

IT'S A BORING LIFE



Iowa Trenchless
BORING & TUNNELING SPECIALISTS

AUGER BORING | TUNNELING | MICROTUNNELING
ROCK BORING/TUNNELING | PIPE RAMMING | PIPE JACKING

FLOWING FORWARD::

Water Pipeline Tunnels in Santaquin, UT





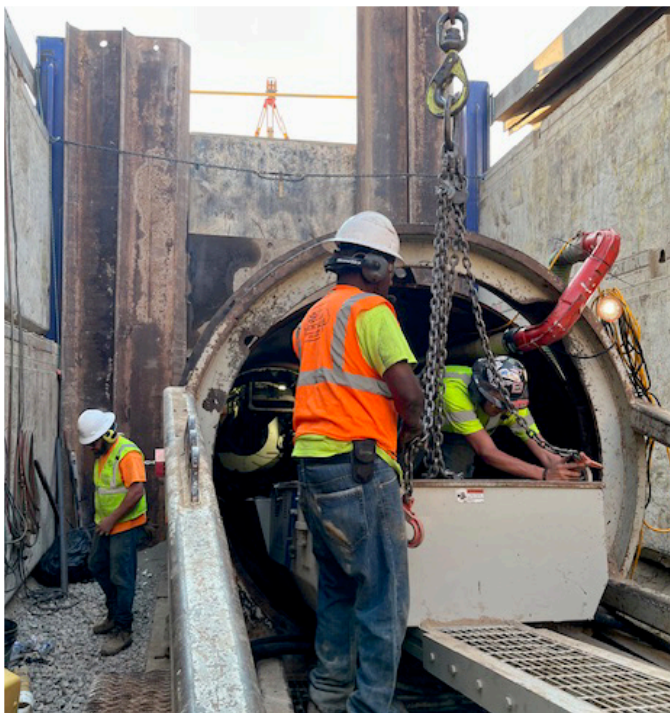
The Central Utah Water Conservancy District (CUWCD)

launched a significant infrastructure project in South Utah County, aimed at enhancing water delivery for municipal and industrial purposes. The final segment of the Spanish Fork-Santaquin Pipeline represents a significant milestone for CUWCD, marking the culmination of years of planning and construction. and involves the installation of approximately 23,048 feet of 60-inch diameter steel pipe within Santaquin City and Utah County. Additionally, new water delivery turnouts will be constructed along an existing 60-inch pipeline in Mapleton, Salem, and Payson. This section marks the completion of the Spanish Fork-Santaquin Pipeline, which, once finished, will have the capacity to deliver an impressive 23,090 acre-feet of water annually, helping meet the growing demand in the region.



Through the prequalification and hard bidding process VanCon, Inc. was awarded the prime contract. As part of this ambitious project, Iowa Trenchless was selected as the trenchless subcontractor with the task of installing three critical tunnel sections.

The first section, measuring 265 feet, was installed beneath Interstate 15, navigating through challenging subsurface conditions that include clay mixed with silty sand, gravel, and cobbles. Iowa Trenchless used an Akkerman 660 TBM equipped with an x-bar cutting head to complete this crossing. The I-15 crossing was completed flawlessly. This segment posed a significant challenge to the complex geological makeup and the need to maintain uninterrupted traffic flow on the interstate. Foreman, Lance Atkinson and crew consisting of: Noah Ramsay, Steve Bell, Justin Jungles, Gavin Felder, Brian Krakau, and Avere Doles, made light work of this tunnel segment.



The second section involves a 200-foot installation under US Highway 6, where the ground consists of more granular silty sand, gravel, and cobbles. This installation required precise execution to ensure stability and avoid surface disruption. Due to the ground being more granular and loose in nature, the TBM was equipped with a closed faced cutting head to help control the inflow of materials into the drum. The entire crew had to have seamless communication especially foreman and TBM operator, Lance Atkinson with the pipe jacking frame operator, Steve Bell. The tunnel team could not afford to miss a beat on this crossing.

