genuine batteries work in most brands of machinery,” Balafoutis pointed out. “Distributors can assist customers in determining the right fit for their needs.”

She noted that Komatsu genuine batteries are ideal for cars, pickups or other vehicles.

“If you think they are great in your equipment, consider them for other uses,” said Balafoutis. “They power class 1 through class 8 on-highway trucks, boats, recreation vehicles, power sports products such as four-wheelers, golf carts and more. Your Komatsu distributor can be a one-stop shop for all of your battery needs. They will even install them if you like.” ■



Dimitra Balafoutis,
Komatsu Product
Manager,
Consumables



Komatsu genuine batteries power your Komatsu equipment. They can do the same for competitive machinery as well as your vehicles, including pickups, cars, boats, RVs, golf carts and more.

Residential, commercial contractor sees sizable savings with intelligent Machine Control excavators



David Smith II,
Owner



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Like his father, David Smith II went straight to work after graduating from high school. At 17, he ran residential crews in the family business, which performed site work for developers on subdivisions as well as single lots for private homeowners.

“When the markets crashed in 2008, housing pretty much dried up,” recalled Smith, who along with his father owns and operates what is now S3 Sitework. “Dad sent me to do a commercial job. He figured the project would take around six weeks, but I had it done in three. The experience of working in close quarters near houses was a big help because it’s where I learned speed and efficiency.”

That project spurred additional commercial work and also served as the catalyst for a move toward more automated excavating for the Smiths and S3 Sitework.

“I knew how to run a machine – period. Dad sent another guy to set and check grade and drive stakes,” said Smith. “I was really good at wiping them out, which meant resetting. I thought it was inefficient and costly, so we bought a base and rover. Now, GPS technology plays a big role in our operations.”

He added that S3 Sitework is saving time and money by using Komatsu intelligent Machine Control (iMC) PC360LCi-11 and PC490LCi-11 excavators. The Smiths put them in their

fleet about a year ago and appreciate the factory-integrated GPS grade control.

Flawless transitions

S3 Sitework builds models, uploads them to the machines and cuts to grade using the iMC excavators’ semi-automatic features.

“They prevent overdigging. Once the teeth contact the set design grade, no matter how much you push the joysticks, the excavators will not let you go deeper,” explained Smith. “That saves time and material expenses in subgrade preparation.”

He noted a particular job where the excavators stood out. “On one subdivision we had to cut a road, house lots and bar ditches. The ditches had three-to-one slopes, so there were sizable transitions from the bottom of those to the pads and onto the street subgrade. Using the models, the operators and machines made the changes flawlessly without stakes. We only needed to check grade occasionally, and it was spot-on.”

Smith said he knew the iMC excavators were the right machines for S3 Sitework from the first time he demonstrated a PC360LCi-11 on a channel cut.

“It had one-to-one slopes and had to be concrete lined. There was no way to cut that with a dozer,” said Smith. “We dug the channel extremely fast with no overrun on the materials.” ■

An S3 Sitework operator digs a ditch with a Komatsu intelligent Machine Control PC360LCi-11 excavator. The company also has a PC490LCi-11. “We don’t need someone constantly checking grade or setting stakes because the machines know where they are in relation to the design elevation,” said Owner David Smith II. “That saves us time and labor costs.”



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Marv Selge (with Noah & Justin) / Selge Construction, Inc. / Niles, MI

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Komatsu rebrands some mining products

Komatsu announced plans to rebrand its underground hard rock equipment, surface wheel loaders and new line of blasthole drills to reflect the company's united focus on growth in these areas. The first product, the Komatsu ZT44 track drill, made its debut at CONEXPO 2020.

The company will retain its P&H and Joy brands for the products longest associated with those names: P&H rope shovels, hybrid shovels, draglines and the 320XPC blasthole

drill; Joy for longwall systems and room and pillar equipment.

"Building on the growth of our mining portfolio, we're excited to unite more products under the Komatsu brand, while respecting the history and value of the P&H and Joy brands," said Jeffrey Dawes, President and CEO of Komatsu Mining. "As we commemorate Komatsu's 100th anniversary in 2021, it's a great moment to expand the brand in mining and celebrate the growth of these product lines." ■

Researchers to establish National Institute for AI in Construction

The National Science Foundation and Discovery Partners Institute awarded grants to support researchers at the University of Illinois (UI) and Carnegie Mellon University in the establishment of the National Institute for Artificial Intelligence (AI) in Construction. The goal is to identify key areas for the highest impact of AI design, construction and operation of the built environment, according to an article on UI's website.

It added that researchers hope the initiative will advance both the application of AI in construction and the science of AI in

general. More than 40 industry partners from architecture, engineering, construction, technology providers and venture capital firms will join the researchers in this multidisciplinary effort.

