

ELEMENTS

A large-scale construction project for an industrial facility. The image shows the steel framework of a building with a curved roof. In the foreground, a large white and red mobile crane is lifting a heavy, rectangular metal component into place. The structure is composed of blue-painted steel columns and beams. The sky is overcast with grey clouds. Several workers in safety gear are visible on the construction site.

AHEAD OF THE CURVE

INSIDE: INNOVATIVE SOLUTIONS FOR
MANUFACTURING CLIENT SUCCESS

February 2025





SOAK UP THE SUN

Photo Credit: Jeremy Roberts, Survey Technician II, Pittsburgh Office

This photo was taken in Beaver, Pa., while Jeremy was capturing overhead shots during an erosion and sediment control inspection.

CEC sponsors a photo-of-the-month contest encouraging employees to submit photos from their work sites. Winning photos are published on CEC's internal website and social media pages. One is selected for Elements.

Elements is published by Civil & Environmental Consultants, Inc. for clients, business partners, and other associates.

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ON THE COVER: CEC is providing engineering for structural and foundation design, as well as architectural drawings for a new storage facility for Sharon Tube in Sharon, Pa.



Civil & Environmental Consultants, Inc.

WELCOME

This issue underscores our commitment to delivering exceptional service to help drive the success of our diverse manufacturing clients.

From tackling complex challenges to providing innovative solutions, our team members bring a high level of expertise to every project. Their capabilities continue to set us apart in this competitive market.

In the Spotlight article, we share highlights of the Q&A session we had with Dave Larson, our Corporate Manufacturing Market Group Lead, who keeps our teams of engineers,

scientists, surveyors, and technical professionals focused on the critical challenges facing today's manufacturers.

We also share a story of how CEC's team collaborated with the Pennsylvania Turnpike Commission and the Union Railroad Company to successfully complete a railroad freight car repair shop project in Duquesne, Pa., as part of the Mon-Fayette Expressway expansion. Additionally, this issue explores our innovative design work on a steel tubing storage facility for Zekelman Industries.

Our work with manufacturing clients is key to our continued growth as a business. We thank our clients for the trust they have placed

in our firm—our dedicated team, broad expertise, and comprehensive service offerings—to ensure the successful execution of their manufacturing projects nationwide.

CEC remains dedicated to meeting the evolving needs of manufacturers and looks forward to continuing to support and grow with our clients as we build a sustainable and efficient future together.

Sincerely,



Dustin Kuhlman, P.E.
President & CEO

CONTENTS

4

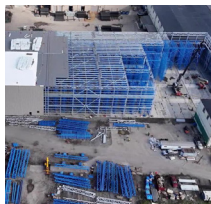
RIGHT ON TRACK



Providing design and permitting for a Pennsylvania rail yard reconstruction.

7

TOTALLY TUBULAR



Answering the call for a steel tubing storage facility's innovative design.

9

\$400M WILL BE AVAILABLE



CEC can help manufacturers secure GHG reduction grants in 2025.

10

PROVIDING WASTE SOLUTIONS



Regulatory compliance in the manufacturing industry is complex, and CEC can help.

12

SPOTLIGHT ON DAVE LARSON



Our Corporate Manufacturing Market Group Lead answers a few questions about his career and role at CEC.

15

IN CASE YOU MISSED IT ... BLOGS



A collection of articles to update you on pertinent topics from the regulatory world.



The railroad freight car repair shop operated by the Union Railroad Company (URR) sits below the Duquesne Boulevard Bridge in Duquesne, Pa.

RIGHT ON TRACK

■ CEC ASSISTS IN DESIGN FOR PENNSYLVANIA FREIGHT CAR REPAIR SHOP

With progress comes change and with change comes challenges.



The Pennsylvania Turnpike Commission (PTC)'s expansion of the Mon-Fayette Expressway meant significant changes for a railroad freight car repair shop operated by the Union Railroad Company (URR) below the Duquesne Boulevard Bridge in Duquesne, Pa.

Before construction on the Mon-Fayette Expressway project could begin, the PTC needed URR, a wholly-owned subsidiary of Transtar, LLC (Transtar), to reconfigure its Classification Yard in

Duquesne, which was last reconfigured in the 1950s.