The final section, a 120-foot crossing beneath the Union Pacific Railroad, will complete the trenchless work on this project. This enhanced water pipeline will play a crucial role in supporting growth and sustainability in South Utah County, providing a reliable source of water for the community for years to come. ♦

Employee Spotlight:
Jason (Jay) Klein,
Vice President



Jay's journey into the trenchless world began at Iowa State University, where he studied Construction Engineering. A summer internship at Iowa Trenchless, secured through a job posting in the engineering hall, became the stepping stone into the field. Initially working in Ankeny on a multi-faceted project that incorporated auger boring, pipe jacking, hand mining, and guided boring under the supervision of a young Brandon Derry, now superintendent, Tyler Ray, and Brett Watson. The early days were hands-on, focused on learning the ropes of trenchless operations. After graduation, he returned to a full-time position, first in the field and later transitioning to the office, steadily growing into the current role.

Jay's interest in engineering emerged during high school, where proficiency in math and science led advisors to recommend engineering as a career path. At Iowa State, the decision to major in construction engineering was driven by a desire for hands-on work and a sense of community within the program. Unlike other engineering fields, construction engineering seemed to offer a practical, engaging environment. Prior to joining Iowa Trenchless, Jay spent three summers in heavy highway construction, primarily concrete paving. This foundational experience provided a broader perspective on the construction industry before transitioning into underground and trenchless construction.

Every day brings unique challenges and responsibilities. Jay's role starts with estimating and bidding, reviewing plans, performing takeoffs, assembling cost estimates, and meeting hard deadlines. On the project side, his tasks include reviewing contracts, submittals, and coordinating materials and equipment. Communication with contractors and suppliers is a critical aspect of the role, ensuring smooth execution of projects.

Balancing the demands of estimating, planning, and executing projects is no small feat, but variety keeps the job engaging. From solving unforeseen challenges to aligning crews and resources, the dynamic nature of the role ensures no two days are the same.

One of the first memorable projects took place in Omaha, Nebraska in 2012. It was his first experience handling an extensive submittal process independently, including contingency plans, equipment drawings, grouting methods and articulating the entire operation for a guided bore installation. As well as multiple large diameter pipe jacks, engineered shafts, and backfill; at the time, it felt

overwhelming due to a lack of experience, references, or templates. However, overcoming that challenge provided invaluable lessons and laid the groundwork for handling future complex projects with confidence.

When asked about determining the best trenchless technology to use when bidding Jay says ground conditions and risk are the two primary factors influencing the selection of trenchless methods. Specifications often dictate how projects should be bid on, but when there's flexibility or ambiguity, careful assessment of soil conditions, project requirements, and liability is crucial. For pressure or gravity applications, tolerances and intended use further impact the decision-making process.



Throughout Jay's career, one crucial lesson stands out: the importance of clear and concise communication. Misinterpretations can have significant consequences, making accuracy in verbal and written communication a top priority. Adaptability and motivation are essential for success in the industry. With constantly changing priorities and challenges, the ability to stay flexible and maintain focus on the bigger picture is key. Letting setbacks roll off and staying committed to the work ensures continued progress and growth.

For Jay, Jason Clark has been the biggest mentor to not only his career, but personal life as well. Jason's influence has been instrumental in shaping his life, and he credits much of his success to it. In fact, the nickname Jay came from there being one too many "Jason's" when he started his career with Iowa Trenchless.

