

MidAmerica INDUSTRIAL PARK DELIVERS

*Serving the Central United States, MidAmerica
is the largest industrial park in the Midwest.*

Grand River Dam Authority dedicates
"MOST EFFICIENT" power generation
plant in the world *see page 6*

GOOGLE
Expansion Update.
see page 12

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Google transforms NE Oklahoma's socio-economic stature

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INDUSTRIAL PARK

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From the desk of **DAVID STEWART** **REVOLUTIONIZING AN INDUSTRIAL PARK FOR INCLUSIVE GROWTH IN JOBS AND PEOPLE**

TULSA WORLD, BUSINESS VIEWPOINT SUBMISSION

The next industrial revolution is upon us.

The Bureau of Labor Statistics reports there are a record 6.2 million job openings in the United States. The Fourth Industrial Revolution, or Industry 4.0, will create demand for an additional 900,000 highly-skilled manufacturing workers over the next decade.

In today's economic development market, the evolution of an industrial park into a multi-faceted employment center is a cornerstone to inclusive growth in jobs and people.

In recent years, MidAmerica Industrial Park's focus on turning innovation into implementation has sought to reduce barriers to economic advancement for students, workers, employers and local economies.

"New collar jobs" mean traditional technical skills are becoming less important, while adaptive skills, such as being able to access and use online technical information or run a control room, are becoming essential.

The single most critical element to the success of an employer is the availability of a trained and skilled workforce.

To prepare the future workforce for Industry 4.0, MidAmerica provided a STEM lab to every Mayes County school district and, in the coming year, will add three to five more school districts in surrounding counties. Additionally, MidAmerica partnered with Rogers State University-Pryor campus to place a Career Center in the heart of the Park. This Career Center will serve as a recruitment tool to regional high school students and act as a central point of access for education and career opportunities at MidAmerica.

Resources have also been committed to ensure the Park can be nimble and responsive to an employers' growth and infrastructure needs.

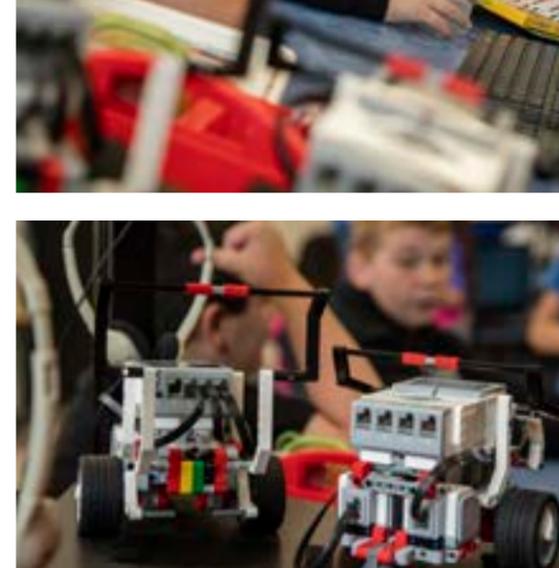
MidAmerica is more than simply a provider of land and infrastructure. With a considerable critical mass of more than 80 companies and an employment base of more than 4,500 people



DAVID STEWART
Chief Administrative Officer
Oklahoma Ordnance Works Authority
MidAmerica Industrial Park

STEM Partnership between Pryor Schools and MAIP is a Win Win

September 8, 2016 is a day Pryor middle-school student Mikalaya Littering will never forget. Littering and 46 middle-school students from around the nation were selected as national finalists in the Globey Game Design Competition.



With a mission to train teachers how to integrate computer science education courses into K-12 curriculum, Globaloria created the Globeyes to recognize outstanding achievement in computation fluency, engineering, coding, teamwork and design thinking.

"This was an exciting time for not only Mikalaya, but for our entire school system," commented Don Raleigh, Superintendent of Pryor Schools. "One of our goals was to encourage more females to become more involved with STEM learning. Mikalaya's success is definitely a step in that direction. And we would not have had this opportunity if it weren't for the partnership we have with MidAmerica Industrial Park."

Earlier in 2016, MidAmerica Industrial Park announced a \$3.5 million investment to expand and leverage MidAmerica Delivers, a workforce development and retention program. Phase one includes \$1.2 million to build STEM labs in five Mayes County school districts.