As part of the Mon-Fayette Expressway PA Route 51 to I-376 project, the PTC plans to replace and realign the existing four-lane steel deck girder bridge that carries Duquesne Boulevard (PA SR 0837) over URR's Class Yard and other railroad facilities. The existing bridge will be replaced with a new curved girder structure that will improve the safety and geometry of Duquesne Boulevard.

This realignment caused the new bridge location to be directly over the existing car shop building, so the PTC approached URR about moving the building.

In addition, a portion of the URR

property will be needed to facilitate construction of an on-ramp for the new expressway.

TRANSTAR AND URR OVERVIEW

Transtar owns and operates six Class III freight railroads and a contract switching company transporting raw materials, semi-finished products, and finished products for industries throughout the United States. Its URR subsidiary, a Class III carrier, offers round-the-clock switching services to southwestern Pennsylvania's Monongahela River Valley and operates 128 miles of track in a 10-mile radius east of Pittsburgh. URR provides rail transportation, car storage, locomotive



This new shop is essential for the safety of the railroad system and is equipped to conduct extensive on-site repairs and offer mobile repair services.

and car repair, and a variety of transload facilities.

In 2021, URR contracted CEC to help design and obtain permits for upgraded facilities due to the expressway construction. This project included construction of a new railcar repair shop building, which required additional work to realign multiple railroad tracks, improve access roads, upgrade utility infrastructure, and implement best practices for stormwater management (BMPs). In addition to the new car shop, some new rail lines were added for access to the building, as several tracks had to go out of service during construction.

PUBLIC/PRIVATE PARTNERSHIP

The facility was constructed through a public/private partnership with the PTC as part of its construction of the Mon-Fayette Expressway.

“The Turnpike Commission reached an agreement with URR to acquire certain areas of URR’s land and the old car shop building, all in lieu of ‘eminent domain,’ compensating URR in part by reimbursing URR for the cost to construct a new car repair shop building,” says Robert D. Oates, P.E., a principal in the Civil Engineering practice of CEC’s Pittsburgh office. “We helped replace the original car repair shop building with a better building.”

Oates says all permitting and design work had to be approved by both the PTC and URR prior to submitting applications to the reviewing agencies. “We coordinated with the PTC, as well as their contractors and subcontractors.



CEC assisted with the planning and permitting of the demolition of the buildings on site and assessed the buildings and existing material stockpiles to determine what options were available to URR for their removal and disposal.”



Megan M. Ponzo, P.E.
Project Manager
Pittsburgh office

The coordination during the project was heavier than typical projects.”

CEC worked with URR’s project manager, Greg Bykowski, P.E., for two years. “We were working hand-in-hand with the PTC and CEC,” Bykowski says.

“As an engineer for a shortline railroad, you look forward to being involved with a project like this due to the challenges associated with constructing a new building. CEC executed myriad tasks to help us deliver a successful project.”

Megan M. Ponzo, P.E., a project manager in the Environmental Engineering and Sciences practice of CEC's Pittsburgh office, notes that CEC supported all the environmental requirements within this project.

"CEC coordinated the removal and disposal of non-hazardous wastes/materials (solid waste piles, railroad ties, drums, liquids within rail cars and tanks) stockpiled on the west side of the site," says Ponzo. "CEC assisted with the planning and permitting of the demolition of the buildings on site and assessed the buildings and existing material stockpiles to determine what options were

available to URR for their removal and disposal."

This environmental expertise showcased in the project has expanded CEC's services to other Transtar-owned shortlines across the country.

"CEC has been supporting us in our day-to-day environmental needs on our new and ongoing projects at our other facilities throughout the country, which has grown our reliance on CEC," Bykowski adds.

Representatives from CEC were in attendance in March 2024 for the official opening of the new rail car repair shop.

The URR facility operates as a comprehensive freight

car repair shop with the capacity to store 250 rail cars and direct connections to CSX Transportation, Norfolk Southern, Canadian National, and various regional carriers. The new repair shop allows URR to continue to deliver top-tier freight rail car repairs, significantly bolstering safety, reliability, and efficiency for regional freight transportation.

"This new shop is essential for the safety of the railroad system and is equipped to conduct extensive on-site repairs and offer mobile repair services. The facility continues to meet the diverse demands of the regional rail industry," Bykowski says. ■



CEC has been supporting us in our day-to-day environmental needs on new and ongoing projects throughout the country, which has grown our reliance on CEC."

GREG BYKOWSKI, P.E.
Project Manager
Transtar



A ribbon-cutting ceremony for the new freight car repair shop in Duquesne, Pa., was held in March 2024.