"Jay's understanding of Trenchless Technologies, geotechnical conditions, and most importantly his precise evaluation

of contract documents has been invaluable in the success of Iowa Trenchless. I am very proud of the trenchless professional Jay has become, and of his rigorous project management. Jay's continuing role as a leader both here and across the industry will be critical to the future of this company." - Jason Clark

The future of Iowa Trenchless is bright with aspirations for larger and more complex projects. Leadership and management development will play a pivotal role in sustaining growth, ensuring the company remains well-positioned in the industry. Through hard work, adaptability, and a commitment to innovation, Iowa Trenchless continues to build on its legacy, led by dedicated professionals who embody the spirit of trenchless construction. ♦

ROCK-SOLID RESULTS:

Trenchless Excellence in Cedar Rapids

Foreman Kyle Spoon and his crew consisting of Alex Tapley, Dustin Olson, Jakob Janssen, and James McAtee, recently demonstrated the expertise and adaptability that define Iowa Trenchless by completing multiple 54-inch casing bores in variable ground conditions. After successfully completing the first of three bores in the anticipated soft ground conditions throughout, unforeseen challenges arose when bedrock was encountered in the bore zones of the second and third crossings. Despite these unexpected obstacles, Iowa Trenchless was able to deliver seamless results without missing a beat, thanks to our arsenal of experience, skilled personnel, and trenchless technologies.

The first of the three bores proceeded as planned in soft ground, aligning with the project's initial geological

assessment. However, during excavation for the second and third bore pits, the general contractor encountered limestone bedrock within the bore zone. Given that the bores were crossing beneath large box culverts draining into the Cedar River, raising the elevation to avoid bedrock was not an option. A major redesign or delay could have had significant implications for the project, but Iowa Trenchless was prepared to step up to the plate.

Drawing on years of experience in tackling challenging subsurface conditions, the Iowa Trenchless team immediately adjusted our approach. With the right combination of personnel, expertise, and equipment, we were able to shift gears and transition to drilling through bedrock with precision and efficiency. This quick response



not only ensured the success of the bores but also maintained the project's momentum, allowing the general contractor and the project owner to proceed without costly disruptions. The final 2 bores were completed through the limestone bedrock using a Robbins 54" Small Boring Unit (SBU) one equipped with a hard rock cutterhead and one with a mixed ground cutterhead, due to the presence of clay seams interbedded in the rock.

The team's ability to adapt to unanticipated conditions highlights Iowa Trenchless' commitment to delivering reliable, high-quality trenchless solutions, regardless of the challenges encountered. From planning to execution, we pride ourselves on being a partner that contractors and project owners can rely on to keep their projects moving forward—even when the unexpected happens.



Innovating Beyond Bedrock: Precision and Ingenuity in De Soto

Iowa Trenchless crews recently completed a pair of highly challenging bores for a sanitary sewer installation project in De Soto, Kansas. Located near a former munitions plant, the project required the installation of sewer lines.

The initial strategy involved using a traditional Tunnel Boring Machine (TBM) to cross Kill Creek with a 36-inch sewer. However, Geotech exploration uncovered unstable cobble and gravel, compounded by the presence of water, rendering manned TBM operations unsafe and jeopardizing creek integrity. To adapt, Iowa Trenchless deployed a 12-inch pilot casing using a Vermeer Axis guided bore system, a method specifically designed for navigating complex geology with precision.

Our team devised a groundbreaking solution: a custom-designed heavy-duty cutting head outfitted with rock cutting teeth. To enhance accuracy, the design incorporated a pair of thrust/radial bearings positioned in front of and behind the cutting head, to follow a 12-inch casing guidance.

In collaboration with the Michael Byrne Group, our team engineered a specialized swivel with a rigid head featuring carbide teeth, capable of cutting through bedrock with exceptional efficiency. This custom head was used with the guidance on two drives exceeding 200 feet each, successfully

boring through bedrock with precision that had previously seemed unattainable.

The custom cutting head proved pivotal to the project's success. Jason Clark, President, praised the teamwork

and ingenuity that drove the project forward. "The specialty head performed exactly as intended," Clark stated. "All credit goes to the Michael Byrne Group and our incredible crew for their hard work and dedication. It's always gratifying to see a plan come together so effectively."