"The recent news by Google announcing another \$1 billion in capital investment along with several other companies at our park making investments in employment and training was our impetus for starting this program," said David Stewart, Chief Administrative Officer of MidAmerica Industrial Park. "We account for more than 4,000 workers in diverse industry sectors and that number will continue to grow, so we must be able to recruit and retain workers with STEM-oriented skills."

Two of three elementary schools in Pryor are now equipped with a STEM learning lab. According to Raleigh, it's important to start the STEM learning at an early age.

"If we can expose kids to STEM at an early age, they get excited and see the potential they have down the road."

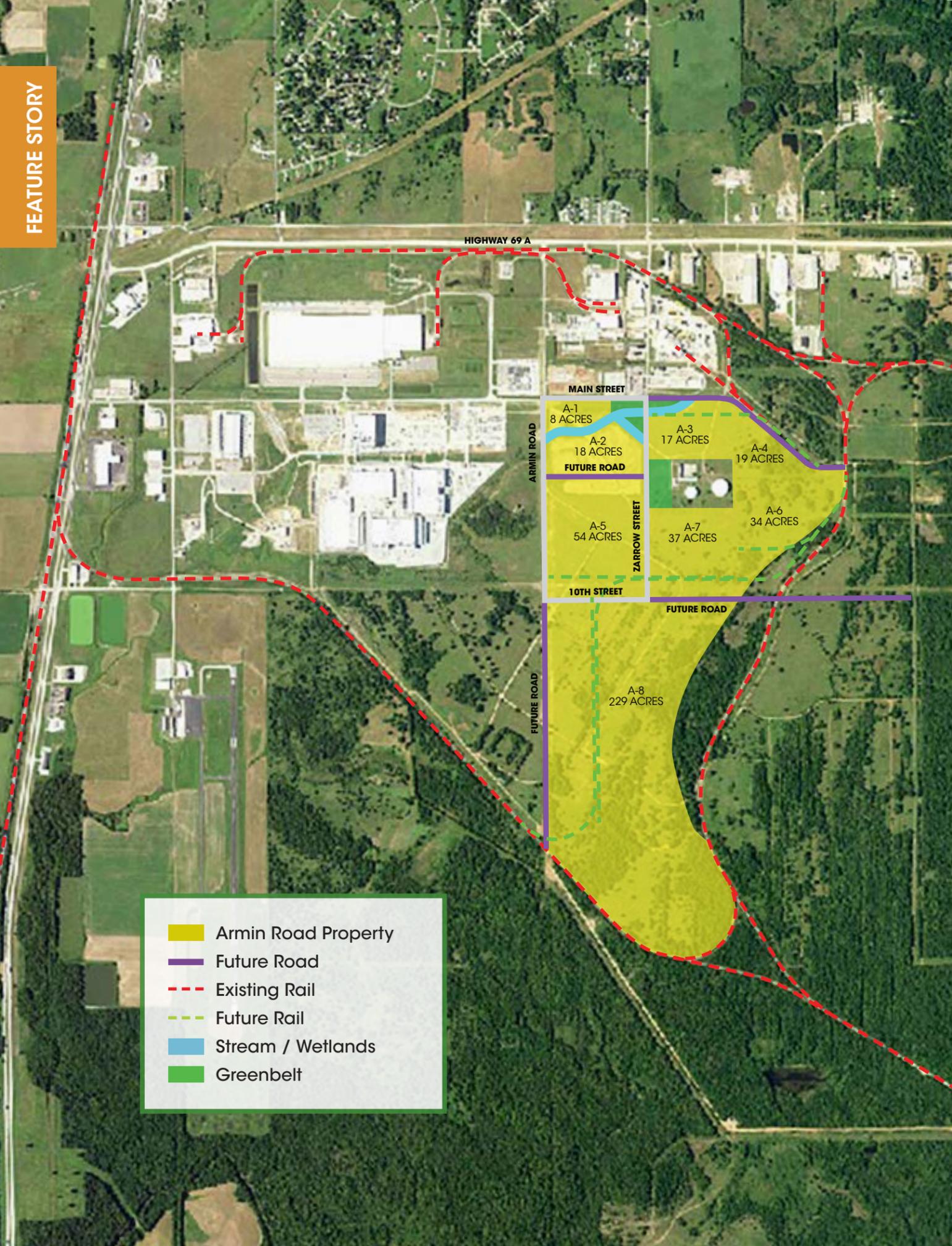
The STEM labs expose students to technologies and systems that are prevalent with those in today's economy. The project is completely turn-key for the school districts and provides the infrastructure and build out of the room, the Creative Learning System and curriculum,

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Investment in greenfields opens 400 NEW ACRES for development

The \$6M capital investment in infrastructure prepares sites for new businesses



- Armin Road Property
- Future Road
- Existing Rail
- Future Rail
- Stream / Wetlands
- Greenbelt

MidAmerica Industrial Park recently completed an expansion of greenfields to open 400 new acres for development.