TOTALLY TUBULAR

■ CEC ANSWERS CALL FOR STORAGE FACILITY'S INNOVATIVE DESIGN

When Zekelman Industries, one of the largest independent steel pipe and tube manufacturers in North America, needed to expand and upgrade its storage facility at its Sharon Tube plant in Sharon, Pa., CEC answered the call.



CEC is providing engineering for structural and foundation design, as well as architectural drawings for the expansion and upgrade of the storage facility. The building, an extension of the plant's main building, should be fully operational in 2025.

AUTOMATED STORAGE SYSTEM FOR INCREASED EFFICIENCY

In addition to Sharon Tube, Zekelman Industries' other companies include Wheatland Tube, Atlas Tube, Picoma, Western Tube, Z Modular, and Hayes Modular. The companies produce a variety of products, including standard and fire sprinkler pipe, galvanized mechanical tubing, fence framework, Precision Drawn Over Mandrel (DOM) tubing, steel

and aluminum electrical conduit, and galvanized steel and aluminum elbows, couplings, and nipples.

The new Sharon storage facility will house an automated pipe/tube rack storage system. As the tubing is produced in the plant's main building, it will be added to the inventory in the storage facility, and as products are scheduled for delivery, they will be shipped. The storage bays are continually rebalanced, as it's a constant flow of materials in and out of the warehouse with no humans required in the building. The touchless product handling enabled by these automated systems significantly increases safety, as well as shipping capacity.

Rick Hans, Senior Director of Engineering for Sharon Tube and Wheatland Tube, says CEC was recommended a few years ago for a similar

Zekelman Industries' companies produce a variety of products including standard and fire sprinkler pipe, galvanized mechanical tubing, fence framework, Precision Drawn Over Mandrel (DOM) tubing, steel and aluminum electrical conduit, and galvanized steel and aluminum elbows, couplings and nipples.

project requiring design with structural tube and developed an understanding of Zekelman's design requirements.

Hans is responsible for managing the company's strategic capital projects. He says this type of project is fairly new in the United States, with several similar warehouse systems currently operating in Italy.

Tackling the storage facility project for CEC are Debbie Lagamba, Senior Project Manager; Matthew Lee, Structural Group Manager; and Brayden Behanna, Structural Designer, all of whom are in CEC's Manufacturing Infrastructure Services group.

"This is the second project on which Debbie and I have worked," Hans says. "She is very professional and organized and has been helpful facilitating our combined team interactions. Matt has been an important team member, and he and his design team have worked well with our equipment designer, fabricator, and general contractor."

EFFECTIVE COMMUNICATION KEY TO PROJECT SUCCESS

Lagamba stressed the importance of the interface with the Zekelman engineers on the endeavor, as well as the field support with the contractors on site.

"Communication is the key to any successful project. When project stakeholders are aligned from the start and regularly scheduled team meetings take place throughout all project phases, interface errors and costly field modifications can be avoided to help maintain the client's budget and project schedule.

Since much of the infrastructure and process engineering design was performed in parallel, document control, organization, and transmission of electronic files were key factors to ensure all parties were working and communicating with the latest information. It's been a true team effort to design this project in Sharon."

The project presented a unique opportunity for CEC to expand its capabilities as the design required the utilization of the Atlas Hollow Structural Sections (HSS) tubing produced by Zekelman's own Atlas Tube company for the main structural racking elements within the Sharon storage facility.

"We used 100% steel tubing in the design," comments Lee. "We are working with what they produce as the standard size — Atlas jumbo tube — so there's no need for special orders as construction progresses."

ONGOING SUPPORT AND COLLABORATION

It's been a true balancing act requiring countless hours of field support with the contractors. Lee says there have been at least two to three CEC team members working on this project over the course of the past year. While CEC has completed the engineering and design phase for the warehouse storage building, services continued, with CEC responding to contractor RFIs and performing steel submittal reviews as construction advanced.

"It's a good partnership," Hans concludes. ■



A birds-eye view of construction at the steel tube storage facility in Sharon, Pa. It is expected to be fully functioning in 2025.

AT THE READY

■ CEC EXPERTS CAN ASSIST CLIENTS IN SECURING GHG REDUCTION GRANTS

Reducing Industrial Sector Emissions in Pennsylvania (RISE PA) is a statewide industrial decarbonization grant program funded through the U.S. Environmental Protection Agency (USEPA)'s Climate Pollution Reduction Grants under the Inflation Reduction Act of 2022.