"Machine learning and AI are in the national spotlight because they can solve important problems," said Derek Hoiem, Co-Principal Investigator and Associate Professor of Computer Science at UI. "We believe applying AI methods to construction problems will produce a seismic shift in AI research." ■

Extreme Sandbox opens new Texas location

Extrême Sandbox recently opened a new location in Sasche, Texas, inside The Station mixed-use district. Like its other sites, this one features Komatsu equipment.

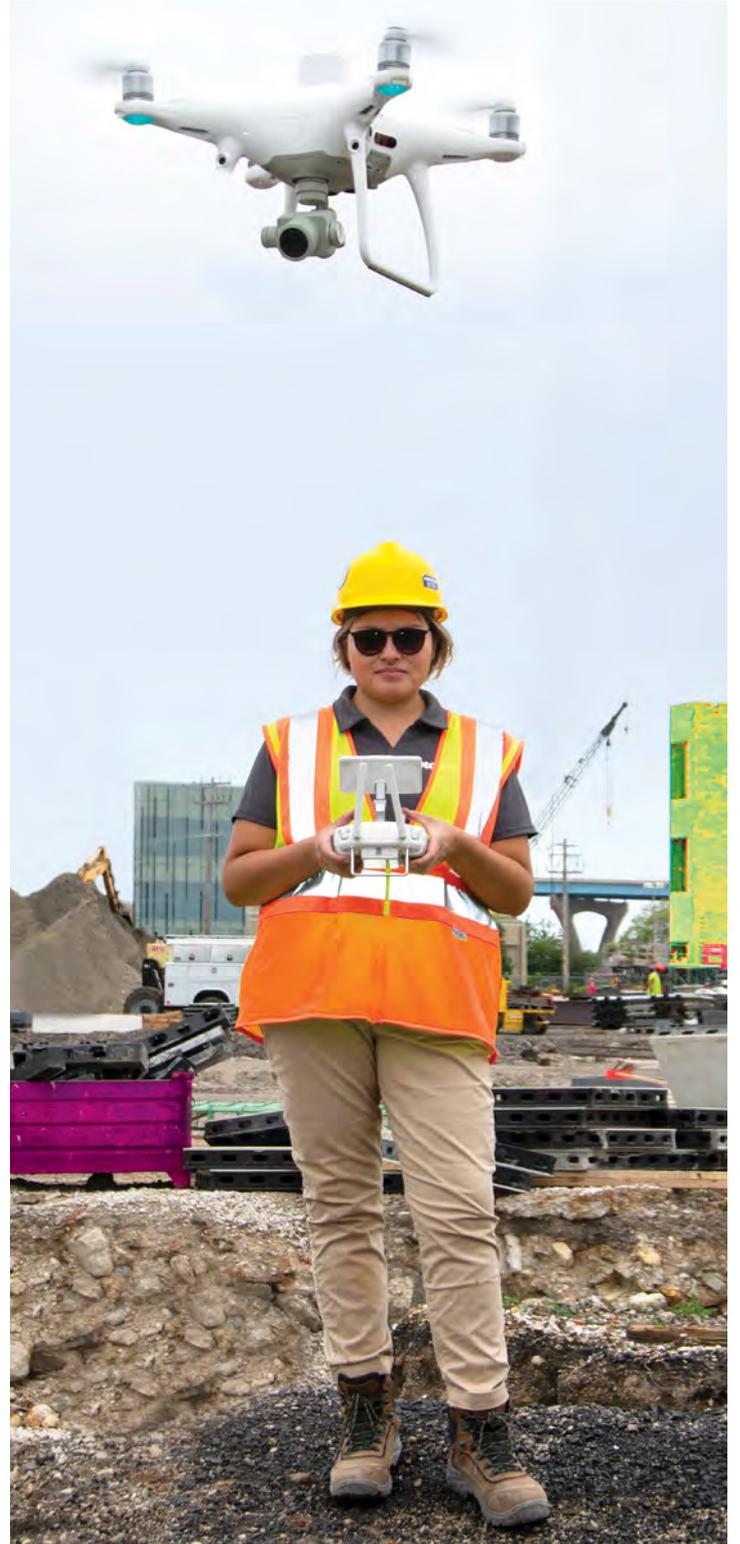
Extreme Sandbox, a heavy-equipment adventure company, is an open-air entertainment concept that is a destination for individuals looking to fulfill a bucket-list item or for corporate groups seeking a unique outing and/or team-building activity. It presents guests with the opportunity to operate construction equipment, including excavators, dozers and wheel loaders, under the supervision of highly-trained expert instructors.

Additionally, the company offers entry-level heavy equipment training and student camps for those looking at a career in the construction trades. "We are excited to be open to the public at our new Sasche location," said Extreme Sandbox CEO and founder Randy Stenger. "The City of Sasche is an amazing community and is the perfect hub for new business to grow and thrive. Not only do we provide an amazing bucket-list experience, but we also hope to inspire the next generation of construction workers. Whether you are a 14-year-old high school student or a 94-year-old grandmother, we make learning fun." ■

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