The "Armin Road Project," establishes 400 new acres of property located in the heart of the park. MidAmerica invested \$3.5 million in roads to access the sites and \$2.5 million in water and waste water lines to ensure the property is ready for new businesses.

The property is now divided in eight different sites to provide ample space to prospective businesses. The eight sites range from eight acres to 229 acres and are accessible by Armin Road.

"As this is a greenfield or new development without any legacy, the architecture dimension and the modeling of infrastructure followed the latest cutting-edge innovation," said MidAmerica's Assistant General Manager John Schaffitzel. "With this expansion, we have a blank canvas that opens space for development without pre-existing restrictions."

Additionally, MidAmerica's board of directors is committed to future capital investments in infrastructure improvement projects. Chief Administrative Officer David Stewart says the park anticipates investing \$15-16 million over the next three years to prepare the park to support expansions and new businesses.

"We worked with Dewberry Architects on designs for comprehensive renovations and have contracts in place to start the work in late February," Stewart said. "MidAmerica has significant assets in water and power options. Proactive investment in infrastructure improvements means the park

can compete among top-tier site locations for prospective new businesses."

Expectations for the return on investment are high and MidAmerica's economic development team is already receiving interest from site location consultants regarding the configuration of the new greenfield sites.

"With this greenfield expansion, MidAmerica can ensure space is readily available for prospective new industries or expansion of our current employers," said Stewart. "The new roads, water and waste water lines are just a piece of the puzzle in making that possible."

» READY FOR DEVELOPMENT

The property is now divided in eight different sites to provide ample space to prospective businesses. The eight sites range from **eight acres to 229 acres** and are accessible by Armin Road.

Grand River Dam Authority dedicates “most efficient 60Hz” power generation plant in the world

IN PARTNERSHIP WITH MITSUBISHI HITACHI POWER SYSTEMS, THIS POWER UNIT IS FIRST IN THE WESTERN HEMISPHERE



(L-R) GRAND RIVER DAM AUTHORITY BOARD OF DIRECTORS Steve Spears, Tom Kimball, CEO Dan Sullivan, Chair Joe Vandevier, Pete Churchwell and Ed Townsend pause for photo next to the dedication plaque.



TAKATO NISHIZAWA, vice chairman of Mitsubishi Hitachi Power Systems, addresses attendees at the October dedication ceremony.

Officials with the Grand River Dam Authority (GRDA) dedicated its new power unit alongside partners, Mitsubishi Hitachi Power Systems and The Industrial Company, U.S. Rep. Markwayne Mullin, and representatives from the U.S. Environmental Protection Agency. GRDA’s third power unit is the first of its kind in the Western Hemisphere. At the dedication ceremony in October, MHPS CEO Paul Browning announced “the numbers now prove this 60Hz power generation plant is the most fuel efficient in the world.”

This new, high-efficiency combined cycle gas plant is fueled by Oklahoma’s abundant supply of natural gas. The \$500 million project began construction in January 2015 after the adoption of GRDA’s new, long-term electric generation plan. The “grand and greener” plan also includes a retrofit of the emissions control equipment located on GRDA’s Unit 2 coal-generator, as well as a commitment to increase wind generation capacity within the GRDA energy portfolio of coal, hydro, wind and other gas generation.

“This capital investment further diversifies GRDA’s power generation options and ensures we remain a primary, reliable source of electricity for our current and future customers,” GRDA Chairman of the Board Joe Vandevier said. “With this new unit, GRDA can now capitalize on one of our greatest assets in natural gas and further increase the return investment to Oklahoma.”

The positive economic impact of the new facility is also important. According to a 2015 study by the Oklahoma Department of Commerce, as a result of the Grand River Dam Authority’s investment, operations, quality of life and power costs, GRDA is estimated to facilitate an annual economic activity impact of \$960 million to a little over \$1 billion in Oklahoma’s economy during the



first two years of [Unit 3] construction. Over the long term, GRDA’s annual economic activity has an \$840-\$850 million impact on the Oklahoma economy.