Rise PA provides up to \$400 million in funding, and CEC can assist with the application process. We will help determine your facility's eligibility, support the design of your project, and offer guidance on the technical aspects of the grant application, including the required 20% reduction in GHG.

Eligible projects need to focus on cutting emissions in the industrial sector. The PA Department of Environmental Protection (PADEP) will be distributing funds to industrial facilities with the aim of reducing GHG across the Commonwealth.

TYPES OF ELIGIBLE PROJECTS FOR RISE PA FUNDING

In mid-November, PADEP released guidance for preparing applications to receive cost-share funding for eight categories of eligible projects:

- **Electrification technologies** such as low- or zero-carbon process heat systems, electric heat pumps, and other heating systems based on electricity;
- **Energy efficiency technologies**, including those that reduce direct fuel or electricity use, such as thermal storage, waste heat recovery, and industrial heat pumps;
- **Industrial process emission technologies** and waste reduction technologies such as those that reduce waste in industrial applications, including advanced recycling approaches;
- **Fugitive emissions reduction technologies** such as regenerative thermal oxidizers and ventilation air systems;
- **Fuel-switching technologies** that enable the transition to low carbon fuels such as fluidized bed biomass furnaces, solar-thermal heating systems, and clean hydrogen;
- **On-site renewable energy technologies** such as solar photovoltaic systems, wind turbines, micro-hydropower, or geothermal;
- **Carbon capture, utilization, and storage (CCUS) technologies** such as flue gas carbon capture systems or calcium looping carbon dioxide capture systems; and
- **Other technology** that reduces industrial GHG emissions, as determined by RISE PA.

Eligibility is limited to certain industrial facility classifications, and award amounts vary. For projects that fall into the Medium and Large categories, a demonstration must be provided to show that the project will reduce the total Scope1 and Scope2 GHG emissions at the project site by at least 20% annually, once operational.

PADEP is expected to start accepting applications in early 2025. This will be a competitive process, so now is the time to consider your options and start planning.

A baseline GHG inventory is required to enable an assessment, and CEC has expertise with regulatory GHG compliance, ESG/Sustainability report GHG baseline calculations and reductions, and other GHG reduction grant applications. ■



PADEP will be distributing funds to industrial facilities with the aim of reducing GHG across the Commonwealth.

STREAMLINING SOLUTIONS

■ GUIDING MANUFACTURERS THROUGH COMPLEX REGULATIONS

Waste management is inherent to manufacturing operations; however, compliance with waste management regulations may not be so inherent. Helping manufacturers with waste services such as characterization and sampling, storage, transportation, and disposal, as well as permitting, training, and reporting has been a large part of what Tom Maher, a vice president in CEC's Environmental Engineering and Sciences practice, has done throughout his career.



CEC's manufacturing clients operate in the metals; chemical and petrochemical; forest products/pulp and paper; and food, beverage, and agribusiness industries. The firm also serves machine shops, construction companies, and slag processors, among other clients.

"We interview the operations team and perform a walk-through of each waste generation and storage area to collect the information necessary to develop a custom waste management plan. If we partner with a new company that already has a plan in place, we conduct an audit and make sure their plan is accurate, comprehensive, and being implemented as designed," Maher says. "We help correct portions of waste management activities that are not in compliance with federal, state, and local regulations."

PROACTIVE AND PREPARED

Maher notes that clients must be proactive in maintaining compliance rather than being reactive when an agency shows up for a facility inspection. "I have had numerous instances throughout my career when my first interaction with

a facility was a call from their legal counsel to discuss a Notice of Violation (NOV) issued by an agency during a site inspection. In those cases, they are trying to understand the vast number of waste rules and regulations while responding to the NOV and staying focused on their core business. We help clients maintain compliance and be prepared for those unannounced site inspections, which makes the experience much less nerve-racking."

It's imperative to develop and maintain good working relationships with the various governmental agencies to understand their points of emphasis and to maintain open lines of communication to discuss interpretations of the applicable regulations and guidance documents.

This is especially important due to differences in waste management regulations from state to state.