The project was successfully completed with the sewer lines installed to precise specifications, fully meeting all safety and performance standards. Special recognition goes to Superintendent Brandon Derry and Foremen Jon Kile and Kyle Spoon, along with crew members Lucas Lathrop, Daniel Jensen, Ryan Sanderville, and Jacoby Winters, whose expertise and dedication were key to the project's success. Additional commendation is extended to the Michael Byrne Group for their exceptional support. "They were the perfect partners, delivering both speed and quality," he remarked.

This project showcases the ingenuity, adaptability, and collaboration that are hallmarks of Iowa Trenchless. By embracing innovative solutions and working closely with industry partners, we continue to set the standard for excellence in trenchless technology. ♦



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MVP is Picking Up the Pace

Midwest Vac Professionals has had an incredibly busy and productive year in 2024! Securing new contracts, acquiring additional customers, and expanding our operations to provide exceptional service have been key priorities. The team has been hard at work, tackling a range of projects from wastewater pit cleanings to large-scale sewer initiatives, ensuring every job is safely completed with precision and care. Our commitment to growth and excellence is evident in the consistently delivered top-notch services, expanding and strengthening our reputation in the industry. Let's take a closer look at the impressive work done this year!

MVP recently returned to Jefferson, IA, to complete cleaning the final irrigation wastewater plant pit as part of an ongoing project. Earlier in the summer, MVP had successfully cleaned two digester pits as part of a new maintenance initiative. Over the course of three days this fall, MVP removed and disposed approximately 27,000 gallons of sludge and waste from the last pit. This pit, measuring 40 feet wide by 40 feet long, had built-up sludge to a depth of 3 feet, which the Vac Truck and crew efficiently cleaned out. Cleaning of such pits is essential for maintaining the facility's efficiency and ensuring the smooth operation of the wastewater system. With this final task completed, the contract with the City of Jefferson for 2024 was successfully closed.

Bud and the MVP crew truly knocked the Johnston, IA Community Ball Field project out of the park! Using hydro-excavation techniques, they played a key role in preparing the field for new lighting. The crew carefully excavated 2 feet by 4 feet holes, each 6 feet deep, to ensure the proper placement of the new LED sports lighting poles. The use of Hydro-Excavation allowed for precise excavation with minimal disruption to the surrounding area, making it the ideal solution for the job. The team's expertise and dedication

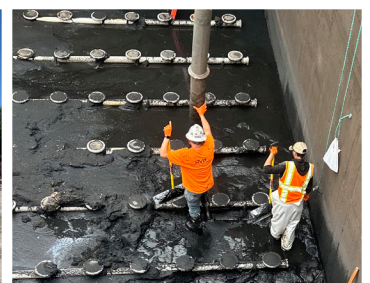
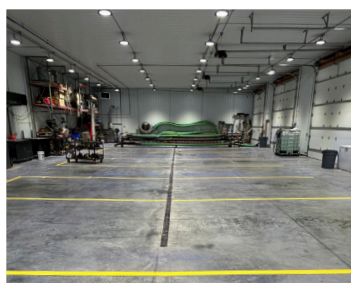
helped bring this exciting community improvement project one step closer to completion.

In addition to completing several data center projects this summer, MVP teamed up with CST Tri-Venture and Microsoft to take on another major task in Des Moines. Tri-Venture, a powerhouse consortium of three of the largest electrical and technology firms in the Midwest, called on MVP for a specialized job because of our reputation for efficient work and dedication to safety. The task involved cleaning out Polywater, a foam duct sealant used to help secure electrical lines within conduits. Over time, the Polywater had built up and was interfering with the electrical lines, preventing further installation of new lines. MVP's crew went to work, cleaning out over 14,000 feet of conduit to ensure the smooth

passage of new electrical lines. This was a significant project that MVP approached with pride and delivered with the utmost satisfaction.