“This is a customer-driven plan that complements the ever-increasing percentage of renewable energy in the regional market, and positions GRDA as a leader in the transformation of the U.S. energy sector,” GRDA CEO Dan Sullivan said. “With our customer’s long-term, supportive commitment, GRDA invested in their collective future with the best technology available in the U.S.”

The use of natural gas provides benefits to the environment, greater flexibility to the power grid and renewed economic development in gas-rich regions of the country, like Oklahoma. Output from Unit 3 will bolster reliability and will further diversify GRDA’s generation portfolio.

“Affordable energy is required to power economic growth,” said Ken Wagner, U.S. Environmental Protection Agency senior advisor for Regional Affairs. “The GRDA and Mitsubishi Hitachi Power Systems are commended for the foresight and leadership to invest in a long-term strategy to grow a supply of power that is economical while also improving the environment.”

GRDA’s Unit 3 is an M501J advanced-class gas turbine and is the first “J-class” turbine to be constructed by Mitsubishi Hitachi Power Systems at its Savannah Machinery Works facility in Georgia.

“The Grand River Dam Authority asked us to provide the people of Oklahoma the most efficient and reliable power plant available,” said Paul Browning, President and CEO of MHPS Americas. “We’re proud to announce that the first J-series in the Americas beat our performance guarantee and achieved 62% combined cycle efficiency. GRDA now owns the first 60 hertz combined cycle power plant in the world to make this claim.”

The multi-stage construction process is a result of project partners Mitsubishi Hitachi Power Systems and The Industrial Company-Kiewit, Enable, Nooter/Eriksen, Hitachi-HVB, and Black & Veatch.

“It has been my privilege to work with the technology team that GRDA assembled to create Unit 3 at the Grand River Energy Center,” said Charles Barney, executive vice president, GRDA. “These partners all shared our vision to set a new standard for efficiency and reliability. Each partner contributed their best engineers and constructors, and I congratulate them on their exceptional accomplishment. This ultra-efficient electric generator is now integrated with our hydro and wind generation, and will help assure that GRDA customers have low-cost, clean and reliable electricity for many decades.”

NEW PLANT RAISES MIDAMERICA INDUSTRIAL PARK’S COMPETITIVENESS

Currently, GRDA services **15 municipalities across Oklahoma**, and more than **80 industrial customers within the MidAmerica Industrial Park** along with other off-system customers, including Western Farmers Electric Cooperative and the Oklahoma Municipal Power Authority. Directly or indirectly, GRDA electricity **reaches into 75 of 77 counties** in Oklahoma as well as Kansas, Missouri and Arkansas.

“The addition of this new power generation plant means MidAmerica Industrial Park is more competitive than ever among site location consultants considering an expansion or relocation,” said Chief Administrative Officer David Stewart. “Together with the expansion of the Google Data Center, these news announcements are bringing MidAmerica to the attention of many companies seeking available land, intermodal transportation options of rail, waterway, air and interstate, and now we can tout the most fuel-efficient power generation plant in the world.”

MIDAMERICA GAINS RECOGNITION AS AN OFFICIAL STEM COMMUNITY

THE INDUSTRIAL PARK AND ITS PARTNERS RECEIVED STATE AND NATIONAL RECOGNITION ON THEIR MANY STEM INITIATIVES

In a room full of Legos, Darryl MacKay, an automation manager at American Castings, was demonstrating robotics to students using the popular building toy as a teaching tool.

"It's important for students to have time to work with hands-on activities like those at the Robotic Camp," said MacKay, who is also the president of Mayes County Robotics team, MCROBO. "Not only does it spark their interest in a possible career, it also gives a purpose for what they are learning in school."

In another room down the hall, over sixty area teachers were simultaneously learning about STEM fields after high school, and after touring several of the companies located at the park, left with information about STEM careers to take back to their students.

These two STEM education camps were held at MidAmerica this past summer, as a part of their ongoing workforce initiative, MidAmerica Delivers.

The STEM partnership between MidAmerica Industrial Park and Mayes County earned them the recognition as an official designated STEM Community in Oklahoma.