RECORDS AND REPORTS

According to Maher, it all starts with appropriate characterization of the various waste streams. "USEPA requires the waste characterization

WHAT WE DO

CEC's services include:

- Waste characterization, management, and reporting
- Hazardous and regulated material surveys and management
- Universal waste surveys and management
- On-site waste disposal facility design and permitting
- Facility construction management and quality assurance
- Facility decommissioning and demolition planning and permitting
- Storage tank inspections, design, and installation



Proper storage and waste characterization are hallmarks of manufacturers' waste management plans.

process be documented in writing only for hazardous wastes. State-level regulations are often much more specific and often include requirements for characterization of non-hazardous waste.

Maher recommends keeping records for all steps in the waste characterization process, even if the waste is non-hazardous and regardless of whether state regulations require it. "The person who made the waste determination is often not on site during unannounced site inspections by regulators, and the regulators expect site personnel to be able to demonstrate why the way the wastes are being managed is appropriate while the inspection is occurring," Maher says. "It is much more time-consuming and expensive to rebut allegations of waste mismanagement included in site inspection reports and NOV's than

it is to have the documentation available on site for review by the regulator during the site inspection."

While on the subject of documentation, USEPA requires hazardous waste reporting every two years, while some states require more frequent reporting on an annual basis. "We set up individualized waste-tracking processes for each client based on how complex their needs are to assist with their waste reporting obligations. Being more organized throughout the waste reporting time period makes the reporting effort more efficient and cost-effective," Maher adds.

Pinpointing the appropriate waste services — and determining how those services come into play for each unique manufacturer — is key to CEC's ability to provide support with operational compliance. ■



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TOM MAHER
Vice President
Pittsburgh office

DAVE LARSON

CORPORATE MANUFACTURING MARKET GROUP LEAD

Dave Larson has more than 20 years of environmental consulting experience. He currently leads the Manufacturing Market Group for CEC, which keeps our teams of engineers, scientists, surveyors, and technical professionals actively engaged on issues that are important to today's manufacturers. He is also a principal in CEC's Environmental Engineering and Sciences practice, where he leads a team of environmental compliance and permitting professionals.

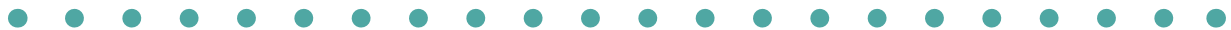
Dave has served a wide range of industrial and commercial clients on multi-media environmental compliance and permitting matters including: alternative fuels, aluminum, asphalt, automotive supply chain, bulk chemical distribution, coal and limestone mining, coke, commercial real estate, composite resin, concrete, copper, electric utilities, electroplating, foundries, glass, hospitals, inorganic chemicals, landfill gas-to-energy, lead shielding manufacturing, lithographic printing, medical equipment manufacturing, natural gas production,

oil refineries, paint/coatings, petroleum R&D, powdered metals, specialty steel additives, and steel production and finishing.

He provides compliance assistance on projects subject to a range of environmental regulations including CAA, CWA, RCRA, SARA, SPCC, and TSCA.

Dave has conducted more than 50 multi-media environmental compliance audits for industrial facilities throughout the U.S. He is a certified lead auditor of ISO 14001 environmental management systems and he has served as the on-site environmental representative and ISO 14001 internal audit manager for a rolled steel products company, addressing the full spectrum of environmental compliance issues at the facility.

Here, Dave shares the evolution of projects during his time at CEC and looks ahead to what's on the horizon for the future of manufacturing.



QUESTION: HOW HAVE CEC'S MANUFACTURING SERVICES EVOLVED OVER THE YEARS? WHAT HAS CHANGED AND WHAT HAS STAYED THE SAME?

ANSWER: CEC has always been able to help manufacturing clients with site selection, brownfield remediation, civil and geotechnical engineering, and permitting.

The biggest change has been the addition of new in-house disciplines — mechanical, electrical, and structural engineering, as well as industrial wastewater engineering.

These additions, coupled with the expansion of our Air Quality,

Cultural Resources, Ecological, and Survey/Geospatial practices, have enhanced our service offerings and made us a stronger business partner. Our Manufacturing Infrastructure Services (MIS) group provides pre-project planning and development, detailed design, and construction and installation support. Our Survey/Geospatial



practice harnesses technology including 3D scanners, LiDAR sensors, subsurface locators, drones, and GIS to help us collect and depict field conditions efficiently. We have a strong core and continually build upon it and expand what we can offer. We seek to evolve and be innovative as the market changes.



QUESTION: WHAT ARE SOME CRITICAL TOPICS FOR MANUFACTURING CLIENTS?