Lastly, one of the biggest achievements for Midwest Vac Professionals this year was the addition of a new Cues Camera Cutter Truck to their fleet. This new truck, built on a 2024 Ford F550 Diesel 4x4, brings advanced capabilities to the team, allowing them to perform tasks such as cutting service taps and clearing roots and debris obstructing flow lines, in addition to traditional high-quality televising. This cutting-edge equipment provides real-time views of obstructions, allowing MVP crews to remove them quickly and accurately, resulting in faster and more efficient job completion. Along with the new truck, the MVP Shop and office build out continue to take shape, ready to accommodate the growing fleet. These upgrades ensure that personnel and equipment have an organized and designated spot, improving efficiency and keeping everything in top shape.

As MVP looks ahead to 2025, we are excited about the future and eager to continue delivering excellent service to both existing and new customers. Happy New Year from all of us at Midwest Vac Professionals! ♦



COMPANY HIGHLIGHTS:



Chili Cook-Off Team Building

Our team-building event kicked off with a lively chili cook-off, where 10 teams went head-to-head to create the most mouthwatering chili! The competition was fierce, with everyone bringing their A-game. While the chili simmered, teams took part in an exciting tower-building challenge. Armed with just string, paper clips, pipe cleaners, and plastic straws, the goal was to build the tallest, most durable tower capable of withstanding the gust of a leaf blower! It was a test of creativity and collaboration, with plenty of laughs and ingenuity on display as teams raced to design their structures. After the towers were tested (and some blown away), we sat down to enjoy the chili, and the event brought out plenty of team spirit, fun, and friendly rivalry.

Annual Company-Wide Safety Training

Over the course of three days, our employees participated in an intensive and informative annual safety training. The sessions included in-depth coverage of essential topics, such as OSHA, CPR/First Aid, Excavation Safety & Competent Person, and Confined Space safety. The hands-on training and engaging discussions were led by experts in each field, ensuring that our team left with the knowledge to stay safe and prepared in the field.

Comedian to Close Out Training

After three days of focused training, we brought in comedian, Willie Farrell to lighten the mood and bring some well-deserved laughter. The comedian's humor helped everyone unwind, ensuring that we could relax and enjoy the final moments of the training. Laughter is always a great way to re-energize after such a packed schedule, and the team left feeling refreshed and ready to take on the next challenges.

Annual Company Meeting with Jason Clark

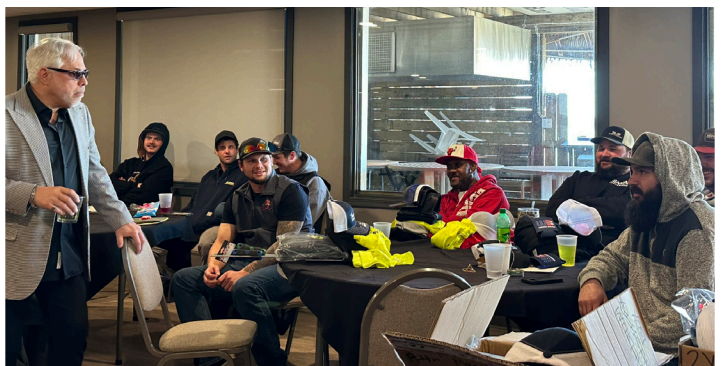
To wrap up our event, Jason Clark led the annual company-wide meeting, addressing key company priorities and outlining strategic goals for the year. He shared a detailed overview of where we're headed and emphasized the importance of collaboration, innovation, and personal growth within our team. It was an inspiring close to a jam-packed, enriching few days, setting the tone for the exciting opportunities ahead.

Thank you to all of our sponsors who donated swag

to our annual safety meeting. The list of sponsors is as follows: Arntzen, Michael Byrne Mfg, Kissick, Barbco, Elder, Robbins, Corell, Akkerman, NTS, Panorama Tire, Olson Iron Works, MPE Equipment Services (Bayard), TT Tech, NAPA (Panora and Guthrie Center), Herron Body and Repair, McAninch, Campbell Supply Co, Construction & Aggregate Products, Sunbelt Rentals, Just One More and Bob Brown Chevrolet (Des Moines). ♦



Above: From L to R - Doug Johnson, Ken Ewan, Wes James and Kyle Spoon



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