"This collaboration helps Oklahoma continue the growth and

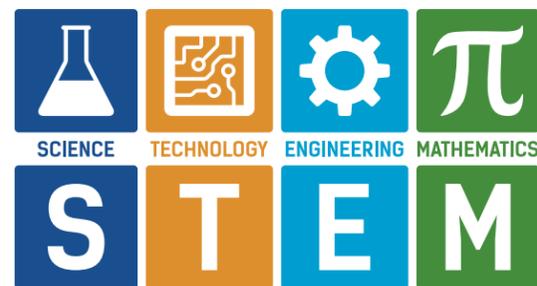
support of a stronger economy and workforce," commented Saeed Sarani, President and Executive Director of the Coalition for the Advancement of Science and Mathematics Education in Oklahoma (CASMEO). "STEM education is the foundation of maintaining a successful workforce, and our highest priority is aligning the STEM education to the workforce needs of the 21st century."

CASMEO is a non-profit organization dedicated to promoting high standards of STEM education and workforce in Oklahoma. After the initial designation from CASMEO, Governor Fallin gave the official recognition.

In addition to becoming a STEM Community within the state, the national STEM Funders Network designated MidAmerica as a part of the STEM ecosystem, which is comprised of more than 50 other STEM communities throughout the country.

The STEM Funders Network is a national initiative focused on STEM education along the PreK-Workforce continuum.

"MidAmerica was invited because their community and their leadership has demonstrated a deep commitment for STEM learning across multiple platforms," said Ron Ottinger, Co-Chair



of the STEM Funders Network. "With this addition, we now have fifty-four communities around the country and Canada comprising this STEM Learning Ecosystem Community of Practice."

Dave Stewart, CAO of MidAmerica Industrial Park realizes that this program will continue to grow and affect career opportunities as well as the individual quality of life.

"These workforce development initiatives directly and indirectly influence the sustainment and growth of the Oklahoma economy. We are pleased to help build a bridge between education opportunity, community support and workforce needs."



MAIP COMPANY HIGHLIGHT

RAE Corporation

FOR ALMOST FIFTY YEARS, FAMILY-OWNED RAE CORPORATION STILL PLAYS A CRUCIAL ROLE IN OKLAHOMA'S ECONOMY.

Manufacturing has long played an integral role in the American economy. It creates a wealth of stable, well-paying jobs, supporting communities on the local level and contributing to national economic strength. American manufacturing has maintained a steady reputation for top-quality products, which contributes to the industry's economic strength.

One example of such a manufacturing company that exemplifies this positive role is **RAE Corporation**, a family-owned HVAC and refrigeration equipment manufacturer located in MidAmerica Industrial Park. The company's history and the strong influence it has on its local community help to demonstrate why manufacturing is such a critical part of the American economy.

MidAmerica Industrial Park's RAE Corporation has been in business since 1971 and a part of MAIP since that time.



It was through Jim Swank's original Vision of Excellence that RAE Corporation became a reality. The family owned and privately held company manufactures air-conditioning and refrigeration equipment for commercial and industrial markets all over the world. Today, RAE Corporation has grown to over 300 employees and

has been recognized as a Champion in Workplace Development.

In 2000, Jim officially retired, handing the reins and title of President and CEO over to his son Eric Swank. Now in the 17th year of his leadership.

"Through so much hard work, sacrifice, good decision making and building critical relationships, my dad and his business partners were successful.

Now, the current company employees and management benefit from what was built by the generation before us, and we continue to build our success for future generations," said Eric Swank, President & CEO of RAE Corporation.

The company, which currently employs about 300 people, is still focused on designing and providing



custom solutions to customers, providing value based on each customer's unique needs. Fulfilling that place in the market requires constant adaptation in response to customers' needs, Swank said, and also relies on the company management balancing taking risks and finding new opportunities with making financially responsible decisions. Also weighing in to that balance has been a consistent commitment to keep jobs within the U.S., rather than moving work overseas.

"Management has been able to grow the company by responding directly to the needs of the industry and designing the highest-quality products to meet those needs," Swank said.

Year after year RAE has seen continuous growth in both sales and employment. In 2015 and 2016, RAE increased sales revenue, by nearly 10 million dollars each year. Staffing levels grew by 17% in 2016 and nearly 30% in 2017 with heavy emphasis being put on building next level leaders and better training.



With a new logo and building improvements rolled out in 2017, RAE is looking forward to more growth and working with other companies in the MAIP to positively impact our community.



CONTINUED FROM PAGE 3 STEM PARTNERSHIP

student "kits", student computers needed to run the system and a minimum of five years maintenance as needed.

Students have the opportunity to learn these STEM concepts through activities such as robotics, animation, gaming and much more. The format provides participating students the opportunity to discover unrealized aptitude and talent and learn how they are applied in the real world.