ANSWER: Manufacturing clients are focused on ways to improve resiliency. They are looking at decarbonization, sustainable manufacturing, reducing energy and water consumption, digitalization, and using artificial intelligence to optimize and improve quality and flexibility. Our Environmental, Air, Water, Waste, and Ecological practices are involved in many projects to help manufacturers achieve their current and future objectives. Our MIS group creates 3D models in the design process to optimize the quality of our deliverables, which translates into a tremendous benefit for the clients, saving time and money during final design and installation.

The 3D models help mitigate problems that might be encountered and allow for design modification or optimizations to fit the environment, while minimizing clashes in the field.

Another important topic is reshoring — bringing manufacturing back to the United States. This is helpful in sourcing components, reducing transportation costs, increasing quality control with suppliers, and improving flexibility and time to market. We enjoy helping manufacturers grow and improve their businesses.

QUESTION: DESCRIBE THE MOST UNIQUE PROJECT YOU'VE WORKED ON.

ANSWER: I served as the on-site environmental representative and ISO 14001 internal audit manager for a rolled steel products company, addressing the full spectrum of environmental compliance issues at the facility. I gained an in-depth knowledge of the manufacturing processes and challenges in my three years there. I was able to troubleshoot the challenges with employees, contractors, and vendors.

I became a resource for the steel company because I had my finger on the pulse of what was happening throughout the manufacturing facility. The company was happy with the value a CEC employee was able to provide. One of the main advantages was my ability to see all the various operations facility-wide and how all the pieces came together to produce the final product.

That insight into how they were working collectively and individually gave me a unique perspective that is applicable to any manufacturing client.

QUESTION: ARE THERE UPCOMING ENVIRONMENTAL REGULATORY CONCERNS FOR MANUFACTURING COMPANIES?

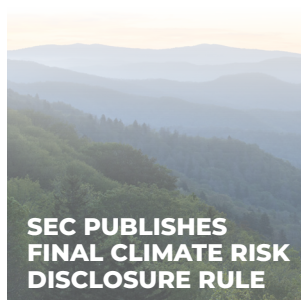
ANSWER: In March 2024, the U.S. Securities and Exchange Commission published a new rule: The Enhancement and Standardization of Climate-Related Disclosures for Investors that requires disclosures on governance, strategy, risk management, and targets and goals related to climate-related risks and greenhouse gas emissions.

Also in March 2024, USEPA published a final rule on Clean Water Act Hazardous Substance Facility Response Plans that requires subject facilities to evaluate worst-case discharges that could cause substantial harm to the environment and to prepare related response plans.

Our Environmental practice forms a collective mind on these regulations. As professionals, we stay on top of these changes, keep track of what's pending, and constantly monitor regulatory updates on behalf of our clients. ■

In case you missed it ...

Regulatory and government-related updates



We're always monitoring the regulatory landscape so we can keep you up to speed on important changes and their effects. Here is a collection of posts from our blog, in which we update you on some of the more pertinent topics from the regulatory world.

cecinc.com/blog

Notable project

CEC PARTNERS WITH STEEL DYNAMICS ON STATE-OF-THE-ART MILL

CEC was awarded a [multimillion dollar contract](#) to provide general arrangements; structural, mechanical, electrical, and piping engineering; and scheduling for Steel Dynamics, Inc.'s new \$2.5 billion greenfield, state-of-the-art, recycled aluminum flat-rolled mill in Columbus, Mississippi, along with a supporting satellite recycled aluminum slab center in the southwestern United States.

The mill will have an annual production capacity of 650,000 tonnes of finished products, serving the sustainable beverage packaging, automotive, and common alloy industrial sectors encompassing melting casting, rolling, and processing operations. The product offering will be supported by various value-added finishing lines, including CASH (continuous annealing solutions heat treating) lines, continuous coating, and various slitting and packaging operations.

Glenn Pushis, Senior Vice President, Strategic Projects at Steel Dynamics, said "We have previously partnered with CEC and they have a strong understanding of our work process. The ability to keep projects on track and identify problems before they happen helps us accomplish our goals in a safe and timely manner."

Sami Achkar, Vice President and head of the Manufacturing Infrastructure Services (MIS) group at CEC notes, "Our firm is proud to once again partner with Steel Dynamics and be part of its strategic growth, as we have for their ongoing projects in Sinton, Texas, and Terre Haute, Indiana. We consider it an honor that our quality service and performance have earned us their continued trust and business."