In addition to providing STEM labs, several plants within the MidAmerica Industrial Park participate in a number of ways.

"Google currently has 17 mentors that work with some of the classes," said Raleigh. "Recently the mentors and several seniors at Pryor high schools spent a Saturday cleaning up in downtown Pryor. Not only do they mentor students on STEM related topics, they also spend time with the kids, teaching them the importance of giving back to the community."

Another exciting project is focused around the sixth grade. Pryor sixth graders recently received a grant from DuPont, another MidAmerica company participating in the MidAmerica Delivers program, to start SeaPerch, and underwater robotics program. DuPont also provides engineers from their plant to actually work with the students, helping them work through the program.

Other partnership initiatives include a pre-engineering program for high school students, and even an internship program, where students can work for one of the participating companies and receive class credit as well as on-the-job-training.

The MidAmerica Delivers program was launched in 2014 to provide resources for a long-term, sustainable workforce development and retention program. It is based on collaboration between business and education and identifies and aligns resources to prevent redundancy in programs. In addition, MidAmerica Delivers educate and inform students about prospective careers students can find at MidAmerica Industrial Park as well as teach relevant skill sets through the Leader in Me program.

"We are so blessed to have this partnership with MidAmerica," replied Raleigh. "It is a great collaborative approach, helping our students reach their potential and helping MidAmerica train their future workforce. It's all about seizing the opportunities."

"Together, we are working hand-in-hand to identify and overcome gaps in the education-to-workforce pipeline in adjacent communities," said Stewart. "We are poised to cultivate, educate and deliver trained employees to current and prospective employers."

COMPANIES PARTICIPATING IN THE MIDAMERICA DELIVERS PROGRAM:



CONTINUED FROM PAGE 2 From the desk of DAVID STEWART REVOLUTIONIZING AN INDUSTRIAL PARK

different and diverse industry segments, the park generates \$732,200,000 in wages and salaries each year.

MidAmerica Industrial Park wants to be known for providing the resources that a company, such as Google's \$2 billion investment, might consider as the tipping point for a site selection decision to expand or build a new facility.

Like any business, an organization must continuously evolve, not only to remain relevant, but also to surpass the competition.

MidAmerica Industrial Park recently completed an expansion of greenfields to open 400 new acres for development. MidAmerica invested \$3.5 million in roads to access the sites and Over \$15 million to upgrade its water plant and waste treatment facilities to ensure the property is ready for new businesses.

As this is a greenfield or new development without any legacy, the architecture dimension and the modeling of infrastructure followed the latest cutting-edge innovation. Additionally, the Park is undergoing a master planning process to prepare and open another 600 acres for development.

The evolution of MidAmerica Industrial Park is even more evident as, along with the anticipation of these expansions, MidAmerica acquired 200 acres of adjacent land to build single and multi-family housing options.

Finally, the ready availability of water and a renewable power source as the Grand River Dam Authority recently completed the construction of a high-efficiency combined cycle gas plant is fueled by Oklahoma's abundant supply of natural gas. The \$500 million project is described as the most fuel efficient in the entire world.

Industry 4.0 presents far more opportunities than it does challenges, and MidAmerica, for one is prepared to meet those challenges.

Google's Investment a Huge Windfall to Oklahoma's Economy

In February 2018, Google announced it is more than doubling its investment in Oklahoma. Since opening its \$1 billion data center in 2011, the search engine giant has announced two additional expansions bringing the company's total investment at MidAmerica Industrial Park to \$2.5 billion.



Dave Stewart, chief administrative officer of MAIP, can attest to growth in the community since Google's arrival.

MAIP hopes Google's adoption of Oklahoma's potential will inspire other companies to bring their business to town.

"Essentially, with Google as a major employer on site, it reaffirms MidAmerica and Oklahoma can provide the assets, resources and incentives necessary to recruit and sustain a top-tier employer" Stewart said.

In 2015, the Tulsa World reported the growth of the local school district's total assessed property value at an increase

of 168 percent, totaling \$325.6 million. This growth took place within four years of Google opening its first data center in MAIP.

"Google's presence is transforming our community's socio-economic stature and positively impacting their future growth."

In 2016, Google announced its gift of a \$100,000 grant to the Workforce Development division of MAIP. The grant helped support the continued growth and development of STEM education in northeast Oklahoma, and brought Google's total of donations to nonprofits and schools to \$1.5 million since 2011.