CEC MARKED 35 YEARS WITH FOCUS ON FUTURE

Founded in April 1989 in Pittsburgh, Pa., CEC was built upon the value proposition that an employee-owned firm focused on its clients and employees could provide a noticeably higher level of service than its competitors.

CEC's four founders — Jim Roberts, Jim Nairn, Ken Miller, and Greg Quatchak — believed that the higher level of service would result in more satisfied and loyal clients, and, as a result, overall revenue stability and growth. The founders also believed that the employees would find greater professional satisfaction when delivering a higher level of service.

The conviction to that value proposition led the founders to develop plans to create a new consulting firm. Over the first few months of operation, there was a focus on new client and new project development. CEC's employee count grew to 25 by the end of 1989.

**CEC CELEBRATED
ITS MILESTONE
ANNIVERSARY ON
APRIL 17, 2024.**



initial four practices during the first year of operations: Civil Engineering, Environmental Engineering and Sciences, Waste Management, and Water Resources. Also, during that first year of operation, CEC's founders put into place the business principles that continue to guide the firm today. For our clients, those principles included: providing comprehensive integrated services, engaged senior personnel, and personal business relationships with clients. For our employees, the principles included: focusing on employee development and reward, and employee ownership of the firm.

CEC grew quickly during the first five full years of operation. During that period, CEC made two significant investments that started us on our path toward consistent growth and success. In 1992, CEC opened its first office outside of Pittsburgh in Cincinnati, Ohio. The success of the Cincinnati office set the standard for CEC's ongoing commitment to geographic expansion in support of its growing, geographically diverse client base. In 1994, CEC added its Ecological Sciences practice. The success of the practice led to the ongoing expansion of CEC's service offerings in response to our clients' needs that continues to present day. Now CEC has locations nationwide and has expanded its services to nine practices: Air Quality, Civil Engineering, Cultural Resources, Ecological Sciences, Environmental Engineering

The majority of those new CEC employees had worked previously with the CEC founders and were excited to join CEC because of the potential for career and personal advancement, and the opportunity to be owners of the new firm. By the end of 1989 after just over 8 months of operation, CEC saw gross revenues of \$1.2 million.

CEC established its



and Sciences, Manufacturing Infrastructure Services, Survey/Geospatial, Waste Management, and Water Resources.

While celebrating our past affords us an opportunity to reflect on our hard work and success, as an ever-expanding firm, CEC must continually stay focused on the future.

We have built our processes and programs around those initial business principles put into place by our founders. We continually look forward by preparing for the ongoing growth and evolution of our business. Our focus remains on our clients, their businesses, and our employees. We support innovation within the organization to continuously improve our effectiveness and efficiency — we are always looking for new ways to grow the business to provide new opportunities for our employees and to better support our clients. We work hard to maintain our small firm culture and focus on employee care and development as we grow.

Dustin Kuhlman, P.E., who took the reins in 2022 as the firm's first non-founder Chief Executive Officer, noted that leadership development is an essential part of our professional strategy. "If we share our knowledge and intentionally develop the next generation of leaders, we will be in a better position to grow in a responsible and sustainable fashion. It is essential that we develop great leaders because they will then support the development of others within the organization and further ingrain this focus on employees into our culture. Ideally, the impact is exponential."

As we close out this year of celebration in April 2025 and look to the future, CEC will remain focused on the fundamental principles and core elements of our culture that have provided such a strong foundation for exceptional client service, growth, innovation, and employee development. We will purposefully evolve our operations as we grow to meet the needs of new markets and the changing needs of the loyal clients, communities, and businesses that depend on us. We look forward to celebrating many more milestones in the years to come. ■



Civil & Environmental Consultants, Inc.

CEC Headquarters
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Moon Township, PA 15108

Senior Leadership
Integrated Services
Personal Business Relationships

We Own It.®

CEC is now officially certified as a 100 percent employee-owned company!

CEC was awarded this certification by Certified EO,[®] a marketing and certification program for employee-owned companies. Just 1 out of every 200 American businesses qualify.

At CEC, every member of our team has the option to be an employee-owner with a personal stake in ensuring the success of our clients. Your success is our success. As employee-owners, we are accountable for building lasting relationships and delivering outstanding results—today, tomorrow, and years into the future. Because we don't just work at CEC. **We own it.**

